(2)

BUILDING CERTIFIERS form

CONSTRUCTION CERTIFICATE # 2010/244

Approved 07/10/10

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

Date Application Received	06/10/10				
Council	Pittwater				
Development Consent No	N0413/10	Date Approved	15/09/10		
Certifying Authority	Craig Formosa	Accredited Certifier	Craig Formosa BPB0124		
Accreditation Body	Building Professionals Board				
APPLICANT DETAILS					
Name	Ben Eggleton & Nicole Thornton	Ph No	0419 277 900		
Address	PO Box 518 AVALON NSW 2107				
OWNER DETAILS					
Name	Ben Eggleton & Nicole Thornton				
Address	55 Binburra Avenue AVALON NSW 2107				
DEVELOPMENT DETAILS					
Subject Land	55 Binburra Avenue AVALON NSW 2107	Lot No	50	DP	22275
Description of Development	Substantial alterations and additions to an existing dwelling				
Class of Building	1a 10a	Value of Work	$276 000 00		
BUILDER DETAILS					
Name	Ben Eggleton (BHE Building Pty Ltd)				
Address	PO Box 518 AVALON NSW 2107				
Contact Number	0419 277 900	License No	167096C		
APPROVED PLANS & DOCUMENTS					
Plans Prepared By	Add style Home Additions				
Drawing Numbers	500 DA 1 Issue C	Dated	16 05 10		
Engineer Details Prepared By	Northern Beaches Consulting Engineers				
Drawing Numbers	S01 S17 D01 – D03 Rev A	Dated	21/09/2010	Sept 10	
Basix Certificate No	A85794	Dated	02/06/10		

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 C formosa Date 06/10/10

$30 PRVC $R 289787

Form Building Certifiers Pty Ltd
PO Box 1824
DEE WHY NSW 2099
p/f - (02) 8021 9313

PAID
DATE 06/10/10 CHQ NO

BUILDING CERTIFIERS form

ABN 76 134 030 710

Bill To

Ben Eggleton & Nicole Thornton
55 Binburra Avenue
AVALON NSW 2107

Invoice #00000526
Date 6/10/10

Description	Amount	Code
Preparation & Issue of construction certificate & provide PCA Services	$1,580 00	GST

Direct Deposit Details
Commenwealth Bank
BSB 062302
ACC 10078686

Terms 7 Days

GST	$158 00
Total Inc GST	$1,738 00
Amount Applied	$1,738 00
Balance Due	$0 00

This Payment is made under th Building Construction Industry Security of Payments Act 1999 as Amended in 2002

BUILDING CERTIFIERS

form

6 October 2010
Pittwater Council
PO Box 882
MONA VALE NSW 1660

Dear Sir or Madam

Re Lodgement of CC2010/244 for DA N0413/10

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

Part 4A Lodgement Fee $30 00 payable to Council

Copy of Home Owner s Warranty Insurance/Owner Builder Permit

Sydney Water approval

1 full set of Council approved plans/Construction Certificate Plans amended as per condition B18 & C8

1 Structural Engineer s Plans & certificate of structural adequacy

1 Geotechnical Form 2

Hydraulic Engineers/Stormwater Drainage Plans

Receipt for payment of Long Service Levy

Schedule of external finishes

1 copy of Basix Certificate

Yours faithfully

Craig Formosa

Levy Online Payment Receipt

LONG SERVICE BUILDING & CONSTRUCTION

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

Applicant Name	BEN EGGLETON
Levy Application Reference	5008971
Application Type	DA
Application No	N041310
Local Government Area/Government Authority	PITTWATER COUNCIL
Site Address	55 BINBURRA AVENUE
	AVALON BEACH
	NSW
	2107
Value Of Work	$276,000
Levy Due	$966
Levy Payment	$966
Online Payment Ref	600064029
Payment Date	5/10/2010 6 33 57 PM

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

QUICK CHECK **Application Lodgement Summary** Sydney WATER

Reference Number 2986131 **Date Requested** Tue September 28 2010

Agent	Reece Mona Vale, 10 Taronga Pl Mona Vale
Applicant	Ben Eggleton, 55 Binburra Ave Avalon 2107
Property/Asset	55 Binburra Ave, Avalon 2107 (Mj Van Langenberg) PNum 4730708 150 mm DICL Sewer Main - (3145062)
Product	Building Plan Approval Application

Charge	Product Cost	GST	Total
Building Plan Approval Application Fee	$26 45	$0 00	$26 45

Property Special Conditions for Plumbers

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

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

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

A water meter is required to be fitted to the property during construction You will need to ensure that your licensed plumber carries out this work in accordance to the relevant codes and standards

BASIX Certificate

Building Sustainability Index www basix nsw gov au

Alterations and Additions

Certificate number A85794

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 Wednesday 02 June 2010

NSW GOVERNMENT | Planning

Description of project

Project address	
Project name	House Eggelton
Street address	55 Binburra Avenue Avalon 2107
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 22275
Lot number	50
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)

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

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

Construction	*Additional insulation required (R-value)*	*Other specifications*
floor above existing dwelling or building	nil	
external wall framed (weatherboard, fibro, metal clad)	R1 30 (or R1 70 including construction)	
flat ceiling pitched roof	ceiling R0 45 (up), roof foil backed blanket (100 mm)	medium (solar absorptance 0 475 - 0 70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices in accordance with the specifications listed in the table below Relevant overshadowing specifications must be satisfied for each window and glazed door	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door		✓	✓
Each window or glazed door with 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	2 88	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear, (or U value 7 63 SHGC 0 75)
W2	N	3 6	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U value 7 63, SHGC 0 75)
W3	E	1 08	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)
W4	S	0 84	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)
W5	S	0 63	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U value 7 63 SHGC 0 75)

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W6	S	0 72	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium, single clear (or U value 7 63, SHGC 0 75)			
W7	S	2 52	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W8	W	1 08	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value 7 63, SHGC 0 75)			
W9	W	0 84	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium, single clear (or U value 7 63 SHGC 0 75)			
W10	W	1 35	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U value 7 63, SHGC 0 75)			
W11	N	1 35	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear, (or U-value 7 63 SHGC 0 75)			
W20	N	2 52	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium single clear (or U value 7 63 SHGC 0 75)			
D1	N	11 55	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium single clear (or U value 7 63 SHGC 0 75)			
W21	N	2 52	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W22	N	0 8	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium, single clear (or U-value 7 63, SHGC 0 75)			
W23	E	1 8	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U value 7 63 SHGC 0 75)			
W24	S	0 63	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W25	S	2 52	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U value 7 63 SHGC 0 75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W26	S	0 945	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W27	S	0 63	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W28	W	2 16	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W29	W	2 16	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
D4	N	7 56	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W30	N	0 8	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			
W31	E	0 63	0	0	eave/verandah/pergola/balcony >=750 mm	standard aluminium single clear (or U-value 7 63 SHGC 0 75)			

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

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

Development Application for Ben Eggleton
Name of Applicant

Address of site 55 Binburra Avenue, Avalon

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

I Rick Wray (insert name) **on behalf of** Northern Beaches Consulting Engineers Pty Ltd (trading or company name)

on this the 30th September 2010 (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	REPORT ON GEOTECHNICAL INVESTIGATION FOR ALTERATIONS AND ADDITIONS
Report Date	21st June 2010
Author	Troy Crozier
Author's Company/Organisation	**CROZIER – Geotechnical Consultants**

Structural Documents list

Job No 100736 Drawing No s S01-S17

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

Name Rick Wray

Chartered Professional Status CPEng NPER

Membership No 803983

Company Northern Beaches Consulting Engineers Pty Ltd

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

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, Peter Crozier (insert name) on behalf of **Crozier Geotechnical Consultants** (trading or company name)

on this the 1st October 2010 (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 2099 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 #2010-082
Report Date	21st June 2010
Author	T Crozier

Documentation which relates to or is relied upon in report preparation

Structural Dwgs NB Consulting Engineers, Job No 100736
Dwg Nos S01 to S17, Sept. 10
Stormwater Management Plans NB Consult 100736, D01-D03

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

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

Registered Professional Engineer 691550
Mr Peter Crozier
MIEAust CPEng (Civil / Geotechnical)
NPER
Signature Date 1/10/2010
Registered on the NPER in the area of practice of
Civil / Geotechnical
National Professional Engineers Register

DIRECTORS
Stewart McGeady Rick Wray Brad Seghers

Certificate of Existing Structural Adequacy

Date 3 August 2010 Job No 100736
Client Ben Eggleton Engineer BS/RW

Site 55 Binburra Avenue, Avalon

Brad Seghers of Northern Beaches Consulting Engineers P/L carried out a site inspection at the above residential premises in July 2010 The purpose of the visit was to inspect and comment on the capacity of the existing structure to support the proposed additions and alterations as per approved architectural plans by Addstyle dated 16/05/2010

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

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

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

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

NORTHERN BEACHES CONSULTING ENGINEERS P/L

Rick Wray
BE CPEng NPER Director

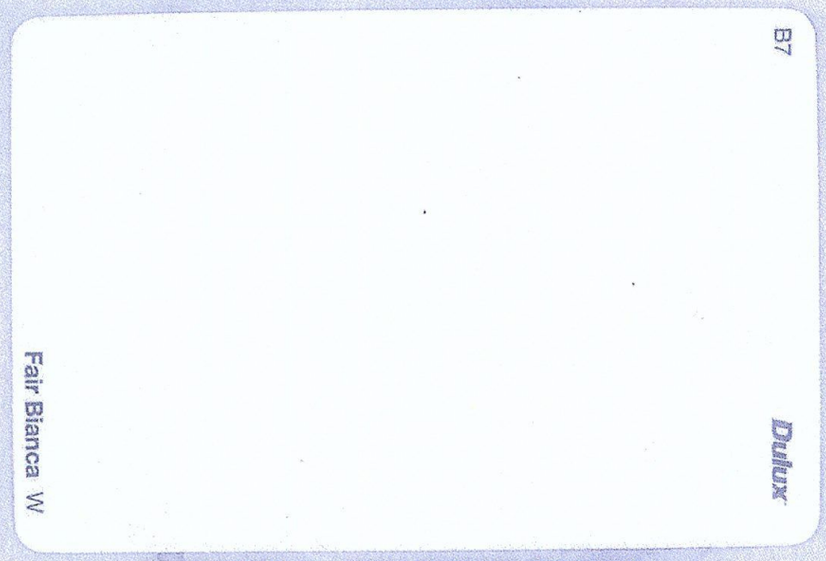
THIS PLAN / DOCUMENT FORMS PART OF FORM BUILDING CERTIFIERS CC / CDC

N0413/10

55 BINBURRA AVENUE, AVALON

- COLOUR SCHEDULE

CLADDING 1 – NIPPON 'TRAVERTINE 2'



CLADDING 2 – DULUX 'FAIR BIANCA'

ROOF COLOUR – LYSAGHT COLOURBOND STEEL 'SHALE GRAY'

PROPOSED ADDITIONS

At: 55 Binburra Ave,
Avalon N.S.W. 2107

Architect: Addstyle

Prepared By:

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

DRAWING SCHEDULE

100736

21 09 2010

GENERAL NOTES:

GENERAL

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

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

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

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

G5 Design live loads are in accordance with AS 1170 1

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

FOOTINGS

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

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

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

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

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

Sand Foundations:

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

Clay Foundations:

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

Shale Foundations

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

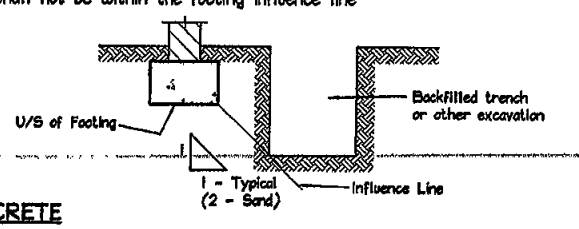
Sandstone Foundations:

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

Refer adjacent for assumed Design bearing strata

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

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



CONCRETE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REINFORCEMENT

R1 All reinforcement specified is Grade D500 unless noted otherwise

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

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

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

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

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

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

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

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

FORMWORK

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

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

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

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

BRICKWORK

BR1 Brickwork is to be constructed to AS 3700

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

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

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

BR5 Exposure grade bricks to be used below damp proof course

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

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

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

BLOCKWORK

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

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

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

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

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

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

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

BL8 Max pour height for unrestrained blockwork is 2000

STEEL

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

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

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

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

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

S6 Bolt Designation
4 6S - Commercial bolts Grade 4 6, snug tightened
8 8S - High Strength structural bolts Grade 8 8, snug tightened
8 8TB - High Strength structural bolts Grade 8 8, fully tightened to AS 1511 and acting as a Bearing Joint
8 8TF - High Strength structural bolts Grade 8 8, fully tensioned to AS 1511 and acting as a Bearing Joint
Unless noted otherwise, all bolts will be 8 8S

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

S8 Load indicating washers shall be used in all fully tensioned joints (8 8TF & 8 8TB)

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

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

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

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

S13 Purlin bolts shall be M12 4 6S galvanised.

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

INTERNAL

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

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

b Preparation Blast clean to a minimum standard Class 2 5 in accordance with AS 1627 Part 4
Primer 2-pack epoxy phosphate at dft 75 microns (Dulux Durepon P14)
Barrier Coat 2-pack epoxy micaceous iron oxide, dft 100 microns
Finish Coat 2-pack epoxy high gloss acrylic to dft 75 microns
(e g Dulux Acrathane 1 F)

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

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

d Preparation blast clean to minimum Class 2 5
Application of a two pack zinc rich epoxy primer (Dulux Zincanode 402) thickness 75 microns Application of a general purpose epoxy (Dulux Duremax GPE) thickness 125 microns Application of a high build polyurethane (Dulux Weathermax HBR) thickness 100 microns

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

TIMBER

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

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

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

T4 All holes for bolts to be exact size Washers to be used under all heads and nuts and to be at least 2 5 times the bolt diameter Bolts to be M16 grade 4 6 unless noted otherwise

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

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

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

T8 Continuous nailing must not be used for any timber connections

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

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

COMPACTED FILL

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

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

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

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

INSPECTIONS BY ENGINEER

48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION

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

ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES - 'P'
ASSUMED BEARING STRATA FOR DESIGN PURPOSES - ROCK, 600 kPa
CONTRACTOR TO ENGAGE GEOTECHNICAL CONSULTANT TO VERIFY FOUNDATION CLASSIFICATION

A3

Date	Rev	Amendment	By
-	-	-	-

DOCUMENT CERTIFICATION
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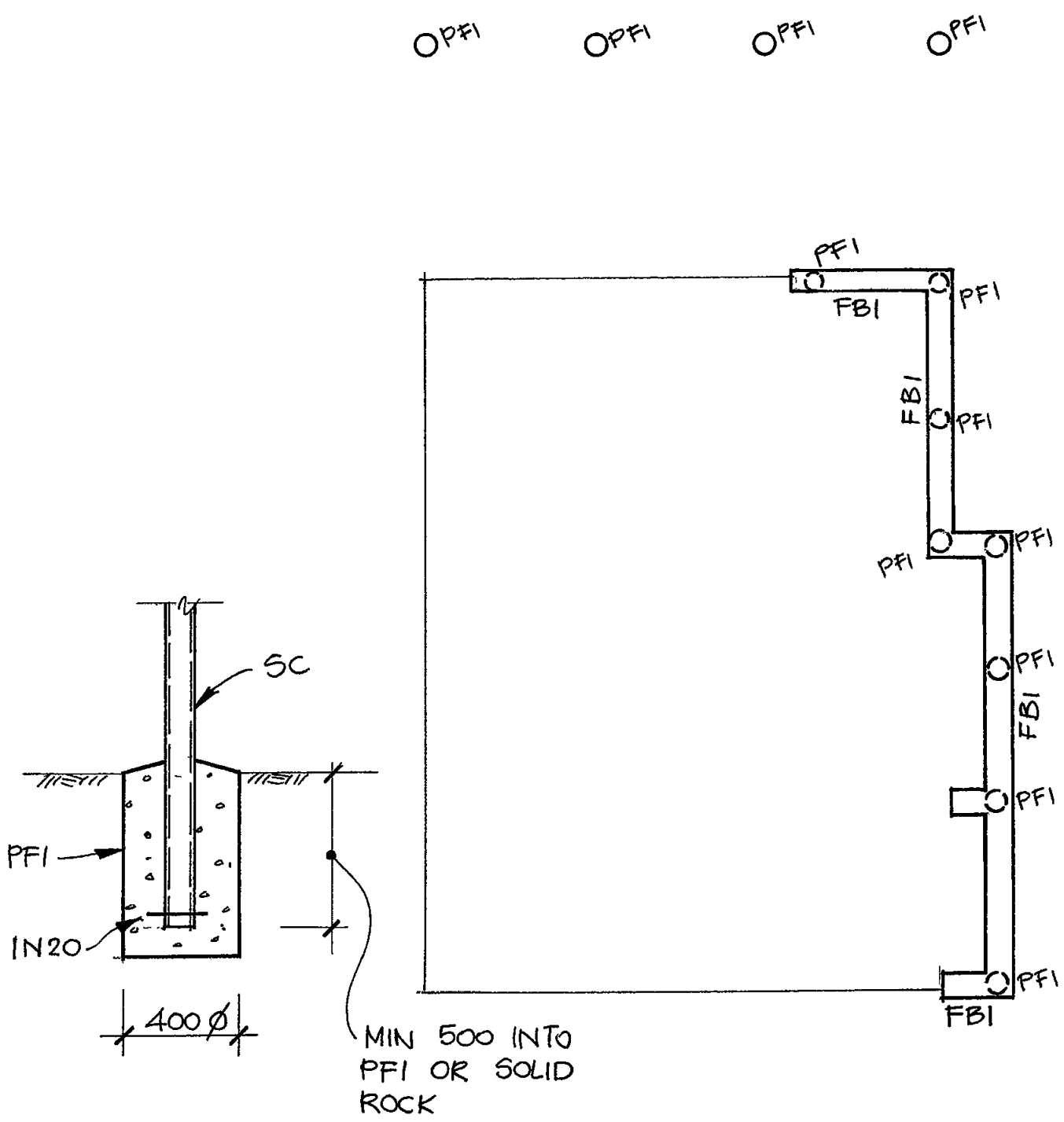
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: LFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: GENERAL NOTES	Job No: 100736		Drawing No: S01	Rev:

NOTES

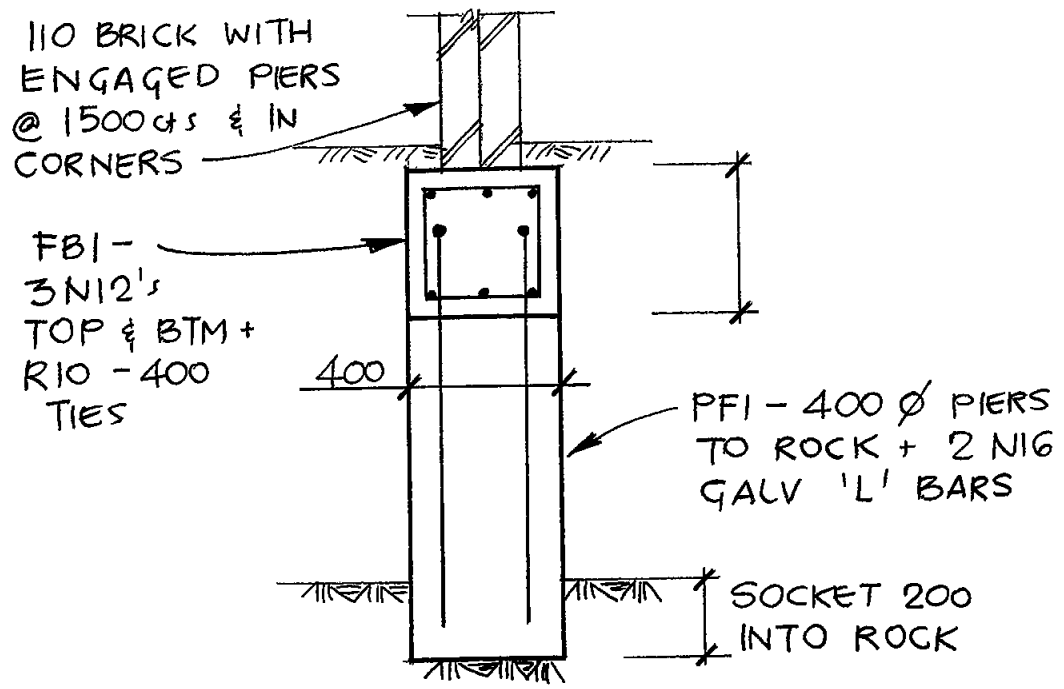
1 ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK

2 FOR GENERAL NOTES REFER TO DRAWING NUMBER S01

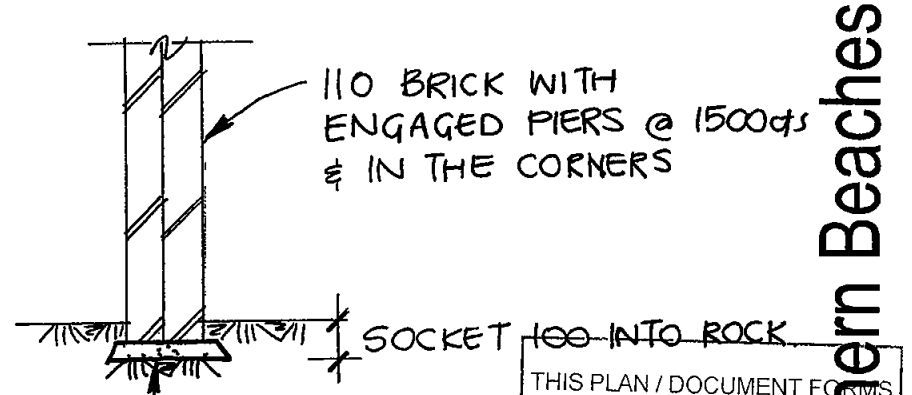


FOOTING PLAN
1100

SC BASE DETAIL (PF1)
1 20



FB1 - LOW LEVEL ROCK OPTION
1 20



FB1 - HIGH LEVEL ROCK OPTION
1 20

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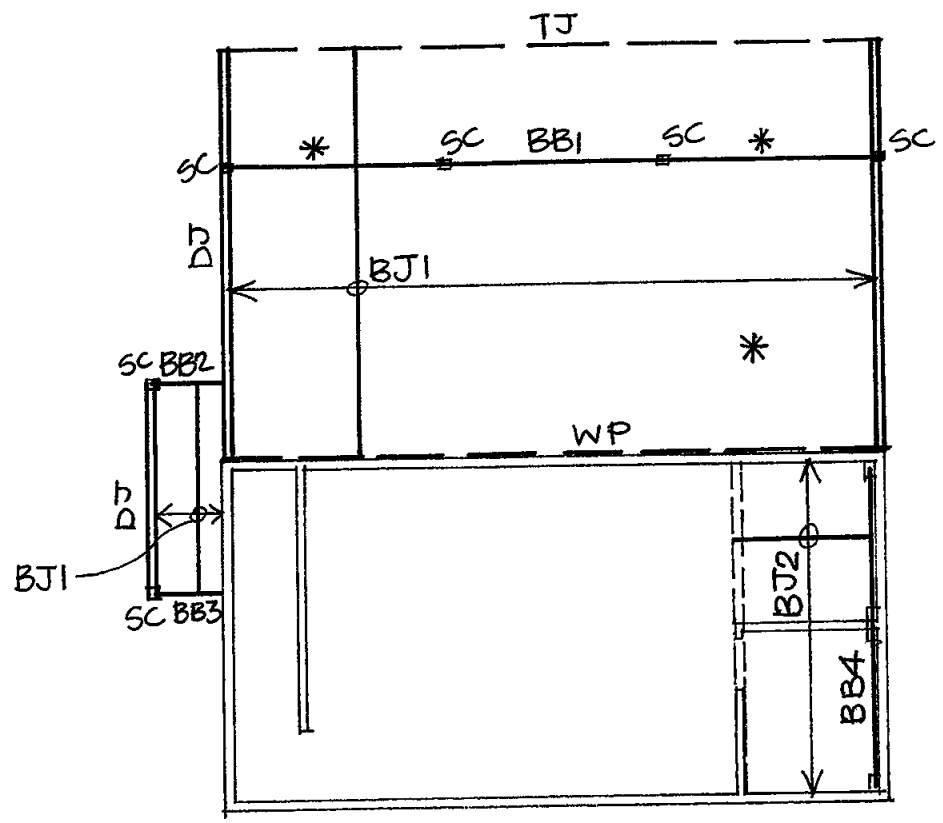
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS
Client: BEN EGGLETON	Drawing Title: FOOTING PLAN	Job No: 100736	Drawing No: S02
Drawn: LFC	Checked: RGW	Rev:	



BASEMENT LEVEL DECK FRAMING
1100

NOTES

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2 FOR GENERAL NOTES REFER TO DRAWING NUMBER S01

BJ1 240x45 MGP10 JOISTS @ 300cts OR
290x45 MGP10 JOISTS @ 450 cts FOR MAX 1500mm CANTILEVER OR
240x45 MGP10 @ 450cts FOR MAX 1300mm CANTILEVER

DJ DOUBLE JOIST

BB1 2/290x45 MGP10 NAIL & GLUE LAMINATED H3 TREATED OR 180 PFC HDG

BB2, BB3 140x70 MGP10

WP 90x70 MGP10 H3 TREATED WALL PLATE + M12 EPOXY ANCHORS AT 600cts

SC 89x89x6 SHS (REFER DRG S02 FOR BASE DETAIL)

* MAKE ALLOWANCE FOR POSSIBLE VERTICAL BRACING IN FRONT END BAYS & HORIZONTAL BRACING TO UNDERSIDE OF JOISTS TO BE DETERMINED DURING CONSTRUCTION

BJ2 150x45 LVL JOISTS @ 450cts

BB4 150 x 63 LVL

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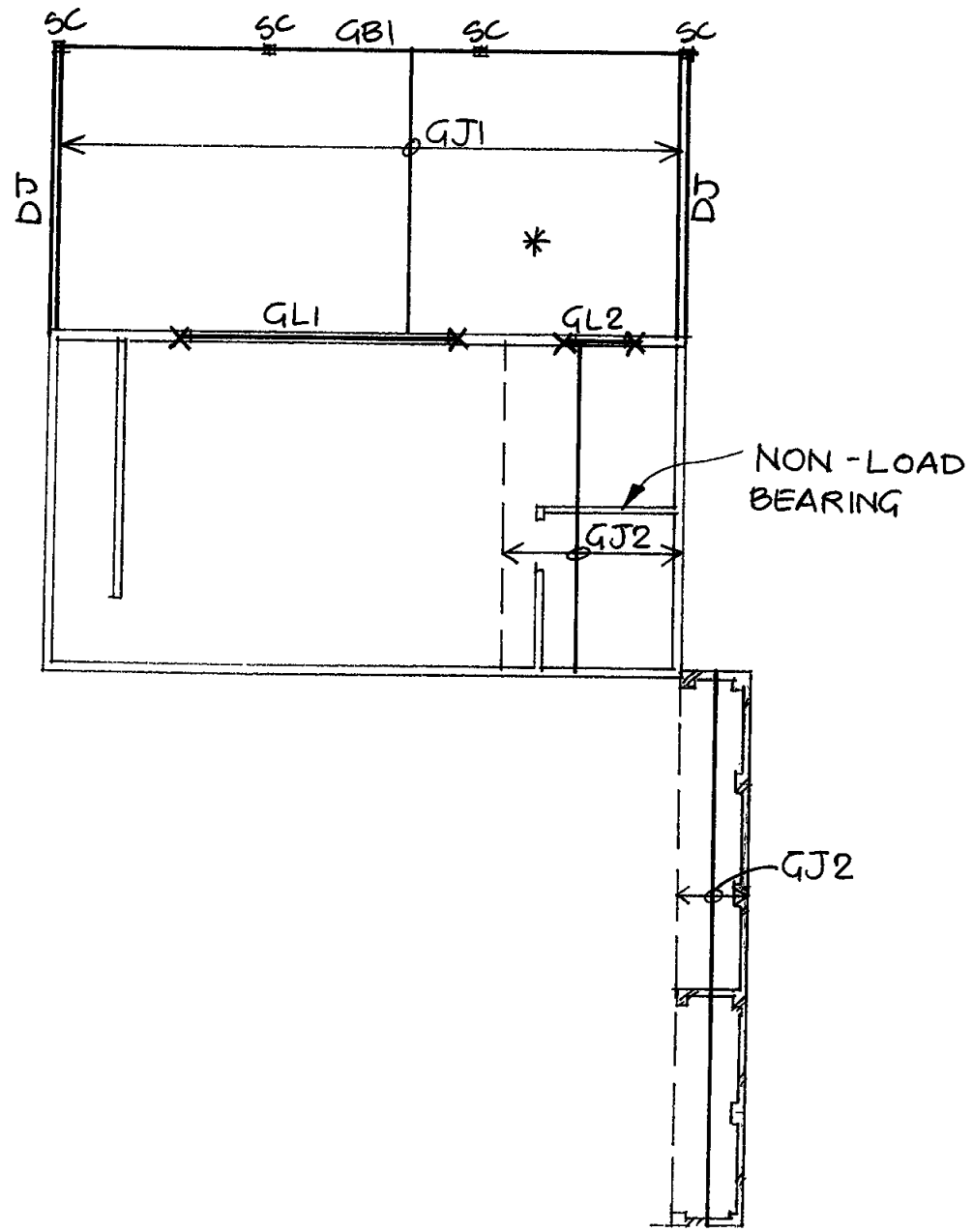
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: LFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: BASEMENT LEVEL DECK FRAMING	Job No: 100736		Drawing No: S03	Rev:



GROUND FLOOR DECK FRAMING
1100

NOTES

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2 FOR GENERAL NOTES REFER TO DRAWING NUMBER S01

GJ1 240x45 MGP 10 H3 TREATED JOISTS @ 450 cts

GJ2 HJ 240 63 HYJOIST @ 450 cts

DJ DOUBLE JOIST

GB1 2/240x45 NAIL & GLUE LAMINATED MGP 10 OR 290x70 MGP 10 H3 TREATED BEARER OR 180 PFC HDG

GL1 2/240x45 NAIL & GLUE LAMINATED OR 300x63 LVL

GL2 2/140x45 MGP 10

SC 89x89x6 SHS

* MAKE ALLOWANCE FOR POSSIBLE HORIZONTAL BRACING TO UNDERSIDE OF JOISTS TO BE DETERMINED DURING CONSTRUCTION

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Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: B S	Drawn: LFC	Checked: RGW	
Client: BEN EGGLETON	Drawing Title: GROUND FLOOR DECK FRAMING	Job No: 100736	Drawing No: S04	Rev:		

NOTES

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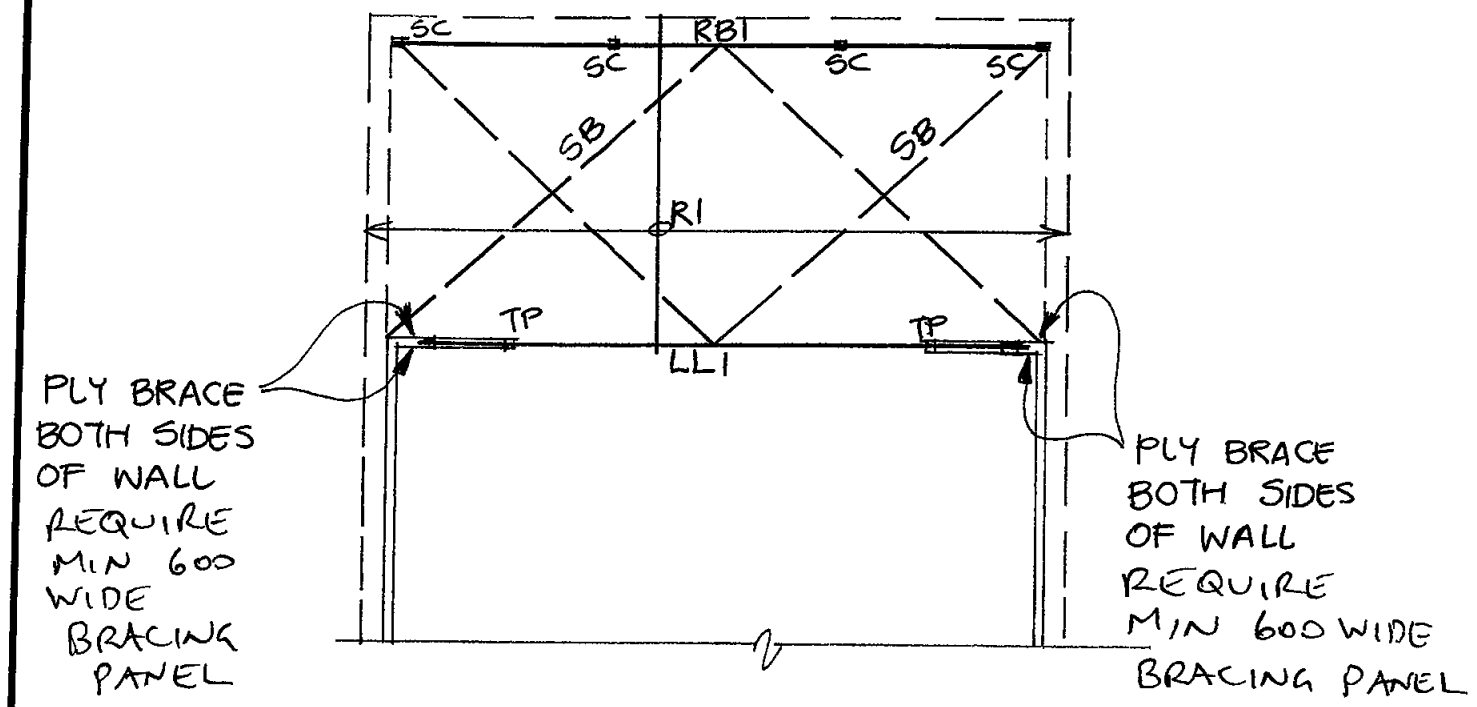

LL1 400x75 LVL } NO DOOR LOADS
OR 200 PFC }

RB1 240x70 MGP10 H3 TREATED

TP 90x90 MGP10 POST

R1 190x45 MGP10 RAFTERS @ 600cts

SB SPEED BRACING & TENSIONERS TO UNDERSIDE OF RAFTERS

SC 89x89x6 SHS

DECK ROOF FRAMING PLAN

1:100

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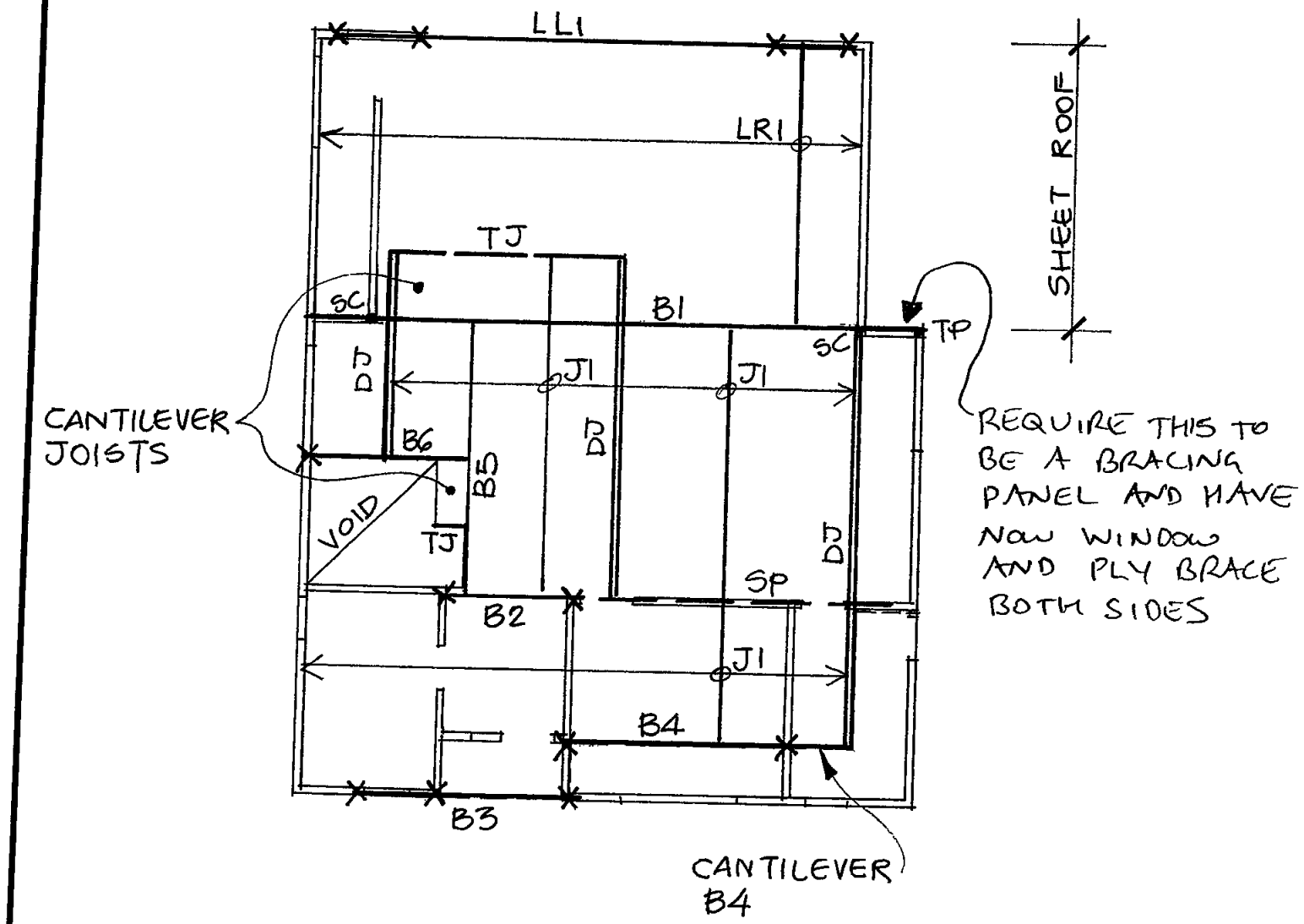
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: UFC	Checked: RGW	
Client: BEN EGGLETON	Drawing Title: DECK ROOF FRAMING PLAN	Job No: 100736		Drawing No: S05	Rev:	



