

22/11/13

Pittwater Council
P O Box 882
Mona Vale NSW 1660

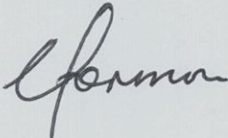
Dear Sir /Madam

Re: Lodgement of CC 2013-282 for DA No. N0179/13
Site address: No. 193 Whale Beach Road, Whale Beach NSW 2107

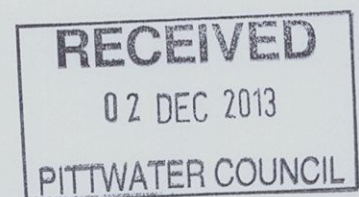
Please find attached all required documentation relied upon to issue Construction Certificate and Notice of Commencement for the above development:

- Part 4A Lodgement Fee \$36.00 payable to Council.
- Copy of Home Owner's Warranty Insurance.
- Sydney Water approval.
- 1 full set of Council approved plans.
- 1 set of Landscape Plans.
- 1 Structural Engineer's Plans.
- 1 Geotechnical Form 2a & 2b.
- Schedule of finishes.
- Hydraulic Engineers/Stormwater Drainage Plans.
- Receipt for payment of Long Service Levy.
- 1 Basix Certificate.
- 1 Building Certificate.

Yours faithfully



Craig Formosa



PRVC. — RN: 353016 2/12/13.

POSTED
22/11/13



CONSTRUCTION CERTIFICATE # 2013-282

Approved 22/11/13

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

Date Application Received	18/11/13				
Council	Pittwater				
Development Consent No.	N0179/13	Date Approved	09/09/13		
Certifying Authority	Craig Formosa	Accredited Certifier	Craig Formosa - BPB0124		
Accreditation Body	Building Professionals Board	BCA in Force	BCA2013		
APPLICANT DETAILS					
Name	Campbell Architecture	Ph No.	0438 262 010		
Address	75 Renwick Street, ALEXANDRIA NSW 2015				
OWNER DETAILS					
Name	Alison Bradford				
Address	19 Wellington Street, Woollahra NSW 2105				
DEVELOPMENT DETAILS					
Subject Land	193 Whale Beach Road, Whale Beach NSW 2107	Lot No.	1	DP	228203
Description of Development	Completion of new partially erected dwelling and swimming pool				
Class of Building	1a, 10a, 10b	Value of Work	\$1,000,000.00		
BUILDER DETAILS					
Name	Campbell Isherwood Building Contractor				
Address	70 Wyandra Avenue, Freshwater NSW 2096				
Contact Number	0422 308 237	License No.	858652		
APPROVED PLANS & DOCUMENTS					
Plans Prepared By	Campbell Architecture	Mariko Fraser			
Drawing Numbers	DA-02 – DA07, DA12, DA13	LP01-1913 – LP03-1913	Dated	12/06/13	06/13
Engineer Details Prepared By	O'Hearn Consulting Pty Ltd	SGC Consultants Pty Ltd			
Drawing Numbers	12222-2 S01-S12	20130010 SW0, SW01, SW02	Dated	02/13	29.01.13
Basix Certificate No.	468582S_02	Dated	12/06/13		
CERTIFICATION					
I, Craig Formosa, 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 & Construction Industry Long Service Payments Act 1986.					
Signed:					Date: 22/11/2013



Crozier Taylor Geotechnical

Geotechnical Engineers & Engineering Geologists

Crozier Taylor Geotechnical

Suite 203/30 Fisher Road

Dee Why NSW 2099

Crozier Taylor Geotechnical is a division of PJC Geo-Engineering Pty Ltd

ABN: 96 113 453 624

Phone: (02) 9972 9578

Fax: (02) 9971 1774

Date: 18th June 2013

No. Pages: 1

Project No.: 2011-167

Development Officer
Pittwater Council.
5 Vuko Place,
Warriewood. NSW 2102.

Section 96 Assessment for 193 Whale Beach Road, Whale Beach.

We understand the client would like to make some design changes to the approved Development Application for the above site.

It is understood that the changes involve widening and extending < 1.0m the lower portion of the proposed driveway, extending the proposed house lower floor and ground floor levels to the south < 1.0m, extending the deck and terrace on the west and north side of the lower floor and ground floor levels < 1.0m, altering the style and height of the roof over the proposed new house.

As a result we have reviewed the following documents:

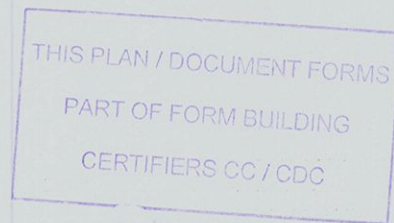
1. Architectural Design – Campbell Architecture, Job No.: 1205, Drawing No.: S9600 to S9611, Issue: A, Dated: 12/06/13
2. Crozier Geotechnical Report titled “Geotechnical Investigation for Additions and Alterations at 193 Whale Beach Road, Whale Beach, Job No.: 2011-167, Dated: 15th December 2011

The proposed changes to the original design do not significantly alter the geotechnical aspects of the proposed development or the site from those on which the original report were based. As such we see no geotechnical reason for these changes not to be approved, provided all works are undertaken as per the recommendations of our report and any future directive during construction.

Hope the above comments meet Council’s requirements, if we can be of further assistance in regard to this matter please don’t hesitate to contact the undersigned.

Yours faithfully,

Troy Crozier
Senior Engineering Geologist



CROZIER – Geotechnical Consultants
Project No: 2011-167 Section 96 June 2013

24th January 2012
Drew and Alison Bradford

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

SCHEDULE OF FINISHES + COLOURS

RE: ALTERATIONS + ADDITIONS TO RESIDENCE
AT: 193 WHALE BEACH ROAD, WHALE BEACH.

SCHEDULE

Room	Item	Description	Colour	Spec.
EXTERNAL	Floor tiles	Terrace	Mid grey	
	Paving	To pool surround	Sandstone	
	Timber cladding	weatherboard	White	Match exist.
	Eaves	'Villaboard' FC sheel	Off white	White
	Deck	hardwood	brown	Oil finish
OPENINGS	Doors	Timber	White	Match exist.
	Windows	Timber	White	Match exist.
ROOF	Cladding	Colourbond custom orb	Light grey	Windspray
	gutters	Colourbond half round	Light grey	Windspray
	downpipes	Colourbond 90 round	Light grey	Windspray

Photo below showing colour palette of existing house walls and windows, for proposed additions to match.



GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 - PART A - To be submitted with detailed design for Construction Certificate

Development Application for	<u>N0054/12 - MORGAN FIGGIS</u>
Name of Applicant	
Address of site	<u>193 Whale Beach Rd Whale Beach.</u>

PART A: Declaration made by Structural or Civil Engineer in relation to the incorporation of the Geotechnical issues into the project design

I, MATTHEW O'HEARN on behalf of O'HEARN CONSULTING PTY LTD.
 (insert name) (trading or company name)

on this the 19 December 2012
 (date)

certify that I am a Structural or Civil Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009. 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 also certify that I have prepared the below listed structural documents in accordance with the recommendations given in the Geotechnical Report for the above development and that

Please mark appropriate box

- ☒ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto.
☒ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy.

Geotechnical Report Details:

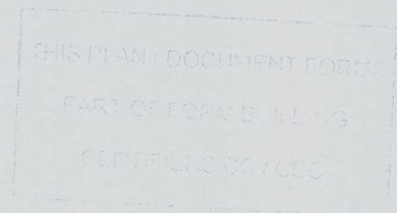
Report Title:	<u>Report on Geotechnical Investigation for Alterations & Addition sat</u>
Report Date:	<u>193 Whale Beach Rd Whale Beach</u>
Author:	<u>DECEMBER 2011</u>
Author's Company/Organisation:	<u>T. CROZIER</u>
	<u>CROZIER GEOTECHNICAL CONSULTANTS</u>

Structural Documents list:

<u>12222-S01A, 12222-S02B, 12222-S03A, 12222-S04A</u>
<u>12222-S05A & 12222-S06A.</u>

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification 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.

Signature [Signature]
 Name MATTHEW O'HEARN
 Chartered Professional Status CPENG
 Membership No. 1071100
 Company O'HEARN CONSULTING P/L.





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Home Warranty Insurance Fund

calliden
group

NSWMBIS/143496-PermitAuthority

14/12/2012

Campbell Barton Isherwood
70 Wyadra Avenue
HARBORD NSW 2096

Calliden Insurance Ltd
ABN 47 004 125 268 AFS Licence 234438
Level 9, 11-33 Exhibition Street
MELBOURNE VIC 3000
Phone: (03) 9637 1300 FAX: 1300 662 215

Certificate of Insurance

RESIDENTIAL BUILDING WORK BY CONTRACTORS

A contract of insurance complying with sections 92 and 96A of the Home Building Act 1989 has been issued by **Calliden Insurance Limited** (ABN 47 004 125 268) (AFSL 234438) as agent for and on behalf of the NSW Self Insurance Corporation (SICorp) (ABN 97 369 689 650) who is responsible for management of the Home Warranty Insurance Fund.

In respect of: Structural-Other Works
At: 193 Whale Beach Road
WHALE BEACH NSW 2107
Carried out by: Campbell Barton Isherwood
Licence Number: 85865C
ABN: 84 374 493 075
For: Alison & Drew Bradford
In the amount of: \$1,000,000.00

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,
- OR
- the immediate successor in title to the contractor or developer who did the work and subsequent successors in title.

Authorisation: Signed by Calliden Insurance Ltd (ABN 47 004 125 268) (AFSL 234438) as agent for and on behalf of the NSW Self Insurance Corporation (SICorp) (ABN 97 369 689 650)

Issued on the 14th day of December, 2012.

NOTICE: To download a copy of your insurance policy wording visit <http://www.policywording.com.au>.

Levy Online Payment Receipt



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

Applicant Name:	DREW AND ALISON BRADFORD
Levy Application Reference:	5037087
Application Type:	DA
Application No.:	54/12
Local Government Area/Government Authority:	PITTWATER COUNCIL
Site Address:	193 WHALE BEACH RD
	WHALE BEACH
	NSW
	2108
Value Of Work:	\$1,000,000
Levy Due:	\$3,500
Levy Payment:	\$3,500
Online Payment Ref.:	678293490
Payment Date:	5/12/2012 4:11:58 PM

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PITTWATER COUNCIL

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER FORM NO. 2 – PART B – To be submitted with detailed design for Construction Certificate

PART B Declaration made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the incorporation of the Geotechnical issues into the project design

I, Troy Crozier on behalf of Crozier Geotechnical Consultants
(insert name) (trading or company name)

on this the 20/12/12
(date)

certify that I am a Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009 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 also certify that I have reviewed the design plans and structural design plans for the Construction Certificate Stage and that I am satisfied that:

Please mark appropriate box

- ☒ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto.
☐ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy.

Geotechnical Report Details:

Report Title: Alterations & Additions at 193 White Beach Rd, White Beach
Report Date: 15th Dec 2011
Author: T. Crozier #2011-167

Documentation which relates to or is relied upon in report preparation:

Design Plans: Morgan Figgis SK701-711, Rev. E, 27/07/11
Structural Design: O'Hearn Consulting, Job No. 12222
Dwg. No. 501 → 506, Issue: A, Nov. 2012.

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification 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.

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Registered Professional Engineer 691550
Mr Peter Crozier
MIEAust CPEng (Civil / Geotechnical) 
Signature P. Crozier Date 20/12/2012
Registered on the NPER in the area of practice of
Civil / Geotechnical
National Professional Engineers Register



BUILDING CERTIFICATE NO: BC0130/13
UNDER SECTION 149A OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979 (AS AMENDED)

THE PITTWATER COUNCIL

CERTIFIES THAT in relation to the building or part identified below, the Council –

- (a) By virtue of anything existing or occurring before the date of inspection stated in this certificate; or
- (b) Within 7 years after that date by virtue of the deterioration of the building or part solely by fair wear and tear, WILL NOT –
- (c) Make an order requiring the building to be repaired, demolished, altered or rebuilt by reason only of its design, appearance, form of construction or state of repair; or
- (d) Take proceedings for an order or injunction requiring the demolition, alteration, addition, or rebuilding of or to the building or part, by reason only of its design, appearance, form of construction or state of repair; or
- (e) Take proceedings in relation to any encroachment by the building or part onto land vested in or under the control of the Council.

IDENTIFICATION OF BUILDING

Property Address: **193 WHALE BEACH ROAD WHALE BEACH NSW 2107**

Nearest Cross Street: **Beauty Drive** Side of Street: **North**

Classification of Building: **1a, 10b** Whole/Part: **Part of Building**

Description: **An as built sole occupancy brick dwelling under construction, to lower ground floor level, together with a concrete pool shell and timber and block retaining walls located as shown on the survey by Adam Clerke Surveyors Pty Ltd dated 25/6/13 Ref 12111D.**

Date of Inspection: **12/11/2013** Owner: **DREW G BRADFORD
& ALISON C BRADFORD**

Legal Description of Land: **Lot 1 DP 228203**
SCHEDULE

The following written information was used by the Council in deciding to issue this certificate:
Survey report prepared by Adam Clerke Surveyors Pty Ltd, dated 27/06/2013, Ref No 12111D;
Geotechnical Report from Crozier Consultants dated 29/10/13 Ref 2011-167A and structural certification by O'Hearn Consulting Pty Ltd dated 21/10/13 Ref 12222.

Dated **18/11/2013**

Mark Ferguson
GENERAL MANAGER

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PART OF FORM BUILDING
CERTIFIERS CC / CDC

per: 

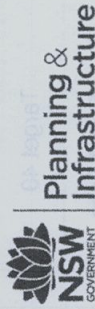
Applicant's Name: **MARK DAVIES, PO BOX 594 FRESHWATER NSW 2096**

NB:

- 1. An order made or proceedings taken in contravention of this certificate is of no effect.
- 2. The issue of a Building Certificate does not prevent
 - (i) orders from being made against any person in relation to matters detailed in the table to Section 121B of the Environmental Planning and Assessment Act, 1979 (as amended);
 - (ii) proceedings being taken against any person for failure to obtain development consent or to comply with any conditions of development consent, pursuant to Section 125 of the Environmental Planning and Assessment Act, 1979.

