insight building certifiers pty ltd

6 December 2010

General Manager
Pittwater Council
PO Box 882
MONA VALE NSW 1660

Dear Sir/Madam,

Development Application No N0573/10
26 North Avalon Road, Avalon

For Council's information, please find enclosed Construction Certificate No 2010/4095 issued for alterations & additions to an existing dwelling at the above address, accompanied by

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

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

Yours faithfully

Tom Bowden
Insight Building Certifiers Pty Ltd

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

INsight building certifiers pty ltd

Construction Certificate
Determination

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

Certificate No. 2010/4095

Council	**Pittwater**
Determination	**Approved**
Date of issue	**6 December 2010**
Subject land	
Address	**26 North Avalon Road Avalon**
Lot No DP No	**Lot 19 DP 8394**
Applicant	
Name	**Ms Anne-Louise Clacher**
Address	**26 North Avalon Road, Avalon NSW 2107**
Contact No	**9918 6499 / 0435 016 264**
Owner	
Name	**Ms Anne-Louise Clacher**
Address	**26 North Avalon Road, Avalon NSW 2107**
Contact No	**9918 6499 / 0435 016 264**
Description of Development	
Type of Work	**Alterations & Additions to an Existing Dwelling**
Builder or Owner/Builder	
Name	**Christensen Timber Designs Pty Ltd**
Contractor Licence No/Permit	**171078C**
Value of Work	
Building	**$209,000 00**

Attachments

- **Copy of completed Construction Certificate Application Form**
- **Long Service Levy Corporation receipt no 603928810 for payment of Long Service Levy**
- **BASIX Certificate no A95312 dated 26 September 2010**

COUNCIL COPY

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

Plans & Specifications certified

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

- **Architectural Plans & Construction Specification (including Basix requirements & Glazing Details) reference no Drawing nos 1 2 2A 4 5 6 7 8 & untitled drawing all dated September 2010 except Drawing 2 and untitled drawing dated August 2010 prepared by Lionel Curtin Design**
- **Structural Details reference no 100906 Drawing no S01 S02 S03 S04 & S05 prepared and endorsed by Northern Beaches Consulting Engineers Pty Ltd dated October 2010**
- **Certificate of Structural Adequacy reference no 100906 issued by Northern Beaches Consulting Engineers Pty Ltd dated 11 November 2010**
- ***Sydney Water Approval dated 20 September 2010***

Certificate

I hereby certify that the above Plans documents or Certificates satisfy

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

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

Signed

Date of endorsement -6 DEC 2010

Certificate No **2010/4095**

Certifying Authority

Name of Accredited Certifier	Tom Bowden
Accreditation No	BPB0042
Accreditation Authority	Building Professionals Board
Contact No	(02) 9999 0003
Address	13/90 Mona Vale Road, Mona Vale NSW 2103

Development Consent

Development Application No	**N0573/10**
Date of Determination	**5 November 2010**

BCA Classification **1a**

Levy Online Payment Receipt

LONG SERVICE

Thank you for using our Levy Online payment system Your payment for this building application has been processed

Applicant Name	ANNE-LOUISE CLACHER
Levy Application Reference	5010485
Application Type	DA
Application No	N0573/10
Local Government Area/Government Authority	PITTWATER COUNCIL
Site Address	26 NORTH AVALON RD
	AVALON
	NSW
	2107
Value Of Work	$209 000
Levy Due	$731
Levy Payment	$731
Online Payment Ref	603928810
Payment Date	30/11/2010 5 24 34 PM

DIRECTORS
Stewart McGeady Rick Wray Brad Seghers

Certificate of Existing Structural Adequacy

Date	11th November 2010	Job No	100906
Client	Lars Gaupset	Engineer	SM

Site: 26 North Avalon Road, North Avalon

Stewart McGeady of Northern Beaches Consulting Engineers P/L carried out a site inspection at the above residential premises in September 2010 The purpose of the visit was to inspect and comment on the capacity of the existing structure to support the proposed additions and alterations as per approved architectural plans

The assessment consisted of a walk over style inspection of the building

In summary, the dwelling is considered sound and provides an adequate structure for the proposed works, provided that engineering plans are complied with and that all structural works are certified during construction Some minor cracking may occur as the building adjusts to the new load distribution, however, this is not expected to adversely affect the buildings overall structural integrity

Note This certification does not cover any defects to the structure that were not accessible at the time of inspection If in the event that defects are uncovered during construction or become apparent after construction is complete, then the engineer should inspect the areas of concern and prepare a specification for remedial works (These works will be carried out at hourly rates)

We trust that this certificate meets with your requirements Please contact the author if further clarification is required

NORTHERN BEACHES CONSULTING ENGINEERS P/L

Stewart McGeady
BE UNSW MIEAust Director

X \ENG NBC\2010\100906\SA001 doc

QUICK CHECK Application Lodgement Summary WATER

Reference Number 2979139 **Date Requested** Mon September 20 2010

Agent	Reece Mona Vale, 10 Taronga Pl Mona Vale
Applicant	A Clacher, 26 North Avalon Rd Avalon 2107
Property/Asset	26 North Avalon Rd, Avalon 2107 (A Clacher) PNum 3437899
Product	Sewer Service Diagram

Charge	Product Cost	GST	Total
Sewer Service Diagram	$23 25	$0 00	$23 25

Documents produced as a result of this request

SSD Available

Property Special Conditions for Plumbers

Boundary Trap Required	No
Watercharged/Tidal area	No
Partial Drainage area	No
Aggressive Soil area	No
Cast Iron Pipe area	No
Sewer Surcharge area	No
Minimum Gully Height area	No
Sewer Available	Yes
Connection Type	Gravity

You must contact Sydney Water s Plumbing Inspection and Assurance Services on Ph 1300 889 099 to clarify the property special conditions where the property special conditions are not shown (yes or no), are shown as "unset', unknown or 'not available or if the proposed development is being built over more than one existing property

Please note that boundary traps must be fitted for all commercial and industrial properties and you must ensure that all plumbing/drainage and building works are carried out in accordance with the relevant codes and standards

BASI Certificate

Building Sustainability Index www basix nsw gov au

Alterations and Additions

Certificate number A95312

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

Director General
Date of issue Sunday 26 September 2010

NSW GOVERNMENT | Planning

Project address	
Project name	2nd storey
Street address	26 North Avalon Road Avalon 2107
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 8394
Lot number	19
Section number	0
Project type	
Dwelling type	Attached dwelling house
Type of alteration and addition	My renovation work is valued at $50 000 or more and does not include a pool (and/or spa)

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

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

Construction	Additional insulation required (R-value)	Other specifications
floor above existing dwelling or building	nil	
external wall external insulated façade system (EIFS)(façade panel. 75 mm)	nil	
raked ceiling pitched/skillion roof structural panel >125 mm	ceiling nil (up) roof 50 mm foil backed polystyrene board	light (solar absorptance < 0 475)

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

insight building certifiers pty ltd

APPLICATION FOR A CONSTRUCTION CERTIFICATE

RECEIVED
01 DEC 2010
BY:

Construction Certificate ☑
Modified Construction Certificate ☐

1. Applicant's details

It is important that we are able to contact you if we need more information. Please give us as much details as possible

Mr ☐ Mrs ☐ Ms ☑ Dr ☐ Other

Given Names (or ACN): ANNE-LOUISE

Family Name (or Company): CLACHER

Postal Address (we will post all mail to this address)

26 NORTH AVALON RD

AVALON NSW Post Code 2107

Daytime telephone: 02 9918 6499

Alternate no:

Mobile no: 0435 016 264

2. Owner's consent

Every owner of the land must sign this form. If the owner is a company the form must be signed by an authorised director and the common seal must be stamped on this form. If the property is a unit under the strata title or a lot in a community title, then in addition to the owner's signature, the common seal of the body corporate must be stamped on this form over the signature of the owner and signed by the Chairman or Secretary of the Owners Corporation or the appointed Managing Agent.

Owner(s)

ANNE-LOUISE CLACHER

Address

26 NORTH AVALON RD AVALON NSW 2107

As owner(s) of the land to which this application relates, I/We consent to this application. I/We also consent for the Principal Certifying Authority and/or Accredited Certifier to enter the land to carry out inspections relating to this application.

Signature(s)

A Clacher

Without the owner's consent we will not accept the application. This is a very strict requirement for all applications. If you are signing on the owner's behalf as the owner's legal representative, you must state the nature of your legal authority and attach documentary evidence (eg power of attorney executor, trustee, company director etc)

3. Location of property

Unit/Street no: 26

Street name: NORTH AVALON RD

Suburb: AVALON

Post code: 2107

Legal Property Description (these details are shown on your rate notices property deeds etc)

Lot no: 18

DP no: 8394

4. Description of work

What type of work do you propose to carry out?

Please describe briefly everything that you want approved.

Second storey addition that includes Main Bed, WIR, ensuite and balcony

5. Estimated cost of work

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

Estimated cost of work $ 209,000

6. Development Consent

Council Consent no. N0573/10

Date of Determination 5/11/10

7. Building Code of Australia classification

This can be found on the development consent

BCA Classification 1a

8. Builder's details

If known, to be completed in the case of residential building work

Name RICK CHRISTENSEN

Licence no 171078c

CHRISTENSEN TIMBER DESIGN PTY LTD

Owner/builder permit no.

9. Applicant's declaration

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

Signature

Date

30/11/10

SUBMISSION REQUIREMENTS

A GENERAL

Are the plans submitted with the Construction Certificate Application in accordance with the Development Consent?

Yes ☑ No ☐

Have all the conditions of Development Consent relating to the issue of the Construction Certificate been fully complied with?

Yes ☑ No ☐

If you have answered NO to either of the above questions, then you will need to speak with the Accredited Certifier BEFORE LODGING YOUR APPLICATION

B ALL PROPOSALS (has the following required information been submitted?)

Yes	No	Not Applicable	In the case of an application for a Construction Certificate for building work
☑	☐	☐	Three (3) copies of detailed architectural plans and specifications
☑	☐	☐	The plan for the building must consist of a general plan drawn to a scale not less than 1 100 and a site plan drawn to a scale not less than 1 200 The general plan of the building is to a) show a plan of each floor section b) show a plan of each elevation of the building c) show the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground d) indicate the height design and full construction details e) indicate the provision for fire safety and fire resistance (if any)
☑	☐	☐	Where the proposed building work involves any alteration or addition to or rebuilding of an existing building all copies of the general plan are to be coloured or otherwise marked to the satisfaction of the Council to adequately distinguish the proposed alteration addition or rebuilding with a separate letter listing the proposed changes being submitted
☑	☐	☐	3 copies of a specification a) to describe the construction and materials of which the building is to be built and the method of drainage sewerage and water supply b) state whether the materials proposed to be used are new or second hand and give particular
☐	☑	☑	Where the proposed building work involves a modification to previously approved plans and specifications the general plans must be coloured or otherwise marked to the satisfaction of the Accredited Certifier to adequately distinguish the modification
☐	☐	☑	If the proposed building work involves a modification to previously approved plans and specification which were subject of a Development Consent has the original Development Consent been modified by Council?
☐	☐	☑	Except in the case of an application for or in respect of domestic building work a) a list of any fire safety measures that are proposed to be implemented in the building or on the land on which the building is situated and b) if the application relates to a proposal to carry out any alteration or rebuilding of or addition to an existing building a separate list of such of those measures as are currently implemented in the building or on the land on which the building is situated This list must specify the standard of design of each of those fire safety measures to which they were originally installed c) This list must describe the extent capability and basis of design of each of the measures concerned
☑	☐	☐	Copy of BASIX Certificate & Schedule of BASIX Commitments
☐	☑	☑	Copy of signed BASIX Compliance Statement
☑	☐	☐	All other documentation to satisfy conditions of Development Consent

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

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

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

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

LONG SERVICE LEVY (applies to all classes of buildings)

