FITZGERALD BUILDING CERTIFIERS PTY. LTD.

ABN 63 119 997 590
199 Pennant Hills Road Thornleigh NSW 2120
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Council Copy

CONSTRUCTION CERTIFICATE
PCA ENGAGEMENT - page 2
NOTICE OF COMMENCEMENT- page 2

Construction Certificate Number **CC 2008/075** Approval Date 29 01 08

Issued in accordance with the provisions of the Environmental & Assessment Act 1979 under Sections 109C(1)(b) and 109F

Date Application Received 7 12 2007

Council **Pittwater**

DEVELOPMENT CONSENT NO 595/07
Name of Certifying Authority **APPROVAL DATE** 16 11 07
Name of Accredited Certifier **Fitzgerald Building Certifiers Pty Ltd**
Accreditation Body **Paul Fitzgerald - No BPB0119**
DIPNR, 20 Lee Street, Sydney 2000

Applicant **Edwina Wills**
Address 143 Prince Alfred Parade, Newport NSW 2106
Contact Number 0412 564 895

Owner **As Applicant**
Address **As Applicant**

Subject Land Lot 45 **DP** 13457 **No** 143 Prince Alfred Avenue, Newport

Description of Development – alterations and additions

Building Code of Australia Classification 1a **Value of Work $** 254,910 00

Builder Details
Name **Michael Smit**
Licence Number **186614**
Address 1/55 Darley Street East, Mona Vale NSW 2103
Contact Number 0425 265 596

Approved Plans

Architectural Plans prepared by	Drawing Nos	Dated
All Walls Pty Limited	07040-1 and 07040-2	1 07 2007
Basix Certificate	A19333	24 09 2007

Stuctural Engineer Details by	Drawing Nos	Dated
Jack Hodgson consultants Pty Limited	Risk Analysis & Management Report	2 10 2007
Peninsula Consulting	Certificate of Existing Structural Adequacy	11 12 2007
Peninsula Consulting	07-1118 - S01 to S11 inclusive	2007

SCANNED
30 JAN 2008
PITTWATER COUNCIL

R 23741
$30 CC 31/1/08

CERTIFICATION

I, Paul Fitzgerald, as the certifying authority am satisfied that,

(a) The requirements of the regulations referred to in s81A (5) have been complied with That is, work completed in accordance with the documentation accompanying the application for this certificate (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of the Regulation as referred to in section 81A (5) of the Act, and

(b) Long Service Levy has been paid where required under s34 of the Building and Construction Industry Long Service Payments Act 1986

Signed **DATED** 29 01 2008

PRINCIPLE CERTIFYING AUTHORITY

Name of Certifying Authority	Fitzgerald Building Certifiers Pty Limited
Name of Accredited Certifier	Paul Fitzgerald
Accreditation Number	BPB0119
Contact Number	9980 2155
Address	199 Pennant Hills Rd, Thornleigh NSW 2120

MANDATORY CRITICAL STAGE INSPECTIONS Class 1 & 10 Buildings

1 Commencement of Building Work	YES
2 Piers prior to pour	YES
3 Footings prior to pouring of reinforced concrete	YES
4 Timber frame prior to lining	YES
5 Waterproofing of wet areas	YES
6 Stormwater pipes prior to backfilling	YES
7 Pool Steel prior to pouring of reinforced concrete	N/A
8 Pool Fence prior to water in the pool	N/A
9 Final Inspection - issue of Occupation Certificate	YES

PCA to State any additional inspections

SIGNED **Dated** 29 01 2008

Notice of Commencement of Building Work

Appointment of Principal Certifying Authority

Under Enviromental Planning and Assesment Act 1979
Sections 81A(2)(b)(iii) or (c) or (4)(b)(ii) or (c) 86(1)and(2)

Subject Land

Address **143 Prince Alfred Avenue, Newport**

Lot No 45 D P 13457

Description of Development

alterations and additions

Type of Work

Building

Consent

DA / CDC No 595/07

Date of Determination 16 11 07

Construction Certificate

Certificate No **2008/075**

Date of Issue **29 01 08** Date of Commencement **31 01 08**

Principal Certifying Authority

Name of Certifying Authority **Fitzgerald Building Certifiers Pty Ltd**

Accreditation No **BPB 0119**

Contact No **9980 2155**

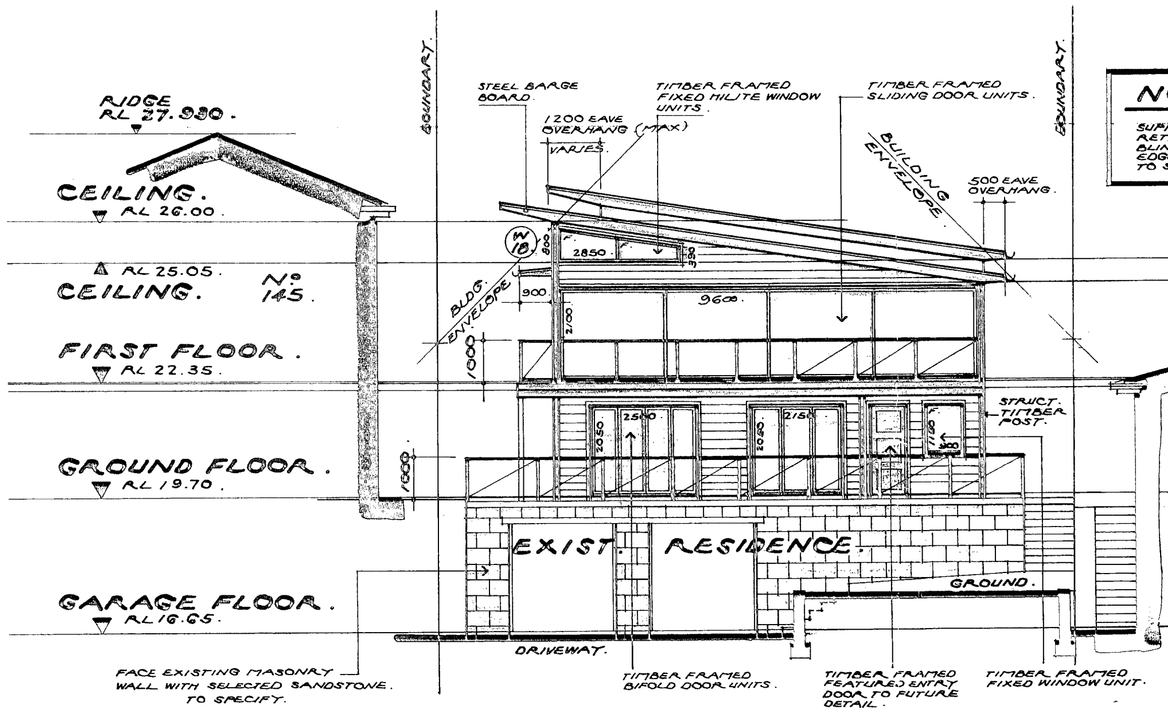
Address **199 Pennant Hills Rd Thornleigh, NSW 2120**

Compliance With Development Consent / Complying Development Certificate

Have all conditions required to be satisfied prior to commencement of work been satisfied?
(Conditions may include payment of security S94 contributions endorsement of building work plans by water supply authority)

Yes X **No**

SIGNED **Dated** 29 01 2008



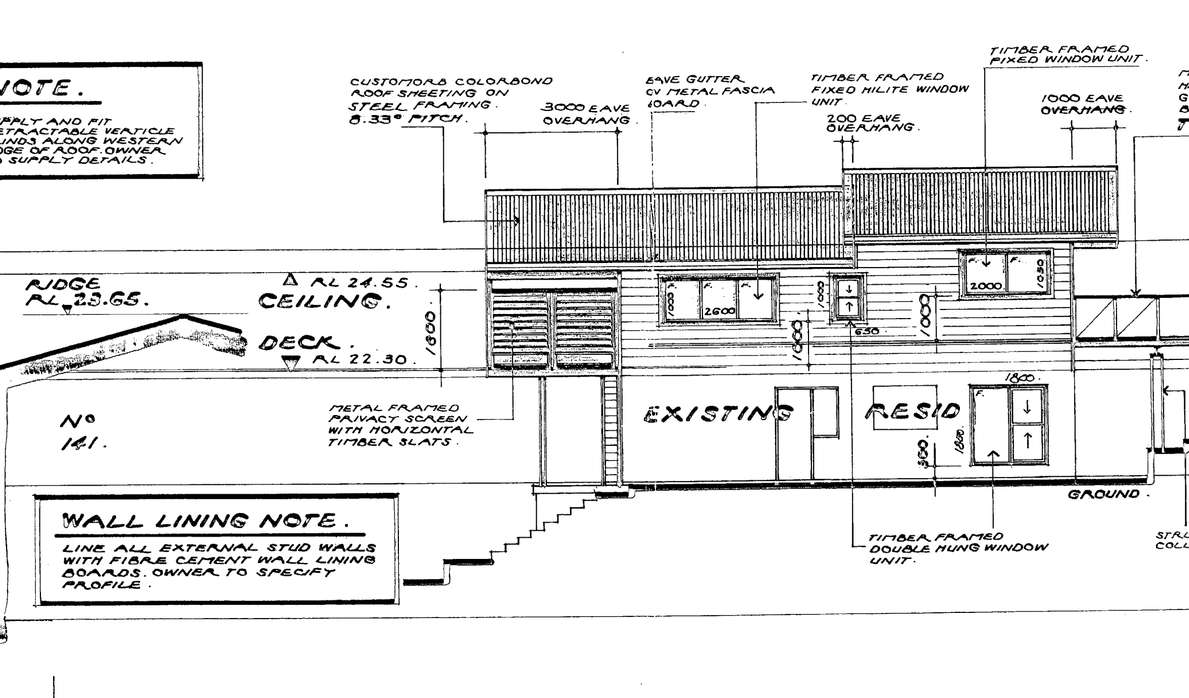
WEST ELEVATION.

NOTE.

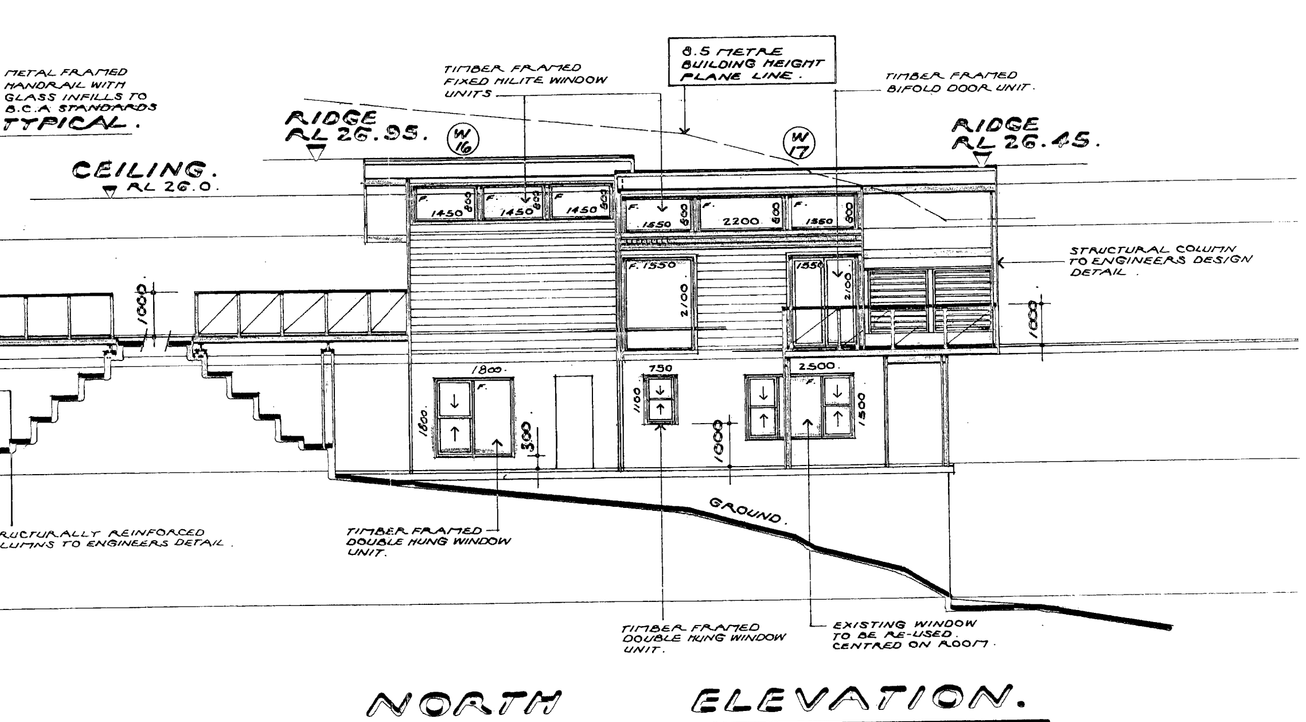
SUPPLY AND FIT RETRACTABLE VERTICLE BLINDS ALONG WESTERN EDGE OF ROOF OVHER. TO SUPPLY DETAILS.

WALL LINING NOTE.

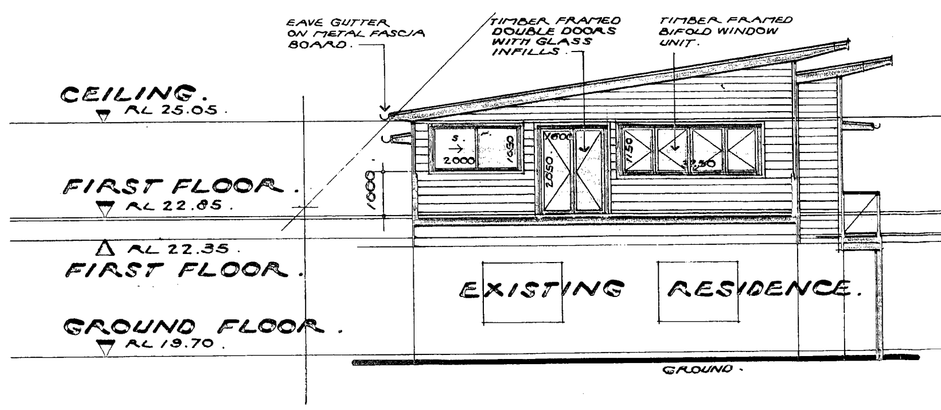
LINE ALL EXTERNAL STUD WALLS WITH FIBRE CEMENT WALL LINING BOARDS. OWNER TO SPECIFY PROFILE.



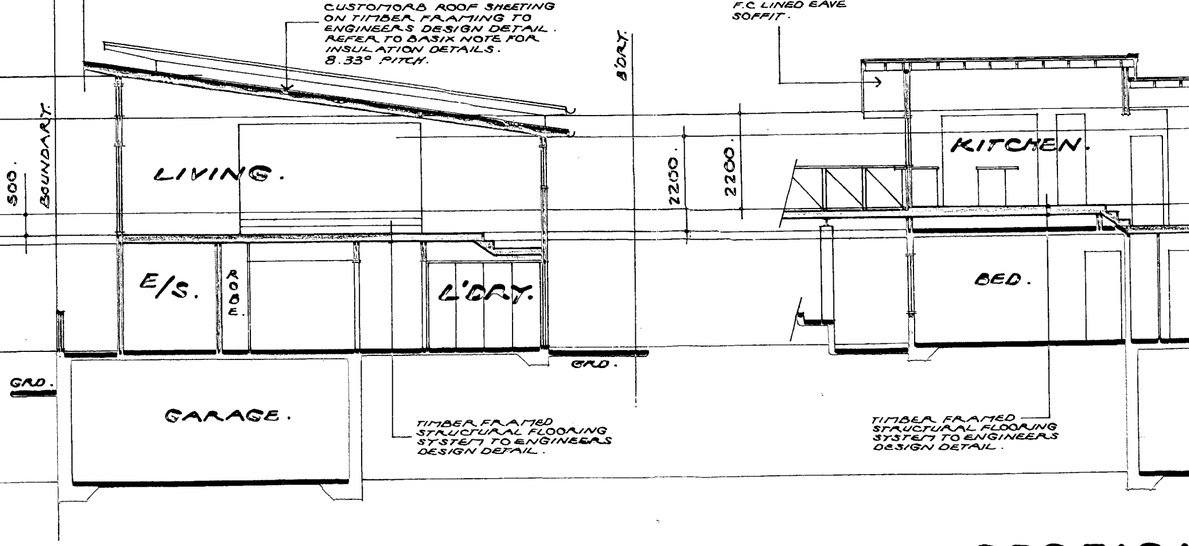
SOUTH ELEVATION.



