

Construction Certificate Determination

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

Certificate No. 2006/1297

Council	Pittwater
Determination date of determination	Approved 30 May 2006
Subject land Address Lot No, DP No.	19 Crane Lodge Place, Palm Beach Lot 3 DP 31294
Applicant Name Address Contact No. (phone)	Mr P Bristow PO Box 395, Brookvale NSW 2100 0417 040 136
Owner Name Address Contact No. (phone)	Mr Paul Bristow & Mrs Heather Bristow 19 Crane Lodge Place, Palm Beach NSW 2108 0417 040 136
Description of Development Type of Work	Alterations and additions to an existing dwelling only
Builder or Owner/Builder Name Contractor Licence No/Permit	A.G.H. Constructions Pty Ltd 177421C
Value of Work Building	\$250,000.00

Attachments

1. Copy of completed Construction Certificate Application Form
2. Pittwater Council receipt nos. 190431 and 189408 for payment of Long Service Levy

**COUNCIL
COPY**

Plans & Specifications**certified**

List plans no(s) & specifications
Reference

1. Architectural Plans and Construction Specifications, reference no. 0514 A/01, prepared by Atelier Haefeli Pty Ltd, dated September 2005
2. Structural Details, reference no. 2005-176/01A, prepared and endorsed by Burgess, Arnott & Grava Pty Ltd, dated 13 April 2006
3. Copy of Sydney Water Approval dated 27/3/06
4. Certificate of structural adequacy prepared by Robert Grava, Structural engineer.
5. Stormwater drainage plan Ref 2005-167/01A dated 13 April 2006 prepared by Burgess, Arnott & Grava Pty Ltd
6. Soil & water management plan Ref 2005-167/02 dated Sept 2005.
7. Roof colour schedule RefAA dated May 2006

Certificate

I certify that the work if completed in accordance with these plans and specifications will comply with the requirements of S81A(5) of the Environmental Planning and Assessment Act 1979.

Signed



30 MAY 2006

Date of endorsement
Certificate No.

2006/1297

Certifying Authority

Name of Accredited Certifier
Accreditation No.
Accreditation Authority

Contact No.
Address

Stephen Pinn
POO40
Dept of Infrastructure, Planning & Natural Resources
(NSW Accreditation Scheme)
(02) 9999 0003
13/90 Mona Vale Road, Mona Vale NSW 2103

Development Consent

Development Application No.
Date of Determination

N0644/05
4 November 2005 (modified 24 March 2006)

BCA Classification

1a

Pittwater Council

OFFICIAL RECEIPT

13/04/2006 Receipt No 190431

To Paul Bristow

19 Crane Lodge Place
Palm Beach

Applic Reference	Amount
GL Re .015L-Buil	\$355.00
1 x N0644/05: 19 crane Lod	

Total: \$355.00

Amounts Tendered

Cash	\$0.00
Cheque	\$355.00
Db/Dr Card	\$0.00
Money Order	\$0.00
Agency Rec	\$0.00
Total	\$355.00
Rounding	\$0.00
Change	\$0.00
Nett	\$355.00

Printed 13/04/2006 11:28:34

Cashier MPorte

COUNCIL
COPY

Pittwater Council

OFFICIAL RECEIPT

23/03/2006 Receipt No 189408

To PAUL BRISTON

P O BOX 395
BROOKVALE NSW 2100

Applic Reference	Amount
GL Re GLSL-Buil	\$474.00
1 X D/A NO644/05	

Total: \$474.00

Amounts Tendered.

Cash	\$0.00
Cheque	\$474.00
Db/Cr Card	\$0.00
Money Order	\$0.00
Agency Rec	\$0.00
Total	\$474.00
Rounding	\$0.00
Change	\$0.00
Nett	\$474.00

Printed 23/03/2006 9:50:24

Cashier CDicks

COUNCIL
COPY

SUBMISSION REQUIREMENTS

A. GENERAL

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

Yes ☒ No ☐

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

Yes ☒ No ☐

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

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

Yes	No	Not Applicable
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In the case of an application for a Construction Certificate for building work:

☒	☐	☐
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Three (3) copies of detailed architectural plans and specifications

☒	☐	☐
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The plan for the building must consist of a general plan drawn to a scale not less than 1:100 and a site plan drawn to a scale not less than 1:200. The general plan of the building is to:

- show a plan of each floor section
- show a plan of each elevation of the building
- show the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground
- indicate the height, design, and full construction details
- indicate the provision for fire safety and fire resistance (if any)

☒	☐	☐
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Where the proposed building work involves any alteration or addition to, or rebuilding of, an existing building, all copies of the general plan are to be coloured or otherwise marked to the satisfaction of the Council to adequately distinguish the proposed alteration, addition or rebuilding with a separate letter listing the proposed changes being submitted.

☒	☐	☐
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3 copies of a specification:

- to describe the construction and materials of which the building is to be built and the method of drainage, sewerage and water supply
- state whether the materials proposed to be used are new or second hand and give particular

☐	☐	☒
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Where the proposed building work involves a modification to previously approved plans and specifications the general plans must be coloured or otherwise marked to the satisfaction of the Accredited Certifier to adequately distinguish the modification.

☐	☐	☒
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If the proposed building work involves a modification to previously approved plans and specification which were subject of a Development Consent, has the original Development Consent been modified by Council?

☐	☐	☒
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Except in the case of an application for, or in respect of domestic building work:

- a list of any fire safety measures that are proposed to be implemented in the building or on the land on which the building is situated, and
- if the application relates to a proposal to carry out any alteration or rebuilding of, or addition to, an existing building, a separate list of such of those measures as are currently implemented in the building or on the land on which the building is situated. This list must specify the standard of design of each of those fire safety measures to which they were originally installed.
- This list must describe the extent, capability and basis of design of each of the measures concerned.

☐	☐	☒
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Copy of BASIX Certificate & Report.

☒	☐	☐
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All other documentation to satisfy conditions of Development Consent.

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

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

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

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

LONG SERVICE LEVY (applies to all classes of buildings)

A Long Service Levy at 0.35% of the cost of works is payable on projects valued \$25,000 or more. This sum can be paid directly to the Long Service Payments Corporation or to Council acting as an agent to the Corporation. Partial exemption from the levy may be granted to non profit organizations, churches and to owner/builders. The levy may also be paid in instalments. Application forms for these exemptions are available from Council but all enquiries in this regard should be address to the Long Service Payments Corporation.

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

PARTICULARS OF THE PROPOSAL

What is the area of the land (m ²)? 900 M² +	Gross floor area of building (m ²) as proposed: APPROX 75 M²
What are the current uses of all or parts of the building(s)/land? DOMESTIC/RESIDENTIAL	Location: 19 CRANE LODGE PLACE PALM BEACH Use: RESIDENTIAL 2108
Does the site contain a dual occupancy? NO	What is the gross floor area of the proposed addition or new building (sq metres)? APPROX 75 M²
What are the proposed uses of all parts of the building(s) land? LIVING	Number of pre-existing dwellings: ONE
Number of dwellings to be demolished: NONE	How many dwellings proposed? ONE
How many storeys will the building consist of? ONE	Will the new building be attached to the existing building? YES
	Will the new building be attached to any new building? NO

MATERIALS TO BE USED

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

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

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

APPLICATION FOR A CONSTRUCTION CERTIFICATE

1 Applicant's details

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

Mr ☒ Mrs ☐ Ms ☐ Dr ☐ Other ☐

Given Names (or ACN)

PAUL

Family Name (or Company)

BRISTOW

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

PO BOX 395

BROOKVALE

NSW

Post Code 2100

Daytime telephone

0417-040-136

Alternate no.

9974-5404

Mobile no.

2 Owner's consent

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

Owner(s)

PAUL BRISTOW HEATHER JANE BRISTOW

Address

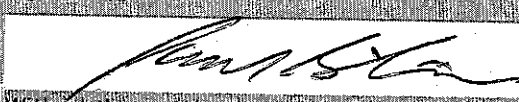
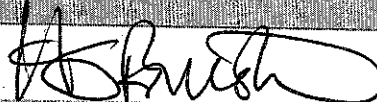
19 CRANE LODGE PLACE

PALM BEACH

NSW 2108

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

Signature(s)

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

3 Location of property

Unit/Street no.

19

Street name

CRANE LODGE PLACE

Suburb

PALM BEACH

Post code

2108

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

Lot no

3

DP no.

31294

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COPY

4. Description of work

What type of work do you propose to carry out?

Please describe briefly everything that you want approved

CONSTRUCTION CERTIFICATE
FOR APPROX 75 M² ADDITION OF
GROUND FLOOR EXTENSION

5. Estimated cost of work

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

Estimated cost of work \$ 263,000-00

6. Development Consent

Council Consent no.

N0644/05

Date of Determination

4/11/05

7. Building Code of Australia classification

This can be found on the development consent

BCA Classification

1(a)

8. Builder's details

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

Name

A. G. H. Constructions Pty Ltd

License no.

177421C

Owner/builder permit no.

9. Applicant's declaration

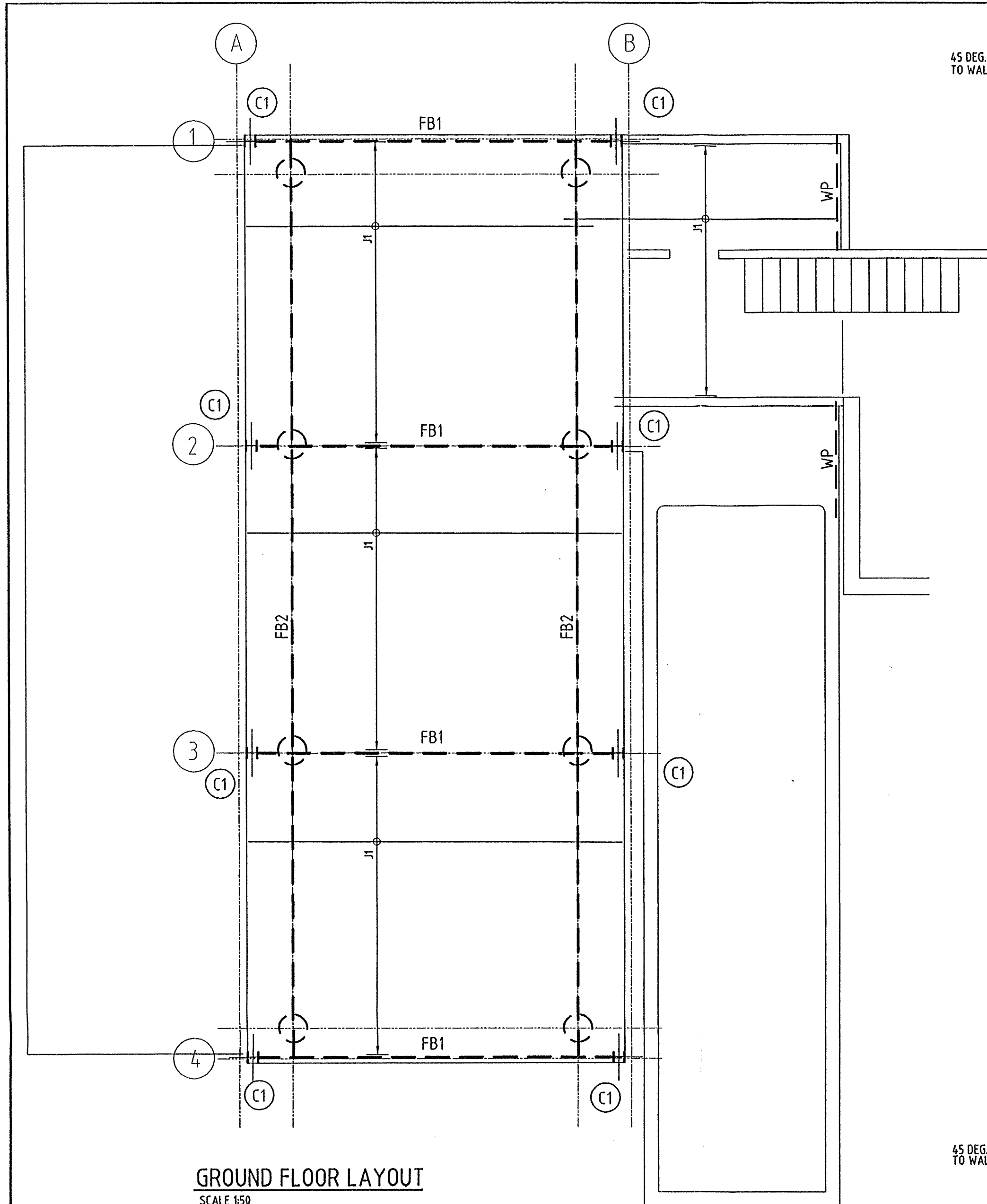
I apply for a Construction Certificate to carry out building works as described in this application. I declare that all the information in this application and checklist is, to the best of my knowledge, true and correct.

