PRIVATE CERTIFIERS AUSTRALIA
Certainty through precision
ABN: 63 701 967 756

Suite 6/ 226 Condamine Street,
Manly Vale NSW 2093
(p): 02 9907 6300
(f): 02 9907 6344
admin@pcaservices.com.au

Our reference: 160049

RECEIVED
19 APR 2016
PITTWATER COUNCIL

18 April 2016

The General Manager
Pittwater Council
PO Box 882,
Mona Vale NSW 1660

Dear Sir/Madam,

Re: 13 Sydney Road, Warriewood NSW 2102

Complying Development Certificate No. 160049

Planning Instrument Decision Made Under: State Environmental Planning Policy (Exempt & Complying Development Codes) 2008

Private Certifiers Australia has issued a Complying Development Certificate under Part 4A of the *Environmental Planning and Assessment Act 1979* for the above premises.

Please find enclosed the following documentation:

- Complying Development Certificate No. 160049
- Copy of the application for the Complying Development Certificate.
- Documentation used to determine the application for the Complying Development Certificate as detailed in Schedule 1 of the Certificate.
- Cheque for Council's registration fee.

Our client has been advised of the necessity to submit to Council the Notice of Commencement of building works 48 hours prior to the commencement of works.

Should you need to discuss any issues, please do not hesitate to contact the Accredited Building Surveyor Grant Harrington.

Yours sincerely,

Grant Harrington
Accredited Building Surveyor
Private Certifiers Australia

R 394118
$36 PRVC
19/4/16

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PRIVATE CERTIFIERS AUSTRALIA

ABN: 63 701 967 756

COMPLYING DEVELOPMENT CERTIFICATE 160049

PROJECT REFERENCE 160049

Issued under Part 4 of the Environmental Planning and Assessment Act 1979 Section 85A(6)

APPLICANT DETAILS

Applicant:	Wade Streeter
Address:	13 Sydney Road, Warriewood NSW 2102
Phone:	0414 305 763
Fax:	

OWNER DETAILS

Name of the person having benefit of the development consent:	Wade Streeter
Address:	13 Sydney Road, Warriewood NSW 2102
Phone:	0414 305 763

COMPLYING DEVELOPMENT CONSENTS

Consent Authority / Local Government Area:	Pittwater Council
Relevant Planning Instrument Decision Made Under:	State Environmental Planning Policy (Exempt & Complying Development Codes) 2008
Date of Determination	14/04/2016
Complying Development Certificate Number:	160049

Lapse date: Section 86A of the Environmental Planning and Assessment Act 1979 stipulates that this certificate will lapse within 5 years if not physically commenced on the stated land to which this certificate applies. Section 81A of the Act is applicable.

PROPOSAL

Address of Development:	13 Sydney Road, Warriewood NSW 2102
Lot/DP:	44 15763
Land Use Zone:	R2 - Low Density Residential
Building Classification/s:	1a
Scope of Building Works Covered by this Certificate:	Alterations and Additions to Existing Dwelling
Value of Construction (incl. GST)	$254,00
Plans and Specifications approved:	Refer Schedule 1: Approved Plans and Specifications
Fire Safety Schedule:	N/A
Conditions:	See Conditions attached
Exclusions:	Granny Flat
Critical stage inspections:	See attached Notice

CERTIFYING AUTHORITY

Accredited Certifier:	Grant Harrington
Accreditation Body and Registration Number:	Building Professionals Board BPB0170

I, Grant Harrington, as the certifying authority, certify that the work if completed in accordance with the plans and specifications identified in Schedule 1 (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of the Environmental Planning & Assessment Regulation 2000 as referred to in section 84A of the Environmental Planning and Assessment Act 1979.

Dated: 14/04/2016

Grant Harrington

Scanned and uploaded to BF
Posted to council
Copy sent to applicant
No further action on file close
DATE: 14/4/16
INITIAL:

PRIVATE CERTIFIERS AUSTRALIA
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SCHEDULE 1: APPROVED PLANS AND SPECIFICATIONS

1. Endorsed Architectural Plans

Prepared by	Document	Drawing number	Revision	Date
Rapid Plans	Site Plan	CDC1002		29/02/2016
Rapid Plans	Existing GF Dwelling	CDC1003		29/02/2016
Rapid Plans	Demo GF Dwelling	CDC1005		29/02/2016
Rapid Plans	Demo GF Dwelling	CDC1005		29/02/2016
Rapid Plans	Landscape Open Space Plan	CDC1007		29/02/2016
Rapid Plans	Sediment and Erosion Control Plan	CDC1008		29/02/2016
Rapid Plans	Waste Management Plan	CDC1009		29/02/2016
Rapid Plans	Stormwater Plan	CDC1010		29/02/2016
Rapid Plans	LGF Plan - Garage	CDC2001		29/02/2016
Rapid Plans	GF Plan - Dwelling	CDC2002		29/02/2016
Rapid Plans	RCP Ground	CDC2004		29/02/2016
Rapid Plans	RCP Ground	CDC2004		29/02/2016
Rapid Plans	Roof Plan - Dwelling	CDC200		29/02/2016
Rapid Plans	Sections - Dwelling 1	CDC3001		29/02/2016
Rapid Plans	Sections - Dwelling 2	CDC3002		29/02/2016
Rapid Plans	Elevations - Dwelling 1	CDC4001		29/02/2016
Rapid Plans	Elevations - Dwelling 2	CDC4002		29/02/2016
Rapid Plans	Elevation Front Fence	CDC4005		29/02/2016
Rapid Plans	Door Schedule	CDC5001		29/02/2016
Rapid Plans	Window Schedule	CDC5002		29/02/2016
Rapid Plans	Basix Requirements Dwelling	CDC5004		29/02/2016
Rapid Plans	Basix Requirements Dwelling	CDC5004		29/02/2016

2. Endorsed Structural Plans

Prepared by	Document	Drawing number	Revision	Date
Stellen Engineering	General Notes	S-01		15/03/2016
Stellen Engineering	Slab and Retaining Wall Plan	S-02		15/03/2016
Stellen Engineering	GF Marking Plan	S-03		15/03/2016
Stellen Engineering	GF Details and Sections	S-04		15/03/2016

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Stellen Engineering	Roof Plan and Details	S-05		15/03/2016
Stellen Engineering	Wall Bracing Details	S-07		15/03/2016
Stellen Engineering	Certificate of Structural Design and Existing Structure Certification			15/03/2016

3. Endorsed Engineering Plans

Prepared by	Document	Drawing number	Revision	Date
Hammond Smeallie	Detail and Levels Plan	13614		22/07/2015
Stellen Engineering	Stormwater Management - Cover Page	DR000		13/03/2016
Stellen Engineering	Pipe Layout	DR001		13/03/2016
Stellen Engineering	Kerb and Pit Details	DR002		13/03/2016
Stellen Engineering	Certificate - Stormwater Management Plan			13/03/2016

4. Endorsed Landscape Plans
Not applicable.

5. Endorsed other documents

Prepared by	Document	Drawing number	Revision	Date
W Streeter	CDC and OC Application	160049		09/04/2016
PCA Services	129b Pre Inspection	160049		14/04/2016
NSW LPI	Title Search	44/15763		29/03/2016
NSW LSL	LSL Receipt	235314		29/03/2016
Pittwater Council	S149 Planning Certificate	2/2016/0019		29/03/2016
Sydney Water	Clearance Certificate	49659		29/03/2016
NSW DPI	BASIX	A241027-02		23/02/2016
W Streeter	BCA Residential Checklist	160049		08/04/2016
SouthSpec	Specification of Building Works	R23		14/04/2016
W Streeter	Email - Confirming change in cost of works			14/04/2016
W Streeter	Email confirming no Secondary Dwelling			14/04/2016

PART 3 - GENERAL HOUSING CODE CONDITIONS

DIVISION 3 CONDITIONS APPLYING TO COMPLYING DEVELOPMENT CERTIFICATE UNDER THIS CODE

Note: Complying development must comply with the requirements of the Act, the *Environmental Planning and Assessment Regulation 2000* and the conditions listed in this Part.

Note: A contributions plan setting out the contribution requirements towards the provision or improvement of public amenities or public services may specify that an accredited certifier must, under section 94EC of the Act, impose a condition on a complying development certificate requiring the payment of a monetary contribution in accordance with that plan.

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 NO 203 - CONDITION

94EC CONTRIBUTIONS PLANS—COMPLYING DEVELOPMENT

(1) In relation to an application made to an accredited certifier for a complying development certificate, a contributions plan:

(a) is to specify whether or not the accredited certifier must, if a complying development certificate is issued, impose a condition under section 94 or 94A, and
(b) can only authorise the imposition by an accredited certifier of a condition under section 94 that requires the payment of a monetary contribution, and
(c) must specify the amount of the monetary contribution or levy that an accredited certifier must so impose or the precise method by which the amount is to be determined.

(1A) The imposition of a condition by an accredited certifier as authorised by a contributions plan is subject to compliance with any directions given under section 94E (1) (a), (b) or (d) with which a council would be required to comply if issuing the complying development certificate concerned.

(2) This section does not limit anything for which a contributions plan may make provision in relation to a consent authority.

Condition; The Section 94EC fee applicable to this project is
$ _____
The owner / applicant is required to pay this amount prior to the " notice of commencement" being issued to Council two days before physical commencement is to occur on site . A copy of the receipt of the applicable S94 EC payment is required to be submitted to the Accredited Certifying Authorities office as evidence two days prior to the commencement on site. Failure to undertake this step will result in the complying development being *invalid*.

ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000-CONDITION

136A COMPLIANCE WITH BUILDING CODE OF AUSTRALIA AND INSURANCE REQUIREMENTS UNDER THE HOME BUILDING ACT 1989

(cf clauses 78 and 78A of EP&A Regulation 1994)

(1) A complying development certificate for development that involves any building work must be issued subject to the following conditions:

(a) that the work must be carried out in accordance with the requirements of the *Building Code of Australia*,
(b) in the case of residential building work for which the *Home Building Act 1989* requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance must be entered into and be in force before any building work authorised to be carried out by the certificate commences.

(1A) A complying development certificate for a temporary structure that is used as an entertainment venue must be issued subject to the condition that the temporary structure must comply with Part B1 and NSW Part H102 of

Volume One of the *Building Code of Australia* (as in force on the date the application for the relevant complying development certificate is made).

(2) This clause does not limit any other conditions to which a complying development certificate may be subject, as referred to in section 85A (6) (a) of the Act.

(3) This clause does not apply:

(a) to the extent to which an exemption is in force under clause 187 or 188, subject to the terms of any condition or requirement referred to in clause 187 (6) or 188 (4), or
(b) to the erection of a temporary building, other than a temporary structure that is used as an entertainment venue.

(4) In this clause, a reference to the *Building Code of Australia* is a reference to that Code as in force on the date the application for the relevant complying development certificate is made.

Note: There are no relevant provisions in the *Building Code of Australia* in respect of temporary structures that are not entertainment venues.

136B ERECTION OF SIGNS

(1) A complying development certificate for development that involves any building work, subdivision work or demolition work must be issued subject to a condition that the requirements of subclauses (2) and (3) are complied with.

(2) A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:

(a) showing the name, address and telephone number of the principal certifying authority for the work, and
(b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
(c) stating that unauthorised entry to the site is prohibited.

(3) Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

(4) This clause does not apply in relation to building work, subdivision work or demolition work that is carried out inside an existing building, that does not affect the external walls of the building.

(5) This clause does not apply in relation to Crown building work that is certified, in accordance with section 109R of the Act, to comply with the technical provisions of the State's building laws.

(6) This clause applies to a complying development certificate issued before 1 July 2004 only if the building work, subdivision work or demolition work involved had not been commenced by that date.

Note: Principal certifying authorities and principal contractors must also ensure that signs required by this clause are erected and maintained (see clause 227A which currently imposes a maximum penalty of $1,100).

136C NOTIFICATION OF HOME BUILDING ACT 1989 REQUIREMENTS

(1) A complying development certificate for development that involves any residential building work within the meaning of the *Home Building Act 1989* must be issued subject to a condition that the work is carried out in accordance with the requirements of this clause.

(2) Residential building work within the meaning of the *Home Building Act 1989* must not be carried out unless the principal certifying authority for the development to which the work relates (not being the council) has given the council written notice of the following information:

(a) in the case of work for which a principal contractor is required to be appointed:
(i) the name and licence number of the principal contractor, and
(ii) the name of the insurer by which the work is insured under Part 6 of that Act,
(b) in the case of work to be done by an owner-builder:
(i) the name of the owner-builder, and
(ii) if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

(3) If arrangements for doing the residential building work are changed while the work is in progress so that the information notified under subclause (2) becomes out of date, further work must not be carried out unless the principal certifying authority for the development to which the work relates (not being the council) has given the council written notice of the updated information.

(4) This clause does not apply in relation to Crown building work that is certified, in accordance with section 109R of the Act, to comply with the technical provisions of the State's building laws.

136D FULFILMENT OF BASIX COMMITMENTS

(1) This clause applies to the following development:

(a) BASIX affected development,
(b) any BASIX optional development in relation to which a person has made an application for a complying development certificate that has been accompanied by a BASIX certificate or BASIX certificates (despite there being no obligation under clause 4A of Schedule 1 for it to be so accompanied).

(2) A complying development certificate for development to which this clause applies must be issued subject to a condition that the commitments listed in each relevant BASIX certificate for the development must be fulfilled.

136E DEVELOPMENT INVOLVING BONDED ASBESTOS MATERIAL AND FRIABLE ASBESTOS MATERIAL

(1) A complying development certificate for development that involves building work or demolition work must be issued subject to the following conditions:

(a) work involving bonded asbestos removal work (of an area of more than 10 square metres) or friable asbestos removal work must be undertaken by a person who carries on a business of such removal work in accordance with a licence under clause 458 of the *Work Health and Safety Regulation 2011*,
(b) the person having the benefit of the complying development certificate must provide the principal certifying authority with a copy of a signed contract with such a person before any development pursuant to the complying development certificate commences,
(c) any such contract must indicate whether any bonded asbestos material or friable asbestos material will be removed, and if so, must specify the landfill site (that may lawfully receive asbestos) to which the bonded asbestos material or friable asbestos material is to be delivered,
(d) if the contract indicates that bonded asbestos material or friable asbestos material will be removed to a specified landfill site, the person having the benefit of the complying development certificate must give the principal certifying authority a copy of a receipt from the operator of the landfill site stating that all the asbestos material referred to in the contract has been received by the operator.

(2) This clause applies only to a complying development certificate issued after the commencement of this clause.

(3) In this clause,

"**bonded asbestos material**",
"**bonded asbestos removal work**",
"**friable asbestos material**" and
"**friable asbestos removal work**" have the same meanings as in clause 317 of the *Occupational Health and Safety Regulation 2001.*

Note 1: Under clause 317 removal work refers to work in which the bonded asbestos material or friable asbestos material is removed, repaired or disturbed.

Note 2: The effect of subclause (1) (a) is that the development will be a workplace to which the *Occupational Health and Safety Regulation 2001* applies while removal work involving bonded asbestos material or friable asbestos material is being undertaken.

Note 3: Information on the removal and disposal of asbestos to landfill sites licensed to accept this waste is available from the Department of Environment, Climate Change and Water.

Note 4: Demolition undertaken in relation to complying development under the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* must be carried out in accordance with Australian Standard *AS 2601—2001, Demolition of structures.*

136H CONDITION RELATING TO SHORING AND ADEQUACY OF ADJOINING PROPERTY

(1) A complying development certificate for development must be issued subject to a condition that if the development involves an excavation that extends below the level of the base of the footings of a building, structure or work (including any structure or work within a road or rail corridor) on adjoining land, the person having the benefit of the certificate must at the person's own expense:

(a) protect and support the building, structure or work from possible damage from the excavation, and
(b) where necessary, underpin the building, structure or work to prevent any such damage.

(2) The condition referred to in subclause (1) does not apply if the person having the benefit of the complying development certificate owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

SUBDIVISION 1 CONDITIONS APPLYING BEFORE WORKS COMMENCE

3.37 Protection of adjoining areas

(1) A temporary hoarding or temporary construction site fence must be erected between the work site and adjoining lands before the works begin and must be kept in place until after the completion of works if the works:

(a) could cause a danger, obstruction or inconvenience to pedestrian or vehicular traffic, or
(b) could cause damage to adjoining lands by falling objects, or
(c) involve the enclosure of a public place or part of a public place.

(2), (3) (Repealed)

Note: See the entry in the General Exempt Development Code for scaffolding, hoardings and temporary construction site fences.

3.38 Toilet facilities

(1) Toilet facilities must be available or provided at the work site before works begin and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site.

(2) Each toilet must:
(a) be a standard flushing toilet connected to a public sewer, or
(b) have an on-site effluent disposal system approved under the Local Government Act 1993, or
(c) be a temporary chemical closet approved under the Local Government Act 1993.

3.39 Garbage receptacle

(1) A garbage receptacle must be provided at the work site before works begin and must be maintained until the works are completed.

(2) The garbage receptacle must have a tight fitting lid and be suitable for the reception of food scraps and papers.

3.39A Notification to neighbours

The person having the benefit of the complying development certificate must give at least 2 days' notice in writing of the intention to commence the works to the owner or occupier of each dwelling that is situated within 20m of the lot on which the works will be carried out.

SUBDIVISION 2 - CONDITIONS APPLYING DURING THE WORKS

Note: The *Protection of the Environment Operations Act 1997* and *the Protection of the Environment Operations (Noise Control) Regulation 2008* contain provisions relating to noise.

3.40 Hours of construction or demolition

Construction or demolition may only be carried out between 7.00 am and 5.00 pm on Monday to Saturday and no construction or demolition is to be carried out at any time on a Sunday or a public holiday.

3.41 Compliance with plans

Works must be carried out in accordance with the plans and specifications to which the complying development certificate relates.

3.42 Sedimentation and erosion controls

Run-off and erosion controls must be effectively maintained until the site has been stabilised and landscaped.

3.43 Maintenance of site

(1) Building materials and equipment must be stored wholly within the work site unless an approval to store them elsewhere is held.

(2) Demolition materials and waste materials must be disposed of at a waste management facility.

(3) The work site must be left clear of waste and debris at the completion of the works.

SUBDIVISION 3 - CONSTRUCTION REQUIREMENTS

3.44 Staging construction

(1) If the complying development is the erection of, or alterations or additions to, a dwelling house, the roof stormwater drainage system must be installed and connected to the drainage system before the roof covering is installed.

(2) Any approval that is required for connection to the drainage system under the Local Government Act 1993 must be held before the connection is carried out.

(3) If the complying development involves the construction of a vehicular access point, the access point must be completed before the occupation certificate for the complying development on the site is obtained.

3.45 Utility services

If the complying development requires alteration to, or the relocation of, utility services on the lot on which the complying development is carried out, the complying development is not complete until all such works are carried out.

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INSPECTION REPORT – 160049 – 129B Pre-Approval Inspection

13 Sydney Road, Warriewood NSW 2102

APPLICANT DETAILS

Applicant:	Wade Streeter
Address:	13 Sydney Road, Warriewood NSW 2102
Phone:	0414 305 763

COMPLYING DEVELOPMENT CONSENTS

Local Government Area:	Pittwater Council
CDC Number	160049

PROPOSAL

Address of Development:	13 Sydney Road, Warriewood NSW 2102
Lot / DP:	44 15763
Land Use Zoning:	R2 - Low Density Residential
Scope of Building Works Covered by this Notice:	Alterations and Additions to Existing Dwelling

INSPECTION DETAILS

Inspector:	Grant Harrington
Inspection date and time:	14/04/2016 08:00 AM
Accreditation No.:	BPB0170

INSPECTION RESULTS

We have attended the above property and completed an inspection. The areas inspected and the overall outcome of the inspection are listed below, together with any specific defects noted or documents required.

Inspection Area	Inspection Outcome	Reinspections
1. 129B Pre-Approval Inspection	Satisfactory	No re-inspections required for this inspection.

SIGNED BY:

Grant Harrington – Inspector
14/04/2016

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NOTICE OF APPOINTMENT OF PRINCIPAL CERTIFYING AUTHORITY

Made under Part 4 of the Environmental Planning and Assessment Act 1979 Sections 81A(2)(b1)(i) & 86(1)(a1)(i)

OWNER DETAILS

Name of the person having benefit of the Development Consent:	Wade Streeter
Address:	13 Sydney Road, Warriewood NSW 2102
Phone:	0414 305 763

COMPLYING DEVELOPMENT CONSENTS

Consent Authority / Local Government Area:	Pittwater Council
Planning Instrument Decision Made Under:	State Environmental Planning Policy (Exempt & Complying Development Codes) 2008
Complying Development Certification Number:	160049

PROPOSAL

Address of Development:	13 Sydney Road, Warriewood NSW 2102
Scope of Building Works Covered by this Notice:	Alterations and Additions to Existing Dwelling

PRINCIPAL CERTIFYING AUTHORITY

Certifying Authority:	Grant Harrington
Accreditation Body:	Building Professionals Board BPB0170

The owner has appointed Grant Harrington as the Principal Certifying Authority as stated in the Complying Development Certificate lodged with Private Certifiers Australia for the building works identified in this notice.

I, Grant Harrington, Accredited Building Surveyor of Private Certifiers Australia located at Suite 6/ 226 Condamine Street, Manly Vale NSW 2093 accept the appointment as Principal Certifying Authority for the building works identified and covered under the relevant Complying Development Certificate as stated in this Notice.

Dated: 14/04/2016

Grant Harrington
Accredited Building Surveyor

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NOTICE TO APPLICANT OF MANDATORY CRITICAL STAGE INSPECTIONS

Made under Part 4 of the Environmental Planning and Assessment Act 1979 Sections 86(a2)(i) (ii) (iii) b

APPLICANT DETAILS

Name of the person having benefit of the Development Consent:	Wade Streeter
Address:	13 Sydney Road, Warriewood NSW 2102
Phone:	0414 305 763

COMPLYING DEVELOPMENT CONSENTS

Consent Authority / Local Government Area:	Pittwater Council
Decision Made Under:	State Environmental Planning Policy (Exempt & Complying Development Codes) 2008
CDC Number:	160049

PROPOSAL

Address of Development:	13 Sydney Road, Warriewood NSW 2102
Scope of Building Works Covered by this Notice:	Alterations and Additions to Existing Dwelling

CERTIFICATION DETAILS

Certifying Authority:	Grant Harrington
Accreditation Body:	Building Professionals Board BPB0170

I, Grant Harrington of Private Certifiers Australia, located at Suite 6/ 226 Condamine Street, Manly Vale NSW 2093, acting as the principal certifying authority, hereby give notice in accordance with Section 81A(2)(b1)(ii) of the Environmental Planning and Assessment Act 1979 to the person having the benefit of the development consent that the mandatory critical stage inspections identified in Schedule 1 & Schedule 2 are to be carried out in respect of the building work.

The applicant, being the person having benefit of the development consent, is required under Section 81(A)(b2)(ii) of the Environmental Planning and Assessment Act 1979 to notify the principal contractor (if not an owner-builder) of the applicable mandatory critical stage inspections specified under this notice.

To allow a principal certifying authority or another certifying authority time to carry out mandatory critical stage inspections, the principal contractor for the building site, or the owner builder, must notify the principal certifying authority at least 48 hours before building work is commenced at the site if a mandatory critical stage inspection is required before the commencement of the work in accordance with Clause 163 of the Environmental Planning & Assessment Regulation 2000.

Failure to request a mandatory critical stage inspection will prohibit the principal certifying authority under Section 109E(3)(d) of the Environmental Planning and Assessment Act 1979 to issue an occupation certificate.

Dated: 14/04/2016

Grant Harrington
Accredited Building Surveyor

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SCHEUDLE 1: MANDATORY CRITICAL STAGE INSPECTIONS

No.	Critical Stage Inspection	Inspector
1.	Prior to pouring any in-situ reinforced concrete building element	Certifying Authority
2.	Prior to covering of the framework for any floor, wall, roof, or other building element	Certifying Authority
3.	Prior to covering waterproofing in any wet areas	Certifying Authority
4.	Prior to covering any stormwater drainage connections	Certifying Authority
5.	After the building work has been completed & prior to any Occupation Certificate being issued in relation to the building	Principal Certifying Authority

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NOTICE OF COMMENCEMENT OF BUILDING WORK
PROJECT REFERENCE 160049

Made under Part 4 of the Environmental Planning and Assessment Act 1979 Sections 81A(2)(b)(ii) & (b2)(i) & (ii) & (iii) & 86(1)(a)(ii) & (a2)(i) & (ii) & (iii) & (1)(b)

OWNER DETAILS

Name of the person having benefit of the Development Consent:	Wade Streeter
Address:	13 Sydney Road, Warriewood NSW 2102
Phone:	0414 305 763

COMPLYING DEVELOPMENT CONSENTS

Consent Authority / Local Government Area:	Pittwater Council
Planning Instrument Decision Made Under:	State Environmental Planning Policy (Exempt & Complying Development Codes) 2008
Complying Development Certificate Number:	160049

PROPOSAL

Address of Development:	13 Sydney Road, Warriewood NSW 2102
Scope of Building Works Covered by this Notice:	Alterations and Additions to Existing Dwelling

DECLARATION OF THE OWNER

As the person having the benefit of the development consent for the building works identified in this Notice, I/we hereby certify:

1. A) If the residential building work is to be carried out by the owner as an owner-builder fill in (1a) and (1b) with your contact details. B) If the residential works are covered by Home Owner's Warranty, fill in (1b) principal contractor. C) For Commercial work only fill out (1b) as the principal contractor.

   1a. Owner Builder Permit Number (please attach a copy of the permit):

   1b. Name of the Principal Contractor for building work: Wade Streeter
   Contractor License Number: 155750C
   Address: , NSW
   Contact Details: 0414 305 763

2. All development consent conditions that are required to be satisfied prior to the commencement of building work and as listed here below will be satisfied.

   Relevant development consent conditions to be compiled with:

3. That the building work is intended to commence on or about the date specified below.

   Date work to commence (allow two full days' notice):

4. That the principal contractor has been notified of any critical stage inspections or other inspections that are to be carried out in respect of the building work.

SIGNATURE OF THE OWNER

Signature:

Name:

Date: 14/04/2016

IMPORTANT MESSAGE:

1. Return this original completed notice of commencement form to your Local Council first and to Private Certifiers Australia and allow two full days from the date of return, prior to your intended commencement date.
2. If the work is residential – please attach your Owner Builder Permit or Home Owner's Warranty (builder)
3. Failure to request any critical stage inspection will prohibit the issue of an Occupation Certificate.

14 April, 2016

Applicant Name	
Owners Name	
Project Scope	Alterations and Additions to Existing Dwelling
Address	13 Sydney Road, Warriewood NSW 2102
Project No	160049

Dear

Re: CDC Residential - Prior to Commencement of Works

Below is the process to follow prior to commencing construction for your Residential Complying Development Certificates.

1. Notify your neighbours that you are to commence within seven (7) days – this notification document was given to you in your package and emailed separately - If you do not have it please contact Private Certifiers Australia immediately.

2. Two (2) days prior to starting the construction works you are to fax or email the "Notice of Commencement" document to council to inform them that you are starting works. Include the Principal Contractors / or Owner builders contact details

3. Home Owners Warranty / Owner builder Permit - if not provided at CDC stage then forward to Council / PCA with the Notice of commencement and the evidence of payment of S94 levies and Bonds - see 136L & 136M below

4. Onsite Requirements;
   a. Display the Principal Contractors builders contact details
   b. Install your site security fence – not required for office fit outs
   c. Provide a portable toilet- if not one on site
   d. Display the Private Certifier Australia sign which will be posted to the Applicant unless advised otherwise.
   e. Your builder to call PCA to book the mandatory inspections

5. A -136L CONTRIBUTIONS AND LEVIES PAYABLE UNDER SECTION 85A (9) MUST BE PAID BEFORE WORK COMMENCES
   (1) A complying development certificate issued subject to a condition required by section 85A (9) of the Act must be issued subject to a condition that the contribution or levy must be paid before any work authorised by the certificate commences
   (2) Subclause (1) applies despite any provision to the contrary in the council's contributions plan.
   B 136M Condition relating to payment of security
   (1) This clause applies to a complying development certificate authorising the carrying out of development if:
      (a) the development is demolition of a work or building, erection of a new building or an addition to an existing building and the estimated cost of the development (as specified in the application for the certificate) is $25,000 or more, and
      (b) the development is to be carried out on land adjacent to a public road, and

6. Pay the S94 levy, Bonds (136L and 136M) at Council and forward to PCA with the Notice of

Private Certifiers Australia
PO Box 907 Balgowlah NSW 2093 Phone: (02) 9907 6300 Fax: (02) 99076344
admin@pcaservices.com.au www.pcaservices.com.au
ABN 63 701 967 756

commencement and Home Owners Warranty/ Owner Builders permit. Not undertaking the above steps will likely result in owner being fined for breach of the Conditions of Consent of minimum fine of residential - $600

Yours faithfully,

Richard Evans

Please note:
Units and internal modification to houses must adhere to steps 2, 3, 3B 3E, 5, 6
New Houses, external modifications steps 1-6

Private Certifiers Australia
PO Box 907 Balgowlah NSW 2093 Phone: (02) 9907 6300 Fax: (02) 99076344
admin@pcaservices.com.au www.pcaservices.com.au
ABN 63 701 967 756

Amended Application
Received 9.4.16
RE

PRIVATE CERTIFIERS AUSTRALIA
Building Regulations Consultants • Principle Certifying Authority
Construction Certification • Fire Upgrade Surveys • Planning

Suite 6 / 226 Condamine Street, Manly Vale NSW 2093
PO Box 907, Balgowlah NSW 2093
Tel: 02 9907 6300
Fax: 02 9907 6344
www.pcaservices.com.au
ACN: 121 634 642

COMPLYING DEVELOPMENT & OCCUPATION CERTIFICATE APPLICATION

Made under the *Environmental Planning and Assessment Act 1979*
Sections 85, 85A
Class 1-10

IDENTIFICATION OF BUILDING

Lot, DP/MPS etc 94 / 15763
Address 13 SYDNEY RD
Suburb/Town WARRIEWOOD Post Code 2102

DESCRIPTION OF DEVELOPMENT

Detailed Description:
ALTERATIONS AND ADDITION TO EXISTING DWELLING

TYPE OF APPLICATION

Tick Appropriate Boxes
I apply for the following part 4a certificate
Under:
☐ SEPP (Exempt & Complying Development Codes) 2008
☐ SEPP (Affordable Rental Housing) 2009

☑ Complying Development Certificate
☐ Interim Certificate
☐ Final Certificate
☐ Change of Building Use of an Existing Building
☑ Occupation/Use of a New Building

APPLICANT

Name WADE STREETER Company
Address 13 SYDNEY RD
Suburb or town WARRIEWOOD Post Code 2102
Phone B/H Fax No
Mobile 0414 305 763
Email wadestreeter@hotmail.com

* When are the works expected to start: 15.4.16

As the owner / applicant, I/we hereby:
1. *Submit this Complying Development & Occupation Certificate Application under the Environmental Planning & Assessment Act 1979, with Private Certifiers Australia.*
2. *Appoint Grant Harrington of Private Certifiers Australia as the Principal Certifying Authority for the building work identified in this application.*
3. *And allow Grant Harrington to submit the notice of commencement to council if required on my behalf*

Signature of Applicant/Owner:

Sign Date 9.4.16

OFFICE USE ONLY
Part 3 General Housing Code
☐ New
☐ Adds & Alts
☐ Outbuilding/Studios

OFFICE USE ONLY
Part 4 Housing Alterations Code
☐ Subdivision 1 – Internal Alterations
☐ Subdivision 2 – External alterations to dwelling houses
☐ Subdivision 2a – External alterations to residential accommodation other than dwelling houses
☐ Subdivision 3 – Attic Conversions

PRIVATE CERTIFIERS AUSTRALIA
Certainty through precision

Building Regulations Consultants • Principle Certifying Authority
Construction Certification • Fire Upgrade Surveys • Planning

POSTAL ADDRESS
All documentation should be posted to:

Name WADE STREETER

Company

Address 13 SYDNEY RD

Suburb WAMIELWOOD Post Code 2102

CONSENT TO ALL OWNER(S)
(As the owner or the owners representative am duly authorised to appoint the PCA under 109E of the EPA Act for a Complying Development & Occupation Certificate)

Name WADE STREETER Company

Address AS ABOVE

Suburb/Town Post Code

Phone B/H Fax No

Mobile Email

I/We as the owner of the above building/property,

1. *Consent to the Appointment of Grant Herrington as the PCA (Principal Certifying Authority) and approve of the PCA or their representative to lodge the Notice of Commencement on our behalf with council to authorize the commencement of works on site. I am duly authorized under 109E of the EPA Act to appoint the PCA for the project;*
2. *Submit this Complying Development and Occupation Certificate Application under the Environmental Planning & Assessment Act 1979, for determination by the Principal Certifying Authority. OC applied for at completion of works.*

Signature of Owner **Sign** W. **Date** 11. FEB. 2016

VALUE OF WORK

Estimated Cost of work: $ 230,000

GST: $ 23,000

How did you hear about Private Certifiers Australia? *(please tick one)*

- ☒ Recommendation/referral
- ☐ Internet/website
- ☐ Hi-pages
- ☐ Print advertisement
- ☐ Building signage
- ☐ Existing client/repeat business
- ☐ Sensis/Yellow Pages
- ☐ Other .....

Land and Property Information Division

ABN: 84 104 377 806
GPO BOX 15
Sydney NSW 2001
DX 17 SYDNEY Telephone: 1300 052 637

NSW GOVERNMENT | Land & Property Information

A division of the Department of **Finance & Services**

TITLE SEARCH

Title Reference: 44/15763

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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH
------------------------------------------------------------


FOLIO: 44/15763
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          SEARCH DATE        TIME              EDITION NO     DATE
          -----------        ----              ----------     ----
          29/3/2016         12:17 PM               3        19/8/2015


LAND
----
LOT 44 IN DEPOSITED PLAN 15763
   LOCAL GOVERNMENT AREA PITTWATER
   PARISH OF NARRABEEN   COUNTY OF CUMBERLAND
   TITLE DIAGRAM DP15763

FIRST SCHEDULE
--------------
WADE JULIAN STREETER
    IN 65/100 SHARE
HANNE TOPLAND
    IN 35/100 SHARE
    AS TENANTS IN COMMON                                    (T AJ739730)

SECOND SCHEDULE (3 NOTIFICATIONS)
---------------
1   RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2   D619972   COVENANT
3   AJ739731  MORTGAGE TO AUSTRALIA AND NEW ZEALAND BANKING GROUP
              LIMITED

NOTATIONS
---------
UNREGISTERED DEALINGS: NIL

        ***  END OF SEARCH  ***


                    PRINTED ON 29/3/2016
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** ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE.*
WARNING: THE INFORMATION APPEARING UNDER NOTATIONS HAS NOT BEEN FORMALLY RECORDED IN THE REGISTER.

Levy Online Payment Receipt

Building and Construction

WADE STRETER
13 SYDNEY RD
WARRIEWOOD NSW 2102

Application Details:

Applicant Name:	**WADE STRETER**
Levy Number:	**5122885**
Application Type:	**CDC**
Application Number:	**160049**
Approving Authority:	**PITTWATER COUNCIL**

Work Details:

Site Address:	**13 SYDNEY RD** **WARRIEWOOD NSW 2102**
Value of work:	**$330,000**
Levy Due:	**$1,155.00**

Payment Details:

LSC Receipt Number:	**235314**
Payment Date:	**29/03/2016 4:45:02 PM**
Bank Payment Reference:	**879284304**
Levy Paid:	**$1,155.00**
Credit card surcharge:	**$4.62**
Total Payment Received:	**$1,159.62**

PITTWATER COUNCIL
Section 149 Pt 2 Planning Certificate
Environmental Planning & Assessment Act, 1979

Applicant: WADE JULIAN STREETER
13 SYDNEY ROAD
WARRIEWOOD NSW 2102

Cert. No: 2/2016/0019
Cert. Date: 29 March 2016
Fee: $53.00
Property No: 63338

Your Reference:

Address of Property: 13 SYDNEY ROAD
WARRIEWOOD NSW 2102

Description of Property: Lot 44 DP 15763

Strata Unit Details (if applicable):

County: Cumberland **Parish:** Narrabeen

NOTE:

The zoning information in this certificate is based on the lot and plan number referred to in this Certificate. If the lot and plan number is not the current description of the land then this Certificate will be incorrect. Persons relying on this Certificate should satisfy themselves by reference to the Title Deed that the land to which this Certificate relates is identical to the land the subject of the enquiry.

A reference in this certificate to any instrument, including Pittwater Local Environmental Plan 2014, is a reference to that instrument, as amended.

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The prescribed matters required by Section 149 (2) of the Environmental Planning & Assessment Act are as follows and relate to the subject land at the date of this certificate.

RELEVANT PLANNING INSTRUMENTS AND DEVELOPMENT CONTROL PLANS

EP&A Regulations 2000
Schedule 4 Clause 1

LOCAL ENVIRONMENTAL PLAN

EP&A Regulations 2000
Schedule 4 Clause 1 (1)

Pittwater Local Environmental Plan 2014

PROPOSED LOCAL ENVIRONMENTAL PLANS

EP&A Regulations 2000
Schedule 4 Clause 1 (2)

Note: *Where no information has been provided under the heading "PROPOSED LOCAL ENVIRONMENTAL PLANS", Council is unaware of any Proposed Local Environmental Planning Instrument that is or has been the subject of community consultation or on public exhibition under the Act, applying to the land.*

STATE ENVIRONMENTAL PLANNING POLICIES AND PROPOSED STATE ENVIRONMENTAL PLANNING POLICIES

EP&A Regulations 2000
Schedule 4 Clause 1 (1) & (2)

SEPP NO. 19 - Bushland in Urban Areas (gazetted 24.10.86)
SEPP NO. 21 - Caravan Parks (gazetted 24.4.92)
SEPP NO. 30 - Intensive Agriculture (gazetted 8.12.89)
SEPP NO. 32 - Urban Consolidation (Redevelopment of Urban Land) (gazetted 15.11.91)
SEPP NO. 33 - Hazardous and Offensive Development (gazetted 13.03.92)
SEPP NO. 44 - Koala Habitat Protection (gazetted 6.01.95)
SEPP NO. 50 - Canal Estate Development (gazetted 10.11.97)
SEPP NO. 55 - Remediation of Land (gazetted 28.08.98)
SEPP NO. 62 - Sustainable Aquaculture
SEPP NO. 64 - Advertising and Signage (gazetted 16.3.2001)
SEPP NO. 65 - Design Quality of Residential Flat Development (gazetted 26/07/2002)
Amendment 2 (gazetted 4/07/2008)
SEPP - (Housing for Seniors or People With a Disability) 2004 (gazetted 28.07.2007)
SEPP - Building Sustainability Index: BASIX (gazetted 1.7.2004)
SEPP - (Major Development) 2005 (gazetted 25.05.2005)
SEPP - (Mining, Petroleum Production & Extractive Industries) 2007 (gazetted 16.02.2007)
SEPP - (Miscellaneous Consent Provisions) 2007
SEPP - (Infrastructure) 2007 (gazetted 21.12.2007)
SEPP - (Affordable Rental Housing) 2009
SEPP - (Exempt & Complying Development Codes) 2008 (gazetted 12.12.2008) As amended

Deemed SEPP - Hawkesbury-Nepean River (No. 2 - 1977)

DEVELOPMENT CONTROL PLANS

EP&A Regulations 2000
Schedule 4 Clause 1 (3)

Pittwater 21 Development Control Plan
The purpose of this plan is to provide best practice standards for development.

Certificate No: 2/2016/0019 Date:29 March 2016

ZONING AND LAND USE UNDER RELEVANT LEPS

EP&A Regulations 2000
Schedule 4 Clause 2

LAND ZONING MAP

EP&A Regulations 2000
Schedule 4 Clause 2 (a), (b), (c) & (d)

The following information identifies the purposes for which development may be carried out with or without development consent and the purposes for which the carrying out of development is prohibited, for all zones affecting the land as identified on the maps to which Pittwater Local Environmental Plan 2014 applies.

Zone R2 Low Density Residential

2 Permitted without consent

Home businesses; Home occupations

3 Permitted with consent

Bed and breakfast accommodation; Boarding houses; Boat sheds; Building identification signs; Business identification signs; Child care centres; Community facilities; Dual occupancies; Dwelling houses; Environmental protection works; Exhibition homes; Group homes; Health consulting rooms; Home-based child care; Home industries; Jetties; Places of public worship; Respite day care centres; Roads; Secondary dwellings; Veterinary hospitals; Water recreation structures

4 Prohibited

Any development not specified in item 2 or 3

ADDITIONAL PERMITTED USES FOR WHICH DEVELOPMENT IS PERMISSIBLE WITH DEVELOPMENT CONSENT - SCHEDULE 1

Additional permitted uses, if any, for which development is permissible with development consent pursuant to Clause 2.5 and Schedule 1 of Pittwater Local Environmental Plan 2014:-

Note: Where no additional permitted uses have been listed under the heading "ADDITIONAL PERMITTED USES FOR WHICH DEVELOPMENT IS PERMISSIBLE WITH DEVELOPMENT CONSENT", then clause 2.5 of Pittwater Local Environmental Plan 2014 is inapplicable to the land the subject of this certificate.

FURTHER PLANNING CONTROLS

EP&A Regulations 2000
Schedule 4 Clause 2 (e) (f) (g) (h)

Note: Where no information has been provided under the heading "FURTHER PLANNING CONTROLS", then such information is inapplicable to the land the subject of this certificate.

ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

EP&A Regulations 2000
Schedule 4 Clause 2A

Note: Where no information has been provided under the heading "ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006", then such information is inapplicable to the land the subject of this certificate.

COMPLYING DEVELOPMENT

EP&A Regulations 2000
Schedule 4 Clause 3

The following notations relate to the extent to which the land is land on which complying development may or may not be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

GENERAL HOUSING CODE

Complying development under the General Housing Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

Note: *Further zone based limitations may apply. See State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 clause:*
3.1 Land to which code applies
This code applies to development that is specified in clauses 3.2-3.5 on any lot in Zone R1, R2, R3, R4 or RU5 that:

(a) has an area of at least 200m2, and
(b) has a width, measured at the building line fronting a primary road, of at least 6m.

RURAL HOUSING CODE

Complying development under the Rural Housing Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

Note: *Further zone based limitations may apply. See State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 clause:*
3A.1 Land to which code applies
This code applies to development that is specified in clauses 3A.2-3A.5 on lots in Zone RU1, RU2, RU3, RU4, RU6 and R5.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial & Industrial (Alterations) Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

Complying development under the Commercial & Industrial (New Buildings and Additions) Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

Note: Further zone based limitations may apply. See State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 clause:

5A.1 Land to which code applies

This code applies to development that is specified in clause 5A.2 on any lot in Zone B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3.

SUBDIVISION CODE

Complying development under the Subdivision Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

DEMOLITION CODE

Complying development under the Demolition Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

FIRE SAFETY CODE

Complying development under the Fire Safety Code may be carried out on all of the land the subject of this certificate, in accordance with the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

Note: State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 ("SEPP") must be read and applied in conjunction with Pittwater Local Environmental Plan 2014.

COASTAL PROTECTION

EP&A Regulations 2000
Schedule 4 Clause 4

The Council has not been notified by the Department of Services, Technology and Administration that the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979.

CERTAIN INFORMATION RELATING TO BEACHES AND COASTS

EP&A Regulations 2000
Schedule 4 Clause 4A

1) Council is not aware of any order made under Part 4D of the *Coastal Protection Act 1979* in relation to temporary coastal protection works to the land the subject of this certificate, or on public land adjacent to that land.

2) Council has not been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works have been placed on the land subject of this certificate, or on public land adjacent to that land.

ANNUAL CHARGES UNDER LOCAL GOVERNMENT ACT 2014 FOR COASTAL PROTECTION SERVICES THAT RELATE TO EXISTING COASTAL PROTECTION WORKS

EP&A Regulations 2000
Schedule 4 Clause 4B

Council is not aware of any charges under section 496B of the *Local Government Act 2014* for coastal protection services levied upon land the subject of this certificate.

MINE SUBSIDENCE

EP&A Regulations 2000
Schedule 4 Clause 5

The land has not been proclaimed to be a mine subsidence district within the meaning of Section 15 of the Mine Subsidence Compensation Act, 1961.

ROAD WIDENING AND ROAD REALIGNMENT

EP&A Regulations 2000
Schedule 4 Clause 6

(a) The land is not affected by any road widening or road realignment under Division 2 of Part 3 of the Roads Act 1993.
(b) The land is not affected by any road widening or road realignment under Pittwater Local Environmental Plan 2014.
(c) The land is not affected by any road widening or road realignment under any resolution of Council.

Note: *The Roads and Maritime Services may have proposals that are not referred to in this item. For advice about affectation by RMS proposals, contact the Roads and Maritime Services.*

COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

EP&A Regulations 2000
Schedule 4 Clause 7

Council has adopted a number of policies with regard to various hazards or risks which may restrict development. The identified hazard or risk and the respective Council policies which affect the property, if any, are listed below.