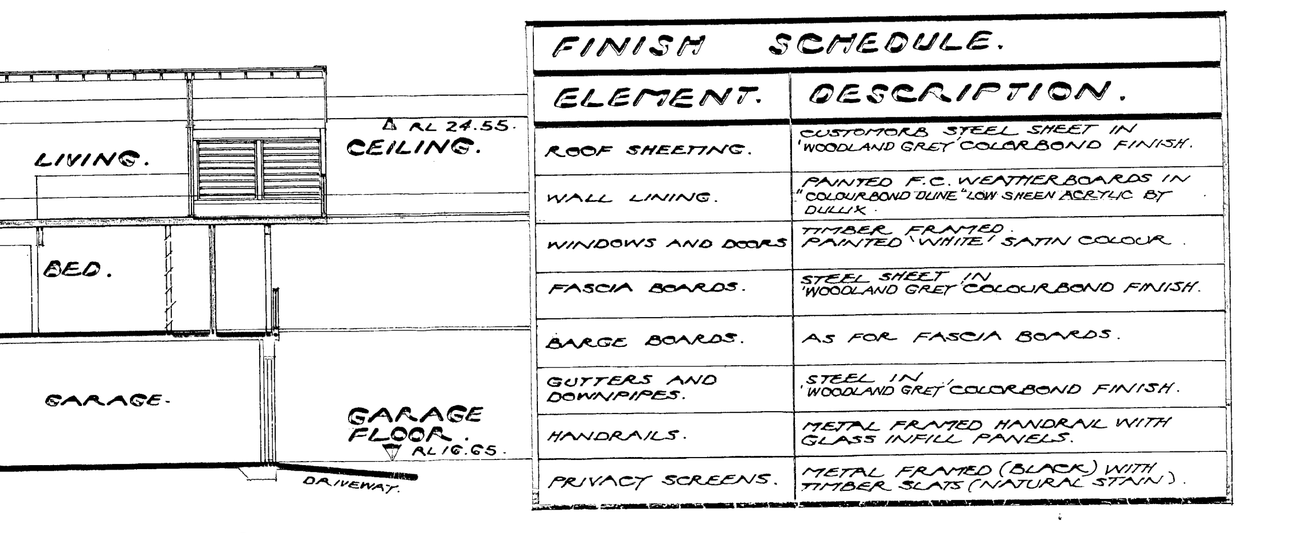
NORTH ELEVATION.



EAST ELEVATION.



SECTION A-A



SECTION B-B.

FINISH SCHEDULE.	
ELEMENT.	DESCRIPTION.
ROOF SHEETING.	CUSTOMORB STEEL SHEET IN 'WOODLAND GREY' COLORBOND FINISH.
WALL LINING.	PAINTED F.C. WEATHERBOARDS IN 'COLOURBOND 'DUNE' LOW SHEEN ACRYLIC BY DULUX.
WINDOWS AND DOORS	TIMBER FRAMED PAINTED 'WHITE' SATIN COLOUR.
FASCIA BOARDS.	STEEL SHEET IN 'WOODLAND GREY' COLOURBOND FINISH.
BARGE BOARDS.	AS FOR FASCIA BOARDS.
GUTTERS AND DOWNPIPES.	STEEL IN 'WOODLAND GREY' COLORBOND FINISH.
HANDRAILS.	METAL FRAMED HANDRAIL WITH GLASS INFILL PANELS.
PRIVACY SCREENS.	METAL FRAMED (BLACK) WITH TIMBER SLATS (NATURAL STAIN).

SITE NOTES.

SITE AREA ____ 626.0m²
EXIST. FLOOR AREA ____ 93.0m²
NEW FLOOR AREA ____ 197.40m²
F.S.R. ____ 0.32 TO 1.0

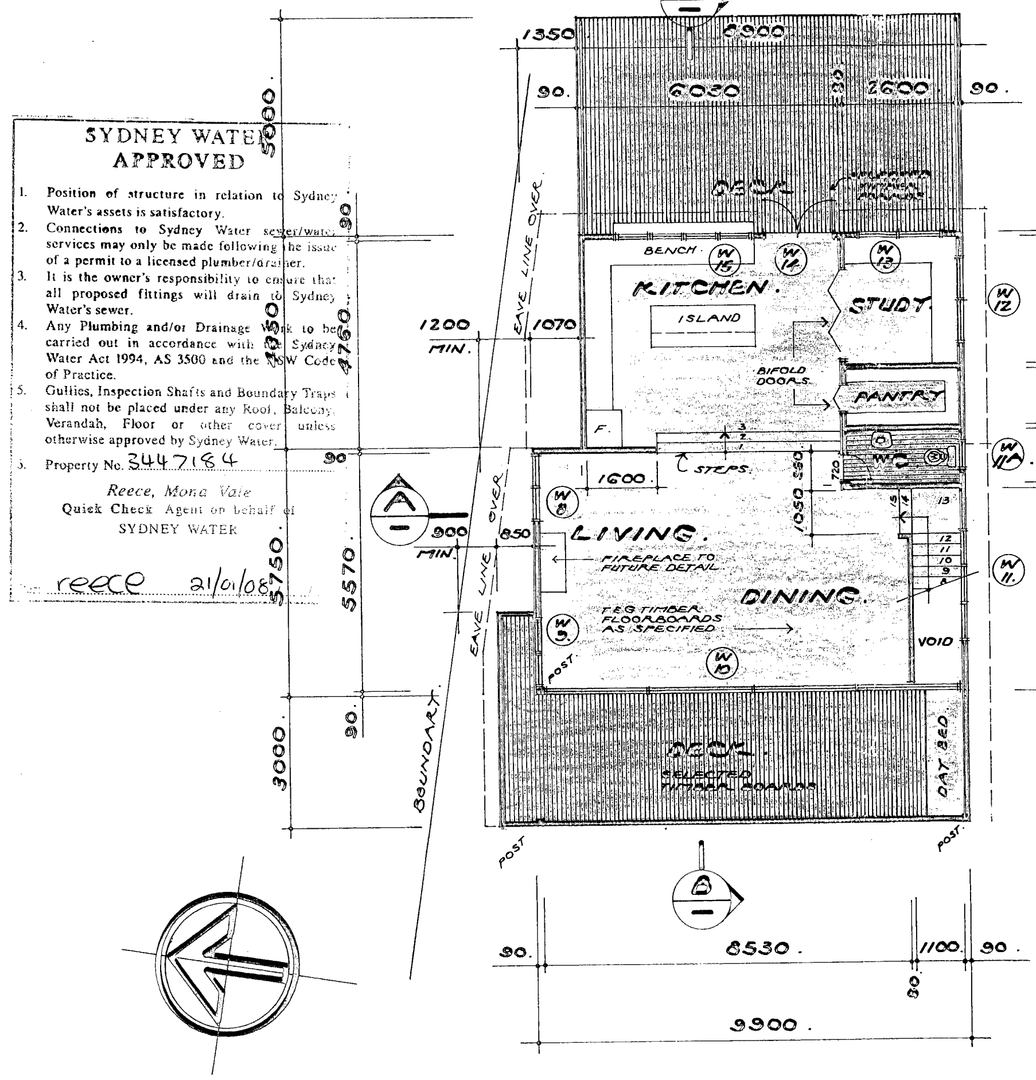
BASIX REQUIREMENTS

INSULATION Lay roof sheeting on 75mm foil backed insulation (continuous). Fill all ceiling spaces with R2.0 insulation blanket. Insulate all stud walls with R2.0 insulation batts	**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 water star rating.
HOT WATER The applicant must install the following hot water system in the development: gas instantaneous	**WINDOW TREATMENT** Windows numbered **W1,2,13,14,and 15** (inclusive) on plan shall be fitted with external adjustable awnings that can be extended so as to cover the full height of the windows
LIGHTING The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent or light-emitting diode (LED) lamps	For projections described in millimetres the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500mm above the head of the window or glazed door and no more than 2400mm above the sill

SYDNEY WATER APPROVED

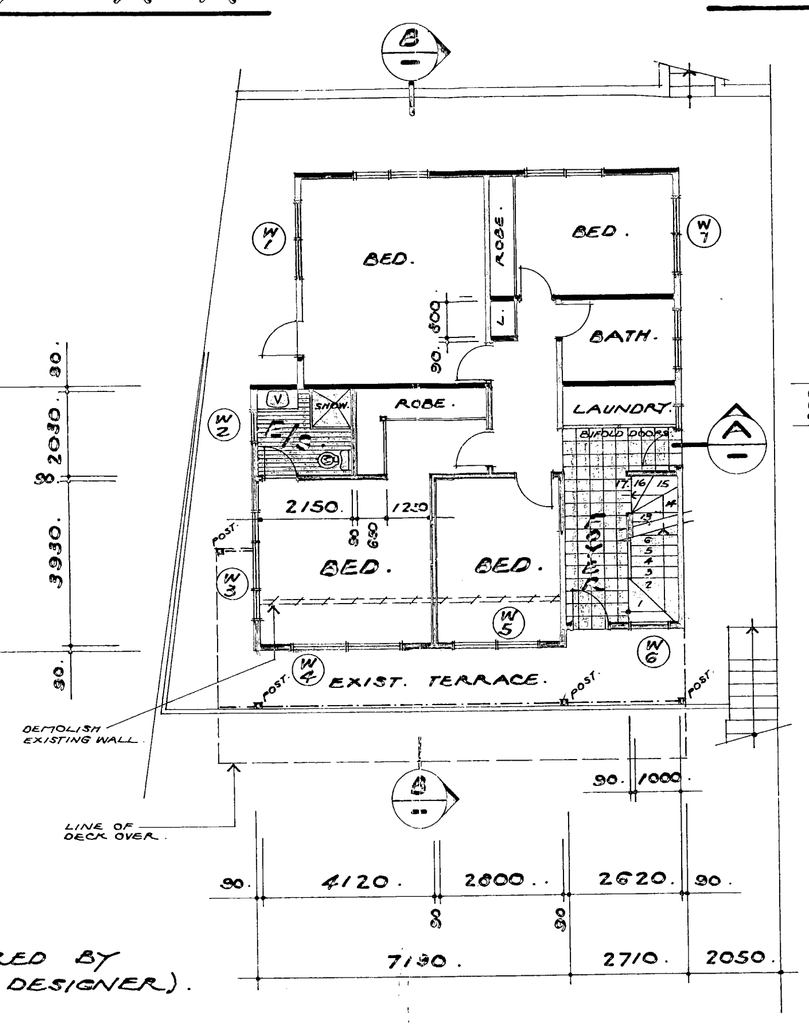
1. Position of structure in relation to Sydney Water's assets is satisfactory.
2. Connections to Sydney Water sewer/water services may only be made following the issue of a permit to a licensed plumber/drainer.
3. It is the owner's responsibility to ensure that all proposed fittings will drain to Sydney Water's sewer.
4. Any Plumbing and/or Drainage work to be carried out in accordance with the Sydney Water Act 1994, AS 3500 and the NSW Code of Practice.
5. Gullies, Inspection Shafts and Boundary Traps shall not be placed under any Room, Balcony, Verandah, Floor or other cover unless otherwise approved by Sydney Water.
6. Property No. 3447184

Reece, Mona Vale
Quick Check Agent on behalf of SYDNEY WATER
reece 21/01/08

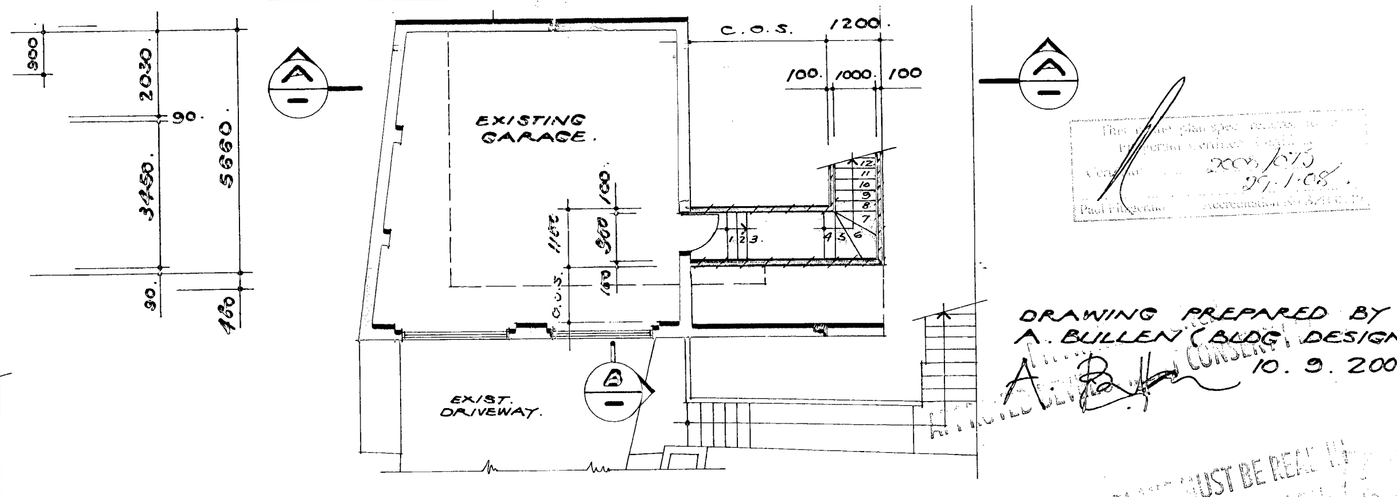


FIRST FLOOR PLAN.

DRAWING PREPARED BY B. BULLEN (BLDG. DESIGNER). 14.8.07.



GROUND FLOOR PLAN.



GARAGE FLOOR PLAN.

DRAWING PREPARED BY A. BULLEN (BLDG. DESIGN.) 10. 9. 2007.

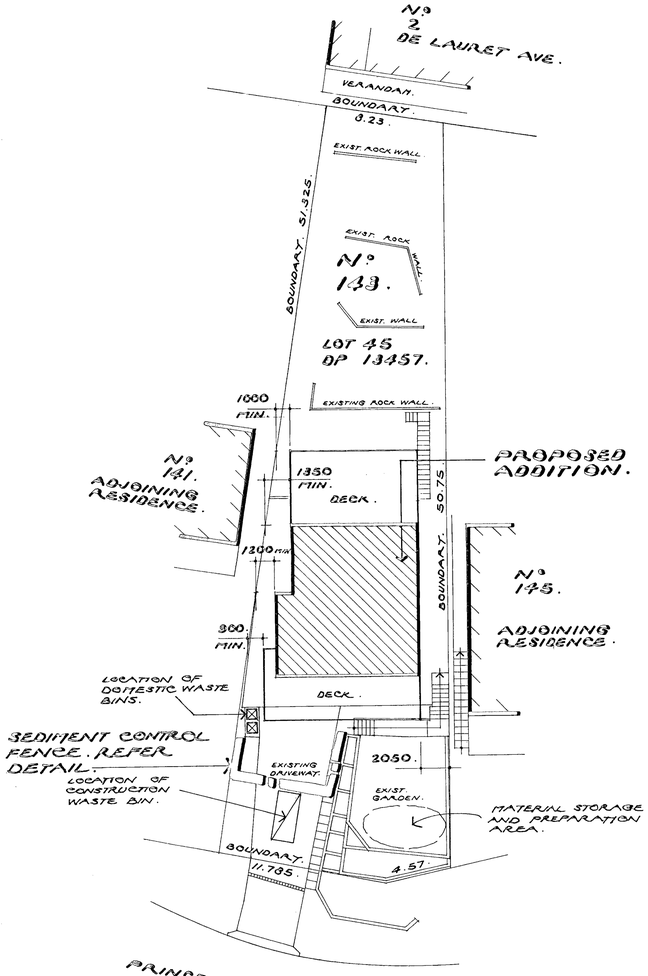
PROJECT.
PROPOSED ALTERATIONS AND ADDITIONS TO 143 PRINCE ALFRED PDE. NEWPORT FOR MR&MRS N. WILLS.

BUILDING DESIGN.
ALL WALLS P/L.
19 FRANCIS ST. 0413 757 390.
FAIRLIGHT 2094. 99774155.

DRAWN.	B.B.
DATE.	JULY 07.
SCALE.	1:100.
CHECKED.	

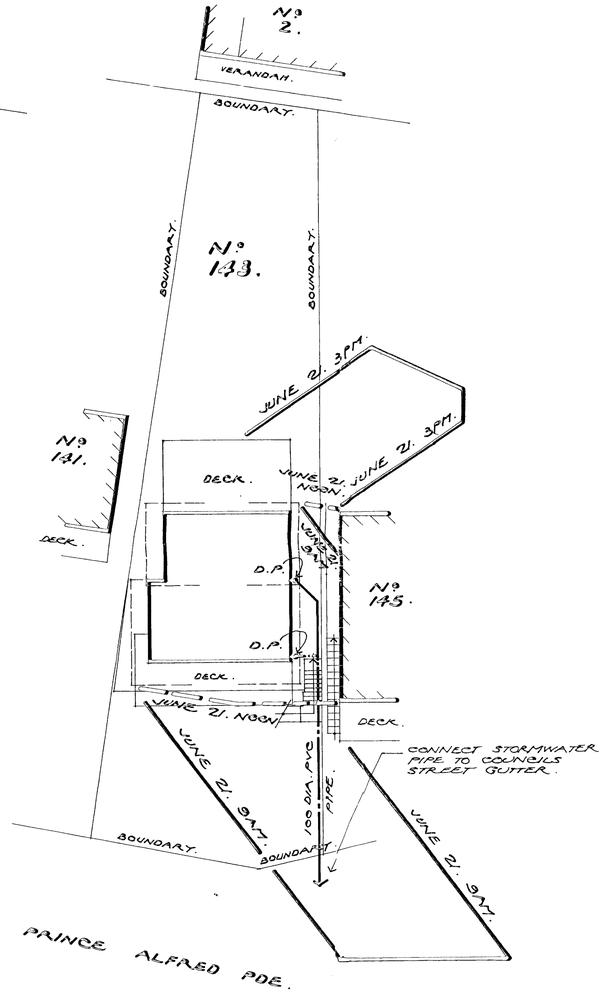
TITLE.
WORKING DRAWING.

DRAWING NUMBER. 07040-1 REV.



SITE PLAN.

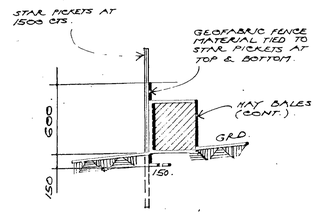
1 : 200.



SHADOW DIAGRAMS PLAN.

1 : 200.

DRAINAGE CONCEPT PLAN.



TYPICAL SEDIMENT CONTROL FENCE DETAIL.