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 29/06/2009 published by the Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue: Wednesday, 12 June 2013
To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary	
Project name	193 Whale Beach Road_02
Street address	193 Whale Beach Road Whale Beach 2107
Local Government Area	Pittwater Council
Plan type and plan number	deposited 228203
Lot no.	1
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4
Project score	
Water	✓ 40 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 40 Target 40

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Certificate Prepared by

Name / Company Name: campbell architecture

ABN (if applicable): 53847118588

Description of project

Project address	
Project name	193 Whale Beach Road_02
Street address	193 Whale Beach Road Whale Beach 2107
Local Government Area	Pittwater Council
Plan type and plan number	Deposited Plan 228203
Lot no.	1
Section no.	-
Project type	
Project type	separate dwelling house
No. of bedrooms	4
Site details	
Site area (m²)	835
Roof area (m²)	191
Conditioned floor area (m2)	253
Unconditioned floor area (m2)	19
Total area of garden and lawn (m2)	366

Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m²·year)	n/a
Area adjusted heating load (MJ/m²·year)	n/a
Other	
none	n/a
Project score	
Water	✓ 40 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 40 Target 40

Schedule of BASIX commitments

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

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 4.5 but <= 6 L/min) in all showers in the development.	✓	✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 3 star in the kitchen in the development.		✓	✓
The applicant must install basin taps with a minimum rating of 3 star in each bathroom in the development.		✓	✓
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 178 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to:			
• the cold water tap that supplies each clothes washer in the development		✓	✓
• at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✓	✓
Swimming pool			
The swimming pool must not have a volume greater than 21 kilolitres.	✓	✓	
The swimming pool must have a pool cover.		✓	
The swimming pool must be outdoors.	✓	✓	

Thermal Comfort Commitments

Show on DA plans	Show on CC/CDC plans & specs	Certifier check
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Floor, walls and ceiling/roof

The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.

1

Construction	Additional insulation required (R-Value)	Other specifications
floor - concrete slab on ground, 121 square metres	nil	
floor - suspended floor above open subfloor, 29 square metres, framed	0.8 (or 1.5 including construction) (down)	
external wall - framed (weatherboard, fibre cement, metal clad)	1.50 (or 1.90 including construction)	
external wall - other/undecided	1.90 (including construction)	
ceiling and roof - flat ceiling / pitched roof	ceiling: 1.5 (up), roof: thermocellular reflective	unventilated, light (solar absorptance < 0.475)
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 2.5 (up), roof: foil/sarking	framed, medium (solar absorptance 0.475-0.70)
ceiling and roof - flat ceiling / flat roof, concrete/plasterboard internal	ceiling: 2.5 (up), roof: foil/sarking	concrete/plasterboard internal, medium (solar absorptance 0.475-0.70)

[illegible]

Thermal Comfort Commitments					Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Windows, glazed doors and skylights							
The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door.							
The dwelling may have 1 skylight (<0.7 square metres) and up to 2 windows/glazed doors (<0.7 square metres) which are not listed in the table.							
The following requirements must also be satisfied in relation to each window and glazed door:							
- Except where the glass is 'single clear' or 'single toned', each window and glazed door must have a U-value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) +/-10% of that listed. Total system U-values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. - The leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 millimetres above the head of the window or glazed door, except that a projection greater than 500 mm and up to 1500 mm above the head must be twice the value in the table. - Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35. - Unless they have adjustable shading, pergolas must have fixed 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.							
W1, W2, W5	N	12.6	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	✓	✓	✓
W3	N	6.3	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 901-1,200 mm			
W4	W	3.2	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm			
W6	W	3.5	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	none			
W7	E	2.0	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 450 mm			
W8	N	11.2	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 450 mm			

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W1, W2, W5	N	12.6	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	not overshadowed
W3	N	6.3	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W4	W	3.2	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	not overshadowed
W6	W	3.5	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	none	not overshadowed
W7	E	2.0	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 450 mm	not overshadowed
W8	N	11.2	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 450 mm	not overshadowed

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W9	N	9.1	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	not overshadowed
W10	S	4.1	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 1,500-2,000 mm	not overshadowed
W11	N	10.1	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W12	W	1.9	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	not overshadowed
W13	N	10.7	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 1,500-2,000 mm	not overshadowed
W14	E	1.9	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	not overshadowed
W15	W	0.9	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W16, W17	S	10.2	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W18	E	3.8	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed

bewoonbare vloer	vloerbedekking: vloerbedekking	mm 000,5<	10) teak vloer, 10' x 10' (66 0,000H2, 1' x 2' eiken-U)	8 St	N	2W, 3W, 1'W
bewoonbare vloer	vloerbedekking: vloerbedekking	mm 000,5-1-100	10) teak vloer, 10' x 10' (66 0,000H2, 1' x 2' eiken-U)	6,8	N	2W
bewoonbare vloer	vloerbedekking: vloerbedekking	mm 000,5<	10) teak vloer, 10' x 10' (66 0,000H2, 1' x 2' eiken-U)	5,8	W	4W
bewoonbare vloer	vloerbedekking: vloerbedekking	mm 000,5<	10) teak vloer, 10' x 10' (66 0,000H2, 1' x 2' eiken-U)	6,8	W	3W
bewoonbare vloer	vloerbedekking: vloerbedekking	mm	10) teak vloer, 10' x 10' (66 0,000H2, 1' x 2' eiken-U)	0,5	E	1'W
bewoonbare vloer	vloerbedekking: vloerbedekking	mm	10) teak vloer, 10' x 10' (66 0,000H2, 1' x 2' eiken-U)	5,8	N	3W

Energy Commitments		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, or a system with a higher energy rating: gas instantaneous.		✓	✓	✓
Cooling system				
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 2 Star (new rating)			✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 2.5 Star (new rating)			✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.			✓	✓
Heating system				
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 2.5 Star (new rating)			✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 2.5 Star (new rating)			✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.			✓	✓
Ventilation				
The applicant must install the following exhaust systems in the development:				
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off			✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off			✓	✓
Laundry: natural ventilation only, or no laundry; Operation control: n/a			✓	✓
Artificial lighting				
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:				
at least 4 of the bedrooms / study;			✓	✓

Energy Commitments		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
- the kitchen; dedicated - all bathrooms/toilets; dedicated - the laundry; dedicated - all hallways; dedicated		☒	☒	☒
Natural lighting		☒	☒	☒
The applicant must install a window and/or skylight in 5 bathroom(s)/toilet(s) in the development for natural lighting.				
Swimming pool		☒	☒	☒
The development must not incorporate any heating system for the swimming pool.				
The applicant must install a timer for the swimming pool pump in the development.		☒	☒	☒
Other				
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		☒		
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.		☒		
The applicant must install a fixed outdoor clothes drying line as part of the development.		☒		
The applicant must install a fixed indoor or sheltered clothes drying line as part of the development.		☒		

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 and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

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(either interim or final) for the development may be issued.

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

Sydney
WATER

Case Number: 131259

21 January 2013

Campbell Asherwood
c/- BYRNE & ASSOCIATES P/L

**LETTER of APPROVAL
For
BUILDING OVER/ADJACENT TO A SYDNEY WATER ASSET**

Applicant: Campbell Asherwood
Your reference:
Property location: 193 Whale Beach Road, Whale Beach
Your application date: 7 December 2012

Dear Applicant

Your application to build over and adjacent to the sewer mains at the above location is approved provided you do the following things:

1. Project Specific requirements

Ref:

1. Service protection report dated, 04/12/12 by Byrnes & Associates Consulting Surveyors & Engineers.
2. Letter to Sydney Water by Byrnes & Associates Consulting Surveyors & Engineers., date 07/ 12/ 12
3. Structural engineering drawing 12222-S02-B, O'hearn Consulting Pty Ltd, dated 11/ 12

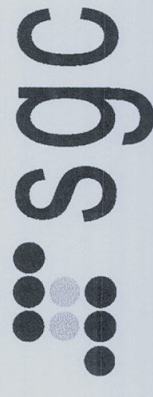
The owner is proposing redevelop his property to extend a floor slab which include the building over DN 150 VC sewer main. The drawing 12222-S02-B has indicated any peiring for the new floor slab will be done outside of the zone of influence and if the requirement is not met then concrete encasement of the sewer main.

Comments and requirements:

All construction to be as per submitted drawings

Manholes not to be built over and not to be located in enclosed and living areas. Manhole is to have 24/7 unrestricted accesses for operation and maintenance purposes. Access for the manhole is to be as per SWC min standards of 1.0m from the manhole rim or 1.3m from the centre of the manhole.

PROPOSED MULTI-STOREY SINGLE DWELLING DEVELOPMENT
193 WHALE BEACH ROAD,
WHALE BEACH NSW 2107
CONSTRUCTION CERTIFICATE



No.	TITLE	REV
SW00	COVER SHEET	A
SW01	STORMWATER DESIGN - GROUND & LOWER LEVEL	A
SW02	STORMWATER DESIGN - ROOF & UPPER FLOOR LEVEL & DETAIL SHEET	A

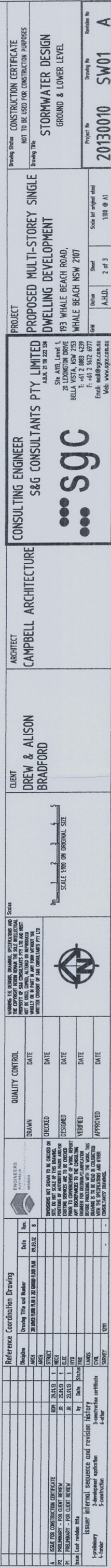
This is the plan/spec. referred to
in Form Building Certifiers Certificate
Certificate No. 2013-282
Plan Nos. 2013010 SWP, SWP, SWP, SWP
22/11/13
Craig Formosa BPB0124 DATED

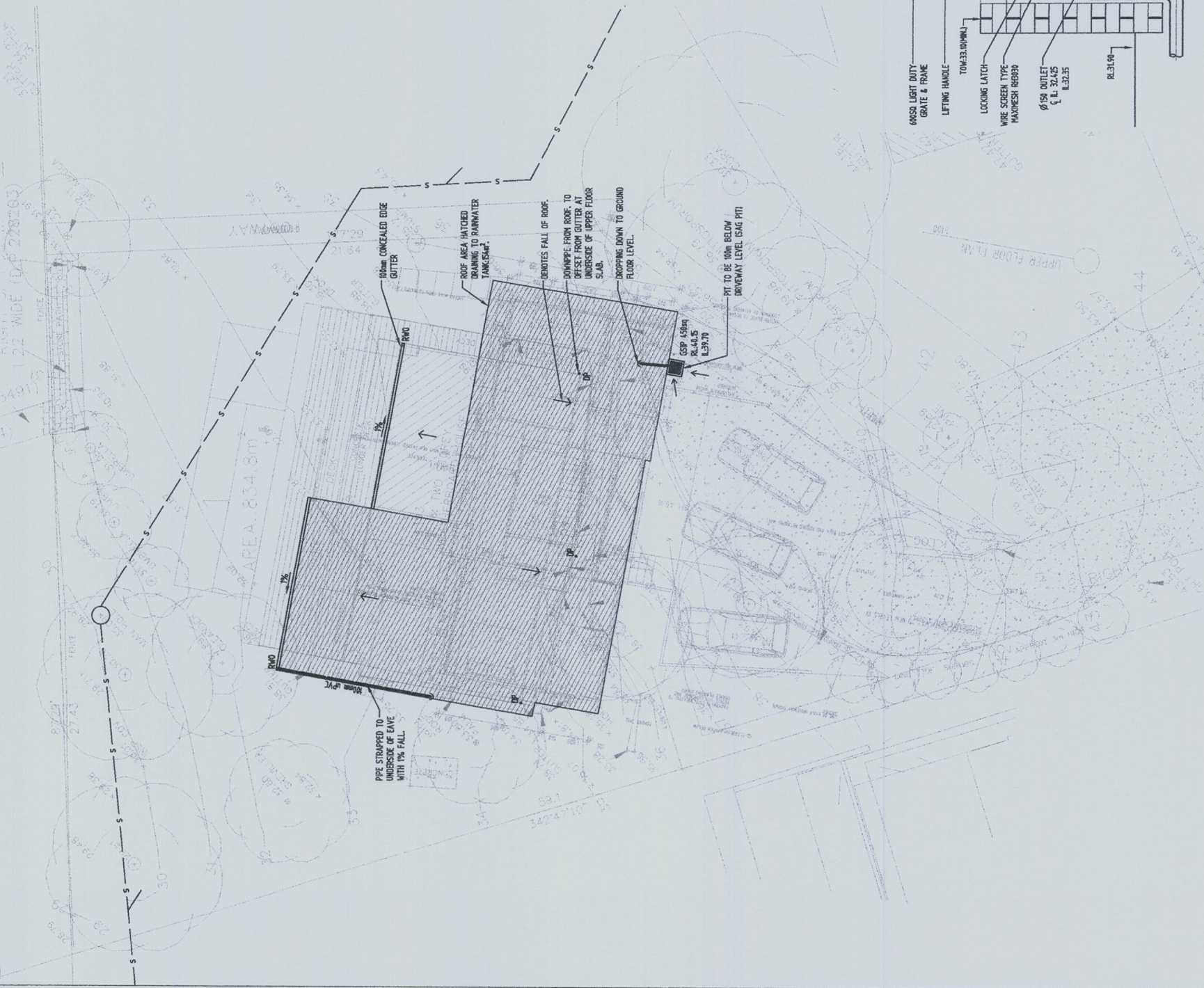
Drawing Title	COVER SHEET		
Project Number	Drawing Number	Division Number	
20130010	SW00	A	
Sheet	Issue	CONSTRUCTION CERTIFICATE	
1 OF 3			



LOCALITY PLAN

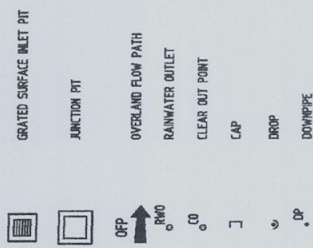
[illegible]





DIAMETER
CLEAR OUT
DISH DRAIN
DRAINAGE
DOWNPIPE
EXISTING
FINISHED FLOOR LEVEL
GRADED TRENCH DRAIN
GRADED SURFACE INLET PIT
INVERT LEVEL
KEB INLET PIT
NATURAL GROUND LEVEL
OVERLAND FLOWPATH
ON-SITE DETENTION
REINFORCED CONCRETE PIPE
REDUCED LEVEL
RAINWATER TANK
ROOFWATER
STORMWATER
STORMWATER PIT
STORMWATER RISING MAIN
STORMWATER SUMP
TOP OF KEB
TOP OF WALL
UNCLIPPED
POLYNYL
CHLORIDE

STORMWATER LINE _____
 SUBSOIL LINE _____ SSO _____
 STORMWATER RISING MAIN _____ SWRM _____
 OF _____ OF _____
 OVERFLOW LINE _____
 EXISTING STORMWATER LINE _____
 AUTHORITY STORMWATER LINE _____ SW _____
 AUTHORITY SEWER LINE _____ S _____
 AUTHORITY WATER LINE _____ W _____
 AUTHORITY GAS LINE _____ G _____
 AUTHORITY ELECTRICITY LINE _____ E _____
 AUTHORITY COWNS LINE _____ TEL _____
 FENCE LINE _____



STORMWATER DESIGN IS IN ACCORDANCE WITH PITTSBURGH COUNCIL DCP 21 SECTION 5B

AN ABOVE GROUND DETENTION PROVIDES THE REQUIRED OSD VOLUME AND A DCP CONTAINING AN ORIFICE CONTROLS THE DISCHARGE FLOW RATE. MAXIMUM PONDING DEPTH IS 360mm.