The property is not affected by any other policy adopted by any other planning authority and notified to the Council for the express purpose of its adoption by that authority being referred to in planning certificates that restricts development

of the property because of the likelihood of land slip, bushfire, tidal inundation, subsidence or any other risk (other than flooding):

Note: *The absence of a policy to restrict development of the land because of the likelihood of any other risk does not imply that the land is free from risk. Detailed investigation carried out in conjunction with the preparation or assessment of an application may result in the Council imposing restrictions on development that are not identified above.*

FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

EP&A Regulations 2000
Schedule 4 Clause 7A

The land or part of the land in question is not subject to flood related development controls for the purposes (where permissible) of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings.

Also, the land or part of the land in question is not subject to flood related development controls for any other purpose.

LAND RESERVED FOR ACQUISITION

EP&A Regulations 2000
Schedule 4 Clause 8

This land is not affected by any provisions within Pittwater Local Environmental Plan 2014 that would provide for the acquisition of the land by a public authority, as referred to in section 27 of the Act.

CONTRIBUTIONS PLANS

EP&A Regulations 2000
Schedule 4 Clause 9

Pittwater Section 94 Plan for Residential Development
This Plan was approved by Council to levy monetary contributions to fund the provision/augmentation of open space, bushland and recreational area, public library services, community facilities and town and village streetscapes to meet the infrastructure demands of the incoming residential population of Pittwater. S94.

BIODIVERSITY CERTIFIED LAND

EP&A Regulations 2000
Schedule 4 Clause 9A

Note: *Where no information has been provided under the heading "BIODIVERSITY CERTIFIED LAND", then such information is inapplicable to the land the subject of this certificate.*

BIOBANKING AGREEMENTS

EP&A Regulations 2000
Schedule 4 Clause 10

Note: *Where no information has been provided under the heading "BIOBANKING AGREEMENTS", then Council is unaware of any such agreement applying to the land the subject of this certificate.*

BUSH FIRE PRONE LAND

EP&A Regulations 2000
Schedule 4 Clause 11

This land the subject of this certificate is not identified on a Bush Fire Prone Land map certified by the Commissioner of the NSW Rural Fire Service as being bush fire prone land as per the Rural Fires and Environmental Assessment Legislation Amendment Act 2002 No 67.

PROPERTY VEGETATION PLANS

EP&A Regulations 2000
Schedule 4 Clause 12

Note: *Where no information has been provided under the heading "PROPERTY VEGETATION PLANS", then such information is inapplicable to the land the subject of this certificate.*

ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

EP&A Regulations 2000
Schedule 4 Clause 13

Note: *Where no information has been provided under the heading "ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006", then such information is inapplicable to the land the subject of this certificate.*

DIRECTIONS UNDER PART 3A

EP&A Regulations 2000
Schedule 4 Clause 14

Note: *Where no information has been provided under the heading "DIRECTIONS UNDER PART 3A", then such information is inapplicable to the land the subject of this certificate.*

SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING

EP&A Regulations 2000
Schedule 4 Clause 15

Note: *Where no information has been provided under the heading "SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING", then Council is unaware of any such site compatibility certificate applying to the land the subject of this certificate.*

SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

EP&A Regulations 2000
Schedule 4 Clause 16

Note: *Where no information has been provided under the heading "SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE", then Council is unaware of any such site compatibility certificate applying to the land the subject of this certificate.*

SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

EP&A Regulations 2000
Schedule 4 Clause 17

Note: *Where no information has been provided under the heading "SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING", then Council is unaware of any such site compatibility certificate applying to the land the subject of this certificate.*

PAPER SUBDIVISION INFORMATION

EP&A Regulations 2000
Schedule 4 Clause 18

Note: *Where no information has been provided under the heading "PAPER SUBDIVISION INFORMATION" then Council is unaware of any such development plan or subdivision order applying to the land the subject of this certificate.*

Certificate No: 2/2016/0019 Date:29 March 2016

SITE VERIFICATION CERTIFICATES

EP&A Regulations 2000
Schedule 4 Clause 19

Note: Where no information has been provided under the heading "SITE VERIFICATION CERTIFICATES", then Council is unaware of any such site verification certificate applying to the land the subject of this certificate.

MATTERS ARISING UNDER THE CONTAMINATED LAND MANAGEMENT ACT 1997

Contaminated Land Management Act 1997
Section 59 (2)

Note: Where no information has been provided under the heading "MATTERS ARISING UNDER THE CONTAMINATED LAND MANAGEMENT ACT 1997", then such information is inapplicable to the land the subject of this certificate.

Persons relying on this certificate should read the environmental planning instruments referred to in this certificate.

MARK FERGUSON
General Manager

Sydney WATER

Gregg Barr-Jones

Date of Issue: 29/03/2016

Application reference number: 49659
Application date: 29/03/2016

Building Plan Assessment
Property address: 13 Sydney Rd, Warriewood 2102
Lot details: Lot 44, Deposited Plan 15763

Dear Gregg Barr-Jones

Sydney Water confirms that the proposed location of your buildings will not impact our infrastructure.

This Approval of your building plan is provided subject to the Conditions and Important Information issued to you by Sydney Water, which you are taken to have accepted by using the approval.

This Approval is based on the information you provided to us through Sydney Water Tap in.

If any of the information you have provided is incorrect or incomplete, Sydney Water may revoke this Approval.

This approval is valid until 29/03/2017 (one year).

The structures and information you supplied are displayed below.

Table 1. Structure(s) that will not impact Sydney Water infrastructure

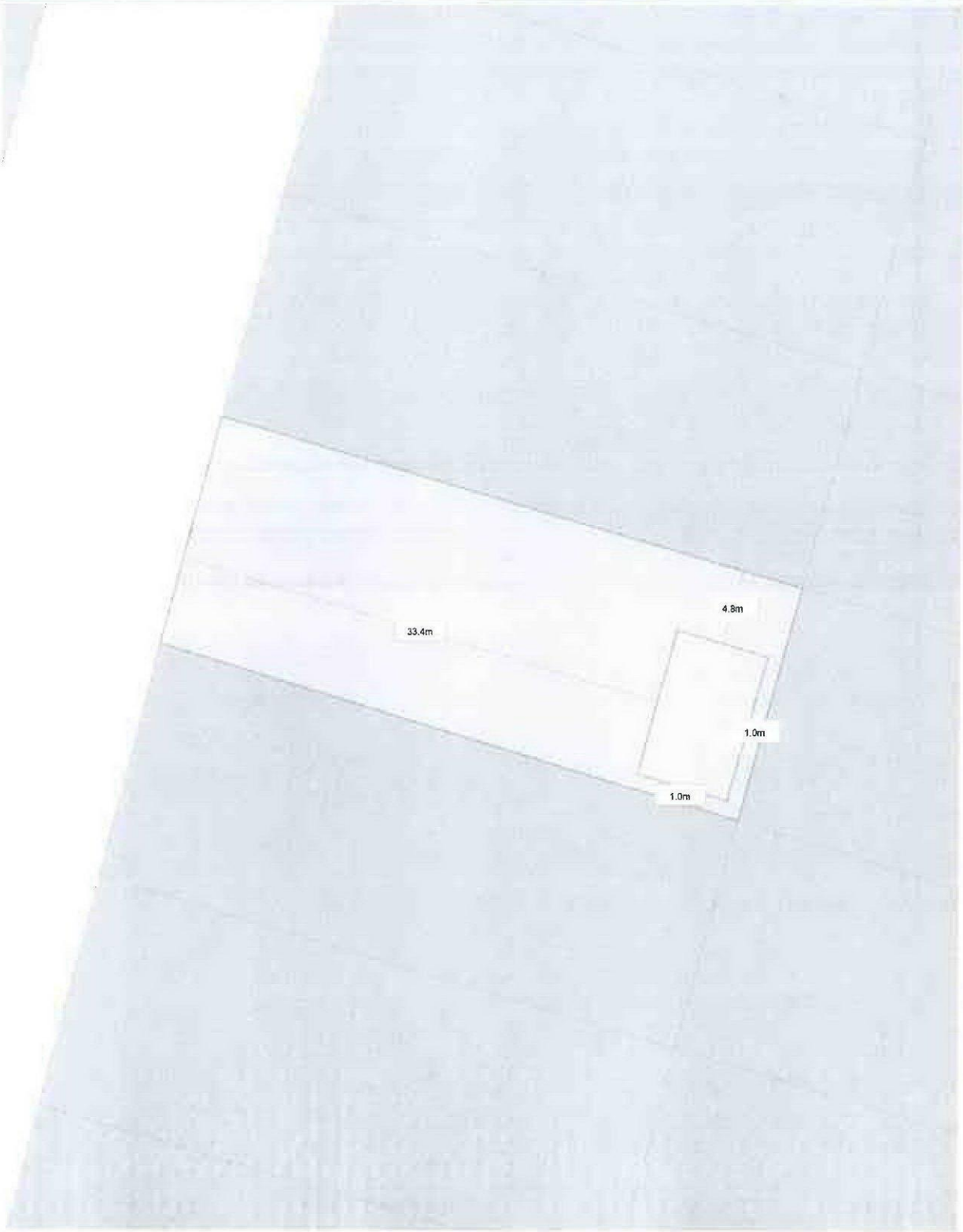
Structure 1	Granny flat	9.6 m x 6.3 m x 0.0 m
Structure 2	Ground floor extension	14.5 m x 12.8 m x 1.98 m

Sydney WATER

Structure 1 of 2: Granny flat

Application reference number: 49659
Property address: 13 Sydney Rd, Warriewood 2102
Lot details: Lot 44, Deposited Plan 15763

This structure will not impact Sydney Water infrastructure.

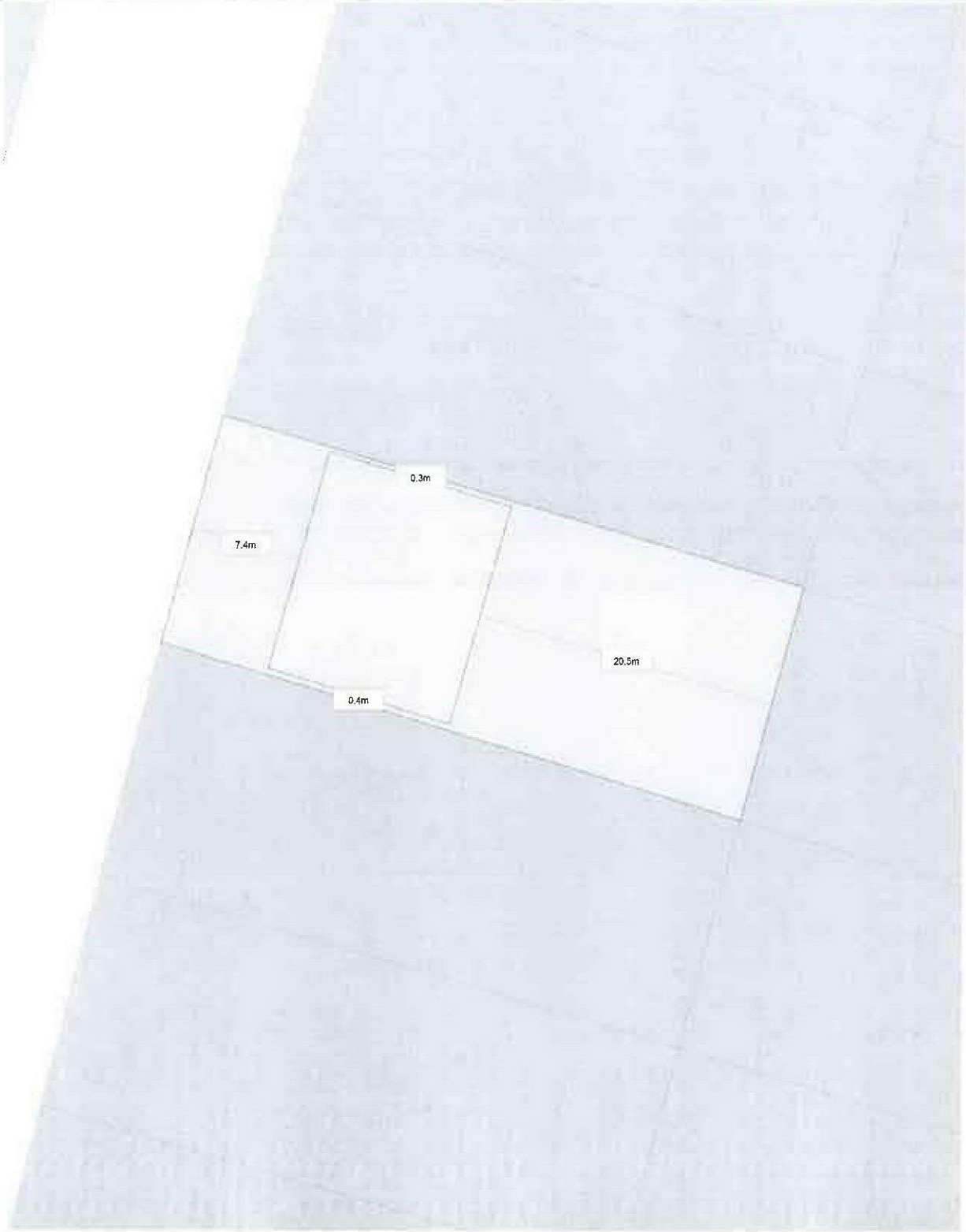


Sydney WATER

Structure 2 of 2: Ground floor extension

Application reference number: 49659
Property address: 13 Sydney Rd, Warriewood 2102
Lot details: Lot 44, Deposited Plan 15763

This structure will not impact Sydney Water infrastructure.



Conditions and Important Information

Attention: You must read the information below.

1 The approval of your building plan by Sydney Water (Approval) has been generated by an automated system based on the information you have provided to Sydney Water through the Sydney Water Tap in. Sydney Water does not make any representation or give any guarantee, warranty or undertaking (express or implied) as to the currency, accuracy, completeness, effectiveness or reliability of the Approval.

2 It is your responsibility to ensure that the information is correct and complete when submitting your building plan for approval through Sydney Water Tap in and, if any of the information is incorrect or incomplete, to resubmit information that is correct and complete. If any of the information that you have provided is incorrect or incomplete, this may result in the revocation of the Approval.

3 The Approval is provided on each of the following conditions which you are taken to have accepted by using the Approval. To the fullest extent permitted by law:

(a) all conditions and guarantees concerning the Approval (whether as to quality, outcome, fitness, care, skill or otherwise) expressed or implied by statute, common law, equity, trade, custom or usage or otherwise are expressly excluded and to the extent that those statutory guarantees cannot be excluded, the liability of Sydney Water to you is limited to either of the following as nominated by Sydney Water in its discretion, which you agree is your only remedy:

i. the supplying of the Approval again; or

ii. payment of the cost of having the Approval supplied again;

(b) in no event will Sydney Water be liable for, and you release Sydney Water from all Losses arising out of or in connection with you providing incorrect or incomplete information to Sydney Water in connection with the Approval:

i. whether arising under statute or in contract, tort or any other legal doctrine, including any negligent act, omission or default (including wilful default) by Sydney Water; and

ii. regardless of whether Sydney Water is or ought to have been aware of, or advised of, the possibility of such loss, costs or damages;

(c) you will indemnify, defend and hold harmless Sydney Water from and against all Losses of Sydney Water in respect of, or in connection with loss or damage to any property, personal injury (including death or illness of any person), arising out of or in connection with:

i. you providing incorrect or incomplete information to Sydney Water in connection with the Approval; or

ii. any third party claim against Sydney Water; and

(d) you assume all risks associated with the use of the Sydney Water Tap in and Sydney Water websites, including risk to your computer, software or data being damaged by any virus, and you release and discharge Sydney Water from all Losses which might arise in respect of your use of the websites.

4 Subject to condition numbered 3(c) in this document, your liability under condition numbered 3(c) in this document is reduced to the extent that the loss, liability, expense or damage:

(a) is caused solely and directly by any negligent act or omission of Sydney Water; or

(b) could not reasonably be foreseen and was not reasonably within the contemplation of you and Sydney Water at the time of the loss, liability, expense or damage.

5 The position of the proposed building/building works in relation to Sydney Water's pipes and structures is satisfactory. You are responsible for, amongst other things:

(a) protecting underground structures, including Sydney Water's pipelines, from damage and interference;

(b) maintaining minimum clearances between Sydney Water's structures and structures belonging to others;

(c) preventing loss or damage to any property, personal injury (including death or illness of any person) arising out of or in connection with you providing incorrect or incomplete information to Sydney Water in connection with the Approval;

(d) repairing or making good loss or damage to any property or the environment arising out of or in connection with you providing incorrect or incomplete information to Sydney Water in connection with the Approval;

(e) ensuring that connections to Sydney Water's sewer, watermain or stormwater are only be made following the issue of a permit to a licensed plumber/drainer;

(f) ensuring that all proposed fittings will drain to Sydney Water's sewer;

(g) ensuring that all plumbing and/or drainage Work is to be carried out in accordance with the NSW Code of Practice, AS 3500 and the Sydney Water Act 1994;

(h) ensuring that gullies, inspection shafts and boundary traps are not placed under any roof, balcony, verandah, floor or other cover unless otherwise approved by Sydney Water; and

(i) notifying Sydney Water immediately of any damage caused or threat of damage to Sydney Water's structures.

6 **"Sydney Water"** means Sydney Water Corporation and its employees, agents, representatives and contractors. References to "you" include references to your employees, agents, representatives, contractors, executors, administrators, successors, substitutes, assigns and anyone else using the Approval. References to "Losses" means all liabilities, losses, damages, expenses, compensations, fines, penalties, charges and costs (including legal costs on a full indemnity basis and whether incurred or awarded) of any kind or nature however they arise and whether they are present or future, fixed or unascertained, actual or contingent and including any loss of profits, loss of revenue or loss of opportunity. To the extent of any inconsistency, the conditions numbered 1 to 6 in this document will prevail over any other information provided or made available to you by Sydney Water.

In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 92 (24 hours, 7 days).

Sydney WATER

Further information
For more information you can email connections@sydneywater.com.au or call 1300 082 746

Yours sincerely

Business Customer Representative
Customer Connections.

PRIVATE CERTIFIERS AUSTRALIA

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BCA RESIDENTIAL CHECKLIST & STATEMENT

This BCA Design Statement is to form a general part of demonstrating compliance with current building codes. Other requirements may be required to be entered into for inclusion of the building process and make reference to the requirements of parties to sign written contracts as law requires. This statement/checklist shall be read with other documents.

Please tick the box when appropriate.

	CLIENT	PCA
Health & Amenity Health & Amenity shall be carried out in accordance with BCA volume 2, Housing Provisions, Part 3.8. 1. Required facilities BCA Vol.2, Part 3.8.3.2 – A Class1 building must be provided with a kitchen sink and facilities for the preparation and cooking of food; a bath or shower; clothes washing facilities, comprising at least one washtub and space in the same room for a washing machine and; a closet pan and washbasin. NOTE: a kitchen sink or washbasin must not be counted as a laundry washtub. 2. Light & Ventilation – Light & Ventilation should comply with the BCA Vol.2, Housing Provisions, Part 3.8.4 and Part 3.8.5 3. Sound Insulation – Sound Insulation shall be carried out in accordance with the BCA Vol.2, Housing Provisions, Part 3.8.6 and AS2107, AS1276.1, ISO 717.7 Table 3.8.6.1	Yes	Yes
Weatherproofing shall be done as below Weatherproofing shall be carried out in accordance with BCA Vol.2, Housing Provisions, Part 3.3.4	Yes	Yes
Basix will be undertaken in accordance with approved Basix All requirements of the Basix shall be fitted to the dwelling. Should the construction of the dwelling change, the owner shall rectify and change the Basix Certificate and resubmit it to the Local Authority. Insulation, shading, lighting and water harvesting shall be installed as per the certificate. Evidence shall be submitted at the completion of the project to the Local Authority or Certifying Authority demonstrating compliance with the certificate.	Yes	Yes
Termite Risk Management shall be done as below Termite treatment shall be carried out in accordance with BCA Vol.2, Housing provisions, AS 3660 Part 3.1.3	Yes	Yes
Balustrades shall be done as per the BCA Balustrades shall be installed in accordance with BCA Vol.2, Housing Provisions, Part 3.9.2. The balustrades are to include the reference to the correct Australian Standard ☒ Timber : AS 1684, minimum height 1000mm, openings not greater than 125mm horizontal or vertical) ☒ Glass: AS 1288, min. height 1000mm, openings not greater than 125mm (horizontal or vertical) and should have a top rail ☒ Wire: AS 1170.1, min. height 1000mm, openings not greater than 80mm & post 800mm spaced apart with top rail. If a pool balustrade: needs compliance with AS1926.1 and BCA Vol.2,Housing Provisions, Part 3.9.3; min height 1200mm, openings not greater than 105mm	As Applicable	Yes
If the balustrade is more than 4 metres above the surface beneath, any horizontal elements within the balustrade or other barrier between 150mm and 760mm above the floor must not have any openings.		

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	CLIENT	PCA
Any installation of balustrades are required in addition to the above clauses to demonstrate structural adequacy in design and installation.	yes	yes
Stairs Balustrades minimum height 865mm above noising, risers minimum 115mm max 190mm and going min 240mm and max 355mm	yes	yes
Fire Safety Measures ☒ Class 1a building: accordingly the construction shall be carried out in accordance with BCA Vol.2, Housing Provisions, Part 2.3 and Part 3.7 smoke detectors ☒ Class 1a building within 900mm from boundary: fire separation is 60/60/60 ☐ Town houses: fire separation shall be installed in accordance with BCA Vol.2, Housing Provisions, Part 3.7.1 FRL 60/60/60, Part 1.4, table 1.4.1 Schedule of Referenced Documents and Australian Standards AS3660, AS3600, AS1684, AS1530.1 & 2 & 4.	✓	✓
Acoustic For walls separating different dwellings or units, sound insulation shall be carried out in accordance with BCA Vol.2, Housing Provisions, Part 3.8.6 and AS 1276.1. Separating wall between: ☒ A bathroom, sanitary compartment, laundry or kitchen and a habitable room (other than a kitchen): discontinuous construction is required and a Rw+Ctr of 50 ☒ In all other cases to those listed above: discontinuous const. not required and Rw+Ctr of 50 For duct, soil, waste, and water supply pipes and stormwater pipes that passes through a separating wall between: ☒ Habitable rooms (other than a kitchen): discontinuous construction not required and Rw+Ctr of 40 ☒ Kitchen or any other room: discontinuous construction not required and Rw+Ctr of 25	yes	yes
Bushfire Areas - I understand that the construction of the building must comply with AS 3959 ☐ BAL 12.5 ☐ BAL 19 ☐ BAL29 ☐ BAL 40 The dwelling has been identified in a bushfire area. Accordingly, the construction of the dwelling shall be carried out in accordance with BCA Vol.2, Housing Provisions, Part 2.3 and Part 3.7. Either AS3959-1999 older approvals or new approval AS3959-2009 for the specific BAL quoted.	N/A	N/A
Structural inspections We understand that PCA might require structural inspections to be done and it is the client`s responsibility to contact PCA to book those.	yes	yes
Drainage & Stormwater: either one or the below is applicable Drainage & Stormwater shall be carried out in accordance with BCA Vol.2, Housing Provisions, Part 3.1.2 ☐ No change to stormwater details-internal works only ☐ Upgrade connection to Council`s approved system being the gutter/road/easement		

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	CLIENT	PCA
☒ Stormwater Drainage to be assessed by hydraulic engineer against council codes, which shall be carried out in accordance with BCA Vol.2, Housing Provisions, Part 3.1.2 or Performance required which may incorporate the submission of an Alternate Solution to address the performance clauses of the BCA P2.2.1 and Clause 1.0.10. Any alternate solutions should be provided to the Local Authority or Certifying for acceptance prior to approval. The local Council code determine specific stormwater policies. ☐ Onsite Detention to be assessed by hydraulic engineer against Council codes. The OSD "if required by the Local Authority" or conditions of consent shall be designed and constructed in accordance with the Local Authority policies and Australian Standards. On completion of the works the owners or builder shall provide a copy of the "Works As Executed" drawings to the Local Authority or Certifying Authority in order to verify that the construction and design still satisfies the original design and specifications. The heights and levels shall be checked by a Registered Surveyor. Allow for the supplying and laying of stormwater drains where shown on the site plan and a hydraulic engineer may need to be engaged in order to provide site specific information relating to the area or special orientation of the land. Under a complying development, you are required to fully comply with council specific policies, a hydraulic engineer can assist with this, otherwise you will have to provide sufficient information that a determination can be supported.	yes	yes
Pool/Pool Fencing All pool fencing shall be installed and comply with BCA Vol.2, Housing Provisions, Part 3.9.3 and AS1926.1, spas shall be installed in accordance with AS1926.3 Part 3.9.4. In NSW this installation of the pool fencing shall be read in conjunction with the NSW Swimming Pool Act and Regulations. You should consult your Local Authority, builder or Certifying Authority prior to commencing the construction of the pool fence to fully understand the location and orientation of the fence. Alternatively, get a copy of the above standards for review. Some pool fences double as a balustrade and also have dual purposes, in this case a balustrade is required to have a top rail for structural stability. The min height of the pool fence balustrade is 1200mm and openings not greater than 105mm. Resuscitation chart also needs to be provided.	NO	NO
Sediment Control silt fences Silt fences shall need to be installed prior commencement or works and maintained at all times in good conditions.	yes	yes

I understand that this statement/checklist is to assist the building process and provide a general design standard in which to construct the dwelling, structure or residential building. The approved plans and other documents relied upon in the approval process will further assist in the building process and must be also relied upon to fully complete the construction of the dwelling, structure or residential building. The terms and condition of any construction works between parties is subject to a contract as prescribed by Law.

Whilst this statement provides general compliance details any tested system, relevant manufacturer's installation or recommendations for a specific product shall also be relied upon and work in conjunction with this specification to meet the BCA at the time and the Australian Standards. Should a tested system or manufacturer's details differ from the general principles adopted by the BCA then they are to address the performance clauses of the BCA in order to demonstrate that compliance has been met in a building solution. The Engineer, Architect, Local Authority or Certifying Authority should be consulted if the builder, owner or trades person is unsure of any structural detail, design

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requirement or other details outlined in the construction documents or conditions of consent that need to be constructed or identified to happen prior to works starting on site.

Proposed Development:	Renovate / Extend Granny Flat. Renovate / Extend House
Principal Contractor's Name & License:	Wade Streeter 155750C
Owner's Name:	Wade Streeter
Owner's Signature:	
Date:	

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requirement or other details outlined in the construction documents or conditions of consent that need to be constructed or identified to happen prior to works starting on site.

Proposed Development:	Renovate / Extend Granny Flat. Renovate / Extend House
Principal Contractor's Name & License:	Wade Streeter 155750C
Owner's Name:	Wade Streeter
Owner's Signature:	
Date:	8.4.16

SPECIFICATION
OF
BUILDING WORKS

SOUTHspec
revision 23

BUILDING NOMINATION

BUILDING TYPE

SINGLE DWELLING ☐	VILLA OR TOWNHOUSE ☐	INDUSTRIAL BUILDING ☐
DUAL OCCUPANCY ☐	GARAGE ☐	OFFICE BUILDING ☐
MEDIUM DENSITY UNITS ☐	RETAIL BUILDING ☐	ADDITION ☐
FARM SHED ☐	..... ☐	..... ☐

CONSTRUCTION

CAVITY BRICK ☐	TIMBER FRAMED ☐	A.A.C.BLOCK/PANEL ☐
BRICK VENEER ☐	STEEL FRAMED ☐	MASONRY BLOCK ☐
SINGLE BRICK ☐	STEEL CLAD ☐	CONCRETE PANEL ☐

ADDENDUM

If any difference in requirements exists between this specification and the National Construction Code or relevant Standard that may apply to the construction of any building nominated in this specification, then requirements of the National Construction Code and/or the appropriate Standard shall take precedence over any nomination of construction in this specification.

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ALL RIGHTS RESERVED. This specification is licenced for construction nomination of the building on the land identified by the Lot No. and DP No. or other land identification imprinted hereon. No part of this specification may reproduced, stored in a retrieval system, transmitted or copied by any means, electronic, mechanical or otherwise without prior written permission of SOUTHspec Publishing.

SPECIFICATION: SPECIFICATION FOR THE ERECTION AND COMPLETION OF BUILDING AT:

(State land identification).....

ADDRESS:.....

TOWN/AREA : .....

MUNICIPALITY / SHIRE / CITY:..... POST CODE.....

FOR: .....Hereinafter called the Proprietor or Owner.

The builder must ensure that relative drawings, plans and construction comply with the prescribed construction, the Local Government Act, the National Construction Code and that the work and services performed by the Builder are to the satisfaction of the Proprietor and Lending Authorities.

INSPECTION NOTICE

This is to apply only if inspections are required by the Lending Authority. The building is to be inspected by the Society or Bank Representative at the following stages of construction and the Builder is to give the Lending Authority and Owner at least (2) clear working days notice that inspections are required.

1. When trenches for footings have been prepared or rock surfaces scabbled and in the case of reinforced concrete footings, when reinforcement and depth pegs have been placed in position just prior to placing of concrete. Footings must not be commenced until the trenches have been inspected and approved by the Society Representative.
2. On completion of floor, wall and roof framing with noggins in position and veneer walling, but before flooring is cut down, roof covering is laid and wall linings and sheetings are secured.
3. When the internal wall coverings have been secured and fixing out commenced apron mouldings must not be fixed until flashings have been inspected and approved.
4. **ON COMPLETION OF BUILDING** The owner is cautioned that if works have advanced beyond these stages without the requisite notices being given, inspections made and unsatisfactory conditions are discovered later, the offer of a loan or the terms and conditions of a loan may be varied by the lending authority.

REGULATIONS AND NOTICES: The builder is to comply with the National Construction Code as amended and as applicable to the particular State or Territory in which the building is being constructed and the requirements of legally constituted Authorities for local Government and/or Services. The Builder is to give all notices, obtain all permits and pay all fees required by **such** Authorities. Where materials, components, design factors and construction methods comply with the Performance Requirements of the National Construction Code these may be accepted by approval authorities as an alternative as per the Deemed to Satisfy Provisions.

INSURANCE: Insurance of the works against fire will be effected as nominated in the Building Contract. The Builder shall at his own expense adequately insure against Public Risk and arrange indemnification in respect of his liability under the Workers' Compensation Act, Work Cover and other regulations as applicable.

WORK, HEALTH & SAFETY: Workplaces: Regulations of the Work Health & Safety Act as applicable in the State in which the building work is to proceed are to be complied with. Under the Act if a structure is to be used as, or at a workplace it must be designed to be without risk to health and safety by including testing and analysis, addressing the suitability of the design for the ultimate use of the structure as well as materials, method of construction, maintenance and future demolition. The builder is to comply with the regulations of the Work Health and Safety Act 2011 for all construction on site. If the structure will be used as or at a workplace, a Safety Report is to accompany plans and specifications and be distributed to the Builder, Certifier or Council and the Client.

VISIT THE SITE: Builders tendering are to visit the site and satisfy themselves as to the nature and extent of the work, the facilities available and any difficulties entailed in the execution of the said works. No amount **above** the accepted price will be allowed because of work arising due to neglect of this precaution, or assumptions made.

FLOOD HAZARD AREAS: NCC Vol. 1 part B 1.4 or Vol. 2 part 3.10.3: Where a building is to be erected in a Flood Hazard Area defined by an Appropriate Authority; the floor level of a non-habitable room shall not be greater than 1m below the height of the Flood Hazard Level for that area. Freeboard height of the Flood Hazard Level must be established and the Habitable Floor level of the building must be constructed above the Flood Hazard Level. See fig. 1.1.5 of NCC Vol. 2, 2013. An acceptable construction manual for buildings in a Flood Hazard Area is the 'ABCB Standard for Construction of Buildings in Flood Hazard Areas'.

LABOUR AND MATERIALS: The Builder is to provide all materials, labour, fittings and plant required to construct and complete the work. Materials shall be of the standard specified and workmanship in each trade shall be performed by tradesmen of that particular trade and in conformity with current good building practice.

SET OUT: The Builder shall be responsible for the accuracy and clear delineation of the site boundaries and location of the buildings there on. The Builder is to set out and maintain the works in accordance with the drawings. Figured dimensions are to be taken in preference to scale.

PLANS AND SPECIFICATIONS: Any work indicated on the plans and not in the specification or vice versa, and any item not shown on either plans or specifications but which is obviously necessary as part of proper construction and/or finish, is to be considered as so shown or specified and is to be duly done as part of the contract. Any variations to plans or specifications are to be agreed and recorded by the proprietor and the builder/contractor.

ADDITIONAL BUILDING REQUIREMENTS: All instructions for extra work or additional requirements must be in writing. Dated and signed copies of instructions shall be retained by both the owner and the builder.

PLANS ON JOB: The builder must at all times maintain on the job a legible copy of the plans and specifications, bearing the approval of the Municipal Authority concerned or Principal Certifying Authority.

NCC: Where NCC is referenced in this specification then that nomination refers to the National Construction Code BCA Vol.1 and Vol.2 or PCA Vol. 3

STANDARDS: Where an Australian Standard (AS) or Australian New Zealand Standard (AS/NZS) is nominated in this specification then that nomination refers to the latest revision of that Standard unless the National construction Code references a different revision.

EARTHWORKS AND EXCAVATIONS: All earthworks shall be designed and constructed in accordance with the drawings and guidelines of AS3798 . Stormwater and other surface water drainage by underground piping or surface diversions shall be in accordance with AS/NZS3500.
All siteworks shall be in accordance with the Environmental Planning and Assessment Act and Regulations for siteworks for the erection of a building, safeguarding excavations, backfilling, preventing soil movement and supporting neighbouring buildings. Drainage requirements must be determined according to the soil classifications of NCC Vol. 2 part 3.1.1 and part 3.1.2.

FOOTINGS AND PIERS: Excavate for all footings, piers, etc. to dimensions and minimum depth shown on plans or otherwise specified, or to depths necessary to secure solid bottoms and even bearing throughout similar strata. Bottoms of excavations to be level and stepped where necessary to follow ground slopes and achieve solid bottoms on foundation acceptable.. Grade, fill and ram where necessary to receive concrete floors where shown on ground level.
At completion of footings, all excavations to be filled, well rammed to ground level and surplus soil spread as directed. All seepage and soakage water to be effectively dealt with and diverted clear of the building. Excavate for and lay agricultural drains to back of walls retaining earth and to any other sections of foundations as may be necessary and/or directed.

ROCK EXCAVATIONS: Should rock of any type be encountered in excavation of the works, unless its existence is known and allowed for, the cost of its removal is to be considered as an extra to the contract and charged for at a rate per cubic metre as indicated in the schedule of rates. The Proprietor is to be notified when any rock is encountered in excavations.

CONCRETE: NCC Vol. 1 part B1.4 or Vol. 2 part 3.2.3 All structural concrete shall be mixed and in compliance with AS3600, and unless otherwise specified on Engineers drawings, shall be of N20 grade.
The concrete shall be supplied by an approved firm and delivery dockets shall be kept on the job for inspection by the proprietor if he so desires. The concrete for minor works, where strength of concrete is not critical, such as paving on solid ground, may have a minimum compressive strength of 15MPA if unreinforced and 20 MPA if reinforced. Alternatively, such concrete may be mixed on site where the aggregate proportions and water/cement ratio can be controlled so that the required compressive strengths can be obtained.
All concrete work shall comply with the AS3600. Maximum slump shall be 80mm unless otherwise specified by Engineer.
Concrete shall be carefully handled and placed to avoid segregation and shall be adequately compacted. Reinforcing mesh fabric to AS/NZS467 and all reinforcing bars mild steel grade unless otherwise specified.

FOOTINGS: NCC Vol. 2 parts 3.2.3, 3.2.4 and 3.2.5 Where sites have soils or foundations of reactive nature or problem sites footings shall be approved by a practising structural engineer and in the case of known highly swelling soils or other unstable soils special precautions may have to be taken in the design and construction of concrete footings. In the case of concrete suspended floors to first floor it will be necessary for size of footings to be specified by a practising structural engineer. Footing sizes to be as per AS2870 or designed by an engineer.

TERMITE MANAGEMENT SYSTEM: NCC Vol. 2 part 3.1.3 or Vol.1 part B 1.4 (i) Where the building is being erected in a prescribed termite area and protection is required by regulation of local government or state authority then protection against subterranean termites shall be installed in accordance with AS 3660. Details of method of protection to be used shall be submitted where required, prior to commencement of building works. Written certification, signed by the installer, that the method used and the manufacturers specification complies with the Australian Standard shall be provided to the relevant authority and owner where required. A durable notice must be permanently fixed in a prominent location in the building prior to its occupation indicating: 1. The method and date of installation of the system and the need to inspect and maintain the system on a regular basis. 2. Where a chemical barrier is used, the life expectancy as listed on the National Registration Authority label and recommended date of renewal. Note that AS3660 and NCC lists the minimum acceptable level of protection only. Owners and/or builders may specify and install additional protection if desired

PATHS: (see AS 3727 for guide to residential pavement construction). Provide paths as indicated on plans. Concrete to be as previously specified and surfaced with wooden float. Car tracks to be a minimum of 100mm thick and paths a minimum of 75mm. Provide expansion joints in paths at a maximum spacing of 1200mm with bitumen impregnated felt joining strips the full thickness of concrete with tooled V-joints above same.

CROSS SECTION DIMENSIONS OF REINFORCED CONCRETE FOOTINGS: for buildings with timber framed floors. for sites classified a or s according to AS2870.

CONSTRUCTION OF WALL	Normal thickness of wall to be supported (not more than)	Size of Concrete (width x depth)	
		For stable soil foundations Class A	Other foundations not subject to significant movement Class S
	mm	mm	mm
Brick, single storey with wall height not exceeding 4200mm excluding any gable.	270	400x300	400X400
	110	300x300	400x400**
Brick, two storey with external wall height not exceeding 7200mm excluding any gable internal wall height not exceeding 7200mm. ** use 11TM reinforcement Top and Bottom	270	400x400	400x500**
Brick veneer, single storey with wall height not exceeding 4200mm excluding any gable.	110	300x300	300x400
Brick veneer, two storey with external wall height not exceeding 7200mm excluding any gable.	110	300x300	300x400
Timber frame, single storey – foundation walling measured from the top of the strip footing.			
Up to 1500mm height	110	300x300	300x400
Exceeding 1500mm and up to 3000mm height	110	300x400	300x400

REINFORCEMENT FOR STRIP FOOTINGS	Width of Strip Footing	Minimum number of main wires per layer using 8TM or 11TM fabric	Minimum number of 10mm dia. bars per layer	Minimum number of 12mm dia. bars per layer
	300	3	3	3
	400	4	4-	4-

Where wall thickness exceeds as specified above, increase footing width to maintain the offset and provide additional bar or bars so that bar centres do not exceed 200mm, or an additional width of trench mesh, maintaining in all cases the required concrete cover.

CONCRETE FLOORS: NCC Vol. 2 part 3.2.5, or Vol. 1 part B1. Provide concrete floors where indicated on plans. Where not specifically detailed, floors are to be a minimum of 100mm thick, reinforced with No. F72 hard drawn reinforcing fabric set 32mm below top of concrete. Floor slabs to be full thickness and free from grooves and ridges. Finish surface in one operation as required for tiling or otherwise to fine finish with float or steel trowel and sponge. Thickness of floors shall be maintained under tiling recesses in all cases.
Note that in Climate Zones 6,7 and 8 the edges and underneath some concrete slab construction may require thermal insulation.

INTEGRAL FLOOR SLABS AND SLAB ON GROUND: NCC Vol.1 part B 1.4 or Vol. 2 part 3.2.5. Grade whole area occupied by floor to a minimum depth as required to remove top soil and grass roots etc. Determine level of top of floor to habitable rooms, a minimum of 150mm above highest point of adjacent proposed external ground level (adjust for fill or general excavation as required) or as otherwise required by Local Council. The external finished ground surface must be graded to drain water away from the building at a minimum slope away of 50mm over the first 1m as per NCC Vol. 2 part 3.1.2.3.
Excavate for perimeter and other main footings to minimum depths as shown on Engineers drawings or to depths necessary to obtain solid bottoms and even bearing throughout a similar strata. Allow for sufficient recess for brickwork if carried under main floorings so as to reduce the amount of concrete necessary, provided that the fill is retained from displacement under the footings (by a temporary earth bank or similar) and provided also that a minimum of 100mm depth of the same hardcore is provided under all footings in such case, roadbase or ungraded bluemetal is recommended as hardcore, coalwash is NOT to be used. Reinforce to Engineers detail and pour in one continuous operation in concrete Grade 20 unless otherwise nominated. Residential slabs and footings must be constructed in accordance with AS2870 as amended.

DRAINS FROM UNDER BUILDINGS: For drains from under buildings see requirements of AS2870 on page 12 of this specification.

SUSPENDED REINFORCED CONCRETE SLABS: All concrete slabs to separate areas within or adjoining a building generally of timber floor construction shall be suspended. Temporary formwork must be removed prior to final inspection. Permanent metal formwork approved by the lending authority may be used with slab sizes and reinforcement according to manufacturers recommendation.
Suspended floor slabs to have minimum of 100mm bearing on at least two opposite sides and spans are not to exceed 2100mm except where specifically detailed. Solid fill forming may be used under concrete floors (e.g. laundry, garage) adjoining the building providing that the level of the top of the slab is not less than 50mm below antcap and/or dampcourse level of the main building. For spans exceeding 2100mm, slabs supporting walls, cantilever slab floors or where beams and columns are used to support the slab, a practising structural engineers details shall be submitted with the drawings and specifications.

PRE-STRESSED BEAM FLOORING: Pre-stressed beams for areas to be constructed by this method shall be delivered to site and stacked for storage on timber packers to avoid damage and where stacked one above the other the timber packers shall be positioned in vertical lines.
Beams shall be purpose made by the manufacturer for this particular project, designed in accordance with AS3600. Beams shall be individually marked for their respective location on the job and positioned in the work to comply with manufacturers key drawing. Cutting or drilling into beams or modification in any way shall be done only with the express authority of the manufacturer or their site representative.
Spacing of beams and fibre cement infill panel placement shall be strictly to manufacturers detail. Topping slab concrete shall have a 28 day strength of not less than 20 MPA and thickness shall not exceed 50mm unless shown on the drawings. Reinforce with nominal F52 Mesh U.N.O.
Topping slabs shall be continuously cured for 7 days to prevent non structural cracking.

BRICK AND BLOCKWORK:(Construction of masonry buildings shall be as per AS3700 or AS4773)

CLAY BRICKS : To be sound, hard, of well burnt clay and shale to comply with AS1225 'Burnt clay and shale building bricks'

SAND LIME BRICKS: To Comply with AS1654 'Calcium Silicate Bricks' and have a transverse strength no less than as per Specification AS1640

CONCRETE BLOCKS OR BRICKS: To comply with AS4455 Masonry Building Blocks/Paver.

CEMENT MORTAR: To be one part fresh cement to 3 parts sand.

LIME MORTAR: To be one part lime to 3 parts sand. Lime to be well slaked before use.

COMPO MORTAR: To be one part cement, one part lime and 6 parts sand. All bricks to be well wetted before use. This not to apply to textured bricks. Footing courses to be grouted solid with cement mortar. All brickwork to be properly bonded, laid on full bed and all perpends filled. All piers are to be built solid and each course grouted as work proceeds. Beds and joints to be kept to a reasonable thickness. Finish all exposed brickwork faces with neat joints as directed by Designer or Owner.

BUILD THE FOLLOWING IN CEMENT MORTAR: See AS3700 or AS4773. All brickwork to underside of floor bearers level. All 110mm thick brickwork, all copings, steps, brick balustrade walls, sills, piers, wing walls, retaining walls. Brick Fences on alignment and/or brickwork under timber fencing also concrete blocks or bricks. **Build compo mortar:** All other brickwork, including concrete masonry.

SLEEPER PIERS: 230 x 230mm up to 1.5 high, footings are to be two courses of 350mm work. Where pier height exceeds 1.5m up to a maximum of 2.4m footings are to be two courses of 470 work and lower portion of pier to be 350 x 350. Concrete footings must be 500mm square and 200mm thick for an effective supported floor area of not more than 20m². All footings must have Engineers details for soil other than class A or S.

ENGAGED PIERS: To be minimum of 230 x 350 (including wall thickness) spaced at not more than 1.8m centres up to 2700 high to support floor bearers and at similar centres to stiffen walls supporting concrete slabs. All stack bonded piers to be anchored to walls with specified wall ties every fourth course. Areas with design wind speeds greater than N2 must be vertically reinforced with at least 1 off Y12 bar, tied to the footing.