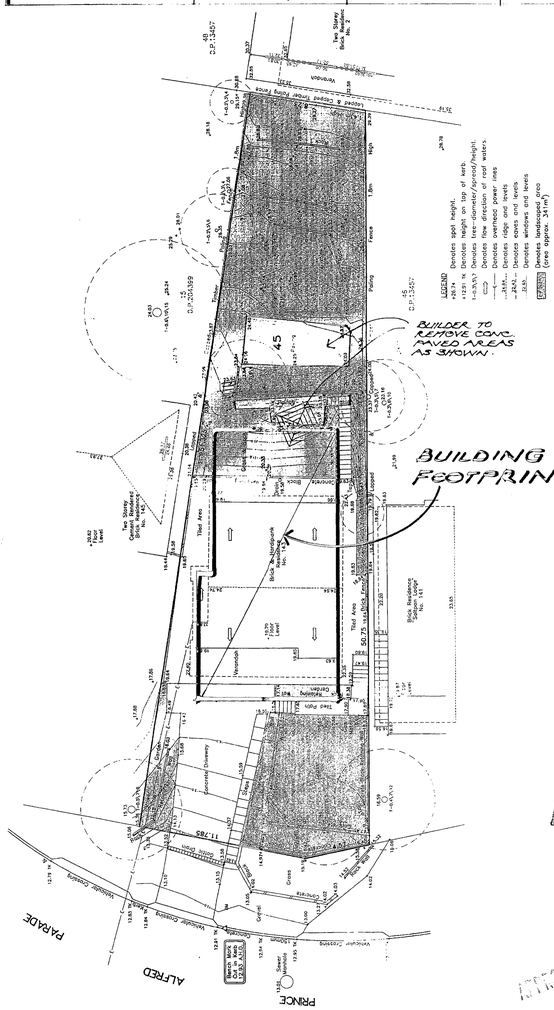
DRAWING PREPARED BY
B. BULLEN (BLDG. DESIGNER).
10. 09. 2007.

SITE CONTROL CALCULATIONS.

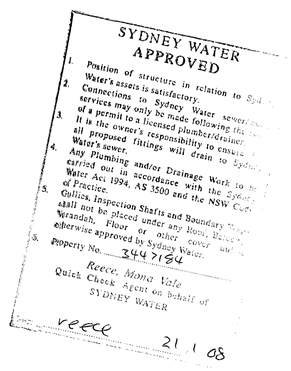
SUBJECT.		DEVELOPMENT CONTROL.	PROPOSED OUTCOME	COMPLIANCE.
SITE AREA.		NOT APPLICABLE	626.0M²	YES.
LANDSCAPE AREA.		375.0M² (60%).	377.20M² REFER NOTE A	YES.
BUILDING HEIGHT.		10M.	9.9M²	YES.
BUILDING SETBACKS.	FRONT.	6.50M²	9.5M².	YES
	NTH. WALL	4.0M²	VARIES 2.0M TO 1.35M	NO.
	STH. WALL.	3.75M²	2.1M. (VARIES).	NO
	REAR.	6.5M²	28.0M²	YES.
BUILDING ENVELOPE.		REFER DIAGRAM UNDER DIO.9 (NEWPORT LCOAUTY.	REFER WEST ELEVATION ON DRG. Nº 07040-1.	NO.
SITE COVERAGE.		250.4M² (40%).	249.0M²	YES.

NOTE A
LANDSCAPED AREA CALC. BASED ON THE FOLLOWING AREAS.

- 330.20M² OF SOFT LANDSCAPING.
- 38.0M² OF IMPERVIOUS DECK AREAS (6% OF SITE AREA).
- 9.0M² OF PATHS WITH A MAX. WIDTH OF 1.0M.



SITE COVERAGE PLAN. 1 : 200.



PROJECT. PROPOSED ALTERATIONS AND ADDITIONS TO 143 PRINCE ALFRED PDE. NEWPORT FOR MR&MRS N. WILLS.	BUILDING DESIGN. ALL WALLS P/L. 19 FRANCIS ST. 0413 757 390. FAIRLIGHT 2094. 99774155.	DRAWN.	B.B.
		DATE.	JULY 07.
		SCALE.	1:200.
		CHECKED.	
TITLE. SITE PLAN. SHADOW DIAGRAMS.		DRAWING NUMBER.	07040-2

GENERAL NOTES:

GENERAL

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

G2. Engineer's drawings shall not be used for dimensions. All setting out dimensions shall be verified and discrepancies shall be referred to the Engineer prior to commencement of work.

G3. During construction the structure shall be maintained in a stable condition and no part shal be overstressed. Temporary bracing shall be provided by the builder to keep the works and excavations 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

FOOTINGS

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

Clay Foundations:

CL1. Required minimum 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 minimum 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 minimum 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 effect 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.

CONCRETE

C1. All workmanship and materials shall be in accordance with AS 3600-2001.

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 - 1995 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 3700-2001.

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 3700-2001.

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 3700-2001. Provide galvanized wall ties above DPC to AS 3700 & Local Council Specifications. Stainless steel ties to be used within 1 km of coast & east of Harbour Bridge.

BLOCKWORK

BL1. Concrete blocks shall have a minimum compressive strength of 15 MPa and conform to AS 3700-2001.

BL2. Where cores of hollow blocks are to be filled, properly compacted 20MPa concrete with 10 mm aggregate an! 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 3600-2001.

BL4. Control joints to be placed at a maximum of 8 m centres or in accordance with AS 3700-2001.

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 1000 mm.

STEEL

S1. All Structural steelwork to be Grade 300 or greater. Design, fabrication and erection to be in accordance with AS 4100-1998.

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 - 1996.

S4. Cold formed steel sections shall be Grade 450 Zinc coated in accordance with AS 4600-2005.

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 1554-2007 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 4100-1998.

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

b. Preparation Blast clean to a minimum standard Class 2.5 in accordance with AS 1627-1997 Part 4.
Primer 2-pack epoxy phosphate at dft 75 microns (Dulux Durepon P14).
Barrier Coat 2-pack epoxy micaeous iron oxide, dft 100 microns
Finish Coat 2-pack epoxy high gloss acrylic to dft 75 microns (e.g. Dulux Acrathane 1 F) in an approved colour.

c. Hot dipped galvanized to AS 4680-2006.
Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, inorganic zinc-rich paint (minimum 95% zinc content) is to be applied after wire brushing affected area (use 3 coats minimum). or Hot Metal Spray in accordance with AS 4680-2006.

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 -2006, AS 1720-1997 and as 3959-1999. 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 1604-2005) redried after full impregnation, or durability class 1, 2 or 3. We recommend that all softwood timber framing have a minimum treatment protection of H2 or T2 treatment for termite protection unless noted otherwise.

T2. All joists deeper than 150 to have blocking over support bearers and at a maximum 3000 mm 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 u.n.o.

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.

COMPACTED FILL

CF1. Compacted fill only to be used with approval of the Engineer and to be certified by a Geotechnical Engineer.

CF2. Remove all organic material and topsoil under proposed slabs & footings.

CF3. Filling shall be granular material compacted in not more 200 mm layers to a minimum dry density ratio (AS 1289-2002) of 98 percent.

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 to be inspected by the Geotechnical Engineer prior to concrete pour.
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.

DRAWING SCHEDULE:

ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES - 'P'
ASSUMED BEARING STRATA FOR DESIGN PURPOSES - ROCK, 1200 kPa.
REFER TO GEOTECHNICAL REPORT BY JACK HODGSON CONSULTANTS P/L DATED 2 OCTOBER 2007

DOCUMENT CERTIFICATION

Dec 07
Date :
Bruce Lewis .....
(Director : Peninsula Consulting Engineers)

CHARTERED ENGINEERS AUSTRALIA MEMBER

I am a qualified Structural/Civil Engineer.
I hold the following qualifications:
BE(Civil),CPEng,MIEAust.,NPER.
Institute of Engineers Membership No. 874131
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

DESIGN CERTIFICATION

I am a qualified Civil & Structural Engineer. I hold the following qualifications M. Eng. Sc. F.I.E. Aust. N Per 3 Civil & Structural No. 149788. Further I am appropriately qualified to certify the geotechnical component of the project.
I hereby state that the geotechnical content of these plans & details comply with the conditions of development consent and the provisions of the Building Code of Australia and/or appropriate Australian/Industry standards.

JACK HODGSON Rev: Date: Amendment: 19/12/07
Name Date Signature

This is the plan/spec referred to in Paul Fitzgerald Certifiers Certificate
Cert No: 2005/1233
29/1/08
Paul Fitzgerald Accreditation No: BPB

Drawing Title:
GENERAL NOTES AND DRAWING SCHEDULE

Job No:	Drawing No:	Rev:
07-1118	S01	-

Project:
PROPOSED WORKS at: 143 PRINCE ALFRED PDE, NEWPORT for: MR & MRS N WILLS

PENINSULA CONSULTING ENGINEERS.
A.B.N. 60 493 390 399
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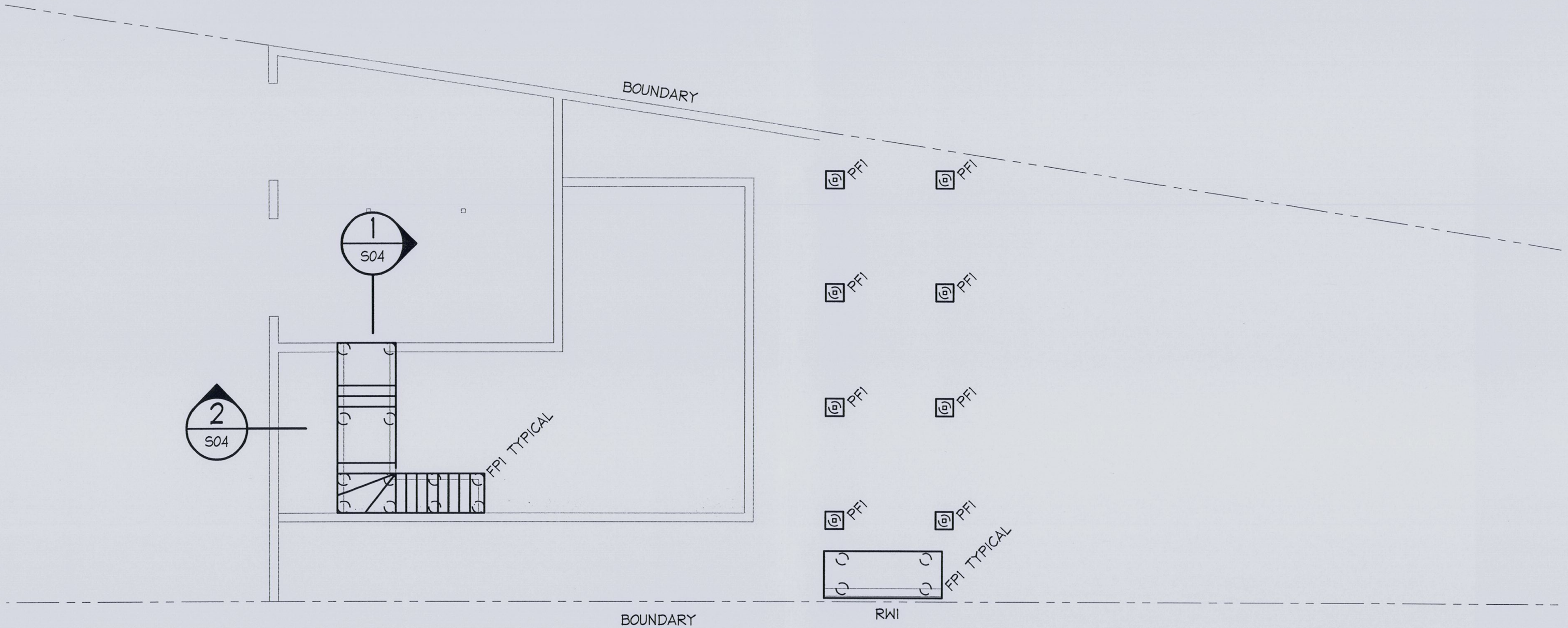
E : bruce@peninsulaconsulting.com.au



FOOTING PLAN

SCALE = 1 : 100

NOTE:

CONCRETE STRENGTH:
FOOTINGS:
f'c = 25 MPa., COVER = 50 mm
INTERNAL SLABS:
f'c = 32 MPa., COVER = 30 mm
EXTERNAL SLABS:
f'c = 40 MPa., COVER = 45 mm

NOTES:

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

DOCUMENT CERTIFICATION

Dec '07

Date :

Bruce Lewis .....

(Director : Peninsula Consulting Engineers)

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Date:	Rev:	Amendment:
-	-	-

Project:

PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

This plan forms part of the approved Certificate as issued by Fitzgerald Building Certifiers Pty Limited

Drawing Title:

FOOTING PLAN

Job No:	Drawing No:	Rev:
07-1118	S02	-

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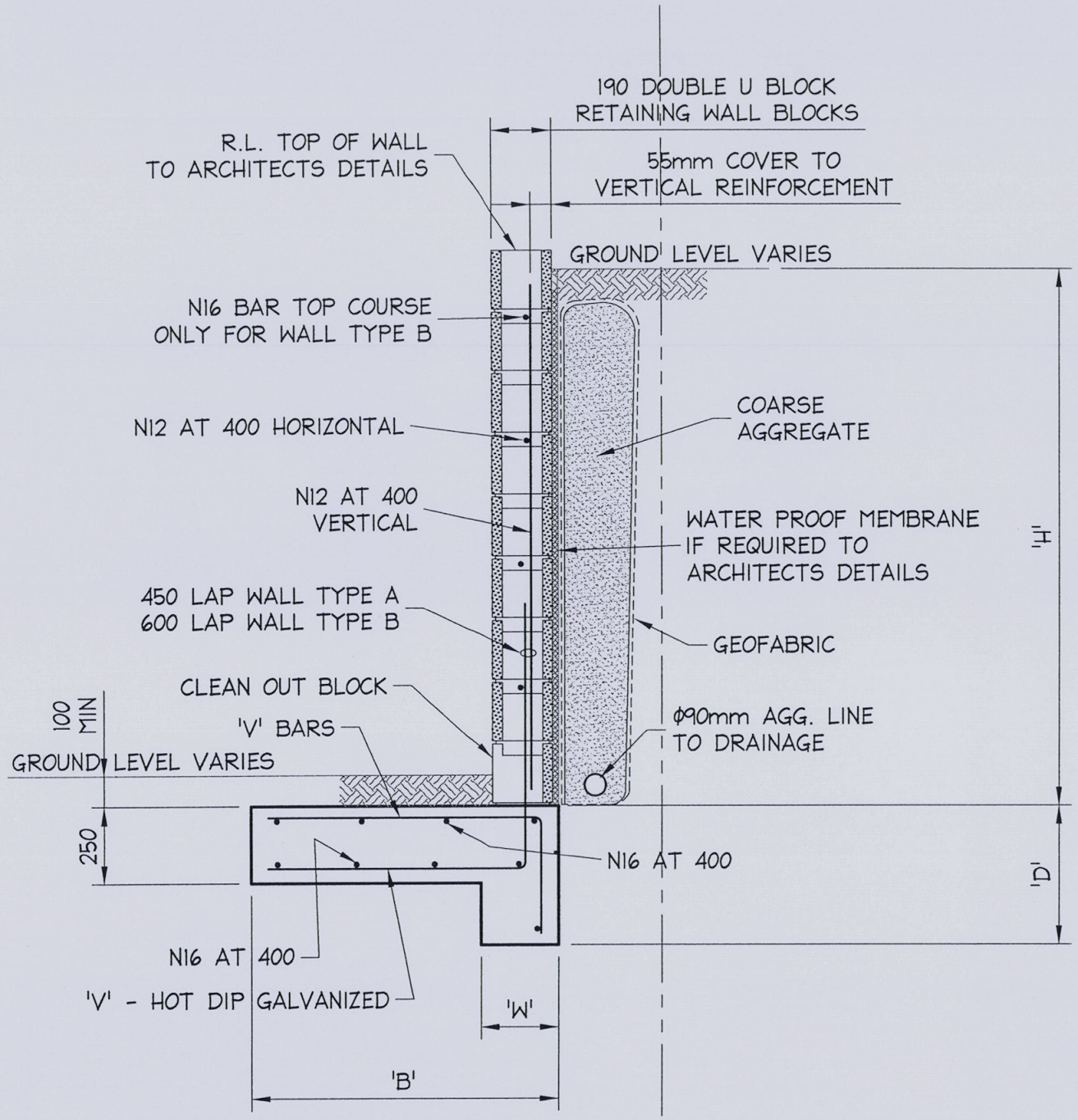

RETAINING WALL RW1 - 0 to 2000

SCALE = 1 : 20

RETAINING WALL REINFORCEMENT SCHEDULE

WALL TYPE	TOTAL WALL HEIGHT 'H'	LEVEL BACKFILL			'V' BARS	MAX. 1 in 4 SLOPING BACKFILL	
		'B'	'D'	'W'		'B'	'D'
A	800	600	500	450	N12 AT 400	800	500
	1000	800	500	450	N12 AT 400	1000	500
	1200	1000	500	450	N12 AT 400	1200	600
B	1400	1200	500	450	N16 AT 400	1400	600
	1600	1400	600	450	N16 AT 400	1600	700
	1800	1600	700	450	N16 AT 400	1800	800
	2000	1800	700	600	N16 AT 200	2000	800

NOTE: BASE DIMENSIONS FOR LEVEL BACKFILL, SLOPE UP TO 1 in 4 WITH 5 kPa SURCHARGE

NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.

DOCUMENT CERTIFICATION

Date : 21/07

Bruce Lewis .....

