

Paul Rolfe Consulting Pty Ltd
ABN: 74 105 418 773



PO Box 770,
Gladesville NSW 2111
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pr.consult@bigpond.com.au

Our reference: CD17.05.2113/01

22 May 2017

The General Manager
Northern Beaches Council
PO Box 882
Mona Vale NSW 1660

Dear Sir/Madam,

Re: 251 Whale Beach Road, Whale Beach NSW 2107
Complying Development Certificate No. CD17.05.2113/01
Planning Instrument Decision Made Under: SEPP (Exempt & Complying Development Codes)
2008, Part 4 Housing Alterations Code

PAUL ROLFE CONSULTING PTY LTD 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:

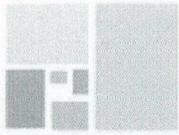
- Complying Development Certificate No. CD17.05.2113/01
- Copy of the application for the Complying Development Certificate.
- Documentation used to determine the application for the Complying Development Certificate as detailed in Schedule 1 of the Certificate.
- Notice to Commence & Appointment of PCA forms attached.
- Cheque for Council's registration fee.

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

Yours sincerely,

Paul Rolfe
Accredited Certifier
PAUL ROLFE CONSULTING PTY LTD

PRVC \$36
Rec: 410957



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COMPLYING DEVELOPMENT CERTIFICATE CD17.05.2113/01

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

APPLICANT DETAILS

Applicant: Mrs Brooke Lindsay
Address: 251 Whale Beach Road, Whale Beach NSW
2107
Phone: 0417 658 874

OWNER DETAILS

Name of the person having benefit of the development consent: Mrs Brooke Lindsay
Address: 251 Whale Beach Road, Whale Beach NSW
2107
Phone: 0417 658 874

COMPLYING DEVELOPMENT CONSENTS

Consent Authority / Local Government Area: Northern Beaches Council
Relevant Planning Instrument Decision Made Under: SEPP (Exempt & Complying Development Codes) 2008, Part 4 Housing Alterations Code
Date of Determination: 22/05/2017
Complying Development Certificate Number: CD17.05.2113/01

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: 251 Whale Beach Road, Whale Beach NSW
2107
Lot/DP: Lot 168 DP 15376
Land Use Zone:
Building Classification/s: 1a
Scope of Building Works Covered by this Certificate: Proposal of new windows to the bottom level rear of the property.
Value of Construction (incl. GST): \$20,000.00
Plans and Specifications approved: Refer Schedule 1: Approved Plans and Specifications
Fire Safety Schedule: N/A
Conditions: See Conditions attached
Exclusions:
Critical stage inspections: See attached Notice

CERTIFYING AUTHORITY

Accredited Certifier: Paul Rolfe
Accreditation Body and Registration Number: Building Professionals Board
BPB0347

I, Paul Rolfe, 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: 22/05/2017

Paul Rolfe

N.B. Prior to the commencement of work S86 (1) and (a) of the Environment Planning and Assessment Act 1979 must be satisfied.



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SCHEDULE 1: APPROVED PLANS AND SPECIFICATIONS

1. Endorsed Architectural Plans

Prepared by	Document	Drawing number	Revision	Date
Studio and Co	Cover Page	CDC01.B	B	03/05/2017
Studio and Co	Site Plan	CDC02.B	B	03/05/2017
Studio and Co	Existing Lower Ground Floor Plan	CDC03.B	B	03/05/2017
Studio and Co	Proposed Lower Ground Floor Plan	CDC04.B	B	03/05/2017
Studio and Co	Existing External Rear Elevation	CDC05.B	B	03/05/2017
Studio and Co	Proposed External Rear Elevation	CDC06.B	B	03/05/2017

2. Copies of Structural Plans

Prepared by	Document	Drawing number	Revision	Date
E2 Structural Engineers	General Notes	S1		07/03/2017
E2 Structural Engineers	Pad Footing Plan	S2		07/03/2017
E2 Structural Engineers	Deck Framing Plan	S3		07/03/2017
E2 Structural Engineers	Wall Removal Plan	S4		07/03/2017
E2 Structural Engineers	Wall Removal Plan	S4		07/03/2017

3. Copies of Other documents

Prepared by	Document	Drawing number	Revision	Date
Brooke Lindsay	Application for the Complying Development Certificate			06/03/2017
Sydney Bushfire Consultants	BAL Risk Assessment Certificate			26/09/2016
Studio & Co	Specification			14/03/2017
Land Titles Office	Certificate of Title for Brooke Marie Lindsay			10/10/2016

PART 4 - HOUSING INTERNAL ALTERATIONS CODE – CONDITIONS

DIVISION 2 - CONDITIONS APPLYING TO COMPLYING DEVELOPMENT CERTIFICATE UNDER THIS CODE

Note 1: 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 2: 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

4.2 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*.

4.3 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.

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.

4.4 HOURS OF CONSTRUCTION OR DEMOLITION

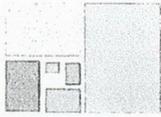
Construction or demolition may only be carried out between 7.00 am and 5.00 pm on Monday to Saturday and no construction or demolition is to be carried out at any time on a Sunday or a public holiday.

4.5 COMPLIANCE WITH PLANS

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

4.6 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.



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C

APPLICATION FOR A COMPLYING DEVELOPMENT CERTIFICATE

Information for the Applicant

- This form may be used to apply for a complying development certificate (a "CDC") to carry out development classed as "complying development". To complete this form, please place a cross in the relevant boxes, fill out the white sections as appropriate and attach copies of all documents indicated in the form as being required to be provided. To minimise delay in receiving a decision about the application, please ensure that all relevant information and documents are provided.
- Once completed, this application form should be submitted to Paul Rolfe Consulting Pty Ltd.
- It is recommended that applicants should obtain a planning certificate issued under s.149 Environmental Planning and Assessment Act 1979 from the Local Council and provide it to the certifying authority with this application. This may expedite the determination of the application.
- A single application for a CDC maybe made for development comprising the concurrent construction of new single storey or two storey dwelling houses if each is to be erected on existing adjoining lots.
- If the certifying authority issues a CDC, the Applicant (or a subsequent owner of the land on which the development is proposed to be carried out) has permission to carry out the development without the need to obtain further development consent.

However, depending upon factors such as the type of development, the location of the development and whether there will be external work or activities involved (eg. road opening, use of footpath areas) there may still be a need to obtain other approvals in order for the work involved to be performed. A list of the possible additional approvals that may be required can be obtained from the Department of Planning at www.planning.nsw.gov.au. In order to avoid potential delays in commencing any work, Applicants should ascertain whether other approvals will be needed, and if so, the stage at which they will be required.

SECTION A. Details of the Applicant

Mr Ms Mrs Dr Other:

First name: Family name:

Company (if applicable): ABN (if applicable):

Unit/Street no.: Street name:

Suburb or town: State: Postcode:

Daytime telephone: Fax: Mobile:

Email:

SECTION B. Location and title details of the land where the development is to be carried out

Flat/street no.: Street name:

Suburb or town: Postcode:

Lot no.: DP/SP:

SECTION C. Describe the development proposed to be carried out

Provide a brief description of the development. For example, if a dwelling is proposed, include information such as the type of building (house, townhouse, villa etc), the number of floors, the number of bedrooms, the major building material (brick, brick veneer, timber clad etc).

PROPOSAL OF NEW WINDOWS TO THE BOTTOM LEVEL REAR OF THE PROPERTY.

SECTION D. Estimated cost of the development

\$

20 000

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

SECTION E. Environmental planning instrument

Provide the name of the "environmental planning instrument" (*see - definition below) under which the development is complying development.

If the development is specified as complying development by a "development control plan" (*see - definition below) referred to in an environmental planning instrument, also provide the name of that development control plan.

Note: The criteria for complying development may vary between environmental planning instruments. You must nominate which instrument this Application is to be assessed under.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

OR

Other environmental planning instrument (EPI)

Name of EPI

Name of Development

Control Plan (if applicable)

***Environmental planning instruments (EPI)** are State Environmental Planning Policies and Local Environmental Plans. Complying development is commonly, but not always, authorised under either the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, or a Local Environmental Plan of the Council for the area where the development is to be carried out.

Development Control Plan. An EPI may refer to another instrument called a "Development Control Plan" (DCP) which contains more detailed provisions which support the EPI. A DCP may specify certain development as being complying development under the EPI.

SECTION F. Asbestos

If any bonded asbestos material or friable asbestos material will be disturbed, repaired or removed in carrying out the development, what is the estimated area of the material? square metres

SECTION G. Attachments relating to the proposed development

Applicants must provide the documents listed below that are relevant to the type of development that is proposed. Please confirm that documents relating to the requirements below have been attached by placing a cross in the appropriate box(s). Applicants should confirm with the certifying authority how many copies of documents are required to be provided prior to lodging this application.

A SITE PLAN OF THE LAND

Provide a site plan to at least 1:200 scale indicating:

- (a) the location, boundary dimensions, site area and north point of the land,
- (b) existing vegetation and trees on the land,
- (c) the location and uses of existing buildings on the land,
- (d) existing levels of the land in relation to buildings and roads,
- (e) the location and uses of buildings on sites adjoining the land.

DRAWINGS OF THE DEVELOPMENT

Provide drawings to a scale of 1:100 which indicates:

- (a) the location of any proposed buildings or works (including extensions or additions to existing buildings or works) in relation to the land's boundaries and adjoining development,
- (b) floor plans of any proposed buildings showing layout, partitioning, room sizes and intended uses of each part of the building,
- (c) elevations and sections showing proposed external finishes and heights of any proposed buildings (other than temporary structures),
- (d) elevations and sections showing heights of any proposed temporary structures and the materials of which any such structures are proposed to be made (using the abbreviations set out in SECTION P),
- (e) proposed finished levels of the land in relation to existing and proposed buildings and roads,
- (f) proposed parking arrangements, entry and exit points for vehicles, and provision for movement of vehicles within the site (including dimensions where appropriate),
- (g) proposed landscaping and treatment of the land (indicating plant types and their height and maturity),
- (h) proposed methods of draining the land,
- (i) in respect of BASIX affected development, such other matters as any BASIX certificate(s) requires to be included on the sketch. (See-BASIX NOTES at the end of this Section)
- (j) in respect of BASIX optional development for which a BASIX certificate(s) has been obtained, such other matters as the BASIX certificate(s) requires to be included on the sketch. (See-BASIX NOTES at the end of this Section)

Does the development involve subdivision work?

Yes No

If 'Yes' provide appropriate subdivision work plans and specifications, which are to include:

- (a) details of the existing and proposed subdivision pattern (including the number of lots and the location of roads),
- (b) details as to which public authorities have been consulted with as to the provision of

utility services to the land concerned,

- (c) detailed engineering plans as to the following matters:
- (i) earthworks,
 - (ii) roadworks,
 - (iii) road pavement,
 - (iv) road furnishings,
 - (v) stormwater drainage,
 - (vi) water supply works,
 - (vii) sewerage works,
 - (viii) landscaping works,
 - (ix) erosion control works,
- (d) copies of any compliance certificates to be relied on.

Does the development involve a change of use of a building (other than a dwelling-house or a building or structure that is ancillary to a dwelling-house and other than a temporary structure or work that relates only to fire link conversion)? Yes No

If 'Yes' provide:

- (a) a list of the Category 1 fire safety provisions that currently apply to the existing building,
- (b) a list of the Category 1 fire safety provisions that are to apply to the building following its change of use.

Does the development involve building work (including work in relation to a dwelling-house or a building or structure that is ancillary to a dwelling-house)? Yes No

If 'Yes' provide:

(1) A detailed description of the development by completing SECTION P.

(2) Appropriate building work plans and specifications, which are to include:

- (a) detailed plans, drawn to a suitable scale and consisting of a block plan and a general plan, that show:
 - (i) a plan of each floor section, and
 - (ii) a plan of each elevation of the building, and
 - (iii) the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground, and
 - (iv) the height, design, construction and provision for fire safety and fire resistance (if any),
- (b) specifications for the development:
 - (i) that describe the construction and materials of which the building is to be built and the method of drainage, sewerage and water supply, and
 - (ii) that state whether the materials to be used are new or second-hand and (in the case of second-hand materials) give particulars of the materials to be used,
- (c) a statement as to how the performance requirements of the *Building Code of Australia* are to be complied with (if an alternative solution, to meet the performance requirements, is to be used),
- (d) a description of any accredited building product or system sought to be relied on for the purposes of section 85A (4) of the Environmental Planning and Assessment Act 1979**,
- (e) copies of any compliance certificate to be relied on,
- (f) if the development involves building work to alter, expand or rebuild an existing building, a scaled plan of the existing building,
- (g) in respect of BASIX affected development, such other matters as the BASIX certificate(s) requires to be included in the plans and specifications. (See-BASIX NOTES at the end of this Section)
- (h) in respect of BASIX optional development for which a BASIX certificate(s) has been obtained, such other matters as the BASIX certificate(s) requires to be included in the plans and specifications. (See-BASIX NOTES at the end of this Section)

** S.85A(4) EP&A Act provides that a certifying authority must not refuse an Application on the ground

that any building product or system does not comply with a requirement of the Building Code of Australia if the building product or system is accredited in respect of that requirement in accordance with the EP&A Regulation 2000.

Does the development involve building work (other than work in relation to a dwelling-house or a building or structure that is ancillary to a dwelling-house)? Yes No

If 'Yes' provide:

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

Does the development involve the erection of a wall to a boundary that has a wall less than 0.9m from the boundary? Yes No

If 'Yes' provide:

A report by a professional engineer (within the meaning of the BCA) outlining the proposed method of supporting the adjoining wall.

Does the development involve the demolition or removal of a wall to a boundary that has a wall less than 0.9m from the boundary? Yes No

If 'Yes' provide:

A report by a professional engineer (within the meaning of the BCA) outlining the proposed method of maintaining support for the adjoining wall after the demolition or removal.

Does the development involve the erection of a temporary structure? Yes No

If 'Yes' provide:

- (a) documentation that specifies the live and dead loads the temporary structure is designed to meet,
- (b) a list of any proposed fire safety measures to be provided in connection with the use of the temporary structure,
- (c) in the case of a temporary structure proposed to be used as a place of public entertainment - a statement as to how the performance requirements of Part B1 and NSW Part H102 of Volume One of the *Building Code of Australia* are to be complied with (if an alternative solution, to meet the performance requirements, is to be used),
- (d) documentation describing any accredited building product or system sought to be relied on for the purposes of section 85A (4) of the Act,
- (e) copies of any compliance certificates to be relied on.

Does the development involve the use of a building as an entertainment venue or a function centre, pub, registered club or restaurant? Yes No

If 'Yes' complete the relevant portion(s) of the following statement:

The maximum number of persons proposed to occupy, at any one time, that part of the building used as:

- an entertainment venue is persons.
- a function centre is persons.
- a pub is persons.
- a registered club is persons.
- a restaurant is persons.

Does the development involve building work (see - note below) in respect of which an alternative solution under the Building Code of Australia ("BCA") in respect of a fire safety requirement is proposed? Yes No

If 'Yes' provide:

Either or both of the following from a "fire safety engineer" (i.e. a private accredited certifier holding

Category C10 accreditation):

- (a) a compliance certificate (as referred to in s.109C(1)(a)(v) EP&A Act) that certifies that the alternative solution complies with the relevant performance requirements of the BCA.
- (b) a written report that includes a statement that the alternative solution complies with the relevant performance requirements of the BCA.

NOTE

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

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

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

Does the proposed development comprise internal alternations to, or changes of use of, an existing building that is subject to an alternative solution relating to a fire safety requirement under the BCA?

Yes No

If 'Yes' provide:

A written report by another accredited certifier who is accredited for the purpose of issuing a CDC for a building of that kind, which includes a statement that the proposed development is consistent with that alternative solution.

Does the Application involve a BASIX affected development, or a BASIX optional development for which a BASIX certificate has been obtained? Yes No

If 'Yes' provide:

- (a) the BASIX certificate(s) for the development (being a certificate(s) that has been issued no earlier than 3 months before the date of the Application being made, and
- (b) such other documents as the BASIX certificate(s) for the development requires to accompany the Application.

(See-BASIX NOTES at the end of this Section)

BASIX NOTES

BASIX (the Building Sustainability Index) is a system introduced by the NSW Government to ensure that homes are built to be more energy and water efficient.

BASIX is an on-line program that assesses a building's design, and compares it against energy and water reduction targets. The design must meet these targets before a BASIX Certificate can be printed from the on-line facility.

Any changes made to a building's design after a BASIX Certificate has been issued means that another BASIX assessment must be completed and a new BASIX Certificate obtained.

Buildings which are affected by the BASIX system ("**BASIX affected buildings**") are those that contain one or more dwellings (but do not include hotels or motels).

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

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

BASIX excluded development is

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

A BASIX Certificate **MAY** be obtained for certain developments by an Applicant even though there is no obligation to do so. This is called "**BASIX optional development**".

BASIX optional development means any of the following development that is not BASIX excluded development:

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

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

Further information about BASIX and to obtain a BASIX Certificate, go to <http://www.basix.nsw.gov.au>. You should review the website to determine whether your development is affected or exempt from the BASIX provisions.

SECTION I. Copyright

Information for the Applicant: Upon an application being made for a complying development certificate, the Applicant (not being entitled to copyright) is taken to have indemnified all persons using the application and any accompanying documents in accordance with the Act against any claim or action in respect of breach of copyright (See-Cl.129 EP&A Regulation 2000).

SECTION J. Authority to enter and inspect land

Information for the Applicant: A certifying authority must not issue a complying development certificate for development unless the certifying authority, or an accredited certifier or council on behalf of the certifying authority, has carried out an inspection of the site of the development.

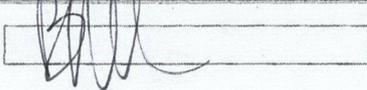
By signing this Application, the Applicant, and if the Applicant is not the owner of the property, the owner also, authorise the certifying authority, or an accredited certifier or council, to enter the subject property at any reasonable time for the purpose of carrying out an inspection in connection with the assessment of this Application. The Applicant and the owner undertake to take all necessary steps make access available to the property to enable the inspection to be carried out.

SECTION K. Long Service Payment Levy

Information for the Applicant: Where a certifying authority completes a complying development certificate, that certificate must not be forwarded or delivered to the Applicant unless any long service payment levy payable under s.34 of the Building and Construction Industry Long Service Payments Act 1986 (or, where such a levy is payable by instalments, the first instalment of the levy) has been paid.

The Applicant should attach a copy of a receipt for any long service payment levy that has been made or make arrangements for a copy to be available to be provided to the certifying authority in the event that a complying development certificate is completed.

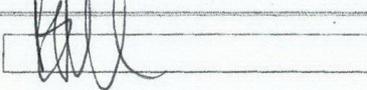
SECTION L. Signature of Applicant(s)

Signature of Applicant(s)		Name(s)	BROOKE LINDSAY
Date	06-03-17		

SECTION M. Consent of owner(s)

Note: If the Applicant is not the owner of the property, the owner(s) must sign the following statement.

As the owner(s) of the above property, I/we consent to this application.

Signature of owner(s)		Name(s)	BROOKE LINDSAY
Date	06-03-17		

SECTION N. Delivery of the Application

Information for the Applicant. Applications for complying development certificates must be delivered:

- by hand, or
- sent by post, or

- transmitted electronically

to Paul Rolfe Consulting Pty Ltd
PO Box 770 Gladesville NSW 2111

Applications MAY NOT be sent by facsimile transmission.