FIRST FLOOR & LOWER ROOF FRAMING PLAN
1:100

NOTES

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2 FOR GENERAL NOTES REFER TO DRAWING NUMBER S01

LL1 REFER S05

B1 310 UC 98 OR 410 UB 59
B2, B3 200x63 LVL
B4 300x75 LVL
B5 2/240x45 LVL NAIL & GLUE LAMINATED OR 300x63 LVL
B6 240x63 LVL

SC 90x90x6 SHS

J1 HJ 240 45 HYJOIST @ 450 cts CONTINUOUS OR HJ 240 63 HYJOIST @ 450 cts
DJ DOUBLE JOIST
SP 95x63 LVL SPREADER

LR1 170x45 LVL OR HJ 200 45 HYJOIST @ 600 cts

X - LOAD CONCENTRATION POINT ENSURE DOUBLE STUD OR SPREAD LOAD OVER 3 STUDS MIN WITH SP

NOTE LOAD CONCENTRATION POINTS TO BE IDENTIFIED BY BUILDER & ENGINEER TO CONFIRM IF SUB-FLOOR STRENGTHENING OR UNIPIERS ARE REQUIRED (SIMILARLY FOR SC1's)

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Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: LFC	Checked: RW	
Client: BEN EGGLETON	Drawing Title: FIRST FLOOR FRAMING PLAN	Job No: 100736		Drawing No: S06	Rev:	

NOTES

1 ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK

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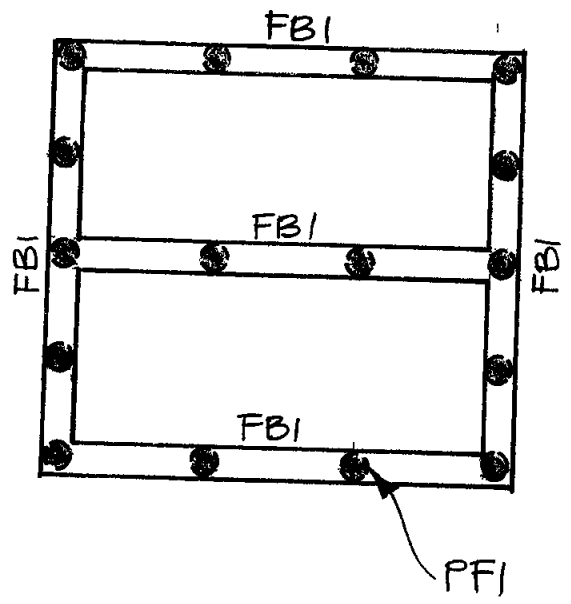
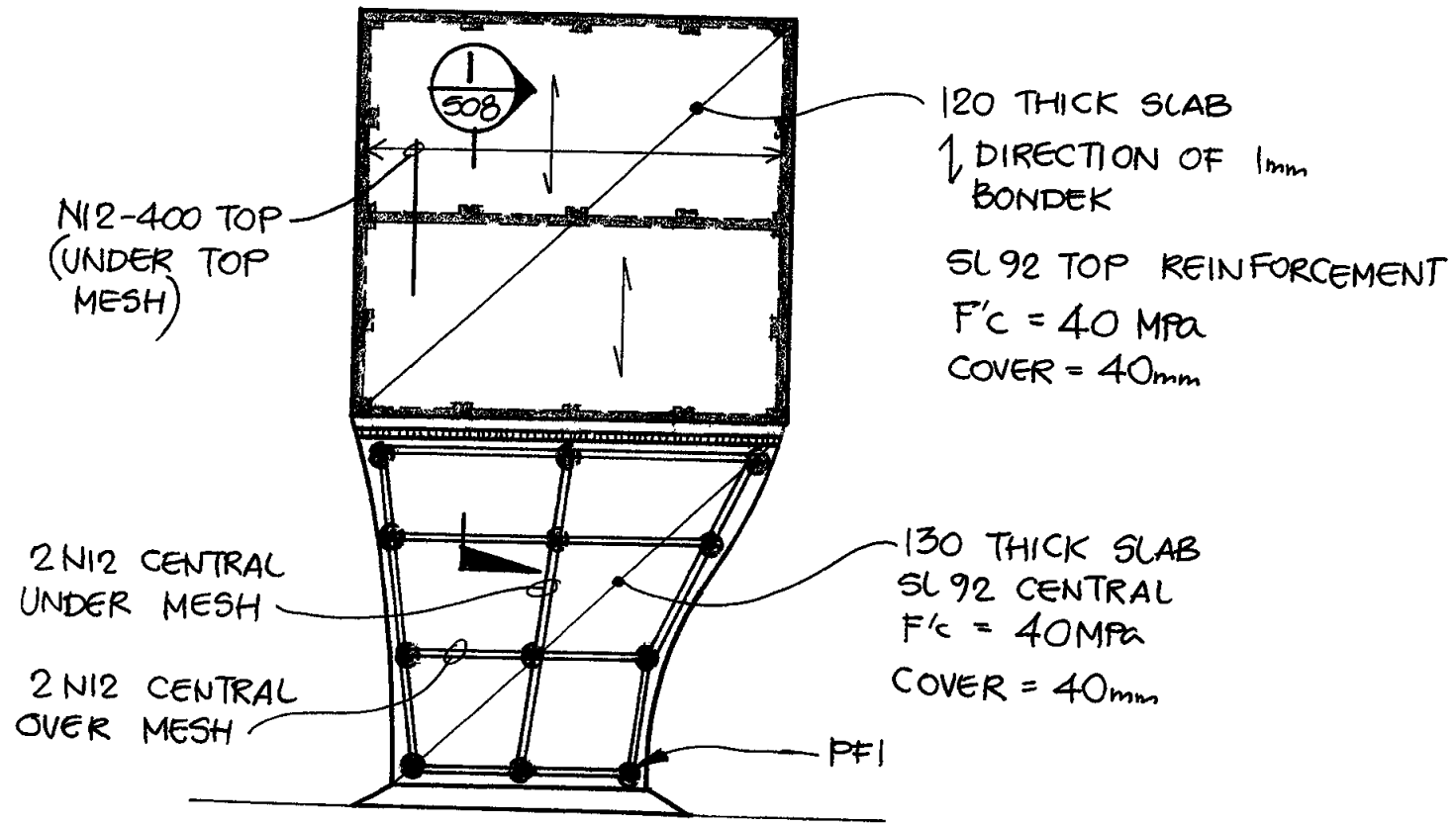


FOOTING PLAN
1:100

- FOR DETAILS OF FB1 & PF1 REFER DRG S02

F'c = 32 MPa, COVER = 40mm



- CROSS OVER LEVELS TO COUNCILS SPECIFICATION

SLAB PLAN
1:100

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Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: B S
Client: BEN EGGLETON	Drawing Title: CARPORT SLAB/FOOTING PLAN	Job No: 100736	Drawing No: S07

Drawn	Checked	Rev
LFC	RGW	

NOTES

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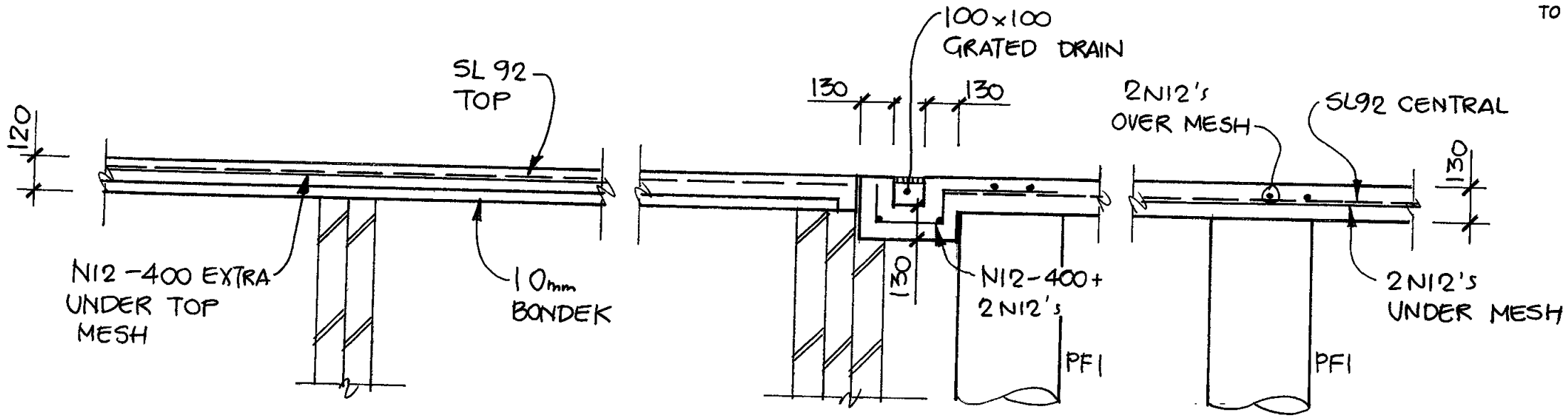

SECTION 1/S07
120

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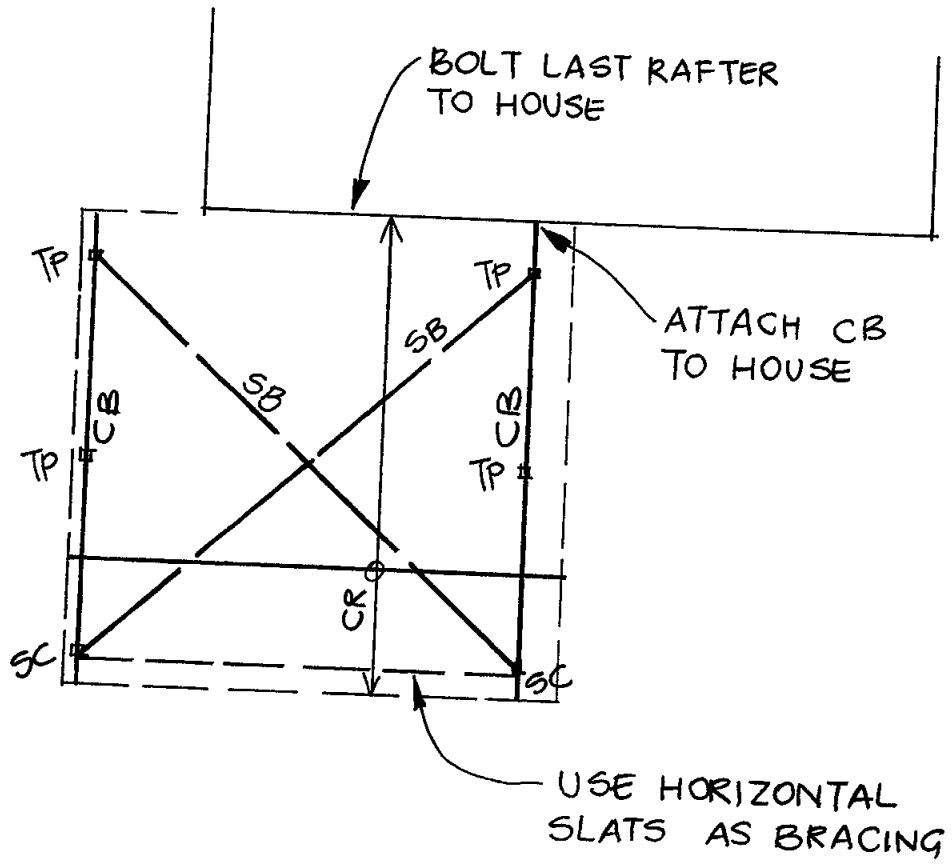
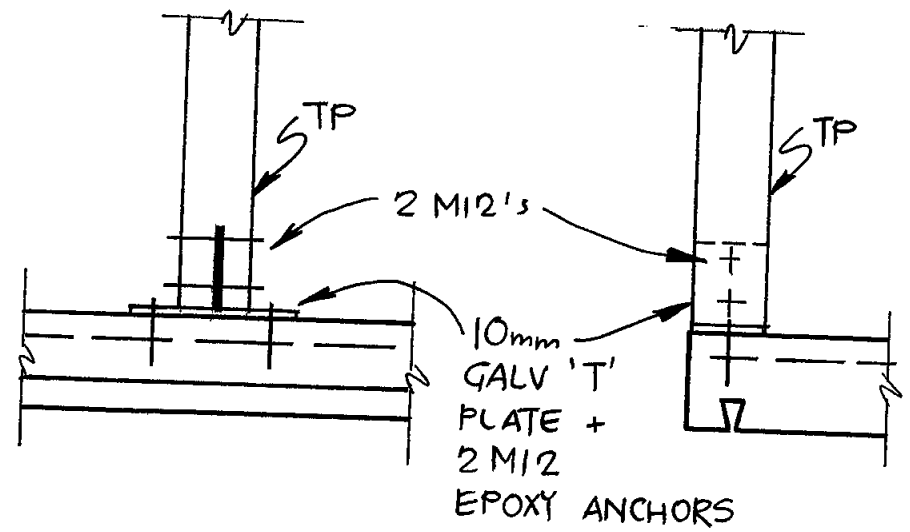
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: LFC	Checked: RGW	
Client: BEN EGGLETON	Drawing Title: CARPORT SLAB SECTION	Job No: 100736	Drawing No: S08	Rev:		



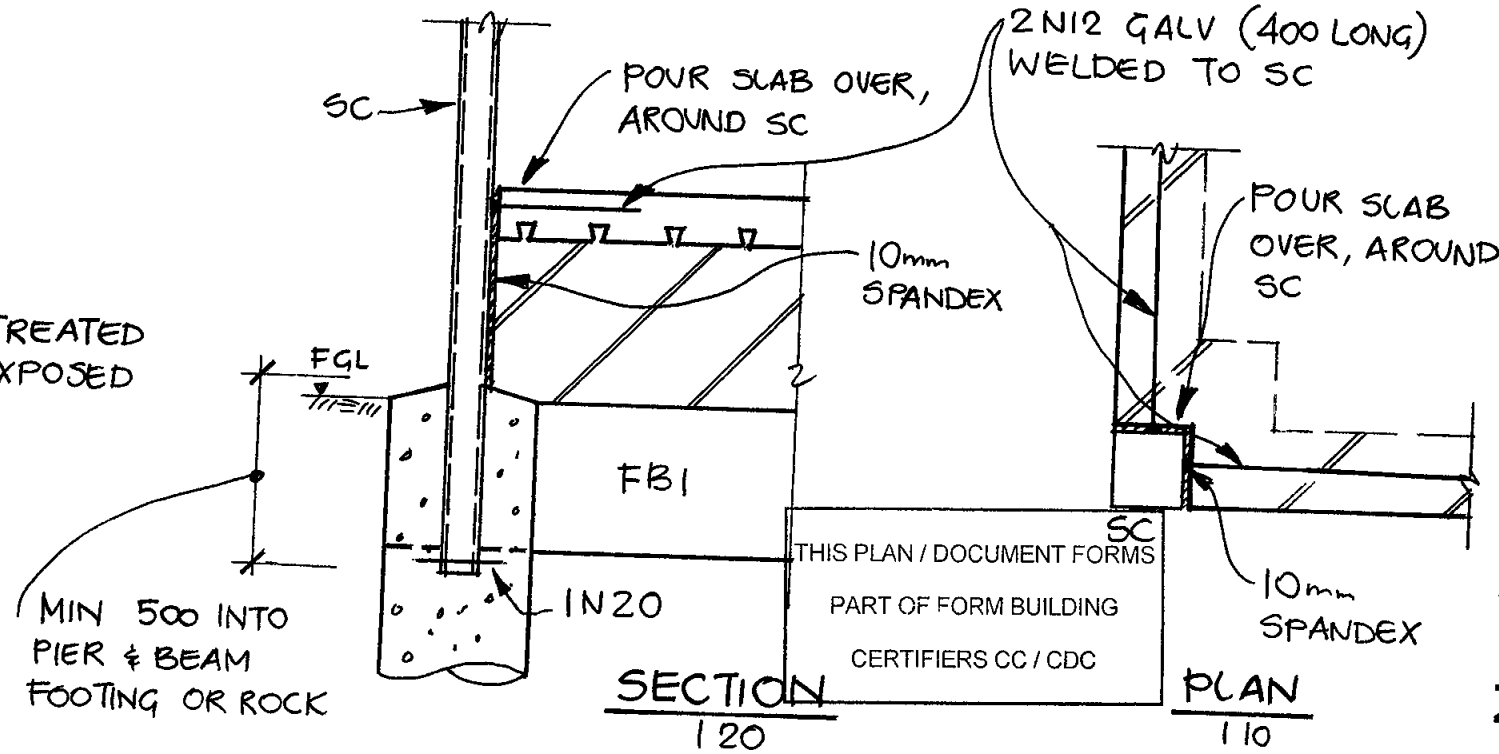
CARPORT ROOF FRAMING PLAN
1:100

CR 240x45 MGP10 OR 200x45 LVL RAFTERS @ 450 cts
CB 190x70 MGP10 BEAM
TP 90x90 MGP10 POST
SC 89x89x6 SHS HOT DIP GALV PRIMED & PAINTED

} H3 TREATED IF EXPOSED



TP BASE DETAILS
1:10



SC BASE DETAIL

NOTES

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Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: B S
Client: BEN EGGLETON	Drawing Title: CARPORT ROOF FRAMING	Job No: 100736	Drawing No: S09

Drawn: LFC | Checked: RGW | Rev:

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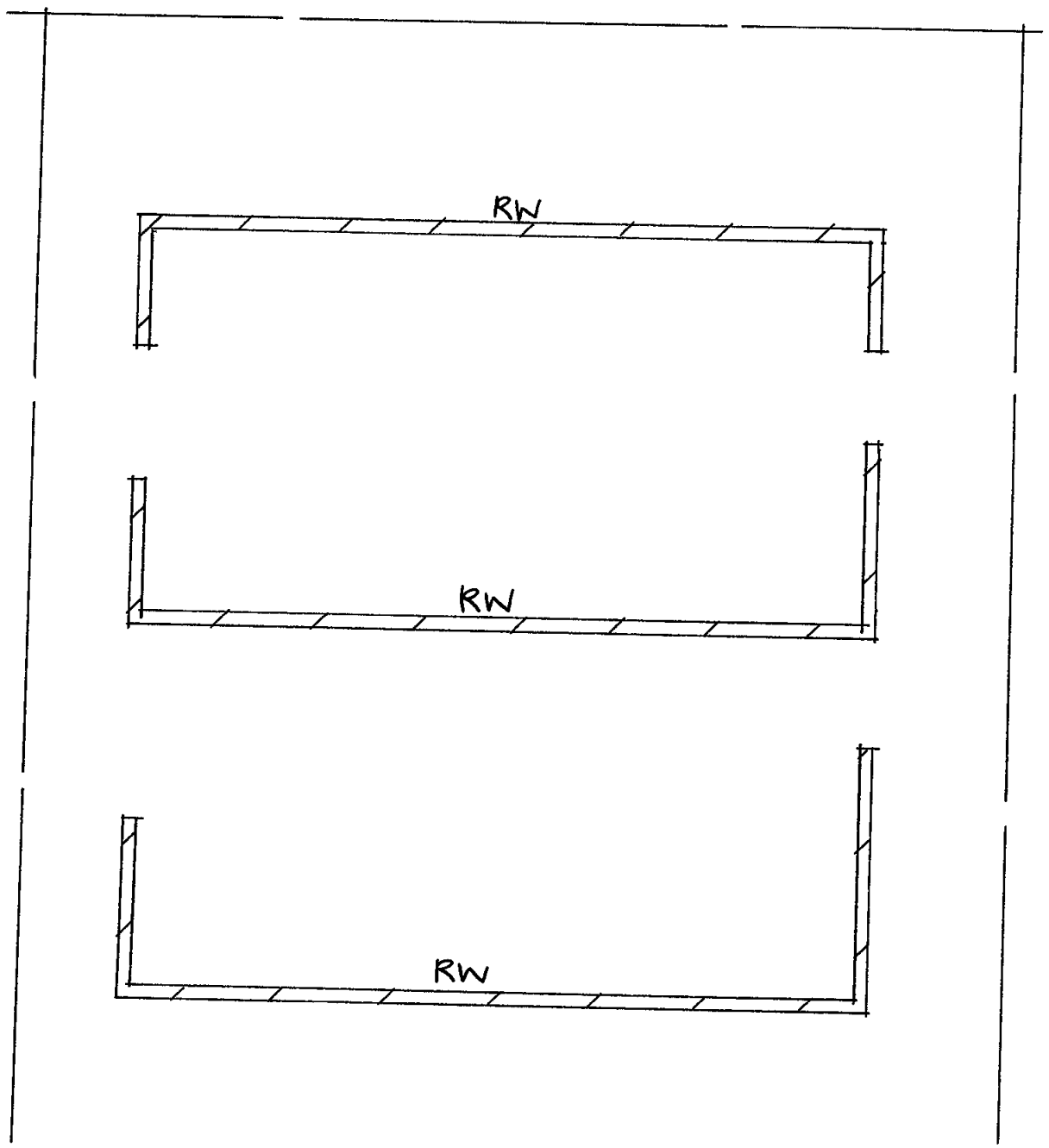

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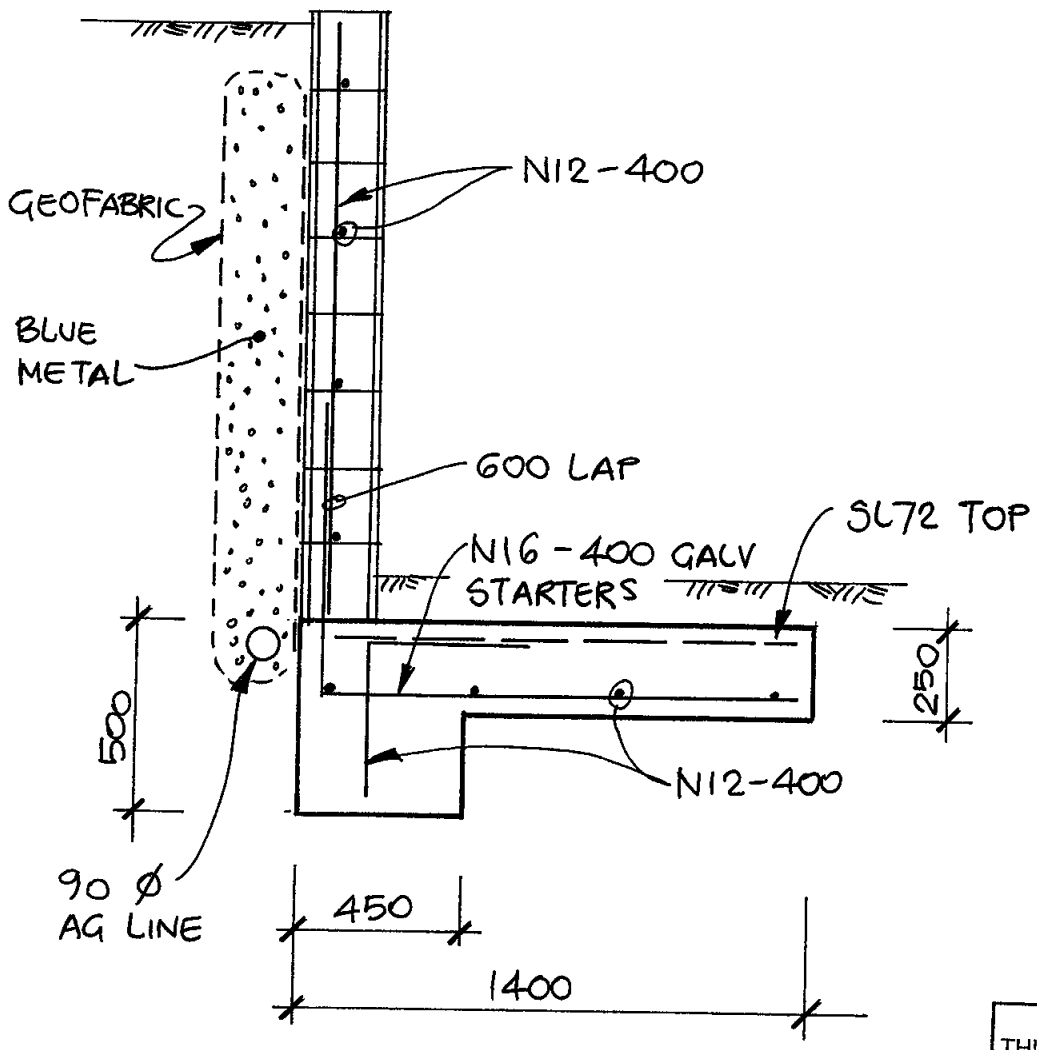

RETAINING WALL PLAN

1100

- MAX RETAINING HEIGHT = 1600mm MAX

OPTION 1 - HIGH LEVEL ROCK OR CLAY

120

- REFER DRG S11 FOR OPTIONS 2 & 3
- 1600mm MAX RETAINING HEIGHT

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

IF IN DOUBT ASK

A3

Date	Rev	Amendment	By
-	-	-	-

DOCUMENT CERTIFICATION
Date Sept 10
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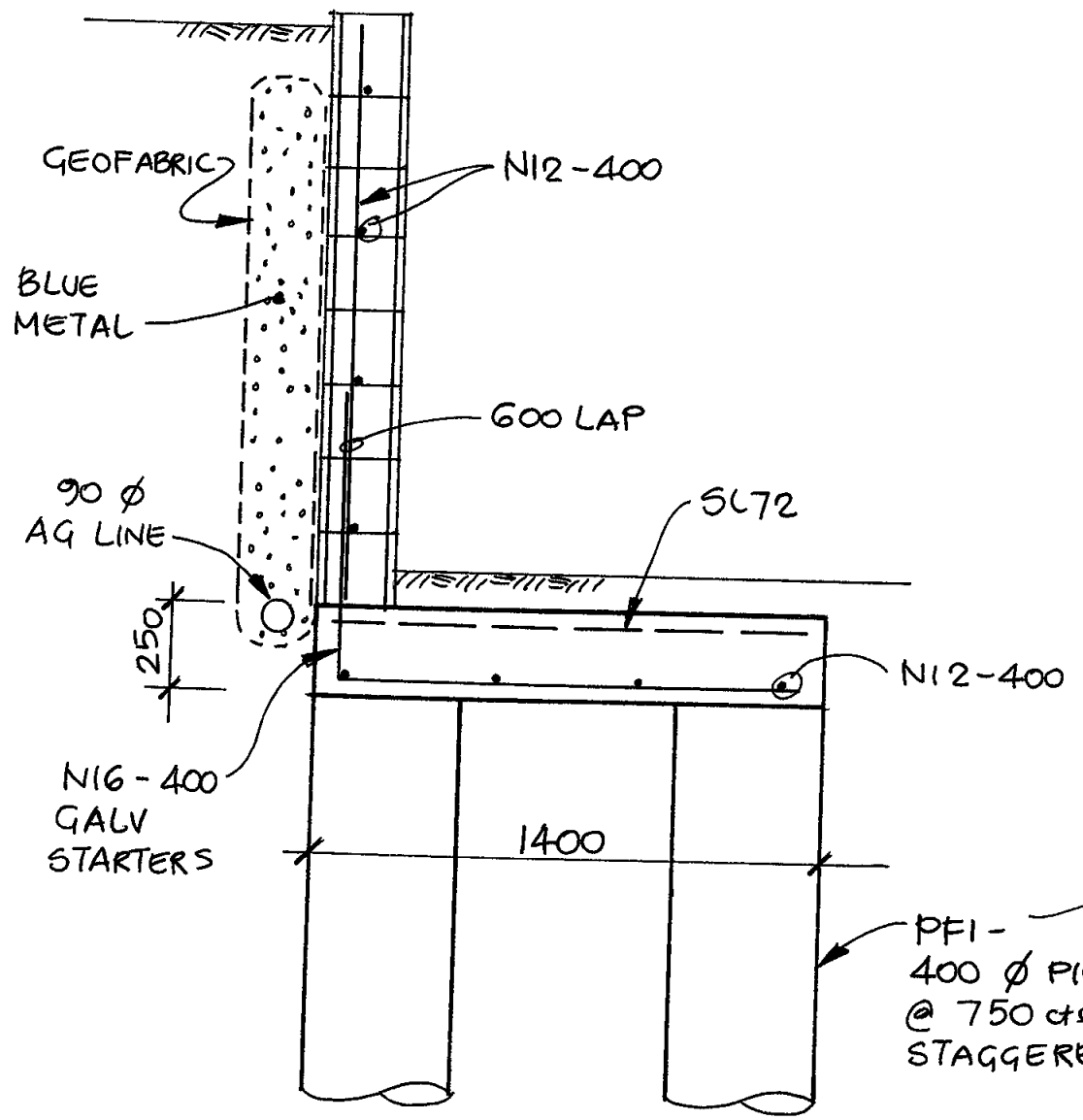
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG 10	Design: BS	Drawn: LFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: RETAINING WALL PLAN	Job No: 100736	Drawing No: S10	Rev:	

Northern Beaches Consulting Engineers Pty Ltd.

NOTES

1 ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK

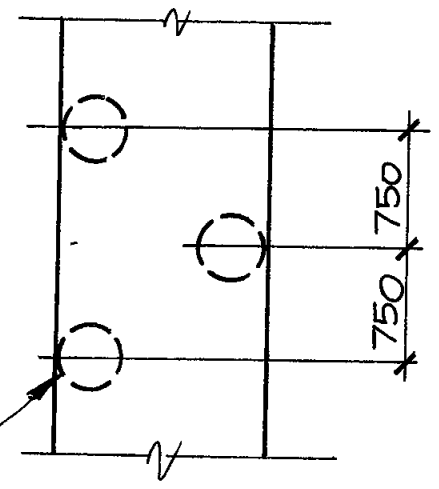
2 FOR GENERAL NOTES REFER TO DRAWING NUMBER S01