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

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

PARTICULARS OF THE PROPOSAL

What is the area of the land (m^2)? 1113 m^2	Gross floor area of building (m^2) as proposed 204 3 m^2
What are the current uses of all or parts of the building(s)/land? RESIDENTIAL	Location Main house 26 North Avalon Rd Avalon 2107 Use Residence
Does the site contain a dual occupancy? NO	What is the gross floor area of the proposed addition or new building (sq metres)? House 56 6m^2 Deck 10 9m^2
What are the proposed uses of all parts of the building(s land? Main Residence	Number of pre-existing dwellings 1
Number of dwellings to be demolished 0	How many dwellings proposed? 1
How many storeys will the building consist of? 2	Will the new building be attached to the existing building? YES Will the new building be attached to any new building? NO

MATERIALS TO BE USED

The following information must be supplied for the Australian Bureau of Statistics

Place a tick (√) in the box which best describes the materials the new work will be constructed of

WALLS		FLOOR		ROOF		FRAME	
Brick veneer	☐	Concrete	☐	Aluminium RHECK R2 5	☑	Timber	☑
Full brick	☐	Timber	☑	Concrete	☐	Steel	☐
Single brick	☐	Other	☐	Concrete tile	☐	Other	☐
Concrete block	☐	Unknown	☐	Fibrous cement	☐	Unknown	☐
Concrete/masonry	☐			Fibreglass	☐		
Concrete	☐			Masonry/terracotta shingle	☐		
Steel	☐			Tiles	☐		
Fibrous cement	☐			Slate	☐		
Hardiplank	☐			Steel	☐		
Timber/weatherboard	☐			Terracotta tile	☐		
Cladding-aluminium AUSTECH 75MM	☑			Other	☐		
Curtain glass	☐			Unknown	☐		
Other	☐						
Unknown	☐						

Specifications of Work

26 North Avalon Road
Avalon NSW 2107

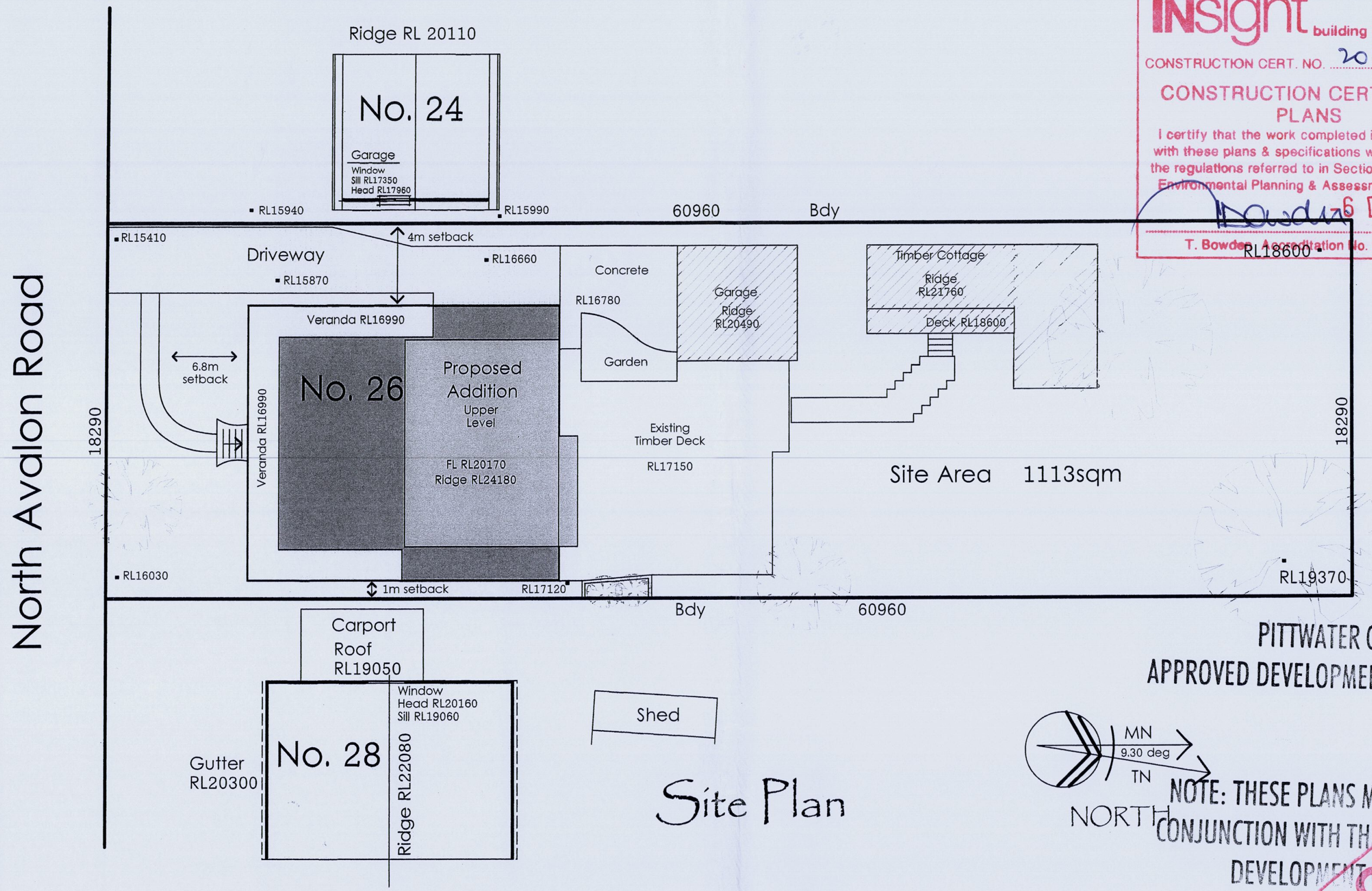
- Demolish and remove the existing necessary roof to build a new master bedroom with ensuite, walk-in wardrobe and a covered deck as per plans drawn by Lionel Curtin
- The new deck shall be made from new timber decking with a 2m high privacy screen to the Eastern end
- The new internal staircase shall be of an open rise design built in spotted gum
- Build a new internal and external timber and stainless steel wire handrail The new handrail shall have 11 marine grade wires and buckles with a 90 x 35 spotted gum top rail
- Windows and Bi-Fold doors to be semi commercial aluminium except for the acrylic brick windows all as per plans All windows and doors are new
- The new roof is to be built using 125mm Ritek R2 5 pitched at 18 degrees
- All new gutters and downpipes to attach to existing roof levels and connect with existing storm water
- Exterior cladding to be Austech 70mm finished with a coloured acrylic render Cladding is new
- The interior is to be fully gyprocked, set and trimmed out with 90mm skirting and architraves All materials are new
- Install all necessary plumbing for the bath, vanity, toilet and shower All PC items are new
- Waterproofing of bathroom
- Tiling of Bathroom floor and shower recess All materials are new
- Wiring for 5 GPOs and 9 Downlights
- Timber flooring throughout (90mm Spotted Gum) sanded and finished Timber is new
- All site related rubbish to be removed from site
- All spans and timber sections to comply with AS 1684 Beams are new and timber
- Water supply to be connected to existing plumbing. Products are new

WERS Ratings for Windows/Doors

Window/Door	UW	SHGC
W1	6 4	0 73
W2	6 2	0 48
W3	6 2	0 48
W4	6 4	0 73
W5	3 7	0 32
W6	3 7	0 32
W7	3 0	0 68
W8	6 4	0 73
D1	6 0	0 58

Please find attached manufacturers catalogue with windows and door highlighted

Note No mirrored or reflective foil finishes to be applied to any glazing elements



Site Plan

Proposed Alterations

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

insight building certifiers pty ltd
CONSTRUCTION CERT. NO. 2010/4095
CONSTRUCTION CERTIFICATE PLANS
I certify that the work completed in accordance with these plans & specifications will comply with the regulations referred to in Section 81A(5) of the Environmental Planning & Assessment Act 1979
6 DEC 2010
T. Bowden Accreditation No. BPB0042

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

COUNCIL COPY

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

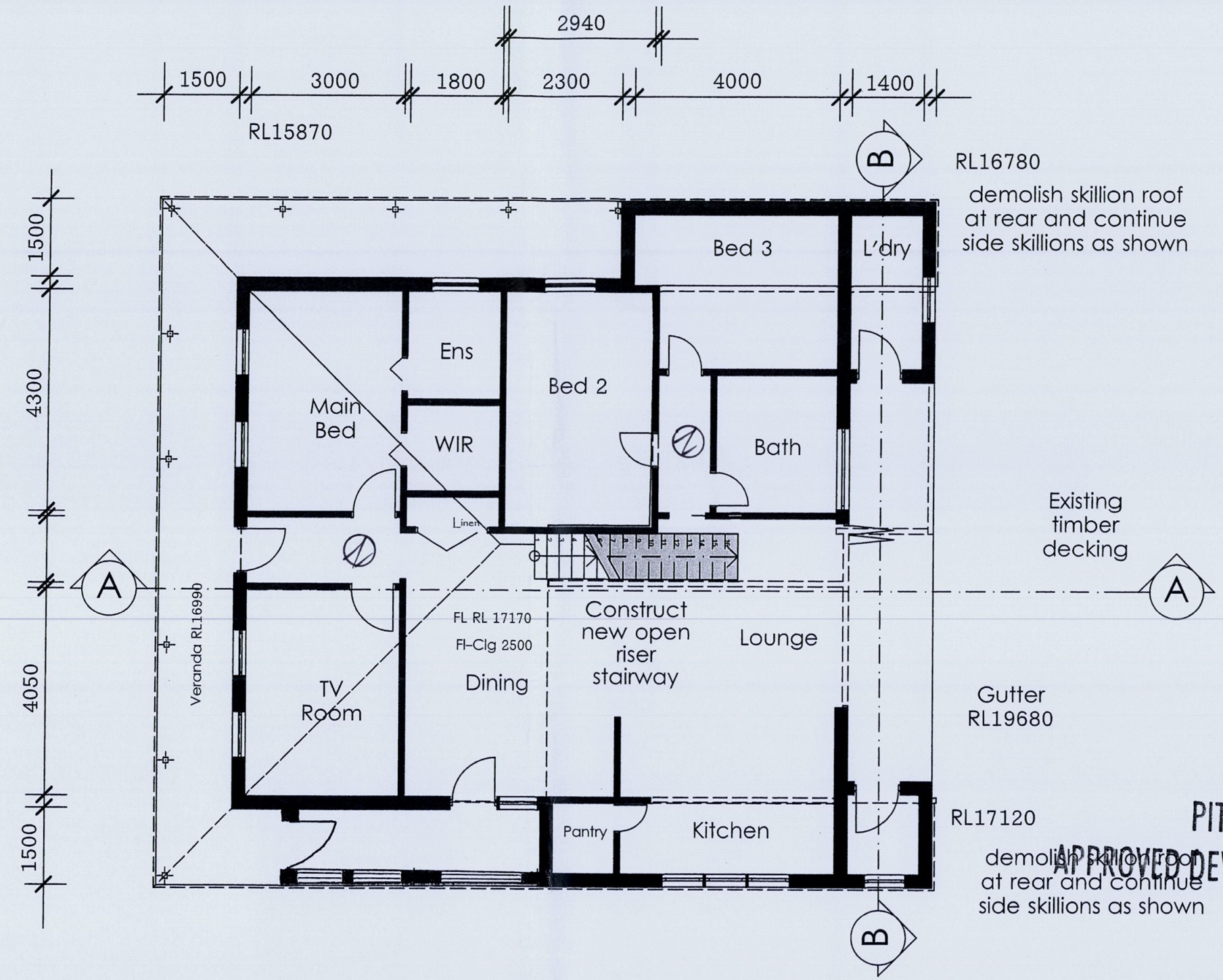
Scale 1 : 200
Ref: PITT 1210
August 2010