Signature



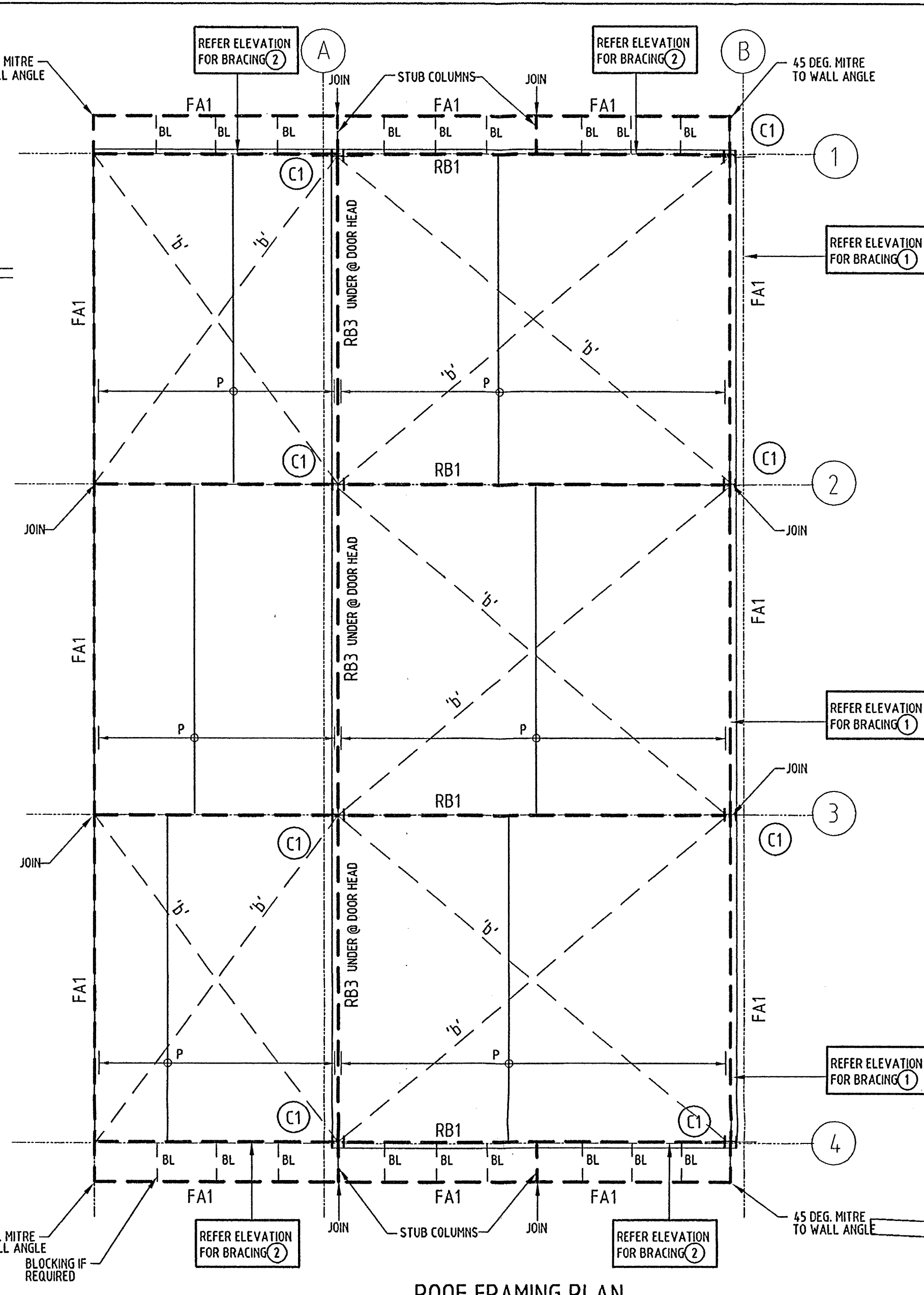
Date

23/03/06



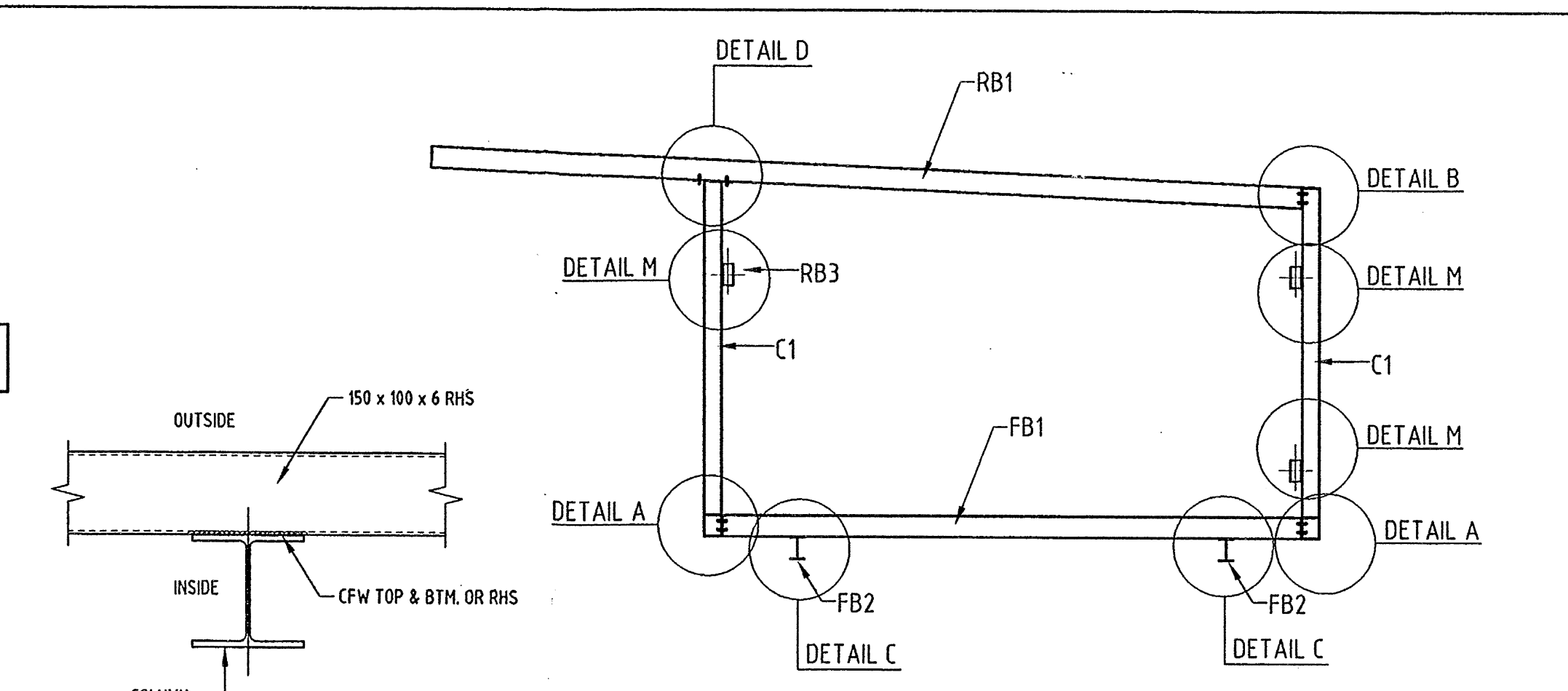
GROUND FLOOR LAYOUT
SCALE 1:50

- FB1.....200UC46
- FB2.....200UB29
- C1.....100UC14
- WP.....200 x 50 HARDWOOD
- J1.....200 x 50 F17 HARDWOOD @ 450 CTS.
- or.....200 x 45 LVL @ 450 CTS.
- or.....250 x 50 TREATED PINE @ 450 CTS.



ROOF FRAMING PLAN
SCALE 1:50

- STRUCTURAL STEEL SCHEDULE**
- RB1.....200UC46
 - RB3.....150 x 100 x 8 RHS
 - FA1.....150 x 90 x 8 'L'
 - 'b'.....Ø20 ROD WITH TURNBUCKLE
 - P.....C150-19 PURLINS @ 600 CTS.
 - BL.....BLOCKING FOR FIXING OF ROOF SHEETING