ALL STORMWATER DRAINAGE ON SITE TO DRAIN VIA AN EXISTING STORMWATER DRAINAGE EASEMENT TO WALO ROAD.

ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED

100mm and 75mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE

MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 200mm

ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RINGS JOINTS

BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL

HEAVY DUTY GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS

PIT GRATE TO BE TYPE HELDLOK OR APPROVED EQUIVALENT

ALL PITS SHALL BE PROVIDED WITH A LOCKING LID

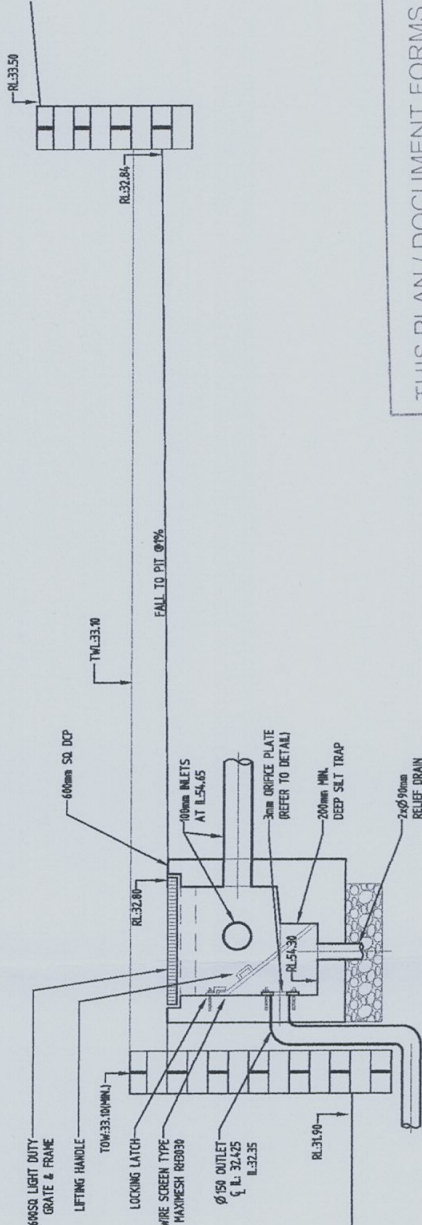
ALL PITS SHALL BE MAINTAINED REGULARLY

TOP OF BENCHING SHALL BE TO THE HALF OF THE OUTLET PIPE DIAMETER

Ø 90 SUBSIL DRAINAGE PIPE 300mm LONG WRAPPED IN FABRIC SACK TO BE PROVIDED ADJACENT TO INLET PIPES

COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20mpa AT 28 DAYS.

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC



SECTION
DCP (OSD)
SCALE 1:20

2
-
DETAIL
ORIFICE PLATE
SCALE 1/4"=1'-0"

DETAIL
STORMWATER PITS
SCALE 1/2"

ROOF PLAN & UPPER FLOOR LEVEL

Reference Coordination Drawing Drawing Title and Number 201300010 - 201300010 R.M.		QUALITY CONTROL DRAWN DATE CHECKED DATE DESIGNED DATE VERIFIED DATE APPROVED DATE		ENGINEERS ARCHITECTS STRUCTURAL MECHANICAL ELECTRICAL PLUMBING HEATING Cooling Lighting Acoustics Fire Security Transportation Other		Scale 0m 0.1 0.2 0.3 0.4 0.5 SCALE 1:50 ON ORIGINAL SIZE 0m 0.2 0.4 0.6 0.8 1.0 SCALE 1:25 ON ORIGINAL SIZE 0m 1 2 3 4 5 SCALE 1:50 ON ORIGINAL SIZE		CLIENT DREW & ALISON BRADFORD		ARCHITECT CAMPBELL ARCHITECTURE		CONSULTING ENGINEER S&G CONSULTANTS PTY LIMITED 20 LEXINGTON DRIVE BELLA VISTA, NSW 2153 T: +61 2 8883 4239 F: +61 2 9172 6977 Email: info@sandg.com.au		PROJECT PROPOSED MULTI-STOREY SINGLE DWELLING DEVELOPMENT 193 WHALE BEACH ROAD, WHALE BEACH NSW 2107		CONSTRUCTION CERTIFICATE NOT TO BE USED FOR CONSTRUCTION PURPOSES Drawing Title STORMWATER DESIGN ROOF & UPPER FLOOR LEVEL & DETAILS SHEET		Drawing Status Project No 201300010 Scale Scale not original sheet Sheet 1 of 1 Revision No A	
--	--	---	--	--	--	---	--	--	--	---	--	--	--	--	--	---	--	--	--

Botanic Name	Common Name	Pot Size	Max Height (mm)	NO.
<i>Cissus antarctica</i>	Kangaroo Grape	140	groundcover	40
<i>Crassula ovata</i>	Jade Tree	200	600	15
<i>Cupanopsis anacardioides</i>	Tuckeroo	300L	6000	2
<i>Dichondra repens</i>	Dichondra	100	groundcover	15
<i>Dyopsis lutescens</i>	Golden Cane Palm	45L	5000	14
<i>Fatsia japonica</i>	Fatsia	200	1800	30
<i>Gardenia florida</i>	Gardenia	200	800	27
<i>Howea forsteriana</i>	Kentia Palm	75-200L	12000	5
<i>King Bromeliad</i>	King Bromeliad	300	1500	5
<i>Livistona australis</i>	Cabbage Tree Palm	300L	12000	1
<i>Lomandra longifolia</i>	Mat Rush	150	800	85
<i>Lomandra longifolia</i> 'Hystrix'	Mat Rush	150	1200	20
<i>Philodendron 'Xanadu'</i>	Xanadu	200	800	35
<i>Plumeria acutifolia</i>	Frangipani	200L	5000	1
<i>Raphis excelsa</i>	Lady Palm	75L	4500	5
<i>Syzgium australe</i> 'Resilience'	Lilly Pilly	45L	5000	23
<i>Syzgium luehmannii</i>	Small Leafed Lilly Pilly	100L	9500	5
<i>Syzgium paniculatum</i>	Magenta Lilly Pilly	300	5000	6
<i>Trachelospermum jasminoides</i>	Star Jasmine	200	climber	10
<i>Tristanopsis laurina</i>	Water Gum	100L	5000	4
<i>Viola hederacea</i>	Native Viola	140	groundcover	140

18 *Dypsis lutescens*

602822

P. 22827. (3)

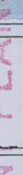
1. Garden to be maintained every 10 weeks for the first 12 months of establishment period. Garden to be maintained by a qualified horticulturalist.
2. Irrigation: DripEze in line drip tubing with 2.0ph emitters at 300mm spacing throughout all garden beds. Flows of tubing at 400mm spacing to suit planting and fixed to soil surface using galvanized steel "U" pegs at 1.0m centers.
3. Organic matter and mulch supplied to standard AS4454.
4. Majority of planting is deep soil, however in areas of planters; lawn to be minimum 300mm deep; shrubs, min 600mm deep and trees, min 1000mm deep soil.

Livistona australis

REFER TO LP03

REFER TO
LP02

No.15
MALO RD



THESE PLANS MUST BE REJECTED
IN CONNECTION WITH THE CONDITIONS
FOR DEVELOPMENT CONSENT

ON THE ADJACENT ROAD RESERVE
OR ANY COUNCIL RESERVE
REFER TO CP03

DECK 2
FFL 39.41
11/24/2014

REFER TO LP02

21.64

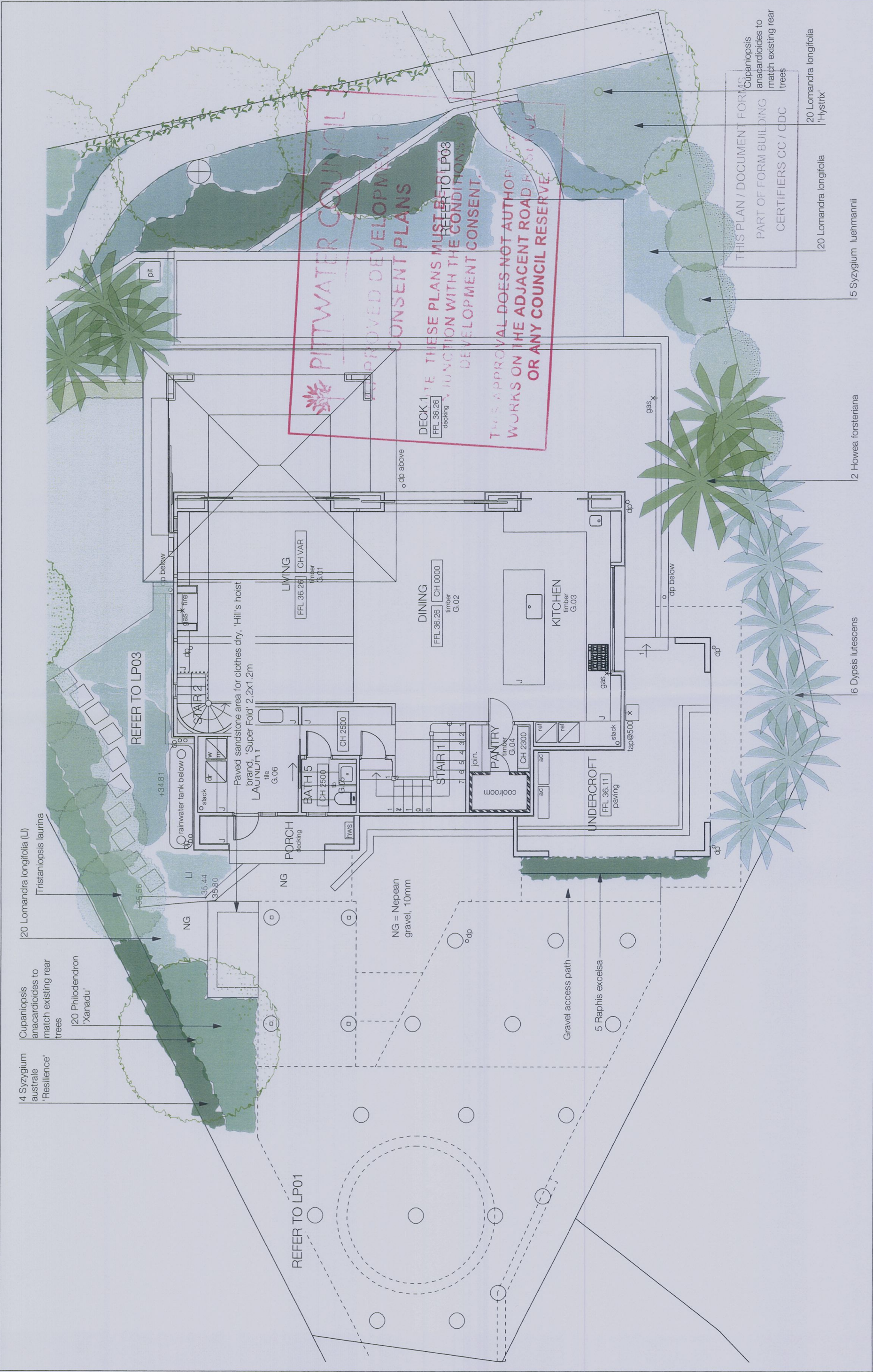
This is the plan/spec, referred to
in Form Building Certifiers Certificate
Certificate No. 2013-282
Plan No. L201-1913-LP03-9113
22/11/13
Craig Formosa BPB0124-DATED

ISSUE		
Rev.	Date	Description
A	12.6.13	Draft plan for discussion
B	17.6.13	Refine palm locations
C	26.6.13	DA landscape plan

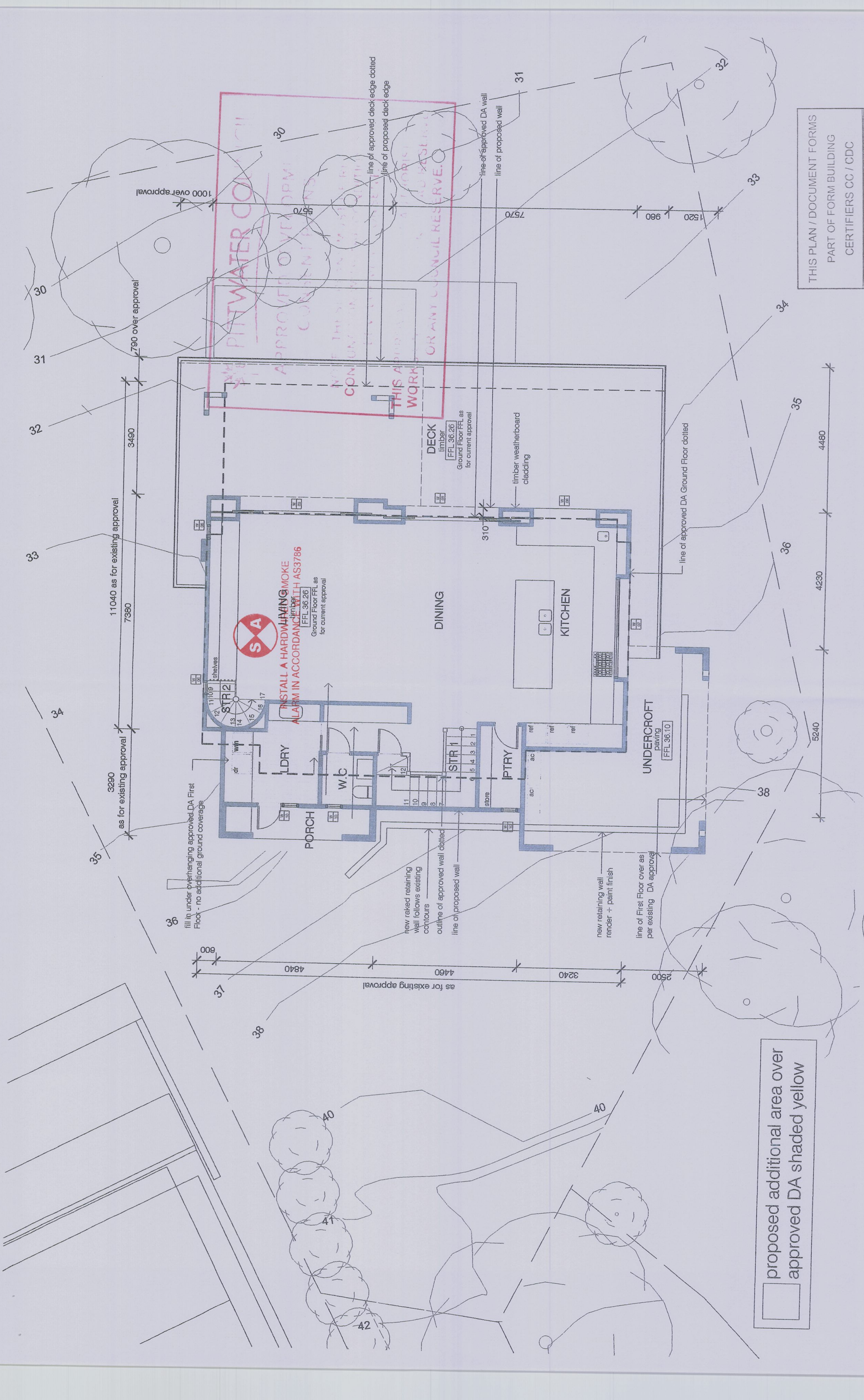
Mariko Fraser
Landscape (BFA, Dip. Hort)
0431 457 410
mariko@marikofraser.com