Dwg No.1
Amended Sept 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach



MN
9.30 deg
TN
NORTH

Existing Ground Floor

Proposed Alterations

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

Scale 1 : 100
Ref: PITT 1210
August 2010

Dwg No.2

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107

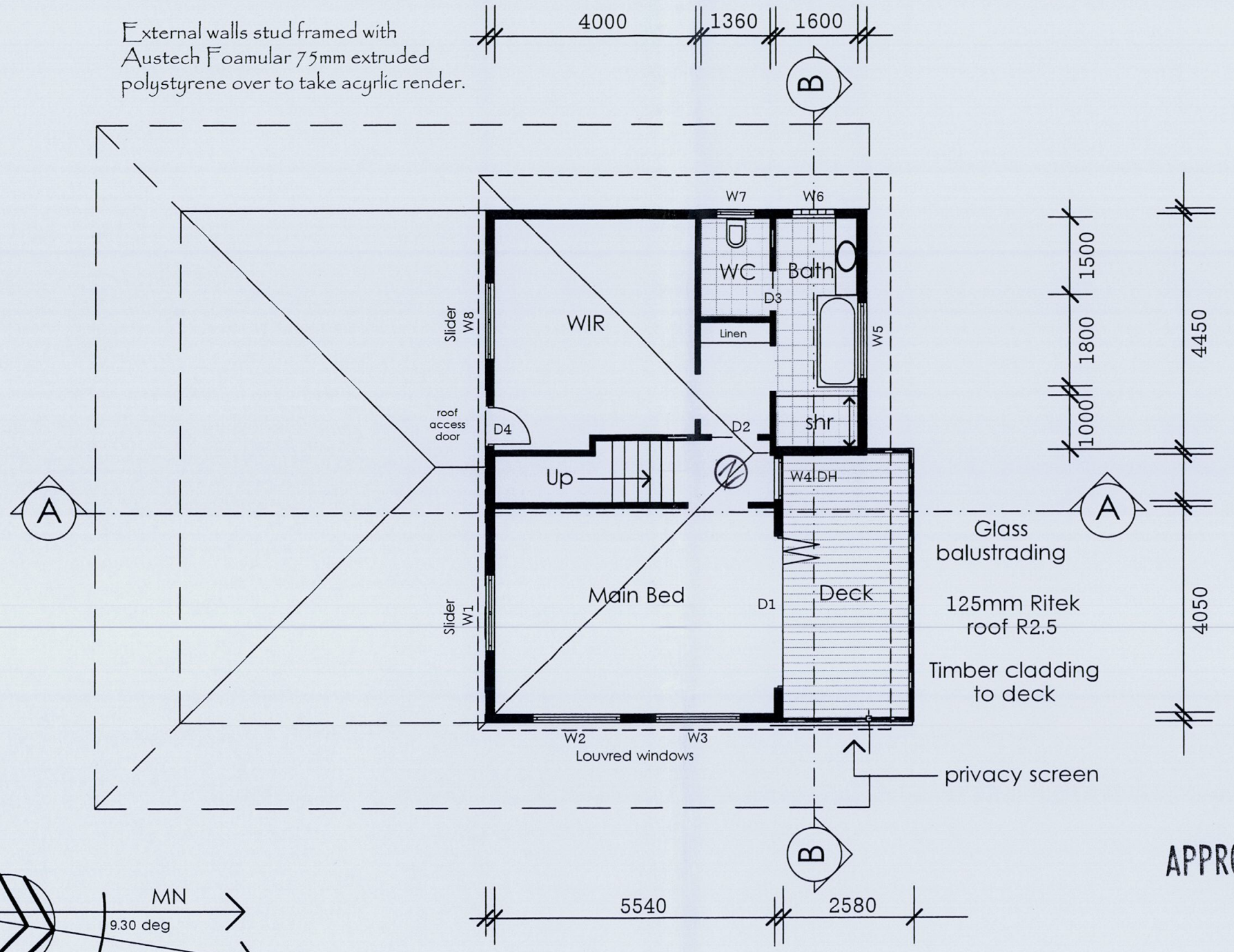
Ø smoke alarm.

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

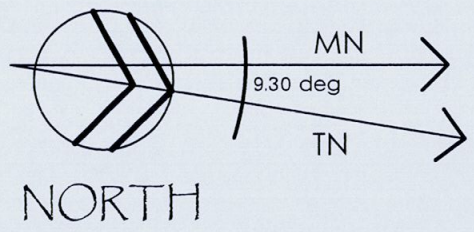
OTES:
UILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
L DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE BJECT TO VERIFICATION BY A SITE SURVEY.
L WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF STRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT THORITIES.
OF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE PROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
L ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE NER IN CONJUNCTION WITH THE BUILDER.
L TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 MBER FRAMING CODE.

External walls stud framed with Austech Foamular 75mm extruded polystyrene over to take acyrlic render.



W1 Slider
W2 Louvred
W3 Louvred
W4 Double Hung
W5 Slider
W6 Acrylic blocks
W7 Awning window
W8 Slider

⊘ smoke alarm.



PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

Proposed Upper Level

Proposed Alterations

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

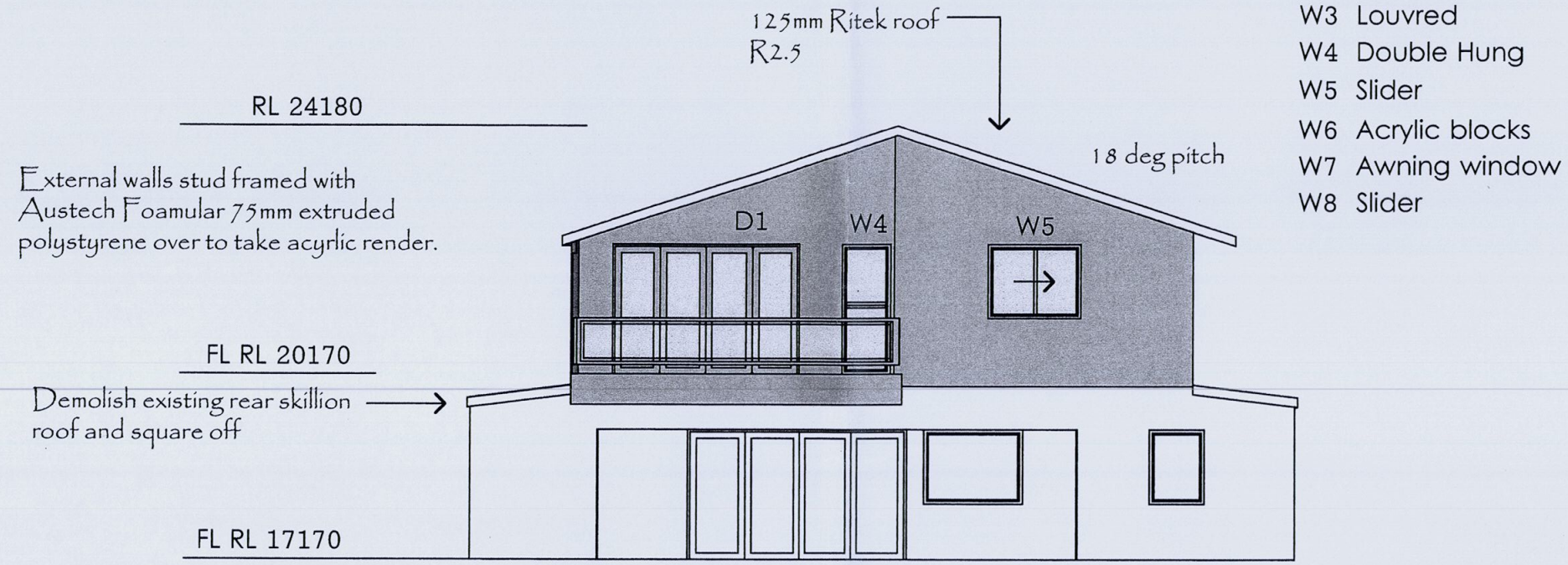
Scale 1 : 100
Ref: PITT 1210
August 2010

Dwg No.2(A)
amended Sept., 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107



W1 Slider
W2 Louvred
W3 Louvred
W4 Double Hung
W5 Slider
W6 Acrylic blocks
W7 Awning window
W8 Slider

North Elevation

Proposed Alterations

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

Scale 1 : 100
Ref: PITT 1210
August 2010

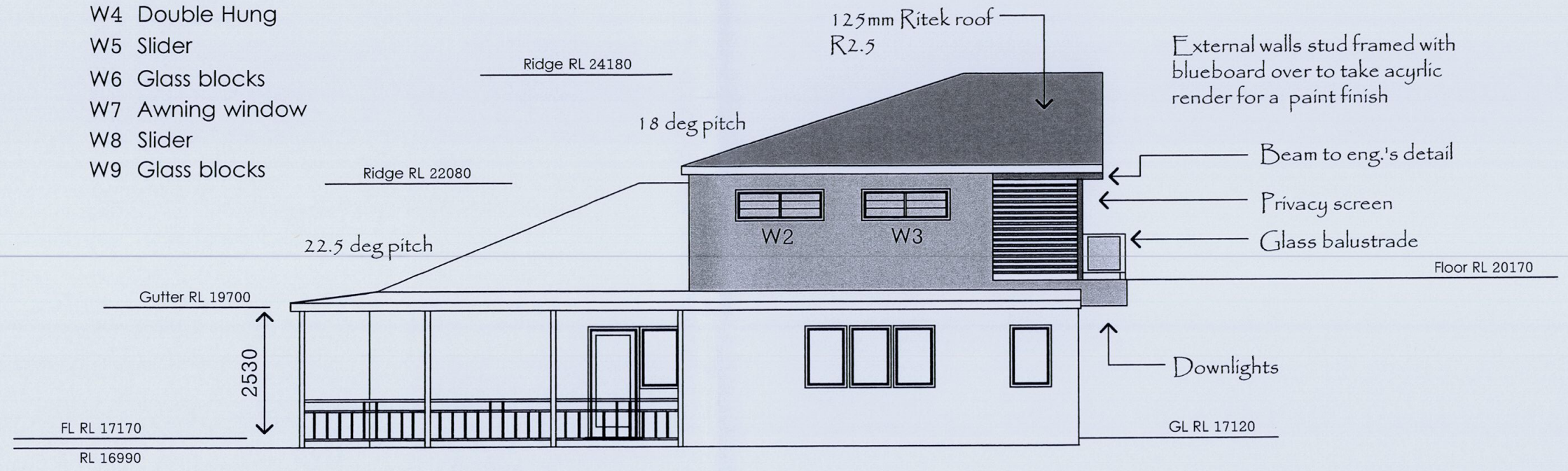
Dwg No.4
amended Sept., 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107

W1 Slider
W2 Louvred
W3 Louvred
W4 Double Hung
W5 Slider
W6 Glass blocks
W7 Awning window
W8 Slider
W9 Glass blocks



East Elevation

Proposed Upper Level

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

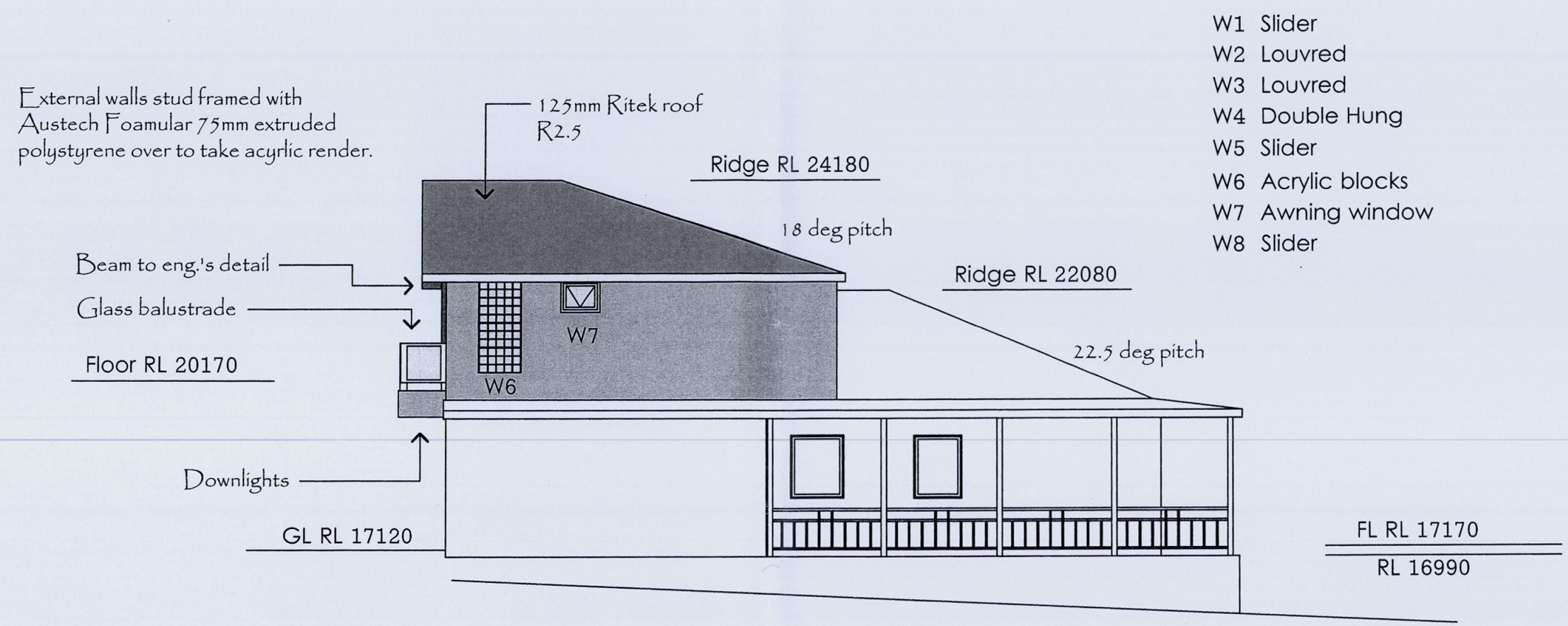
26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