ELEVATION @ FB1, C1 & RB1
SCALE 1:50
TYPICAL GRID PLATE STIFFENER EACH SIDE

DETAIL M
SCALE 1:10

TOP VIEW @ A
SCALE 1:10

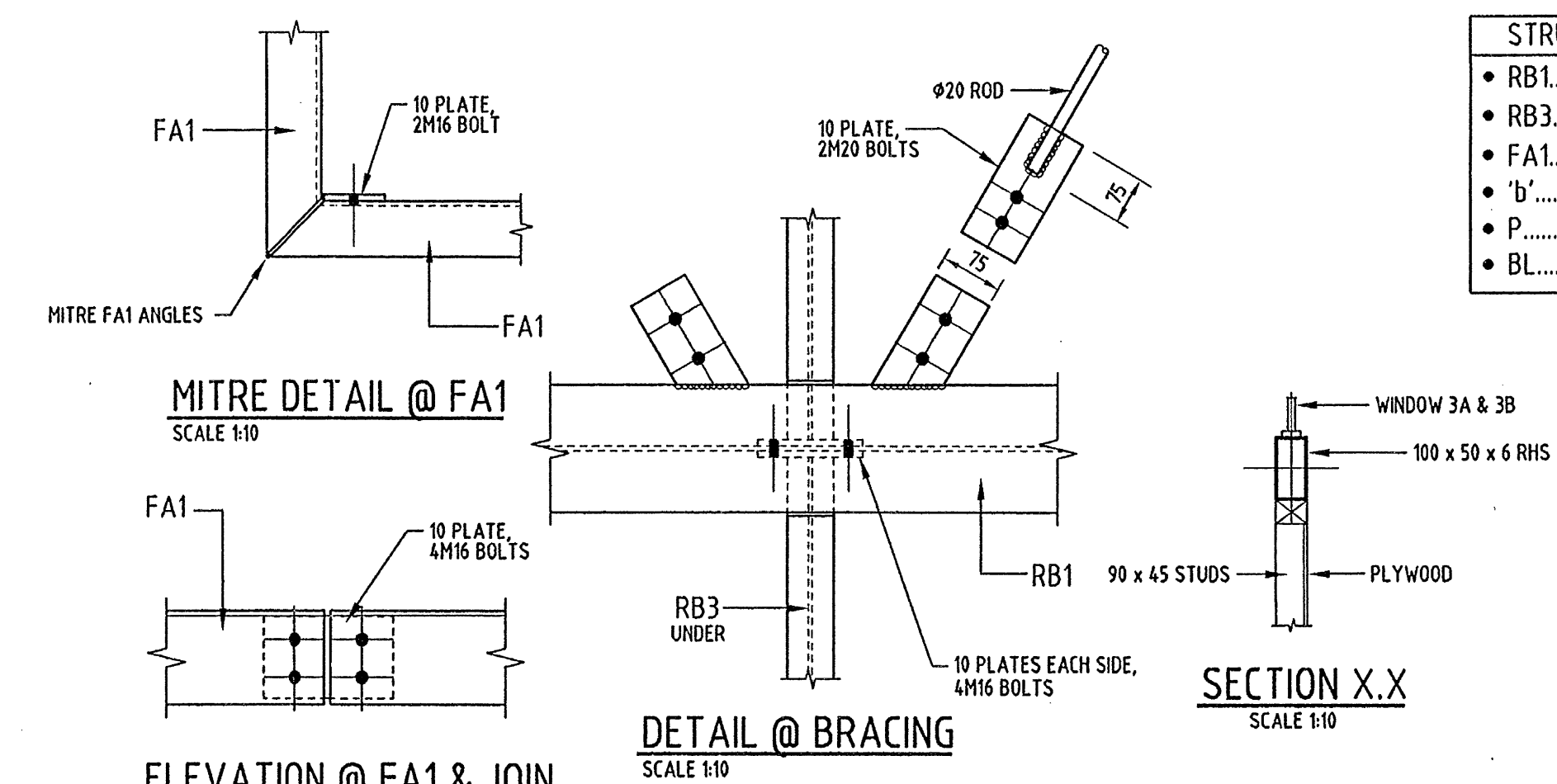
TOP VIEW @ B
SCALE 1:10

DETAIL @ A
SCALE 1:10

DETAIL @ B
SCALE 1:10

DETAIL @ C
SCALE 1:10

DETAIL @ D
SCALE 1:10

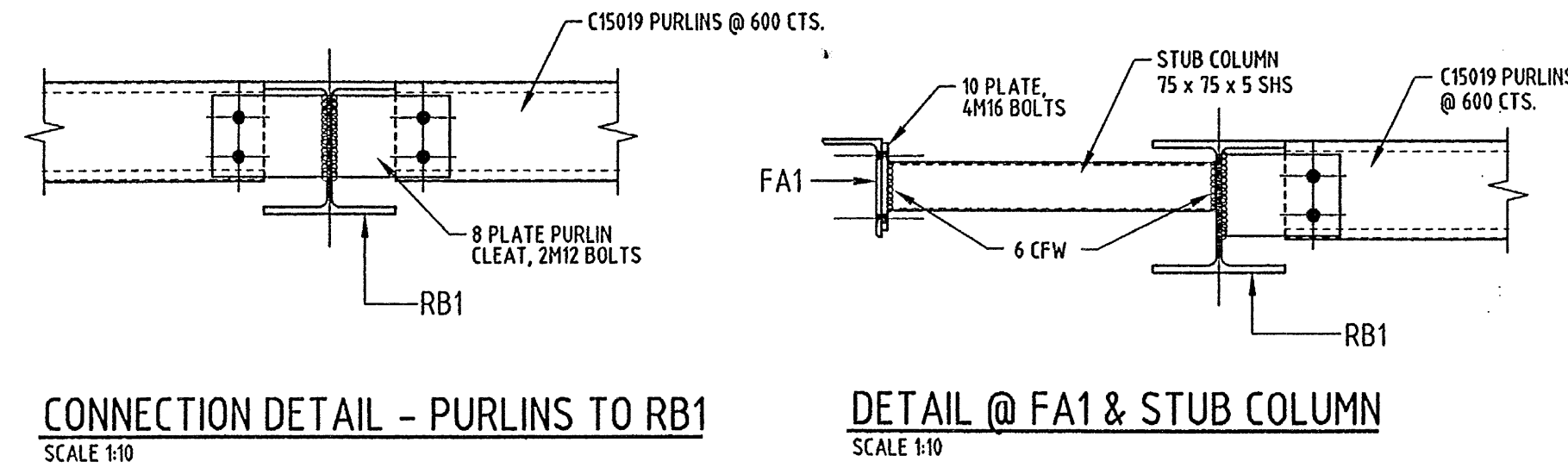


MITRE DETAIL @ FA1
SCALE 1:10

ELEVATION @ FA1 & JOIN
SCALE 1:10

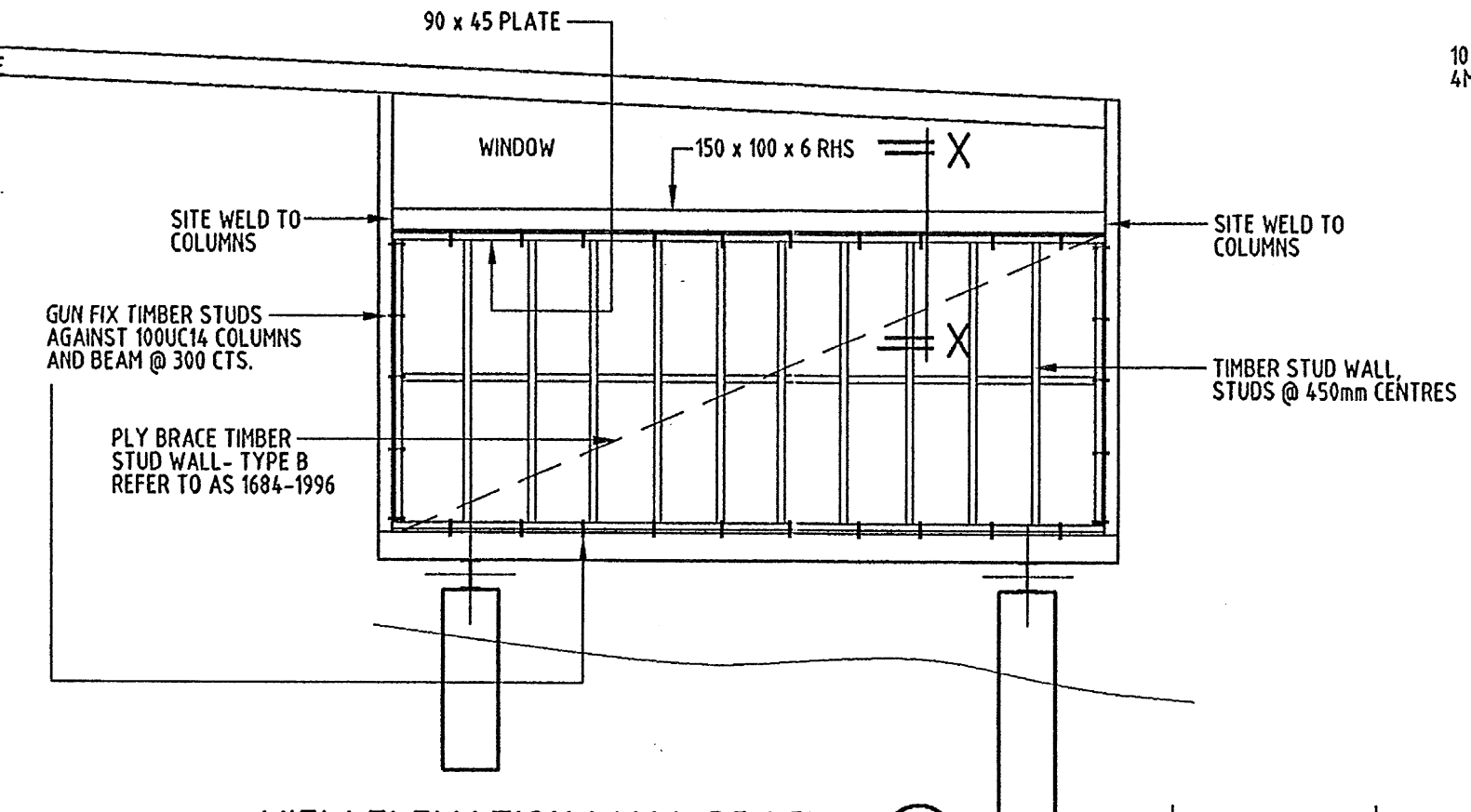
DETAIL @ BRACING
SCALE 1:10

SECTION X.X
SCALE 1:10

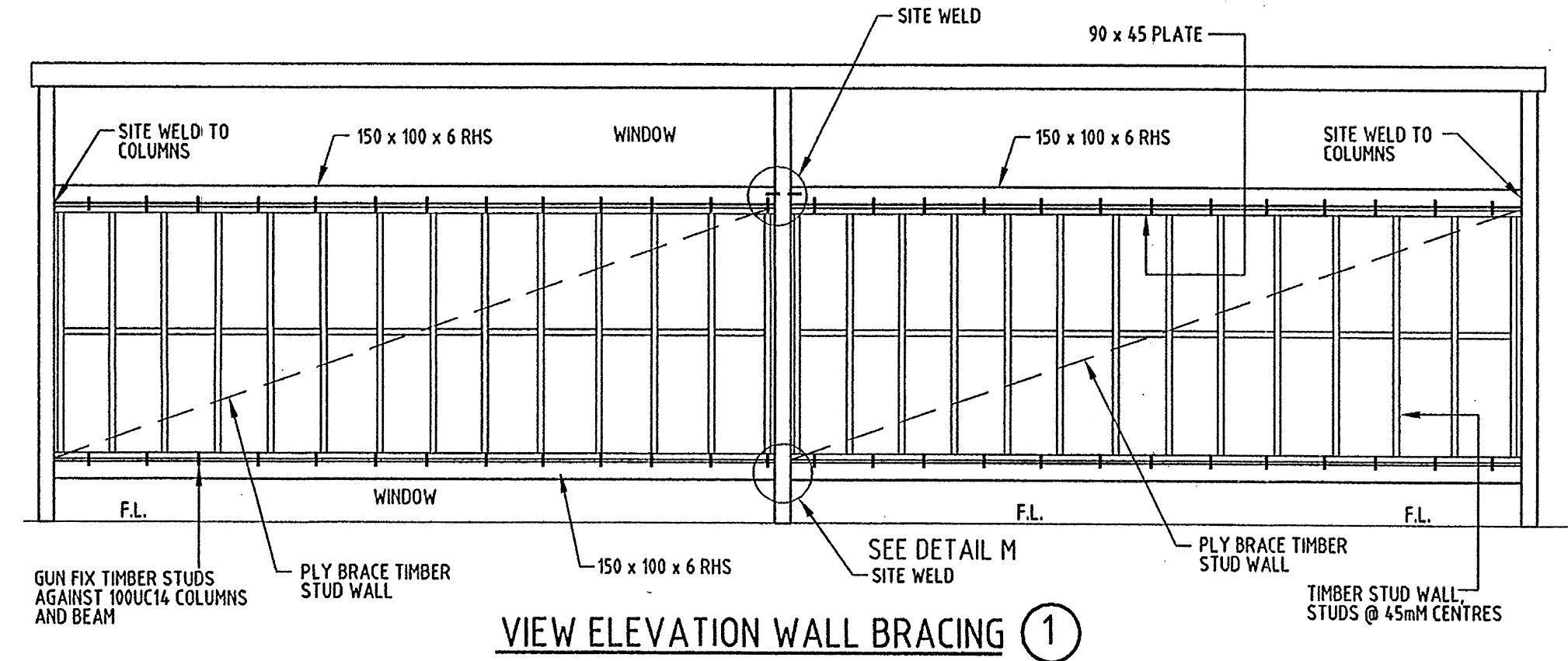


CONNECTION DETAIL - PURLINS TO RB1
SCALE 1:10

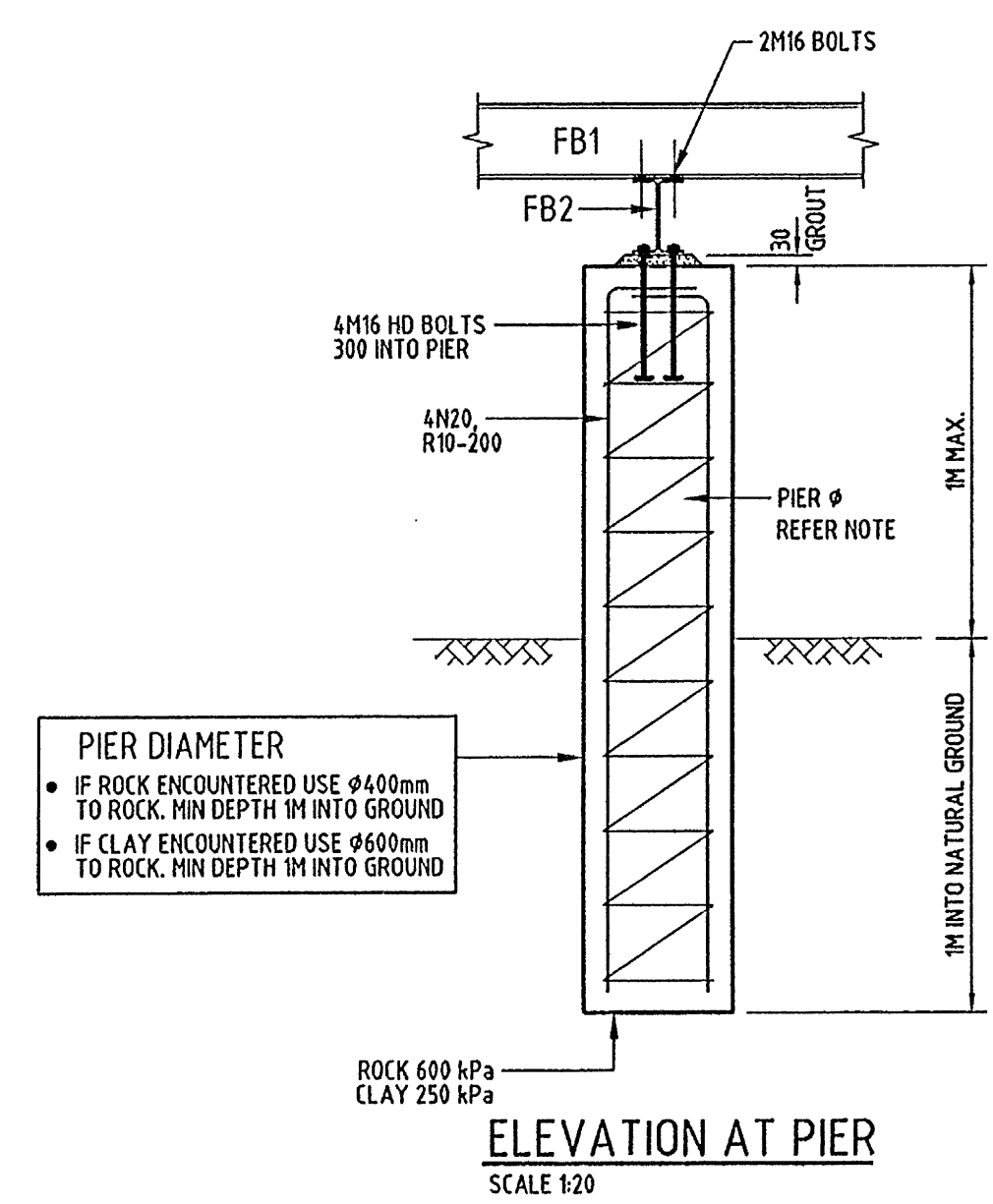
DETAIL @ FA1 & STUB COLUMN
SCALE 1:10



VIEW ELEVATION WALL BRACING ②
SCALE 1:50



VIEW ELEVATION WALL BRACING ①
SCALE 1:50



ELEVATION AT PIER
SCALE 1:20

ISSUED
13.4.06

A		FOR CONSTRUCTION	13/04/06
Amendment		Date	
ALTERATIONS & ADDITIONS AT 19 CRANE LODGE PLACE PALM BEACH FOR MR & MRS BRISTOW			
BURGESS, ARNOTT & GRAVA PTY LTD CONSULTING STRUCTURAL, CIVIL & HYDRAULIC ENGINEERS 61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087 Ph. 9451 4411 Fax. 9975 2274 email burgessarnott@ozemail.com.au			