Mariko

Drawn by: W. J. W. W. W.
 Title: First floor
193 Whale Beach Rd
Landscape
Whale Beach
 Client: Bradford
 Scale: 1:500/A3
 Issue: C Date: June 2013



Project	Title	Ground level	Project number
193 Whale Beach Rd Whale Beach Bradford	Ground level Landscape Scale 1:100@A3	Issue B Date June 2013	LP02-1913
ISSUE	Rev	Date	Description
	A	12.6.13	Draw plan for discussion
	B	28.6.13	DA landscape plan
Markko Fraser Landscape (BFA, Dip. Hort) 0431 457 410 markko@markko-fraser.com			
THIS PLAN / DOCUMENT FORMS PART OF FORM BUILDING CERTIFIERS CC / CDC Cupaniopsis anacardioides to match existing rear trees			
20 Lomandra longifolia 'Hystrix'			
15 Syzygium luehmannii			
2 Howea forsteriana			
16 Dypsis lutescens			



THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

plan
ground floor

development application
193 whale beach road

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

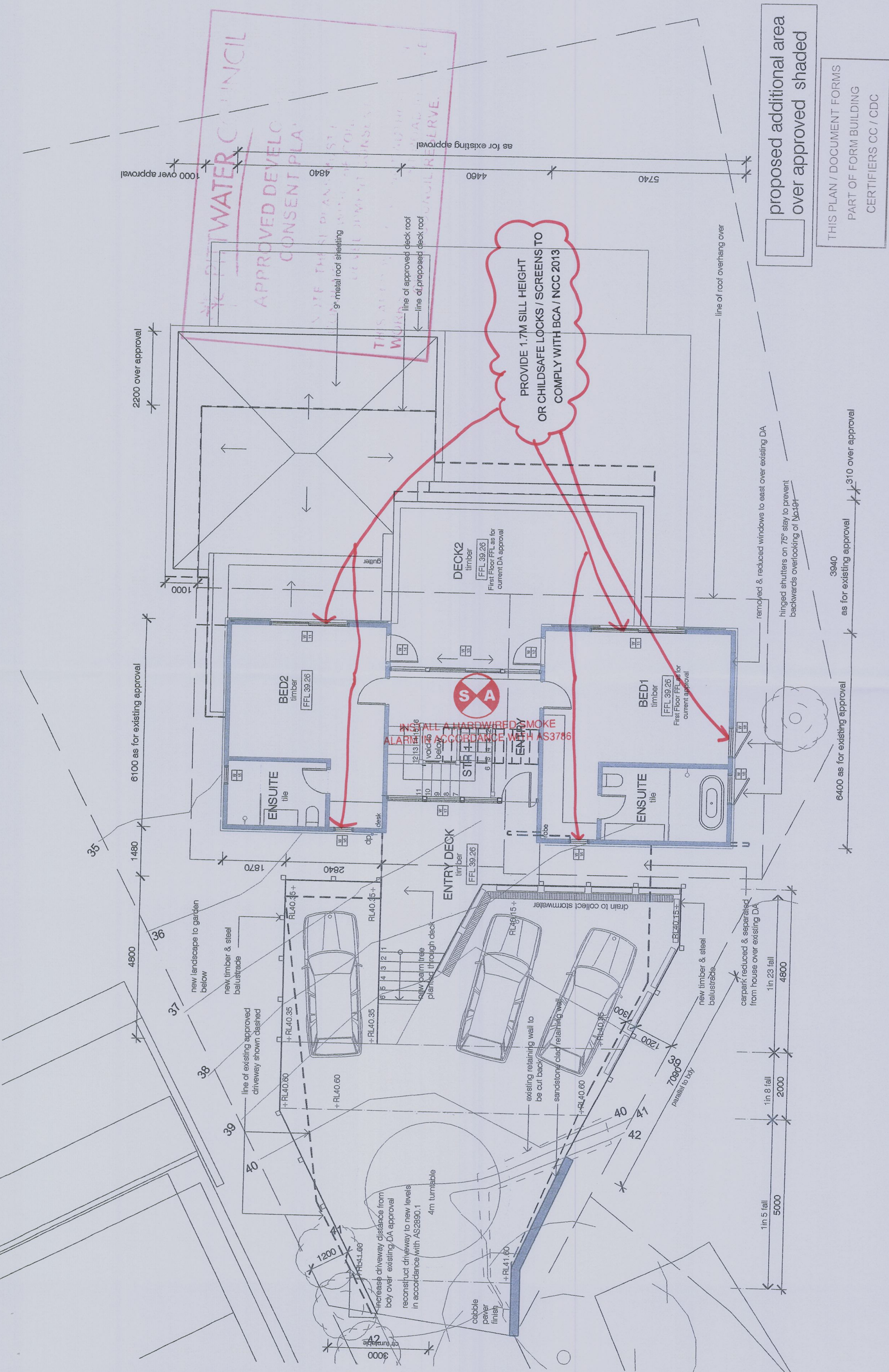
date 12/06/13 description development application

issue A

about
Campbell Architecture
st. 75 Renwick Street Alexandria NSW 2015
t. +61 (0)439 262 010
e. info@campbellarchitecture.com.au
tw. #campbellarchitecture
ABN 53 847 118 588

issue
DA-03
scale 1:100
cadfile
plotdate

drawling no. 100



proposed additional area
over approved shaded

THIS PLAN / DOCUMENT FORMS
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CERTIFIERS CC / CDC



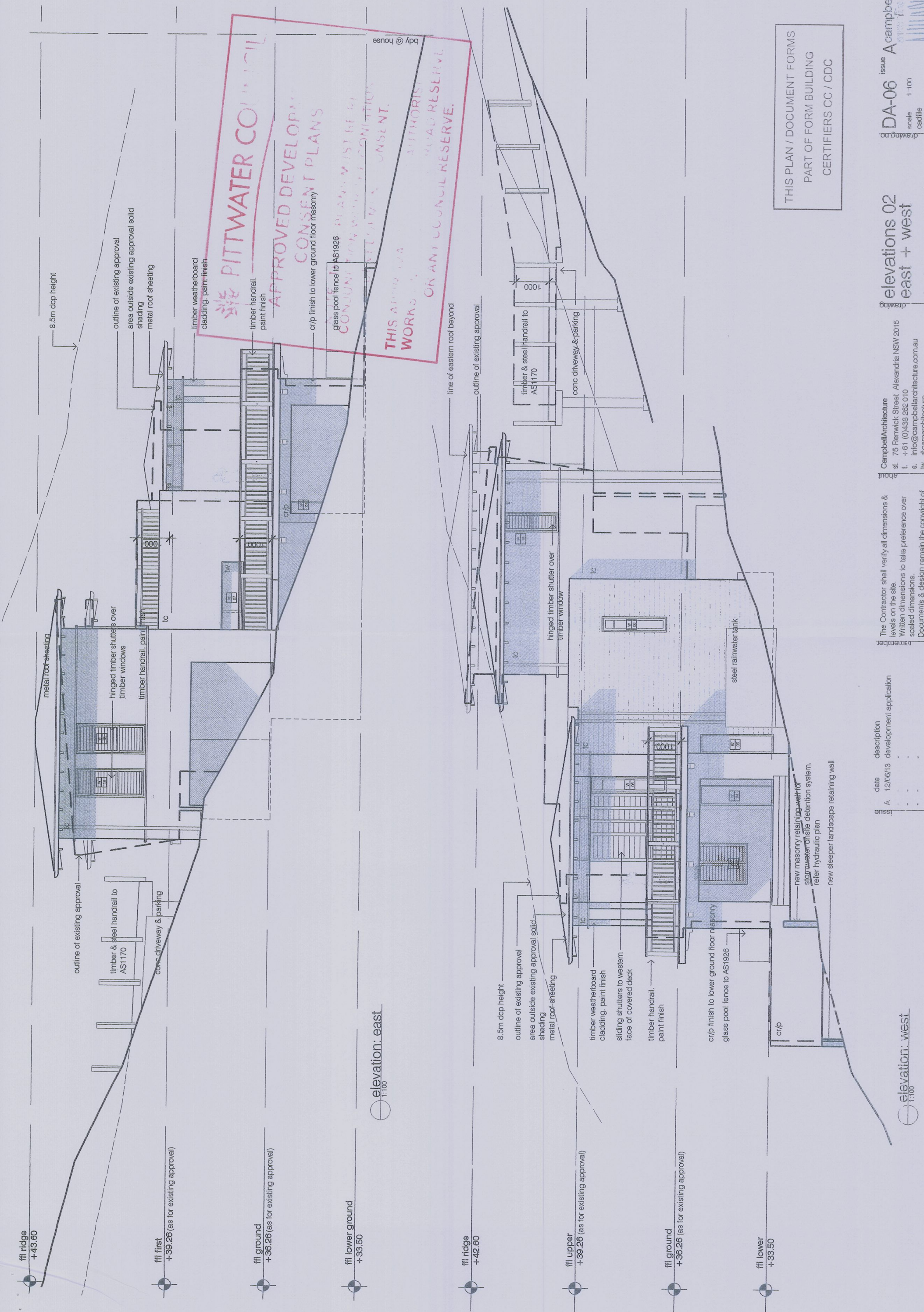
date	description
12/05/13	DA application

The Contractor shall verify all dimensions & levels on the site.
Written dimensions to take preference over scaled dimensions.
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ABN 53 847 118 588
NOM PER M 0004

plan
upper floor + drive
development application
193 whiale beach road
whiale beach nsw 2220

DA-04
issue
Acampbell
scale 1:100
cadfile
plotdate
12/05/13



ffl ridge +43.60

ffl first +39.26 (as for existing approval)

ffl ground +36.26 (as for existing approval)

ffl lower ground +33.50

ffl ridge +42.60

ffl upper +39.26 (as for existing approval)

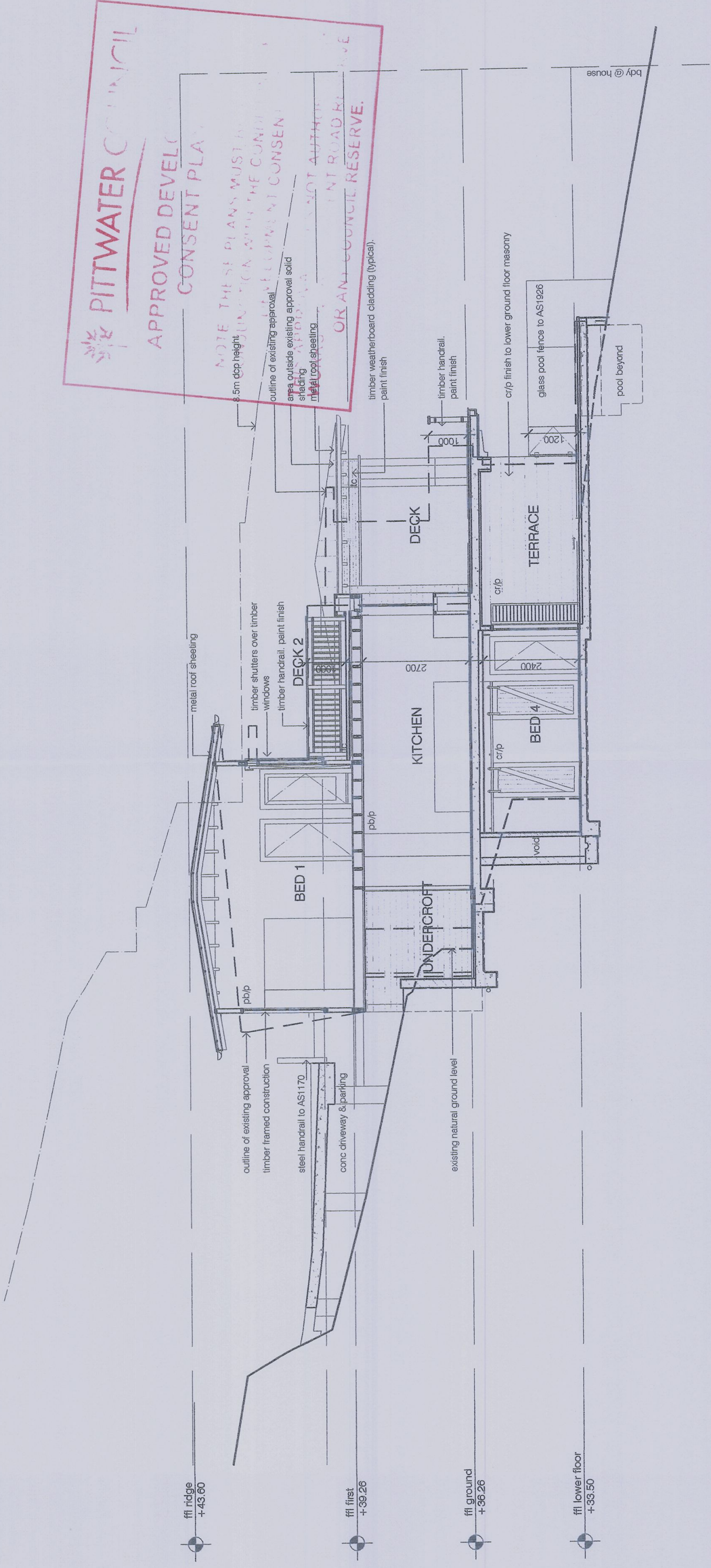
ffl ground +36.26 (as for existing approval)