Scale 1 : 100
Ref: PITT 1210
August 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107



W1 Slider
W2 Louvred
W3 Louvred
W4 Double Hung
W5 Slider
W6 Acrylic blocks
W7 Awning window
W8 Slider

West Elevation

Proposed Alterations

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

Scale 1 : 100
Ref: PITT 1210
August 2010

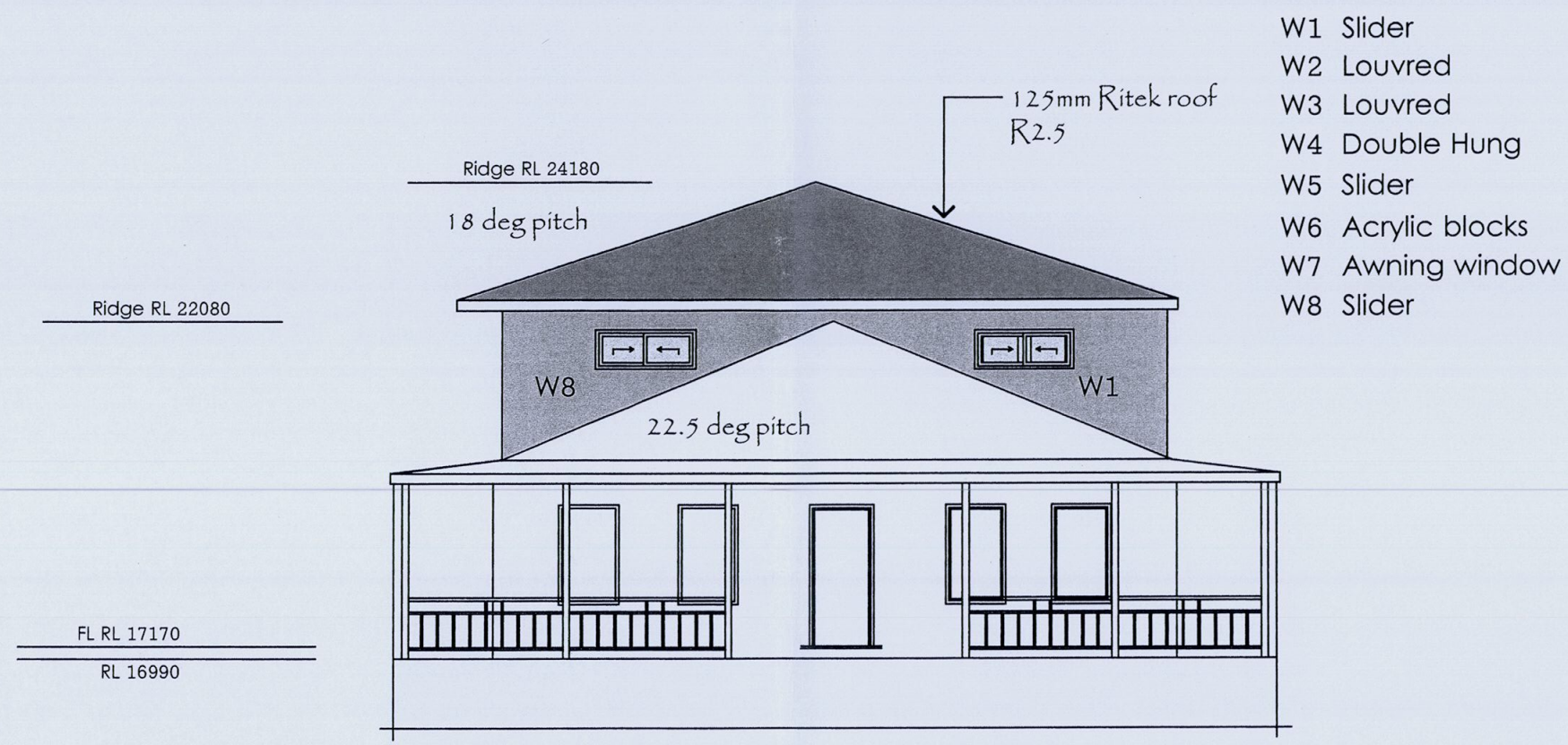
Dwg No.5
amended Sept., 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.



W1 Slider
W2 Louvred
W3 Louvred
W4 Double Hung
W5 Slider
W6 Acrylic blocks
W7 Awning window
W8 Slider

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

South Elevation

Proposed Alterations

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

Scale 1 : 100
Ref: PITT 1210
August 2010

Dwg No.6
amended Sept., 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

BASIX REQUIREMENTS

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W1	S	0.9	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W2	E	1.02	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single toned, (U-value: 6.39, SHGC: 0.56)
W3	E	1.02	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single toned, (U-value: 6.39, SHGC: 0.56)
W4	N	1.68	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W5	N	1.8	0	0	eave/verandah/pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W6	W	1.42	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, toned/air gap/clear, (U-value: 4.09, SHGC: 0.47)
W7	W	0.45	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W8	S	0.9	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
D1	N	6.3	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)

Construction	Additional insulation required (R-value)	Other specifications
floor above existing dwelling or building.	nil	
external wall: external insulated façade system (EIFS)(façade panel: 75 mm)	nil	
raked ceiling, pitched/skillion roof: structural panel >125 mm	ceiling: nil (up), roof: 50 mm foil backed polystyrene board	light (solar absorptance < 0.475)

Lighting

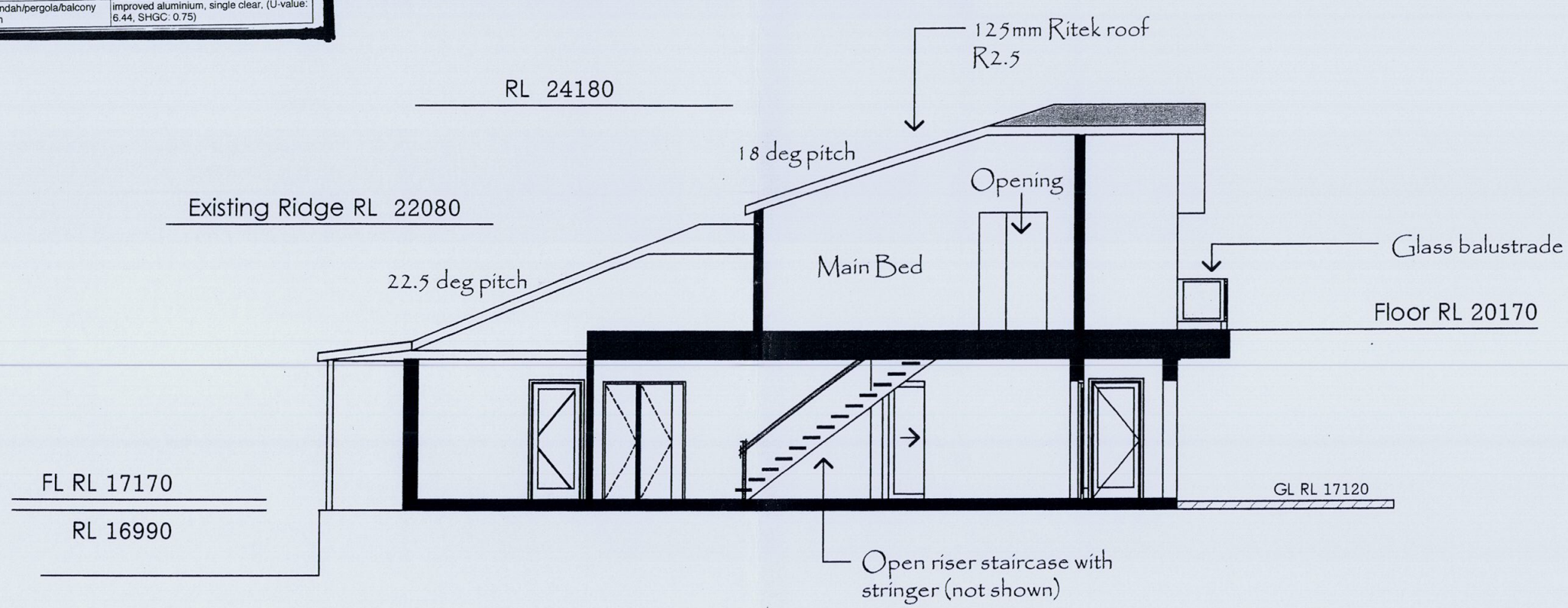
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.

Fixtures

The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.

The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.

The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.



Section A - A

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

Proposed Alterations

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

Scale 1 : 100
Ref: PITT 1210
August 2010

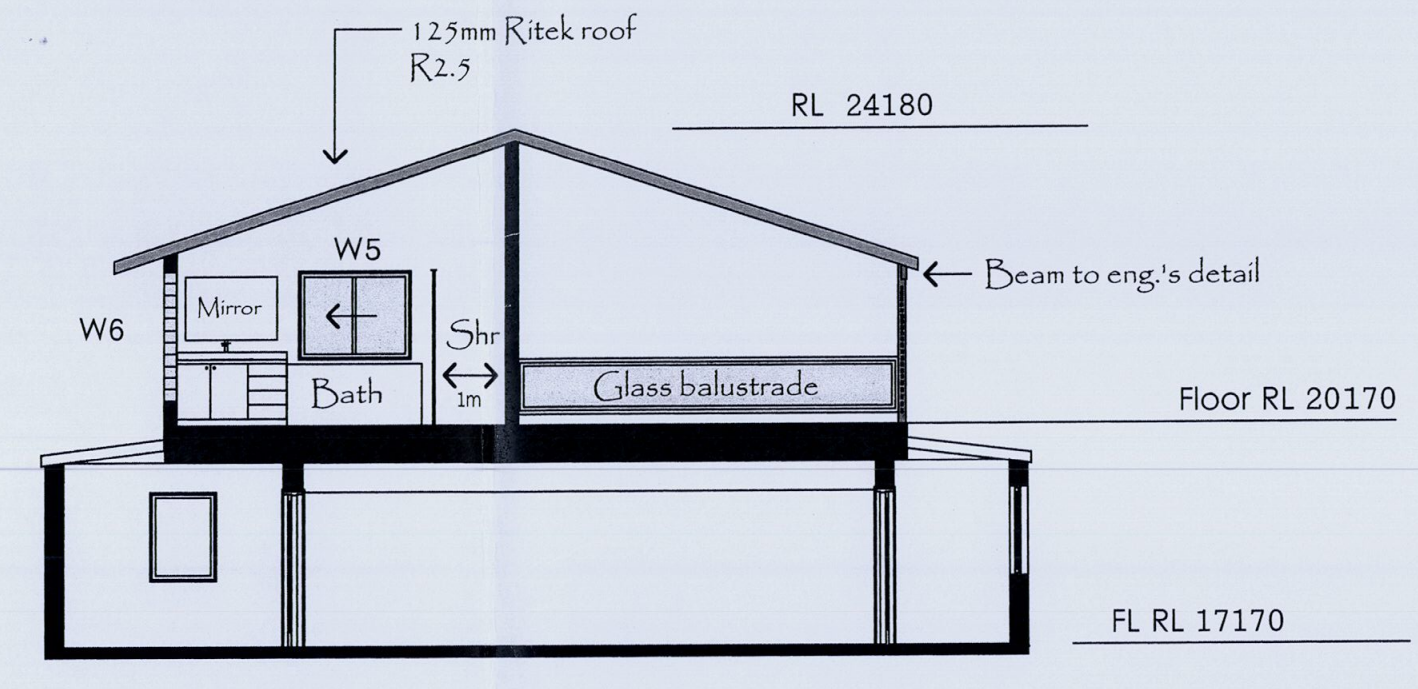
Dwg No.7
amended Sept 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107