VENEER WALLS: To be 110mm Brickwork built in Compo Mortar on foundation walls as previously specified. Internal faces to be 38mm minimum from timber frames. Build in wall ties opposite each alternate stud, four courses above level of bottom plate, then every fourth course and spaced not more than 460mm horizontally and 610mm vertically or 610mm horizontally and 460mm vertically. Ties to be left open for attachment to studs. A cavity space of between 38mm and 50mm must be maintained throughout. Where thermal insulation is required to comply with Energy Efficiency requirements, clear cavity spaces must be maintained. Cavities and weep holes to be clean and clear at damp course level. All mortar droppings to be caught on paper or other material and removed before internal linings are fixed. Mortar joints on inside face of walls (cavity side) to be flush with brickwork.

SINGLE LEAF MASONRY: Garage walls etc. Footings as per NCC part 3.2.5 engaged piers and reinforcing to be as per part 3.3.1.

ACCESS: Adequate access in the external foundation wall must be provided with a weatherproof lockable door and crawl access is to be provided to all under floor areas.

VENTILATION: NCC Vol.1 parts F1 to 12 or Vol. 2 part 3.4.1 sub-floor areas shall be ventilated by means of evenly distributed openings with an unobstructed area of 6000mm² per lineal metre of external wall as a minimum dependent on the relative humidity of the area. Where particle board flooring is used the unobstructed area shall be as recommended by the manufacturer. Ventilation of internal walls shall be a minimum of 22000mm 2/m run of wall. Vents to be immediately below bearers and similarly provide vents under verandah floors and suspended floor slabs. Sufficient cross ventilation to be provided through all walls below floors. No section of the under-floor area should be so constructed that is will hold pockets of still air. Appropriate special provision to be made where a gas bath heater is installed. Ventilation may be varied by Local Council.

BRICK REINFORCEMENT: In full brick cavity walls at two courses above level of the highest opening built into each 110mm thickness one continuous strand of 64 wide galvanised metal reinforcement lapped 100mm at joints and full width of layer at intersections.

ANT CAPS: To all brickwork and piers, at the level of underside of floorbearers, ant capping of 0.5mm gauge galvanised steel or other approved metal is to be set, projecting 38mm beyond the internal faces of all brickwork and turned down at a 45 degree angle, lapped 13mm and soldered or crimped at all joints and corners so as to provide a continuous and effective barrier against termites throughout the length of the material. Whole of house protection against subterranean termite attack shall be installed in accordance with AS 3660.

TIES: Wall ties complying with AS/NZS2699 shall be used for all tie requirements. Corrosion protection and installation of wall ties is to comply with AS3700 or AS4773.

STEPS: If shown on plan in bricks to match other exposed brickwork. To be built in solid work or where side walls are provided in consolidated filling. Treads are to be brick on edge, or pre cast concrete units with a maximum of 355mm going and a maximum of 190mm and minimum of 115mm rises.

LINTELS: Galvanised lintels (of steel not less than grade 300MPa as per AS/NZS 4100) to comply with spans as required are to have :-
(i) long legs vertical (ii) each angle or flat to carry a maximum 110mm wall thickness (iii) minimum bearing lengths shall be :- (a) clear spans up to 1 metre – 100mm min. (b) clear spans over 1 metre - 150mm min. (iv) there must be not less than 3 courses of brickwork over openings and (v) all loads must be uniformly distributed.
Note that corrosion protection for lintels and built in structural members must comply with requirements of AS3700 orAS4773.

FIREPLACE CHIMNEY and FLUES: NCC Vol. 2 part 3.2.5.5. and 3.7.3. Reinforced concrete footings 300mm wider all round than brick construction to be provided. Non combustible material to be used for upper surface of hearth with a minimum thickness of 155mm and shall extend not less than 300mm beyond the front of the fireplace opening and not less that 150mm beyond each side of the opening. Local council or structural engineer may vary this requirement. Mild steel bars or angles of suitable sizes and with a 110mm bearing at each end to support work over openings. Up to the level of 300mm above the underside of the arch or lintel, the back and sides of the fireplace to be constructed in two separate sections of solid masonry minimum 190mm thick not including cavity. Concrete masonry not permitted in construction of inner section, balance of walling to be minimum of 90mm thick. Flue to be rendered minimum 12mm thick. Mix; 1 cement, 2 lime, 10 sand or L.C. approved material. Chimney stack is to be not less than the height of the main roof ridge and is to be built in compo mortar. The chimney/flue of an appliance that burns timber, coal or solid fuel shall be provided with a damper or flap sealer. An 0.6mm galvanised steel tray, in one piece, holed for flue is to be set at level of one course above roof covering on the high side of the roof. The internal edges are to be shaped to form a quadrant gutter 25mm wide, sweated at corners. The tray is to project a minimum of 25mm beyond the external faces of brickwork turned up and/or down as required. Where the tray is turned up, a clearance of at least 6mm is to be maintained between the brickwork and the tray. Provide weep holes by leaving open vertical joints in brickwork above tray. Rake joints in brickwork ready to receive flashing to be provided by Plumber. A loose brick must be left on the back of the chimney stack. This brick must not be set until after the tray/cavities have been cleared of all mortar droppings and inspected.

HEATING APPLIANCES: Heating appliances installed in brick or blockwork surrounds shall be in conformance with AS 2918 as applicable

DAMPCOURSE AND WEATHERPROOFING OF MASONRY: Provide a continuous run of L.C. Approved dampcourse material to full width of wall thickness on all brickwork at level not higher than bottom of floor bearers and engaged piers. Dampcourse material is to be run in long lengths, lapped minimum 100mm at joints and full width at all intersections. To wall surrounding concrete and/or solid floors an additional run of dampcourse is to be laid, one full course above floor level and stepped down to meet lower dampcourse where other walls abut walls of bathroom, shower recess or laundry. Damp proof courses and flashings shall be installed to give performance as specified in AS/NZS 2904.

VERMIN PROOFING: 13mm mesh galvanised bird wire to be built into brickwork and taken across cavity and secured to cavity face of inner wall at bottom plate level..

FLASHING: L.C. approved dampcourse material to be built in under all window sills 25mm at back of wood sill and 50mm at each end of same. Flashing to be bent down across cavity and built 25mm into veneer wall. L.C. approved dampcourse material to be built in over all exposed window and external door openings.

WEEP HOLES: Perpend joints are to be left open in exterior brick walls spaced approx. 600mm in course immediately over flashings of all exposed openings and to brick retaining walls, fender walls etc. as required. See requirements of AS3959-2009 for protection of weep holes in bush fire areas.

RETAINING WALLS: Retaining walls not specifically detailed, and foundation walling required to retain earth, are to be a minimum of 230mm thick, up to a height of 750mm of retained earth. Cavity walls used to retain earth are to have the leaf adjacent to the retained earth a minimum of 230mm thick, to a maximum of 900mm of retained earth height. All to be properly bonded (see 'Bonded Walls') and provide with a properly constructed agricultural drain to the earth side of retaining wall. For walls in excess of the above heights of retained earth, an Engineers detail will be required.

BONDED WALL: Solid brick walls more than one brick width, which are used to retain earth or are otherwise noted as 'Bonded Walls', shall be bonded throughout the thickness of the wall by either header bricks or equivalent tying. Where header bricks are used, every sixth course shall be a header course or there shall be at least one header or equivalent tie to every 0.13sq metres (every third course at 480mm centres). Walls 350mm or more in thickness shall have overlapping headers or ties to provide a continuous tie through the wall.

CAVITY WALLS: Walls indicated as cavity walls to be constructed with two leaves 110mm thick spaced nominally at 60mm apart. Where thermal insulation is required to comply with Energy Efficiency requirements clear cavity spaces must be maintained. Connect the two leaves with wall ties as per AS2699 set nominally 600mm apart in every fifth course.. Keep ties clean of mortar droppings and cavity clear as work proceeds.

STRAPS: To full brick cavity walls, secure door and window frames with 1.6mm galvanised iron straps set in brickwork. Straps to be 25mm wide and at least 300mm long, where practicable and spaced at a maximum of five courses apart. Set 25mm x 1.6mm galvanised iron straps 1800 apart and 1200mm down cavity with ends turned 75mm into brickwork to secure wall top plates.

COMPLETION: Clean all cavities. Wait upon and make good after other trades. Replace all damaged and defective bricks. Clean all exposed brickwork with diluted spirits of salts, or as otherwise recommended by brick manufacturers, wash down with clean water and leave free from cement and mortar stains.

CONCRETE BRICK Mortar - For normal conditions to consist of:

Above Dampcourse:	Below Dampcourse:
1. part cement	1. part cement
2. parts lime or lime putty	1. part lime or lime putty
9. parts clean sand	6. parts clean sand

Mortar mixes must comply with A.S. 3700 or AS4773
The substitution of other plasticisers for lime is not recommended. Under no circumstances should the proportion of cement be increased.

JOINTS: Finish all external brickwork and internal feature walls with joints as directed. Finish all other brickwork with neat struck joints.

JOINT REINFORCEMENT AND ARTICULATION JOINTS: In addition to reinforcement over openings as later specified provide joint reinforcement in bed joints at vertical spacings not exceeding 600mm. Control joints, providing a continuous vertical separation through the entire thickness of the wall, are to be provided where indicated on plans or where walls exceed 9m in length, as close as practical building will permit. Reinforcement not to extend across control joints.

AUTOCLAVED AERATED CONCRETE BLOCKS:
Lightweight blockwork shall be Autoclaved Aerated Concrete blocks consisting of sand, cement and lime and shall be installed to areas as indicated on drawings. Site provisions for storage of materials and for the mixing of adhesive shall be as recommended by the manufacturer.

WORKMANSHIP: Fixings, fastenings, anchors, lugs and the like shall be of a type approved by the manufacturer and shall transmit the loads and stresses imposed and ensure the rigidity of the assembly. Block laying shall be in accordance with the manufacturers current published specifications.

TOLERANCES: Maximum planar misalignment is not to exceed 2mm along butt joints. The thickness and width of walls shall not vary by more than 5mm from design sizes. Deviation from plumb, level or dimensional angle must not exceed 5mm per 3.5m of length of member or 6mm in total run.

INSTALLATIONS: All lightweight blockwork shall be installed using thin bed adhesive mortar to all horizontals and perpends. The first course must be made true and level using a normal thick bed mortar with thin bed adhesive to fully seal the perpends. All thin bed adhesive shall be applied using a recommended notched trowel to obtain an even distribution of adhesive to achieve joint thickness of 2-3mm. All lightweight blockwork shall be laid in a format that a vertical joint of the lower course must be staggered at least 100mm relative to the vertical joint of the overlaying course. A slip/joint bond breaker must be installed between the first course and the footings or slab on all internal and external walls to allow for differential movement between the blocks and the supporting structure. Build in as necessary all flashings, reinforcements, arch bars, lintels, frames, straps, bolts, lugs, wall ties, metalwork, precast units, sills, joists and the like. Carefully set out and leave openings for other trades to eliminate cutting.

COMPLETION: On completion clean out all blocks, mortar, droppings, debris etc. and remove all scaffolding, make good all put-log holes and other blemishes and leave all work in perfect condition and protect until handover.

CONCRETE BLOCK and REINFORCED MASONRY: AS 3700 - or as an alternative AS4773
All masonry units shall comply with AS1500 'Hollow Load Bearing **Concrete** Units'. Masonry shall be stacked on planks off the ground and in wet weather shall be covered with tarpaulins or otherwise kept dry. At the end of each days work the top of the wall shall be covered with tar paper, polyethylene sheets or by other means protected from becoming excessively wet. Masonry units shall not be dampened prior to laying, and shall be laid in dry state.

MORTAR: Mortar shall comply with AS 3700 or AS4773. . Plasticisers may be used when approved and where tests show the mortar with plasticisers meets the requirements of these specifications.

CONSTRUCTION BEDDING: All face and end joints shall be fully filled with mortar and joints shall be squeezed tight. Slushing of mortar into joints shall not be permitted. The first course of blocks shall be laid in a full bed of mortar.

JOINTS: Joints on all exposed surfaces shall be as specified. The joint shall be formed by striking the mortar flush and after it has partially set, tooling with the proper shaped tool to adequately compact the surface. The tool shall be of sufficient length to form a straight line free from waves. Internal joints shall be ironed. Where flush joints are left exposed, they shall be first compacted, then repointed and excess mortar removed. Joints shall be 10mm thick unless otherwise specified or directed.

ARTICULATION JOINTS: Shall be located where shown and shall form a continuous vertical break from top to bottom of wall or from bond beam. Provision shall be made for adequate lateral stability. Joint shall be filled with mortar, raked back 16mm and pointed with a non-hardening plastic filler. No reinforcing shall be carried across control joint. Articulated joints over garage doors are prohibited unless brickwork is reinforced or lateral support is provided.

JOINT REINFORCEMENT: Reinforce every 600mm in height and in the two courses immediately above and below window openings. Lap mesh at least 150mm at all joints and intersections except at articulation and expansion joints where a slip joint may be required.

BRACING DURING CONSTRUCTION: Masonry walls constructed in locations where they may be exposed to high winds during erection shall not be built higher than ten times their thickness unless adequately braced, or unless provision is made for prompt installation of permanent bracing such as intermediate floor or roof structure. Back filling shall not be placed against foundation walls or retaining walls before mortar or grouting has sufficiently hardened, or before wall has been permanently braced to withstand horizontal pressure.

WEATHERPROOFING: All concrete masonry walls exposed to the weather or below ground level shall be adequately water proofed, using an approved paint or other coating and applied in accordance with the directions of the manufacturer.

CLEANING: During the progress of the work every effort shall be made to keep walls that are exposed clean. Mortar smears shall be allowed to dry for a short period and then be removed by trowel or suitable brush or both. Care shall be taken to avoid damage to the mortar joint when brushing. Mortar burrs shall be promptly removed. At the conclusion of the work, walls shall be cleaned, all scaffolding and debris removed and the wall left in a good clean condition.

BUSHFIRE PRONE AREAS NCC Vol.1 parts G 5.0, 5.1, 5.2. or NCC Vol. 2 part 3.7.4. Site assessment and preparation, construction of and maintenance of Class 1 buildings and decks and Class 10a buildings in a Bushfire Prone Area are required to comply with the provisions of AS3959 as applicable and BCA 3.7.4.

NSW VARIATIONS:
Performance requirement is satisfied for Class 1 buildings or Class 10 buildings and decks if constructed in accordance with the following:-
To comply with AS3959 except for Section 9 'Construction for Bushfire Attack level FZ (BAL-FZ)'. Buildings subject to BAL-FZ must comply with Specific Conditions of Development Consent for construction at this level of fire threat.
OR Consultation with NSW Rural Fire Service under Section 79BA of the Environmental Planning and Assessment Act 1979
OR As modified by Development Consent Issued under Section 100B of the Rural Fire Act 1997.
Building applications in NSW require 'Statement of Environmental Effects (SEE)' and a 'Bushfire Assessment Report' to be submitted with any DA (Development Application) where Class 1 or 10 building construction is proposed in Bush Fire Prone Areas. Details of areas are available from Council 'Bushfire Prone Land Maps'. ('Single dwelling Application Kits' to aid in submitting a Bushfire Assessment Report are available at (www.rfs.nsw.gov.au) The current 'Planning for Bushfire Protection. Appendix 3 -Site Assessment for Bushfire Attack' is April 2010 edition.

VICTORIAN VARIATIONS:
Under Victorian Planning Provisions, applicants requiring to construct a Class 1a building on Bushfire prone land are required to implement standard conditions as per the Country Fire Authority (CFA) publication 'Building in a Wildfire Management Overlay Applicants Kit 2007'.
Other standard conditions may also apply where building work is to be constructed on a site in the same location on land where a Class 1a building was damaged or destroyed by bushfire that occurred after 1 January 2009
OR the allotment is in a WMD under the local planning scheme.
Standard conditions are:

- a static water tank is to be installed (not required if an alternative water supply either swimming pool, lake or a dam containing 10,000 litres is located within 60 metres of the proposed Class 1a building, and a fire brigade vehicle can get within 4 metres of the water supply.
- Access for emergency vehicles is to be supplied.
- The Bushfire Attack level (BAL) shall be maintained to that nominated in the application for the building permit.

The standard condition details are to be confirmed with schedules 1, 2 or 3 as nominated by the Relevant Building Surveyor (RBS).

TASMANIAN VARIATIONS:
NCC Vol. 2 clauses 3.7.4.0 is amended by the addition of clauses NCC Tas. 3.7.4.1.
Vehicle access to a class 1 building and the fire fighting water supply point must be provided by an access road that complies with requirements for a Modified 4C Access Road as listed in those clauses.
NCC Vol. 2 Tas. 3.7.4.2. A water supply to all the exterior elements of a Class 1 building in a designated bushfire prone area must be within 120m of a fire hydrant with a minimum flow rate of 600L per minute at a minimum pressure of 200 kPa
OR a water supply available at all times of a least 10,000L for each separate building. This supply can be a tank, swimming pool, lake or dam.
SEE ALSO – NCC Tas. Appendix additions 1.1 and 1.2 non combustible roof coverings listed on page 13 of this specification.

NOTE: Normal Australian Standards specify requirements for construction and if AS3959 does not specify construction of a particular element for bushfire protection then the normal AS (Australian Standard) will apply for construction of those elements.
Where a building is to be constructed more than 100 metres away from a bushfire hazard the bushfire construction requirements of AS3959 do not normally apply. Clarification of the site requirements should be obtained from the local authority.

BUSHFIRE ATACK LEVEL (BAL): Where a building is to be constructed in a Bushfire Prone Area, the BAL index (eg BAL-19, BAL-29 etc) shall be determined for the site. If the building has different BAL hazard requirements for different facades, then the highest BAL construction requirements will be used to determine the appropriate construction. Other facade requirements may be reduced by one level of construction unless subject to the same bushfire attack level.

ENERGY EFFICIENCY : NCC Vol. 1 part J or NCC Vol. 2 part 3.12
Performance provisions of the BCA Part 2.6 requires that a building must have a level of thermal performance so that greenhouse gas emissions are reduced using energy efficiently This level of thermal performance must facilitate the efficient use of energy for cooling and heating. This will be achieved by selection of materials and methods of construction of Building Fabric, External Glazing, Building sealing. Air movement and service as best suited to the particular Climatic Zone in which the building is sited. A building must have an energy rating of not less than 6 stars complying with the ABCB protocol for House Energy Rating (Note: in NSW, for Class 1 and 10 buildings subject to BASIX the Energy Efficiency Provisions of NCC as varied by the NSW Appendix apply). Map of Australian Climate Zones for Thermal Design can be viewed on the Australian Building Code Board website at: www.abcb.gov.au
R-Value is the Thermal Resistance of a component to heat and cold movement. Thermal movement is upwards or downwards through a roof or a combination of both.

THERMAL RESISTANCE: minimum TOTAL R-Value required for various climatic zones-roofs with solar absorptance value greater than 0.6									
BUILDING COMPONENT	CLIMATE ZONE								
ROOFS & CEILINGS	1	2 - Altitude less than 300	2 - Altitude 300m or more	3	4	5	6	7	8
Direction of heat flow	Downwards		Downwards and upwards		Upwards				
Minimum Total R-Value required	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.3

CLIMATE ZONE 8 requires specific insulation to be the placed against the edges and under concrete of slab on ground construction.
Added insulation to achieve minimum R-Values for various climate zones can be: (a) Reflective Insulation or (b) Bulk insulation or a combination of both. Reflective Insulation must be installed with not less than 20mm air space between the more reflective side and a building lining or cladding (note: cavity clearances are not to be reduced) and closely fitted against any penetration and or door/window frame, be adequately supported and overlapped to adjoining sheet not less than 150mm.Bulk insulation must be installed so that it maintains its position by not slumping and forming voids and must abut other installation or building members. Care should be taken that insulation does not interfere with the safety or performance of services, fittings or electrical components. Insulation as manufactured must comply with AS/NZS4859.1.

R-VALUE OF INSULATION TO BE ADDED TO BUILDING COMPONENT TO MEET TOTAL R-VALUE REQUIRED									
ROOF TYPE	ROOFS	CLIMATE ZONE							
		1,2 Below 300m AHD altitude	1,2 at or over 300m AHD	3	4	5	6	7	8
Minimum required Total R-Value for roofs		5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.3
FLAT ROOF, SKILLION ROOF AND CATHEDRAL CEILING – CEILING LINING UNDER RAFTERS - UNVENTILATED									
METAL	Total R-Value of roof materials	0.48 down 0.36 up	0.48 down 0.36 up	0.36 upwards					
	Minimum R-Value of insulation to add	4.62 down 4.72 up	4.62 down 4.72 up	4.72	4.72	4.72	4.72	4.72	5.94
FLAT ROOF, SKILLION ROOF AND CATHEDRAL CEILING – CEILING ON TOP OF EXPOSED RAFTERS-- UNVENTILATED									
TILED	Total R-Value of roof materials	0.44 down 038 up	0.44 down 0.38 up	0.38upwards					
	Minimum R-Value of insulation to add	4.66 down 4.72 up	4.72	4.72	4.72	4.72	4.72	4.72	5.92
FLAT CEILING WITH PITCHED ROOF – CAVITY ROOF SPACE --VENTILATED									
TILED	Total R-Value of roof materials	0.74 down 0.23 up	0.74 down 0.23 up	0.23 upwards					
	Minimum R-Value of insulation to add	4.36 down 4.87 up	4.36 down 4.87 up	4.87	4.87	4.87	4.87	4.87	6.07
FLAT CEILING WITH PITCHED ROOF-- CAVITY ROOF SPACE --UNVENTILATED									
TILED	Total R-Value of roof materials	0.56 down 0.41	0.56 down 0.41up	0.41 upwards					
	Minimum R-Value of insulation to add	4.54 down 4.69 up	4.54 down 4.69 up	4.69	4.69	4.69	4.69	4.69	5.89
FLAT CEILING WITH PITCHED ROOF---CAVITY ROOF SPACE -- VENTILATED									
METAL	Total R-Value of roof materials	0.72 down 0.21 up	0.72 down 0.21 up	0.21 upwards					
	Minimum R-Value of insulation to add	4.38 down 4.89 up	4.38 down 4.89 up	4.89	4.89	4.89	4.89	4.89	6.09
FLAT CEILING WITH PITCHED ROOF – CAVITY ROOF SPACE -- UNVENTILATED									
METAL	Total R-Value of roof materials	0.54 down 0.39up	0.54 down 0.39up	0.39upwards					
	Minimum R-Value of insulation to add	4.56 down 4.71 up	4.56 down 4.71 up	4.71	4.71	4.71	4.71	4.71	5.91

A roof must achieve the minimum Total R-Value specified. In Climate Zones 1,2,3 ,4 and 5 a pitched roof with a flat ceiling must have a Solar Absorbance value less than 0.55, RBM installed below the roof and the roof space ventilated by roof, gable, eaves or ridge vents that allow an unobstructed air flow with no dead air spaces, Vents must have a total fixed open area of not less than 1% of the ceiling area. OR not less than 2 wind driven ventilators in association with fixed vents subject to approval.

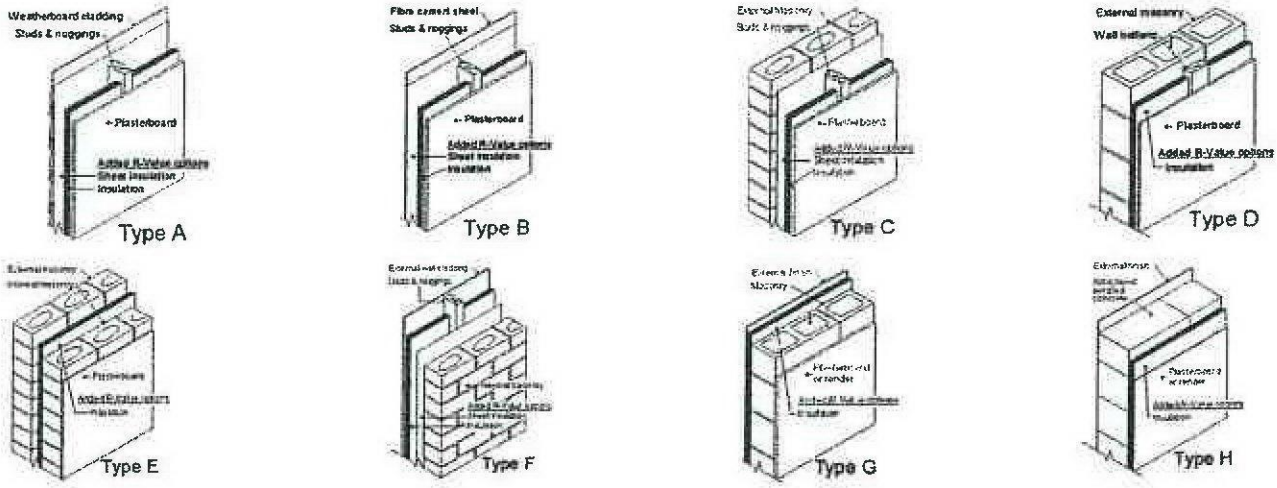
TYPICAL SOLAR ABSORPTANCE VALUES OF COLOURED ROOFS

Slate (dark grey)	0.9	Light Grey	0.45		
Red, Green	0.75	Zinc Aluminium (dull)	0.55	off white	0.35
Yellow, Buff	0.6	Galvanised steel (dull)	0.55	Light Cream	0.3

R-VALUE OF INSULATION TO BE ADDED TO BUILDING COMPONENT TO MEET TOTAL R-VALUE REQUIRED

TYPICAL WALL CONSTRUCTION	R - VALUES	CLIMATE ZONE 1,2,3,4,5	,6	7	8
	Minimum required Total R – Value for Walls	2.8	2.8	2.8	3.8
(A) Weatherboard: minimum 70mm Timber Frame	Total R-Value of Wall Materials	0.48			
	Minimum R-Value of insulation to add	2.36	2.36	2.36	3.32
(B) Cement or Metal Sheet 70mm timber frame	Total R-Value of Wall Materials	0.42			
	Minimum R-Value of insulation to add	2.38	2.38	2.38	3.38
(C) Clay Masonry Veneer minimum 110mm Veneer	Total R-Value of Wall Materials	0.56			
	Minimum R-Value of insulation to add	2.24	2.24	2.24	3.24
(D) Concrete Block Masonry minimum 140mm Masonry	Total R-Value of Wall Materials	0.54			
	Minimum R-Value of insulation to add	2.27	2.27	2.27	3.27
(E) Cavity Clay Masonry 110 ext. veneer, 90mm internal (min)	Total R-Value of Wall Materials	0.69			
	Minimum R-Value of insulation to add	2.11	2.11	2.11	3.11
(F) External insulated Clay Masonry Minimum 110 mm masonry	Total R-Value of Wall Materials	0.53			
	Minimum R-Value of insulation to add	2.27	2.27	2.27	2.3
(G) External insulated Concrete Masonry minimum 140mm thick	Total R-Value of Wall Materials	0.46			
	Minimum R-Value of insulation to add	2.34	2.34	2.34	3.34
(H) Autoclaved Aerated Masonry minimum 200mm thick	Total R-Value of Wall Materials	2.42			
	Minimum R-Value of insulation to add	0.38	0.38	0.38	1.38

EXTERNAL WALLS
An external wall must achieve the minimum Total R-Value for the relevant Climate Zone or in Climate Zones 1,2 and 3 can be shaded by a verandah, balcony, carport eaves and gutter or the like with a reduction of 0.4 to the minimum Total R Value required. The horizontal projection from the external face of the building must be not less than one quarter of the overall height of the wall measured from the internal floor vertically to the underside of the projection. This applies to all stories. NOTE: In Climate Zones 4,,5,6,7 and 8 all walls must achieve a surface density of not less than 220 Kg/m2 and in Climate Zone 6 be constructed on a flooring system that is in direct contact of ground i.e. concrete slab or in Climate Zones 6,7, and 8 incorporate insulation with an R-Value not less than 1.0 to the edges and underneath the slab.
These requirements to not apply to South facing walls in Climate Zones 1,2 and 3 south of latitude 20° south



ENERGY EFFICIENT EXTERNAL GLAZING: NCC Vol. 2 part 3.12.2, or Vol. 1 parts J 1.5 and Spec. J1.5

This part of the NCC applies to Class 1 buildings and class 10a buildings with a conditioned space.
'Acceptable Construction Practice: The effective glazing area of a building must not exceed the percentages of the building area as per NCC Table 3.12.2.1. This table defines the maximum effective glazing area (Total glazed area of all windows in a storey) as a percentage of the total floor area of a storey. The glazing area limits listed provide only the minimal protection against overheating (heat flow into the building via the glazing) and heat loss (through the glazing) in cold conditions. The heat loss or gain can be controlled by sitting of windows, shading, use of protective films, double glazing with air or gas fill in a sealed unit, and size of windows. Window manufacturers can supply windows to suit the requirements for the site Climate Zone and the window construction depends on shading of the glazed area by verandahs, balcony, fixed canopies etc. or a shading device. A shading device must restrict at least 80% of the solar radiation when in use and can be a shutter, blind, vertical or horizontal screen with blades, battens, slats etc. and be adjustable by the building occupants. Where necessary the nomination of glazing types, window locations, shading etc. should be carried out by an approved specialist.

NSW requirements to comply with BASIX Specifications are selectable in NatHERS 2.32A

CARPENTRY:
All timber shall comply with the appropriate standard as listed below. Timber sizes shall be selected so that the building as constructed complies with AS1170.2 or AS4055 for serviceability and Design Wind Gust Velocities (permissible stress) of 33 M/s minimum. Substitution of some members may be required for higher Gust Wind Velocities and advice of local authorities Building Department or Structural Engineer should be sought as whether design to N3 or higher is required.

STRESS GRADES:
Visually Stress Graded Timber: Timbers whose species or place of growth is known may be visually graded for quality in accordance AS 2082.
Mechanically Stress Graded Timber of required stress grade according to AS/NZS 1748 may be used regardless of species. Where seasoned timber is required timber shall be regarded as seasoned only if its moisture content does not exceed 18 per cent.

FRAMING: NCC Vol. 2 part 3.4.3.
Timber sizes in this specification are based on AS1684.4 Simplified Non-cyclonic areas with restrictions as follows: Maximum wind classification N2 (33m/s) - maximum roof pitch 30°- maximum building width 12.0m - maximum rafter overhang 750mm - maximum wall height at ext. walls, floor to ceiling 2400mm. The sizes are for information only and should not be used for construction. All design for a structure within these limits should be carried out to AS1684.4
NOTE: for wind classification N3 (W41N) and N4 (W50N) Non-cyclonic areas with building widths 12.0m and up to 16.0m and with roof slopes exceeding 30° and up to 35°, design according to AS1684.2 is required. For construction in Cyclonic Areas, wind classification C1 to C3 refer to AS 1684.3. See updated Standard : Wind loads for housing AS4055-2012

CUTTING, ASSEMBLY AND ERECTION OF FRAMING ABOVE GROUND FLOOR LEVEL:
Where framing is cut, assembled and erected on site, particular care should be taken that member sizes and fixings are designed to comply with stress grades for the particular number of stories and roof loads according to AS1684.

FRAMING: NCC Vol. 2 part 3.4 applies to all dwelling framing.

FLOOR FRAMING: Ground floor timbers shall be only of hardwood, cypress pine or pressure treated Radiata or Canada Pine below a height of 300mm above finished ground level and must not be built into brickwork. Subfloor ventilation shall conform to NCC Vol. 2 part 3.4.1. In Bushfire Prone Areas special conditions apply. Where termite barriers need to be inspected, 400mm clearance is required between the underside of bearer and ground surface. Sub floor ventilation shall be as per NCC Vol. 2 part 3.4.1

BEARERS AND JOISTS: Bearers and joists shall be installed to comply with AS1684 as amended for timber components or AS3620 for lightweight steel framing sections or as per the NASH alternatives. (See page 9 for steel framing)

ANT CAPS: To all brickwork and piers, at the level of underside of floorbearers, a capping of 0.5mm gauge galvanised steel or other approved metal is to be set, projecting 38mm beyond the internal faces of all brickwork and turned down at a 45 degree angle, lapped 13mm and soldered or crimped at all joints and corners so as to provide a continuous and effective barrier against termites throughout the length of the material. Whole of house protection against subterranean termite attack shall be installed in accordance with AS 3660.

EAVES BEAMS AND VERANDAH PLATES: Eaves beams and verandah plates shall be provided to support rafters or trusses over full height openings or recesses in walls or over verandahs or porches covered by main roof structure. Any reduction in nominal size through mill dressing or scalloping shall be allowed for so that the minimum size listed is not reduced. The ends of eaves beams and verandah plates that are supported on stud walls shall be carried by studs or stud groups as for heads for equivalent spans. End fixing shall provide resistance to uplift or displacement. Verandah Posts to be not less than 100mm x 100mm in timber F11. If supporting roof loads they shall be as per AS1684.

EAVES: Project rafters to give a soffit at eaves of directed width and fix 200 x 25mm timber fascia or colourbond steel as directed. Where eaves are boxed in, soffit bearers (sprockets) of 50 x 38mm shall be provided, spaced to suit eaves lining and attached directly to outer ends of rafters. In brick veneer buildings the inner ends of soffit bearers shall be fixed to the frame so as to be 20mm or more clear above top of brickwork at time of construction In solid masonry buildings the inner ends of soffit bearers shall be located by means of 50 x 25mm hangers from rafters or wall plates. In Bushfire Prone Areas fascias and eaves linings have special requirements.

ROOFING BATTENS: Supporting roofing only. (Note: roofing battens are not suitable for the safe support of workers prior to fixing roof cladding). Battens should be continuous over a minimum of two spans and their design to suit rafter/truss spacing and batten spacing must be in accordance with AS1684 for the allowable roof mass.

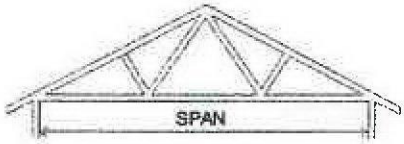
MANHOLE:
Trim as required between ceiling joists or trusses for manhole 600 x 400mm minimum size. Line the opening and provide a suitable cover.

PREFABRICATED TIMBER WALL FRAMES AND TRUSSES
Where prefabricated frames and/or trusses are used for construction of the building, the manufacturers certification of construction according to AS1684.2 or AS1684.4 for the building on the particular site must be obtained. Where certification is attached to truss or framing members the certification labels shall be left in place after erection for approval by the appropriate Building Surveyor, P.C.A, or Council Authority. Timber trusses purpose manufactured for this project and engineer designed according to AS1720.1 are to be spaced at centres as directed, erected and fixed in accordance with the manufacturers instructions as approved. Support only on ends or designed bearing points where directed. Where spacing of trusses exceeds 600mm centres provide intermediate ceiling joists in 100mm x 38mm hardwood (in F7) or 100mm x 50mm (in F8) supported from hangers at maximum of 2100 centres. Hanging beams shall be supported not more than 600mm from bottom chord panel points unless hangers are provided to nearest top chord panel points.

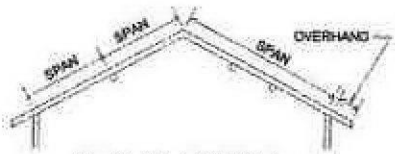
MASSES OF TYPICAL ROOF CONSTRUCTION

MASS OF ROOF	MATERIAL
10 kg/m2	Steel sheet roofing 0.50mm thick and battens
20 kg/m2	Metal sheet tiles or medium gauge steel sheet roofing , battens, 12mm softwood ceiling lining, sarking and lighweight insulation
30 kg/m2	Steel sheet roofing 0.775mm thick, 13mm plaster ceiling, roof and ceiling battens, sarking and lightweight insulation
40 kg/m2	Steel sheet roofing 0.75 thick, battens, graded purlins and high density fibreboard ceiling lining
60 kg/m2	Terracotta or concrete tiles and battens
75 kg/m2	Terracotta or concrete tiles, roofing and ceiling battens, 10mm plasterboard, sarking and insulation
90 kg/m2	Terracotta or concrete tiles, purlins, roofing and ceiling battens, 19mm hardwood ceiling lining, sarking and insulation

DEFINITIONS: Spacing - Where this term is used the measurement shall be the centre-to-centre distance between members.
Span - Where this term is used the measurement shall be the face-to-face distance between members.
Reference is made to effective roof spans in the tables - the span is an indicator of the mass of roof being carried by the outer wall members.



TRUSSED ROOF



ROOF WITH LOADBEARING RIDGEBEAMS AND WALLS

TABLES OF TIMBER SIZES SINGLE STOREY TILED ROOF SINGLE STOREY SHEET ROOF

Framing Member		Unseasoned	Seasoned			Unseasoned	Seasoned		
Stud Height 2400	Span	F8	F5	MGP10	MGP12	F8	F5	MGP10	MGP12
BEARERS-									
Strutted roof – max. rafter span 3000 @ 1800 spacing continuous over two or more spans-load bearing.	1500	100 x 75	2/120 x 35	2/120 x 35	2/90 x 35	100 x 75	2/90 x 35	2/90 x 35	2/90 x 35
	1800	125 x 75	2/140 x 35	2/120 x 35	2/90 x 35	125 x 75	2/120 x 35	2/120 x 35	2/90 x 35
Trussed Roof 9.0 Span External Wall 1800 spacing continuous over two or more spans-load bearing.	1500	175 x 75	2/170 x 35	2/140 x 35	2/140 x 35	125 x 75	2/120 x 35	2/120 x 35	2/90 x 35
	1800	150 x 75	2/190 x 35	2/190 x 35	2/140 x 35	200 x 75	2/190 x 35	2/190 x 35	2/170 x 35
JOISTS-									
450 spacing-continuous over two or more spans	1800	125 x 38	120 x 45	120 x 35	120 x 35	125 x 38	120 x 45	120 x 35	120 x 35
	900	100 x 75	2/90 x 35	90 x 45	90 x 35	100 x 50	2/90 x 35	90 x 45	90 x 35
LINTELS*-	1200	125 x 75	2/120 x 35	120 x 45	2/90 x 45	125 x 50	140 x 45	2/90 x 45	2/90 x 35
Trussed Roof 9000 Span	1500	175 x 75	2/140 x 45	2/120 x 45	2/120 x 45	150 x 50	2/120 x 35	2/140 x 35	2/90 x 45
	1800	200 x 75	2/170 x 45	2/170 x 35	2/140 x 35	150 x 75	2/140 x 35	2/120 x 35	2/120 x 35
	2100	225 x 75	2/240 x 35	2/170 x 45	2/170 x 35	175 x 75	2/170 x 35	170 x 45	2/120 x 45
	2400	275 x 75	2/240 x 35	2/240 x 35	2/190 x 45	200 x 75	2/170 x 45	2/170 x 35	2/140 x 45
	3000	--------	2/290 x 45	2/290 x 35	2/240 x 45	250 x 75	2/240 x 35	2/190 x 45	2/190 x 35
	3600	--------	--------	--------	2/290 x 45	--------	2/290 x 45	2/290 x 35	2/240 x 45

UNCOUPLED ROOF WITH LOADBEARING RIDGEBEAMS AND/OR WALLS
Rafters supporting roof and ceiling loads – non coupled cathedral roof single span

Rafter Span	Rafter Spacing	Unseasoned				Seasoned			
		F5	F7	F8	F11	F5	MGP10	MGP12	F17
Tiled Roof Ceiled									
3000	600	200 x 38	200 x 50	175 x 50	175 x 50	175 x 45	140 x 45	140 x 45	140 x 35
Overhang		750	750	750	750	750	750	750	750
3600	600	250 x 50	225 x 50	225 x 50	200 x 50	240 x 35	170 x 45	170 x 45	170 x 35
Overhang		750	750	750	750	750	750	750	750
4200	600	275 x 50	275 x 50	250 x 50	250 x 50	240 x 45	240 x 35	190 x 45	190 x 45
Overhang		750	750	750	750	750	750	750	750
4800	600	275 x 75	275 x 75	300 x 50	275 x 50	290 x 35	240 x 45	240 x 35	240 x 35
Overhang		750	750	750	750	750	750	750	750
5400	600	-------	300 x 75	300 x 75	275 x 75	--------	290 x 35	290 x 35	240 x 45
Overhang			750	750	750		750	750	750
Sheet Roof Ceiled									
3000	900	175 x 50	175 x 50	175 x 50	150 x 50	140 x 45	140 x 35	120 x 45	120 x 45
Overhang		750	750	750	750	750	750	750	750
3600	900	225 x 50	200 x 50	200 x 50	200 x 50	170 x 45	170 x 35	140 x 45	140 x 45
Overhang		750	750	750	750	750	750	750	750
4200	900	250 x 50	250 x 50	225 x 50	225 x 50	240 x 35	190 x 45	170 x 45	170 x 45
Overhang		750	750	750	750	750	750	750	750
4800	900	300 x 50	275 x 50	275 x 50	250 x 50	240 x 45	240 x 35	190 x 45	190 x 45
Overhang		750	750	750	750	750	750	750	750
5400	900	300 x 75	275 x 75	300 x 50	275 x 50	290 x 35	240 x 45	240 x 35	240 x 35
Overhang		750	750	750	750	750	750	750	750

NOTE:
1. Allowable overhangs are based on a maximum birdsmouth depth of D/3. Where rafters are not birdsmouthed, the allowable overhang may be increased to 30% of the single span for that member, provided that the overhang does not exceed 50% of the actual backspan.
2. Overhang limits are only applicable where rafter ends are supported by a structural fascia.

Sizes shown in tables in this specification are intended only as a guide to the size and stress grade for a particular member of a building frame. All timber framing should be designed and constructed in accordance with AS1684.2 and/or AS1684.4

Sizes in this specification are based on AS1684.4 Simplified Non-cyclonic areas, with restrictions as follows:-
- Maximum wind classification N2 (33m/s)
- Maximum Roof pitch 30°
- Maximum building width 12.0m

Where a building exceeds the restrictions as listed above, design to comply with AS1684.2 will allow wind speeds up to N4 (50 m/s), roof slope up to 35°and building widths up to 16.0m.

PERMANENT BRACING OF WALLS AS PER AS1684.2 This section 'Permanent Bracing of walls as per AS1684 shows typical bracing applicable to timber frame construction as explanatory information only.

TYPE 'A' UNITS (Design racking resistance of 2kN). The following bracing units are deemed satisfactory type 'A' braces:-
1. A pair of diagonal timber or metal section braces in opposite directions from each end of the wall as per fig (A) OR galvanised metal tensioned strap bracing as per fig. (B).
2. Single diagonal timber or metal section brace as per figure (C).
3. A 900mm minimum wide panel of structural plywood as per figure (D)

Type 'A' Bracing – Pair of diagonals from each end of wall		
Timber	Metal Section	Tensioned Straps
50mm x 19mm for studs up to 2.7m long 75mm x 19mm for studs over 2.7m long Fixing: galvanised flat head nail 2.8mm dia. x 50mm long to each plate and stud.	18mm x 18mm x 1.2mm min. galvanised angle brace fixed with one 2.8mm dia. x 30 long galvanised flat head nail to each plate and stud edge.	Flat galvanised straps 0.8mm thick x 20 wide. Fixings: one galvanised flat head nail 2.8mm dia. x 30mm long to each plate and stud edge. Tension straps.

Type 'A' Bracing – Single diagonal at end of wall.	
Timber	Metal Section
75mm x 19mm min. fixed with two 2.8mm dia. x 50mm long flat head galvanised nails to each stud and plate.	Galvanised angle brace fixed with two 2.8mm dia. x 30 long galvanised flat head nails to each plate and stud

Type 'B' Units (design racking resistance of 4kN. The following bracing units are deemed to be satisfactory type 'B' braces
1. A pair of diagonal galvanised metal tension straps of minimum nominal dimension 30mm x 0.8mm in opposing directions on one side of timber frame. Ends of straps shall be bent over top and bottom faces of plates and fixed with four 3.15mm dia. x 30mm long galvanised flat head nails. Braces shall be fixed to stud edges with two similar nails to each crossing. End studs of braces section shall be strapped to top and bottom plates with 30mm x 0.8mm galvanised strap looped over plate and fixed to studs with four galvanised flat head nails 3.15mm dia. x 30mm long each end of loop.

2. A 900mm minimum wide panel of structural plywood as shown in figure (D). Fixed as follows:

Plywood stress grade F8	Stud spacing 450mm to be 7mm thick ply.	Stud spacing 600mm to be 9mm thick ply.
Plywood stress grade F11	Stud spacing 450mm to be 6mm thick ply.	Stud spacing 600mm to be 7mm thick ply.
Plywood stress grade F14	Stud spacing 450mm to be 4mm thick ply.	Stud spacing 600mm to be 6mm thick ply.

Fixing: 2.8mm dia. x 30mm long galvanised flat head nails at 50mm centres along top and bottom plates, 150mm centres along vertical edges and 300mm centres along intermediate studs.