ffl lower +33.50

elevation: east
1:100

elevation: west
1:100

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

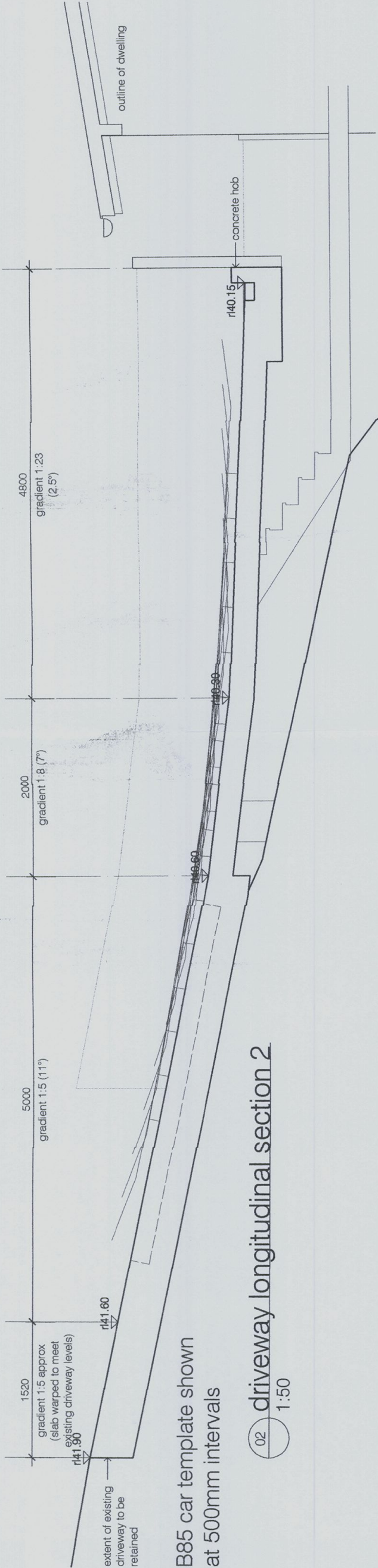


THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC



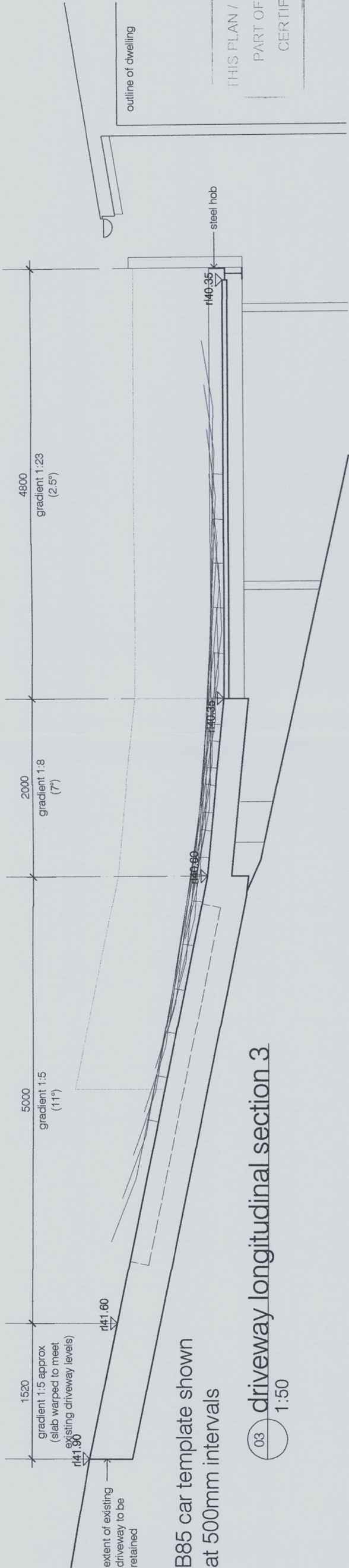
B85 car template shown
at 500mm intervals

01 driveway longitudinal section 1
1:50



B85 car template shown
at 500mm intervals

02 driveway longitudinal section 2
1:50



B85 car template shown
at 500mm intervals

03 driveway longitudinal section 3
1:50

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

issue	date	description
A	25/09/13	construction certificate
	-	-
	-	-
	-	-
	-	-
	-	-

The Contractor shall verify all dimensions & levels on the site.
Written dimensions to take preference over scaled dimensions.
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e. info@campbellarchitecture.com.au
tw. #camarchitecture
ABN 53 847 118 588
NOM REG NO. 8324

driveway sections
development application
193 whale beach road
whale beach nsw 2107

DA-13 issue
scale 1:50
cadfile
plotdate
job no 1205



GENERAL NOTES

- G01. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. CONSTRUCTION FROM THESE DRAWINGS, AND THEIR ASSOCIATED CONSULTANT'S DRAWINGS IS NOT TO COMPEKE UNTIL APPROVED BY LOCAL AUTHORITIES.
- G02. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES.
- G03. ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
- G04. BUILDER TO OBTAIN ALL REQUIRED SURVEY INFORMATION AND TO PROVIDE COPIES OF SURVEY INFORMATION TO THE OWNER AS REQUIRED. THE COST OF ALL SURVEYS ARE TO BE PAID BY THE OWNER/DEVELOPER.
- G05. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G06. UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- G07. THE STRUCTURAL COMPONENTS DETAILED ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT STANDARDS AUSTRALIA CODES AND LOCAL GOVERNMENT ORDINANCES FOR THE FOLLOWING LOADINGS. REFER TO ARCHITECTURAL DRAWINGS FOR PROPOSED FLOOR USAGE.

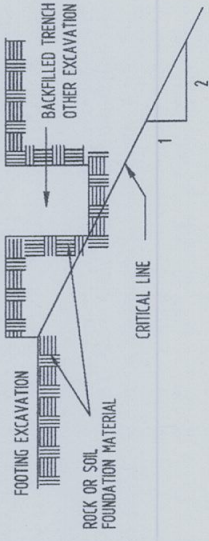
FLOOR USAGE	LIVE LOAD	SUPERIMPOSED DEAD LOADS
FLOORS UNQ.	15 kPa	*SEE NOTE BELOW
GARAGE SLAB	25 kPa	
STAIRS & BALCONY AREAS	30 kPa	*SEE NOTE BELOW
ROOF	0.25 kPa	

NOTE: TILED AREAS (i.e. bathrooms and balconies) HAVE BEEN DESIGNED WITH A SUPERIMPOSED DEAD LOAD OF 15kPa. (i.e. a total topping of 60mm including etc, bedding and tiles).

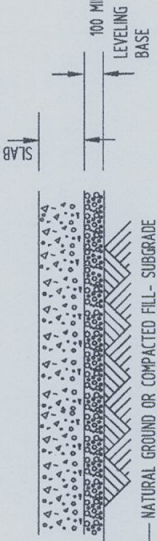
- G08. WIND LOADS ARE IN ACCORDANCE WITH AS1702-2002 & AS1702-2002 AS FOLLOWS: IMPORTANCE LEVEL: 2, ANNUAL PROBABILITY OF EXCEEDANCE: 1/500, REGION: A2, TC20, MS=10, MS=125, Vdes=56m/s OR N4
- G09. EARTHQUAKE LOADS ARE IN ACCORDANCE WITH AS1700A-2002 & AS1700A-2007 AS FOLLOWS: IMPORTANCE LEVEL: DOMESTIC STRUCTURE, TOP OF ROOF > 8.5m, W=10, Z=0.08 EARTHQUAKE DESIGN CATEGORY: 2

FOUNDATIONS

- F01. STRIP FOOTINGS, PAD FOOTINGS, GROUND BEAMS AND PIERS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 1000 kPa UNQ. GEOTECHNICAL ENGINEER TO CONFIRM CAPACITY ON SITE.
- F02. FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.
- F03. FOOTINGS SHALL BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOTTENING OR DRYING OUT BY EXPOSURE.
- F04. EXCAVATIONS FOR TRENCHES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE.



- F05. CONCRETE GRADE AND COVER FOR FOOTINGS SHALL BE AS SPECIFIED IN THE CONCRETE NOTES.
- F06. SUBGRADE: UNLESS OTHERWISE SPECIFIED THE SUBGRADE BELOW BASE COURSES FOR SLABS SHALL BE SUITABLE MATERIAL COMPACTED TO 98% OF MAXIMUM DRY DENSITY DETERMINED BY TEST TO AS1028-E 11



- F07. LEVELING: BASE SHALL BE APPROVED WELL GRADED NATURAL GRAVEL OR CRUSHED ROCK SPREAD AND COMPACTED TO 90% OF MAXIMUM DRY DENSITY DETERMINED BY TEST TO AS1028-E 11
- F08. FOUNDATIONS DESIGNED IN ACCORDANCE WITH RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT PREPARED BY GROZIER - GEOTECHNICAL CONSULTANTS (PROJECT: No. 2011-1671 DATED 15th DECEMBER 2011).

CONCRETE

- C01. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF AS3600 (WITH AMENDMENTS) EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- C02. ALL CONCRETE SUPPLY SHALL COMPLY WITH AS1379.
- C03. CONCRETE QUALITY

Element	Strength Grade (MPa)	Slump (mm)	Aggreg. (Max. mm)	Cover		
				Internal	External	Ground
STRIP FOOTINGS & PIERS	N32	100	20	-	-	65
LOWER GROUND FLOOR SLAB	N40	100	20	20	20	50
GROUND FLOOR SLAB + 3C*	N50	100	20	20	20	40
DRIVEWAY SLAB	N40	100	20	-	-	50

3C* INDICATES CEMENT/AD CALITE 3C TO BE USED AS BATCH MIXED CONCRETE ADDITIVE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS

PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS1379, CLAUSE B7.

- C04. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY THE ENGINEER.
- C05. ALL REINFORCEMENTS SHALL BE FIRMLY SUPPORTED ON PLASTIC CHAIRS AT NOT GREATER THAN 1 METRE CENTRES BOTHWAYS. BARS SHALL BE TIED AT ALTERNATIVE INTERSECTIONS.

C06. CONCRETE SIZES SHOWN DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.

C07. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.

C08. FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC. REFER TO ARCHITECT'S DETAILS. MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.

C09. NO HOLES, CHASES OR EMBEDMENTS OF PPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

C10. CONSTRUCTION JOINTS, WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.

C11. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS ETC. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.

C12. CURING OF ALL CONCRETE SHALL BE ACHIEVED BY KEEPING SURFACES COMPLETELY WET FOR A PERIOD OF 7 DAYS, 10 DAYS IN SUMMER AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 10 DAYS FOLLOWED BY A GRADUAL DRYING OUT. APPROVED SPRAYED ON CURING COMPOUNDS THAT COMPLY WITH AS3799 MAY BE USED WHERE FLOOR FINISHES WILL NOT BE AFFECTED (REFER MANUFACTURERS SPECIFICATION). POLYTHENE SHEETING OR WET HESSIAN MAY BE USED TO RETAIN CONCRETE MOISTURE WHERE PROTECTED FROM WIND AND TRAFFIC.

C13. CONDUITS, PPES ETC SHALL BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS. PPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE COVER TO REINFORCEMENT.

C14. ALL REINFORCEMENT SHALL BE AS FOLLOWS

N DENOTES GRADE 500 NORMAL DUCTILITY DEFORMED BAR TO AS 4671.

R DENOTES GRADE 250 NORMAL DUCTILITY PLAN ROUND BAR TO AS 4671.

SL DENOTES GRADE 500 LOW DUCTILITY WELDED SQUARE MESH TO AS 4671.

NUMBER OF BARS IN GROUP - BAR GRADE AND TYPE - NOMINAL BAR SIZE IN mm - SPACING IN mm - 17 N20 - 250 THE FIGURES FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS4671

C15. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.

C16. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE ENGINEER. LAPS SHALL BE IN ACCORDANCE WITH AS3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR.

C17. SITE BENDING OF DEFORMED REINFORCING BARS SHALL BE DONE WITHOUT HEATING USING MECHANICAL BENDING TOOLS.

C18. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER.

C19. JOGGLES TO BARS SHALL BE 1 BAR DIAMETER OVER A LENGTH OF 12 BAR DIAMETERS.

C20. FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm. BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER CENTRES WITH 3 WRAPS OF THE WIRE.

C21. WHERE TOP AND BOTTOM REINFORCEMENT ARE SHOWN ON THE SAME PLAN

TOP REINFORCEMENT IS SHOWN THIS: -----

BOTTOM REINFORCEMENT IS SHOWN THIS: -----

C22. THE ENGINEER SHALL BE GIVEN 48 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELIVERED UNTIL FINAL APPROVAL IS OBTAINED.

STEELWORK

- S01. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4100 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- S02. UNLESS NOTED OTHERWISE, ALL STEEL SHALL BE IN ACCORDANCE WITH AS3678 GRADE 250, OR AS3679 GRADE 300, OR AS1863 GRADE 350 AS APPROPRIATE.
- S03. THREE (3) COPIES OR ONE (1) TRANSPARENCY OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF FABRICATION. FABRICATION NOT TO COMPEKE WITHOUT ENGINEERS APPROVAL OF WORKSHOP DRAWINGS. ALL DIMENSIONS AND SECTIONS TO BE OBTAINED FROM ARCHITECTURAL DRAWINGS WHERE NOT INDICATED ON STRUCTURAL DRAWINGS.

BOLT CATEGORY	COMMENTS
8.8/S	HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS1252 SNUG TIGHTENED
8.8/7B	HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS1252 FULLY TENSIONED

S05. UNLESS OTHERWISE NOTED ALL BOLTS SHALL BE M20 CATEGORY 8.8/S NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS. ALL BOLTS, NUTS AND WASHERS TO BE GALVANISED.

S06. FABRICATION SHALL COMPLY WITH AS4100, SECTION 14.

S07. ERECTION SHALL COMPLY WITH AS4100, SECTION 15.

S08. UNLESS OTHERWISE NOTED, ALL FILLET WELDS SHALL BE 6mm CONTINUOUS CATEGORY SP USING E48XX ELECTRODES. ALL BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS TO AS554.1.

S09. ALL PLATES TO BE 10mm THICK UNLESS NOTED OTHERWISE.

S10. ALL STEELWORK SHALL BE SECURELY TEMPORARILY BRACED BY THE ERECTOR AS NECESSARY TO STABILISE THE STRUCTURE DURING CONSTRUCTION.

S11. THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND STEEL TO OTHER ELEMENTS RESPECTIVE OF WHETHER THESE CLEATS AND HOLES ARE DETAILED OR NOT.

S12. THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE SUPERVISED BY A QUALIFIED ENGINEER EXPERIENCED IN SUCH SUPERVISION, TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN ARE MET.

S13. PROVIDE SEAL PLATES TO THE ENDS OF HOLLOW SECTIONS WITH "BREATHER" HOLES IF THE MEMBER IS TO BE HOT DIP GALVANISED. SEAL PLATES TO BE 6mm THICK.

S14. THE FABRICATOR SHALL SUBMIT THE PROPOSED PROTECTIVE COATING SYSTEM TO THE ENGINEER FOR APPROVAL. THE PROPOSED SYSTEM SHALL BE IN ACCORDANCE WITH AS/NZS 2312-2002 TO ACHIEVE 25+ YEARS TO FIRST MAINTENANCE FOR THE ATMOSPHERIC CORROSION CATEGORY LISTED BELOW.

I certify that work completed in accordance with these plans and specifications will comply with the regulations referred to in Section 81A(5) of the Environmental Planning and Assessment Act 1979

TIMBER

T01. ALL TIMBER DESIGN, CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH AS1684, AS1720.1, AS1720.2 AND TYPICAL CARTER HOLT HARVEY SPECIFICATIONS AND DETAILS.