W1 Slider
W2 Louvred
W3 Louvred
W4 Double Hung
W5 Slider
W6 Acrylic blocks
W7 Awning window
W8 Slider



Section B - B

Proposed Alterations

26 North Avalon Road
North Avalon
Lot 19 in DP 8394
for
Anne Louise Clacher and Lars Gaupset

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

NOTES:
BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
ALL DIMENSIONS THAT RELATE TO SITE BOUNDARIES AND EASEMENTS ARE SUBJECT TO VERIFICATION BY A SITE SURVEY.
ALL WORK IS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, LOCAL COUNCIL REQUIREMENTS & OTHER RELEVANT AUTHORITIES.
ROOF WATER AND SUB SOIL DRAINAGE TO BE DISPOSED OF IN THE APPROVED MANNER OR AS DIRECTED BY LOCAL COUNCIL INSPECTORS.
ALL ELECTRICAL POWER AND LIGHT OUTLETS TO BE DETERMINED BY THE OWNER IN CONJUNCTION WITH THE BUILDER.
ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE AS1684 TIMBER FRAMING CODE.

Scale 1 : 100
Ref: PITT 1210
August 2010

Dwg No.8
amended Sept., 2010

Lionel Curtin
Design & Docs.

9918 5960

1 Riviera Avenue Avalon Beach 2107

PROPOSED ALTERATIONS

at: 26 NORTH AVALON RD, NORTH AVALON

for: Ms. Anne Clacher & Mr. Lars Gaupset

Architect: Lionel Curtin Design & Docs.

Prepared By:

NORTHERN BEACHES
Consulting Engineers P/L.
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Suite 207, 30 FISHER ROAD
DEE WHY N.S.W. 2099
Ph: (02) 9984 7000 Fax: (02) 9984 7444
e-mail : nb@nbconsulting.com.au
web page : www.nbconsulting.com.au

DRAWING SCHEDULE:

GENERAL NOTES:

GENERAL

G1. The drawings are to be read together with all Architects drawings and specifications.

G2. Dimensions shall not be obtained by scaling from the drawings. All setting out dimensions shall be verified and discrepancies shall be referred to the Engineer prior to commencement of work.

G3. Care is required during construction so that structural elements are not over stressed and that the works and excavations required therefore are kept stable at all times.

G4. Design, materials and workmanship are to be in accordance with current S.A.A standards and statutory authority regulations except where varied by these documents.

G5. Design live loads are in accordance with AS 1170.1

G6. Builder to ensure stability of existing structures in the vicinity of excavation works.

FOOTINGS

F1. FOUNDATION STRATA IS ASSUMED FOR DESIGN PURPOSES IN ACCORDANCE WITH AS 2870-1996 "RESIDENTIAL SLAB AND FOOTINGS-CONSTRUCTION". SEE FOOTNOTE. CLASSIFICATION TO BE VERIFIED BY A GEOTECHNICAL ENGINEER COMMISSIONED BY THE CLIENT FOR CERTIFICATION OF FOUNDATIONS.

F2. Footings to be constructed and back filled as soon as possible following excavation to avoid softening by rain or drying out by exposure.

F3. Footings must bear into undisturbed natural ground clear of organic material. Refer to details.

F4. If rock or variable bearing strata is encountered during excavation of the footings all footings/piers are to be excavated to similar material of greater bearing capacity.
The Engineer is to be contacted at that time for approval or review.

F5. Footings to be cast in approved material having an allowable capacity as follows:

Sand Foundations:

SA1. Required bearing capacity 100 kPa.
SA2. Trenches must be cleaned of all debris and hand compacted prior to placement of reinforcement.

Clay Foundations:

CL1. Required bearing capacity 150 kPa.
CL2. Trenches must be cleaned of all debris. Soft spots must be cut out and filled as per compacted fill notes, prior to placement of reinforcement.

Shale Foundations:

SH1. Required bearing capacity 400 kPa.
SH2. Excavation for footings into shale must be cast or capped with plain concrete on the same day as excavation.

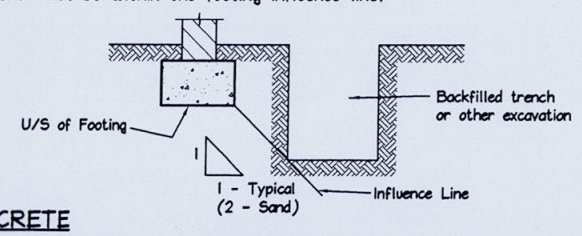
Sandstone Foundations:

SS1. Required bearing capacity 600 kPa.
SS2. Scrape weathered surface to remove cleaved sandstone under footings.

Refer adjacent for assumed Design bearing strata.

F6. Future development of neighboring properties may affect ground water conditions on this site. Consequently, reactivity in subgrade beneath footings may be locally altered therefore putting footing at risk of differential settlement. We recommend that, particularly in clay subgrades, agricultural drainage is installed to the upstream perimeter of the building at a distance from the building which is outside the zone of influence of the footings. The agricultural drain must be installed below the fluctuating seasonal zone which should be identified by geotechnical investigation.

F7. UNLESS OTHER WISE APPROVED. Excavations near new or existing footings shall not be within the footing influence line.



CONCRETE

C1. All workmanship and materials shall be in accordance with AS 3600.

C2. Concrete quality shall be as follows and shall be verified by tests.

C3. All concrete unless otherwise noted shall have a slump of 80mm at point of placement, a max. aggregate size of 20 mm.
No water shall be added to the mix prior to or during placement of concrete. Strength as specified on plans.

C4. Clear concrete cover to reinforcement shall be as follows unless otherwise shown-

ELEMENT	INTERIOR	EXTERIOR	EXTERIOR CAST AGAINST GROUND
FOOTINGS	-	-	50
COLUMNS/PEDESTALS	30 UNO	REFER TO PLAN	-
SLABS/WALLS	25	REFER TO PLAN	40 ON MEMBRANE
BEAMS	25 UNO	REFER TO PLAN	50
BLOCKWORK	55 FROM APPROPRIATE FACE		

C5. Sizes of concrete elements do not include thickness of applied finishes.

C6. All Construction Joints locations shall be approved by the Structural Engineer.

C7. Beam depths are written first and include slab thickness, if any.

C8. No holes or chases other than those shown on the structural drawings shall be made in concrete elements without the prior approval of the engineer.

C9. Shrinkage reducing admixtures such as 'Eclipse' or approved equivalent, if specified, must be added to mix prior to pour.

C10. Water reducing agents, if specified, must be added to mix prior to pour. No extra water is to be added to increase slump.

C11. Where vertical slab/beam surfaces are formed against a masonry (or other) wall, provide 10 mm styrene separation material.

C12. Water must not be added to concrete mix prior to placement of concrete.

C13. Above covers may have to be adjusted if fire rating is a requirement.

REINFORCEMENT

R1. All reinforcement specified is Grade D500 unless noted otherwise.

R2. Reinforcement is represented diagrammatically it is not necessarily shown in true projection.

R3. Top reinforcement is to be continuous over supports.
Bottom reinforcement to be lapped at supports.

R4. Welding of reinforcement shall not be permitted unless shown on the structural drawings.

R5. Pipes or conduits shall not be placed within the zone of concrete cover to the reinforcement without the approval of the engineer.

R6. All reinforcing bars and fabric shall comply with AS 4671-2001.

R7. Reinforcement symbols:
N - Grade 500N deformed bar (D500) Normal Ductility
R - Grade 250N plain round bar (R250) Normal Ductility.
SL - Grade 500L welded deformed ribbed mesh (D500) Square Low Ductility.
RL - Grade 500L welded deformed ribbed mesh (D500) Rectangular Low Ductility.
The number immediately following these symbols is the number of millimeters in the bar diameter.
Example : 8 N12-250
Denotes 8, Grade 500N deformed bars, 12 mm diameter at 250 cts.

R8. Fabric reinforcement to be lapped 1 complete square + 25 mm unless noted otherwise.

R9 All reinforcement shall be firmly supported on bar chairs spaced at a maximum of 750 centres both ways under rod and fabric reinforcement. Reinforcement shall be tied at alternate intersections.

FORMWORK

FW1. Formwork must be cleaned of all debris prior to casting of concrete.

FW2. Minimum stripping times for form work shall be as recommended in AS 3610 - 1990 or as directed by the engineer.

FW3. The finished concrete shall be a dense homogeneous mass, completely filling the form work, thoroughly embedding the reinforcement and free of stone pockets. All concrete elements including slabs on ground and footings shall be compacted with mechanical vibrators.

FW4. Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of 3 days, followed by prevention of loss of moisture for seven days followed by a gradual drying out . Approved sprayed on curing compounds may be used where no floor finishes are proposed. Polythene sheeting or wet hessian may be used if protected from wind and traffic.

BRICKWORK

BR1. Brickwork is to be constructed to AS 3700.

BR2. Two layers of approved greased metal based slip material shall be used over all load bearing walls that support concrete slabs and placed on smooth brickwork or trowelled mortar finish. Non load-bearing walls shall have 10 mm compressible material and ties to the slab soffit.

BR3. No brickwork shall be constructed on suspended slabs until all propping has been removed from the underside of the slab and the concrete has the specified 28 day cylinder strength verified by tests.

BR4. Control joints to be placed at a maximum of 8m centres or in accordance with AS 3700.

BR5. Exposure grade bricks to be used below damp proof course.

BR6. Vertical control joint material where specified on plan between slabs and brick walls shall be: 10 mm Spandex External UNO.
Bitumastic fibreboard internal UNO.

BR7. Provide stainless steel wall ties below DPC to AS 3700. Provide galvanized wall ties above DPC to AS 3700 & Local Council Specifications.

BR8. Dry Pressed Bricks should always be use for brick retaining walls. In addition we recommend that dry pressed bricks be used for all types of construction where possible. Dry pressed bricks grow only half as much as extruded bricks. Extruded bricks are difficult to fix to and excessive brick growth leads to cracking in walls and render.

BLOCKWORK

BL1. Concrete blocks shall have a minimum compressive strength of 15 MPa and conform to AS 1500. Masonry to be constructed to AS 3700.

BL2. Where cores of hollow blocks are to be filled, properly compacted 20MPa concrete with 10 mm aggregate and 230 mm slump shall be used. Clean out openings must be utilized for all cores.

BL3. Location of actual starters is critical to suit block cores, allow 55 mm cover from the outside face of blockwork. All reinforcement lap lengths to conform to AS 3600.

BL4. Control joints to be placed at a maximum of 8 m centres or in accordance with AS 3700.

BL5. Vertical control joint material where specified on plan between slabs and brick walls shall be: 10 mm Spandex External UNO.
Bitumastic fibreboard internal UNO.

BL6. Retaining walls or any reinforced and concrete core filled block walls to be of Double 'U' Block Construction.

BL7. No blockwork shall be constructed on suspended slabs until all propping has been removed from the underside of the slab and the concrete has the specified 28 day cylinder strength verified by tests. unless approved by the Structural Engineer.

BL8. Max. pour height for unrestrained blockwork is 2000.

STEEL

S1. All Structural steelwork to be Grade 300 or greater.
Design, fabrication and erection to be in accordance with AS 4100.

S2. Materials and workmanship shall comply with AS 1250 - 1981, SAA Steel Structures Code and the specification for Structural Steel.

S3. Rolled steel sections including steel plates shall comply with AS 3678-1990.

S4. Cold formed steel sections shall be Grade 450 Zinc coated in accordance with AS 1538-1988.