(Director : Peninsula Consulting Engineers)

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Date:	Rev:	Amendment:
-	-	-

Project:

PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

Drawing Title:

FOOTING DETAILS
SHEET 1

Job No:	Drawing No:	Rev:
07-1118	S03	-

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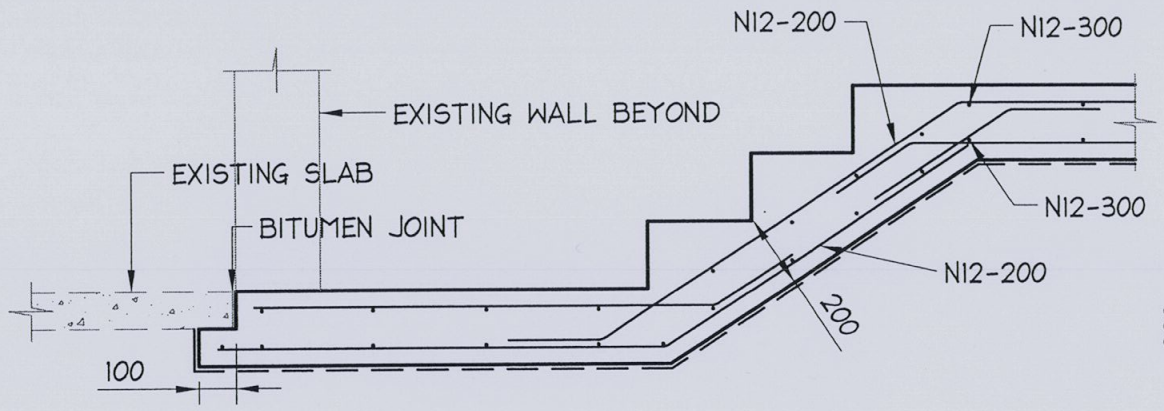
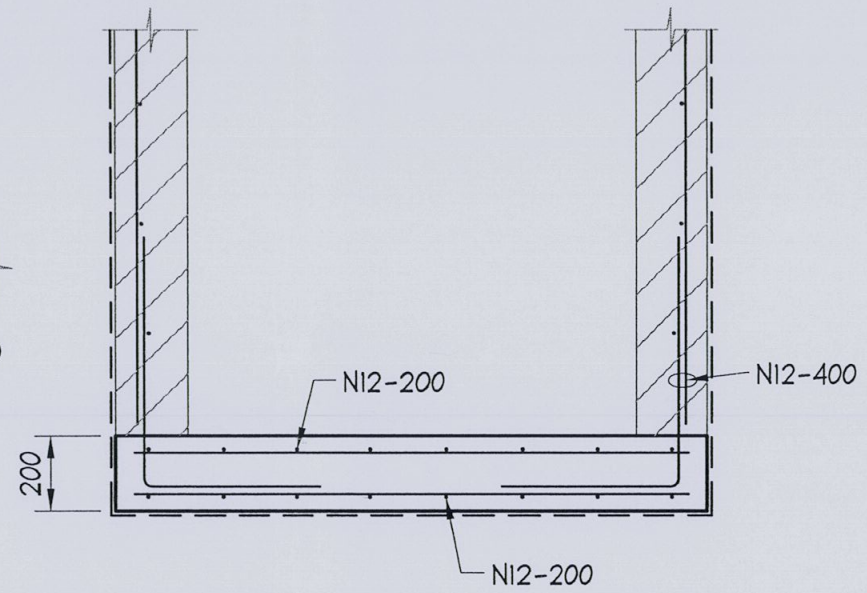
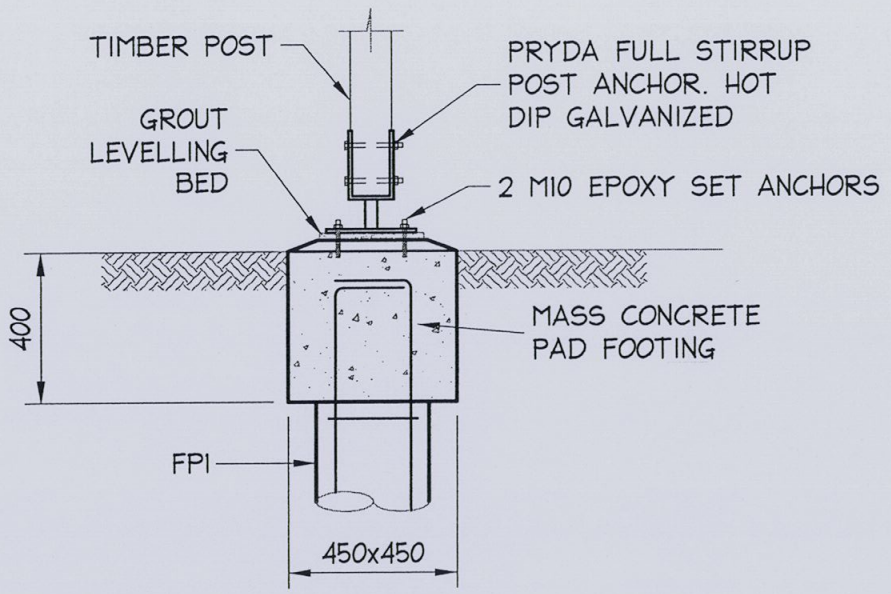


SECTION 1
SCALE = 1:20
S02



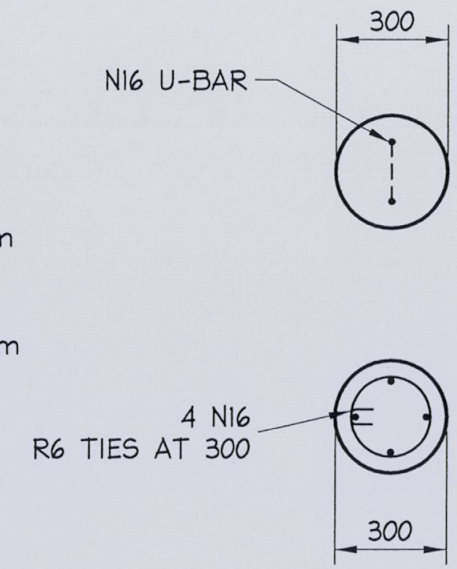
SECTION 2
SCALE = 1:20
S02



TYPE 'PF1' PAD FOOTING
SCALE = 1 : 20

CONCRETE PIERS:

1. PIERS TO BE 300mm DIAMETER FOUNDED
2. FOR DEPTH LESS THAN 1200mm UNREINFORCED.
3. FOR DEPTH GREATER THAN 1200mm AND LESS THAN 2400mm. 1 N16 U-BAR.
4. FOR DEPTH GREATER THAN 2400mm 4 N16, R6 TIES AT 300.



TYPE 'FP1' FOOTING PIER SECTION
SCALE = 1 : 20

NOTES:

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

DOCUMENT CERTIFICATION

Dec '07
Date :
Bruce Lewis
(Director : Peninsula Consulting Engineers)

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Date:	Rev:	Amendment:
-	-	-

Project:
PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

Drawing Title:
FOOTING DETAILS SHEET 2

Job No:	Drawing No:	Rev:
07-1118	S04	-

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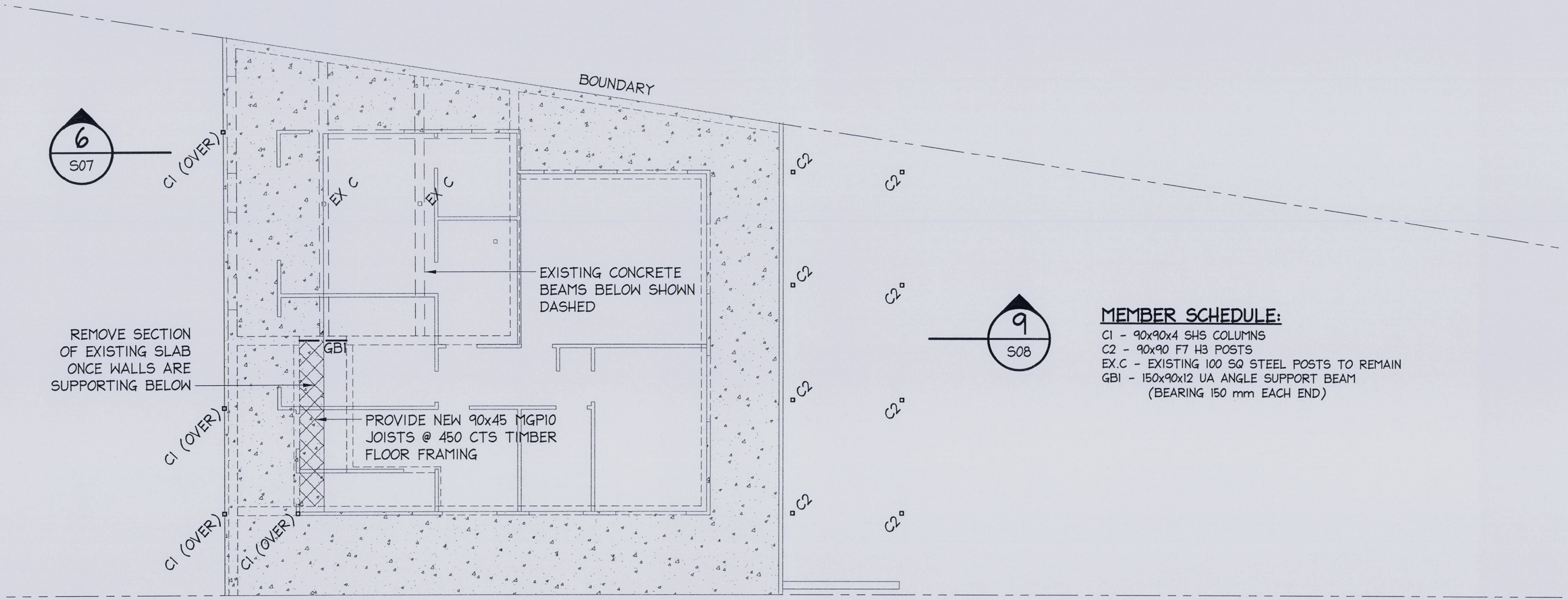

MEMBER SCHEDULE:

C1 - 90x90x4 SHS COLUMNS
C2 - 90x90 F7 H3 POSTS
EX.C - EXISTING 100 SQ STEEL POSTS TO REMAIN
GB1 - 150x90x12 UA ANGLE SUPPORT BEAM
(BEARING 150 mm EACH END)

GROUND FLOOR PLAN

SCALE = 1 : 100

NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.

DOCUMENT CERTIFICATION

CHARTERED ENGINEERS AUSTRALIA MEMBER

Date : Dec 07

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Date:	Rev:	Amendment:
-	-	-

Project:
PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

Drawing Title:
GROUND FLOOR PLAN

Job No:	Drawing No:	Rev:
07-1118	S05	-

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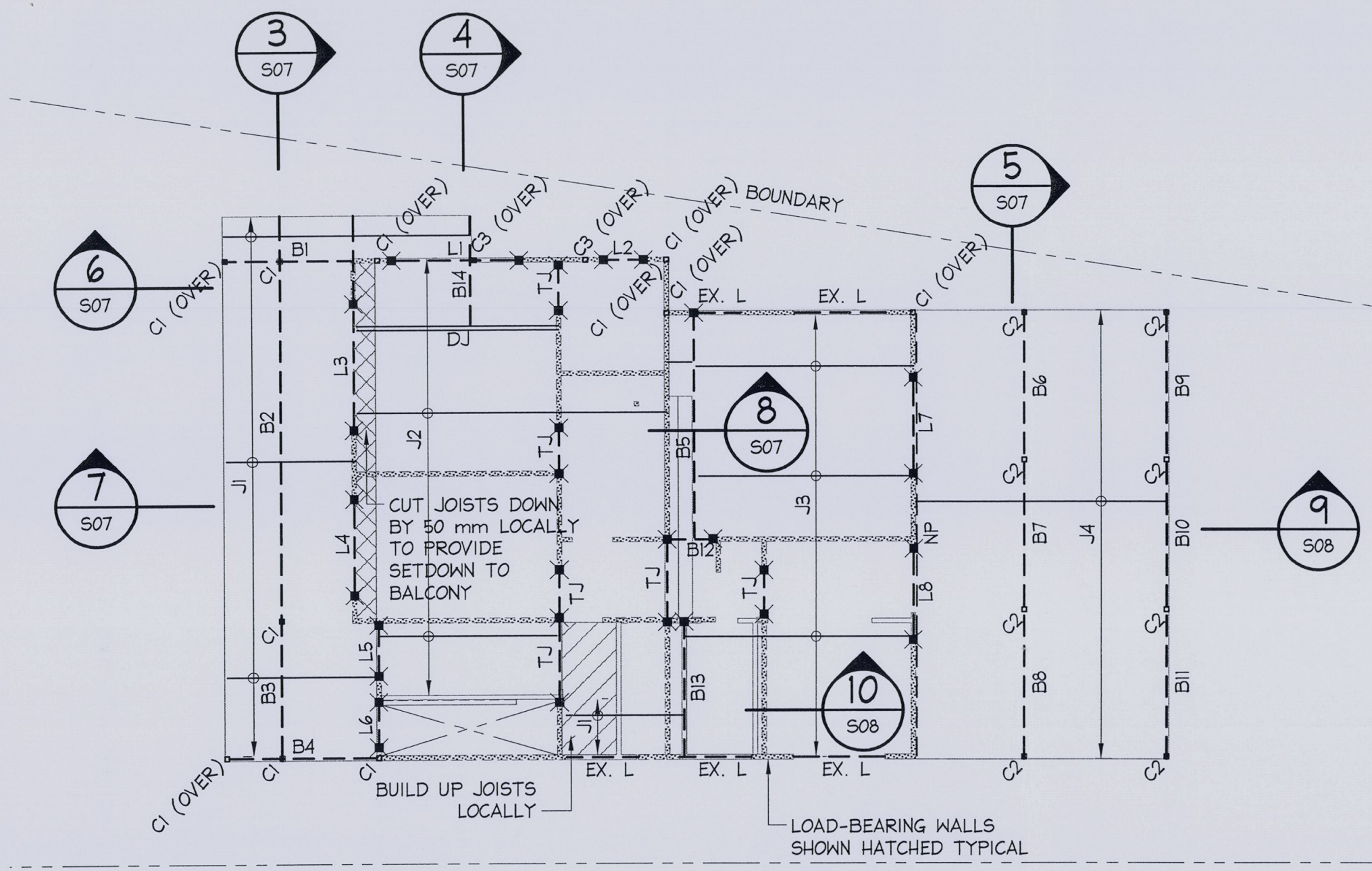

MEMBER SCHEDULE:

C1 - 90x90x4 SHS COLUMNS
C2 - 90x90 F7 H3 POSTS
C3 - 90x90 F7 POSTS

FLOOR FRAMING

J1 - 200x45 HYNE LGL H3 JOISTS @ 450 CTS
J2 - 240x45 HYSPAN LVL JOISTS @ 450 CTS
J3 - 240x45 HYSPAN LVL JOISTS @ 450 CTS
J4 - 150x45 HYNE LGL H3 JOISTS @ 450 CTS
TJ - TRIMMER JOIST SAME SIZE AS ADJACENT JOISTS
B1, B4 - 150UB18 STEEL H.D. GALV. BEAM
B2, B3 - 300x75 PFC CONTINUOUS BEARER BEAM H.D. GALVANISED AND PAINTED
B5 - 300x75 HYSPAN LVL BEARER
B6-B8 - 240x65 HYNE LGL H3 CONTINUOUS BEAM
B9-B11 - 200x65 HYNE LGL H3 CONTINUOUS BEAM
B12 - 200x63 HYSPAN LVL TRIMMER
B13 - 200x45 HYSPAN LVL BEARER
B14 - 240x45 HYNE LBL H3 CANTILVER BEARER CUT DOWN TO 200 EXTERNALLY

LINTELS

L1 - 300x75 HYSPAN LVL LINTEL
L2 - 90x45 MGP10 LINTEL
L3 - 300x63 HYNE LGL H3 CANTILEVERED LINTEL
L4 - 200x63 HYSPAN LVL LINTEL
L5, L6 - 150x63 HYSPAN LVL LINTEL
EX. L - EXISTING LINTELS TO REMAIN

□ - COLUMN OVER

✱ - 2 STUDS GLUE AND NAIL LAMINATED or 90x90 F7 POST or 150x75 F7 SPREADER PLATE x 1200mm LONG MINIMUM OVER 3 STUDS IF LOADED BETWEEN STUDS

✳ - BEAM SUPPORT LOCATIONS DIRECT ONTO BRICK WALL BEARING - 100mm MINIMUM END BEARING

NP - 45mm THICK MGP10 KILN DRIED H3 TREATED NAILING PLATE DEPTH TO MATCH ADJACENT MEMBER. FIX TO BRICK WALL WITH M12 EPOXY SET ANCHORS AT 900 CTS STAGGERED VERTICALLY BY D/3. (HILTI HIT ANCHORS OR SIMILAR FIXINGS TO BE USED FOR EXTRUDED BRICKS)

FIRST FLOOR PLAN

SCALE = 1 : 100

NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.

DOCUMENT CERTIFICATION

Dec '07

Date :

Bruce Lewis .....