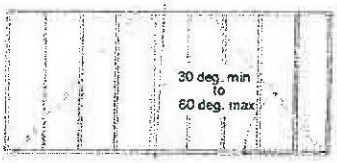


fig (A)

fig (B)

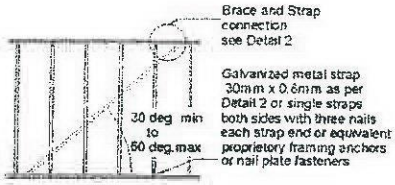


fig (C)

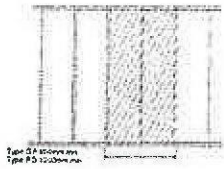


fig D

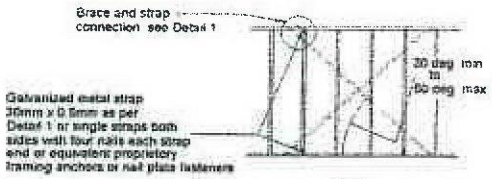
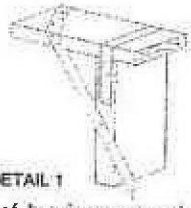


fig E



DETAIL 1

DETAIL 2

Diagrams as shown and explanation of the various types of bracings are not intended to specify bracing requirements for any timber frame construction. All bracing requirements for a particular design in timber framing must be determined in accordance with Section 8 of AS1684.2 or AS1684.4 as applicable.

TIEDOWN REQUIREMENTS: NCC Vol. 2 tables 3.4.3 Tie down requirements for timber frame construction can be determined from AS1684.4 Section 9 for maximum design gust wind speeds of 33m/sec. For wind speeds in excess of 33m/sec, design as per AS1684.2 is required.
Tie down fixings should be determined for the following connections:

a) bearers to piers
b) floor joists to bearers
c) Bottom plates to floor joists or concrete slabs
d) studs to bottom and top plates
e) rafters to top plates
f) rafters to ceiling joists
g) battens and/or purlins to rafters
h) collar ties to rafters
I) verandah plates and eaves beams to posts

NOTE: Special fastening requirements are required for type 'A' and 'B' wall bracing for connections (c) and (d) above.

CYCLONIC AND OTHER HIGH WIND AREAS NCC Vol. 2 part 3.10.1 or Vol. 1 part B1
Where buildings are to be constructed in regions B, C, and D as per AS/NZS1170.2 and AS1170.2 compliance with the AS1170.2 Minimum Design Loads on Structures or AS4055 Australian Wind Loads for Housing.
NOTE: High wind areas exist outside of cyclone regions B,C and D. Clarification of the category at the site should be sought from local authorities. Cyclonic Regions of Australia and Tasmania are shown on Map BCA fig. 3.10.1.4

STEEL CONSTRUCTION, FRAMING AND OR TRUSSES: NCC Vol. 2 part 3.4.2 or Vol. 1 part B1
MATERIALS: All framing sections shall be manufactured from galvanised steel conforming to AS1397. Galvanised materials up to 3.2mm thick shall have minimum coating mass of 200 g/m2. Design, fabrication and fixing shall be as per recommendations of the component manufacturer. Design for Residential and Low Rise Steel Framing may conform to NASH standard as alternative to AS3623.

FABRICATION AND ERECTION: All structural components fabricated into frames and/or trusses and shall be cut accurately to length to fit firmly against abutting members and held so until fastened. Studs shall be seated squarely in bottom plates with webs at 90deg. to the face of the wall and accurately located, plumbed and securely fixed to top and bottom plates. Multiple studs shall be used as specified at concentrated load points. Plates shall be securely spliced to maintain continuity. Splices in studs are not permitted. Structurally adequate heads shall be fitted over openings in walls. All frames shall be adequately braced for transport and resist wind loads in service. Preferred fastening is by MIG welding. All welds shall be cleaned and painted with zinc rich paint. The bottom plate shall be securely fastened to sub floor at centres as recommended and all site connections shall be as specified in design manual. Holes for electrical wiring, other cables and plumbing services shall be max. 33mm dia. flanged holes. Service pipes shall be effectively separated from framing by lagging and be securely fixed in cavities. Permanent electrical earthing of a steel frame building shall be carried out in accordance with the requirements of the local electrical authority. Where power tools are used on site, temporary earthing to the frame shall be made during construction. On completion of framing all debris shall be removed from cavities and bottom plates. Domestic metal framing shall be designed to comply with the load combinations as per AS3623.

STRUCTURAL STEEL - NCC Vol. 2 part 3.4.4 or Vol. 1 part B1: All steel work is to be fabricated to details as shown on engineers drawings and in accordance with AS4100 Steel Structures or AS/NZS 4600 Cold-formed Steel structures. Corrosion protection of built in structural members such as lintels, shelf angles, connectors etc., (other than wall ties) are to be in accordance with AS3700 or AS 4773 parts 1 and 2.

PURLINS AND GIRTS: To roof and walls of building provide purlins and girts as required according to engineers details. Cover roof and walls of building in full length sheets complete with all necessary flashings, cappings etc. Secure as recommended by manufacturer and provide panels of selected translucent sheeting as indicated or directed.

ROOFING – NCC Vol. 2 part 3.5.1 or Vol. 1 part F1.5
TILE ROOFING: Provide all roofs with first quality roofing tiles. Where the pitch of rafters is less than 20□, the roof shall be sarked with either 2 ply bituminous felt or double faced aluminium foil covered reinforced fabric as per AS/NZS 4200. Between 12 and 15 degrees slope, perimeter of roof shall be provided with an anti ponding board or device to ensure that all water will be discharged into eaves gutter, a clear space must be provided between edge of the device and the lowest side of the first batten so as to allow a free flow of water into the gutter. . Where one section of the roof discharges into a lower section, the discharge is to be widely distributed, and the roof is to be fully sarked. Elsewhere, where a spreader is used the roof shall be sarked from the point of discharge to Eaves with a minimum width of 1800mm approved sarking. Cover all ridges and hips with capping, starters and apex caps necessary and bed all capping and verge tiles on lime mortar and point with coloured cement mortar.

TERRA COTTA TILES: To be glazed and manufactured in accordance with AS 2049. To be fixed to battens in accordance with AS2050.

CONCRETE TILES: To conform to AS2049, AS4046 and AS2050 and to be produced by manufacturers who provide a comprehensive guarantee. Tiles are to have an end lap of not less than 75mm. Fixing to be as per AS2050.

FIXING ROOF TILES: NCC Vol. 2, fig. 3.5.1.1 defines the areas and fastening requirements for all tiled roofs in any area with a Design Wind Speed up to and including **N3**. Specific requirements now exist within a **1.2m** band parallel to ridges, hips, edges and barges extending towards the field of the roof.

CORRUGATED FIBRE CEMENT ROOFING: To conform to and fixed in accordance with AS1562 Pt.2. Minimum pitch of roof is to be 1:8 for large corrugations and 1:11 where the rafter length can be covered with a single sheet. Where pitch of roof is less than 1:6 in the case of large corrugations and 1:4.5 in the case of small corrugation end laps shall be at least 225mm and sealed. Sheets to be fixed with galvanised round head screws and felt washers set in mastic to each run of battens with side and end laps or other approved method in accordance with manufacturers instructions. All necessary accessories are to be provided and the roof is to be adequately birdproofed.

PROFILED STEEL ROOF: NCC Vol. 2 part 3.5.1 All metal sheet to be material as nominated on drawings. All necessary accessories to be provided and fixed according to manufacturers recommendations. Roof is to be bird proofed. Sheet fixings and spacings are to be strictly as per manufacturers recommendations for the design wind speed for the area. Design and installation shall be in accordance with AS/NZS 1562. Cover roof of building in full length sheets complete with all necessary flashings and cappings etc. Secure as recommended by manufacturer and provide panels of selected translucent sheeting as indicated or directed.

SARKING: Where sarking is specified or required by any authority the selection of and fixing shall be in accordance with the code of practice as specified in AS/NZS 4200 for pliable roof sarking or reflective foil laminates. All installations must comply with the requirements of NCC Vol. 2 part 3.7.4. and AS3959 in Bushfire prone areas.

FLOORING

T & G STRIP FLOORING: Flooring shall be seasoned and stored in a way to preserve its delivery condition. Flooring boards shall be laid in straight and parallel lines with tongues fitted into grooves and cramped together with pressures suited to moisture content and seasonal conditions. End joints shall be made on a joist and joints in adjoining boards shall be staggered. Flooring shall be kept 12mm clear of walls or wall plates parallel with the direction of laying. Boards of normal width of 75mm and less shall be fixed with one nail at each joist and boards over 75mm shall be fixed with two nails at each joist. Nails in faces of boards are to be well punched to allow for subsequent sanding and stopping. Boards profiled for secret nailing are to be skew nailed through tongues at each joist with nail punched to permit the full entry of the tongue into the groove. Flooring is not to be cut in and fixed before roofing is complete, external walls sheeted or lined and all external openings covered.

SHEET FLOORING: The minimum height of sheet flooring above ground level and under-floor ventilation shall be in accordance with manufacturers instructions or as required by Council or Lending Authority.
Where sheet flooring is used in platform construction and a decorative finish is required it shall be sealed with a water repellent at time of fixing.
STRUCTURAL PLYWOOD: shall be manufactured in accordance with AS2269 and sheets stamped on the face side with manufacturers name or trademark. Sheets shall be fixed in accordance with manufacturers instructions as approved.
PARTICLE BOARD: Approved board bonded with phenolic resin to achieve a type 'A' bond as defined in AS/NZS4785 for plywood may be used in platform construction or as fitted flooring. Boards shall be fixed in accordance with manufacturers instructions. The perimeter of flooring should be fully supported by joists or noggins. Other approved particleboard may be used providing it is a minimum of 2100mm above the ground.
COMPRESSED FIBRE CEMEMT: Sheet flooring not less than 18mm thick with density of not less than 1.8g/cm3 may be used in lieu of suspended concrete floors. Sheets shall be fixed in accordance with manufacturers instructions adequately flashed and suitably finished.

ELECTRICAL INSTALLATIONS: Provide all labour and materials necessary for the proper installation of electrical services in accordance with the appropriate AS Rules and requirements of the Local Supply Authority. Arrange with the supply Authority for connection from supply main to meter board. Provide for the proper installation and connect electricity stove/s and hot water unit/s. Provide light and power points as indicated on drawings or as directed and in accordance with AS/NZS1680. Provide box to enclose meters in accordance with the requirements of the Authority concerned. Arrange for inbuilt wiring for telephone, television, computer and security installation as required. AS/NZS 3000 specifies the minimum requirements including safety provisions.

LIGHTING; NCC Vol. 2 part 3.8.4, Natural lighting must be provided to all habitable rooms of buildings by windows or roof lights or a proportional combination of both, or by light 'borrowed' from an adjoining room. Windows must have a clear aggregate light transmitting area of not less than 10% of the room floor area, and face a court or open verandah/carport. If facing the boundary of an adjoining allotment, must be 900mm min. from that boundary. Roof lights must have a clear aggregate area of not less than 3% of the floor area of the room and face the sky. 'Borrowed' light can be supplied by a clear glazed panel or opening that is not less than 10% of the floor area of a room supplying the light if that room complies with the natural light requirements. Artificial lighting of one light fitting per 16 sq. metres of floor area must be provided to sanitary compartments, bathrooms, airlocks, showers etc. in accordance with AS/NZS 1680.0 if natural lighting cannot be supplied.
Natural and artificial lighting in buildings other than Class 1 and 10 must comply with NCC Vol. 1 part F 1.4 or Deemed to Satisfy provisions as per part F4.0.

SMOKE DETECTORS/ALARMS: NCC Vol. 2 part 3.7.2 Fire/smoke detectors complying with the requirements of the Local Government Act and/or state or territory regulations must be fitted in the locations required and approved by the regulatory authority and shall be installed in accordance with AS3786. Installations in buildings other than Class 1 and 10 must be installed and managed to comply with NCC Spec. E2.2a.
Multiple alarms within houses and sole occupancy units must be hard wired and interconnected.

LIGHTNING PROTECTION: Where lightning protection is specified by the proprietor or required under regulatory provisions it shall be installed in accordance with AS1768.

EXTERNAL WALL CLADDING NCC Vol. 2 part 3.5.3

WEATHERBOARDS OR PROFILE SHEETING: Shall be fixed and flashed in accordance with manufacturers instructions and to the satisfaction of the lending authority. Weatherboards with laps as specified by the relevant AS shall be hardwood, pressure treated radiata pine or slash pine, cypress pine, baltic pine or western red cedar. Western red cedar used externally shall be fixed with galvanised or cadmium plated fasteners. Boards exceeding 100mm in width shall be double fastened at all bearings. All boards shall be primed or sealed all around including rebates and ends before fixing. Where vertical boarding is used it shall be fixed to battens at not more than 600mm centres and sarking acceptable to the lending authority placed behind the battens to provide air space and fixed to the frame work with adequate provision for discharge of moisture. External boarding shall be in one length or have joints specially designed for external use.

FIBRE CEMENT: Flat Sheeting: Fibre cement sheeting shall be not less than 7.5mm thick and close jointed to full height of walling. Horizontal joints shall be flashed with 0.42mm galvanised steel turned up 13mm against stud faces and down 12mm over sheet faces, lapped 25mm at joints. Internal angles of walls shall be flashed with 38mm x 38mm x 0.42mm minimum base thickness galvanised steel angles or bitumen coated metal flashing to full height of studs and lapped 50mm at joints. All vertical and horizontal joints and angles shall be covered with timber, fibre cement mouldings as approved by the lending authority. Trimmers of not less than 75mm x 38mm timber shall be provided between ends of floor bearers to support lower edge of sheeting.

PROFILED METAL SHEETING shall be fixed and flashed in accordance with the manufacturers instructions and comply with AS1562.1.

HARDBOARD: Sheets shall not be less than 9.5mm thick as per AS/NZS 1859.4 and fixed in accordance with NCC Vol. 2 Table and Figure 3.5.3.1

INTERNAL LININGS: Line all internal walls not specified as otherwise with Gypsum plasterboard fixed horizontally in full length sheets, or with staggered end joints to ceiling height. Sheets to have recessed edges and thickness as recommended by the manufacturer for the stud, batten or support spacing. Fixing is to be with galvanised clouts, manufacturer approved screws and/or approved adhesive and be strictly in accordance with manufacturers instructions. Set all internal angles. Note: Where below 1200mm in laundry, bathroom and W.C. and at back of kitchen sink unit and below 1800mm in shower recess, only approved water repellent sheet shall be used. Note: Adhesives must not be used to fix sheets in tiled areas.

CEILING LININGS: Provide Gypsum plasterboard to all internal ceilings unless otherwise specified. Sheets to have recessed edges and to be 10mm thick when fixed to ceiling battens/joists spaced at not more than 450mm and 13mm thick for 600mm spacings. Fixing is to be with galvanised clouts and/or approved adhesive and is to be in accordance with manufacturers recommendations as approved. Provide selected cornices, neatly mitred, properly fixed and scrimmed and set at all joints in full wall lengths where practicable. Gypsum plasterboard for ceilings and walls shall be as per AS2589. Sheets of different thickness may be used at other spacing where their manufacture and installation complies with the Deemed to Satisfy Provisions as required.

PLASTER AND RENDER: As required to all brick walls not specified as feature brickwork or otherwise. All brickwork to be well wetted before plastering is commenced. Point up all flashings externally with cement mortar and make good as required after other trades.

JOINERY: Joinery timber is to be of species seasoned and free from those defects that might effect its appearance and/or durability. All to be DAR accurately cut and fitted, properly mitred and scribed as required and securely fixed. All surfaces to be left free of mill marks or other defects, filled where necessary and ready for painting or staining. Where wood plugging is required it shall be a suitable species properly seasoned.

DOOR FRAMES – BRICK BUILDINGS: Shall be at least 100mm x 50mm solid rebated properly dowelled to thresholds. Mullions shall be 75mm thick and double rebated.

JAMB LININGS – INTERIOR DOORS ALL BUILDINGS, EXTERIOR DOORS TIMBER FRAMED AND BRICK VENEER:
Linings shall be a minimum of 38mm thick solid rebated to all door openings. Where return plaster reveals occur linings shall be 75mm x 50mm rebated. In brick veneer and timber framed construction 12mm clearance shall be provided over jamb linings to external openings. Linings to openings not having doors or to have swing doors are to be 25mm thick timber. Other proprietory linings may be approved by the owner.

DOORS: Fit accurately to door frame. Hang external doors with three 88mm steel butts and internal doors unless otherwise specified with two 88mm steel butts. External doors shall not be less than 2040mm x 820mm x 40mm thick. Where sheeted with plywood, waterproof plywood only shall be used. All framed glazed doors (external or internal) shall be minimum of 40mm thick. Internal doors shall be minimum of 35mm thick and free of warping.

PROTECTION OF OPEN-ABLE WINDOWS: (Against Falling From) NCC Vol. 2 part 3.9.2.5, NCC Vol.1 part 2.2c: If a floor or exterior surface is 2m or more below a window in a bedroom, the window must comply with the following:- 'the open-able portion of the window must have a device to restrict the opening, or a screen with secure attachment fittings'. The window and or screen is to comply with the requirements of NCC Vol. 2 part 3.9.2.5 (a) and (b)'. If the lowest level of any window opening is greater than 1.7m above the room floor, no protection is required.
Open-able windows in a bedroom with a floor level greater than 2m above an exterior surface level below must have a barrier or wall with a height not less than 865mm above the room floor with no horizontal climbing elements.
In a room where the room floor under an open able window is 4m or more above an exterior floor or surface beneath, special conditions apply NCC Vol. 2 part 3.9.2.5 (c) and (d).

WINDOWS : All framed windows shall be installed in accordance with AS2047-48 for Aluminium windows and AS2047 for timber windows.

STAIRS, HANDRAILS AND BALUSTRADES: NCC Vol. 2 parts 3.9.1 and 3.9.2 Stairways shall be constructed to the layout as shown on plans with treads of equal dimensions except where shown or where winders are required. All risers in any flight shall be of equal height. All flights shall have a minimum of 2 and not more than 18 risers. Relationship of riser to going shall be between 1:2 and 1:1.35 unless otherwise directed or as permitted in AS1657. Balustrades shall be provided to all landings, ramps, decks, roofs and other elevated platforms where the vertical distance from that level is more than 1 metre above the adjoining floor or finished ground level. Height of the balustrade must be a minimum of 1 metre above landings etc. and not less than 865mm above the nosings of any stair treads or floor of a ramp. Openings in balustrades (decorative of otherwise) and space between treads, e.g. riser opening must not allow a 125 mm dia. sphere to pass through. Resistance to loading forces of a balustrade must be in accordance with AS 1170. Where balustrades are constructed of tensioned wires provision shall be made to maintain the wire tensions.

ACCESS AND MOBILITY: Where access and mobility requirements are to be addressed in the construction of a new building, AS1428 General Requirements for Access – New Building Work contains the minimum design requirements to enable access for people with disabilities. The design must comply with 'Access to Premises Standards 2010' as referenced in the NCC. A link for advice on the 'Disability (Access to Premises)- Building Standards 2010' can be found at **www.wst.tas.gov.au/industries/publications.**
SEE –NCC Vol. 2 : South Australian appendix additions 5.1 and 5.2: Access for Disabled People as listed on page 13 of this specification.

SLIP RESISTANCE: Materials to be used for surfaces of floors, stair landings, steps and nosings shall be in accordance with the classifications for Slip Resistance as apply in AS4586 and HB 198.

PLUMBING AND DRAINING: National Construction Code Vol. 3 PCA (Plumbing Code of Australia)

EAVES GUTTERS VALLEY GUTTERS AND DOWNPIPES: Eaves gutters and downpipes of material and finish as nominated on drawings shall be installed as per manufacturers specification to all eaves as required with falls to downpipes in positions shown. All items shall be of material compatible with roof covering and to comply with AS/NZS 2179 for metal and AS1273 for UPVC components.

FLASHINGS: Flash around chimney stacks, exhaust flues and wherever else required with approved flashings dressed well down onto roof slopes and taken vertically at least 75mm. Eaves gutters, valleys and roof flashings shall be selected from materials compatible with each other and the roof covering to prevent bi-metallic corrosion. (See BHP publications TB8, TB15). Use of lead for flashings, gutters, downpipes and roofing is prohibited if the roof will collect potable water. NOTE: Where ridge and hip tiles are fixed with proprietary mechanical clips NCC Vol. 2 fig. 3.5.1.1 and fig 3.5.1.2 shows details for mechanical fastening-ridge clip and dry or pointed valleys and hips.

WATER SERVICES: Where a reticulated water supply is available all work shall be carried out by a licensed water plumber. All water supply installations shall be carried out in accordance with National Construction Code Vol. 3 (APC).

RETICULATED RECYCLED WATER: Where a utility supplied reticulated recycled water supply is connected as a dual reticulation it is important that no cross connection between the potable and recycled water can occur. There must be at least one external tap for each system and the recycled water system must have lilac coloured components. Identification markings and signage shall be installed as per AS1319 and AS1345. Recycled water cannot be used for human consumption or contact, household cleaning, personal washing or irrigation where fruit and crops are eaten raw or unprocessed.

WET AREAS: NCC Vol. 2 part 3.8.1: Building elements in wet areas must be water resistant and/or waterproof as listed in table 3.8.1.1 of the NCC Vol. 2 and constructed in accordance with AS3740. Water resistance or Waterproofing varies in respect of different building elements such as:- floors and horizontal surfaces, walls, wall junctions and joints, wall and floor junctions and penetrations.

See – NCC: South Australia appendix additions 3.1 and 3.2: Wet area floors as listed on page 13 of this specification.

HOT WATER SERVICE: All installations must comply with AS3500.4 Provide from H/water unit with selected tubing to points necessary. Terminate with taps selected. Provide inlet stopcock to hot water unit. Storage water heater selection and installation is to be as per AS1056.

GAS SERVICE: The whole of the work is to be carried out as per requirements of the Local Supply Authority. The plumber is to be responsible for the gas service from boundary alignment, including fixing of the meter and cover for same. Installations for bottled gas supply shall comply with the relevant standard. Gas installations shall comply with 'Gas Safety Regulations and Act' and AS5601.

HEATING APPLIANCES NCC Vol 2 part 3.7.3: Domestic type Oil, Gas and Solid Fuel heater installations shall comply with AS/NZS2918 'Domestic solid fuel burning appliances – Installation': Installation of gas fired appliances shall be carried out by a licensed gas plumber.

SEWERED AREAS: Provide a drainage system from pedestal pan and from wastes of all fittings unless a grey water system is to be installed and connect to the sewer main, where shown on site plan all to be in accordance with the rules and requirements of the Authority for Water Supply and Sewerage. Provide at least one gully outside the building. The Authority Certificate to be produced at Completion of the Work.

UNSEWERED AREAS: Provide a drainage system from all fittings and from grease trap in accordance with the requirements of the Local Authority concerned. Excavate for drains to provide even falls throughout and a minimum cover of 300mm. Lay 100mm socketed vitrified clay, P V C or HDPA pipes to take discharge from wastes of washtubs, bath, shower, washbasin and grease trap. All pipes to be completely jointed with rubber rings or solvent cement as approved. All drain lines to be laid so that water is discharged into an absorption trench provided in position shown on plan. Provide an approved grease trap with lid in position shown to take the water from kitchen sink. Top of trap to be 75mm above finished ground or nearby concrete paving level. All drainage work from fittings to the drainage line outside the building is to be in accordance with the rules and requirements of the Water Supply and Sewerage Authority for sewered areas. The Authority 'Special Inspection' Certificate of the work is to be produced by the builder. All plumbing and drainage shall be in accordance with the Code of Practice for state or territory and regulating local government area.

GREYWATER REUSE SYSTEMS:
Where a greywater reuse system is proposed the installation shall comply with the following Australian Standards and Codes: AS1546 parts 1 and 3: AS1547: NSW Health 1998 AWTS guideline: NSW Health 2000 Domestic greywater treatment guidelines and sewered single domestic premises. An on site greywater reuse system is not permitted in Reticulated Recycled water areas. Domestic Greywater Treatment Systems (DGTS) and Aerated Wastewater Treatment Systems (AWTS) require a certificate of accreditation from NSW Health.

SEPTIC SYSTEM: Provide and install septic system in position nominated by the proprietor together with a holding tank and length of absorption trench installed in accordance with the manufacturers instructions and the requirements of the Local Authority to comply with AS1546 part 1.

STORM WATER TREATMENT METHODS: Provide roof water drains from downpipes and from grates in paving where shown on site plan. Drains to be 100mm socketed vitrified clay pipes or PVC laid to an even and regular fall so as to have a minimum cover of 150mm. Drains to discharge into street gutter where possible. Where outlets are shown within the site they are to discharge at least 3000mm clear of the building into rubble packing 600mm diameter and 600mm deep. Acceptable solutions for stormwater drainage to be as per AS/NZS3500 part 3. Stormwater treatment systems should satisfy the following performance requirements:-

1. Conserve Water 2. Prevent Increases In Flooding/Erosion 3. Maintain water balance 4. Control Stormwater Pollution.

Systems suitable for detached dwellings are:- Roof/rainwater tanks: Detention devices: Infiltration devices and Filter strips. These are also suitable for multi-dwelling developments in addition to Stormwater tanks and Bio retention devices.

RAIN WATER TANKS: Install rainwater tanks of selected material on slab or support as nominated by tank manufacturer. Rainwater tanks may be trickle topped up (max. 2litres/minute) from a potable water supply main and internally reticulated. A dual supply system should have no direct or indirect connection between the mains potable supply and the rainwater tank supply. In ground concrete tanks may be installed as an option with a suitable pressure pump and a testable backflow prevention device as per AS/NZS2845.1 Where an above ground tank is connected to internal reticulation, a meter with a dual check valve is to be installed and a visible air gap between the mains supply and the rainwater tank as per AS3500 and AS2845.2.1. (See NSW Health circular: Use of rainwater tanks where a reticulated mains water supply is available).

See -: NCC: SOUTH AUSTRALIA appendix additions SA 2.1 and 2.2: Water efficiency as listed on page 13 of this specification.

DRAINS FROM UNDER BUILDINGS: NOTE- AS 2870: All stormwater, sanitary drainage or other discharge pipes emerging from under a building footing or slab or attached to a building shall have a flexible joint incorporated into the pipework outside the footing or slab and within 1 metre of the building perimeter.

NOTE: Drain pipes must not be taken through the footings of the building. All seepage and soakage water is to be effectively dealt with and diverted clear of the buildings as shown on site plan. Trenches for drains, where running parallel to the building must not be within 600mm of the footings of the building.

WALL AND FLOOR TILES: For guidance on installation of ceramic tiles see recommendations as set out in AS3958 parts 1 and 2.

WALLS: Cover the following wall faces with selected glazed tiles:
To bathroom generally to a height of 135mm.
To bath recess: to a height of 1350mm.
To shower recess to a height of 1800mm.
To enclosing of bath and hobs
To WC to height of one row of tiles or as directed

Above kitchen sink/s and cooking area/s allow for four rows tiles. Finish at top and salient angles with round edge tiles. Provide vent tiles and selected recess fittings. Tiles to be fixed to a backing of Fibre Cement with approved adhesive. Areas for tiles can be increased by proprietors direction or as noted on plans.

FLOORS: Cover floors of bathroom, shower recess, WC and ES with selected tiles, set in cement mortar or approved adhesive and graded to give an even and adequate fall to floor waste.

PAINTING: All paints, stains, varnishes and water colours are to be of approved brands as selected. Materials used for priming and undercoating are to be the same brand as the finishing paints or as recommended by the manufacturers of the finishes used. All finishing colours are to be selected by the proprietor. Do all necessary stopping after the priming has been applied. Rub down all surfaces to a smooth finish prior the application of each successive coat of paint. External joinery or other exposed woodwork to have a clear plastic finish is to be treated with a priming oil containing wood preservative and a water repellent.

EXTERNALLY: All external woodwork to be given one coat of primer, one coat of oil based undercoat and one coat of gloss finish enamel or to be given one coat of clear primer, one coat of flat clear plastic and one coat of clear plastic.

PRIMING WEATHERBOARDS: Any pine is to be primed all round as well as on the ends. Before fixing; hardwood, cypress pine, radiata pine and oregon are to be primed on external faces including rebates. Pressure treated Canada pine is to be primed at ends before fixing.

IRONWORK: Eaves, gutters, downpipes, exposed service pipes and wrought iron etc. to be cleaned and primed and give one coat of gloss paint all round.

FIBRE CEMENT: Clean and prepare all external fibre cement surfaces and finish with two coats of water based paint.

INTERNALLY: All exposed woodwork in kitchen, bathroom, laundry WC EC to be prepared primed and then given one undercoat and finished with one coat of full gloss paint or to be stained and finished with two coats of clear liquid plastic as selected.

CEILINGS: To be given one coat of sealer and two coats of paint. The finishing coat of bathroom, laundry, and kitchen ceilings to be semi- gloss (unless directed otherwise).

WALLS: All rooms except bathroom, laundry and kitchen to be given one coat of sealer and two coats of water based paint. To bathroom, kitchen, WC EC and laundry where no tiled or pre surfaced material is required, walls are to be given one coat of sealer, one coat of undercoat and one coat of gloss oil paint system.

GLAZING: NCC Vol. 1 parts B 1.4, D 3.12, F 1.13 or NCC Vol. 2 part 3.6
All sashes, doors, fixed lights and other glass in building shall be selected and installed by procedures as set out in AS1288 and/or AS2047 for type, thickness and area of glass according to wind loading, human impact and other considerations for glazing in frames of timber, steel, stainless steel, aluminium and bronze according to type of frame, height of building and glazing compound and for design and glazing of unframed toughened glass assemblies. Specific attention should be made to the selection of frame materials, glazing, location in walls and orientation to the path of the sun for various climate zones. Where windows are not shaded by roof eaves or other building projections, advice by an approved specialist or manufacturer should be sought to ensure that all installations comply with the Energy Efficiency requirements of the NCC. (Or BASIX in NSW).

FENCING: Provide paling fence 1500mm height to side and rear boundaries. Posts to be 125 x 50mm in sawn approved durable hardwood, morticed for two rails and sunk into ground 600mm at maximum of 2700 mm. Posts at angles in fencing to be 125mm square. Well ram around posts. Where rock is encountered posts are to be set in concrete. Fit two rows of 75 x 50mm hardwood rails into mortises. Cover framing with hardwood palings. Double nail to rails at top and bottom. Cut line at top and top corners. All timber in ground or concrete to be well tarred or treated with an approved preservative. Allow for repairing any existing recommendations of the manufacturer. Provide front fencing as directed

SWIMMING POOLS: Swimming pool access is to comply with NCC Vol. 2, F 2.5.2 (a) and (b) in conjunction with the Swimming Pools Act 1992 and Swimming pool Regulation 2008. This applies to any wading pool, spa, or swimming pool with a depth of water exceeding 300mm. See AS1926 'Swimming Pool Safety-Safety Barriers for Swimming Pools'.

See- NCC AUSTRALIAN CAPITAL TERRITORY appendix addition ACT 6.1: Pool construction as listed on page 13 of this specification.

See- NCC TASMANIA appendix additions TAS 2.1 and 2.2: Reticulation and filtration as listed on page 13 of this specification.

ALPINE AREAS: For buildings to be constructed in an alpine area, compliance with the requirements of NCC part 3.7.5. is required. Alpine areas are areas above Australian Height Datum (AHD) as follows:- NSW, VIC, ACT above 1,200 metres AHD. TASMANIA above 900 metres AHD. For sub alpine areas where significant snow loads may occur see BCA fig. 3.7.5.2. Where snow loads may be applied to a building design according to AS1170.3 is required. (see NCC 3.11.3)

CLIMATE ZONES: Climate Zone classifications for various localities are shown in NCC Vol. 2 2014 Table1.1.2. Thermal design requirements for climate zones should be as per NCC fig. 1.1.4

EARTHQUAKE: Earthquake probability shall be determined according to NCC Vol. 2 part 3.11.3 and loading requirements are to be designed to comply with AS1170.4

LANDSCAPING: The area to be landscaped shall comply with the landscape plan and requirements of the Local Council Authorities. Appropriate landscape design will reduce water usage in lawns and gardens by up to 50%. Selection of native indigenous plants suited to the local micro climate along with exotic species from California, South Africa and the Mediterranean will normally require minimal maintenance and water use. *(BASIX website: see table D.2.1 for indigenous plants in various local government areas for NSW use).*

CAR PARKING: All car parking and loading bays to be kerbed, guttered, sealed, drained, line marked and landscaped. Drainage of surface water into neighbouring properties is NOT permitted except where an easement is obtained. All car parks shall comply with the provision of Local Council Authorities.

COMPLETION: The building shall be completed in every trade. Sashes, doors, locks and all other equipment shall be checked and left in a satisfactory operating condition. Timber floors shall be at least rough sanded. Where fine sanding is specified see CA39: Code of practice for sanding interior wooden floors. All plant, surplus materials and rubbish is to be removed from site. Gutters and drains shall be cleared and the building generally to be left clean and fit for occupation.
The Builder is to furnish the Owner with:

1. Notification of Completion
2. All Keys for all doors
3. Certificate of termite protection treatment
4. Certificate from Sewerage Authority re-sanitary drainage
5. Invoices for all PC items required

It is the responsibility of the builder to arrange any inspections necessary by Local Council, Waterboard or Lending Authorities and/or Principal Certifying Authority.
It is the responsibility of the Owner to apply to Local Supply Authorities for connection of Electricity from mains to meter box.

APPENDIX ADDITIONS OF NCC Vol. 2 AS APPLICABLE FOR SEPARATE AUSTRALIAN STATES

AUSTRALIAN CAPITAL TERRITORY

ACT 2.1	Regulatory provisions for control of litter that can be blown around and off building sites.
ACT 2.2	Construction practice for storage and subsequent regular removal of building waste from project sites.
ACT 3.1	Performance provisions for access, hygienic and safe storage of solid waste if stored in an occupied building prior to collection. Design of areas, screening, disposal and logistics commensurate with the building use must be addressed.
ACT 3.2	Requirements of ACT 3.1 can be satisfied if garbage facilities comply with the Development Control Code for Best Practice Waste Management in the ACT.
ACT 6.1	In addition to the requirements of NCC Vol. 2 part 3.9.3 the type of pumps, means of egress, emptying and backwash facilities are required for indoor and outdoor pools with a volume greater than $10M^3$.

NEW SOUTH WALES

	Class 1 buildings must have (if BASIX does not apply) Thermal Breaks between metal framing and cladding of a minimum thickness to reduce energy loss.
P 2.6.1 (b)	A building must have a level of sealing against air leakage to facilitate the efficient use of energy for artificial heating and cooling appropriate to use, internal environment and location of the building.

SOUTH AUSTRALIA

SA 2.1 and 2.2	Applies to new buildings and extensions to Class 1 buildings. Where a roof catchment is over $50M^2$ the building must have an additional water supply other than mains supply plumbed to water closets, laundry cold water outlets and water operated heaters. Requirements exist for tank volume, stands and mosquito proof non- degradable inlet screens.
SA 3.1 and 3.2	Wet areas are to be self draining, fitted with floor wastes and have specified grades. Exemptions apply if vessels have inbuilt overflow protection or permanent open trapped waste connections.
SA 5.1 and 5.2	Requires safe and dignified access to buildings and services and facilities within the buildings and safe routes from road boundaries for wheelchair use. Where Class 1 buildings require Disabled Access; paths of travel must not include stairs or impediments and the building layout must include one closet pan, washbasin and shower for disabled persons.
SA 6.1	Space between buildings must be sufficient to allow safe access for inspection and maintenance to prevent harbouring vermin, create a fire hazard or bridge termite barriers. SA 6.2 lists required set-backs and minimum access widths.

TASMANIA

TAS 1.1	Fire safety objective to prevent spread of fire from burning airborne embers by provision of non combustible roof coverings. TAS 1.2 lists recommended materials to comply with the requirements of TAS 1.1.
TAS 2	Applies to swimming or wading pools with a volume of $15M^3$ or more and a depth exceeding 300mm.
TAS 2.1	Pools must be provided with an adequate circulation, filtration and disinfection system that is safe to use.
TAS 2.2	Provides details of a satisfactory system to comply with the requirements of TAS 2.1 and lists circulation frequency and minimum operational times .

WESTERN AUSTRALIA

WA 2.1	Potable water meaning and definition is described in the Water Efficiency Labelling and Standards Act 2005.
WA 2.2	Performance requirements list water use efficiency, water loss prevention and hot water use efficiency and features requirements appropriate to geographic location, availability and function of the building. This applies to Class 1 buildings, associated Class 10a buildings and associated swimming pools.
WA 2.3	Lists acceptable construction with **WELS** ratings for tap fittings, shower heads and sanitary flushing systems. Swimming pool covers and blankets designed to reduce evaporation and accredited to the requirements of the Smart Approved Water Mark Scheme are to be used. Heated water use efficiency requires that all outlets and pipes are installed in accordance with AS/NZS 3500 Plumbing and Drainage Part 4 Heated Water Services and NCC Vol 3 (PCA) as applicable.

BASIX: The Building Sustainability Index. – NSW (only)

For Class1 and 10 buildings subject to BASIX, the NCC energy provisions of Part 2.6 and Part 3.12 of NCC BCA 2009 as varied by the NSW Appendix are applicable. The National House Energy Rating Software (NatHERS) now requires Class 1 buildings to have a 6 Star Rating.

A BASIX Certificate must be submitted with a Development Application, Complying Development Certificate and Construction Certificate Application for all of NSW for new homes and for some alterations and additions.

Data required to Complete a BASIX Assessment is described in the BASIX Data Input checklist and this should be used in conjunction with the BASIX Assessment Tool.

Generation of a BASIX Certificate can only be made in the NSW Department of Infrastructure , Planning and Natural Resources BASIX website www.basix.nsw.gov.au

ADDITIONAL BUILDING REQUIREMENTS: All instructions for work extra to that shown on the plans or additional requirements must be in writing. Verbal instructions must be confirmed in writing, dated and signed by the Owner and the Builder with a copy held by each.

This is the specification referred to in the contract between.....OWNERS

and .....BUILDER

Dated...../...../.....

.....OWNER .....BUILDER

BUILDERS LICENCE No.....

MASONRY CONSTRUCTION	Clay Bricks ☐	Face ☐	Commons ☐	Stone ☐
	Concrete Bricks ☐	Concrete Blocks ☐	AAC Blocks ☐	AAC Panels ☐
	Rendered ☐	Bagged ☐	Painted ☐	.....
MORTAR JOINTS	Colour.....	Ironed ☐	Flush ☐	Raked ☐
SILLS	Brick ☐	Quarry Tiles ☐	.....	
EXTERNAL WALL SHEETING	Timber Cladding ☐	Fibre Cement Cladding ☐	Metal Cladding ☐	PVC/Vinyl ☐
	Type.....	Type.....	Type.....	Type.....
FLOOR CONSTRUCTION	Timber ☐	Concrete ☐	Pre.Str. Beam Floor ☐	Steel ☐
FLOORING	T & G ☐	Species.....	Compressed FC Sheet ☐	Structural Plywood ☐
	Particle Board ☐	Tiles: Ceramic ☐	Terra Cotta ☐	Quarry ☐
DECKING	Treated Pine ☐	Other.....		
WALL FRAMES	Timber ☐	Hardwood ☐	Pine ☐	H.S.Galv. Steel ☐
	Structural Steel ☐	Off site prefabricated ☐	Onsite cut/assembled ☐	
ROOF CONSTRUCTION	Pitched Roof ☐	Exposed Rafters ☐	Oregon ☐	Hardwood ☐
	Roof Trusses ☐	Raked Ceiling ☐	Pine ☐	Steel Framing ☐
	Flat/Skillion ☐	.....	.....	
ROOF COVER	Concrete Tiles ☐	Terra Cotta Tiles ☐	Shingles/Slate ☐	Corrugated FC ☐
	Zincalume ☐	Colorbond ☐	Polycarbonate ☐	Profile.....
THERMAL INSULATION	Roof/ceiling ☐	Reflective Insulation Rating R.....	Bulk Insulation Rating R.....	
	Walls ☐	Reflective Insulation Rating R.....	Bulk Insulation Rating R.....	
	Floors ☐	Reflective Insulation Rating R.....	Bulk Insulation Rating R.....	
INTERNAL WALL LININGS	Gypsum Plasterboard ☐	FC Sheeting ☐	Timber Panelling ☐	Cement Render ☐
	Face Brick ☐	Other.....		
WET AREA LININGS	WR Gyp. Plasterboard ☐	Villaboard ☐	Timber Panelling ☐	Laminated Panel ☐
CEILINGS	Gypsum Plasterboard ☐	Timber Panelling ☐	FC Sheeting ☐	.....
CORNICE	Type.....	Size.....mm		
DOOR JAMBS	Timber ☐	Galvanised Steel ☐	..... ☐	
WINDOWS	Timber ☐	Aluminium ☐	Type/Manufacturer.....	
FLYSCREENS	Timber ☐	Aluminium ☐	Other ☐	
JOINERY	Timber ☐	Species.....	Stained/Polished ☐	Other.....
	Architrave Size.....mm	Skirting Size.....mm	Material.....	
	Kitchen Cupboards.....		Stained ☐	Painted ☐
	Front Door Type.....		Stained ☐	Painted ☐
	Other External Doors Type.....		Stained ☐	Painted ☐
	Internal Doors Type.....		Stained ☐	Painted ☐
	Garage Door Type.....		Size.....mm	Colour.....
EXTERNAL STAIRS	Timber ☐	Steel ☐	Concrete ☐	Brick ☐
INTERNAL STAIRS	Timber ☐	Steel ☐	Concret ☐	Brick ☐
	as manufactured by.....		Balustrade type	
ELECTRICIAN	**Provide:**	Light Points.....	Single Switches.....	Two way switches.....
		Power Outlets.....	Single.....	Double.....
		Light fittings.....	Smoke Detectors.....	Exhaust Fans.....
ROOF PLUMBER	Quad Gutters(size.....) ☐	Box Gutters ☐	Sheerline Gutters ☐	..... ☐
GUTTERS/DOWNPIPES	Downpipes 100 x 50 ☐	100 x 75 ☐	100 x 100 ☐	Round..... dia
	Colorbond ☐	PVC ☐	Copper ☐	Zincalume ☐
	Aluminium ☐	Galvanised ☐		
WATER SERVICE	Copper pipe ☐	PVC Pipe ☐	Flex. pipe system ☐	.....
RETICULATED RECYCLED WATER	All Reticulation Systems for Recycled Water must have Lilac Coloured components and markings.			
RAINWATER STORAGE TANKS	Type.....	Size.....(kl)	Nos.	Pressure Pump ☐
STORMWATER STORAGE TANKS	Type.....	Size.....(kl)		
HOT WATER SERVICE	Electric ☐	Gas ☐	Solar ☐	.....
	Mains Pressure ☐	Gravity Fed ☐	Cylinder capacity litres	
INTERNAL SEWER SERVICE	Copper ☐	PVC ☐		
DRAINER	Sewer connection ☐	Septic System ☐	Aerated System ☐	Greywater diversion ☐
	PVC pipes ☐	Vitrified clay pipes ☐	Copper pipes ☐	
FENCING	Brick ☐	Paling ☐	Rail ☐	Brushwood ☐
	Front Boundary ☐	Side Boundary ☐	Rear Boundary ☐	Colorbond ☐
	As manufactured by		Type	
POOL	Type.....	Inground ☐	Above Ground ☐	Pool Cover ☐

This Schedule is to be fully completed. Items applicable should be marked - items with blank spaces will NOT be included in the works

PROPRIETOR..... **BUILDER**..... **DATE** ...../...../.....

SCHEDULE OF RATES / P.C. ALLOWANCES AND MATERIALS

ITEMS	MODEL OR TYPE	PRIME COST
1. CONCRETE PIERS TO FOOTINGS		$
2. ROCK EXCAVATION: per cubic metre		$
3. AGRICULTURAL DRAINS: per lin. metre		$
4. STORMWATER		$
5. SEWER CONNECTIONS		$
6. CERAMIC TILES WALL $ ....PER M2 S/O		$
S/O=SUPPLY ONLY FLOOR $ ....PER M2 S/O		$
QUARRY $ ....PER M2 S/O		$
7. SEPTIC INSTALLATIONS		$
8. GREYWATER TREATMENT INSTALLATION		$
9. BATHROOM VANITY & CABINET		$
10. EN-SUITE VANITY & CABINET		$
11. BASIN		$
12. BATH		$
13. TOWEL RAILS		$
14. SOAP HOLDERS		$
15. MIRRORS		$
16. TOILET SUITES		$
17. SHOWER SCREENS		$
18. LAUNDRY TUB		$
19. STAINLESS STEEL SINK		$
20. KITCHEN CUPBOARDS		$
21. OVEN		$
22. HOT PLATES		$
23. STOVE		$
24. DISHWASHER		$
25. EXHAUST FANS		$
26. RANGE HOOD		$
27. HOT WATER UNIT		$
28. SMOKE/FIRE DETECTORS		$
29. PHONE WIRING/FAX WIRING		$
30. T.V. WIRING/COMPUTER WIRING		$
31. INTERCOM WIRING		$
32. SECURITY INSTALLATION		$
33. AIR CONDITIONING, SINGLE UNIT		$
34. INTERNAL VACUUM SYSTEM		$
35. FRONT GATE		$
36. FRONT FENCE		$
37. CLOTHES HOIST		$
38. CONCRETE PATHS per lin. metre		$
39. GARAGE DOORS (remote controlled)		$
40. LANDSCAPING (As per Design Supplied)		$
41. UNIT PAVING		$
42. RAINWATER TANKS		$
43. RETICULATED RECYCLED WATER SYSTEM		$
44.		$
45.		$
46.		$

Where there are additional items or different types of the same item a duplicate list should be added and agreed on by the proprietor and builder.