S5. Welded and seamless steel hollow sections shall comply with AS 1163 Grade 350.

S6. Bolt Designation:
4.6S - Commercial bolts Grade 4.6, snug tightened.
8.8S - High Strength structural bolts Grade 8.8, snug tightened.
8.8TB - High Strength structural bolts Grade 8.8, fully tightened to AS 1511 and acting as a Bearing Joint.
8.8TF - High Strength structural bolts Grade 8.8, fully tensioned to AS 1511 and acting as a Bearing Joint.
Unless noted otherwise, all bolts will be 8.8S.

S7. Unless shown otherwise, minimum connection shall be 2M16 bolts, 10 thick gusset plates, 6mm continuous fillet welds.

S8. Load indicating washers shall be used in all fully tensioned joints. (8.8TF & 8.8TB).

S9. All welding shall be carried out in accordance with AS 1554 SAA Structural Steel Welding Code.

S10. Unless noted otherwise all welds shall be category SP using E41xx Electrodes. All butt welds shall be complete penetration butt welds category SP.

S11. Grouting of anchor bolt sleeves and base plates shall be completed by the contractor using High Strength, Non-Shrink grout.

S12. Fabrication and erection tolerances for Structural Steelwork shall be in accordance with AS 4100.

S13. Purlin bolts shall be M12 - 4.6S galvanised.

S14. Steel work shall have one of the following grades of corrosion protection:-

INTERNAL

a. Thoroughly cleaned wire brushing, followed by two coats of zinc phosphate primer equivalent to Dulux Luxaprime applied by hand using brushes to achieve a total dry film thickness of 70 microns.

EXTERNAL ELEMENTS, & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS GREATER THAN 2 km FROM SEA WATER:

b. Preparation Blast clean to a minimum standard Class 2.5 in accordance with AS 1627 Part 4.
Primer 2-pack epoxy phosphate at dft 75 microns (Dulux Durepon P14).
Barrier Coat 2-pack epoxy micaceous iron oxide, dft 100 microns
Finish Coat 2-pack epoxy high gloss acrylic to dft 75 microns.
(e.g. Dulux Acrathane 1 F)

c. Hot dipped galvanized to AS 4680.
Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, two pack zinc rick epoxy primer (Dulux Zincanode 202) is to be be applied after wire brushing affected area (use 3 coats minimum) or Hot Metal Spray in accordance with AS 4680.
PAINTING OVER HOT DIP GALVANISED STEEL:
Degrease and preparation whip blast. Application of a general purpose epoxy (Dulux Duremax GPE) thickness 125 microns. Application of a high build polyurethane (Dulux Weathermax HBR) thickness 100 microns

EXTERNAL ELEMENTS, & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS LESS THAN 2 km FROM SEA WATER:

d. Preparation blast clean to minimum Class 2.5
Application of a two pack zinc rich epoxy primer (Dulux Zincanode 402) thickness 75 microns. Application of a general purpose epoxy (Dulux Duremax GPE) thickness 125 microns. Application of a high build polyurethane (Dulux Weathermax HBR) thickness 100 microns

S15. Workshop drawings shall be prepared and two copies submitted to the engineer for review prior to fabrication commencement.

TIMBER

T1. All workmanship and materials to be in accordance with AS 1684, AS 1720 and as 3959. All soft wood to be Grade F7 unless noted otherwise. All hardwood to be minimum Grade F14 unless otherwise noted. Exposed timber to be CCA treated (to AS 1604) redried after full impregnation, or durability class 1, 2 or 3.
ALL SOFTWOOD TIMBER FRAMING TO HAVE A MINIMUM TREATMENT PROTECTION OF H2 or T2 TREATED FOR TERMITE PROTECTION UNLESS NOTED OTHERWISE.

T2. All joists deeper than 150 to have blocking over support bearers and at a maximum 3000 centres.

T3. Roof trusses to be designed by the manufacturer to the relevant standards. Pre camber to be an amount equal to dead load deflection unless otherwise noted..

T4. All holes for bolts to be exact size. Washers to be used under all heads and nuts and to be at least 2.5 times the bolt diameter. Bolts to be M16 grade 4.6 unless noted otherwise.

T5. Treat all exposed cut ends with Reseal by Protim to manufacturers specification to achieve required Hazard Level Exposure Classification.

T6. Battens for T & G to be Kiln Dried to 12 %. 38mm minimum. deep treated pine or as recommended by supplier. Flooring to be installed no sooner than 28 days after slab pour.

T7. Hot dip galvanized nails/clouts/screws to be used with all timber connections.

T8. Continuous nailing must not be used for any timber connections.

T9. All exposed CCA treated pine to have an application of penetrating sealer to reduce warping and twist of the timber due to varying moisture content in service.

T10. All Stud walls to be 90x45 F7 Kiln Dried
T2 Treated at 450 Cts and noggings to AS 1684.

COMPACTED FILL

CF1. Only to be used with approval by Engineer & to be certified by a geotechnical Engineer.

CF2. Clear organic material, topsoil and any uncontrolled existing fill under proposed slabs/footings.

CF3. Filling shall be granular material compacted in not more than 200 mm layers to a minimum dry density ratio (AS 1289/E4.2 1982) of 98 percent standard maximum dry density.

CF4. During clearing and excavation for slabs and footings cut out soft spots and fill as above.

INSPECTIONS BY ENGINEER

48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION

1. Bearing strata of all footings prior to concrete pour by Geotechnical Engineer.
2. Any reinforcement prior to concrete pour.
3. Timber and Steel framing prior to cladding or lining.
4. Steel lintels after installation.
5. CONTACT YOUR PCA (Principal Certifying Authority) AS TO REQUIREMENTS FOR MANDATORY CRITICAL STAGE inspections IN ACCORDANCE WITH REVISED EP&A ACT REGULATIONS EFFECTIVE JULY 1, 2004.
6. Inspection by Geotechnical Engineer over 1.5m of vertical cut through Sandstone bed rock to permit identification of defects and remedial measures initiated.

ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES - N/A
ASSUMED BEARING STRATA FOR DESIGN PURPOSES - N/A
CONTRACTOR TO ENGAGE GEOTECHNICAL CONSULTANT TO VERIFY FOUNDATION CLASSIFICATION

A3

-	-	-	-
Date:	Rev:	Amendment:	By:

DOCUMENT CERTIFICATION
Date : OCT 10
Rick G. Wray .....
BE(Civil), CPEng, MIEAust., NPER.
(Director Northern Beaches Consulting Engineers)

NORTHERN BEACHES
Consulting Engineers P/L.
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Suite 207, 30 FISHER ROAD
DEE WHY N.S.W. 2099
Ph: (02) 9984 7000 Fax: (02) 9984 7444
e-mail : nb@nbconsulting.com.au
web page : www.nbconsulting.com.au

Architect: LIONEL CURTIN

Client: A. CLACHER & L. GAUPSET

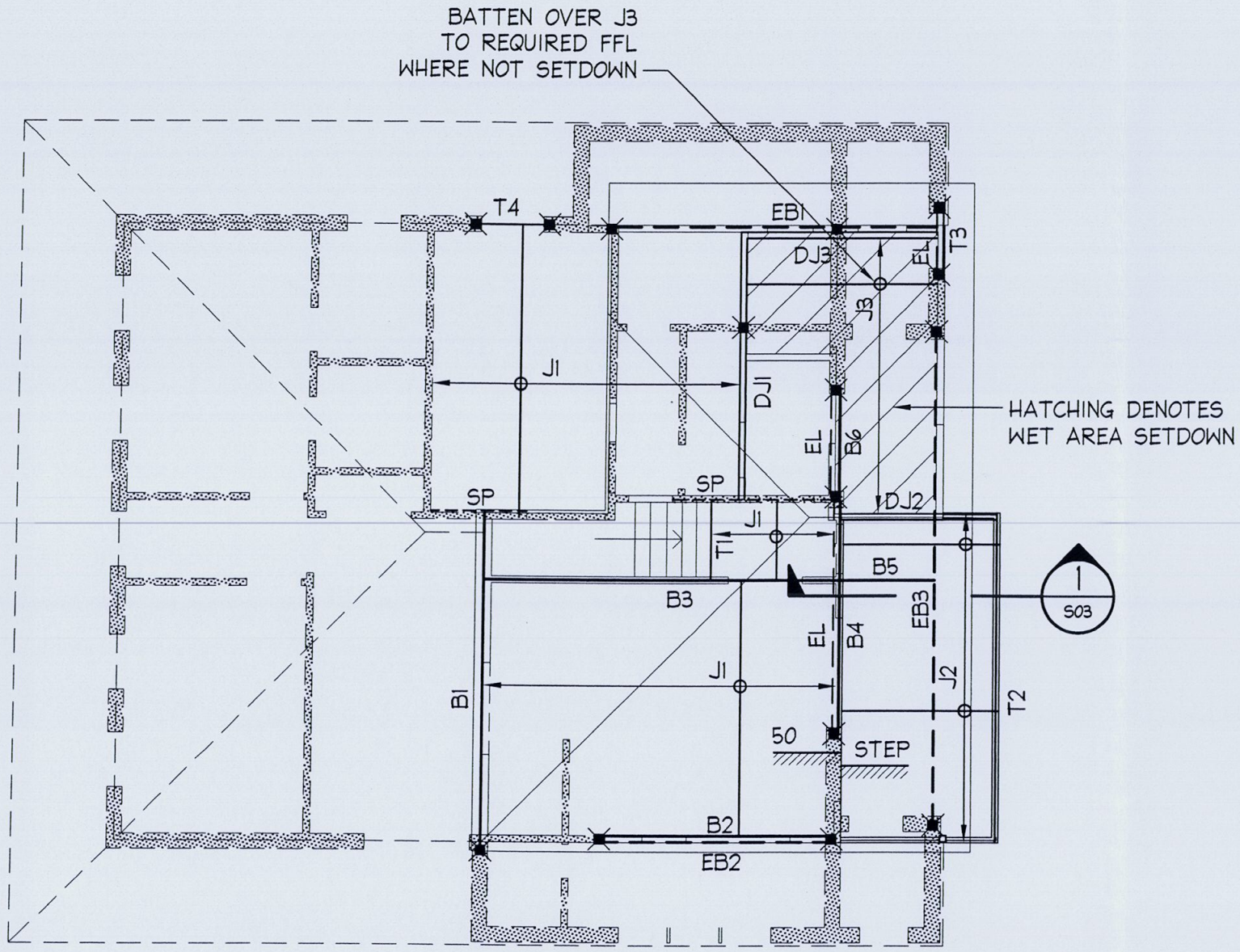
PROPOSED ALTERATIONS AT: 26 NORTH AVALON RD, NORTH AVALON

Drawing Title: GENERAL NOTES

Date:	Design:	Drawn:	Checked:
SEPT '10	RT	RYAN	RGW

Job No:	Drawing No:	Rev:
100906	S01	-

Northern Beaches Consulting Engineers Pty Ltd.



FIRST FLOOR FRAMING PLAN

SCALE = 1 : 100

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: S01.

MEMBER SCHEDULE:

FLOOR BEAMS:

B1.....2 x 400x45 HYSPAN LVL
B2.....2 x 300x45 HYSPAN LVL
B3-B5.....360 UB 44 or 250 UC 72
B6.....2 x 130x45 HYSPAN LVL LAID ABOVE EL & BELOW J3

EB1.....190x90 EXISTING BULKHEADS TO REMAIN
EB2.....290x90 EXISTING BULKHEADS TO REMAIN
EB3.....200 PFC EXISTING BEAM ASSUMED. RELOCATED TO HIGHER LEVEL, REFER TO DETAILS. CONFIRM SIZE ON SITE

LINTELS:

EL.....EXISTING LINTELS

FLOOR JOISTS:

J1.....HJ24063 HYJOIST @ 450 CTS.
J2.....200x45 HYSPAN LVL @ 450 CTS.
J3.....130x45 HYSPAN LVL @ 450 CTS.
DJ.....DOUBLE JOISTS
T1.....240x45 MGP10 TRIMMER JOIST
T2,T3.....200x45 HYSPAN LVL TRIMMER JOIST
T4.....240x45 MGP10 TRIMMER JOIST

SPREADER:

SP.....70x90 HYSPAN LVL SPREADER TO RUN OVER 3 STUDS MIN. AT LOAD CONCENTRATION POINTS. BUILDER TO IDENTIFY LOAD CONCENTRATION POINT LOCATIONS BENEATH SUB-FLOOR DURING PRELIMINARY WORKS FOR INSPECTION & RECOMENDATIONS BY ENGINEER.

