



DK Building Certifiers Pty Limited

Address Suite 4 470 Sydney Road PO Box 929
Balgowlah NSW 2093
Tel 02 9400 2335
Fax 02 9400 2405
Email info@dkbuilding.com.au
Web www.dkbuildingcertifiers.com.au

9 October 2008

Our ref 08079

The General Manager
Pittwater Council
PO Box 882,
Mona Vale NSW 1660

Dear Sir/Madam

**Re 73 Ingleside Road INGLESIDE
Construction Certificate No 08079 (DA No N0751/07)**

DK Building Certifiers Pty Limited has issued a Construction Certificate under Part 4A of the Environmental Planning and Assessment Act 1979 for the above premises

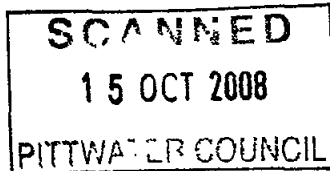
Please find enclosed the following documentation

- Construction Certificate No 08079
- Copy of application for Construction Certificate
- Documentation used to determine the application for the Construction Certificate as detailed in Schedule 1 of the Certificate
- Notice of commencement & appointment of the PCA
- Cheque for Council's registration fee

Should you need to discuss any issues, please do not hesitate to contact the Accredited Building Surveyor Damian O'Shannassy

Yours faithfully,

Damian O'Shannassy
Accredited Certifier No BPB0306
DK Building Certifiers Pty Limited



*R# 247867,
14 10 08.*



DK Building Certifiers Pty Limited

Address Suite 4 470 Sydney Road PO Box 929
Balgowlah NSW 2093
Tel 02 9400 2335
Fax 02 9400 2405
Email info@dkbuilding.com.au
Web www.dkbuildingcertifiers.com.au

CONSTRUCTION CERTIFICATE 08079 (RESIDENTIAL)

Issued under Part 4A of the Environmental Planning and Assessment Act 1979 Sections 109C and 81A(5)

APPLICANT DETAILS

Applicant Glenn Johnson
Address 73 Oceana Street NARRAWEENA NSW 2099
Contact Details Phone 9972 0460 Fax 9972 0460

OWNER DETAILS

Name of person having benefit of the development consent Glenn & Connie Johnson
Address 73 Oceana Street NARRAWEENA NSW 2099
Contact Details Phone 9972 0460

RELEVANT CONSENTS

Consent Authority/Local Government Area Pittwater Council
Development Consent No N0751/07 Date Issued 14/05/2008

PROPOSAL

Address of Development 73 Ingleside Road INGLESIDE NSW 2101
Lot 43 DP 114318
Building Classification Class 1a
Scope of building works covered by this Notice New single dwelling & swimming pool
Value of Construction Certificate (Incl GST) \$950 000 00
Plans and Specifications approved Schedule 1
Fire Safety Schedule N/A
Exclusions
Critical stage inspections See attached Notice
Conditions (Cis 187 or 188 of EPA Regs 2000) Nil

CERTIFYING AUTHORITY

Certifying Authority Damian O Shannassy
Accreditation Body Building Professionals Board
Registration No BPB0306

I Damian O Shannassy as the certifying authority certify that the work if completed in accordance with the plans and specifications identified in Schedule 1 (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of the Environmental Planning & Assessment Regulation 2000 as referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979

Dated this 9/10/2008

Damian O Shannassy
Accredited Certifier No BPB0306

NB Prior to the commencement of work S81A (2) (b) and (c) of the Environment Planning and Assessment Act 1979 must be satisfied



DK Building Certifiers Pty Limited

Address Suite 4 470 Sydney Road PO Box 929
Balgowlah NSW 2093
Tel 02 9400 2335
Fax 02 9400 2405
Email info@dkbuilding.com.au
Web www.dkbuildingcertifiers.com.au

SCHEDULE 1 APPROVED PLANS AND SPECIFICATIONS

1 Endorsed Architectural plans

PREPARED BY	DOCUMENT	DRAWING NO	REV	DATE
Halic Holdings Pty Ltd	Site plan inc drainage	01	A	1/09/2007
Halic Holdings Pty Ltd	Ground floor plan	02	B	1/08/2008
Halic Holdings Pty Ltd	Lower ground floor plan	03	B	1/08/2008
Halic Holdings Pty Ltd	Roof plan	04	A	1/09/2007
Halic Holdings Pty Ltd	Shadow diagram	05		1/09/2007
Halic Holdings Pty Ltd	Elevations	06	B	1/08/2008
Halic Holdings Pty Ltd	Elevations	07	B	1/08/2008
Halic Holdings Pty Ltd	Sections	08		1/09/2007
Halic Holdings Pty Ltd	Landscape plan	LP01		1/11/2007
Halic Holdings Pty Ltd	Landscape details	LP02		1/11/2007

2 Endorsed Structural plans

PREPARED BY	DOCUMENT	DRAWING NO	REV	DATE
Jack Hodgson Consultants Pty Ltd	Footing & gr floor slab plan & details	24908-S1		21/08/2008
Jack Hodgson Consultants Pty Ltd	First floor slab plan	24908-S2		21/08/2008
Jack Hodgson Consultants Pty Ltd	Sections	24908-S3		21/08/2008
Jack Hodgson Consultants Pty Ltd	Sections	24908-S4		21/08/2008
Jack Hodgson Consultants Pty Ltd	Sections	24908-S5		21/08/2008
Jack Hodgson Consultants Pty Ltd	Sections	24908-S6		21/08/2008
Jack Hodgson Consultants Pty Ltd	Tank details	24908-S7		21/08/2008
Jack Hodgson Consultants Pty Ltd	Tank details	24908-S8		21/08/2008
Jack Hodgson Consultants Pty Ltd	Tank details	24908-S9		21/08/2008
Jack Hodgson Consultants Pty Ltd	Pool details	24908-S10		21/08/2008
Jack Hodgson Consultants Pty Ltd	Lower & upper rook marking plans & details	24908-S11		21/08/2008
Jack Hodgson Consultants Pty Ltd	Steel details	24908-S12		21/08/2008
Jack Hodgson Consultants Pty Ltd	Steel details	24908-S13		21/08/2008
Jack Hodgson Consultants Pty Ltd	Driveway layout & longsections	24908-C1		15/09/2008

3 Endorsed Engineering plans

PREPARED BY	DOCUMENT	DRAWING NO	REV	DATE
Jack Hodgson Consultants Pty Ltd	Stormwater management plan	24908 H1		15/09/2008

4 Endorsed Other documents

PREPARED BY	DOCUMENT	DRAWING NO	REV	DATE
Glenn Johnson	Housing Specifications			3/07/2008
Glenn Johnson	Construction Certificate Application			19/09/2008
Glenn & Connie Johnson	Owners Authorisation & appointment of Principal Certifier			16/09/2008
NSW Govt Dept of Planning	BASIX Certificate	162774S		20/12/2007
Pittwater Council	Consent by Road Authority for Work in Road Reserve receipt	242091	\$146 00	25/07/2008
Pittwater Council	Application for Access driveway profiles receipt	242094	\$73 00	25/07/2008
Pittwater Council	Long Service levy	246366	\$3325 00	16/09/2008
Sydney Water	Application lodgement summary Ref no	2377189	\$25 00	5/09/2008
Sydney Water	Stamped approved	3425396		5/09/2008
NSW Office of Fair Trading	Owner Builder Permit	356677P	\$140 00	3/07/2008
Australian Owner Builders Pty Ltd	Certificate of completion	AOB005690		18/06/2008
Jack Hodgson Consultants Pty Ltd	Geotechnical Risk Management Policy for Pittwater Form	1(a)		29/11/2007



DK Building Certifiers Pty Limited

Address Suite 4 470 Sydney Road PO Box 929
Balgowlah NSW 2093
Tel 02 9400 2335
Fax 02 9400 2405
Email info@dkbuilding.com.au
Web www.dkbuildingcertifiers.com.au

Jack Hodgson Consultants Pty Ltd	Geotechnical Risk Management Policy for Pittwater Form	1	31/03/2008
Jack Hodgson Consultants Pty Ltd	Geotechnical Risk Management Policy for Pittwater Form	2	16/09/2008
Glenn Johnson	Schedule of finishes & colours		
NSW Health	Certificate of Accreditation Aerated Wastewater Treatment System	AWTS 003	1/12/2005
Building Code & Bushfire Hazard Solutions Pty Ltd	Constructional Requirements		1/07/2007

DK BUILDING CERTIFIERS

PTY LTD

BUILDING CERTIFICATION & FIRE SAFETY CONSULTANTS

SUITE 4 470 SYDNEY ROAD BALGOWLAH NSW 2093
PO BOX 929 BALGOWLAH NSW 2093
TEL 9400 2335 FAX 9400 2405
www.dkbuildingcertifiers.com.au
email info@dkbuilding.com.au
ABN 96 097 502 700

Application for a Construction Certificate

1. Details of the applicant

Mr Ms Mrs Dr Other

First name Family name

Flat/street no Street name

Suburb or town State Postcode

Daytime telephone Fax Mobile

Email

Signature

Date

2. Identify the land

Flat/street no Street name

Suburb or town Postcode

Lot no DP/Strata no

You can find the lot no., section DP/MPS no and volume/folio details on a map of the land or on the title documents for the land. If you need additional room please attach a schedule and/or a map with these details.

3. Estimated cost of the development

\$ including GST

2. Proposed Development

What type of work do you propose to carry out?

Building work

Subdivision work

Describe the work

NEW DWELING AND SWIMMING POOL

For building work what is the class of the building under the Building Code of Australia?

1A

Has development consent been granted for the development?

No

Yes

What is the development application no ?

751/07

What date was development consent granted?

14/5/08

5. Signatures

The owner(s) of the land must sign this application

As the owner(s) of the above property I/we consent to this application

Signature

Connie Siu-Hung Johnson

Name

CONNIE SIU-HUNG JOHNSON

Date

16/9/08

Flat/street no

73

Street name

OCEANA STREET

Suburb or town

NARRAWEENA

State

NSW

Postcode

2099

Daytime telephone

99720460

Fax

99720460

Mobile

0418 979 770

Email

-

Date received 19/9/08 at DK Building Certifiers Pty Limited

Please complete this schedule The information will be sent to the Australian Bureau of Statistics

All new building works

Please complete the following

- Number of storeys (including underground floors)
- Gross floor area of building (m²)
- Gross site area (m²)

Two
465
4126

Residential buildings only

Please complete the following details on residential structures

- Number of dwellings to be constructed
- Number of pre-existing dwellings on site
- Number of dwellings to be demolished
- Will the new dwelling(s) be attached to other new buildings?
- Will the new building(s) work be attached to existing buildings?
- Does the site contain a dual occupancy?
(NB dual occupancy = two dwellings on the same site)

ONE
NIL
NIL

Yes No

Yes No

Yes No

Materials – residential buildings

Please indicate the materials to be used in the construction of the new building(s) works

Walls	Code	Roof	Code	Floor	Code	Frame	Code
Brick (double)	<input type="checkbox"/> 11	Tiles	<input type="checkbox"/> 10	Concrete or slate	<input checked="" type="checkbox"/> 20	Timber	<input checked="" type="checkbox"/> 40
Brick (veneer)	<input checked="" type="checkbox"/> 12	Concrete or slate	<input type="checkbox"/> 20	Timber	<input type="checkbox"/> 40	Steel	<input type="checkbox"/> 60
Concrete or stone	<input type="checkbox"/> 20	Fibre cement	<input type="checkbox"/> 30	Other	<input type="checkbox"/> 80	Aluminium	<input type="checkbox"/> 70
Fibre cement	<input type="checkbox"/> 30	Steel	<input checked="" type="checkbox"/> 60	Not specified	<input type="checkbox"/> 90	Other	<input type="checkbox"/> 80
Timber	<input type="checkbox"/> 40	Aluminium	<input type="checkbox"/> 70			Not specified	<input type="checkbox"/> 90
Curtain glass	<input type="checkbox"/> 50	Other	<input type="checkbox"/> 80				
Steel	<input type="checkbox"/> 60	Not specified	<input type="checkbox"/> 90				
Aluminium	<input type="checkbox"/> 70						
Other	<input type="checkbox"/> 80						
Not specified	<input type="checkbox"/> 90						

**OWNERS AUTHORISATION
AND
APPOINTMENT OF PRINCIPAL
CERTIFYING AUTHORITY**

I/We GLENN AND CONNIE JOHNSON of

Address 73 OCEANA ST NARRAWEENA NSW

Telephone (h) 99720460 (w) _____ (Mobile) 0418 979770

Fax 99720460 email -

hereby authorise (other than the owner) RAYMOND JONES to



(cross out if not applicable) lodge a Construction Certificate application with DK Building
Certifiers Pty Ltd for the proposed works being -

NEW DWELLING AND SWIMMING POOL

at 73 INGLESIDE RD INGLESIDE

Council PITTWATER DA No 751/07

and appoint Damian O'Shannassy, Accredited Certifier No BPB0306 (Building Professionals
Board) of Suite 4, 470 Sydney Road, Balgowlah NSW 2093, Ph (02) 9400 2335, Fax
(02) 9400 2405 or info@dkbuilding.com.au as the Principal Certifying Authority

x Signed  x 
Date 16/9/08

NB The original of this form must be returned together with the Construction
Certificate application

BASI

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

Certificate number 162774S

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments have the meaning given by the document entitled "BASIX Definitions" dated 29/06/2006, published by the Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General

Date of issue Thursday 20 December 2007



NSW GOVERNMENT
Department of Planning

Score

Water 97 (Target 40)
Thermal comfort pass (Target pass)
Energy 40 (Target 40)

Project name	Johnson Residence
Street address	73 Ingleside Road Ingleside 2101
Local Government Area	Pittwater Council
Plan type and plan number	Deposited Plan 114318
Lot no	43
Section no	0
Project type	separate dwelling house
No of bedrooms	4
Site area (m ²)	4126
Roof area (m ²)	520
Conditioned floor area (m2)	507
Unconditioned floor area (m2)	70
Total area of garden and lawn (m2)	350
Assessor number	n/a
Certificate number	n/a
Cooling load (MJ/m ² year)	n/a
Heating load (MJ/m ² year)	n/a
none	n/a

Schedule of BASIX commitments

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

Landscape

The applicant must plant indigenous or low water use species of vegetation throughout 150 square metres of the site.

Fixtures

The applicant must install showerheads with a minimum rating of 3 star in all showers in the development.

The applicant must install a toilet flushing system with a minimum rating of 3 star in each toilet in the development.

The applicant must install taps with a minimum rating of 5 star in the kitchen in the development.

The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.

The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the development.

Alternative water

Rainwater tank

The applicant must install a rainwater tank of at least 65000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.

The applicant must configure the rainwater tank to collect rain runoff from at least 520 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).

The applicant must connect the rainwater tank to

- all toilets in the development.

the cold water tap that supplies each clothes washer in the development.

- at least one outdoor tap in the development (Note NSWHealth does not recommend that rainwater be used for human consumption in areas with potable water supply.)

all hot water systems in the development.

all indoor cold water taps (not including taps that supply clothes washers) in the development

- a tap that is located within 10 metres of the swimming pool in the development

Swimming pool

The swimming pool must not have a volume greater than 36 kilolitres

The swimming pool must have a pool cover

The swimming pool must be outdoors

Criteria

The applicant must construct the dwelling in accordance with the following specifications

- the dwelling is a single storey dwelling
- the dwelling has a slab on ground floor or, if the floor is suspended, the floor has insulation with an R-value of at least R1 0
 - walls are brick veneer, weatherboard or fibro,
 - walls have insulation with i) an R-value of at least R1 5 or ii) an R-value of at least R1 0 + wall wrap
 - all windows and glazed doors have eaves that project at least 600 millimetres (including gutter width)
 - eaves are no more than 500 millimetres above window or glazed door heads,
 - the total window and glazed door area is no more than 132.7 square metres
 - ceilings have insulation with an R-value of at least R2.5,
 - the roof has sarking or two wind driven ventilators with eave and/or roof vents

Hot water

The applicant must install the following hot water system in the development, or a system with a higher energy rating gas instantaneous with a performance of 6 stars

Cooling system

The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area ceiling fans Energy rating n/a

The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom ceiling fans, Energy rating n/a

Heating system

The applicant must install the following heating system or a system with a higher energy rating, in at least 1 living area 3 phase airconditioning, Energy rating EER > 4 0

The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom 3-phase airconditioning, Energy rating EER > 4 0

The heating system must provide for day/night zoning between living areas and bedrooms

Ventilation

The applicant must install the following exhaust systems in the development

At least 1 Bathroom individual fan, ducted to façade or roof, Operation control interlocked to light

Kitchen individual fan, ducted to façade or roof Operation control interlocked to light

Laundry individual fan, ducted to façade or roof, Operation control interlocked to light

Artificial lighting

The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps

at least 5 of the bedrooms / study dedicated

at least 2 of the living / dining rooms dedicated

the kitchen, dedicated

all bathrooms/toilets, dedicated

- the laundry, dedicated
- all hallways dedicated

Natural lighting

The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting

The applicant must install a window and/or skylight in 3 bathroom(s)/toilet(s) in the development for natural lighting

Swimming pool

The development must not incorporate any heating system for the swimming pool

The applicant must install a timer for the swimming pool pump in the development

Other

The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling

The applicant must construct each refrigerator space in the development so that it is "well ventilated" as defined in the BASIX definitions

The applicant must install a fixed outdoor clothes drying line as part of the development

The applicant must install a fixed indoor or sheltered clothes drying line as part of the development

In these commitments, "applicant" means the person carrying out the development

Commitments identified with a in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development)

Commitments identified with a in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development

Commitments identified with a in the 'Certifier check' column must be certified by a certifying authority as having been fulfilled before a final occupation certificate (either interim or final) for the development may be issued

Pittwater Council

OFFICIAL RECEIPT

25/07/2008 Receipt No 242091

To HALIC HOLDING PTY LTD

73 INGLESIDE RD
INGLESIDE NSW 2103

Applic Reference	Amount
GL Re ESTR-Eng 1 Y N0751/07	\$146 00

Total \$146 00

Amounts Tendered

Cash	\$0 00
Cheque	\$146 00
Db/Cr Card	\$0 00
Money Order	\$0 00
Agency Rec	\$0 00
Total	\$146 00
Rounding	\$0 00
Change	\$0 00
Nett	\$146 00

Printed 25/07/2008 3 05 51

Cashier ANard



Consent by Road Authority for Work in Road Reserve
Section 139 - Roads Act 1993
1 July 2008 - 30 June 2009

PLEASE PRINT

Applicant RAY JONES

Postal Address 11/153 - 157 POWDERWORKS RD ELANDRA HEIGHTS Postcode 2101

Phone (W) 9970 8861 (M) 0409 452 158

Property Address 73 INGLESIDE RD, INGLESIDE

Subject to the payment of the appropriate fee the Applicant is hereby permitted to construct the driveway (and/or associated work) as detailed below, in strict accordance with the CONDITIONS overleaf

I/We the undersigned agree to abide by the said conditions

Applicant's Signature Raymond Jones Date 25/7/08

FEES (includes GST)

Table with 2 columns: Description of consent type and Fee amount. Includes rows for residential single/dual occupancy, major retaining structures, and other than residential, with fees ranging from \$146.00 to \$487.00.

Office Use Only

Inspected by _____ Date _____

Approved

Not approved

Comment _____

CODE ESTR 17 08 - 30 6 09 Late Fee \$618 when work commenced prior to issue of Consent Form No UI 203

FEE PAID \$146 - RECEIPT NO 242091 ISSUED BY Aeneah DATE 25/7/08

NOTE TO CUSTOMER SERVICE PHOTOCOPY APPLICATION FORM AND STAPLE WITH RECEIPT FOR CUSTOMER'S RECORD

SECTION 139 – ROADS ACT 1993

CONDITIONS OF CONSENT

- 1 The Applicant shall, at all times, keep indemnified Council from and against all actions, suits, proceedings, losses, costs, damages, changes, claims and demands in any way arising out of or by reason of anything done or omitted to be done by the Applicant in respect of the work in question
 - 2 The Applicant, at all times for the duration of this Consent, will not interrupt or otherwise disturb the traffic flow on the road without first obtaining the consent of Council
 - 3 The applicant shall make good any damage caused to the property of any person or any property of Council by reason of the carrying out of any work by the Applicant under the Conditions of this Consent
 - 4 Should the Applicant fail to comply with any of these conditions or any requirement of Council as provided then this Consent shall permanently lapse and any part of the work remaining within the road at that time shall be deemed to be an obstruction or encroachment under Section 107 of the Roads Act 1993
 - 5 This Permit/Consent receipt must be held on the job and produced to any officer of Council when called upon
 - 6 ***All work within the Road Reserve (including excavation) is to be carried out by Council Authorised Contractors only***
 - 7 Construction of the vehicular access is to be strictly in accordance with the profile supplied
 - 8 A formwork inspection and approval by Council is required prior to construction of the driveway
24 HOURS NOTICE IS REQUIRED
 - 9 **THIS CONSENT AND (PREVIOUSLY ISSUED) APPROVED PROFILE MUST BE RETAINED ON SITE FOR THE INSPECTING COUNCIL OFFICER'S APPROVAL**
 - 10 Type of Construction
 - **For residential single & dual occupancy** – 20MPa Concrete, 150mm thick
 - **For other** – 20MPa Concrete, 180mm thick with F72 mesh
-

Pittwater Council

OFFICIAL RECEIPT

25/07/2008 Receipt No 242094

To HALIC HOLDINGS PTY LTD

73 INGLESIDE RD
INGLESIDE NSW 2103

Applic Reference	Amount
GL Re ESTP-Eng 1 Y N0751/07	\$73 00

Total \$73 00

Amounts Tendered

Cash	\$0 00
Cheque	\$73 00
Db/Cr Card	\$0 00
Money Order	\$0 00
Agency Rec	\$0 00
Total	\$73 00
Rounding	\$0 00
Change	\$0 00
Nett	\$73 00

Printed 25/07/2008 3 09 05

Cashier Award

Application for Access Driveway Profiles
1 July 2008 – 30 June 2009

PLEASE PRINT
 Applicant RAYMOND JONES
 Company Name (if applicable) HARC HOLDINGS P/L
 Postal Address 11/153-157 POWDERWORKS RD BLANDRA HEIGHTS Postcode 2101
 Phone (W) 9970 8861 (M) 0409 452 158
 Owner's Name (if different from above) GLENN & CONNIE JOHNSON
 Property Address 73 INCLUSIVE RD INCLUSIVE
 D A No (if applicable) NO 751/07

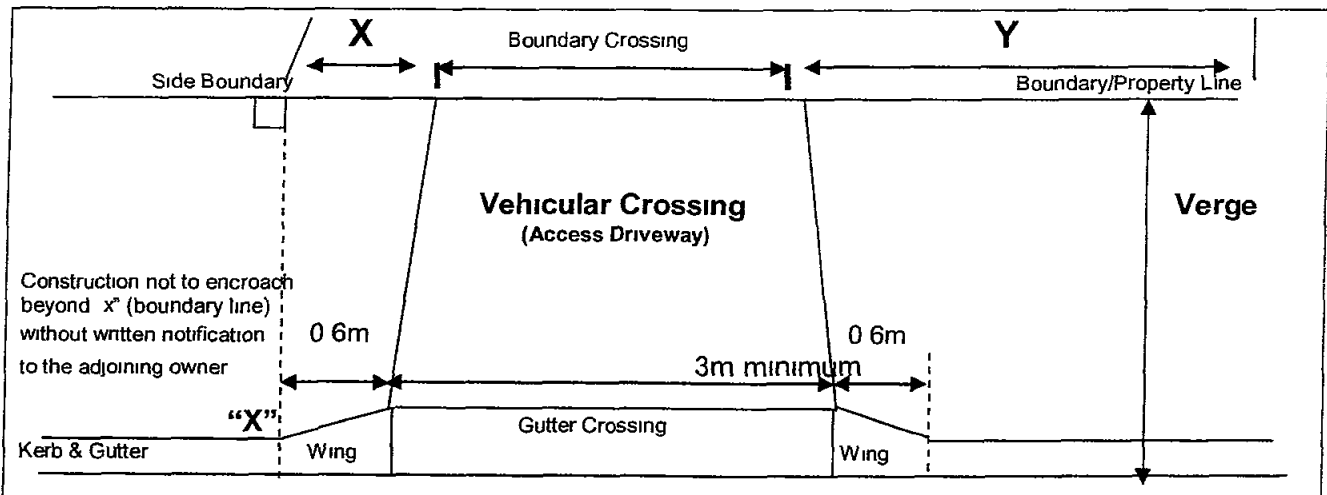
- Single/Dual Occ Single/Dual Occ -special treatment**
 Other than Single/Dual Occ Other than Single/Dual Occ -special treatment**

I hereby apply for Driveway profiles at the above address

Note Indicate significant trees on Road Verge. If removal proposed, Applicant will need approval of Tree Preservation Officer

Applicant's Signature Raymond Jones Date 25/7/08

Insert either X or Y distance from boundary to proposed driveway



Notes

- 1 This application does NOT constitute an approval to commence or proceed with any work
- 2 A Section 139 Consent Certificate under the Roads Act – 1993 is required (See Form UI 203)
- 3 **Special treatment includes any of retaining structures, stairs or landscape treatment

Field Use Only

- a) Type of Profile c) Width at gutter crossing
 b) Length d) Width at boundary crossing
 Comments

Office Use Only

CODE ESTR 17 08 - 30 6 09 FEE \$73.00 incl GST

RECEIPT NO 242094 ISSUED BY Ashleigh

Form No UI 202

DATE 25/7/08

- Incoming application updated Referred to Compliance Admin Assistant
 Proclaim updated Profile letter issued and changed to OUTCORW

Contact Assets/Restorations Officer Sigi Melderis 9970 1348 or 0407 957 032 for more information



PITTWATER COUNCIL

Information for Access Driveway Profiles 1 July 2008 – 30 June 2008

To	Raymond Jones	Date	29th July 2008
Postal Address	11/153-157 Powderworks Rd ELANORA HTS NSW 2101	Receipt No	242094
		Amount	\$73 00

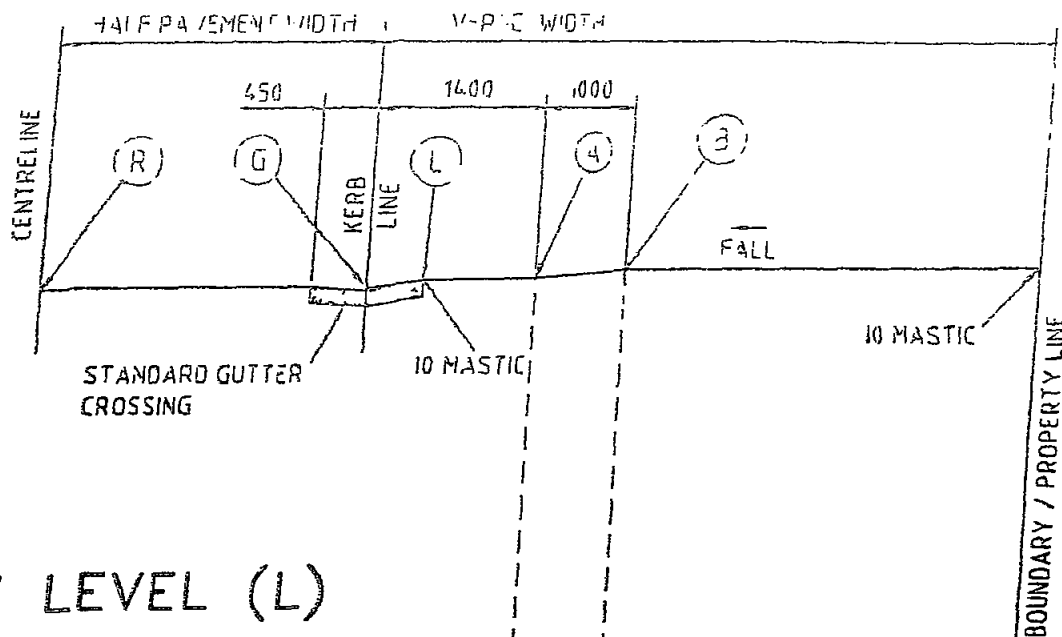
ACCESS DRIVEWAY PROFILE AT 73 Ingleside Rd, INGLESIDE

- The proposed vehicular access driveway profile shall be as per the enclosed plan **NL**
- **Type of Construction** Domestic
 - **For Residential single & dual occupancy** - 20MPa Concrete, 150mm thick
 - **For Other** - 20MPa Concrete 180mm thick with F72 mesh
- **Slab Construction** Vehicular access slab 6m long, 3.5m wide at gutter crossing to 3.5m wide at the boundary
"G" is 50mm below edge of road
- Council will only permit an absolute maximum gradient of 25% (1 in 4) measured at any point on the driveway and that an ease may be required for access into the car stand area, carport or garage Refer to relevant attached profile
- All work within the road reserve (including excavation) in connection with the above, is to be carried out by authorised Contractors only,
- Quotations for the work specified above should be obtained from any of the contractors on Council's list and should be for the whole of the work stated,
- Construction of vehicular access will be strictly in accordance with the profile supplied, and
- A formwork inspection by Council is required prior to construction (Provide minimum 24 hours notice)

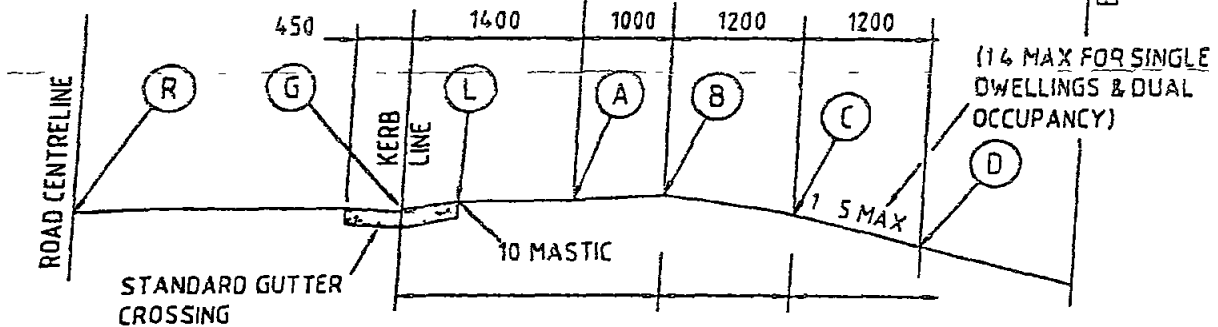
- | |
|---|
| <ol style="list-style-type: none">1 NOTE THAT THIS INFORMATION SHEET DOES NOT CONSTITUTE AN APPROVAL TO COMMENCE OR PROCEED WITH ANY WORK ON SITE2 A SECTION 139 CONSENT UNDER THE ROADS ACT – 1993 IS REQUIRED (FORM U1203)3 FAILURE TO OBTAIN SUCH CONSENT PRIOR TO COMMENCING WORK WILL INCUR A PENALTY |
|---|


Sigi Melderis
ASSETS / RESTORATIONS OFFICER
Telephone 9970 1348

NORMAL (N)



LOW LEVEL (L)



(1.6) (1.6-1.2) (1.2)
 (MAX BATTER FROM EDGE OF DRIVEWAY TO FINAL G L)
 (WHERE THERE IS NO CONSTRUCTED FOOTPATH)

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
L	BACK OF LAYBACK	100 ABOVE "G"
A	1600 FROM KERB LINE	130 ABOVE "G"
B	2400 FROM KERB LINE	150 ABOVE "G"
C	3600 FROM KERB LINE	MAX 20 ABOVE "G"
D	4800 FROM KERB LINE	MAX 130 BELOW G

NOTE

- To be read in conjunction with Pittwater 21 Development Controls



PITTWATER COUNCIL

Standard Driveway Profile

NORMAL TO LOW

PLAN No

PWC-DW6

REV No B

DATE 26/8/05

MTM, 21 FEB 2008 List of Council Authorised Concrete Contractors for Vehicle Footpath Crossings and Associated Works

- The following Contractors are authorised to carry out the above construction within the road reserve in the Piveret Council area. No other persons are permitted to carry out excavation or any other part of this work.
- Please note that the Contractors are specifically authorised as refer to footpath crossing locations only and that some of these contractors may not hold a Builders Licence or a Restricted Builders Licence.

Company Name	Address 1	Address 2	Phone	Mobile
Aarts Concrete	PO Box 668	Campbelltown 2560	4626 6334	0413 337 489
A K Concrete Solutions Pty Ltd	164 Madagascar Dr	Kings Park 2148	9837 8322	0412 392 355
Action Concreting & Construction Pty Ltd	PO Box 521	Collaroy 2097	9982 2135	0414 355 772
Amazon Green Landscapes	24 Cherrybrook Rd	Pennant Hills 2125	9945 0554	0412 844 817
Anton Constructions Pty Ltd	730 Ourimbah Creek Rd	Palmgrove 2258	4362 9605	0418 236 651
Antonio Tomaino	97 Wyadra Ave	North Manly 2099	9938 3841	0422 994 938
Barrie Bree Concreting	29 Seaview Ave	Newport 2106	9997 8840	0415 183 146
H J Bellamy & Sons Pty Ltd	PO Box 541	Collaroy 2097	9981 4137	0418 280 904
Blue Diamond Concrete	4 Carmen Place	Freemans Reach 2756	4579 6158	0410 724 369
Bravo Group Constructions	3 Cosgrove Rd	Sth Strathfield 2135	9642 4008	0412 613 484
Brook Concreting Pty Ltd (Bomanite)	26 Adderton Rd	Telopea 2117	9638 2926	0418 218 671
Capano Concrete Pty Ltd	40 Rowley St	Smithfield 2164	9604 8715	0409 838 238
Coastline Concrete Pty Ltd	12 Davison St	Cromer 2099		0417 242 801
C-Side Concrete & Pump Hire Pty Ltd	43 Wesley St	Elanora Heights	9913 1653	0404 872 111
Collaroy Landscapes Pty Ltd	6 Bolwarra Rd	North Narrabeen 2101	9970 7635	0418 965 232
Crown Formworks Pty Ltd	157 Greenacre Rd	Greenacre 2190		0411 664 497
Cubic Concrete	12A Linden St	Mount Druitt 2770		0407 016 064
C & J Concreting	35 Port Erringhi Rd	Ebenezer 2756		0414 799 338
D Spencer & Associates	7/1 Marina Cl	Mount Kuringai 2080	9457 0332	0425 212 750
Danalig Pty Ltd	8 Rydal St	Wheeler Heights 2097		0412 383 993
Dangar Group Pty Ltd	P O Box 438	Double Bay 2028	9316 9044	0412 164 174
Danscapes Pty Ltd	PO Box 764	Caringbah 1495	9523 3335	0416 107 238
D & M Excavations & Asphaltting Pty Ltd	PO Box 133	Hurstville 2220	9759 1642	0412 052 427
Foster Civil Contracting Constructions P/L	PO Box 7278	Kariong 2250	4376 1081	0418 213 248 0418 427 879
Fixcon	20 Charles St	Canterbury 2193	9718 8199	0418 231 720
Frank's Concrete	PO Box 983	Mona Vale 1660	9997 3999	0418 225 871
Fres Constructions Pty Ltd	PO Box 1477	Maroubra Junct. 2035		0417 663 135
Freshwater Environmental Constructions	3/72 Harbord Rd	Harbord 2096	9905 3770	0414 543 957
G & D Concrete Pty Ltd	58 Parkes Rd	Collaroy 2097	9982 4780	0418 644 887
Gillett Concreting Services Pty Ltd	5 Chilaw Ave	St Marys 2760	9833 8006	0416 237 065
Ingleside Landscaping Pty Ltd	145 Wirreanda Rd	Ingleside 2101	9450 2404	0408 296 359
JD Concrete Pty Ltd	21-22 The Northern Rd	Luddenham 2745	4773 3003	0419 017 074
J M Concreting (Aust) Pty Ltd	68 Beresford Ave	Greenacre 2190	9709 8778	0407 924 734
Joe's Concreting Pty Ltd	14 Whitefriars Way	Winston Hills 2153		0411 197 144
Kakoda Concrete Pty Ltd	32 Aidinga Drive	Wamberal 2260	4384 2460	0421 342 177
Kalfa Building Contractor	41 Cathcart St	Fairfield 2165	9755 7293	0409 163 836
Kelpie Concrete Pty Ltd	20 Spring Rd	Curl Curl 2096	9905 8398	0418 164 604
Lloyd Drilling & Underpinning Constructions Pty Ltd	17 Ilya Ave	Bayview 2104		0418 232 527
Luchs Concrete Pty Ltd	15 Milperra Pl	Cromer 2099	9982 8739	0411 879 257
L Morlin & Co Pty Ltd	133 Desborough Rd	St Marys 2760		0418 285 015
M & B Concrete	7 Eventt Crescent	Minchinbury 2770	9625 5146	0418 960 549
Master Form Pty Ltd	150 Alfred St	Narraweena 2099	9971 6309	0409 244 056
M & A Robert Concreting Pty Ltd	63 Kent Rd	Orchard Hills 2748	9623 1612	0410 529 012
NBE Concrete	55 Arnott Cr	Warriewood 2102		0418 244 793
Newborn Concrete & Landscaping	3 Keldie St	Forestville 2087		0425 323 333
Newport Concrete	PO Box 108	Newport 2106	9997 5686	0407 068 716
New Image Concreting Pty Ltd	7 Pakenham Place	Mt Annan 2567		0433 768 321

Nick Johnston Landscapes Pty Ltd	14/1-3 Jubilee Ave	Warriewood 2102	9979 8885	0414 645 334
Nicsons Concrete Pty Ltd	6-8 Redfern St	Wetherill Park 2164	9756 5553	
Northcrete Concreting	8 David Rd	Collaroy Plateau 2097	9971 7868	0418 239 958
North Shore Paving Co Pty Ltd	16 Moore Ave	Lindfield West 2070	9416 8455	0418 269 697
Northern Beaches Homes	9 Bilberry Ave	Bilgola 2107		0416 124 663
Northshore Formwork & Concreting P/L	30 Nimbey Ave	Narraweena 2099	9981 4390	0418 169 365
Northside Formwork & Constructions P/L	PO Box 168	Mona Vale 2103	9997 6363	0411 529 004
Ocean Concrete Pty Ltd	7 Nursery Pl	Belrose 2085	9452 1473	0412 449 297
Outback Paving	38 Greensborough Ave	Rouse Hill 2155	9629 8951	0408 238 032
Paradise Landscapes Pty Ltd	PO Box 403	Newport Beach 2106	9918 0539	0414 229 722
Paton Concrete Works	PO Box 1149	Newport 2106	9979 2791	0407 011 907
Pave On Line Pty Ltd	232 Coreen Ave	Penrith 2750	4721 2566	0438 212 562
Pavecrete Pty Ltd	PO Box 710	Avalon 2107		0418 772 799
Performance Concreting Services	28 Essilia St	Collaroy Plateau 2097	9982 8451	0414 182 553
Peter Yorke Landscapes Pty Ltd	32 Sydney Rd	Warriewood 2102	9944 6598	0414 997 644
PRC Constructions Pty Ltd	14 Buena Vista Ave	Mona Vale 2103	9940 1019	0410 303 806
Rahnch Constructions Pty Ltd	11/1 Hordern Pl	Camperdown 2050	9517 9755	0415 224 504
Recommended Concrete Pty Ltd	68 Second Rd	Berkshire Park 2765	4574 3586	0410 483 980
Rocco Crea Concrete	117 Mona Vale Rd	Mona Vale 2103	9999 6852	0412 237 559
R & C Vitale	98 Westbrook Avenue	Wahroonga 2076		0412 516 275
Salt Landscapes & Outdoor Living P/L	8 The Greenway	Elanora Heights 2101		0414 726 981
S & E Cavalieri Pty Ltd	29 Quinlan Pde	Manly Vale 2093	9948 5442	0412 285 301
Shorecent Concreting Pty Ltd	18A Pine Ave	Brookvale 2100	9944 0860	0402 853 921
Solid Art Industries	PO Box W282	Warringah Mall 2100	n/a	0414 548 639
Spaghetti Concretors Pty Ltd	24 Hillcrest Rd	Berowra 2081	9456 0456	0419 479 590
Stuart Landscape Construction	39 Allawah Avenue	Elanora Heights 2101	9913 9902	0400 788 278
Superb Landscaping Pty Ltd	12 Donohoes Ave	Mulgoa 2745	4773 9417	0411 224 466
TBRH Concreting and Landscaping P/L	PO Box 2078	Normanhurst 2076	9489 2620	0413 072 702
The Gardenmakers Pty Ltd	Unit 4/1 Vuko Pl	Warriewood 2101	9970 7600	
Topform Construction	PO Box 704	Mona Vale 2103	9997 2295	0418 266 375
Tongue Constructions Pty Ltd	8 De Lauret Ave	Newport 2106	9973 3006	0417 688 528
Tower Consortium Pty Ltd	Unit 7/5 Lyn Pde	Hoxton Park 2171	9826 0663	0407 003 850
Walter Wellington & Co Pty Ltd	PO Box 87	Collaroy 2097	9982 6335	0414 614 119

Builders who wish to carry out their own work (i e do not give quotes)

