

SYDNEY BUILDING APPROVALS CENTRE

- Principle Certifying Authority
- Building Regulation Consultation
- NatHERS Certifications
- BASIX
- Building Approvals
- Inspections

SYDNEY BUILDING APPROVALS CENTRE PTY LTD

ABN 96 081 945 904

Unit 34/25-33 Alfred Road, Chipping Norton, NSW

Phone: 9724 4404

Fax: 9724 4180

DX 5037 LIVERPOOL 2170

www.sbac.com.au

RESIDENTIAL • INDUSTRIAL • COMMERCIAL

R177491

Date: 26 September 2005

Pittwater Council
DX9018 MONA VALE

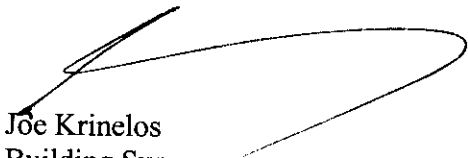
PREMISES: Lot 2, DP 1054614, 33 Walter Road, INGLESIDE
CONSTRUCTION CERTIFICATE: CC441/05

Dear Sir/Madam,

Please find enclosed a Construction Certificate, Notification of work to commence (Form 7), Plans, Engineers details & specification for the above premises.

Should you require any further assistance to the matter please do not hesitate to contact Sydney Building Approvals Centre on Tel: 9724 4404.

Yours Faithfully


Joe Krinelos
Building Surveyor

Rec 177491

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APPROVALS
CENTRE**

• Principle Certifying Authority
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CONSTRUCTION CERTIFICATE No.CC441/05

Environmental Planning and Assessment Act 1979 (as amended)

Date of determination:

26 September 2005

Attachments:

Structural Details, Specifications, Hydraulic Details, Landscape, Plans

Development address:

Lot 2, DP 1054614, 33 Walter Road,
INGLESIDE NSW

Applicant:

Home Team Constructions Pty Ltd
187-189 Windsor Road
NORTHMEAD NSW 2152

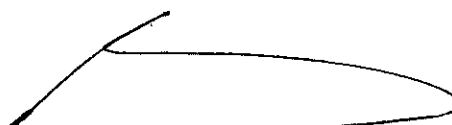
**Plans and specifications
approved**

Plans, drawings & Specifications
Two storey dwelling Class 1a

Certificate

I certify that the work if completed in accordance with these plans and specifications will comply with the requirements of s 8 1 A(5) of the *Environmental Planning and Assessment Act 1979*

Signature:



Date of endorsement:

26 September 2005

Certificate no:

CC441/05

Certifying Authority

Name of certifying authority:

Joe Krinelos

Accreditation no.: D.I.P.N.R.

6174

Development consent

Number and date of

NO904/04

Determination:

4 July 2005

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RESIDENTIAL • INDUSTRIAL • COMMERCIAL

Date 26 September 2005

Mr L & Mrs M Chiew
5 Walker Place
CHURCH POINT NSW 2105

CONSTRUCTION CERTIFICATE No.: CC441/05

PREMISES: Lot 2, DP 1054614, 33 Walter Road, INGLESIDE

Dear Sir/Madam,

Please find attached Construction Certificate and approved plans.

You are required to comply with all development Consent conditions issued under DA No. NO904/04 dated the 4 July 2005.

Please Note:- The Soil & Water Management Control measures are to be fully maintained during the course of construction, failure to do so Council may issue an on the spot fine.

The following inspections are required to be carried out by,:

1. **Pre commencement Inspection** – to be carried out by Sydney Building Approvals Centre prior to any work on site. This inspection is to ensure that all Pre commencement Conditions in the Development Consent have been complied with. eg. Safety fencing, toilets, erosion & sedimentation control system. etc.
2. **Piers** – Certificate by Structural Engineer.
3. **Raft slab** – Certificate by Structural Engineer.
4. **Frame** – Certificate by Sydney Building Approvals Centre.
5. **Wet areas** – Certificate by Plumber/Drainer & inspection by Sydney Building Approvals Centre.

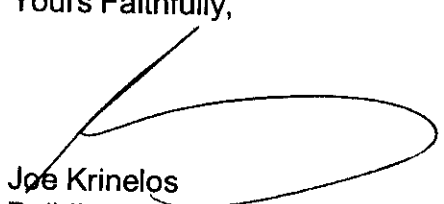
6. **Storm water Drainage** – Certificate by consultant & connection inspection by Sydney Building Approvals Centre.
7. **Final** – by Sydney Building Approvals Centre.

NOTE:

Any additional inspections shall be charged at the rate of \$220.00 per inspection.

Should you require any further assistance to the matter please do not hesitate to contact Sydney Building Approvals Centre on Tel. 9724 4404.

Yours Faithfully,



Joe Krinelos
Building Surveyor


home warranty insurance**Lumley**
General 

Lumley General Insurance Limited ABN 24 000 036 279
Lumley House, Level 9, 309 Kent Street Sydney NSW 2000
Tel 02 9248 1111 Fax 02 9248 1122

Home Building Act 1989 (New South Wales)**Section 92****Certificate in respect of Insurance
RESIDENTIAL BUILDING WORK BY CONTRACTORS**

A contract of insurance complying with Section 92 of the Home Building Act 1989, namely -

Home Warranty Insurance Policy No.:	SYBW-0025-0740
Has been issued by:	Lumley General Insurance Limited
In respect of:	Residential Dwelling
At:	Lot 2 33 Walter Road INGLESIDE, NSW 2101
Contract Value:	\$446,632.00
Carried Out By:	Home Team Constructions Pty Ltd
For:	Luke & Melinda Chiew

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

Date of Issue: 15/09/2005



Signed for and on behalf of Lumley General Insurance Limited

SYDNEY BUILDING APPROVALS CENTRE

- * PRINCIPLE CERTIFYING AUTHORITY
- * BUILDING REGULATION CONSULTATION
- * NATHERS CERTIFICATION
- * FIRE ENGINEERED SOLUTIONS
- * TOWN PLANNING
- * BUILDING APPROVALS
- * INSPECTIONS

SYDNEY BUILDING
APPROVALS CENTRE Pty Ltd
ACN 081 945 904
Unit 2, 107 Taylor Street,
CONDELL PARK, 2200

DX 11215 BANKSTOWN

TEL: 9790 4741
FAX: 9796 4792

* Residential * Industrial * Commercial

441/05

CONSTRUCTION CERTIFICATE

(Environmental Planning & Assessment Act 1979 Section 109(1)(b)(ii), 81A (2) & 81A(4))

SUBJECT LAND

Address: No. 33 Lot 2 Section _____ DP/SP 1054614
Street WALTER ROAD
Suburb INGLESIDE

DESCRIPTION OF DEVELOPMENT

TO CONSTRUCT A PROPOSED TWO STOREY
BRICK VENER RESIDENTIAL DWELLING ON
A VACANT BLOCK OF LAND

VALUE OF WORK

\$ 446,632.00

TYPE OF WORK

☐ Subdivision

☒ Building

DEVELOPMENT CONSENT

Development Application No.

Date of determination:

N0904/04
4.7.05

BUILDING CODE OF AUSTRALIA BUILDING CLASSIFICATION

Nominated on the development:

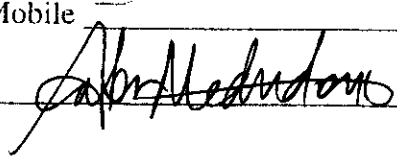
Consent:

CLASS 1A

REQUIRED ATTACHMENTS☐ Yes☐ No☒ NA

SCHEDULE (for building work only)To be attached ☐ Yes☒ No

CONSENT OF OWNERAs the owner/s of the above property, I/we consent to this application
(if applicable, company seal is required)Name: MR L & MRS M. CHIEW.Address: 5 WALKER PLACE,
CHURCH POINT 2105Contact No.: Home 9979-6604 Work 0438 616 271 (MR.)
Mobile 0400 324 164 (MRS) Fax 9979-5168Signature: ~~SEE~~ ATTACHED

APPLICANTName: HOME TEAM CONSTRUCTIONS PTY LTDAddress: 187-189 WINDSOR ROAD
NORTHMEAD 2152Contact No.: Home — Work 9639-5555Mobile — Fax 9639-1415Signature:  21, 7, 05

SCHEDULE

This schedule is required to be completed (for building work only) for the purposes of providing information to the Australian Bureau of Statistics

What is the area of the land (m²) 18,900m² APPROX.

Gross floor area of the existing building (m²) N/A

What are the current uses of all or parts of the building(s)/land? (If vacant, state vacant)

VACANT

Does this site contain a dual occupancy? ☐ YES ☒ NO

What is the gross floor area of the proposed addition or new building (m²) 545.10m²

What are the proposed uses of all parts of the building(s)/land?

RESIDENTIAL DUAL OK.

Number of pre-existing dwellings NONE

Number of dwellings to be demolished NONE

How many dwellings are proposed NONE

How many storeys will the building consist of? TWO.

Please tick the box which best describes the materials the new work will be constructed of:

Walls:

- ☒ brick veneer (12)
- ☐ full brick (11)
- ☐ single brick
- ☐ concrete block (11)
- ☐ concrete/masonry (20)
- ☐ concrete (20)
- ☐ steel (60)
- ☐ fibrous cement (30)
- ☐ hardiplank (30)
- ☐ timber/weatherboard (40)
- ☐ cladding-aluminium (70)
- ☐ curtain glass (50)
- ☐ other (80)
- ☐ unknown (90)

Roof:

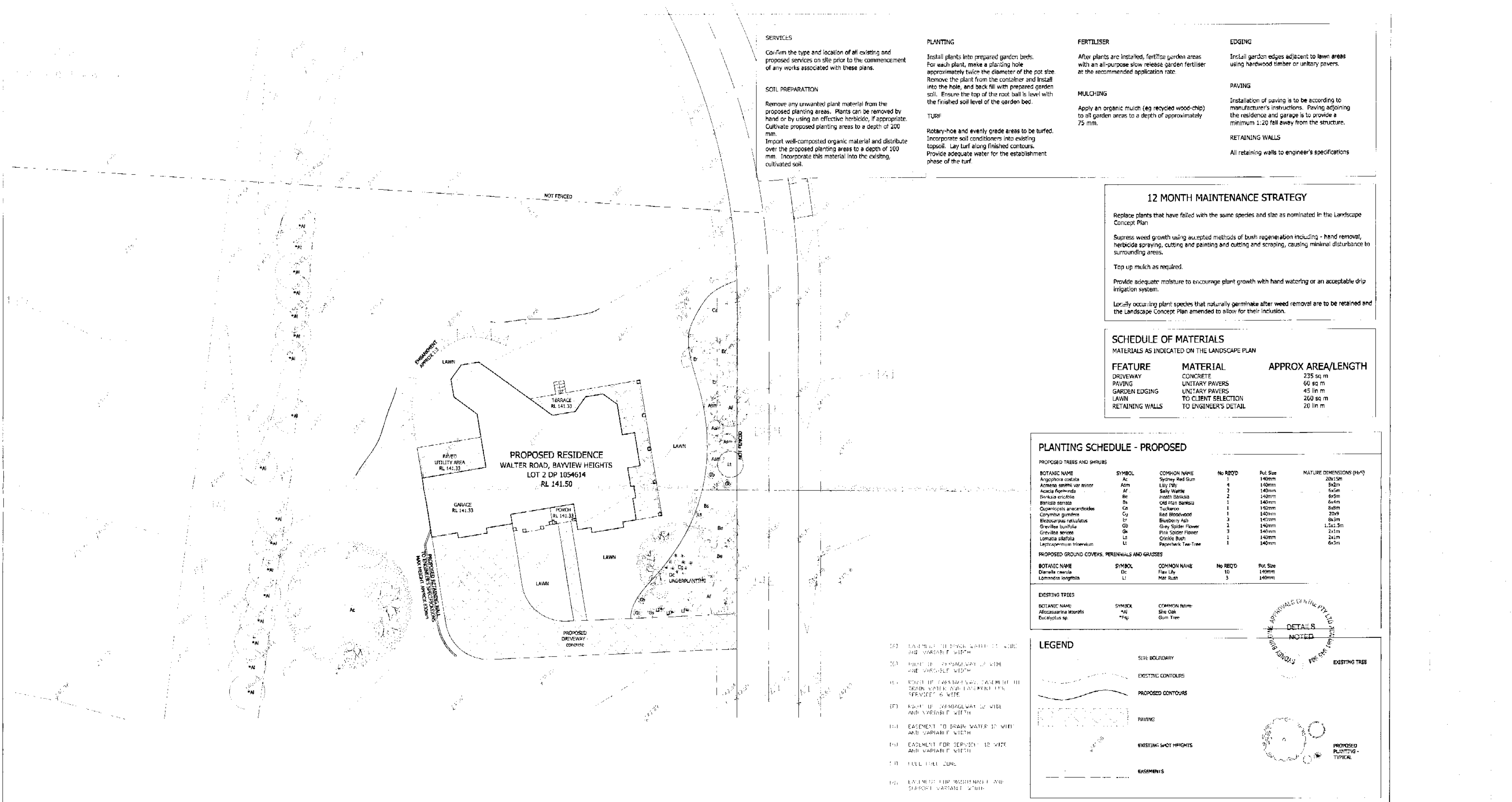
- ☐ aluminium (70)
- ☐ concrete (20)
- ☐ concrete tile (10)
- ☐ fibrous cement (30)
- ☐ fibreglass (80)
- ☐ masonry/terracotta shingle tiles (10)
- ☐ tiles (10)
- ☐ slate (20)
- ☐ steel (60)
- ☒ terracotta tile (10)
- ☐ other (80)
- ☐ unknown (90)

Floor:

- ☒ concrete (20)
- ☒ timber (10)
- ☐ other (80)
- ☐ unknown (90)

Frame:

- ☒ timber (40)
- ☐ steel (60)
- ☐ other (80)
- ☐ unknown (90)



SERVICES

Confirm the type and location of all existing and proposed services on site prior to the commencement of any works associated with these plans.

SOIL PREPARATION

Remove any unwanted plant material from the proposed planting areas. Plants can be removed by hand or by using an effective herbicide, if appropriate. Cultivate proposed planting areas to a depth of 200 mm. Import well-composted organic material and distribute over the proposed planting areas to a depth of 100 mm. Incorporate this material into the existing, cultivated soil.

PLANTING

Install plants into prepared garden beds. For each plant, make a planting hole approximately twice the diameter of the pot size. Remove the plant from the container and install into the hole, and back fill with prepared garden soil. Ensure the top of the root ball is level with the finished soil level of the garden bed.

TURF

Rotary-hoe and evenly grade areas to be turfed. Incorporate soil conditioners into existing topsoil. Lay turf along finished contours. Provide adequate water for the establishment phase of the turf.