FLOOR AND ROOF PLANS AND DETAILS			
Checked	Scale	Date	Drawing No.
R. GRAVA	1:100 1:20	DEC. 2005	2005-176701A
Approved		Chartered Engineer	

garage

undercroft

LINE OF WALLS OVER

NEW CLOSED RISER TIMBER STAIR

NEW MASONRY WALLS TO CLOSE OFF UNDERCROFT

l'dy

undercroft

ROUND FLOOR PLAN

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 licenced plumber/drainier.
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 Tanks shall not be placed under any Roof, Balcony, Verandah, Floor or other cover unless otherwise approved by Sydney Water.
6. Property No. 3410302

Reece, Brookvale,
Quick Check Agent on behalf of
SYDNEY WATER

Reece

27, 3, 06

ROOF PLAN

COUNCIL COPY

EXISTING RO
LINE OF WA

BURGESS ARNOTT & GRAVA

A.C.N. 072 572 208

Pty. Ltd.

A.B.N. 25 072 572 208

Consulting, Civil, Structural & Hydraulic Engineers

Mr Paul Burstow
19 Crane Lodge Place
Palm Beach.

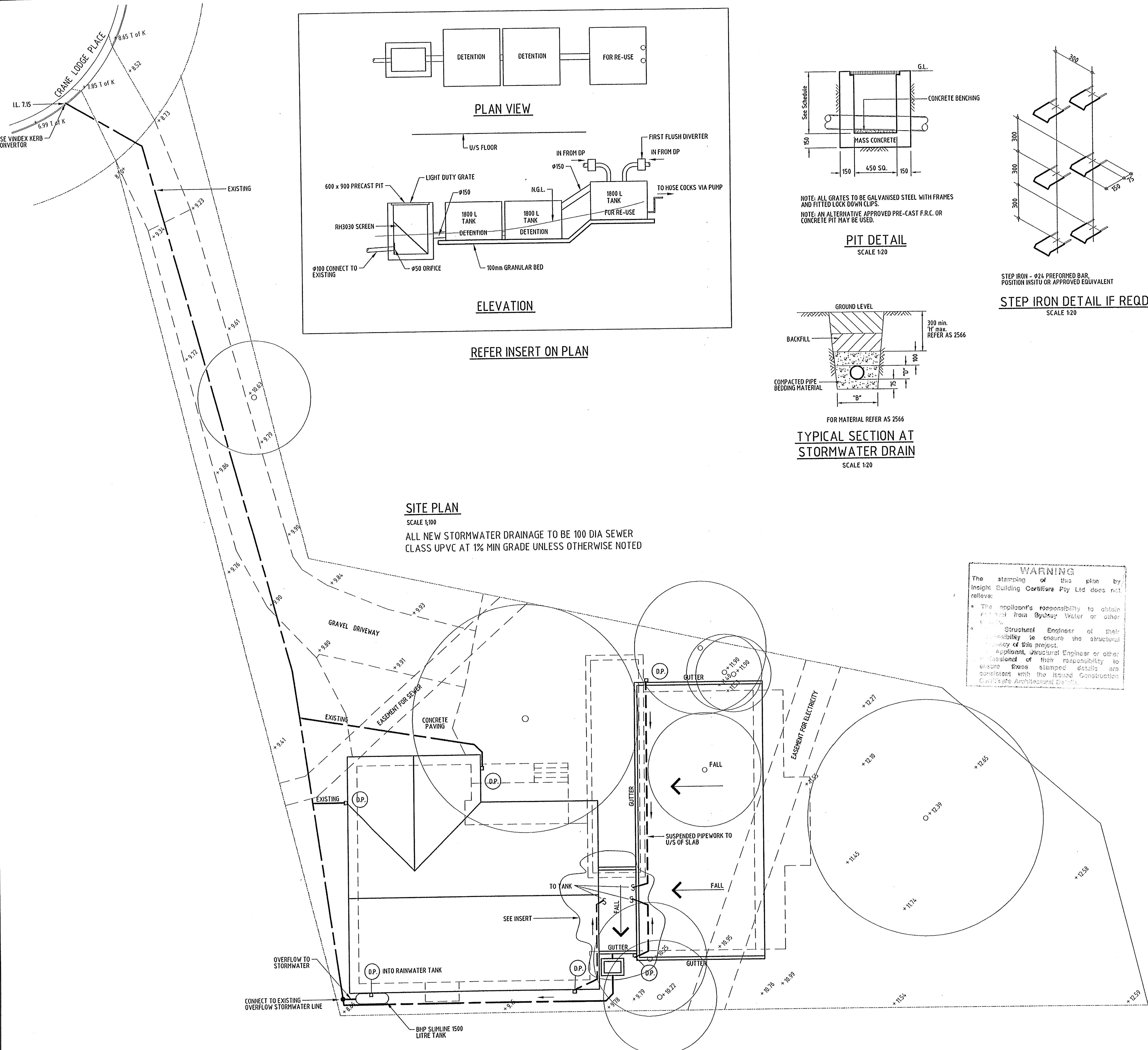
Re- Additions to Rear of 19 Cranelodge Place
Palm Beach.

We advise that the existing house
structure will safely support any loads
imposed by the proposed addition
at the rear.

Robert Grava.

ROBERT GRAVA B.E MIE and C. CP. Eng.