Gubler & Associates Pty Ltd	49 Careel Head Rd	North Avalon 2107	9918 2896	
Lamrock Builders	Po Box 76	Avalon 2107	9918 7037	0418 406 221
Pelenoy Pty Ltd	137 Parsonage Rd	Castle Hill 2154	9894 1422	0419 654 111

Pittwater Council

OFFICIAL RECEIPT

16/09/2016 Receipt No 24636a

TO Mrs D S JOHNSON

73 INGLESIDE PI
INGLESIDE

Account Reference	Amount
GL Fe OLSL-Bu'1 1 ' N1751, 1'	\$3 225 00

Total \$3 225 00

Amounts Tended

Cash	\$ 00
Cheque	\$3 225 00
CB/O- Card	\$ 00
Money Order	\$ 00
Agency Rec	\$ 00
Total	\$3 225 00
Roundup	\$ 00
Change	\$ 00
Nett	\$3 225 00

Printed 16/09/2016 4 57 19

Cashier Ward



See reverse of form for instructions

PLEASE PRINT ALL DETAILS USING CAPITALS

Surname (if person) or Company/Organisation name JOHANSON

Given names (if person) GLENN

ABN (if applicable)

POSTAL ADDRESS No and street or PO Box 73 OCEANA ST NARRAWEEENA

Town/suburb NARRAWEEENA

State NSW Postcode 2100 Bus hours phone

Number and street 73 INGLESIDE ROAD

Town/suburb INGLESIDE

State NSW Postcode 2101

Estimated start date 01 M 10 Y 2008 Estimated finish date 01 M 06 Y 2009

Local Council Area PITYWATER

DA/CC/CDC No 75107

Estimated value of work (see note on back) \$ 950000 Levy payable \$ 3325

If you have provided a CC above please provide DA number here

Signature of Officer/Private Certifier Date 01 M 10 Y

Name of Officer/Private Certifier D&K CERTIFIERS P/L Business hours phone 0294002335

Department/Authority

Contract/DA No (circle which) Contract amount \$

Levy payable \$

Contact person (Print) Phone number

Contact person (Signature) Date 01 M 10 Y

Any false or misleading information provided on this form may result in prosecution under Section 58A I hereby declare that the information provided on this form is true and correct to the best of my knowledge

Name RAYMOND JONES Signature Raymond Jones Date 16 M 09 Y 2008

Exemption Approval Certificate No



Application Lodgement Summary



Reference Number 2377189

Date Requested Fri September 5 2008

Agent Reece Mona Vale, 10 Taronga Pl Mona Vale
Applicant Halic Holdings Pty Ltd, 11/153 Powderworks Rd Elanora Heights 2101
Property/Asset Lot 43 Ingleside Rd, Ingleside 2101 (Gp Johnson Csh Johnson) PNum 3425396
Product Building Plan Approval Application

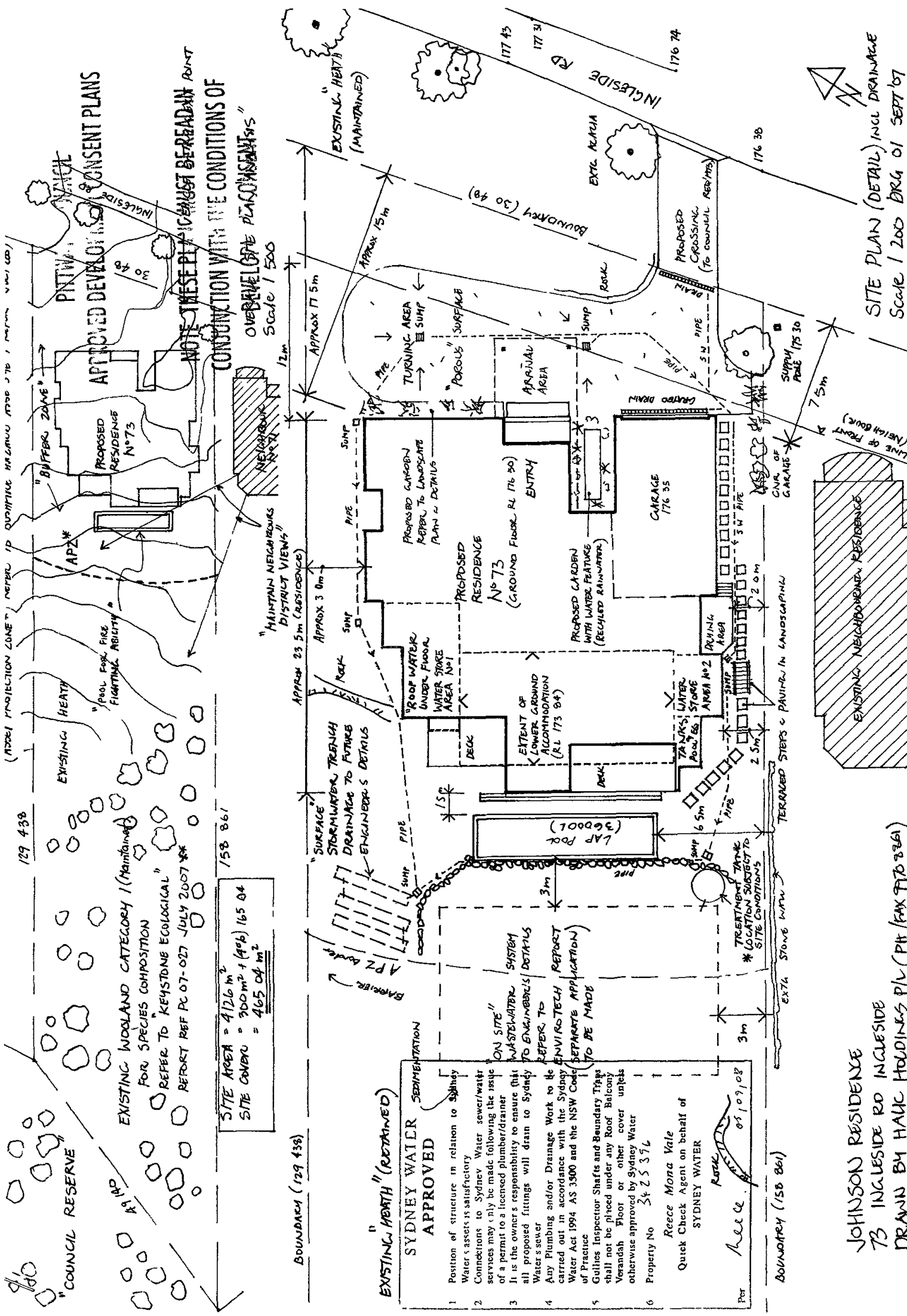
Charge	Product Cost	GST	Total
Building Plan Approval Application Fee	\$25 00	\$0 00	\$25 00

Property Special Conditions

Boundary Trap Required No
Sewer Surcharge area No
Minimum Gully Height area No
Connection Type Gravity

The above listed conditions apply to the first property identified. If more than one property is identified, you will need to contact Sydney Water's Plumbing Inspection and Assurance Services on Ph 9828 8543 to clarify the property special conditions. You must ensure that all plumbing/drainage and building works are carried out in accordance with the relevant codes and standards.

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



SITE PLAN (DETAIL) INCL DRAINAGE
Scale 1:200 DRG 01 SEPT 07

(ADDED PROJECTION ZONE) RETAIL / QUALITY HOUSING 376 / 100mm 100mm (100)

APPROVED DEVELOPING CONSENT PLANS

EXISTING WOODLAND CATEGORY 1 (MAINTAINED)
FOR SPECIES COMPOSITION
REFER TO KEYSTONE ECOLOGICAL
REPORT REF PC 07-027 JULY 2007

SITE AREA = 4126 m²
SITE COVER = 300 m² + (406) 165 04
= 465 04 m²

NOTE THESE PLANS MUST BE READ IN POINT
CONJUNCTION WITH THE CONDITIONS OF
OVERVELOPE PLACONSENTS
Scale 1:500

"EXISTING NORTH" (RETAINED)

SYDNEY WATER SEDIMENTATION APPROVED

- 1 Position of structure in relation to Sydney Water's assets is satisfactory
- 2 Connections to Sydney Water sewer/water services may only be made following the issue of a permit to a licensed plumber/drainer
- 3 It is the owner's responsibility to ensure that all proposed fittings will drain to Sydney Water's sewer
- 4 Any Plumbing and/or Drainage Work to be carried out in accordance with the Sydney Water Act 1994 AS 3500 and the NSW Code of Practice
- 5 Gullies Inspector Shafts and Boundary Tags shall not be placed under any Roof/Balcony/Verandah/Floor or other cover unless otherwise approved by Sydney Water
- 6 Property No 3425376

Reece Mona Vale
Quick Check Agent on behalf of
SYDNEY WATER

Reece
05 109 108

JOHNSON RESIDENCE
73 INGLESIDE RD INGLESIDE
DRAWN BY HAHC HOLDINGS P/L (PH/FAX 770 8261)

WESTPAC EFTPOS

DEPT OF FAIR TRADING
LVL 3 2124 RAWSON PL
SYDNEY NSW 2000

Customer Copy

3 JUL 2008 14 57 07

MERCHANT ID 22478598
TERMINAL ID 71999840
INV/ROC NO 006119
ACCOUNT TYPE CREDIT

VISA
450949 218(s) 06/12

PURCHASE \$140 00
TOTAL AUD \$140 00

AUTH ID 027924

APPROVED 08

Signature Accepted

NSW 2099

Permit 356677P
Receipt 1-187906464

Issued 3/7/2008
Amount \$140 00*

SITE

----- Road, Ingleside, NSW 2101

AUTHORISED BUILDING WORK

New dwelling

Authority No DA-751/07
Council Area PITTWATER (S) COUNCIL

Should the property be sold within 6 years of completion of the work it will be necessary to obtain home warranty building insurance from approved insurers if the value of the work was greater than \$12,000. A certificate of insurance must be attached to any contract of sale.

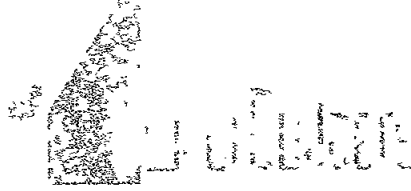
You should obtain professional advice from general insurers regarding public liability and property damage cover, etc.

Note: This permit is only valid when an official receipt has been imprinted. If payment is made by cheque the permit is conditional on the cheque being met on presentation. *GST amount included in total fee \$0 00

B W Nanyakkara
Issuing officer

***** END OF PERMIT *****

NSW Office of Fair Trading, ABN 54 625 095 406
1 Fitzwilliam St, P O Box 972 Parramatta NSW 2150 Australia
Tel 02 9895 0119 Fax 02 9895 0077 TTY 02 9338 4943
www.fairtrading.nsw.gov.au 13 32 20



Glenn Johnson

18/06/2008



AOB005690

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

Development Application for <u>MR & MRS GLEN JOHNSON</u> Name of Applicant
Address of site <u>73 INGLESIDE ROAD, INGLESIDE</u>

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


Geotechnical Report Details

Report Title <u>RISK ANALYSIS & MANAGEMENT FOR PROPOSED HOUSE AND POOL AT 73 INGLESIDE ROAD INGLESIDE</u>
Report Date <u>29/11/07</u>
Author <u>BEN WHITE</u>

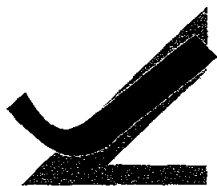
Please mark appropriate box

- Comprehensive site mapping conducted 29/11/07
(date)
- Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1 200 (as appropriate)
- Subsurface investigation required
 - No Justification SEE REPORT
 - Yes Date conducted
- Geotechnical model developed and reported as an inferred subsurface type-section
- Geotechnical hazards identified
 - Above the site
 - On the site
 - Below the site
 - Beside the site
- Geotechnical hazards described and reported
- Risk assessment conducted in accordance with Council's Policy
 - Consequence analysis
 - Frequency analysis
- Risk calculation
- Risk assessment for property conducted in accordance with Council's Policy
- Risk assessment for loss of life conducted in accordance with Council's Policy
- Assessed risks have been compared to Acceptable Risk Management criteria as defined in the Geotechnical Risk Management Policy for Pittwater
- Opinion has been provided that the design can achieve the Acceptable Risk Management criteria provided that the specified conditions are achieved
- Design Life Adopted
 - 100 years
 - Other specify
- Development Conditions to be applied to all four phases as described in Pittwater Geotechnical Risk Management Policy have been specified
- Additional action to remove risk where reasonable and practical have been identified and included in the report
- Risk Assessment within Bushfire Asset Protection Zone

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

Signature 
 Name Ben White
 Chartered Professional Status MScGEOLAusIMM
 Membership No 222757
 Company Jack Hodgson Consultants Pty Ltd





Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 1

RISK ANALYSIS & MANAGEMENT FOR PROPOSED HOUSE AND POOL AT 73 INGLESIDE ROAD, INGLESIDE

1 INTRODUCTION

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

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

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

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

2 PROPOSED DEVELOPMENT

2.1 Construct a new house.

2.2 Construct a concrete pool.

2.3 Install a sewerage treatment system.

2.4 Details of the proposed development are shown on 7 drawings prepared by Halic Holdings Pty Ltd numbered 01 to 08 (excluding 05) and dated September 07.

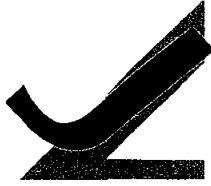
2.5 Details of the proposed treatment system are shown in 'On-site Wastewater Management Report' for 73 Ingleside Road, Ingleside prepared by Envirotech Pty Ltd and dated 28th November 2007.

DIRECTOR J D HODGSON, M Eng Sc F I E Aust, Nper3 Struc Civil 149788

67 Darley Street Mona Vale NSW 2103

PO Box 389 Mona Vale NSW 1660

Telephone 9079 6733 Facsimile 9979 6926



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 2

3 DESCRIPTION OF SITE & SURROUNDING AREA

3.1 The site was inspected on the 29th November 2007

3.2 The site is located on the low side of the street and has a west south west aspect. There is a small cleared area in the south eastern corner of the property (Photo 1). The property extends at an average slope of some 5 degrees from the road frontage on Ingleside Road to Mona Vale Road below and is currently vegetated by natural bushland. The top and mid sections of the slope are covered in small to medium sized vegetation with numerous large bedrock outcrops present (Photo 2). The lower section of the block is vegetated by dense medium to large well established eucalypts (Photo 3). The trees on site stand vertical and show no evidence of ground movement.

3.3 The site is currently undeveloped.

3.4 Inspection of the adjoining properties indicates they do not present any risk of instability to the subject property.

4 GEOLOGY OF THE SITE

4.1 The site is underlain by Hawkesbury Sandstones which outcrop across the site. The outcrops are mainly bedrock however some displaced joint blocks are also present (Photo 4). These sandstones are of Middle Triassic age and were probably laid down in braided streams. The sand grains are mainly quartz with some sand grade claystone fragments. There are lenticular deposits of mudstones and laminates which are thought to have been deposited in abandoned channels of the main streams. The sandstones generally have widely spaced sub vertical joints with some current bedding. The joint directions are approximately north/south and east/west. The beds vary in thickness from 0.5 to in excess of 5 metres.

4.2 The slope materials are colluvial at the surface and residual at depth. They consist of sandy loams over sandy clays that merge into the weathered zone of the underlying rocks at depths expected to be in the range of non-existent to 1 metre.

5 SUBSURFACE INVESTIGATION

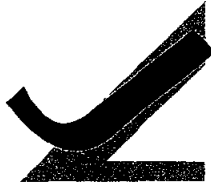
The surface features described in this Report are considered to be adequate for the proposed development, therefore no subsurface investigation is required.

DIRECTOR J D HODGSON M Eng Sc, F I E Aust, Nper3 Struc Civil 149788

67 Darley Street, Mona Vale NSW 2103

PO Box 389 Mona Vale NSW 1660

Telephone 9979 6733 Facsimile 9979 6926



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 3

6 DRAINAGE OF THE SITE

6.1 ON THE SITE

The site is well drained with no natural water courses. Normal sheet wash will enter the site from above during heavy down pours.

6.2 SURROUNDING AREA

No signs of water entering the site from adjoining properties were observed.

7 GEOTECHNICAL HAZARDS

7.1 ABOVE THE SITE

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

7.2 ON THE SITE

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

7.3 BELOW THE SITE

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

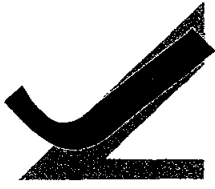
7.4 BESIDE THE SITE

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

8 RISK ASSESSMENT

8.1 ABOVE THE SITE

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



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 4

8 2 ON THE SITE

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

8 3 BELOW THE SITE

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

8 4 BESIDE THE SITE

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

9 SUITABILITY OF DEVELOPMENT FOR SITE

9 1 GENERAL COMMENTS

The proposed developments are suitable for the site

9 2 GEOTECHNICAL COMMENTS

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

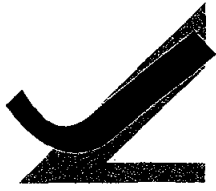
9 3 CONCLUSIONS

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

10 RISK MANAGEMENT

10 1 TYPE OF STRUCTURE

The proposed developments are structurally suitable



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 5

10 2 EXCAVATIONS

10 2 1 Apart from those for footings only shallow excavations will be required to fit both the proposed house and pool. Some shallow excavation may also be required to fit the sewerage treatment system.

10 2 2 The cuts are expected to be through firm to stiff sandy clays and weathered rock. The sandy clays can stand unsupported for short periods of time provided they are kept dry. All retaining walls are to be installed as soon as possible after the excavation is complete. The cut batters are to be covered to prevent loss of moisture in dry weather and to prevent access of moisture in wet weather. Upslope runoff must be diverted away from the cut faces by sandbag mounds or other similar diversion works. Temporary support may be required depending upon the material encountered in the cuts, the likelihood of heavy rain and the length of period before permanent support is installed. The design Coefficient of Lateral Pressure is 0.6.

10 2 3 It is envisaged that the weathered rock will be too hard to excavate with a bucket. Where this is the case, it is recommended the excavation be carried out using equipment that results in minimal vibration so as not to impact on the neighbouring properties. A Rock Saw or a Rock Grinder is ideally suited for this purpose. If hydraulic picks are to be used, the energy input per blow must not exceed 800 Joules.

10 2 4 All excavated material is to be removed from site.

10 3 FILLS

10 3 1 Filling is required to fit the sewerage treatment system. This filling is to follow the recommendations and guidelines of 'On-site Wastewater Management Report' for 73 Ingleside Road, Ingleside.

10 4 FOUNDATION MATERIALS AND FOOTINGS

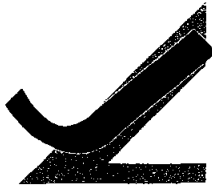
10 4 1 It is recommended that all footings for the proposed development be supported on the underlying weathered rock using piers as necessary. The design ultimate bearing pressures are 1.2 MPa for spread footings or shallow piers and 2.4 MPa for piers in which the surface of the rock is deeper than 1.2 metres from the ground level at the top of the pier.

DIRECTOR J D HODGSON M Eng Sc F I E Aust , Nper3 Struc Civil 149788

67 Darley Street Mona Vale NSW 2103

PO Box 389 Mona Vale NSW 1660

Telephone 9979 6733 Facsimile 9979 6926



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 6

10 5 STORM WATER DRAINAGE

10 5 1 All storm water runoff from the proposed development is to be collected and stored for domestic use and/or piped to a spreader pipe through any On Site Detention System that may be required by council

10 5 2 The spreader pipe may be installed just below surface It is to be encased in gravel that is wrapped in suitable geotextile fabric

10 6 SUBSURFACE DRAINAGE

10 6 1 All retaining walls are to have adequate drainage

10 6 2 Standard under pool drainage will be adequate for the pool

10 7 INSPECTIONS

10 7 1 It is recommended that the foundation materials of all footing excavations be inspected and approved before concrete is placed

10 7 2 It is recommended that any subsurface drains be inspected and approved before backfilling is completed

10 7 3 It is recommended that any backfill be inspected before backfilling is completed

10 8 MAINTENANCE

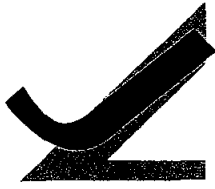
10 8 1 The property is to be maintained in good order and in accordance with the guidelines set out in CSIRO BTF 18 'Foundation Maintenance and Footing Performance A Homeowner's Guide' and the Australian Geomechanics Article "Landslide Risk Management Concepts and Guidelines" May 2002

DIRECTOR J D HODGSON M Eng Sc F I E Aust , Nper3 Struc Civil 149788

67 Darley Street Mona Vale NSW 2103

PO Box 389 Mona Vale NSW 1660

Telephone 9979 6733 Facsimile 9979 6926



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN 94 053 405 011

VS 24908

29th November, 2007

Page 7

11 GEOTECHNICAL CONDITIONS FOR ISSUE OF CONSTRUCTION CERTIFICATE

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

The work is to be carried out in accordance with the Risk Management Report VS 24908 dated 29th November 2007

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

The Geotechnical Engineer is to inspect and approve all subsurface drains before backfilling is completed

The Geotechnical Engineer is to inspect and approve all backfill before backfilling is completed

12 GEOTECHNICAL CONDITIONS FOR ISSUE OF OCCUPATION CERTIFICATE

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

The work has been carried out in accordance with the Risk Management Report VS 24908 dated 29th November 2007

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

All subsurface drains were inspected and approved before backfilling was completed

All backfilling was inspected and approved before backfilling was completed

JACK HODGSON CONSULTANTS PTY LIMITED

**B White M Sc Geol,
AusIMM , CP GEOL
No 222757
Engineering Geologist**

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



Photo 1



Photo 2



Photo 3



Photo 4

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

Development Application for	<u>MR & MRS GLEN JOHNSON</u>
	Name of Applicant
Address of site	<u>73 INGLESIDE ROAD, INGLESIDE</u>

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

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

on this the 31/3/08 certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least \$2million
I have

Please mark appropriate box

- Prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy
- Am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy
- Have examined the site and the proposed development in detail and have carried out a risk assessment in accordance with paragraph 6.3 (Property Located in Zone H3) of the Pittwater Council Geotechnical Risk Management Policy. I confirm that the results of the risk assessment are compliance with the Geotechnical Risk Management Policy and further detailed geotechnical reporting is not required for the subject site which is zoned H3
- Have examined the site and the proposed development/alteration in detail and am of the opinion that the Development Application only involves Minor Development/Alterations that do not require a Detailed Geotechnical risk Assessment and hence my report is in accordance with the Policy requirements for Minor Development/Alterations
- Provided the coastal process and coastal forces analysis for inclusion in the geotechnical report

Geotechnical Report Details

Report Title	<u>RISK ANALYSIS & MANAGEMENT FOR PROPOSED HOUSE AND POOL AT 73 INGLESIDE ROAD INGLESIDE</u>
Report Date	<u>29/11/07</u>
Author	<u>BEN WHITE</u>

Documentation which relate to or are relied upon in report preparation

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

Signature _____
Name Ben White
Chartered Professional Status MScGEOLAusIMM
Membership No 222757
Company Jack Hodgson Consultants Pty Ltd



**GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO 2 – To be submitted with detailed design for construction certificate**

Development Application for _____ <p align="center">Name of Applicant</p>
Address of site <u>73 INGLESIDE ROAD, INGLESIDE</u>

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

I, J Hodgson (insert name) on behalf of Jack Hodgson Consultants Pty Ltd (trading or company name)

on this the 16TH SEPTEMBER 2008 (date)

certify that I am a Structural or Civil Engineer as defined by the Geotechnical Risk Management Policy for Pittwater. I am authorised by the above organization/company to issue this document and to certify that the organization/company has a current professional indemnity policy of at least \$2million. I also certify that I have prepared the below listed structural documents in accordance with the recommendations given in the Geotechnical Report for the above development.

Geotechnical Report Details

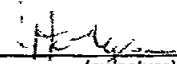
Report Title <u>RISK ANALYSIS & MANAGEMENT FOR PROPOSED POOL & HOUSE AT 73 INGLESIDE ROAD INGLESIDE SECTION 96 LETTER DATED 17/2/07 H1 ADDITION LETTER DATED 31/3/08</u>
Report Date <u>29TH NOVEMBER 2007</u>
Author <u>BEA WHITE</u>

Structural Documents list

<u>DRAWING NO S 24908-S1 TO S13 H1 & C1</u>

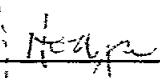
I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.

JACK HODGSON
(name)


(signature)

Declaration made by Geotechnical Engineer or Engineering Geologist in relation to Structural Drawings

I prepared and/or technically verified the abovementioned Geotechnical Report as per Form No 1 dated 31/3/08 and now certify that I have viewed the above listed structural documents prepared for the same development. I am satisfied that the recommendations given in the Geotechnical Report have been appropriately taken into account by the structural engineer in the preparation of these structural documents. I am aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified. In the Report and that reasonable and practical measures have been identified to remove foreseeable risks.

Signature	<u></u>
Name	<u>J HODGSON</u>
Chartered Professional Status	<u>MEngSc FIEAust</u>
Membership No	<u>149 788</u>
Company	<u>Jack Hodgson Consultants Pty Ltd</u>



SCHEDULE OF FINISHES and COLOURS

Proposed New Residence

73 Ingleside Road Ingleside – Owners: Mr. & Mrs. Johnson

BUILDING ELEMENT

MATERIAL / COLOUR

. External Walls

Rendered Brick / Dulux “Sandbank”

. Windows

Aluminium Frames / Precious Silver Pearl

Roof

Colorbond Metal / Woodland Grey

. Gutters

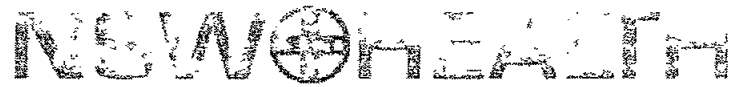
Colorbond Metal / Woodland Grey

. Downpipes

Colorbond Metal / Dulux “Sandbank”

. Garage Door

Colorbond Metal / Dulux “Wheat”



Certificate of Accreditation

Aerated Wastewater Treatment System

This Certificate of Accreditation is hereby issued by the Director-General of the NSW Department of Health pursuant to Clause 11(1) of the Local Government (General) Regulation 2005

System Taylex Compact AWTs

Manufacturer Taylex Industries Pty Ltd

Of 14 Activity Crescent, Molendinar QLD 4214

This is to certify that the Taylex Compact AWTs as described in Schedule 1 has been accredited as a sewage management facility for use on a single domestic premises in NSW. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2 and in accordance with the Sewage Management Facility Accreditation Guideline May 2005

A handwritten signature in black ink, appearing to read "M. Steff".

*Director Environmental Health Branch
for Director-General (delegator PH335)*

Date of Issue 1 December 2005

Certificate No AWTs 003

This Certificate of Accreditation is in force until 31 December 2010

Schedule 1 Specification

Taylex Compact Aerated Wastewater Treatment System

General Description

The Taylex Compact Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Taylex Compact AWTS is contained in one vertical axis type cylindrical precast concrete collection well with a design capacity of 7100 litres. The operational water level in the aeration chamber of the system is 1710 litres. The system consists of

- A primary sedimentation chamber with a capacity of 3050 litres.
- An aeration chamber with a capacity of 2500 litres.
- A sedimentation/clarifier chamber with a capacity of 800 litres and containing Taylex PVC Biomass panels with a surface area of 80 m².
- An irrigation pump chamber with a capacity of 750 litres incorporating a capacity of 300 litres for chlorine contact of the effluent.
- A Taylex TFG filter or equivalent located on the outlet of the clarifier.
- A chlorine disinfection unit installed on the outlet pipe of the clarifier after the Taylex filter.
- Air is supplied to the aeration chamber by a Taylex patented fine bubble centrifugal aerator operated at a speed of 2500 rpm and producing 70 litres/minute.
- An Easy pump model 700A submersible irrigation pump or equivalent.

Schedule 2 Conditions of Accreditation

10 General

- 1.1 For each installation the owner/occupier of a premises shall make an application to the Local Authority to install a Taylex Compact AWTS as a waste management facility in accordance with Section 68 Part C of the Local Government Act 1993 and Clause 28 of the Local Government (General) Regulation 2005
- 1.2 The Taylex Compact AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Department of Health
- 1.3 Any modification or variations to the accredited design of the Taylex Compact AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Director-General of the NSW Department of Health
- 1.4 Each Taylex Compact AWTS shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent attached to the lid with the following information
 - The brand name of the system
 - The manufacturer's name or registered trademark
 - The month and year of manufacture
- 1.5 The manufacturer shall supply with each Taylex Compact AWTS and owner's manual which sets out the care, operation, maintenance and on-going management requirements of the system
- 1.6 The manufacturer shall provide the following information to each local authority where it is intended to install an AWTS in their area once Departmental accreditation has been obtained
 - Statement of warranty
 - Statement of service life
 - Quality Assurance Certification
 - Installation Manual
 - Service Manual
 - Owner's Manual
 - Service Report Form
 - Engineering Drawings on A3 format
 - Detailed Specifications
 - A4 Plans
 - Accreditation documentation from NSM 11-5-5

2 0 Installation and Commissioning

- 2 1 The Council should require that on completion of the installation of the Taylex Compact AWTS the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed and commissioned in accordance with its design conditions of accreditation and any additional requirements of the council
- 2 2 The Council should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000

3 0 Maintenance

- 3 1 The Council shall require the owner/occupier of a premises to enter into an annual service contract with a representative of Taylex Industries Pty Ltd or a service contractor or company acceptable to the Council
- 3 2 The Taylex Compact AWTS shall be serviced at three monthly intervals in accordance with the details set out in the owner's and operator's manual
- 3 3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including
 - The chlorinator and replenishment of the disinfectant
 - Pumps, air blower, fan or aeration
 - The alarm system
 - Slime growth on the filter media
 - Operation of the sludge return system
 - The effluent irrigation area
 - On-site testing for free residual chlorine, pH and dissolved oxygen
- 3 4 The Council should require that a service report sheet in triplicate is completed for each service. The original shall be given to the owner, the duplicate forwarded to the Council and the triplicate retained by the service contractor

4 0 On-going Management

4 1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Taylex Compact AWTS

The plan shall include details of

- the treatment process
- procedures to be followed in the event of a system failure
- emergency contact numbers,
- maintenance requirements
- inspection and sampling procedures to be followed as part of the on-going monitoring program developed by the local authority

4 2 Effluent from the Taylex Compact AWTS taken in any random grab sample shall comply with the following standard

- BOD₅ (less than 30 mg/l)
- SS (less than 45 mg/L)
- Thermotolerant coliforms (less than 100 cfu/100 ml)
- Free residual chlorine (greater than 0.2 and less than 2.0 mg/L)

5 0 Permitted uses

5 1 The effluent is suitable for re-use for garden purposes by way of one of the forms of irrigation as described in AS/NZS 1517:2000

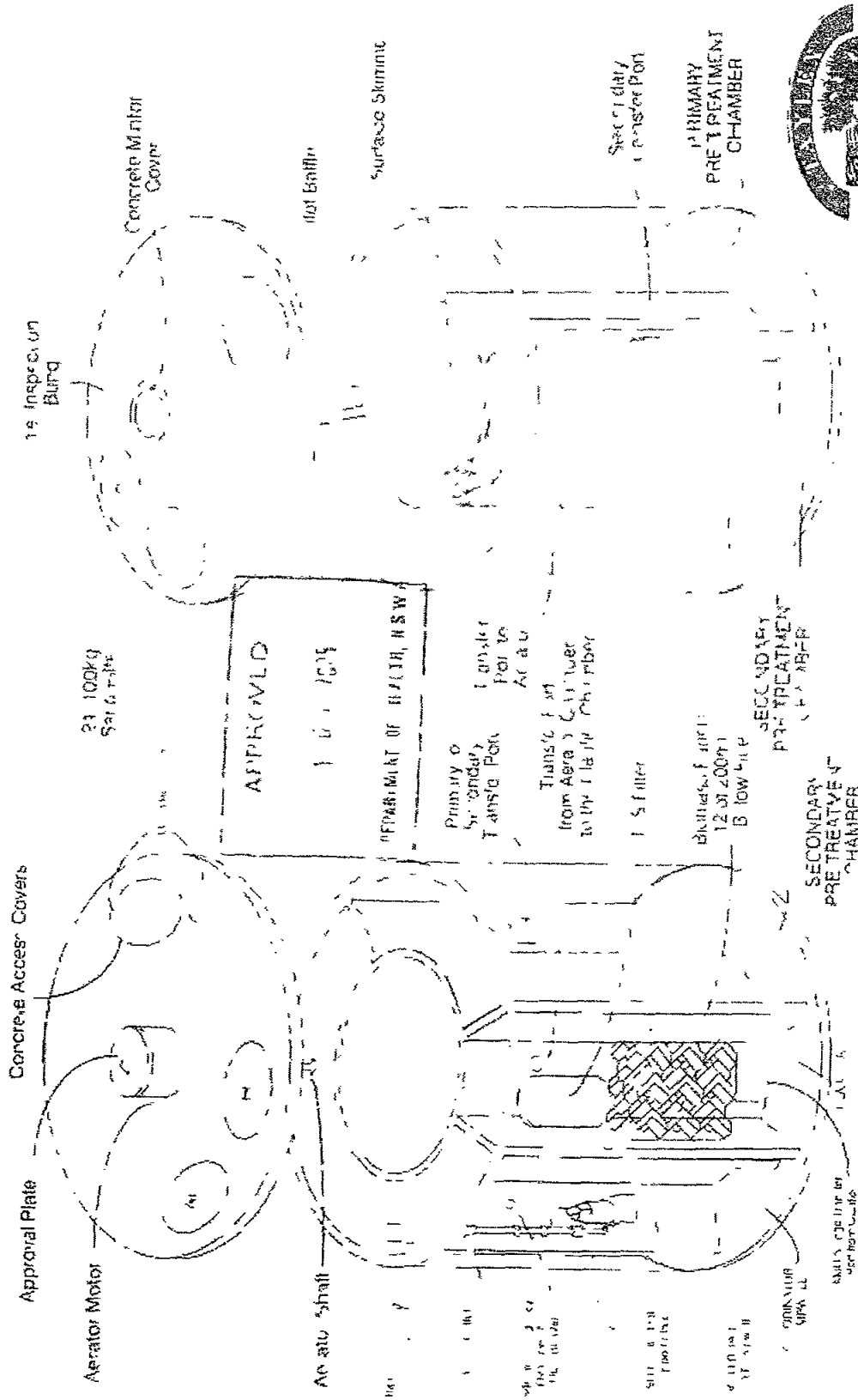
- above ground spray irrigation, or
- surface drip irrigation covered by mulch, or
- subsurface irrigation installed at around 100 mm depth

Each of the three forms of irrigation is subject to the approval of the

TAYLEX COMPACT TANK

SPECIFICATIONS - RATED AT 2000L per 24 hours

10 Person



This Unit is Designed to comply with all Standards AS 1546.1 and AS 1546.2

© V. 2001. All rights reserved.

7 02 Constructional Requirements

In this instance construction to that of Level 3 under AS3959-1999 is determined to be a minimum for the Development and the inclusion of measures deemed suitable for properties within a flame zone I recommend the following measures be considered to provide adequate constructional measures for the new dwelling

AS3959	REQUIREMENT
3 3 FLOORING SYSTEMS	A) A concrete slab on the ground or B) A suspended timber floor, framed with metal or timber, where the underside of any one bearer is not greater than 600 mm from finished ground level the sub floor space shall be fully enclosed with either a masonry wall or by the use of non combustible sheet material or C) That a suspended timber floor, framed with metal or timber, where the underside of any one bearer is greater than 600 mm from finished ground level shall be sheeted underneath with non combustible material or the subfloor space be fully enclosed with either a masonry wall or by the use of non combustible sheet material
3 4 SUPPORTING POSTS, COLUMNS, STUMPS, PIERS and POLES	That supporting posts be either non-combustible material or fire retardant treated timber fully shrouded with 6 mm f/c sheeting in such a way that there remain no exposed timber and mounted on galvanised metal shoes with a clearance of not less than 75 mm above the adjacent finished ground level
3 5 EXTERNAL WALLS	That all external walls, other than the brick veneer, shall be constructed of non-combustible materials such as A/C sheet or plank, Blue Board mini-orb or other steel cladding
3 6 WINDOWS	That all windows facing the north and west shall be of toughened glass and protected by non-combustible shutters
	All roof lights shall be of wired toughened glass and protected by non-combustible shutters
	That all other windows shall be glazed with toughened glass and be metal framed
	That all windows shall be externally screened with steel or bronze metal mesh having a maximum aperture size of 1 8mm (Aluminium shall not be used) Where leadlight windows are used, shutters constructed of non-combustible materials shall protect them or be of toughened glass
3 7 EXTERNAL DOORS	That all external doors shall be fitted with weather strips or draft excluders (aluminum sliding doors are excluded)
	All external doors shall be screened with metal mesh (steel or bronze) at 1 8mm aperture size (Aluminium shall not be used)
DOORS (NORTH WEST)	External doors facing the north and west shall have a non combustible covering on the exterior surface OR doors shall be protected by shutters of non combustible materials
ALL OTHER EXTERNAL DOORS	External timber doors shall be fire retardant treated timber or shall have a non combustible covering on the exterior surface OR doors shall be protected by shutters of non combustible materials OR doors shall be solid core having a thickness not less than 35 mm

AS3959	REQUIREMENT
3 8 VENTS AND WEEPHOLES	That plastic external vents shall not be used
	That metal mesh screens (spark guards) shall be provided to all vents and weep holes The aperture size shall be not more than 1 8mm (Aluminium shall not be used)
3 9 ROOFS	That the whole of the roofs shall be of non-combustible material, eg colour bond style metal sheeting or cement tiles or masonry shingles
	That the whole of the roof system shall be sarked Sarking shall have a flammability index of not more than 5
	Where corrugated roof is used all gaps under the corrugations or ribs where it meets the fascia or wall and along the ridge line shall be sealed with sarking having a flammability index of not more than 5 or with the use of steel or bronze mesh
	All penetrations of the roof space for the installation of roof lights and associated shafts shall be sealed with a non-combustible sleeve or lining All roof light glazing shall be of wired glass
	No fibre reinforced cement or aluminium sheet shall be used
3 10 EAVES	That all eaves shall be fully enclosed and the fascia or gaps between the rafters shall be sealed Any joining strips shall be of non-combustible material
3 11 FACIAS	That all fascias shall be of non-combustible construction No fibre reinforced cement or aluminium sheet shall be used
3 12 GUTTERS & DOWNPIPES	Where gutters are installed they shall be provided with materials designed to prevent the accumulation of leaf litter These gutter protector materials shall have a flammability index of <5 ('Guttergard' leaf guard or similar)
3 13 VERANDAS AND DECKS	That all material used for the construction of deck floors shall be tiled 16mm compressed A/C sheet or other non-combustible materials Balustrades and handrails shall be of metal or non combustible material
	Any supports for the decking shall be treated as set out in Clause 3 4
3 14 SERVICE PIPES (WATER AND GAS)	That all exposed external water and gas pipes shall be of metal Pipes of other materials shall be buried to a depth of at least 300mm below the finished ground level
Addition protective measures not covered by AS3959	That all windows facing the north and west shall be of toughened glass and protected by non-combustible shutters
	That there be no exposed timber on the proposed dwelling
	External doors facing the north and west shall have a non combustible covering on the exterior surface OR doors shall be protected by shutters of non combustible materials

8 0 CONCLUSION

Given that the property is deemed bushfire prone under Pittwater Councils Bush Fire Prone Land Map any infill development would need to meet the requirements or the intent of Planning for Bushfire Protection – 2006 and of the constructional requirements of AS3959 – 1999. The determination of any bushfire hazard must be made on a site-specific basis that includes an assessment of the local bushland area and its possible impact to the subject property.

The subject property is a residential allotment within an area of similar properties. The hazard was identified as being Woodland to the west and Tall Heath to the remaining three aspects. The vegetation posing a threat to the proposed development is located west within the Council Reserve and vegetation within the subject property and neighbouring allotments.

The existing APZ was determined onsite and verified from plans provided. The distance available was to a total of 64 metres to the south, 19 metres to the east, 10 metres to the west and 2 metres to the north. The APZ consists of maintained land within the subject property and neighbouring allotments, residential dwellings, swimming pool and Ingleside Road.

The Bushfire Attack Category was determined to be 'Flame Zone' therefore construction to Level 3 under AS3959 – 1999 is required and that we recommend that no exposed timbers and special glazing considerations for the highest hazard impact boundaries.

A dedicated 5,000L fire fighting water supply will be provided within the subject property and we also advocate that the owners maintain their own pumpset and hose lines for first attack fire fighting purposes. Water supply and access will be considered satisfactory.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development and also satisfy both the Rural Fire Service's concerns and those of Council in this area.

We are therefore in support of the development application.

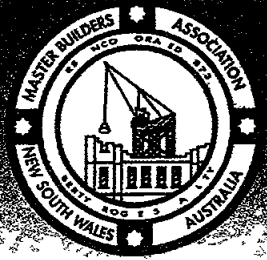
For further enquiries or clarifications please contact Jason Coakley at this office.