NOTE: The builder is to allow Prime Costs amounts of items set out in this Schedule above. All items to be selected by Owner. The Builders tender is to include the provision of all items, including the cost of cartage, freight, fixing and fitting as part of his contract. Adjustment for substituted fittings will be made on the basis of the prevailing retail price.

PROPRIETOR..... DATE ...../...../.....

BUILDER..... DATE...../...../.....

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Richard Evans

Subject: FW: Change of estimated costs

From: wadestreeter@hotmail.com [mailto:wadestreeter@hotmail.com]
Sent: Thursday, 14 April 2016 8:11 AM
To: Richard Evans <Richard@pcaservices.com.au>
Subject: Change of estimated costs

Hi Richard

I have altered the estimated cost of development to reflect the amended plans. The amended plans now do not include alterations and additions to create secondary dwelling.
Regards
Wade

---------- Forwarded message ----------
From: "**Hanne Topland**" <Hanne.Topland@ausure.com.au>
Date: Tue, Apr 12, 2016 at 6:15 PM -0700
Subject: Scan 2
To: "wade streeter" <wadestreeter@hotmail.com>

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Primary

BASIX® Certificate

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

Alterations and Additions

Certificate number: A241027_02

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

Director-General
Date of issue: Tuesday, 23, February 2016
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning & Infrastructure

Description of project

Project address	
Project name	Streeter_02
Street address	13 sydney Road warriewood 2102
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 15763
Lot number	44
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and does not include a pool (and/or spa).

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: Rapid Plans
ABN (if applicable): 43150064592

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
W1 ✓	N	1.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W2 ✓	N	1.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W3 ✓	E	2.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W4 ✓	E	2.5	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W5 ✓	S	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W6 ✓	S	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W7 ✓	E	1.5	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W8 ✓	S	0.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W9 ✓	W	3.6	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W10 ✓	N	0.9	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
D1	E	8.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
D2	W	8.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W15 ✓	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W16 ✓	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W17 ✓	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W18 ✓	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W19 ✓	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W20 ✓	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W21	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.

Richard Evans

From: wadestreeter@hotmail.com
Sent: Thursday, 14 April 2016 8:11 AM
To: Richard Evans
Subject: Change of estimated costs
Attachments: Scan.pdf

Hi Richard

I have altered the estimated cost of development to reflect the amended plans. The amended plans now do not include alterations and additions to create secondary dwelling.
Regards
Wade

---------- Forwarded message ----------
From: "**Hanne Topland**" <Hanne.Topland@ausure.com.au>
Date: Tue, Apr 12, 2016 at 6:15 PM -0700
Subject: Scan 2
To: "wade streeter" <wadestreeter@hotmail.com>

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Civil and Structural
Engineering

Stellen Consulting
Suite 2/93 Pittwater Road
Manly NSW 2095

PO Box 151
Freshwater NSW 2096

+61 450 460 496 tel
ABN 61 149 095 189

15 September 2015

Wade Streeter
13 Sydney Road
Warriewood NSW 2102

wadestreeter@hotmail.com

Certificate of Structural Design and Existing Structure Certification

Dear Wade,

In accordance with the provisions of Clause A2.2 of the Building Code of Australia, I hereby certify that design for the above project meets the requirements of the BCA, is in accordance with the relevant Australian standards and has been carried out with normal engineering practice. In particular the design is in accordance with the following:

AS/NSZ 1170.0	*Structural design actions: General principles*
AS/NZS 11701	*Structural design actions: Permanent, imposed and other actions*
AS/NZS 1170.2	*Structural design actions: Wind loads*
AS/NZS 1170.4	*Structural design actions: Earthquake loads*
AS 1684	*Residential timber framed construction*
AS 1720.1	*Timber structures: Design methods*
AS 2870	*Residential Slab and Footings*
AS 3600	*Concrete Structures*
AS 3700	*Masonry*
AS 4055	*Wind loads for housing*
AS 4100	*Steel Structures*

I am an appropriately qualified and competent person and can certify that the design and performance of the structures comply with the above noted codes and standards, as detailed on the following drawings:

S01 – General Notes
S02 – Slab and Retaining Wall Plan
S03 – Ground Floor Marking Plan
S04 – Ground Floor Details and Sections
S05 – Roof Plan and Details
~~*S06 – Granny Flat Plan and Details*~~
S07 – Wall Bracing Details

I also certify that the existing structure is able to sustain the alterations, additions and additional imposed loads when the proposed additions are constructed in accordance with the plans as noted above.

Kind regards,

Greg Zaccone
Principal Engineer
Chartered Structural Engineer NER 2794609

Stellen Consulting
Suite 2/93 Pittwater Road, Manly, NSW 2095
T. 0450 460 496
E. ian.warren@stellenconsulting.com.au

Stellen

ENGINEERS AUSTRALIA MEMBER

Stellen
Civil and Structural
Engineering

Stellen Consulting
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Manly NSW 2095

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+61 450 460 496 tel
ABN 61 149 095 189

15 September 2015

Wade Streeter
13 Sydney Road
Warriewood NSW 2102

wadestreeter@hotmail.com

Stormwater management plan for 13 Sydney Road, Warriewood

Dear Wade,

Please find attached the drawings describing the stormwater management plan for the proposed additions and alterations at 13 Sydney Road as described by Rapid Plans Rapid Plans drawings RP0815STR DA1001, DA1002, DA2001, DA2002, DA2003, DA2004, DA2005, DA3001, DA3002, DA3003, DA4001, DA4002, DA4003, DA4004, DA5001 dated 29/1/16.

The stormwater management plan is described in the following Stellen Consulting drawings:

P160141-DR-000-0

P160141-DR-001-0

P160141-DR-002-0

The stormwater management plan conforms to the requirements of:

Australian Standard AS3500.3:2015—Plumbing and drainage Part 3: Stormwater drainage

Pittwater Council 21 Development Control Plan (including amendment 17 effected 26 May 2015) controls B5.7 and B5.8. ✓

Kind regards,

Ian Warren
Principal Engineer
Chartered Civil Engineer NER 3705882

Stellen Consulting
Suite 2/93 Pittwater Road, Manly, NSW 2095
T. 0450 460 496
E. ian.warren@stellenconsulting.com.au

Stellen

PRIVATE CERTIFIERS AUSTRALIA
ABN: 63 701 967 756

Suite 6/ 226 Condamine Street,
Manly Vale NSW 2093
(p): 02 9907 6300
(f): 02 9907 6344
admin@pcaservices.com.au

Our reference: 160049

18 April 2016

The General Manager
Pittwater Council
PO Box 882,
Mona Vale NSW 1660

Dear Sir/Madam,

Re: 13 Sydney Road, Warriewood NSW 2102

Complying Development Certificate No. 160049

Planning Instrument Decision Made Under: State Environmental Planning Policy (Exempt & Complying Development Codes) 2008

Private Certifiers Australia has issued a Complying Development Certificate under Part 4A of the *Environmental Planning and Assessment Act 1979* for the above premises.

Please find enclosed the following documentation:

- Complying Development Certificate No. 160049
- Copy of the application for the Complying Development Certificate.
- Documentation used to determine the application for the Complying Development Certificate as detailed in Schedule 1 of the Certificate.
- Cheque for Council's registration fee.

Our client has been advised of the necessity to submit to Council the Notice of Commencement of building works 48 hours prior to the commencement of works.

Should you need to discuss any issues, please do not hesitate to contact the Accredited Building Surveyor Grant Harrington.

Yours sincerely,

Grant Harrington
Accredited Building Surveyor
Private Certifiers Australia

PRIVATE CERTIFIERS AUSTRALIA
ABN: 63 701 967 756

Suite 6/ 226 Condamine Street
Manly Vale NSW 2093
(p): 02 9907 6300
(f): 02 9907 6344
admin@pcaservices.com.au

Our reference: 160049

18 April 2016

Wade Streeter
13 Sydney Road
Warriewood NSW 2102

Dear Sir/Madam,

Re: 13 Sydney Road, Warriewood NSW 2102

Complying Development Certificate No.: 160049

Enclosed is a copy of the approved Complying Development Certificate for the subject development and a copy of the stamped plans. A copy of each has been forwarded directly to Pittwater Council for their records.

The Notice of Appointment of Principal Certifying Authority and Commencement of Building Work form is required to be submitted to the Consent Authority (Council) 48 hours prior to commencement of building work. Private Certifiers Australia will attach this information to your project file. You must forward a copy of the "Notice of Commencement" to Council and if the project is "residential" attach the "Home Owner's Warranty or Owner Builder Certificate". The lodgement of the Notice of Commencement form is the responsibility of the owner or applicant to fulfil.

The PCA role to be undertaken by Private Certifiers Australia will require inspections and certification. Please have the Owner/Builder liaise with our Accredited Building Surveyor, Grant Harrington, prior to commencement of the work.

Should you need to discuss any issues, please do not hesitate to contact the undersigned on the above numbers.

Yours sincerely,

Grant Harrington
Accredited Building Surveyor
Private Certifiers Australia

1.0 GENERAL

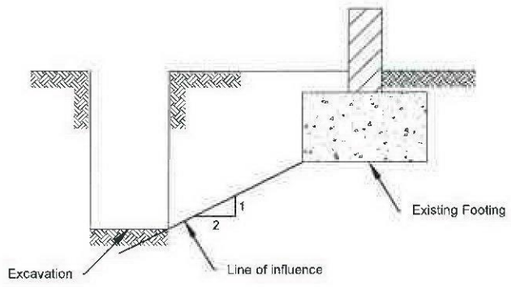
1.1 These drawings shall read in conjunction with the architectural and other consultants drawings as well as with other written instructions that may be issued during the construction. Any discrepancies shall be forwarded to the engineer for clarification prior to commencing the work.
1.2 All dimensions are in mMimeters unless noted otherwise (UNO)
1.3 All dimensions, levels and setting out information that are shown on these drawings shall be checked on site prior to commencing construction work. Any discrepancies shall be referred to the engineer.
1.4 Dimensions shall not be obtained by scaling these structural drawings. Refer to architectural drawings for other dimensions.
1.5 All materials and construction work shall be in accordance with the relevant S.A.A codes and other statutory requirements of the relevant building authority.
1.6 The structure shall be maintained in a stable condition and no part of the structure shall be overstressed during construction.
1.7 The stability of existing structures and foundations shall be ensured during construction.
1.8 Design live loads are as per AS1170.1 and the following:

Area	Uniform	Point
Floors - Internal	1.5 kPa	1.8 kN
Floors - External	2 kPa	1.8 kN
Garage and Driveway	2.5 kPa - 5 kPa	13 kN - 31 kN
Roof Areas	0.5 kPa	1.4 kN

1.9 Wind loads are in accordance with AS1170.2 and AS4055
1.10 Earthquake loadings are in accordance with AS1170.4

2.0 FOOTINGS AND FOUNDATIONS

2.1 All earthworks shall be carried out in accordance with the geotechnical report, or notes provided on these drawings.
2.2 The site has been classified as class 'M' in accordance with AS2870.
2.3 Footings have been designed for an allowable bearing pressure of 300kPa in natural firm to stiff clay and 400kPa in extremely low strength shale.
2.4 Footings shall bear on undisturbed natural ground, clear of organic material.
2.4 Footings shall be dewatered and cleaned prior to pouring concrete.
2.5 Footings shall be inspected and approved by the geotechnical engineer prior to concrete pour.
2.6 Footings to be backfilled as soon as possible to avoid a reduction in the bearing capacity of the foundation material due to softening by water or drying out.
2.7 If variable bearing strata is encountered during excavation for footings, excavation shall continue till a uniform material is encountered of equal or greater strength than specified.
2.8 Footings shall be located centrally under walls and columns UNO.
2.9 Compacted fill shall only be used with the approval of the geotechnical engineer. All organic material, topsoil and uncontrolled fill to be stripped to minimun depth of 150mm. Fill shall be in 200mm layers using an approved granular material compacted to 98% standard maximun dry density.
2.10 Fill material under slabs shall be in accordance with AS2870.
2.11 Excavations near new or existing footings shall not be within the influence line of the footing. Unless otherwise approved, this influence line shall be taken as 1 vertical to 2 horizontal as shown below:



3.0 REINFORCED CONCRETE

3.1 All workmanship and materials to be in accordance with AS3600.
3.2 Concrete quality shall be as follows:

Element	Slump (mm)	Max. Agg. Size (mm)	Concrete Grade (MPa)
Piers	100	20	N20
Strip and Pad Footings	80	20	N25
Slabs on Ground	80	20	N25
Suspended Slabs	80	20	N32
Walls and Columns	80	20	N32

3.3 Any admixtures used in the concrete are to be approved by the engineer.
3.4 The clear cover to reinforcement shall be as follows UNO:

Exposure Classification	Cast Against Formwork		Cast Against Ground	
	Interior	Exterior	With Membrane	Without Membrane
A1	20	30	30	50
A2	30	40	40	50
B1	40	40		
B2	40	45		

3.5 All concrete shall be mechanically vibrated. Vibrators shall not be used to spread concrete.
3.6 All construction joints shall be approved by the engineer.
3.7 No holes or chases other than those shown on the drawings to be made in the concrete without prior approval of the engineer.
3.8 Sizes of concrete elements shown on the drawings do not include the thickness of applied finishes.
3.9 Where slabs or beams are cast against non load bearing masonry walls, a 10mm styrene separation material shall be provided at the interface.
3.10 Conduits and pipes shall be placed in the middle third of the concrete and spaced at no less than 3 diameters.
3.11 Reinforcement shall be grade D500N unless noted otherwise.
3.12 Reinforcement symbols are as follows:
N - Grade 500N normal ductility deformed bar
R - Grade 250N normal ductility round bar
SL - Grade 500L low ductility welded deformed square mesh
RL - Grade 500L low ductility welded deformed rectangle mesh
LTM - Grade 500L low ductility welded deformed trench mesh
S - Grade 250N normal ductility deformed bar (for pools)
3.13 Reinforcement on the drawings is shown diagrammatically and does not necessarily show its true projection.
3.14 Welding of reinforcement shall not be permitted unless shown on these drawings or approved by the engineer.
3.15 Splices and cogs in reinforcement shall be in accordance with AS3600 and no less than the following:

Bar	Splice Length	Cog Length
N12	400	200
N16	600	225
N20	800	275
N24	1000	325
N28	1200	375

3.16 Mesh shall be lapped two transverse wires (one complete square) plus 25mm.
3.17 All reinforcement is to firmly supported in its position by the use of bar chairs spaced at no greater than 750mm. This applies to both bars and mesh.
3.18 Reinforcement is to be held in place via the use of bars ties at a maximum spacing of every alternate bar intersection.
3.19 All formwork materials and workmanship shall be in accordance with AS3610 and AS3600.
3.20 Formwork surfaces shall be thoroughly cleaned and pre wetted prior to concrete being poured.
3.22 Approved spray on curing compounds may be used provided they do not interfere with any proposed floor finishes.
3.23 Stripping times for reinforcement shall be in accordance with AS3610 or as directed by the engineer.
3.21 Curing of concrete shall be achieved by keeping exposed surfaces continuously wet for period of 3 days, followed by a prevention of loss of moisture for seven days, followed by a gradual drying out period.

4.0 PERMANENT METAL FORMWORK

4.1 Permanent metal formwork shall be installed in accordance with the manufacturers recommendations.
4.2 Unless noted otherwise permanent metal formwork shall be 1.00mm BTM.
4.3 The permanent metal formwork shall be suitably propped and held down to prevent displacement during concrete placement.
4.4 Propping shall not be removed till the concrete has reached sufficient strength.
4.5 Each sheet shall be fixed to the supporting structure via spot welding or fasteners.
4.6 The permanent metal formwork shall not be spliced or joined at midspan.
4.7 A minimum end bearing of 50mm shall be provided.

5.0 MASONRY

5.1 All materials and workmanship shall be in accordance with AS3700.
5.2 All load bearing walls shall have a slip joint when supporting concrete slabs or beams. Two layers of approved greased galvanized steel shall be placed on smooth brickwork or toweled mortar finish.
5.3 Non load bearing masonry walls shall be separated from concrete slabs and beams by a 10mm styrene separation material at their interface.
5.4 No masonry walls are to be constructed on suspended slabs until all propping has been removed and the concrete has reached its specified 28 day strength.
5.5 Vertical control joints to be spaced at a maximum of 8m centers and 4m maximun from corners and at the interface between new and existing masonry, in accordance with AS3700 unless noted otherwise or approved by the engineer.
5.6 Compressive strength of masonry shall be minimum 20 MPa.
5.7 Unless noted otherwise mortar for masonry shall be cement:lime:sand in the ratio of 1:1:6.
5.8 Provide wall ties at a 600mm centers maximun both vertically and horizontally. Wall ties shall be stainless steel below damp proof course and galvanized above.
5.9 No chases or recesses are permitted in load bearing masonry unless approved by the engineer.
5.10 Cavities are to be kept clean and clear at all times. Size of cavities shall be not less than 40mm and not exceed 200mm.

6.0 BLOCKWORK

6.1 All materials and workmanship shall be in accordance with AS3700.
6.2 Characteristic compressive strength of blockwork shall be 15MPa.
6.3 Blockwork shall be Double 'U' Block Construction.
6.4 Core fill concrete is to have a compressive strength of 20MPa with 10mm aggregate and a slump of 230mm.
6.5 Maximun pour height for unpropped core filled walls shall be 2m.
6.6 55mm minimum cover to reinforcement shall be provided from the outside face of the wall.
6.7 Reinforcement splice lengths are to be in accordance with AS3600 and note 3.15.
6.8 Clean out holes are to be provided at the base of all core filled masonry walls.
6.9 No masonry walls are to be constructed on suspended slabs until all propping has been removed and the concrete has reached its specified 28 day strength.
6.10 Vertical control joints to be spaced at a maximum of 8m centers and 4m maximun from corners and at the interface between new and existing masonry, in accordance with AS3700 unless noted otherwise or approved by the engineer.
6.11 Vertical control joints shall be reinforced with N20-400 dowels 600mm long with one end greased and sheathed.
6.12 Unless noted otherwise mortar for masonry shall be cement:lime:sand in the ratio of 1:1:6.
6.13 No chases or recesses are permitted in load bearing masonry unless approved by the engineer.
6.14 No admixtures are to be used in the mortar or core fill concrete without prior written approval by the engineer.

7.0 STRUCTURAL STEEL

7.1 All design, fabrication and erection of structural steelwork to be in accordance with AS4100.
7.2 Unless noted otherwise, the following shall apply for steel sections and plates:
Hot rolled UB, UC, PFC & EA sections to be Grade 300PLUS to AS/NZS 3679
Square, Rectangular & Circular hollow sections to be Grade 350 to AS 1163
Steel plates shall be Grade 250 to AS/NZS 3678
Cold formed Cee & Zed purlins to be Grade 550/500/450 to AS/NZS 4600
7.3 Bolt designation:
4.6/S Commercial bolts to AS 1111, snug tightened
8.8/S High strength structural bolts to AS 1511, snug tightened
8.8/TB High strength structural bolts to AS 1511, fully tensioned bearing joint
8.8/TF High strength structural bolts to AS 1511, fully tensioned friction joint
(All bolts shall be fitted with appropriate washers in accordance with AS4100. Load indicating washers shall be used for tensioned connections TF/TB)
7.4 All bolts shall be galvanised grade 8.8/S UNO. Unless shown otherwise on the drawings, all connections shall consist of 2M16 8.8/S bolts, with 10mm plates and 6mm continuous fillets welds.
7.5 Bolts for purlins shall be 2M12 4.6/S.
7.6 Care shall be taken during pouring of concrete to ensure cast-in holding down bolts are maintained in their correct position.
7.7 All welding shall be in accordance with AS/NZS 1554
7.8 UNO, all welds shall be 6mm continuous fillet welds type SP using E41xx electrodes. All but welds shall be complete penetration butt welds, category SP.
7.9 Grouting under base plates and anchor bolts shall consist of 25mm high strength, non shrink grout.
7.10 UNO protective coating to all structural steel shall be as follows:
Internal: Wire brush clean then apply 2 coats alkyd primer with a total dry film thickness of 70 microns.
External: Blast clean surface, then apply one of the following coating systems
- Hot dip galvanise 300 g/m^2 minimum
- Hot dip galvanise 100 g/m^2 minimum, plus 2 coats vinyl gloss or alkyd primer
7.11 Any damage caused during transport, erection and other site works, shall be repaired as per original specification unless other written instructions are given by the engineer.
7.12 Galvanised coatings shall be repaired using zinc rich epoxy primer (3 coats minimum). Area to be prepared and cleaned via wire brush.
7.13 Workshop drawings shall be prepared and submitted to the engineer for approval prior to commencement of fabrication UNO.

8.0 TIMBER

8.1 All materials and workmanship shall be in accordance with AS 1684 and AS 1720.
8.2 Softwood to be a minimum of F7 and hardwood to be minimum of F14 unless noted otherwise.
8.3 Softwood timber framing to have a minimum protective treatment of H2 or T2.
8.4 External timber to be either hardwood durability class I or II as per AS 1720 or impregnated pine, pressure treated to AS 1604. Supplementary treatment to be applied to all site cut surfaces.
8.5 Roof trusses designed by the manufacturer shall be to the relevant standards. Drawings to be submitted to the engineer clearly indicating the loads that are imposed on the structure.
8.6 All bolts to be minimum M16 4.6/S, with washer at least 2.5xbolt diameter.
8.7 All fasteners to be hot dip galvanised.
8.8 All connections and bracing to be carried out in accordance with AS 1684 and AS 1720.
8.9 All walls shall be 90x45 F7 at 450mm centers unless noted otherwise. Provide double studs or 90x90 MGP10 posts under the ends of all beams, lintels, struts and trusses unless noted otherwise.
8.10 All LVL used shall comply with AS 4357 and be installed as per the manufacturers specifications.
8.11 All joists with a depth greater than 150mm shall have blocking over support bearers and at a maximum of 3m centers.

This drawing is confidential and shall only be used for the purposes of this project

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
0	GZ	15/03/16	Construction Certificate Issue	

Scale

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND EXECUTED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	GZ	CHECKED	
DRAWN	GZ	CHECKED	
APPROVED		DATE	

Stellen

Stellen Consulting ABN 61 149 095 189

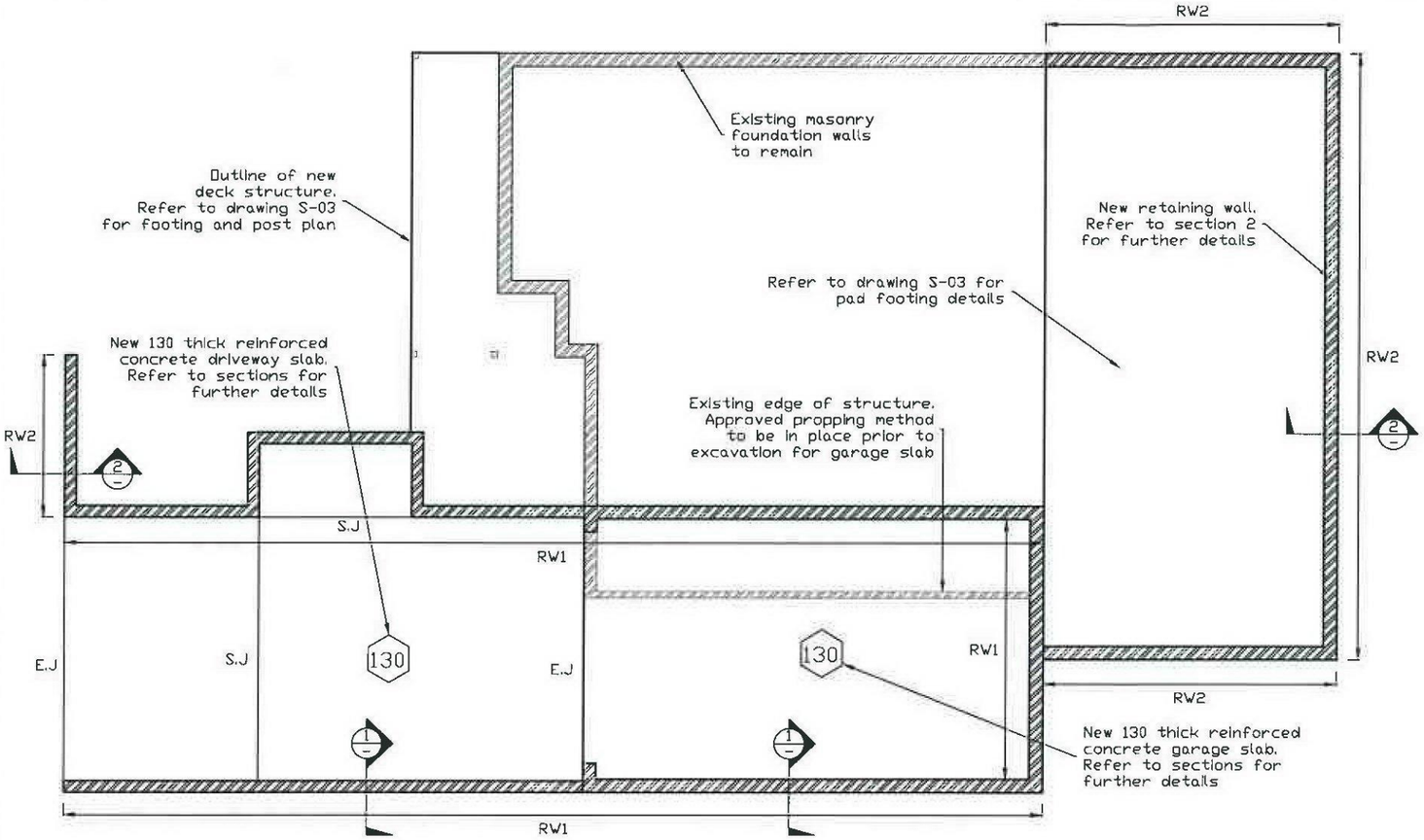
General Notes

Alterations and Additions
13 Sydney Road
Warriewood, NSW 2102

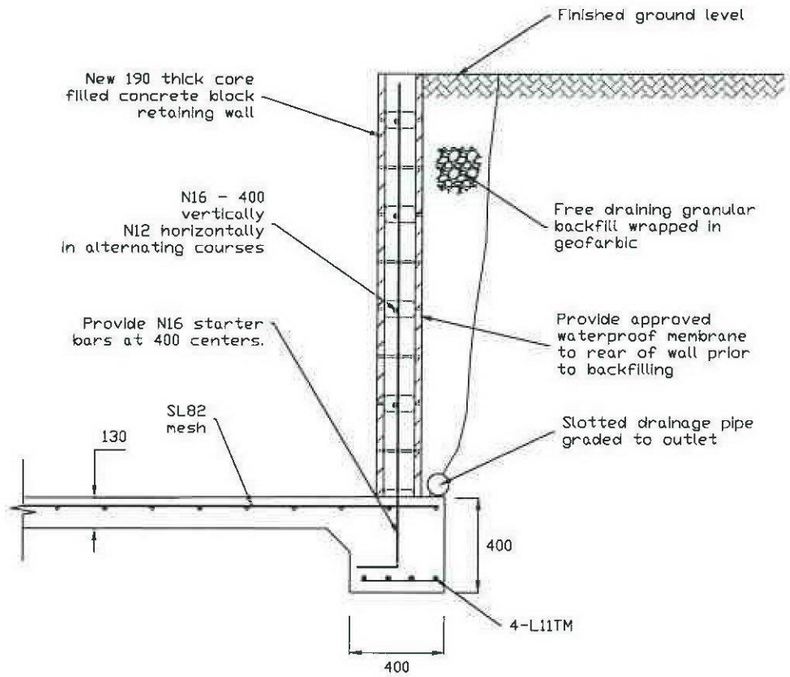
Status: Construction Certificate Issue/ Not for construction

Drg No. S-01

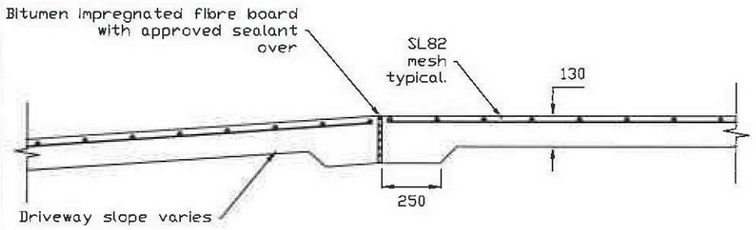
Rev. 0



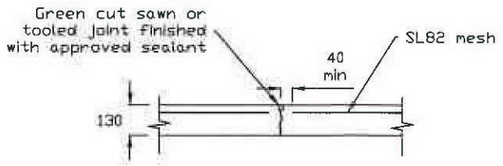
SLAB AND FOOTING PLAN
1:100



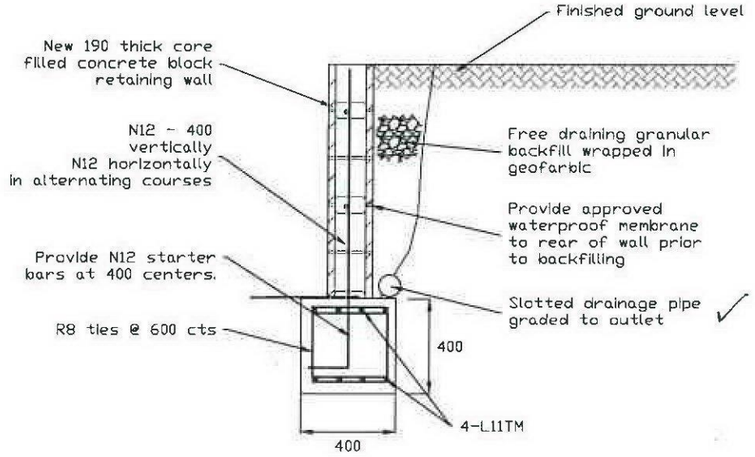
RW1 DETAIL 1/– 1:25



E.J: EXPANSION JOINT DETAIL 3/– 1:25



S.J: SAWN/TOOLED JOINT DETAIL 4/– 1:25



RW2 DETAIL 2/– 1:25

SLAB PREPARATION NOTES:
- 0.2mm IMPERVIOUS MEMBRANE BELOW SLAB
- 30mm COMPACTED SAND BLINDING LAYER
- FILLING IF REQUIRED SHALL BE GRANULAR MATERIAL COMPACTED IN LAYERS NO GREATER THAN 150mm TO A MINIMUM DRY DENSITY OF 98%

This drawing is confidential and shall only be used for the purposes of this project

Scale

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
0	GZ	15/03/16	Construction Certificate Issue	

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	GZ	CHECKED	
DRAWN	GZ	CHECKED	
APPROVED		DATE	

Stellen

Stellen Consulting ABN 61 149 095 189

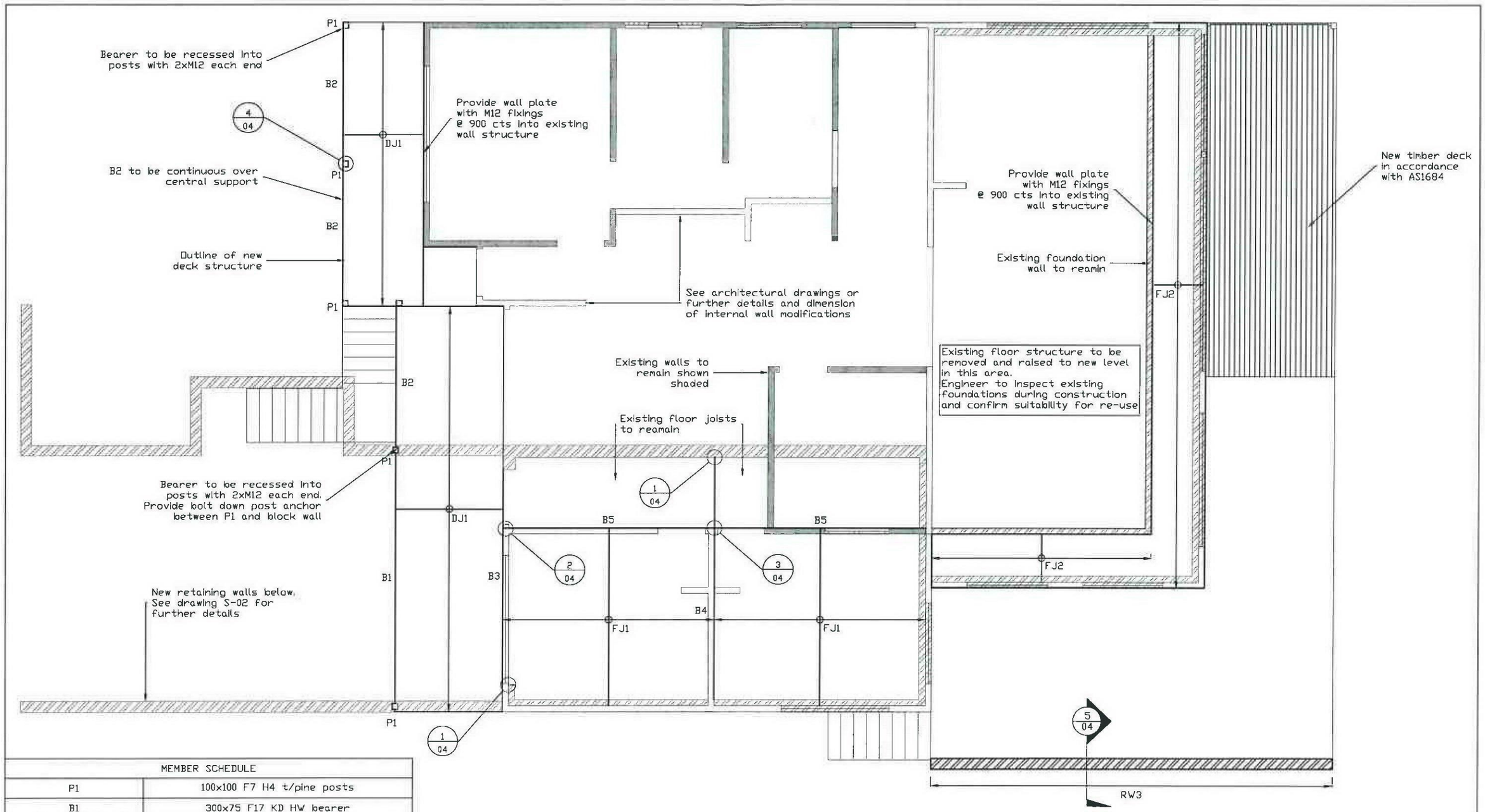
Slab and Retaining Wall Plan

Alterations and Additions
13 Sydney Road
Warriewood, NSW 2102

Status: Construction Certificate Issue/ Not for construction

Drg No. S-02

Rev. 0



MEMBER SCHEDULE	
P1	100x100 F7 H4 t/pine posts
B1	300x75 F17 KD HW bearer
B2	240x45 F7 H3 t/pine bearer
B3	250 UB 25
B4	250 UB 25
B5	200 UB 29
DJ1	140x45 F7 H3 t/pine joists @ 450 cts
FJ1	170x45 LVL joists @ 450 cts
FJ2	90x45 F7 H3 t/pine joists @ 450 cts

This drawing is confidential and shall only be used for the purposes of this project

Scale

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
0	GZ	15/03/16	Construction Certificate Issue	

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DESIGNED	GZ	CHECKED	
DRAWN	GZ	CHECKED	
APPROVED		DATE	

Stellen

Stellen Consulting ABN 61 149 095 189

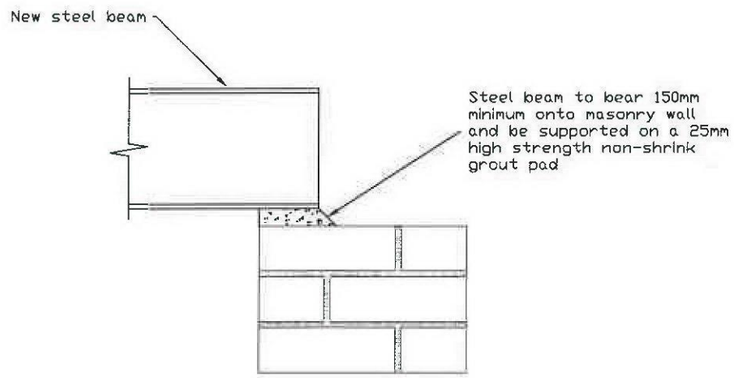
Ground Floor Marking Plan

Alterations and Additions
13 Sydney Road
Warriewood, NSW 2102

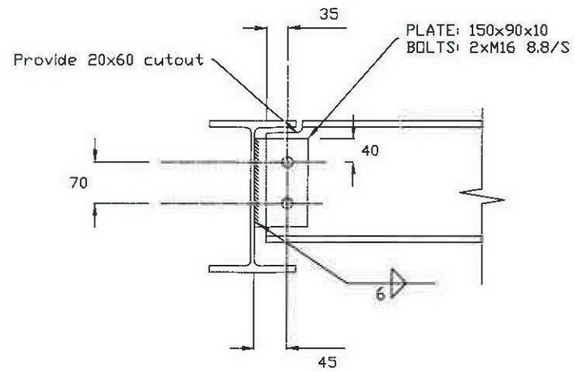
Status: Construction Certificate Issue/ Not for construction

Drg No.: S-03

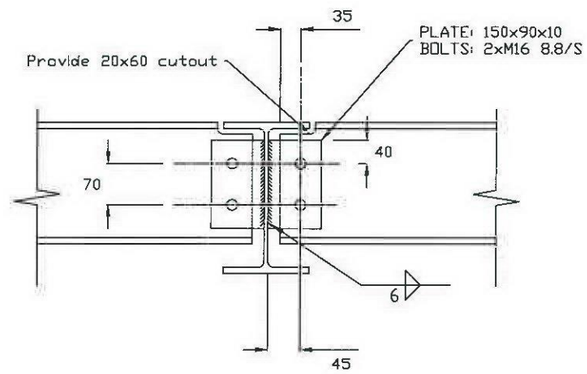
Rev.: 0



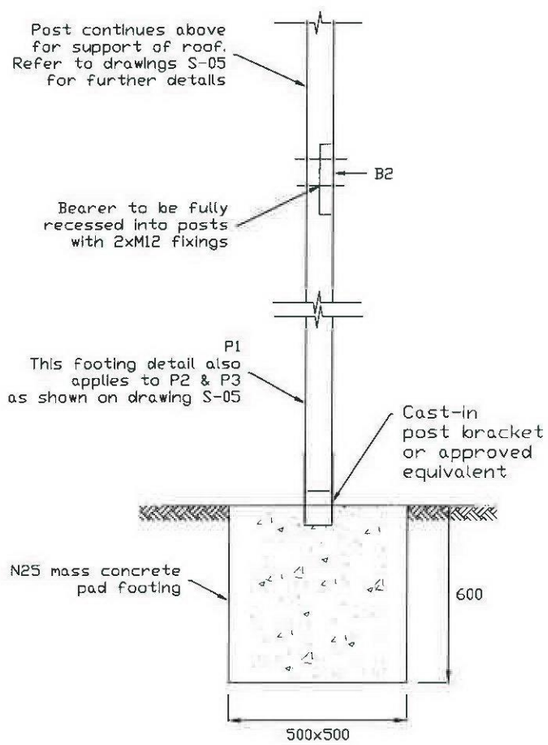
STEEL BEAM MASONRY SEATING DETAIL (1/03)
1:10



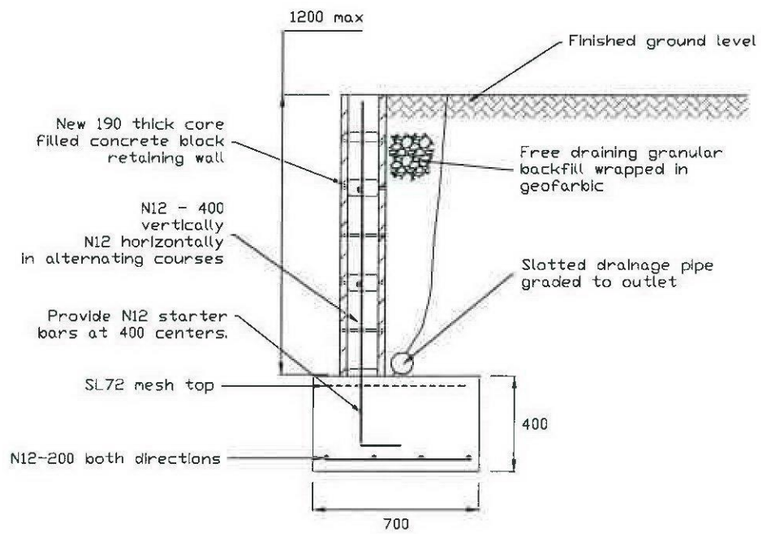
STEEL BEAM CONNECTION DETAIL (2/03)
1:10



STEEL BEAM CONNECTION DETAIL (3/03)
1:10



DECK POST AND PAD FOOTING DETAILS (4/03)
1:20



RW3 DETAIL (5/03)
1:25

This drawing is confidential and shall only be used for the purposes of this project

Scale

No.	BY	DATE	DESCRIPTION	APPD
0	GZ	15/03/16	Construction Certificate Issue	

REVISIONS

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	GZ	CHECKED	
DRAWN	GZ	CHECKED	
APPROVED		DATE	

Stellen

Stellen Consulting ABN 61 149 095 189

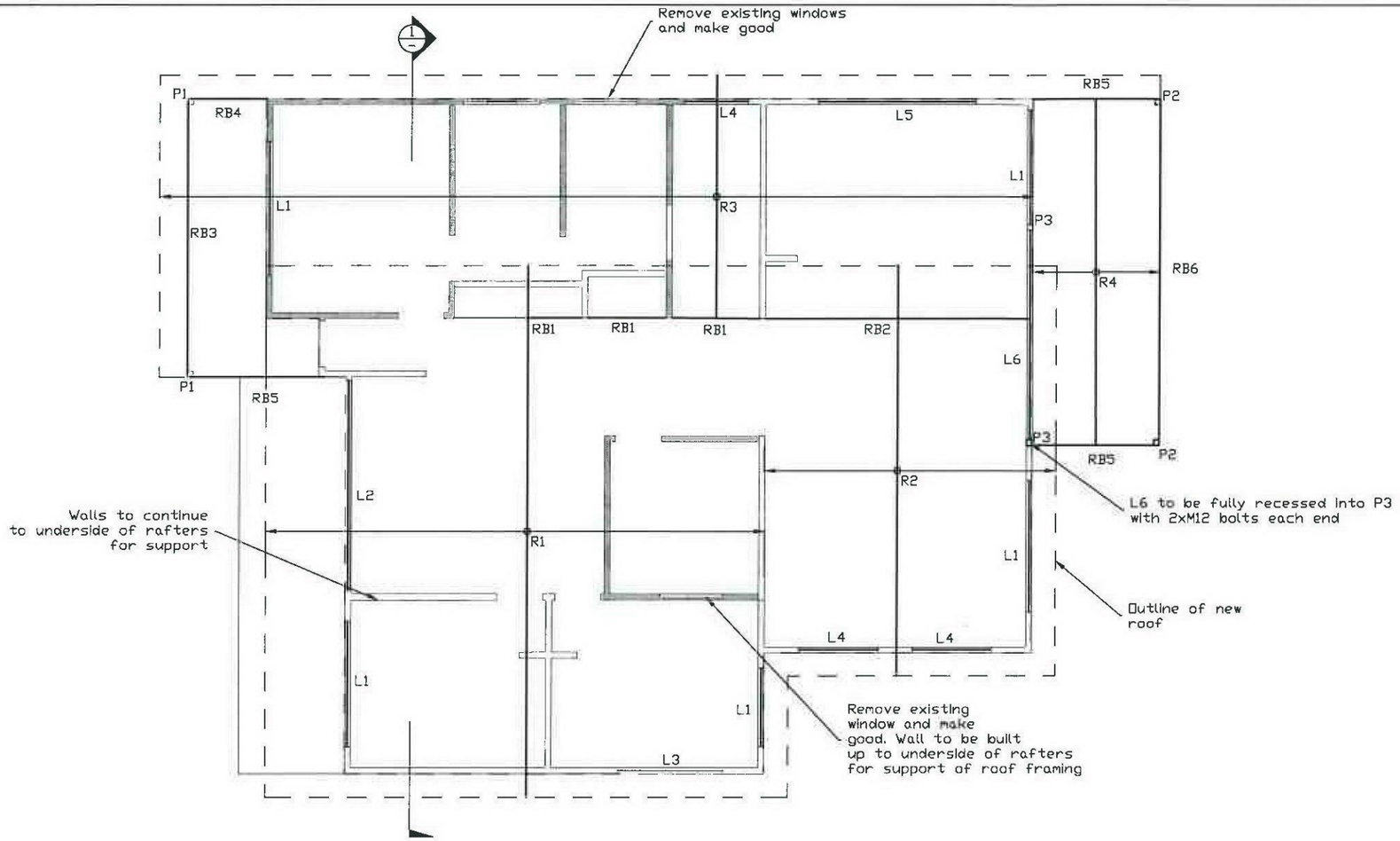
Ground Floor Details and Sections

Alterations and Additions
13 Sydney Road
Warriewood, NSW 2102

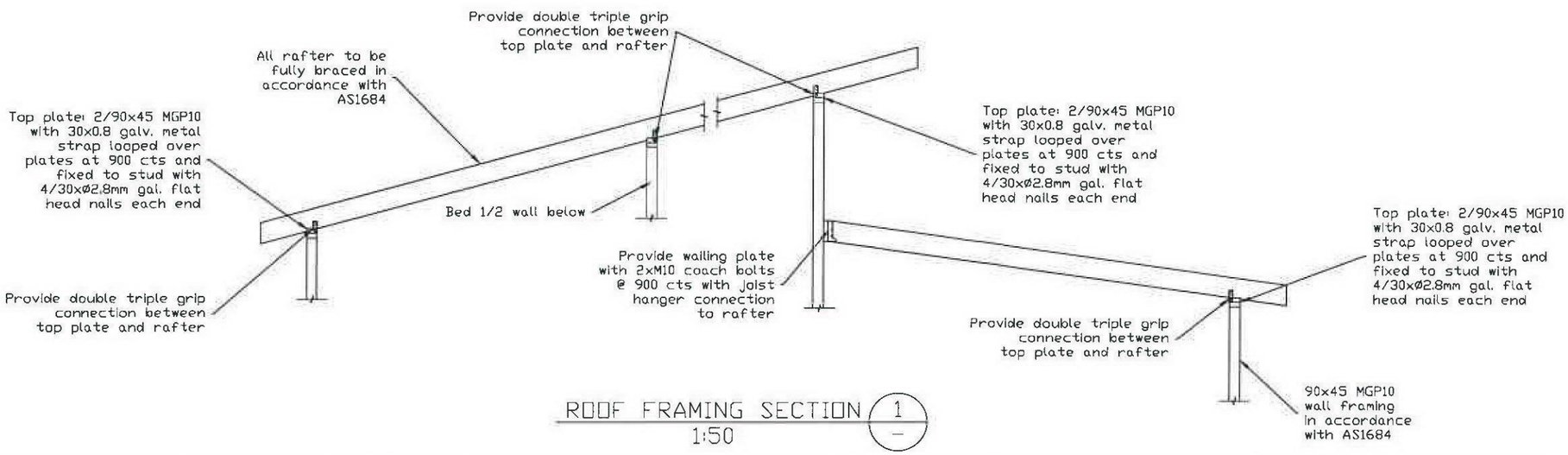
Status: Construction Certificate Issue/ Not for construction