(Director : Peninsula Consulting Engineers)

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Date:	Rev:	Amendment:
-	-	-

Project:

PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

This plan forms part of the approval Certificate as issued by Fitzgerald Building Certifiers Pty Limited

Drawing Title:

FIRST FLOOR FRAMING PLAN

Job No:	Drawing No:	Rev:
07-1118	S06	-

PENINSULA CONSULTING ENGINEERS.
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PO BOX 841, BROOKVALE, 2100
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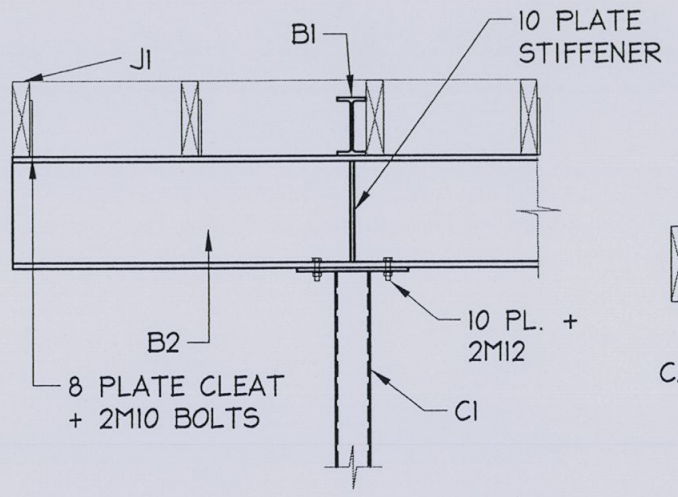
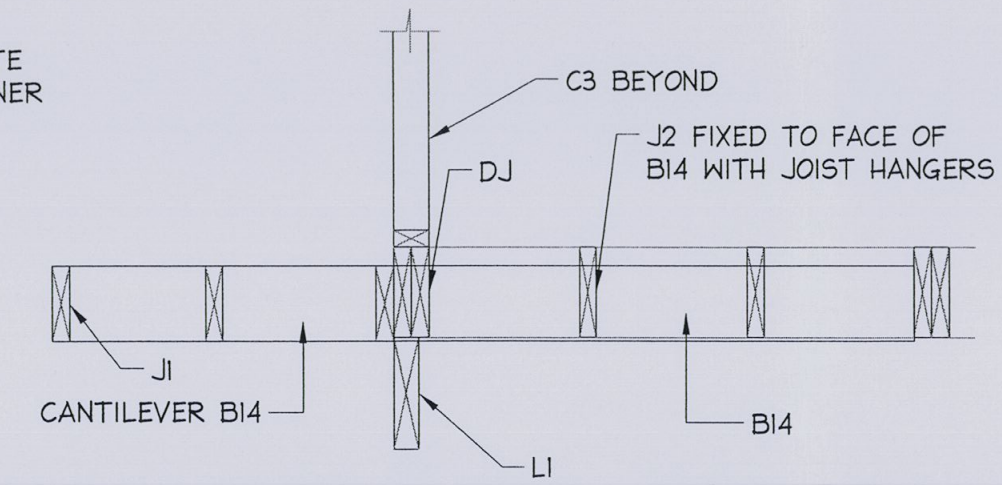


SECTION 3 — S06
SCALE = 1:20



SECTION 4 — S06
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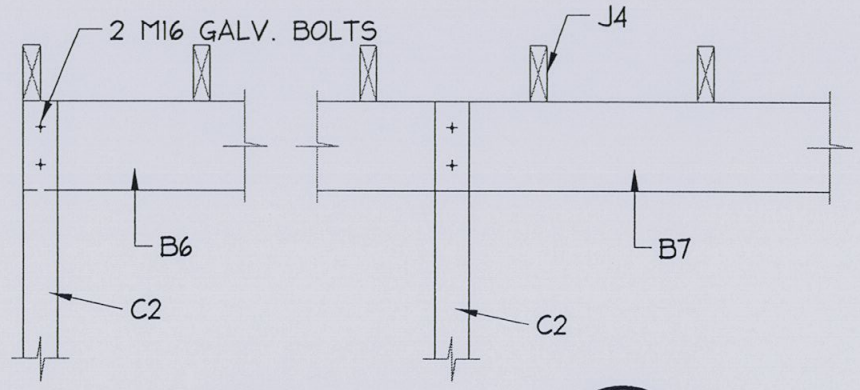

SECTION 5 — S06
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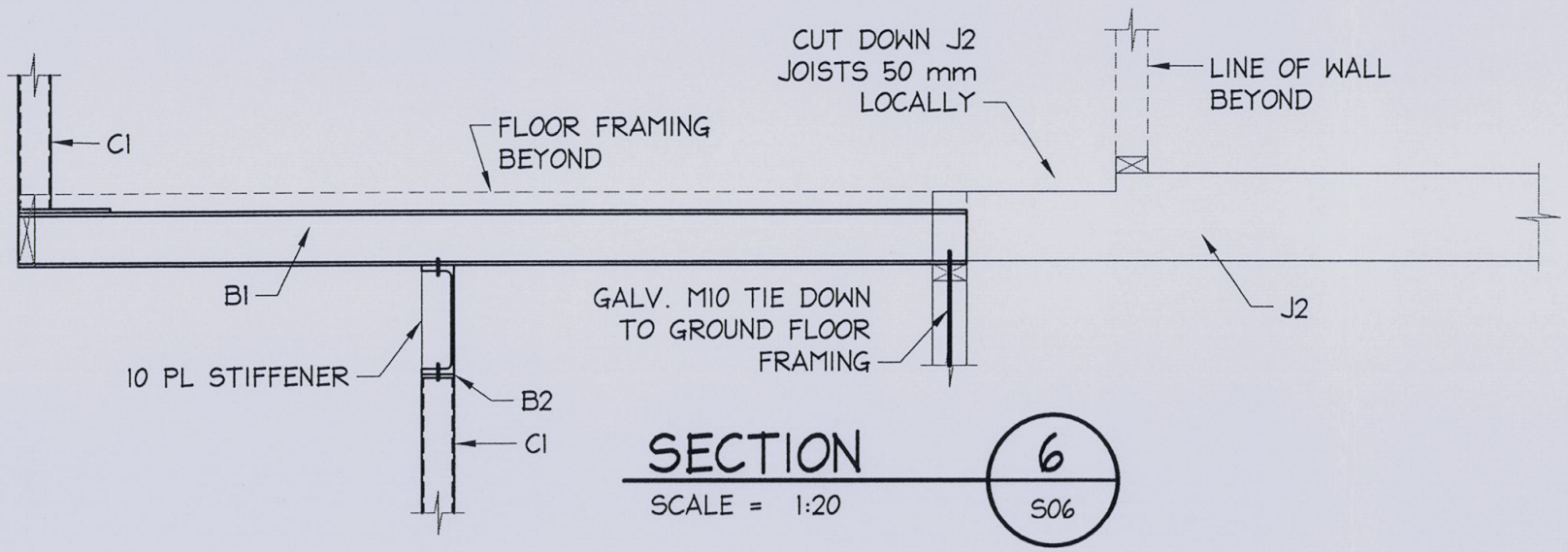

SECTION 6 — S06
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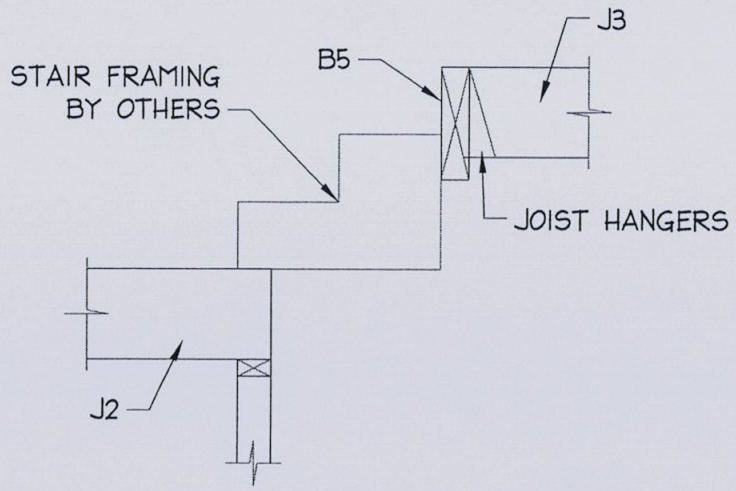
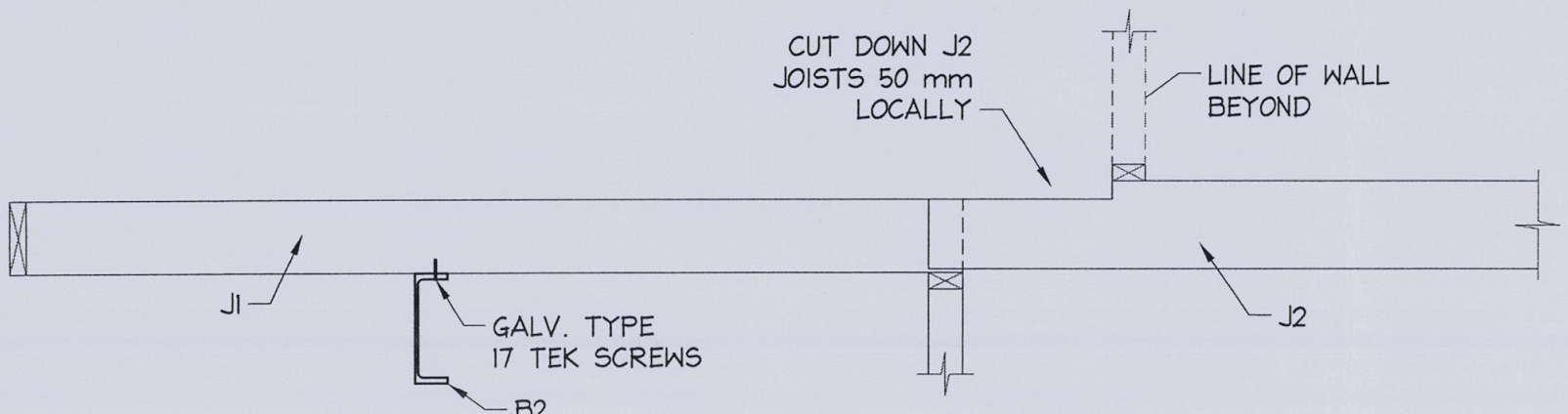


SECTION 8 — S06
SCALE = 1:20



SECTION 7 — S06
SCALE = 1:20

NOTES:

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DOCUMENT CERTIFICATION

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Date:	Rev:	Amendment:
-	-	-

Project:

PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

This plan forms part of the approved Certificate of Fitzgerald Building Certifiers Pty Limited

Drawing Title:

FIRST FLOOR FRAMING DETAILS SHEET 1

Job No: 07-1118

Drawing No: S07

Rev: -

PENINSULA CONSULTING ENGINEERS.
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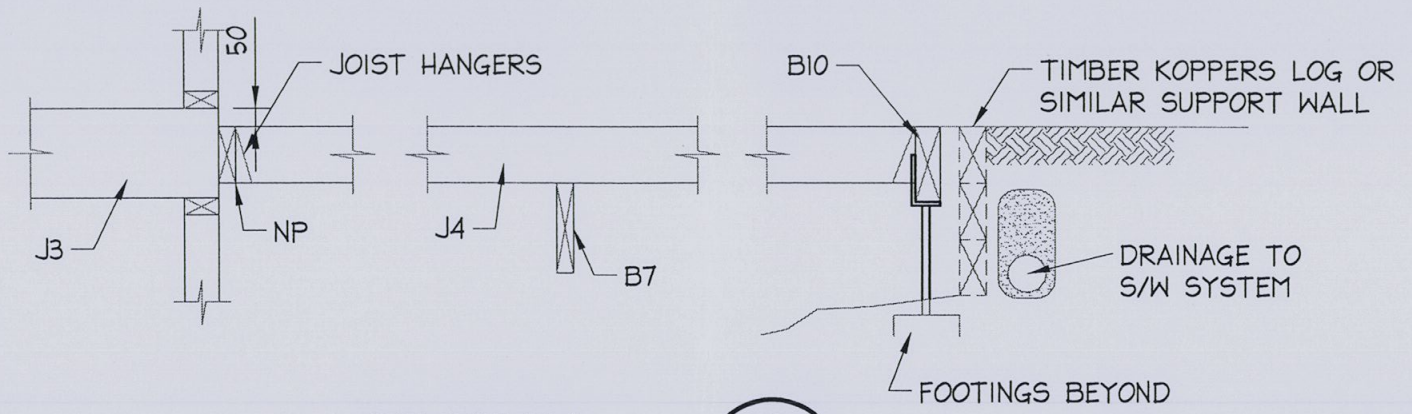
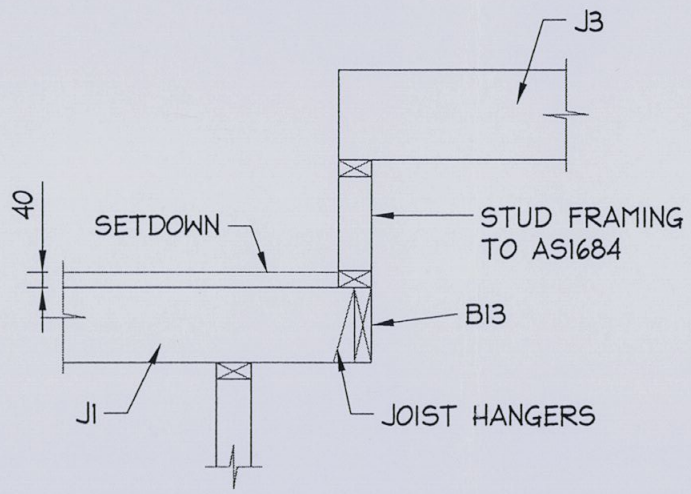
NOTES:

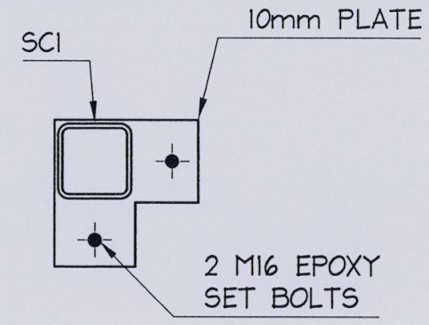
1. STRAIGHT JOINT TO NEW AND EXISTING WALL JUNCTIONS WITH TECHPRO TIES.
2. REPOINT FOUNDATION WALLS AROUND NEW OPENINGS WITH CEMENT MORTAR.
3. ORGANIC TERMITE TREATMENT TO BE CARRIED OUT TO PERIMETER OF ENTIRE BUILDING AND SUB-FLOOR AREAS. ANNUAL INSPECTIONS AND TREATMENT AS REQUIRED SHALL BE THE RESPONSIBILITY OF THE PROPRIETOR.
4. T & G FLOOR ON BATTENS, USE 40 MPa CONCRETE FOR SLAB. ALLOW TO CURE FOR 28 DAYS PRIOR TO LAYING FLOORING. LEAVE FLOOR BOARDS OVERTURNED AND IN POSITION FOR 6 WEEKS PRIOR TO TURNING AND FIXING INTO POSITION.
5. WALL FRAMING SHALL BE IN ACCORDANCE WITH AS 1684 TIMBER FRAMING CODE AND NSW TIMBER FRAMING MANUAL. 90x45 F7 KILN DRIED T2 TREATED STUDS AT 450 CTS.
6. BRACE WALLS AND ROOF IN ACCORDANCE WITH AS 1684 TIMBER FRAMING CODE AND NSW TIMBER FRAMING MANUAL.
7. EXISTING GROUND FLOOR WALL BRACING FOR FIRST FLOOR ADDITION MUST BE UPGRADED TO COMPLY WITH AS 1684 TIMBER FRAMING CODE AND NSW TIMBER FRAMING MANUAL.
8. PROVIDE DOUBLE JOISTS BELOW ALL LOAD BEARING WALLS UNLESS NOTED OTHERWISE.
9. TIE DOWNS TO ROOF RAFTERS AND BEAMS SHALL BE IN ACCORDANCE WITH AS 1684 TIMBER FRAMING CODE AND AS 1170.2 WIND LOADING CODE.
10. TRIM FLOOR/ROOF OPENINGS WITH EQUIVALENT JOIST/RAFTER SIZES UNLESS NOTED OTHERWISE.
11. DOUBLE UP ALL BEARERS TO EXISTING GROUND FLOOR BELOW ALL LOAD BEARING WALLS UNLESS NOTED OTHERWISE.
12. PROVIDE BRICK PIERS WITH PAD FOOTINGS BELOW GROUND FLOOR AT ALL LOAD CONCENTRATION POINTS, COLUMNS AND POSTS IF NOT DIRECT TO DOUBLE BEARERS WHERE REQUIRED UNLESS NOTED OTHERWISE.
13. BUILDER TO IDENTIFY LOAD CONCENTRATION POINT LOCATIONS BENEATH FLOOR DURING PRELIMINARY WORKS FOR INSPECTION AND RECOMMENDATIONS BY ENGINEER.
14. TIMBER FRAMED DECK HAS BEEN DESIGNED FOR DECKING BOARDS OVER ONLY.
15. ALL EXTERNAL/EXPOSED STEELWORK TO BE HOT DIP GALVANIZED.
15. EXTERNAL/EXPOSED SOFTWOOD MEMBERS TO BE SUITABLY PRESERVATIVE TREATED TO H3 LEVEL (AS 1604) THEN STAINED OR PAINTED.
16. EXTERNAL/EXPOSED HARDWOOD MEMBERS TO BE DURABILITY CLASS 2 OR BETTER (AS 1604) THEN STAINED OR PAINTED.
17. ENGINEER TO INSPECT AND CERTIFY ALL FRAMING AND BRACING PRIOR TO SHEETING.