SECTION O. Date of Receipt of Application

To be completed by the certifying authority **immediately** after receiving this Application.

This Application was received on

(insert date).

NOTE: COMPLETE SECTION P ON FOLLOWING PAGE

SECTION P. Description of the development

1. For each proposed new building, indicate:

The number of storeys (including underground storeys) in the building

The gross floor area of the building (in square metres)

The gross site area of the land on which the building is to be erected (in square metres)

2. For each proposed new residential building, indicate:

The number of existing dwellings on the land on which the new building is to be erected

The number of those existing dwellings that are to be demolished in connection with the erection of the new building

The number of dwellings to be included in the new building

Whether the new building is to be attached to any existing building

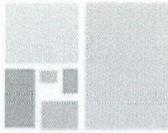
Whether the new building is to be attached to any other new building

Whether the land contains a dual occupancy

The materials to be used in the construction of the new building by completing the table below

Place a cross in each appropriate box.

Walls	Code	Roof	Code	Floor	Code	Frame	Code
<input type="checkbox"/> Brick (double)	11	<input type="checkbox"/> Tiles	10	<input checked="" type="checkbox"/> Concrete/slate	20	<input type="checkbox"/> Timber	40
<input type="checkbox"/> Brick (vener)	12	<input type="checkbox"/> Concrete/slate	20	<input type="checkbox"/> Timber	40	<input type="checkbox"/> Steel	60
<input checked="" type="checkbox"/> Concrete/stone	20	<input type="checkbox"/> Fibre cement	30	<input type="checkbox"/> Other	80	<input type="checkbox"/> Aluminium	70
<input type="checkbox"/> Fibre cement	30	<input type="checkbox"/> Steel	60	<input type="checkbox"/> Not specified	90	<input type="checkbox"/> Other	80
<input type="checkbox"/> Timber	40	<input type="checkbox"/> Aluminium	70			<input type="checkbox"/> Not specified	90
<input type="checkbox"/> Curtain glass	50	<input type="checkbox"/> Other	80				
<input type="checkbox"/> Steel	60	<input type="checkbox"/> Not specified	90				
<input type="checkbox"/> Aluminium cladding	70						
<input type="checkbox"/> Timber/ weatherboard	40						
<input type="checkbox"/> Other	80						
<input type="checkbox"/> Not specified	90						



Paul Rolfe Consulting Pty Ltd
BN: 74 105 418 773

PO Box 770
Gladesville NSW 2111
(p): 02 9816 3733 / 0414 720 060
(f): 02 9816 3744
(e): pr.consult@bigpond.com.au

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: Mrs Brooke Lindsay
Address: 251 Whale Beach Road, Whale Beach NSW 2107
Phone: 0417 658 874

COMPLYING DEVELOPMENT CONSENTS

Consent Authority / Local Government Area: Northern Beaches Council
Planning Instrument Decision Made Under: SEPP (Exempt & Complying Development Codes) 2008, Part 4 Housing Alterations Code
Complying Development Certification Number: CD17.05.2113/01

PROPOSAL

Address of Development: 251 Whale Beach Road, Whale Beach NSW 2107
Scope of Building Works Covered by this Notice: Proposal of new windows to the bottom level rear of the property.

PRINCIPAL CERTIFYING AUTHORITY

Certifying Authority: Paul Rolfe
Accreditation Body: Building Professionals Board
BPB0347

The owner has appointed Paul Rolfe as the Principal Certifying Authority as stated in the Complying Development Certificate lodged with PAUL ROLFE CONSULTING PTY LTD for the building works identified in this notice.

I, Paul Rolfe, Accredited Certifier of PAUL ROLFE CONSULTING PTY LTD located at PO Box 770, Gladesville NSW 2111 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: 22/05/2017

Paul Rolfe
Accredited Certifier



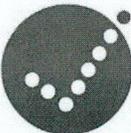
BAL Risk Assessment Certificate

State Environmental Planning Policy
(Exempt & Complying Development Codes) 2008
S3.36B Development standards for bush fire prone land

Proposed Residential Building Development
Lot 168 DP 15376
251 Whale Beach Road
Whale Beach NSW 2107

26 September 2016



Certifier:	Scott Jarvis BPAD-Level 3 Certified Practitioner BPD-PA-18593 FPAA Member No. 18593	 BPAD Bushfire Planning & Design Accredited Practitioner Level 3
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1.0 Property Details

Applicant Name: Studio & Co.

Council: Northern Beaches Council (Pittwater LGA)

Lot: 168 **DP:** 15376

Address: 251 Whale Beach Road Whale Beach NSW 2107

The subject property is mapped as being bushfire prone as currently shown by the Pittwater Council Bushfire Prone Land Map (s146 EP&A Act).

2.0 Type of Proposal

- New Dwelling **Alterations/Additions**
 Urban Rural Residential Isolated Rural

Proposal Description

The proposed building development is to construct minor 'alterations & additions to an existing residential building/dwelling structure (Class 1 (a) – as defined by BCA).

The extent and location of the proposed 'alterations & additions' are based on the existing building envelope, confirmed from the site survey by C.M.S Surveyors Pty Ltd, Dee Why (Ref. No. 397Oident, Page 2 of 2, Dated 20 February 2009).

Zoning: Residential

3.0 BAL & Risk Assessment

Vegetation

Vegetation constraining the building development has been assessed as follows:

Aspect	North	South	East	West
Converted Vegetation	<input type="checkbox"/> Forest	<input type="checkbox"/> Forest	<input type="checkbox"/> Forest	<input checked="" type="checkbox"/> Forest
	<input type="checkbox"/> Woodland	<input type="checkbox"/> Woodland	<input type="checkbox"/> Woodland	<input type="checkbox"/> Woodland
	<input type="checkbox"/> Tall Heath	<input type="checkbox"/> Tall Heath	<input type="checkbox"/> Tall Heath	<input type="checkbox"/> Tall Heath
	<input type="checkbox"/> Short Heath	<input type="checkbox"/> Short Heath	<input type="checkbox"/> Short Heath	<input type="checkbox"/> Short Heath
	<input type="checkbox"/> Mallee / Mulga	<input type="checkbox"/> Mallee / Mulga	<input type="checkbox"/> Mallee / Mulga	<input type="checkbox"/> Mallee / Mulga
	<input type="checkbox"/> Rainforest	<input type="checkbox"/> Rainforest	<input type="checkbox"/> Rainforest	<input type="checkbox"/> Rainforest
	<input type="checkbox"/> Grassland	<input type="checkbox"/> Grassland	Grassland	<input type="checkbox"/> Grassland
	<input checked="" type="checkbox"/> Managed Land	<input checked="" type="checkbox"/> Managed Land	<input checked="" type="checkbox"/> Managed Land	<input type="checkbox"/> Managed Land

Separation Distance

Aspect	North	South	East	West
Distance	N/A	N/A	N/A	>70m

Effective Slope

The effective slope that will influence bush fire behaviour in each direction has been assessed as:

Aspect	North	South	East	West
Slope under the hazard (over 100m in degrees)	<input type="checkbox"/> Upslope/Flat	<input type="checkbox"/> Upslope/Flat	<input type="checkbox"/> Upslope/Flat	<input checked="" type="checkbox"/> Upslope/Flat
	<input type="checkbox"/> 0 – 5	<input type="checkbox"/> 0 – 5	<input type="checkbox"/> 0 – 5	<input type="checkbox"/> 0 – 5
	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 5 – 10
	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 10 – 15
	<input checked="" type="checkbox"/> >15	<input type="checkbox"/> >15	<input type="checkbox"/> >15	<input type="checkbox"/> >15

Fire Danger Index

The Fire Danger Index (FDI) applying to the Pittwater LGA is as follows:

FDI	<input checked="" type="checkbox"/> 100	<input type="checkbox"/> 80	<input type="checkbox"/> 50
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Pittwater Council – Greater Sydney Region (Table A2.3 PBP, 2006)

Bushfire Attack Level

The highest Bushfire Attack Level (BAL) affecting the subject development has been assessed as (Table 2.4.2 AS3959-2009):

<input type="checkbox"/> BAL – FZ	<input type="checkbox"/> BAL - 40	<input type="checkbox"/> BAL - 29	<input type="checkbox"/> BAL - 19	<input checked="" type="checkbox"/> BAL – 12.5	<input type="checkbox"/> Not Required
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Based on the above assessment, the Consent Authority should determine that this development proposal **can comply** with the specific requirements contained within the *'State Environmental Planning Policy (Exempt & Complying Development Codes) 2008 S3.36B Development standards for bush fire prone land Part 2) b) 'the part of the lot on which the development is to be carried out is not in bush fire attack level-40 (BAL-40) or the flame zone (BAL-FZ)'*,

Further, this **BAL Risk Assessment Certificate** has been issued, in accordance with the abovementioned **SEPP s3.36B Part 3) b) by a person who is recognised by the NSW Rural Fire Service as a 'suitably qualified consultant' in bush fire risk assessment.**

Should any of the above information require clarification or further discussion, please contact the author.



Scott Jarvis

Graduate Diploma Design for Bushfire Prone Areas
Diploma of Building Surveying
Diploma of Public Safety (Fire Fighting Management) (Dip PSFM)
Cert. IV Residential Building Studies
Member No. 18593 Fire Protection Association Australia
BPAD-Level 3 Certified Practitioner BPD-PA-18593
Mob: 0414 808 295 Ph/Fax.: (02) 9369 5579
Email: scott@sydneybushfireconsultants.com.au

Disclaimer

It should be noted that this **BAL Risk Assessment Certificate** only forms part of the certifiable requirements which suitably address the 'Development standards for bush fire prone land' within *Section 3.36B State Environmental Planning Policy (Exempt & Complying Development Codes) 2008*. The entire section is replicated below for reference.

It should also be noted that the said development must satisfy many other significant requirements to achieve overall compliance with the *State Environmental Planning Policy (Exempt & Complying Development Codes) 2008*, which are not related to 'bushfire development standards', and do not form part of this certification document.

3.36B Development standards for bush fire prone land

- (1) This clause applies:
 - (a) to all development specified for this code that is to be carried out on a lot that is wholly or partly bush fire prone land (other than development that is the erection of non-habitable ancillary development that is more than 10m from any dwelling house, landscaping, a non-combustible fence or a swimming pool), and
 - (b) in addition to all other development standards specified for this code.
- (2) The development may be carried out on the lot only if:
 - (a) the development conforms to the specifications and requirements of the following that are relevant to the development:
 - (i) *Planning for Bush Fire Protection* (ISBN 0 9751033 2 6) published by the NSW Rural Fire Service in December 2006,
 - (ii) *Addendum: Appendix 3* (ISBN 0 9751033 2 6, published by NSW Rural Fire Service in 2010) to *Planning for Bush Fire Protection* (ISBN 0 9751033 2 6),
 - (iii) if another document is prescribed by the regulations for the purposes of section 79BA of the *Environmental Planning and Assessment Act 1979*—that document, and
 - (b) the part of the lot on which the development is to be carried out is not in bush fire attack level-40 (BAL-40) or the flame zone (BAL-FZ), and
 - (c) the lot has direct access to a public road or a road vested in or maintained by the council, and
 - (d) a reticulated water supply is connected to the lot, and
 - (e) a fire hydrant is located less than 60 metres from the location on the lot of the proposed development, and
 - (f) mains electricity is connected to the lot, and
 - (g) reticulated or bottled gas on the lot is installed and maintained in accordance with AS/NZS 1596:2008, *The storage and handling of LP Gas* and the requirements of relevant authorities (metal piping must be used), and
 - (h) any gas cylinders on the lot that are within 10m of a dwelling house:
 - (i) have the release valves directed away from the dwelling house, and
 - (ii) are enclosed on the hazard side of the installation, and
 - (iii) have metal connections to and from the cylinders, and
 - (i) there are no polymer sheathed flexible gas supply lines to gas meters adjacent to the dwelling.

Note. The requirements of AS 3959—2009, *Construction of buildings in bushfire-prone areas* set out in the *Building Code of Australia* also apply.

- (3) A standard specified in subclause (2) (b) is satisfied if one of the following certifies that the development is not in bush fire attack level-40 (BAL-40) or the flame zone (BAL-FZ):
 - (a) until 25 February 2012—the NSW Rural Fire Service, or
 - (b) a person who is recognised by the NSW Rural Fire Service as a suitably qualified consultant in bush fire risk assessment, or
 - (c) the council.

Note. More information about the categories of bush fire attack, including the flame zone, can be found in Table A3.4.2 of *Addendum: Appendix 3* (ISBN 0 9751033 2 6 and published by NSW Rural Fire Service in 2010) to the publication titled *Planning for Bush Fire Protection* (ISBN 0 9751033 2 6) published by NSW Rural Fire Service in 2006.

Extract: Section 3.36B State Environmental Planning Policy (Exempt & Complying Development Codes) 2008

References/Further Reading

Australian Standard 3959 (2009), Construction of buildings in bushfire prone areas – Standards Australia.

Building Code of Australia (2015) – Australian Building Codes Board, Canprint.

Environmental Planning and Assessment Act (1979) – NSW Government Printer.

Rural Fires Act (1997) – NSW Government Printer

Landscape and building design for bushfire areas (2003) – Ramsay G C & Rudolf L, CSIRO Publishing, Collingwood Victoria.

Ocean shores to desert dunes: the native vegetation of NSW and the ACT (2004) – Keith D, NSW Dept of Environment and Conservation, Hurstville NSW.

Planning for Bushfire Protection. A guide for councils, planners, fire authorities and developers (2006) – NSW Rural Fire Service.

Addendum: Appendix 3 - Planning for Bushfire Protection. A guide for councils, planners, fire authorities and developers (2010) – NSW Rural Fire Service.

BAL Risk Assessment Application Kit, New Dwellings and alterations and additions to existing dwellings (February 2011) – NSW Rural Fire Service

State Environmental Planning Policy (Exempt & Complying Development Codes) 2008 (1March 2011)

BOX 535G
(AK826622)



NEW SOUTH WALES
CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1900



TORRONS TITLE REFERENCE	
168/15376	
EDITION	DATE OF ISSUE
4	10/10/2016
CERTIFICATE AUTHENTICATION CODE	
YX2H-JC-LK3C	

I certify that the person described in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set forth in that Schedule) in the land within described subject to such exceptions, encumbrances, interests and entries as appear in the Second Schedule and to any additional entries in the Folio of the Register.

REGISTRAR GENERAL



ANY ATTEMPT TO ALTER THIS CERTIFICATE COULD RESULT IN HEAVY FINES OR IMPRISONMENT (S.141 REAL PROPERTY ACT).

LAND

LOT 168 IN DEPOSITED PLAN 15376
AT WHALE BEACH.
LOCAL GOVERNMENT AREA: NORTHERN BEACHES.
PARISH OF NARRABEEN COUNTY OF CUMBERLAND
TITLE DIAGRAM: DP15376

FIRST SCHEDULE

BROOKE MARIE LINDSAY

(T AK826621)

SECOND SCHEDULE

1. RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2. D530737 COVENANT
3. AK826622 MORTGAGE TO WESTPAC BANKING CORPORATION

**** END OF CERTIFICATE ****

Certificate of Title

Certificate of Title

STUDIO & CO. PTY LTD

ACN: 613 419 579

w: www.studioandco.com.au

c: gabi@studioandco.com.au | 0400 120 403

c: lori@studioandco.com.au | 0417 658 874

SPECIFICATION

251 Whale Beach Rd

Whale Beach , NSW, 2107

Lot 168, DP 15376

Prepared by

Studio & Co Pty Ltd.

On behalf of

BROOKE LINDSAY (owners)

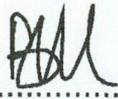
251 Whale Beach Rd

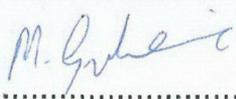
Whale Beach , NSW, 2107

This is the Specification referred to in the Contract date

between 
Brooke Lindsay..... as Proprietors.

and
Forma Projects Pty Ltd..... Sonny Lindsay..... as Builder.

SIGNATURE: 
Proprietor.....
Witness .....

SIGNATURE: 
Builder.....
Witness .....

DATED THIS 14th DAY OF March, 2017.

INDEX

Section No.	Description
A.00	Information to Tenderers
1.00	Demolition
2.00	Structural Steel Work
3.00	Metalwork
4.00	Brickwork
5.00	Carpentry and Joinery
6.00	Plasterboard
7.00	Roofing
8.00	Electrical Services
9.00A	Hydraulic Services - Drainage
9.00B	Hydraulic Services - Plumbing
10.00	Mechanical
11.00	Glazing
12.00	Tiling
13.00	Floor finish
14.00	Painting

A. 00 INFORMATION TO TENDERERS

A. 01 The Contract

AON Contract works and liability QBE Insurance (Builders)

A. 02 Contract Drawings and Specification

Figured dimensions are to be followed in preference to scaling. The plans and specification shall remain the property of Studio & Co Pty Ltd and are not to be used for any purpose other than for this project at 251 Whale Beach Rd, Whale Beach

Minor items not expressly mentioned in the Contract, but necessary for the satisfactory completion and performance of work under the Contract, shall be supplied and executed by the Builder, without adjustment to the Contract Sum.

The Builder will:

Keep on the site at all times a full set of current drawings and specification suitably covered not for general use on the job.

Keep on the site at all times Council stamped documents in a secure place, not for general reference and not for use by tradesmen or Sub-contractors.

When a revised edition of any document is issued, the Builder shall take the responsibility to ensure that all previous issues are recalled and destroyed or unmistakably marked 'Cancelled'. Errors arising from use of out of date information by any workman, sub contractor or supplier will be the responsibility of the Builder.

Check all dimensions and verify on site. Advise Studio & Co Pty Ltd. of any conflicting dimensions and proceed on direction.

Furnish Studio & Co with check dimensions, levels and templates, The Builder shall take full responsibility for their accuracy and make any alteration to the work as a result of neglect of the above.

Upon signing the Contract, the Builder will be entitled to receive two sets of each of the following:

- **Architectural working drawings and specifications plus further detail drawings which may be issued from time to time.**
- **Structural Engineers drawings.**
- **plus additional copies of the relevant documents required by Public Authorities for approvals.**

All drawings and documents shall be returned to Studio & Co Pty Ltd. before the final certificate is issued.

A.03 Consultants

For this project, the Proprietors, have appointed the following consultants;

Interior Designer
Studio & Co Pty Ltd.
5/45 Wallis Parade, North Bondi 2026

Interior Designer
Lori Bolon
Ph: 0417 658 874
Email: lori@studioandco.com.au

Structural engineer:
Chris Brown
E2 Design
41/20-28 Maddox Street, Alexandria
ph: 8594 6111
mobile: 0432 880 909

Princial Certifying Authority
Paul Rolfe Consulting Pty Ltd
PO Box 770 Gladesville

A.04 Tender Conditions

No explanation or amendment to the tender documents shall be recognised unless it is in the form of a written addendum issued by the Architect, receipt of which shall be acknowledged in writing by the Tenderers. A tender documents deposit is not required.

A.05 Extent of Work

The work to be executed under this Contract and contained in the Specification and Drawings comprises alterations and additions to the existing dwelling, as well as associated works as shown on Architectural and Structural Drawings and hereafter specified.