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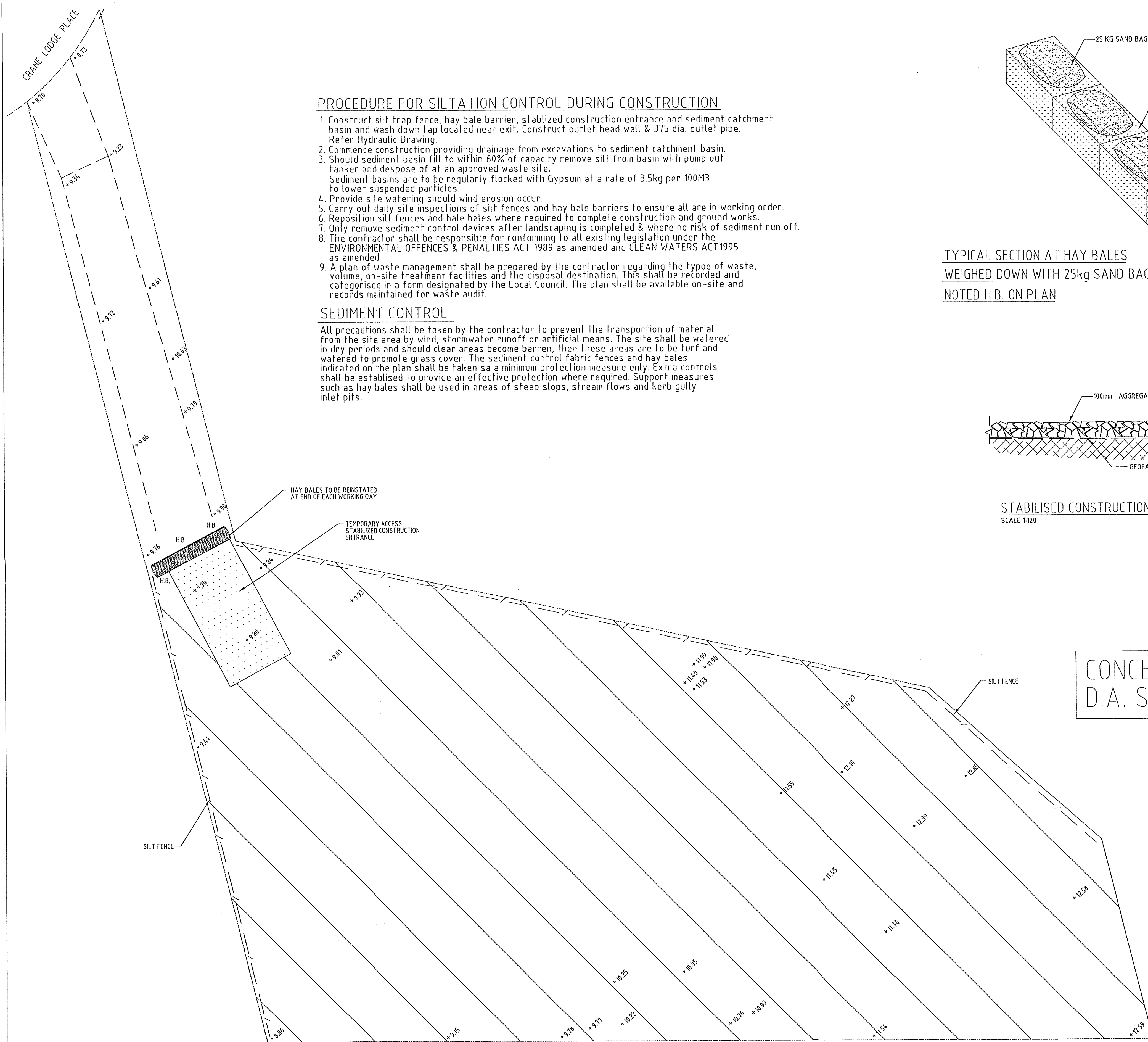


STORMWATER NOTES

1. All pipes and stormwater structures shall be in strict accordance with relevant S.A.A. Codes for materials, workmanship and to rules and regulations of the local Council.
2. The drawings are diagrammatic and setouts shall be checked with the Architectural drawings.
3. All levels and dimensions shall be checked on site prior to start of construction.
4. Pipe materials indicated may be altered provided they comply with the requirements of the relevant authorities.
5. Gutters and downpipes shall be in strict accordance with AS 2179 & AS 2180. Gutters shall have a minimum effective cross sectional area of 7500mm with 100 x 50 downpipes unless otherwise noted on plans.
6. Stormwater pipes up to and including 300 dia. shall be PVC pipes, sewer grade, conforming to AS 1260 and installed in accordance with AS 3500.3 and related reference documents.
7. All existing services to be located prior to the commencement of construction. Any costs incurred for adjustments and/or relocation of services to be borne by the applicant.
8. Provide unrestricted overland flowpaths from all pits and drain to detention tank inlet grates.
9. On-site stormwater detention reduces flooding by providing temporary storage of stormwater during storms. After the storm, the stored water is slowly released, normally through a control orifice. Systems incorporating a High Early Discharge first fill the HED section, then overflow into the storage and later flow-back into HED through a one-way line. During light rain, no storage occurs. During extreme rainfall, the detention system will fill and could overflow. A typical storage system will quickly fill but take several hours to empty. Submersion during this period will not affect most grass, plants or trees.
10. Councils require that on-site detention systems be inspected during construction to enable a final Hydraulic Certificate and Work as Executed details to be supplied upon completion. Councils require that concrete works (tank bases, lids, retaining walls etc) are inspected before pouring and a Structural Engineers Certificate is issued on completion.
11. These details are subject to approval by Council and possibly other authorities. Do not continue or commit to any work until these details are approved. Advise Design Engineer of any special conditions imposed or design variations made to the details. Any alterations (however minor) must be authorised by the Design Engineer.
12. Conditions found during construction that conflict with these details shall be reported to the Design Engineer. If in doubt, ask Design sizes, levels, heights and depths must not be varied without approval.
13. All works are to be completed before the Final Certificate will be issued. Tanks are to be clear of all formwork, builder's rubbish and silt. The outline and sump drain is to be clear. All pits and grates are to be completed and shall be free of building material and spoil. All downpipes are to be connected. Landscape works including driveways, kerbs and drive trench grates shall be installed. Orifices, screens, step irons and tank grate locks are to be correctly fitted. Surface detention areas are to be turfed.
14. Maintenance of the on-site stormwater detention system is the responsibility of the Owner. A complete set of these details shall be provided to the present owner. The details should be passed on to subsequent owners. It is important that these systems are not modified without approval. Do not enter any pit or tank where there is risk of inadequate ventilation or buildup of noxious odours, gases, or leakage of any volatile or toxic contaminants into the chamber. Obtain professional assistance if any of these conditions occur.
15. Maintenance and cleaning is required as follows. Remove and flush clean the trash screen. Hose out the tank base and remove accumulated debris. Flush the discharge-line clear. This must be done to Council's time requirements and as all Council's vary it is the responsibility of the Owner to find out Council's requirements.
16. Orifice plates shall be fabricated from 3mm thick stainless steel, with a circular hole machined to 1/2mm. Plates shall be fixed flush using four stainless steel expansion or chemical anchors. If required by Council, the orifice plate shall also be epoxy fixed. Unless otherwise detailed, plates shall be fixed on the centreline of the outlet.
17. Screen mesh shall be Lyaght's expanded metal, type RH3030, and shall not be hot dipped galvanised after fabrication. The screen shall have elongated mesh openings set horizontal, and the projecting mesh lines pointing down and facing upstream. Screens shall be provided with a suitable handle located on the top upstream face of the screen (for removal and, for flat screens, to define the screen orientation). All screens shall be removable by hand without the use of tools. Fixing brackets shall be stainless or galvanised mild-steel type. Bracket anchors shall be stainless steel. When installed, the maximum edge gap shall be 3mm x 30mm.
18. One-way flaps shall be Rocla Floodgate type. Flaps shall be located clear of inlets, screens and step irons and must not prevent the screen from being removed.
19. Concrete shall be 20 MPa for footings and tank bases, and 25 MPa for suspended tank lid slabs. Mesh reinforcement shall be lapped one square plus 25mm and bar reinforcement shall be lapped 500mm.
20. Permanent (non-structural) formwork shall be Lyaght's Bondex, any grade, or equal.
21. Tanks may be in-situ or precast. Note that falls, sumps and the position and depth to orifice machined or discharge control pipe is critical: both for hydraulic and health reasons. Overflow and access grates also provide light and ventilation requirements of various Authorities. Provide step irons to all tanks over 1500 depth.
22. Tank risers should be in-situ concrete. Risers shall have the same clear internal size as the tank access opening. Provide step irons to risers as specified.
23. Individual-rung step irons to tank, tank risers and deep pits shall be an approved type (galvanised steel or high impact plastic) complying with AS 1657. Fix rungs permanently and securely by drilling and epoxy grouting. Provide the specified number of step-irons, equally spaced vertically between 250mm and 350mm, with alternate rungs offset 200mm.
24. Grates and frame units shall be hinged and childproof, using either a spring loaded bolt or a bolt and lug locking system (padlocks are not permitted). The frames shall be securely attached to the tank or riser, or built into an in-situ slab.
25. Grates shall be class A (light duty) in paths and lawns; class B (medium duty) in residential vehicular areas; and class C (heavy duty) in public roadways.
26. B & U Engineering (0709.0100) for one-way foot-flaps, flat and triangular screens and orifice plates. Wedlock (0709.3777) for galvanised mild steel hinged and childproof (J-bolt lock) grate and frame sets.

LEGEND		
—	STORMWATER DRAINAGE	
100 x 50	D.P.	DOWNPIPE WITH MIN. SIZE
P	450 x 450 G=13.60 IL=13.05	STORMWATER PIT WITH SIZE, GRATE LEVEL AND INVERT LEVEL
G.D.		GRATED DRAIN
←		OVERLAND FLOWPATH
± 13.36		EXISTING LEVEL
± 20.75		PROPOSED LEVEL

13.4.06		
A	CONSTRUCTION CERTIFICATE STAGE	13/04/06
Amendment	Date	
PROPOSED NEW RESIDENCE AT NO. 19 CRANE LODGE PLACE PALM BEACH		
BURGESS, ARNOTT & GRAVA PTY LTD CONSULTING STRUCTURAL, CIVIL & HYDRAULIC ENGINEERS 61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087 PH. 9451 4411 FAX. 9975 2274 email burgessarnott@ozemail.com.au		
STORMWATER DRAINAGE PLAN FOR CONSTRUCTION		
Checked	Scale	Date
R. GRAVA	1:100 1:20	SEPT'2005
Approved	Chartered Engineer	2005-167101A