Prepared by
Building Code & Bushfire Hazard Solutions P/L



David McMonnies M I Fire E, M Cons Mgt
G D Design in Bushfire Prone Areas
Fire Protection Association of Australia BPAD – A Certified Practitioner
Certification number – BPD – PA-02354
C\70288 73 Ingleside Road, Ingleside BFH Rpt 01

HOUSING SPECIFICATION NEW SOUTH WALES



**Master Builder's Association Specification of Standard of
Construction and Building Requirements to be used in Housing Projects.
This specification is compatible with the MBA BC4 Agreement
and Conditions of Building Contract.**

The Building is a **NEW RESIDENCE**
 to be erected at Lot No **73**
 Street **INGWESIDE ROAD**
 City / Town / Suburb **INGWESIDE**
 Municipality / Shire **PITTWATER**
 Reference to title **LOT 43 DP 114318**
 FOR **MR CUENN AND MRS CONNIE JOHNSON** Proprietor
 OF **73 OCEANA ST NARRAWEENA** Address
 BY **OWNER BUILDER - CUENN JOHNSON** Builder
 OF **73 OCEANA ST. NARRAWEENA** Address
OWNER BUILDER PERMIT NO
BUILDER'S LICENCE NO 356677P Expiry Date **3 / 7 / 08**
 Builder's A B N **N.A.**

This is the Specification referred to in our Contract

dated the . . . day of . . . 20 . . .

SIGNED
 OWNER
 OWNER
 WITNESS
 BUILDER
 WITNESS



THIS SPECIFICATION IS BASED ON ACCEPTABLE STANDARDS OF CONSTRUCTION

© COPYRIGHT WARNING

Newcastle Master Builders Association 2004 ABN 70 834 409 036 This publication is protected by copyright. No part of it may in any form or by any means (photocopy electronic recording or otherwise) be reproduced stored in a retrieval system or transmitted without written permission There are substantial penalties for breach of the Copyright Act

HOUSING SPECIFICATION

New South Wales

INDEX

	Page
Introduction to Specifications.....	1
A Preliminaries.....	3, 4
B Site Classification.....	4
C Excavator.....	5
D Concretor.....	5, 6
E Bricklayer.....	6, 7, 8
F Carpenter.....	8, 9, 10
G Joiner.....	10, 11
H Plumber.....	11
I Drainer.....	11, 12
J Roofing.....	12
K Insulation.....	12
L Electrician.....	12
M Tilelayer.....	13
N Ceiling and Wall Fixer.....	13
O Painter.....	13, 14
P Glazier.....	14
Q Columns.....	14
R Steel Work.....	14
Addenda - P.C. Allowances.....	15, 16
Addenda - Schedule of Specifications.....	17, 20
House Energy Rating.....	21

PLEASE NOTE

Additional issues to be considered during the application process

- Site Waste Management and Minimisation Plan
- The Energy Smart Home Policy
- Private Certification of Inspectors
- Master Builders Quality System for Domestic Builders

*Use of this specification does not automatically imply that the builder is a member of the Master Builder's Association
Ask your builder if he is a MBA member*

HOUSING SPECIFICATION

New South Wales

A. PRELIMINARIES

- General** **A1** It is hereby agreed that all clauses of the New South Wales Acceptable Standards of Domestic Construction as issued by the lending authority shall be indicated in, and form part of, the general specification relating to the proposed building and where there is any difficulty or variation between the conditions contained in either document, the N S W Acceptable Standards of Domestic Construction will prevail at all times
- Interpretations** **A2** **Approved** - means approved by the Proprietor and where there is a lending body, also by that lending body
Proprietor/s - means the owner's or other party or parties entering into Agreement with the Builder
Provide - means the supply and complete building in of materials, fittings or other items indicated.
Plans on the Job the Builder will maintain on the job a legible copy of the plans and specifications bearing the approval of the Authority concerned
Dimensions - figure dimensions take preference to scale
- Site Sign** **A3** The Owner shall display in a prominent position a sign showing the Owners name and the Lot Number, before building commences The builder upon commencement of the works shall display a site sign showing the name of licensee, the words 'Licensed (or Licd) Builder' and the number of the full licence
- Levels** **A4** The Builder is to visit the site, note levels, and allow any minor variations before the contract is signed, as no allowance will be made once the work is commenced, except when provisional allowances have been made
- Surveys** **A5** The land shall be block and peg surveyed before work commences The cost of this survey shall be included in the price unless specified otherwise and any further surveys required will be met by the allowance shown in the PC Schedule
- Insurance** **A6** The Builder is to insure as required against fire, storm and tempest in joint names of the Owner, Builder and Lending Body Builder is to insure as required under Workers Compensation and Employers Liability Acts, and Home Warranty Insurance
- Notices and Fees** **A7** The Builder shall obtain permits, pay fees and comply with all regulations of Local Government and the Principal Certifier
- Variations** **A8** Variations to drawings, specifications or services may not be made unless by agreement or otherwise in accordance with the building contract, and must be authorised in writing by the owner and agreed to by the builder Special conditions or services required by Local Government or other authorities that vary the plans and specifications shall also be treated as extra work
- Items Supplied By Owner** **A9** For all items stated in the Specification to be supplied by the Owner or where during construction of the dwelling it is agreed between the Owner and the Builder that the Owner shall supply any particular item, it is the responsibility of the Owner to arrange for delivery, payment, protection against damage and theft of such item.
- Materials** **A10** Materials are generally to be sound and free of defects that might effect strength, durability and or external appearance.
- Workmanship** **A11** The work is to be carried out in a tradesmanlike manner, and in compliance with the Building Code of Australia.
- Access by Owner** **A12** The Owner or his/her representative will be allowed access to the building during normal working hours of the Builder or as otherwise agreed.
- On Completion** **A13** The Builder upon completion will remove all surplus materials and construction debris from the site The floors and windows will be cleaned sashes and doors eased and locks oiled, gutters and drains cleared and all fittings tested.
- Possession** **A14** The Owner shall not occupy the completed building until the Builder has received a signed release from the Owner and settlement of the final account, then the Builder will provide the Owner with all keys properly labelled

HOUSING SPECIFICATION

New South Wales

A. PRELIMINARIES (continued)

- Defects Liability Period** **A15** The Builder shall notify the Owner when the works are completed and ready for occupation. The owner shall within seven days notify the Builder in writing of any items he/she considers require attention. These items shall be rectified before occupation of the Building. Other defects or faults which may appear shall be notified to the Builder in writing within a thirteen week period from the date completed. The Builder shall not be responsible for any normal settlement shrinkage.
- Site Preparation** **A16** The Owner, unless otherwise agreed, shall clear the building site, grub all stumps, roots etc to a minimum distance of three metres outside the building lines (or to the boundary of the allotment) and remove spoil and provide an all weather access for the Builders' vehicles and deliveries. Should the Builder be required to attend to these items then the cost is to be a provisional sum allowed under the contract.
- Amenities** **A17** The Builder shall comply with all Government requirements in this regard.
- Water** **A18** Where water is not available at the commencement of the works, the Owner, unless otherwise agreed, shall arrange for sufficient supply for building purposes.
- Electricity** **A19** Power is to be made available by the owner for building purposes. In the event that power is not available, the provision of same by the builder shall be an extra to the contract. In the event of the supply authority requiring any special installation work necessary to provide power to the building, this will be an extra to the contract.
- Rock Excavation** **A20** Should rock, other than ripable rock, be encountered during excavation, the cost of removal and disposal will be an extra, pursuant to the provisions of the contract. The Owner is to be notified when rock is encountered.
- WARNING**
- The parties must read Rock Excavation subject to reference clause 13 of BC4 Contract which is not altered by the above clause.
- New Product Techniques** **A21** Where products or techniques not mentioned in this specification are shown on plan they may be used if fixed, or used, in strict accordance with manufacturers instructions, and only if approved by relevant authorities.
- A22** When codes are referred to herein, they shall be the current editions of each code.

B. SITE CLASSIFICATIONS

- B1** Site classifications are the basis for determination of some design requirements, eg Design for Wind and earthquake resistance, slab / footing design
- B2** The design wind classification has been determined at .. m/s
- B3** Design for earthquake resistance is to be determined by a Practising Consulting Structural Engineer if the building site has a soil profile with more than 5m of soft clay, loose sand, silt or uncontrolled fill or if the structure is non-ductile
- B4** For slab / footing design, in accordance with AS2870, the site has been classified as Class by

REFER TO JACK HODGSON CONSULTANTS PTY. LTD. - ENGINEERS,
FOR ALL STRUCTURAL DETAILS

C. EXCAVATOR

- Site Excavation** **C1** Excavate the site according to levels shown on the plans (Refer PC schedule and clause A20)
- Trenches** **C2** Excavate trenches to suit footing sizes as designated on design reference drawing. The Builder is to provide tail out drainage trenching to allow trenches to drain in the event of rain.

HOUSING SPECIFICATION

New South Wales

D. CONCRETOR

Generally	D1	Any concrete mixed on site shall be a mix design approved by a practising Structural Engineer. Concrete supplied ready mixed is to be of 20 mPA mix with a nominal 20mm aggregate. Slump may be selected to suit construction conditions.
Structural Engineer	D2	All concrete and reinforcement shall be placed in accordance with Engineer's Details.
Concrete Footings and Roof Slabs	D3	Reinforced Concrete Footings are to be constructed in accordance with details prepared by a Practising Structural Engineer or in accordance with the requirements of AS2870 The Residential Footing Code.
Footing Design and Roof Slabs	D3.1	Design of Footing Systems - Footing system shall be selected to suit the site classification and in accordance with the requirements of AS2870, or otherwise in accordance with AS3600.
Rock Outcrops	D3.2	Partial Rock Foundation or rock outcrops. Where part of the footings is on rock and part is on soil, the design shall be referred to a Practising Consulting Structural Engineer.
	D3.3	Rock Outcrop Concrete cover on reinforcing steel shall be 40mm to unprotected ground or to an external surface, 30mm to a membrane in contact with the ground and 20mm to a surface that will adjoin the inside of the building.
Trench Mesh		Where splices occur in trench mesh, or individual bars, the lap length is to be at least 500mm. Where overlaps occur in fabric style reinforcement, the lap length shall be a full panel of fabric. Where the panel size differs between the sheets being lapped, the lap length is to be that of the wider panel + 25mm.
Strip Footings		Strip footings are to be set centrally under the walls where practicable. Service penetrations are permitted through the middle third of the footing.
Alterations to Footings		Any additional work required on the footings other than as stated in Specifications or Drawings as may be directed by the Local Council or Lending Authority will be chargeable to the Owner where at the direction of the Local Council, Lending Authority or Structural Engineer it becomes apparent that an alternative footing is required due to the nature of soil or terrain. Such alternative footing shall be designed by a Consulting Structural Engineer.
Pier & Beam Footings	D4	Piers shall be of concrete in solid column form or as otherwise designed and nominated by the Structural Engineer. Piers must in all instances be taken to bottoms approved by the supervising Structural Engineer. Beams must be reinforced concrete and a level bearing on piers. Architect's or Structural Engineer's design specified detail indicating dimensions of beams, piers and reinforcement and pier centres may be required by the Lending Authority.
Solid Rock Foundations	D5	As specified under D 3.2
Detached Concrete	D6	Concrete floors if shown on a plan to a detached laundry, detached WC or EC, garage or carport is shown drawn on levelled solid ground, shall be a minimum of 100mm thickness (Refer D7 for detail).
Suspended Concrete	D7	All concrete suspended slabs to separate areas within a building shall be suspended, solid fill forming is NOT permitted other than for garages, and only if adequate provision for termite protection has been designed and installed. Temporary formwork must be removed. Thickness and reinforcement of slabs shall be specified by a Practising Structural Engineer or as specified on the drawings.
Screeding	D8	Concrete floors where indicated on plan are to be top screeded with good fall to outlet, or level as required.
Paving	D9	The Builder is to provide concrete paving as shown on plan, to be of concrete, as previously specified and surface finished in one operation. All concrete thickness, reinforcement and jointing configuration shall be as specified on the drawings or calculated by a Practising Structural Engineer.

HOUSING SPECIFICATION

New South Wales

D. CONCRETOR (continued)

Slab-on-Ground Concrete Floors	D10	In any event to comply with Cement & Concrete Association's Code, or Engineer's detail
Termite Management	D11	<p>For slab on ground construction the risk of concealed access by termites to the building is minimised by the provision of physical and/or chemical barriers installed in accordance with AS3660 1</p> <p>This work is to be carried out by contractor(s) who are competent, experienced, (and where required) licensed in the use of the product(s) concerned Contractor(s) are to provide certification of the work in accordance with the requirements of AS3660 (eg Meter box) indicating -</p> <ul style="list-style-type: none"> • the method of treatment • the date of installation of the system • where a chemical barrier is used, its life expectancy as listed on the National Registration Label • the installer's or manufacturer's recommendations for the scope and frequency of future inspections for termite activity

E. BRICKLAYER

Refer to Australian Standard AS3700 for specification details of bricklaying

Workmanship	E1	Set out masonry as shown on drawings, build to gauge to suit bricks used, maintain bond and grout all joints in solid mortar Bricks may be wetted before laying, where required Footing courses to be grouted solid with cement mortar All brickwork to be properly bonded, laid in full bed of mortar and all perpendis filled, except where required for weep holes (see E18) All piers to be built solid and each course grouted as the work proceeds Carry all work true and plumb to even gauge and in level courses to the full height and thickness required.
Clay Masonry Bricks	E2	Bricks are to be as selected (refer Addenda) All bricks are to be selected as per AS3700-2001 12 2 2 2
Concrete Masonry Units	E3	<p>These units may be used for building purposes, feature walls or screen walls as shown on drawings, and are to be manufactured in strict accordance with AS/NZS4455 and constructed in accordance with AS3700 for Concrete Block for Masonry Construction or Concrete Bricks, and are erected in accordance with the manufacturer's instructions Concrete bricks or masonry units shall not be wetted in any manner prior to laying and at cessation of each laying period the top course shall be covered to prevent moisture entering the bricks or units. They shall be protected from the weather until built into position by stacking free from contact with the ground and covered with some suitable material arranged to permit air circulation through the stack.</p> <p>Block work construction of concrete masonry units shall comply with AS 3700</p>
Sand	E4	To comply and in accordance with AS3700-2001 12.2.3.1 (Cement and building lime), 12.2.3.2 (Sand), 12.2.3.3 (Aggregate), 12.2.3.4 (Water) and 12.2.3.5 (Additives)
Cement Mortar (Excluding Concrete Masonry)	E5	Specification as in AS3700-2001 12.2.4 including table 12.1 and 12.2
Bonds & Joints	E6	Brick to be laid in stretcher bond unless otherwise specified Where stack bond is used, brickwork is to be reinforced with an approved material, every fourth course Joints in faced work to be raked, struck or ironed unless otherwise directed.
Foundation Walls	E7	Refer to AS3700-2001 12.6.5 including table 12.14
Brick Building	E8	External cavity brick walls shall be built with two leaves of brickwork having a clear cavity of not less than 50 mm Precast concrete masonry units may be used for external walls in clear cavity construction and for internal walls, all are to be built in strict accordance with the manufacturer's instructions and to comply with the requirements of AS3700-2001, 12.3 Single block external wall construction may be submitted for consideration by the Lending Authority which may require the external faces of the wall to be finished with an approved durable waterproof material

HOUSING SPECIFICATION

New South Wales

E. BRICKLAYER

- | | | |
|-------------------------------|------------|--|
| Brick Veneer Buildings | E9 | External walls shall have one leaf of brickwork providing a clear cavity of not less than 25 mm from the timber/metal supporting frame. In single storey timber frame construction, the brick veneer shall be given a clearance below roof framing and/or eaves linings and below window and door sills as indicated below in accordance with AS3700 2001 12 3. In two-storey constructions where hardwood timber is used in each floor framing the clear space shall be 20 mm on the first floor. For slab-on-ground construction it will not be necessary to provide the above clearances in single-storey buildings but in two-storey construction a clearance space of 10 mm shall be provided on the first floor. All load bearing framed walls and jamb studs to openings over 1800 mm wide and posts carrying point loads shall be adequately supported on piers where framed floor construction is used. |
| Wall Ties | E10 | Wall ties for brick and brick veneer buildings shall be corrosion resistant and suitable for the environmental conditions of the building location. Ties shall be spaced at a maximum of 600 mm apart in both directions and at 300 mm around openings and edges of brick work in accordance with AS3700-2001 12 2 7 1 and have a duty classification as required by AS2699 1. Wall ties, cavities and vermin-proofing shall be free from mortar droppings. Brick veneer buildings shall have wall ties set staggered, sloping downwards towards the outside and secured to wall studs. |
| Timber Frame Buildings | E11 | Curtain or fender walls shall be one leaf thick and where required engaged piers as previously described shall be provided. |
| Veneered Walls | E12 | All external veneer walls to be built in brickwork using stretcher bond and composite mortar from dampcourse upwards. Tie veneer to timber framing with approved wall ties (see E10). Clean cavities on completion and leave weep holes at dampcourse level. |
| Lintels | E13 | All lintels to comply and in accordance with AS3700-2100 12 4.

<i>NOTE Spans over 3,000mm shall be in accordance with Architect's or Engineer's detail. Where roof truss construction is used the size of angles for spans over 1,500 mm shall be in accordance with Architect's or Engineer's detail. Other types of approved lintels may be used.</i> |
| Dampcourse | E14 | Dampcourse to comply and in accordance with AS3700-210012 7 2 4.
On all brickwork, at level not higher than bottom of floor bearers, provide a continuous run of approved dampcourse material to a full width of wall thickness, and to engaged piers and place under all ant capping. Dampcourse material is to be run in long lengths, lapping 150 mm at joints and full width at all intersections. To walls surrounding concrete and/or solid floors an additional run of dampcourse is to be laid, one full course above floor level and stepped down to meet lower dampcourse where other walls abut walls of bathroom, shower recess and laundry. |
| Termite Shields | E15 | Continuous termite shields shall be provided at level of underside of bearers, over all foundation walls and piers, sleeper piers and fender walls etc, in accordance with the requirements of AS3660. To be 0.5 mm galvanised steel sheet, or other approved material, projected at least 40 mm from the vertical faces of the pier or wall and turned down at angles of 1:1 slope. The shielding shall extend through to the external face of brick walls so that the edge is visible in the mortar joint. End joints of sheet metal shields shall be lock-seam jointed, welded and soldered, riveted and soldered, or butt-jointed and welded for the full length of the joint. |
| Sills | E16 | Unless otherwise noted on plans, sills shall be brick on edge type with adequate fall. |
| Flashing | E17 | Build in under all window sills flashing of approved material, to be turned up 25 mm at back of sill and 50 mm at each end of same. Flashing to be bent down across cavity and built 25 mm into outer leaf of external wall. Approved flashing is to be built in over all exposed window and external door openings. Where openings are under eaves projecting not less than 300 mm omission of this flashing may be approved. Provide flashing over meter box. |



HOUSING SPECIFICATION

New South Wales

E. BRICKLAYER

- Weep Holes** E18 Perpend joints shall be left open in external brick walls spaced at approximately every 600 mm immediately over flashing to all exposed openings and above chimney tray, also to brick retaining walls and fender walls, etc, as required or directed.
- Vermín Proofing** E19 In framed floor brick veneer construction to be a continuous strip of 12 mm mesh galvanised wire netting fixed to bottom plate and carried across the cavity, and built into brickwork. This can be omitted in second storey construction. All wire to be left free of mortar droppings.
- Access & Ventilation** E20 Adequate Access - Access to the entire under-floor area to provide for visual inspection of subfloor areas is to be provided in accordance with the requirements of AS3660 1-1995. A minimum clearance of 400 mm is required between finished ground level and any structural components or other obstructions. On sloping sites the minimum clearance may be reduced to 150 mm if the area is not more than 2 m from a point with conforming clearance. Where access is not possible, suitable physical or chemical termite barriers are to be provided. Below Floor - The space between the ground and the underside of the floor structure shall be thoroughly cleaned, ventilated and cross ventilated by evenly distributed openings in external and internal walls. The openings are to have an unobstructed area of not less than 73 mm x 100 mm or equivalent per 1000 mm run of wall. The full area is to be left open under internal doorways. Similarly, ventilation shall be provided under verandahs and/or suspended concrete floor slabs and no section of the under floor area shall be constructed in such a manner that it will hold pockets of still air.
- Brick Steps** E21 Alternative to concrete steps as specified under "Concretor" and "Precast Concrete Steps" brick steps may be built to match foundation walls. To be built solid or, where side walls are provided, on well-consolidated filling. Treads ('going') are to be between 240 mm and 355 mm. Risers between 115 mm and 190 mm. The 'Quantity' (twice the rise plus the going) is to be between 550 mm and 700 mm.
- Completion** E22 Clean all exposed brickwork using approved method. Wash down with clean water and leave free from cement and mortar stains.
- Foundation Door** E23 Provide access door if required, built into brickwork below bearer height. Door to be approximately 600 mm wide and fixed with a suitable padbolt.

F. CARPENTER

- Timber Generally** F1 Timber shall comply with the provisions of AS 1720 2 and/or AS 1684 and referenced standards, and shall be of the class specified. It should be reasonably straight grained and free from those defects which might affect its durability and/or strength. Sizes of timber for constructional purposes to be the nominal sizes mentioned with allowable tolerances as provided AS 1684. Scantling timbers to be in long lengths, accurately cut and fitted, well spiked and securely fixed.
- Bracing and tie-down** The amount of bracing and tie-down fixings required to suit the building design and the wind environment of the site are to be calculated in accordance with AS1684 or NSW Timber Framing Manual. Details of the bracing and tie-down design are to be shown on plan. If the design wind speed or the nature of the building are outside the scope of AS1684 or NSW Timber Framing Manual then the frame, including bracing and tie downs, is to be designed by a Structural Engineer.
- Floor Framing** F2 ~~All floors not specified to be concrete are to be framed at level shown. Plates and bearers are to be laid true and level. Floor structure sizes and spacing are to be in accordance with AS1684 or as specified by a Practising Structural Engineer.~~

HOUSING SPECIFICATION

New South Wales

F. CARPENTER (continued)

Flooring	F3	<p>Strip Flooring <i>fixed/installed over concrete slab to suppliers recommendations</i></p> <p><input type="checkbox"/> For joists at 450 mm centres 19 mm</p> <p><input type="checkbox"/> For joists at 600 mm centres 25 mm <i>Timber to be selected</i></p> <p>Shall be laid on joists, tightly cramped, with every board nailed at each bearing with nails punched below surface. Boards of nominal width of 75 mm shall be fixed with at least one nail at each joist, and boards exceeding 75 mm nominal width with two nails at each joist.</p> <p>All flooring used in platform construction shall be sealed with a water repellent at time of fixing</p> <p>When flooring is to be used and finished for decorative purposes it shall not be laid until walls and roof are in a waterproof condition</p> <p>Flooring (or timber decking) laid in an exposed position, e.g. verandahs or decks, shall be nailed with galvanised or stainless nails or as otherwise specified in the drawings and finished flush with surface</p> <p><i>Note See Schedule for type of flooring to be used.</i></p> <p>Sheet Flooring. Minimum height of sheet flooring above ground level and under floor ventilation shall be according to manufacturer's instructions.</p> <p><input type="checkbox"/> Structural plywood. Shall be manufactured in accordance with AS2269 and sheets stamped on the face side with manufacturer's name or trademark. Sheets shall be fixed in accordance with the manufacturer's instructions</p>
Wall Framing	F4	Wall frame, sizes and spacing shall be in accordance with AS1684 or as specified by a Practising Engineer
Ceiling Joists	F5	Ceiling, joists shall be in accordance with AS1684 or as specified by a Practising Engineer
Hangers	F6	Hangers shall be in accordance with AS1684 or as specified by a Practising Engineer
Roof	F7	Roof shall be in accordance with AS1684 or as specified by a Practising Engineer Roof Trusses shall be fabricated or supplied in accordance with designs prepared by a practicing Structural Engineer. The truss suppliers shall provide installation details including master plans bracing and tie down details, or copies should be provided to the principal contractor
Manhole	F8	Trim as required between trusses for a manhole, 600mm x 400mm. Line the opening and provide a suitable cover
Verandah Posts	F9	Verandah posts unless otherwise specified are to be 100mm x 100mm or as specified in AS1684 D A R or sawn finish as required checked at top plate and secured to floor structure. Where fixed to concrete the base of verandah posts are to be supported by galvanised metal posts, shoe or stirrups
Gables	F10	Form as shown on drawings. If needed, project plates, purlins, ridges, etc., and provide suitable barge boards with fillet at top scribed up to tiling or capped with fibre cement to allow for verge tiles to be pointed with mortar. Frame gable faces where required, as specified for walls and cover as per details on the plan. Line soffits as for eaves
Eaves	F11	Project top cords at eaves to give soffit measured square and fix a suitable fascia to ends of top cords. Form a level soffit with a 4.5mm fibre cement sheet let into a groove at back of fascia, secured to 50mm x 38mm supporting sprockets, fixed at all joints and spaced immediately at maximum 1,200 mm centres Provide all necessary cover and angle mouldings. Alternatively, line the underside of rafters with 4.5mm fibre cement, cover all joints with selected moulding
Porch Roof	F12	To be constructed where shown on plan and of suitable materials. Porch supports to be securely fixed top and bottom Provide 25mm fascia round ready to receive eaves gutter Roof covering to match main roof unless otherwise indicated on plan. Provide ceiling of fibre cement complete with cover and angle mouldings as required.
Steel Framing	F13	Steel framing shall be designed in accordance with AS3623 and detailed on plan. The frame is to be assembled with fixings as per the design, or otherwise in accordance with the manufacturer's recommendations. Damp proofing is to be provided between framing elements and any concrete or masonry elements that adjoin them, eg. between concrete floor slab and bottom plates

HOUSING SPECIFICATION

New South Wales

F. CARPENTER (continued)

Steel Framing Electrical wiring, water pipes and other services passing through the frame are to be isolated from it by rubber grommets or other approved material. The frame is to be earthed. Any on-site modifications to the frame, as designed (including additional holes for services), require the approval of a Structural Engineer.

G. JOINER

- Generally** **G1** All fixing out timbers to be seasoned and free from those defects which might affect its appearance or durability. All timbers are to be D A R accurately cut and securely fixed. Frames to be properly housed and framed with mouldings and trimmings that have been mitred or scribed. All surfaces to be prepared for painting or staining. External joinery to be inherently durable/or and primed on all faces at place of assembly.
- External Door Frames** **G2** To all door openings provide solid rebated frames. All frames to be packed plumb and true and fixed securely to door opening studs or brickwork.
- Internal Door Frames** **G3** To be solid rebated or out of 25 mm jamb linings with plant on stops.
- Thresholds** **G4** To be terrazzo / select hardwood / tiles or other selected material as specified in Schedule.
- Doors** **G5** Hang front and rear doors with three 85 mm steel butts, and other doors, unless specified elsewhere, with two 85 mm steel butts. Where external doors are sheeted with plywood, waterproof, waterproof plywood only to be used, and painted on bottom before hanging.
 To front entry a 2040 mm ~~x 820 mm~~ ^{DOUBLE} x 40 mm door or disabled entry door as specified, per Schedule.
 Fit lock and glaze as required. To rear entry a 2040 mm ~~x 820 mm~~ ^{GLAZED} x 40 mm door **REFER TO WINDOWS**.
 Furnish with locks and furniture as per schedule.
 Internal doors to be as selected, fitted with latch and suitable furniture with a clearance off the floor to be approx 30 mm unless otherwise specified. Double doors to be as shown on plan and furnish with suitable furniture. Sliding doors to be provided where shown on drawings.
 Provide approved sliding tracks and fix in accordance with the manufacturer's instruction. Tilting or roller type doors to be provided for garage where drawings indicate unless otherwise specified.
- Windows** **G6** Provide windows as shown on drawings (aluminium ~~or timber~~) all to comply with the relevant Standards Australia codes.
- Flashings** **G7** Provide approved flashing under each window frame. The flashing is to be turned up 50 mm at each end and 25 mm at the back of the sill and be bent down across the cavity and built in not less than 25 mm into the veneer wall.
 Provide approved flashing over exposed door and window openings. The flashing is to be not less than 225 mm wide and extend 150 mm beyond each end of the openings bent down across the cavity and built in not less than 25 mm into the veneer wall.
 Provide approved flashing over meter box. The flashing is to be bent down across the cavity and turned down over the angle weather strip.
 All flashings are to be properly dressed at each change of direction and must not be cut at those parts.
- Storm Moulds** **G8** Provide storm mould to external door and windows and other openings as required.
- Architraves** **G9** Provide architraves as selected to all door, window and other openings internally and externally, where necessary.

HOUSING SPECIFICATION

New South Wales

G. JOINER (continued)

Skirtings	G10	Provide skirtings as selected
Kitchen Cupboards	G11	Kitchen cupboards to be as selected or in accordance with details supplied (refer to PC Allowances)
Linen Cupboards	G12	Frame up and fix a linen cupboard in position and to dimensions shown on plan. Fit with shelves and doors. Hang doors with two suitable butt hinges and furnish with approved catches and handles. Alternatively, a sliding door system may be provided.
Wardrobes	G13	If shown, to be constructed as detailed on plan
Bathroom Cabinets	G14	Provide cabinets and / or as per Schedule
Baths	G15	Under exposed edges of bath provide a properly constructed frame or brick-up ready to receive covering as specified elsewhere. Make provision for the fixing of two approved vents or vent to external wall

H. PLUMBER

Guttering	H1	Provide 114 mm x 0 60 mm zincalume guttering or as specified in Addenda to all eaves as shown on plans. Lap at joints 100 mm in direction of flow, seal and set with sufficient fall to downpipes where shown or directed, secure at 1200 mm maximum centres with zincalume brackets to rafters or fascia.
Downpipes	H2	Provide 100 mm x 50 mm x 0 60 mm zincalume downpipes or as specified in Addenda where shown on plans, well entered and sealed at joints, connected at head to gutter and entered at foot to stormwater. Fasten with astragals.
Valleys	H3	Provide 450 mm x 0 60 mm zincalume valleys with edges turned up, with lap and seal joints
Alternatives	H4	Rainwater goods of other profile or material may be used as specified in the plans
Flashing	H5	Flash or pipes, vents, etc. entering through the roof with approved suitable flashing
Cold Water Service	H6	Lay on water from the Supply Authority main to the boundary of the lot ON SITE COLLECTION TANKS in copper tubing and provide a stop cock and hose cock. Extend with copper tube or alternate as approved by the National Plumbing Code AS3500 to house and provide a hose cock at wall of dwelling. Branch off to cistern, bath, shower, wash basin, wash tubs, sink, hot water unit and washing machine (see Schedule). Piping concealed behind wall linings must be as approved in AS 3500 Secure all piping with suitable holdfasts
Hot Water Service	H7	Install 13 mm copper tube or alternate as approved by AS 3500 from Hot Water Service to all plumbing fittings requiring hot water. All water plumbing is to be carried out by a licensed plumber to the requirements and regulations of the Supply Authority
Fittings	H8	Taps and tap sets are to be selected by the owner and a PC. amount is allowed for in the PC. schedule
Gas Service	H9	The whole of the work to be carried out in accordance with the requirements of the Supply Authority. Where L gas is to be installed it shall be in accordance with the requirements of the Australian Liquefied Petroleum Gas Association.

I. DRAINER

Generally	I1	All drainage work has to be carried out by a licensed drainer. Sanitary drains to comply with AS3500 and requirements of the authority concerned
Stormwater	I2	Connect to ends of downpipes 90 mm PVC pipe and drain roof water to street gutter where possible. When drainage to the street is not possible, water should be drained to an inter-allotment drainage easement where available, or otherwise to an absorption trench located 3m clear of buildings and property boundaries, to Council's requirements. REFER TO HYDRAULIC ENGINEERS DESIGN.



HOUSING SPECIFICATION

New South Wales

L. DRAINER (continued)

- Sewerage** L3 Drainage work shall be in accordance with authority requirements.
- Unsewered Areas** L4 All work is to be carried out to the requirements of, and a plan approved by, the Council's Health & Building Surveyors for the Installation of Septic Systems and transpiration areas (see PC Schedule)
- Owner's Note** L5 Unless a junction position is available from the appropriate authority at the time of tendering, the Builder is to allow for 30 metres of sewerage drains and the Owner will be responsible for cost in excess thereof

It will be the Owner's responsibility if extra costs are incurred due to excavation through rock.

REFER TO WASTE WATER TREATMENT DESIGN

J. ROOFING

- ~~Tile Roofing~~ J1 ~~Terra cotta and Concrete roof tiles to be manufactured in accordance with the relevant Australian Standard and to be fixed in accordance with AS 2050 Sarking shall be provided for all roofs where the design wind velocity is greater than 47 m/s Sarking as required depending on roof pitch, length of rafter, or fire hazard or tile type in accordance with manufacturer's recommendations Leave 10 tiles for future use.~~
- Metal Roofing** J2 All metal roofing to be fixed in accordance with manufacturer's instructions
- ~~Corrugated Fibre-Cement Roofing~~ J3 ~~Cover the roof with approved corrugated fibre cement sheets fixed in strict accordance with the manufacturer's instructions as approved and complete with all necessary accessories~~
- Provide all necessary flashings and ensure that the roof is birdproof

K. INSULATION

As specified in the Schedule

L. ELECTRICIAN

As specified in the Schedule

- Generally** L1 The Builder is to arrange for connection of the mains to meter board (refer A19) The installation to house is to be carried out in accordance with the SA3000 Wiring Rules
- Outlets** L2 The installation is to satisfy any test required by the Supply Authority on completion Provide for the proper installation and connection of electricity to electric range, hot water unit, and other appliances (see Addenda) Provide light points and power outlets of number as indicated in Addenda. Approved switch for each light is to be mounted where indicated. Installation of light fittings if required, will be charged as an extra.
- Meter Box** L3 Provide box to enclose meters in accordance with the Requirements of the Authority concerned.
- Alarms** L4 Self-contained smoke alarms are to be installed in suitable locations on or near the ceiling in any storey
- a) containing bedrooms
- (i) Between each area containing bedrooms and the remainder of the building, dwelling or sole occupancy unit. or
- (ii) Where bedrooms are served by a hallway, in that hallway, or
- (iii) In each bedroom and either (i) or (ii) and
- b) not containing bedrooms
- The alarms are to be connected to the consumer mains power and have a stand by power supply

HOUSING SPECIFICATION

New South Wales

M. TILELAYER

As specified in the Schedule

Fixing	M1	Where applied to brick walls fix with mortar in the proportions of 3 parts sand and 1 part cement of 1 with adhesive to cement render To other areas, tiles to be fixed over suitable sheet material with approved adhesive
Floors	M2	Cover floor of bathroom and shower recess and other areas indicated on plan with selected tiles, set to an approved pattern
Walls	M3	Wall tiles to be fixed to areas and heights as indicated in the Schedule
Rates	M4	Owner's Note These are allowed for 150 x 150 mm ceramic wall tiles and mosaic floor tiles only
Shower Recess	M5	Shower recess to be installed in accordance with AS 3740

N. CEILING AND WALL FIXER

Walls	N1	Fix in accordance with manufacturer's instructions Recessed edge gypsum plasterboards to all internal walls, except as required in wet areas, or other type of panelling as indicated in Schedule and plans (<i>gypsum board in wet areas</i>)
Cornices	N2	Fix suitable cornice to the above ceilings neatly mitred and scrimmed and set at all angles (See Schedule)
Angles	N3	All external and internal angles to be neatly set straight and plumb
Ceilings	N4	Fix in accordance with manufacturer's instructions recessed edge gypsum board or other suitable material to all internal ceilings
Wall Sheeting	N5	Fix in accordance with manufacturer's instructions

O. PAINTER

Generally	O1	All paint to be supplied by reputable manufacturer All paint to be applied in accordance with manufacturer's instructions All colours are to be selected by owner from standard colour charts and shall consist of an industry standard number of colours
Preparation	O2	All surfaces shall be properly prepared All external woodwork that is not primed before delivery to the job site to be given a coat of external primer Primed woodwork to be checked and touched up, where necessary
Externally	O3	Woodwork All exposed woodwork to be cleaned, prepared, primed, then given a coat of undercoat and finished with one coat of selected paint Ironwork Gutters, DPs and pipe supports, meter box, vents and service pipes to be cleaned of dirt and greas and given one coat of metallic paint undercoat and given one final coat of selected paint all round Fibre Cement Sheeting To receive one coat of sealer/undercoat.
Internally	O4	Woodwork To be cleaned and prepared, then given a coat of primer, an undercoat and a coat of selected paint as finishing coat. Alternatively, woodwork may be treated with an approved two-coat stain finish Walls & Ceilings Where gypsum boards are used, prepare surfaces, apply two coats of selected plastic paint

HOUSING SPECIFICATION

New South Wales

O. PAINTER (continued)

- Completion** **O5** The Contractor shall remove all his equipment and empty paint tins and leave the job in a clean and neat condition. Fittings to be refixed and paint splashes to be removed from door handles, window fittings, switch plates, etc

P. GLAZIER

- Generally** **P1** All glass throughout is to be of approved manufacture, selected and installed in accordance with AS1288. Glass to be back-puttied sprung into primed or oil rebates and weather puttied. Carefully trim and clean off all surplus putty on completion. Remove broken glass and off-cuts and leave job in clean condition.
Class to be installed using approved sealants and gaskets

Q. COLUMNS

- Q1** Install columns to dimensions indicated in plan and Schedule

R. STEEL WORK

- R1** All fabricated steel work is to be in accordance with the drawings and specifications prepared by a practicing Structural Engineer



ADDENDA

ADDENDA

SCHEDULE OF SPECIFICATIONS

The following Schedule of Specifications shall apply unless replaced by an Addenda itemising same, attached hereto and initialled by both parties.