A.06 Inspection of Documents and Pre Tender Inquiries

Tenderers shall submit in writing to Studio & Co Pty Ltd. all discrepancies, errors, omissions and queries concerning the intent of the drawings or specification before the time of closing tenders or in their tender letter.

All enquiries shall be dealt with by written addenda to all Tenderers. Oral modifications to the Specification shall not be recognised by the Tenderers in the tender letter.

They are to check access to the site, and to ascertain for themselves all local information required in preparation of their tenders, with particular reference to the relevant regulations and requirements of the authorities having jurisdiction over the works. The Tenderers are to ascertain themselves the extent of temporary services. No claim for extras arising from neglect of these precautions shall be admitted.

The Builder shall be deemed to have:

- Examined all the information made available to him by Studio & Co Pty Ltd. for the purpose of tendering, including the Drawings, Specification, Conditions of Tendering, Contract Conditions and the like ; and
- Examined all information relevant to the risks, contingencies and other circumstances which could affect his tender, and which is obtainable by the making of reasonable enquiries ; and
- Tenderers shall visit the site and inspect all documents before tendering and shall satisfy themselves as to the true nature and extent of the works to be carried out under this Contract.
- Informed themselves as far as practical of the nature of the work and materials necessary for the execution of the work under the Contract, the means of access to and facilities at the site, and transport facilities for deliveries to the site ; and
- Satisfied himself as to the correctness and sufficiency of his tender for the work under the Contract , and that the rates and prices stated therein cover the cost of performing all his obligations under the Contract.

Failure by the Builder to do all or any of the things he is deemed to have done under this Clause will not relieve him of his liability to perform all his obligations under the Contract.

A.07 Nominated Sub-Contractors

Prime Cost Sums for items to be supplied or fixed, or supplied and fixed by Nominated Sub-Contractors, do not include for the Builder's profit, nor for his co- ordination of, supervision of and general attendance upon Nominated Sub-Contractors, all of which are deemed to be included in the Contract Sum.

The Builder shall:

Provide without cost to the Nominated Sub-Contractor all normal facilities for the proper performance of the Nominated Sub-Contract, including the following:

- Access to the Site.
- Storage areas.
- Storage of tools.
- Water for use in the Works.
- Statutory requirements for drinking water, messing, changing and sanitary conveniences.
- First aid and safety measures.

- Scaffolding and hoisting facilities as provided for the Builder's own use, including operations, but not labour, for loading or unloading.
- Adequate general lighting, and for application of finishes to all areas, lighting to a standard equal to the finished building lighting level.
- Facilities for making connections to a suitable power supply as specified in, Temporary Services.

A.08 Supervision and Attendances

Supervision and attendance shall be deemed to include but not be limited to:

- a) Co-ordination of Subcontractors and Nominated Subcontractors work into the contract, providing programme information to the Subcontractors and Nominated Subcontractors, providing details of location and setting out requirements, attending to progress payments, variations claims and for all necessary supervision, ensuring standards and specifications details are adhered to, and also include for taking delivery, checking for faults and coordinating replacement as necessary of all items of work or equipment delivered to site and for their storage and for their protection against loss or damage.
- b) Insurances to cover the Builder's or his subcontractor's plant, equipment, supplies or vehicles or employees' personal effects that are the responsibility of the builder or his subcontractor.

In addition Supervision and attendance shall be deemed to include but be not limited to cutting all chases, embedding conduits in slabs as required, trimming and framing walls and ceilings to receive fittings, cutting or leaving holes through walls and floors etc., building in all sleeves, conduits, bolts, pipe hangers, etc., and for making good after, in all trades.

If this specification or laws, ordinances or authorities require any work to be specially tested, inspected or approved, then timely notice shall be given by the Builder of its readiness for inspection. If such work is covered up without approval or consent, it must, if required, and at the Builder's expense, be uncovered for examination and recovered after approval.

A.09 Construction Vehicles

Proper provision is to be made for the standing, loading or unloading of construction vehicles when parked at kerbsides. An application must be submitted to the Local Council for their approval where loading and unloading of vehicles will encroach onto the adjacent street or streets. The application is to cover the removal and reinstatement of any regulated parking signs and / or meters.

There is to be no storage of building materials outside the boundary of the site so as to cause any disruption to vehicular or pedestrian movement during the construction period.

A.10 Care of the Works

The Builder is to keep all persons, including those employed by Subcontractors, under control, and within the boundaries of the site. The Builder will be held responsible for the care of the works generally until their completion, including all works executed and materials deposited on the site by himself or Subcontractors and Suppliers, together with all risks arising from the weather, carelessness of operatives, damage or loss by theft or any other cause and he is to make good, at his own cost, all such damage or loss to satisfactorily complete the works; he is to allow for all necessary watching and protective lighting.

The Builder shall be responsible for and take all precautions to properly support or stay the partly completed structure until it is completed or until it has developed through fabrication or during its full working strength.

A.11 Existing Services

Prior to any excavation works, the location and depth of all services must be ascertained. Existing services (such as drains, water-courses, public utilities and other services) if encountered, obstructed or damaged in the course of performing the work under the Contract, shall be dealt with as follows:

IF THE SERVICE IS TO BE CONTINUED: Repair, divert, and relocate as required.

IF THE SERVICE IS TO BE ABANDONED: Cut and seal or disconnect.

In either case, to satisfy the Authorities concerned.

Return meters to the appropriate supply Authority in the case of disconnection.

The cost of dealing as above with 'live' services not visible, or the location of which could not be ascertained by the Builder from the appropriate authority or from the Contract, will be allowed as a variation to the work under the Contract, provided that the Builder has taken all reasonable precautions to safeguard them. Where overhead utility lines, underground pipes, conduits or cables exist on or near the vicinity of the site the Builder shall determine the location of existing services and take care to protect same from damage before excavation, trenching, re-levelling, road-making, demolition, or similar operations are commenced, but in the event of damage occurring the cost of necessary repairs and renewals shall be borne by the Builder. Refer to DA in Appendix 'A'.

A.12 Standards

Unless otherwise specified all materials and workmanship are to comply with the relevant standard of the Standards Association of Australia. Proprietary brand materials and articles shall be used in accordance with their manufacturer's instructions.

Where AS Standards are quoted or referred to in the Specification, the Builder must obtain a copy of each and keep them on the site for the duration of the work.

A.13 Testing

Unless otherwise specified, any testing required by the Contract shall be carried out by an approved member of the National Association of Testing Authorities Australia (NATA).

A.14 Guarantees

The Builder will be required to guarantee the due and proper observance of all works involved in the Contract and warrant the materials and workmanship.

Where guarantees are called for the Builder shall obtain a written guarantee, addressed to the Proprietor, from the firm supplying materials or doing the work and shall deliver these to Studio & Co Pty Ltd. on completion of the work. Where guarantee periods exceed the Defects Liability Period guarantees shall be transferred to the Proprietor and the Builder shall ensure that guarantees are drafted in this form which shall not, however, relieve the Builder of his responsibility for the guarantee.

A.15 Proprietary Items

A Proprietary Item shall be any item specified by naming one or more of the following: manufacturer, supplier, installer, trade name, brand name, catalogue or reference number, and the like.

The specification of a Proprietary Item shall not necessarily indicate exclusive preference for the item so identified, but shall be deemed to indicate the required properties of the items, such as type, quality, appearance, finish, method of construction, performance, and the like.

A similar alternative item having the required properties may be offered for approval.

A.16 Prime Cost Items

Prime cost items, are quoted net and do not include any trade discount or Builder's profit. The Builder shall not be entitled to any trade discount except a discount for prompt payment. Studio & Co Pty Ltd. reserves the right to eliminate any provisional sums for the Contract on which no work has been done and the Builder will not be entitled to any percentage on them.

The Proprietors, through Studio & Co Pty Ltd. will select the PC items. The Builder will:

Reserve / order all fittings specified

Take delivery on site of the items and / or those provided by the Proprietor, check for discrepancies or faults and coordinate necessary replacements

Provide lockup store, store and fix complete unless otherwise specified and take risk of loss or damage

The Builder shall produce all invoices and receipts for goods and / or labours before a certificate covering value of such item, or the final certificate, is issued.

The Proprietors reserve the right to pay these accounts direct and arrange delivery, with the Builder being responsible for same after delivery. The Builder shall afford every reasonable facility for the execution of such work to other firms or persons as the Proprietors may select.

A.17 Notices and Fees

It will be the Builder's responsibility to ensure compliance with the requirements of local and other authorities, having jurisdiction over the works, including the Building Code of Australia and amendments thereto, the Local Government Act, 1993 and Regulation and amendments thereto, Council By-Laws, and the Health Act, and give all notices, pay all fees and obtain all licenses, permits etc. from these Authorities.

A.18 Conditions of Approval

COMPLYING DEVELOPMENT IS CURRENTLY BEING ASSESSED. ENSURE CONSTRUCTION CERTIFICATE IS ISSUED PRIOR TO WORK COMMENCING AS WELL AS REQUIRED NEIGHBOUR NOTIFICATION.

A.19 Reports and Payments

On applying for a Payment Certificate, present to Studio & Co Pty Ltd. a correct report and statement, of the works covered by the previous period showing that information required by the conditions of contract.

Before the first Certificate will be issued, the Builder shall submit:

A trade breakdown of costs that will allow the actual value of work completed to be calculated for the purposes of progress payment.

Evidence of Insurance Cover as required by the Conditions of Contract

A statement that no wages or moneys are due or owing

Before any further Certificates will be issued, the Builder shall submit information as required in a) and c) above.

Before the Final Certificate will be issued, the Builder shall lodge with Studio & Co Pty Ltd.

A Statement that no wages or moneys are due or owing

All guarantees specified

Complete statements of accounts, variations to the contract.

Certificates of approval from all authorities issuing such approvals, having jurisdiction over the building

All drawing details and specifications, which have been issued to him by Studio & Co Pty Ltd.

Statement by Builder that there are no known claims of damages from owners of adjoining properties

Only those extensions of time agreed to in writing by the DESIGNER will be evidence of extended completion date and in the absence of such written agreement or authority the Builder will be held strictly to the time schedule and the contracted completion date. When submitting claims for progress payments the Builder shall also submit claims for extensions of time for the period covered by the claim for progress payment and a statement of previously authorised extensions of time. The DESIGNER shall then examine and authorise in writing admissible claims which shall be incorporated in the statement. If there are no authorised claims a nil authorisation shall be issued and a nil entry shall be made in the statement for the period. The Builder shall not be entitled to an additional extension of time for a period for which a written authorisation or statement has been issued except that the Builder may notify the DESIGNER with his claims for extensions of time of anticipated claims for which an extent of delay cannot be determined and shall provide an assessment of the extent of the estimated delay.

A.20 Cleaning

The Builder shall take adequate measures to ensure the clean and orderly performance of the Works on the Contract, and make full provision for the removal of all rubbish, debris, surplus materials, etc. as they accumulate including those of every Subcontractor and for the tidy disposal, stacking and storing of materials.

The job shall be constantly cleared of rubbish, etc. and swept over and maintained in a tidy condition and all pipes, outlets and similar areas shall be kept continually clean of all rubbish, etc.

The Builder shall employ an approved firm of professional cleaners to carry out the work described below. The use of unskilled labour for this work will not be accepted.

Clean all windows glass and frames both inside and out on all faces

Remove all render and plaster spots on all surfaces

Dust all walls, ledges and projections, etc.

Wash, if necessary to clean all walls, stonework, etc.

Wash out and clean toilet, bathroom and laundry floors, fittings, mirrors, walls, sink etc.

Clean and polish all floors other than carpet which shall be swept with a broom and vacuumed

Remove all paint spots from floors and walls

Wash and dry all concrete floors and concrete slab areas

Clean out all ducts, cupboards, etc.

Clean and polish all hardware, ironmongery and other fittings

A.21 Dimensions and Surveys

The Builder is to verify positions of boundaries, services and levels, by obtaining survey marks prior to commencement of works and to ensure that all levels and setbacks to new work shown in Architectural Drawings are strictly adhered to.

The Builder shall be responsible to ensure that the whole of the Works, as finally constructed, shall be contained within the boundaries of the Site as defined on the Survey Plan and to the setbacks and levels shown on Architectural Drawings. The Builder shall be liable for and indemnify the Proprietor against, any liability, loss claim or proceedings in respect of encroachments or errors in dimensions and / or levels.

A.22 Care of the works

The Builder is to keep all persons, including those employed by Subcontractors, under control, and within the boundaries of the site. No construction work or building operations are to take place outside the boundaries of the site unless specified herein or in consultant's specifications and/or shown on the drawings. The Builder will be held responsible for the care of the works generally until their completion, including all works executed and materials deposited on the site by himself or Subcontractors and Suppliers, together with all risks arising from the weather, carelessness of operatives, damage or loss by theft or any other cause and he is to make good, at his own cost, all such damage or loss to satisfactorily complete the works; he is to allow for all necessary watching and protective lighting.

The Builder shall comply with requirements of all authorities having jurisdiction over the works or part of the work. Ensure that all equipment employed complies with regulations applicable.

Provide and maintain all guard rails, barricades, signs and warnings necessary to safeguard all personnel.

Remove from the site any person whose conduct creates danger for others.

Cover and protect all materials and equipment likely to be affected by the weather.

Deliver, handle and store products in accordance with manufacturer's recommendations. Control delivery schedules to minimise long term storage of products on site and over crowding of construction spaces. In particular, coordinate delivery and/or installation to ensure minimum holding or storage times for products recognised to be flammable, hazardous, easily damaged or sensitive to deterioration, theft and other sources of loss.

Take responsibility for proper care and protection of all materials and equipment on site. When any room in the building is used as a storeroom the Builder will be responsible for any repairs patching or cleaning arising from such use. Under no circumstances will any workmen be permitted to mix any materials on the floors.

Men engaged upon the works may not use fittings or other equipment as a place for depositing tools, materials, support for scaffolding or for use as work benches. Provide and erect independent scaffolding, ladders and benches. Protect all fittings from dirt, plaster, moisture and damage, make good damage of work or materials without cost to the Proprietor.

A.22 Protection of persons and property

The Builder shall provide, erect and maintain all barricades, guards, fencing, temporary roadways, footpaths, signs and lighting and provide and maintain all watching and traffic flagging lawfully required by any public or other authority or necessary for the protection of the Works, trees to be retained or of other property, or for the safety and convenience of the public and others, and shall remove the same when no longer required.

The Builder shall avoid obstruction or damage to roadways, driveways, footpaths, drains and watercourses, public utilities and other services on or adjacent to the Site which are visible, or the location of which can be ascertained by the Contract. Where overhead utility lines, underground pipes, conduits or cables exist on or in the vicinity of the site

the Builder shall take care to protect the same from damage occurring but in the event of damage occurring the cost of necessary repairs and renewals shall be borne by the Builder. The Builder shall remove any obstruction immediately and make good any damage at his own cost, in default of which the Proprietors may employ and pay others to execute the work and recover the cost as a debt due to the Proprietors from the Builder under the Contract.

The Builder shall avoid interference with or damage to property on or adjacent to the site and those parts of the works already constructed, and shall provide temporary protection and shall repair and reinstate all damage caused thereto by him, either directly or indirectly.

The Builder shall be responsible for the adequate protection of adjoining properties and existing premises thereon, and shall make good any damage to them caused by building operations. The interests of the Proprietor must be safeguarded in every respect.

The Builder shall verify the position of adjoining structures including all works and services below ground level.

All measures necessary to safeguard the structural stability of existing structures, moisture and weather protection, sound protection and protection from any other aspect of the works which may affect adjoining properties shall be the sole responsibility of the Builder and he shall be fully responsible and is to indemnify the Proprietors against claims from the owners and/or occupiers of adjoining premises.

The terms adjoining properties includes all other properties affected by the Building Operations whether they have a common boundary with the site or not.

The Builder shall inspect in cooperation with the Owners of adjoining properties and/or their representatives, such buildings that adjoin and/or are affected by the building operation, record state of same conditions of structure in a report and/or photographs, and such reports shall be exchanged and accepted by the adjoining owner of the respective properties.

The Builder shall provide tarpaulins, sheeting or other means of temporary protection against weather to all exposed areas, securely fixed and maintained in a weatherproof condition for the duration of the Contract.

The Builder shall prevent nuisance to the owners of properties adjacent to the site, and to the public generally. The Builder shall be liable for, and shall indemnify the Proprietor against any claims or actions, and for any consequent delays, which may arise out of any nuisance caused by the construction of the works.

Therefore, the Builder shall minimise any nuisance such as noise, dust, etc., and shall take all measures necessary to ensure that vehicular and pedestrian access remain unobstructed and that the operations of the general public proceed unhindered by the Works. Refer to Conditions contained in Appendix 'A'.

A.23 Supervision & attendances

Supervision and attendance shall be deemed to include but not be limited to:

Co-ordination of Subcontractors and Nominated Subcontractors work into the contract, providing programme information to the Subcontractors and Nominated Subcontractors, providing details of location and setting out requirements, attending to progress payments, variation claims and for all necessary supervision, ensuring standards and specification details are adhered to, and also include for taking delivery, checking for faults and coordinating replacement as necessary of all items of work or equipment delivered to site and for their storage and for their protection against loss or damage.

Insurances to cover the Builder's or his Subcontractor's plant, equipment, supplies or vehicles or employees' personal effects that are the responsibility of the Builder or his Subcontractors.

In addition, supervision and attendance shall be deemed to include but be not limited to cutting all chases, embedding conduits in slabs as required, trimming and framing walls and ceilings to receive fittings, cutting or leaving holes through walls and floors etc., building in all sleeves, conduits, bolts, pipe hangers, etc., and for making good after, in all trades.

A.23 Inspections

If this specification or laws, ordinances or authorities require any work to be specially tested, inspected or approved, then timely notice shall be given by the Builder of its readiness for inspection. If such work is covered up without approval or consent, it must, if required, and at the Builder's expense, be uncovered for examination and recovered after approval. Coordinate enclosure and encasing of work with required inspections and tests so as to avoid the necessity of uncovering work for that purpose.

Provide sufficient safe and proper facilities at all times for inspection of work. No inspection will be carried out on weekends or Public Holidays unless by arrangement when the Builder shall pay the additional cost of these inspections.

The whole of the works shall be carried out under the directions and to the complete satisfaction of the Architect. The Builder shall be responsible for the coordination of all work performed under this contract and is to ensure that each trade shall assist, leave holes for, cut away for, do chasing and drilling for, make good after, and arrange work sequences with every trade, in such manner as to promote the best interests of the work as a whole.

1.0 DEMOLITION

1.01 General Scope of Work:

Generally perform the demolition work necessary to carry out the work under the Contract, including planning and execution of the work, protection and support of adjacent structures and removal of demolished material. Refer to the drawings and this specification for the extent and details of the demolition work.

Material required to be demolished shall become the property of the Contractor and shall be removed entirely from the site.

Perform all demolition work required to carry out the works as documented. Refer to DA Conditions in Appendix 'A'. Generally the extent of the work includes, but is not necessarily limited to the following:

- Demolish parts of existing dwelling to the extent shown on the Architectural Drawings to be removed including walls, concrete slabs, balustrades and the like.