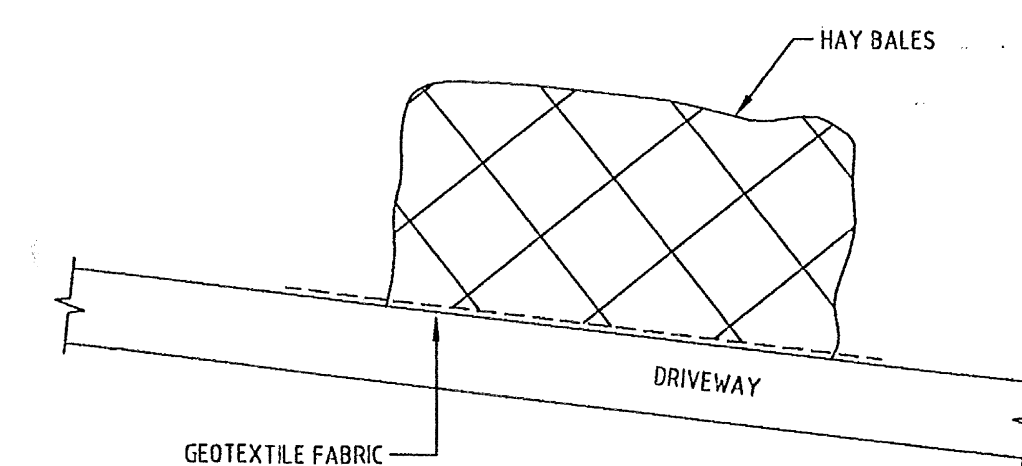
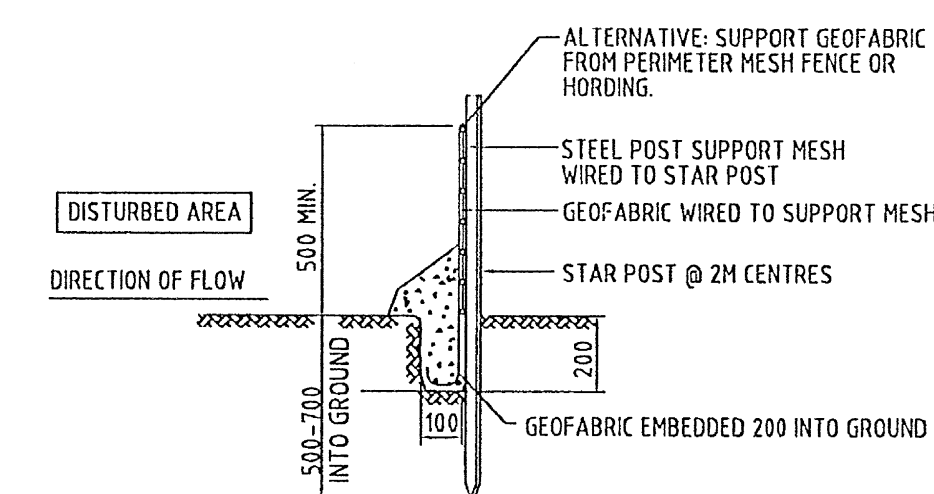
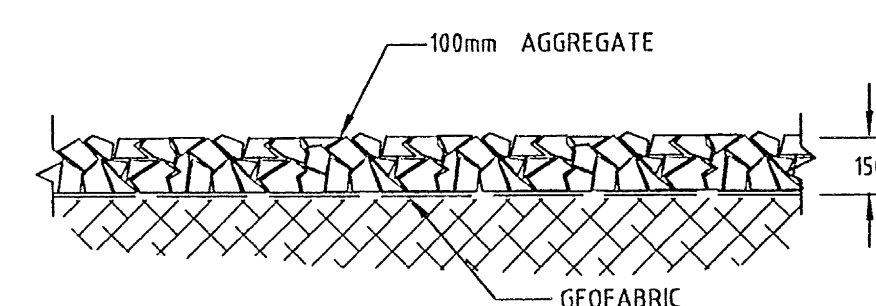
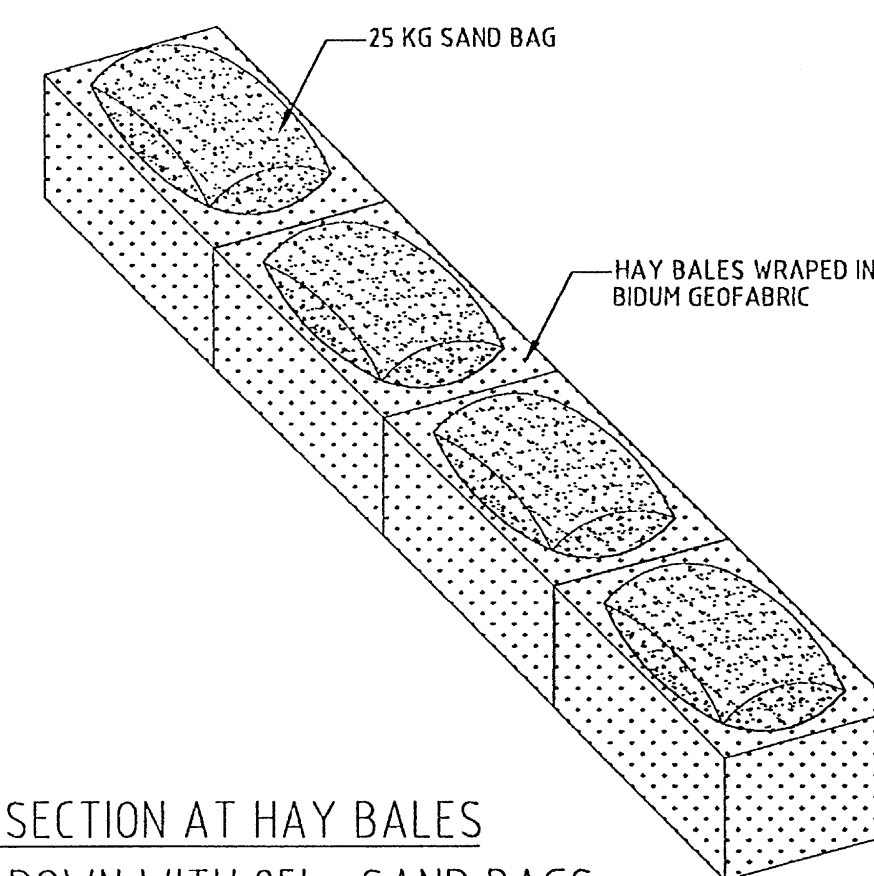


PROCEDURE FOR SILTATION CONTROL DURING CONSTRUCTION

1. Construct silt trap fence, hay bale barrier, stabilized construction entrance and sediment catchment basin and wash down tap located near exit. Construct outlet head wall & 375 dia. outlet pipe. Refer Hydraulic Drawing.
2. Commence construction providing drainage from excavations to sediment catchment basin.
3. Should sediment basin fill to within 60% of capacity remove silt from basin with pump out tanker and dispose of at an approved waste site.
Sediment basins are to be regularly flocced with Gypsum at a rate of 3.5kg per 100M3 to lower suspended particles.
4. Provide site watering should wind erosion occur.
5. Carry out daily site inspections of silt fences and hay bale barriers to ensure all are in working order.
6. Reposition silt fences and hay bales where required to complete construction and ground works.
7. Only remove sediment control devices after landscaping is completed & where no risk of sediment run off.
8. The contractor shall be responsible for conforming to all existing legislation under the ENVIRONMENTAL OFFENCES & PENAL TIES ACT 1989 as amended and CLEAN WATERS ACT 1995 as amended.
9. A plan of waste management shall be prepared by the contractor regarding the type of waste, volume, on-site treatment facilities and the disposal destination. This shall be recorded and categorised in a form designated by the Local Council. The plan shall be available on-site and records maintained for waste audit.

SEDIMENT CONTROL

All precautions shall be taken by the contractor to prevent the transportation of material from the site area by wind, stormwater runoff or artificial means. The site shall be watered in dry periods and should clear areas become barren, then these areas are to be turf and watered to promote grass cover. The sediment control fabric fences and hay bales indicated on the plan shall be taken as a minimum protection measure only. Extra controls shall be established to provide an effective protection where required. Support measures such as hay bales shall be used in areas of steep slopes, stream flows and kerb gully inlet pits.



LEGEND

- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- AREA TO BE DISTURBED
- DIRECTION OF SITE FALL
- WASH DOWN TAP WITH HOSE
- W.D.T. ↓

SITE PLAN SHOWING SOIL AND WATER MANAGEMENT

SCALE 1:100

FITZGERALD COUNCIL PROPOSED DEVELOPMENT CONSENT PLANS			
Amendment	Date		
PROPOSED NEW RESIDENCE AT No. 19 CRANE LODGE ROAD PALM BEACH: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT BURGESS, ARNOTT & GRAVA PTY LTD CONSULTING STRUCTURAL, CIVIL & HYDRAULIC ENGINEERS 61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087 Ph. 9451 4411 Fax: 9975 2274 email: burgessarnott@ozemail.com.au SOIL AND WATER MANAGEMENT			
Checked	Scale	Date	Drawing No.
R. GRAVA	1:100 1:20	SEPT 2005	2005-167/02
Approved	Chartered		

EXTERNAL ROOF COLOUR SCHEDULE

Address: 19 CRANE LODGE
PLACE
PALM BEACH.

COLORBOND

"WINDSPRAY"

REF AA

May 2006

COLORBOND® steel Range

Whatever your lifestyle, wherever you live,

there's a COLORBOND® steel solution for your

home. There's a choice of 20 colours to suit

Specification

ALTERATIONS + ADDITIONS

to

19 crane lodge place, palm beach

for Mr. and Mrs. BRISTOW

december 2005

Atelier Haefeli Pty. Ltd.
474 Barrenjoey Road
tel: 9918 3341

Chartered Architects
Avalon NSW 2107
Fax: 9918 7283

COUNCIL
COPY

PRELIMINARIES **1A.00**

SCOPE OF WORKS **1A.01**

The Works being the alterations + additions to 19 crane Lodge Place, Palm Beach including:

- internal arrangements to provide a new entry
- addition to the north to provide new kitchen, dining, living, laundry / guest wc.

The Builder shall visit the site to ascertain the full extent and nature of the site and the proposed works.

The Builder shall be deemed to have:

- examined all the information made available for the purpose of tendering
- examined all the information relevant to the risks, contingencies and other circumstances which could affect his tender and which is obtainable by making reasonable enquiries.
- examined the site and its surroundings
- informed himself as far as practicable of all relevant physical conditions at or near the site.
- informed himself as far as practicable of the nature of the work and materials necessary for the work under the Contract, the means of access to and facilities at the site.

BUILDER'S RESPONSIBILITY **1A.02**

All work shall be carried out in accordance with all current Building codes, By-laws, current SAA codes and the requirements of Pittwater Council. The Builder shall be responsible for ensuring that all operations and methods of construction, materials and workmanship are safe, sufficient and in accordance with the Contract Documents.

All materials shall be new and good quality and shall be suitably protected during the progress of the Works. Workmanship shall be to first class standards.

The Builder shall take all necessary precautions to:

- protect the site from theft and vandalism
- determine the location of and safeguard any existing services.

The Builder shall be responsible for making good damage to roads, paving, surfaces, fencing etc. without cost to the Proprietor. Provide and maintain all temporary services necessary for the execution of the works; pay charges, disconnect and dismantle on completion.

CLEANING UP **1A.03**

Keep the works clean and tidy as it proceeds and regularly remove from the site rubbish and surplus material arising from the execution of the Works including any work performed during the Defects Liability Period.

GUARANTEES **1A.04**

The Builder shall obtain and shall ensure that the Proprietor will have the benefit of warranties or guarantees as specified, including those obtained by the sub-contractors of the Builder. Unless otherwise specified or agreed, they shall name the Proprietor as warrantee and shall be furnished by the Warrantor direct to the Proprietor.

PRACTICAL COMPLETION **1A.05**

Without prejudice to the meaning of the term 'Practical Completion' in the Conditions of Contract, the following are given as an indication only of the degree of completeness to be expected:

- the requirements of Local and other Authorities have been complied with
- all major items of plant, sheds, temporary fences have been removed from the site
- removal of all rubbish and unused materials relating to the Works, leaving Works neat, tidy and dry
- employ professional cleaners to clean the inside of the building and both sides of all glazing
- remove trade names, manufacturers, suppliers and installers names from all items,

finishes etc.

- all services are completed, commissioned and fully operational, with certificates of approval from all relevant authorities
- siteworks have been completed.

<u>EXCAVATOR</u>	<u>2A.00</u>
<u>EXCAVATION</u>	<u>2A.01</u>

All trees are to be retained except those nominated for removal on the approved drawings, and the Builder shall take all precautions when working around all tree roots so as not to damage root structure. Obtain approval from Architect prior to lopping or trimming existing trees.

Allow for excavating in other than rock. DO NOT EXCAVATE OR FILL ANY section of the site other than as shown on the drawings or as required for drainage lines.

Excavate generally as required including but not limited to trim the excavation to allow for varying slab thickness and sub-base to bring finished floors up to levels detailed and also footings, footing beams, service lines, sumps etc.

The Builder shall remove all unwanted material from the site as and when directed. No rubbish is permitted to be buried on the site.