BRICKS To all elevations
Manufacturer **TO BE CONFIRMED** Style / Name **COMMONS FOR RENDER FINISH**
Colour of Mortar **STANDARD** Type of Joints **FLUSH STRUCK FOR RENDER**
To internal feature walls if indicated on plan **WALLS PAINTED**
Manufacturer Style / Name **DULUX "SANDBANK"**
Colour of Mortar Type of Joints

EXTERNAL CLADDING Provide
Cladding to

ROOFING
Manufacturer **MSAGHTS**
Pattern **CUSTOM ORG**
Colour **"WOODLAND GREY"**

SARKING **COMBINED INSULATION BLANKET UNDER ROOFING**

FASCIA, GUTTERING & DOWNPIPES Manufacturer
Style **QUAD GUTTER - REFER TO DRG H1**
Colour **"WOODLAND GREY" (DOWNPIPES - "SANDBANK")**

CONCRETE FLOOR. **TILED / CARPET / TIMBER STRIP FLOORING**

FRAMING TIMBERS Indicate framing code required

Floor framing **NA**
Wall framing **AS 1684**
Roof framing **AS 1684 AND ENGINEER'S DETAILS**
Flooring type **TO BE SELECTED**

COLUMNS **REFER TO ENGINEER'S DETAILS**

WINDOWS
Front Rear
Manufacturer **TO BE SELECTED**
Window Rating " " "
Colour " " " Style " " "
Colour **BLACK**

FLY SCREENS: **Yes** No
MOULDINGS Type **TO BE SELECTED**

Finish Size
ARCHITRAVES Shape **TO BE SELECTED**

Finish Size
SKIRTINGS Shape **TO BE SELECTED**
Finish Size



129 438
 (ASSET PROTECTION ZONE*) REFER TO BUSHPINE HAZARD ASSESSMENT REPORT (V087 001)
 EXISTING HEATH
 "POOL FOR FIRE FIGHTING ABILITY"
 "APZ"

EXISTING WOODLAND CATEGORY 1 (Maintained)
 FOR SPECIES COMPOSITION
 REFER TO "KEYSTONE ECOLOGICAL"
 REPORT REF PC 07-027 JULY 2007

158 861
 * CONDITION OF APPROVAL B9
 "MAINTAIN NEIGHBOURS"
 "DISTRICT VIEWS"

129 438
 Boundary (129 438)

APZ Boundary
 SURFACE DRAINAGE TO FUTURE ENGINEER'S DETAILS
 "ROOF WATER" UNDER FLOOR WATER STORE AREA No 1
 "ENTIRE OF LOWER GROUND ACCOMMODATION (RL 173 84)"
 "PROPOSED RESIDENCE No 73 (GROUND FLOOR RL 176 50)"
 "PROPOSED GARDEN REFER TO LANDSCAPE PLAN & DETAILS"
 "PROPOSED GARDEN WITH WATER FEATURE (RECYCLED RAINWATER)"
 "TURNING AREA"
 "POROUS SURFACE"
 "EXISTING HEATH (MAINTAINED)"

EXISTING HEATH (RETAINED)

"ON SITE" WASTEWATER SYSTEM REFER TO ENGINEER'S DETAILS ENVIRONMENTAL REPORT (SEPARATE APPLICATION) TO BE MADE

Boundary (158 861)

EXTRA STONE WALL

TERRAZED STEPS & PAVING IN LANDSCAPE

LINE OF FRONT (NEIGHBOUR)

SUPPLY ROAD 175 30

AMENDMENT A METAL FRAME SHED

176 38

176 74

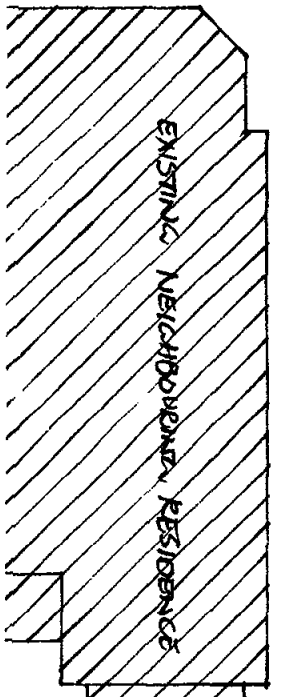
177 31

177 45

DK BUILDING CERTIFIERS PTY LTD
 ABN 95 097 502 700
 CONSTRUCTION CERTIFICATE No. 280 29-CC
 APPROVAL No. 211028
 SIGNED
 Accredited Engineer - Damien O'Shannassy
 Accreditation No. BPC0386

OVERALL SITE PLAN "ANALYSIS"
 Scale 1:500

JOHNSON RESIDENCE
 73 INGLSIDE RD. INGLSIDE
 DRAWN BY HAUC HOLDINGS P/L (PH/FAX 976 8261)

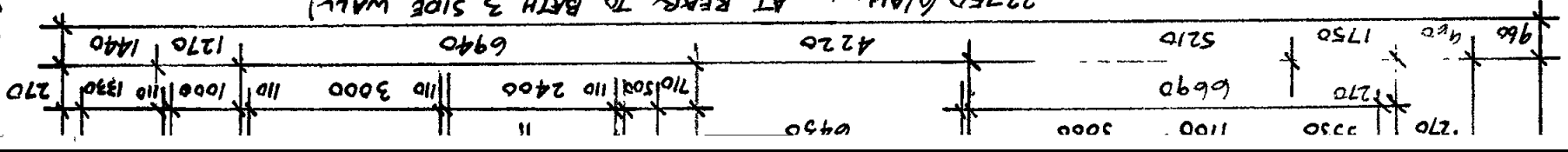


CONSTRUCTION CERTIFICATE
 SITE PLAN (DETAIL), INCL. DRAINAGE
 Scale 1:200 DRG. 01/A SEPT '07

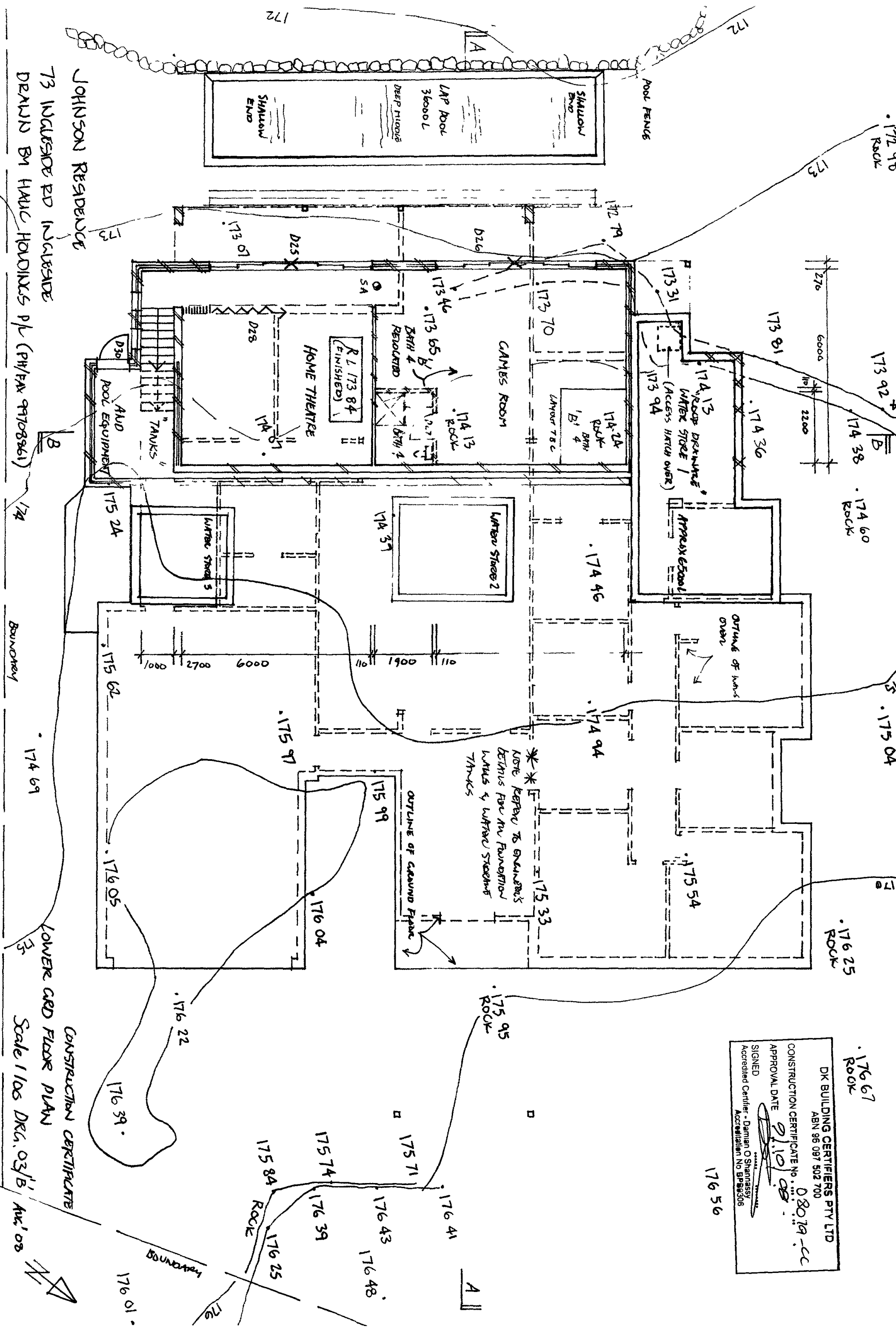




22750 (6/AV AT REAR TO BATH 3 SIDE WALL)



73 INCHES
IN CIRCUMFERENCE



JOHNSON RESIDENCE
 73 INCLUSIVE PD INCLUSIVE
 DRAINAGE BY HAUC HOUDINGS P/L (PH/FAX 94708861)

LOWER GARD FLOOR PLAN
 Scale 1:100 DRG. 03/B
 Aug'08

CONSTRUCTION CERTIFICATE

DK BUILDING CERTIFIERS PTY LTD
 ABN 96 097 502 700
 CONSTRUCTION CERTIFICATE No. 08079-cc
 APPROVAL DATE 21/10/08
 SIGNED [Signature]
 Accredited Certifier - Damien O'Shannassy
 Accreditation No B139306

176 56

176 67
 ROCK

176 25
 ROCK

175 04

174 60
 ROCK

174 38

173 98
 ROCK

6000
 2200
 270

173 81

174 13
 (Access hatch over)

173 94

174 46

174 94

175 33

175 95
 ROCK

176 48

176 43

176 41

175 71

175 74

176 04

176 05

176 22

176 39

175 54

175 97

175 62

175 24

174 36

174 13

173 94

173 81

173 31

172 79

172

173

172

172

172

172

172

172

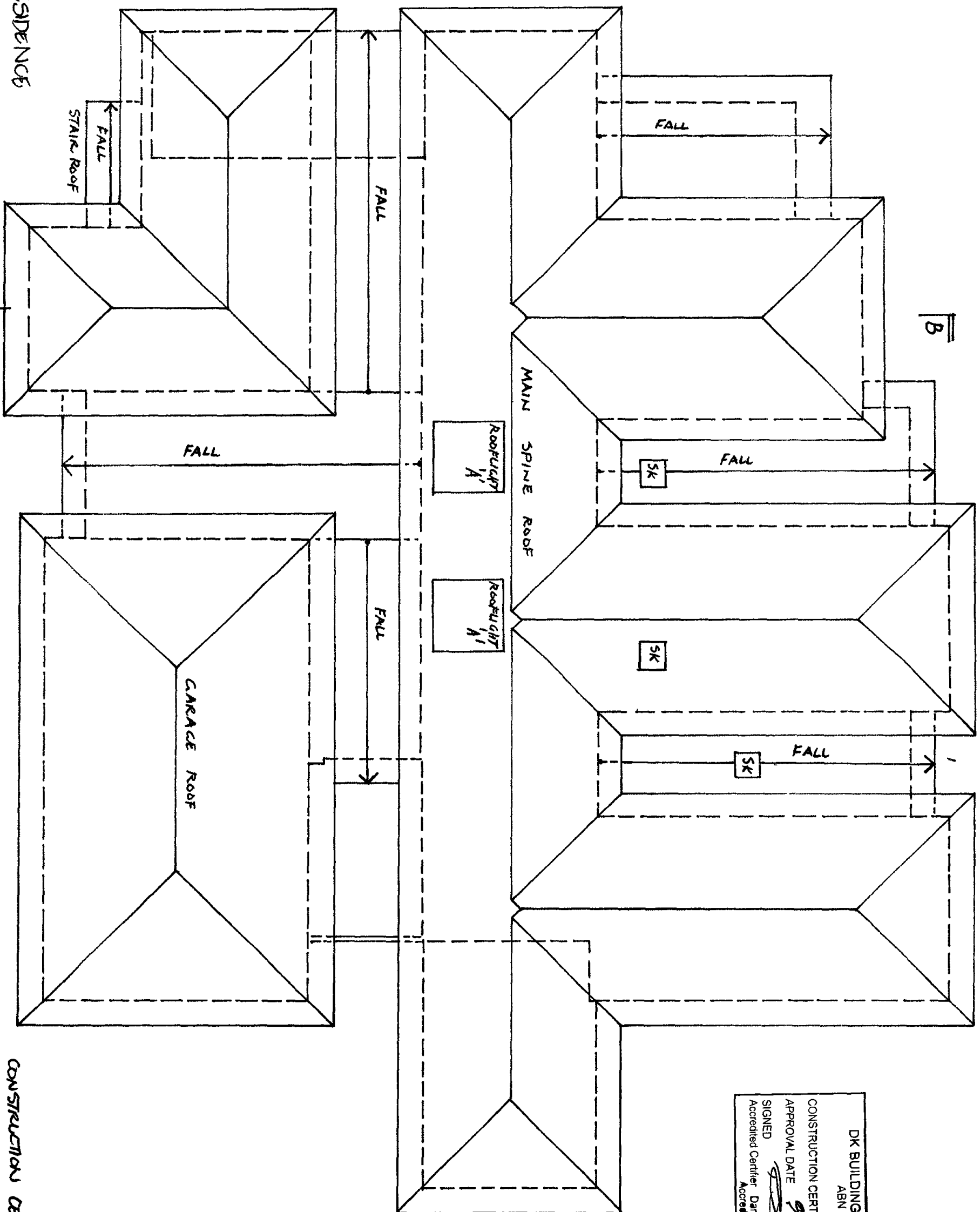
172


172

172

BOUNDARY

AMENDMENT 'A' ROOFLIGHTS
130000 11/14/08




DK BUILDING CERTIFIERS PTY LTD
 ABN 96 097 502 700
 CONSTRUCTION CERTIFICATE No. 08079-CC
 APPROVAL DATE 21/01/08
 SIGNED 
 Accredited Certifier Damian O Shanassy
 Accreditation No BP00396

JOHNSON RESIDENCE
 73 INGLISIDE RD INGLISIDE
 DRAWN BY HALIC HOLDINGS P/L (PH/FAX 99703861)

BOUNDARY

CONSTRUCTION CERTIFICATE
 ROOF PLAN
 Scale 1/100 DRG. 04/1

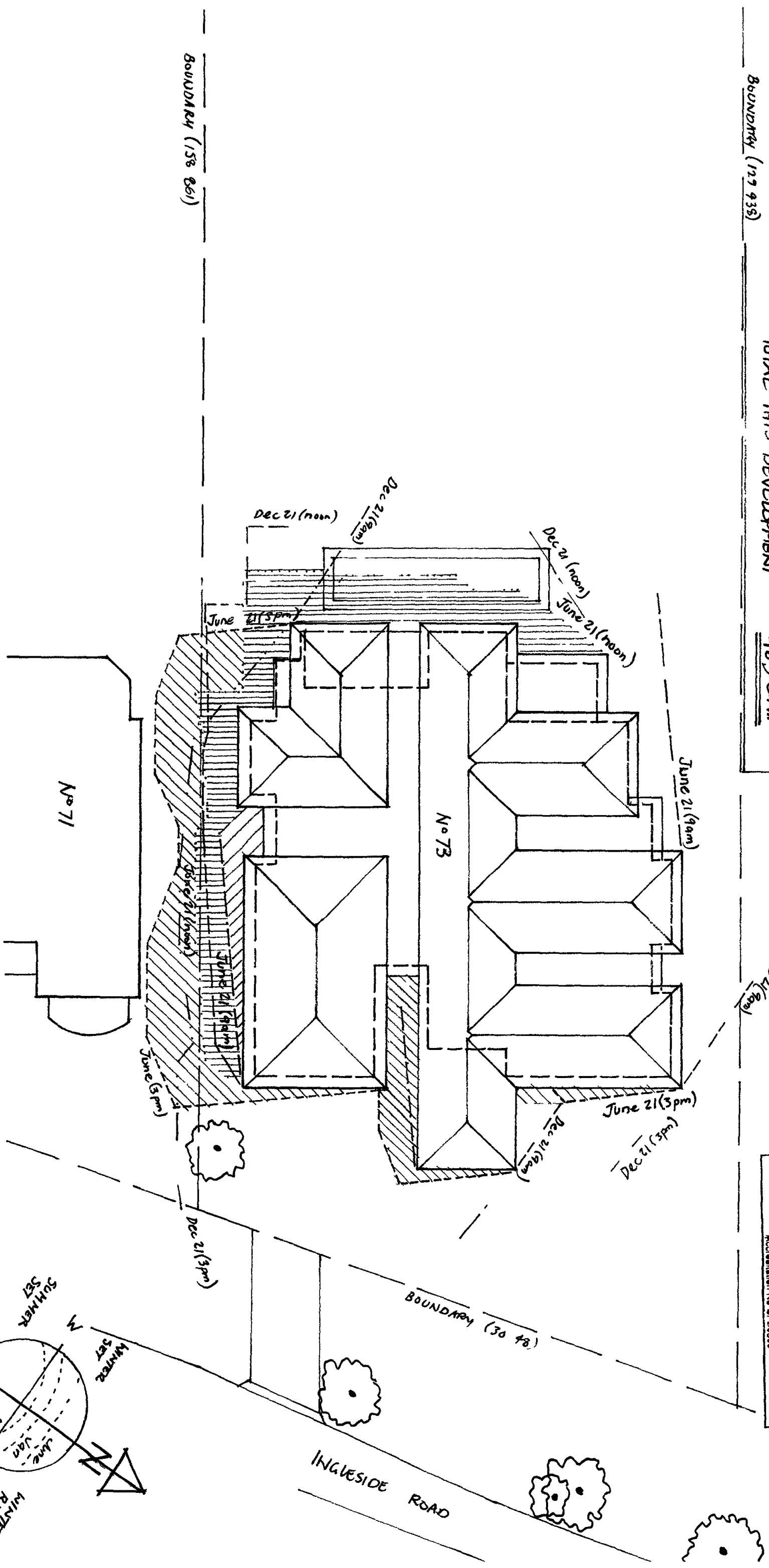
SEPT '07 

BOUNDARY

SITE COVER CALCULATION
 SITE AREA = 4126 m² (0.4ha)
 ACCORDING TO D6 9 SITE COVERAGE
 MAXIMUM SITE COVER = 300 sqm + 4% of 4126sqm = 16564 m²
 TOTAL THIS DEVELOPMENT = 46504 m²

No 75
 VACANT SITE (ADJACENT)

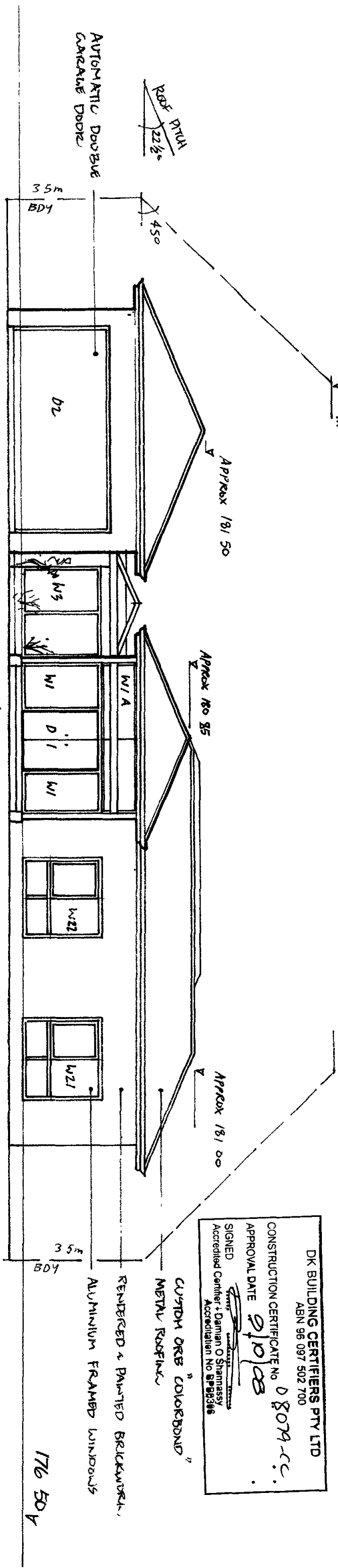
DK BUILDING CERTIFIERS PTY LTD
 ABN 96 087 502 700
 CONSTRUCTION CERTIFICATE No: 08079-CC
 APPROVAL DATE 2/10/07
 SIGNED [Signature]
 Accredited Certifier: Damian O'Shannassy
 Accreditation No: BP030306



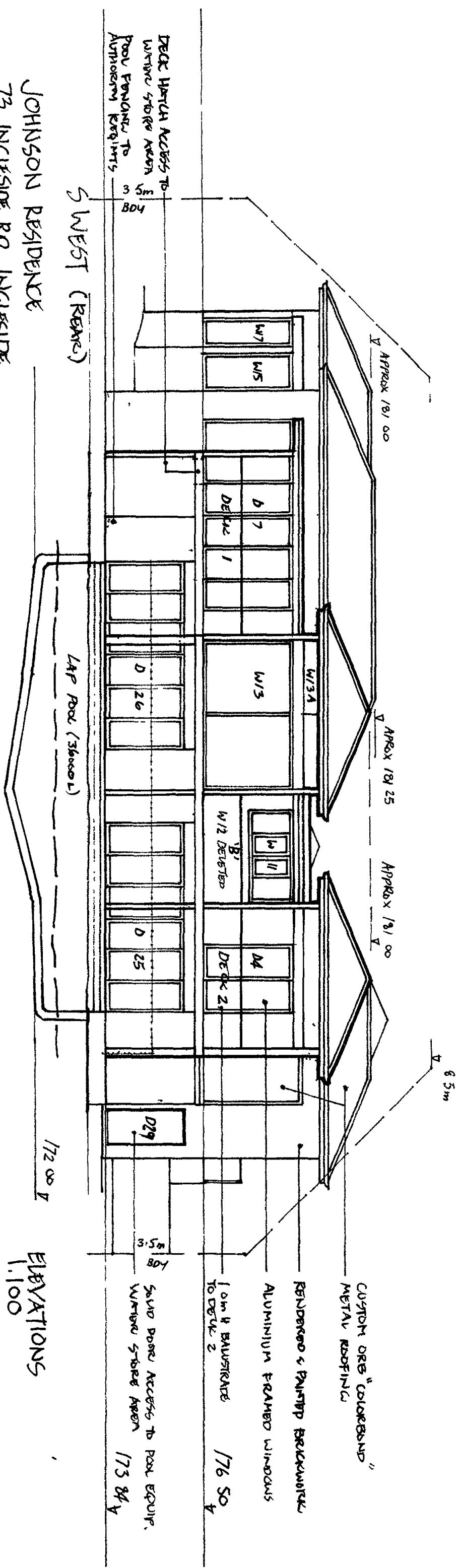
JOHNSON RESIDENCE
 73 INGLESIDE RD INGLESIDE
 DRAWN BY PAUL POWERS P/L (PH/FAX 97708861)

CONSTRUCTION CERTIFICATE
 SHADOW DIAGRAM
 Scale 1:200 DRG. 05 SEPT'07

DK BUILDING CERTIFIERS PTY LTD
 ABN 96 097 502 700
 CONSTRUCTION CERTIFICATE NO. D8079-CC
 APPROVAL DATE 2/10/08
 SIGNED [Signature]
 Accredited Certifier + Damian O'Shannassy
 Accreditation No SP83366



* NOTE. AN EXTERNAL CLAZING IS TO HAVE A MAXIMUM REFLECTIVITY INDEX OF 25% IN ACCORDANCE WITH CONVENTION OF APPROVAL B35



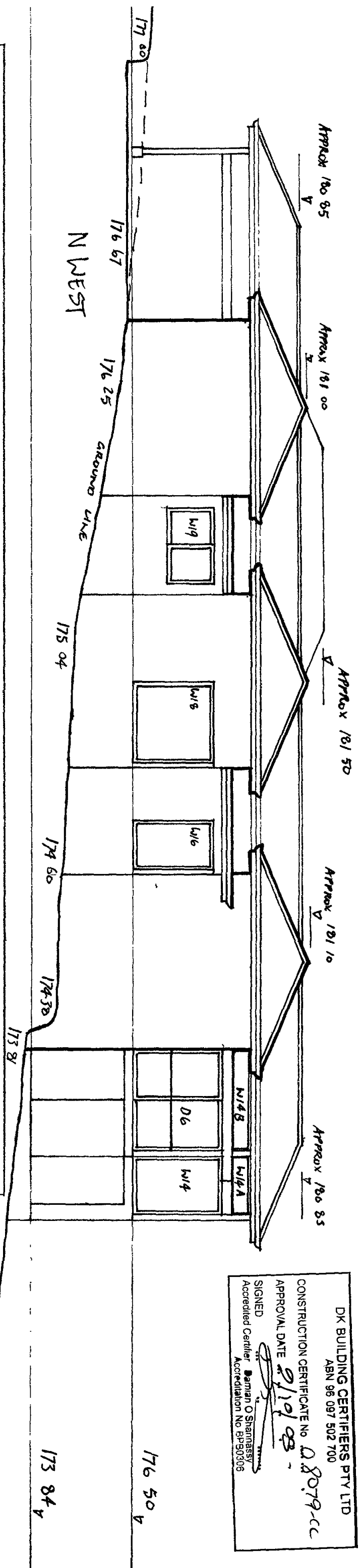
JOHNSON RESIDENCE
 73 INGLESIDE RD INGLESIDE
 DRAWN BY HAUC HOLDINGS P/L (PH/FAX 99708871)

EXHAUSTIONS
 1.100
 CONSTRUCTION CERTIFICATE
 DRG 06/B A04/08

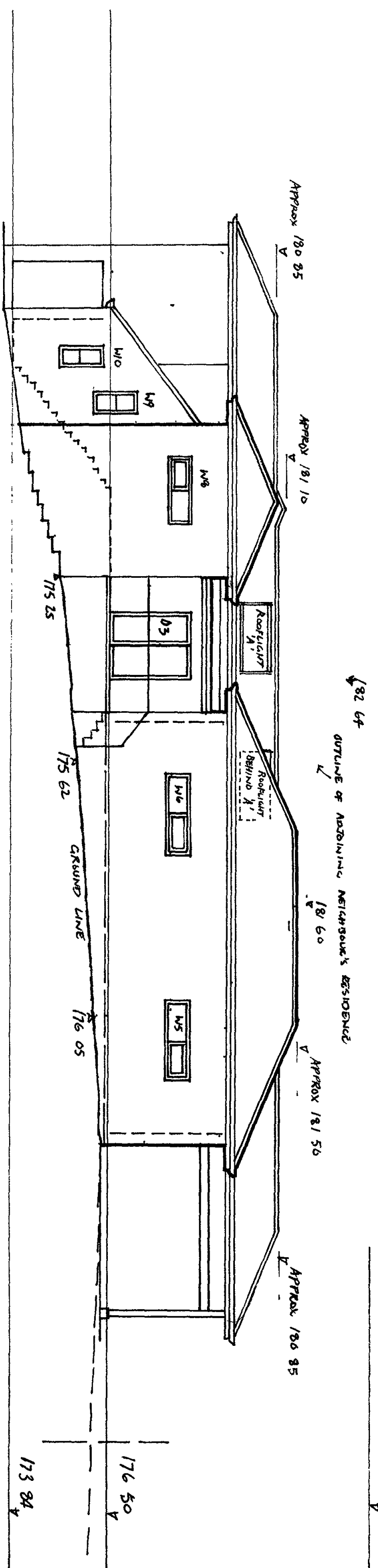
- CUSTOM ORB "COLORBOND" METAL ROOFING
- RENDERED & PAINTED BRICKWORK
- ALUMINIUM FRAMED WINDOWS
- 1.0m H BAUSTRAID TO DECK 2 176.50
- SAVED DOOR ACCESS TO POOL EQUIP. WAREHOUSE STORE AREA 173.84

AMENDMENT 'A' ROOFLIGHTS
 ADDED MARCH '08

DK BUILDING CERTIFIERS PTY LTD
 ABN 98 097 502 700
 CONSTRUCTION CERTIFICATE No. 028079-CC
 APPROVAL DATE 2/10/08
 SIGNED [Signature]
 Accredited Certifier Benjamin O'Shaughnessy
 Accreditation No. BPC50306



* NOTE ALL EXTERIOR CLADDING IS TO HAVE A MAXIMUM PERMISSIBILITY INDEX OF 25% IN ACCORDANCE WITH CONDITION OF APPROVAL B35



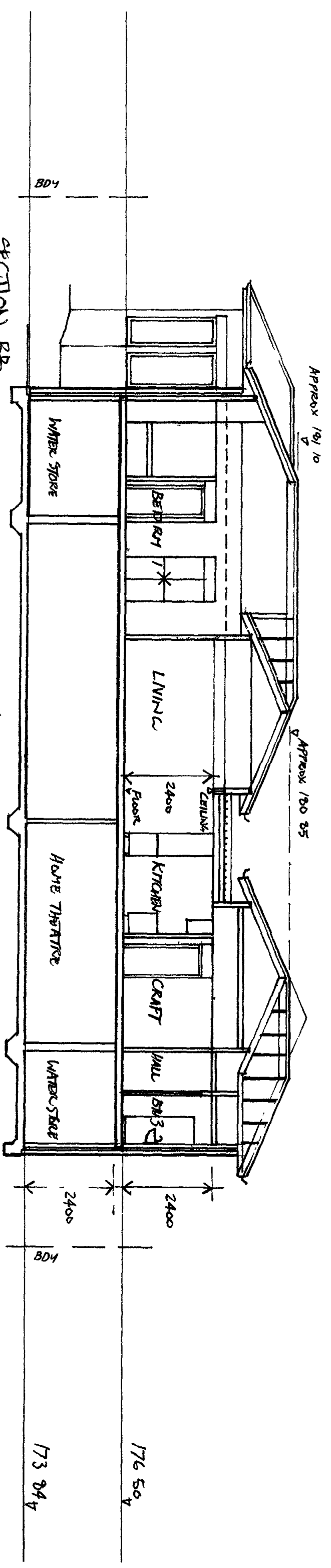
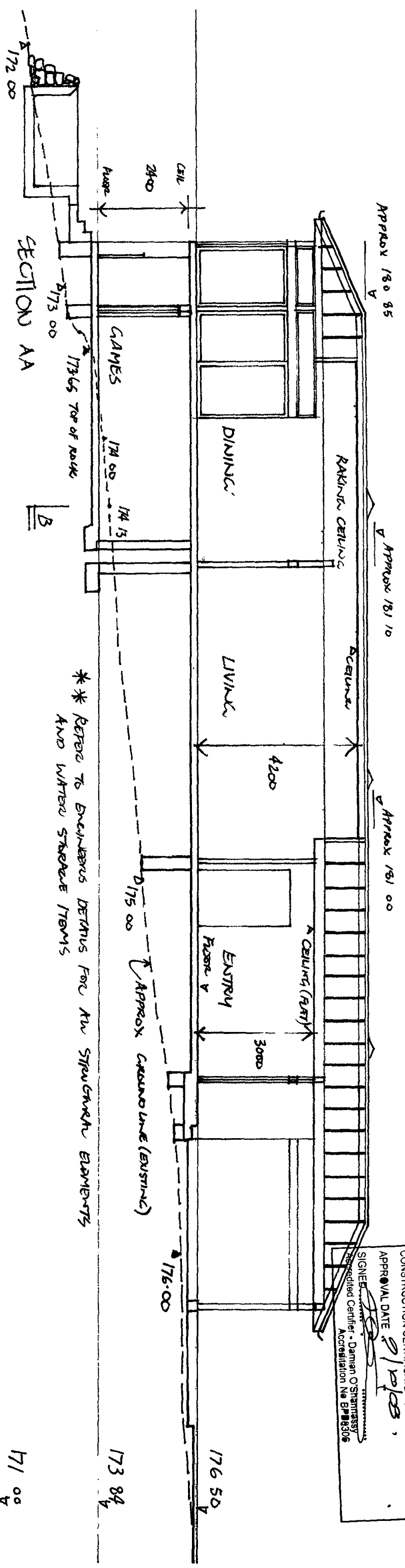
S EAST

JOHNSON RESIDENCE
 73 INGLISIDE RD INGLISIDE
 DRAWN BY HALE HOLDINGS P/L (PH/FAX 99708861)

ELEVATIONS
 1,100 CONSTRUCT CONTRACTE
 DRG 07/B' AUG'08

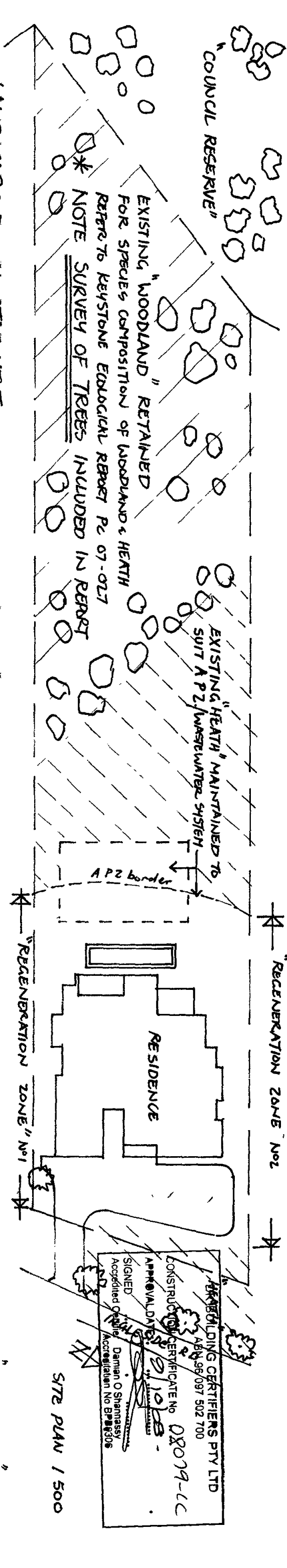
171 00

DK BUILDING CERTIFIERS PTY LTD
 ABN 96 097 502 700
 CONSTRUCTION CERTIFICATE NO. D8019-CL
 APPROVAL DATE 21/01/08
 SIGNER: [Signature]
 Accredited Certifier - Damian O'Shane
 Accreditation No BPC306



JOHNSON RESIDENCE
 73 INGLISIDE RD INGLISIDE
 DRAWN BY HALL HOLDINGS PL (PH/FAX 9976 8871)

SECTIONS
 1100
 CONSTRUCTION CERTIFICATE
 DRC 08 SEPT'07



ARCHITECTING CERTIFIERS PTY LTD
 ABN 96/097 502 700
 CONSTRUCTION CERTIFICATE NO 08079-LL
 APPROVAL DATE: 21/10/07
 SIGNED: Damian O Shanassy
 Accredited Drafting Practitioner No BPR0306

LANDSCAPE DESIGN STATEMENT. IT IS INTENDED TO RETAIN THE EXISTING WOODLAND & AS MUCH OF THE EXISTING HEATH AS WOULD MEET "PRACTICALLY" THE REQUIREMENTS OF BUSHFIRE MANAGEMENT - REFER TO REPORT BY "BUILDING CODE & BUSHFIRE HAZARD SOLUTIONS P/L" JULY 2007 AND ECOLOGICAL SUSTAINABILITY PLAN - PREPARED BY "KEYSTONE ECOLOGICAL" REPORT REF PC 07-017 JULY 2007 AND SEWER TREATMENT MANAGEMENT REPORT BY "ENVIRSTECH"

NOTE "IMPORTANT"
 PLANTING LOCATION IN REGENERATION ZONES TO SUIT SOIL & ROCK OUTCROPS, & TO MAINTAIN "NATURAL CHARACTER" AS CLOSE AS POSSIBLE WITH ENDEMIC GENUSES & PLANTS

EXISTING "HEATH" MAINTAINED

EXISTING "WOODLAND" BEYOND

ON SITE WASTE WATER SYSTEM TO ENGINEER'S DETAILS "BUFFALO" (REFER TO REPORT)

FOR SECTION (REFER TO LP01)

OUTLINE OF AREA OF LISEDS TO BE ALTERED TO SUIT OUTCROP & WASTEWATER TREATMENT SYSTEM

LEGEND & SCHEDULE

REGENERATION ZONES (TO DISTURBER AREAS)

- L LEPTOSPERMUM HORRISONII (TEA TREE) BURCUVUDY (ALLOW 8)
- D DODONAEA VISCOSA PURPUREA (ALLOW 18)
- A ARBUTUS UNEDO (ALLOW 2)
- G GREVILLEA (MULLY-SUN JUTTHANAN) (ALLOW 16)
- S SCAEVOLOA ALBIDA GROUND COVER @ 4/m²

"CARBON No 1" (WATER FEATURE)

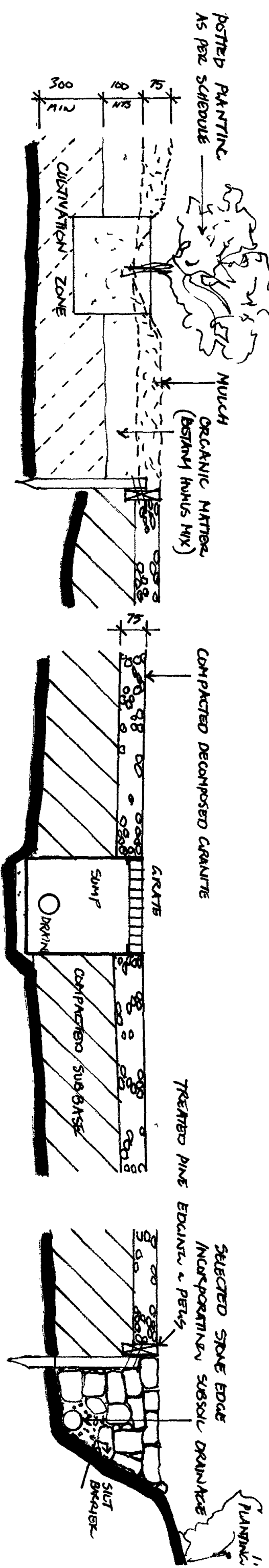
- P CERINUM FEDUNCULATUM (200mm ALLOW 3)
- A ACORHALLIS AUSTRALIS (300mm ALLOW 3)
- B PHORUM N 2 FLAX (300mm ALLOW 3)
- C CRITON (MAORI CARP SAGES) (400mm ALLOW 2)
- S SCAEVOLOA ALBIDA (MAWE) @ 4/m²

"CARBON No 2"

- P PHORUM (MAORI MAIDEN) (200mm ALLOW 2)
- B PHORUM (APRICOT QUEEN) (200mm ALLOW 3)
- M AUSTRORHYZIS INOPHILIA (300mm ALLOW 3)
- B BORKNIA LEDIFRMA (ALLOW 8)

JOHNSON RESIDENCE TO INGLESIDE RD

LANDSCAPE PLAN LP01 Scale 1:500 Nov'07

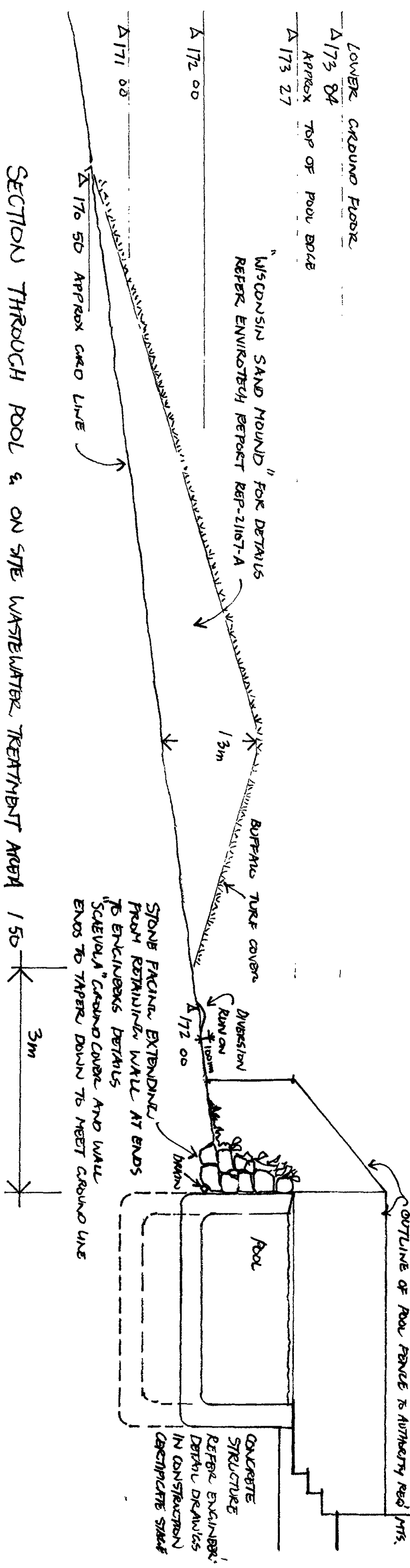


NEW GARDEN DRIVEWAY EDGE DRAINAGE SUMP EXISTING

DK BUILDING CERTIFICATION
 CONSTRUCTION CERTIFICATE NO. 08079-cc
 ABN 96 097 502 700
 APPROVAL DATE ... 21/10/07
 SIGNED [Signature]
 Accredited Certifier - Damien O'Shannassy
 Accreditation No EP00306

LOWER GROUND FLOOR
 Δ 173 84
 APPROX TOP OF POOL EDGE
 Δ 173 27

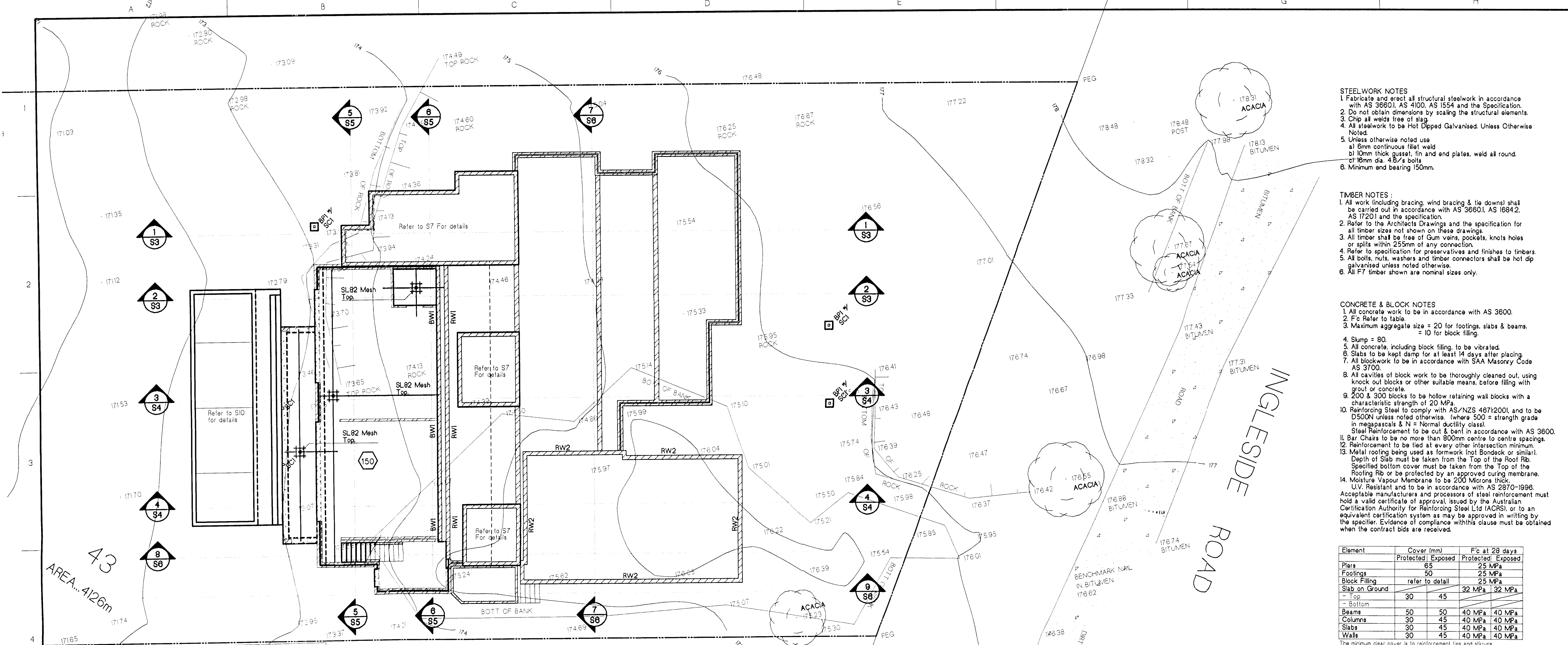
"WISCONSIN SAND MOUND" FOR DETAILS
 REFER ENGINEER'S REPORT REP-21157-A



SECTION THROUGH POOL & ON SITE WASTEWATER TREATMENT AREA 1.50

JOHNSON RESIDENCE
 73 INCUESIDE RD, INCUESIDE
 DRAWN BY HAUC HANDMADE P/L (PH/FAX 99708861)

CONSTRUCTION CERTIFICATE
 LANDSCAPE DETAILS Nov '07
 DRG LP02



- STEELWORK NOTES**
1. Fabricate and erect all structural steelwork in accordance with AS 3660.1, AS 4100, AS 1554 and the Specification.
 2. Do not obtain dimensions by scaling the structural elements.
 3. Chop all welds free of slag.
 4. All steelwork to be Hot Dipped Galvanised. Unless Otherwise Noted.
 5. Unless otherwise noted use:
 - a) 6mm continuous fillet weld
 - b) 10mm thick gusset, fin and end plates, weld all round.
 6. Minimum end bearing 150mm.