FERTILISER

After plants are installed, fertilise garden areas with an all-purpose slow release garden fertiliser at the recommended application rate.

MULCHING

Apply an organic mulch (eg recycled wood-chip) to all garden areas to a depth of approximately 75 mm.

EDGING

Install garden edges adjacent to lawn areas using hardwood timber or unitary pavers.

PAVING

Installation of paving is to be according to manufacturer's instructions. Paving adjoining the residence and garage is to provide a minimum 1:20 fall away from the structure.

RETAINING WALLS

All retaining walls to engineer's specifications

12 MONTH MAINTENANCE STRATEGY

Replace plants that have failed with the same species and size as nominated in the Landscape Concept Plan

Suppress weed growth using accepted methods of bush regeneration including - hand removal, herbicide spraying, cutting and painting and cutting and scraping, causing minimal disturbance to surrounding areas.

Top up mulch as required.

Provide adequate moisture to encourage plant growth with hand watering or an acceptable drip irrigation system.

Locally occurring plant species that naturally germinate after weed removal are to be retained and the Landscape Concept Plan amended to allow for their inclusion.

SCHEDULE OF MATERIALS

MATERIALS AS INDICATED ON THE LANDSCAPE PLAN

FEATURE	MATERIAL	APPROX AREA/LENGTH
DRIVEWAY	CONCRETE	235 sq m
PAVING	UNITARY PAVERS	60 sq m
GARDEN EDGING	UNITARY PAVERS	45 lin m
LAWN	TO CLIENT SELECTION	260 sq m
RETAINING WALLS	TO ENGINEER'S DETAIL	20 lin m

PLANTING SCHEDULE - PROPOSED

PROPOSED TREES AND SHRUBS

BOTANIC NAME	SYMBOL	COMMON NAME	No REQ'D	Pot Size	MATURE DIMENSIONS (HxW)
Angophora costata	Ac	Sydney Red Gum	1	140mm	20x15m
Adiantum species var minor	Adm	Lily Fern	4	140mm	5x2m
Acacia formosa	Af	Sally Wattle	2	140mm	6x5m
Banksia ericifolia	Be	Heath Banksia	2	140mm	6x5m
Blumea serrata	Bs	Old Man Banksia	1	140mm	6x4m
Opuntia stricta	Ca	Tuckeroo	1	140mm	8x8m
Corymbia gummifera	Cy	Red Bloodwood	1	140mm	20x9
Eleocharis palustris	Er	Blueberry Ash	2	140mm	8x3m
Grevillea laetifolia	Gb	Gray Spider Flower	2	140mm	1.5x1.5m
Grevillea sericea	Gs	Pink Spider Flower	3	140mm	2x1m
Lomandra sillanifolia	Ls	Crinkle Bush	1	140mm	2x1m
Leptocarpus tenax	Lt	Paperbark Tree-Tree	1	140mm	6x3m

PROPOSED GROUND COVERS, PERENNIALS AND GRASSES

BOTANIC NAME	SYMBOL	COMMON NAME	No REQ'D	Pot Size
Dianella racemosa	Dc	Flax Lily	10	140mm
Lomandra longifolia	Ll	Mat Rush	3	140mm

EXISTING TREES

BOTANIC NAME	SYMBOL	COMMON NAME
Araucaria heterophylla	Au	She Oak
Eucalyptus sp.	Eg	Gum Tree

LEGEND

	SITE BOUNDARY
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PAVING
	EXISTING SPOT HEIGHTS
	EASEMENTS

APPROVAL OF THE CITY OF SYDNEY
DETAILS
NOTED
FOR THE CITY OF SYDNEY

EXISTING TREE

PROPOSED PLANTING - TYPICAL

AMENDMENT

NOTES TO THE PLAN

THIS PLAN IS TO BE READ AS PART OF A COMPLETE SET OF DRAWINGS RELATING TO THE PROPOSED DEVELOPMENT

THIS PLAN RELATES TO A SPECIFIC DEVELOPMENT. INFORMATION RELATING TO THE DEVELOPMENT NEEDS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED

PROJECT

PROPOSED
NEW RESIDENCE
by
HOME TEAM
CONSTRUCTIONS

DRAWN BY

Unit 20
12 Phillip Mall
West Pymble 2073

Phone 9440 5451 Mobile 0416 250280 Facsimile 9402 6499
Member of - Australian Institute of Horticulture - Australian Institute of Landscape Designers and Managers



JOB No
549

DRAWING

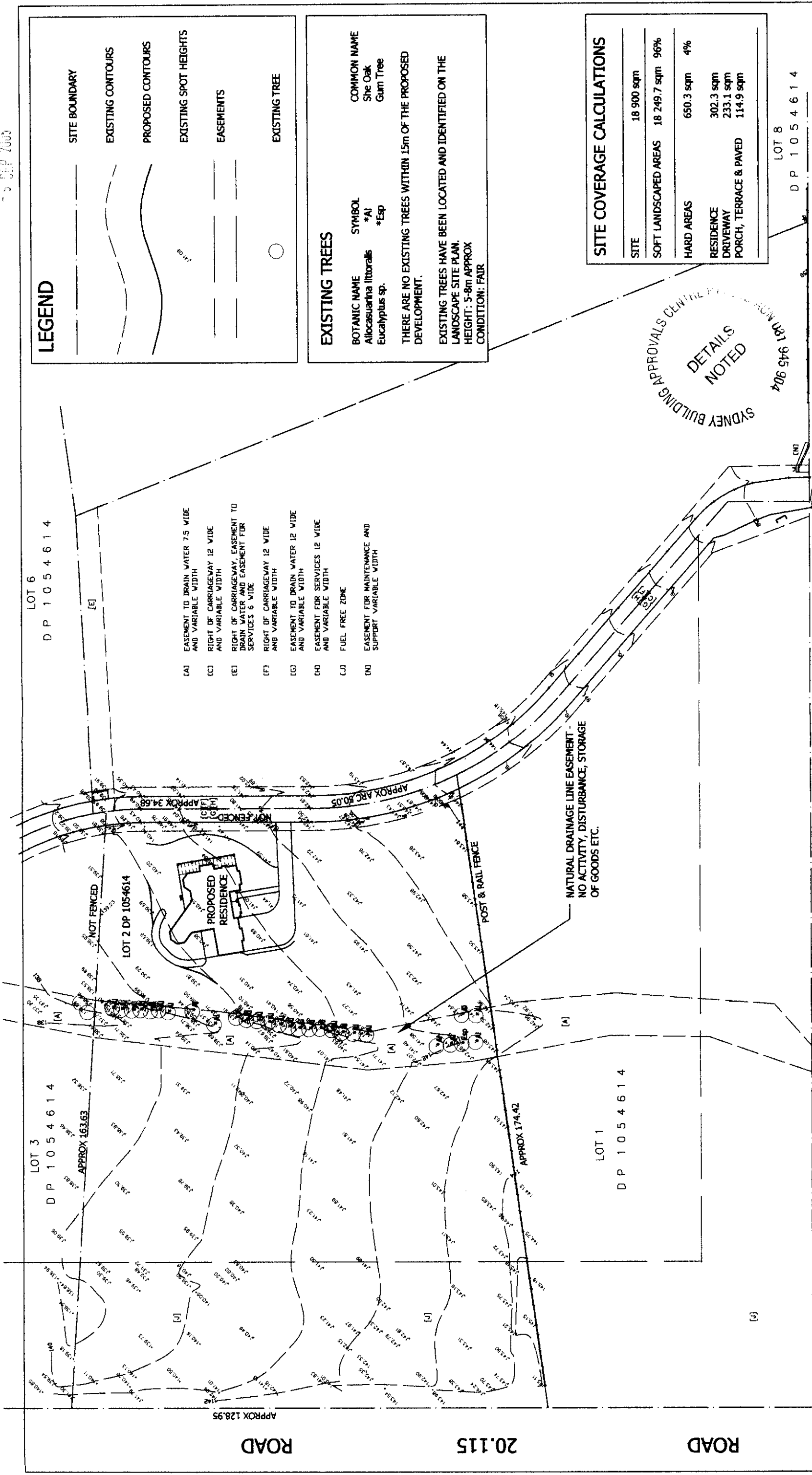
LANDSCAPE PLAN

CLIENT
CHIEW RESIDENCE
WALTER ROAD, BAYVIEW HEIGHTS
LOT 2 DP 1054614

SCALE
1:200 @A1

DATE
7 SEPT 2005

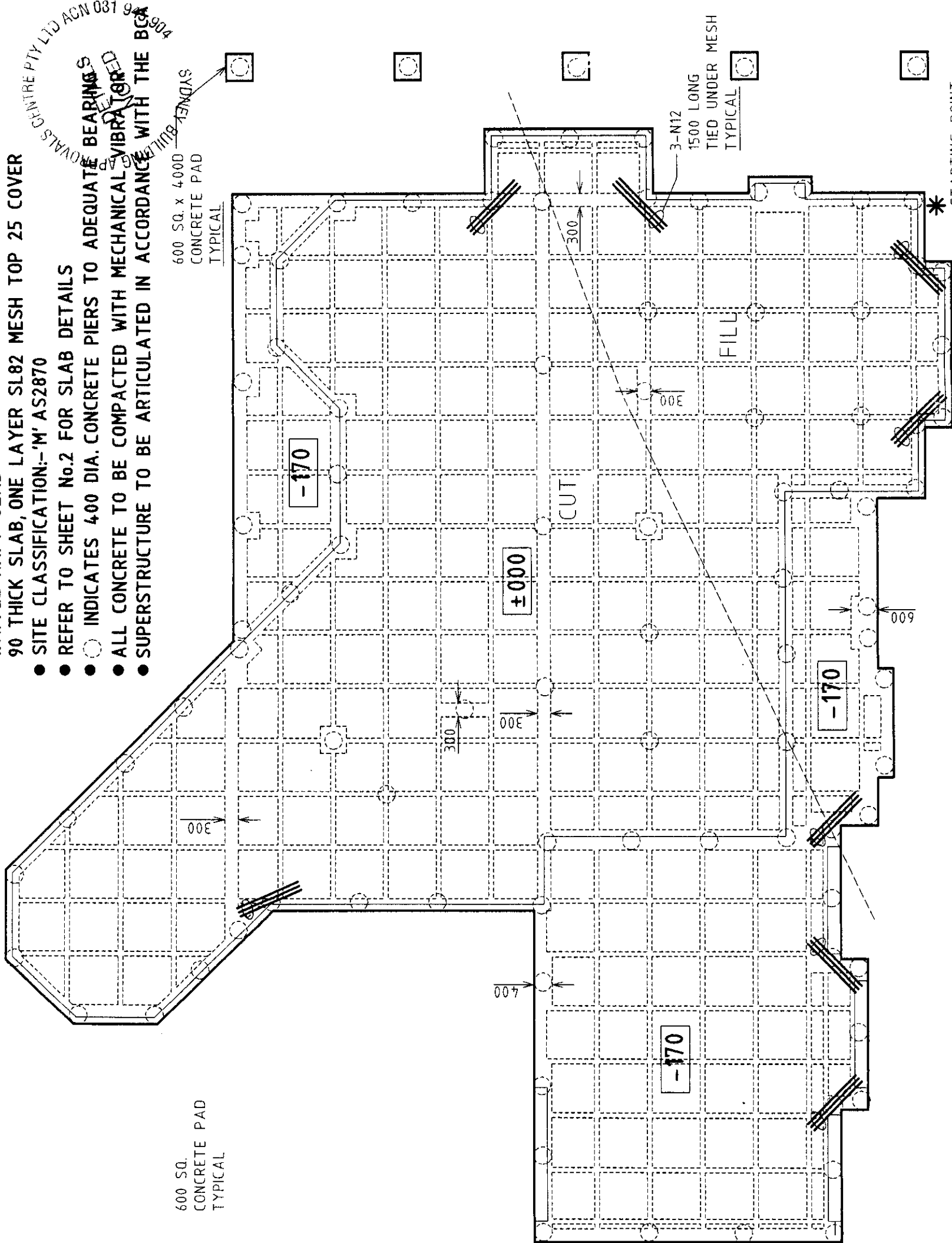
DWG No
2 OF 2



AMENDMENT	NOTES TO THE PLAN	PROJECT	DRAWN BY		DRAWING
	THIS PLAN IS TO BE READ AS PART OF A COMPLETE SET OF DRAWINGS RELATING TO THE PROPOSED DEVELOPMENT THIS PLAN RELATES TO A SPECIFIC DEVELOPMENT. INFORMATION RELATING TO THE DEVELOPMENT NEEDS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED	PROPOSED NEW RESIDENCE by HOME TEAM CONSTRUCTIONS	Unit 20 12 PHILLIP HILL West Pymble 2073 Phone 9440 5451 Mobile 0416 290280 Facsimile 9402 6499 Member of - Australian Institute of Horticulture - Australian Institute of Landscape Designers and Managers		LANDSCAPE SITE PLAN
				JOB No 549	CLIENT CHIEW RESIDENCE WALTER ROAD, BAYVIEW HEIGHTS LOT 2 DP 1054614
				SCALE 1:1000 @A3	DWG No 1 OF 2
				DATE 7 SEPT 2005	

SLAB PLAN

- WAFFLE RAFT SLAB
- 90 THICK SLAB, ONE LAYER SL82 MESH TOP 25 COVER
- SITE CLASSIFICATION:- 'M' AS2870
- REFER TO SHEET No.2 FOR SLAB DETAILS
- INDICATES 400 DIA. CONCRETE PIERS TO ADEQUATE BEARINGS
- ALL CONCRETE TO BE COMPACTED WITH MECHANICAL VIBRATOR
- SUPERSTRUCTURE TO BE ARTICULATED IN ACCORDANCE WITH THE BCA



CONSTRUCTION NOTES

- GENERAL:-
- G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G2 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS. G3 SETTING OUT DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE BUILDER.
- G4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- G5 ALL WORKMANSHIP AND MATERIALS SHALL BE MAINTAINED WITH THE REQUIREMENTS OF THE SAA CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITY. ALL CODES SHALL BE CURRENT EDITIONS. G6 ANY CONFLICT BETWEEN THESE NOTES, THE SPECIFICATIONS OR THE DRAWINGS SHALL BE RESOLVED BY THE ENGINEER.

FOUNDATIONS:-

- F1 EXCAVATION SHALL BE TAKEN INTO..... **NATURAL CLAY**..... THE ALLOWABLE BEARING PRESSURE ON THIS MATERIAL IS ASSUMED TO BE..... **PIERS 250 kPa**.....
- F2 ALL EXCAVATIONS SHALL BE FINISHED CLEAN AND HORIZONTAL.
- F3 THE BUILDER SHALL OBTAIN APPROVAL OF THE FOUNDATION MATERIAL BEFORE PLACING CONCRETE.