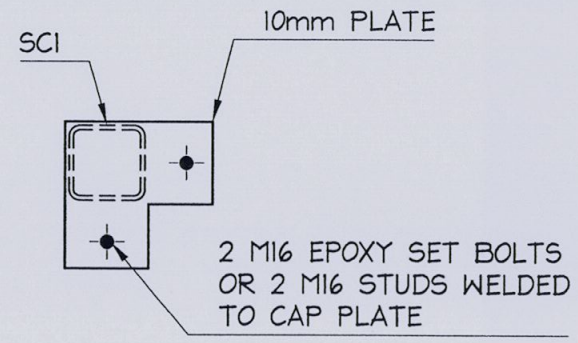
SECTION 9 / S06
SCALE = 1:20



SECTION 10 / S06
SCALE = 1:20



BASE PLATE



CAP PLATE

COLUMN SC1
BASE PLATE AND CAP PLATE DETAILS

SCALE = 1 : 10

NOTES:

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DOCUMENT CERTIFICATION

Date : DEC '07

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-	-	-
Date:	Rev:	Amendment:

Project:
PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

Drawing Title:
FIRST FLOOR FRAMING DETAILS SHEET 2

Job No:	Drawing No:	Rev:
07-1118	S08	-

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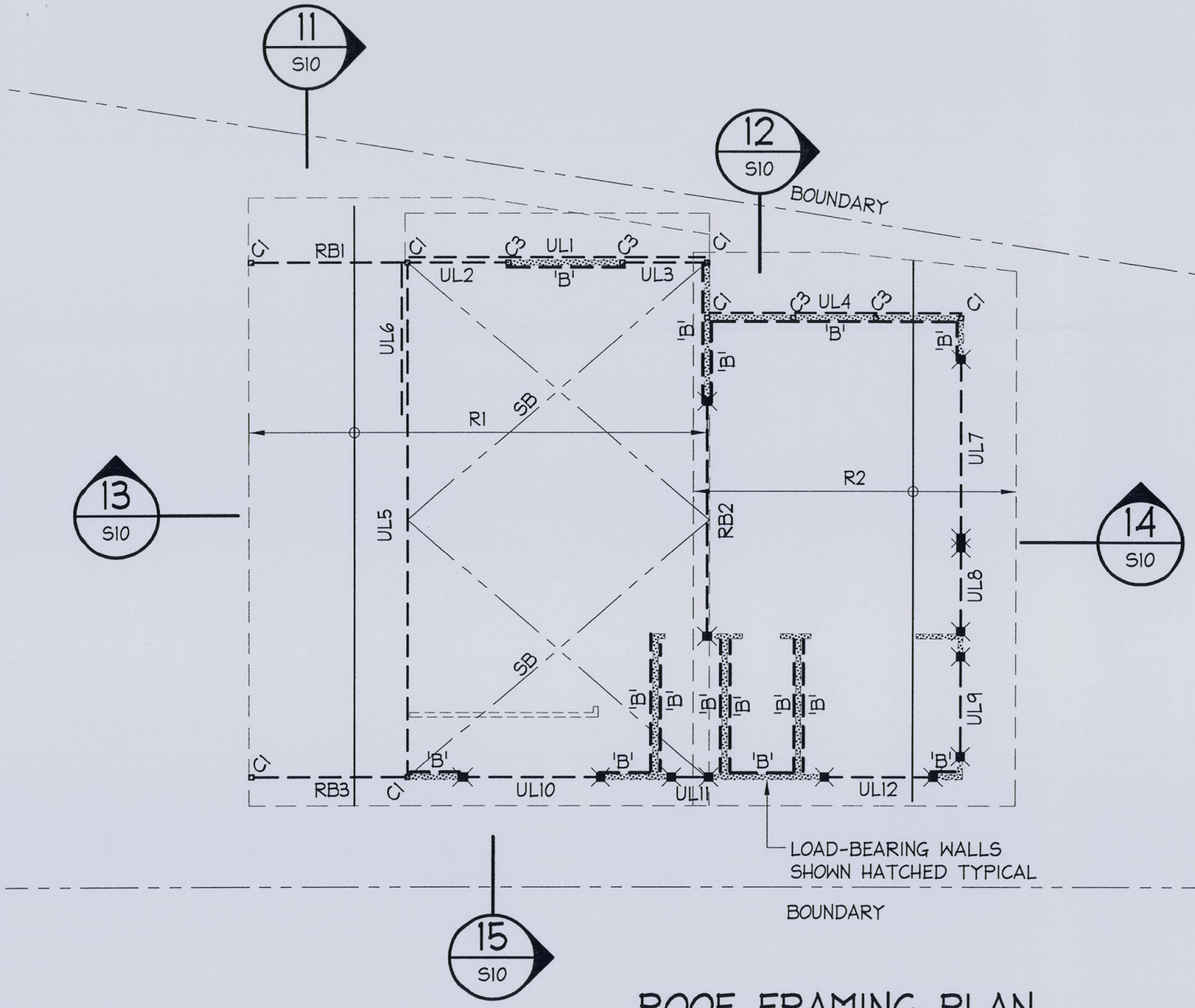

MEMBER SCHEDULE:

C1 - 90x90x4 SHS COLUMNS

ROOF FRAMING

RB1, RB3 - 240x65 HYNE LGL H3 ROOF BEAM
RB2 - 240x45 HYSPAN LVL ROOF BEAM
R1 - C300 24 LYSAGHT PURLIN SECTIONS AS RAFTERS @ 900 CTS
R2 - C300 24 LYSAGHT PURLIN SECTIONS AS RAFTERS @ 900 CTS
PROVIDE BRIDGING MIDSPAN MINIMUM

LINTELS

UL1 - 150x45 HYSPAN LVL LINTEL BEAM CONTINUOUS
UL2, UL3 - 150x45 HYSPAN LVL LINTEL BEAM
UL4 - 150x45 HYSPAN LVL LINTEL BEAM CONTINUOUS
UL5 - 300x75 PFC STEEL DOOR HEAD BEAM
UL6 - 2/150x45 HYSPAN LVL LINTELS
UL7 - 2/200x45 HYSPAN LVL LINTELS
UL8, UL9 - 2/150x45 HYSPAN LVL LINTELS
UL10 - 200x63 HYSPAN LVL LINTEL
UL11 - 90x45 MGP10 LINTEL
UL12 - 150x45 HYSPAN LVL LINTEL

⊗ - M10 THREADED ROD TIE DOWN TO FLOOR FRAMING. HOT DIP GALVANIZED

□ - COLUMN OVER

✕ - 2 STUDS GLUE AND NAIL LAMINATED or 90x90 F7 POST or 150x75 F7 SPREADER PLATE x 1200mm LONG MINIMUM OVER 3 STUDS IF LOADED BETWEEN STUDS

SB - PRYDA STRAP BRACING WITH TENSIONERS TO UNDER SIDE OF FLOOR JOISTS AND RAFTERS WHERE INDICATED ON PLAN
'A' - ANGLE BRACING TO WALLS REFER TYPICAL DETAILS
'B' - PLY BRACING TO WALLS REFER TYPICAL DETAILS

ROOF FRAMING PLAN

SCALE = 1 : 100

NOTES:

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

DOCUMENT CERTIFICATION

Dec '07
Date :
Bruce Lewis
(Director : Peninsula Consulting Engineers)

CHARTERED ENGINEERS AUSTRALIA MEMBER

I am a qualified Structural/Civil Engineer.
I hold the following qualifications:
BE(Civil),CPEng,MIEAust.,NPER.
Institute of Engineers Membership No. 879131
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

Date:	Rev:	Amendment:
-	-	-

Project:
PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

This plan forms part of the approved Certificate as issued by Fitzgerald Building Certifiers Pty Limited

Drawing Title:
ROOF FRAMING PLAN

Job No:	Drawing No:	Rev:
07-1118	S09	-

PENINSULA CONSULTING ENGINEERS.
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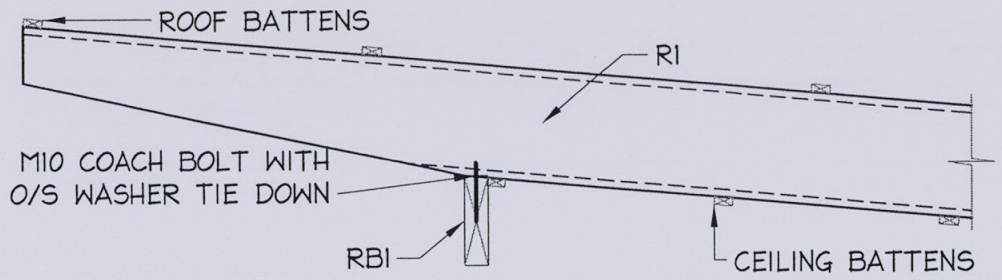
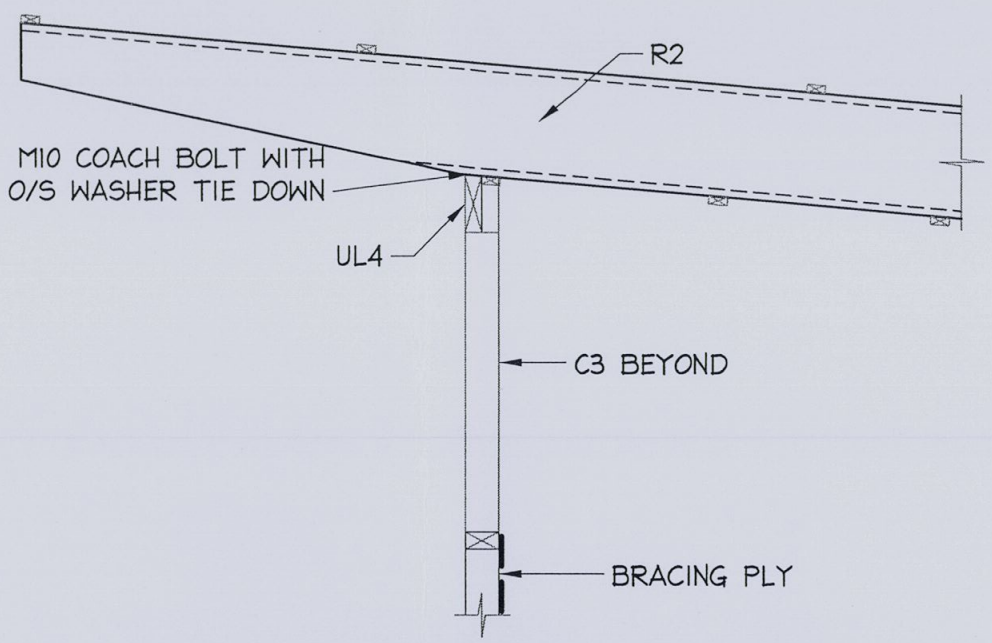
PO BOX 841, BROOKVALE, 2100
Ph: 0424 253 818 Fax: (02) 9982 4722
E : bruce@peninsulaconsulting.com.au



SECTION 11
SCALE = 1:20
S09



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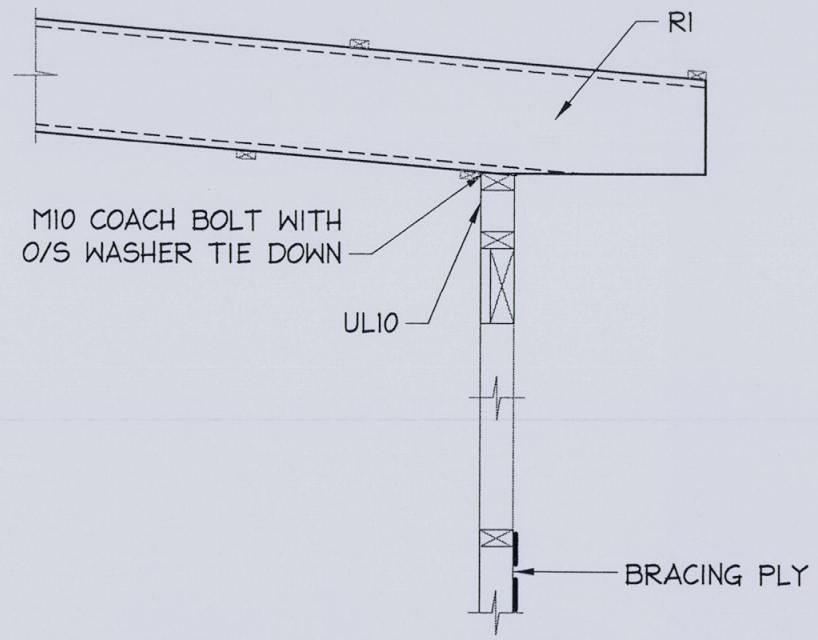

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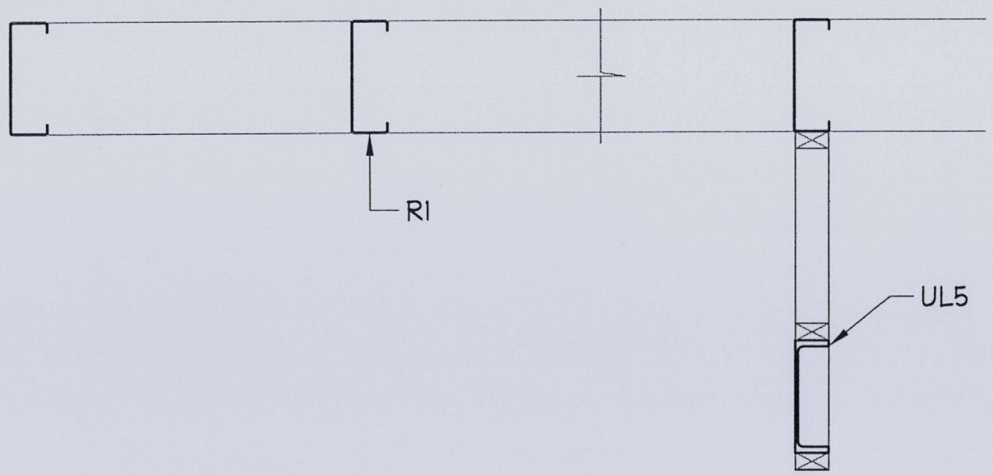

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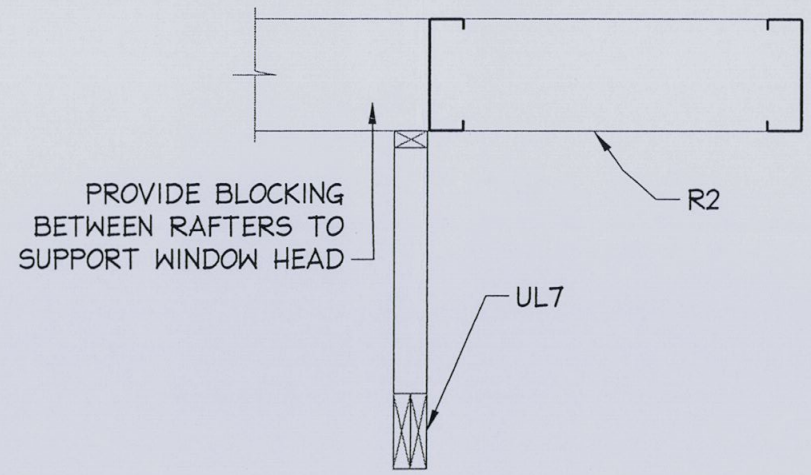

SECTION 14
SCALE = 1:20
S09

NOTES:

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

DOCUMENT CERTIFICATION

Date : 12/07

Bruce Lewis

(Director : Peninsula Consulting Engineers)

CHARTERED ENGINEERS AUSTRALIA MEMBER

I am a qualified Structural/Civil Engineer.
I hold the following qualifications:
BE(Civil),CPEng,MIEAust.,NPER.
Institute of Engineers Membership No. 879131
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

Date:	Rev:	Amendment:
-	-	-

Project:

PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

Drawing Title:

ROOF FRAMING DETAILS SHEET 1

Job No:	Drawing No:	Rev:
07-1118	S10	-

PENINSULA CONSULTING ENGINEERS.
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PO BOX 841, BROOKVALE, 2100
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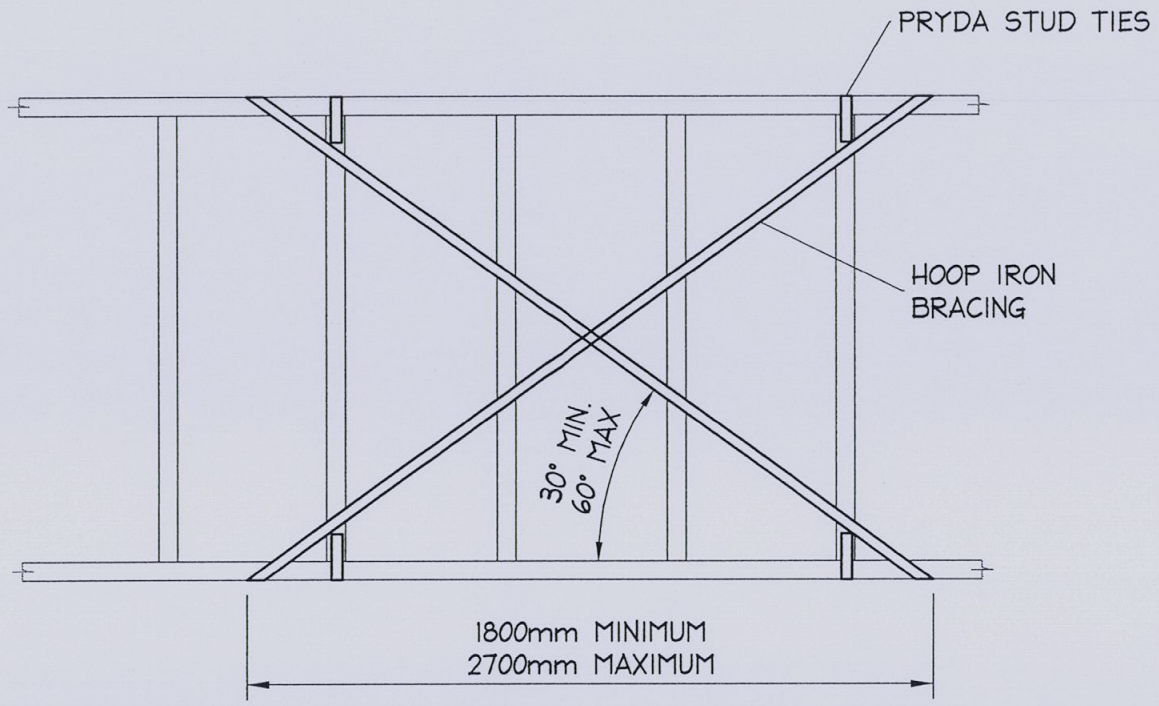
METAL TENSION STRAP BRACING:

30 x 0.8 mm TENSIONED HOOP IRON STRAP BRACING FIXED WITH ONE GALVANISED FLATHEAD NAILS 30 mm x 2.8mm ϕ TO EACH STUD, AND THE FACE OF THE TOP AND BOTTOM PLATE.
PROVIDE FOUR GALVANISED FLATHEAD NAILS 30mm x 2.8mm ϕ TO THE STRAP RETURN OVER THE TOP PLATE AND UNDER THE BOTTOM PLATE.