<u>TERMITE PROTECTION</u>	<u>2A.02</u>
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Apply termite protection measures sim. and equal to Termimesh's advice and recommendations to be carried out by a specialist and a written guarantee shall be furnished by the Builder stating that the treatment has been carried out in accordance with AS 3660.

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums for the Termite Protection.

<u>DRAINAGE</u>	<u>2B.00</u>
<u>GENERALLY</u>	<u>2B.01</u>

The whole of the Work shall be carried out by a licensed plumber in accordance with the rules and regulations of the Water Board and all Local Government requirements. Pay to the relevant authorities all fees and charges necessary.

Obtain certificates from authorities indicating satisfactory completion of services and hand over to the Architect prior to Practical Completion.

All materials shall be of the best quality and type of their kind. They shall conform to the requirements of the latest relevant specifications of the Standards Association of Australia.

<u>STORMWATER DRAINAGE</u>	<u>2B.02</u>
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Stormwater from new work is to connect into existing system and to Council's satisfaction.

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums for Water Tanks and Connection ie. to connect above ground stormwater tanks - detention system as detailed on the engineer's drawings.

<u>SEWER DRAINAGE</u>	<u>2B.03</u>
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Extend sewer drainage system as required for new work and make connections to existing sewer to Council's satisfaction.

<u>CONCRETOR</u>	<u>2C.00</u>
<u>GENERALLY</u>	<u>2C.01</u>

All concrete work shall be carried out strictly in accordance with the latest edition of Consulting Engineers Concrete Specification and relevant Concrete Codes and as shown on the Structural and Architectural drawings.

No concrete shall be placed until the inspection by the Architect and / or Engineer has been made and all work approved. (At least two 2 days notice)

FOUNDATION PIERS + FOOTINGS 2C.02

Form as necessary, reinforce and pour foundation piers to details shown on the Engineers drawings. Where poured in trenches, formwork may be omitted provided earth does not encroach within the beam and the dimensions are to be controlled within the tolerances for the type of finish specified.

WATERPROOFING 2C.03

In laundry, supply and install to manufacturer's written instructions and to AS CA55, an approved PVC membrane waterproofing system similar and equal to April Showers.

INSITU CONCRETE FINISHES 2C.04

Insitu concrete shall be finished in accordance with the following schedule. Surface finishes are defined in Section 10 of the ASCE Specification.

<u>ELEMENT</u>	<u>FORM CLASS</u>	<u>FINISH TYPE</u>	<u>TOLERANCE</u>
Areas for pavers		scratched	class C
Areas for ceramic tiles		scratched	class C
Areas for trowelled finish		steel trowelled	class B
Concrete work exposed to view	2	A	
All concrete concealed from view	5		

FORMWORK 2C.05

Formwork shall be such as to produce concrete to the shapes, lines and dimensions required as shown on the drawings and within tolerances. All as defined in Section 2 of the ASCE Specification. NOTE: Where concrete is exposed to view provide for 18mm chamfer to all edges.

BRICK + BLOCKLAYER 2D.00

STANDARDS 2D.01

All materials and workmanship shall conform to the following standards and codes:

SAA Masonry Code	AS 3700
SAA Brickwork Code	AS 1640
Clay Building Bricks	AS 1225
Mortar for Masonry Construction	AS A123
Wall Ties for Masonry Construction	AS 2699
Bituminous Damp-proof Courses with Metal Centre	SAA Int 326

STEELWORKER + METALWORKER 2E.00

STANDARDS 2E.01

All materials and workmanship shall conform to the following standards and codes:

Galvanised Coatings	AS 1650
Welding Code	AS 1554
Preparation and Pretreatment of Metal Surfaces prior to Protective Coating	AS 1627

STRUCTURAL STEEL 2E.02

Supply and install hot dipped galvanised structural steelwork to the sizes and details shown on the structural engineer's drawings.

ALUMINIUM WINDOWS AND DOORS 2E.03

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums for the Supply and Installation of Aluminium Windows and Doors.

Finish to be clear marine grade anodised. Louvred windows to be similar and equal to 'Breezeway' system.

CHANNEL DRAINS 2E.04

Supply and install 100mm wide stainless steel grated drains in the locations and to the extent shown on the drawings. Grated drains to be similar and equal to Dux platinum stainless steel grate and frame.

FLOOR WASTES 2E.05

Supply and install floor wastes in the locations shown on the drawings. Floor wastes to be similar and equal to 'Rimo' round in chrome finish supplied by Inc Ware, 16a Wellington Street, Waterloo, tel: 9319 0882.

CARPENTER + JOINER 2F.00

STANDARDS 2F.01

All materials and workmanship shall conform to the following standards and codes:

Methods of Test for Timber	AS 1080
Timber Frames and Sashes for Windows	AS 1275
Code of Practice for Construction in Timber Framing	AS 1684
Timber Engineering Code	AS 1720
Timber Doors	AS 2688

MATERIALS 2F.02

Timber shall be straight, sound, well seasoned and free from significant defects. All timber shall be branded and pass examined for white ants and borers.

Joinery timber shall be as specified and of the best clear grade quality, quarter sawn for doors, frames and similar sections.

Particleboard shall be customwood or similar conforming to AS 1859.

WORKMANSHIP 2F.03

Perform all work accurately in accordance with the best trade practice.

Use timber in single lengths whenever possible. Dress all visible surfaces except where specified sawn. All external fixings shall be stainless steel as appropriate.

Timber stacks on site shall be placed on level bearers clear of the ground. Protect all timber from sun and weather. All joinery work shall be protected from damage during delivery to the site or progress of the work by wrapping in polythene film.

WALL FRAMING+CLADDING 2F.04

Frame up for wall over the new areas to the extent as shown on the drawings and to the sizes and types of timbers listed on structural engineers drawings.

Frame up for new walls timber studwork to the relevant Australian Standards to receive external cladding.

External cladding to be similar and equal to 'Shadowclad groove' climate primed from Carter Holt Harvey. All to be fixed in strict accordance with manufacturer's instructions.

Supply and fit insulation similar and equal to 'Aircell' between studs from Demand Insulation.

Walls to be lined with 13mm thick plasterboard except in wet areas - line with 6mm compressed fibreboard.

ROOF INSULATION 2F.05

Supply and lay R3.0 'air cell' or similar on ceilings.

EAVES LINING 2F.06

Supply and fix 6mm compressed fibre board sheeting to underside of eaves. Joints to have small bevelled edges. Ensure joints are under rafters.

FLOORING 2F.07

Supply and fix new floor beams and joists to engineer's details. Make good existing timber floor. Sand all entry, living, lobbies 1 + 2 flooring to AS CA39, stop with matching filler, fine sand and leave ready for clear tung oil finish.

Timber boarding shall be 90mm wide select blackbutt secret nailed. Sand all flooring to AS CA39, stop with matching filler, fine sand and leave ready for clear tung oil finish.

TIMBER ARCHITRAVES 2F.08

Timber architraves are to be as detailed. Where timber, punch all nail heads and plug with mastic wood.

DOOR FURNITURE 2F.09

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums. The sum covers the Supply Only of all door furniture except for internal sliding door track and butt hinges which shall be supplied by the Builder.

JOINERY FITTINGS + FIXTURES 2F.10

Supply and install the following joinery items to the extent and dimensions as shown on the drawings:
- laundry cupboards

Finishes are as noted on the drawings. Handles to be provided by Proprietor and the Builder to allow for fitting.

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums for the front door.

Kitchen to be done by others.

Services are to be brought to locations as shown on the drawings.

ROOFER + ROOF PLUMBER 2G.00

STANDARDS 2G.01

All materials and workmanship shall conform to the following standards and codes:

Metal Roofing	AS 1562
Reflective Foil Laminate	AS 1903
Installation of Reflective Foil Laminate	AS 1904
Metal Rainwater Goods	AS 2179
Selection + Installation of Metal Rainwater Goods	AS 2180

GUARANTEES 2G.02

The Builder shall obtain a written guarantee from the firm supplying and fixing the roof stating that any defects that may arise during a twenty year period shall be made good and any making good shall be done at the sole expense of that firm supplying and fixing the roof.

A copy of the guarantee shall be lodged with the Architect on completion of the work.

The period of the guarantee starts from the date of Practical Completion.

MATERIALS + WORKMANSHIP 2G.03

The Builder shall ensure that the shape of the roof structure is satisfactory for the fixing of metal sheeting, free of dips, hollows etc.

Carry out all necessary operations for the satisfactory performance of the roof, including cutting at junctions, trimming around the penetrations and flashings.

Fix to supports with approved fasteners as per the manufacturers recommendations or as shown on the drawings. Roof sheets shall project a minimum of 50mm into gutters.

Roofs and gutters shall be swept clean of all debris (nuts, screws, cuttings, fillings etc.) using a soft broom, at least at the end of each day's work and particularly on completion of fixing.

Avoid water run-off from copper to aluminium, zinc or galvanised steel and zincalume to galvanised steel.

Make adequate provision for thermal movement in the installation of roof assemblies.

METAL ROOFING 2G.04

Steel roofing where shown shall be Lysaght's colorbond Klip-lock 406. Colour to be 'windspray'.

Allow for insulation blanket.

Reflective foil vapour barrier shall be a foil laminate, double sided, low flammability, with one anti glare surface complying with AS 1903.

GUTTERS + DOWNPIPES 2G.05

Gutters and fixing brackets to be similar and equal to Creeks Metal Industries with half round gutters being 125mm wide colorbond zincalume finish half round section fixed with Type A2 heavy half round brackets.

Downpipes to be 100mm diameter colorbond zincalume discharging into a grated gully - 250x250mm minimum cast iron grate.

Proprietor to supply and fit leaf guard system similar and equal to Leafscreeener Pty. Ltd.

FLOOR FINISHES 2H.00

PREPARATION + WORKMANSHIP 2H.01

The Builder shall be responsible for timely achievement of satisfactory moisture content in slabs receiving floor finishes.

All floors to be paved or tiled shall be left in scratch coat or sparrow picked or fine scabbled before work commences unless they are to receive waterproofing and screed.

All areas to be cleaned and free of laitance, dust or foreign matter and thoroughly dry.

FLOOR TILES 2H.02

The Proprietor shall Supply selected ceramic floor tiles. The Builder shall allow for the laying of tiles complete with all cement, sand, colouring and accessories. Tiling extents are shown on the drawings. Tiling to finish flush with adjacent floor finishes. Minimum bed at floor wastes or elsewhere to be 15mm.

After tiles are set, thoroughly wash and grout with similar mortar and approved proprietary admixture, clean off all stains and polish the tiles with a clean dry cloth.

Keep all unnecessary traffic off tiles and protect until handing over by taping down building paper or polythene sheeting.

DIVISION STRIPS 2H.03

Supply and securely fix stainless steel division strips a minimum of 25mm high by 3mm thick at the junctions of differing floor finishes, to be located centrally beneath closed doors.

WEATHER BARS 2H.04

Supply and fix brass weather bars to external doors as detailed. Weather bars to be a min. 50mm high x 4mm thick, securely screw fixed to concrete floor slab with flashing behind.

WALL FINISHES	2J.00
STANDARDS	2J.01

All materials and workmanship shall conform to the following standards and codes:

Adhesives for Ceramic Tiles	AS 2358
Ceramic Tiles and Fittings	BS 1281
Wall Tiling	BS 5385

WORKMANSHIP	2J.02
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Each surface to be rendered shall be thoroughly cleaned of any oil, dust or loose material which may prevent the formation of a satisfactory bond.