CONCRETE:-

- C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600.
- C2 CONCRETE QUALITY:-

ELEMENT	SLUMP	MAX. SIZE AGG.	CEMENT TYPE	AS3600 F'c
FOOTING	80	20	TYPE A	20
PIERS	80	20	TYPE A	15
SLAB	80	20	TYPE A	20

C3 CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

ELEMENT	CAST AGAINST FORMS COMPLYING WITH AS1509	IN SHELTERED LOCATIONS EXPOSED TO WEATHER OR WATER	CAST AGAINST FORMWORK OR THE GROUND
COLUMNS & PEDESTALS	40	50	75
BEAMS	25	40	65
FOOTINGS	-	65	75
SLAB & WALLS	20	30	65

C4 SIZES OF CONCRETE DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.

C5 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.

C6 NO HOLES OR CHASES OTHER THAN THOSE ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE APPROVAL OF THE ENGINEER.

C7 REINFORCEMENT SYMBOLS:-

- S STRUCTURAL GRADE DEFORMED BAR IN ACCORDANCE WITH AS1302 GRADE (250 S)
- N HOT ROLLED DEFORMED BAR IN ACCORDANCE WITH AS1302 GRADE (500 N)
- L HARD DRAWN REINFORCING FABRIC IN ACCORDANCE WITH AS1304 GRADE (500 L)
- SL SQUARE FABRIC GRADE (500 SL)

ADDITIONAL:-

- A1 SITE TO BE STRIPPED OF ALL ORGANIC MATTER AND ASSOCIATED TOPSOIL.
- A2 ALL SITE FILLING TO BE PLACED IN LAYERS APPROXIMATELY 150 THICK AND PROPERLY COMPACTED TO THE APPROVAL OF THE ENGINEER.
- A3 RAFT SLAB TO BE LAID ON MIN. 50 THICKNESS OF CONSOLIDATED SAND COVERED WITH 0.2mm THICK POLYTHENE VAPOUR BARRIER WITH ALL JOINTS PROPERLY LAPPED AND TAPED AT PENETRATIONS.
- A4 SLAB TO BE CURED BY ONE OF THE FOLLOWING METHODS:-
(i) WETTING TWICE DAILY FOR THE FIRST THREE DAYS
(ii) USING AN APPROVED CURING COMPOUND

PROJECT

PROPOSED BRICK VENEER RESIDENCE
LOT 2 WALTER ROAD,
INGLESIDE
FOR HOME TEAM CONSTRUCTIONS
MR. L. & MRS. M. CHIEW

SYDNEY WIDE ENGINEERS
CONSULTING STRUCTURAL & CIVIL ENGINEERS



11 Goldsmith Avenue
Winston Hills NSW 2153
s.w.e@optusnet.com.au

Ph: (02) 9686 9664
Fax: (02) 9614 5398
Mob: 0413 053 218

CHECKED

NABIL GHOSN
B.E. M.I.E. Aust

DESIGN

NG

DRAWN

BJC

DATE

19.07.05

SCALE

1:100

JOB No.

S00508

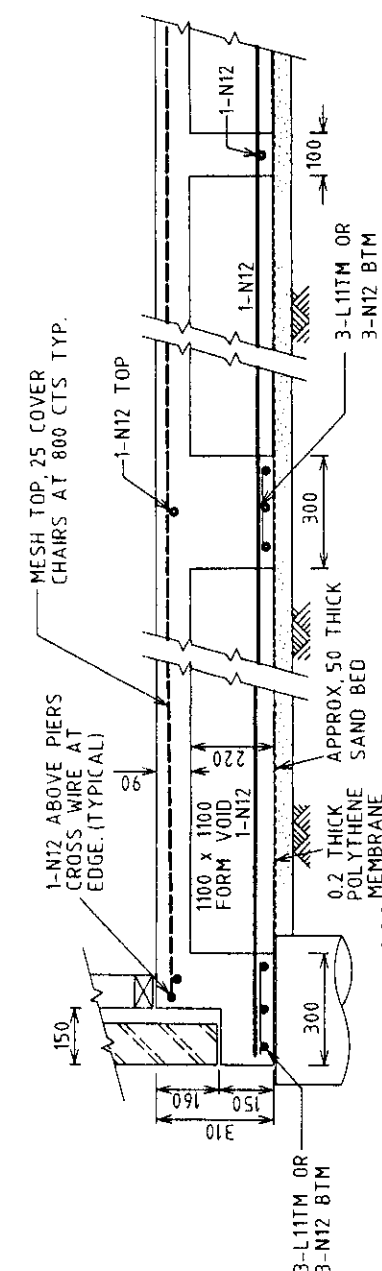
SHEET No.

1

DATE

COMMENTS

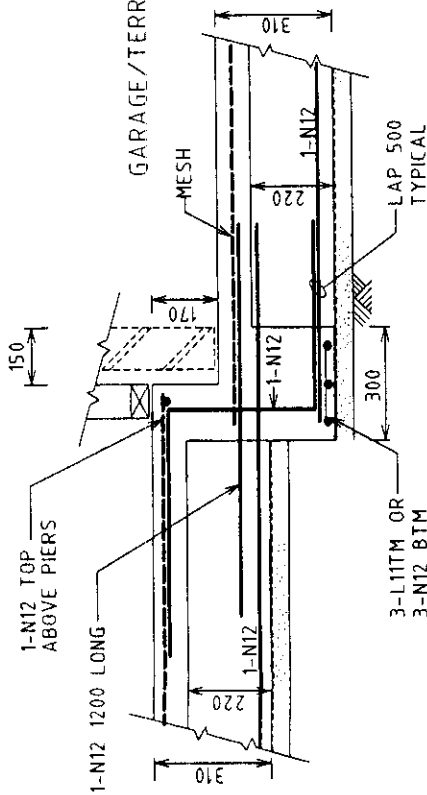
REV



EDGE BEAM

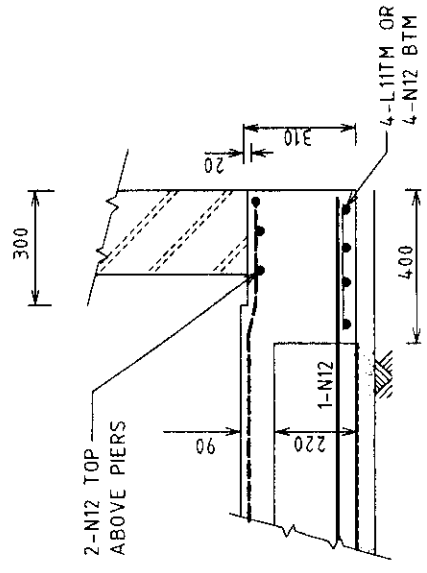
4.00 DIA PIERS TO ADEQUATE BEARING AS SHOWN ON PLAN

PIER DETAIL

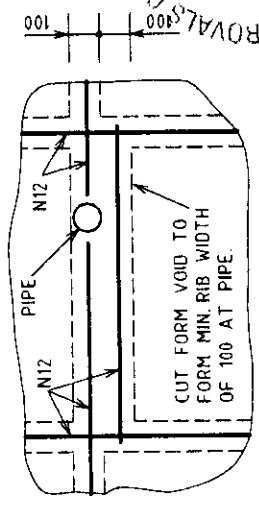


GARAGE/TERRACE/PORCH STEP BEAM

GARAGE/TERRACE/PORCH EDGE BEAM

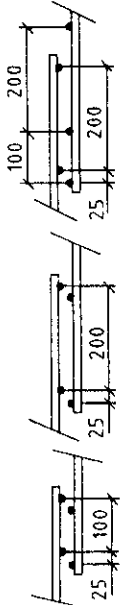


GARAGE DOOR
EDGE BEAM



PLAN OF PIPE PENETRATION
THROUGH RIB

REINFORCEMENT FOR BEAMS WHERE WIDTH EXCEEDS 300mm		
WIDTH	TOP STEEL	BTM STEEL
301-330	1-N12	3-N12
331-440	2-N12	4-N12



FABRIC LAP DETAIL

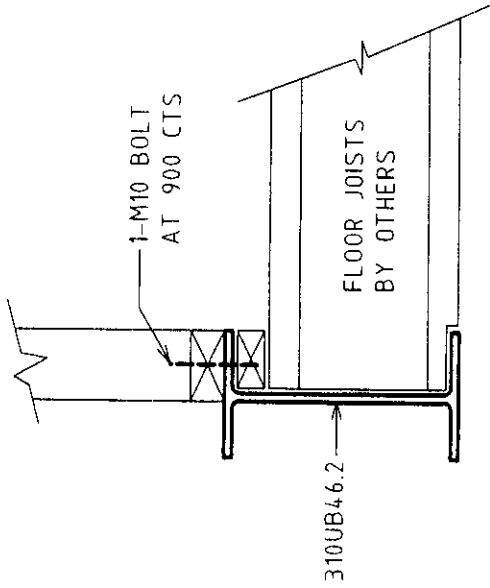
PROJECT		DESIGN		CHECKED	
PROPOSED BRICK VENEER RESIDENCE LOT 2 WALTER ROAD, INGLESIDE FOR HOME TEAM CONSTRUCTIONS MR. L. & MRS. M. CHIEW		NG		NABIL GHOSN B.E. M.I.E. Aust	
SYDNEY WIDE ENGINEERS CONSULTING STRUCTURAL & CIVIL ENGINEERS 11 Goldsmith Avenue Winston Hills NSW 2153 s.w.e@optusnet.com.au Ph: (02) 9686 9664 Fax: (02) 9614 5398 Mob: 0413 053 218		DRAWN BJC		JOB No. S00508	
DATE 19.07.05		SCALE 1:20		SHEET No. 2	
REV	COMMENTS	DATE			



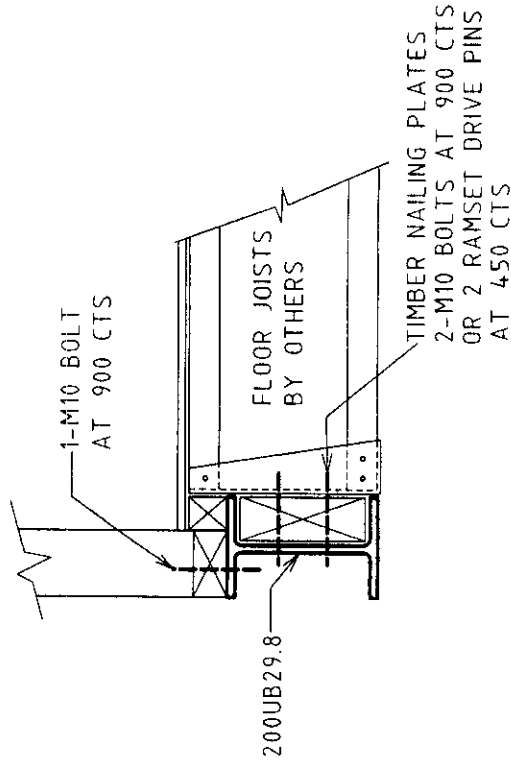
● FIX FLOOR JOISTS & ROOF RAFTERS TO STEEL BEAMS

- STEELWORK SURFACE PREPARATION AND FINISH TO COMPLY WITH AS/NZS 2312 - 2002.
- BUILD STEEL COLUMNS INTO STUD WALL
10mm TOP PLATE 6mm CFW 2-M16 (8.8/S),
10mm BTM PLATE 6mm CFW 2-M12
MASONRY ANCHORS INTO CONCRETE
SLAB. (TYPICAL)
- C1 - 75 x 75 x 3.0 SHS
- P1 - 3/90 x 45 F27 HARDWOOD STUDS
NAIL LAMINATED
- P2 - 2/90 x 45 F27 HARDWOOD STUDS
NAIL LAMINATED
- GALINTEL 'T' BAR TO BE INSTALLED
IN ACCORDANCE WITH MANUFACTURERS
RECOMMENDATIONS
- REFER TO SHEET No.4 FOR
STEEL BEAM DETAILS

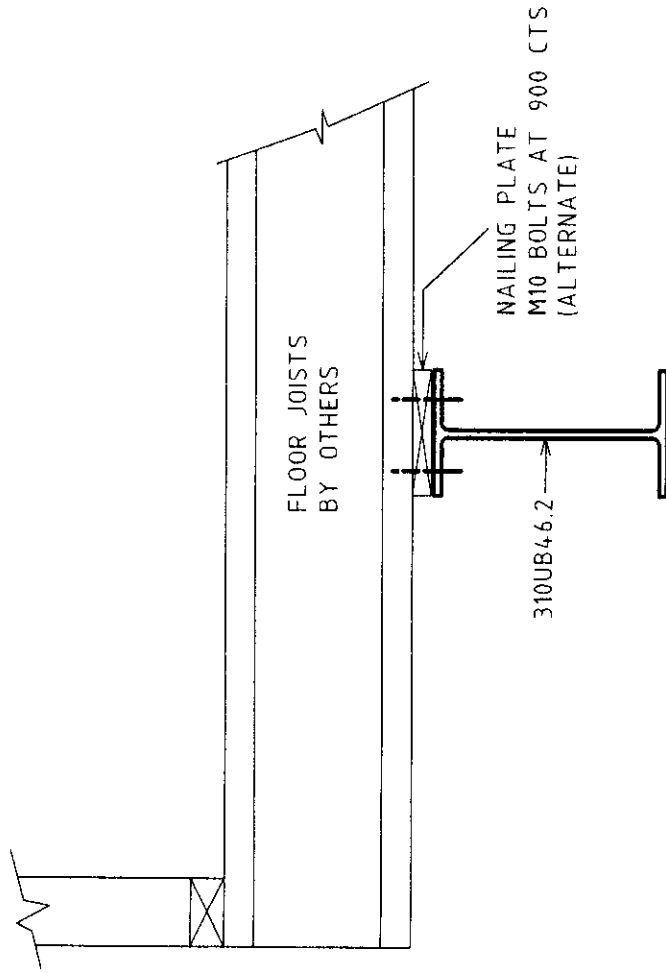
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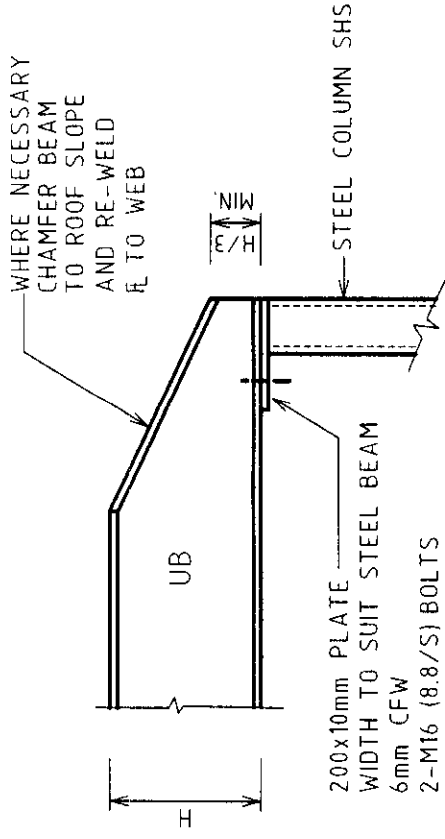
SECTION **A**
3