- Demolish / remove external concrete slabs and paths, stairs, brick and concrete pavers, retaining walls, railings, footpaths, vehicular crossing and the like to the extent shown on the Architectural Drawings.

- Remove all existing plants not to be retained or transplanted.
- Any demolition required to carry out the works as documented. Ensure that existing trees shown to be retained are protected.

1.02 Requirements of Authorities Before commencing demolition, submit evidence that:

- requirements of authorities relating to the work under the Contract have been ascertained;

- a permit to demolish has been obtained from the appropriate authority;

- a scaffold permit has been obtained from the appropriate authority (if scaffolding is proposed to be used);

- payment for Work Zone (Construction Zone), if required, has been made and Work Zone signs have been erected;

- all precautions for protection of persons and property have been taken and suitable protective and safety devices provided to the approval of the relevant authority;

1.03 Public and Property Protection Provide measures required by Municipal and State ordinances, conditions of approval, laws and regulations for the protection of surrounding property, footpaths, streets, curbs, the public, occupants and workmen during demolition work. Comply with the above ordinances, laws and the like in carrying out measures including barricades, fences, warning lights and signs, rubbish chutes and the like.

Provide protection and measures to avoid damage to adjoining properties and to minimise any nuisance caused by the demolition work, such as dust, noise and the like and to avoid injury to occupants of the existing dwelling and those on adjoining properties and the public.

Materials and rubbish from demolition shall be watered down to control dust.

No extension of time or cost for same will be granted for loss of time which may be incurred through legal proceedings by others and/or the issue of notice from authorities having jurisdiction over the works caused by the Builder not having taken the precautions specified herein.

The Builder shall be liable for, and shall indemnify the Proprietor against, any claims or actions, and for any consequent delays, which may arise out of any damage, injury or nuisance, caused by the demolition work. Refer to DA Conditions in Appendix 'A'.

1.04 Existing Services

Before demolishing and removing parts of building or structures having electrical, gas and water pipes, conduits or similar items embedded in them, notify the Authorities having jurisdiction and ensure that these items are out of service so that they can be removed without danger.

All existing services, which are not to be retained, shall be disconnected, sealed off, removed, altered or diverted as necessary for the Works by licensed contractors, strictly in accordance with the regulations of the Authorities concerned.

1.05 Equipment

Supply equipment required to perform the work of sufficient capacity to meet the stated completion date.

Provide disposal containers for disposal required.

No containers may be located on public streets or footpaths without obtaining required Municipal permits for same. Cooperate with Sub-Contractors doing work in or near container locations to prevent interruption of the progress of their work. Refer to DA Conditions in Appendix 'A'.

1.06 Shoring and Temporary Supports Provide necessary shoring in accordance with Structural Engineer's instructions.

Alter, adapt and maintain temporary works as necessary and strike or withdraw them progressively as the work proceeds. Obtain the written consent of the Architect/Structural Engineer if such works are to be left in position at the completion of the work.

Provide all temporary supports/propping to ensure the stability of parts/whole of structures as they are being constructed as well as adjoining structures.

1.07 Hazardous Waste Removal (including Asbestos)

Any hazardous or intractable wastes arising from the demolition works must be removed and disposed of by an approved specialist Sub-Contractor in accordance with the requirements of WorkCover and the EPA and in accordance with the provisions of:

N.S.W. Occupational Health and Safety Act, 1983

N.S.W. Construction Safety Act, 1912; Regulation 84A-J Construction Work Involving Asbestos or Asbestos Cement, 1983

The Occupational Health and Safety (Hazardous Substances) Regulation, 1996

The Occupational Health and Safety (Asbestos Removal Work) Regulation, 1996 The Waste Minimisation and Management Act and Regulations

National Occupational Health and Safety Commission publication Asbestos: Code of Practice and Guidance Notes

Any other act, regulation or publication dealing with any hazardous material

The Builder will be held entirely responsible for the safe removal and disposal of any hazardous waste or intractable material.

The Architect will have no involvement or provide any services and will not be liable for any claim(s) or loss (including costs and expenses) arising directly or indirectly out of or resulting from or in consequence of, or any way involving work to do with hazardous waste removal. Refer to DA Conditions in Appendix 'A'.

1.08 Methods and Operations Demolish and remove completely in a careful and systematic manner structures and the like

itemised in 1.01 of this section.

The part of the building/structure adjacent to the part being demolished shall be maintained in a structurally sound condition and all parts of the buildings/structures left safe at the cessation of each days work.

Do not drop or throw material more than 2 metres. Lower by means of hoists or rubbish chutes. Wet down thoroughly during demolition to prevent nuisance of dirt and dust. Equip trucks used in hauling demolished material with tarpaulins to cover the loads. Do not load so excessively as to spill demolished materials on streets. Prevent the encroachment of demolished materials on to adjoining property including public places.

Except as placed in approved disposal containers, do not allow combustible material and rubbish to accumulate on site. Remove daily or as directed. Burn no demolished material on site.

2.00 STRUCTURAL STEELWORK

2.01. Generally

Supply and fix complete all structural steel elements. Refer to the Structural Engineers drawings and specifications for the extent, details and finish of the structural steelwork required.

Structural steel design, fabrication and erection to comply with AS 4100 and all other relevant SAA standards. All external structural steelwork shall be hot-dipped galvanised to AS 1650.

Generally perform the structural steelwork necessary to carry out the Contract. Refer to Architectural and Structural drawings and this specification for the extent and details of the structural steelwork.

2.02. Accessories

Provide all necessary components, bolts, nuts, screws, washers and other required fastenings for proper erection of the various items of work.

2.03 Substitution

Details of any proposed substitution will be submitted to the Structural Engineer for checking and approval before fabrication commences.

2.04. Cleaning and Priming

All steelwork after fabrication will be cleaned of all rust, loose and poor adhering mill-scale, weld splatter, flux, dirt, oil, grease and any other deleterious matter by scraping, wire brushing by hand, power tool cleaning and chipping and by the use of suitable solvents where necessary to ensure the steelwork is clean.

All steelwork unless otherwise noted shall receive one coat of shop priming paint at least 48 hours before delivery to the site.

The priming paint shall be applied immediately after cleaning of the steelwork and shall be applied in a uniform thickness and in strict accordance with the manufacturer's recommendations.

3.00. METALWORK

3.01. Generally

All metalwork shall be constructed with the various materials in accordance with detail/shop drawings and/or as hereafter specified and shall comply with all relevant SAA codes.

All items referred to and/or shown on structural engineer's drawings shall conform with the provisions of workmanship, materials and finish as before specified under "Structural Steel" and shall be as specified in that trade.

This trade includes all the major and minor metalwork items included in the works excepting metalwork and hardware incidental to other trades and structural steelwork.

Dimensions

Verify all dimensions on site, as required, for all work shop fabrication. Before commencing work examine adjoining work on which installation is in any way dependent for perfect workmanship and fit.

Give written notice of any found deficiencies to prevent proper and timely installation of work under this section.

3.03. Workmanship

The various manufactured items of this trade shall be fabricated in properly constituted workshops in accordance with best trade practice by specialist firms approved by Studio & Co Pty Ltd. in accordance with the detail drawings or approved workshop drawings where called for hereinafter.

Match colours of sheets, extrusions and heads of fastenings in colour finished work.

Architectural alloys, brass, copper, bronze, shall be generally silver soldered and mechanically jointed, except where noted brazed or welded on the drawings and finished smooth and even as specified above.

3.04. Making Good

All galvanized or primed metalwork items damaged during installation through welding, drilling, cutting or site handling to be made good to affected areas to match existing finish.

Galvanizing to be made good with 2 coats of Galmet or approved equal cold galvanizing paint.

3.05. Fixings

As shown on the drawings and/or specified OTHER than explosive charge fixing devices.

All screw, cavity and bolt fixing fasteners used in each instance shall be the appropriate type as recommended by the manufacturer for the purpose. Use fasteners of a type appropriate to the work, capable of transmitting the loads and stresses imposed, and sufficient to ensure the rigidity of the assembly.

Use fastenings of types and materials suitable for use with materials which are fastened and joined. For exterior steelwork use fastenings of galvanised steel or other non-rusting types as approved.

For copper use fastenings of copper or copper-alloy.

For aluminium use fastenings of aluminium alloy or non magnetic stainless steel.

Metal screws to comply with AS 1420, AS 1421, AS1427, AS 3566 or AS B194, as applicable.

Exposed screw heads are to be countersunk cross-recessed (Phillips) or socketed heads, finishing flush in countersinkings.

Masonry anchors are to be proprietary types comprising screws or bolts in self-expanding sockets. Masonry plugs are to be screws in purpose-made resilient plastic sockets.

3.06 Examination

Visit site and inspect conditions before preparation of shop drawings, fabrication and/or delivery of metalwork items. Notify the Architect of any discrepancy or unsuitability of surfaces, openings, dimensions, clearances and the like. Builder to rectify same. Start of work means total acceptance of such surfaces, openings, dimensions, clearances and the like and defects in work resulting from accepting same are to be corrected at no cost to the Proprietor.

3.07 Fabrication & Installation

Shop assemble work in largest practical sections to minimise job connections. Deliver miscellaneous metal items requiring building into concrete or brickwork to the job, together with setting diagrams, measurements and instructions; properly build in and secure items with necessary clips, anchors and bolts.

Make installation with workmen skilled in the particular type of work required; set work plumb and true; properly assemble and erect in a rigid and first class workmanlike manner.

Carefully set out and do all required cutting, drilling and tapping for attachment of other work where indicated or as directed, prior to or with the approval of shop drawings. No burning of holes or flame cutting on site will be permitted.

Mitre, cope or block carefully. Galvanising specified for steel assemblies to be done after fabrication. In case of aluminium work, no exposed bolts or fasteners will be permitted unless otherwise shown.

Replace or repair all parts damaged during erection. After erection provide proper protection from other construction operations for all completed metalwork items.

3.08. Corrosion Prevention

Separate incompatible metals by concealed inter-layers of suitable materials and thicknesses to prevent electrolytic corrosion and other reactions.

4.00. BRICKWORK

4.00. General

Scope:

Supply and build the brickwork shown on the drawings or needed to complete all new walls shown on the drawings including accessories such as wall ties, lintels, plates, straps, termite shields, damp-proof courses, flashings, trays, vents and the like including but not limited to the following:

- labour and materials
- building in of miscellaneous items provided by others
- staging and scaffolding
- cleaning

4.01. Common Bricks

All walls shown to be brickwork on the drawings shall be out of 230 x 110 x 76 mm solid bricks as specified, and to comply with AS 3700, Structural Engineers requirements and B.C.A.

4.02. Control Joints & Wall Ties

Brick wall ties shall be Stainless Steel (grade type 316) and placed at the rate of 5 ties per square metre of wall surface area, to ensure the structural integrity of the building wall ties to comply with AS 3700.

4.03. Flashings and Weatherings

Flashings, which are to be built in as the brickwork proceeds, shall be of a heavy duty Alcor, shall comply with AS 2904 and AS 3700 and shall lap at least 150 mm at joints.

Provide flashings in the following locations:

Under sills:

30 mm into the outer leaf bed joint two courses below the sill, extending up across the cavity and under the sill in the inner leaf or the frame. Extend at least 150 mm beyond the reveals on each side of the opening.

Over lintels to openings:

Full width of outer leaf immediately above the lintel, continuous across cavity, 30 mm into the inner leaf two courses above or turned up against the frame and fastened to it. Extend at least 150 mm beyond the ends of the lintels.

- At abutments with structural frames or supports:

Vertical flashing in the cavity from 150 mm wide material, wedged and grouted into a groove in the frame opposite the cavity.

- At roof abutments with cavity walls:

Provide a cavity flashing immediately above the roof and over-flash the roof apron flashing and / or box gutter.

Sandwich flashings between mortar except where on lintels.

Pointing: Point up joints around flashings to fill voids.

5.00. CARPENTRY AND JOINERY

5.01. Generally

Generally perform the carpentry and joinery work necessary to carry out the work under the contract. Refer to the Architectural Drawings and this Specification for the extent and details of the carpentry and joinery work.

The whole of the carpentry and joinery work throughout is to be framed, trimmed and finished in the best and most workmanlike manner, and to the relevant SAA Codes. All necessary templates, linings, blocks, stops, etc., to be provided and fixed, and all trimming and grooving, tonguing, rebating, housing, beading, mitring, throating, bracing, etc., incidental to the carpentry and joinery work to be done, although not specifically mentioned herein.

Build components square and install plumb.

Use materials in single lengths whenever possible. If joints are necessary, make them over supports.

5.02 Submissions

Submit names, details, tests, shop drawings and the like for carpentry and joinery items as specified herein.

Submit samples and/or data of items for approval when requested by the Architect.

5.03 Shop Drawings

The Contractors will prepare all workshop drawings as required. All work will be carried out in accordance with the drawings.

Shop drawings will be fully detailed and drawn to scale. No work is to be fabricated until approval is obtained. Take and confirm dimensions on site before preparing Shop Drawings.

5.04 Dimensions

Verify all dimensions on site, as required, for all workshop fabrication. Before commencing work examine adjoining work on which installation is in any way dependent for perfect workmanship and fit.

Give written notice of any found deficiencies to prevent proper and timely installation of work under this section.

5.05 Coordination

Carefully schedule and coordinate work with other trades.

Provide fastenings and other built-in items as required to prevent delay in the work. Give special attention to shop drawings and details of adjacent work by other trades.

5.06 Workmanship

The various manufactured items of this trade shall be fabricated in properly constituted workshops in accordance with best trade practice by specialist firms approved by the Architect in accordance with the detail drawings or approved workshop drawings where called for hereinafter.

5.07 Moisture Content

Make milled or dressed products from timbers conditioned to:

- within 3% of the equilibrium moisture content (EMC) appropriate to the timber and its intended conditions of use, and
- not greater than 15% nor less than 10%, and
- with no more than 3% difference between any two pieces in any one group; when tested to AS 1080.1.

5.07 Details

The whole of the internal joinery except where existing rooms are unchanged is to be carried out using door frames, architraves, flush skirtings etc. as detailed by Studio & Co Pty Ltd.. No timber is to be cut, machined or prepared for any item of joinery until approval is obtained.

5.08 Spacing & Studs

Except where otherwise specified, framing generally to be spaced at 450mm centres and to comply with all relevant S.A.A codes and Structural Engineers details.

5.09 Fixing & Grounds

No joinery whatever to be fitted until walls and floors are thoroughly dry.

All external fixings including nails, bolts etc. are to be galvanized.

The Builder shall replace, at his own expense, any shrinkage or damage to finished work caused through the use of green or imperfectly seasoned timber.

5.10 Panel & Sheet works

Plywood, Blockboard - Woodwork

INTERIOR USE
To AS 2270

EXTERIOR USE
To AS 2271

STRUCTURAL PLYWOOD
To AS 2269

5.11 Particleboard

STANDARD
To AS 1859

GRADES
Use grades designated by the manufacturer to have moisture resistance appropriate to the conditions of use.

VENEERED PARTICLEBOARD
Standard grade particleboard faced on both sides with timber veneers, complying with the specification for blockboard except for the composition of the core.

5.12 Preparation

Prior to installation condition joinery to the average humidity conditions prevailing in the installation areas. Prior to installation examine shop fabricated work for completeness and remedy deficiencies.

Prior to installation of joinery, Builder is to thoroughly clean floors and walls that will be permanently concealed by joinery.

5.13 Installation

Perform operations including grooving, rebating, framing, housing, beading, mitring, scribing, nailing, screwing, gluing and the like as necessary to carry out the works. Arris visible edges in sawn work and in dressed work arris with sandpaper to 1.5 mm radius unless otherwise shown or specified.

Provide necessary templates, linings, blocks, stops, metalwork and hardware, screws, bolts, plugs and fixings generally. Trim framing where necessary for openings, including those required by other trades. Use concealed shims as required to install the joinery plumb, level, straight and distortion free within the following tolerances:

- 1 mm in 800 mm for plumb and level, including benchtops;
- 0.5 mm maximum offsets in flush adjoining surfaces;
- 2 mm maximum offsets in revealed adjoining surfaces.

Scribe and cut to fit adjoining work and refinish cut surfaces or repair damaged finishes at cuts. Secure joinery with anchors or blocking built-in or directly attach to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required to complete the installation. Except where pre-finished matching fastener heads are required, use fine nails, countersunk and filled flush. Use a matching filler where a transparent finish is required. Install casework without distortion so that doors will fit openings properly and so they can be properly aligned. Install joinery hardware as scheduled, listed, selected and required strictly in accordance with manufacturer's recommendations. Adjust as required to centre doors in openings.

5.14 Fibre building boards

HARDBOARD
To AS 2458

Classification:
- Interior use generally: Standard hardboard Type GP;

- Exterior cladding: Exterior hardboard.

FIBRE CEMENT SHEETS (Also known as fibre reinforced cement or FRC)

Sheets manufactured from an inorganic hydraulic binder and mineral filler reinforced by organic and/ or synthetic fibres (excluding asbestos); e.g. portland cement, fine sand, and cellulose fibre.

5.15 Timber doors

The Builder shall allow for the supply and fixing of all internal new solid timber doors to all locations shown on Architectural Drawings.

The Builder shall allow for fixing complete of the doors and all components. The doors shall comply with AS 2688 Timber Doors.

Fit, hang and trim doors with hardware indicated on Architectural drawings and in the specification.

5.16 Timber Framing to New Roof

All timber framing for the new roof shall be Oregon Merch. Grade strictly in accordance with Engineer's details and S.A.A Timber Framing Code.

5.17 Windows & Doors

The builder shall allow for the supply and fixing complete of all components and shall include:

Supply and fixing of all windows and doors

Supply and fixing of external angle trims

The builder shall provide the following:

- Providing suitable flashing, etc. to ensure complete waterproof junction between building components.
- Hoisting and other facilities listed in Preliminaries section.
- Weathering rebates and recesses as required
- Protection against mechanical damage
- Removal of protective coating and final clean down.

6.00. PLASTERBOARD / FIBRE CEMENT LININGS

6.01. Generally

Supply all necessary materials and execute and finish the whole of the plasterwork in an approved workmanlike manner, in accordance with the best current trade practice, this Specification and the relevant SAA Codes.

Generally perform the plasterwork necessary to carry out the work under the Contract. Refer to the Architectural Drawings and this Specification for the extent and details of the plasterwork.

Generally the extent of the work includes, but is not necessarily limited to, the following:

Supply and installation of 10mm recessed edge Gyprock plasterboard to bulkheads, ceilings (both suspended and direct fixed)

Supply and installation of cornices as shown on the drawings and specified

Supply and installation of insulation

6.02 Warranty

On completion of the work provide a warranty through the Builder to the Proprietor stating that the work is secure against defects for a period of three years from the date of practical completion. The warranty is to include a statement that the whole of the work has been carried out in accordance with relevant Australian Standards and Codes and manufacturer's instructions in effect at the time of installation. 9.03 Plasterboards Plasterboards in locations specified herein, and as shown on Architectural Drawings are to be:

10 mm thick recessed edge Gyprock suspended plasterboard ceilings manufactured by CSR Limited

10 mm thick recessed edge Gyprock plasterboard ceilings direct fixed to extent shown manufactured by CSR Limited

6.03 Examination

Visit site and inspect conditions, comparing conditions to drawings before delivery of materials to site. Notify the Architect of any discrepancy or unsuitability of substrate and rectify same. Start of work means total acceptance of such surfaces and defects in work resulting from accepting poor surfaces are to be corrected at no cost to the Proprietor.