Drg No. S-04

Rev. 0



MEMBER SCHEDULE	
P1-P3	100x100 F7 H4 t/pine posts
P2	100x100 F7 H4 t/pine posts
R1	150x45 LVL rafters @ 600 cts
R2	240x45 LVL rafters @ 600 cts
R3	150x45 LVL rafters @ 600 cts
R4	240x45 LVL rafters @ 600 cts
RB1	170x45 LVL roof beam
RB2	300x85 GL18C roof beam
RB3	290x45 F7 H3 t/pine roof beam
RB4	140x45 F7 H3 t/pine roof beam
RB5	190x45 F7 H3 t/pine roof beam
RB6	290x45 MGP15 H3 roof beam
L1	140x45 MGP10 lintel
L2	240x45 LVL lintel
L3	140x45 MGP10 lintel
L4	140x45 MGP10 lintel
L5	190x45 LVL lintel
L6	300x85 GL18C lintel



ROOF FRAMING SECTION 1/–
1:50

This drawing is confidential and shall only be used for the purposes of this project

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
0	GZ	15/03/16	Construction Certificate Issue	

Scale

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	GZ	CHECKED	
DRAWN	GZ	CHECKED	
APPROVED		DATE	

Stellen

Stellen Consulting ABN 61 149 095 189

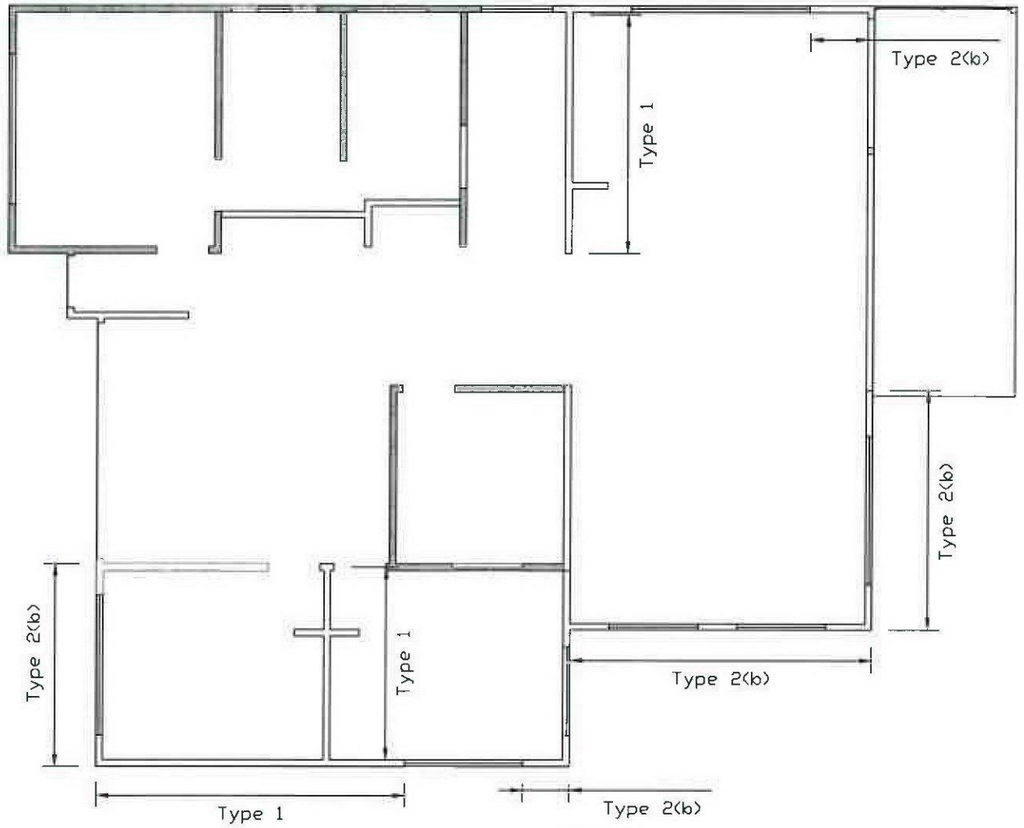
Roof Plan and Details

Alterations and Additions
13 Sydney Road
Warriewood, NSW 2102

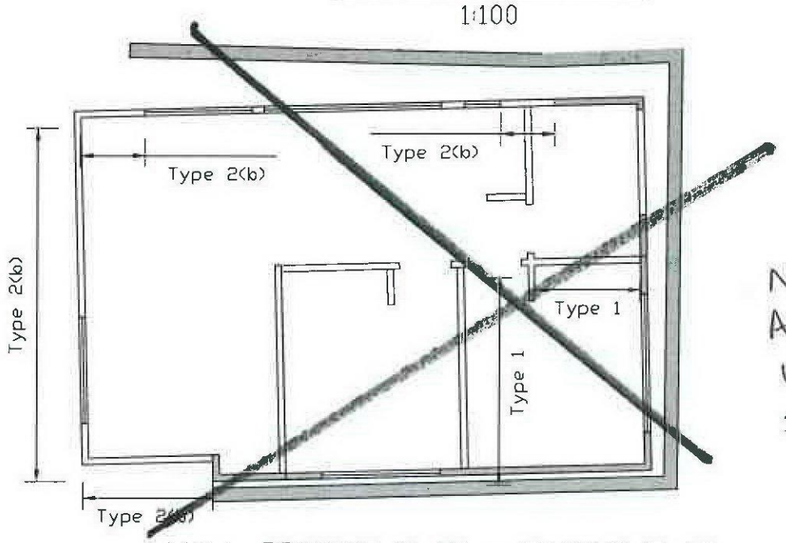
Status: Construction Certificate Issue/ Not for construction

Drg No. S-05

Rev. 0

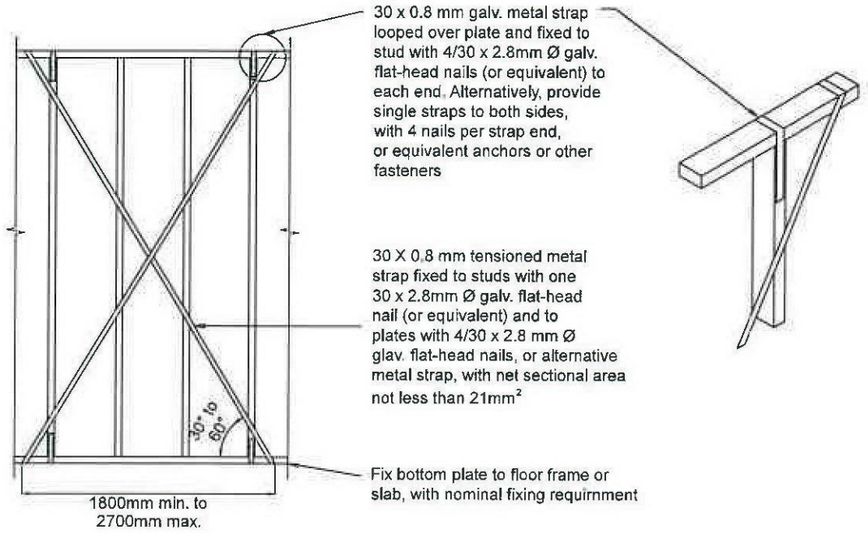


WALL BRACING PLAN
1:100



Not Approved Under This CDC.

WALL BRACING PLAN - GRANNY FLAT
1:100

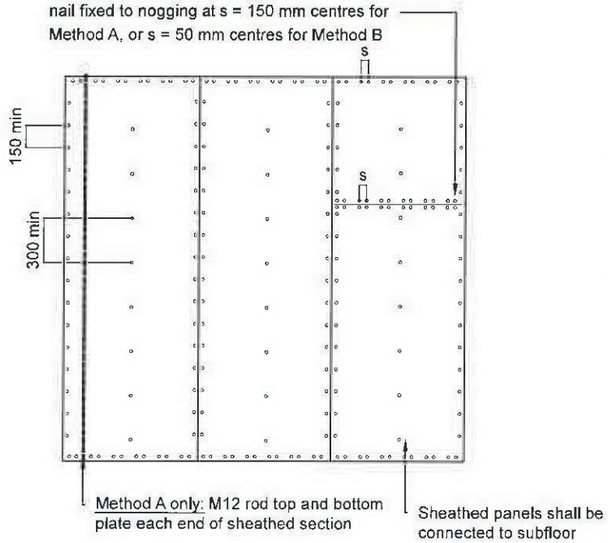


Type 1 Bracing

Plywood
Plywood shall be nailed to frame using 30 x 2.8 Ø mm galvanized flat-head nails or equivalent

Method A requires M12 rods at each end of sheathed section top plate to bottom plate or floor frame. Method B has no rods but sheathing shall be nailed at 50mm centres, to top and bottom plates and any horizontal joists.

Horizontal butt joints are permitted, provided nail fixed to nogging at s = 150 mm centres for Method A, or s = 50 mm centres for Method B



Minimum plywood thickness (mm)		
Stress grade	Stud spacing (mm)	
	450	600
F8	7	9
F11	6	7
F14	4	6
F27	4	4.5
Fastener spacing (s) mm		
Top and bottom plate: Method A		150
Method B		50
Vertical edges		150
Intermediate studs		300
Fixing of bottom plate to floor frame or slab		
Method A: M12 rods as shown plus an M10 bolt or other 13 kN capacity connection at max. 1200 mm centers. Method B: an M10 bolt or other 13 kN capacity connection at each end and intermediately at max. 1200 mm centers		

Type 2 Bracing

This drawing is confidential and shall only be used for the purposes of this project

Scale

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
0	GZ	15/03/16	Construction Certificate Issue	

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	GZ	CHECKED	
DRAWN	GZ	CHECKED	
APPROVED		DATE	

Stellen

Stellen Consulting ABN 61 149 095 189

Wall Bracing Details

Alterations and Additions
13 Sydney Road
Warriewood, NSW 2102

Status: Construction Certificate Issue/ Not for construction

Drg No. S-07

Rev. 0

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Rapid Plans
Building Design and Architectural Drafting

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No: 16 0 0 4 9
Approved Date 14 APR 2016
Certifying Authority: Grant Harrington
Accreditation No: BPB 0270

ALTERATIONS & ADDITIONS TO EXISTING RESIDENCE

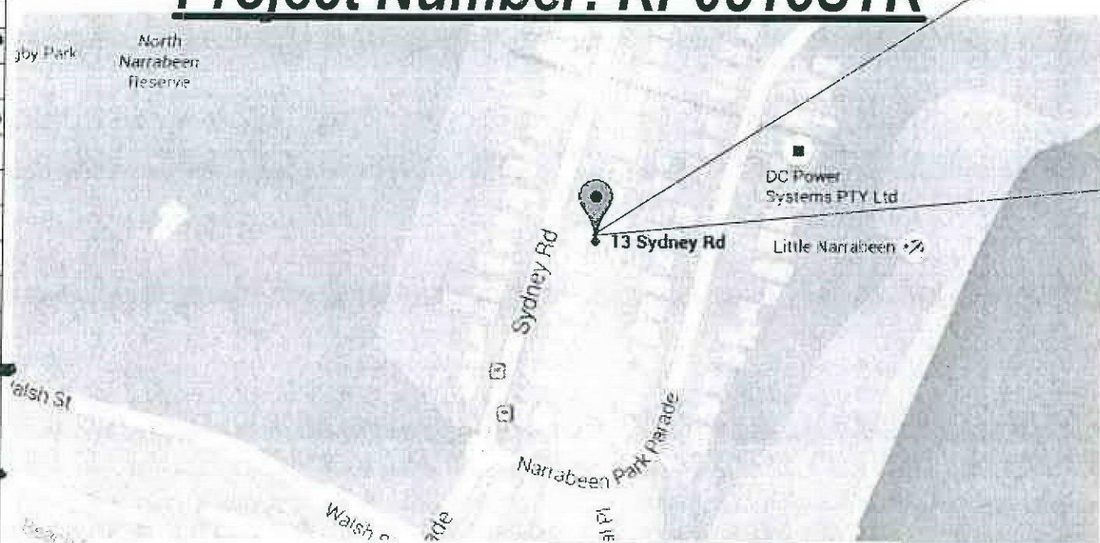
For Wade Streeter

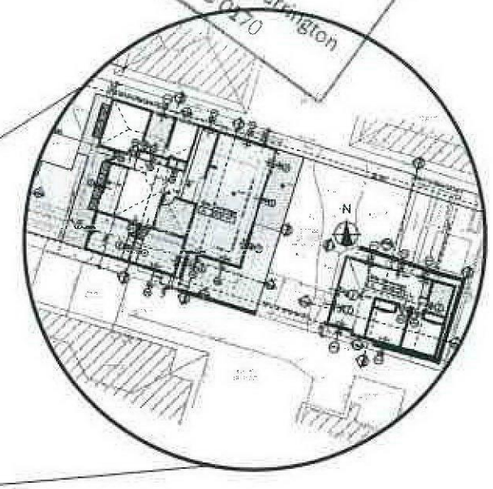
13 Sydney road, Warriewood

Lot 44 D.P.15763

Project Number: RP0815STR

Drawing No:	Description ...	Date
	Cover Sheet	29/02/2016
CDC1001	Survey Plan	29/02/2016
CDC1002	Site Plan	29/02/2016
CDC1003	Existing Ground Floor - Dwelling	29/02/2016
[redacted]		29/02/2016
CDC1005	Demolition Ground Floor - Dwelling	29/02/2016
[redacted]		29/02/2016
CDC1007	Landscape Open Space Plan	29/02/2016
CDC1008	Sediment & Erosion Control Plan	29/02/2016
CDC1009	Waste Management Plan	29/02/2016
CDC1010	Stormwater Plan	29/02/2016
CDC2001	Lower Ground Floor Plan - Garage	29/02/2016
CDC2002	Ground Floor Plan - Dwelling	29/02/2016
[redacted]		
CDC2004	RCP Ground	29/02/2016
CDC2005	Roof Plan - Dwelling	29/02/2016
[redacted]		
CDC3001	Sections - Dwelling 1	29/02/2016
CDC3002	Sections - Dwelling 2	29/02/2016
[redacted]		
CDC4001	Elevations - Dwelling 1	29/02/2016
CDC4002	Elevations - Dwelling 2	29/02/2016
[redacted]		
CDC4005	Elevation Front Fence	29/02/2016
CDC5001	Door Schedule	29/02/2016
CDC5002	Window Schedule	29/02/2016
CDC5003	Perspectives	29/02/2016
CDC5004	Basix Requirements - Dwelling	29/02/2016
CDC5005	Basix Requirements - Dwelling 2	29/02/2016
[redacted]		





BUILDING DESIGNERS AUSTRALIA NSW

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

Alterations and Additions

Certificate number: A241127_02

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

Director-General
Date of issue: Tuesday, 23, February 2016
To be valid, this certificate must be lodged within 3 months of the date of issue

NSW Planning & Infrastructure

Description of project

Project address	
Project name	Streeter_02
Street address	13 sydney Road warriewood 2102
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 15763
Lot number	44
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and does not include a pool (and/or spa).

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: Rapid Plans
ABN (if applicable): 43150064592

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

Alterations and Additions

Certificate number: A241040_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 Alterations and Additions Definitions" dated 18/09/2014 published by Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue: Wednesday, 09, March 2016
To be valid, this certificate must be lodged within 3 months of the date of issue

NSW Planning & Infrastructure

Description of project

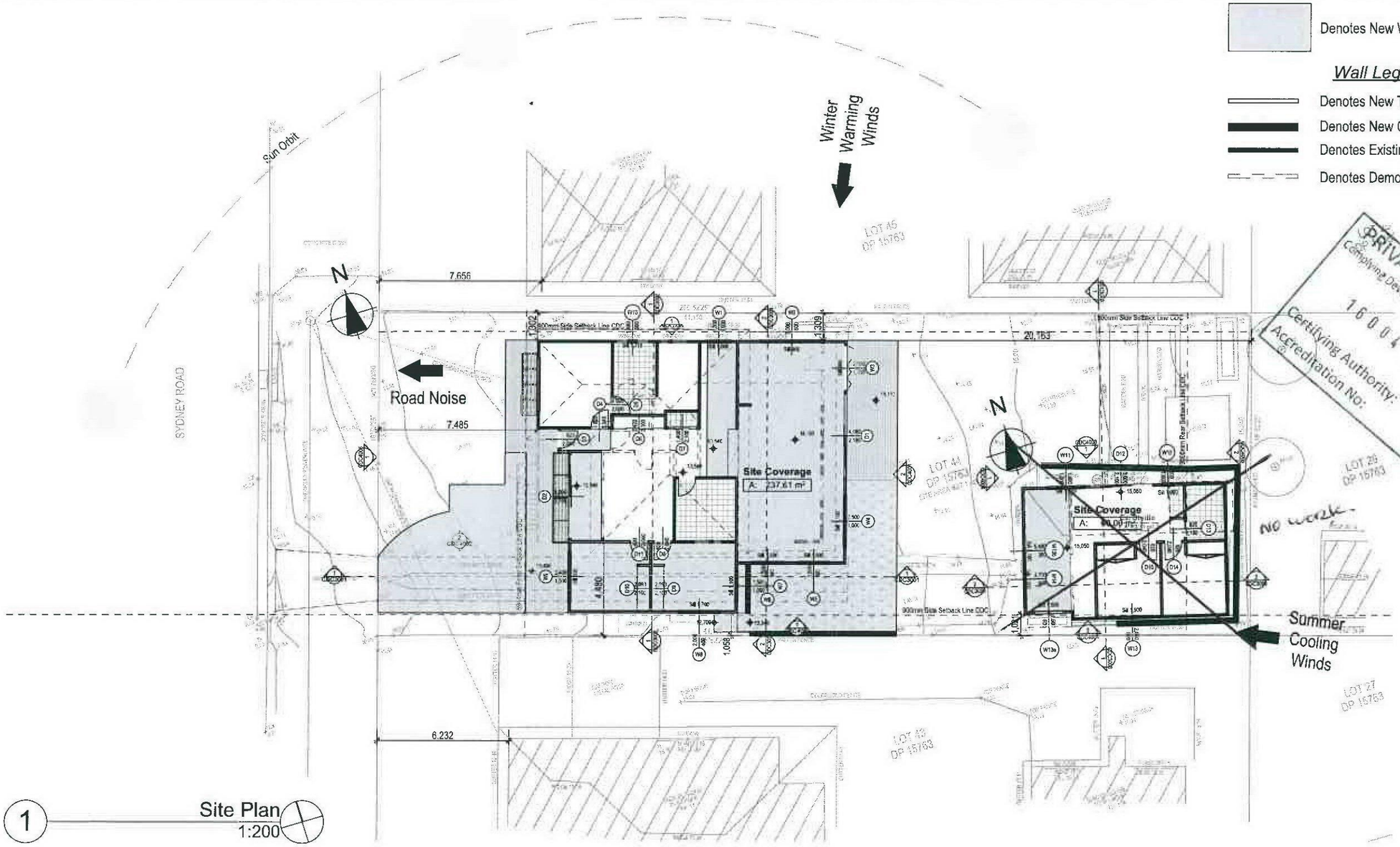
Project address	
Project name	Streeter - Granny_03
Street address	13 sydney Road warriewood 2102
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 15763
Lot number	44
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and does not include a pool (and/or spa)

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: Rapid Plans
ABN (if applicable): 43150064592

Denotes New Works

Wall Legend

- Denotes New Timber Framed Wall
- Denotes New Concrete Block Wall
- Denotes Existing Wall
- Denotes Demolished Item



1 Site Plan 1:200

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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PRIVATE CERTIFIERS A
Complying Development Cert. No: 16 0 0 4 9
Approved 14 APR 2016
Certifying Authority: Grant Harrington
Accreditation No: BPB 0170

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Mobile: 0414-845-024
Email : areaa@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Clanded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Flashing to BCA and AS01288-2047
Roof Plumbing to BCA and AS 3740
Wall Cladding to have minimum of 40% compact fibrecement panels
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

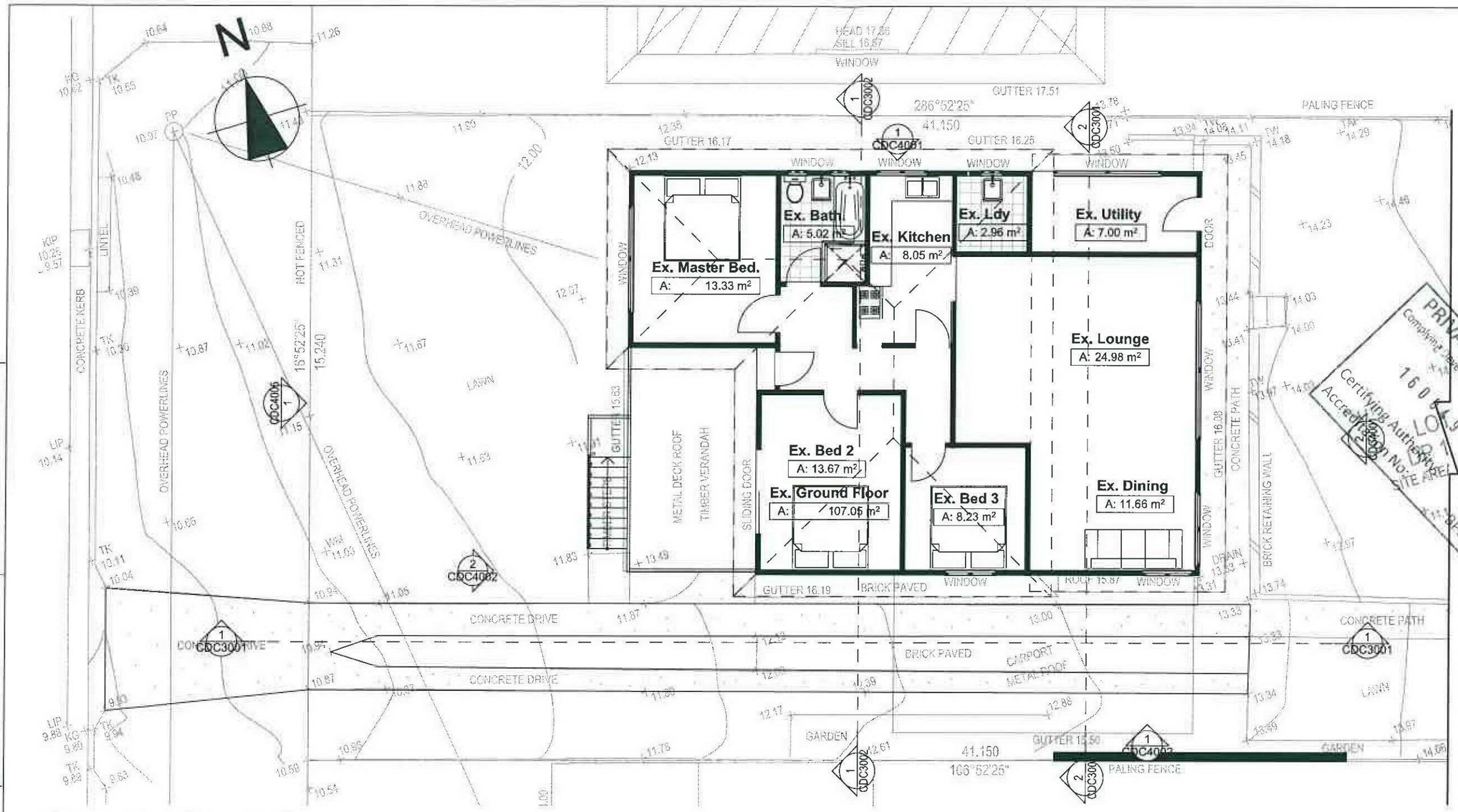
CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeler
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763

Drawing Title:
Site Plans - Site Plan
Site Plan

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC1002



1 Existing Ground Floor - Dwelling
1:100

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Wall Legend

Denotes Existing Wall

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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REFER TO SHEET NO. CDC1004

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No. 160 LOT 9
Approved Date 14 APR 2016
Certifying Authority Accreditation No. CERTIFIER
Signature
Name Harrington
SITE AREA

Rapid Plans
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PO Box 6193 Frenchs Forest DC NSW 2086
Fax : (02) 9905-8865
Mobile: 0414-945-024
Email : areaa@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA NSW

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

CDC Application ONLY

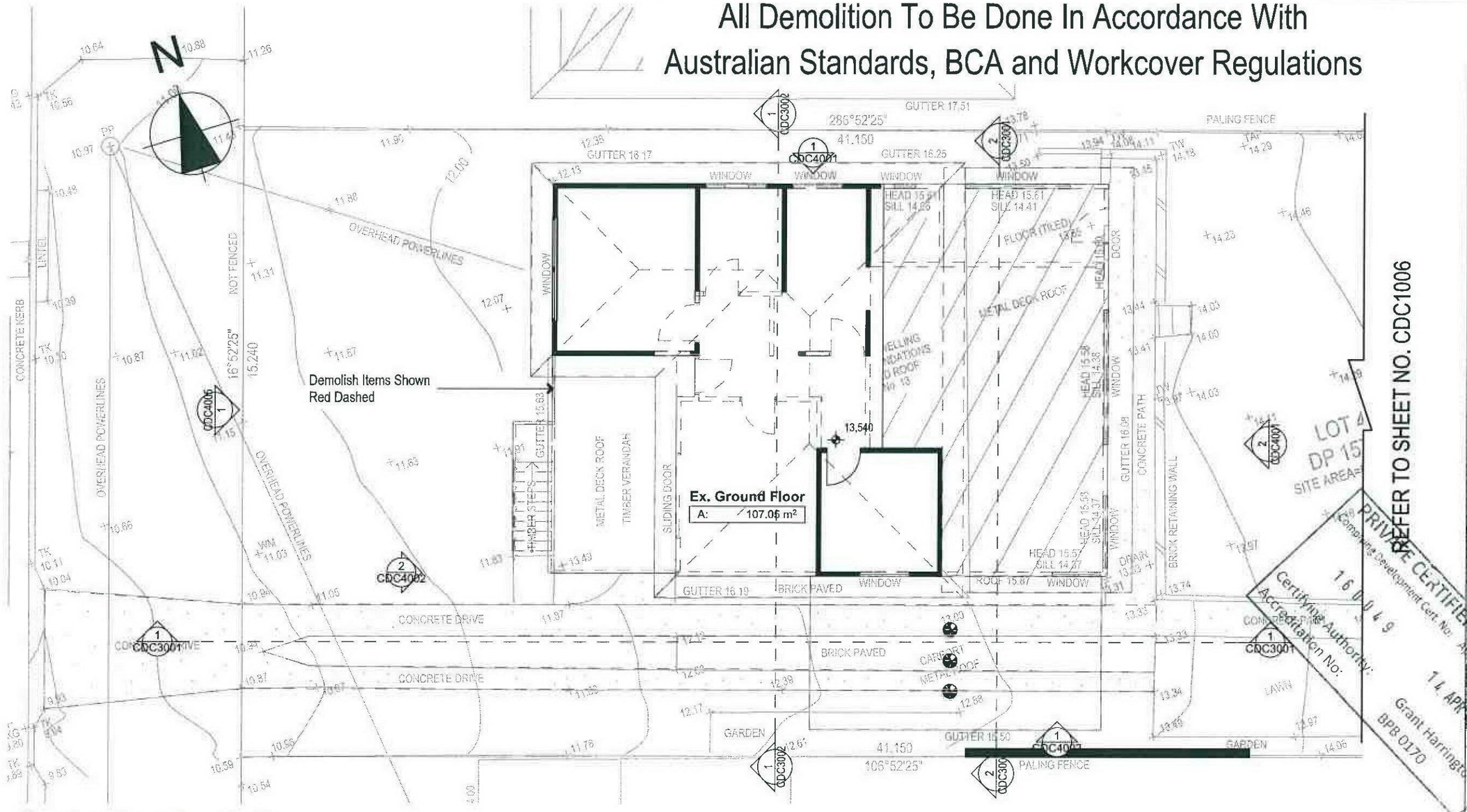
The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763

Drawing Title:
Site Plans - Existing Ground Floor - Dwelling
Existing Ground Floor - Dwelling

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: **RP0815STR**	Drawing No. **CDC1003**

All Demolition To Be Done In Accordance With Australian Standards, BCA and Workcover Regulations



Demolition Ground Floor - Dwelling
1:100

Construction	Show on DA Plans	Show on CC/CDC Plans & Specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Wall Legend

Denotes Existing Wall

Denotes Demolished Item

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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Email : areaq@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Clad/ed Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Overhang or overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763
Drawing Title:
Site Plans - Demolition Ground Floor - Dwelling
Demolition Ground Floor - Dwelling

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC1005

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Denotes Impervious Area

Denotes Pervious Area

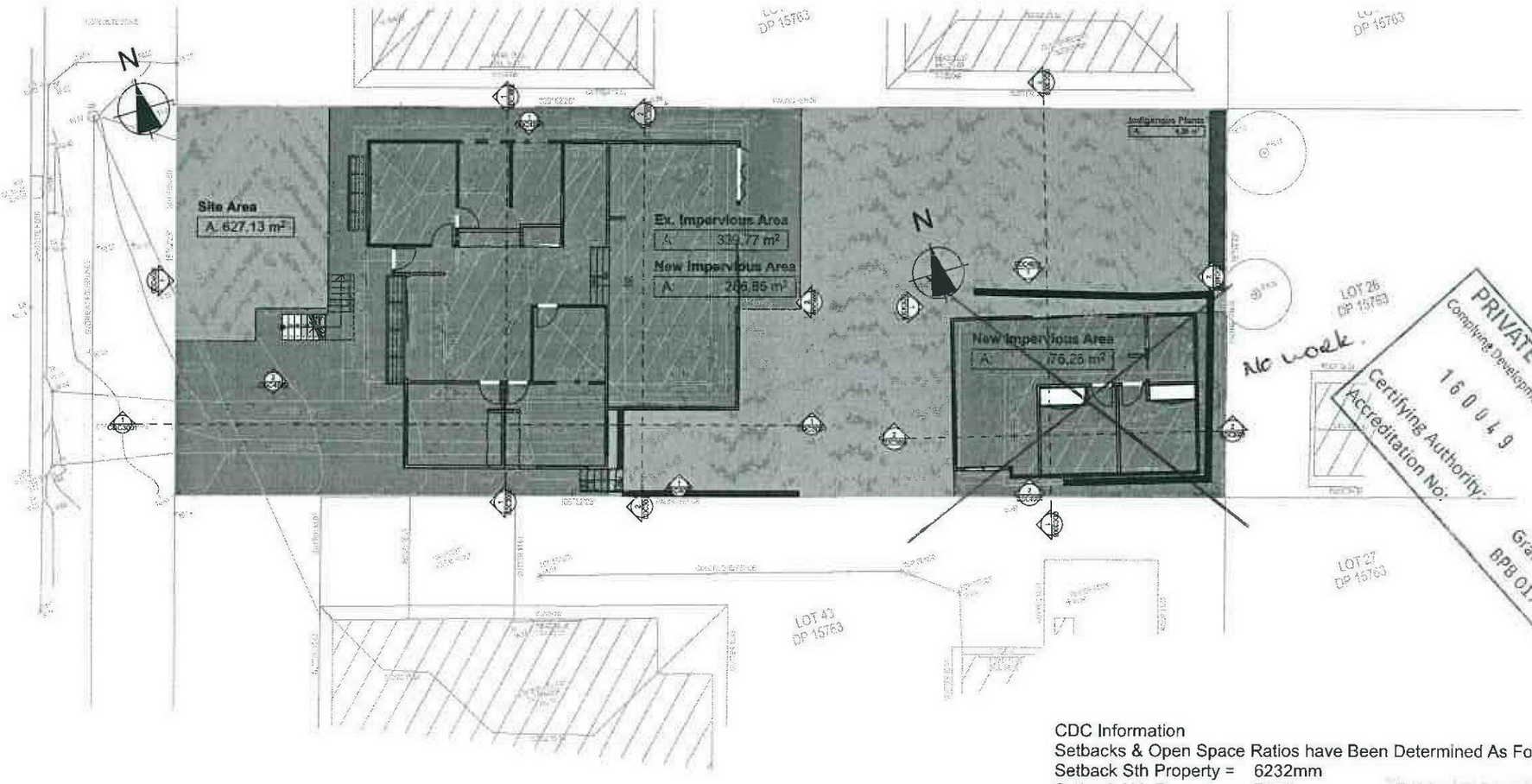
Wall Legend

Denotes New Timber Framed Wall

Denotes New Concrete Block Wall

Denotes Existing Wall

Denotes Demolished Item



Landscape Open Space Plan
1:200

Description	Area (m2)	Percentage
Site Area	627.1m2	100%
Exist. Open Landscape Area	287.33m2	46%
Exist. Impervious Area	339.77m2	54%
Proposed Open Landscape Area	264.00m2	42%
Proposed Impervious Area	363.1m2	58%

Note:
Total Open Landscape Area for the property will be decreased by 4%

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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BUILDING DESIGNERS AUSTRALIA (NSW)

NOTES
13 Sydney road Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame
Floors, Timber Framed Sheet Metal Roofs, Clad
Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floors), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the ceiling edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the sill of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

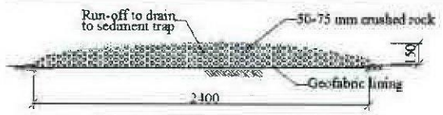
Lot 44 D.P.15763

Drawing Title:
Site Plans - Landscape Open Space Plan
Landscape Open Space Plan

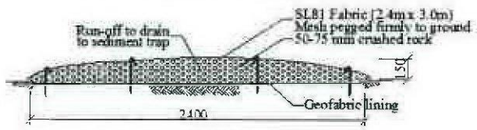
Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC1007

Construction	Shown on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

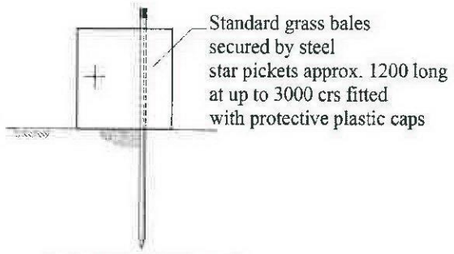
Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.80 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)



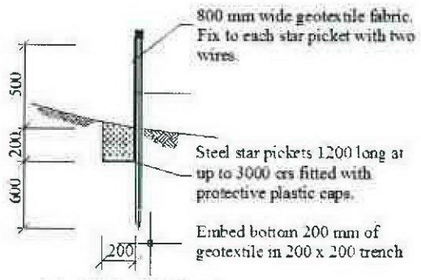
Light Duty Tyre Cleaning Berm (3000 wide min)



Light Duty Tyre Cleaning Grid (3000 wide min)



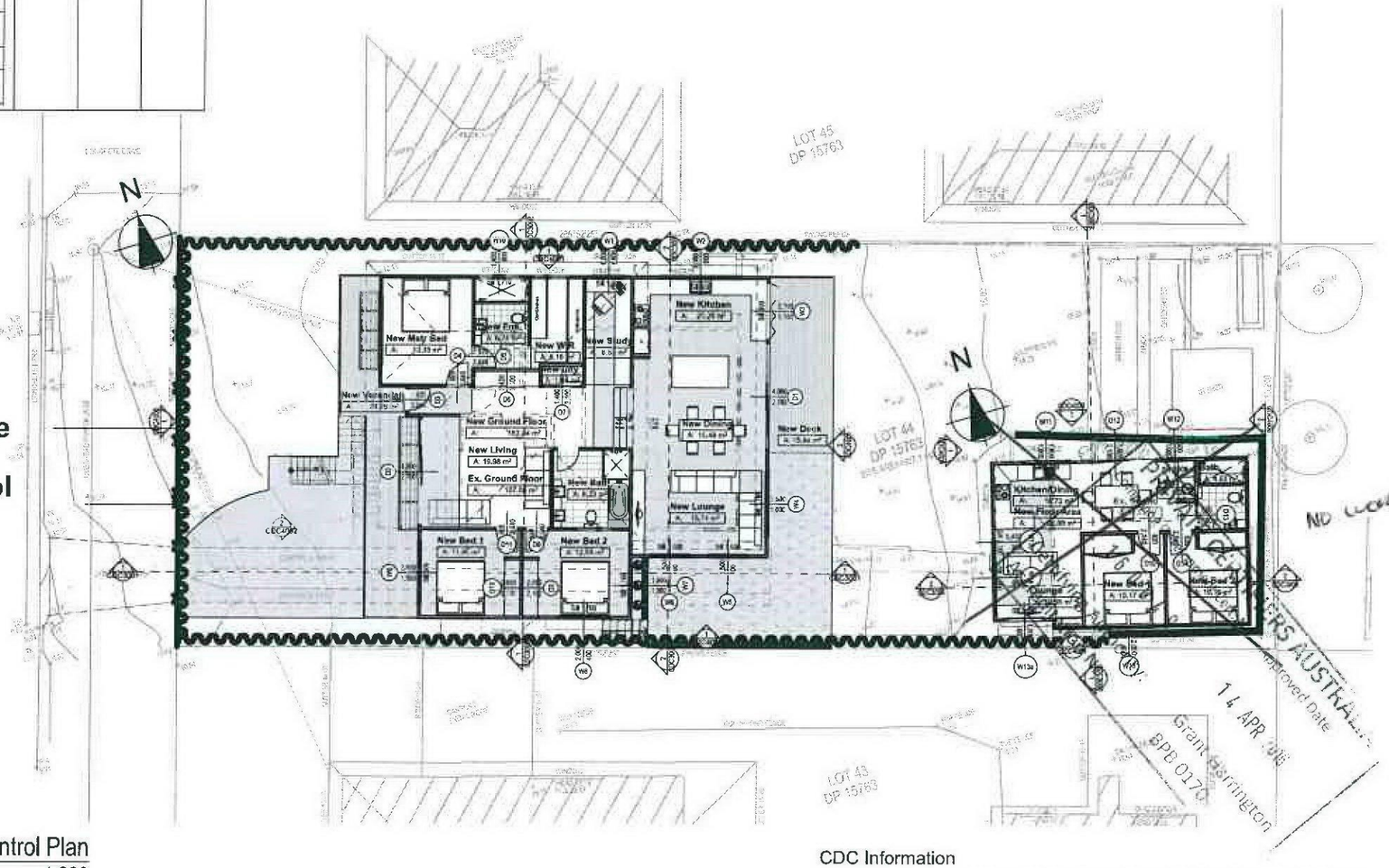
Typical Detail Grass Bale Sediment Barrier



Typical Detail Sediment Control Barrier

Site Safety Fence

Sediment Control Fence



1 Sediment & Erosion Control Plan
1:200

Wall Legend

- Denotes New Works
- Denotes New Timber Framed Wall
- Denotes New Masonry Wall
- Denotes New Concrete Block Wall
- Denotes Demolished Item

CDC Information

Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps.