T02. AS1684 SHALL BE APPLIED TO DOMESTIC CONSTRUCTION IN SHELTERED AREAS.

T03. SOFTWOOD TO BE A MINIMUM GRADE F7 UNQ. HARDWOOD TO BE MINIMUM GRADE F14 UNQ.

T04. TIMBER STUMPS SHALL BE FREE OF DECAY, SURFACE GUM POCKETS, UNSOUND KNOTS AND INSECT DAMAGE.

T05. TIMBER STUMPS SHALL BE AIR OR KILN DRIED PRIOR TO BEING PRESERVATIVE TREATED. PRESERVATIVE USED SHALL BE CCA TYPE 1 COMPLYING WITH AS 1604. PRESERVATIVE PENETRATION AND RETENTION SHALL BE IN ACCORDANCE WITH AS 1604.

T06. PROPRIETARY TIMBER CONNECTORS SUCH AS "TRIP-L-Grips" SHALL BE OF PROVEN TYPE AND SHALL HAVE WORKING LOADS DETERMINED IN ACCORDANCE WITH THE PROCEDURE IN AS 1648.

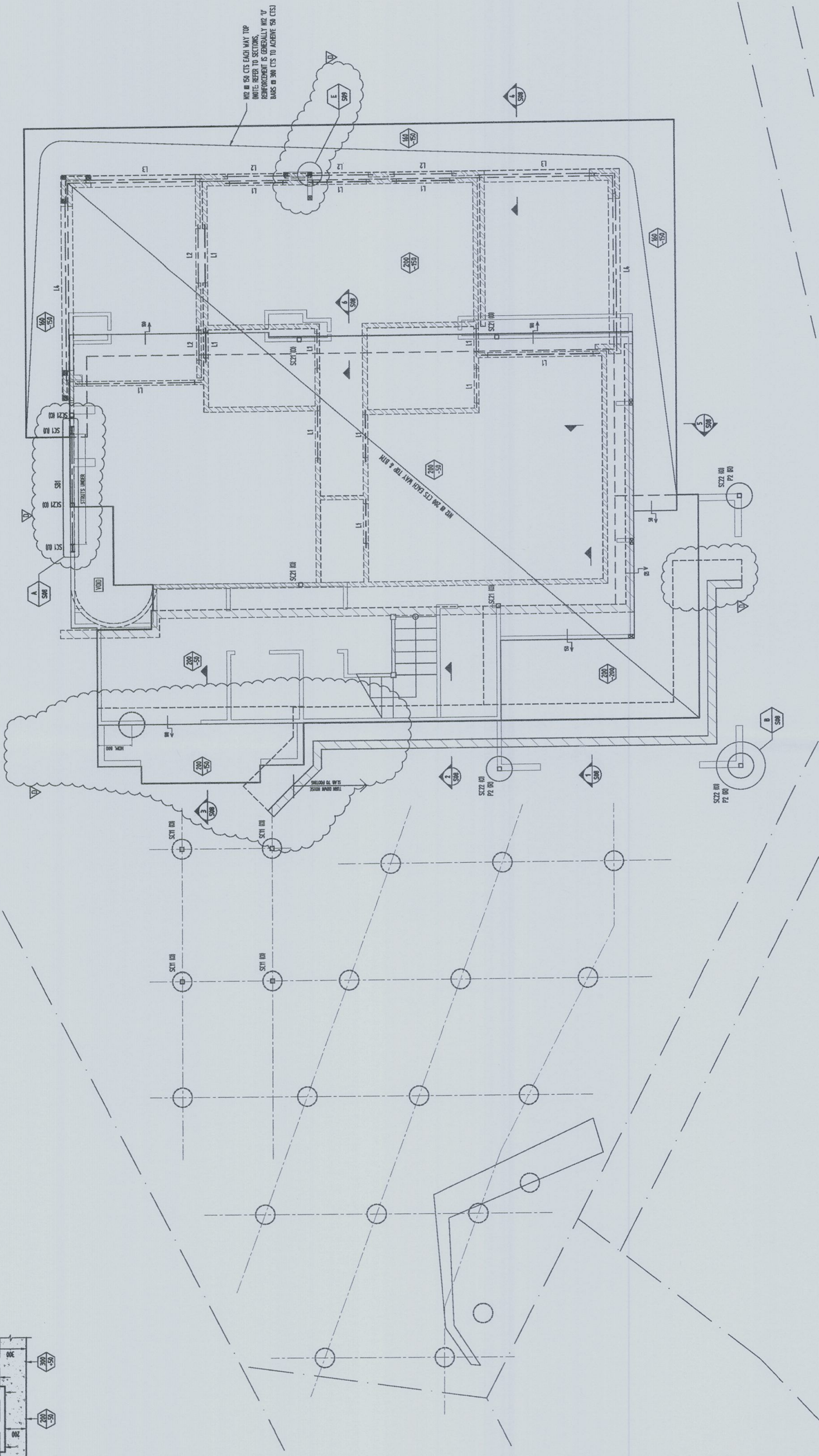
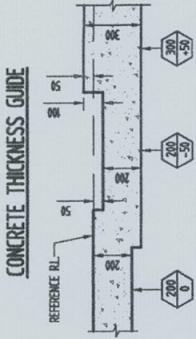
T07. ALL TIMBER STUDS TO BE A MINIMUM OF 75 x 38 F7 AT 600 CTRS UNQ.

T08. BUILDERS STRAP WHERE SHOWN AS BRACING OR FOR TE-DOWN SHALL BE 30 x 0.8 OR 25 x 10mm GALV. STEEL RIBBON WITH FIXINGS AS DETAILED IN AS1684 UNQ.

T09. ALL BOLTS FASTENING TIMBER MEMBERS SHALL BE A MINIMUM M10 UNQ.

T10. ALL TIMBER SCREWS SHALL BE 14 GAUGE TYPE 17 FASTENERS UNQ.

This is the plan/spec. referred to in Form Building Certifiers Certificate
Certificate No. 2013-282
Plan Nos. 10000-2-201-512
22/11/13
Craig Formosa BPB0124 DATED



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GROUND FLOOR PLAN

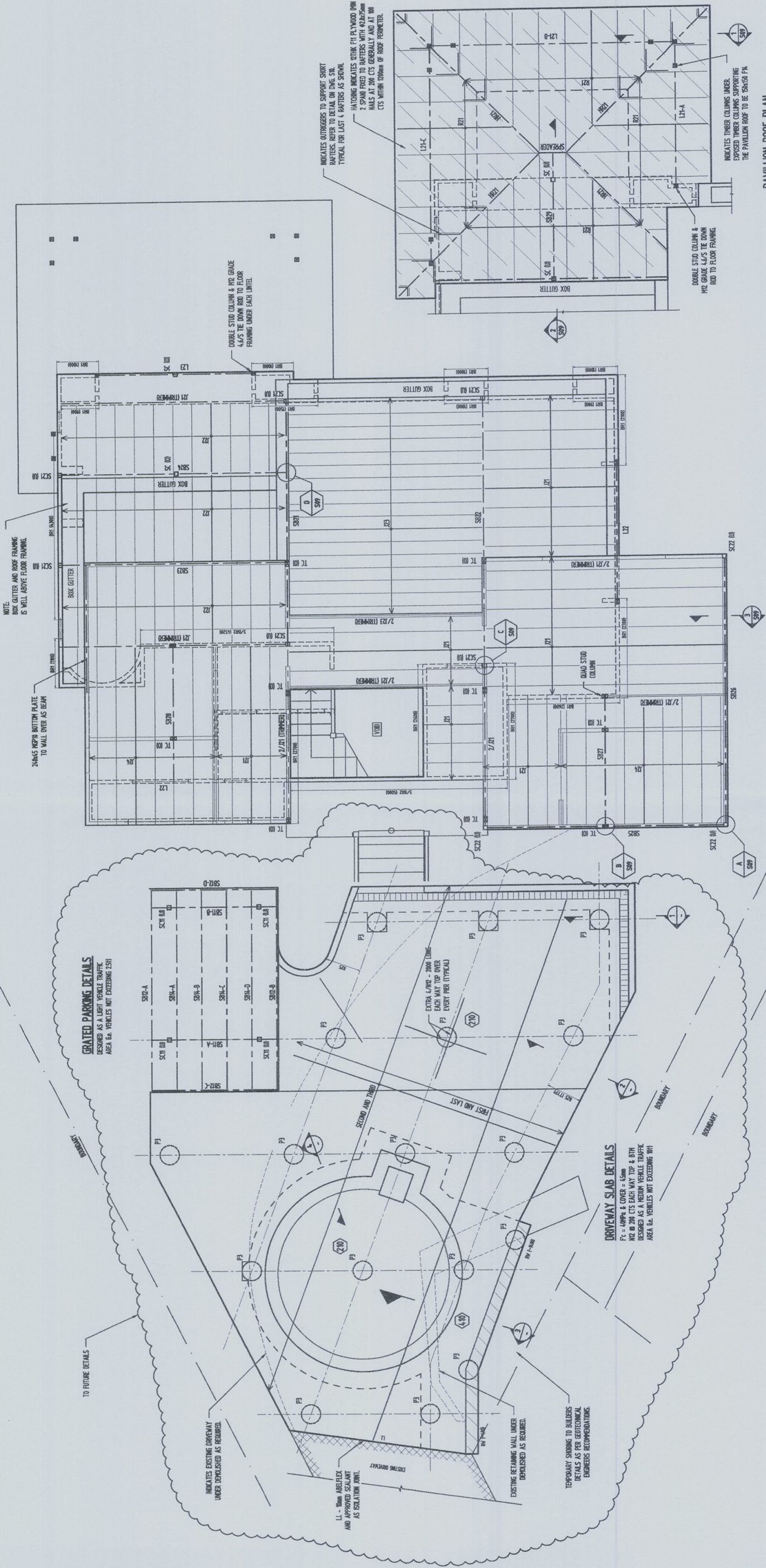
SCALE: 1/8" = 1'-0"

PROJECT NORTH

IMAGING NORTH

- NOTES:**
1. PROVIDE ALL STATIONS IN ACCORDANCE WITH ARCHITECT'S DETAILS.
 2. FOR NUMBER SCHEDULE REFER TO DWG SZ2.
 3. BG INDICATES STRUCTURE UNDER THE FLOOR PLATE.
 4. CO INDICATES STRUCTURE OVER THE FLOOR PLATE.
- LEGEND:-**
1.  INDICATES SETDOWN TO ARCHITECT'S DETAILS.
 2.  INDICATES NEW CONCRETE BLOCK WALL
 3.  INDICATES NEW CLAY MASONRY WALL UNDER

[illegible]



FIRST FLOOR PLAN
SCALE: 1:50

- NOTES:
1. PROVIDE ALL SETWORKS IN ACCORDANCE WITH ARCHITECT'S DETAILS.
 2. FOR MEMBER SCHEDULE REFER TO Dwg S12.
 3. I.D. INDICATES STRUCTURE UNDER THE FLOOR PLATE.
 4. I.D. INDICATES STRUCTURE OVER THE FLOOR PLATE.

LEGEND:

1. --- I.D. INDICATES SETWORKS TO ARCHITECT'S DETAILS.

2. --- I.D. INDICATES NEW THIRDS STUD WALL UNDER.

PAVILION ROOF PLAN
SCALE: 1:50

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Architect

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Project

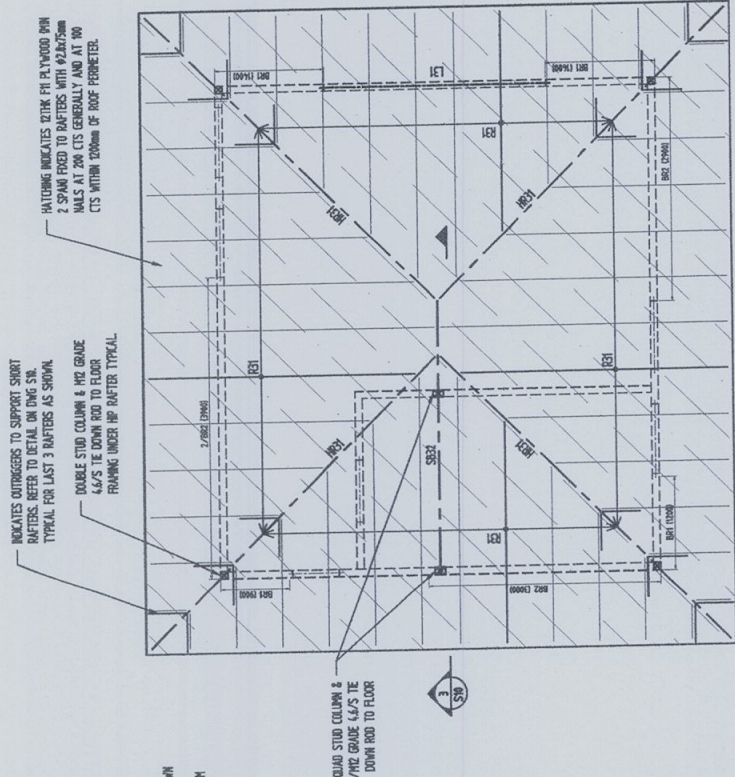
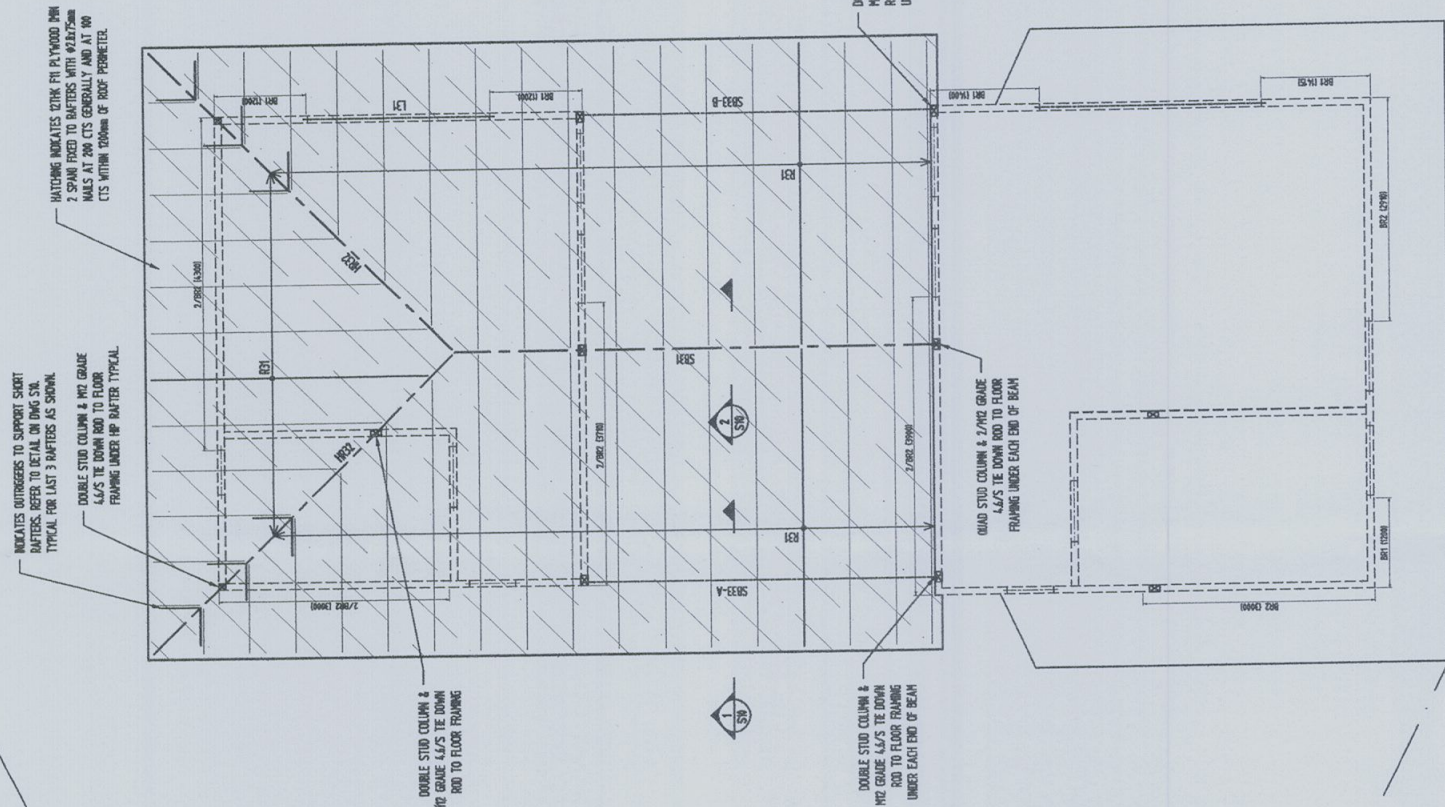
**PROPOSED RESIDENCE AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD**