6.04 Preparation

Coordinate with and ensure preparatory work by other trades is done prior to the commencement of work. Failure to do so will involve removal of plasterboard and immediate rectification. Arrange to carry out all preparatory work required for the satisfactory execution of work of this trade including penetrations through plasterboard for services.

Cooperate in installation of frames, duct openings and the like. Do not install materials until space is totally enclosed and weatherproof and until wet work is completed and nominally dry. Check dimensions of areas and surfaces to which material is applied before installation begins. Measure each area and establish layout pattern. All finished work is to be to the sizes shown on the drawings.

6.05 Installation

PLASTERBOARDS

Installation of plasterboard ceilings and walls to comply strictly with AS/NZS 2589:1997 and with relevant manufacturer's specification as outlined in 9.03 and with all joints set flush and feathered at edges: reinforcing fabric and finishing plaster to be used for jointing. Where edges of plasterboard are set against surrounding finishes, run knife cut through setting to prevent adhesion and random board. Sheets shall be fixed in largest possible sizes to minimise incidents to joints.

Plasterboard shall be screw-fixed with countersunk self-tapping screws of size and spacing recommended by manufacturer to galvanised furring channels suspended from reinforced concrete slab or steel purlins above.

Provide movement joints in sheet finishes with purpose made control joint beads at centres recommended by the relevant plasterboard manufacturer.

Erect the ceilings level, on their correct alignments and firmly fix so that there is no looseness or ratting of ceiling components.

STEEL SUSPENSION AND DIRECT FIXED CEILING SYSTEMS

Install steel suspension and direct fixed ceiling systems specified in 9.11 complete to areas shown on the drawings strictly in accordance with Rondo Building Services Limited recommendations and Rondo Key-Lock Concealed Ceiling System technical brochure.

Direct fix under existing timber floors to battens under ceiling joists so that ceiling soffits are flush. All other areas to have suspended ceiling systems.

Space the support members as required by the loads on the system and the type of ceiling and allow for the installation of services and accessories including ductwork, service pipes, light fittings and the like.

In locations where services obstruct the ceiling supports provide bridging and suspension on each side of the services. No part of any ceiling, bulkhead, accompanying suspension frame or of any riser shall come into contact with any soil, waste or hydraulic lines. Minimum separation is 15 mm.

CEILING MOUNTS

Install ceiling mounts to all steel suspension ceiling systems to CSR Limited recommendations.

6.06 Making Good

GENERALLY

If any cracks appear in internal plasterwork before practical completion or before expiration of the Defects Liability Period, they are to be cut out, stopped, pointed up, and made good to the satisfaction of the Architect, and the panel in which the cracks occur must be repainted as directed by the Architect.

AFTER TRADES

In addition to the various works described herein, the contractor shall make good to all parts affected by the various trades to match the existing adjoining surfaces in all respects.
Make good existing surfaces where damped down or affected by new works, all to match existing.

6.07 Finishing

Do all stopping and making good in this trade and after all other trades.
Apply treatment at board joints (both directions), flanges of trim accessories, penetrations, fasteners, heads, surface defects and elsewhere as required to prepare work for painting.
Pre-fill open joints and rounded or bevelled edges using type of compound recommended by manufacturer.

6.08 Protection

Take care of and protect surrounding work including other finishes, equipment and components during installation.
Provide protective covering as required.
Protect finished work.
Make good damage in every respect at no additional cost to the Proprietor and without delay to job progress

7.00. ROOFING

Scope:

Carry out the works shown on the Architectural Drawings and specified herein, and supply necessary materials, gutters, flashings and accessories and install whether individually specified herein or not, in order for the work to be completed to the highest standard.

The work covered in this section comprises the supply of the roofing specified on the architectural plans

-If the installation is not by the product manufacturer and the manufacturer's warranty is conditional on his approval of the installer, the manufacturer's written approval of the specialist installing firm
- the installer's written statement certifying that the roof structure is satisfactory for installation of roofing complete
Warranty

7.01 Submissions

Before roofing work commences obtain and submit the following data:

On completion of work in this section supply warranties that the installation including associated accessories, flashings, roof penetrations, gutter installations and the like is guaranteed against all defects and will remain waterproof and weather-tight for twenty five (25) years from the date of practical completion and lodge certificate with the Architect. The warranty is to include a statement that the whole of the work has been carried out in accordance with relevant Australian Standards and Codes and manufacturer's instructions in effect at the time of installation.

7.02 Sarking

Sarking to be CSR Bradford Thermotuff as manufactured by CSR Limited and as specified in CSR manual.

7.03 Examination

Inspect site conditions before delivery and installation. Ensure roof framing is entirely satisfactory.
Ensure that delivery and installation will not be impeded by on site condition at time of delivery.
Start of work means total acceptance of conditions.

7.04 Sarking Installation

Sarking to be installed to CSR Limited fixing specifications in accordance with AS/NZ 4200.2. Use security pads or anti-flap pads in a staggered pattern under each second row of battens between each pair of rafters.

7.05 Protection & Cleaning

Keep clean roofing at all times during the progress of the works.

At the end of work each day and immediately before each occurrence of rain, sweep the roof surfaces thoroughly to remove debris. Prevent waste materials from entering downpipes, rainwater heads or drains.

Remove unsecured nails, rivets, screws, bolts and other similar fixing devices at the end of work each day and at the completion of roofing installation

8.00. ELECTRICAL SERVICES

Generally

The whole of the work shall be carried out by a licensed Electrical Contractor and shall comply with the requirements of:

- a) Energy Australia
- b) The Council of Fire and Accident Underwriters of Australia
- c) All other authorities having jurisdiction over the Works
- d) The relevant SAA Codes
- e) The Building Code of Australia
- f) Conditions of Approval

In carrying out electrical work, the Electrical Contractor shall comply with and observe in all respects, the provision of any law for the time being in force relating to the licensing of electrical contractors and electricians.

Use only materials, fittings, accessories and apparatus of first grade design and manufacture and these shall comply with relevant Australian standard specification

Extent Of Work

The Electrician will carry out the work shown on Architectural Drawings and specified herein, and supply necessary fittings, materials and accessories and install whether individually specified herein or not, in order for the work to be completed to the highest standard. Electrical work to comply with AS 3000 and AS 3006.

Generally the extent of work includes, but is not necessarily limited to, the following:

Supply and installation of new lighting, power, relocate existing T.V. outlets etc., where shown on Architectural Drawings. The exact position to be as directed by Studio & Co Pty Ltd.

Connect new work to existing switchboard and to existing meter box.

Connect new HWU if required

Notices and Fees

The Electrician will make all arrangements with the local supply Authorities for connection of supply and attend to service of all notices required by such authorities and / or by law, together with payment of all fees, charges, levies or deposits.

8.04. Setting Out, Cutting Away and Making Good

Set out, at the earliest opportunity, the positions and sizes of all holes, recesses and chases etc., necessary for the accommodation of work included in this Contract and arrange with the Builder to make good after such work.

8.05. Plastic Conduit

Use approved type rigid plastic conduit for all external work. Use flexible type conduit for all other work. Conduits shall be concealed in cavities etc. or chased into walls. Conceal cables and conduits, including underground cable or conduit entering the residence in a manner that will allow wiring replacement without structural work or the removal of cladding or lining. Do not penetrate damp proof courses.

8.06. Lighting

All light fittings as per schedule attached. The Electrician shall fix and electrically install each and every item in locations shown on Architectural Drawings, and/or where directed by Studio & Co Pty Ltd., and in compliance with BCA requirements as well as to satisfy any Basix requirements.

8.07. Power Outlet, Switch and Outlet Covers

Builder is install power outlets to schedule attached in positions indicated on drawings.

8.08. Smoke Detectors

Builder is to install 2 new smoke detectors as required by BCA requirements.

8.09. T.V. Conduits, Outlets & Antennae

Provide and lay conduits, wiring and outlets for connection to existing T.V. aerial to locations shown in the Architectural drawings.

8.10. Telephone Points

Carry out all conduits and wiring for new telephone outlets in positions shown on drawings, all to the approval of Telstra.

CAT5 network cable

Carry out all wiring for new computer network in positions shown on drawings.

8.12. Guarantee

Obtain from the electrical contractor a certificate that the installation is guaranteed against all defects, except replacement of lamps or fixed appliance elements, for one (1) year from the date of practical completion and lodge certificate with Studio & Co Pty Ltd..

9.00. HYDRAULIC SERVICES

A9.00 Drainage

A9.01 Generally

The whole of the drainage work shall be carried out by a licensed Plumber and shall comply with the requirements of:

Sydney Water

All other authorities having jurisdiction over the Works
The relevant SAA Codes
The Building Code of Australia
Conditions of Approval

In carrying out hydraulic work, the plumber shall comply with and observe in all respects, the provision of any law for the time being in force relating to the licensing plumber. All drainage work to comply with AS 3500.

A9.02. Extent of Work

Generally drainage work includes the following principle items, however, the Builder shall allow for any other drainage work which may be required to be carried out for this section and that of any other trade:

Connect all new and existing sanitary fittings and fixtures to existing sewer line which discharges into Sydney Water sewer main.

Connect new downpipe from stainless steel box gutter to existing stormwater line or Alsace Avenue if no line currently exists.

Create absorption pit in the rear yard.

Connect new ag drainage lines in rear yard to absorption pit and/or to existing stormwater line or Read Street if no line currently exists.

A9.03. Inspection Fees and Certificates/ Guarantee

Allow for and pay normal special inspection fees. Obtain certificates and pay all charges. Submit same to Studio & Co Pty Ltd. on completion of the work. Obtain from the Plumber a certificate that the drainage work is to be guaranteed against all defects for two (2) years from the date of Practical Completion and lodge certificate with Studio & Co Pty Ltd.

A9.04. Pipes and Fittings

SEWERAGE DRAINS:

For sewerage drains, use approved P.V.C. pipes and fittings to AS 1254 quality All pipes and fittings shall be branded with maker's name for trademark and carry Authorities approval stamp.

STORMWATER DRAINS:

Use U.P.V.C. pipes and fittings to AS 1254 for all new stormwater lines.

9.00. Plumbing

9.01. Generally

The whole of the plumbing work shall be carried out by a licensed Plumber and shall comply with the requirements of :

Sydney Water
All other authorities having jurisdiction over the Works
The relevant SAA Codes
The Building Code of Australia
Conditions of Approval

In carrying out hydraulic work, the plumber shall comply with and observe in all respects, the provision of any law for the time being in force relating to the licensing of plumbers. All plumbing work to comply with AS 3500.

9.02. Extent of Work

Generally, the extent of the plumbing work includes, but is not necessarily limited to, the following:

All new sanitary plumbing
Installation of sanitary fixtures
Rainwater retention and overflow + irrigation to landscaping.
New hot and cold water service
Gas service relocated to kitchen + gas outlets for barbeque and space heater as shown on the electrical diagram

Allow in tender for all costs in connecting water and gas services to meters. Ascertain from supply authority, before tendering, size and position of main and any type of other charges.

9.03. Inspection Fees and Certificates

Allow for and pay normal special inspection fees. Obtain certificates and pay all charges. Submit same to Studio & Co Pty Ltd. on completion of work. Obtain from the Plumber a certificate that the plumbing work is guaranteed against all defects for two (2) years from the date of Practical Completion and lodge certificate with Studio & Co Pty Ltd.

9.04. Chrome Plating

Finish in chrome plate all exposed traps and wastes from basins and water pipes visible and all visible taps, cocks and flow control valves.

9.05. Rainwater Disposal

The work to be carried out under this part of the Specification comprises the supply, installation and testing of rainwater gutters and downpipes, roof outlets and grates, as specified or indicated on the drawings.

On completion, all work shall be hydrostatically tested under maximum choke conditions. Such tests shall be held for a period of two (2) hours. Any defects shall be remedied and the test re-applied. Provide all testing gates and apparatus necessary for the test.

Allow to test all storm water services and make good any faults.

9.06. Cold Water Service

GENERAL

The work under this section comprises the complete supply and installation of cold water services from existing water meter to all new taps, valves and sanitary fittings and new electrical hot water heater, as shown on the drawings.

MATERIALS

Copper Tube and Fittings:

Copper tube for cold water services throughout the project shall be carried out in accordance with AS 1432 - 1973 Type "B".

Valves:

All valves shall be tested to a minimum working pressure of 1700 Kpa and marked by an approved testing authority.

Control valves up to and including 80 mm shall be loose jumper type valves and stamped by Sydney Water.

Valves up to 80 mm shall be of copper alloy. All valves to be completely dezincification resistant. Valves up to and including 50 mm shall be jointed by screwed joints.

Stop Valves:

All control valves of the loose jumper type shall be manufactured and tested in accordance with AS 1718 - 1975. Valve seats shall be machined without sharp edges which may damage the valve washers. Seal on valve stem shall be neoprene rubber ring in lieu of stuffing box. Stuffing box type stem seals may be used on large size valves.

Gate Valves:

All gate valves shall be manufactured and tested in accordance with AS 1830 grade 14 cast iron components, AS 1565 - 8368 for bronze components and AS 156 - 385C for brass components.

Valves shall be constructed of cast iron body and bonnet and associated components with brass stem and bronze facing rings to gate wedge and body seat.

Valves to have non-rising type spindles which must not project into the bore of the valve when the valve is in the fully open position.

Check Valves:

Valves shall be tested with bronze valves and seats. The body shall be fitted with a screwed hexagon headed inspection cap or cover and is to have a flow direction arrow cast in raised metal on one side. The valves shall be removable through the top of the body and designed for a working pressure of 1000 Kpa and be of an approved type and in accordance with AS 1718 - 1975.

TESTING

Test all cold water services to a hydrostatic pressure test of 1500 Kpa for a period of two (2) hours.

CONTROL VALVES

Stop valves shall be installed to control each branch or group of fixtures. Each valve shall be tested and stamped approved by Sydney Water.

WATER METER

Retain existing water meter.

HOSE TAPS

Supply and install one (1) new external hose taps to be located at the rear of the property.

9.07. Hot Water

GENERAL

The hot water installation shall be carried out in accordance with the requirements of Sydney Water and shall include the connections to the heater, and the reticulation to the fitments.

HOT WATER HEATER

Connect bathrooms, kitchen and laundry taps to new gas hot water heater. Provide all relevant valves, hot and cold water pipework. The new hot water heater is located as shown on Architectural Drawings on the western façade of the property.

9.08. Gas Service

GENERAL

The work under this section comprises the complete supply and installation of gas services, including the supply of all gas valves, piping and connections. All existing gas service to be pressure tested to AGL satisfaction before any new work commences. Test must be sighted by an AGL inspector.

Test the gas service to 2% Kpa air pressure for two (2) hours and to AGL Company requirements.

At the completion of testing, purge the pipework in accordance with AGL Company requirements. Liaise with AGL and adjust and commission all equipment.

Gas points include gas point for barbeque, gas hot plates, gas hot water heater and two gas heating points.

10.00. MECHANICAL SERVICES

Generally

The whole of the work shall be carried out by a licensed Mechanical Contractor and shall comply with the requirements of:

- a) All authorities having jurisdiction over the Works
- b) The relevant SAA codes
- c) The Building Code of Australia
- d) Conditions of Approval

Extent Of Work

The extent of work contained in this section is for the installation of a range hood and mechanical exhaust for the new laundry and bathrooms.

10.03. Works By Builder

All cutting, patching, framing-up, furring-in, chasing and making good for the installation of ductwork, air terminal fittings and piping.

All internal and external penetrations in floors and walls and making good.

Flashing all external penetrations to make weather-proof.

11.00. Glazing

Generally

The Builder shall submit a Certificate, at the date of Practical Completion, to verify that all glazing works have been carried out in accordance with the provisions of the Building Code of Australia and the relevant SAA codes, and in particular AS 1288 and AS 2208.

The selection of glazing materials to be used in the building and the installation of such materials, together with the required use of safety glazing in doors and panels, shall comply with the requirements of the Building Code of Australia and the relevant SAA codes.

12.00. TILING

Generally

The work covered by this section consists of furnishing all labour, equipment and materials in connection with the installation of floor and wall tiles complete, as shown and as specified, and in accordance with AS3958. Tile samples to be provided by Studio & Co Pty Ltd. Builder is to allow the P.C. Sum scheduled for the supply only of floor and walls tiles as shown in the Architectural drawings.

Guarantee

The work shall be guaranteed against defects in workmanship and installation for a period of three (3) years from the date of completion of the whole of the above works. This guarantee shall cover drummy work or other defects that appear during this period.

Tiling

All floor and/or wall tiles shall be thoroughly dry when fixed. All crazed, discoloured or cracked tiles shall be discarded. All tiles shall be selected for uniform colour, surface gauge and grading throughout and equal to the sample selected by Studio & Co Pty Ltd..

Cut tiles neatly to fit around fixtures and fittings, and at margins where necessary. Drill holes without damaging tile faces. Rub edges smooth without chipping. Return tiles into sills, reveals and openings. Butt up to returns, frames, fittings and other finishes.

Refer to Architectural drawings for tile setouts.

FALLS AND LEVELS

Grade floor tiling to even and correct falls generally, and to floor wastes and elsewhere as required. Make level junctions with walls. If falls are not required, lay level.

Minimum fall generally: 1:100.

Minimum fall in shower areas: 1:60.

Waterproof Membrane

To both bathrooms and laundry apply waterproof membrane Superflex 3 or equivalent, strictly in accordance with Australian General Adhesives Pty. Ltd. recommendations or approved equal, applied by an approved applicator and obtain a ten (10) year guarantee from the date of Practical Completion from the manufacturer which should be given to Studio & Co Pty Ltd. before practical completion is granted. Waterproofing system to comply with AS3740.

13.00. Floor Finishes

13.00. Carpet Finish

The Builder shall be responsible to ensure that the floors are suitably finished and ready to accept the carpet finish, and for the protection of the laid carpet floors.

Floors ready for carpet shall be dry and free from dust, dirt, oil, grease, etc.

14.00. PAINTING

14.00. Generally

For the avoidance of disagreements on the competency and quality of paint work during this project, it is hereby noted that the painting shall be a first-class standard in both regards to materials and workmanship, and is to comply with AS2311 and AS2312.

Only skilled tradesmen, experienced in the type of work specified, shall be employed in the application of finishes in this section.

Extent Of Work

Entire internal and external painting except existing brickwork.

Samples

The Builder shall allow for putting samples of finishes for approval by Studio & Co Pty Ltd. No work shall commence until the samples have been approved by Studio & Co Pty Ltd., and all work shall conform to the standard of the sample.

Colour Scheme

Final paint colours are to be in accordance with a schedule to be prepared by Studio & Co Pty Ltd. and subject to sample areas painted on site.

14.04. Guarantee

All internal and external work specified in this section shall be guaranteed against faulty workmanship and materials for a period of three (3) years after the date of Practical Completion.

Substrate

The Builder shall ensure that the new and existing backgrounds to which applied finishes are to be placed are suitable for that particular type of finish. Commencement of the work will automatically imply acceptance, without reservation, of the base or background upon which finishes are to be applied and the edges up to which they terminate.