✖ - LOAD CONCENTRATION POINT. MIN. 100mm BEARING ONTO MASONRY OR DOUBLE STUD, GLUE & NAIL LAMINATED. BUILDER TO IDENTIFY LOAD CONCENTRATION POINT LOCATIONS BENEATH SUB-FLOOR DURING PRELIMINARY WORKS FOR INSPECTION & RECOMENDATIONS BY ENGINEER.

NOTE:

1. ALL TIMBER SHALL BE KILN DRIED, DO NOT USE GREEN TIMBER.
2. ALL SOFTWOOD TIMBER FRAMING TO HAVE A MINIMUM TREATMENT PROTECTION OF H2 or T2 TREATED FOR TERMITE PROTECTION U.N.O.
3. WHERE STUD WALL FRAMING IS USED PROVIDE DOUBLE STUDS GLUE AND NAIL LAMINATED or 90x90 F7 POST EACH SIDE OF OPENINGS TO SUPPORT
4. ALL EXTERNAL TIMBER TO BE H3 TREATED OR DURABILITY CLASS 2.
5. ALL EXTERNAL STEEL TO BE PAINTED WITH ZINCANODE-402 SYSTEM IN ACCORDANCE WITH SYSTEM REQUIREMENTS SPECIFIED BY DULUX PROTECTIVE COATINGS. RE-TOUCH UP SITE WELDS.

Northern Beaches Consulting Engineers Pty Ltd.

IF IN DOUBT ASK

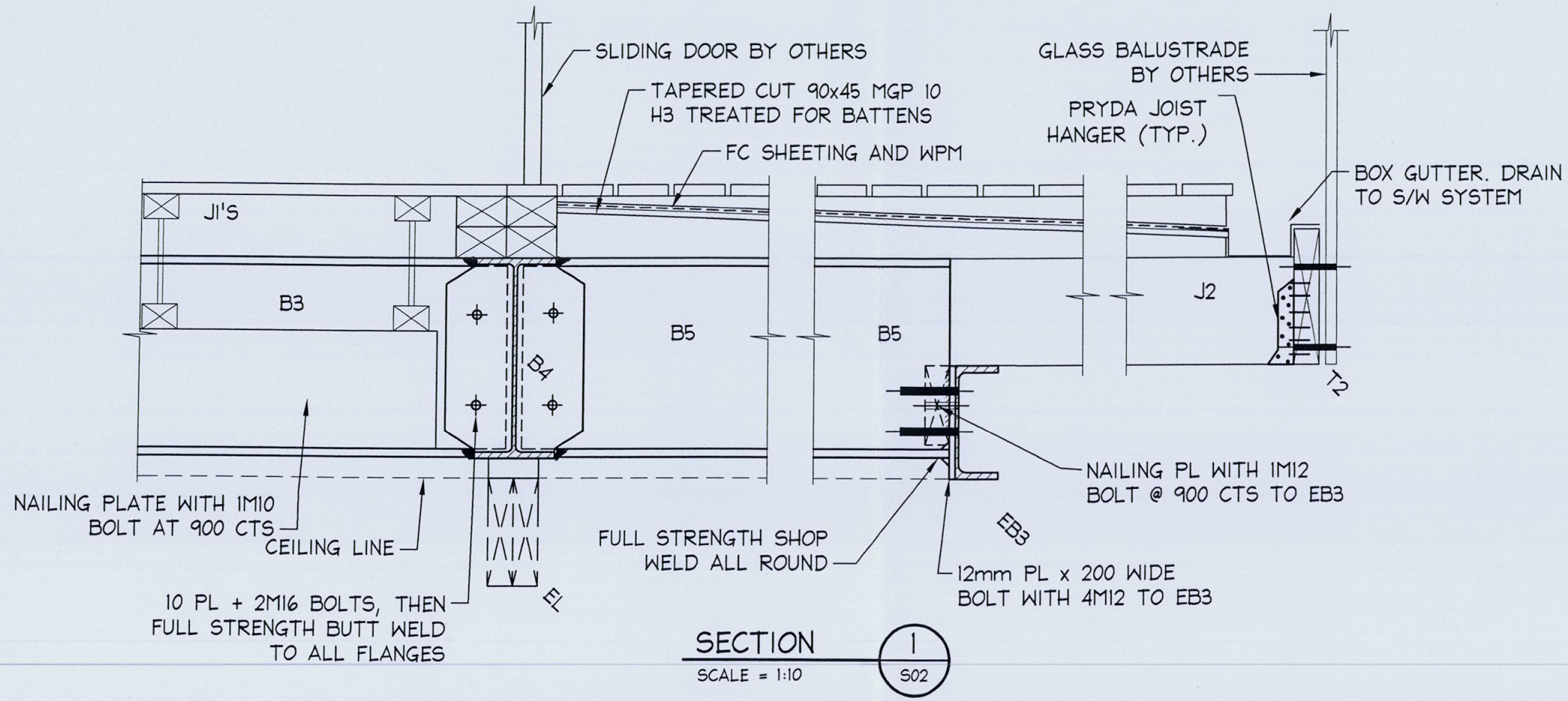
A3

Date:	Rev:	Amendment:	By:
-	-	-	-

DOCUMENT CERTIFICATION
Date : 23/10/10 per
Rick G. Wray .....
BE(Civil), CPEng, MIEAust., NPER.
(Director Northern Beaches Consulting Engineers)

NORTHERN BEACHES
Consulting Engineers P/L.
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Suite 207, 30 FISHER ROAD
DEE WHY N.S.W. 2099
Ph: (02) 9984 7000 Fax: (02) 9984 7444
e-mail : nb@nbconsulting.com.au
web page : www.nbconsulting.com.au

Architect: LIONEL CURTIN	PROPOSED ALTERATIONS AT: 26 NORTH AVALON RD, NORTH AVALON	Date: SEPT '10	Design: RT	Drawn: RYAN	Checked:
Client: A. CLACHER & L. GAUPSET	FIRST FLOOR FRAMING PLAN	Job No: 100906		Drawing No: S02	Rev: -

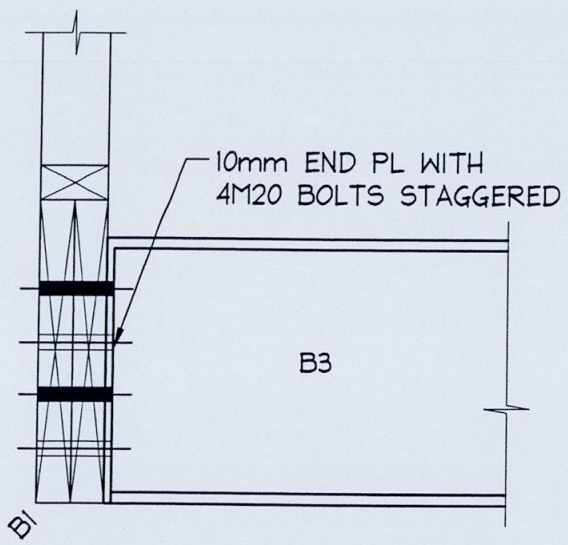


SECTION 1 / S02

SCALE = 1:10

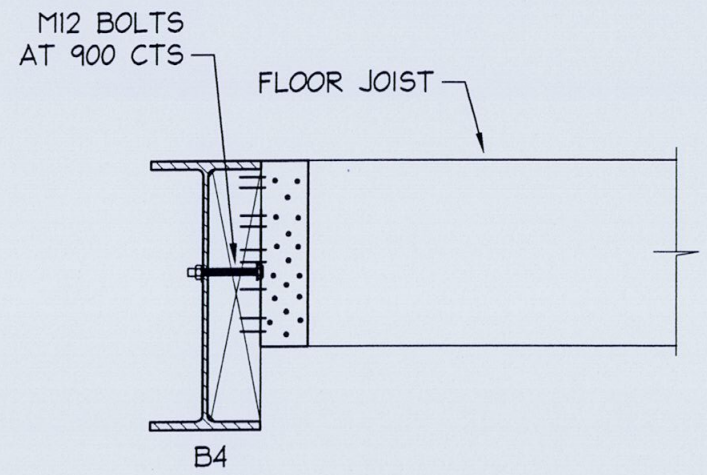
NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: S01.



TYPICAL STEEL/TIMBER BEAM CONNECTION

SCALE = 1 : 10



STEEL BEAM CONNECTION

TYPICAL BEAM TO JOIST CONNECTION

SCALE = 1 : 10

IF IN DOUBT ASK

A3

-	-	-	-
Date:	Rev:	Amendment:	By:

DOCUMENT CERTIFICATION
Date: 25/10/10 per
Rick G. Wray
BE(Civil), CPEng, MIEAust., NPER.
(Director Northern Beaches Consulting Engineers)

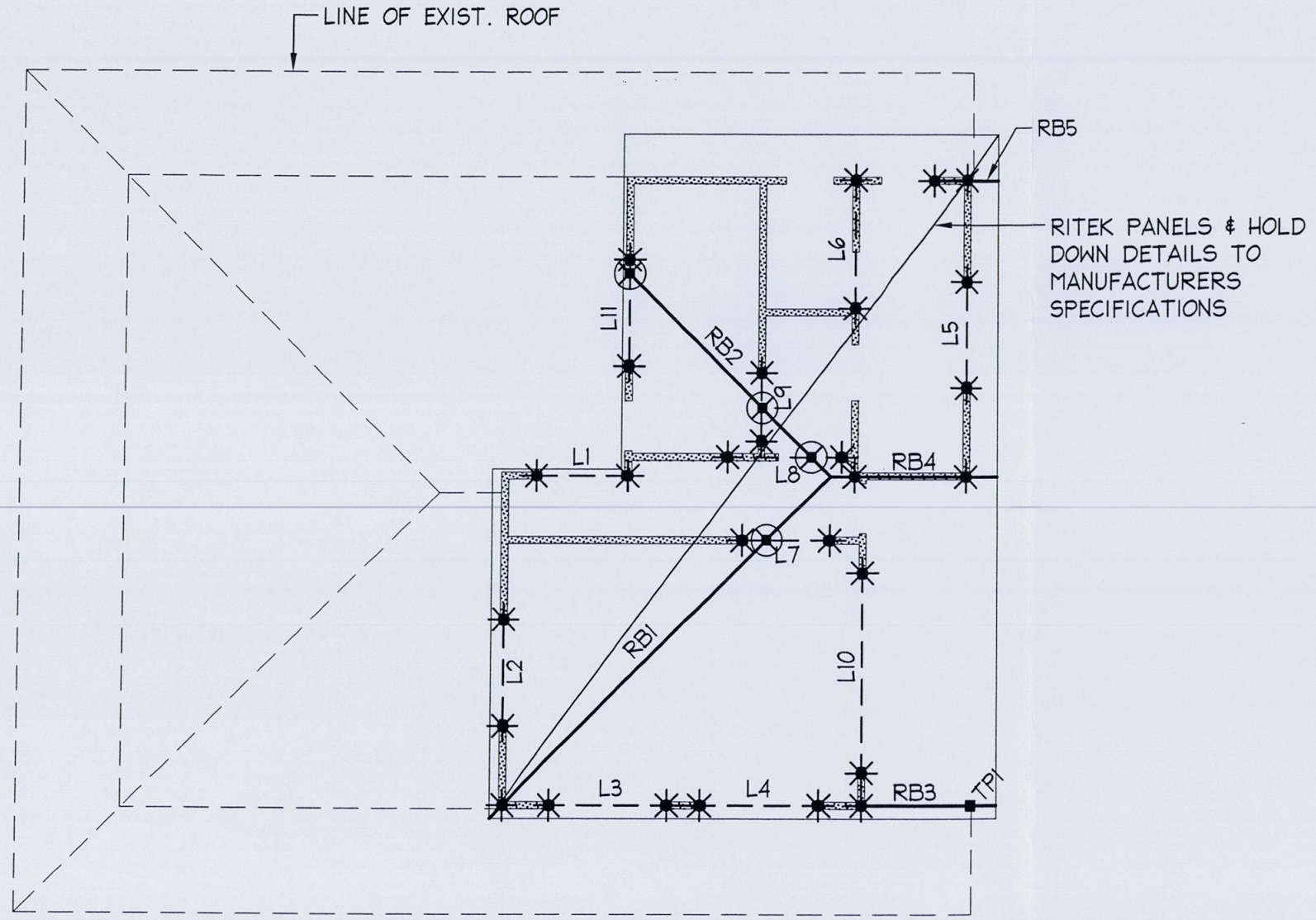
NORTHERN BEACHES
Consulting Engineers P/L.
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Suite 207, 30 FISHER ROAD
DEE WHY N.S.W. 2099
Ph: (02) 9984 7000 Fax: (02) 9984 7444
e-mail : nb@nbconsulting.com.au
web page : www.nbconsulting.com.au

Architect: LIONEL CURTIN	PROPOSED ALTERATIONS AT: 26 NORTH AVALON RD, NORTH AVALON	Date: SEPT '10	Design: RT	Drawn: RYAN	Checked:
Client: A. CLACHER & L. GAUPSET	FIRST FLOOR FRAMING SECTIONS	Job No: 100906		Drawing No: S03	Rev: -

Northern Beaches Consulting Engineers Pty Ltd.