Title

FIRST FLOOR PLAN

Date	15/02/2013	Drawn	A	Rev	1
Check	22/04/2013	Rev	B	Rev	2
Design	15/02/2013	Rev	C	Rev	3
Issue	15/02/2013	Rev	D	Rev	4

Job No.	12222-2
Designed	B. PRENTICE
Checked	M. O'Hearn
Date	FEBRUARY 2013
Scale	1:50 A1 1:50 A3
Issue	B



UPPER ROOF PLAN
SCALE- 1/8"

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- LEGEND:**
- | | |
|---|---|
| 1 | INDICATES SETDOWN TO ARCHITECT'S DETAILS. |
| 2 | INDICATES NEW TRUSS STUD WALL UNDER. |
| 3 | INDICATES BUILDING WALL WITH FIN. LENGTH |
- NOTES:**
1. PROVIDE ALL SETDOWNS IN ACCORDANCE WITH ARCHITECT'S DETAILS.
 2. FOR MEMBER SCHEDULE, REFER TO DING SIZE
 3. 100 & 101 INDICATES STRUCTURE UNDER AND OVER THE FLOOR PLATE RESPECTIVELY.

NOTES:

1. PRO
2. FOR
3. (UP)

ROOF PLAN
SCALE: 1/8" = 1'-0"

File Paths: S:\Mand L to 2\WVine Beach - 03 Jan\Burch BA\0222-2 Burch Dalg

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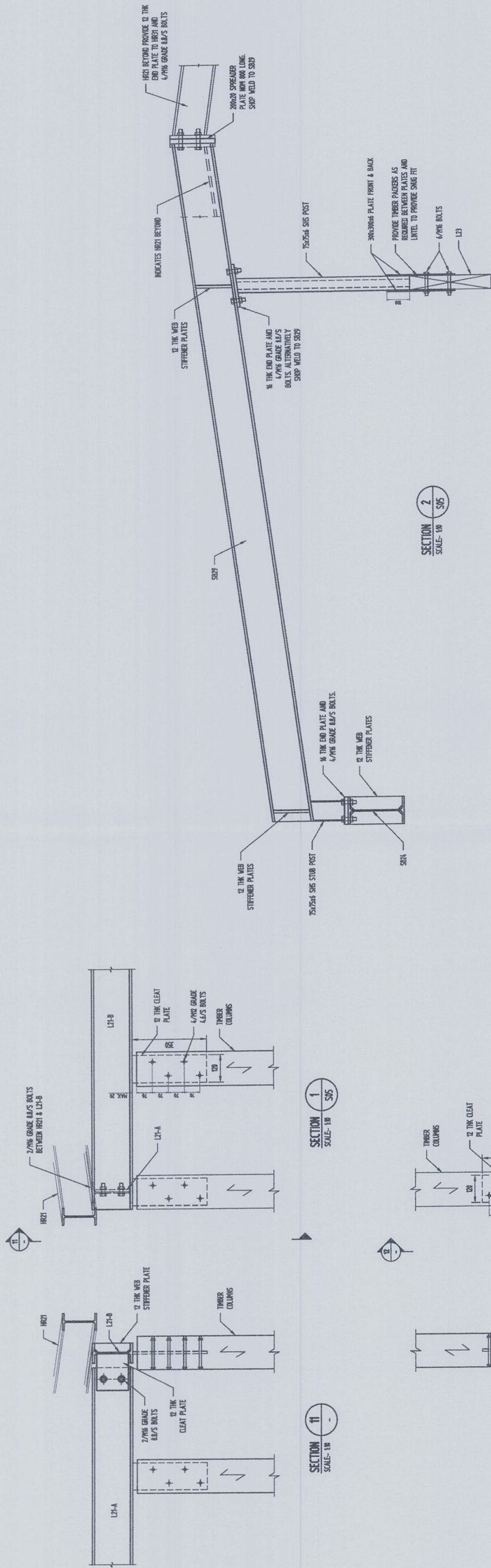
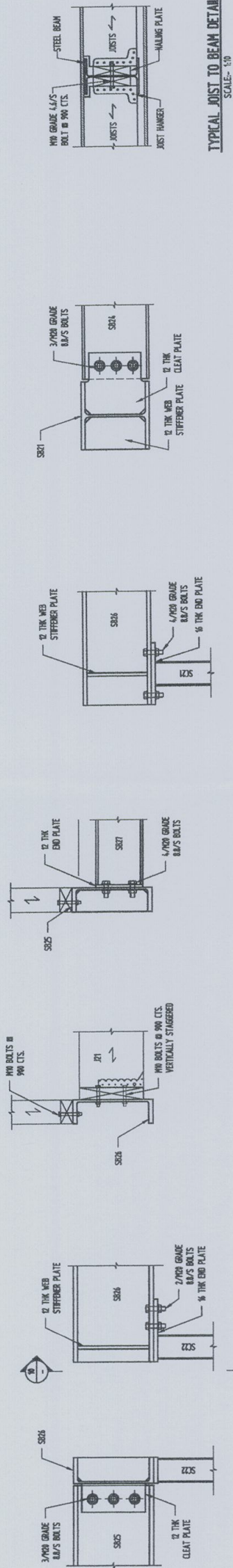
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**PROPOSED RESIDENCE AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD**

Title
ROOF PLAN

[illegible]



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Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD

Title
SECTIONS & DETAILS - SHEET 3

Job No. 12222

Drawn B. PERINCE

Designed M. O'Hearn

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Issue A

Drawing No. S09

Revision

Rev.	Description
1	ISSUED FOR CONSTRUCTION

Drawn B.P.

Designed M.O.

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD

Title
SECTIONS & DETAILS - SHEET 3

Job No. 12222

Drawn B. PERINCE

Designed M. O'Hearn

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Issue A

Drawing No. S09

Revision

Rev.	Description
1	ISSUED FOR CONSTRUCTION

Drawn B.P.

Designed M.O.

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD

Title
SECTIONS & DETAILS - SHEET 3

Job No. 12222

Drawn B. PERINCE

Designed M. O'Hearn

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Issue A

Drawing No. S09

Revision

Rev.	Description
1	ISSUED FOR CONSTRUCTION

Drawn B.P.

Designed M.O.

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
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SECTIONS & DETAILS - SHEET 3

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Date 1:10 PM A1

Scale 1:20

Issue A

Drawing No. S09

Revision

Rev.	Description
1	ISSUED FOR CONSTRUCTION

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Date 1:10 PM A1

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Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
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Issue A

Drawing No. S09

Revision

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Date 1:10 PM A1

Scale 1:20

Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
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Date 1:10 PM A1

Scale 1:20

Issue A

Drawing No. S09

Revision

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Scale 1:20

Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD

Title
SECTIONS & DETAILS - SHEET 3

Job No. 12222

Drawn B. PERINCE

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Date 1:10 PM A1

Scale 1:20

Issue A

Drawing No. S09

Revision

Rev.	Description
1	ISSUED FOR CONSTRUCTION

Drawn B.P.

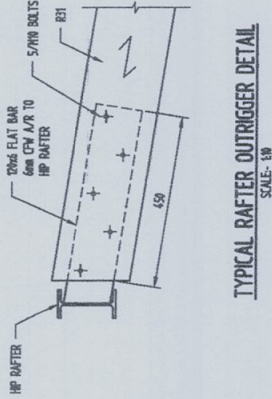
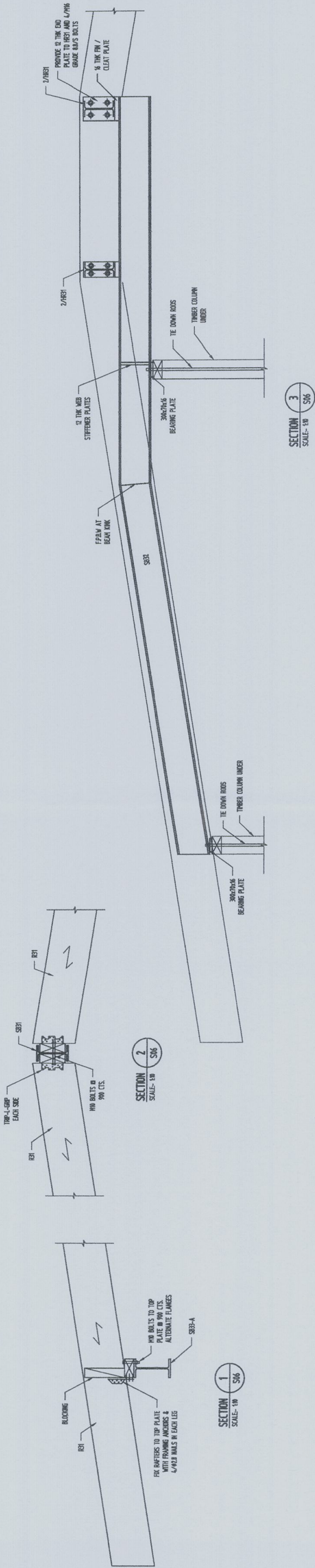
Designed M.O.

Checkd FEBRUARY 2013

Date 1:10 PM A1

Scale 1:20

Project
PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH</



TYPICAL RAFTER OUTTRIGGER DETAIL
SCALE: 1/8" = 1'-0"

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Project
**PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD**

Title
SECTIONS & DETAILS - SHEET 4

Date	Issued For Construction	Revision	Drawn
22/01/2015		A	BP

Designed	Job No.	Issue
B. PRENTICE	12222-2	
Checked	Drawn	Scale
M. O'DEARN		1:10 to A1 1:20 to A3
Date	Issue	
FEBRUARY 2015	S10	A

- P01. THE POOL HAS BEEN DESIGNED IN ACCORDANCE WITH A52783-1992 & A53600-2009 & A53735-2001 AS APPROPRIATE.
- P02. THE POOL HAS NOT BEEN DESIGNED FOR DIVING.
- P03. THE POOL HAS BEEN DESIGNED FOR AN EXPOSURE CLASSIFICATION OF B2.
- P04. CONCRETE SHALL BE MUST CURED FOR 7 DAYS SO THAT THE DESIGN REQUIREMENTS FOR SERVICEABILITY, DURABILITY AND STRENGTH ARE ACHIEVED. CURING COMPOUNDS SHOULD NOT BE USED; EFFECTIVE MOST CURING MAY BE OBTAINED BY A COMBINATION OF MEANS SUCH AS WET CURING, SEALING WITH PLASTIC SHEETS OR OTHER MEANS APPROVED BY THE DESIGNER.
- P05. THE POOL HAS BEEN DESIGNED ASSUMING IT IS SUPPORTED BY PIERS TO ROCK OR DIRECTLY ON ROCK WITH AN ALLOWABLE BEARING CAPACITY OF 7000KPa. IF ADVERSE SOIL CONDITIONS ARE FOUND ON SITE CONSULT THE STRUCTURAL ENGINEER IMMEDIATELY. GEOTECHNICAL ENGINEER TO CONFIRM CAPACITY ON SITE.
- P06. THE SUPPLY OF CONCRETE SHALL BE IN ACCORDANCE WITH A53400-2009 AND A52783-1992 AS APPROPRIATE. CONCRETE IS ASSUMED PNEUMATICALLY APPLIED THE PLACING OF PNEUMATICALLY APPLIED CONCRETE SHALL BE CARRIED OUT ONLY BY OPERATORS EXPERIENCED IN THIS TYPE OF CONCRETE) WITH THE FOLLOWING GRADE:

Element	Strength Grade (MPa)	Slump (mm)	Aggreg. (Max. mm)	Cover	
				Water side	Soil side
POOL SHELL	N4.0	100	20	50	60
					50