Should any cracks appear before completion or before the expiration of the maintenance period, they are to be cut out, stopped, painted up and made good to the satisfaction of Studio & Co Pty Ltd., and the walls in which the cracks occur must be repainted at the discretion of Studio & Co Pty Ltd.

Materials

Do not combine paints from different manufacturers in one paint system. Ensure that primers, sealers and undercoats are suitable for the substrate and compatible with the finish coat and each other. Except for stains and other clear or translucent finishes, each coating shall be of a noticeably different tint from the preceding coat.

1.0 GENERAL

- These drawings shall be read in conjunction with the architectural and other consultants' drawings / specifications and with other such written instructions as may be issued during the construction. Any discrepancy shall be referred to the Engineer before commencing the work.
- All dimensions are in millimeters, UNO (unless noted otherwise).
- These drawings shall not be scaled, refer to dimensions given only or refer to the Architectural drawings.
- All levels and setting out dimensions shown on the drawings shall be checked on site prior to the commencement of the work.
- During construction the structure shall be maintained in a stable condition with no part being overstressed with temporary bracing installed as required.
- The engineer shall approve any proposed substitution prior to the commencement of work.

2.0 LOADING

- Superimposed loads are in accordance with AS 1170.1 or as shown in note L4.
- Wind loads are in accordance with AS 1170.2 as follows:
Region : A Basic Wind Velocity, V_p : 41 m/s Category : N2 (W33)
- Earthquake loads are in accordance with AS 1170.4 as follows:
 $a = 0.08$ $S = 1.0$ $I = 1.0$
- Element superimposed loading:

Element	Live Load (kPa)	Dead Load (kPa)
Floors - Internal	1.50	-
Floors - External & Garage	3.00	-
Roof Areas	0.25	-

- Assumed site soil classification is: Class S (Sand Site)

3.0 EARTHWORKS

- The earthworks shall be carried out in accordance with the geotechnical report reference by
- The site shall be stripped a minimum depth of 150 mm under pavements and buildings to remove the topsoil. Any remaining uncontrolled fill material, organic material, refuse or roots shall be removed.
- The subgrade shall be inspected and approved by the geotechnical engineer.
- The excavated subgrade shall be proof rolled a minimum of six (6) passes using a vibrating drum roller with a minimum deadweight of 10 tonnes. Any soft, wet and unsuitable spots shall be removed and reinstated using approved material.
- The subgrade shall be compacted to not less than 100% standard dry density ratio with in $\pm 2\%$ of the optimum moisture content in accordance with AS1289.
- Where fill is required to achieve subgrade level it shall be approved ripped sandstone having a maximum particle size of 75 mm. It shall be placed in loose layers no thicker than 300 mm and compacted to not less than 100% standard dry density ratio within $\pm 2\%$ of the optimum moisture content in accordance with AS1289.
- If a vibrating type roller is used, consideration shall be given to the effects on adjacent properties.
- All batters shall be a minimum of 1:2 for temporary batters and 1:4 for final batters in clay material.
- All filling shall be under the supervision of the project geotechnical engineer who shall provide compaction certificates to the engineer for approval.

4.0 FOUNDATION MATERIAL

- Strip & pad footings have been designed for an allowable end bearing value of 150 kPa in dense sand material.
- Bored piers have been designed for an allowable end bearing value of 500 kPa & a skin friction of 50 kPa off rock.
- The foundation material shall be inspected & approved in writing by the geotechnical engineer for the above allowable bearing capacities.
- Slabs on ground have been designed for a CBR of 5 in accordance with the Cement & Concrete Association Industrial Floors & Pavement Handbook.
- Footings shall be located centrally under walls & columns UNO.

5.0 REINFORCED CONCRETE

- All workmanship and materials shall be in accordance with AS 3600, except where varied by the project documentation.
- Concrete quality shall be as follows (subject to note C4 being satisfied), UNO:

Element	Slump (mm)	Maximum Aggregate size (mm)	Cement Type	Strength 28 Days (MPa)	Admixture
Footings	80	20	Normal	25	-
Bored Piers & Pile Caps	80	20		25	-
Floor Slabs on Ground	80	20	Portland	25	-
Suspended Floor Slabs	80	20	Type A	32	-
Hollowcore Floor Slabs	80	20		32	-
Walls & Columns	80	20	Cement	32	-

- The engineer shall approve any admixtures to be used in the concrete mix.
- The clear concrete cover to all reinforcement shall be as follows, UNO:

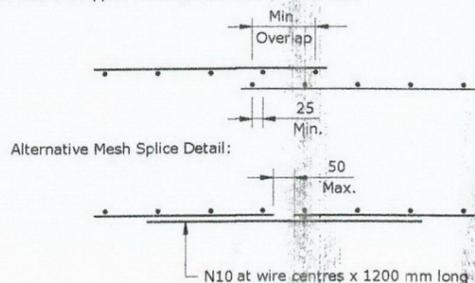
Exposure Classification to AS 3600	Strength 28 Days (MPa)	Against Formwork		Against Ground	
		Interior Surface	Exterior Surface	With Membrane	With No Membrane
A1	20	20	30	30	50
A2	25	40	30	40	50
B1	32	40	40		
B2	40	45	45		

- Cover to reinforcement shall be obtained by the use of approved bar chairs placed at maximum 750 mm centers in each direction.
- All concrete shall be mechanically vibrated and the vibrators SHALL NOT be used to spread the concrete.
- Sizes of the concrete elements do not include thickness of the applied final finishes.
- Approval shall be obtained from the engineer prior to the drilling of any holes or cutting in of any chases other than those shown on the structural drawings.
- Construction joints where not shown on the structural drawings shall be located in accordance with the engineers approval.
- Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of 7 days (10 days in summer months), and prevention of loss of moisture for a total of 10 days followed by gradual drying out. Approved sprayed on compounds complying with AS3799 may be used provided that they do not interfere with the performance of the proposed floor finishes. Polythene sheeting or wet hessian may be used if protected from wind and traffic.
- The suspended slabs shall be propped until 28 day strength has been achieved for slabs. The formwork may be removed once 20 MPa strength has been achieved, however the slab will need to be back propped until 28 day strength has been achieved. No masonry or partition walls are to be constructed on suspended levels until all propping is removed.
- Conduits, pipes, etc. shall only be placed in the middle third of the slab depth and spaced at not less than 3 diameters. They shall not be placed within the cover of the reinforcement.
- Reinforcement symbols:
S - Denotes grade 250 S bars to AS1302.
N - Denotes grade 500 normal ductility deformed bars to AS4671.
R - Denotes grade 250 normal ductility round bars to AS4671.
SL - Denotes grade 500 low ductility square welded mesh to AS4671.
RL - Denotes grade 500 low ductility rectangular welded mesh to AS4671.
L - Denotes grade 500 low ductility trench welded mesh to AS4671.

- Reinforcement is represented diagrammatically and is not necessarily shown in true projection.
- Splices in reinforcement shall be made only in positions shown or otherwise approved by the engineer.
- Laps and cogs shall be in accordance with AS3600 and not less than the below:

	Minimum Splice Lengths	Minimum Overall Cog Lengths
N12	400 mm	200 mm
N16	600 mm	225 mm
N20	800 mm	275 mm
N24	1100 mm	325 mm
N28	1400 mm	375 mm

- Site bending of deformed reinforcing bars shall be done without heating and using mechanical bending tools.
- Welding of the reinforcement shall not be permitted unless shown on the structural drawings or approved by the engineer.
- Joggles to the bars shall be 1 bar diameter over a length of 12 bar diameters.
- Bundled bars shall be tied together at 30 bar diameter centers with 3 wraps of tie wire.
- Mesh shall be lapped 2 transverse wires plus 25 mm.



6.0 FORMWORK

- All workmanship and materials shall be in accordance with AS 3610, except where varied by the project documentation.
- The design certification & the performance of the formwork shall be the responsibility of the contractor.
- During construction support propping shall be required where there are loads from stacked materials, formwork & other supported slabs. Once the concrete has achieved its nominated 28 day strength, the imposed loads shall not exceed those given in the loading table.
- With multistory construction, it is expected that support propping will extend a minimum of 3 levels below the slab being poured. Prop removal is to be programmed so as not to overstress previously cast floors and shall be submitted to the engineer for approval.
- The suspended slabs shall be propped until 28 day strength has been achieved for slabs. The formwork may be removed once 20 MPa strength has been achieved, however the slab will need to be back propped until 28 day strength has been achieved. No masonry or partition walls are to be constructed on suspended levels until all propping is removed.
- All exposed corners shall have a 20 mm chamfer, UNO.
- All finishes shall be in accordance with the architectural specification.

7.0 PERMANENT METAL FORMWORK

- The permanent metal formwork shall be installed in accordance with the manufacturers recommendations and shall NOT be substituted from the product specified without written approval from the engineer.
- The permanent metal formwork shall be suitably propped.
- The permanent metal formwork shall not be spliced or joined midspan.
- The permanent metal formwork shall have a minimum end bearing of 50 mm.
- The permanent metal formwork shall be fixed to the supporting structure with spot welds or fasteners, there shall be a minimum of 1 fixing per sheet to the support each end adjacent to the side lap.

- The permanent metal formwork may need to have the side lap fastened together midspan, this shall be carried out in accordance with the manufacturers recommendations.

8.0 HOLLOWCORE FLOOR PLANKS & WALL PANELS

- All workmanship & materials shall be in accordance with AS3600.
- The 28 day concrete strength shall be a minimum of 40 MPa.
- The prestressing steel shall be stress relieved low relaxation strand in accordance with AS1311.
- The floor plank topping shall be with 32 MPa concrete or as shown on the drawings. If the topping concrete is used to grout the keyways then the concrete shall have a maximum aggregate size of 10 mm.
- The concrete topping thickness and reinforcement shall be as noted on the plans & sections.
- The hollowcore planks & panels shall be lifted & supported only at the nominated lifting points.
- The hollowcore floor planks shall be installed in accordance with the manufacturers specifications & workshop drawings.
- The structure shall be maintained in a stable condition during the erection of the floor planks or wall panels with temporary bracing provided as required.
- All keyways shall be aligned & grouted with a 3:1 sand : cement mix or approved concrete topping mix. Ensure that all keyways are properly filled.
- Any proposed penetrations &/or chases will require the manufacturers and engineers approval prior to work being carried out.
- A minimum of two (2) copies of all workshop drawings shall be supplied to the engineer for approval.

9.0 MASONRY

- All workmanship and materials shall be in accordance with AS 3700.
- The design strength of masonry shall be:

Exposure Classification to AS 3600	Brick Compressive Strength (MPa)	Brick Salt Resistance Grade	Durability Classification Of Built In Components	Mortar Mix	
				GP Portland Cement:Lime: Sand	f _c (MPa)
A1 / A2	20	General	R3	1.0 : 1.0 : 6.0	2.8
B1	20	Purpose (Galvanised)	(Galvanised)	1.0 : 1.0 : 6.0	2.8
B2	20	Exposure	R4 (Stainless)	1.0 : 0.5 : 4.5	2.8

- All masonry walls supporting concrete slabs and beams shall have a slip joint comprising of two layers of galvanized steel in between the concrete and masonry.
- All masonry walls supporting or supported by concrete floors shall have vertical joints located to match any control / construction joints in the concrete.
- Do not construct any masonry walls on suspended slabs until the slab formwork has been stripped and de-propped.
- Non load bearing masonry walls shall be separated from concrete slab or beam above by 20 mm thick compressible filler.
- Provide vertical control joints at 8 meters maximum centers, and 4 meters maximum from corners in masonry walls, and between new & existing brickwork. The joint shall have expansion joint ties and suitably sealed with a mastic sealant.
- Masonry retaining walls are to be back filled with either of the following material:
 - Coarse grained soil with low silt content
 - Residual soil containing stones
 - Fine silty sand
 - Granular materials with low clay content

10.0 BLOCKWORK

- All workmanship and materials shall be in accordance with AS 3700.
- Reinforced concrete blockwork shall comply with the following, UNO:
 - Blocks: Minimum 10 MPa unconfined compressive strength conforming to AS435.
 - Mortar: 1.0 : 1.0 : 6.0 ratio of cement : lime : sand UNO.
 - Blocks shall be either 'H' or 'Double-U' configuration.
 - Provide cleanout holes at the base of the wall & rod core holes to remove excess mortar.
 - Core filling shall be 20 MPa concrete with maximum 10 mm aggregate size with a maximum slump of 120 \pm 20 mm.
 - Minimum cover of 55 mm from the outside of the blockwork.
- Blockwork retaining walls are to be back filled with either of the following material:
 - Coarse grained soil with low silt content
 - Residual soil containing stones
 - Fine silty sand
 - Granular materials with low clay content
- Vertical control joints shall be provided at maximum 8000 mm centers. They shall be reinforced with N20-400 dowels 600 mm long. One end shall be greased & capped.
- No admixtures shall be used to the mortar mix or the core fill mix without prior written consent from the engineer.

11.0 STRUCTURAL STEELWORK

- All workmanship and materials shall be in accordance with AS 4100 and AS/NZS 4600.
- The structural design has been based on the following steel grades, UNO:
 - Hot rolled universal beams, columns, channels & angles: 300PLUS
 - Circular, square & rectangular hollow sections: C350/C450LO
 - Cold formed open DuraGal profiles: C350/C450LO
 - Cold formed lipped Cee & Zed purlins: G550/G500/G450
- The structural design has been based on MBPMA nominal size Cee & Zed lipped purlins.
- Qualifications of welding procedures and personnel shall conform to Section 4 of AS 1554.1. Non destructive testing of welds shall include 100 % visual inspection and additional testing as shown on the drawings.
- All welds shall be 6 mm continuous fillet type SP, UNO. All butt welds shall be complete penetration in accordance with AS 1554.1, UNO.

- Bolt designation:

4.6/S	Commercial bolts to AS 1111, snug tightened.
8.8/S	High strength structural bolts to AS 1512, snug tightened.
8.8/T	High strength structural bolts to AS 1512, fully tensioned bearing joint.
8.8/T	High strength structural bolts to AS 1512, fully tensioned friction joint.

- All bolts shall be M20 8.8/S, with a minimum of 2 bolts per connection, UNO.
- Fin plates shall be a minimum of 10 mm thick, grade 300PLUS steel, UNO.
- Concrete encased steelwork shall be wrapped with SL62 mesh and shall have a minimum of 50 mm cover, UNO.

- Steelwork not encased in concrete shall have the following surface treatment :

Exposure Classification to AS 3600	Steelwork Protection Required
A1 / A2	Power tool clean to AS1627 Class 1 1 Coat Alkyd Primer (Zinc Phosphate)
B1	Abrasive blast to AS1627 Class 2.5 1 Coat Inorganic Zinc Silicate
B2	Hot Dipped Galvanized to AS1550

- Where sealed tube members are hot dip galvanized, the fabricator shall provide drill holes as necessary to allow gases to escape.
- All transport and erection damage, site welds etc., shall be reinstated to an equivalent finish to adjacent steelwork.
- A minimum of two (2) copies of all workshop drawings shall be supplied to the engineer for approval.

12.0 PRECAST PANELS

- All workmanship and materials shall be in accordance with AS 3600.
- The precast panel concrete strength at 28 days shall be a minimum of 40 MPa. The concrete shall be a minimum of 20 MPa before removal from molds.
- Dimensions shown are final concrete sizes and additional concrete must be provided to allow for loss of structural thickness due to surface treatment, etc.
- Panel structural thickness shall be as noted.
- Refer to the architectural drawings for dimensions, rebates, etc.
- All metal work and cast-in ferrules shall be hot dipped galvanized which are exposed to the external environment.
- All cast-in ferrules shown on the drawings are to remain sealed until the erection of the panel and shall not be used for lifting.
- Lifting ferrules are the contractors responsibility & extra reinforcement needs to be provided in accordance with manufacturers recommendations.
- Concrete cover shall be in accordance with structural drawings.
- Fabric in the panels shall be one sheet, no lapping is permitted unless shown on the structural drawings.
- Penetrations for services shall be neat formed holes, hole boring is not permitted.
- Temporary steel packers may be used under the panels provided they have a minimum of 50 mm cover from the concrete slab or grout.
- A minimum of two (2) copies of all workshop drawings shall be supplied to the engineer for approval. The shop drawings shall show all cast-in inserts.

13.0 TIMBER

- All workmanship and materials shall be in accordance with AS 1684 and AS1720.
- AS1684 shall be applied to sheltered construction in sheltered locations.
- Softwood shall be a minimum of F7 and hardwood to be a minimum of F17 UNO.
- External timber shall be either hardwood durability class I or II as per AS1720 or impregnated pine grade F7, pressure treated to AS1604 and re-dried prior to use. Supplementary treatment shall be applied to all cut surfaces.
- Two (2) copies of timber truss shop drawings shall be submitted to the engineer for approval, clearly indicating design loads and point loads applied to the structure.
- All bolts in timber construction shall be M16 4.6/S UNO. Washers under heads and nuts shall be at least 2.5 times the bolt diameter.
- All timber joints and notches shall be a minimum of 100 mm away from loose knots, severe sloping grain, gum veins or other minor defects.

14.0 FOUNDATION MAINTENANCE

- All soils are affected by water. Silts are weakened by water and some sands can settle if heavily watered, but most problems arise on clay foundations. Clays swell and shrink due to changes in moisture content and the potential amount of the movement implied in the site classification in Australian Standard AS2870, which is specified as follows:
 - A Stable (Non-reactive).
 - M Moderately Reactive.
 - E Extremely Reactive.
 - S Slightly reactive.
 - H Highly Reactive.
- All sites shall be maintained at essentially stable moisture conditions and extremes of wetting and drying prevented. This will require attention to the following.
- Site drainage: The site shall be graded or drained so that water cannot pond against or near the house. The ground immediately adjacent to the house shall be graded to a uniform fall of 50 mm minimum away from the house over the first meter. The sub floor space for houses with suspended floors shall be graded or drained to prevent ponding. The site drainage requirements shall be maintained.
- Gardens: The gardens shall not interfere with the drainage requirements or the sub floor ventilation and weep hole drainage systems. Garden beds adjacent to the house should be avoided. Over watering of gardens close to the house shall be avoided.
- Restrictions on trees / shrubs: Planting of trees shall be avoided near the footings of a house or neighboring house on reactive sites as they can cause damage due to drying of the clay. To minimize the possibility of damage, tree planting should be restricted to a distance from the house of :
 - 1.50 x mature height for Class E sites
 - 1.00 x mature height for Class H sites
 - 0.75 x mature height for Class M sites
- Where rows or groups of trees are involved, the distance from the building should be increased. Removal of trees from the site can also cause similar problems.
- Repair of leaks : Leaks in plumbing, including storm water and sewerage drainage should be repaired promptly.