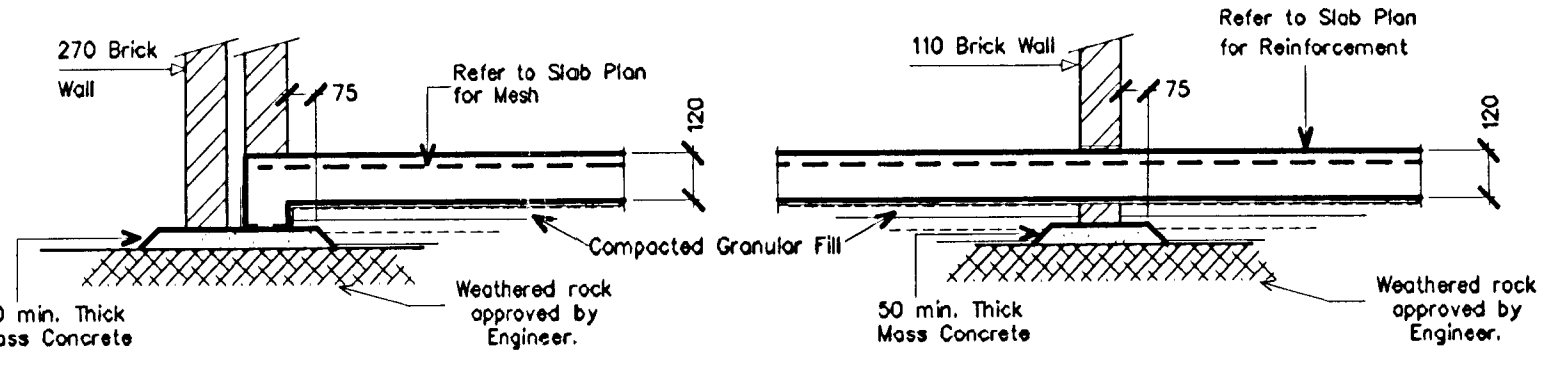
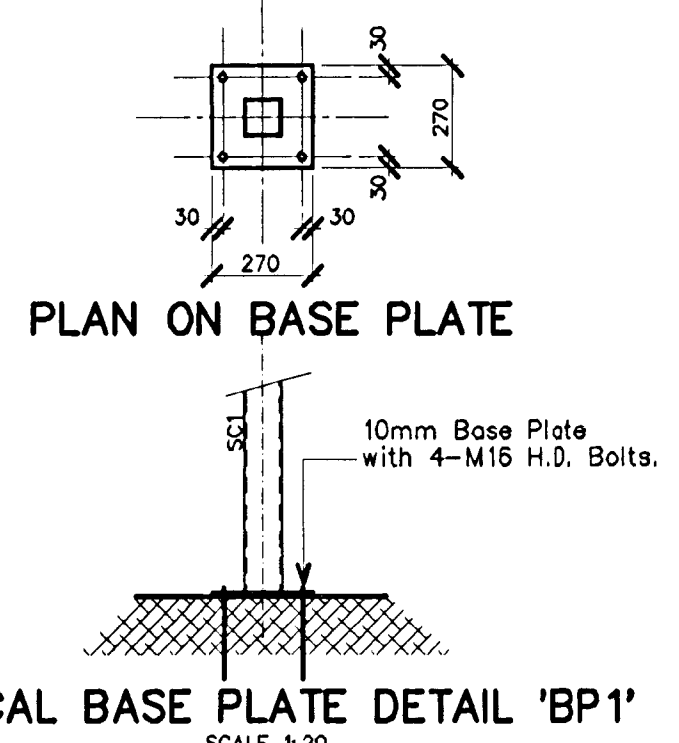
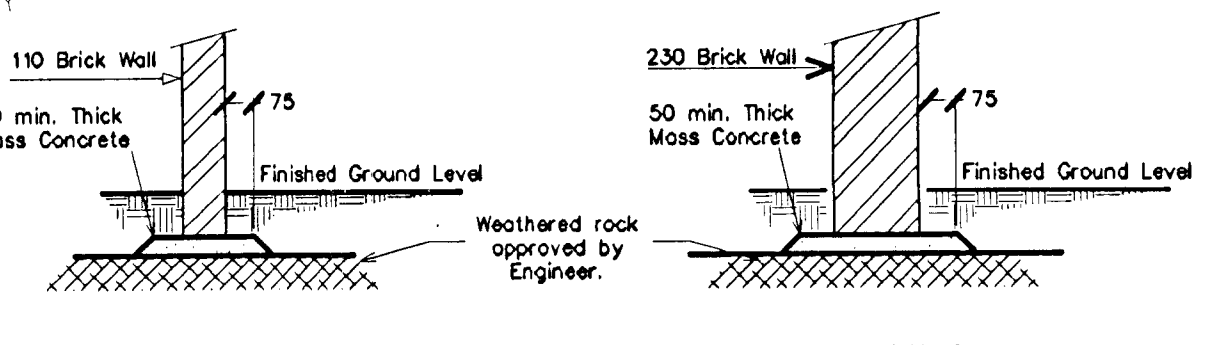
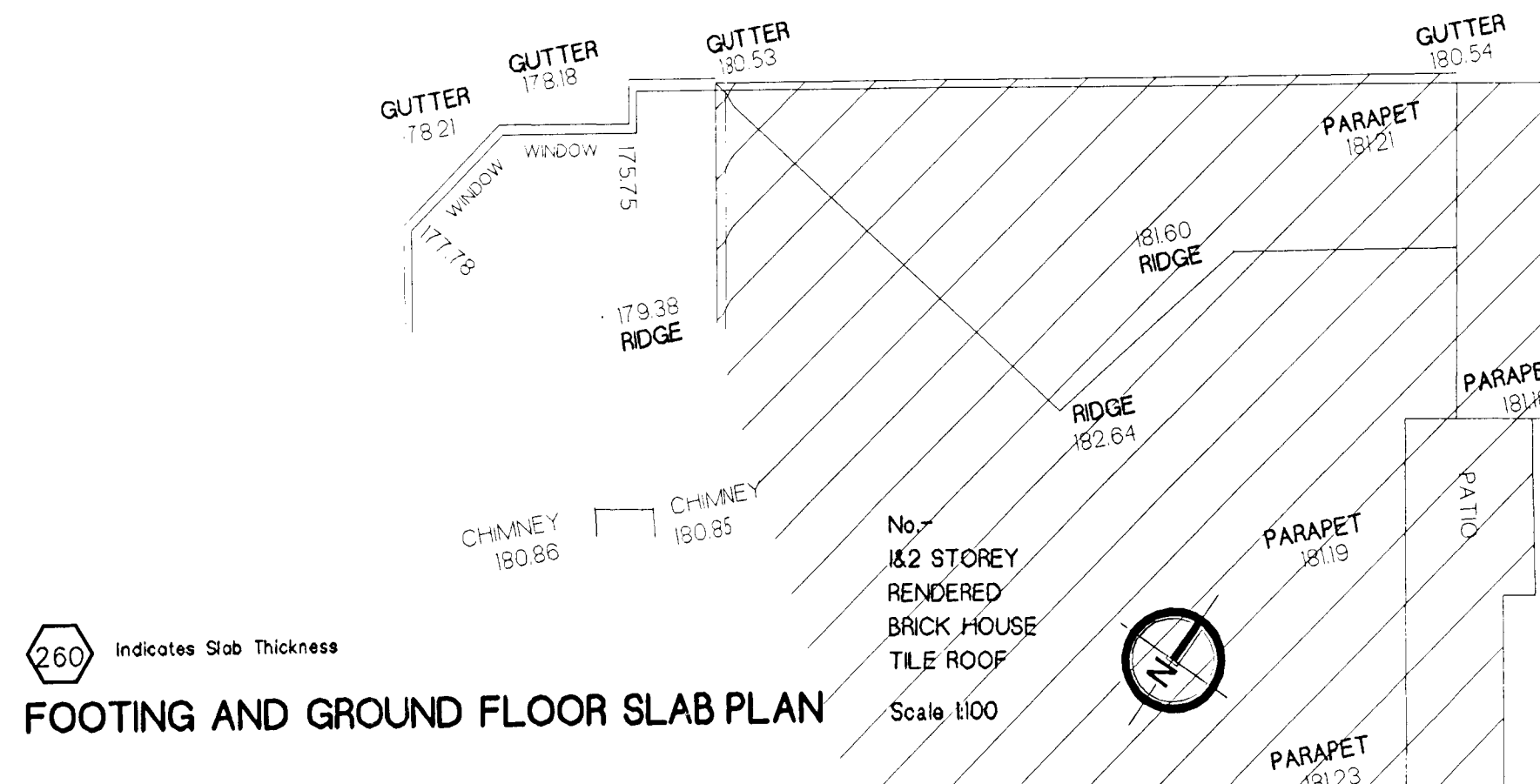
- TIMBER NOTES**
1. All work (including bracing, wind bracing & tie downs) shall be carried out in accordance with AS 3660.1, AS 1684.2, AS 1720.1 and the specification.
 2. Refer to the Architects Drawings and the specification for all timber sizes not shown on these drawings.
 3. All timber shall be free of Gum veins, pockets, knots holes or splits within 255mm of any connection.
 4. Refer to specification for preservatives and finishes to timbers.
 5. All bolts, nuts, washers and timber connectors shall be hot dip galvanised unless noted otherwise.
 6. All F7 timber shown are nominal sizes only.

- CONCRETE & BLOCK NOTES**
1. All concrete work to be in accordance with AS 3600.
 2. Fc Refer to table.
 3. Maximum aggregate size = 20 for footings, slabs & beams. = 10 for block filling.
 4. Slump = 80.
 5. All concrete, including block filling, to be vibrated.
 6. Slabs to be kept damp for at least 14 days after placing.
 7. All blockwork to be in accordance with SAA Masonry Code AS 3700.
 8. All cavities of block work to be thoroughly cleaned out, using knock out blocks or other suitable means, before filling with grout or concrete.
 9. 200 & 300 blocks to be hollow retaining wall blocks with a characteristic strength of 20 MPa.
 10. Reinforcing Steel to comply with AS/NZS 4671:2001, and to be D500N unless noted otherwise. (where 500 = strength grade in megapascals & N = Normal ductility class).
 11. Steel Reinforcement to be cut & bent in accordance with AS 3600.
 12. Bar Chairs to be no more than 300mm centre to centre spacing.
 13. Reinforcement to be tied at every other intersection minimum.
 14. Metal roofing being used as formwork (not Bondeck or similar). Depth of Slab must be taken from the Top of the Roof Rib. Specified bottom cover must be taken from the Top of the Roofing Rib or be protected by an approved curing membrane.
 15. Moisture Vapour Membrane to be 200 Microns thick.
 16. U.V. Resistant and to be in accordance with AS 2870-1998. Acceptable manufacturers and processors of steel reinforcement must hold a valid certificate of approval, issued by the Australian Certification Authority for Reinforcing Steel Ltd (ACRS), or to an equivalent certification system as may be approved in writing by the specifier. Evidence of compliance with this clause must be obtained when the contract bids are received.

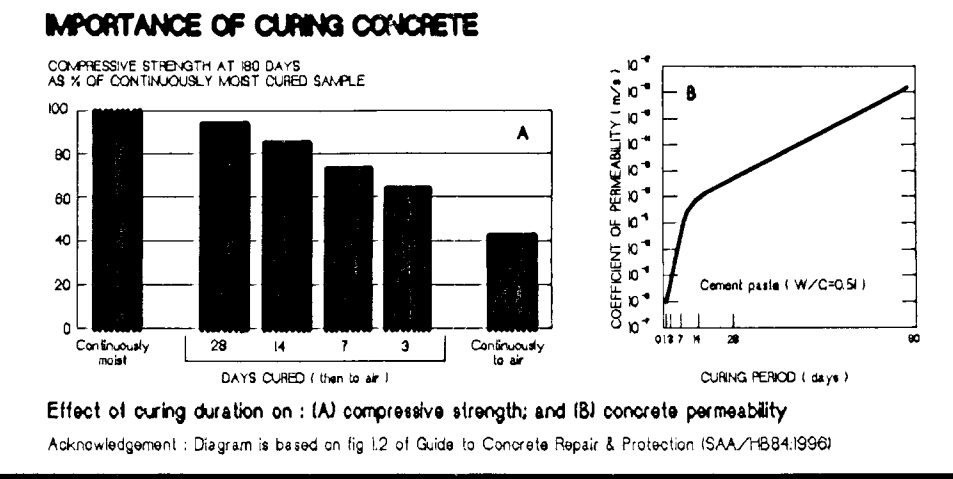
Element	Cover (mm)		Fc at 28 days	
	Protected	Exposed	Protected	Exposed
Piers	65	25	25 MPa	25 MPa
Footings	60	25	25 MPa	25 MPa
Block Filling	refer to detail	25	25 MPa	25 MPa
Slab on Ground			32 MPa	32 MPa
Top	30	45		
Bottom				
Beams	50	50	40 MPa	40 MPa
Columns	30	45	40 MPa	40 MPa
Slabs	30	45	40 MPa	40 MPa
Walls	30	45	40 MPa	40 MPa

The minimum clear cover is to reinforcement ties and stirrups.

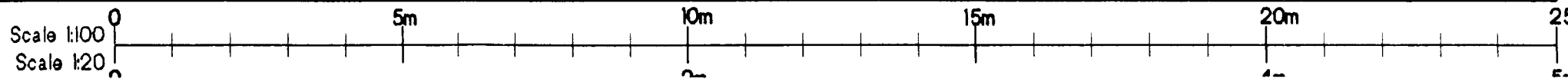
43
AREA...4126m

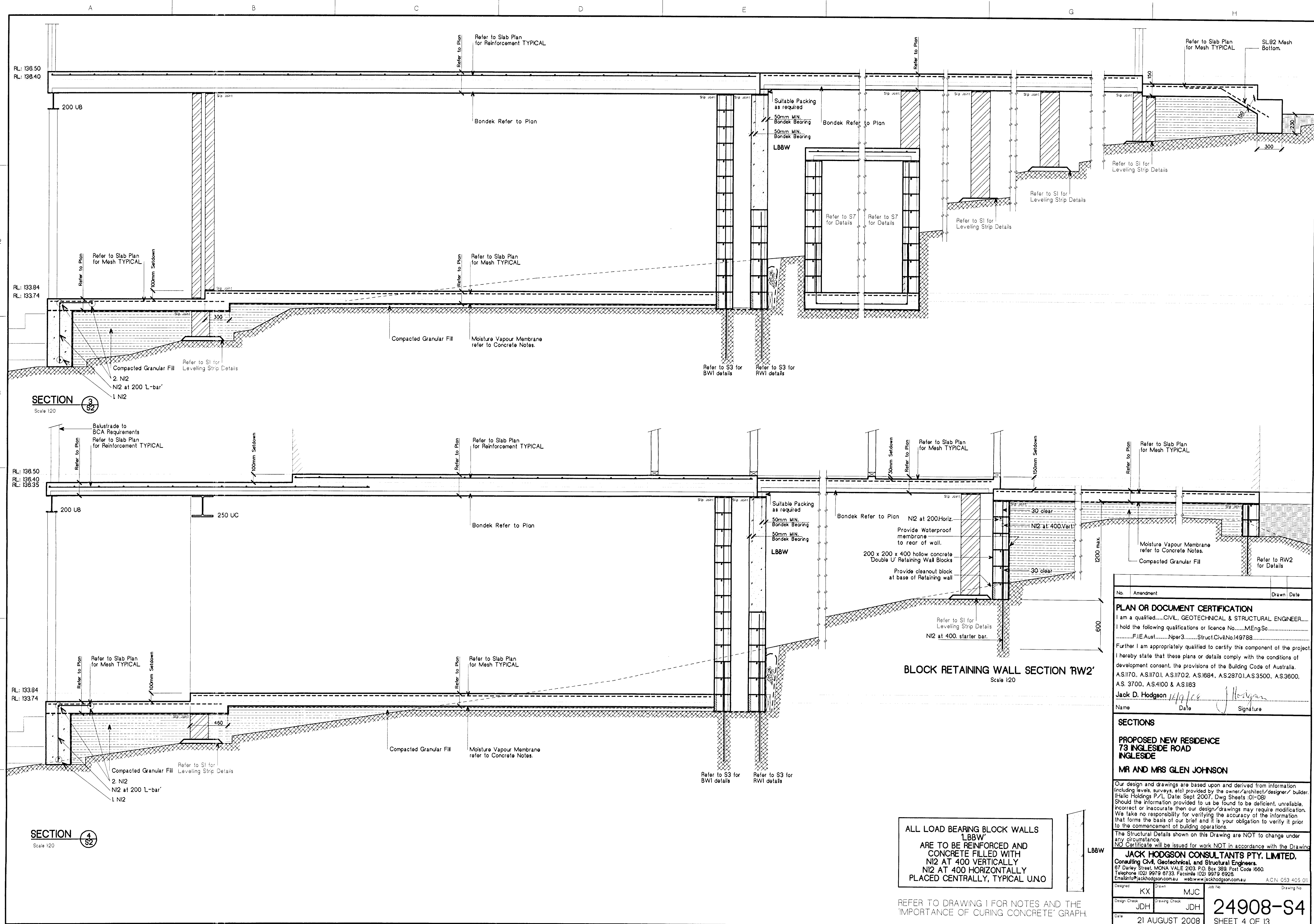


NOTE
IF ROCK IS NOT ENCOUNTERED PLEASE CALL ENGINEER



No.	Amendment	Drawn	Date
<p>PLAN OR DOCUMENT CERTIFICATION</p> <p>I am a qualified...CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER....</p> <p>I hold the following qualifications or licence No.....MEngSc.....</p> <p>.....F.I.E.Aust.....Nper3.....StructCiv/No149788</p> <p>Further I am appropriately qualified to certify this component of the project.</p> <p>I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS1170, AS1170.1, AS1170.2, AS1684, AS2870.1, AS3500, AS3600, AS 3700, AS4100 & AS1863</p> <p>Jack D. Hodgson 16/8/08</p> <p>Name Date Signature</p>			
<p>FOOTING AND GROUND FLOOR SLAB PLAN AND DETAILS</p> <p>PROPOSED NEW RESIDENCE</p> <p>73 INGLESIDE ROAD</p> <p>INGLESIDE</p> <p>MR AND MRS GLEN JOHNSON</p> <p>Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder. (Halic Holdings P/L Date: Sept 2007, Dwg Sheets: 01-08)</p> <p>Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.</p> <p>The Structural Details shown on this Drawing are NOT to change under any circumstance.</p> <p>NO Certificate will be issued for work NOT in accordance with the Drawing.</p> <p>JACK HODGSON CONSULTANTS PTY. LIMITED.</p> <p>Consulting Civil, Geotechnical, and Structural Engineers.</p> <p>87 Dawley Street, MCKENZIE VALLE 2003 P.O. Box 368 Port Code 1660.</p> <p>Telephone (02) 9979 8733. Facsimile (02) 9979 6928.</p> <p>Email info@jackhodgson.com.au web www.jackhodgson.com.au ACN 053 405 011</p> <p>Designed: KX Drawn: MJC</p> <p>Design Check: JDH Drawing Check: JDH</p> <p>Date: 21 AUGUST 2008</p> <p>24908-S1</p> <p>SHEET 1 OF 13</p>			





No. Amendment Drawn Date

PLAN OR DOCUMENT CERTIFICATION
 I am a qualified...CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER...
 I hold the following qualifications or licence No.....MEngSc.....
F.I.E.Aust.....Nper3.....Struct.Civil.No.149788

Further I am appropriately qualified to certify this component of the project
 I hereby state that these plans or details comply with the conditions of
 development consent, the provisions of the Building Code of Australia,
 AS.1170, AS.1170.1, AS.1170.2, AS.1684, AS.2870.1, AS.3500, AS.3600,
 AS. 3700, AS.4100 & AS.1163

Jack D. Hodgson *[Signature]*
 Name Date Signature

SECTIONS

PROPOSED NEW RESIDENCE
73 INGLESIDE ROAD
INGLESIDE

MR AND MRS GLEN JOHNSON

Our design and drawings are based upon and derived from information
 (including levels, surveys, etc) provided by the owner/architect/designer/ builder
 (Halc Holdings P/L Date: Sept 2007, Dwg Sheets :01-08)
 Should the information provided to us be found to be deficient, unreliable,
 incorrect or inaccurate then our design/drawings may require modification.
 We take no responsibility for verifying the accuracy of the information
 that forms the basis of our brief and it is your obligation to verify it prior
 to the commencement of building operations.

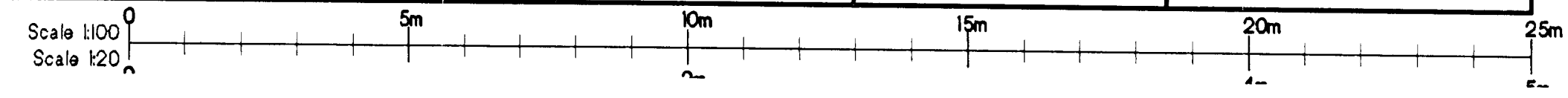
The Structural Details shown on this Drawing are NOT to change under
 any circumstance.
 NO Certificate will be issued for work NOT in accordance with the Drawing

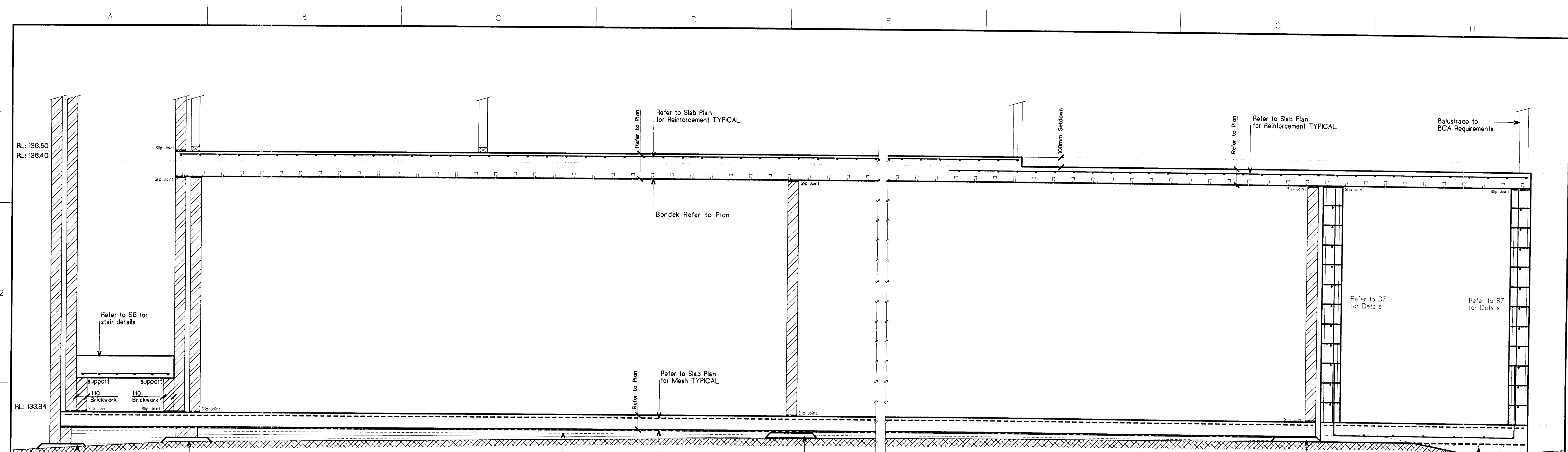
JACK HODGSON CONSULTANTS PTY. LIMITED.
 Consulting Civil, Geotechnical and Structural Engineers.
 87 Darley Street, MONA VALE 2033 P.O. Box 388 Post Code 1680.
 Telephone (02) 9979 6733 Facsimile (02) 9979 6926
 Email info@jackhodgson.com.au web www.jackhodgson.com.au A.C.N. 053 405 011

ALL LOAD BEARING BLOCK WALLS
LBBW
ARE TO BE REINFORCED AND
CONCRETE FILLED WITH
N12 AT 400 VERTICALLY
N12 AT 400 HORIZONTALLY
PLACED CENTRALLY, TYPICAL UNO

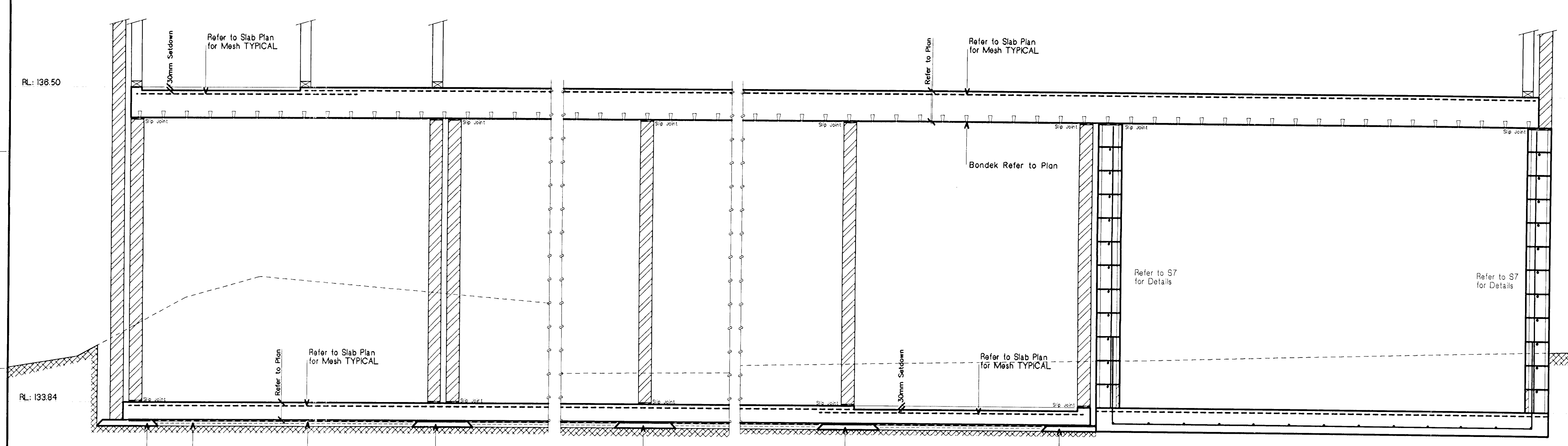
REFER TO DRAWING 1 FOR NOTES AND THE
 'IMPORTANCE OF CURING CONCRETE' GRAPH

Designed KX Drawn MJC Job No Drawing No
 Design Check JDH Drawing Check JDH
 Date 21 AUGUST 2008 SHEET 4 OF 13





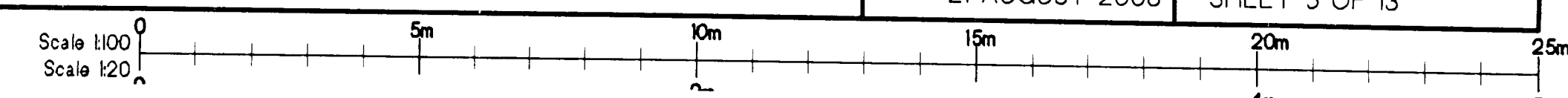
SECTION 5
Scale 1/20

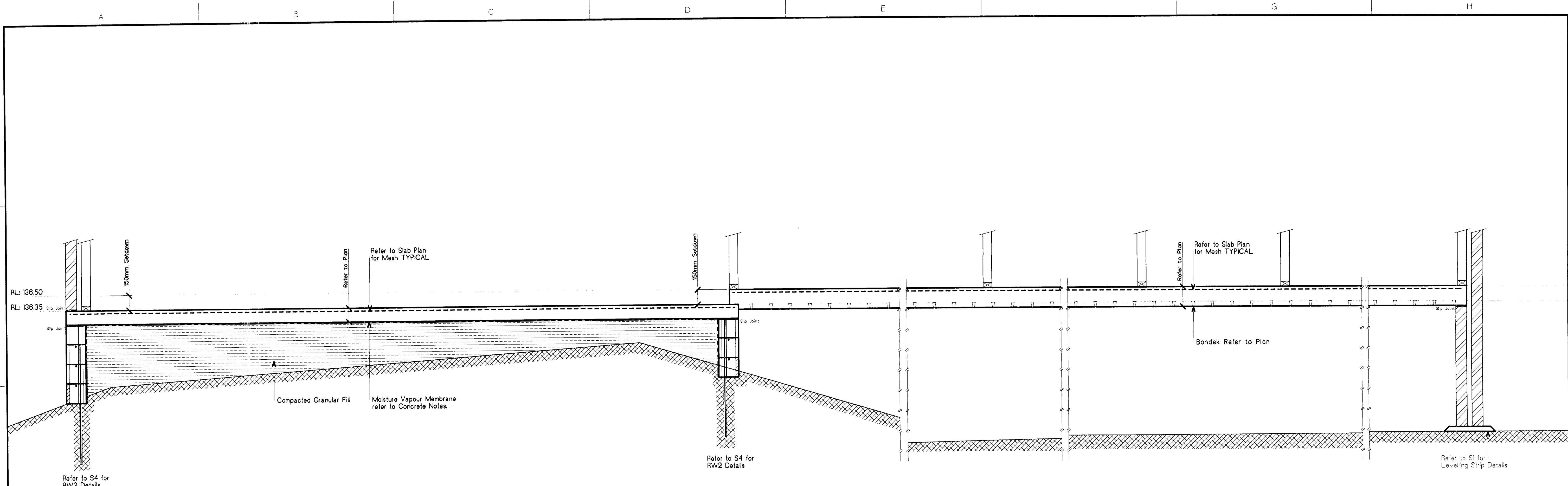


SECTION 6
Scale 1/20

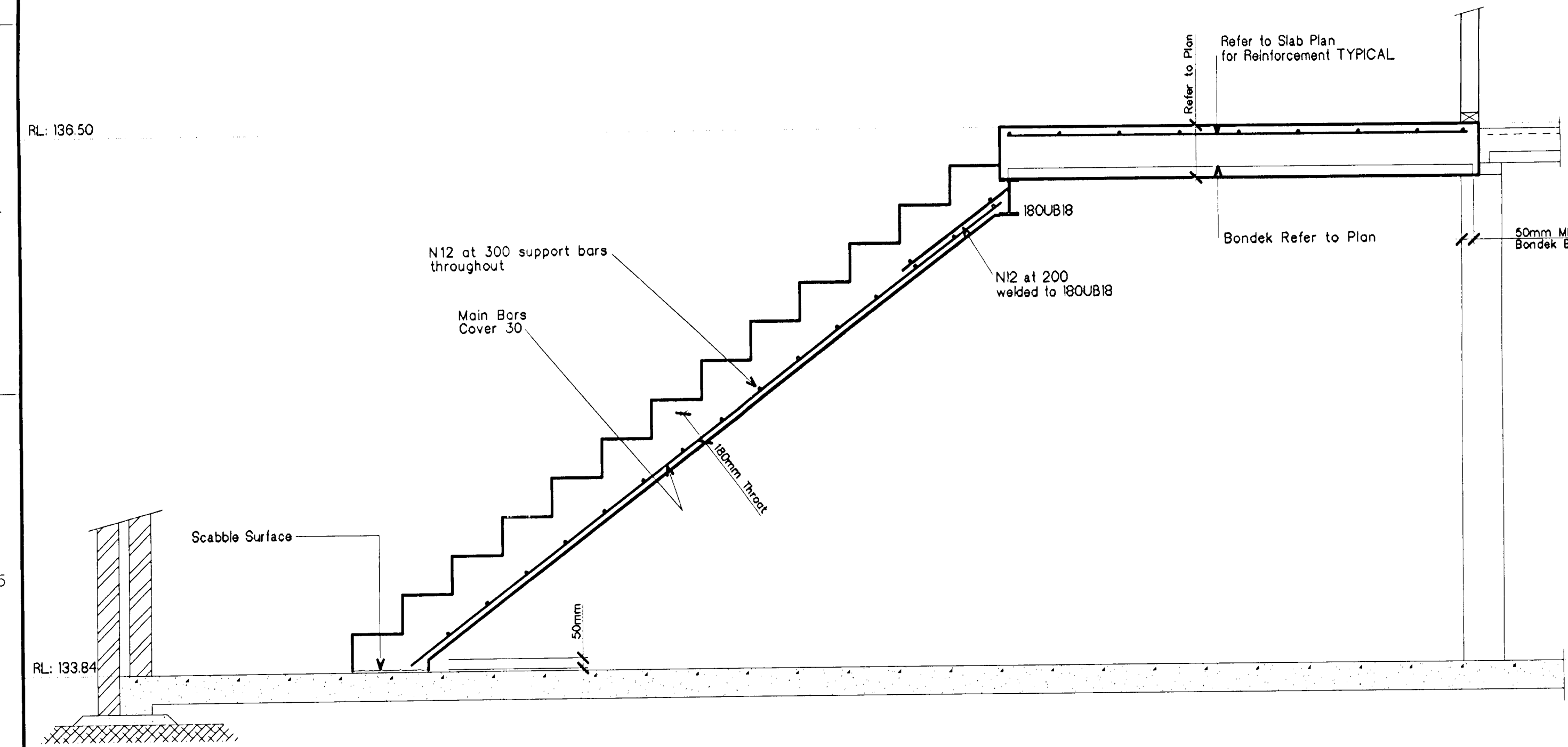
REFER TO DRAWING 1 FOR NOTES AND THE IMPORTANCE OF 'CURING CONCRETE' GRAPH.

No.	Amendment	Drawn	Date
<p>PLAN OR DOCUMENT CERTIFICATION</p> <p>I am a qualified...CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER... I hold the following qualifications or licence No.....MEngSc..... F.I.E.Aust.....Nper3.....StructCiv.No.149788.....</p> <p>Further I am appropriately qualified to certify this component of the project. I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS1170, AS1170.1, AS1170.2, AS1684, AS2870,AS3500, AS3600, AS 3700, AS.4100 & AS1163</p> <p>Jack D. Hodgson <i>[Signature]</i> Name Date Signature</p>			
<p>SECTIONS</p> <p>PROPOSED NEW RESIDENCE 73 INGLETSIDE ROAD INGLESIDE</p> <p>MR AND MRS GLEN JOHNSON</p> <p>Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder, Shale Holdings P/L, Date: Sept 2007, Dwg Sheets: 01-08. Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.</p> <p>The Structural Details shown on this Drawing are NOT to change under any circumstance. NO Certificates will be issued for work NOT in accordance with the Drawing</p> <p>JACK HODGSON CONSULTANTS PTY. LIMITED. Consulting Civil, Geotechnical and Structural Engineers. 87 Darley Street, MONA VALE 2033, P.O. Box 388, Post Code 1660. Telephone (02) 9979 8733, Facsimile (02) 9979 8928. Email info@jackhodgson.com.au web www.jackhodgson.com.au ACN: 053 405 011</p> <p>Designed: KX Drawn: MJC Design Check: JDH Drawing Check: JDH Date: 21 AUGUST 2008 Job No: Drawing No:</p> <p>24908-S5 SHEET 5 OF 13</p>			



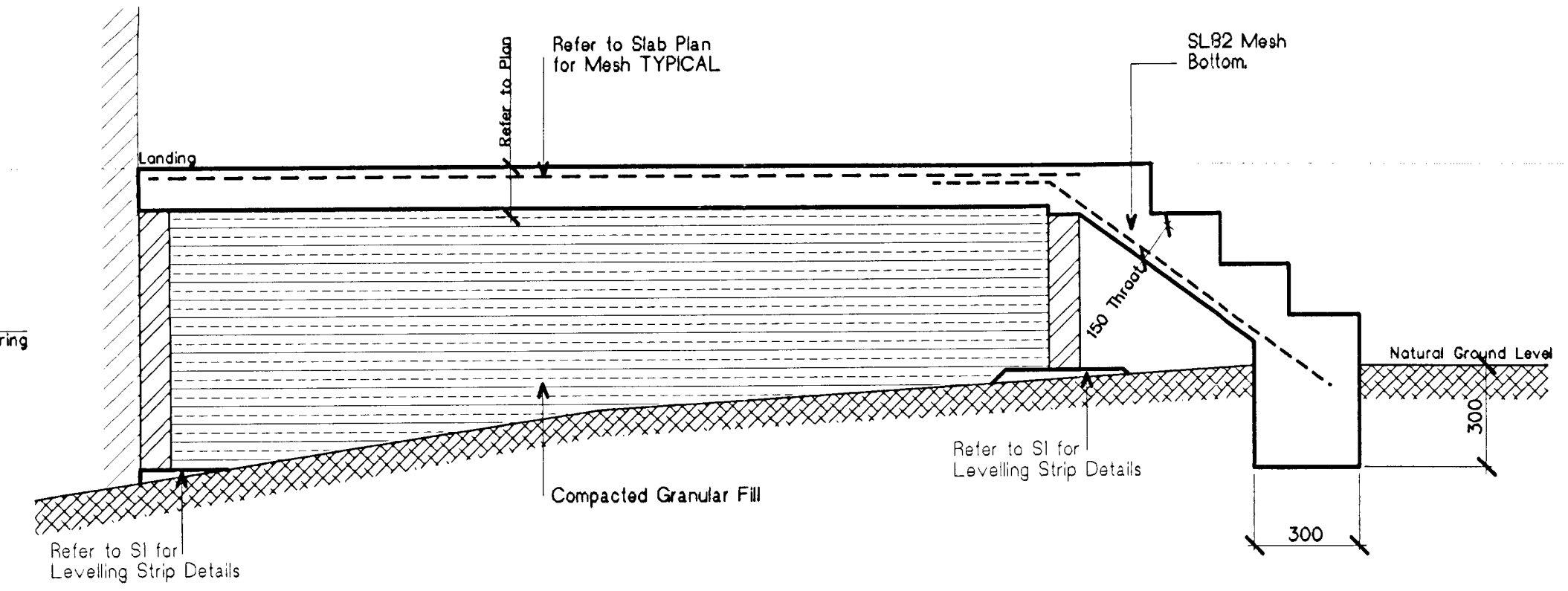


SECTION 7
Scale 1:20



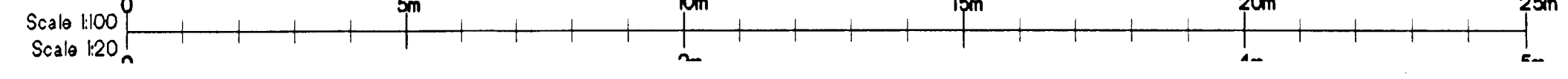
STAIR REINFORCEMENT ARRANGEMENT
STAIR REINFORCEMENT
10 or more risers : N16 at 200 Main Bars : Throat thickness 180
9 or less risers : N12 at 200 Main Bars : Throat thickness 150