NOTES:

1. FOR POWER DRIVEN NAILS REFER ABOVE.
2. NOGGINGS HAVE BEEN OMITTED FOR CLARITY.
3. BASED ON WALL HEIGHT OF 2.7 m. AT 4.0 m HIGH, CAPACITY OF WALL BRACING IS DECREASED BY ALMOST 40%.

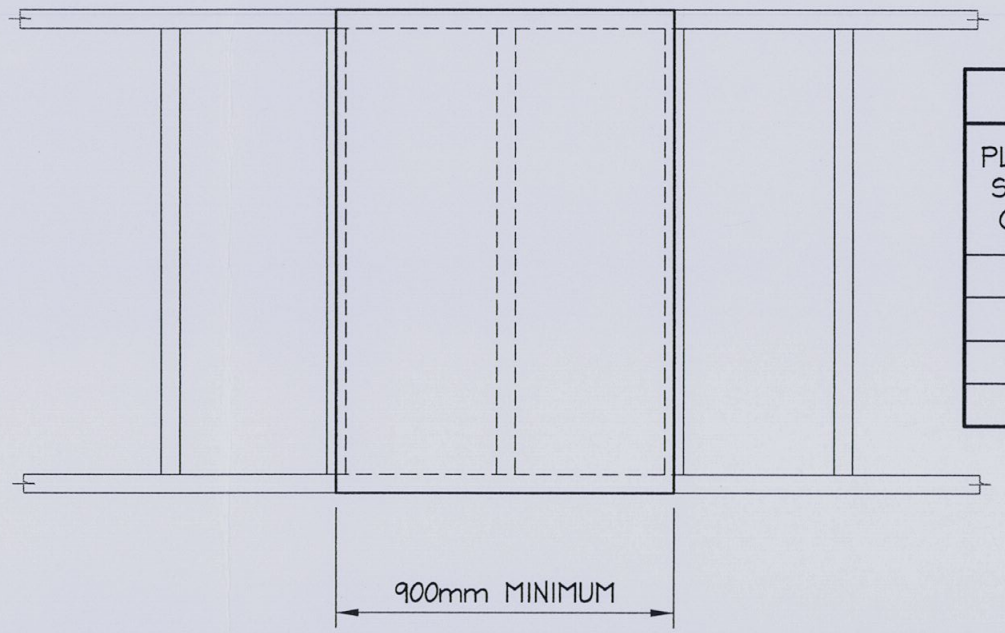
TYPE A - WALL BRACING UNIT

SCALE = 1 : 20

CAPACITY TO AS1684 - 3.0 KN

PLYWOOD BRACING:

FIX PLYWOOD PANELS WITH GALVANISED FLATHEAD NAILS 30 mm x 2.8 ϕ LONG MINIMUM OR EQUIVALENT AT 50mm CENTRES ALONG TOP AND BOTTOM PLATES, 150mm CENTRES ALONG VERTICAL EDGES AND 300mm CENTRES ALONG INTERMEDIATE STUDS. TO PROVIDE TOP & BOTTOM SPACING OF 150 mm, PROVIDE M12 ROD TO EACH END OF BRACING FRAME. M12 ROD SHOULD BE CONNECTED TO TOP & BOTTOM PLATE.
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 30 mm x 2.8 ϕ LONG GALVANISED CLOUTS OR FLATHEAD NAILS.



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

NOTES:

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

TYPE B - WALL BRACING UNIT

SCALE = 1 : 20

CAPACITY TO AS1684 - 6.0 KN

NOTES:

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

DOCUMENT CERTIFICATION

Dec '07

Date :

Bruce Lewis .....

(Director : Peninsula Consulting Engineers)

CHARTERED MEMBER

I am a qualified Structural/Civil Engineer.
I hold the following qualifications:
BE(Civil), CPEng, MIEAust., NPER.
Institute of Engineers Membership No. 879131
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

Date:	Rev:	Amendment:
-	-	-

Project:

PROPOSED WORKS
at: 143 PRINCE ALFRED PDE, NEWPORT
for: MR & MRS N WILLS

Drawing Title:

BRACING DETAILS

Job No: 07-1118

Drawing No: S11

Rev: -

PENINSULA CONSULTING ENGINEERS.
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HOME WARRANTY INSURANCE

Michael Smit
Unit 1
55 Darley Street
MONA VALE NSW 2103

Home Building Regulation 2004
Clause 56(1)

Schedule 1 - Forms
FORM 1

HOME BUILDING ACT 1989
Section 92

CERTIFICATE IN RESPECT OF INSURANCE
RESIDENTIAL BUILDING WORK BY CONTRACTORS

A contract of insurance complying with Section 92 of the *Home Building Act 1989* has been issued by CGU Insurance Limited ABN 27 004 478 371

In Respect Of Alteration/Addition

At Lot No Unit No House No 143
Prince Alfred Parade
NEWPORT NSW 2106

Carried Out By Michael Smit
Licence No 186614C
ABN. 56137789252

Subject to the Act and the *Home Building Regulation 2004* and the conditions of the insurance contract, cover will be provided to a beneficiary described in the contract and successors in title to the beneficiary

Signed for and on behalf of the insurer

Homeowners please note that this Certificate and the Policy Wording are VERY IMPORTANT DOCUMENTS which should be read carefully and retained by you (and successive owners if applicable) for the duration of the statutory period of insurance

CGU Policy Certificate
Certificate No 1020293
Builder's Copy
Issue Date 21/01/2008

This Certificate must be read in conjunction with the CGU 'HOME WARRANTY INSURANCE POLICY WORDING'

Aon Risk Services Australia Ltd
ABN 17 000 434 720 act as Broker for the Builder A Tax Invoice has been issued by
HIA Insurance Services Pty Ltd
ABN 84 076 460 967,
an authorised representative of
Aon Risk Services

TAX INVOICE

Premium	$3,577 12
GST	$357 71
Stamp Duty	$354 13
Admin Chg	$110 94
Chg GST	$11 10
Total	$4,411 00

Total includes Policy Fees, Stamp Duty and GST
The admin fee is for services provided by the broker
The insurer pays the broker a commission of $447 14 on the above premium

Insurer

CGU Insurance Limited
ABN 27 004 478 371
An IAG Company

Peninsula Consulting
Coastal Structural Engineers

Peninsula Consulting Engineers
39 McKillop Rd
Beacon Hill NSW 2100
PO Box 841
Brookvale NSW 2100
M 0424 253 818
F (02) 9982 4720
ABN 60 493 220 399

This plan forms part of the approved Certificate as issued by Fitzgerald Building Certifiers Pty Limited # 07-1118

11 December 2007

Nick & Edwina Wills
143 Prince Alfred Parade,
NEWPORT, NSW, 2106

CERTIFICATE OF EXISTING STRUCTURAL ADEQUACY AT 143 Prince Alfred Parade, Newport

Bruce Lewis of Peninsula Consulting Engineers carried out a site inspection at the above residential premises in December 2007 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 plans generally detail a first floor addition to be located central over the existing structure with some internal modifications to the lower levels
The assessment consisted of a walk over style inspection of the building The existing residence is a weatherboard, timber & concrete floored structure with a conventionally framed roof

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 However, some minor brickwork cracking may occur as the building adjusts to the new load distribution 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)

If the building is founded on clays of classification 'M' or 'H' movement and cracking is to be expected with changes in the moisture content of the supporting clay

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

Yours Faithfully,

Bruce Lewis
Principal BE(Civil) Cpeng NPER
PENINSULA CONSULTING ENGINEERS

C \Peninsula Data\ENG\2007\07-1118\L001 - cert of adeq docx

BASI Certificate

Building Sustainability Index www basix nsw gov au

Alterations and Additions

Certificate number A19333

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 Monday 24 September 2007

NSW GOVERNMENT
Department of Planning

Project address	
Project name	Wills Project 23/9/07
Street address	143 Prince Alfred Parade Newport 2106
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 13457
Lot number	45
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50 000 or more and does not include a pool (and/or spa)

This plan forms part of the approved Certificate as issued by Fitzgerald Building Certifiers Pty Limited

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Hot water			
The applicant must install the following hot water system in the development gas instantaneous	✓	✓	✓
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 framed (weatherboard, fibro metal clad)	R1 30 (or R1 70 including construction)	
raked ceiling pitched/skillion roof framed	ceiling R2 50 (up), roof foil/sarking	dark (solar absorptance > 0 70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows glazed doors and shading devices, in accordance with the specifications listed in the table below Relevant overshadowing specifications must be satisfied for each window and glazed door	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door		✓	✓
Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions		✓	✓
For projections described in millimetres the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0 35		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated unless the pergola also shades a perpendicular window The spacing between battens must not be more than 50 mm		✓	✓

Windows and glazed doors glazing requirements

Window / door no	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W1	N	3 24	0	0	awning (adjustable) >=900 mm	timber or uPVC single clear (or U-value 5 71 SHGC 0 66)
W2	N	0 82	0	0	awning (adjustable) >=900 mm	timber or uPVC single clear (or U value 5 71 SHGC 0 66)
W3	N	3 75	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear, (or U-value 5 71 SHGC 0 66)
W4	W	5 25	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U value 5 71 SHGC 0 66)
W5	W	4 4	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71 SHGC 0 66)

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Distance (m)	Shading device	Frame and glass type			
W6	W	1 08	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71, SHGC 0 66)			
W7	S	3 24	0	0	none	timber or uPVC single clear (or U-value 5 71 SHGC 0 66)			
W8	N	3 26	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71, SHGC 0 66)			
W9	N	3 26	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71, SHGC 0 66)			
W10	W	17	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71 SHGC 0 66)			
W11	S	2 6	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value 5 71, SHGC 0 66)			
W11A	S	0 65	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC single clear, (or U-value 5 71 SHGC 0 66)			
W12	S	2 1	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value 5 71 SHGC 0 66)			
W13	E	2 1	0	0	awning (adjustable) >=900 mm	timber or uPVC, single clear, (or U-value 5 71 SHGC 0 66)			
W14	E	3 28	0	0	awning (adjustable) >=900 mm	timber or uPVC, single clear (or U value 5 71 SHGC 0 66)			
W15	E	3 74	0	0	awning (adjustable) >=900 mm	timber or uPVC single clear (or U-value 5 71, SHGC 0 66)			
W16	N	3 48	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear (or U-value 5 71 SHGC 0 66)			
W17	N	4 24	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71 SHGC 0 66)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W18	W	1 7	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC single clear (or U-value 5 71 SHGC 0 66)			

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

Jack Hodgson Consultants Pty Limited
CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS
ABN: 94 053 405 011

RISK ANALYSIS & MANAGEMENT FOR THE PROPOSED ADDITIONS AT 143 PRINCE ALFRED PARADE, NEWPORT

DIRECTOR: J.D. HODGSON, M. Eng. Sc., F.I. E. Aust., Nper3 Struc. Civil 149788
67 Darley Street, Mona Vale NSW 2103
PO Box 389 Mona Vale NSW 1660
Telephone: 9979 6733 Facsimile: 9979 6926

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1 – To be submitted with Development Application

Development Application for MR & MRS WILLS
Name of Applicant

Address of site 143 PRINCE ALFRED PARADE, NEWPORT

Declaration made by geotechnical engineer or engineering geologist or coastal engineer (where applicable) as part of a geotechnical report

I, J Hodgson (insert name) on behalf of Jack Hodgson Consultants Pty Ltd (Trading or Company Name)

on this the 2/10/07 certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million.
I have:

Please mark appropriate box

☐ Prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy

☒ Am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy

☐ Have examined the site and the proposed development/alteration in detail and am of the opinion that the Development Application only involves Minor Development/Alterations that do not require a Detailed Geotechnical risk Assessment and hence my report is in accordance with the Policy requirements for Minor Development/Alterations.

☐ Provided the coastal process and coastal forces analysis for inclusion in the geotechnical report

Geotechnical Report Details:

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AT 143 PRINCE ALFRED PARADE, NEWPORT

Report Date: 2/9/07

Author: BEN WHITE

Documentation which relate to or are relied upon in report preparation:

I am aware that the above geotechnical report, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature J Hodgson

Name Jack Hodgson

Chartered Professional Status MEngSc FIEAust

Membership No. 149 788

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1(a) - Checklist Of Requirements For Geotechnical Risk Management Report for Development Application or Part V assessment

Development Application for MR & MRS WILLS
Name of Applicant
Address of site 143 PRINCE ALFRED PARADE, NEWPORT

The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the Geotechnical Report and its certification (Form No. 1).

Geotechnical Report Details:

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AT 143 PRINCE ALFRED PARADE, NEWPORT

Report Date: 2/9/07

Author: BEN WHITE

Please mark appropriate box

- ☒ Comprehensive site mapping conducted 19/9/07 (date)
- ☒ Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1:200 (as appropriate)
- ☐ Subsurface investigation required
  - ☒ No Justification SEE REPORT
  - ☐ Yes Date conducted .....
- ☐ Geotechnical model developed and reported as an inferred subsurface type-section
- ☒ Geotechnical hazards identified
  - ☐ Above the site
  - ☒ On the site
  - ☐ Below the site
  - ☐ Beside the site
- ☒ Geotechnical hazards described and reported
- ☒ Risk assessment conducted in accordance with Council's Policy
  - ☒ Consequence analysis
  - ☒ Frequency analysis
- ☒ Risk calculation
- ☒ Risk assessment for property conducted in accordance with Council's Policy
- ☒ Risk assessment for loss of life conducted in accordance with Council's Policy
- ☒ Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater
- ☒ Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved.
- ☒ Design Life Adopted:
  - ☒ 100 years
  - ☐ Other ..... specify
- ☒ Development Conditions to be applied to all four phases as described in Pittwater Geotechnical Risk Management Policy have been specified
- ☒ Additional action to remove risk where reasonable and practical have been identified and included in the report.

I am aware that Pittwater Council will rely on the Geotechnical Report, to which this checklist applies, as the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated, and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature J Hodgson

Name Jack Hodgson

Chartered Professional Status MEngSc FIEAust

Membership No. 149 788

Jack Hodgson Consultants Pty Limited
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VS 24688.
2nd October, 2007.

RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AT 143 PRINCE ALFRED PARADE, NEWPORT

1. INTRODUCTION.

1.1 This assessment has been prepared to accompany an application for development approval. The requirements of the Interim Geotechnical Risk Management Policy for Pittwater, June 2003 have been met.

1.2 The definitions used in this Report are those used in the Interim Geotechnical Risk Management Policy for Pittwater, June 2003.

1.3 The methods used in this Assessment are based on those described in Landslide Risk Management Concepts and Guidelines, March 2000, published by the Sub-Committee on Landslide Risk Management of the Australian Geomechanics Society and as modified by the Interim Geotechnical Risk Management Policy for Pittwater, June 2003.

1.4 The experience of Jack Hodgson spans some 50 years in many areas of Australia and in the Pittwater area, particularly in the last 30 years as Principal of Jack Hodgson Consultants Pty Limited.

2. PROPOSED DEVELOPMENT.

2.1 Add an upper floor to the existing house.

2.2 Various other external and internal alterations.

2.3 Details of the proposed development are shown on two drawings prepared by All Walls Building Design numbered 07040-1 to 2 and dated July 07.

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3. DESCRIPTION OF SITE & SURROUNDING AREA.

3.1 The site was inspected on the 19th September 2007.

3.2 The property is on the high side of the road and has an easterly aspect (Photo 1). The original land surface sloped up from the road at angles of some 20 to 25 degrees. The surface has since been modified. At the road frontage a garage runs up the northern boundary to a garage under the house. To the south of the driveway a series of retaining walls provide a level fill that forms a lawn (Photo 2). The supporting concrete block retaining walls are in excellent condition. A path cuts across the front of the house and runs up the southern side providing access to the back yard. A concrete block wall that rises beyond the lawn marking the edge of the path is cracked (Photo 3). The wall is stable in its present state. A platform has been excavated in the slope to form a level patio area that runs along the uphill side of the house (Photo 4). The toe of the cut batter for this excavation is supported by a low concrete block wall in good condition. The upper area of the cut is battered back at an angle of some 45 degrees and is supported by a stack rock wall in stable configurations. Beyond the cut the surface of the block has been terraced in a series of low stack rock walls (Photo 5). The surface is grass covered.

3.3 The part two level rendered brick and fibreboard house is in good condition. It is supported on brick walls that display no evidence of ground movement.

3.4 Observation of the adjacent properties indicates that they do not present a risk of instability to the subject property.