Basix

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that: a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door,

CDC Application ONLY

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

Builder to Check and Confirm all Measurements Prior to Commencement

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BUILDING DESIGNERS AUSTRALIA

Project North
N

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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client: Wade Streeter

Client: Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

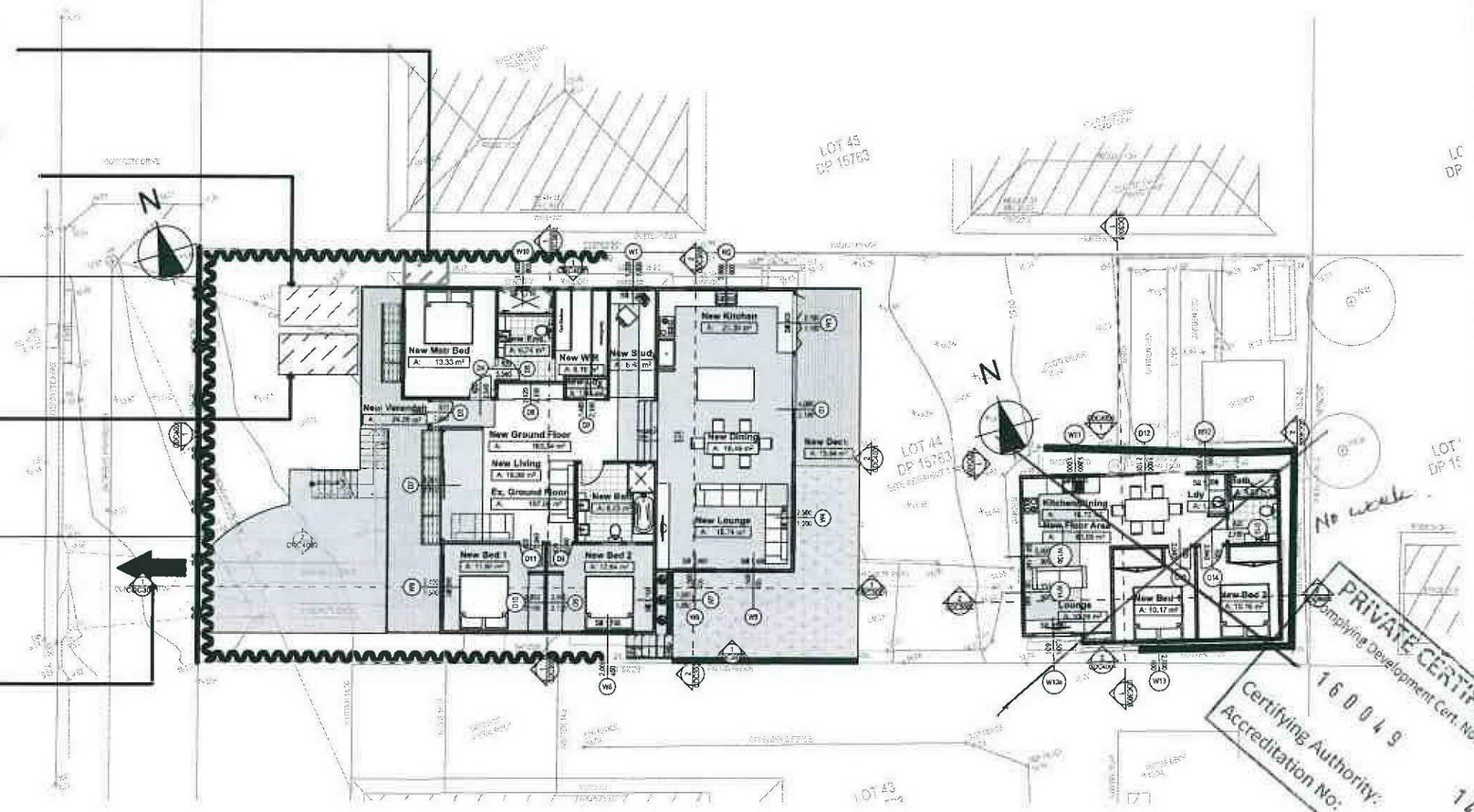
Lot 44 D.P.15763

Drawing Title: Site Plans - Sediment & Erosion Control Plan
Sediment & Erosion Control

Scale: A3 as noted
Status: CDC
Project No. RP0815STR
Date: 29/02/2016
Checked By: GBJ
Drawing No. **CDC1008**

Wall Legend

- Denotes New Works
- Denotes New Timber Framed Wall
- Denotes New Concrete Block Wall
- Denotes Existing Wall
- Denotes Demolished Item



1 Waste Management Plan
1:200

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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Email : arsaa@rapidplans.com.au
BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North

CDC Application ONLY

The Builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

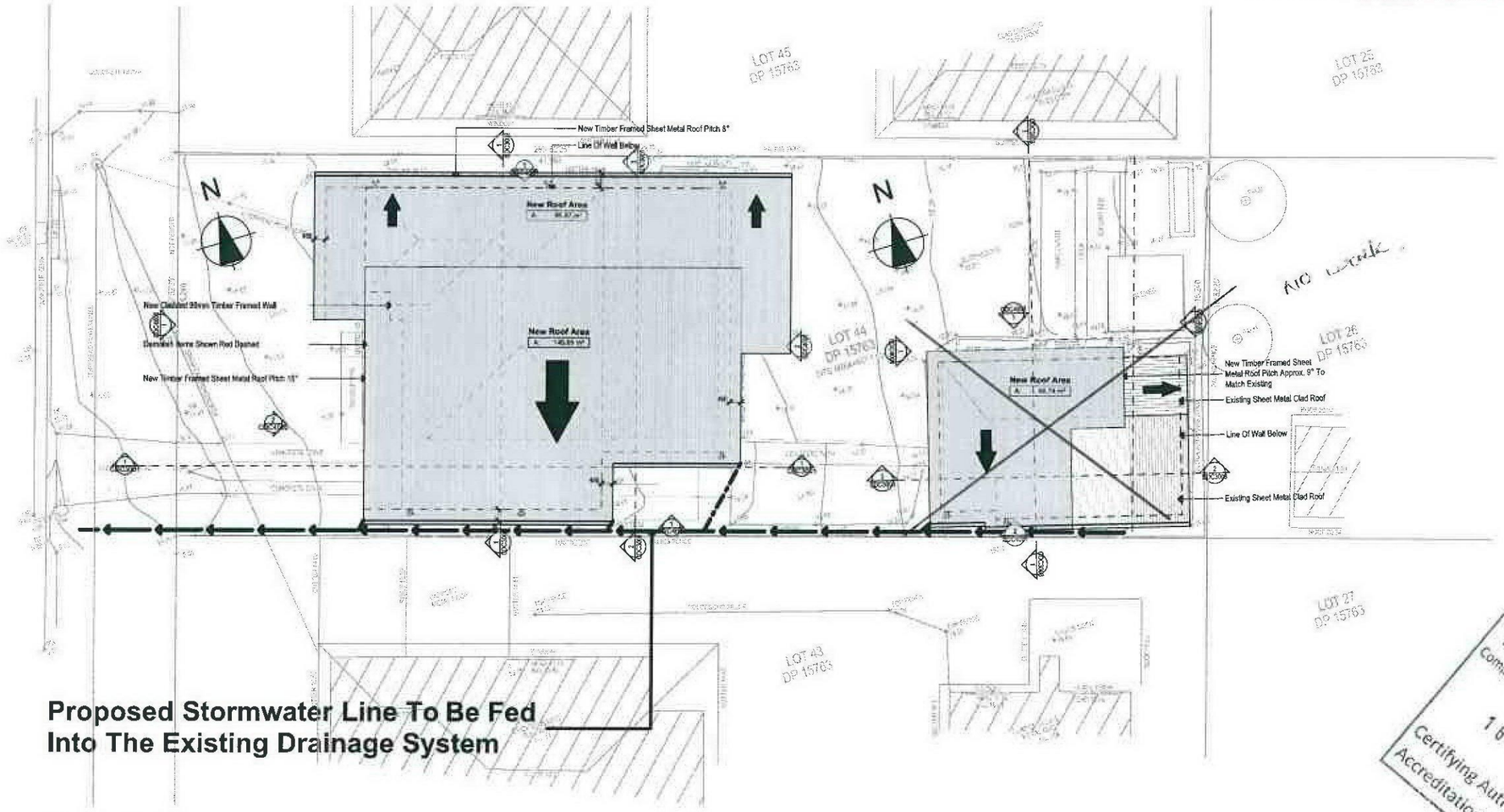
Client: Wade Streeler
Project Name: **Alterations & Additions**
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763
Drawing Title: Site Plans - Waste Management Plan
Waste Management Plan

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC1009

Wall Legend

Denotes New Works

Denotes Demolished Item



1 Stormwater Plan
1:200

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roof(s) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No: 16049
Certifying Authority: Grant Harrington
Accreditation No: BPB 0170
14 APR 2016
Approved Date

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Fax : (02) 9905-8665
Mobile: 0414-945-024
Email : arcaa@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA NSW

NOTES
13 Sydney road Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate.
The applicant must construct the new or altered construction (floors), walls, and ceilings/roof(s) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
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Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

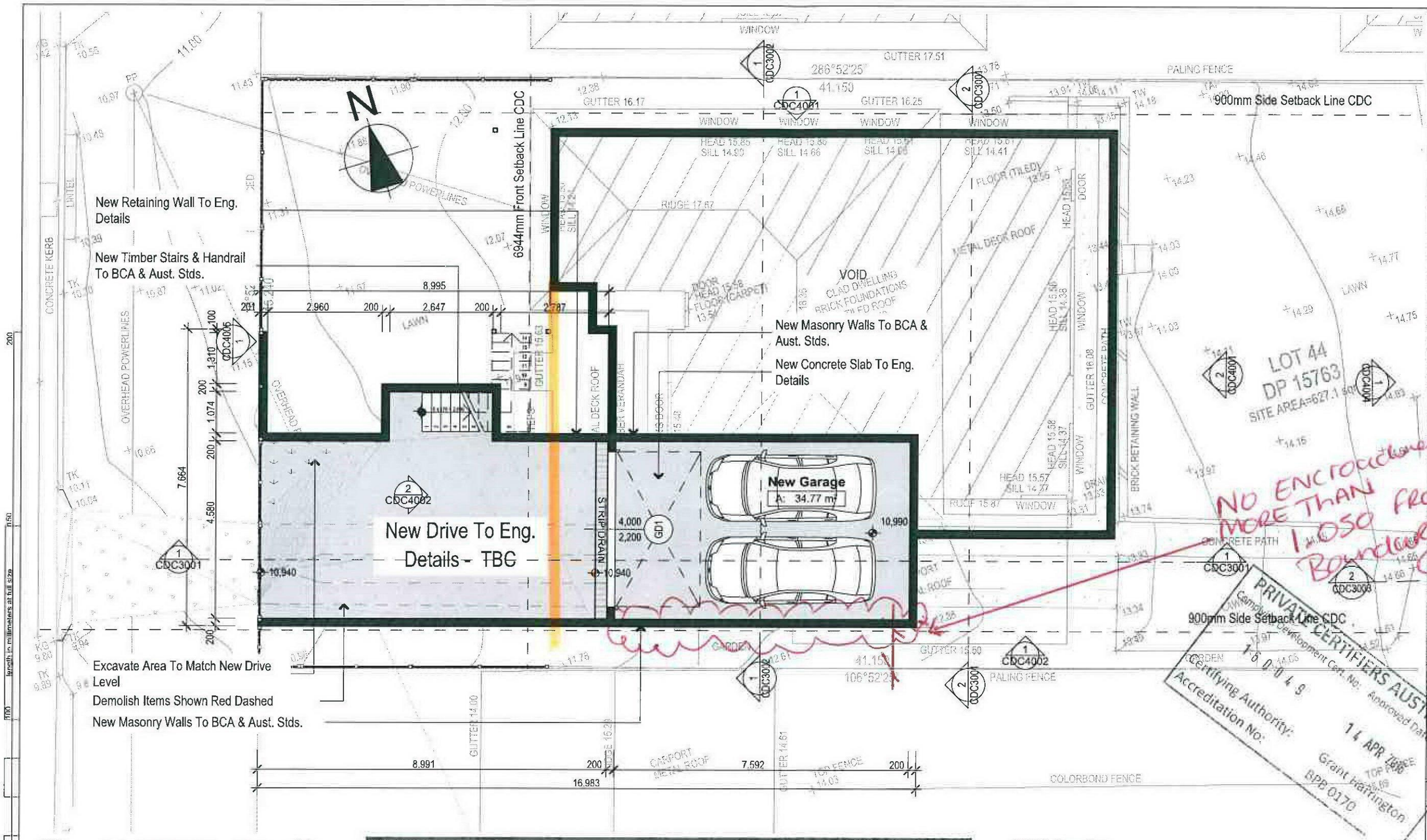
Project North N

CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763
Drawing Title:
Site Plans - Stormwater Plan
Stormwater Plan

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC1010



1 Ground Floor Plan Garage
1:100

Denotes New Works

Wall Legend

Denotes New Timber Framed Wall

Denotes Existing Wall

Denotes New Concrete Block Wall

Construction		Show on DA Plans	Show on CDC/CC Plans & specs	Certifier Check
Insulation requirements				
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.		✓	✓	✓
Construction	**Additional insulation required (R-value)**	**Other specifications**		
concrete slab on ground floor.	nil			
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)			
suspended floor above garage: framed (R0.7).	nil			
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)			
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)			
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)		

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
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Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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Email : areaa@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney Road, Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS/1288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floors, walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

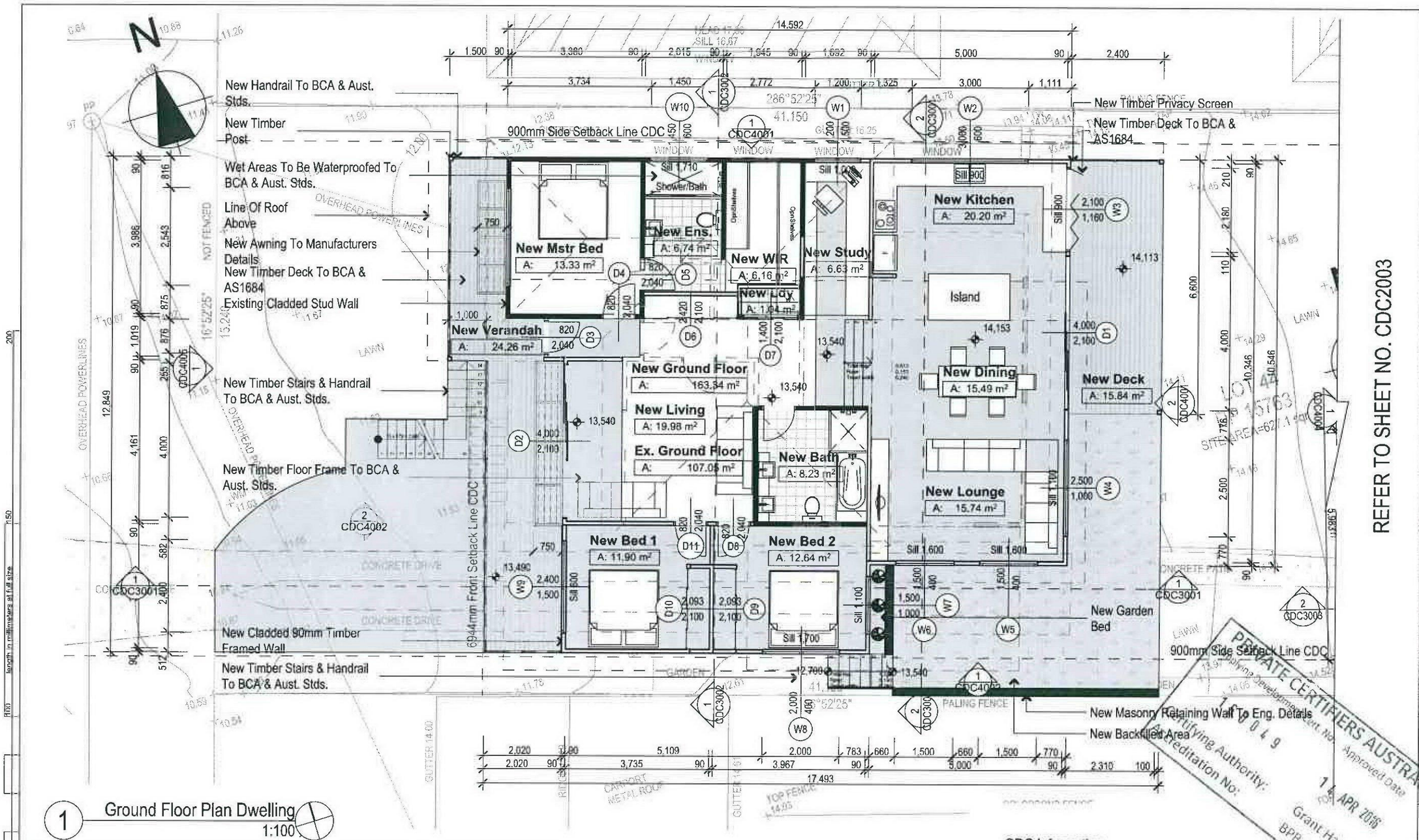
Project North N

CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763
Drawing Title:
Plans - Lower Ground Floor Plan - Garage
Ground Floor Plan Garage

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC2001



1 Ground Floor Plan Dwelling
1:100

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floors), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Denotes New Works

Wall Legend

Denotes New Timber Framed Wall/Floor/Ceiling/Roof

Denotes Existing Wall

Denotes Demolished Item

Denotes New Concrete Block Wall

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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REFER TO SHEET NO. CDC2003

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BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceiling/roof(s) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

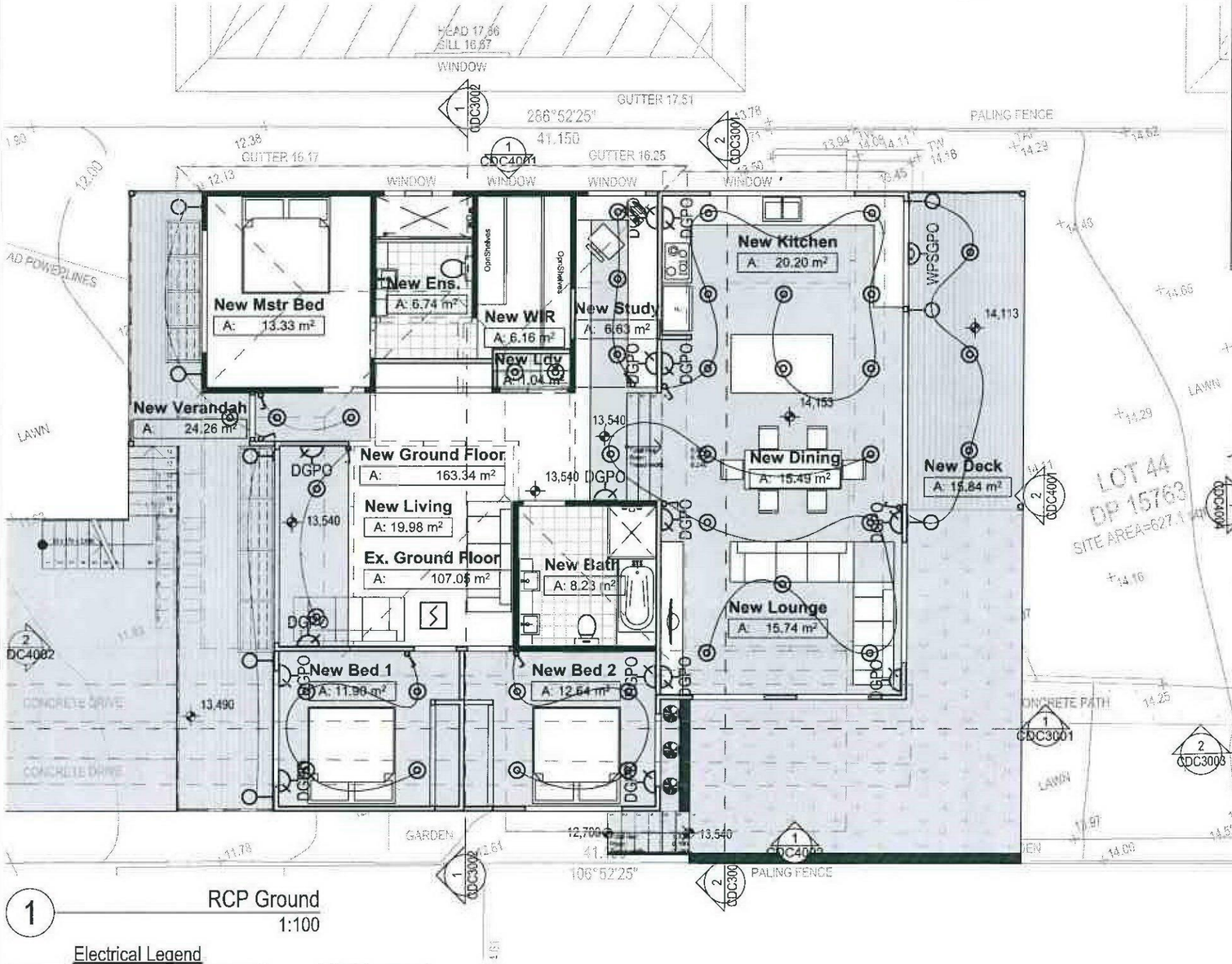
CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

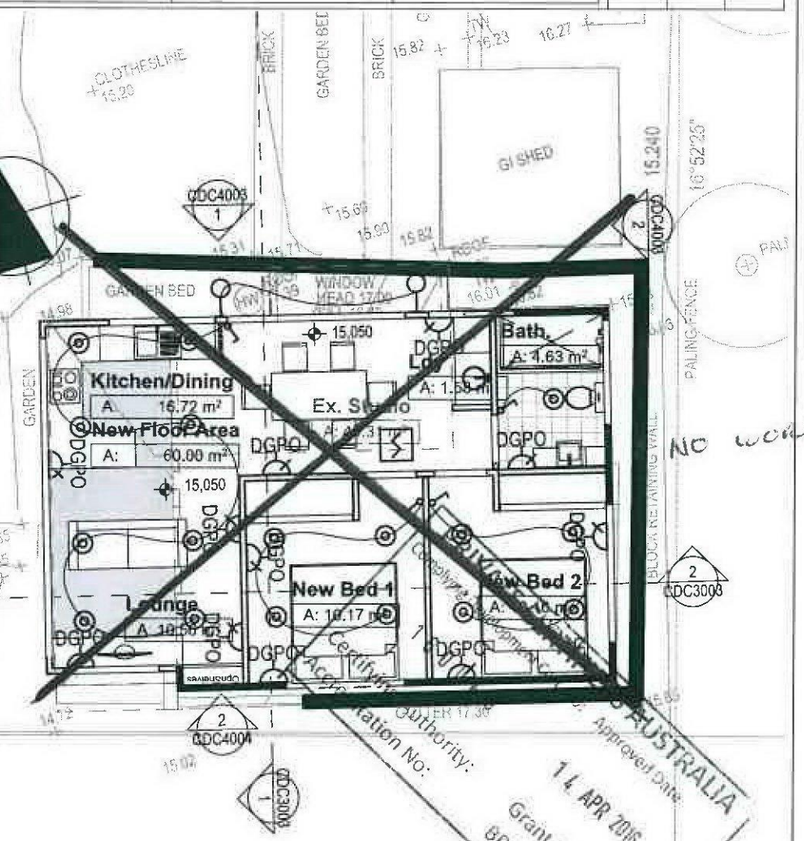
Client: Wade Streeter
Project Name: **Alterations & Additions**
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763

Drawing Title: Plans - Ground Floor Plan - Dwelling
Ground Floor Plan Dwelling

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC2002



1 RCP Ground
1:100



Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceiling/roof(s)) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7)	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Approved Date 14 APR 2016
Grant Harrington
BPB 0170
Certification No:
Authority:
AUSTRALIA

Electrical Legend

- Wall Mounted Light
- Down Light
- DGPO Double Power Point
- Hard Wired Smoke Detector
- Light Switch
- WPSGPO Weather Proof P. Point

Builder to Check and Confirm all Measurements Prior to Commencement

Wall Legend

- Denotes New Timber Framed Wall/Floor/Ceiling/Roof
- Denotes Existing Wall
- Denotes Demolished Item
- Denotes New Concrete Block Wall
- Denotes New Works

CDC Application ONLY

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps

Basix

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floor(s), walls, and ceiling/roof(s)) in accordance with the specifications listed in the table below, except that: a) additional insulation is not required where the area of new construction is less than 2m2. b) insulation specified is not required for parts of altered construction where insulation already exists.

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

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BUILDING DESIGNERS AUSTRALIA

Project North
N

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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client:
Wade Streeter

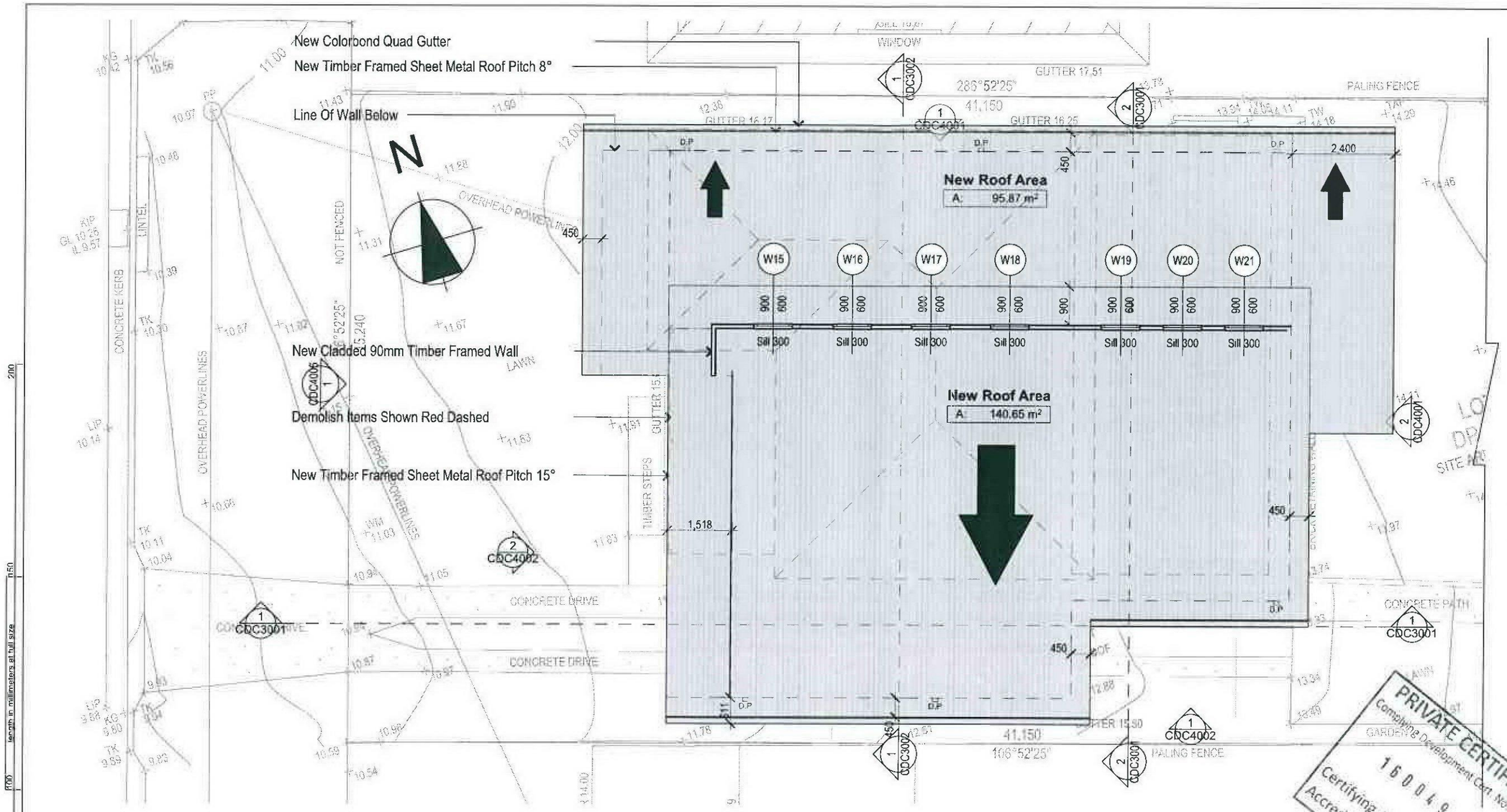
Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

Lot 44 D.P. 15763

Drawing Title:
Plans - RCP Ground
RCP Ground

Scale: A3 as noted
Status: CDC
Project No.
RP0815STR

Date: 29/02/2016
Checked By: GBJ
Drawing No.
CDC2004



1 Roof Plan Dwelling
1:100

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7)	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up); roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Denotes New Works

Wall Legend

Denotes New Timber Framed Wall

Denotes Demolished Item

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:
Setback Sth Property = 6232mm
Setback Nth Property = 7656mm
Average Front Setback = 6944mm
Rear Set Back Gnd Flr = (Existing) Min 3.0m
Side Set Back Gnd Flr = 1302mm, 1021mm Min 900mm
Building Height Dwelling= 8275mm Max 8.5m
Building Height Granny Flat= 3904mm Max 8.5m
Site Area = 627.1m2
Site Coverage/Gnd Flr Area = 297.61m2 Max 313.50m2 (50%)
FSR = 223.34m2 Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No: 16049
Approved Date: 14 APR 2016
Certifying Authority: Grant Harrington
Accreditation No: BPB 0170

REFER TO SHEET NO. CDC2006

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Email : areea@rapidplans.com.au
BUILDING DESIGNERS AUSTRALIA NSW

NOTES
13 Sydney road Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, veranda, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

CDC Application ONLY

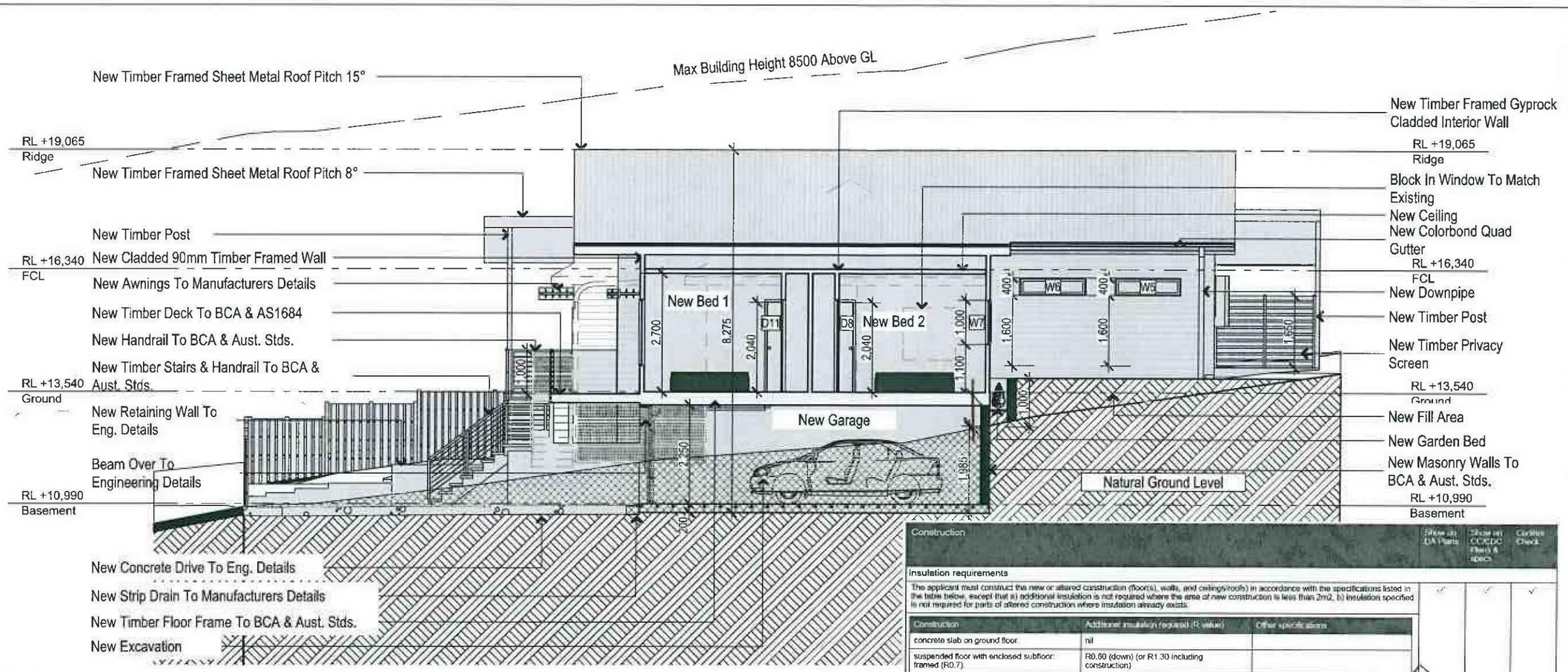
The Builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

Lot 44 D.P.15763

Drawing Title:
Plans - Roof Plan - Dwelling
Roof Plan Dwelling

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC2005

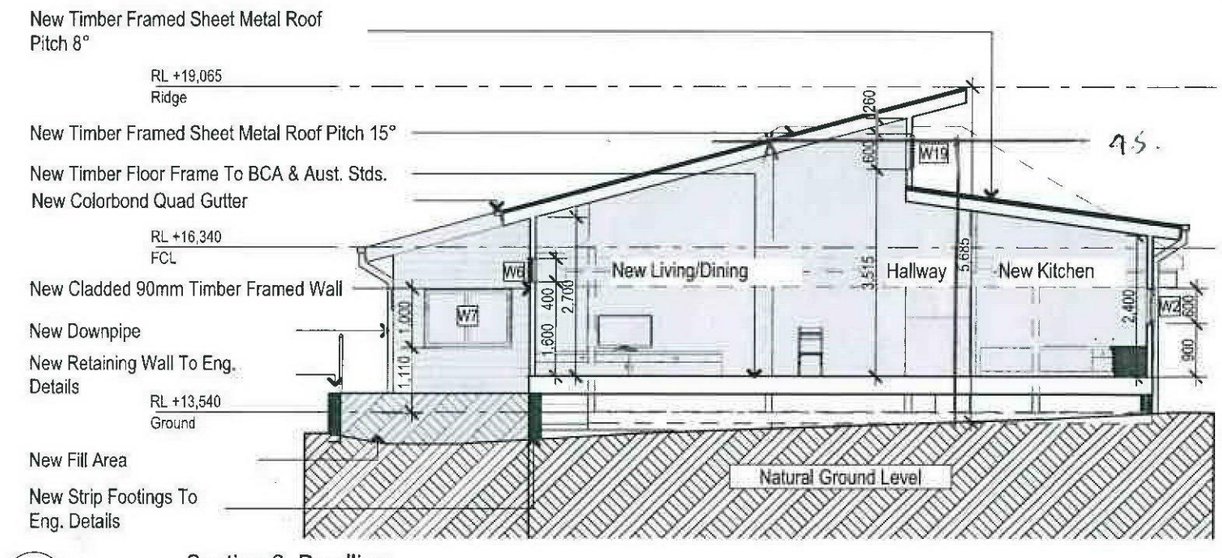


1 Section 1 Dwelling
1:100

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7)	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No:
Approved Date
14 APR 2016
Certifying Authority
Accredited Number
Grant Barrington
BPB 0170



2 Section 2 Dwelling
1:100

Denotes New Works

Denotes New Excavation Works

Wall Legend

Denotes New Concrete Block Wall

Denotes New Timber Framed Wall/Floor/Ceiling/Roof

Denotes Demolished Item

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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BUILDING DESIGNERS AUSTRALIA NSW

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps.
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241037_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
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Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

CDC Application ONLY

The Builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

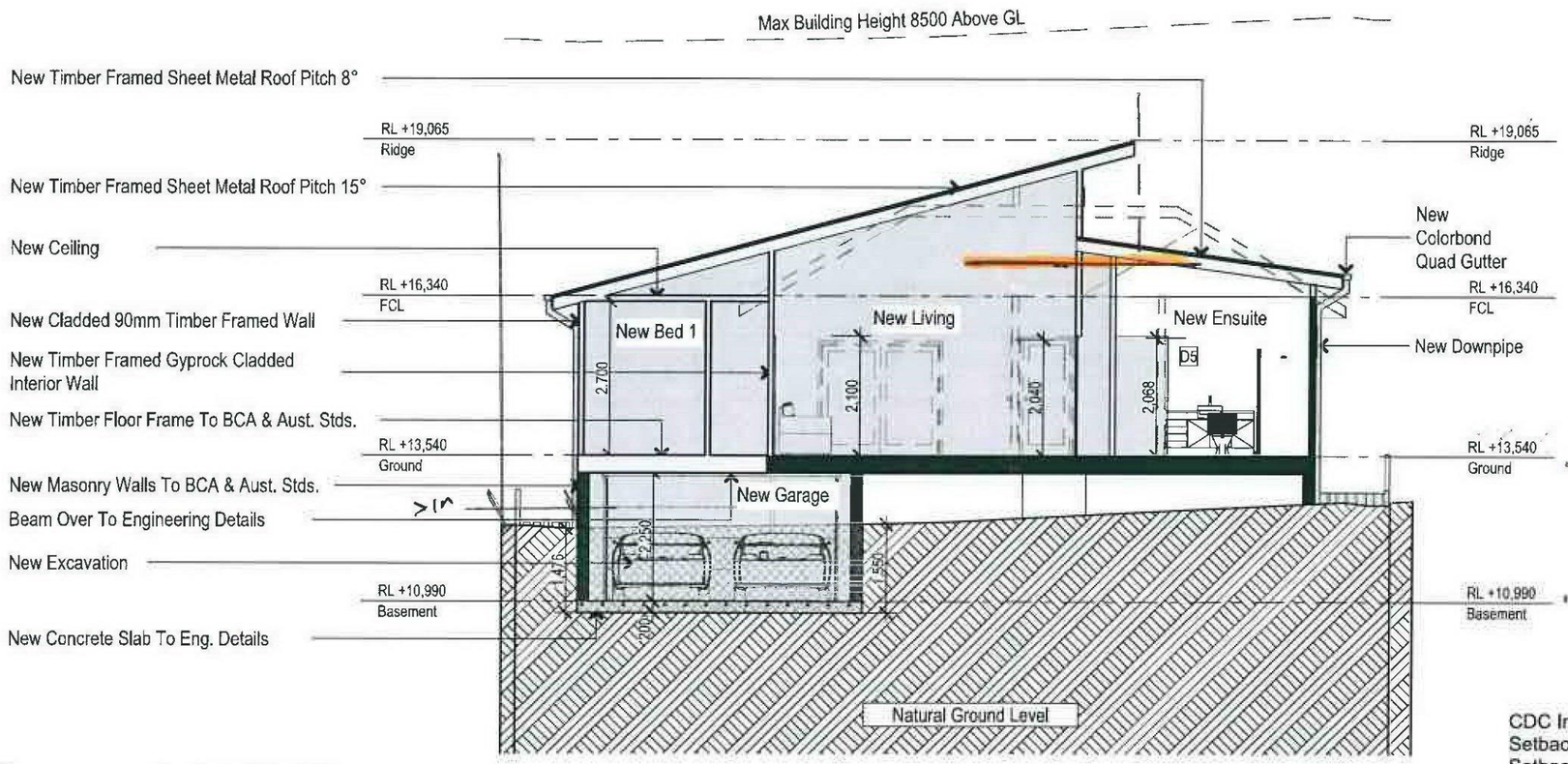
Lot 44 D.P.15763

Drawing Title:
Sections - Sections - Dwelling 1
Section 1 Dwelling, Section 2 Dwelling

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC3001

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)



1 Section 3 Dwelling
1:100

Denotes New Works

Denotes New Excavation Works

Wall Legend

Denotes New Timber Framed Wall/Floor/Ceiling/Roof

Denotes Existing Wall

Denotes Demolished Item

Denotes New Concrete Block Wall

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Certificate
Approved date
Certifying Authority
Accreditation No. BPB 0163
Grant Harrington

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
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Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Basix

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floors(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that: a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.

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Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

CDC Application ONLY

Builder to Check and Confirm all Measurements Prior to Commencement

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BUILDING DESIGNERS AUSTRALIA

Project North
N

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Client:
Wade Streeter

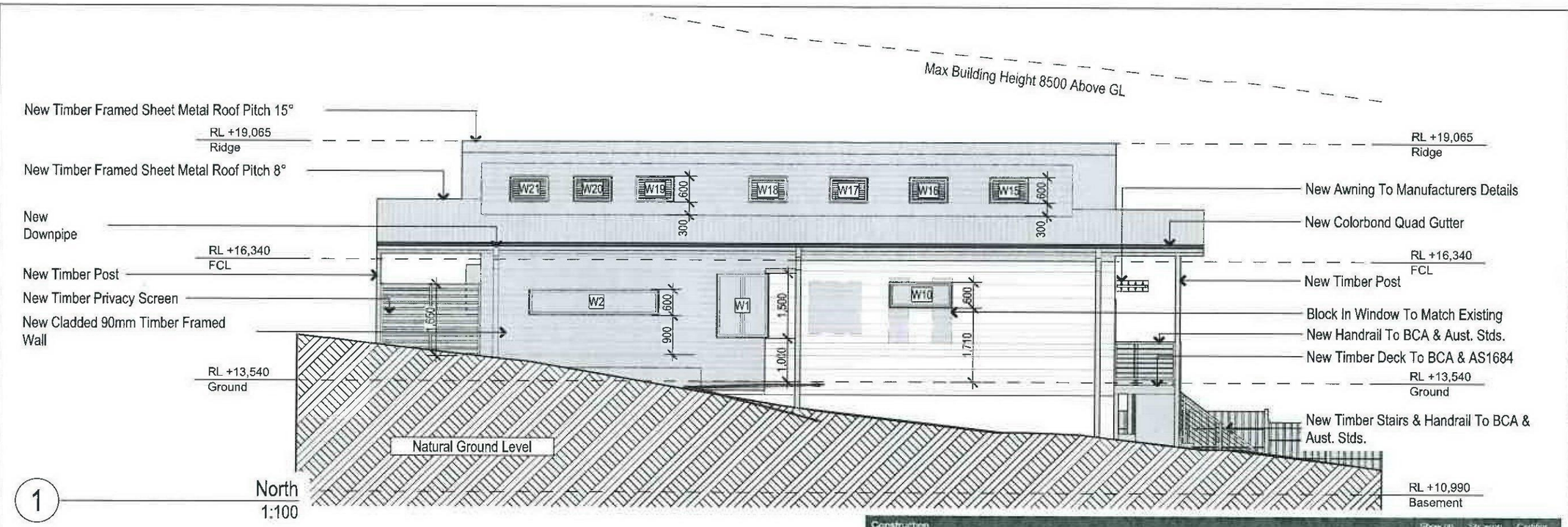
Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

Lot 44 D.P.15763

Drawing Title:
Sections - Sections - Dwelling 2
Section 3 Dwelling

Scale: A3 as noted
Status: CDC
Project No.
RP0815STR

Date: 29/02/2016
Checked By: GBJ
Drawing No.
CDC3002



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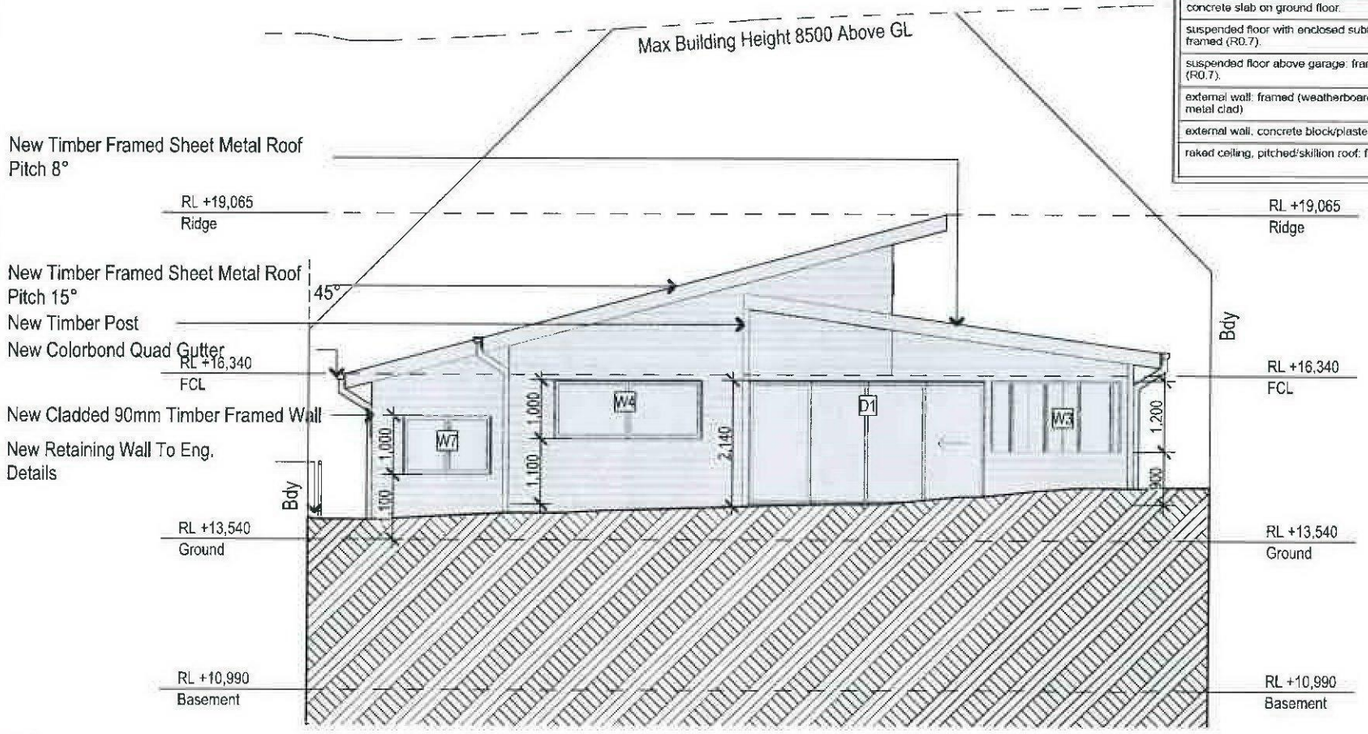
North
1:100



2

East
1:100

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			

The applicant must construct the new or altered construction (floors(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.