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NO.	APP.	AMENDMENT DESCRIPTION	DATE
		UNENDORSED	19.01.16

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CLIENT:
LINDSAY

PROJECTNAME:
**PROPOSED ALTERATIONS
251 WHALE BEACH ROAD
WHALE BEACH NSW 2107**

DRAWING TITLE:
General Notes

SCALE:	DATE:	DESIGN/APPROVED:	REV:
	07 MAR 2017	JDM	0
PROJECT:	DRAWING:	SIGNED:	
17.042	S1		

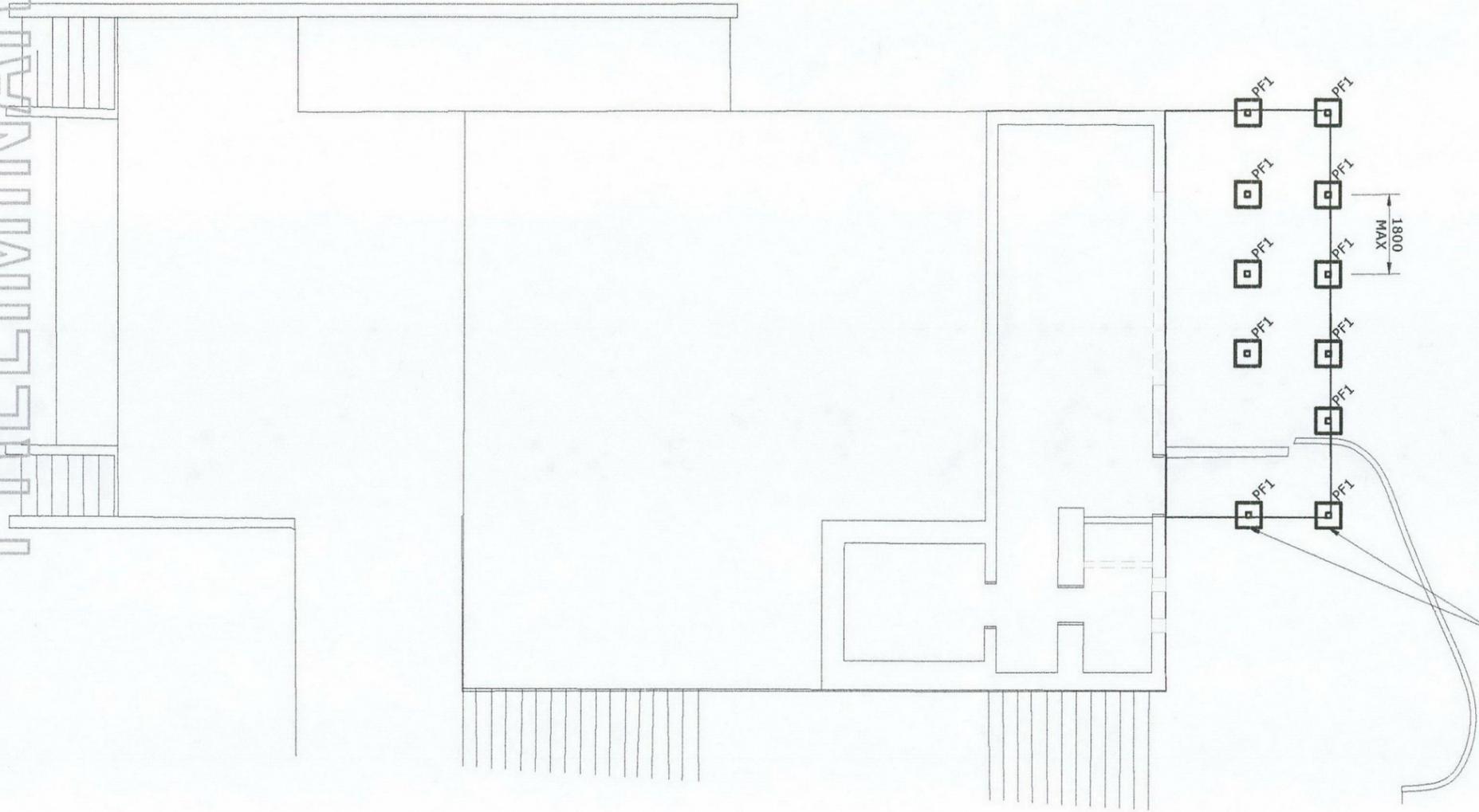
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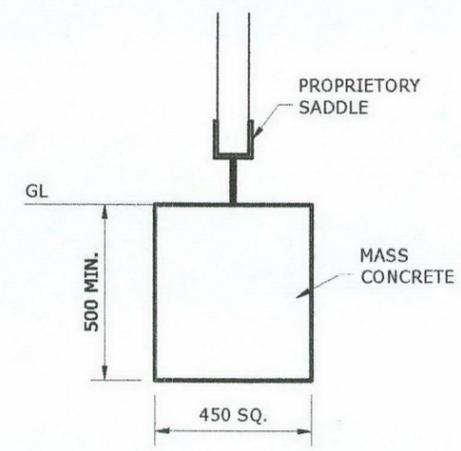
DESIGN CRITERIA:
 Site Soil Classification = S (Sand Site)
 Wind Classification = W33 (N2)
 Construction Type = Concrete
 Roof Cladding Type = Metal Sheetting
(Note: Masonry shall be articulated in accordance with technical note 61 from the Cement & Concrete Association of Australia)

EXPOSURE CLASSIFICATION:
 Interior Surfaces = A1
 Exterior Surfaces = B2

EXISTING FOOTING NOTE:
 Existing footing depth shall be confirmed on-site to assess the need for underpinning. No existing footing shall be undermined during excavation.



PAD FOOTINGS TO BE EXCAVATED TO BELOW RETAINING WALL ZONE OF INFLUENCE ON HIGH SIDE OF WALL.



PAD FOOTING PLAN 1:100

1. Extra bars as noted on plan & sections.
2. 25 MPa Minimum concrete strength, typical unless noted otherwise.
3. Site preparation shall be carried out in accordance with the current edition of AS2870 Residential slabs & footings construction code & with the general notes.
4. Reinforcement cover to the ground floor slab shall be as follows:
 - 40mm - To unprotected ground
 - 40mm - To external exposure
 - 30mm - To a vapor barrier in contact with the ground
 - 30mm - To internal exposure
5. Bored piers shall be in accordance with the bored pier note and as shown on plan.

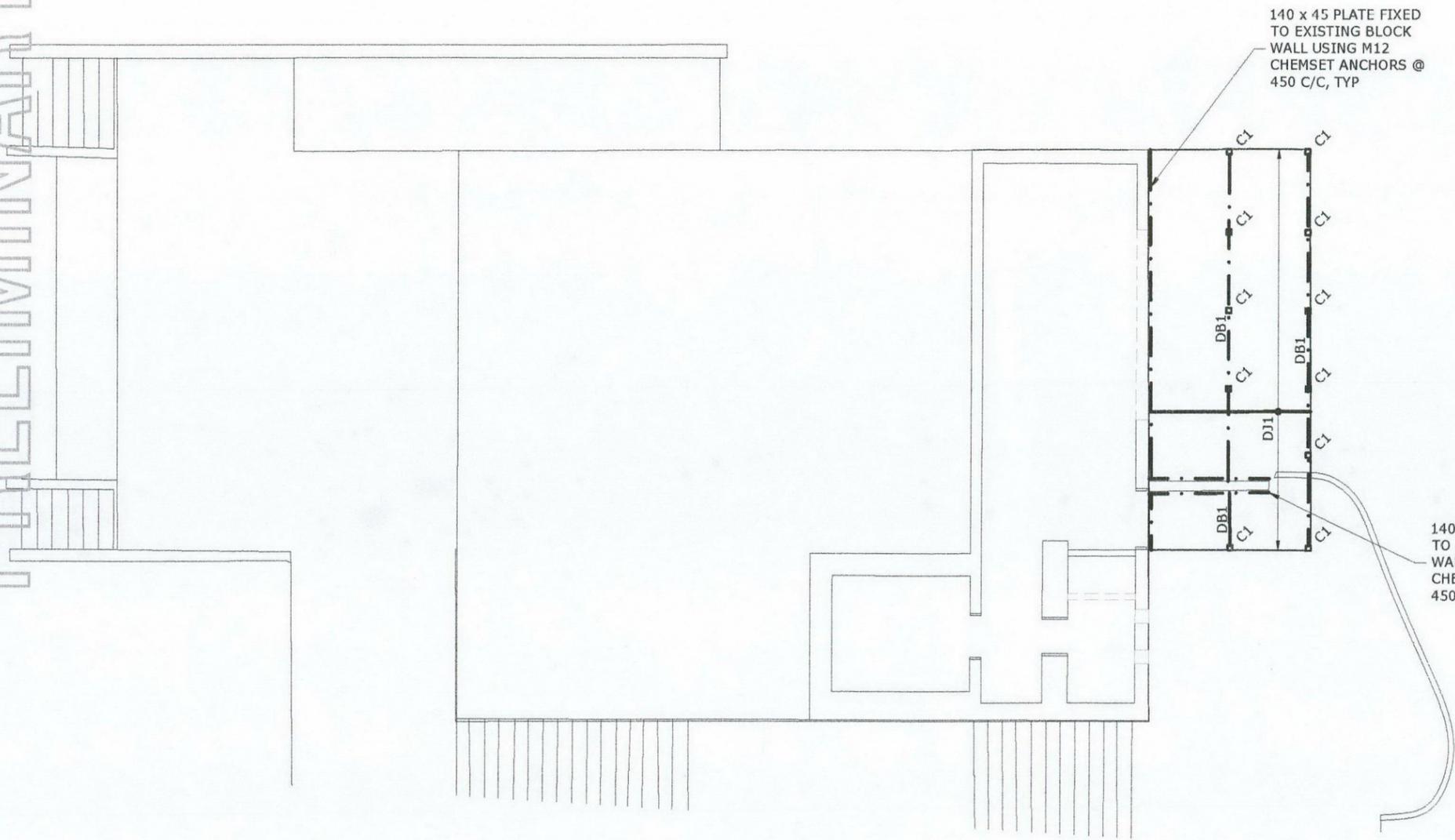
PAD FOOTING 'PF1' DETAIL 1:20

A3 ORIGINAL SIZE

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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">0</td> <td style="width: 70%;">UNENDORSED</td> <td style="width: 25%;">19.01.16</td> </tr> <tr> <td>REV.</td> <td>APP.</td> <td>AMENDMENT DESCRIPTION</td> </tr> </table>			0	UNENDORSED	19.01.16	REV.	APP.	AMENDMENT DESCRIPTION	<p>PROJECT NAME: PROPOSED ALTERATIONS 251 WHALE BEACH ROAD WHALE BEACH NSW 2107</p>		<p>SCALE: 1:100, 1:20</p>		<p>DATE: 07 MAR 2017</p>		<p>DESIGN/APPROVED: JDM</p>		<p>REV: 0</p>
0	UNENDORSED	19.01.16															
REV.	APP.	AMENDMENT DESCRIPTION															
			<p>PROJECT: 17.042</p>		<p>DRAWING: S2</p>		<p>SIGNED:</p>										

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TIMBER FRAMING NOTE:
All timber framing, connections, fixings, notches, etc shall be installed in accordance with AS1684-2006: Residential Timber Framed Construction (non-cyclonic areas) and the current edition of the Building Code of Australia.

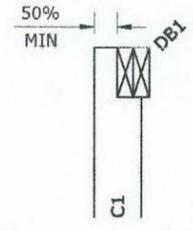
BRACING NOTE:
All wall & floor bracing shall be to suppliers detail & is the builders responsibility.

DURABILITY NOTE:
All LVL timbers shall be protected from the environment.
Steel beams and columns shall be protected from corrosion using paint protection or galvanising in accordance with Australian Standards.
If development is in a bushfire zone all exposed timber members shall be F17 grade hardwood.
If steel beams and posts are designated to be galvanised end plates, cap plates and base plates shall also be galvanised.
All nuts and bolts shall be galvanised or marine grade stainless steel.



DECK FRAMING PLAN 1:100

1. DB1: Denotes 2/140 x 45 MGP10 Treated Pine bearer.
2. DJ1: Denotes 90 x 45 MGP10 Treated Pine joists @ 450 C/C.
3. C1: Denoted 135 x 135 MGP10 Treated Pine posts.
4. Balustrades and handrails to be by others to Australian Standards.



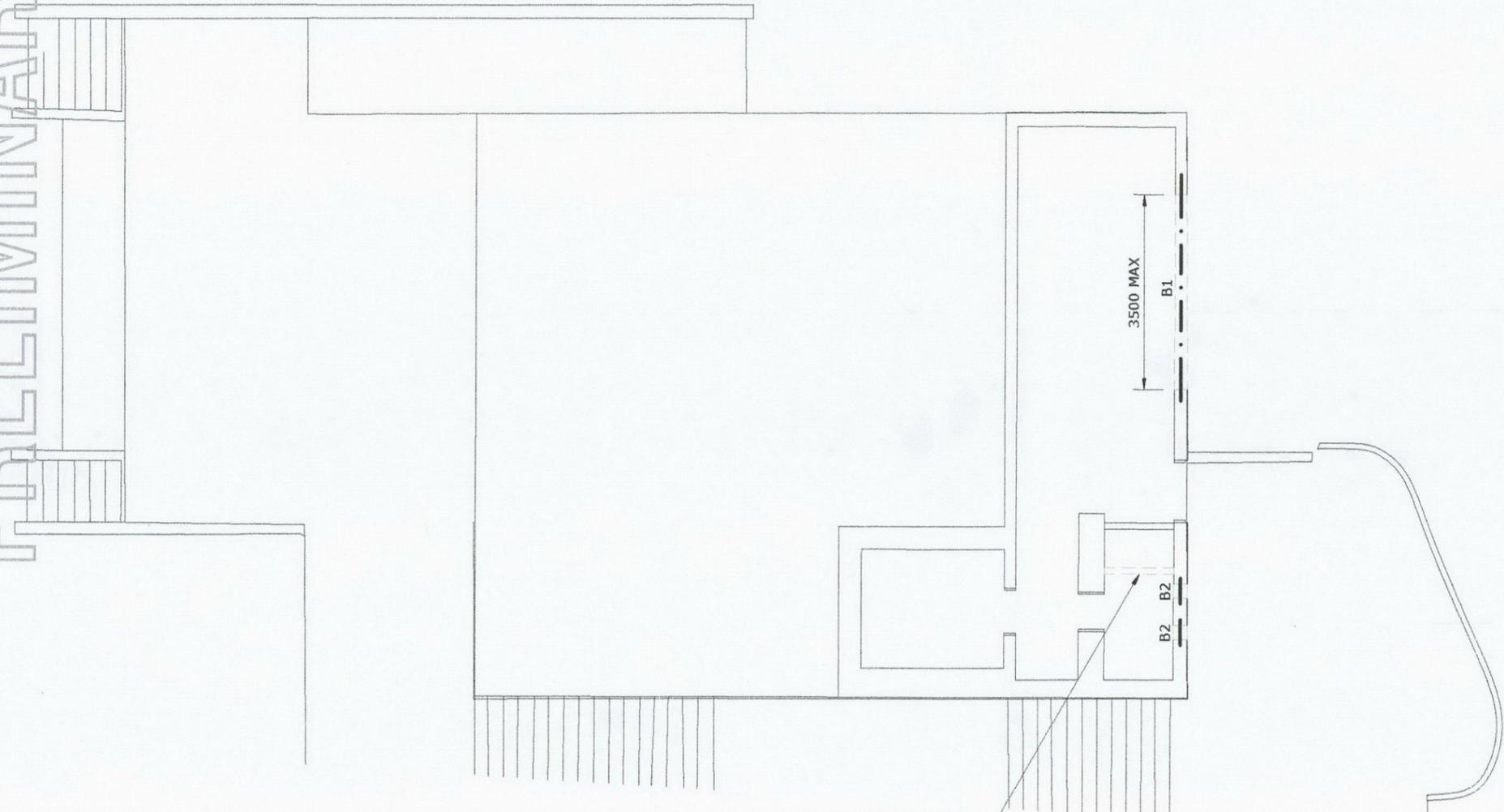
'DB1' TO 'C1' NOTCH DETAIL 1:20

A3 ORIGINAL SIZE

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0		UNENDORSED	19.01.16			SCALE: 1:100, 1:20	DATE: 07 MAR 2017	DESIGN/APPROVED: JDM	REV: 0		
REV.	APP.	AMENDMENT DESCRIPTION	DATE			PROJECT: 17.042	DRAWING: S3	SIGNED:			

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NON LOAD BEARING
TIMBER STUD WALL TO
BE REMOVED, TBC
ONSITE DURING
CONSTRUCTION.

WALL REMOVAL PLAN 1:100

- 1. B1: Denotes 250 UB 31.4 Galvanised (300 Plus). 200 bearing each end.
- 2. B2: Denotes 85 x 10 Galvanised Flat Bar (Galintel).

DURABILITY NOTE:
All LVL timbers shall be protected from the environment.
Steel beams and columns shall be protected from corrosion using paint protection or galvanising in accordance with Australian Standards.
If development is in a bushfire zone all exposed timber members shall be F17 grade hardwood.
If steel beams and posts are designated to be galvanised end plates, cap plates and base plates shall also be galvanised.
All nuts and bolts shall be galvanised or marine grade stainless steel.

PROPPING NOTE:
Propping and stability of the existing structure during demolition & construction is the responsibility of the builder. Care shall be taken to ensure the existing structure is stable prior to & during demolition.

CONSTRUCTION SEQUENCE:

1. Temporary props with a continuous header to engineers approval shall be placed next to the location of the new steel beam prior to any demolition. The props shall be adjusted to ensure the header beam is firmly pressed against the needles soffit. The props shall be spaced at a minimum of 900 centers and have a minimum capacity of 30kN.
2. Once the temporary props are in place the walls can be demolished (noting that care shall be taken at all times to ensure that minimal disturbance is caused to the surrounding structure, and that no parts of the existing structure are over stressed).
3. The steel beam can now be installed.
4. With the temporary props still in place use pairs of steel wedges (at 750 maximum centers) to fully pre-load the steel beam (this will nominally achieve a central deflection of between 3-5mm for all beams).
5. The structural engineer shall inspect & approve the construction at this stage to prior to the placing of the grout.
6. The void between the top flange & the underside of the brickwork shall be fully dry pack grouted. the non-shrink grout shall be 'sikagrout-pack' or approved equivalent and shall be rammed into position using wooden ramming tools for the entire length & width of the new beam / lintel.
7. The structural engineer shall inspect & approve the completed work, prior to the removal of the temporary props (noting that the grout will need to have a minimum 72 hour strength).