SECTION **B**
3

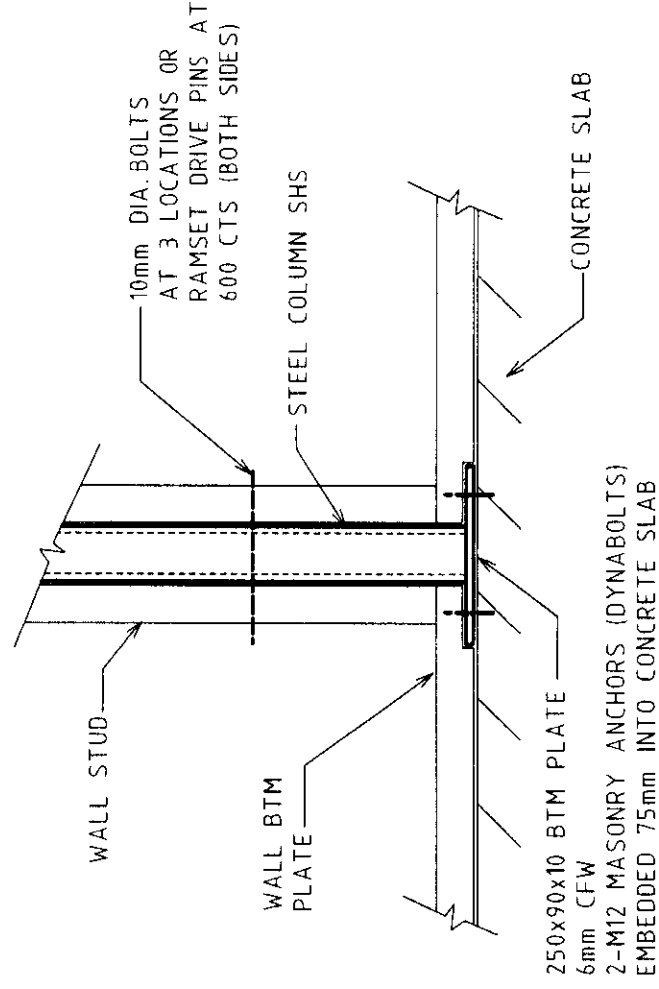


SECTION **C**
3



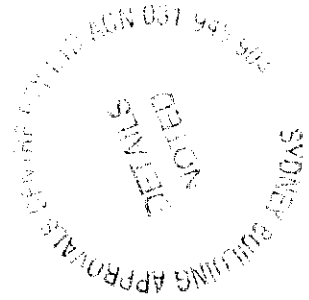
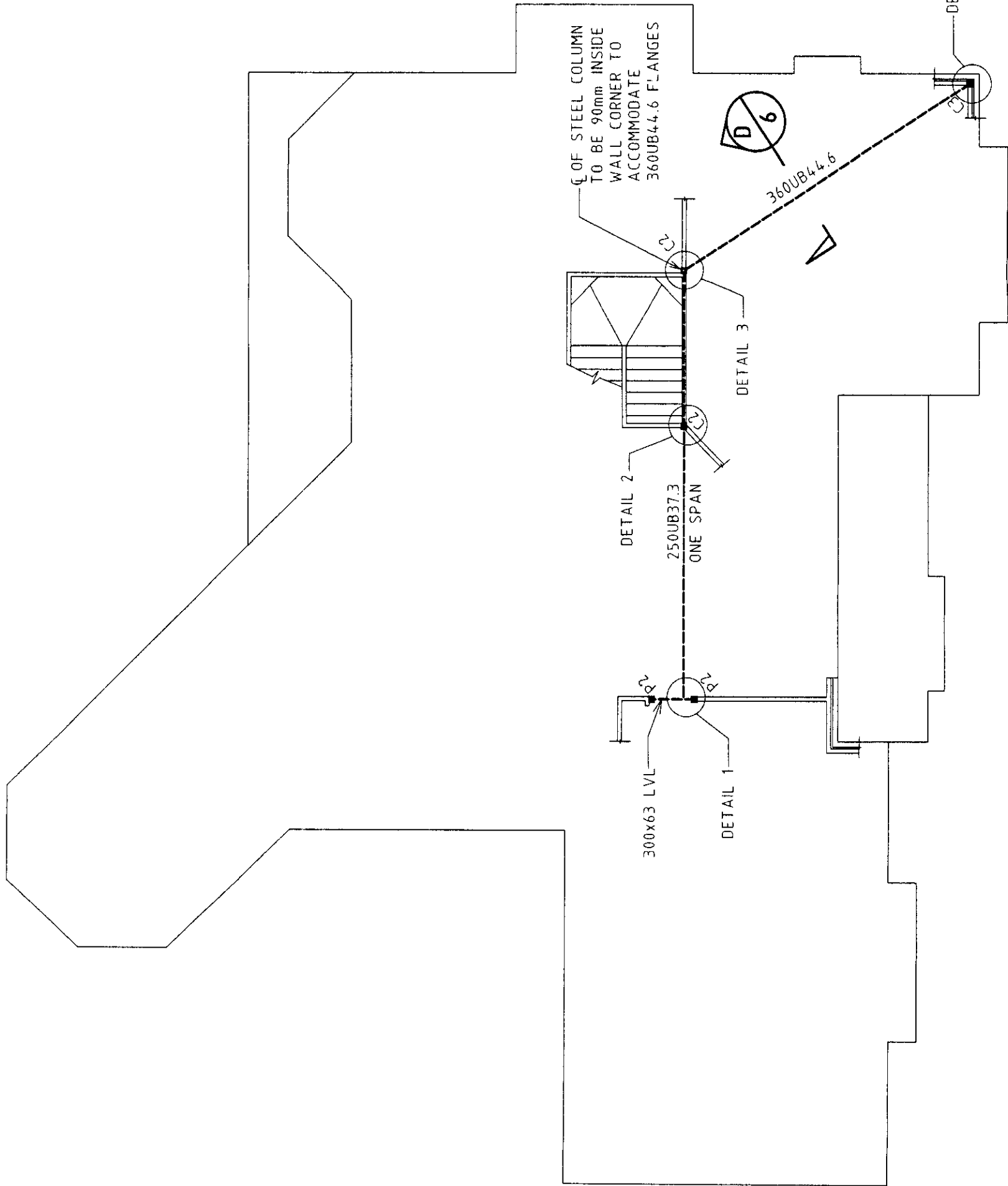
STEEL COLUMN
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SYDNEY BUILDING APPROVALS
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STEEL COLUMN BASE PLATE DETAIL

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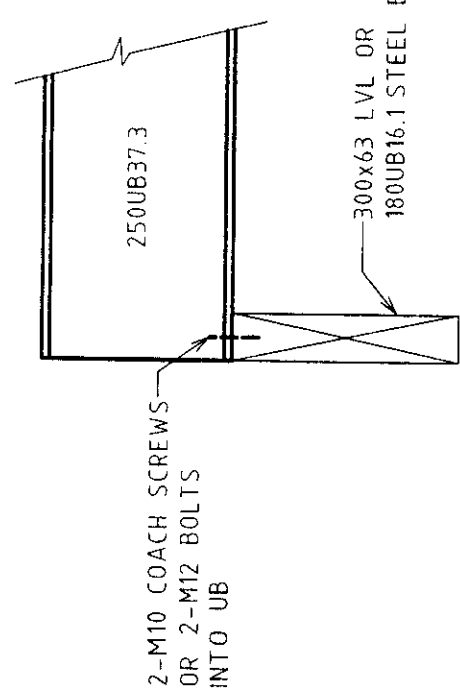
- FIX ROOF FRAME TO STEEL BEAMS
- STEELWORK SURFACE PREPARATION AND FINISH TO COMPLY WITH AS/NZS 2312 - 2002.
- BUILD STEEL COLUMNS INTO STUD WALL
10mm TOP PLATE 6mm CFW 2-M16 (8.8/S),
10mm BTM PLATE 6mm CFW 2-M12
MASONRY ANCHORS INTO CONCRETE SLAB. (TYPICAL)
- C2 - 89 x 89 x 6.0 SHS FIXED TO FIRST FLOOR
TIMBER FRAME
- C3 - 89 x 89 x 3.5 SHS
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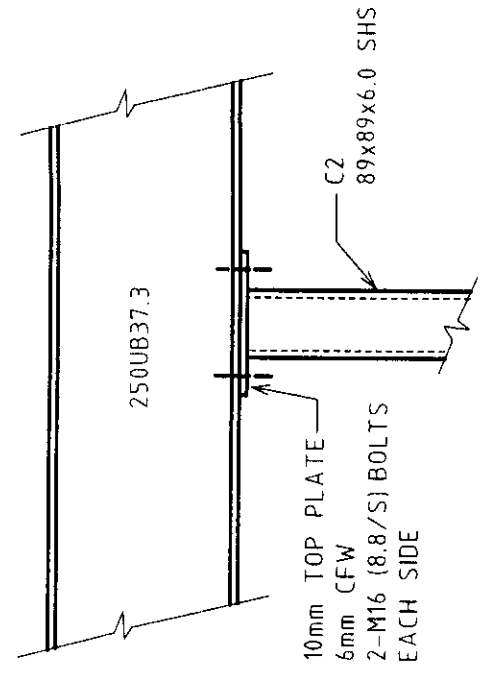


SYDNEY WIDE ENGINEERS
 CONSULTING STRUCTURAL & CIVIL ENGINEERS

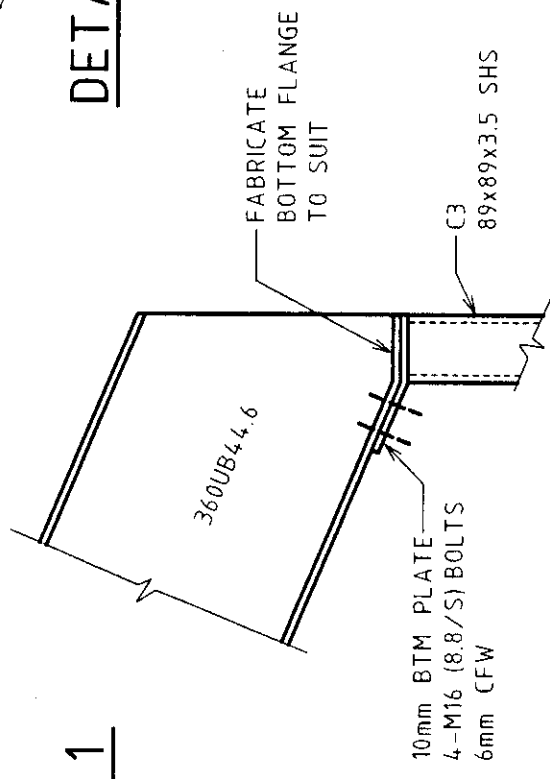
11 Goldsmith Avenue
 Winston Hills NSW 2153
 s.w.e@optusnet.com.au
 Ph: (02) 9686 9664
 Fax: (02) 9614 5398
 Mob: 0413 053 218



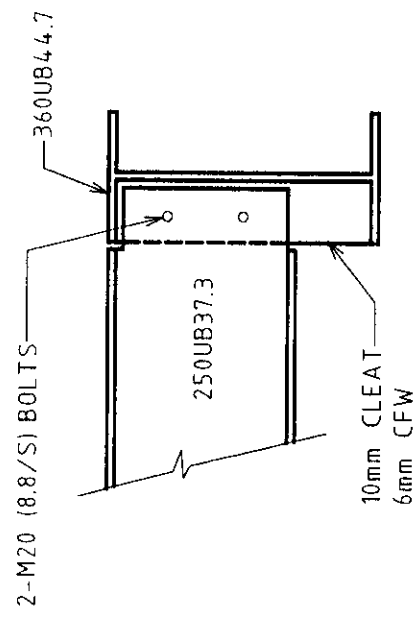
DETAIL 1



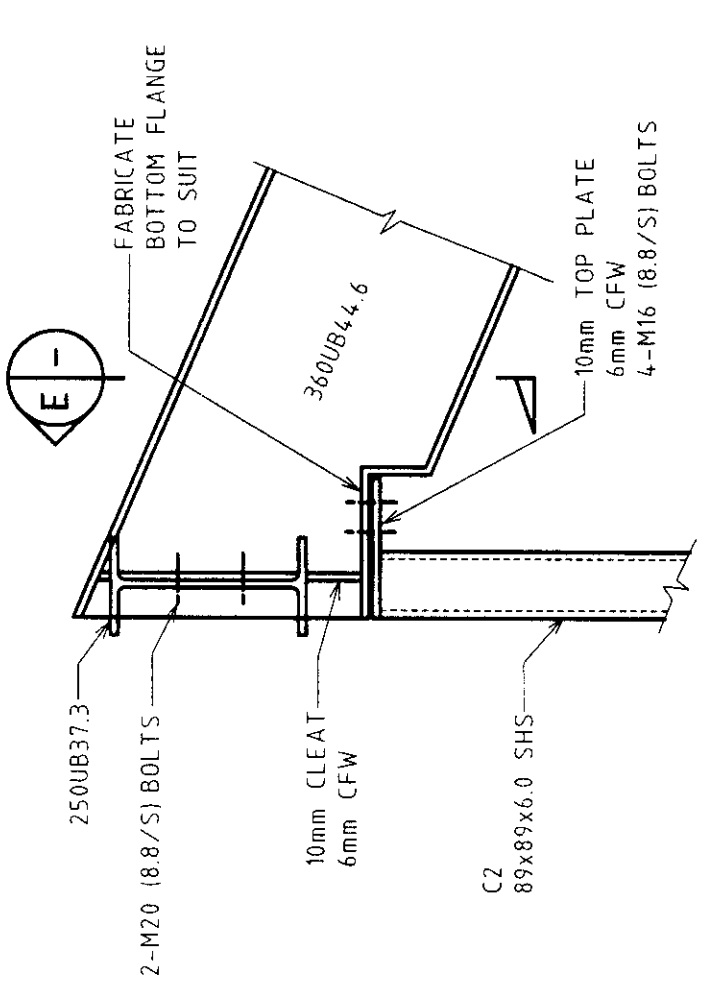
DETAIL 2



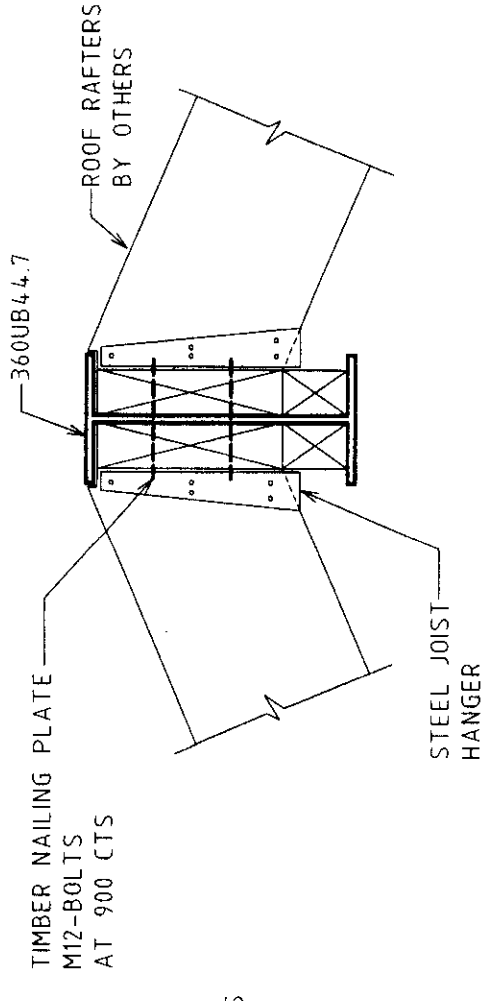
DETAIL 4



SECTION E



DETAIL 3

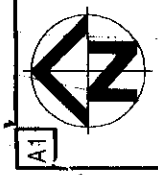


SECTION D

ROOF TRUSS TO STEEL BEAM
FIXING DETAIL

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THIS DRAWING HAS
BEEN REDUCED