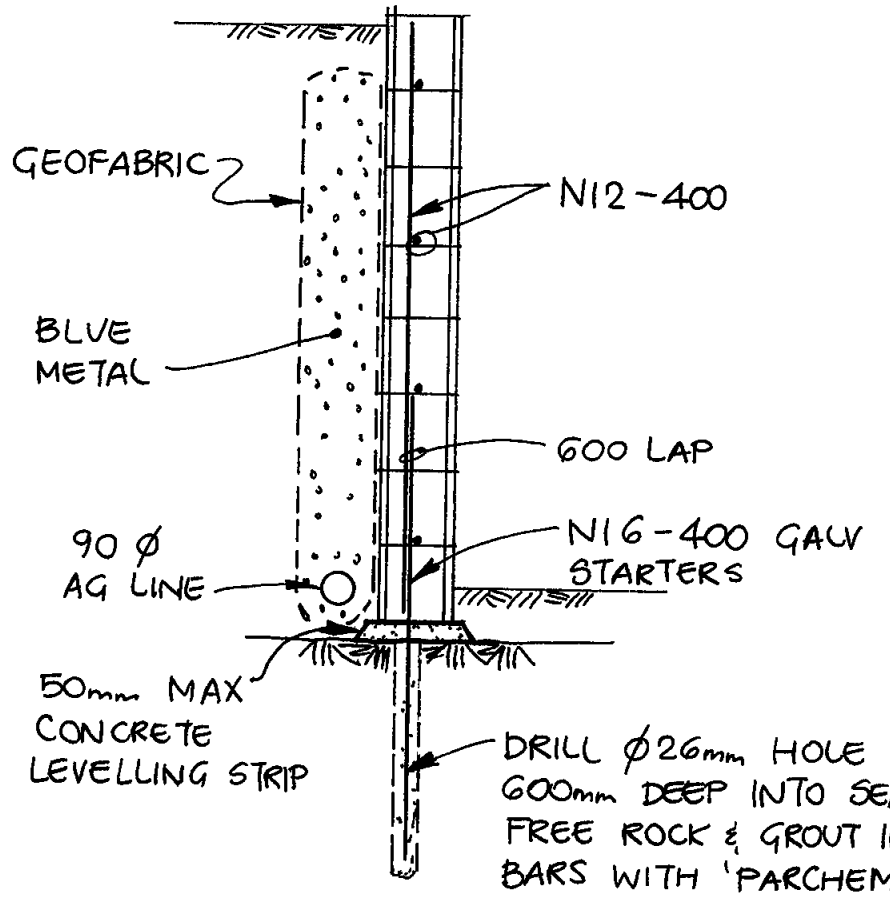


OPTION 2 - LOW LEVEL ROCK

1 20

- MAX RETAINING HEIGHT = 1600mm





OPTION 3 - DOWEL INTO ROCK

1 20

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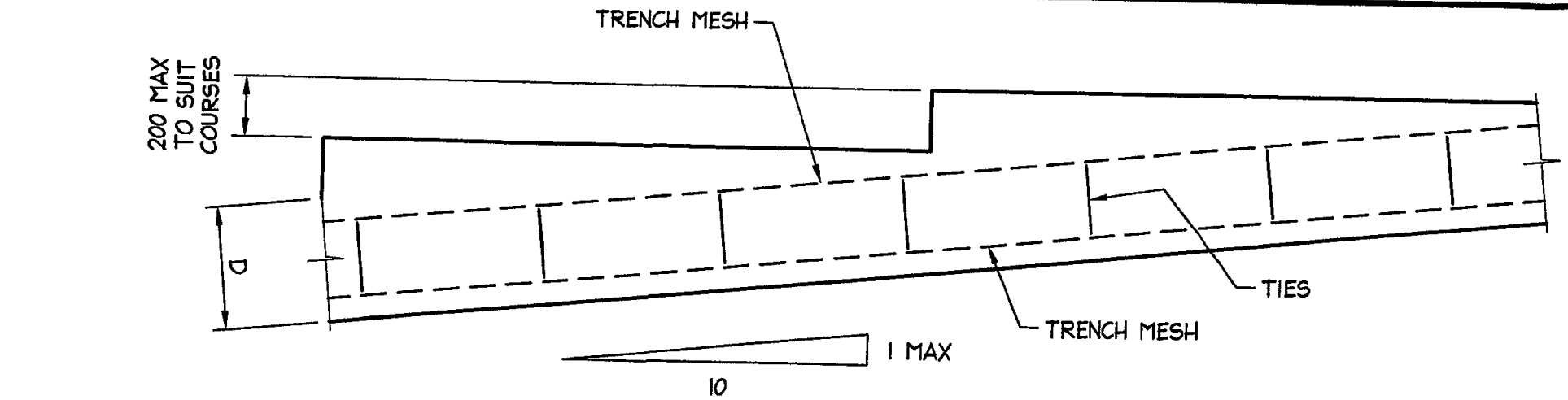
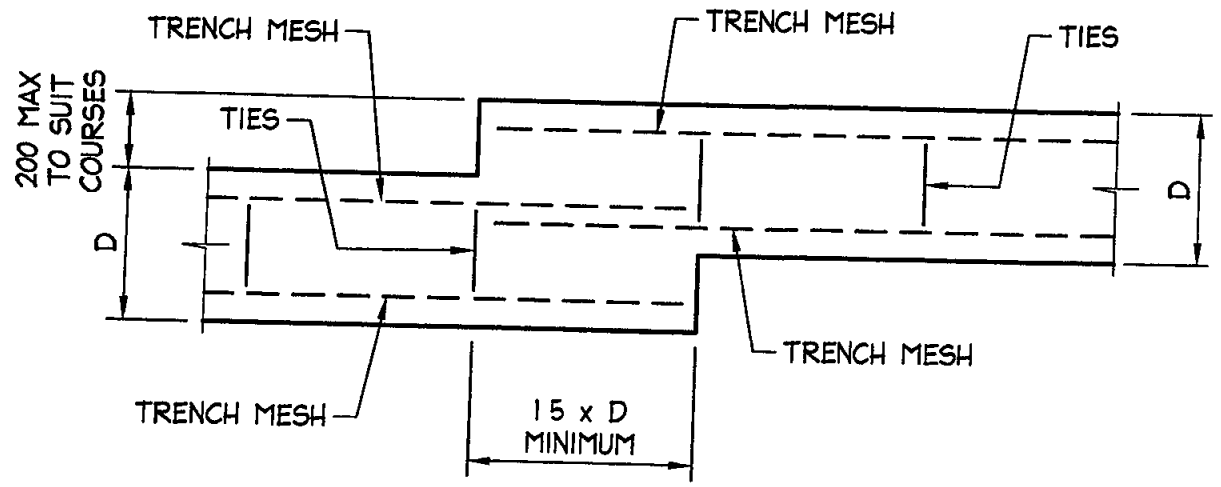
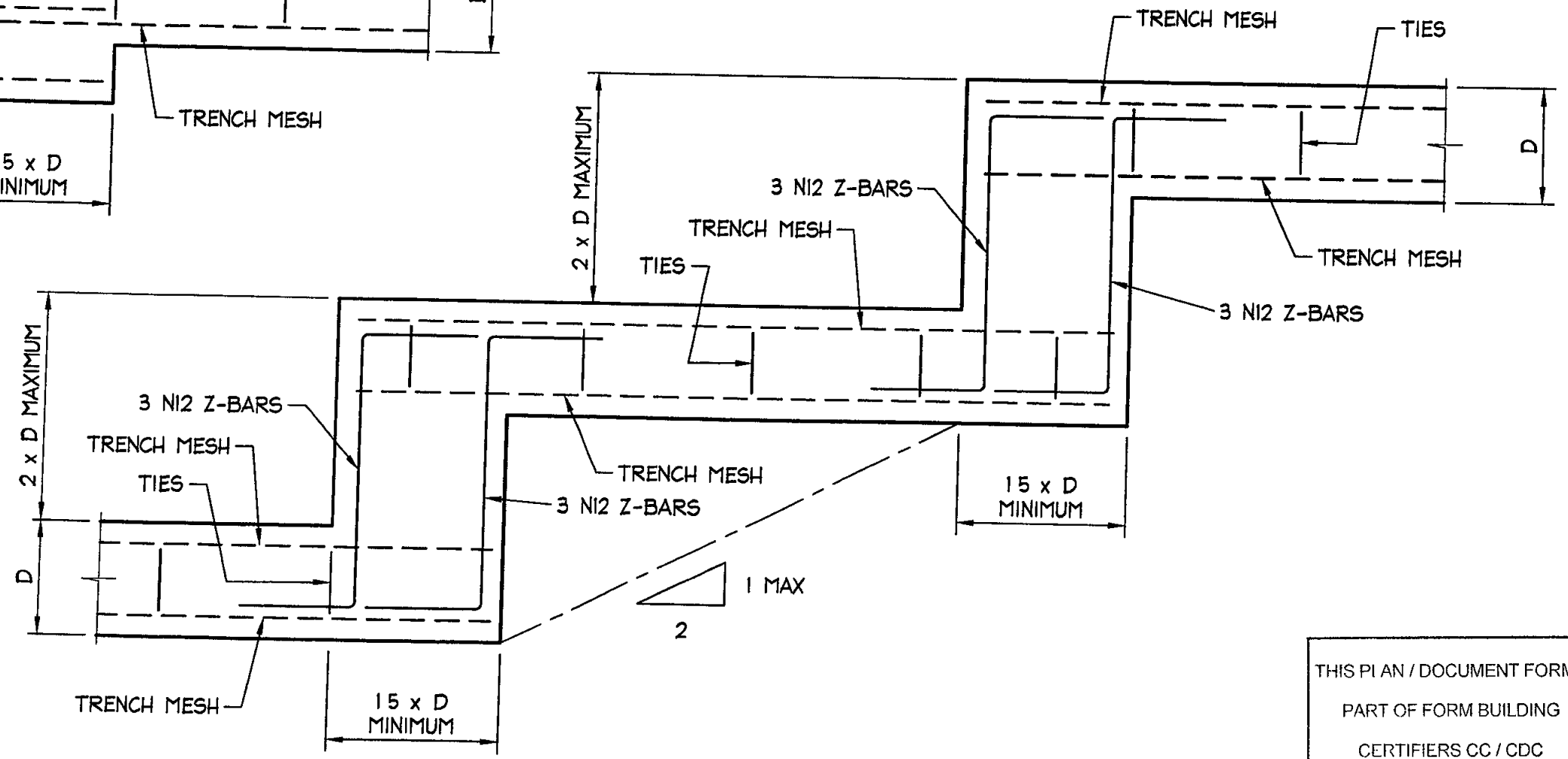
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: B S	Drawn: LFC	Checked: RGW	
Client: BEN EGGLETON	Drawing Title: RETAINING WALL DETAILS	Job No: 100736		Drawng No: S11	Rev:	







NOTES

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2 FOR GENERAL NOTES REFER TO DRAWING NUMBER S01

TYPICAL FOOTING STEP DETAILS

SCALE = 1 20

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Date	Rev	Amendment	By
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DOCUMENT CERTIFICATION
Date 6th Oct
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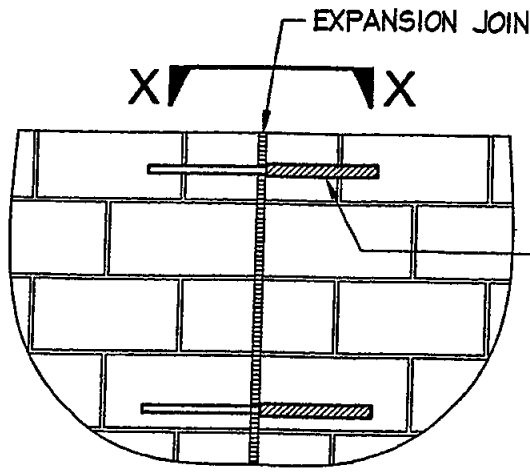
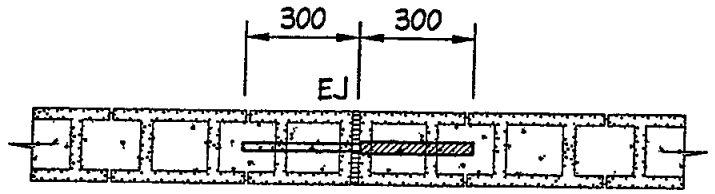
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: B S	Drawn: LFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: FOOTING STEP DETAILS	Job No: 100736	Drawing No: S12	Rev:	



R20 DOWELS AT 400
600 mm LONG GREASE
AND TAPE ONE END
SAW CUT ENDS
DO NOT SHEAR
(DOWELS TO BE HOT
DIP GALVANIZED)

LOCATE JOINTS AT 8 m MAXIMUM CENTRES
OR IN ACCORDANCE WITH AS 3700

ELEVATION

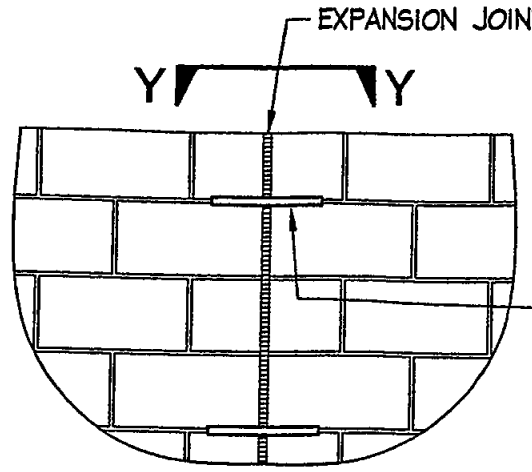


SECTION X-X

TYPICAL EXPANSION JOINT DETAILS

SCALE = 1 20

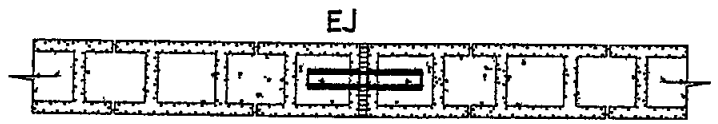
-OR-



MET 3 VERTICAL
EXPANSION
JOINT TIES
AT 600 CTS

LOCATE JOINTS AT 8 m MAXIMUM CENTRES
OR IN ACCORDANCE WITH AS 3700

ELEVATION



SECTION Y-Y

TYPICAL EXPANSION JOINT DETAILS

SCALE = 1 20

NOTES:

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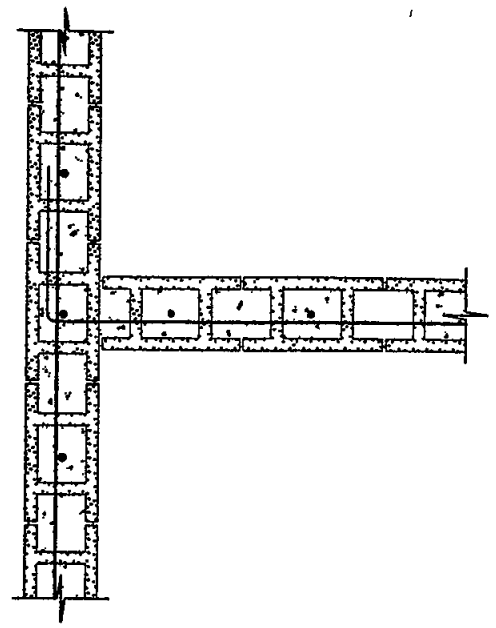
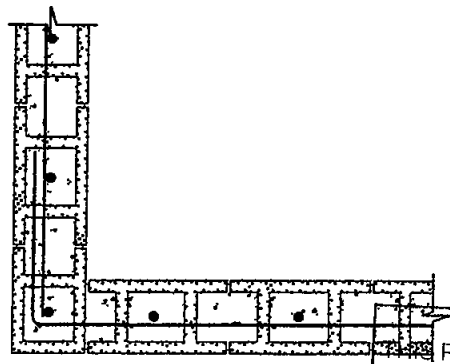


TYPICAL 'T' INTERSECTION

SCALE = 1 20



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CERTIFIERS CC / CDC

TYPICAL CORNER DETAIL

SCALE = 1 20

Northern Beaches Consulting Engineers Pty Ltd.

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DOCUMENT CERTIFICATION
Date Sept 10
(Director Northern Beaches Consulting Engineers)

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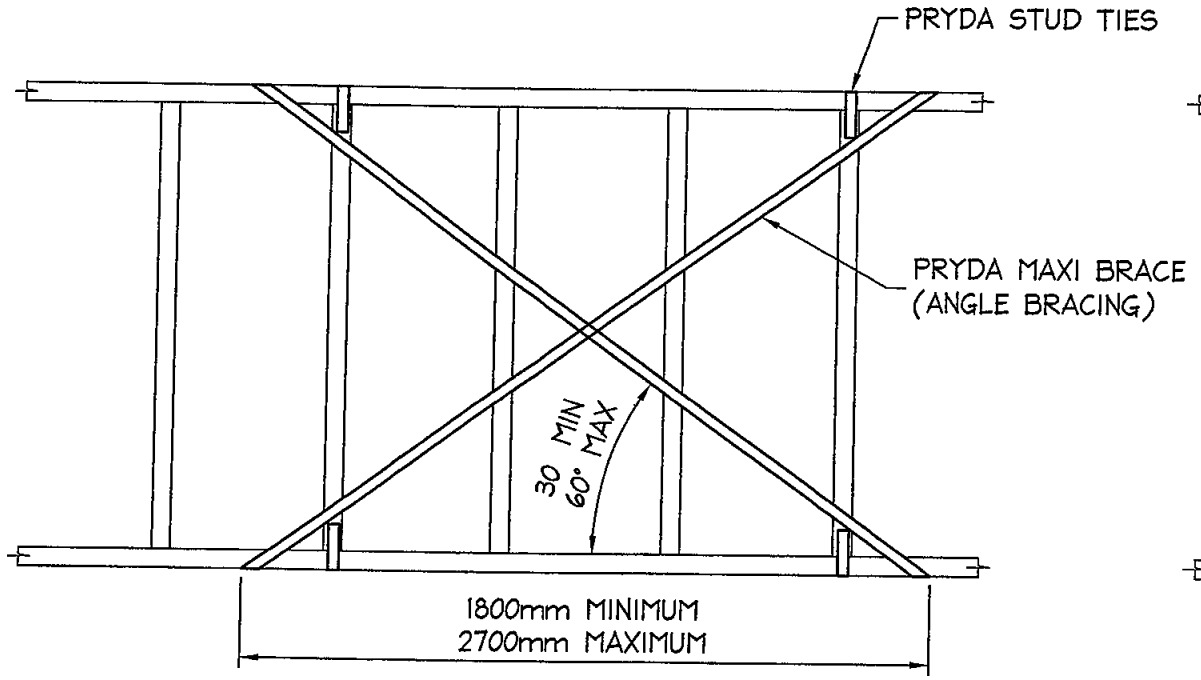
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: LFC	
Client: BEN EGGLETON	Drawing Title: STD BLOCKWORK DETAILS	Job No: 100736	Drawing No: S13	Rev:	

METAL TENSION STRAP BRACING

PRYDA MAXI BRACE (ANGLE BRACING)
FIXED WITH TWO GALVANISED FLATHEAD NAILS
ϕ3 15mm x 30mm LONG TO EACH STUD, AND THE FACE OF THE TOP AND BOTTOM PLATE
AND FOUR GALVANISED FLATHEAD NAILS
ϕ3 15mm x 30mm LONG TO THE STRAP RETURN OVER THE TOP PLATE AND UNDER THE BOTTOM PLATE



NOTES

1 FOR POWER DRIVEN NAILS AND STAPLES REFER ABOVE
2 NOGGINGS HAVE BEEN OMITTED FOR CLARITY

EACH 1800 mm PANEL EQUALS TWO TYPE A BRACING UNITS AS PER AS1684 4-2006

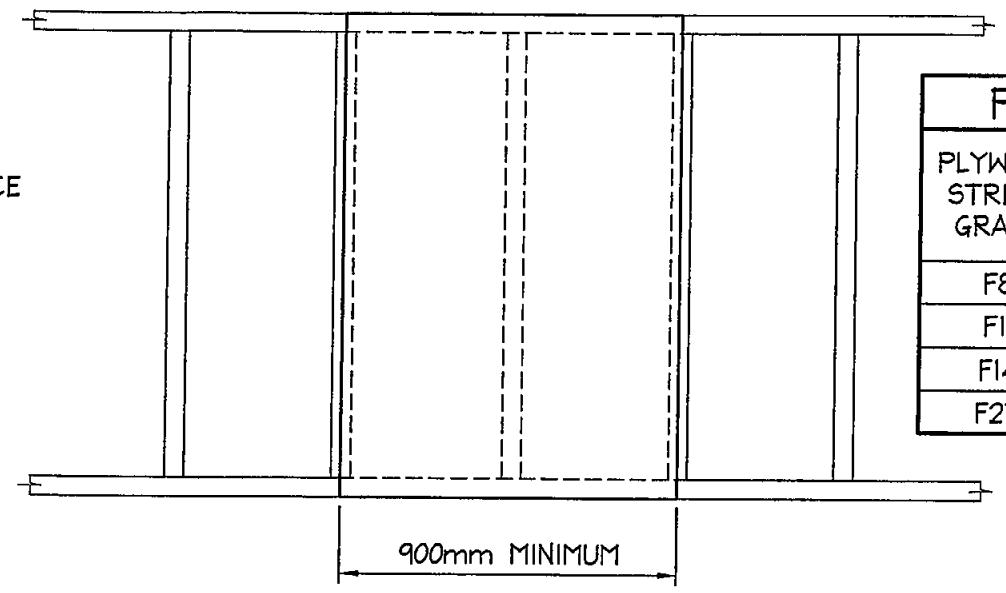
WALL STRAP BRACING DETAILS

DENOTED 'WSB' ON PLAN

NOT TO SCALE

PLYWOOD BRACING

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



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 AND STAPLES REFER ABOVE
3 PANEL EDGES SHALL BE SUPPORTED BY STUDS
4 NOGGINGS HAVE BEEN OMITTED FOR CLARITY

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

WALL PLY BRACING DETAILS

DENOTED 'WPB' ON PLAN

NOT TO SCALE

NOTES

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Northern Beaches Consulting Engineers Pty Ltd.

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Date	Rev	Amendment	By

DOCUMENT CERTIFICATION
Date Sept 10
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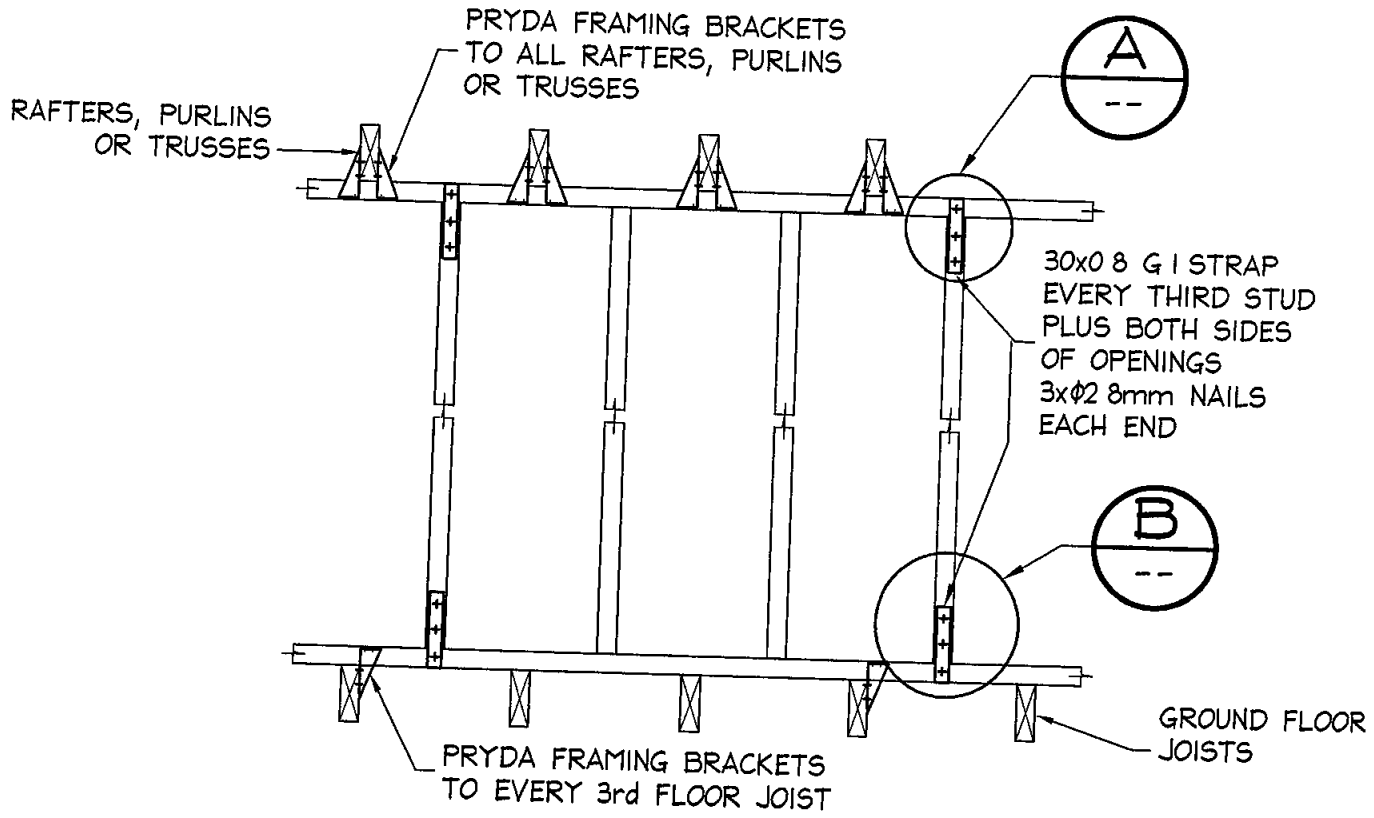
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: B S	Drawn: LFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: WALL BRACING DETAILS	Job No: 100736		Drawing No: S14	Rev:



TYPICAL TIE DOWN DETAIL

SCALE = 1 20

NOTES

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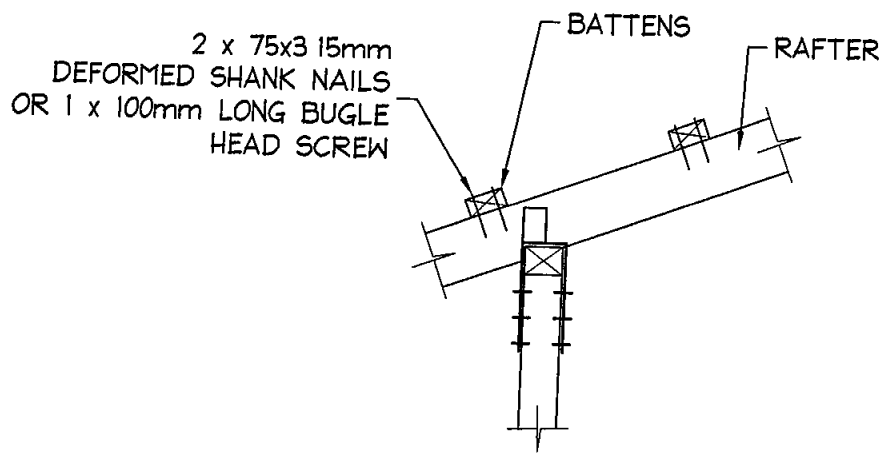
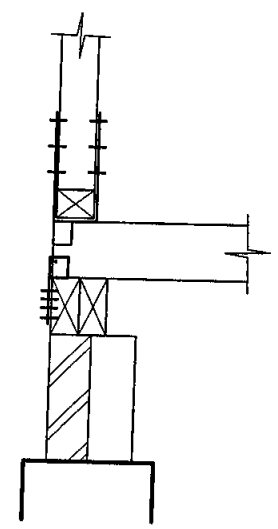


DETAIL A

SCALE =1 20



DETAIL B

SCALE =1 20

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Date Sept 10
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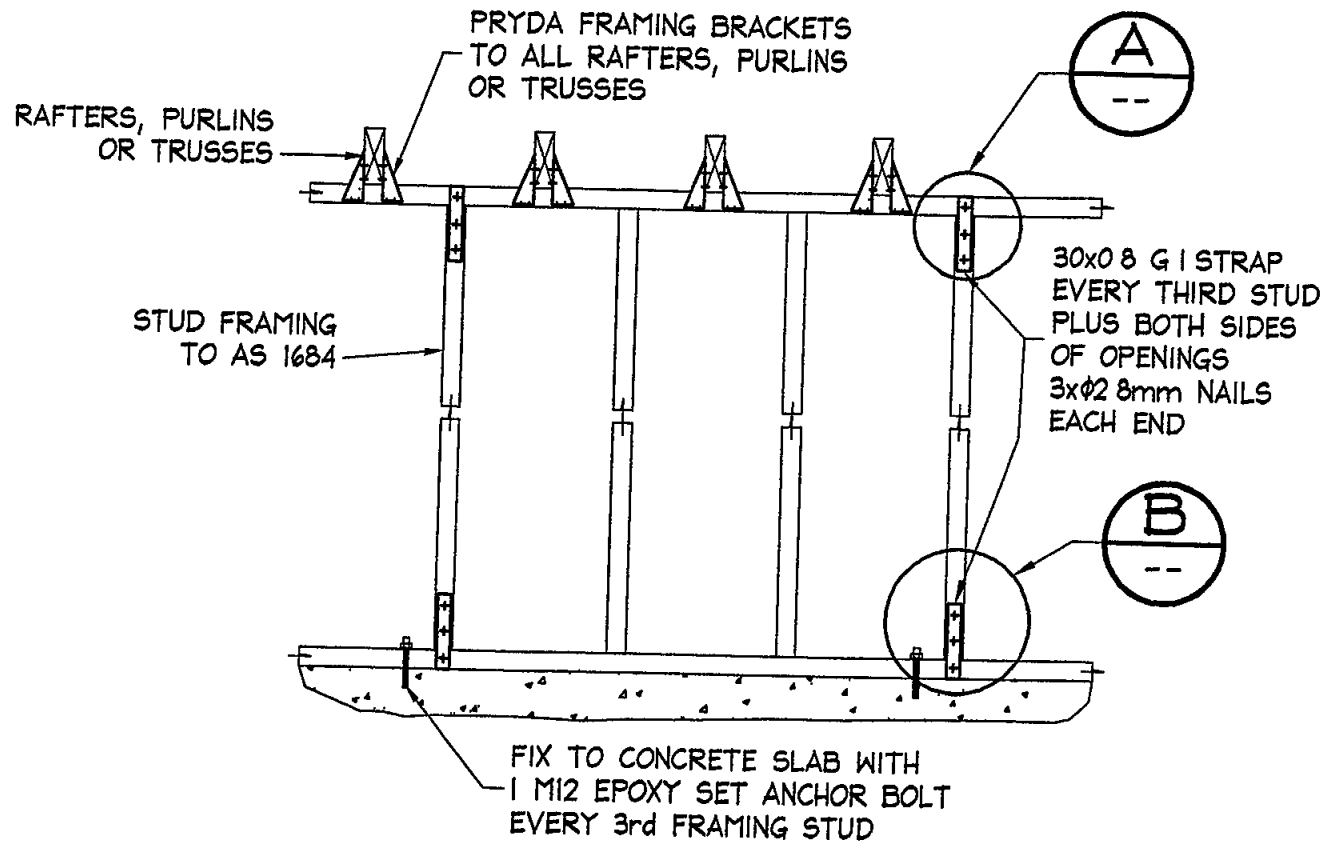
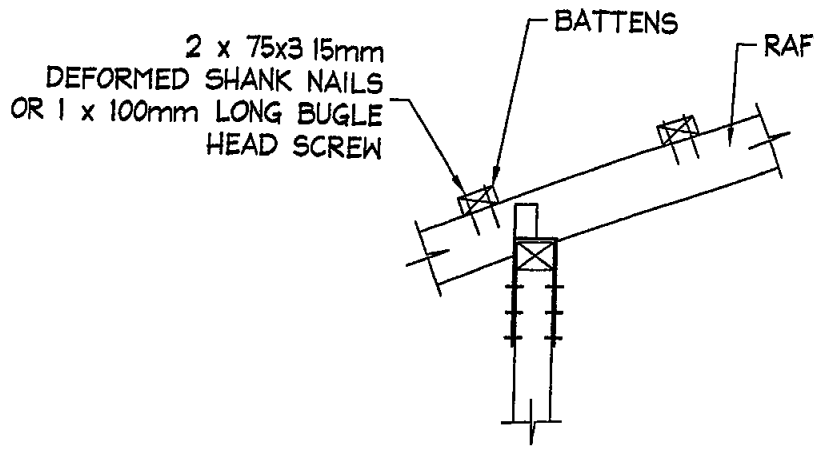
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: UFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: TYPICAL TIE DOWN TO TIMBER FLOORING	Job No: 100736		Drawing No: S15	Rev:



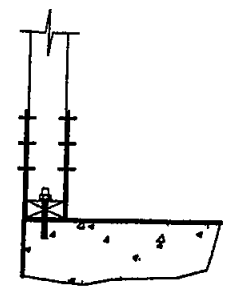
TYPICAL TIE DOWN DETAIL

SCALE = I 20



DETAIL A

SCALE =I 20



DETAIL B

SCALE =I 20

NOTES:

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

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Date : Sept 10'
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Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: AUG '10	Design: BS	Drawn: UFC	
Client: BEN EGGLETON	Drawing Title: TYPICAL TIE DOWN TO CONCRETE SLAB	Job No: 100736	Drawing No.: S16	Rev:	

NOTES

1 ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK

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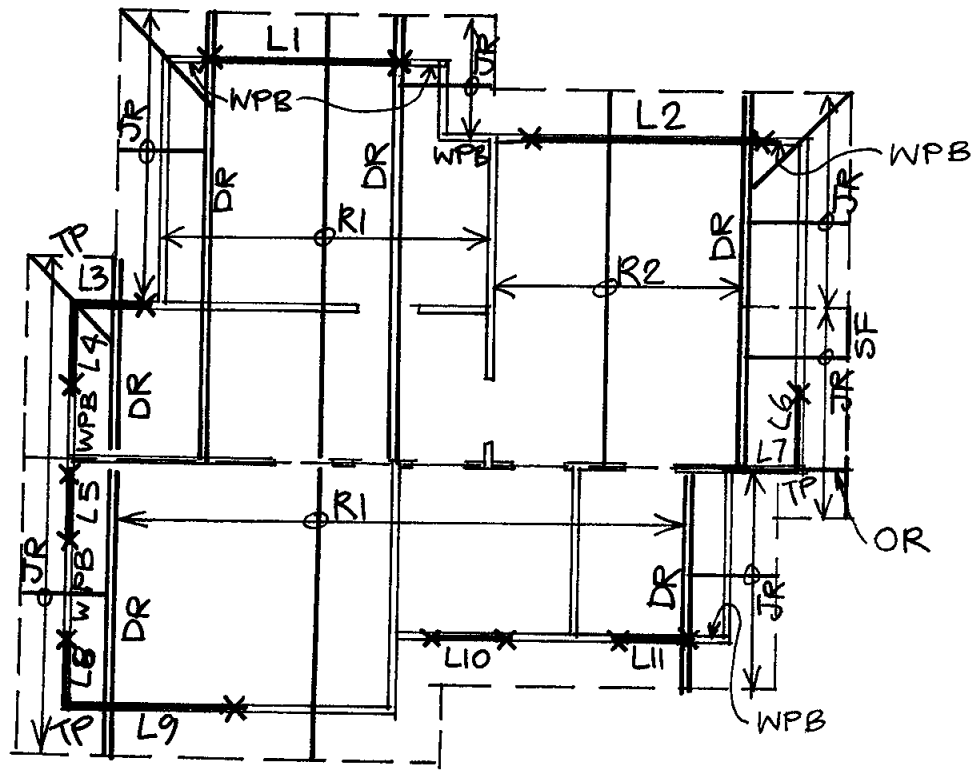

UPPER ROOF FRAMING PLAN

1100

R1 140x45 MGP10 RAFTERS @ 600ctrs

R2 150x45 LVL RAFTERS @ 450ctrs

JR 140x45 MGP10 JACK RAFTERS @ 600ctrs

DR DOUBLE RAFTER

OR 90x70 MGP10 OUTRIGGER

SF 140x45 MGP10 STRUCTURAL FASCIA

L1 2/140x45 MGP10

L2 2/190x45 MGP10

L3-L11 2/90x45 MGP10

TP 90x90 MGP10

X – DOUBLE STUD & TIE DOWN

WPB INDICATES PLY BRACE WALLS AS PER S14, REMAINING WALLS AS PER WSB, S14

RAFTERS TO BE SUPPORTED ON ALL PERPENDICULAR WALLS

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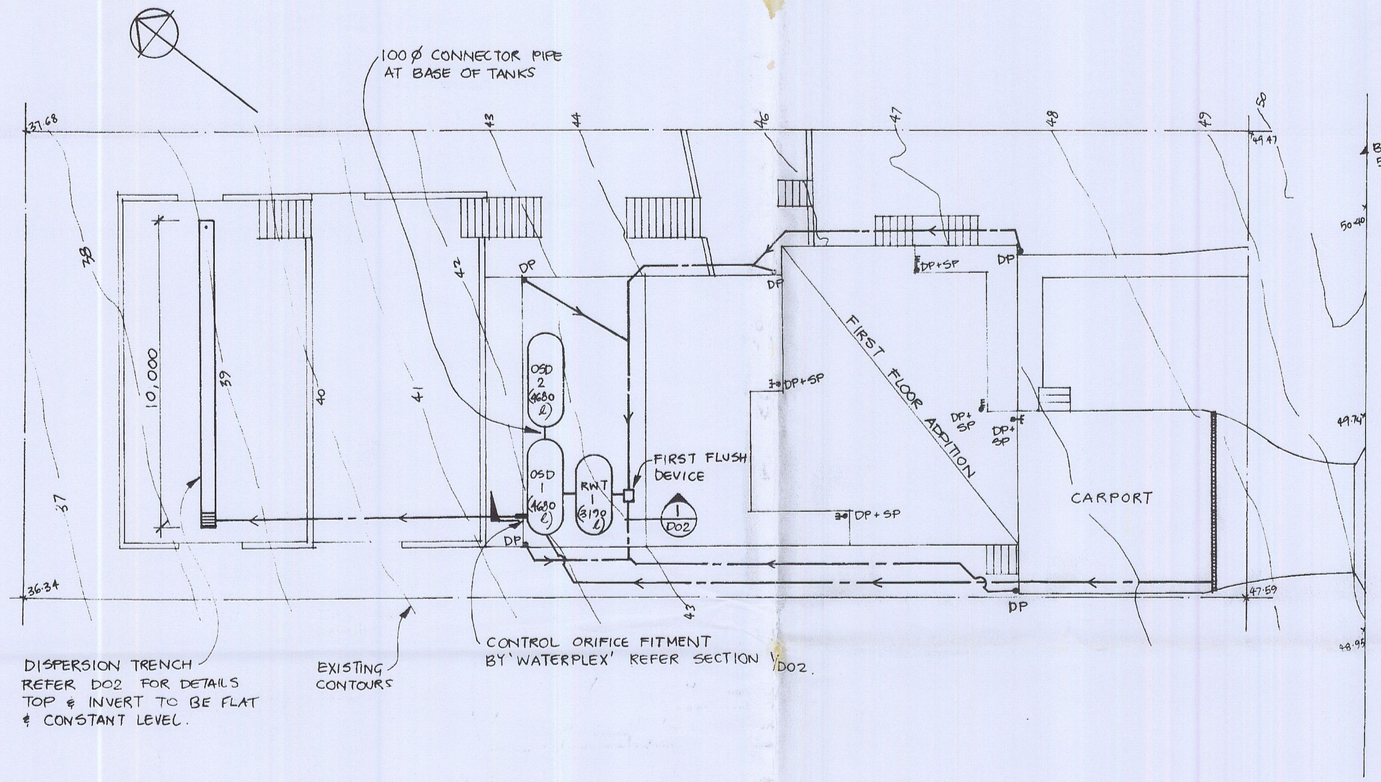
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: SEPT '10	Design: BS	Drawn: LFC	Checked:
Client: BEN EGGLETON	Drawing Title: UPPER ROOF FRAMING PLAN	Job No: 100736		Drawing No: S17	Rev:



NOTES:

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STORMWATER MANAGEMENT PLAN

1:100

OSD 1, OSD 2 : 4680 ℓ TANKS
'MEDIUM SLIMLINE' BY WATERPLEX
1150 W x 3000 L x 1480 H

RWT 1 : 3190 ℓ TANK
'MEDIUM' SLIMLINE' BY WATERPLEX
1150 W x 2600 L x 1180 H

DP - DOWN PIPE
DP+SP - DOWN PIPE + SPREADER

IF IN DOUBT ASK

A2

Date	Rev.	Amendment	By:
27/9/10	A	ISSUE FOR DA	LFC

DOCUMENT CERTIFICATION
Date : Sept 10
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Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: SEPT. '10	Design: P.M.	Drawn: LFC	Checked: RW
Client: BEN EGGLETON	Drawing Title: STORMWATER MANAGEMENT PLAN	Job No: 100736		Drawing No: D01	Rev: A

Northern Beaches Consulting Engineers Pty Ltd.

NOTES:

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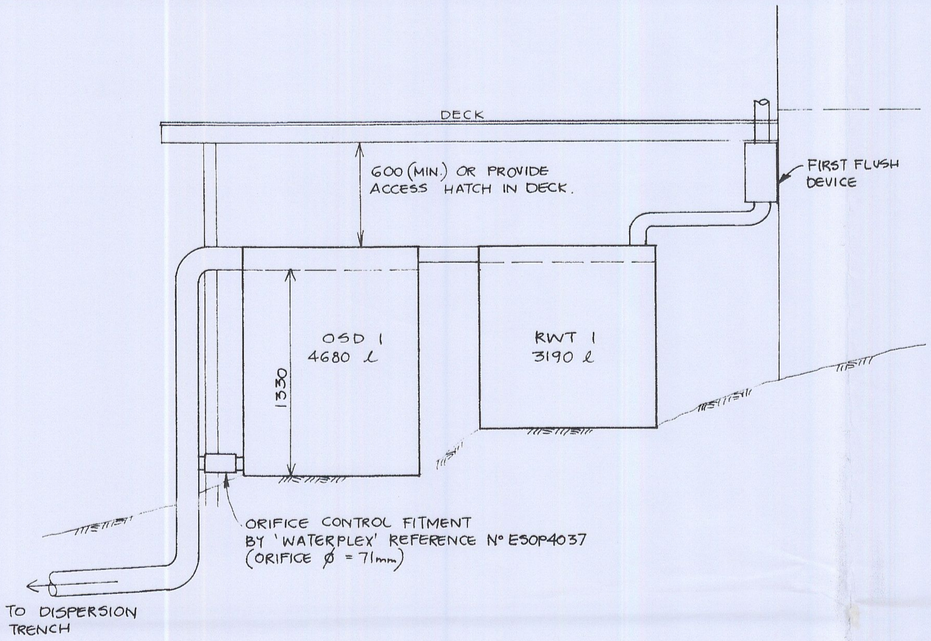

SECTION 1/D01
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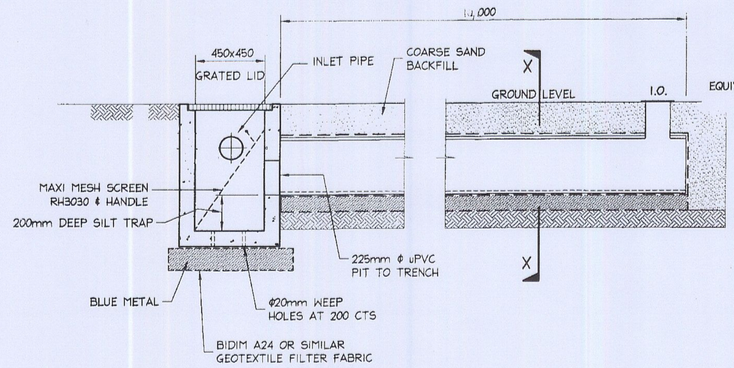
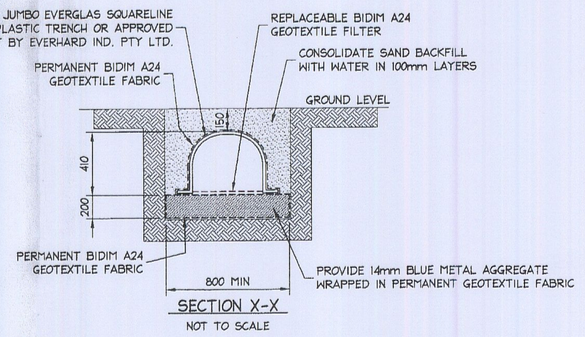


DISPERSION TRENCH LONGITUDINAL SECTION
NOT TO SCALE



SECTION X-X
NOT TO SCALE

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A2

Date:	Rev:	Amendment:	By:
27.9.10	A	ISSUE FOR DA	LFC

DOCUMENT CERTIFICATION
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web page : www.nbconsulting.com.au

Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: SEPT.'10	Design: P.M.	Drawn: LFC	Checked: RGW
Client: BEN EGGLETON	Drawing Title: STORMWATER DETAILS	Job No: 100736		Drawing No: D02	Rev: A

Northern Beaches Consulting Engineers Pty Ltd.