A3 ORIGINAL SIZE

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CLIENT:
LINDSAY

PROJECT NAME:
**PROPOSED ALTERATIONS
251 WHALE BEACH ROAD
WHALE BEACH NSW 2107**

DRAWING TITLE: Wall Removal Plan			
SCALE: 1:100	DATE: 07 MAR 2017	DESIGN/APPROVED: JDM	REV: 0
PROJECT: 17.042	DRAWING: S4	SIGNED:	

PAUL ROLFE
 CONSULTING PTY LTD
 APPROVED
 No: CD17.05.2113/01
 Date: 22 May 2017
 Paul Rolfe
 BPB0347

WHALE BEACH RESIDENCE

COMPLYING DEVELOPMENT
 REVISION B

CONTENTS

- 01. Cover Page
- 02. Site Plan
- 03. Existing Lower Ground Floor Plan
- 04. Proposed Lower Ground Floor Plan
- 05. Existing Rear Elevation
- 06. Proposed Rear Elevation

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Drawings are to be read in conjunction with relevant schedules, specifications + architecture drawings. Detailed shop drawings are to be approved before fabrication. Verify the requirements and installation details of all appliances with manufactures before fabrication. All works are to be in accordance with Australian Standards, the BCA, and any other relevant codes and authorities. Works must be of the highest industry standard. Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and/or the fabrication of any components. All drawings may not be reproduced or distributed without prior permission from the architect.
 Drawings concept only

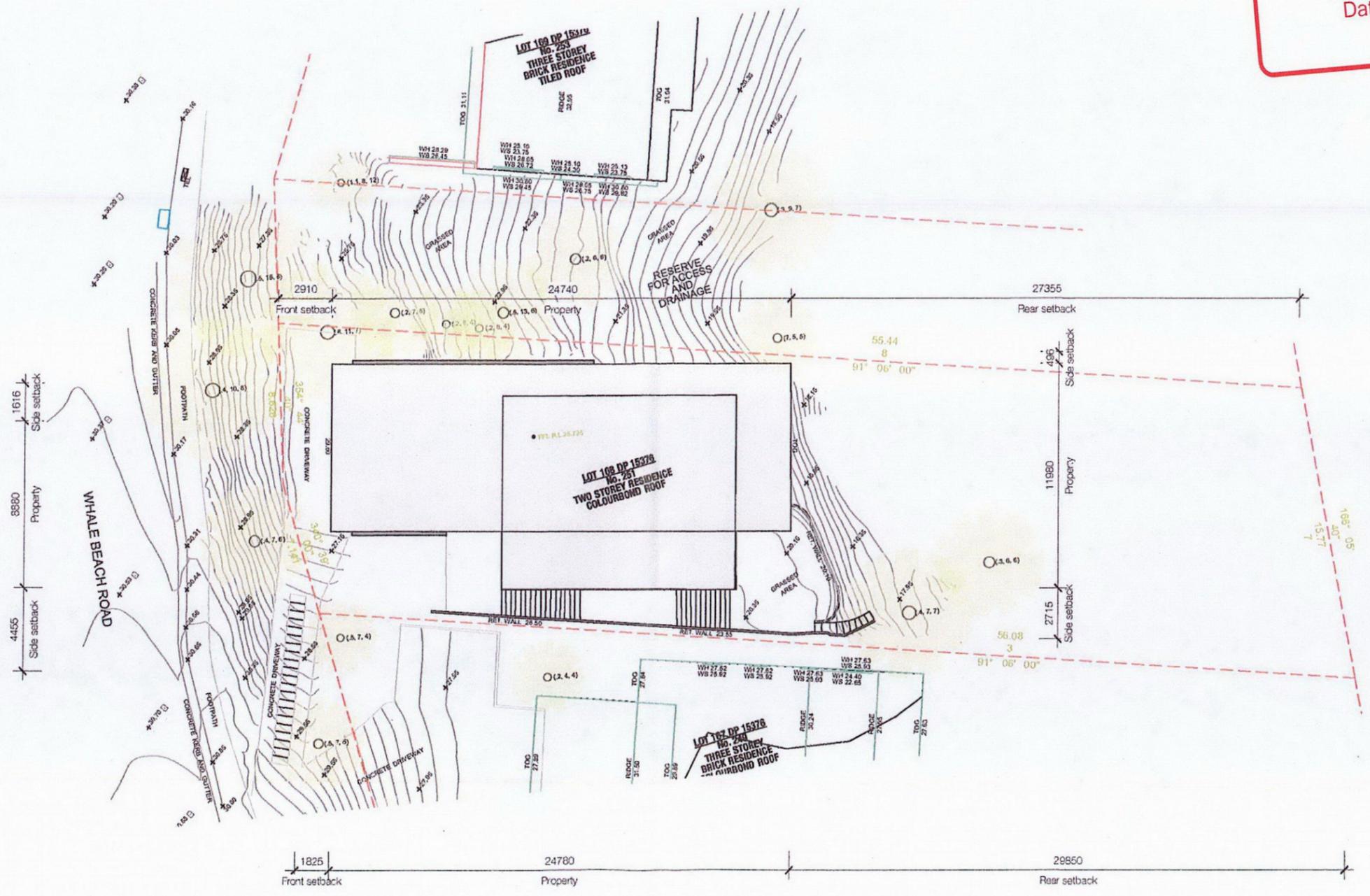
**DRAWINGS FOR CERTIFIER APPROVAL ONLY.
 DRAWINGS NOT FOR CONSTRUCTION**

Revisions		
Issue	Date	Details
A	March 2017	Proposed opening to facade and change to bathroom
B	May 2017	Removal of bathroom windows, wider storeroom opening

Stage
 Complying Development
Site address
 251 Whale Beach Road,
 Whale Beach
Client
 Brooke Lindsay

Drawing Title Cover Page			
Drawing No. CDC01. B			
Project No. 1616	Drawn by LB	Date 03-05-2017	Issue B

PAUL ROLFE
CONSULTING PTY LTD
APPROVED
No: CD17.05.2113/01
Date: 22 May 2017
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Drawings are to be read in conjunction with relevant schedules, specifications + architecture drawings. Detailed shop drawings are to be approved before fabrication. Verify the requirements and installation details of all appliances with manufacturers before fabrication. All works are to be in accordance with Australian Standards, the BCA, and any other relevant codes and authorities. Works must be of the highest industry standard. Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and/or the fabrication of any components. All drawings may not be reproduced or distributed without prior permission from the architect.
Drawings concept only

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DRAWINGS NOT FOR CONSTRUCTION**

0 2 4 6
SCALE 1:200 @ A3

N

KEY:
 = Existing Walls
 = New Walls
 = Proposed Demolition
 = Proposed area of works

Revisions		
Issue	Date	Details
A	March 2017	Proposed opening to facade and change to bathroom
B	May 2017	Removal of bathroom windows, wden storeroom opening

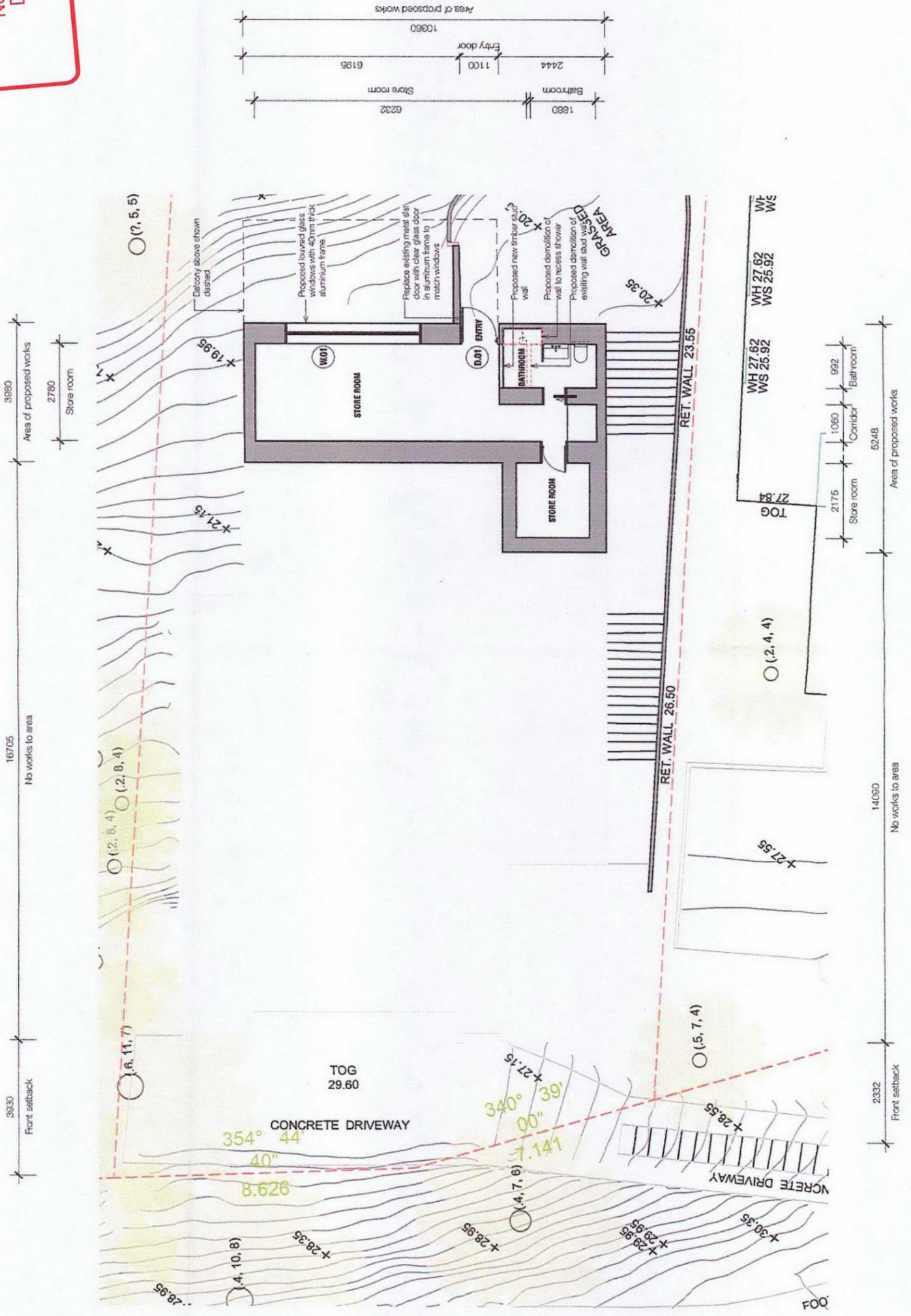
Stage
Complying Development

Site address
251 Whale Beach Road, Whale Beach

Client
Brooke Lindsay

Drawing Title Site Plan			
Drawing No. CDC.02B			
Project No. 1616	Drawn by LB	Date 03-05-2017	Issue B

PAUL ROLFE CONSULTING PTY LTD
 APPROVED
 No: CD17.05.2113/01
 Date: 22 May 2017
 Paul Rolfe
 BPB0347



Proposed Lower Ground Floor Plan

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Drawings for Certifier Approval Only. Drawings Not for Construction.

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 Drawings: 20170501.dwg

KEY:
 - Existing Walls
 - New Walls
 - Proposed Demolition
 - Proposed area of works

Revisions

Issue	Date	Details
A	March 2017	Proposed opening to facade and change to bathroom
B	May 2017	Removal of bathroom windows, when store room opening

Stage
 Complying Development

Site address
 251 Whale Beach Road, Whale Beach

Client
 Brooke Lindsay

Project No.
 1616

Drawn by
 LB

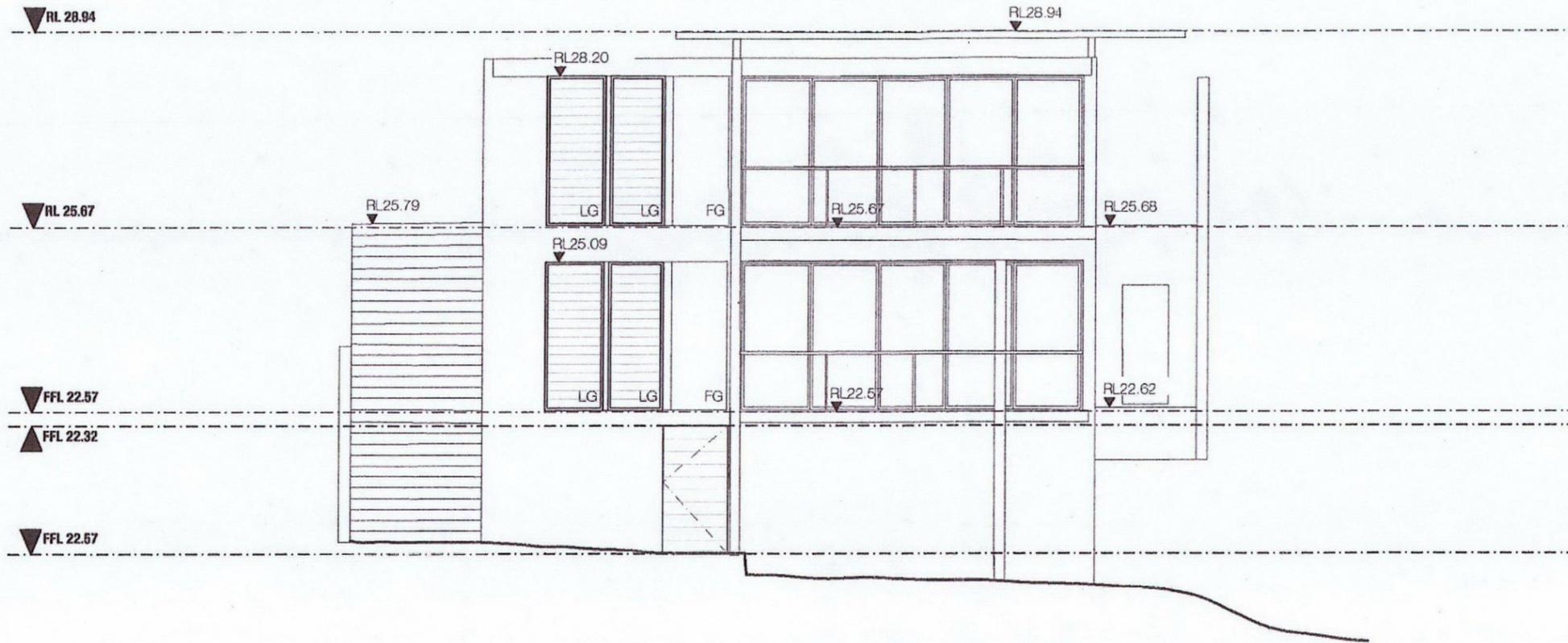
Date
 03-05-2017

Issue
 B

Drawing Title
 Proposed Lower Ground Floor Plan

Drawing No.
 CDC.04B

PAUL ROLFE
 CONSULTING PTY LTD
 APPROVED
 No: CD17.05.2113/01
 Date: 22 May 2017
 Paul Rolfe
 BPB0347



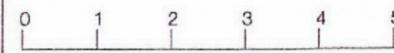
01 Existing Elevation

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DRAWINGS NOT FOR CONSTRUCTION



SCALE 1:100 @ A3

KEY:

- = Existing Walls
- = New Walls
- = Proposed Demolition
- = Proposed area of works

Revisions

Issue	Date	Details
A	March 2017	Proposed opening to facade and change to bathroom
B	May 2017	Removal of bathroom windows, widen storeroom opening

Stage

Complying Development

Site address

251 Whale Beach Road, Whale Beach

Client

Brooke Lindsay

Drawing Title

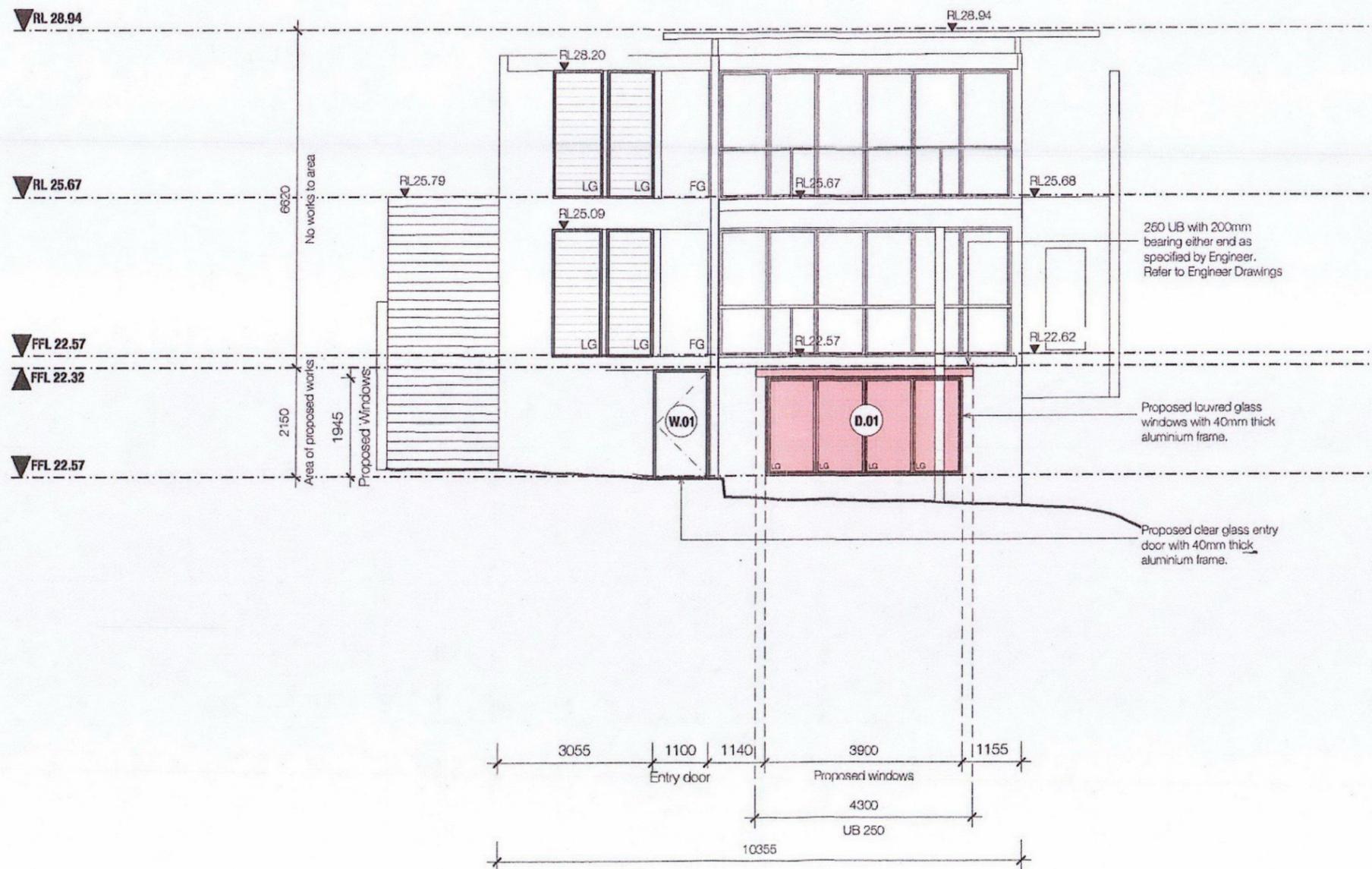
Existing External Rear Elevation

Drawing No.

CDC.05B

Project No.	Drawn by	Date	Issue
1616	LB	03-05-2017	B

PAUL ROLFE
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APPROVED
No: CD17.05.2113/01
Date: 22 May 2017
Paul Rolfe
BPB0347

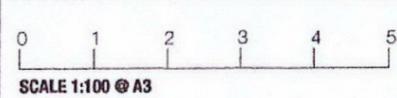


02 Proposed Elevation

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Drawings concept only

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KEY:
 [Solid black line] = Existing Walls
 [Dashed black line] = New Walls
 [Dotted black line] = Existing & Proposed Elevations
 [Red outline] = Proposed Demolition
 [Red fill] = Proposed area of works

Revisions		
Issue	Date	Details
A	March 2017	Proposed opening to facade and change to bathroom
B	May 2017	Removal of bathroom windows, wden storeroom opening

Stage
Complying Development

Site address
251 Whale Beach Road,
Whale Beach

Client
Brooke Lindsay

Drawing Title Proposed External Rear Elevation			
Drawing No. CDC.06B			
Project No. 1616	Drawn by LB	Date 03-05-2017	Issue B