POINT	EASTINGS	NORTHINGS
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2	7011.496	82906.182
3	7225.226	53481.528
4	12297.793	46210.945
5	37031.668	41624.358
6	45195.386	41392.862
7	45376.051	47764.043
8	37216.553	46461.311
9	32872.734	46726.739
10	22446.583	49729.109
11	13848.523	60602.998

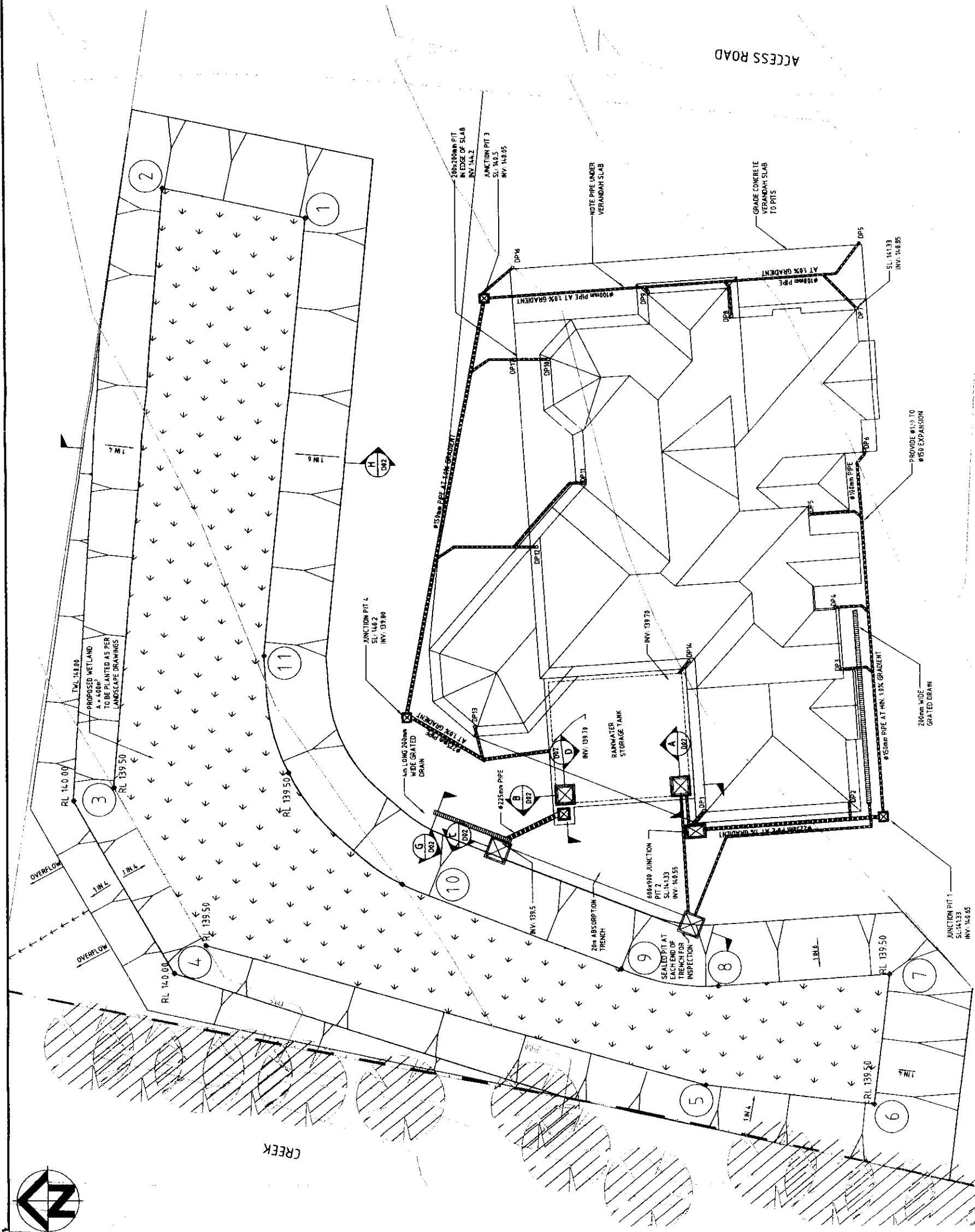
DETAILS
NOTED
BUILDING APPROVALS
CLIMATE LTD ACW 001 945 904

KEYS:

- JUNCTION PIT
- DOWNPIPE
- PIPELINE
- LIMIT OF EASEMENT TO DRAIN WATER
- SETOUT

NOTES:

- 1) ALL PIPES ARE UPVC UNLESS OTHERWISE NOTED
- 2) ALL JUNCTION PITS SHALL BE 450X450mm UNLESS OTHERWISE NOTED
- 3) EFFECTIVE GUTTER AREA SHALL BE 8000mm² MINIMUM LYSAUGHT STEELINE OR SIMILAR
- 4) DOWNPIPE SIZE Ø100mm
- 5) EVES GUTTER TO HAVE A MINIMUM FALL OF 1 IN 500
- 6) INSPECTION RISERS TO BE PLACED AT ALL JUNCTIONS AND 90° BENDS
- 7) FOR ALL DETAILS REFER TO DRG. D02

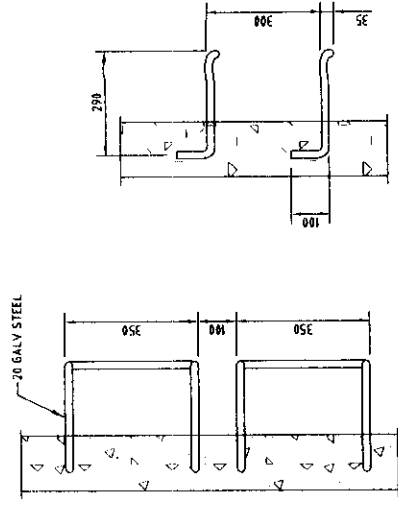


CONCRETE DRIVEWAY BY OWNER

ISSUED FOR CONSTRUCTION

Brown Consulting (NSW) Pty Ltd Level 2, 22 Waterloo Road Macquarie Park NSW Australia 2113 Telephone: 02 9900 1000 Facsimile: 02 9900 1999		Client: HOME TEAM Project: LOT 2 WALTER ROAD INGLESIDE		Drawing: STORMWATER MANAGEMENT PLAN		Sheet: 1 OF 1	
BROWNS		VERIFICATION		DESIGN		SCALE	
QUALITY CONTROL		INITIALS		SIGNATURE		DATE	
DESIGNED		DRAFTING		DESIGN		1:100	
CHECKED		VERIFIED		APPROVED		PROJECT NO. X05060	
DATE		DATE		DATE		DRAWN BY D01	
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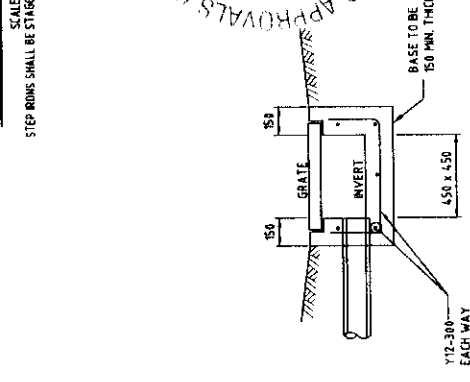


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100	100

ELEVATION

REMOVABLE SCREEN

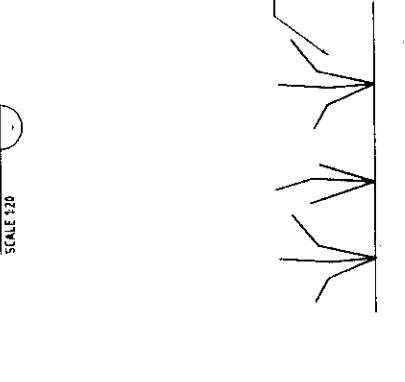
SCALE 1:10
STEP IRONS SHALL BE STAGGERED AT 300 CENTRES



SECTION
SCALE 1:20
B
007

SECTION
SCALE 1:20
B
007

SECTION 
SCALE 1:20



SECTION C
SCALE 1:20
D01

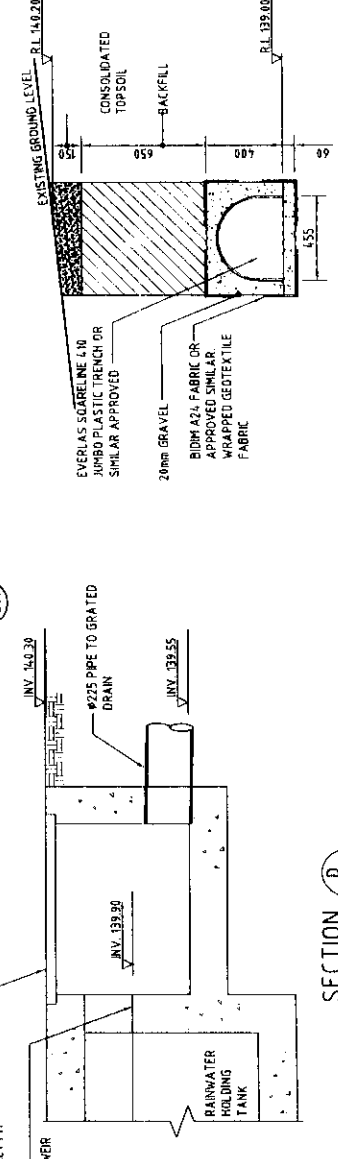
SECTION C
SCALE 1:20
D01

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BIORETENTION DETAIL

SECTION
SCALE 1:10



SECTION _____
SCALE 1:20

SECTION _____
SCALE 1:20

SECTION E
SCALE 1:20

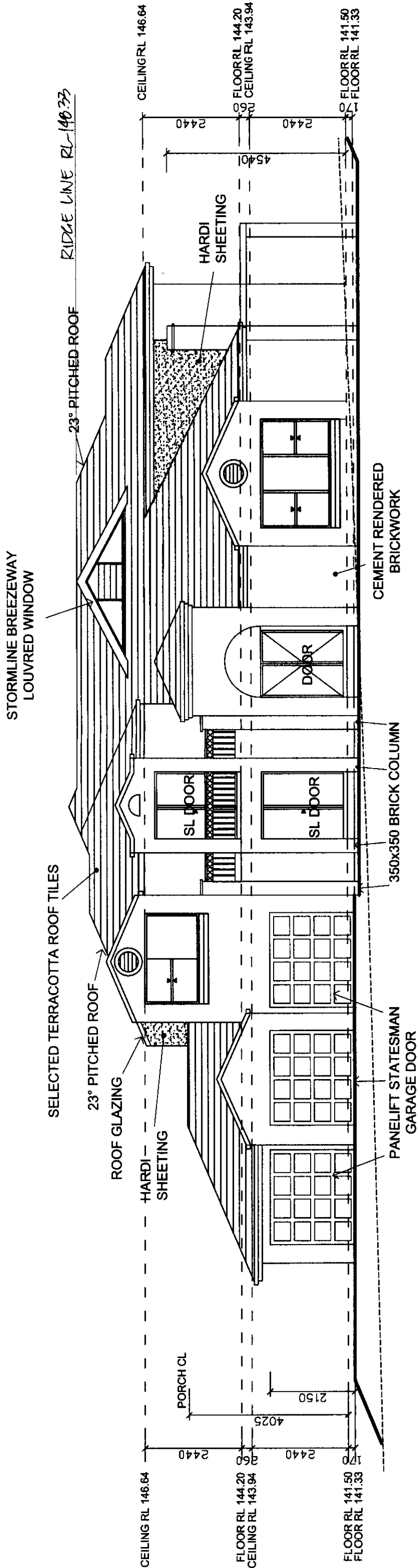
SECTION E
SCALE 1:20

BROWN
Brown Consulting (NSW) Pty Ltd
Level 2, 82 Waterloo Road Macquarie Park NSW Australia 2113
Telephone: 02 9600 1000 Facsimile: 02 9600 1099

Client	HOME TEAM
Project	LOT 2 WALTER ROAD INGLESIDE

STORMWATER MANAGEMENT PLAN DETAILS	Drawn by	BJ	Sheet	2 OF 2
	Designed by	TJE	Scale	1/2"
	Printed to	X05060		
	Drawing No.	DN2		