ONSITE DETENTION SYSTEM SUMMARY NOTES

TOTAL SITE AREA	613.7 m^2	
DESIGN METHOD USED	DRAINS	
PRE DEVELOPMENT IMPERVIOUS AREA	0 m^2	('STATE OF NATURE')
POST DEVELOPMENT IMPERVIOUS AREA	267 m^2	
PRE DEVELOPMENT SITE DISCHARGE		
5 YR	16 l/s	
20 YR	27 /s	
100 YR	38 /s	
POST DEVELOPMENT SITE DISCHARGE	CONTROLLED	UN-CONTROLLED
5 YR	7 l/s	9 l/s
20 YR	10 /s	14 /s
100 YR	12 l/s	19 l/s
PORTION OF SITE THROUGH OSD	48 %	
ORIFICE SIZE	71 mm ϕ	
TYPE OF CONTROL	BELOW DECK TANKS	
OSD CALCULATED	8.0 m^3	
OSD REQUIRED BY PITTWATER COUNCIL DCP21	9.0 m^3	
DIMENSION OF OSD PROVIDED	2/3.39 m^2 x 1.33 m DEPTH	
VOLUME OF OSD	9.0 m^3	

STORMWATER NOTES:

1 - ALL PIPES TO BE 100mm ϕ UNLESS NOTED OTHERWISE.
2 - ALL PIPES TO BE uPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
3 - ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
4 - ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS.
(NO COMPACTION REQUIRED BELOW LANDSCAPING)
COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM.
BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
5 - ALL DOWN PIPES TO BE 100mm ϕ UNLESS NOTED OTHERWISE.
6 - DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
7 - PROVIDE CLEANING EYES AT ALL DOWNPIPES.
8 - ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER.
CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE.
WALLS TO BE REINFORCED WITH 1 N12 TOP TIE UNLESS NOTED OTHERWISE.
CAST INSITU PITS GREATER THAN 1000 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH N12 AT 300 EACH WAY UNLESS NOTED OTHERWISE.
9 - ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
10 - ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
11 - PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
12 - ALL LEVELS SHOWN ARE TO AHD
13 - ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
14 - ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
15 - ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

RAINWATER RE-USE TANKS:

1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A MINIMUM 3000 l CAPACITY RAINWATER TANK FOR THE FOLLOWING USES:
a) TO WATER GARDEN AREAS b) CONNECT TO W.C. c) CONNECT TO WASHING MACHINE.
2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
3. REFERENCES:
COOMBES P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE.
PATRICK DUPONT & STEVE SHACKEL, "RAINWATER"
AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS"
4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au
5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES.

NOTES:

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

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

IF IN DOUBT ASK

Northern Beaches Consulting Engineers Pty Ltd.

A2

Date:	Rev.	Amendment:	By
27.9.10	A	ISSUE FOR DA	LFC

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

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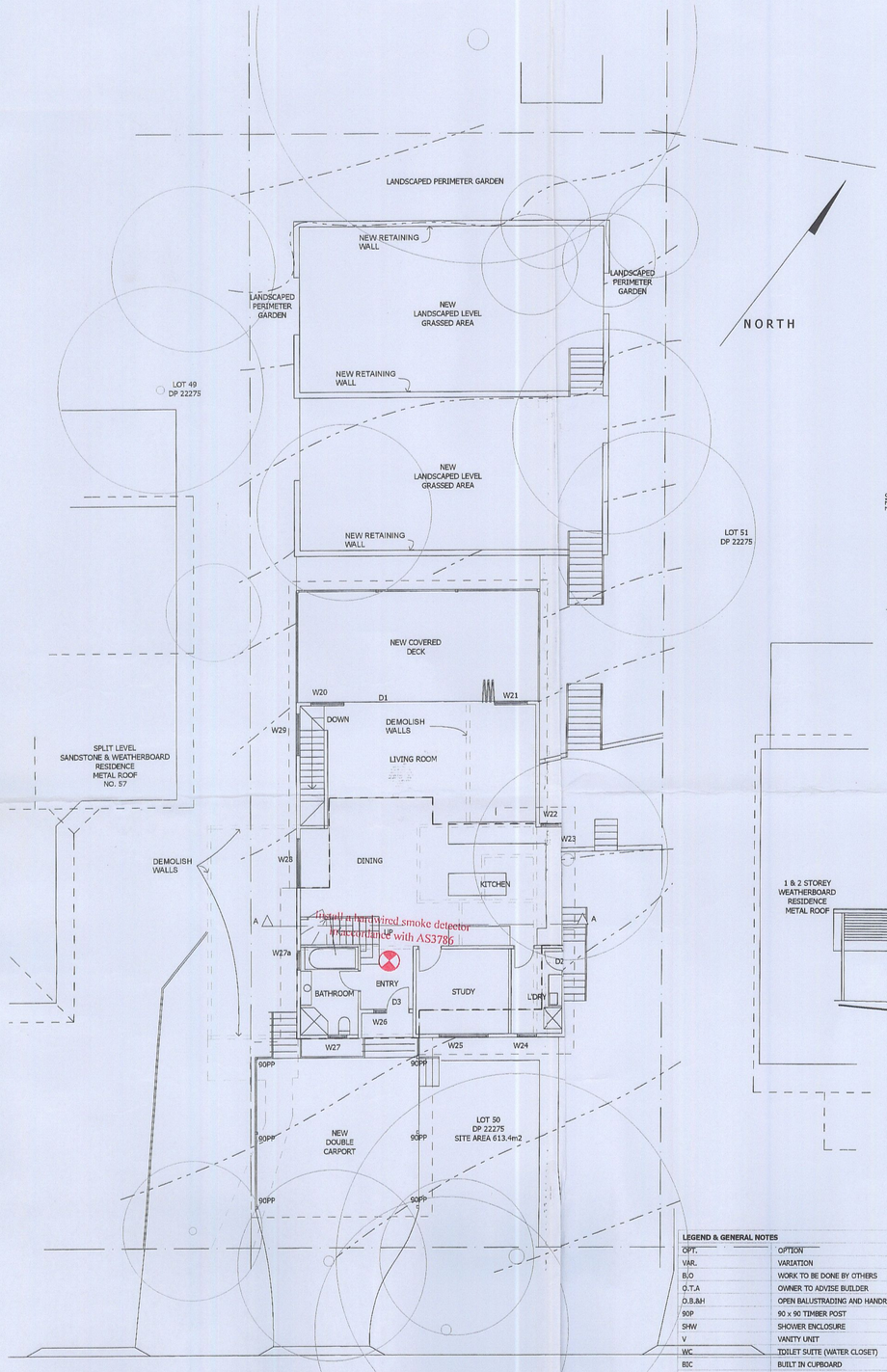
Architect: ADDSTYLE	Project: 55 BINBURRA AVE AVALON	Date: SEPT. '10	Design: P.M.
Client: BEN EGGLETON	Drawing Title: STORMWATER NOTES	Job No: 100736	Drawing No: D03
		Drawn: LFC	Checked: RW
			Rev: A



BINBURRA AVENUE

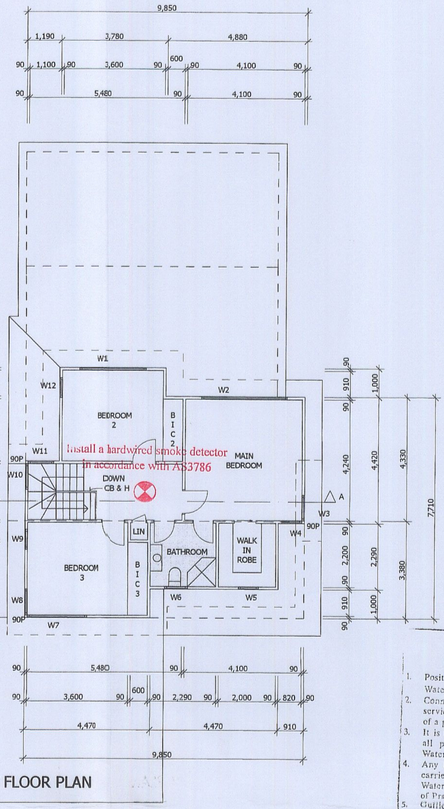
SITE & GROUND FLOOR PLAN

BASIX CERTIFICATE COMMITMENTS

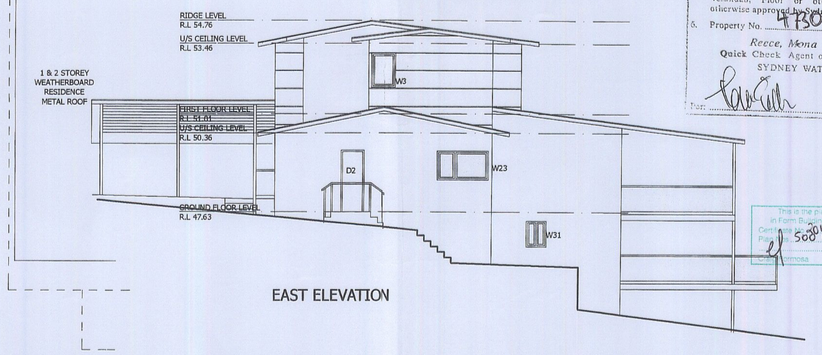
The measures are required to be carried out:

- ☒ Rainwater tank _____ L
- ☒ Pyrolytic 'e' glass - window / door / skylight
- ☒ Toned glass - window / door / skylight
- ☒ Fixed / adjustable awning - window / door / skylight
- ☒ 40% energy efficient lighting

REFER TO BASIX CERT. FOR FULL LIST OF COMMITMENTS



FIRST FLOOR PLAN



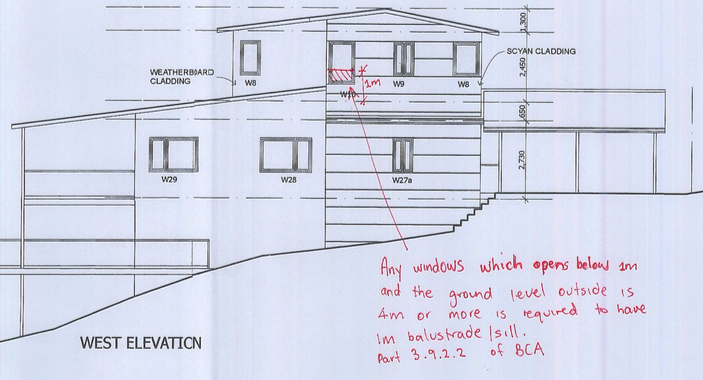
EAST ELEVATION

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 Roof, Balcony, Verandah, Floor or other cover unless otherwise approved by Sydney Water.
6. Property No. 4130708

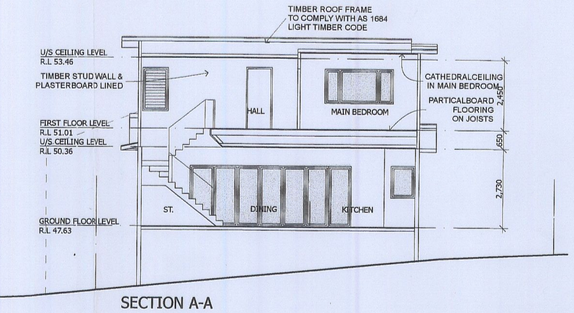
Reece, Mona Vale
Quick Check Agent on behalf of SYDNEY WATER
Per: 28.09.10

This is the plan/sec referred to in Form B Building Certificate Certificate No. 500/10/DA/1 Date 06/10/10 Signature BPB5124

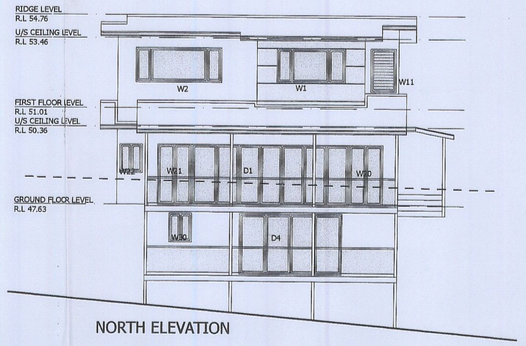


WEST ELEVATION

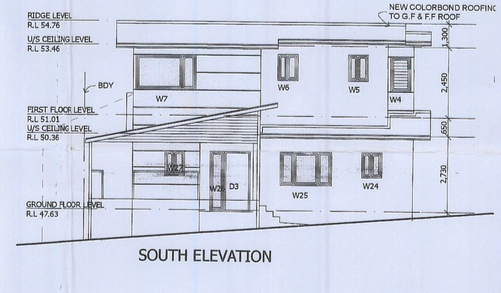
Any windows which opens below 1m and the ground level outside is 4m or more is required to have 1m balustrade/sill. Part 3.9.2.2 of BCA



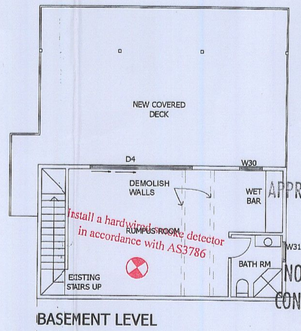
SECTION A-A



NORTH ELEVATION



SOUTH ELEVATION



BASEMENT LEVEL

OPEN SPACE CALCULATIONS

SITE AREA	613.4sqm	
EXIST IMPERVIOUS AREA	175.08sqm*	28.0%
PROPOSED IMPERVIOUS AREA	204.58sqm	33.0%
EXIST SOFT LANDSCAPED AREA	451.12sqm*	72.0%
PROPOSED SOFT LANDSCAPED AREA	408.82sqm	67.0%

*INCLUDES 12.8sqm OF SUNROOM ENCROACHING ON TO NO. 57 PROPERTY WHICH IS PROPOSED TO BE DEMOLISHED

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

LEGEND & GENERAL NOTES

OPT.	OPTION
VAR.	VARIATION
B/O	WORK TO BE DONE BY OTHERS
O.T.A	OWNER TO ADVISE BUILDER
O.B.&H	OPEN BALUSTRADING AND HANDRAIL
90P	90 x 90 TIMBER POST
SHW	SHOWER ENCLOSURE
V	VANITY UNIT
WC	TOILET SUITE (WATER CLOSET)
BIC	BUILT IN CUPBOARD
ST	STORE
COS	TO BE CHECKED ON SITE
NOTE 1	**ALL DIMENSIONS ARE SUBJECT TO AMENDMENT AFTER A CHECK MEASURE ON SITE.**
CONSTRUCTION LEVELS SUBCONTRACTOR TO ENSURE THAT ALL CONSTRUCTION LEVELS MARKED ON PLAN TO BE STRICTLY COMPLIED WITH	**SUBCONTRACTOR TO CONFIRM DA LEVELS COMPLIANCE WITH TIM HOOKINS BEFORE FINALISING FLOOR STRUCTURE**

FRAMING NOTES.