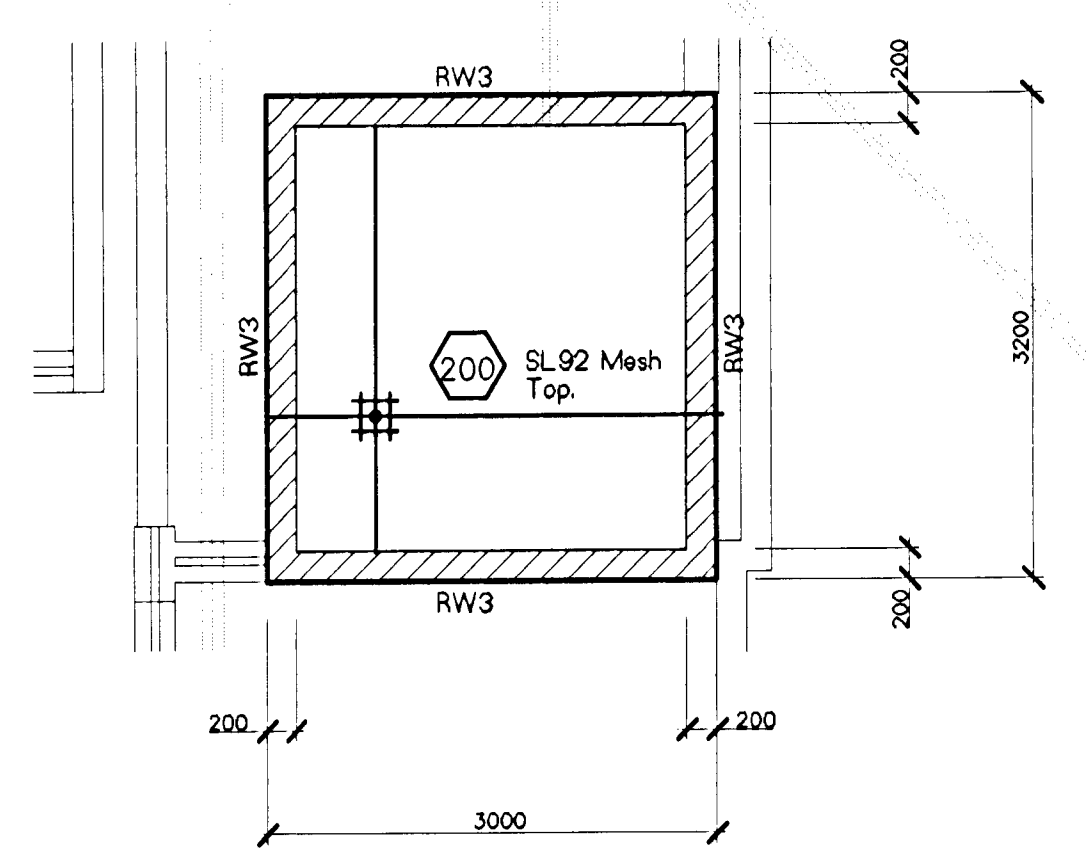
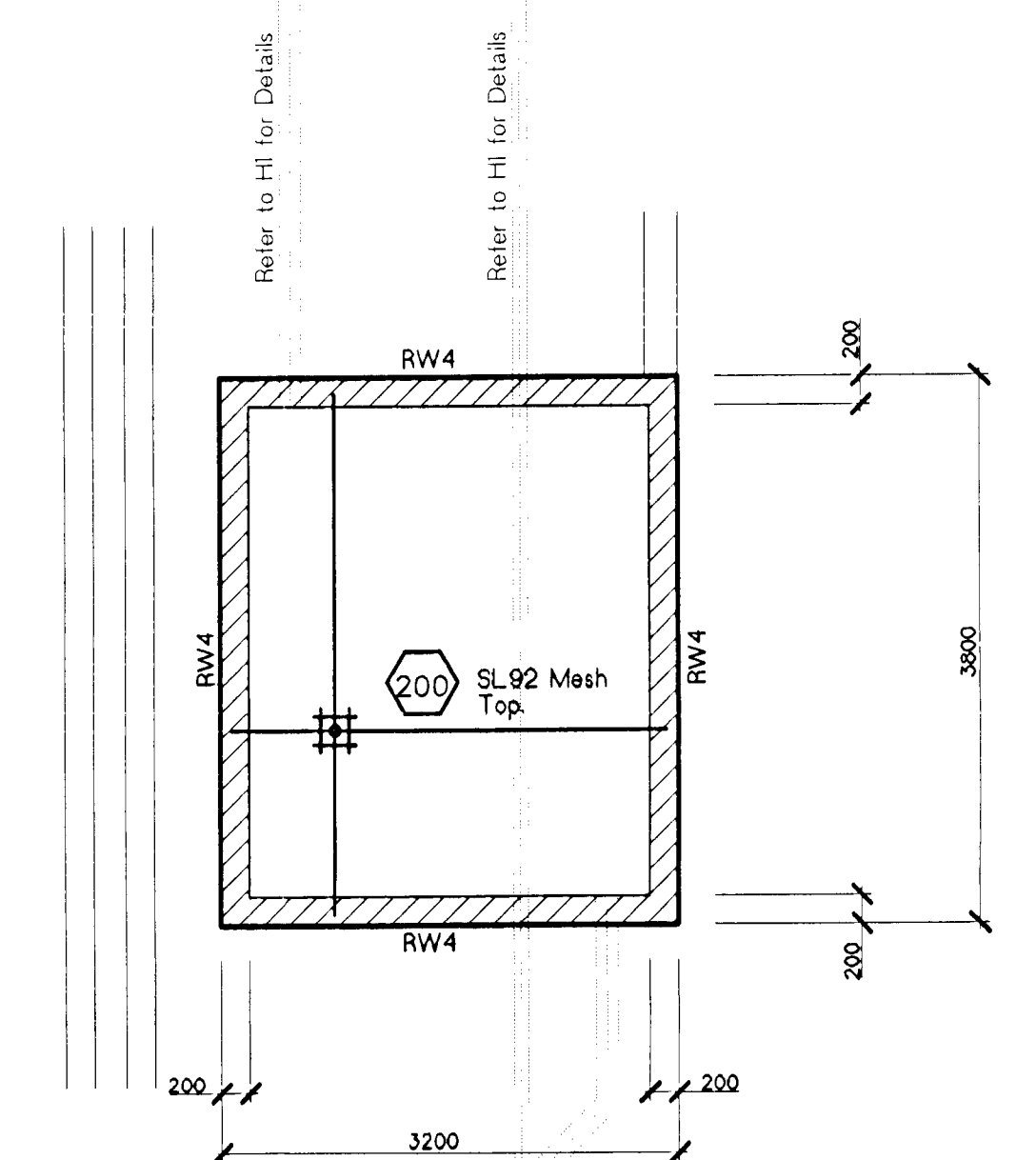
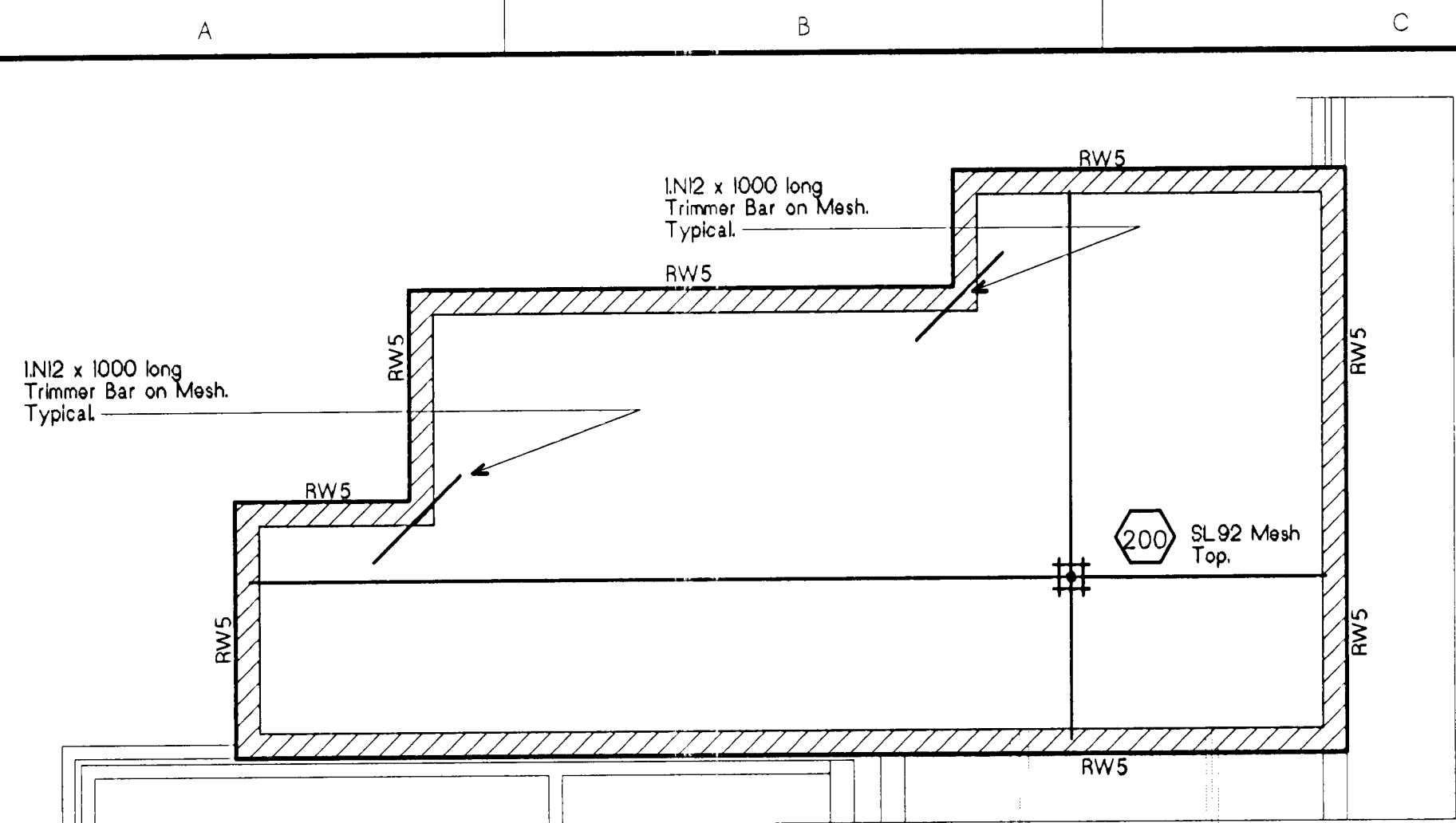
SECTION 8
Scale 1:20



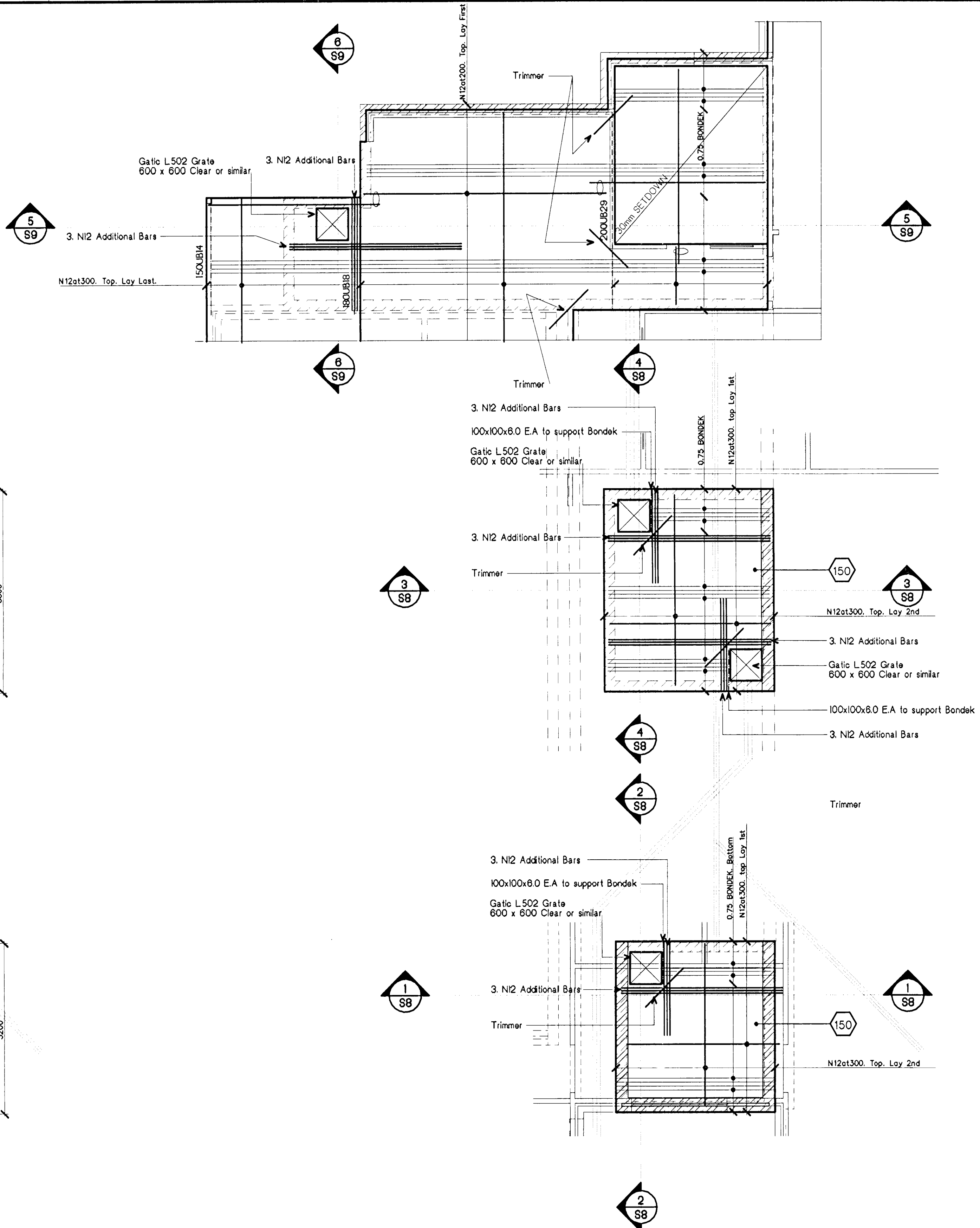
SECTION 9
Scale 1:20

No.	Amendment	Drawn	Date
<p>PLAN OR DOCUMENT CERTIFICATION</p> <p>I am a qualified...CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER... I hold the following qualifications or licence No.....MEngSc.....F.I.E.Aust.....Nper3.....Struct.CivilNo149788.....</p> <p>Further I am appropriately qualified to certify this component of the project. I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS.1170, AS.1170.1, AS.1170.2, AS.1184, AS.2870.1, AS.3500, AS.3600, AS. 3700, AS.4100 & AS.1163</p> <p>Jack D. Hodgson 16/08/08 <i>J. Hodgson</i></p> <p>Name Date Signature</p>			
<p>SECTIONS</p> <p>PROPOSED NEW RESIDENCE 73 INGLESIDE ROAD INGLESIDE</p> <p>MR AND MRS GLEN JOHNSON</p> <p>Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder: Fratic Holdings P/L Date: Sept 2007. Dwg Sheets 01-031. Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.</p> <p>The Structural Details shown on this Drawing are NOT to change under any circumstance. NO Certificate will be issued for work NOT in accordance with the Drawing</p> <p>JACK HODGSON CONSULTANTS PTY. LIMITED, Consulting Civil, Geotechnical and Structural Engineers. 87 Darley Street, MONA VALE 2103, P.O. Box 383, Post Code 1660. Telephone (02) 9979 8733, Facsimile (02) 9979 8926. Email: jack@hodgson.com.au web: www.jackhodgson.com.au A.C.N. 053 405 011</p>			
Designed	KX	Drawn	MJC
Design Check	JDH	Drawing Check	JDH
Date	21 AUGUST 2008		
Job No.			24908-S6
Drawing No.			SHEET 6 OF 13



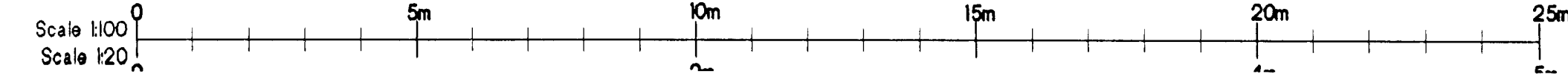


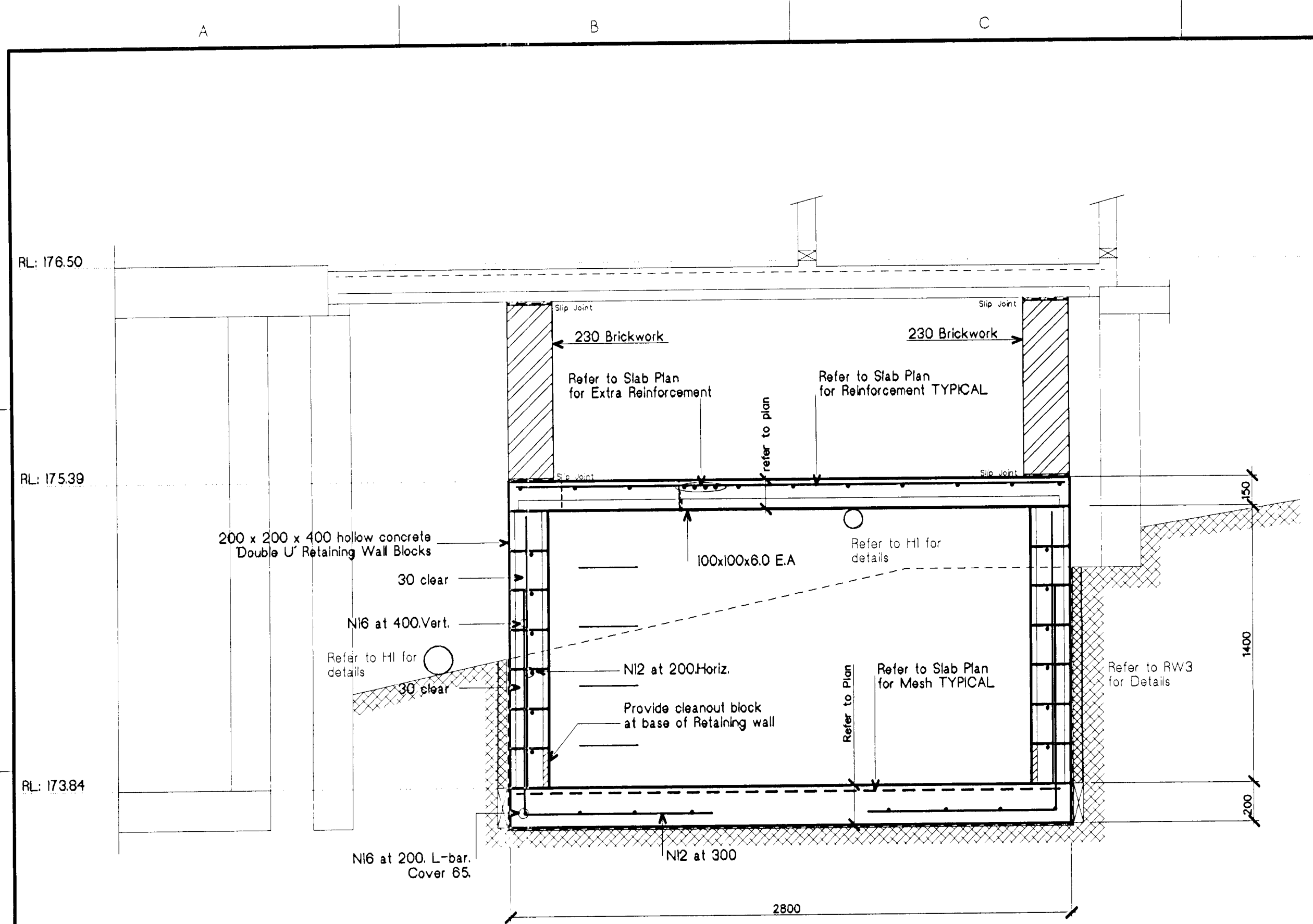
TANK BASE PLAN scale 1:50
 (200) Indicates Slab Thickness



TANK LID PLAN PLAN scale 1:50
 (150) Indicates Slab Thickness
 SUSPENDED SLAB TRIMMER NOTE:
 If the first reinforcement bar is NOT placed towards the outside edge with the appropriate cover, IN12 x 1000 long Trimmer Bar is to be placed at ALL internal corners with appropriate cover. TYPICAL. If in doubt, contact the Engineer.

No.	Amendment	Drawn Date
PLAN OR DOCUMENT CERTIFICATION I am a qualified... CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER... I hold the following qualifications or licence No.....MEngSc.....F.I.E Aust..... Nper3..... Struct.Civil.No149788 Further I am appropriately qualified to certify this component of the project. I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS1170, AS1170.1, AS1170.2, AS1684, AS2870.1, AS3500, AS3600, AS 3700, AS4100 & AS1183 Jack D. Hodgson 16/4/13 Name Date Signature		
TANK DETAILS PROPOSED NEW RESIDENCE 73 INGLESIDE ROAD INGLESIDE MR AND MRS GLEN JOHNSON Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder. (Halc Holdings P/L, Date: Sept 2007, Dwg Sheets: 01-08) Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations. The Structural Details shown on this Drawing are NOT to change under any circumstance. NO Certificate will be issued for work NOT in accordance with the Drawing.		
JACK HODGSON CONSULTANTS PTY. LIMITED. Consulting CIVIL, Geotechnical, and Structural Engineers. 87 Dawley Street, MOUNT VALE 2033 P.O. Box 388, Post Code 1560. Telephone (02) 9979 8733. Facsimile (02) 9979 6928. Email: info@jackhodgson.com.au web: www.jackhodgson.com.au ACN 053 405 011		
Designed	Drawn	Job No.
KX	MJC	
Design Check	Drawing Check	
JDH	JDH	
Date	21 AUGUST 2008	
24908-S7		SHEET 7 OF 13

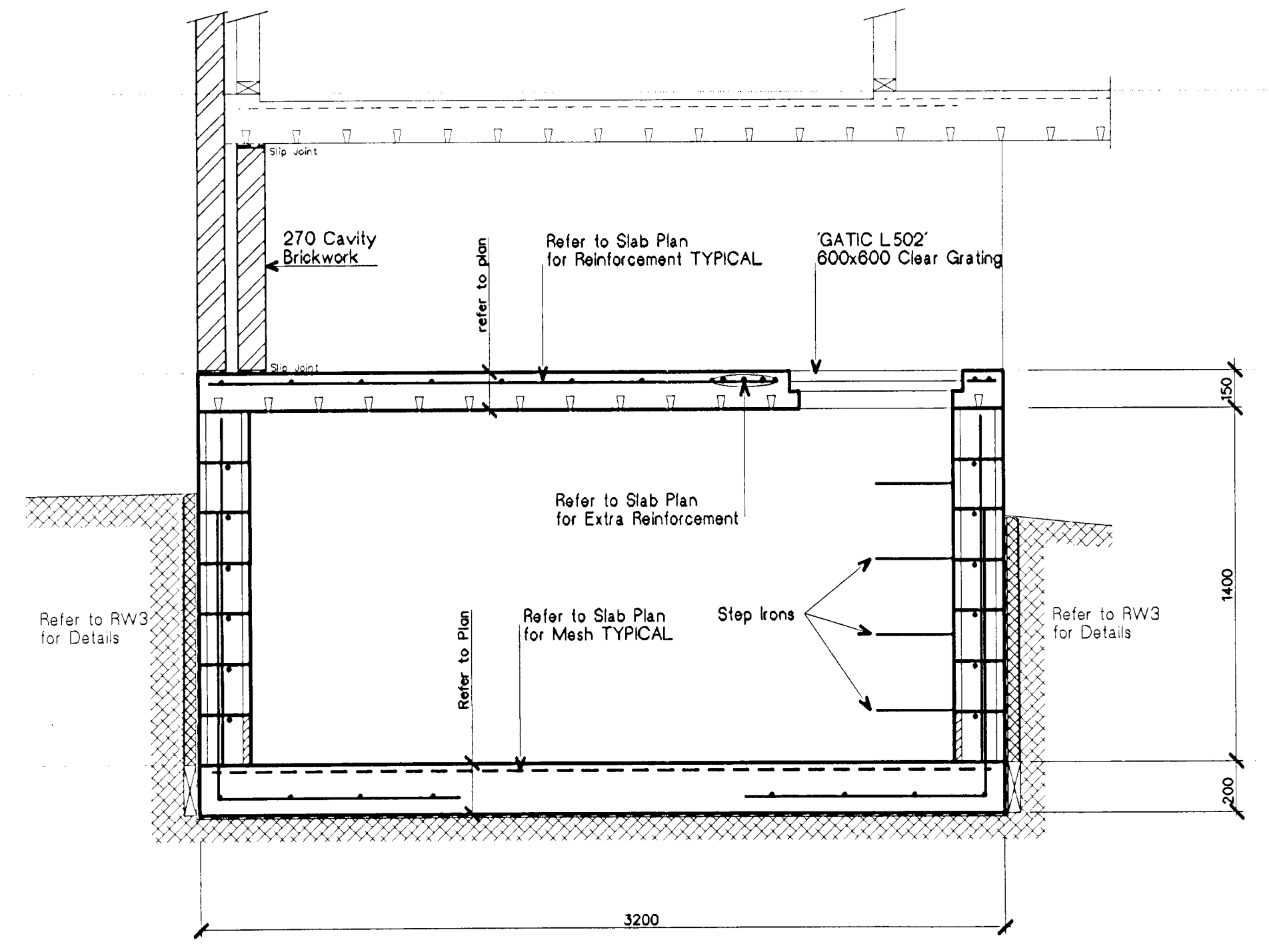




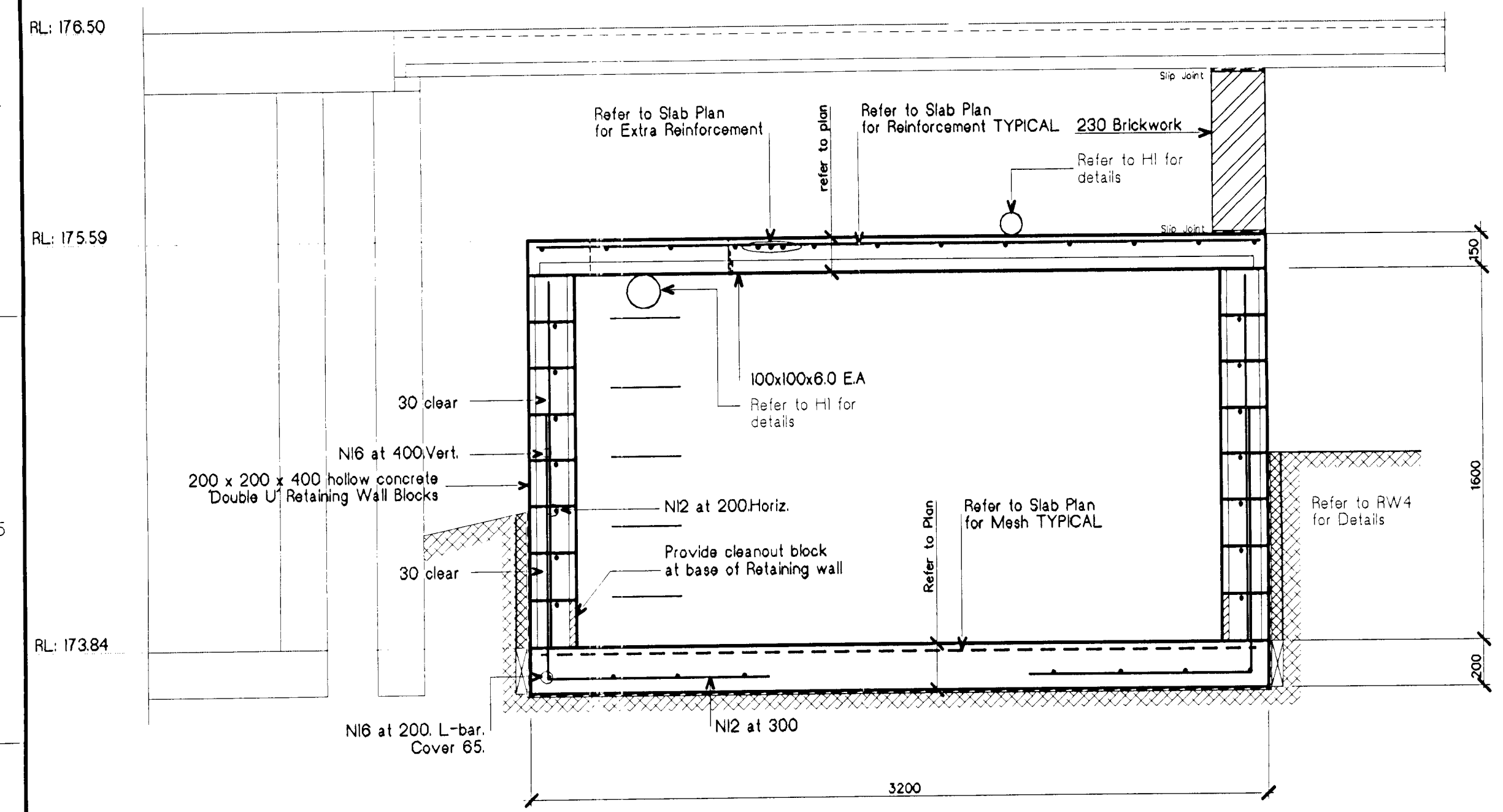
NOTE
PAINT UNDERSIDE OF BONDEK BEFORE INSTALLATION TO PREVENT FORM OF CORROSION

BLOCK RETAINING WALL SECTION 'RW3'

SECTION 1
Scale 1/20



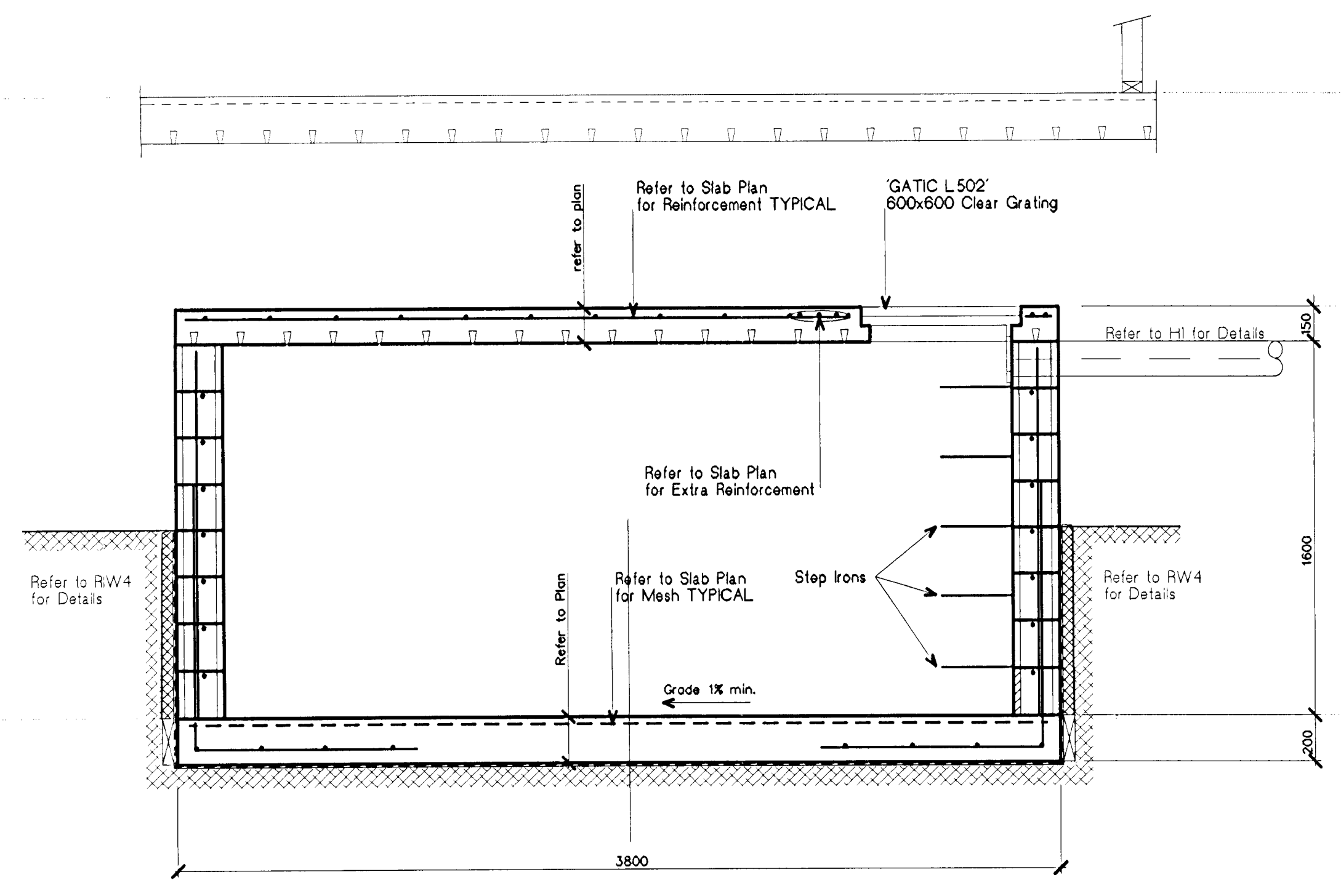
SECTION 2
Scale 1/20



NOTE
PAINT UNDERSIDE OF BONDEK BEFORE INSTALLATION TO PREVENT FORM OF CORROSION

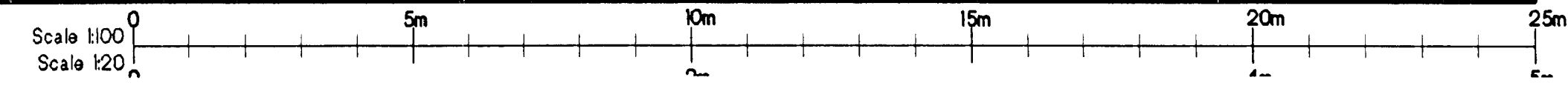
BLOCK RETAINING WALL SECTION 'RW4'

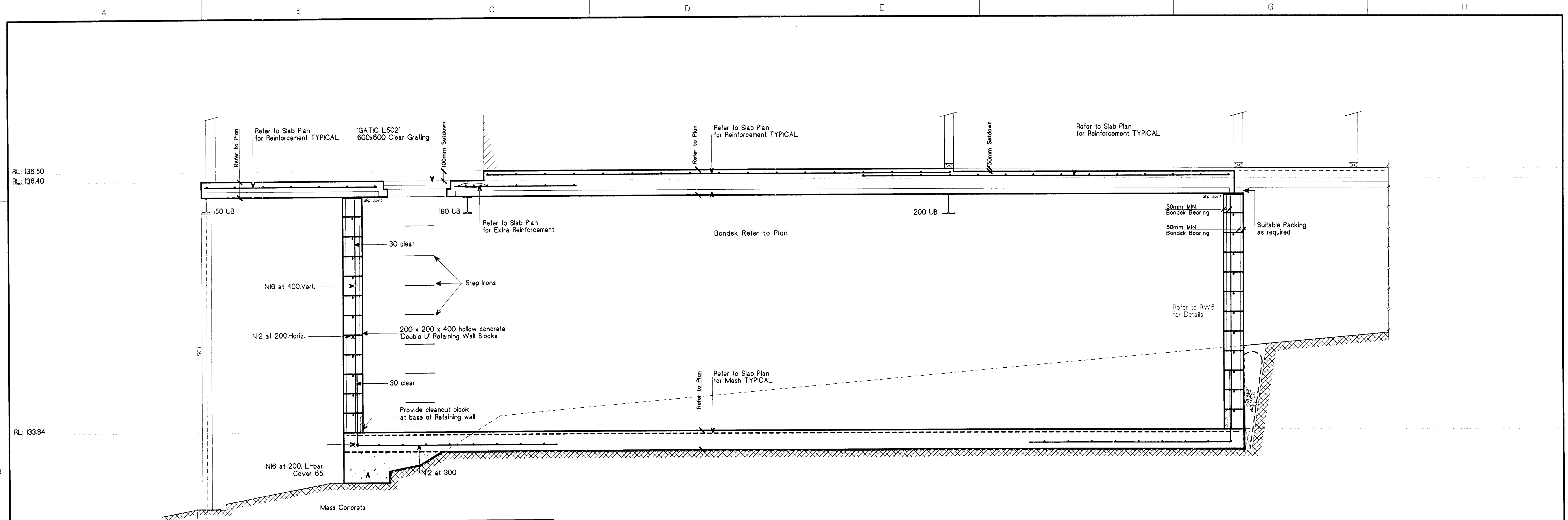
SECTION 3
Scale 1/20



SECTION 4
Scale 1/20

No.	Amendment	Drawn	Date
<p>PLAN OR DOCUMENT CERTIFICATION</p> <p>I am a qualified...CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER.... I hold the following qualifications or licence No.....MEngSc..... F.I.E.Aust.....Nper3.....Struct.Civ.I.No.149788.....</p> <p>Further I am appropriately qualified to certify this component of the project. I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS.1170, AS.1170.1, AS.1170.2, AS.1684, AS.2870.1, AS.3500, AS.3600, AS.3700, AS.4100 & AS.1163</p> <p>Jack D. Hodgson <i>[Signature]</i> Name Date Signature</p>			
<p>TANK DETAILS</p> <p>PROPOSED NEW RESIDENCE 73 INGLESDALE ROAD INGLESDALE</p> <p>M/R AND MRS GLEN JOHNSON</p> <p>Our design and drawings are based upon and derived from information (including levels surveys, etc) provided by the owner/architect/designer/ builder, Italic Holdings P/L, Date Sept 2007, Dwg Sheets 01-03. Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.</p> <p>The Structural Details shown on this Drawing are NOT to change under any circumstance. NO Certificate will be issued for work NOT in accordance with the Drawing</p>			
<p>JACK HODGSON CONSULTANTS PTY. LIMITED. Consulting Civil, Geotechnical, and Structural Engineers. 87 Darkey Street, MONA VALE 2003 P.O. Box 388 Post Code 1660. Telephone 021 9979 8723 Facsimile 021 9979 8928 Email info@jackhodgson.com.au web www.jackhodgson.com.au A.C.N. 053 405 011</p>			
Designed	KX	Drawn	MJC
Design Check	JDH	Drawing Check	JDH
Date	21 AUGUST 2008		24908-S8
			SHEET 8 OF 13

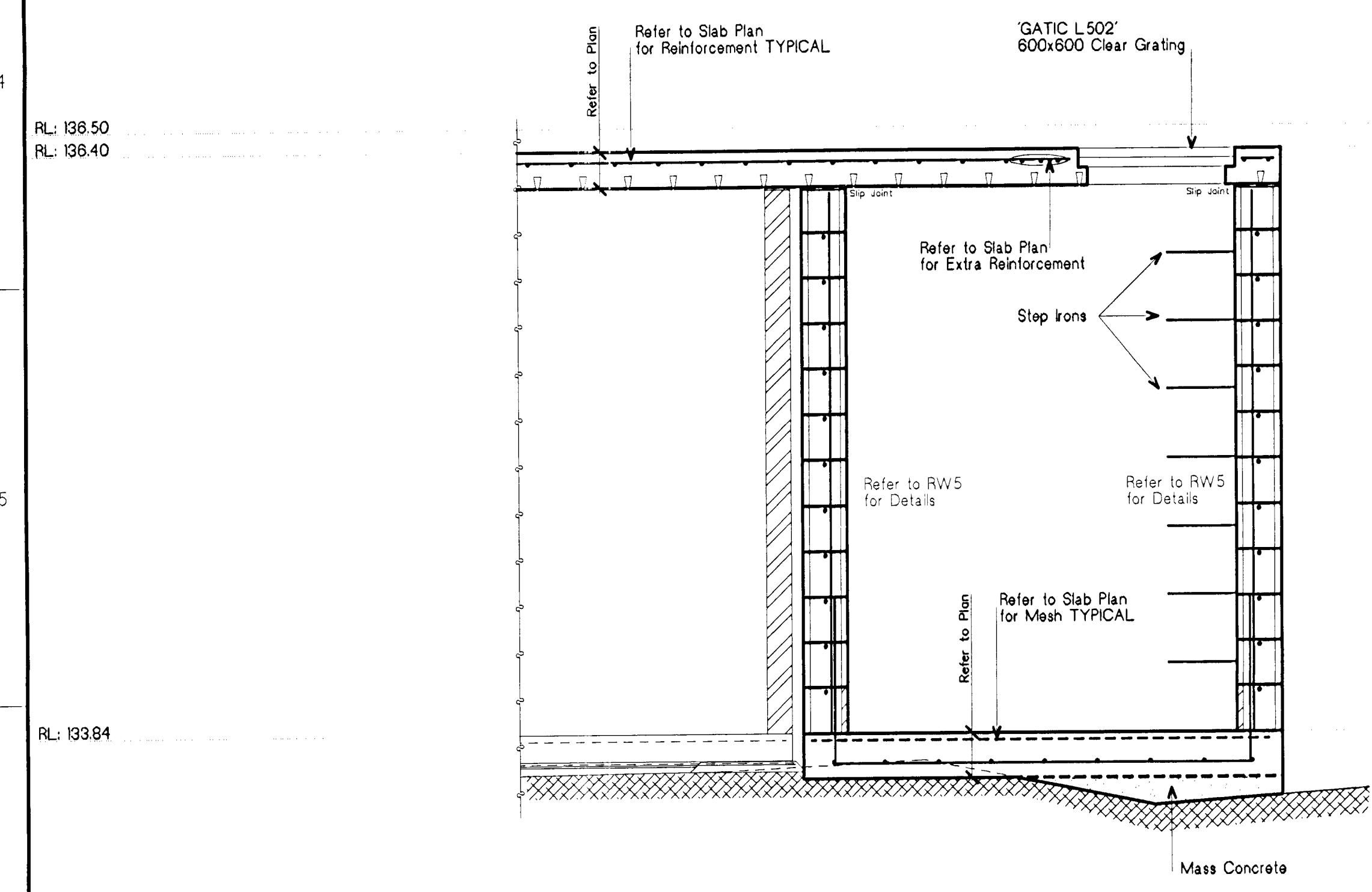




NOTE
PAINT UNDERSIDE OF BONDEK BEFORE INSTALLATION TO PREVENT FORM OF CORROSION

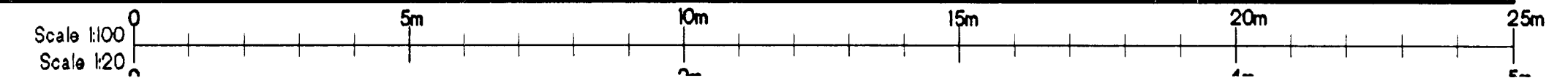
BLOCK RETAINING WALL SECTION 'RW5'