ISSUED FOR CONSTRUCTION

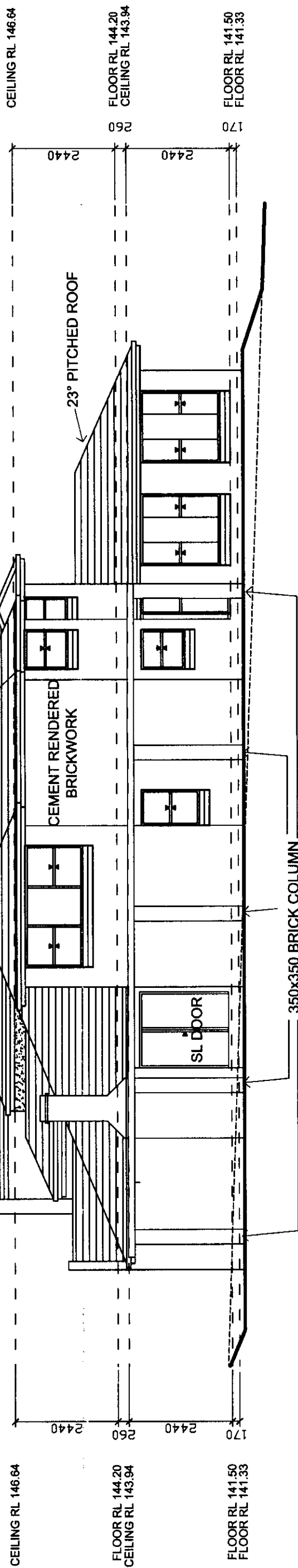


SOUTH ELEVATION

SYDNEY BUILDING APPROVALS
CENTRE PTY LTD
ACN 181 945 914
CONSTRUCTION CERTIFICATE
Issued under the Building Planning & Assessment Act 1979
(S109(1)(b)(iii), S114(1)(a) & S114(4))
Construction Certificate No CE 226/05 Plan No.
Certifier: J. KRINELOS Accreditation No 6174
Signed: Date 26/05/05

SELECTED TERRACOTTA ROOF TILES

23° PITCHED ROOF



EAST ELEVATION

SHEET 5 OF 8 SHEETS

No. DATE REVISION

HOME TEAM
CONSTRUCTIONS PTY LTD
187-189 WINDSOR RD, NORTHMEAD 2152
PHONE (02) 9639 5555

DATE: 3/09/04

DRN: MT

CHECKED:

SCALE: 1:100

COPYRIGHT

CLIENT:

FOR: MR L & MRS M CHIEW

AT: LOT 2

WALTER RD
INGLESIDE

SELECTED TERRACOTTA ROOF TILES

RIDGE LINE RL-148.54

23° PITCHED ROOF

23° PITCHED ROOF

CEILING RL 146.64

FLOOR RL 144.20
CEILING RL 143.94

FLOOR RL 141.50
FLOOR RL 141.33

CEILING RL 146.64

FLOOR RL 144.20
CEILING RL 143.94

FLOOR RL 141.50
FLOOR RL 141.33

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2440

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SHEETING

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SL DOOR

SL DOOR

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SL DOOR

350x350 BRICK COLUMN

90x90 TIMBER POST

GARAGE
ROLL A DOOR

SYDNEY BUILDING APPROVALS
CENTRE PTY LTD
ACN 081942 904

CONSTRUCTION CERTIFICATE
Issued under the Environmental Planning & Assessment Act 1979
State of New South Wales

Construction Certificate No 6626/9/05 Plan No 6174
Certifier J. KRINELLOS Accreditation No 6174
Signed: Date 26/09/05

NORTH ELEVATION

SELECTED TERRACOTTA ROOF TILES

RIDGE LINE RL-148.54

23° PITCHED ROOF

ROOF GLAZING

23° PITCHED ROOF

CEILING RL 146.64

FLOOR RL 144.20
CEILING RL 143.94

FLOOR RL 141.50
FLOOR RL 141.33

CEILING RL 146.64

FLOOR RL 144.20
CEILING RL 143.94

FLOOR RL 141.50
FLOOR RL 141.33

2440

2440

CEMENT RENDERED
BRICKWORK

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DOOR

DOOR

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DOOR

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DOOR

WEST ELEVATION

SHEET 6 OF 8 SHEETS

No. DATE REVISION

CLIENT:

FOR: MR L & MRS M CHIEW
AT: LOT 2
WALTER RD
INGLESIDE

DATE: 3/09/04

DRN: MT

CHECKED:

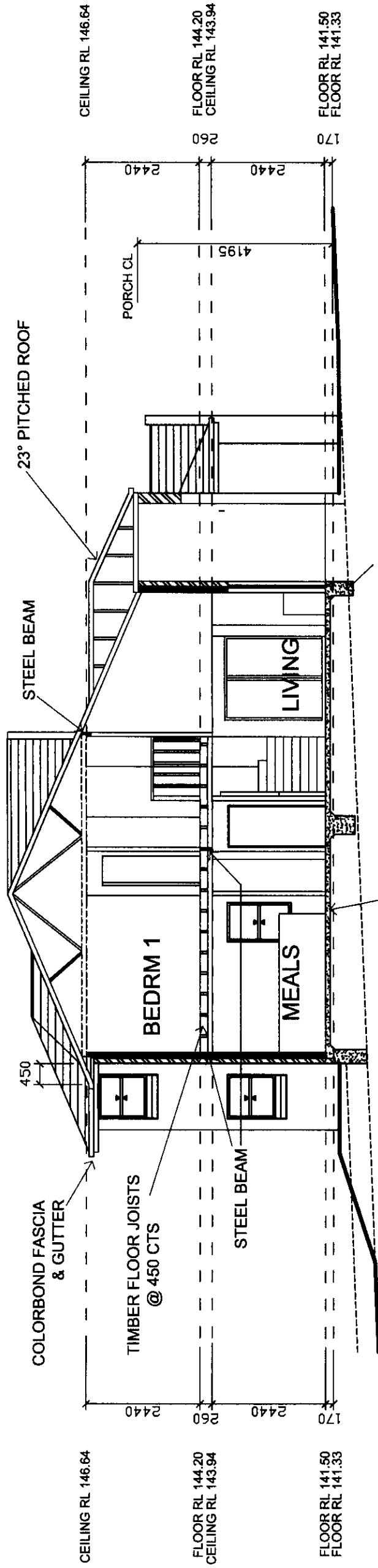
SCALE: 1:100

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HOME TEAM

CONSTRUCTIONS PTY LTD

187-189 WINDSOR RD, NORTHMEAD 2152
PHONE (02) 9639 5555



REINFORCED CONCRETE
SLAB TO ENGINEERS DETAILS

SECTION A-A

SYDNEY BUILDING APPROVALS
CENTRE PTY LTD
ACN 081 945 914
CONSTRUCTION CERTIFICATE
Issued under the Environmental Planning & Assessment Act 1979
S109(1)(a)(ii), S14(2) & S14(4)

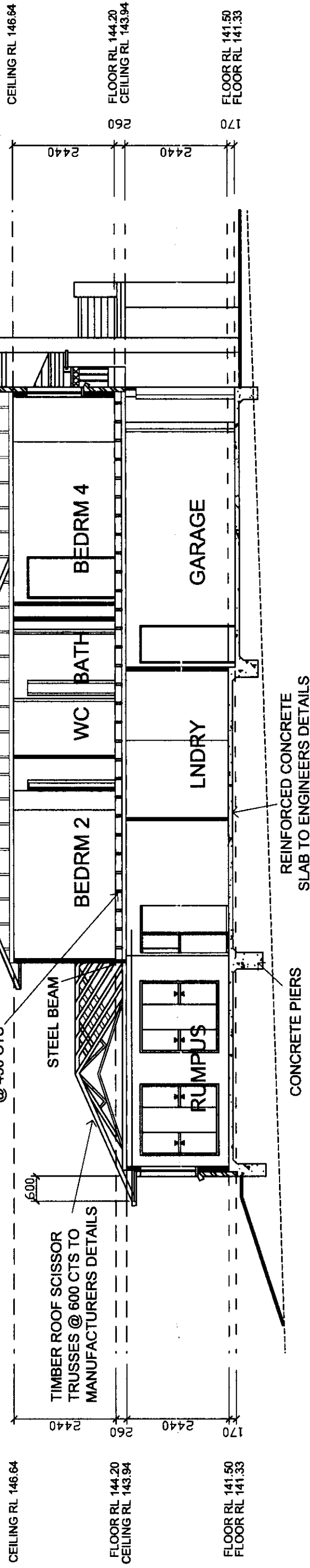
Construction Certificate No. **CC441/05** Plan No.
Certifier **J. KRINELOS** Accreditation No. **6174**
Signed: Date: **24/10/05**

23° PITCHED ROOF

RIDGE LINE RL-146.54

TIMBER ROOF TRUSSES @ 600 CTS
TO MANUFACTURERS DETAILS

TIMBER FLOOR JOISTS
@ 450 CTS



REINFORCED CONCRETE
SLAB TO ENGINEERS DETAILS

CONCRETE PIERS

SECTION B-B

SHEET 7 OF 8 SHEETS

No. DATE REVISION

DATE: 3/09/04

CLIENT:

DRN: MT

FOR: MR L & MRS M CHIEW

CHECKED:

AT: LOT 2

SCALE: 1:100

WALTER RD

COPYRIGHT

PHONE (02) 9639 5555

HOME TEAM

CONSTRUCTIONS PTY LTD

187-189 WINDSOR RD, NORTHMEAD 2152

PHONE (02) 9639 5555

Assessor # 20322Certificate # 44498284Issued: 09-Oct-04

Thermal Performance Specifications - BASIX Commitments

These are the Specifications upon which the Certified Assessment is based. If they vary from drawings or other written specifications, these Specifications shall take precedence. If only one specification is detailed for a building element, that specification applies to all instances of that element. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Fixed shading (eaves, pergolas, verandahs, awnings)

Eaves:Width: 450Offset: 0As per plan
Other:TimberAs per plan

External walls

Material:Brick Veneer, Fibro Cement
Insulation:Foil + R1.5 Batts, Foil + R1.5 Batts
Colour:Medium, Medium

Internal walls

Material:Plasterboard on Studs

Windows

Area (m2)77
Glazing:Single clear
Frame:Aluminium
Int. cover:Open Weave
Ext. cover:

Skylights

Area (m2)3
Type:Single Glazed Clear

Roof

Material:Roofing Tiles
Insulation:Foil (Sisalation)
Colour:Medium

Ceilings

Material:Plasterboard, Plasterboard
Insulation:R2.5, None

Floors

Covering:Ceramic Tile, Carpet, Ceramic Tile.
Material:Concrete, Timber, Timber.
Insulation:None, None, None.

Orientation, Exposure, Ventilation and Infiltration

Nominal / true north offset:	0	Terrain category	Open	Roof ventilation:	Standard
Subfloor ventilation	None	Cross ventilation:	Yes	Living area open to entry:	Yes
Living areas sep. by doors:	Yes	Stair open to heated areas:	Yes	Seals to windows, doors:	Yes
Exhaust fans no dampers:	No	Ventilated skylights:	No	Open fireplace no damper:	No
Vented downlights:	No	Wall and ceiling vents:	No		

No.	DATE	REVISION

HOME TEAM

CONSTRUCTIONS PTY LTD

187-189 WINDSOR RD, NORTHMEAD 2152

PHONE (02) 9639 5555

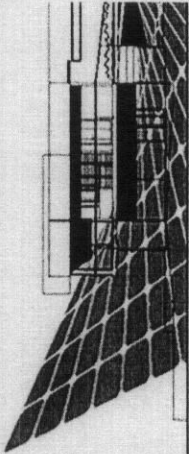
DATE :
DRN :
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SCALE :
COPYRIGHT

CLIENT :
FOR : MR L & MRS M CHIEW
AT : LOT 2
WALTER RD
INGLESIDE

SHEET 8 OF 8 SHEETS

BASIX

Certificate



Building Sustainability Index www.basix.nsw.gov.au

Certificate number: 7530

Description of project

Project address and type

Project name	CHIEW
Street number	28
Street name	WALTER ROAD
Suburb	INGLESIDE
Post code	2101
Local Government Area	Pittwater Council
Deposited Plan number	1054614
Strata Plan number	
Lot number	2
Section	
Project type	Detached dwelling
Nature of project	Erecting a new residential building

Project details

Site area	3139	m ²
Gross floor area	409	m ²
Roof area	388	m ²
Number of bedrooms	5	
Total area of vegetation (garden and lawn)	300	m ²
ABSA Certificate Number (if applicable)	44498284	
Net conditioned floor area	365	m ²
Concession claimed	not applicable	
Cooling load	41.0	MJ/m ² /year
Heating load	64.0	MJ/m ² /year
Total cooling and heating load	105.0	MJ/m ² /year

This certificate confirms that the proposed development will meet the NSW Government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 25 June 2004, published by DIPNR. This document is available at www.basix.nsw.gov.au.

Director-General

Date of issue: Tue Oct 12 14:06:57 EST 2004



Department of Infrastructure, Planning and Natural Resources

Certificate number: 7530

Schedule of BASIX Commitments

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

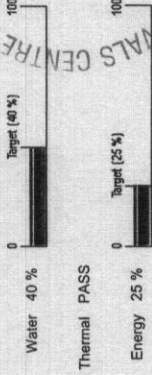
General	Commitments	DA plans	CD/CC plans & specifications	Certifier check
The applicant must attach certificate no. 44498284 (the 'Assessor certificate') to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, then to that application).				
The Assessor certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol. The details on the Assessor certificate must be consistent with the details shown in this BASIX certificate. The applicant must attach the Assessor certificate to this BASIX certificate.				
The applicant must construct the development in accordance with the requirements set out in the Assessor certificate and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate the values shown in the Assessor certificate.				
(For the purposes of complying with this commitment, terms used in the Assessor certificate have the meanings given to those terms in the BASIX Specification.)				
Energy				
Active cooling	The development (as constructed) must not incorporate an active cooling system or any ducting which is designed to accommodate an active cooling system.			
Active heating	The development (as constructed) must not incorporate an active heating system or any ducting which is designed to accommodate an active heating system.			
Hot water	The applicant must install the following hot water system in the development: solar (electric boosted).			
Lighting	The applicant must install standard or compact fluorescent lighting as the primary type of artificial light in each of the following rooms: at least 5 of the bedrooms / study at least 3 of the living / dining rooms the garage the laundry all hallways			
Cooking	The applicant must install a window in the kitchen of the dwelling for natural lighting.			
Design enhancements	The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling. The applicant must construct each refrigerator space in the development so that it is well ventilated, as defined in the BASIX Specification.			
	The applicant must install a fixed indoor clothes drying line or cupboard as part of the development.			
	The applicant must install a fixed outdoor clothes drying line as part of the development.			
END BASIX COMMITMENTS				

1. In these commitments, "applicant" means the person carrying out the development.
2. Commitments identified with a ✓ in the "DA plans" column must be shown on the plans accompanying the development application for the proposed development.
3. Commitments identified with a ✓ in the "CD/CC plans and specifications" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
4. Commitments identified with a ✓ in the "QC" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.