Cover sheets shall be used to protect areas from staining or damage due to droppings or splashings. Any such damage shall be made good by the Builder.

CERAMIC WALL TILES	2J.03
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The Proprietor shall Supply wall tiles. The Builder shall allow for fixing including all materials such as adhesives and grout. Tiling types are shown on the drawings.

Finish external corners with mitred joints. All tiles to be adhesive fixed using Aba thin flexible adhesive as recommended by the distributors of the tile. Grout all joints in approved grouting mixture and thoroughly clean and polish tiles after completion.

PLASTERBOARD WALL LINING	2J.04
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Line internal walls with 13mm plasterboard sheeting except in wet areas - line with 6mm fibre cement sheets. Tape and set all joints, wall angles and set all fixings. Finish external angles with 25x25x0.5mm perforated galvanised steel angle, fill and set.

CEILING FINISHES	2K.00
STANDARDS	2K.01

All materials and workmanship shall conform to the following standards and codes:

Preferred Sizes	AS 1224
Gypsum Plasterboard	AS 2588
Application and Finishing of Gypsum Plasterboard	AS 2589

GENERALLY	2K.02
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All ceiling finishes shall be true and straight to give uniformly level surfaces without bumps or waves.

SUSPENSION SYSTEM	2K.03
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Where a suspension system is used, it shall be sim. and equal to Gyprock or Rondo Plasterboard Suspended Screw-up Ceiling System conforming to AS 2785.

Fix suspension system strictly to the manufacturer's directions and recommendations for taking 13mm plasterboard lining. Form all bulkheads where shown and reinforce edges with 30x30mm continuous galvabond angles. Allow for trimming for all mechanical and air conditioning registers and diffusers.

PLASTERBOARD CEILINGS	2K.04
------------------------------	--------------

Supply and fix 13mm plasterboard lining to profiles and areas as shown on the drawings. Supply and fix preformed corners for the bulkheads and raked ceilings to achieve crisp and straight lines. Trim for access panels, air conditioning registers, mechanical exhaust registers, grilles and light fittings and finish edges of plasterboard to access openings or manholes with stopping angle trim mitred at corners. Supply and fix as detailed plaster shadowline stopping angle trim, at junctions of ceilings to walls, sim. and equal to Rondo part P50.

GLAZIER 2L.00
STANDARDS 2L.01

Generally all glazing work shall be in accordance with BCA and the following standards:

Rules for Minimum Design Loads on Structures	AS 1170
Installations of Glass in Buildings	AS 1288
Safety Glazing Materials for use in Buildings	AS 2208

SAFETY GLASS 2L.02

The glass shall be in laminated or toughened clear safety glass to comply with safety regulations and of the thickness recommended or nominated by code.

PAINTER 2M.00
STANDARDS 2M.01

All materials and workmanship shall conform to the relevant Australian Standards and Codes including:

Zinc rich Organic Priming Paint	AS 2204
Wood Primer	AS 2301
Undercoat	AS 2302
Glossary of Paint Terms	AS 2310
Guide for Painting of Buildings	AS 2311

EXTENT OF WORK 2M.02

The Builder shall allow for the complete painting of all new Works including affected areas in the existing house with the exception of the following:

- items specified to be factory of prefinished
- metals plated or specifically finished for appearance

The Builder shall allow for the painting of the new works internally including living, kitchen, laundry, dining. The intent of this section is that all surfaces of the building, other than those excluded shall be finished with an appropriate coating system, inclusive of all work and materials necessary to produce a satisfactory result. No variation will be made for alleged additional work unless it can be shown that the necessity goes beyond the intent of the specification.

MATERIALS 2M.03

All materials shall be approved standard proprietary products of first quality brought onto the site in sealed containers branded with the manufacturer's name and type of contents. Materials which are defective or not in accordance with this specification shall be removed from the site immediately upon request.

COLOURS + SAMPLES 2M.04

Differing colours may be selected for individual walls, ceilings, trims, doors, cupboards or any other distinct elements of the building. A schedule of colours will be provided prior to commencement of painting work.

Paint 1 sq. metre sample areas of all different painted surfaces and different paint types and obtain written approval from the Architect before proceeding. Allow for painting samples before ordering paint in bulk.

WORKMANSHIP 2M.05

Before starting to paint in any section of the building, clean it thoroughly and protect against entry of dust. Use drop sheets wherever necessary to protect finished work and any surfaces or fixtures liable to damage from Builder's work

Paint top and bottom of doors with two (2) coats before fixing doors in position.

Final coatwork shall be free of dust marks, dust, stains, paint runs or other blemishes.

PREPARATION OF SURFACES 2M.06

Ensure that all surfaces are in a fit and proper condition to receive the coatings specified.

Imperfections are to be made good prior to painting.

Generally clean down, remove all foreign matter including grease, dust and dirt, fill cracks and holes, fine down and leave smooth. The whole surface must be thoroughly dry before coating commences. If there is mould or moss on the surface, treat it with appropriate fungicide.

INTERNAL PLASTERBOARD 2M.07

All internal plasterboard shall be sealed, undercoated and finished with two coats acrylic paint.

EXTERNAL WOODWORK 2M.08

External woodwork shall be cleaned down to remove traces of wax, grease, dirt and grime.

Finish with selected exterior grade finish applied in accordance with manufs. instructions.

INTERNAL WOODWORK 2M.09

Existing timber is to be made good where required. Internal woodwork shall be sandpapered smooth and clean.

All new painted woodwork shall have priming coat the punched holes etc. filled and then given one undercoat and two coats of full gloss enamel.

EXTERNAL STEELWORK 2M.10

ALL external steelwork to be thoroughly cleaned down and inspected for rust. Treatment of rust coat to be approved by Architect. Finishing coats to be similar and equal to 'Ferrador' by Dulux.

EXTERNAL FIBRE CEMENT 2M.11

External fibre cement soffit linings including eaves soffits, bulkheads etc. shall be sealed and given paint finish similar and equal to Murowash. Samples to be provided.

ON COMPLETION 2M.12

All work shall be uniformly finished as to paint build-up, texture, degree and colour. Work showing poor build up, poor coverage or unevenness of finish or colour shall be recoated to a finish or colour satisfactory to the Architect.

Work showing bad brushwork, unevenness of texture or other blemishes shall be cut back with wet and dry rubbing paper in mineral turpentine to a smooth surface and recoated again to the satisfaction of the Architect.

On completion all tins, debris and the like shall be removed from the site, paint spots removed, floors cleaned, glass cleaned, windows to be eased, doors checked and all furniture refitted.

HYDRAULIC SERVICES 2N.00

EXTENT 2N.01

The extent of the Hydraulic work shall include all necessary pipework and fittings to complete the works to the satisfaction of Authorities and covers:

1. Stormwater drainage including detention tanks
2. Sanitary drainage and plumbing
3. Hot and cold water services to all fittings
4. Installation of sanitary fixtures and fittings

AUTHORITIES 2N.02

The whole of the works shall be carried out by a fully licensed plumber to the standards and regulations of the Water Board, local authority and BCA. Pay all relevant fees and charges, make all tests as required. Obtain certificates from authorities indicating completion of services.

MATERIALS + WORKMANSHIP 2N.03

The Builder shall be responsible for taking all dimensions on site before commencing work. All materials shall be the best quality and type of their kind. They shall conform to the requirements of the latest relevant specification of the Standards Association of Australia. Coordinate installation of pipework with other types of trade services.

EXCAVATION 2N.04

Carry out all excavation and backfilling of trenches as required or indicated. Backfill over the pipe collar shall be to 150mm and then selected excavated fill.

DRAINAGE 2N.05

Supply and install all sanitary and stormwater drainage to connect all fixtures and downpipes respectively as indicated. Downpipes are to discharge into water tanks as per hydraulic drawing. Sanitary drainage is to connect to the existing sewer which has to be extended to suit new bathroom arrangements. It is to be installed in approved materials to the rules and regulations of the Water Board.

Stormwater drainage is to terminate at existing Council stormwater lines.

SANITARY PLUMBING 2N.06

Sanitary plumbing shall be installed in UPVC pipework with all exposed plumbing being chrome plated copper waste pipes. Stacks and vents shall be installed in accordance with the Water Board regulations and shall have access panels fitted as required.

Vents shall be UPVC pipework and rise to the roof level with approved flashing.

Floor waste grates a.b.s. shall be positioned as approved by the Architect.

DOMESTIC HOT WATER 2N.07

Disconnect redundant piping and extend as required to connect to new fittings.

DOMESTIC COLD WATER SERVICE 2N.08

Extend from the Water Board meter to all fixtures and draw off points as nominated on the drawings. Pipework shall be installed in copper tube and shall be sized to accommodate the simultaneous operation of all shower outlets and to the rules and regulations of the Water Board. Do not cover or conceal underground or enclosed work until it has been inspected and tested. Locate in accessible positions with adequate clearance pipe fittings requiring maintenance or servicing.

SANITARY FIXTURES + TAPS 2N.09

Install all sanitary fixtures and appliances connected to the Hydraulic Services. The Proprietor shall supply the fittings. Provide all fixings, necessary cutting, securing brackets to walls, levelling and connection to various services required for satisfactory operation.

Allow for installing the following sanitary fittings and taps:

<u>LOCATION</u>	<u>FIXTURES</u>	<u>TAPS</u>
<u>Ground Floor Level</u>		
Kitchen	stainless steel sink	sink set
	Dishwasher (by Prop)	concealed hot + cold connection
	Fridge	concealed cold water connection
Laundry	Stainless steel tub	swivel spout with telescopic extension
	Washing mach. (by Prop.)	wall mounted recess cocks with coupling for washing machine
	WC suite	control cock

GAS SERVICE 2N.10

Extend gas service to serve the following:

- cooktop
- barbeque to outdoor area

ELECTRICAL SERVICES 2P.00

GENERALLY 2P.01

The Electrical work is to be carried out by a licensed electrician, strictly in accordance with the current S.A.A. Wiring Rules and with all the special requirements of the local supply authorities.

ELECTRICAL SERVICES 2P.02

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums for the connection of electrical services from the street to the meter box and switchboard to the various electrical points.

Lights shall be supplied by the Proprietor.

CONNECTION OF APPLIANCES 2P.03

The house will be fitted with the following permanently connected appliances which will be supplied by the Proprietor.

Provide all wiring and allow for final connections as follows:

- | | |
|---------|--|
| Kitchen | - refrigerator, oven, microwave, dishwasher, cooktop (ignition switch only), exhaust fan |
| Laundry | - washing machine, dryer |

SWIMMING POOL 2Q.00

The Builder shall allow for and include in the Tender Price the amount stated in the Schedule of Monetary Sums for the construction of the swimming pool.

SCHEDULE OF MONETARY SUMS 3A.00

The Builder shall allow for and include in the Tender Price the following Monetary Sums for work associated with and as specified. The Builder shall allow for attendance, allowances + profit.

<u>ITEM</u>	<u>CLAUSE NUMBER</u>	<u>AMOUNT</u>
Termite Protection	2A.02	\$ 3,000.00
Stormwater Drainage	2B.02	\$ 3,500.00
Aluminium Windows + Doors	2E.03	\$40,000.00
Door Furniture	2F.09	\$ 3,000.00
Front Door	2F.10	\$ 1,500.00
Electrical Services	2P.02	\$15,000.00
Swimming Pool	2Q.00	\$50,000.00

WORK TO BE DONE BY OTHERS 3A.01

For the information of the Builder the following is a list of work to be done by others:

- kitchen
- carpet