SECTION 5
Scale 1/20



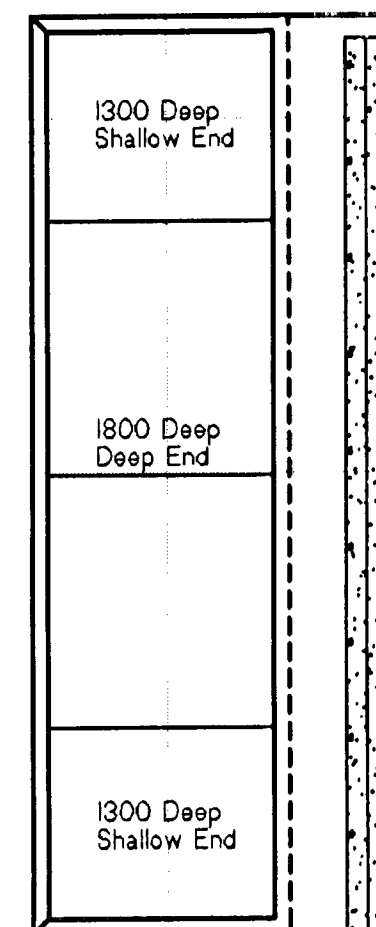
SECTION 6
Scale 1/20

No.	Amendment	Drawn	Date
<p>PLAN OR DOCUMENT CERTIFICATION</p> <p>I am a qualified CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER.....</p> <p>I hold the following qualifications or licence No.....MEngSc.....</p> <p>.....F.I.E.Aust.....Nper3.....StructCivlNo149788.....</p> <p>Further I am appropriately qualified to certify this component of the project.</p> <p>I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, A.S.1170, A.S.1170.1, A.S.1170.2, A.S.1684, A.S.2870.1, A.S.3500, A.S.3600, A.S. 3700, A.S.4100 & A.S.1183</p> <p>Jack D. Hodgson <i>[Signature]</i></p> <p>Name Date Signature</p>			
<p>TANK DETAILS</p> <p>PROPOSED NEW RESIDENCE</p> <p>73 INGLESIDE ROAD</p> <p>INGLESIDE</p> <p>MR AND MRS GLEN JOHNSON</p> <p>Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder (Halic Holdings P/L Date: Sept 2007, Dwg Sheets :01-08)</p> <p>Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.</p> <p>The Structural Details shown on this Drawing are NOT to change under any circumstance.</p> <p>NO Certificate will be issued for work NOT in accordance with the Drawing</p>			
<p>JACK HODGSON CONSULTANTS PTY. LIMITED.</p> <p>Consulting Civil, Geotechnical, and Structural Engineers.</p> <p>67 Darley Street, MCKAY VALE 2003 P.O. Box 398, Post Code 1660.</p> <p>Telephone (02) 9979 8733. Facsimile (02) 9979 6928.</p> <p>Email to jackhodgson.com.au web www.jackhodgson.com.au ACN 053 405 011</p>			
Designed	KX	Drawn	MJC
Design Check	JDH	Drawing Check	JDH
Date	21 AUGUST 2008		24908-S9
			SHEET 9 OF 13

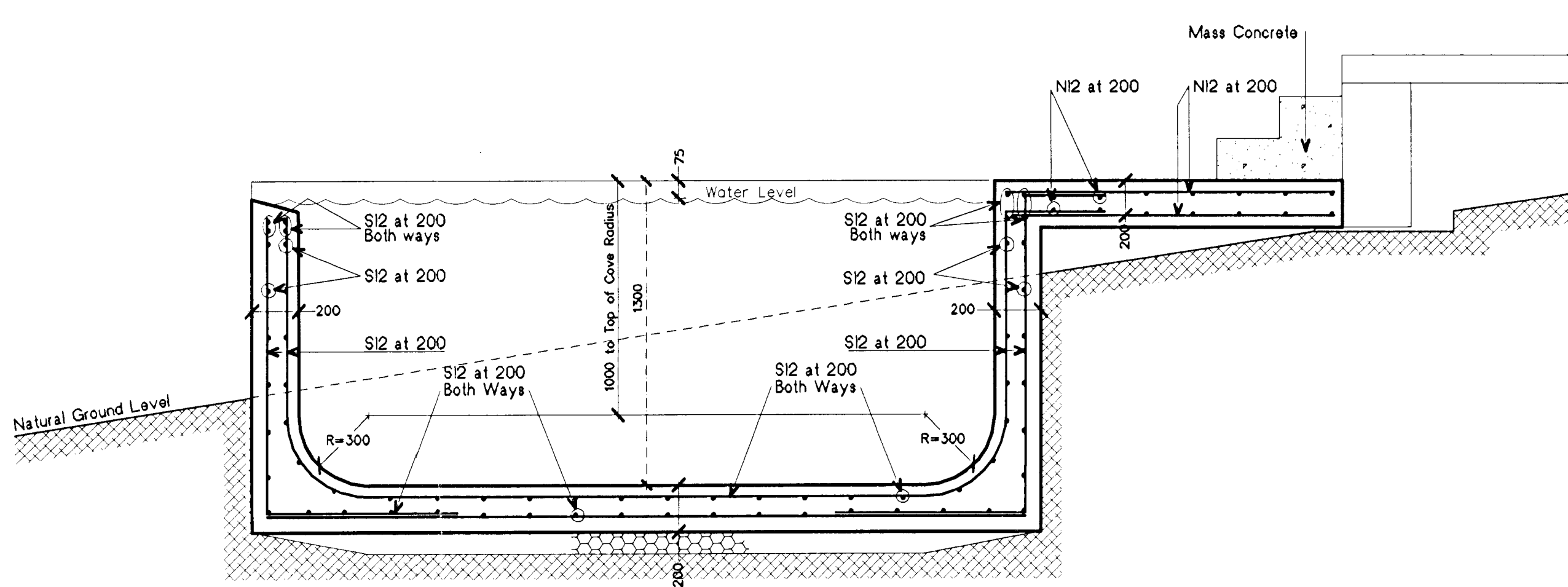


A B C D E F G H

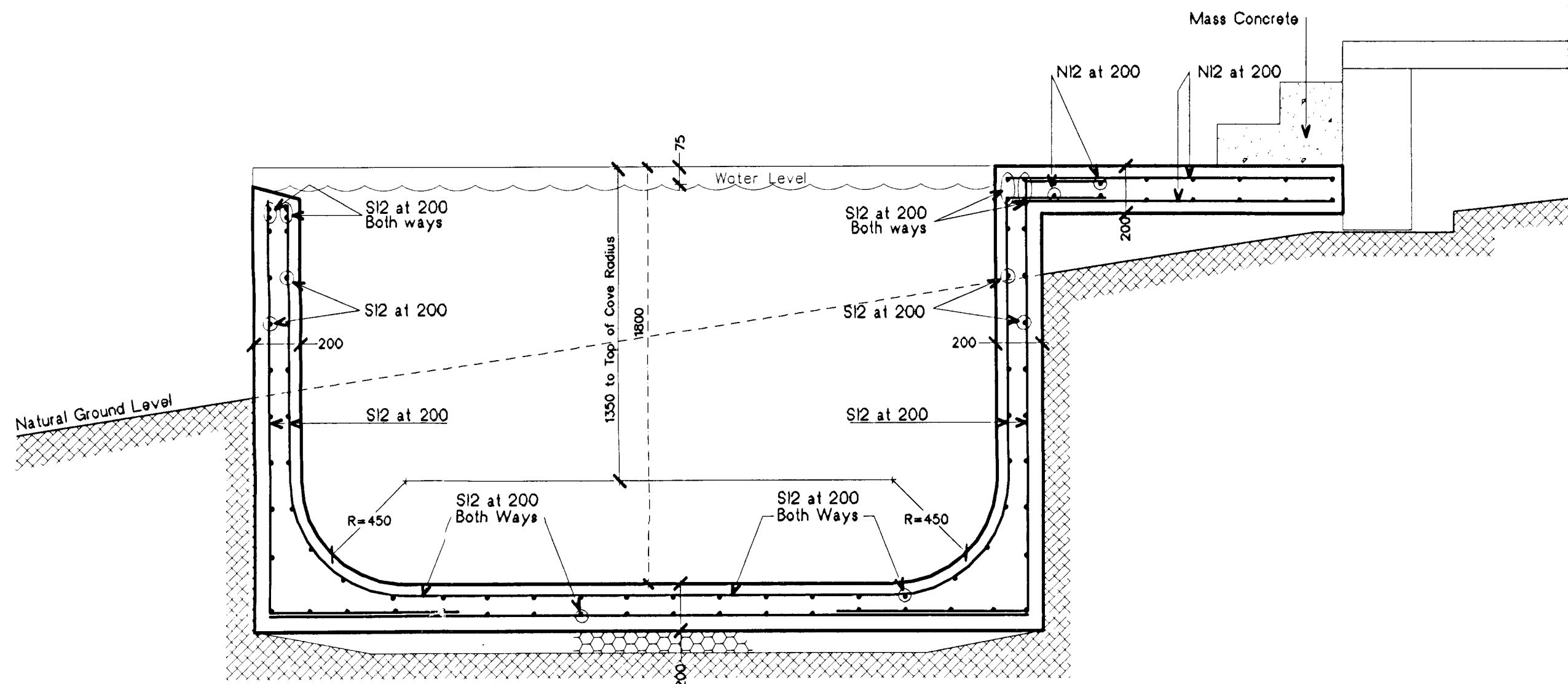
1
2
3
4
5
6



POOL LAYOUT PLAN Scale 1:100

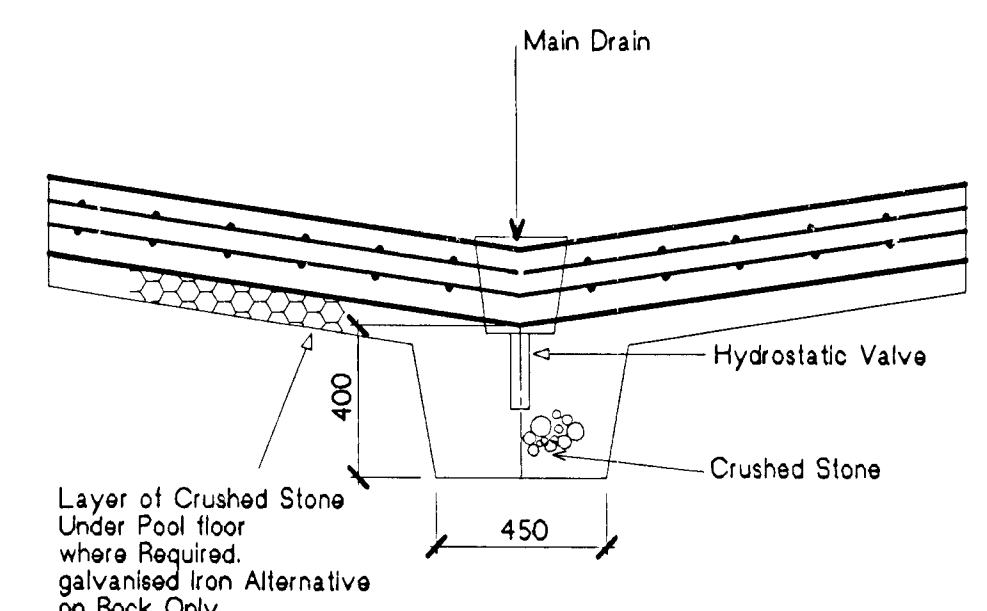


SHALLOW END SECTION 1 Scale 1:20

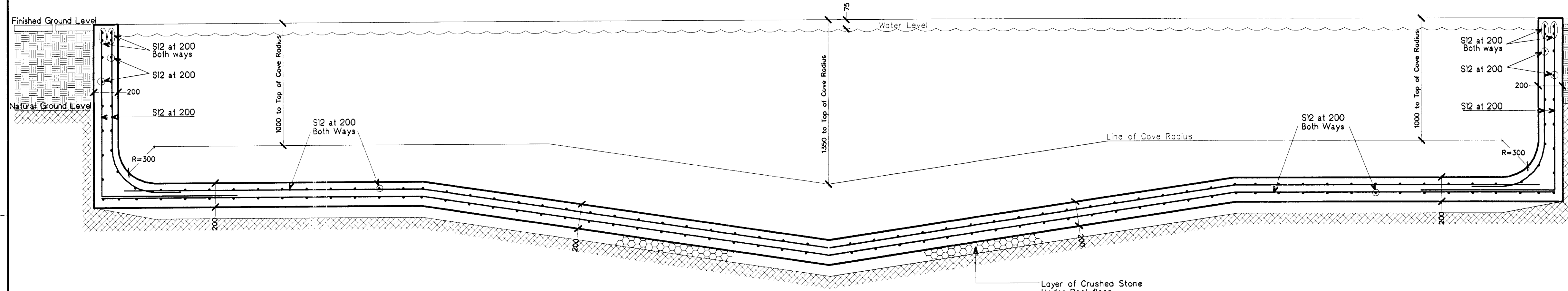


DEEP END SECTION 2 Scale 1:20

- POOL BUILDER : GENERAL NOTES**
- G1 This Design applies only for Ground levels as shown.
 - G2 All workmanship and materials shall comply with relevant current SAA Codes, By-laws and Ordinances of the Local Building Authority and AS 2783-1985.
 - G3 The overall Dimensions shall be checked on Site. Dimensions shown are concrete sizes and do not include Finishes. These drawings are to be read in conjunction with the Contract. Do NOT scale from this drawing. Any Discrepancies shall be notified to the Engineer.
 - G4 The Foundation material must be stable and uniform and shall have a min. Bearing Capacity of 150 KPa. Any variation in foundations from that assumed shall be immediately referred to the Engineer. The underside of the pool shall be separated from the Foundation material by an impervious membrane overlying a 75mm thickness of permeable material draining to the Hydrostatic Valve.
 - G5 Excavations shall NOT be permitted within 2 metres of an Existing Structure with out prior approval or recommendations for shoring or underpinning provided by the Engineer.
 - G6 Walkways have been designed for a distributed load of 45 KPa and a Live load of 15kN/m on the edge. NO additional loads shall be permitted without prior approval from the Engineer.
 - G7 Provide temporary drain hole in both shallow and deep ends of Pool shell. Hydrostatic Valve to be cleared of Debris on completion of Concreting.
 - G8 Underside of Pool shell to be separated from the underlying material by 75mm layer of Crushed Stone. Place membrane between Pool Shell and Blumetal. Corrugated iron alternative on Rock ONLY. Fill main drain sump with Blumetal.
 - G9 Notify Engineer if Pool more than 900mm above Natural Ground Level.
- POOL OWNER NOTES**
- 1 If owner is dissatisfied with initial pool set-out, location or depths, the Builder should be Notified BEFORE steel reinforcement is fixed.
 - 2 The position of skimmers, lights, return lines etc. on this drawing is indicative only and final position to be determined on Site.
 - 3 The live load design for Copings and Walkways is 4KPa. Backstrade load is 15kN/m along edge UNO. Engineer must be notified if masonry walls are to be placed on Walkways.
 - 4 The Pool concrete should be cured by hosing 4 times a day for 7 Days.
 - 5 10 Days in Summer, after Concrete placement by the Pool Builder.
 - 6 Safety Fencing should be in accordance with Local Councils requirements and Conform to Australian Standards.
 - 7 The pool is NOT designed for Diving. Provide safety signage to SAA code Local Council requirements and AS2416, AS26992.



TYPICAL HYDROSTATIC VALVE DETAIL



LONGITUDINAL SECTION 3 Scale 1:20

No.	Amendment	Drawn	Date

PLAN OR DOCUMENT CERTIFICATION

I am a qualified... CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER...

I hold the following qualifications or licence No... M.Eng.Sc...

...F.I.E. Aust... Nper3... Struct.Civil.No.149788

Further I am appropriately qualified to certify this component of the project.

I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS.1170, AS.1170.1, AS.1170.2, AS.1684, AS.2870.1, AS.3500, AS.3600, AS. 3700, AS.4100 & AS.1183

Jack D. Hodgson *J. Hodgson*

Name Date Signature

POOL SECTIONS

PROPOSED NEW RESIDENCE

73 INGLESIDE ROAD

INGLESIDE

MR AND MRS GLEN JOHNSON

Our design and drawings are based upon and derived from information (including levels, surveys, etc.) provided by the owner/architect/designer/ builder. (Traffic Holdings P/L Date: Sept 2007, Dwg Sheets 01-08)

Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.

The Structural Details shown on this Drawing are NOT to change under any circumstances.

NO Certificate will be issued for work NOT in accordance with the Drawing.

JACK HODGSON CONSULTANTS PTY. LIMITED.

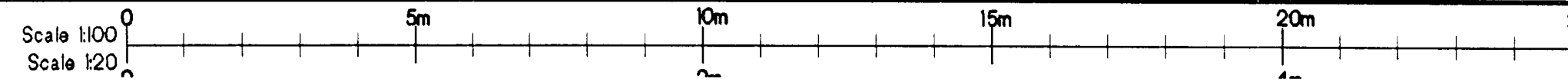
Consulting Civil, Geotechnical, and Structural Engineers.

67 Darby Street, MONA VALE 2303, P.O. Box 393, Post Code 1660.

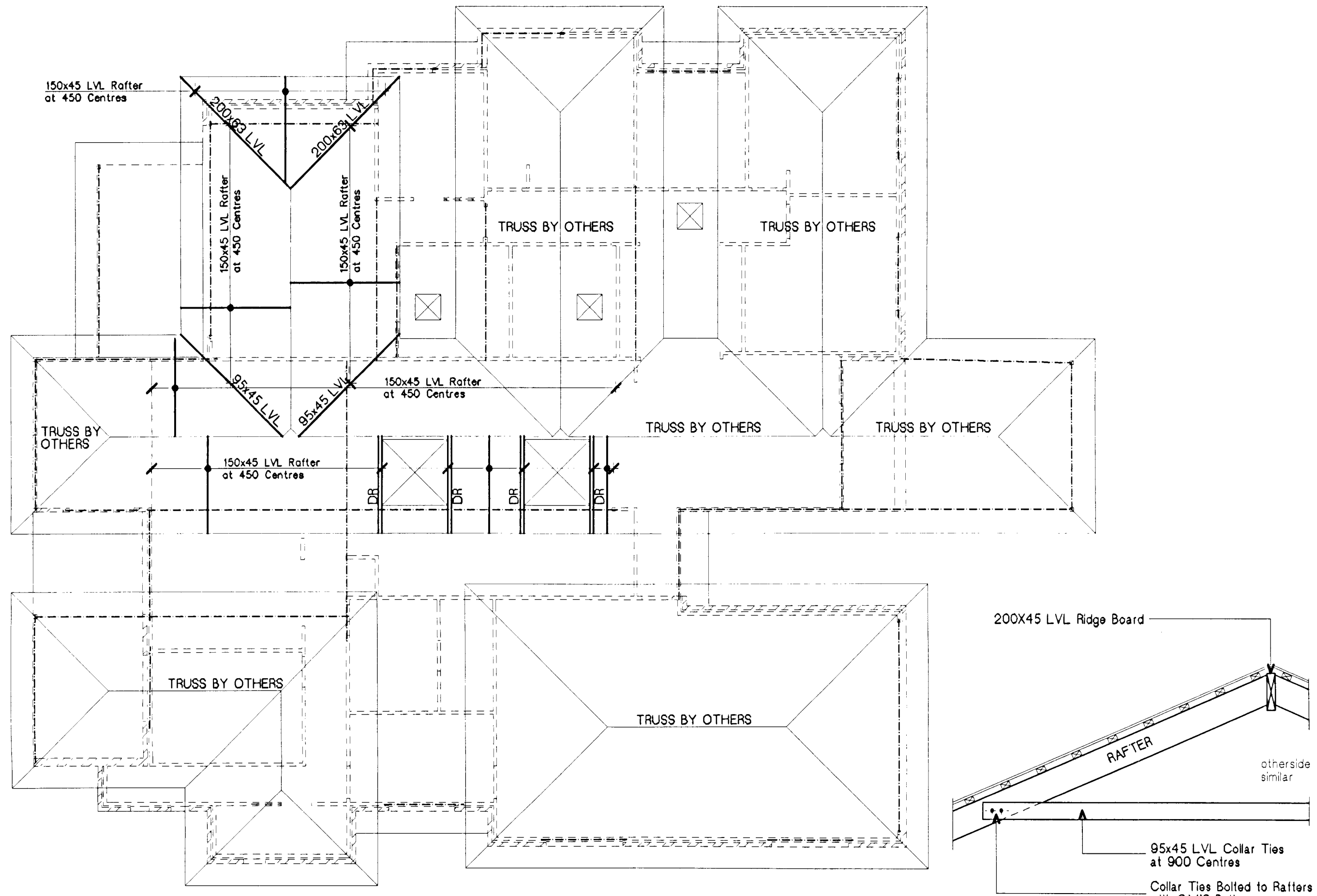
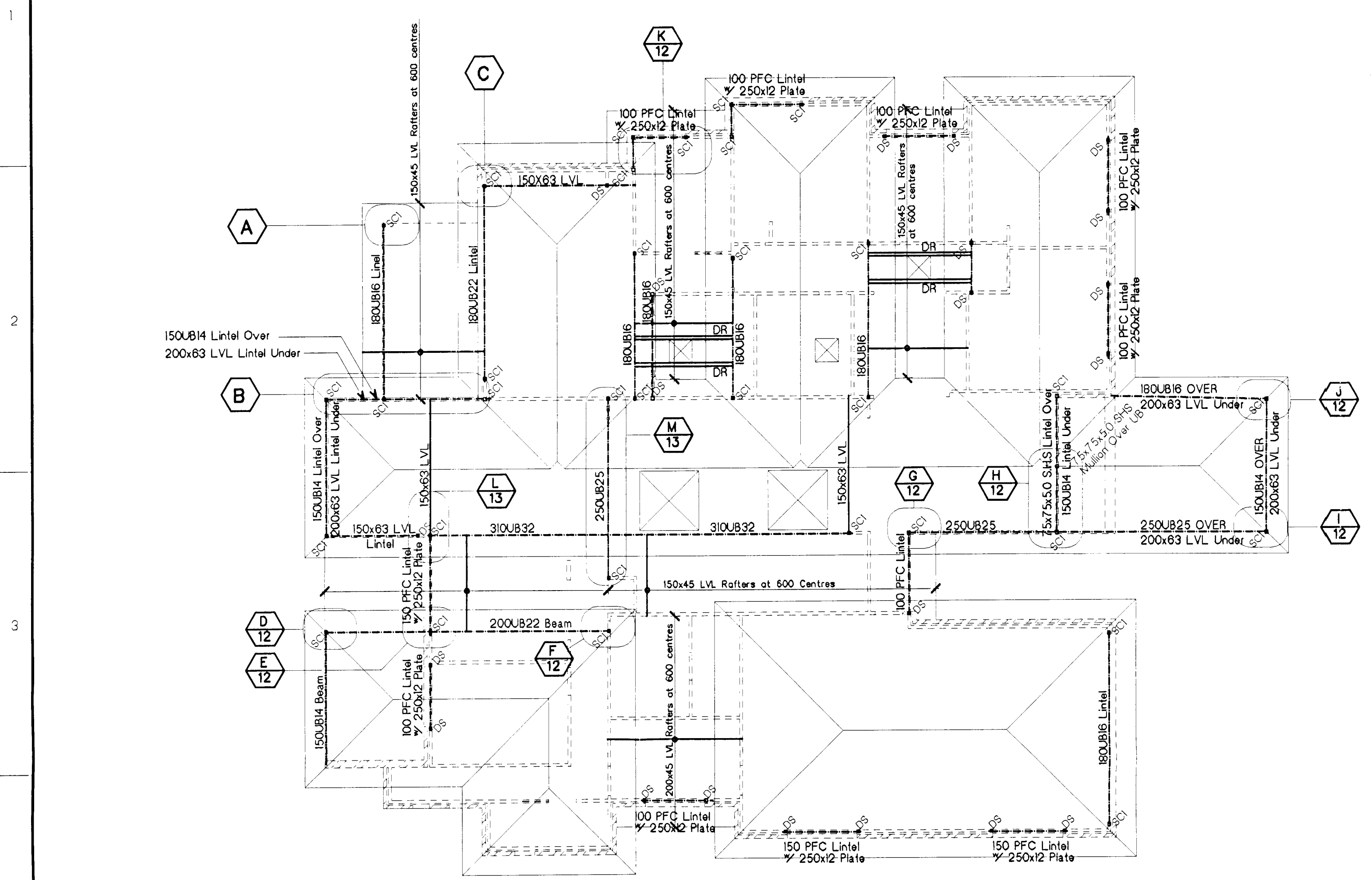
Telephone (02) 9979 8733, Facsimile (02) 9979 8926.

Email: info@jackhodgson.com.au web: www.jackhodgson.com.au ACN: 053 405 011

Designed	KX	Drawn	MJC	Job No.		Drawing No.	
Design Check	JDH	Struct. Check	JDH	24908-S10			
Date	21 AUGUST 2008						



A B C D E F G H



LOWER ROOF MARKING PLAN Scale 1:100

SCI = 89 x 89 x 5.0 SHS
 DS = Indicates Double Stud
 All beams to bear on adequate structural supports.
 To be Confirmed on Site.
 All posts to bear on adequate structural supports.
 To be confirmed on site.

DR = Indicates Double Rafter

UPPER ROOF MARKING PLAN Scale 1:100

DR = Indicates Double Rafter

TYPICAL ROOF DETAIL Scale 1:20

REFER TO DRAWING 1 FOR NOTES AND THE IMPORTANCE OF CURING CONCRETE GRAPH.

No.	Amendment	Drawn	Date

PLAN OR DOCUMENT CERTIFICATION

I am a qualified CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER. I hold the following qualifications or licence No. M.Eng.Sc. F.I.E.Aust. Nper3. StruCl.Civl.No.149788. Further I am appropriately qualified to certify this component of the project. I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS.1170.1, AS.1170.2, AS.1184.4, AS.2870.1, AS.3500.1, AS.3600.1, AS.3700.1, AS.4100 & AS.1183.

Jack D. Hodgson *[Signature]*
 Name Date Signature

LOWER AND UPPER ROOF MARKING PLANS AND DETAILS

PROPOSED NEW RESIDENCE
73 INGLESDALE ROAD
INGLESIDE
MR AND MRS GLEN JOHNSON

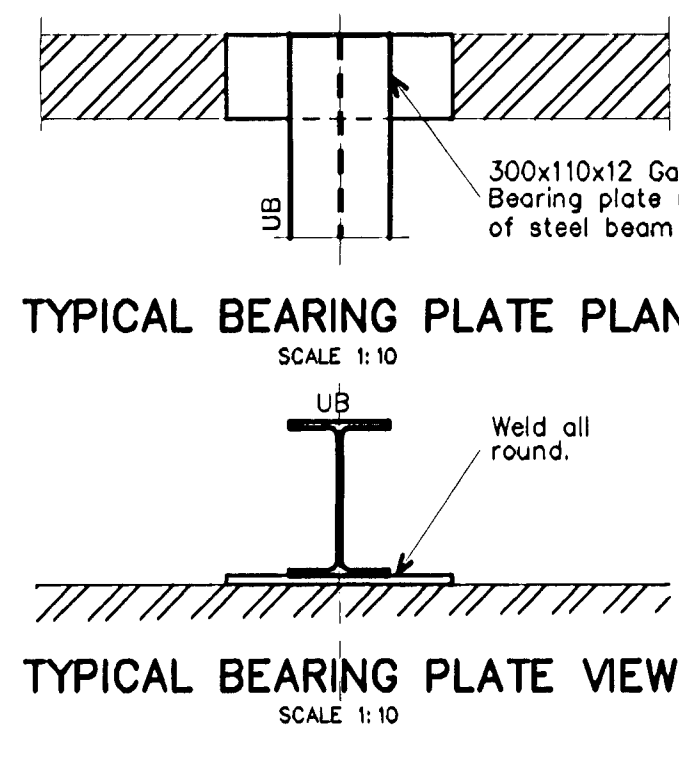
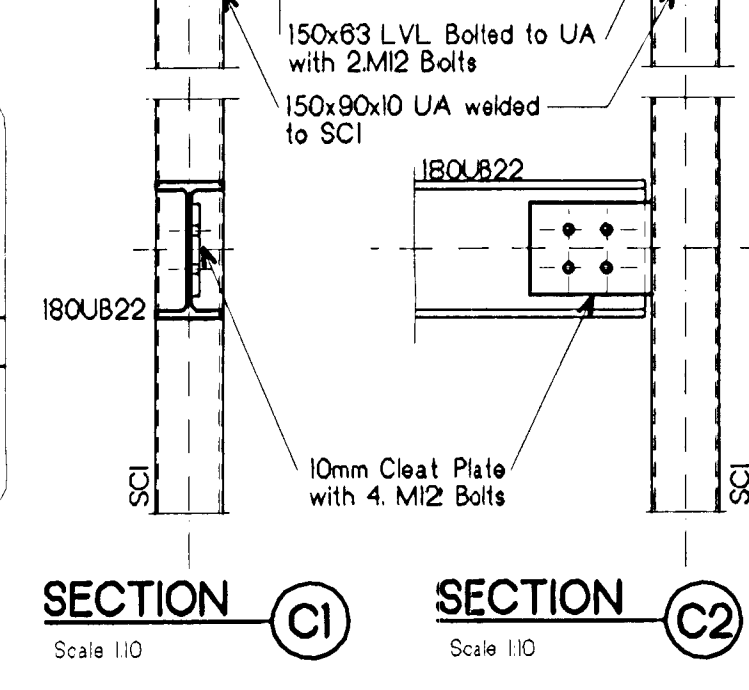
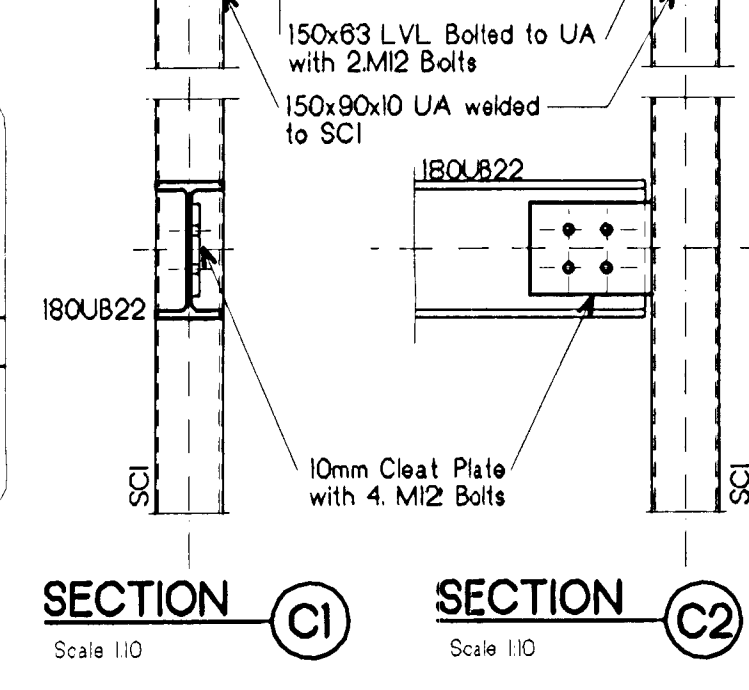
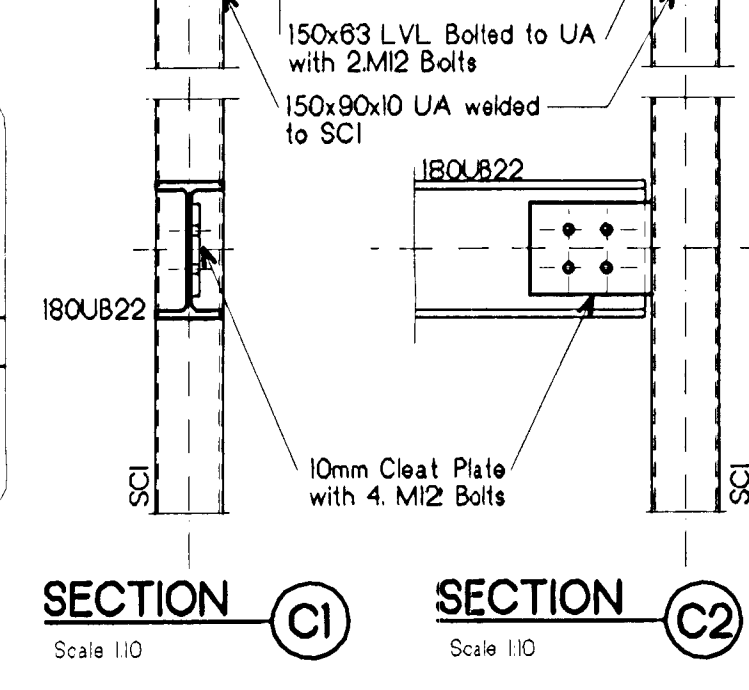
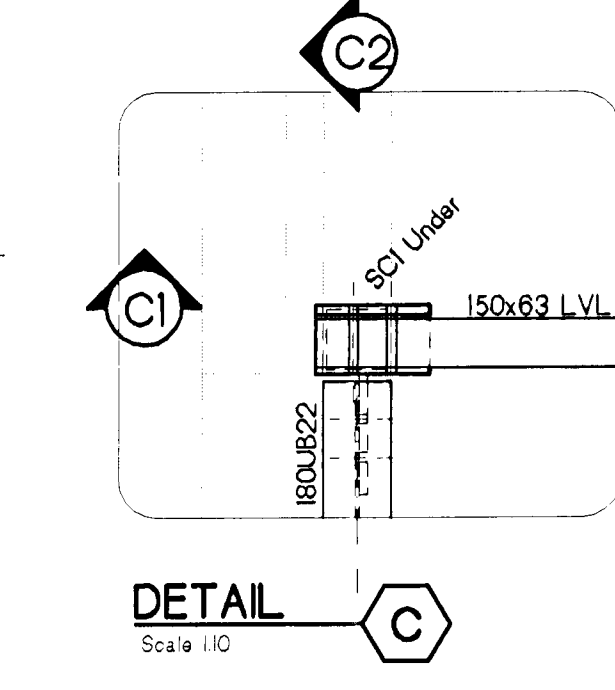
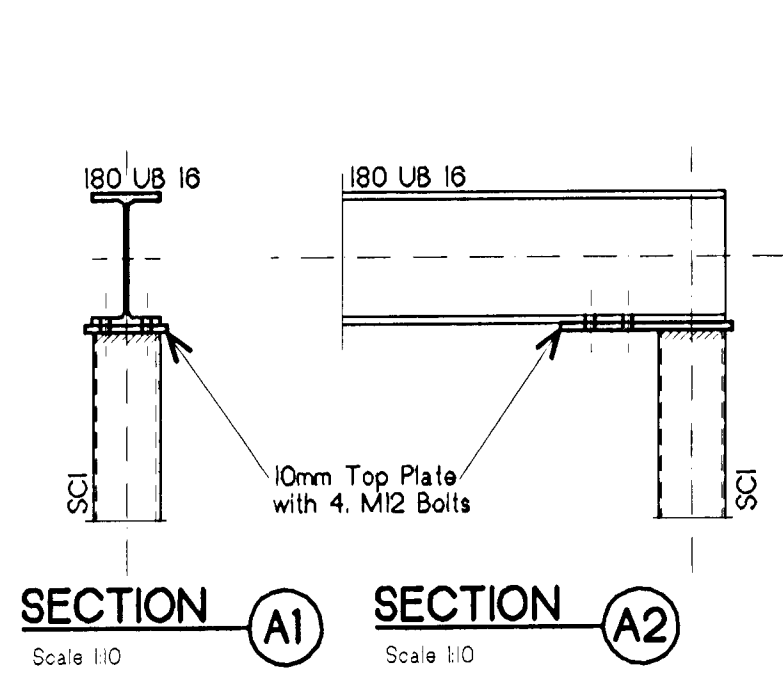
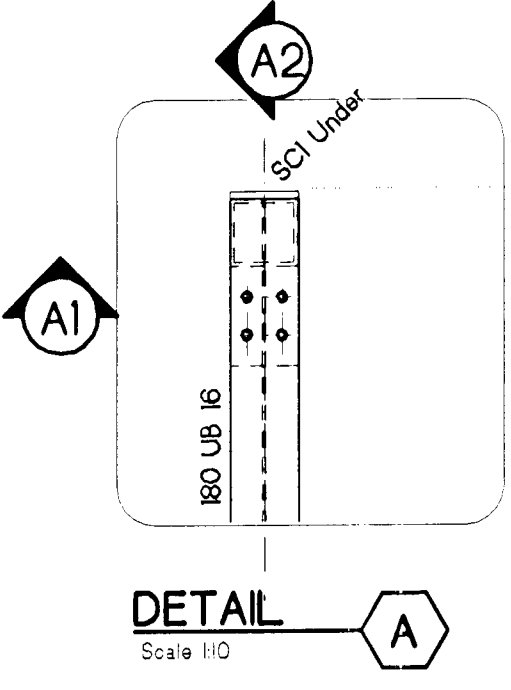
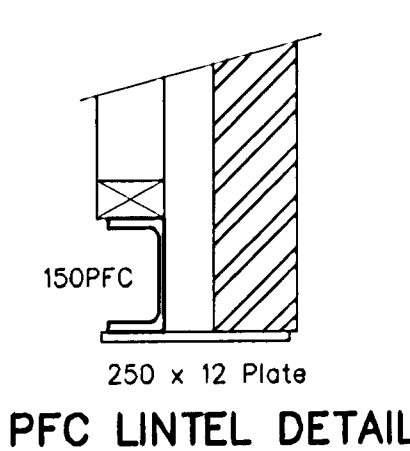
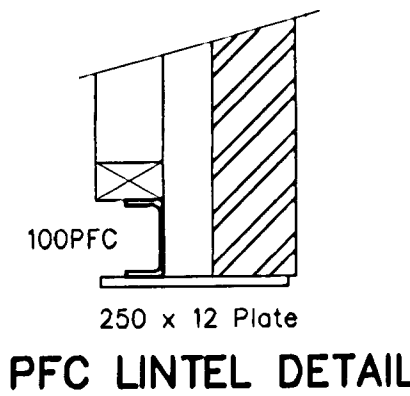
Our design and drawings are based upon and derived from information including levels, surveys, etc. provided by the owner/architect/designer/ builder. (Please fillings P/L Date: Sept 2007. Dwg Sheets: 01-09). Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.

The Structural Details shown on this Drawing are NOT to change under any circumstance. NO Certificate will be issued for work NOT in accordance with the Drawing.

JACK HODGSON CONSULTANTS PTY. LIMITED,
 Consulting Civil, Geotechnical, and Structural Engineers.
 87 Daley Street, MCKAY VALE 2103 P.O. Box 389, Post Code 1660.
 Telephone: (02) 9978 8733. Facsimile: (02) 9978 8928.
 Email: info@jackhodgson.com.au website: www.jackhodgson.com.au A.C.N. 093 405 011

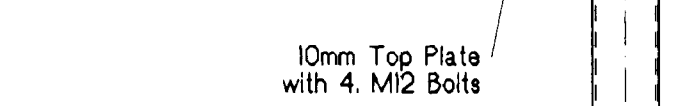
Designed	KX	Drawn	MJC	Job No.	
Design Check	JDH	Drawing Check	JDH		
Date	21 AUGUST 2008				

24908-S11
 SHEET 11 OF 13

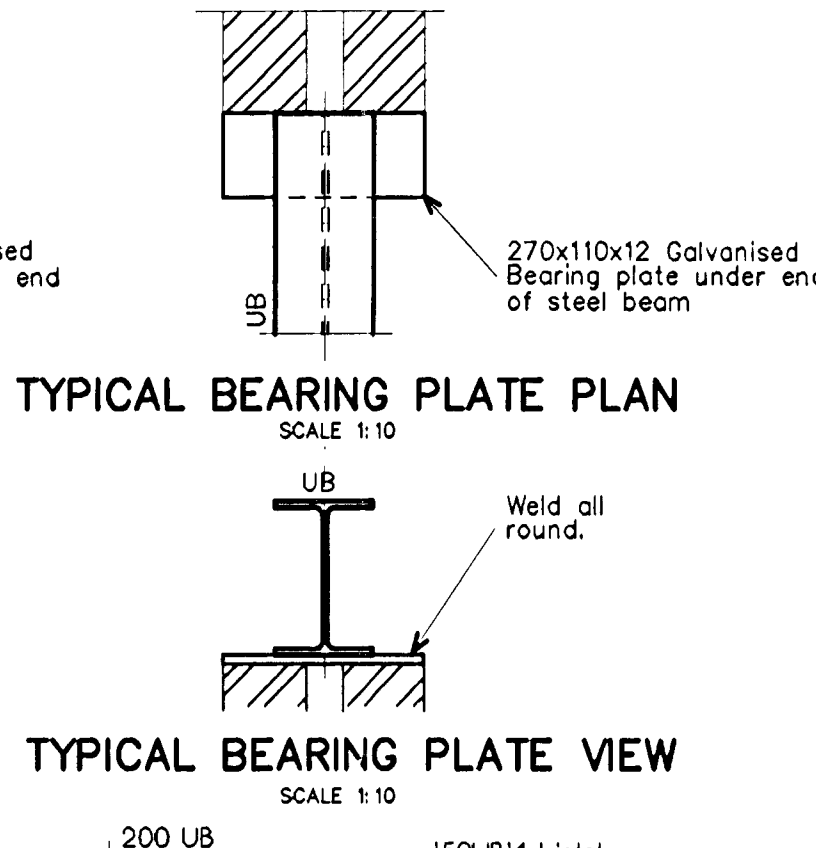


TYPICAL BEARING PLATE PLAN SCALE 1:10

Weld all round.