4. GEOLOGY OF THE SITE.

4.1 The site is underlain by interbedded sandstones, siltstones and shales of the Narrabeen Group that do not outcrop on the site. The Narrabeen Group Rocks are Late Permian to Middle Triassic in age with the early rocks not outcropping in the area under discussion. The materials from which the rocks were formed consist of gravels, coarse to fine sands, silts and clays. They were deposited in a riverine type environment with larger floods causing fans of finer materials. The direction of deposition changed during the period of formation. The lower beds are very variable with the variations decreasing as the junction with the Hawkesbury Sandstones is approached. This is marked by the highest of persistent shale beds over thicker sandstone beds which are similar in composition to the Hawkesbury Sandstones.

4.2 They consist of sandy loam topsoil over sandy clays and clays with rock fragments and some floaters through out the profile. The sandy clays and clays merge into the weathered zone of the under lying rocks at depths expected to be in the range 0.6 to 3.0 metres.

4.3 Due to the nature of the work no type section is considered necessary.

5. SUBSURFACE INVESTIGATION.

The cut batter on the southern boundary in the back yard exposes the subsurface profile. The log of this profile is as follows:

CUT BATTER 1

0.0 to 0.2	Grey brown sandy loam topsoil
0.2 to 0.5	Yellow brown firm to stiff clay with iron stone & shale gravel
0.5 to 1.2	Mottled grey to maroon firm to stiff clays with shale fragments

6. DRAINAGE OF THE SITE.

6.1 ON THE SITE.

The site is well drained with no natural watercourses.

6.2 SURROUNDING AREA.

No natural drainage channels were observed entering the site from the neighbouring properties.

7. GEOTECHNICAL HAZARDS.

7.1 ABOVE THE SITE.

No geotechnical hazards likely to adversely affect the subject property were observed above the site.

7.2 ON THE SITE.

7.2.1 The cut batter at the rear of the house is a potential hazard (Photo 4, **HAZARD ONE**).

7.3 BELOW THE SITE.

No geotechnical hazards likely to adversely affect the subject property were observed below the site.

7.4 BESIDE THE SITE.

No geotechnical hazards likely to adversely affect the subject property were observed beside the site.

8. RISK ASSESSMENT.

8.1 ABOVE THE SITE.

As no geotechnical hazards likely to adversely affect the subject site were observed above the site, no risk analysis is required.

8.2 ON THE SITE.

8.2.1 HAZARD ONE The cut batter is supported at the toe by a low stable concrete block wall. The batter is angled back at some 45 degrees and is supported by a stack rock wall in stable configurations. The likelihood of the batter failing is assessed as 'Unlikely' ($>10^{-4}$). The consequences to property of such a failure are assessed as 'Medium' (>1%). The consequences to life of such a failure are assessed as 'Medium' ($>10^{-3}$). The risk to property is 'Low' (10^{-6}). The risk to life is 'Low' (10^{-6}).

8.3 BELOW THE SITE.

As no geotechnical hazards likely to adversely affect the subject site were observed below the site, no risk analysis is required.

8.4 BESIDE THE SITE.

As no geotechnical hazards likely to adversely affect the subject site were observed beside the site, no risk analysis is required.

9. SUITABILITY OF DEVELOPMENT FOR SITE.

9.1 GENERAL COMMENTS.

The proposed development is suitable for the site.

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9.2 GEOTECHNICAL COMMENTS.

No geotechnical hazards will be created by the completion of the proposed development in accordance with the requirements of this Report and good engineering and building practice.

9.3 CONCLUSIONS.

The site and the proposed development can achieve the Acceptable Risk Management criteria outlined in the Pittwater Interim Geotechnical Risk Policy provided the recommendations given in **Section 10** are undertaken.

10. RISK MANAGEMENT.

10.1. TYPE OF STRUCTURE.

The proposed structure is suitable.

10.2. EXCAVATIONS.

No excavations are required for the proposed development.

10.3. FILLS.

No fills are shown on the plans.

10.4. FOUNDATION MATERIALS AND FOOTINGS.

10.4.1 It is recommended that any additional footings that may be required for the proposed development are to be supported on the underlying weathered rock using piers as necessary. The design ultimate bearing pressures are 1.2 MPa for spread footings or shallow piers.

10.5. STORM WATER DRAINAGE.

All storm water runoff from the proposed development is to be collected and stored for domestic use and/or piped to the stormwater system for the house through any On Site Detention System that may be required by council.

10.6. SUBSURFACE DRAINAGE.

All retaining walls are to have adequate drainage such as those fitted with standpipes to permit flushing of the system.

10.7. INSPECTIONS.

10.7.1 It is recommended that the foundation materials of all footing excavations be inspected and approved before concrete is placed.

10.8 MAINTENANCE.

10.8.1 The property is to be maintained in good order and in accordance with the guidelines set out in CSIRO BTF 18 "Foundation Maintenance and Footing Performance: A Homeowner's Guide" and the Australian Geomechanics Article "Landslide Risk Management Concepts and Guidelines" May 2002.

10.8.2 No special maintenance is required.

11. GEOTECHNICAL CONDITIONS FOR ISSUE OF CONSTRUCTION CERTIFICATE.

It is recommended that the following geotechnical conditions be applied to the Development Approval:-

The work to be completed is to be carried out in accordance with the Risk Management Report VS 24688 dated 2nd October 2007.

The Geotechnical Engineer is to inspect and approve the foundation materials of all footing excavations before concrete is placed.

12. GEOTECHNICAL CONDITIONS FOR ISSUE OF OCCUPATION CERTIFICATE.

The Geotechnical Engineer is to certify the following geotechnical aspects of the development:-

The work has been carried out in accordance with the Risk Management Report VS 24688 dated 2nd October 2007.

The foundation materials of all footing excavations were inspected and approved before concrete was placed.

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13. RISK ANALYSIS SUMMARY.

HAZARDS	Hazard One
TYPE	The cut batter at the rear of the house failing.
LIKELIHOOD	'Unlikely' ($>10^{-4}$)
CONSEQUENCES TO PROPERTY	'Medium' (>1%)
CONSEQUENCES TO LIFE	'Medium' ($>10^{-3}$)
RISK TO PROPERTY	'Low' (10^{-6})
RISK TO LIFE	'Low' (10^{-6})
COMMENTS	'Acceptable'

JACK HODGSON CONSULTANTS PTY. LIMITED.

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Photo 1

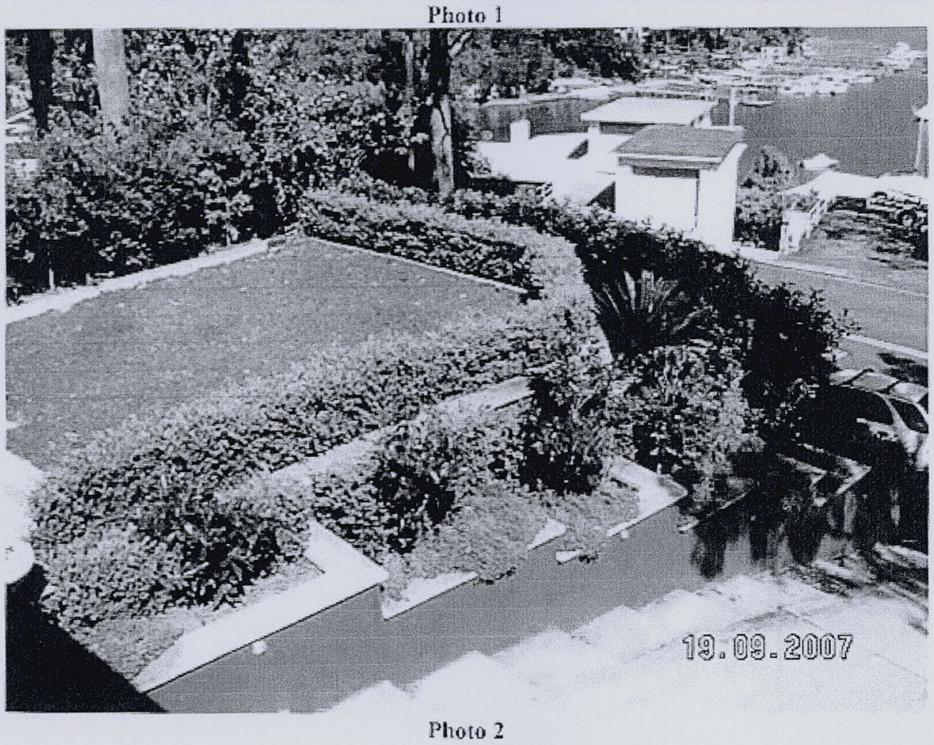


Photo 2

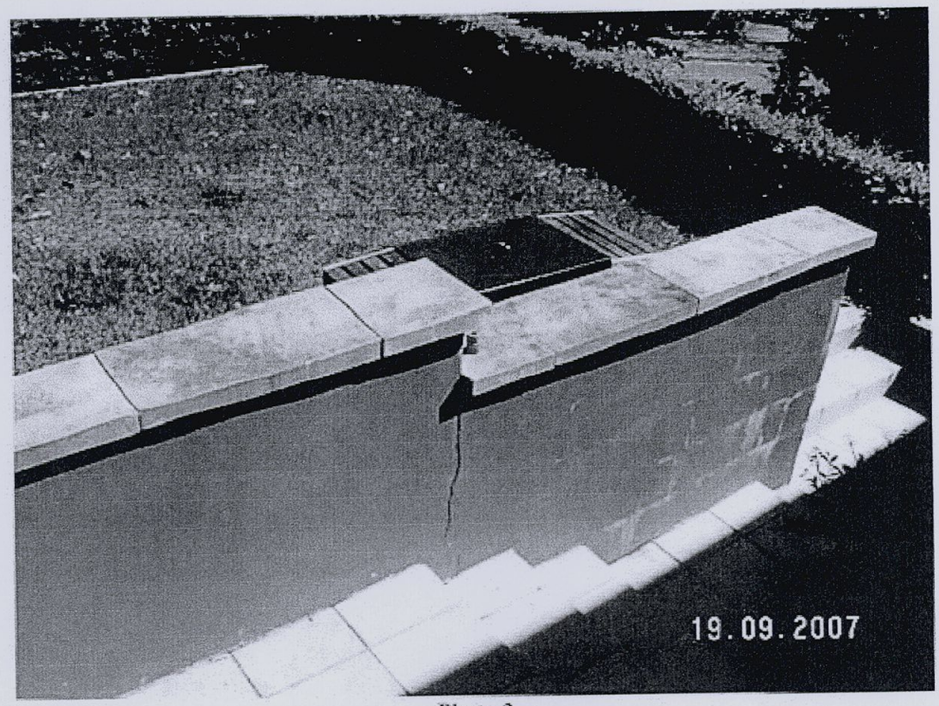


Photo 3

Photo 4

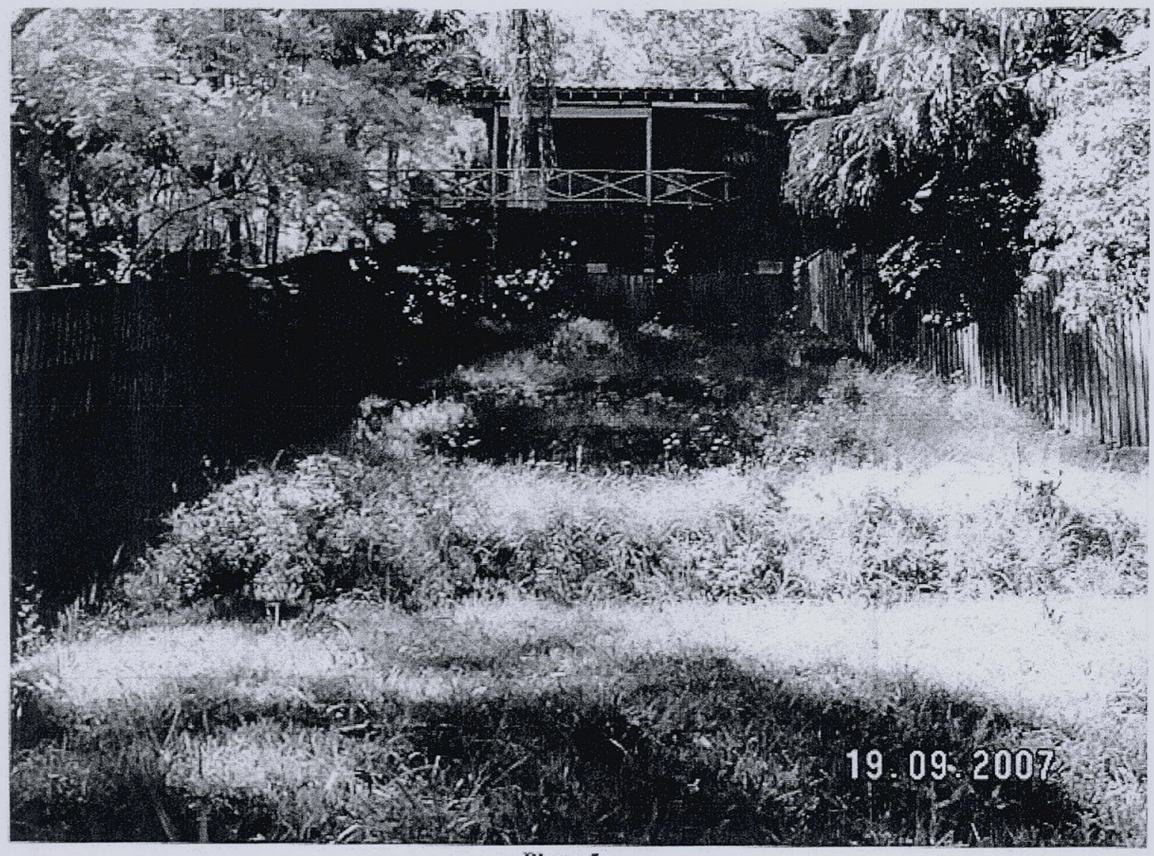
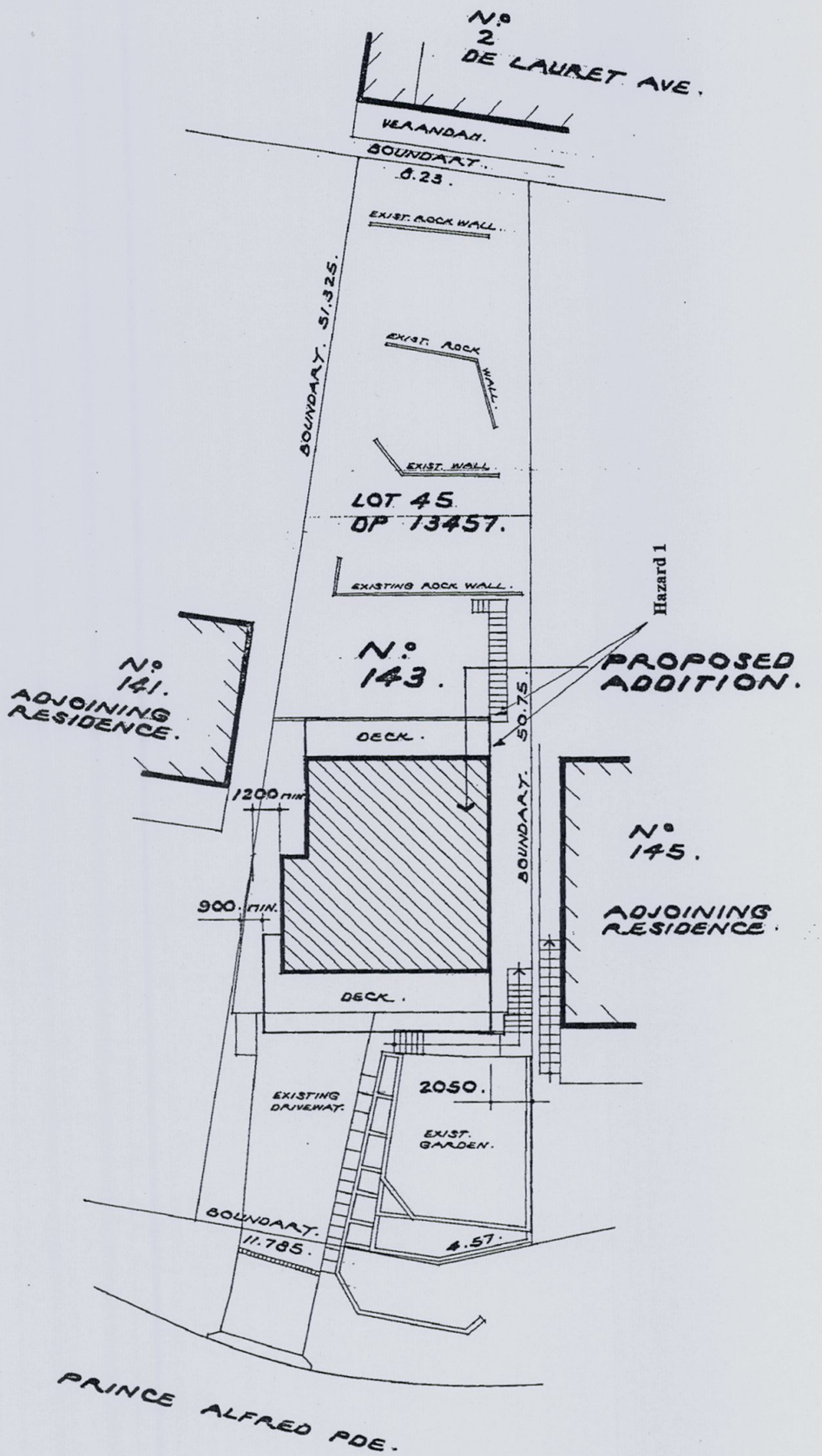


Photo 5



Site Plan
143 Prince Alfred Parade, Newport
VS 24688
Scale 1:200