Certificate number: 7530

BASIX Report

The following scores have been achieved for this development:



	Score	Appliance score	Total
Water	40	0.0	40
Energy	25	0.0	25

These scores are based on the following commitments relating to appliances:

Appliance Selections
END APPLIANCE SELECTIONS

No DATE REVISION

AREA: SQ.M

GRND FL

FIRST FL

GARAGE

DECK

VERANDAH

PERGOLA

TOTAL

DATE 21.7.05

DRN *MR L & MRS M. CHIEW*

CHECKED

SCALE 1:1

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CLIENT

MR L & MRS M. CHIEW

AT: LOT 2, N333 WALTER ROAD,

INGLESIDE.

Dwg N: HT/781/04

SHEET OF

Assessor Certificate

Single Dwelling (BCA Class 1)

Certificate Version 5.0. Prior versions not valid after 19 July 2004

Issued in accordance with the requirements of BASIX
THERMAL COMFORT - Simulation Method



Assessor			
Name:	Peter Waller	Company:	(02) 8394 9169
Address:	PO Box 814, BROADWAY 2007		
Phone:	(02) 8394 9169	Fax:	peter@clubdetango.co
Email:	peter@clubdetango.com.au		
Declaration of Interest: None			
Client			
Name:	Len Goulding	Company:	Home Team
Address:	187-189 Windsor Road NORTHMEAD NSW 2152		
Phone:	96395555	Fax:	96391415
Email:	LEN@HOMETEAM.COM.AU		
Project			
Address:	N/A 28 WALTER Road INGLESIDE NSW 2101		
Applicant:	MR & MRS CHIEW	LGA:	Pittwater Council
Assessment			
Date:	9/10/2004	Job ID:	155
Filename:	20322PIT155		Run #: 6
Software:	NATHERS	Version:	2.32a
Climate Zone:	17		
Proxies for materials:	Proxy ref #:		
Referenced documents			
All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: 8			
Drawings:	DATED 03/09/04		
Specifications:	Only specifications, detailed on Drawings identified above, have been referenced		
ABSA Assessor Certificate		Assessor # 20322	Certificate # 44498284 Issued: 09-Oct-04
THERMAL COMFORT - Simulation Method			
The details must be entered into your BASIX Assessment			
Area calculations (M2)			
External walls, windows and doors	310		
Net Conditioned Floor Area:	365		
Concessions			
Eligible Concessions:			
Predicted annual energy loads (MJ/M2/year)			
Heating:	64		
Cooling:	41		
(sensible + latent)			
Total:	105		
ABSA Assessor stamp			

Thermal Performance Specifications - BASIX Commitments

THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based, as required by BASIX - Thermal Comfort Simulation Method. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence.

If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the whole project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Fixed shading (eaves, pergolas, verandahs, awnings)

The location, dimensions and opacity of all shading structures must be specified on plans

Eaves: Width: 450 Offset (eave to window head): 0 As per plan

Other: Timber As per plan

External walls

Material: Brick Veneer, Fibro Cement

Insulation: Foil + R1.5 Batts, Foil + R1.5 Batts

Colour: Medium, Medium

Internal walls

Material: Plasterboard on Studs

Windows

All window and glazed door types, dimensions, location and shading must be indicated on plans.

Area (m2): 77

Glazing: Single clear

Frame: Aluminium

Int. cover: Open Weave

Ext. cover:

Skylights

All skylight types, dimensions, location and shading must be indicated on plans.

Area (m2): 3

Type: Single Glazed Clear

Roof

Material: Roofing Tiles

Insulation: Foil (Sisalation)

Colour: Medium

Ceilings

Material: Plasterboard, Plasterboard

Insulation: R2.5, None

Floors

Covering: Ceramic Tile, Carpet, Ceramic Tile.

Material: Concrete, Timber, Timber.

Insulation: None, None, None.

Orientation, Exposure, Ventilation and Infiltration

Orientation - nominal / true north offset

0

Terrain category

Open

Roof ventilation:

Standard

Subfloor ventilation

None

Cross ventilation:

Yes

Living area open to entry:

Yes

Living areas separated by doors:

Yes

Stair open to heated areas:

Yes

Weather seals to windows and doors:

Yes

Exhaust fans without dampers:

No

Ventilated skylights:

No

Open fireplace without damper:

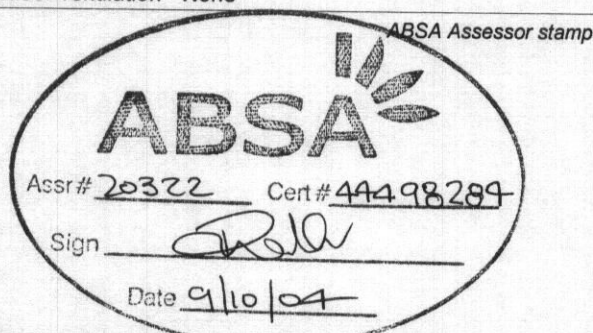
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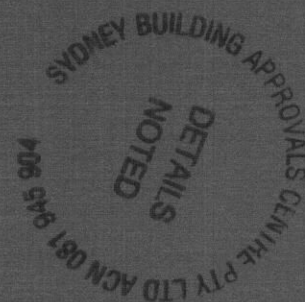
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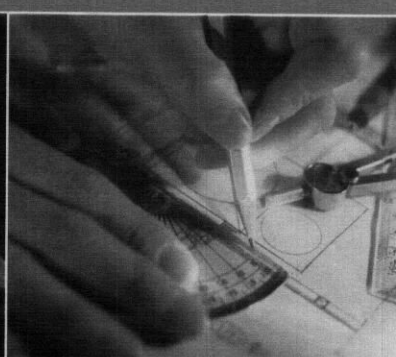
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HIA member
the best in the business



General Housing Specifications



ADDRESS OF PROPERTY :

LOT 2, NO 33 WALTER ROAD, INGERSIDE.

GENERAL HOUSING SPECIFICATIONS BETWEEN :

OWNER:

MR L & MRS M. CAHEW.

AND

CONTRACTOR:

HOME TEAM CONSTRUCTIONS PTY LTD

CONTRACTOR LICENCE NO:

40995

INDEX
GENERAL HOUSING SPECIFICATIONS
(Revised September 2000)

PART NO.	PART HEADINGS	PAGE NO.
1.0	Introduction	1
2.0	Statutory Requirements	2
3.0	Owner's Obligations	2
4.0	Plans, Notices and Application Fees	3
5.0	Excavations	4
6.0	Foundations and Footings	4
7.0	Retaining Walls	5
8.0	Effluent Disposal/Drainage	5
9.0	Timber Framing Generally	6
10.0	Steel Framing Generally	7
11.0	Roofing	7
12.0	Masonry, Damp Proofing	8
13.0	Cladding, Linings	9
14.0	Joinery and Cupboards	10
15.0	Services	10
16.0	Tiling	11
17.0	Painting	11

1.0 INTRODUCTIONS

1.1 General

This Specification details the works to be executed and the materials to be used in carrying out those works at the Site.

This Specification shall be read as a general specification only. The extent of the works shall be governed by the Approved Plans and Special Details where applicable.

Any works not fully detailed shall, where appropriate, be sufficiently performed if carried out in accordance with applicable Manufacturer's Recommendations or Engineer's Recommendations.

1.2 Preliminary Use

This Specification forms part of the Building Contract Documents, and should be read in conjunction with the Building Agreement, Engineer's Reports, Plans and any other special details.

1.3 Prevailing Documents

Where there is a difference between Plan and Specification the Plan will take precedence. The Contractor must at all times maintain a legible copy of the plans and specification bearing the approval of the appropriate authorities.

1.4 Size and Dimensions

All sizes and dimensions given in this Specification are in millimetres unless otherwise stated and are nominal only.

1.5 Prime Cost Items

Prime cost items listed in this Specification are Contractors cost prices, they do not include Builders margins, cost of cartage and freight. Should any of these items not be required, credit will be made at the listed price in the contract's final progress claim.

1.6 Definitions

"Special Details" in respect of any item or part of the works means any drawings, plans, specifications, calculations or other documents (including Engineer's Recommendations) prepared in order to define or detail the work to be done and the materials to be used.

"Engineer's Recommendations" includes any Soil Classification Report, Preliminary Footing Report, Construction Footing Report and any other Report, Recommendation, site or other instruction, calculations or plans prepared by an Engineer in respect of the Works.

Where the words "Local Authority" are mentioned they shall mean the Local Council, or other Governing Authority, or Private Certifier with Statutory responsibility for the compliance of the work performed.

2.0 STATUTORY REQUIREMENTS

2.1 The Works

The Works shall be constructed in accordance with the Building Code of Australia (BCA) Housing Provisions together with any amendment or replacement of the code.

2.2 Regulations, Notices and Fees

The Contractor is to comply with the requirements of all legally constituted authorities having jurisdiction over the Works including the provisions of the Home Building Act.

The Contractor is to give all notices, obtain all Permits and pay all fees required by such authorities.

Where referred to in these specifications, regulations shall mean the Building Regulations and Codes (including the Building Code of Australia, as amended) statutorily enforceable at the time application is made for a permit, consent or approval.

2.3 Insurance

Insurance cover of the Works against risk for Fire, Theft, Malicious Damage and Materials on Site are to be effected by the Contractor at the Contractor's expense. The Contractor shall also at his expense adequately insure Public Liability and arrange Worker's Compensation cover in respect of any liability under the Worker's Compensation Act of New South Wales.

2.4 Labour and Materials

The Contractor is to provide all labour and materials to construct and complete the Building to the stage as specified in the contract documents. Materials to be of the standard specified. Workmanship in each trade to be performed by licensed tradespeople in conformity with adequate building practice. Building materials surplus to requirements of the Works shall be and remain the property of the Contractor.

2.5 Electricity

The Contractor is to make arrangements for any electrical power to be used in the erection of the Works and is to pay fees and costs incurred therein. Should additional poles, wiring, service risers or underground wiring etc., be required by the Electricity Authority, this additional cost plus Builder's margin shall be borne by the Owner.

2.6 Sanitary Accommodation

Prior to the commencement of any Works, unless toilet facilities exist on Site, the Contractor shall provide temporary toilet accommodation for the tradespeople. Where the Authority requires the temporary toilet to be connected to sewer mains, the additional cost plus Builder's margin of such shall be borne by the owner. On completion the Contractor shall remove the convenience.

3.0 OWNER'S OBLIGATIONS

3.1 Surveyor's Certificate

If the Building Agreement so indicates, the Owner shall, at the Owner's expense, obtain a certified survey of the Site. If no survey is required, the Owner hereby certifies that the placement of the existing survey pegs or fences on the Site is correct.

3.2 Engineer's Recommendations

If the Building Agreement so indicates, the Owner shall, at the Owner's expense, provide the Contractor with reports and recommendation (including soil classification) as to the foundations and/or footings requirements for the Works prepared by an Engineer.

If the Contractor instructs any party to provide such recommendations, the Contractor does so only as an agent for the Owner.

3.3 Trades Persons Engaged by Owner

The Owner shall not engage or employ any tradesperson, trade-contractor or any other person to work on the Site without the consent of the Contractor which consent may be subject to such terms and conditions as the Contractor may stipulate.

3.4 Items Supplied by Owner

For all items referred to in the Specification to be supplied by the Owner, it is the responsibility of the Owner to arrange payment for delivery of and protection against damage and theft of all these items.

Delivery is to be made when requested by the Builder to the Site. If not available when required the Owner shall be obliged to make an alternative selection.

3.5 Water Supply

The Owner shall, at the Owner's expense, supply adequate water to the Site for construction purposes. Unless otherwise specified, the Contractor shall pay the standard water metre connection fee to the Water Supply Authority providing this service is prelaid to the Site ready for use. The Owner shall be responsible for any fee to be paid in excess of the standard water metre connection fee.

3.6 Sanitation

Unless otherwise specified, the Owner shall, at the Owner's expense, supply sewerage connection riser or common effluent drainage connection riser on the Site. Unless otherwise specified, the Contractor shall pay the standard sewer connection fee to the Supply Authority providing this service is to prelaid to the Site and ready for use.

The Owner shall be responsible for any fee to be paid in excess of the Standard sewer connection fee.

3.7 Site Clearance

At the Owner's expense clear only the Site area of building work including vegetation stumps, boulders, rubble and the like to a minimum distance of 1,000mm outside the building or to the boundaries of the allotment, whichever is the less and fill any depressions within the area covered by the building.

4.0 PLANS, PERMITS AND APPLICATION FEES

4.1 Permits and Fees

Unless otherwise agreed, the Contractor shall lodge all necessary application notices, plans and details with the Local Authority for approval prior to commencement of construction.

4.2 Mines Subsidence

In areas affected by mines subsidence the appropriate authority to be consulted and work carried out in accordance with their requirements as a variation, any additional cost plus Builders Margin is to be borne by the Owner.

4.3 Setting Out

The Contractor shall accurately set out the Works in accordance with the Site Plan and within the boundaries of the Site.

5.0 EXCAVATIONS

- 5.1 Subject to Clause 3.7 the Site covered by the Building and an area at least 1,000mm wide around the Building or to boundaries of the Site – whichever is the lesser, shall be cleared and/or graded as indicated on the Site Works Plan.

Top soil shall be cut to a depth sufficient to remove all vegetation

Excavations for all footings shall be in accordance with the Engineer's Recommendation or Part 3.2.2 BCA Housing Provisions.

6.0 FOUNDATIONS AND FOOTINGS

6.1 Underfloor Fill

Underfloor fill shall be in accordance with AS 2870 or Part 3.2 BCA Housing Provisions.

6.2 Termite Risk Management

Termite treatment shall be carried out in accordance with Part 3.1.3 BCA Housing Provisions or AS 3660.1.

6.3 Vapour Barrier

The underfloor vapour barrier shall be in accordance with AS 2870 or Clause 3.2.2.6 BCA Housing Provisions.

6.4 Reinforcement

Reinforcement shall conform and be placed in accordance with AS 3600, AS 2870 and the Engineer's recommendations.

Support to all reinforcement shall be used to correctly position and avoid any undue displacement of reinforcement during the concrete pour.

6.5 Concrete

Concrete shall not be less than Grade N20 except where otherwise approved by the Engineer.

Structural concrete shall be in accordance with AS 3600. Pre-mixed concrete shall be manufactured in accordance with AS 1379 with delivery dockets kept on Site and available for inspection by the Engineer.

Concrete shall be placed and compacted in accordance with good building practice. In hot (above 30 degrees Celsius) and windy conditions concrete must be cured by covering with plastic sheeting, spraying with a curing compound or pouding of water on the surface, or as directed by the Engineer.

6.6 Footings and Slabs on Ground

Concrete slabs and footings shall not be poured until approval to pour concrete is given by the Engineer or the Local Authority.

NOTE: Bench levels and floor levels on the Site Works Plan shall be regarded as nominal, unless specified otherwise.