ROOF PITCH	FF - 11 DEGREES FRONT, 7 DEGREES BACK GF - 11 DEGREES, DECK & LIVING 7 DEGREES
FRAME HEIGHT	2450mm
EAVE OVERHANGS	EAVES 600mm
DOOR AND WINDOW HEAD HEIGHT	2130mm TO LINE UP
DOOR AND WINDOW NIBS	90mm MIN UNLESS OTHERWISE NOTED NO NIB IN LINEN & ROBES
FRAME AND TRUSS CENTRES	600mm
DOOR STUD OPENINGS	880mm WIDE UNLESS OTHERWISE NOTED

NO.	REVISION	DATE	BY
C	OPEN SPACE CALCS	7/07/10	MB
B	FOR COUNCIL	2/05/10	MB
A	FOR PLAN MEETING	20/05/10	MB

PROJECT TITLE.
FIRST FLOOR ADDITION & COVERED DECK AT
55 BINBURRA AVENUE,
AVALON 2107

SCALE: 1:100 | DATE: 16-05-10
DRAWN BY: MB | CHECKED: TH
TITLE: PLANS, ELEVATIONS AND SECTIONS
DRAWING NO. 500 DA 1 | ISSUE C

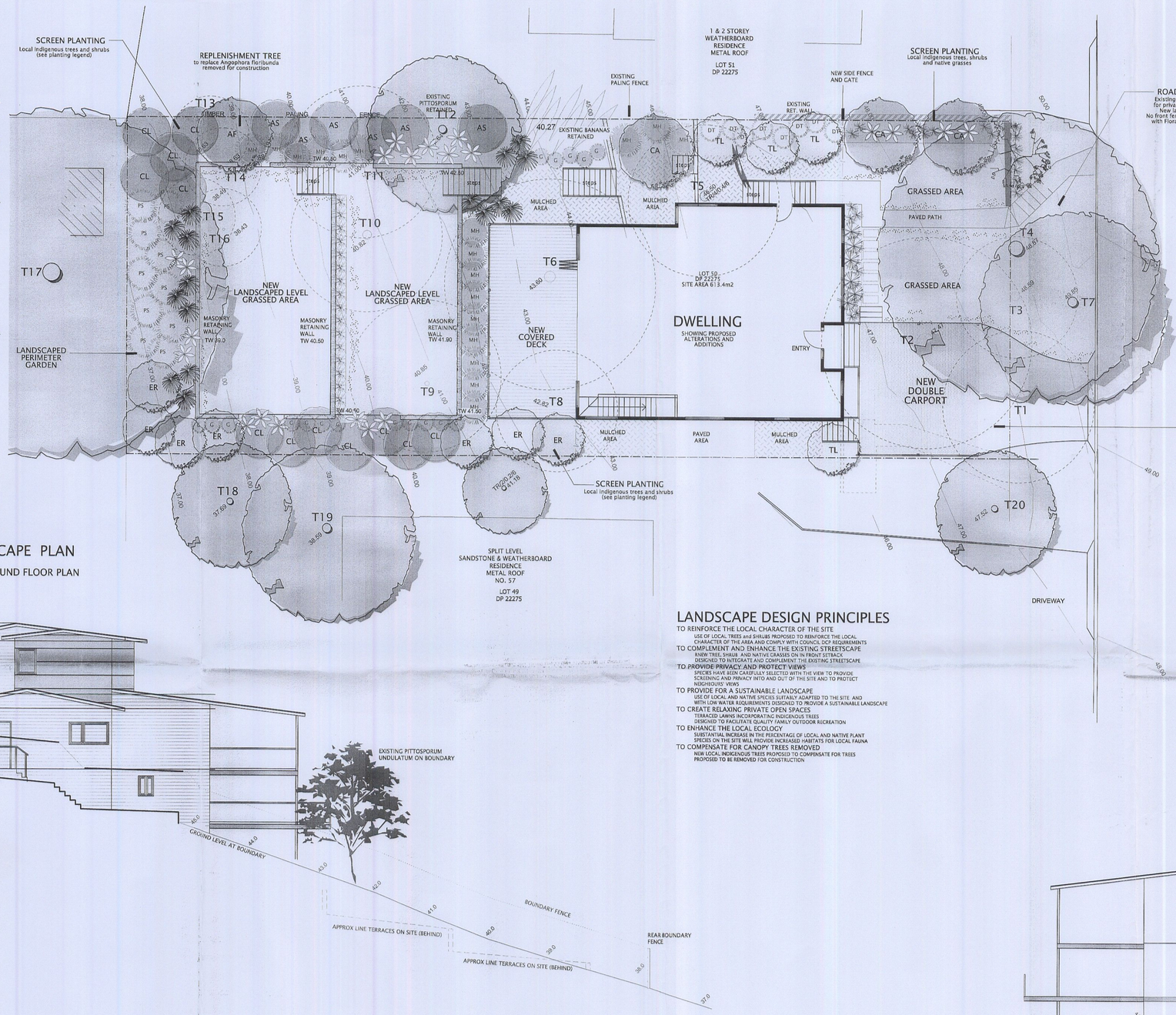
Add-Style HOME ADDITIONS
ADD-STYLE HOME ADDITIONS
285 CONDAMINE STREET
MANLY VALE 2093
FAX: 99079051
PAGER: 99079055
EMAIL: tim@addstyle.com.au

SPECIFICATIONS

LANDSCAPE HARDWORKS
RETAINING WALLS, PAVING, DRAINAGE, PLANTER BOX WATERPROOFING AND ALL SITE CONSTRUCTION SHALL BE EXECUTED IN ACCORDANCE WITH ENGINEER'S SPECIFICATIONS.
TREE PROTECTION
TREE PROTECTION SHALL BE INSTALLED AROUND EXISTING TREES TO BE RETAINED PRIOR TO THE COMMENCEMENT OF SITE WORKS. IN GENERAL, TREE PROTECTION SHALL CONSIST OF 1800mm HIGH CHAIN WIRE FENCING SUPPORTED BY STEEL POSTS.
SOIL PREPARATION
PLANTING BEDS SHALL BE PREPARED BY REMOVING UNWANTED VEGETATION AND WEED MATERIAL. GRUB OUT OR GRIND STUMPS. REMOVE BY HAND OR POISON WITH GLYPHOSATE ALL NOXIOUS WEEDS AND TURF ON SITE AND APPROPRIATELY DISPOSE. REMOVE ALL BUILDER'S RUBBLE AND WASTE FROM PLANTING BEDS.
PLANTING SOIL SHALL BE PREPARED BY SPREADING 100mm 'GREENLIFE COMPOST' ONTO SITE SOIL AND CULTIVATING TO A DEPTH OF 300mm. IMPORTED SOIL SHALL BE A.N.L. 'NATIVE PLANT SOIL MIX'.
TURF
TURF SHALL BE 'SIR WALTER' BUFFALO AND SHALL BE WEED FREE AND OF EVEN THICKNESS. TURF SHALL BE LAID ON A PREPARED BASE OF 50mm COMMERCIAL QUALITY TURF UNDERLAY. TOPDRESS JOINTS WITH 10mm COARSE WASHED RIVER SAND AND ROLL. INSTALL HARDWOOK TIMBER EDGING TO DEFINE JUNCTIONS OF LAWN AND PLANTING BEDS
PLANTING
ALL PLANTS SHALL BE WELL GROWN AND DISEASE FREE. PLANTING SHALL BE IN ACCORDANCE WITH PLANTING SCHEDULE.
'TERRACOTTEM' OR SIMILAR WATER RETENTION CRYSTALS SHALL BE THOROUGHLY MIXED INTO PLANTING SOIL. APPLY SLOW RELEASE FERTILIZER FOR NATIVE PLANTS
MULCH
COVER PLANTING AREAS OF SITE SHALL WITH 75mm OF 'FOREST FINES' MULCH.
FENCING
EXISTING SIDE BOUNDARY FENCING SHALL GENERALLY BE RETAINED, MADE GOOD WHERE NECESSARY. NEW FENCES WHERE REQUIRED SHALL BE WILDLIFE PASSABLE BY PROVISION OF 150X150mm GAPS AT MINIMUM 3m SPACINGS
WEED ERADICATION
ALL WEED SPECIES SHALL BE REMOVED FROM THE SITE USING STANDARD INDUSTRY PRACTICES. TARGETTED WEEDS SHALL INLCUDE BUT NOT BE LIMITED TO:

CINNAMOMUM CAMPHORA	Camphor Laurel
LIGUSTRUM LUCIDUM	Privet
TRADESCANTIA FLUMINENSIS	Wandering Jew
OCHNA SERRULATA	Mickey Mouse Plant
RICINUS COMMUNIS	Castor Oil Plant
ACETOSA SAGITTATA	Turkey Rhubarb
ASPARAGUS AETHIOPICUS	Asparagus Fern

ALL VEGETATIVE WEED MATERIAL SHALL BE SUITABLY DISPOSED OFF SITE AND FOLLOW UP TREATMENT OF RE-EMERGING WEED MATERIAL SHALL BE UNDERTAKEN ON AN 'AS NEEDED' BASIS. NO WEED SPECIES SHALL BE PLANTED ON SITE.



LANDSCAPE PLAN
SCALE 1:100
SITE & GROUND FLOOR PLAN

PLANTING LEGEND

TREES
- AF — ANGOPHORA FLORIBUNDA — Rough Bark Apple
- CA — CUPANIOPSIS ANACARDIOIDES — Tuckeroo
- ER — ELAEOCARPUS RETICULATUS — Blueberry Ash
- TL — TRISITANIOPSIS LAURINA — Water Box
- LIVISTONA AUSTRALIS — Cabbage Tree Palm

SHRUBS
- AS — ACACIA SUAVEOLENS — Sweet Scented Wattle
- CL — CALLISTEMON LINEARIFOLIUM — Narrow Leaf Bottlebrush
- DT — DODONAEA TRIQUETRA — Common Hopbush
- G — GOODENIA OVATA — Goodenia
- MH — MELALEUCA HYPERICIFOLIA — Red Flower Paperbard
- PS — POLYSCIAS SAMBUCIFOLIA — Elderberry Panax

ACCENTS + GRASSES
- CRINUM PENDUNCULATUM — Swamp Lily
- DIANELLA CAERULEA — Blue Flag Lily
- LOMANDRA LONGIFOLIA — Spiny Mat Rush
- YUCCA 'ELEPHANTIPES' — Yucca

PLANTING SCHEDULE

Plant species have been selected on the basis of the design intent and their suitability to the site location and conditions. In accordance with pittwater DCP 21 60% of the landscape area consists of locally indigenous species

SPECIES	COMMON NAME	HEIGHT	NO	POT SIZE
TREES				
~~ANGOPHORA FLORIBUNDA~~	ROUGH BARK APPLE	12m	1	~~Tubestock~~ 45L POTS TO REMAIN TUBESTOCK
~~CUPANIOPSIS ANACARDIOIDES~~	~~TUCKEROO~~ LOCALLY NATIVE TO REMAIN	8m	3	200mm
ELAEOCARPUS RETICULATUS	BLUEBERRY ASH	6m	7	200mm
LIVISTONA AUSTRALIS	CABBAGE TREE PALMS	8m	15	200mm
TRISTANIOPSIS LAURINA	WATER BOX	5m	4	200mm
SHRUBS				
ACACIA SUAVEOLENS	SWEET SCENTED WATTLE	3m	6	Tubestock
CALLISTEMON LINEARIFOLIUM	NARROW LEAF BOTTLEBRUSH	3m	12	Tubestock
DODONAEA TRIQUETRA	COMMON HOPBUSH	2m	8	Tubestock
GOODENIA OVATA	GOODENIA	0.5m	18	Tubestock
MELALEUCA HYPERICIFOLIA	PAPERBARK	2m	18	Tubestock
POLYSCIAS SAMBUCIFOLIA	ELDERBERRY PANAX	3m	10	Tubestock
ACCENTS + GRASSES				
CRINUM PENDUNCULATUM	SWAMP LILY	1m	20	150mm
DIANELLA CAERULEA	BLUE FLAG LILY	0.4m	20	Tubestock
LOMANDRA LONGIFOLIA	SPINY MAT RUSH	0.8m	20	Tubestock
YUCCA 'ELEPHANTIPES'	YUCCA	1m	6	200mm

LANDSCAPE DESIGN PRINCIPLES

TO REINFORCE THE LOCAL CHARACTER OF THE SITE
- USE OF LOCAL TREES and SHRUBS PROPOSED TO REINFORCE THE LOCAL CHARACTER OF THE AREA AND COMPLY WITH COUNCIL DCP REQUIREMENTS

TO COMPLEMENT AND ENHANCE THE EXISTING STREETSCAPE
- RNEW TREE, SHRUB AND NATIVE GRASSES ON IN FRONT SETBACK
- DESIGNED TO INTEGRATE AND COMPLEMENT THE EXISTING STREETSCAPE

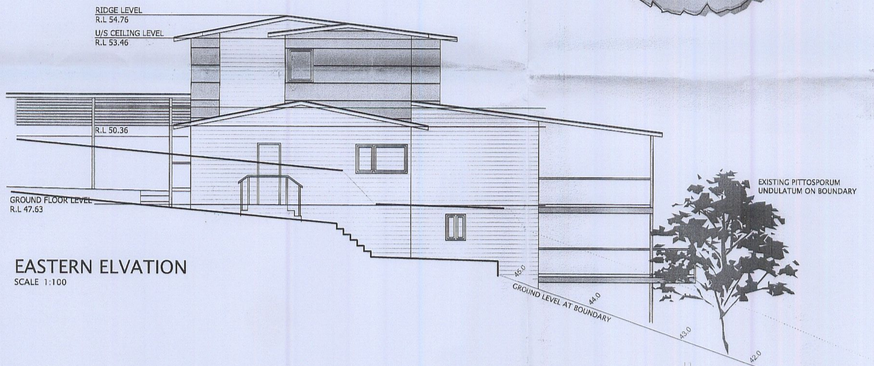
TO PROVIDE PRIVACY AND PROTECT VIEWS
- SPECIES HAVE BEEN CAREFULLY SELECTED WITH THE VIEW TO PROVIDE SCREENING AND PRIVACY INTO AND OUT OF THE SITE AND TO PROTECT NEIGHBOURS' VIEWS

TO PROVIDE FOR A SUSTAINABLE LANDSCAPE
- USE OF LOCAL AND NATIVE SPECIES SUITABLY ADAPTED TO THE SITE AND WITH LOW WATER REQUIREMENTS DESIGNED TO PROVIDE A SUSTAINABLE LANDSCAPE

TO CREATE RELAXING PRIVATE OPEN SPACES
- TERRACED LAWNS INCORPORATING INDIGENOUS TREES
- DESIGNED TO FACILITATE QUALITY FAMILY OUTDOOR RECREATION

TO ENHANCE THE LOCAL ECOLOGY
- SUBSTANTIAL INCREASE IN THE PERCENTAGE OF LOCAL AND NATIVE PLANT SPECIES ON THE SITE WILL PROVIDE INCREASED HABITATS FOR LOCAL FAUNA

TO COMPENSATE FOR CANOPY TREES REMOVED
- NEW LOCAL INDIGENOUS TREES PROPOSED TO COMPENSATE FOR TREES PROPOSED TO BE REMOVED FOR CONSTRUCTION



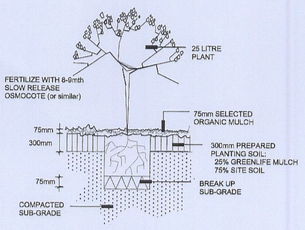
EASTERN ELVATION
SCALE 1:100

L E G E N D

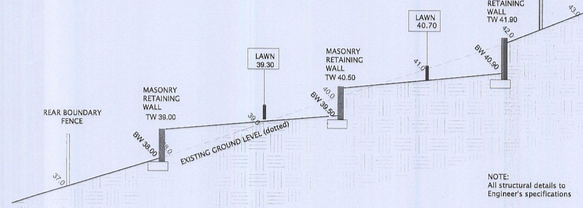
- SITE BOUNDARY
- 'SIR WALTER' BUFFALO LAWN (ALUMINIUM EDGING)
- rl 21.34 — PROPOSED LEVELS
- PROPOSED RET. GARDEN WALLS
- 21.34 — EXISTING SPOT LEVELS
- T1 — EXISTING TREES TO BE RETAINED
- T6 — EXISTING TREES TO BE REMOVED
- ORGANIC MULCH PATHWAYS

EXISTING TREE SCHEDULE

TREE NO	SPECIES	COMMON NAME	DBH	HEIGHT	SPREAD	STATUS
T1	MELALEUCA ARMILLARIS	BRACELET MYRTLE	400mm	8m	4m	Remove for crossing
T2	METROSIDEROS EXCELSA	N.Z. XMAS BUSH	800mm	8m	5m	Remove for carport
T3	MELALEUCA ARMILLARIS	BRACELET MYRTLE	400mm	6m	3m	Remove - poor health
T4	CUPRESSUS SP	CYPRESS	600mm	10m	7m	Retain
T5	MURRAYA PANICULATUA	ORANGE JESSAMINE	400mm	6m	4m	Remove - building footprint
T6	LAGERSTROEMIA INDICA	CREPE MYRTLE	500mm	8m	5m	Remove - building footprint
T7	GREVILLEA ROBUSTA	SILKY OAK	400mm	8m	5m	Retain + Protect
T8	PSIDIUM GUAJAVA	GUAVA	200mm	5m	3m	Remove - building footprint
T9	SALIX BABYLONICA	WILLOW	200mm	6m	4m	Remove - poor health
T10	ANGOPHORA FLORIBUNDA	ROUGH BARK APPLE	400mm	8m	4m	Remove for excavation. Replace
T11	MORUS RUBRA	MULBERRY	200mm	8m	4m	Remove for excavation
T12	PITTOSPORUM UNDULATUM	SWEET PITTOSPORUM	200mm	8m	4m	Retain
T13	MORUS RUBRA	MULBERRY	200mm	4m	2m	Remove - undesirable
T14	PITTOSPORUM UNDULATUM	SWEET PITTOSPORUM	200mm	4m	2m	Remove for excavation
T15	LIGUSTRUM SINENSIS	PRIVET	100mm	4m	2m	Remove - weed species
T16	PITTOSPORUM UNDULATUM	SWEET PITTOSPORUM	100mm	4m	2m	Remove - for excavation
T17	CINNAMONUM CAMPHORA	CAMPHOUR LAUREL	900mm	12m	8m	Retain - on adjoining property
T18	CITRUS SP	CITRUS	200mm	5m	3m	Retain - on adjoining property
T19	EUCALYPTUS SP	GUM	300mm	5m	4m	Retain - on adjoining property
T20	SCHEFFLERA SP	UMBRELLA TREE	500mm	6m	3m	Retain - on adjoining property

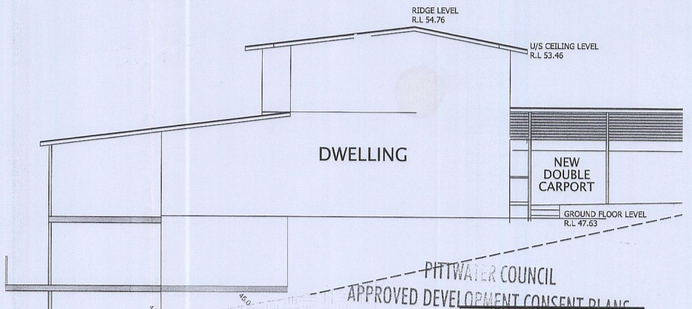


TYPICAL PLANTING DETAIL
25 LITRE POT
SCALE 1:20



NOTE:
All structural details to Engineer's specifications

SECTION THROUGH CENTRE OF SITE
SCALE 1:100



PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

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

PLAN CERTIFICATION

I AM A QUALIFIED REGISTERED LANDSCAPE ARCHITECT AND HORTICULTURIST. I AM AN ASSOCIATE MEMBER OF THE AUSTRALIAN INSTITUTE OF LANDSCAPE ARCHITECTS AND A MEMBER OF THE AUSTRALIAN INSTITUTE OF HORTICULTURE. FURTHER, I AM APPROPRIATELY QUALIFIED TO CERTIFY THIS COMPONENT OF THE PROJECT. I HEREBY STATE THAT THESE PLANS AND DETAILS COMPLY WITH THE PROVISIONS OF PITTWATER DCP NO 21 LANDSCAPE + VEGETATION MANAGEMENT AND PPPWATER LEP

TRISH DOBSON

NOTE
PLAN TO BE READ IN CONJUNCTION WITH
ARCHITECTURAL PLANS PREPARED BY
ADD-STYLE HOME ADDITIONS
ARBORIST REPORT PREPARED BY
STEADFAST TREE SERVICES

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ALTERATIONS + ADDITIONS
55 BUNBURRA AVENUE
AVALON

DRAWING
LANDSCAPE PLAN
DEVELOPMENT APPLICATION

SCALE 1:100 DATE 14.07.10
JOB 1020 ISSUE DA

DWG **1020 / DA-LO1**