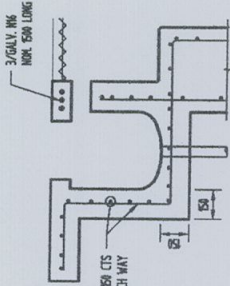
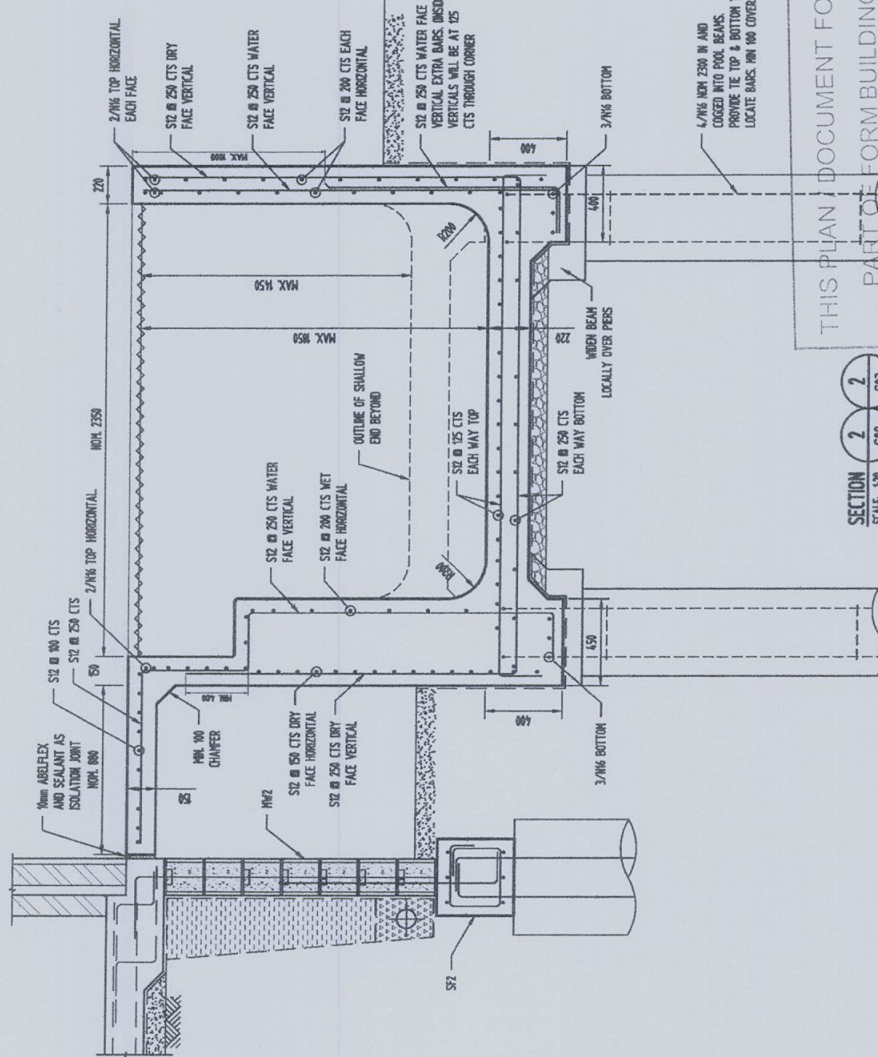
REINFORCEMENT SHALL BE AS SHOWN ON THE FOLLOWING DRAWINGS AND BE ANY ONE OF, OR ANY COMBINATION OF, STEEL BARS, HARD-DRAWN WIRE, OR WELDED WIRE FABRIC AS FOLLOWS:

S - DENOTES GRADE 250 NORMAL DUCTILITY DEFORMED BAR TO AS 4671-2001.

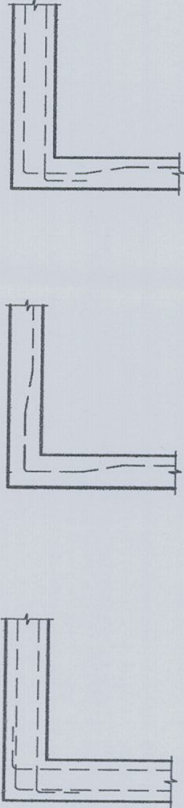
N - DENOTES GRADE 250 NORMAL DUCTILITY DEFORMED BAR TO AS 4671-2001.

THE POOL HAS BEEN DESIGNED ASSUMING IT WILL CONTAIN NON AGGRESSIVE WATER. (ie. CHLORINATED WATER OR STANDARD SALT WATER).

THE CONCRETE COVER SHALL BE MAINTAINED DURING THE PLACING OF CONCRETE AND SHALL NOT BE LESS THAN THAT SPECIFIED IN THE TABLE ABOVE. (THE CLEAR COVER SHALL BE MEASURED AS THE MINIMUM DISTANCE BETWEEN THE OUTSIDE OF ANY REINFORCEMENT, INCLUDING FITTINGS, AND THE NEAREST PERMANENT SURFACE OF CONCRETE, EXCLUDING RENDER OR OTHER SURFACE FINISHING MATERIALS).



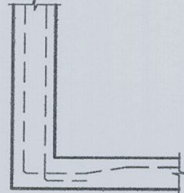
SKIMMER BOX DETAIL
SCALE- 1/20



TYPICAL WALL CORNER DETAIL

TYPICAL WALL CORNER DETAIL

TYPICAL WALL CORNER DETAIL



TYPICAL WALL CORNER DETAIL

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SECTION 2 2
SCALE- 120 S02 S03

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PROPOSED ALTERATIONS AND ADDITIONS AT
193 WHALE BEACH RD, WHALE BEACH
FOR DREW & ALISON BRADFORD

Title	POOL - SECTIONS & DETAILS
1	POOL - SECTIONS & DETAILS

Date	Remarks	Revision	Drawn	Design'd	Job No.	
11/2/23	ISSUED FOR REVIEW / ALL COMMENTS	A	B/C	B. PREMITE	12222-2	
11/2/23	ISSUED FOR REVIEW / ALL COMMENTS	B	B/C			
21/4/23	ISSUED FOR CONSTRUCTION	C	B/C	M. O'NEILL		
				Date	Drawing No.	
				FEBRUARY 2013		
				Scale	1" = 1'	
					1" = 1'	

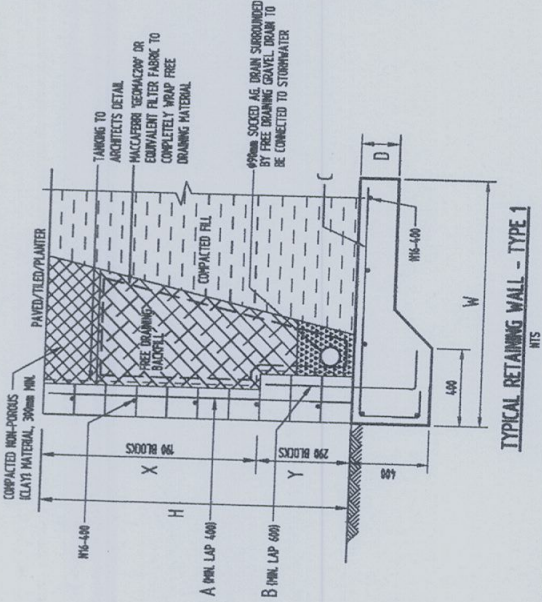
File Path: S:\aced L\to Z\Whale Beach - 193 Whale Beach Rd\12222-2 Rev 01.doc

MEMBER SCHEDULE

TAG	SIZE	COMMENTS
S81	800x22	APPROX 3.0m
S82	250x27	APPROX 5.0m
S83	250x27	APPROX 6.0m
S84	250x25	APPROX 5.0m
S85	300 PFC	APPROX 5.0m
S86	300 PFC	APPROX 6.0m
S87	800x22	APPROX 3.0m
S88	800x22	APPROX 3.0m
S89	800x22	APPROX 3.0m
S90	800x22	APPROX 3.0m
S91	800x22	APPROX 3.0m
S92	800x22	APPROX 3.0m
S93	800x22	APPROX 3.0m, 2 REQUIRED
S94	800x22	APPROX 3.0m
S95	800x22	APPROX 3.0m
S96	800x22	APPROX 3.0m
S97	800x22	APPROX 3.0m
S98	800x22	APPROX 3.0m
S99	800x22	APPROX 3.0m
S100	800x22	APPROX 3.0m
S101	800x22	APPROX 3.0m
S102	800x22	APPROX 3.0m
S103	800x22	APPROX 3.0m
S104	800x22	APPROX 3.0m
S105	800x22	APPROX 3.0m
S106	800x22	APPROX 3.0m
S107	800x22	APPROX 3.0m
S108	800x22	APPROX 3.0m
S109	800x22	APPROX 3.0m
S110	800x22	APPROX 3.0m
S111	800x22	APPROX 3.0m
S112	800x22	APPROX 3.0m
S113	800x22	APPROX 3.0m
S114	800x22	APPROX 3.0m
S115	800x22	APPROX 3.0m
S116	800x22	APPROX 3.0m
S117	800x22	APPROX 3.0m
S118	800x22	APPROX 3.0m
S119	800x22	APPROX 3.0m
S120	800x22	APPROX 3.0m
S121	800x22	APPROX 3.0m
S122	800x22	APPROX 3.0m
S123	800x22	APPROX 3.0m
S124	800x22	APPROX 3.0m
S125	800x22	APPROX 3.0m
S126	800x22	APPROX 3.0m
S127	800x22	APPROX 3.0m
S128	800x22	APPROX 3.0m
S129	800x22	APPROX 3.0m
S130	800x22	APPROX 3.0m
S131	800x22	APPROX 3.0m
S132	800x22	APPROX 3.0m
S133	800x22	APPROX 3.0m
S134	800x22	APPROX 3.0m
S135	800x22	APPROX 3.0m
S136	800x22	APPROX 3.0m
S137	800x22	APPROX 3.0m
S138	800x22	APPROX 3.0m
S139	800x22	APPROX 3.0m
S140	800x22	APPROX 3.0m
S141	800x22	APPROX 3.0m
S142	800x22	APPROX 3.0m
S143	800x22	APPROX 3.0m
S144	800x22	APPROX 3.0m
S145	800x22	APPROX 3.0m
S146	800x22	APPROX 3.0m
S147	800x22	APPROX 3.0m
S148	800x22	APPROX 3.0m
S149	800x22	APPROX 3.0m
S150	800x22	APPROX 3.0m
S151	800x22	APPROX 3.0m
S152	800x22	APPROX 3.0m
S153	800x22	APPROX 3.0m
S154	800x22	APPROX 3.0m
S155	800x22	APPROX 3.0m
S156	800x22	APPROX 3.0m
S157	800x22	APPROX 3.0m
S158	800x22	APPROX 3.0m
S159	800x22	APPROX 3.0m
S160	800x22	APPROX 3.0m
S161	800x22	APPROX 3.0m
S162	800x22	APPROX 3.0m
S163	800x22	APPROX 3.0m
S164	800x22	APPROX 3.0m
S165	800x22	APPROX 3.0m
S166	800x22	APPROX 3.0m
S167	800x22	APPROX 3.0m
S168	800x22	APPROX 3.0m
S169	800x22	APPROX 3.0m
S170	800x22	APPROX 3.0m
S171	800x22	APPROX 3.0m
S172	800x22	APPROX 3.0m
S173	800x22	APPROX 3.0m
S174	800x22	APPROX 3.0m
S175	800x22	APPROX 3.0m
S176	800x22	APPROX 3.0m
S177	800x22	APPROX 3.0m
S178	800x22	APPROX 3.0m
S179	800x22	APPROX 3.0m
S180	800x22	APPROX 3.0m
S181	800x22	APPROX 3.0m
S182	800x22	APPROX 3.0m
S183	800x22	APPROX 3.0m
S184	800x22	APPROX 3.0m
S185	800x22	APPROX 3.0m
S186	800x22	APPROX 3.0m
S187	800x22	APPROX 3.0m
S188	800x22	APPROX 3.0m
S189	800x22	APPROX 3.0m
S190	800x22	APPROX 3.0m
S191	800x22	APPROX 3.0m
S192	800x22	APPROX 3.0m
S193	800x22	APPROX 3.0m
S194	800x22	APPROX 3.0m
S195	800x22	APPROX 3.0m
S196	800x22	APPROX 3.0m
S197	800x22	APPROX 3.0m
S198	800x22	APPROX 3.0m
S199	800x22	APPROX 3.0m
S200	800x22	APPROX 3.0m

- NOTES:
1. ANY DAMAGED NOT OR GALVANIZED COATING TO BE REPAIRED USING ZINC RICH PRIMER.
 2. TWO-PACK ZINC RICH EPOXY PRIMER.
 3. PRIMER TO BE APPLIED TO ALL SURFACES TO BE PAINTED.
 4. ALL SURFACES TO BE PAINTED WITH APPROPRIATE AND FOR INFORMATION ONLY.

TAG	SIZE	COMMENTS
L1	100mm ULTIMATE	PRESTRESSED CONCRETE LINTEL
L2	100mm ULTIMATE	STAINLESS STEEL LINTEL
L3	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L4	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L5	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L6	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L7	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L8	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L9	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L10	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L11	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L12	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L13	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L14	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L15	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L16	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L17	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L18	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L19	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L20	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L21	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L22	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L23	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L24	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L25	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L26	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L27	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L28	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L29	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L30	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L31	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L32	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L33	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L34	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L35	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L36	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L37	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L38	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L39	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L40	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L41	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L42	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L43	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L44	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L45	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L46	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L47	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L48	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L49	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L50	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L51	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L52	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L53	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L54	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
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L56	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L57	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L58	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L59	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L60	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L61	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L62	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L63	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L64	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L65	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L66	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L67	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L68	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L69	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L70	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L71	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L72	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L73	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L74	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L75	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L76	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L77	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L78	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L79	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L80	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L81	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L82	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L83	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L84	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
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L92	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L93	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
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L99	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING
L100	100mm ULTIMATE	ULS GAVY LINTEL - EPOXY PAINT TO ADHERE IN RATING



SCHEDULE FOR RETAINING WALL - TYPE 1									
H	X	Y	D	W	A	B	C		
600	600-140 BLOCK	0	200	500	102-400	102-400	102-400		
800	800-140 BLOCK	0	200	700	102-400	102-400	102-400		
1000	1000	0	200	900	102-400	102-400	102-400		
1200	1200	0	200	1100	102-400	102-400	102-400		
1400	1400	0	200	1300	102-400	102-400	102-400		
1600	1600	0	200	1500	102-400	102-400	102-400		
1800	1800	0	200	1700	102-400	102-400	102-400		
2000	2000	0	200	1900	102-400	102-400	102-400		
2200	2200	0	200	2100	102-400	102-400	102-400		
2400	2400	0	200	2300	102-400	102-400	102-400		
2600	2600	0	200	2500	102-400	102-400	102-400		
2800	2800	0	200	2700	102-400	102-400	102-400		
3000	3000	0	200	2900	102-400	102-400	102-400		
3200	3200	0	200	3100	102-400	102-400	102-400		

SCHEDULE FOR RETAINING WALL - TYPE 2									
H	X	Y	D	W	A	B			
600	600-140 BLOCK	0	200	600	102-400	102-400			
800	800-140 BLOCK	0	300	800	102-400	102-400			
1000	1000	0	400	1000	102-400	102-400			
1200	1200	0	500	1200	102-400	102-400			
1400	1400	0	600	1400	102-400	102-400			
1600	1600	0	700	1600	102-400	102-400			
1800	1800	0	800	1800	102-400	102-400			
2000	2000	0	900	2000	102-400	102-400			
2200	2200	0	1000	2200	102-400	102-400			
2400	2400	0	1100	2400	102-400	102-400			
2600	2600	0	1200	2600	102-400	102-400			
2800	2800	0	1300	2800	102-400	102-400			
3000	3000	0	1400	3000	102-400	102-400			
3200	3200	0	1500	3200	102-400	102-400			

The Public Service of the State of New South Wales

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