Construction	Additional insulation required (R value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

PRIVATE CERTIFICATE
Complying Development Certificate
Certifying Authority:
Accreditation No: 1 6 0 0 4 9
Grant Cunningham
BPB 0170

Denotes New Works

Wall Legend

Denotes Demolished Item

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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Email : areaa@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floors), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in degrees, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

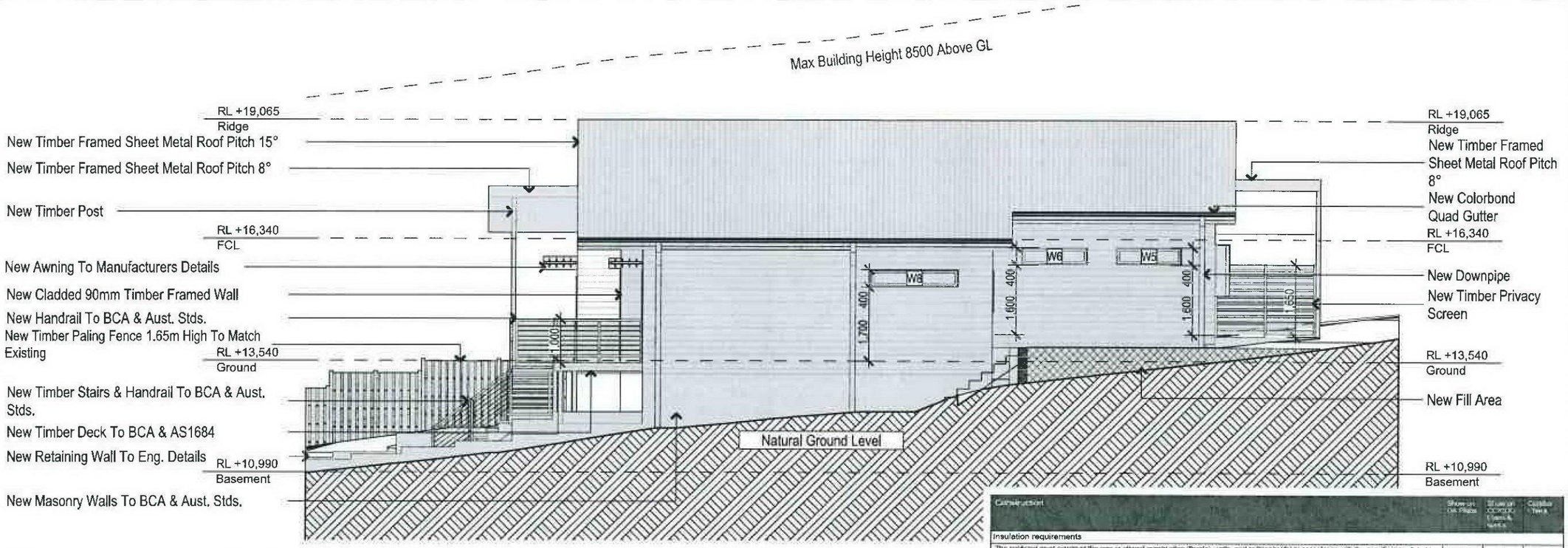
Project North N

CDC Application ONLY

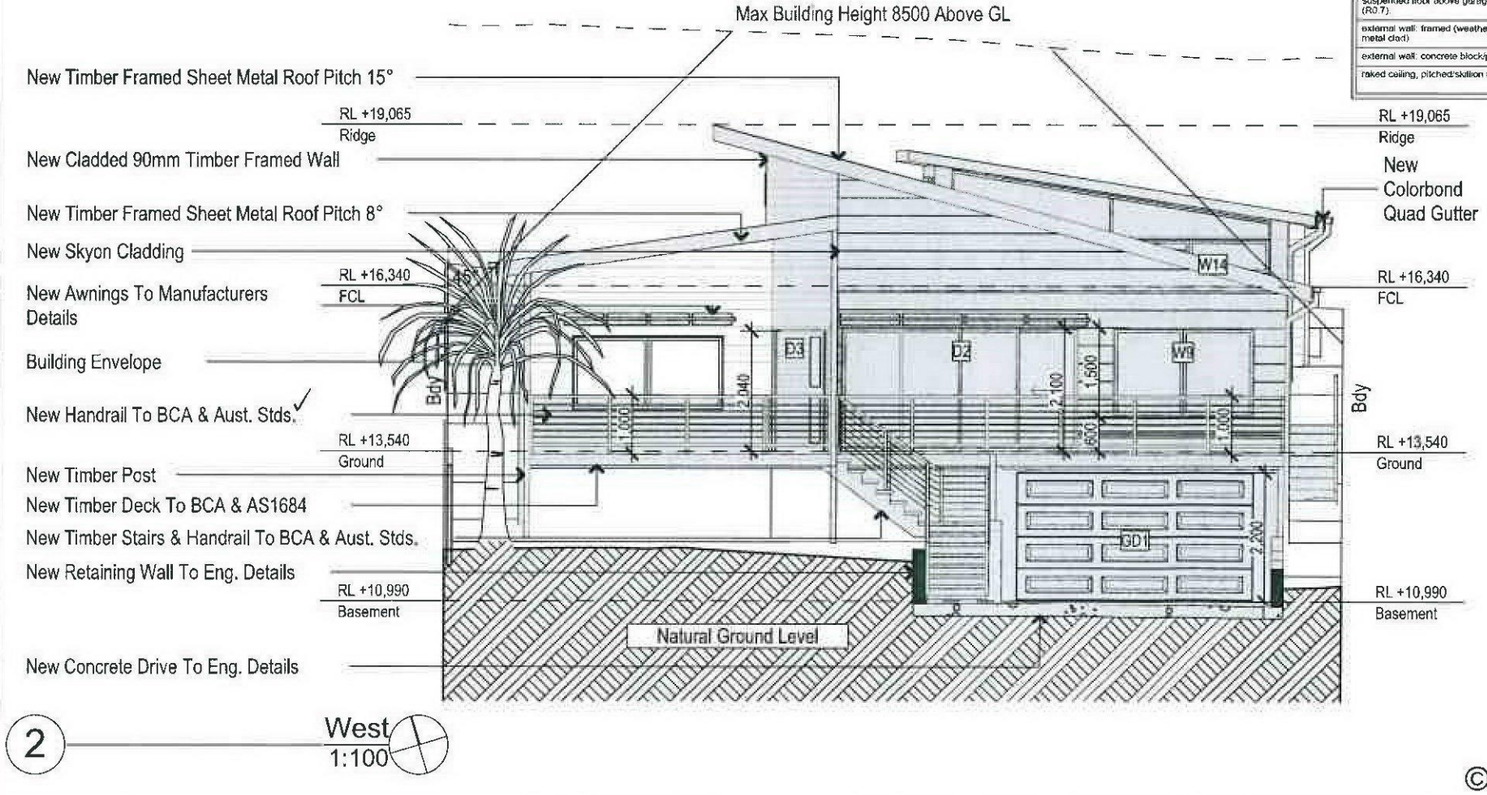
The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763
Drawing Title:
Elevations - Elevations - Dwelling 1
North, East

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC4001



1 South 1:100



2 West 1:100

Construction	Insulation requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Comply on Site
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.		✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7)	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.7)

Denotes New Excavation Works

Denotes New Works

Wall Legend

Denotes New Concrete Block Wall

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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PRIVATE CERTIFIERS AUSTRALIA
Certifying Authority
Accreditation No. 16 0 0 4 9
Complying Development Cert. No.
Approval Date 14 APR 2016
Grant Harrington
BPB.0170

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bda BUILDING DESIGNERS AUSTRALIA NSW

NOTES
13 Sydney road Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors. Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls.
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2017
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Project North N

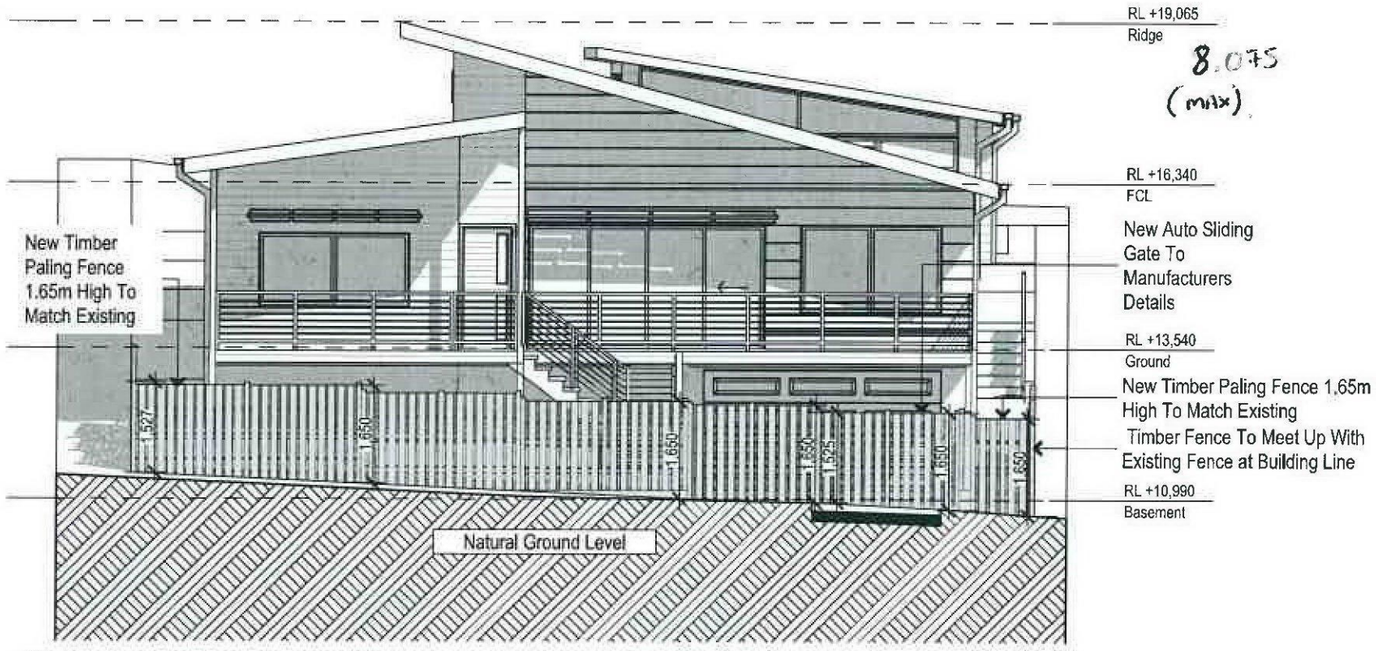
CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

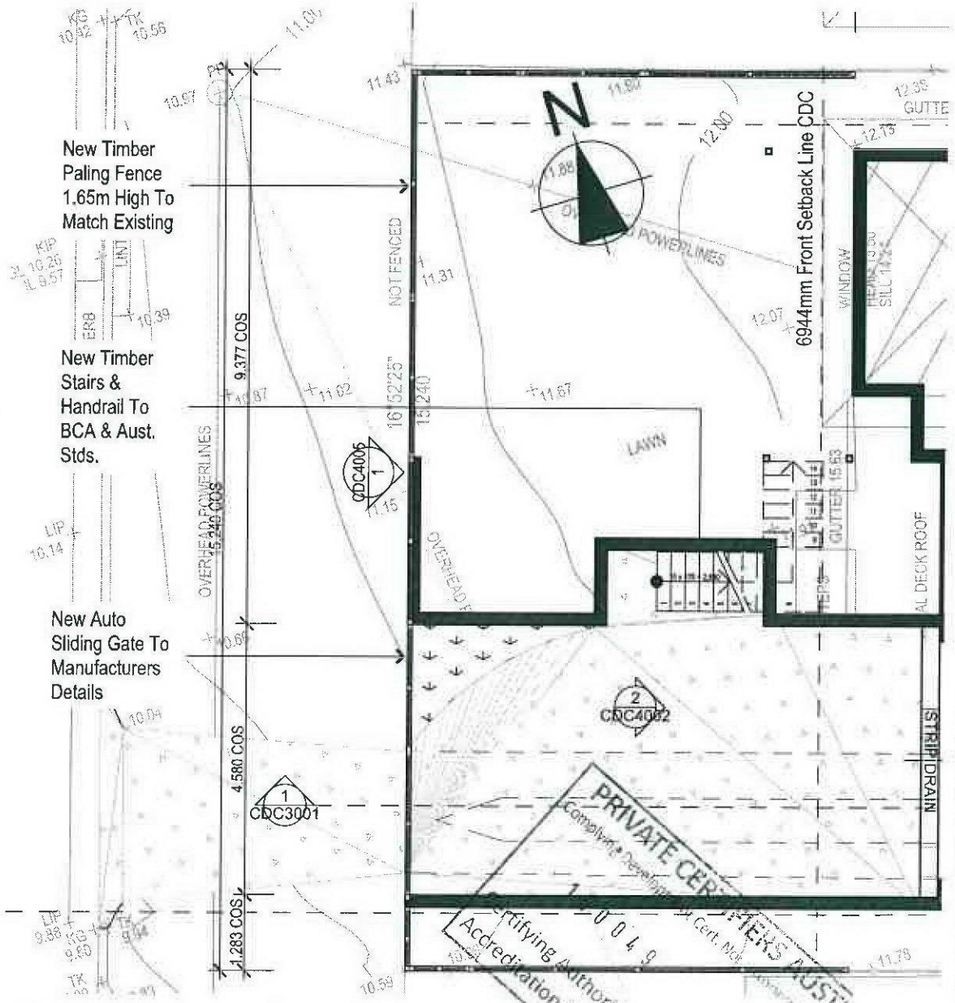
Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

Lot 44 D.P.15763
Drawing Title:
Elevations - Elevations - Dwelling 2
South, West

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC4002



1 Fence Elevation
1:100



1 Fence Plan
1:100

Typical Type Sliding Gate System. Easy Gate or Similar

Denotes New Works

Wall Legend

Denotes Demolished Item

Denotes Existing Wall

CDC Application ONLY

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2017
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps

Basix

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that:
a) additional insulation is not required where the area of new construction is less than 2m2,
b) insulation specified is not required for parts of altered construction where insulation already exists.

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

PRIVATE CERTIFIERS AUSTRALIA
Certifying Authority
Accreditation No:
14 APR
BPB 0270

Builder to Check and Confirm all Measurements Prior to Commencement

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BUILDING DESIGNERS AUSTRALIA

Project North
N

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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

Lot 44 D.P.15783
Drawing Title:
Elevations - Elevation Front Fence
Fence Elevation, Fence Plan

Scale: A3 as noted
Status: CDC
Project No.
RP0815STR

Date: 29/02/2016
Checked By: GBJ
Drawing No.
CDC4005

Door Schedule

ID	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
Door Name	Sliding Stacker Door	Sliding Stacker Door	Door 18	Door 18	Door 18	Sliding Robe Doors	Sliding Robe Doors	Door 18	Sliding Robe Doors	Sliding Robe Doors	Door 18	Sliding Stacker Door
Leaf Dimensions	4,000x2,100	4,000x2,100	820x2,040	820x2,040	820x2,040	2,420x2,100	1,400x2,100	820x2,040	2,093x2,100	2,093x2,100	820x2,040	3,000x2,100
Height	2,100	2,100	2,040	2,040	2,040	2,100	2,100	2,040	2,100	2,100	2,040	2,100
Width	4,000	4,000	820	820	820	2,420	1,400	820	2,093	2,093	820	3,000
Door Sill Height	0	0	0	0	0	0	0	0	0	0	0	0
Door Head Height	2,100	2,100	2,040	2,040	2,040	2,100	2,100	2,040	2,100	2,100	2,040	2,100
2D Symbol												
Elevation												

D13	D14	D15	GD1
Cavity Sliding Door	Door 18	Door 18	Overhead Garage Door 18
820x2,100	820x2,040	820x2,040	4,000x2,200
2,100	2,040	2,040	2,200
820	820	820	4,000
0	0	0	0
2,100	2,040	2,040	2,200

1 Door List 1:1

BASIX Certificate number: A241027_02 page 5 / 7

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W6	S	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W7	E	1.5	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W8	S	0.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W9	W	3.6	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W10	N	0.9	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
D1	E	8.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
D2	W	8.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W15	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W16	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W17	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W18	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W19	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W20	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Planning & Infrastructure — Building Sustainability Index www.basix.nsw.gov.au

BASIX Certificate number: A241040_03 page 4 / 6

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W11	N	1.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W12	N	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W13	S	1.2	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W14	W	1.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
D12	N	6.3	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)

PRIVATE CERTIFIERS AUSTRALIA
Certifying Authority:
Accreditation No:
Approved Date 14 APR 2016
Grant Harrington
BPB0170

Builder to Check & Confirm all Door Sizes, Configuration & Allow for Clearances Prior to Ordering

CDC Application
ONLY

Builder to Check and Confirm all Measurements Prior to Commencement

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps

Basix

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that: a) additional insulation is not required where the area of new construction is less than 2m2. b) insulation specified is not required for parts of altered construction where insulation already exists.

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

CDC Information

Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

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DC NSW 2086
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Mobile: 0414-945-024
Email : gregg@rapidplans.com.au

BUILDING DESIGNERS AUSTRALIA

Project North
N

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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client: Wade Streeter

Client: Wade Streeter
Project Name: **Alterations & Additions**
13 Sydney road, Warriewood 2102

Lot 44 D.P. 15763
Drawing Title: Sunstudy - Door Schedule Door List

Scale: A3 as noted
Status: CDC
Project No.: RP0815STR

Date: 29/02/2016
Checked By: GBJ
Drawing No.: CDC5001

ID	W1	W2	W3	W4	W5	W6	W7
Window Name	Double Sash Window 18	Window 18	Sliding Folding Multipanel Bifold Door 18	Double Sash Window 18	Double Sash Window 18	Double Sash Window 18	Double Sash Window 18
Height	1,500	600	1,160	1,000	400	400	1,000
Width	1,200	3,000	2,100	2,500	1,500	1,500	1,500
Window sill height	1,000	900	900	1,100	1,600	1,600	1,100
Window head height	2,500	1,500	2,060	2,100	2,000	2,000	2,100
2D Symbol							
Elevation							

W8	W9	W10	W11	W12	W13	W13a	W13b	W14
Double Sash Window 18	Double Sash Window 18	Window 18	Double Sash Window 18	Window 18	Double Sash Window 18	2-Sash Sliding Window 18	Panel Window Angled	Double Sash Window 18
400	1,500	600	1,000	1,000	600	600	300	800
2,000	2,400	1,450	1,800	600	2,000	1,500	5,400	2,733
1,700	600	1,710	1,100	1,000	1,500	1,500	2,100	1,500
2,100	2,100	2,310	2,100	2,000	2,100	2,100	2,400	2,100

W15	W16	W17	W18	W19	W20	W21	W22	W23
Window 18	Window 18	Window 18	Window 18	Window 18	Window 18	Window 18	Window 18	Window 18
600	600	600	600	600	600	600	600	600
900	900	900	900	900	900	900	3,000	1,800
1,328	1,328	1,328	1,328	1,328	1,328	1,328	150	150
1,928	1,928	1,928	1,928	1,928	1,928	1,928	750	750

1 Window List
1:1

BASIX Certificate number: A241027_02 page 4 / 7

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W1	N	1.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W2	N	1.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W3	E	2.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W4	E	2.5	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W5	S	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)

Planning & Infrastructure Building Sustainability Index www.basix.nsw.gov.au

Builder to Check & Confirm all Window Sizes, Configuration & Allow for Clearances Prior to Ordering

BASIX Certificate number: A241027_02 page 6 / 7

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W21	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Builder to Check and Confirm all Measurements Prior to Commencement

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PRIVATE CERTIFIERS
Certification Authority
Accreditation No: 150049
Cert No: 4 APR 2016
Date:

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BUILDING DESIGNERS AUSTRALIA

NOTES
13 Sydney road,Warriewood is zoned R2

All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood
is not considered a heritage item

Construction
Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS/1288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps.
All workmanship and materials shall be in accordance with the requirements of Building Codes of Australia.

Basix
Basix Certificate Number A241027_02, A241040_02
All Plans to be read in conjunction with Basix Certificate
The applicant must construct the new or altered construction (floors), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.
Overshadowing buildings or vegetation must be of the height and distance from the centre and the frame of the window or the glazed door.

Project North

CDC Application ONLY

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102
Lot 44 D.P.15763
Drawing Title:
Sunstudy - Window Schedule
Window List

Scale: A3 as noted	Date: 29/02/2016
Status: CDC	Checked By: GBJ
Project No: RP0815STR	Drawing No. CDC5002

BASIX Certificate

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

Alterations and Additions

Certificate number: A241027_02

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

Director-General
Date of issue: Tuesday, 23, February 2016
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW Government | Planning & Infrastructure

Description of project

Project address	
Project name	Streeter_02
Street address	13 sydney Road warriewood 2102
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 15763
Lot number	44
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and does not include a pool (and/or spa).

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: Rapid Plans
ABN (if applicable): 43150064592

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
external wall: concrete block/plasterboard	R1.18 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R1.74 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W1	N	1.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W2	N	1.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W3	E	2.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W4	E	2.5	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W5	S	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert No: 16 ... 9
Approved Date 14 APR 2016
Grant Harrington BPB 0170

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

Basix

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that: a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

CDC Application ONLY

Builder to Check and Confirm all Measurements Prior to Commencement

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BUILDING DESIGNERS AUSTRALIA

Project North N

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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client: Wade Streeter	Client: Wade Streeter Project Name: **Alterations & Additions** 13 Sydney road, Warriewood 2102	Lot 44 D.P.15763 Drawing Title: Sunstudy - Basix Requirements - Dwelling	Scale: A3 as noted Status: CDC Project No. RP0815STR	Date: 29/02/2016 Checked By: GBJ Drawing No. CDC5004

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W6	S	0.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W7	E	1.5	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W8	S	0.8	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W9	W	3.6	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W10	N	0.9	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
D1	E	8.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
D2	W	8.4	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W15	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W16	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W17	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W18	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W19	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W20	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W21	N	0.54	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.

PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No: 16049
Approved Date 14 APR 2016
Certifying Authority: Grant Harrington
Accreditation No: BPB 0170

CDC Information
Setbacks & Open Space Ratios have Been Determined As Follows:

Setback Sth Property =	6232mm	
Setback Nth Property =	7656mm	
Average Front Setback =	6944mm	
Rear Set Back Gnd Flr =	(Existing)	Min 3.0m
Side Set Back Gnd Flr =	1302mm, 1021mm	Min 900mm
Building Height Dwelling=	8275mm	Max 8.5m
Building Height Granny Flat=	3904mm	Max 8.5m
Site Area =	627.1m2	
Site Coverage/Gnd Flr Area =	297.61m2	Max 313.50m2 (50%)
FSR =	223.34m2	Max 430m2

CDC Application ONLY

Builder to Check and Confirm all Measurements Prior to Commencement

NOTES

13 Sydney road,Warriewood is zoned R2
All Plans to be read in conjunction with Basix Certificate
New Works to be constructed shown in Shaded/Blue
13 Sydney road,Warriewood is not considered a heritage item

Construction

Concrete Slab On Ground Floor & Timber Frame Floors, Timber Framed Sheet Metal Roofs, Cladded Timber Stud & Concrete Block Walls
Roof Sheet Metal To Have R1.74 Insulation
Insulation to External Timber Framed Walls R1.70
Refer to Engineers drawings for structural details
All work to Engineers Specification and BCA
Timber framing to BCA and AS 1684
Termite Management to BCA and AS 3660.1
Glazing to BCA and AS01288-2047
Waterproofing to BCA and AS 3740
New Lighting to have minimum of 40% compact fluorescent lamps

Basix Certificate Number A241027_02, A241040_02

All Plans to be read in conjunction with Basix Certificate

The applicant must construct the new or altered construction (floor(s), walls, and ceiling/roofs) in accordance with the specifications listed in the table below, except that: a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below.
Relevant overshadowing specifications must be satisfied for each window and glazed door.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door.

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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

Client:
Wade Streeter

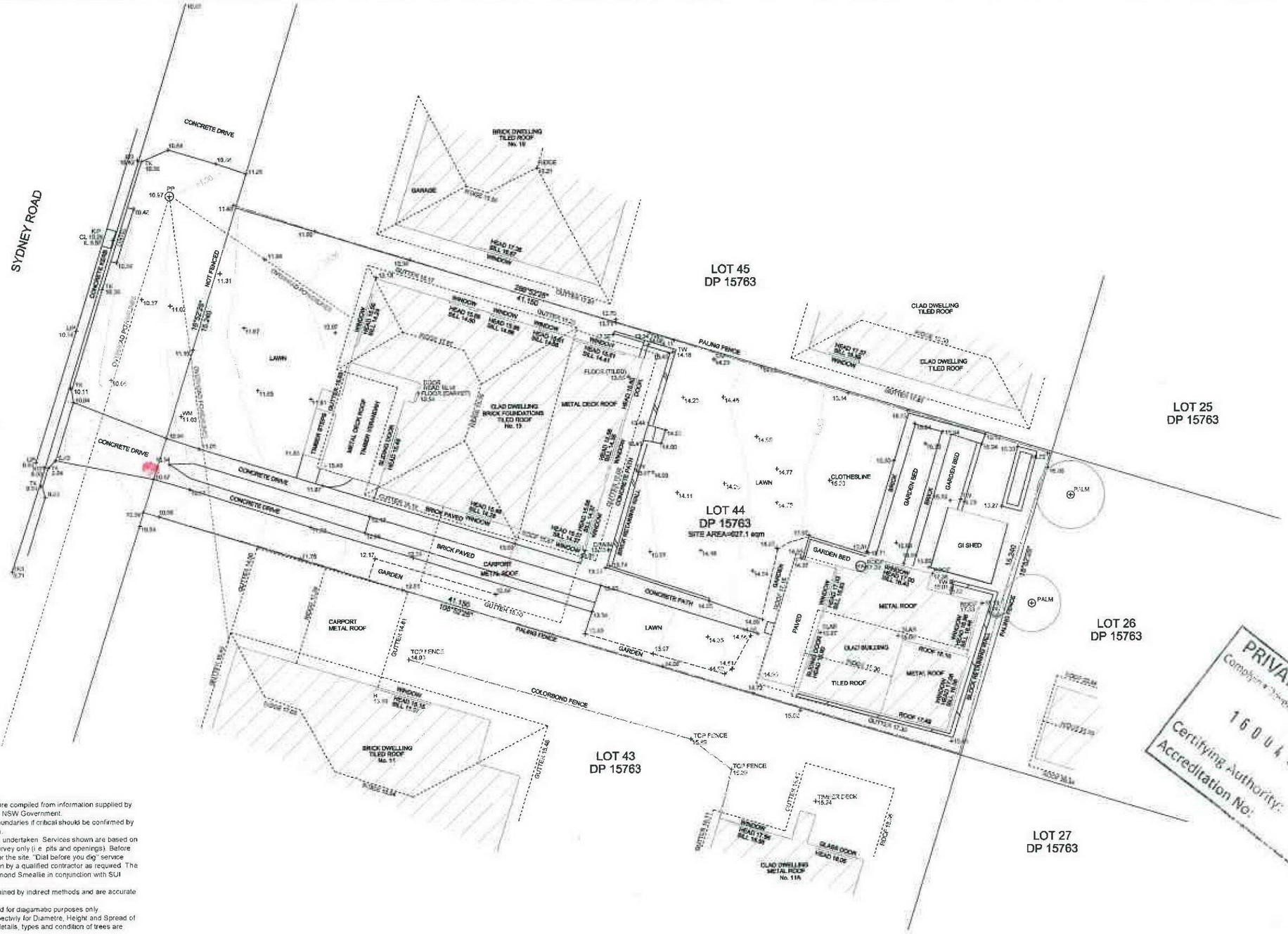
Client
Wade Streeter
Project Name
Alterations & Additions
13 Sydney road, Warriewood
2102

Lot 44 D.P.15783

Drawing Title:
Sunstudy - Basix Requirements - Dwelling 2

Scale: A3 as noted
Status: CDC
Project No.
RP0815STR

Date: 29/02/2016
Checked By: GBJ
Drawing No.
CDC5005



PRIVATE CERTIFIERS AUSTRALIA
Complying Development Cert. No: 16 0 0 4 9
Approved Date 14 APR 2016
Certifying Authority: Grant Harrington
Accreditation No: BPB 0170

Notes

1. All bearings are on True North orientation.
2. Limited boundary survey has been undertaken.
3. Bearings and measurements shown on the plan are compiled from information supplied by the Land and Property Information Division of the NSW Government.
4. The relationship of improvements and detail to boundaries if critical should be confirmed by a full boundary identification survey or redefinition.
5. No subsurface utility investigation (SUI) has been undertaken. Services shown are based on visible surface indicators present at the time of survey only (i.e. pits and openings). Before any works or extensive designs are undertaken for the site, "Dial before you dig" service plans should be obtained andpotholing undertaken by a qualified contractor as required. The location of these services can be plotted by Hammond Smeallie in conjunction with SUI contractors.
6. Ridge, eave, roof gutter, windows have been obtained by indirect methods and are accurate for planning purposes only.
7. Adjoining buildings and features have been plotted for diagamatic purposes only.
8. Tree detail is shown as Dia xx / Ht xx / Sp xx respectivly for Diametre, Height and Spread of the tree.These details are estimates only. If tree details, types and condition of trees are critical a qualified arbourist should be consulted.
9. The location of fencing is diagramatic only.
10. Contours are approximate only and should only be used as a guide. Use spot levels for design purposes. Contour intervals are shown on the plan.

THE LAND IS HELD SUBJECT TO A COVENANT (D619972) WHICH HAS NOT BEEN INVESTIGATED AS PART OF THIS SURVEY

1 Survey 1:200

0m 2.5m 5m 7.5m 10m
SCALE 1:100 @ A1

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W: www.hammondsmeallie.com.au
ABN: 16 001 894 800

DETAIL AND LEVELS PLAN

Project: 13 Sydney Road, WARRIEWOOD NSW 2102
LGA: Pittwater
Title: Lot 44 in DP15763
Client: Wade Streeter

Horizontal Datum
Orientation: True North
Azimuth adopted from: (DP867266)

Vertical Datum
Datum: AHD Level: 17.460
Source: SSM 11093
Source SCIMS: (LC/L3)

Sheet No.	Date of survey	Plan No.
1 of 1	22/07/2015	1
Scale: 1:100 @ A1	Surveyed by: Warren Rolfe	Revision No: A
Project No: 13614		

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BUILDING DESIGNERS AUSTRALIA

Project North
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The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction.

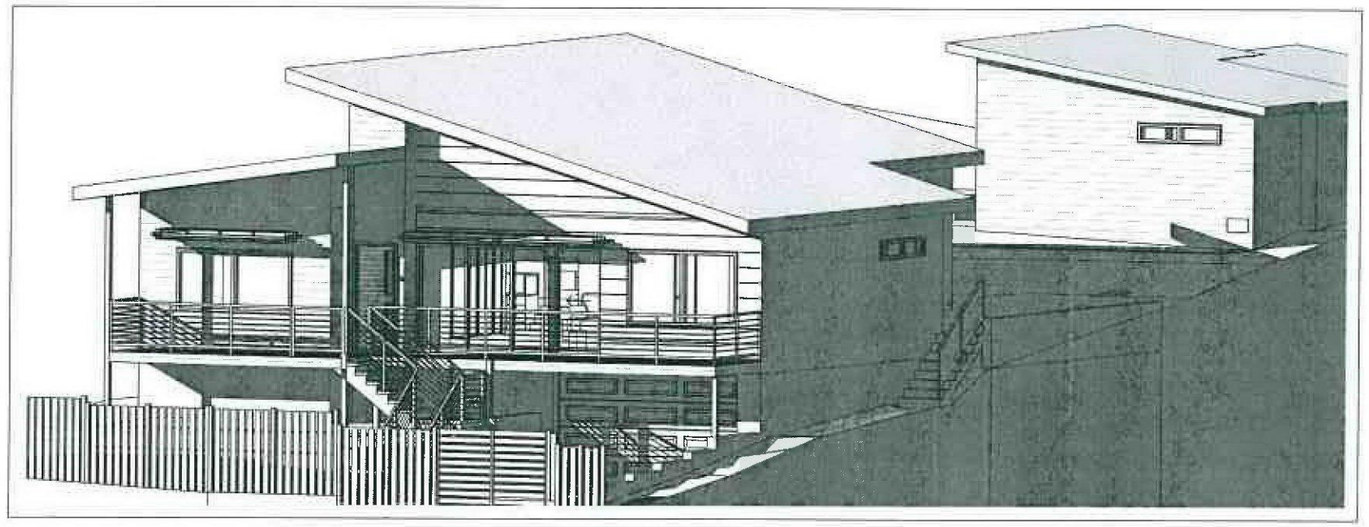
Client:
Wade Streeter

Project Name: Alterations & Additions 13 Sydney road,Warriewood 2102	Lot 44 D.P.15763 Drawing Title: Site Plans - Survey Plan	Scale: A3 as noted Status: CDC Project No. RP0815STR	Date: 29/02/2016 Checked By: GBJ Drawing No. CDC1001

13 SYDNEY ROAD, WARRIEWOOD

STORMWATER MANAGEMENT PLAN

DRAWING NUMBER	DRAWING TITLE
P160141-DR-000-0	LEGEND
P160141-DR-001-0	PIPE LAYOUT
P160141-DR-002-0	KERB AND PIT DETAILS



LEGEND:

- ODP DOWNPIPE
- RH RAINWATER HEAD
- RW RAINWATER PIPE
- PW POTABLE WATER PIPE
- WW WASTEWATER PIPE
- SW STORMWATER PIPE
- SW EXISTING PIPE
- DRAINAGE PIT
- GRATED BOX DRAIN

NOTES:

1. ALL DIMENSIONS TO BE CONFIRMED ON SITE. SITE LAYOUT BASED ON ARCHITECTURAL PLANS BY RAPID PLANS (FEBRUARY 2016), SITE SURVEY BY HAMMOND SMEALLIE & CO PTY LTD (JULY 2015).
2. LOCATION OF ALL SERVICES MUST BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
3. ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH RELEVANT STANDARDS, THE BUILDING CODE OFAUSTRALIA,MANUFACTURER'S RECOMMENDATIONS, SYDNEY CATCHMENT AUTHORITY RECOMMENDED PRACTICE, AND LOCAL COUNCIL, AS APPLICABLE.
4. ALL INVERT LEVELS PROVIDED ON THIS DRAWING ARE REDUCED TO AHD AND BASED ON INTERPOLATED SURFACE LEVELS AND SYSTEM REQUIREMENTS
5. WHERE POSSIBLE PIPEWORK SHALL BE DIVERTED THOUGH BUILDING SUB-FLOORS.
6. DOWNPIPES AND STORMWATER LINES TO BE SEALED DN100 PVC UNLESS OTHERWISE NOTED.
7. TO SUIT DOWNPIPE CONFIGURATION INDICATED ON SITE PLAN, EAVES GUTTERS TO HAVE MIN. EFFECTIVE CROSS-SECTIONAL AREA OF 8200mm^2 WITH AT LEAST 1:500 GRADIENT TO DN100 DOWNPIPES. ALTERNATIVE GUTTER AND DOWNPIPE CONFIGURATION MAY BE INSTALLED PROVIDED IT COMPLIES WITH AS3500.
8. ALL PIPE AND CONDUITS TO BE MARKED IN ACCORDANCE WITH AS1345 – 1995.
9. TRENCHES AND SERVICE SEPARATIONS IN ACCORDANCE WITH AS/NZS 5601, AS/NZS 3500, and AS/CA S009.

This drawing is confidential and shall only be used for the purposes of this project.

REVISIONS

No	BY	DATE	DESCRIPTION	APPD
0	LES	13/03/2016	APPROVED FOR SUBMISSION	IRW

Scale: NA

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THE OWNER OF THE TITLE BLOCK CONTAINS THE DESIGN AND DRAWING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	LES	CHECKED	IRW
DRAWN	LES	CHECKED	IRW
APPROVED	IRW	DATE	13/03/2016

Stellen

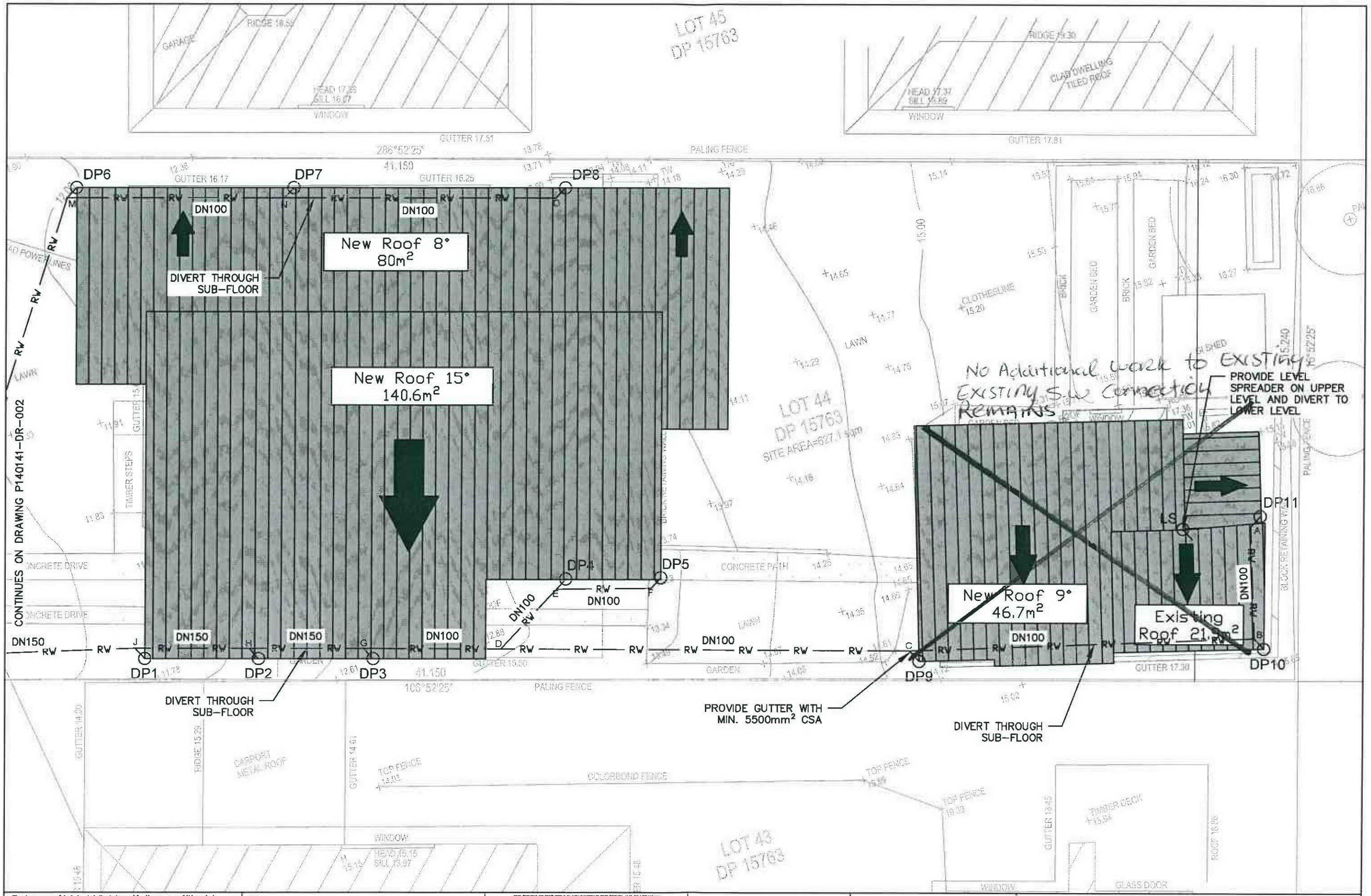
Stellen Consulting ABN 61 149 095 189

This design complies with AS3500.3 Pittwater Council 21 DCP

13 SYDNEY ROAD, WARRIEWOOD

LEGEND

Size	Status	Drg. No.	Rev.
A3	APPROVED FOR SUBMISSION	P160141-DR-000	0



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No	BY	DATE	DESCRIPTION	APPD
0	LES	13/03/2016	APPROVED FOR SUBMISSION	IRW

REVISIONS

Scale: 1:100

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THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE STELLEN QUALITY ASSURANCE SYSTEM

DESIGNED	LES	CHECKED	IRW
DRAWN	LES	CHECKED	IRW
APPROVED	IRW	DATE	13/03/2016

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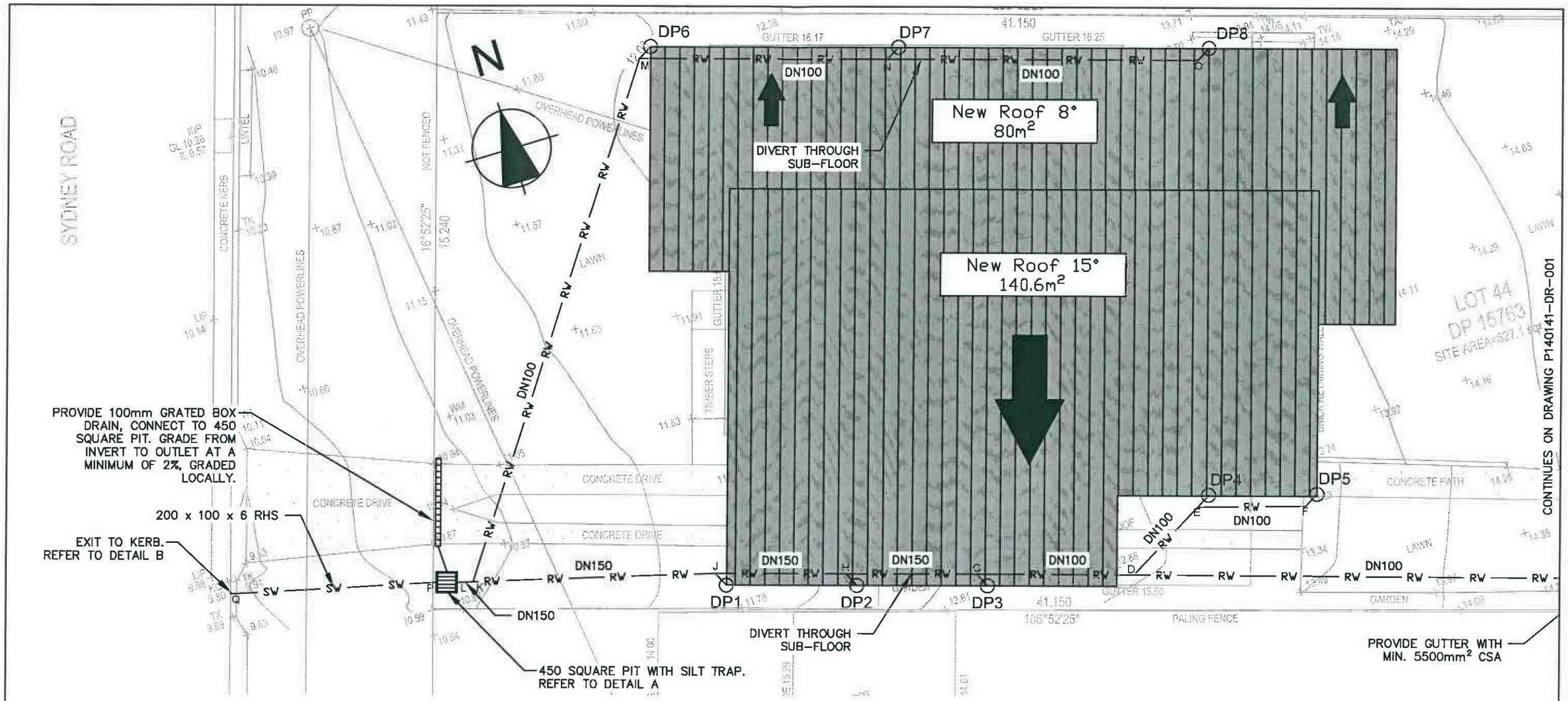
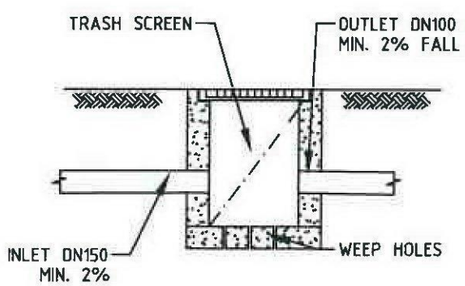
This design complies with
AS3500.3
Pittwater Council 21 DCP

67 TELEGRAPH ROAD, PYMBLE

PIPE LAYOUT

Size: A3 | Status: APPROVED FOR SUBMISSION | Drg No: P160140-DR-001 | Rev: 0





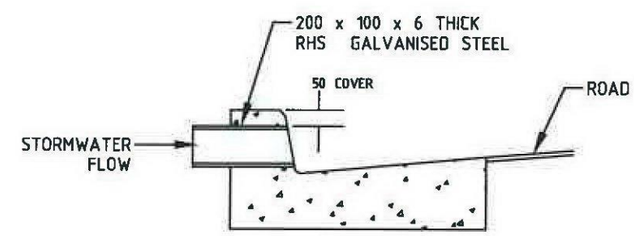
DETAIL A

450 SQUARE LIGHT DUTY PIT

NOT TO SCALE

NOTES:

1. 'LYSAGHT' MAXIMESH RH3030 (HOT DIPPED GALVANISED) OR EQUIVALENT.
2. MAXI MESH SCREENS MUST BE PLACED SUCH THAT THE LONG AXIS OF THE OVAL SHAPED HOLES ARE ORIENTATED HORIZONTALLY WITH THE PROTRUDING LIP ANGLED UPWARDS AND FACING TOWARDS THE OUTLET
3. 20DIA AT 150 SPACING AT BASE OF SUMP. BEDDING TO BE 100 THICK SAND/GRAVEL MATERIAL, FREE DRAINING WITH SUBSOIL PIPE TO NEAREST DOWNSTREAM PIT, PIPE, KERB OR OUTLET



DETAIL B

CONNECTION TO KERB

NOT TO SCALE

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REVISIONS				
0	LES	13/03/2016	APPROVED FOR SUBMISSION	IRW
No	BY	DATE	DESCRIPTION	APPD

Scale: 1:100

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DESIGNED	LES	CHECKED	IRW
DRAWN	LES	CHECKED	IRW
APPROVED	IRW	DATE	13/03/2016

Stellen

Stellen Consulting ABN 61 149 095 189

This design complies with:
AS3500.3
Pittwater Council 21 DCP

67 TELEGRAPH ROAD, PYMBLE

KERB AND PIT DETAILS

Size	Status	Dwg No	Rev.
A3	APPROVED FOR SUBMISSION	P160140-DR-002	0