6.7 Suspended Slabs

All concrete slabs, other than those supported on solid ground or properly compacted filling, shall be constructed as suspended slabs. These slabs shall be constructed in accordance with the Engineer's recommendations.

6.8 Foundation Walls

On footings as previously specified build brick walls to the thickness shown on plan to level underside of floor bearers and/or plates.

6.9 Sub-Floor Ventilation

Provide adequate cross ventilation to the space under suspended ground floor. No section of the under floor area wall to be constructed in such a manner that will hold pockets of still air.

6.10 Sub-Floor Access

Provide access under suspended floors in position where indicated on plan.

6.11 Curing

All slabs shall be cured in accordance with AS 3600.

7.0 RETAINING WALLS

7.1 Retaining Walls

Retaining walls shall be constructed as shown on the plans and/or special details designed by an Engineer and if applicable approved by the Local Authority whether the construction of such shall be the obligation of the Owner or the Contractor.

8.0 EFFLUENT DISPOSAL/DRAINAGE

8.1 In both sewered and unsewered areas, fit bath, wash basin, kitchen, wash tubs, pedestal pan and floor grate to shower recess in positions shown on plan. (Refer to schedule of fittings). Provide waste pipes with traps to the above fittings and connect to the drainage system. The whole of the work to be performed in accordance with the rules and requirements of the Sewerage Authority concerned.

8.2 Septic System

Provide and install a septic system where applicable to the requirements of Local Authority and in accordance with the manufacturer's instructions.

8.3 Storm Water Drainage

Allow for the supplying and laying of storm water drains where shown on Site Plan. Drains to be a minimum of 90mm UPVC pipes laid to an even and regular fall so as to have a minimum cover of 150mm. Drains to discharge into street gutter where possible. Where outlets are shown within the Site they are to discharge at least 3,000mm clear of the building. If the Authority's requirements give rise to a variation, any additional cost plus Builder's margin is to be borne by the Owner.

9.0 TIMBER FRAMING GENERALLY

9.1 Timber Framing

All timber framework sizes, spans, spacing, notching, checking and fixing shall comply with the provisions of AS 1684 or Part 3.4.3 BCA Housing Provisions. Alternative structural framing to Structural Engineer's details and certification.

The work shall be carried out in a proper and tradesperson like manner and shall be in accordance with recognised and acceptable trade practices.

9.2 Floor Framing

All floors not specified to be concrete are to be framed at the level shown. Span and spacing of bearers is to conform to the requirements of the span tables for the appropriate member size. Deep joists to upper floors, where shown are to be fitted with solid blocking or herringbone strutting as required. All sizes and stress grades of timber members and tie down methods are to be in accordance with AS 1684.

9.3 Wall Framing

Plates are to be trenched to a depth not exceeding 10mm to provide uniform thickness where studs occur. Where plates are machine gauged to a uniform thickness, trenching may be omitted. Wall framing is to be erected plumb and straight and securely fastened to floor framing. Provide a clear space of 40mm between outer face of wall frame and inner face of brick veneer walls. Tie brickwork to studs with approved veneer ties. Ties are to slope downwards towards the veneer wall.

Studs in each panel of walling shall be stiffened by means of solid noggings or bridging pieces at not more than 1,350mm centres over the height of the wall. Bottom plates shall be fixed to the concrete slab in accordance with AS 1684.

9.4 Heads Over Opening (Lintels)

All sizes, stress grade and bearing area shall conform to AS 1684 or NSW Timber Framing Manual. Heads exceeding 175mm in depth shall be seasoned or a low shrinkage timber species use. Plywood web lintels conforming to the requirements of Plywood Association of Australia may be used. Glue Laminated beams conforming with AS 1328. If approved by the Lending Authority, Laminated Veneer Lumber beams to manufacturer's specification and data sheets may be used.

9.5 Roof Trusses

Where roof truss construction is used, trusses shall be fabricated in a properly equipped factory and erected, fixed and braced in accordance with the fabricator's written instructions.

9.6 Bracing

Timber frames must be braced in accordance with Clause 3.4.3.8 BCA Housing Provisions. Bracing units shall be determined as appropriate for the design wind velocity for the building or AS 1684. Bracing shall be evenly distributed throughout the building.

9.7 Flooring

Cover floor joists with strip or sheet flooring as shown on plan. Thickness of flooring to be appropriate for the floor joist spacing. With particular regard to ground clearance and installation in wet areas, structural sheet flooring shall be used strictly in accordance with the manufacturer's recommendations or Part 3.4.3 BCA Housing Provisions.

Strip flooring shall be in accordance with AS 1684.

When listed in Schedule of Works, floors shall be sanded to provide an even surface and shall be left clean throughout.

9.8 Roof Framing

Roofs are to be pitched to the slope shown on plan and constructed in accordance with Clause 3.4.3.6 BCA Housing Provisions or AS 1684. Provide tie-down as required for the appropriate design wind velocity and roof covering. Provide all rafters, ridges, hips, valleys, pulins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS 1684.

Metal fascias shall be installed in accordance with the manufacturer's recommendations.

9.9 Timber Posts

Posts supporting carports, verandas and porches shall be timber suitable for external use, or as otherwise specified, supported on galvanised or treated metal post shoes. Post shall be bolted to all adjoining beams as required by AS 1684 for the wind speed classification assessed for the Site.

9.10 Corrosion Protection

All metal brackets, facing plates and other associated fixings used in structural timber joints and bracing must have appropriate corrosion protection.

9.11 Hot Water Storage Tank Platforms

Where a hot water storage tank is to be installed in the roof space, the tank platform shall be supported directly off the wall plates and must not be supported on ceiling joists.

All hot water services installed in the roof space shall be fitted with an appropriate spill tray and overflow drain pipe.

10.0 STEEL FRAMING GENERALLY

10.1 Steel Framing

Steel floor, wall or roof framing approved by the Local Authority shall be installed in accordance with the manufacturer's recommendations and AS 3623 or Part 3.4.2 BCA Housing Provisions.

11.0 ROOFING

All roof cladding to comply with the relevant structural performance and weathering requirements of BCA Housing Provisions and be installed as per the manufacturer's requirements.

11.1 Tiled Roofing

Concrete and terracotta tiles shall comply with AS 2049 and be installed in accordance with AS 2050. Cover the roof of the dwelling with first quality approved tiles as selected. The tiles are to be fixed to approved battens of sizes appropriate to the spacing of rafters/trusses in accordance with manufacturer's recommendations. Cover hips and ridges with capping and all capping and all necessary starters and apex caps. Capping and verge tiles are to be well bedded and neatly pointed. Roofing adjacent to valleys should be fixed so to minimise as far as practicable water penetration. As roof tiles are made of natural products slight variation in colour is acceptable.

11.2 Roofing

Provide and install a metal roof together with accessories all in accordance with the manufacturer's instructions.

Except where design prohibits, sheet shall be in single lengths from fascia to ridge. Fixings of sheet shall be strictly in accordance with the manufacturer's recommendations. Incompatible materials shall not be used for flashings, fasteners or downpipes.

11.3 Rainwater Goods

Metal Rainwater goods shall be manufactured in accordance with AS 2179. Rainwater goods shall be installed in accordance with AS 2180 or Part 3.5.2 BCA Housing Provisions.

UPVC components to be manufactured in accordance with AS 1273. Rainwater goods to be compatible with other materials used.

11.4 Sarking

Sarking if used under roof coverings must comply and be fixed in accordance with AS/NZS 4200.1 for materials and AS/NZS 4200.2 for installation.

11.5 Sealants

Appropriate sealants shall be used where necessary and in accordance with manufacturer's specifications.

11.6 Weatherproofing

Flashings shall comply with AS 2904, AS 1804, AS 3700 and Part 3.3.4 BCA Housing Provisions.

12.0 MASONRY

12.1 Bricks

All clay bricks and brickwork shall comply with AS/NZS 4455, AS/NZS 4456 and AS 3700. Clay bricks are a natural kiln fired product and as such their size may vary over a small range. Tolerances shall only be applied to the total measurements over 20 units, not to the individual units.

12.2 Concrete Blocks

Concrete blocks are to be machine pressed, of even shape and well cured in accordance with AS 2733.

Autoclaved Aerated Concrete blocks shall be in accordance with the manufacturer's Product Specification at the time the work is being carried out.

12.3 Damp Proof Courses

All damp proof courses shall comply with Part 3.3.4 BCA Housing Provisions, AS 3700 and AS 2904. The damp proof membrane shall protrude to the external face of the masonry member in which it is placed.

12.4 Cavity Ventilation (Weep Holes)

Cavities shall be cleared of all mortar droppings and weep holes shall not exceed 1,200mm centres, be in accordance with AS 3700, or Clause 3.3.4.3 of the BCA Housing Provisions.

12.5 Mortar and Joining

Mortar shall comply with AS 3700 or Part 3.3.1 BCA Housing Provisions. Joint tolerances shall be in accordance with AS 3700.

12.6 Masonry Accessories

Compliance with Part 3.3.3 of BCA Housing Provisions in acceptable construction practices. All wall ties shall be manufactured in accordance with AS 2699 and be installed in accordance with AS 3700. Wall ties to meet corrosion resistant rating of the site. Provide appropriate ties to articulated joints in masonry.

12.7 Lintels

Lintels used to support brickwork opening in walls must be suitable for the purpose under Part 3.3.3 BCA Housing provisions. Provide one lintel to each wall leaf. Where necessary clearance must be allowed at heads of frames to allow for shrinkage of timber frames.

12.8 Cleaning

Clean all exposed brickwork with an approved cleaning system. Care should be taken not to damage brickwork or joints and other fittings.

13.0 CLADDING AND LININGS

13.1 External Claddings and Linings

Sheet materials or other external cladding shall be fixed in accordance with the manufacturer's recommendations and any applicable special details.

13.2 Internal Wall and Ceilings Linings

Provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets to have recessed edges and be a minimum of 10mm thick. Internal angles from floor to ceiling to be set. Set corners or provide cornices for ceilings as required. The lining of wet area walls shall be constructed as per AS 3740 or Part 3.8.1 BCA Housing Provisions. Wet area lining to be fixed in accordance with the manufacturer's recommendations.

Where required in open veranda's, porches and eaves soffits, material indicated on the drawing shall be installed. The ceiling access hole shall be of similar material to the adjacent ceiling. Suitable cornice moulds where required shall be fixed at the junction of all walls and ceilings.

13.3 Waterproofing

All internal wet areas and balconies over internal habitable rooms to be water proofed to AS 3740 or Part 3.8.1 BCA Housing Provisions.

14.0 JOINERY

14.1 General

All joinery work (metal and timber) shall be manufactured and installed according to good trade practices.

14.2 Door Frames

External door frames shall be a minimum of 32mm thick fitted with 10mm thick door stops. Internal jamb linings shall be a minimum of 18mm thick fit with 10mm thick door stops. Metal door frames shall be installed where indicated on drawings in accordance with the manufacturer's recommendations.

14.3 Door and Doorsets

All internal and external timber door and door sets shall be installed in accordance with AS 1909. Timber Doors and Door Sets and shall be manufactured in accordance with AS 2688 and AS 2689.

14.4 Window and Sliding Doors

Sliding and other timber windows and sliding doors shall be manufactured in accordance with AS 2146 and be installed in accordance with AS 2147.

Aluminium windows and sliding doors shall be installed in accordance with manufacturer's instructions.

All glazing shall comply with AS 1288 or Part 3.6 BCA Housing Provisions.

14.5 Architraves and Skirting

Provide architraves and skirting as nominated on the drawings or listed on the Schedule of Works.

14.6 Cupboards/Kitchens/Bathroom

Units shall be installed to manufacturer's recommendations. Bench tops shall be in a water resistant material.

14.7 Stairs, Balustrades and other Barriers

Provide stairs or ramps to any change in levels, and balustrades or barriers to at least one side of ramps, landings and balconies as per BCA Housing Provisions, Part 3.9.1 for stair construction and 3.9.2 for balustrades.

15.0 SERVICES

15.1 Plumbing

All plumbing shall comply with the requirements of the Supply Authority and the work is to be carried out by a licensed plumber.

Fittings shall be supplied and installed as specified.

15.2 Electrical

Provide all labour and materials necessary for the proper installation of electricity service by a licensed electrician in accordance with AS 3000, AS 3006 and the requirements of the local Supply Authority. unless otherwise specified, the electrical service shall be 240 volt, single phase supply.

15.3 Gas

All installation (including LPG) shall be carried out in accordance with the rules and requirements of the Supply Authority.

15.4 Smoke Detectors

Provide and install smoke alarms manufactured in accordance with AS 3786 as specified or as indicated on plan and in accordance with Part 3.7.2 BCA Housing Provisions.

16.0 TILING

16.1 Materials

Cement mortar and other adhesives shall comply with AS 3958.1 according to trade practices.

16.2 Installation

Installation of tiles shall be in accordance with AS 3958.

All vertical and horizontal joints between walls and fixtures e.g. benchtop, bath etc., to be filled with flexible mould resistant grout. Where practicable spacing between tiles should be even and regular. Provide expansion joints where necessary. As tiles are made of natural products a slight variation in colour is acceptable.

16.3 Walls

Cover wall faces where indicated on the drawings with selected neatly grouted tiles. Tiles are to be fixed to wall sheeting with approved adhesives. Provide all necessary strips, vent tiles and recess fittings.

16.4 Floors

Lay selected floor tiles in sand and cement mortar or approved adhesive to areas indicated on the drawings. If required, fit approved edge strips or metal angle to exposed edges in doorways or hobless showers as per AS 3740. Provide adequate and even fall to wastes where necessary.

17.0 PAINTING

17.1 General

All paint used shall be of a quality suitable for the purpose intended and the application shall be as per the manufacturer's recommendations. The colours used shall be as per Colour Schedule. All surfaces to be painted shall be properly prepared to manufacturer's recommendations.

18.0 PRIME COST ITEMS

List hereunder all P.C. Allowances

Kitchen and Vanity Cupboards (kitchen sink included)		\$.....
Stove/Wall Oven/Hot Plates		\$.....
Bath per item	per item	\$.....
W.C. Suites	per item	\$.....
Laundry Tub		\$.....
Entry Door		\$.....
Door Furniture		\$.....
Garage Door		\$.....
Hot Water System		\$.....
Shower Screen		\$.....
Wall and Floor Tiles supply only		\$...../m
Bricks		\$...../ ,000

19.0 SIGNATURES

This is the specification referred to in the Building Agreement No. Date:

Signed by the said

Owner in the

Presence of

Witness

Owner's Signature

Date

.....

Witness

Owner's Signature

Date

...../...../.....

Signed by the said

Contractor in the

Presence of

Witness

Contractor's Signature

Date

.....

...../...../.....

Do not sign if a photocopy - it is a breach of HIA's copyright and may make you liable to pay damages.