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: S01.



ROOF FRAMING PLAN

SCALE = 1 : 100

MEMBER SCHEDULE:

POSTS:
TP1.....90x90 MGP10, H3 TREATED

LINTELS:
L1-L7.....2 x 140x45 MGP10
L8, L9.....2 x 90x45 MGP10
L10.....2 x 190x45 MGP10
L11.....2 x 140x45 MGP10

ROOF BEAMS:
RB1.....180 UB 22 OR 150 UC 30
RB2, RB4.....190x70 MGP10 OR 150x63 HYSPAN LVL
RB3, RB5.....140x70 MGP10, H3 TREATED

■ - COLUMNS/POSTS BELOW

✳ - LOAD CONCENTRATION POINT. MIN. DOUBLE STUD & GALV. HOOP IRON STRAPPING FOR HOLD DOWN TO FLOOR STRUCTURE BELOW.

⊗ - LOAD CONCENTRATION POINT, DOUBLE STUD & GALV. HOOP IRON STRAPPING FOR HOLD DOWN TO LINTEL BELOW.

Northern Beaches Consulting Engineers Pty Ltd.

IF IN DOUBT ASK

A3

Date:	Rev:	Amendment:	By:
-	-	-	-

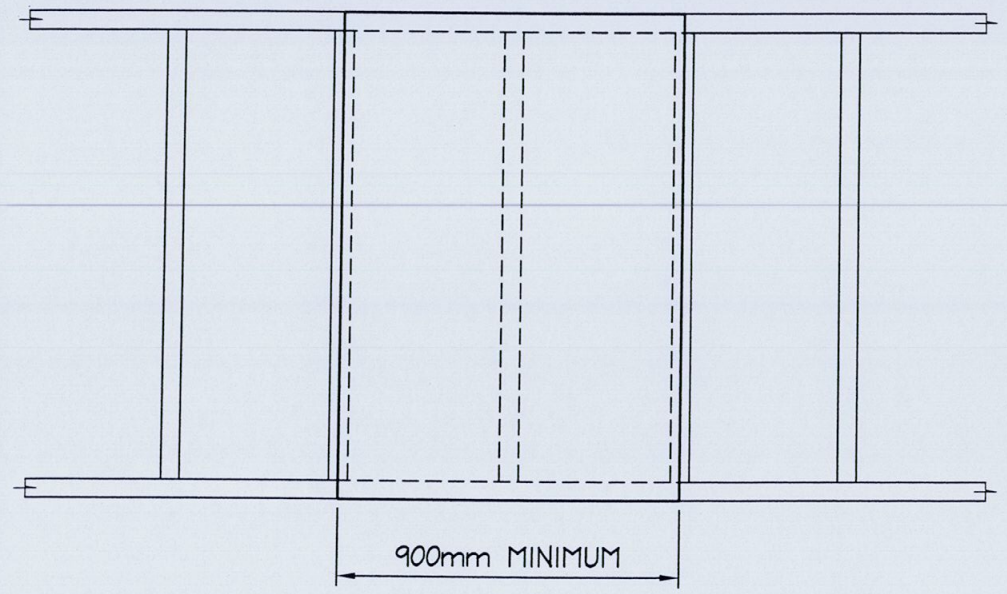
DOCUMENT CERTIFICATION
Date : OCT 10'
Rick G. Wray .....
BE(Civil), CPEng, MIEAust., NPER.
(Director Northern Beaches Consulting Engineers)

NORTHERN BEACHES
Consulting Engineers P/L.
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Suite 207, 30 FISHER ROAD
DEE WHY N.S.W. 2099
Ph: (02) 9984 7000 Fax: (02) 9984 7444
e-mail : nb@nbconsulting.com.au
web page : www.nbconsulting.com.au

Architect: LIONEL CURTIN	PROPOSED ALTERATIONS AT: 26 NORTH AVALON RD, NORTH AVALON	Date: SEPT '10	Design: RT	Drawn: RYAN	Checked: RGW
Client: A. CLACHER & L. GAUPSET	ROOF FRAMING PLAN	Job No: 100906		Drawing No: S04	Rev: -

PLYWOOD BRACING:

FIX PLYWOOD PANELS WITH GALVANISED FLATHEAD NAILS ϕ2.8mm x 30mm LONG MINIMUM OR EQUIVALENT AT 50mm CENTRES ALONG TOP AND BOTTOM PLATES, 150mm CENTRES ALONG VERTICAL EDGES AND 300mm CENTRES ALONG INTERMEDIATE STUDS.
NAILS SHALL BE LOCATED A MINIMUM OF 7mm FROM PANEL EDGES. POWER DRIVEN GALVANISED NAILS OR COATED STAPLES MAY BE USED WHERE THEY PROVIDE AT LEAST THE EQUIVALENT STRENGTH TO HAND DRIVES ϕ2.8mm x 30mm LONG GALVANISED CLOUTS OR FLATHEAD NAILS. IN THE CASE OF POWER DRIVEN STAPLES, STAPLE SPACING SHALL BE 35mm CENTRES AT TOP AND BOTTOM PLATES, 100mm CENTRES AT VERTICAL PLYWOOD EDGES AND 200mm CENTRES ALONG INTERMEDIATE STUDS.



NOTES:

1. FOR PLYWOOD THICKNESS REFER TO TABLE.
2. FOR POWER DRIVEN NAILS AND STAPLES REFER ABOVE.
3. PANEL EDGES SHALL BE SUPPORTED BY STUDS.
4. NOGGINGS HAVE BEEN OMITTED FOR CLARITY.

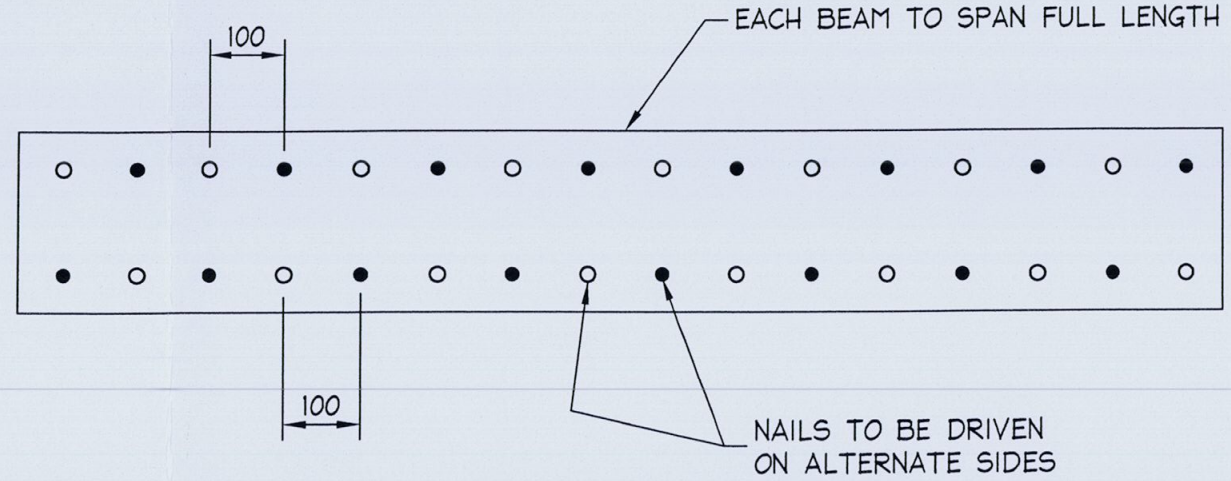
EACH 900 mm PANEL EQUALS FOUR TYPE A BRACING UNITS AS PER AS1684.4-2006

WALL PLY BRACING DETAILS

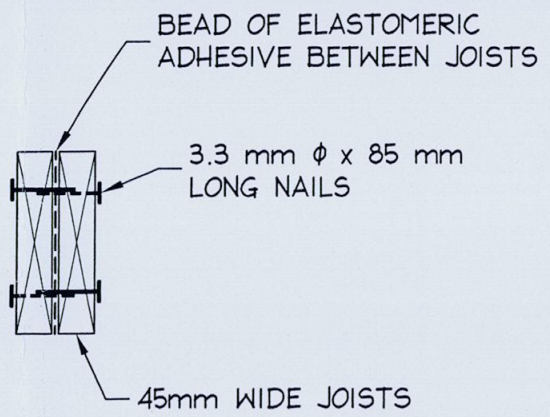
DENOTED 'WPB' ON PLAN

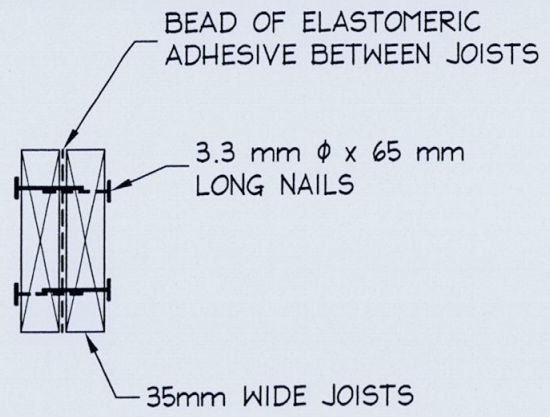
NOT TO SCALE

PLYWOOD THICKNESS		
PLYWOOD STRESS GRADE	PLYWOOD THICKNESS	
	MAXIMUM STUD SPACING	
	450mm	600mm
F8	7.0mm	9.0mm
F11	6.0mm	7.0mm
F14	4.0mm	6.0mm
F27	4.0mm	4.5mm



BEAM ELEVATION





BEAM SECTIONS

TYPICAL GLUE AND NAIL LAMINATED MEMBER DETAILS

SCALE = 1 : 10

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: S01.

IF IN DOUBT ASK

A3

Date:	Rev:	Amendment:	By:
-	-	-	-

DOCUMENT CERTIFICATION
Date : OCT 10
Rick G. Wray
BE(Civil),CPEng,MIEAust.,NPER.
(Director Northern Beaches Consulting Engineers)

NORTHERN BEACHES
Consulting Engineers P/L.
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Suite 207, 30 FISHER ROAD
DEE WHY N.S.W. 2099
Ph: (02) 9984 7000 Fax: (02) 9984 7444
e-mail : nb@nbconsulting.com.au
web page : www.nbconsulting.com.au

Architect: LIONEL CURTIN

Client: A. CLACHER & L. GAUPSET

PROPOSED ALTERATIONS AT: 26 NORTH AVALON RD, NORTH AVALON

BRACING & NAIL & GLUE LAMINATE DETAILS

Date:	Design:	Drawn:	Checked:
SEPT '10	RT	RYAN	RGW

Job No:	Drawing No:	Rev:
100906	S05	-

Northern Beaches Consulting Engineers Pty Ltd.