TYPICAL BEARING PLATE VIEW SCALE 1:10

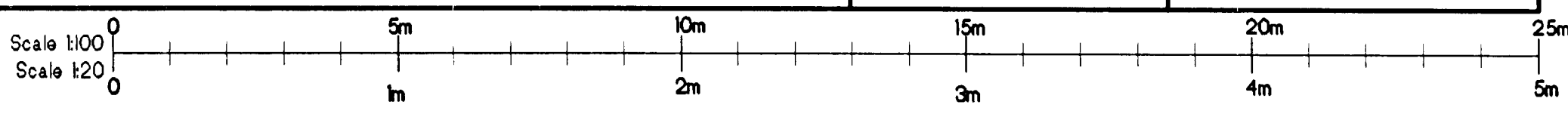
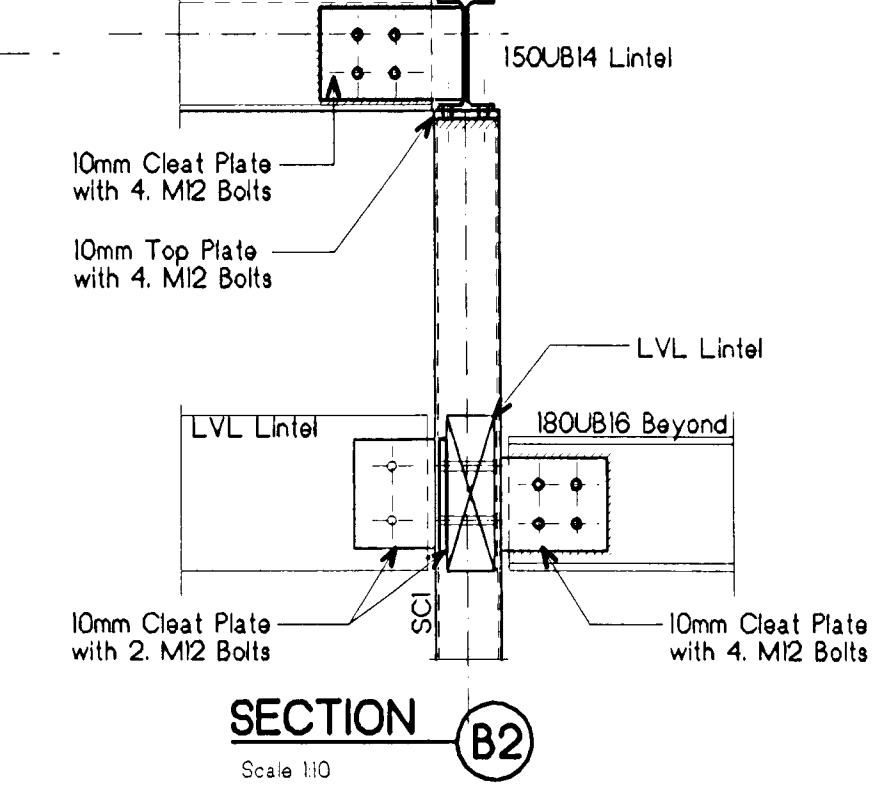
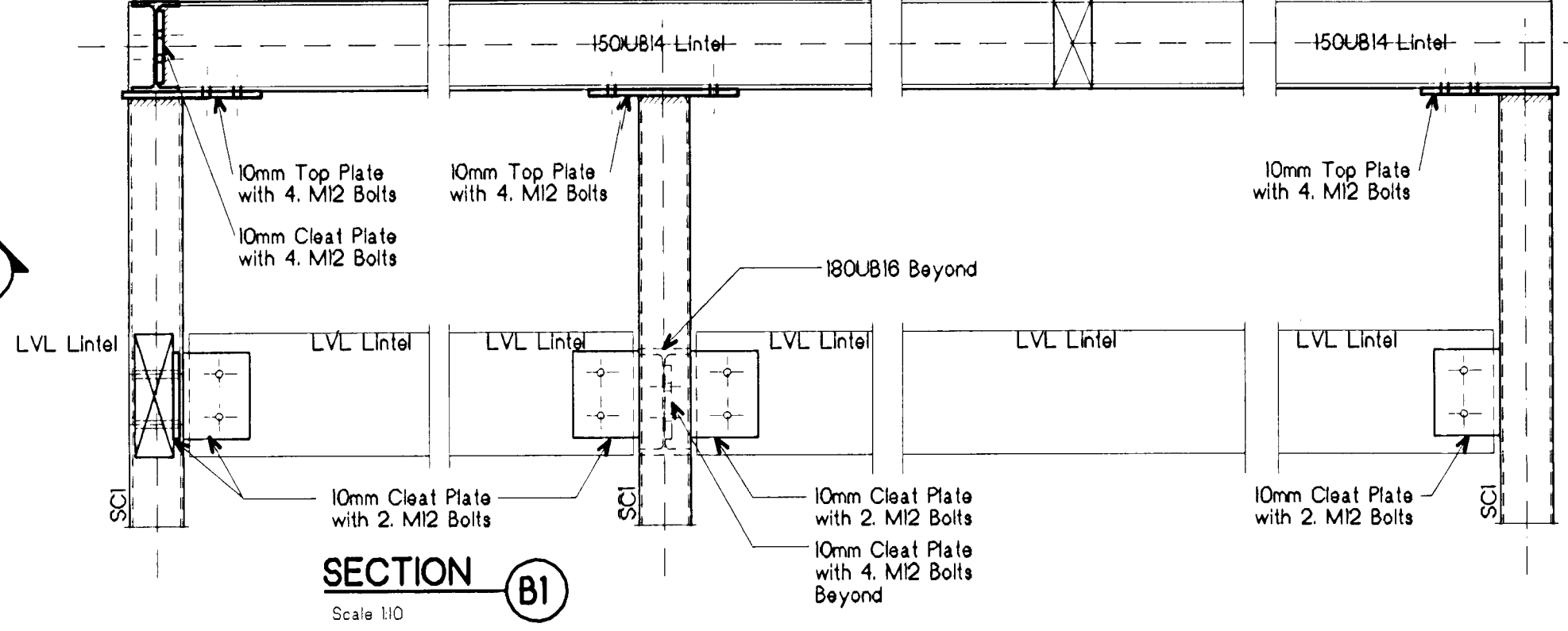
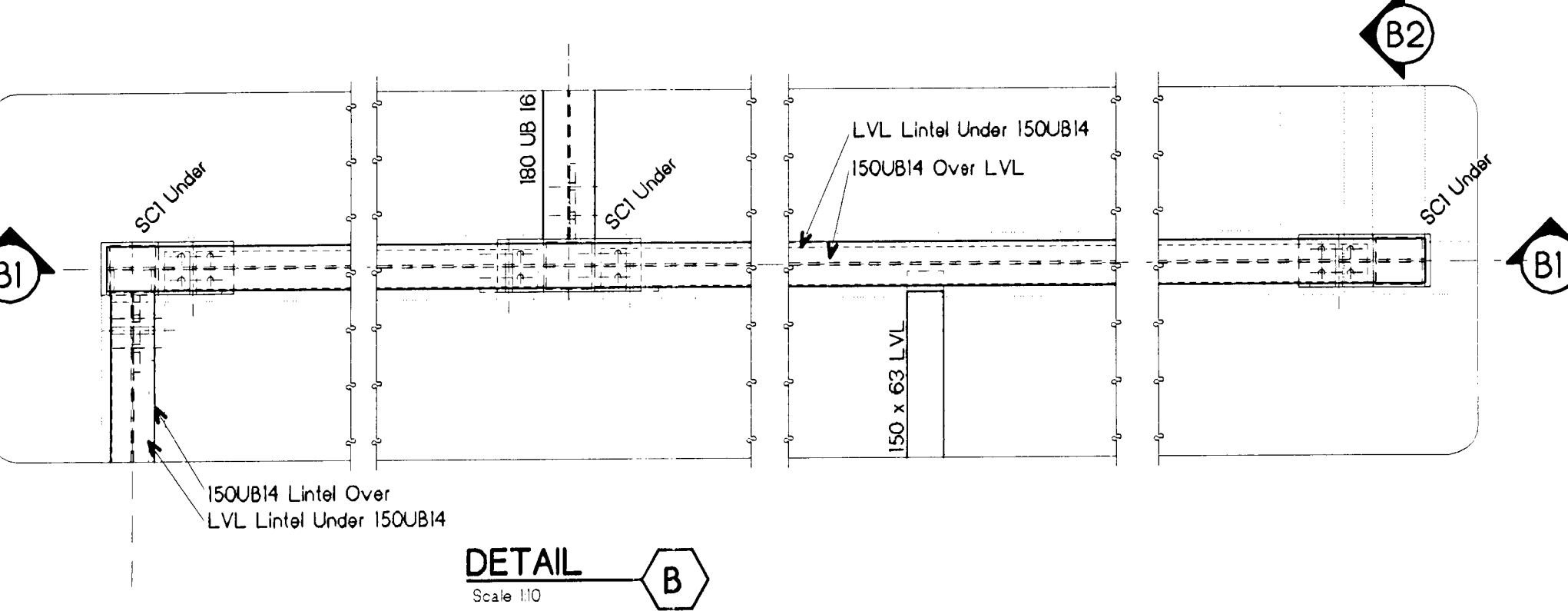


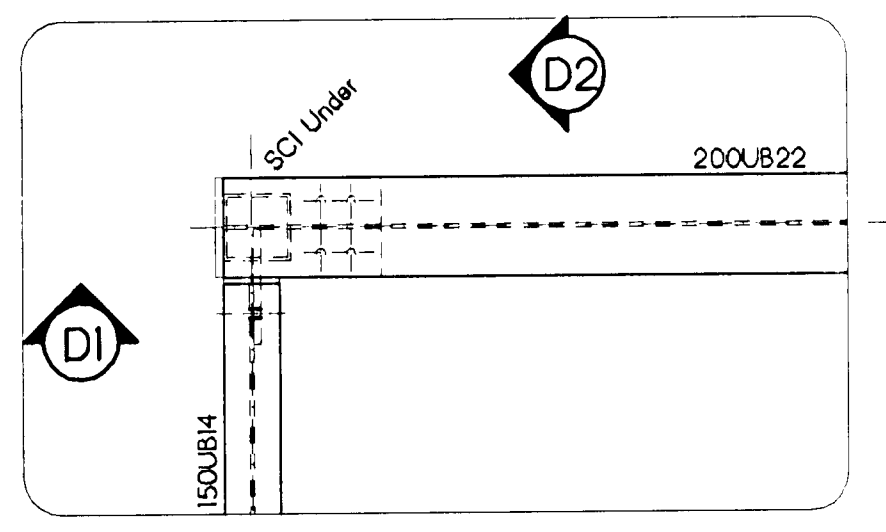
TYPICAL BEARING PLATE PLAN SCALE 1:10

Weld all round.

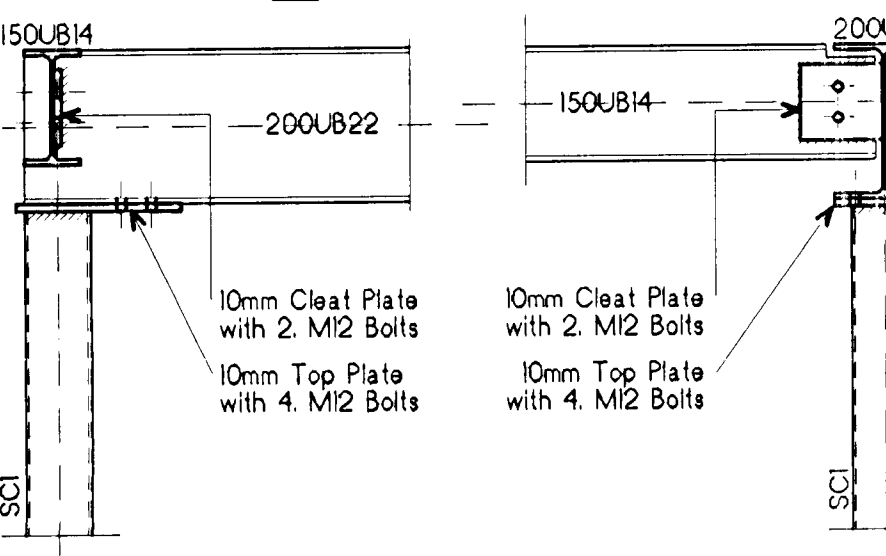


TYPICAL BEARING PLATE VIEW SCALE 1:10



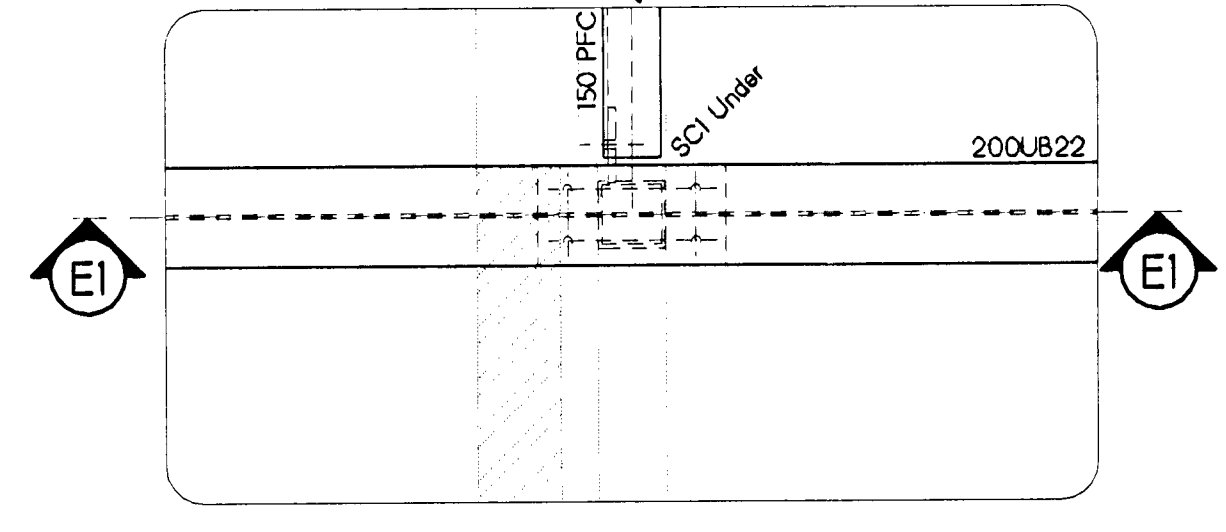


DETAIL D2
Scale 1:10

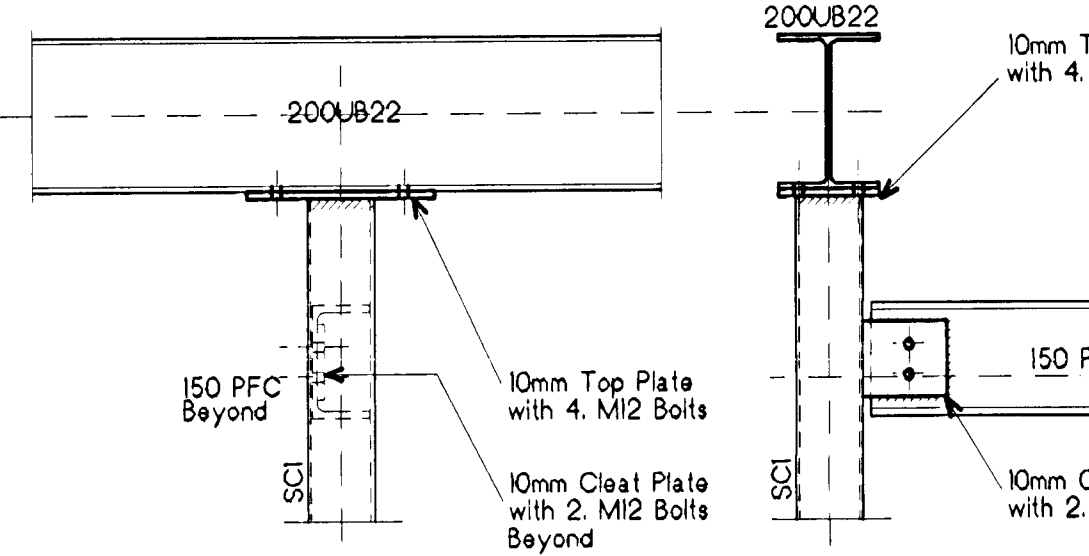


SECTION D1
Scale 1:10

SECTION D2
Scale 1:10

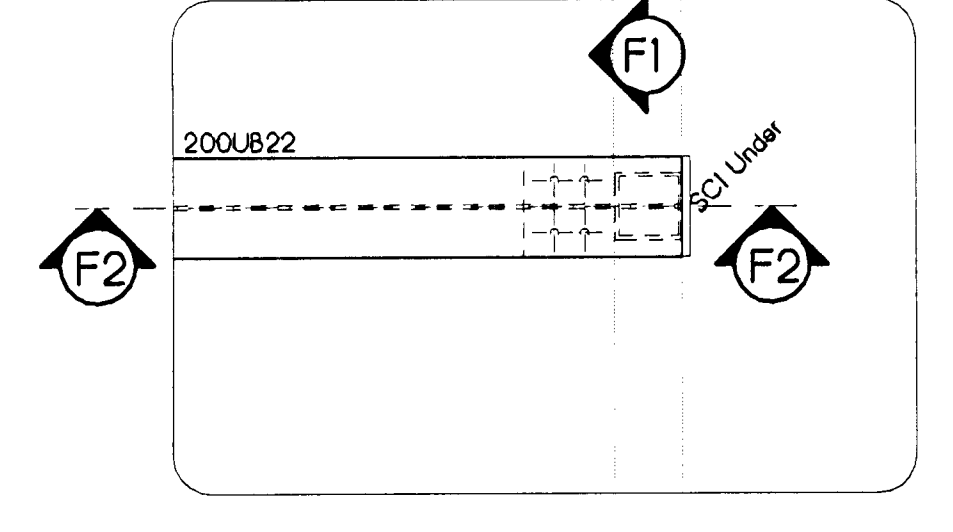


DETAIL E1
Scale 1:10

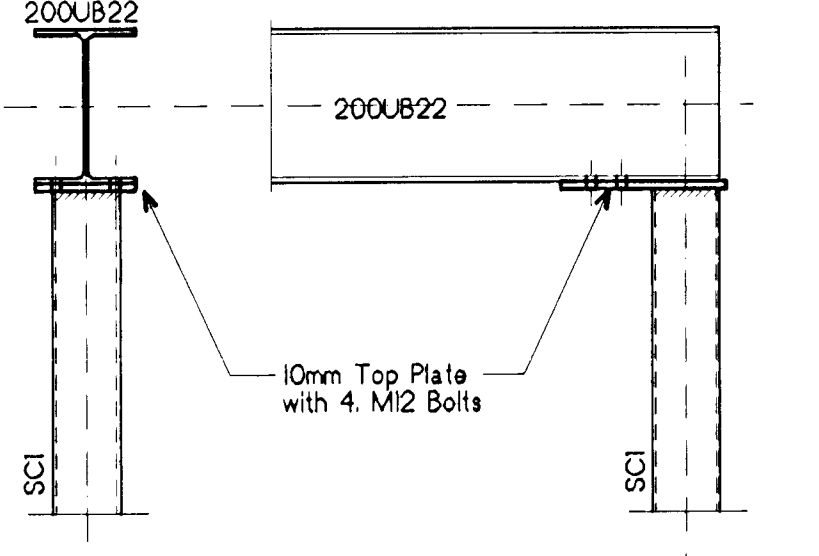


SECTION E1
Scale 1:10

SECTION E2
Scale 1:10

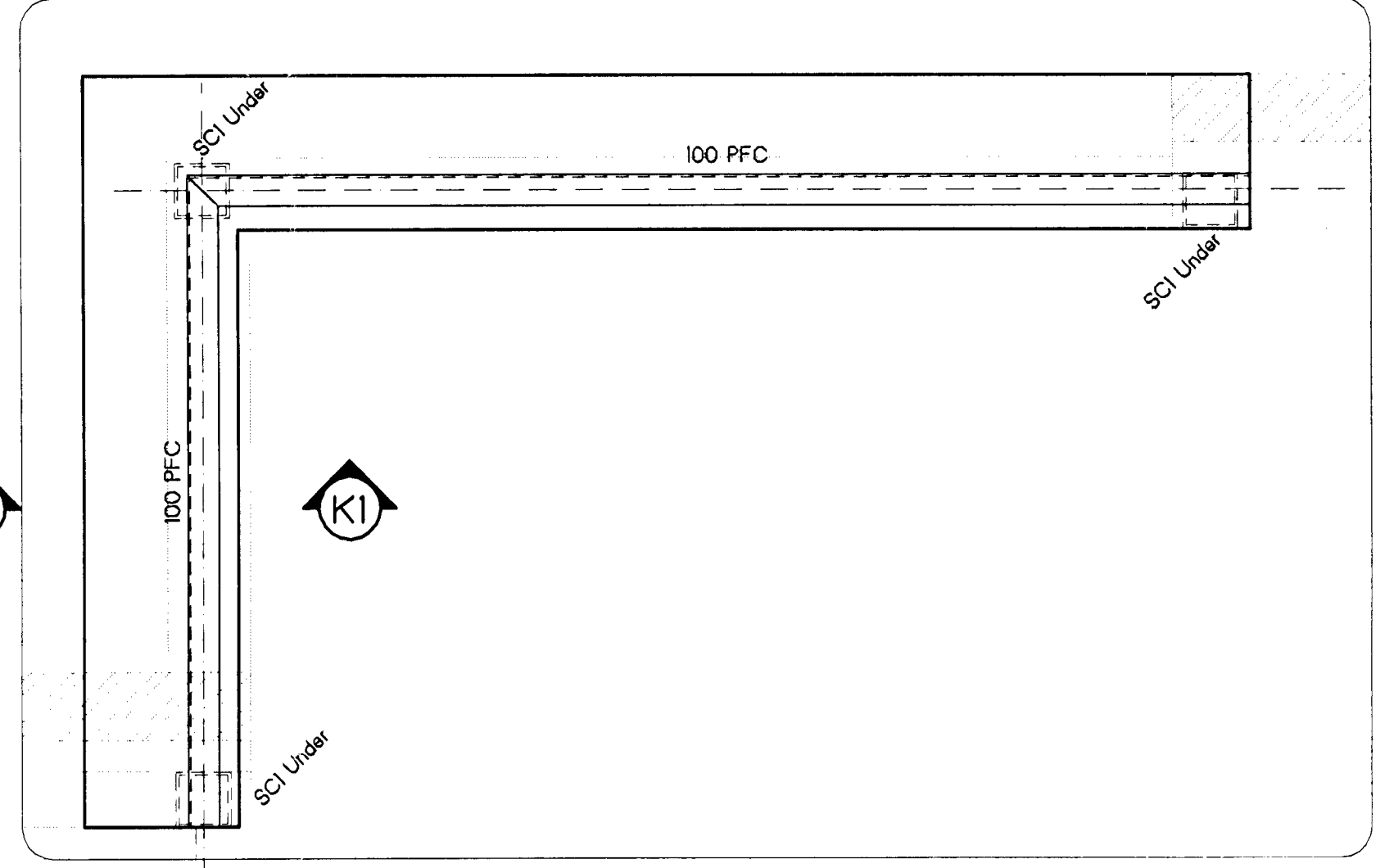


DETAIL F1
Scale 1:10

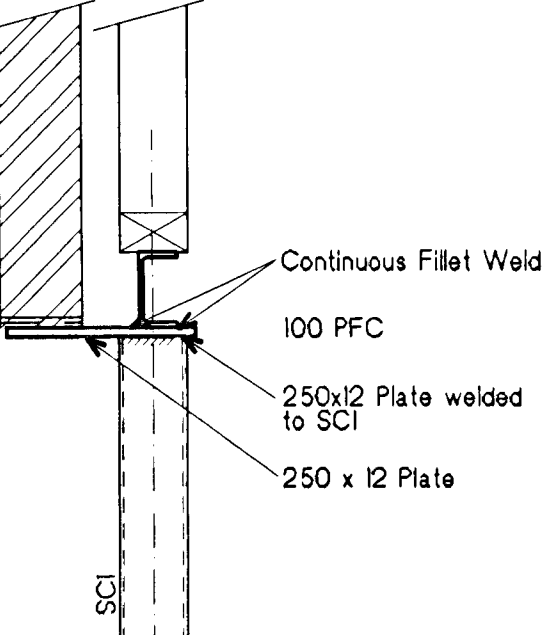


SECTION F1
Scale 1:10

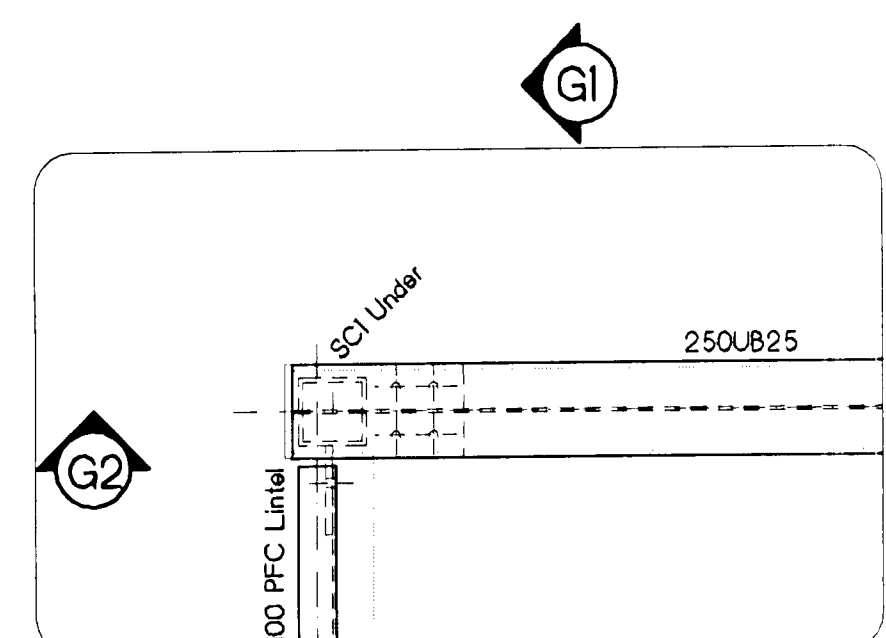
SECTION F2
Scale 1:10



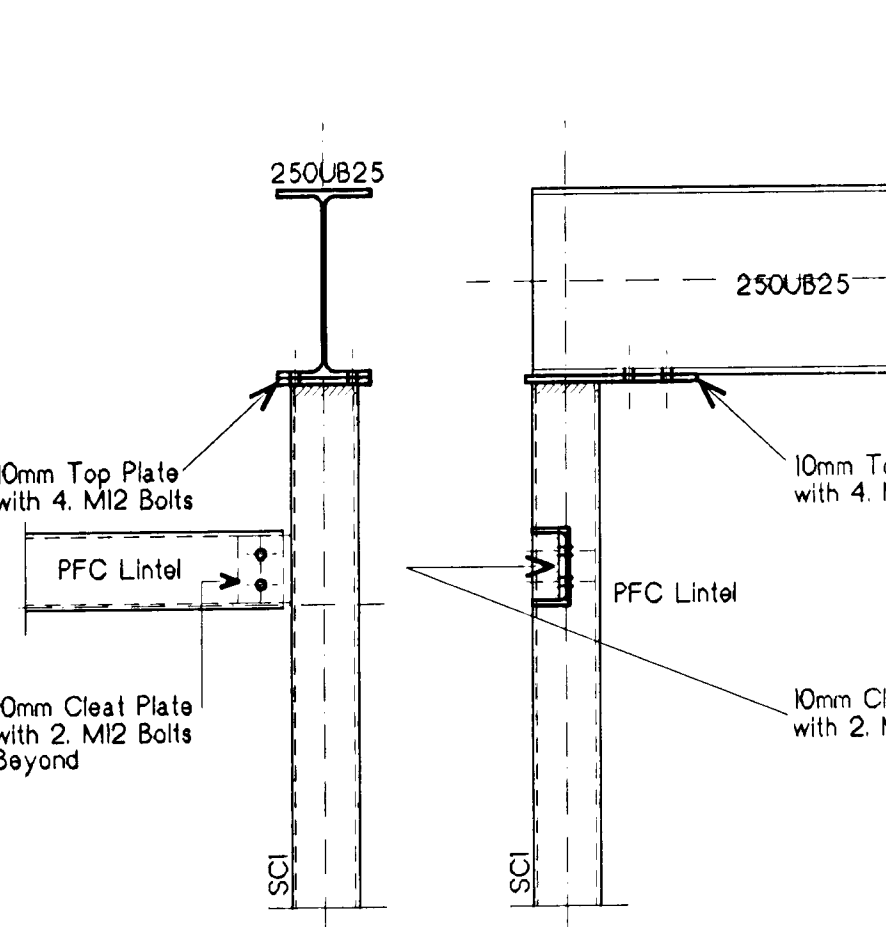
DETAIL K1
Scale 1:10



SECTION K1
Scale 1:10

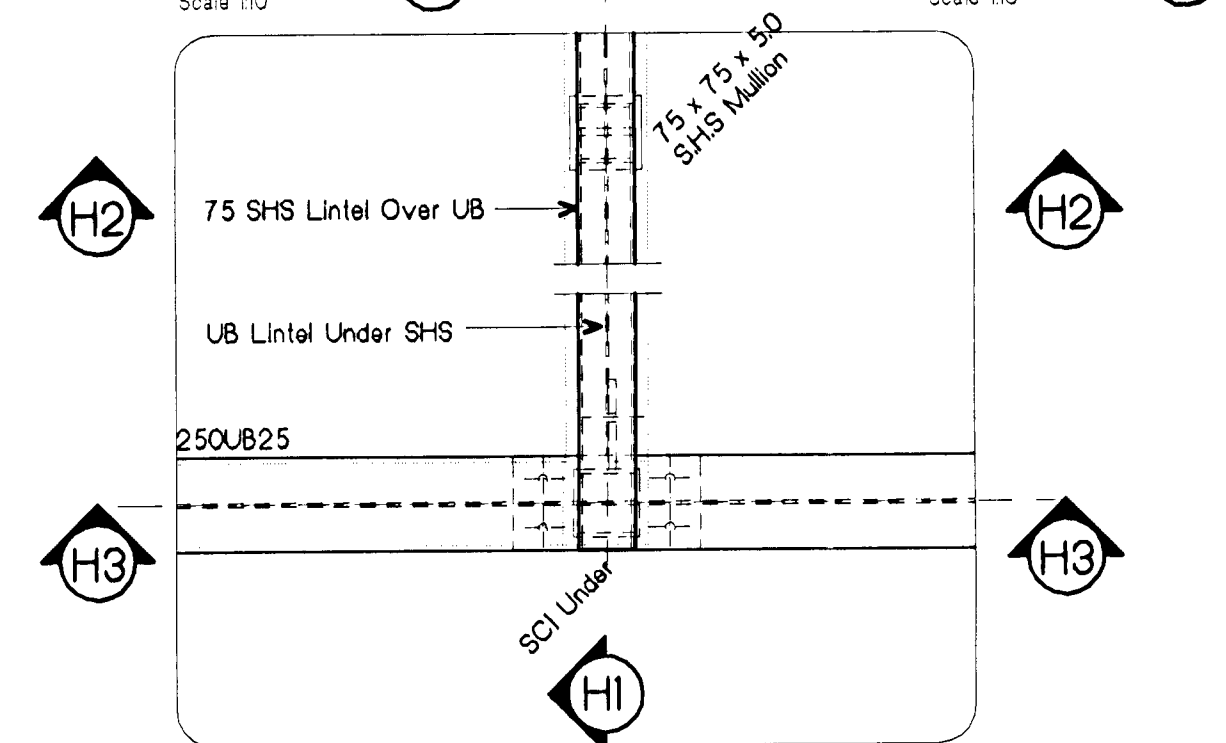


DETAIL G1
Scale 1:10

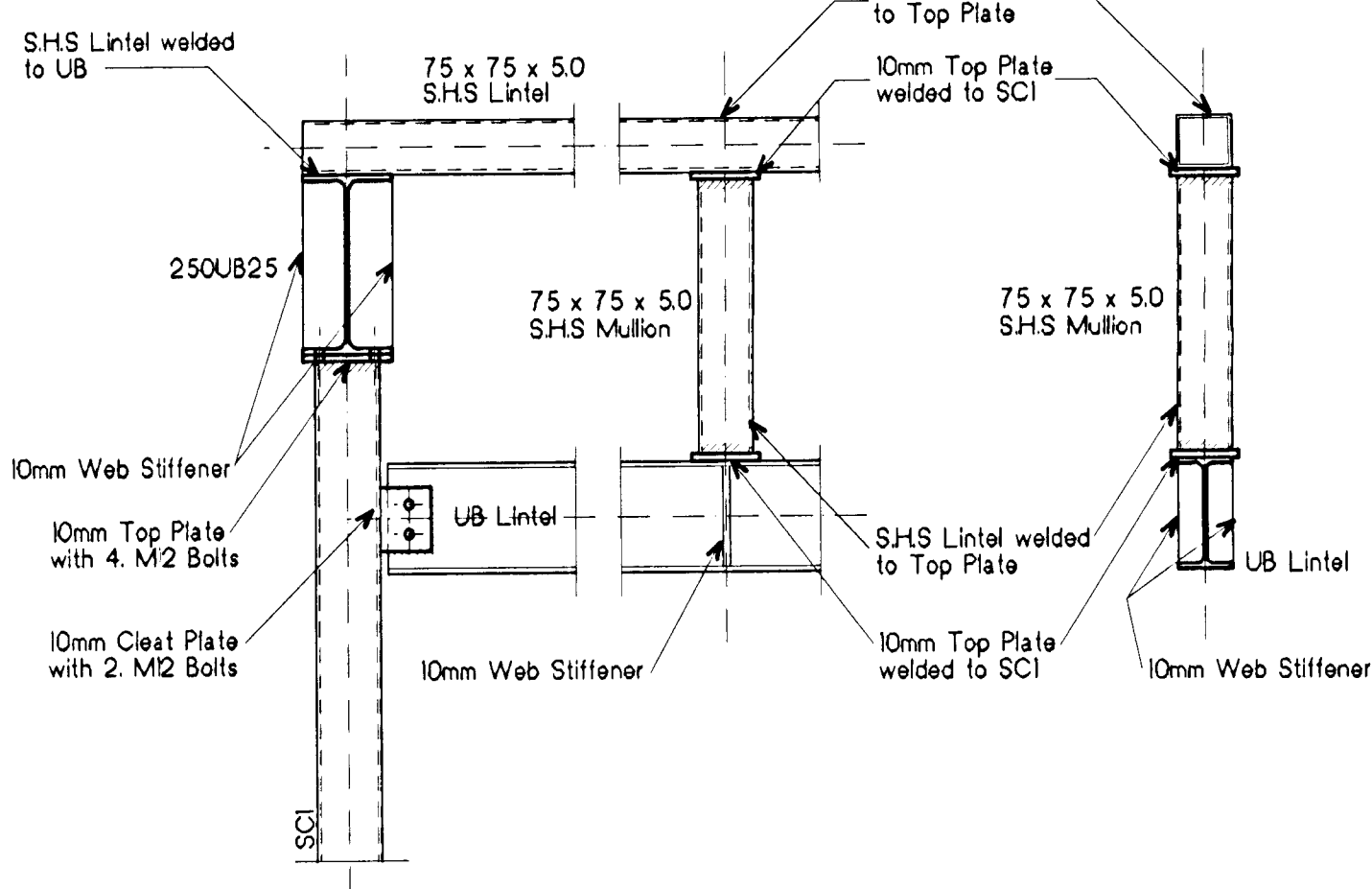


SECTION G1
Scale 1:10

SECTION G2
Scale 1:10



DETAIL H1
Scale 1:10

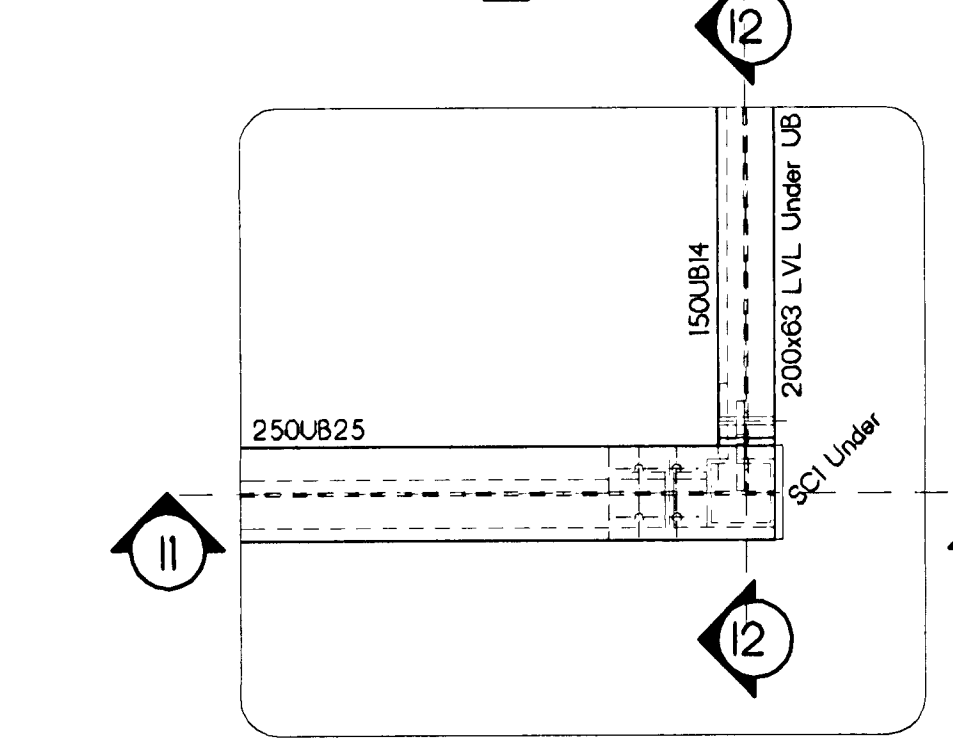


SECTION H1
Scale 1:10

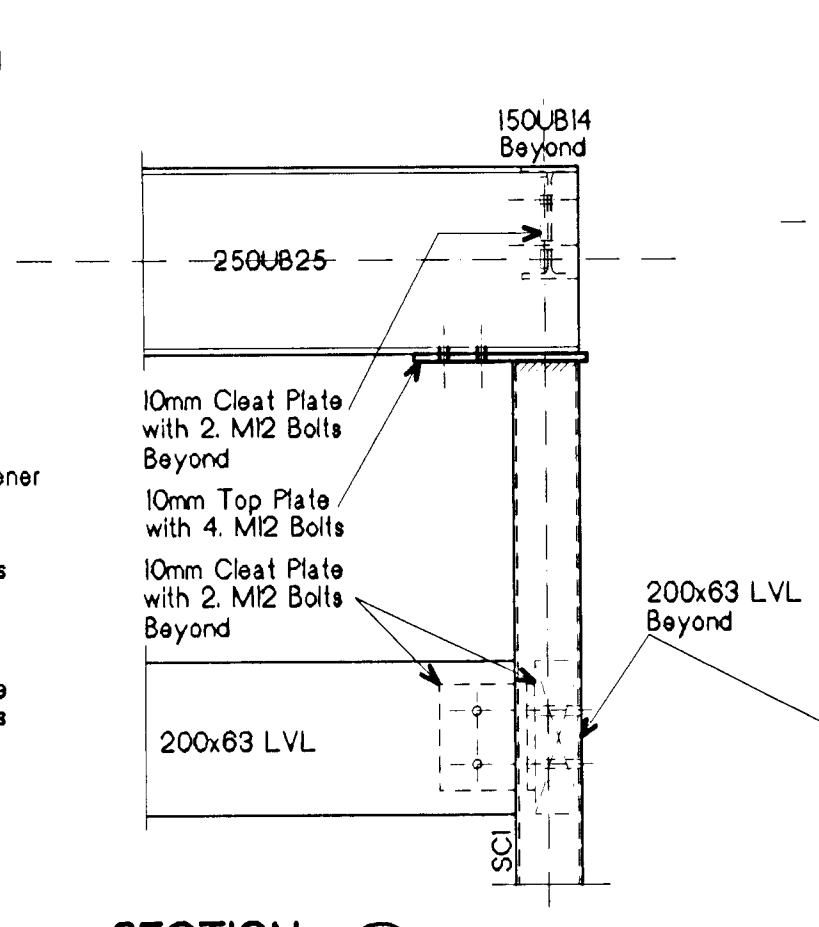
SECTION H2
Scale 1:10

SECTION H3
Scale 1:10

SECTION H4
Scale 1:10

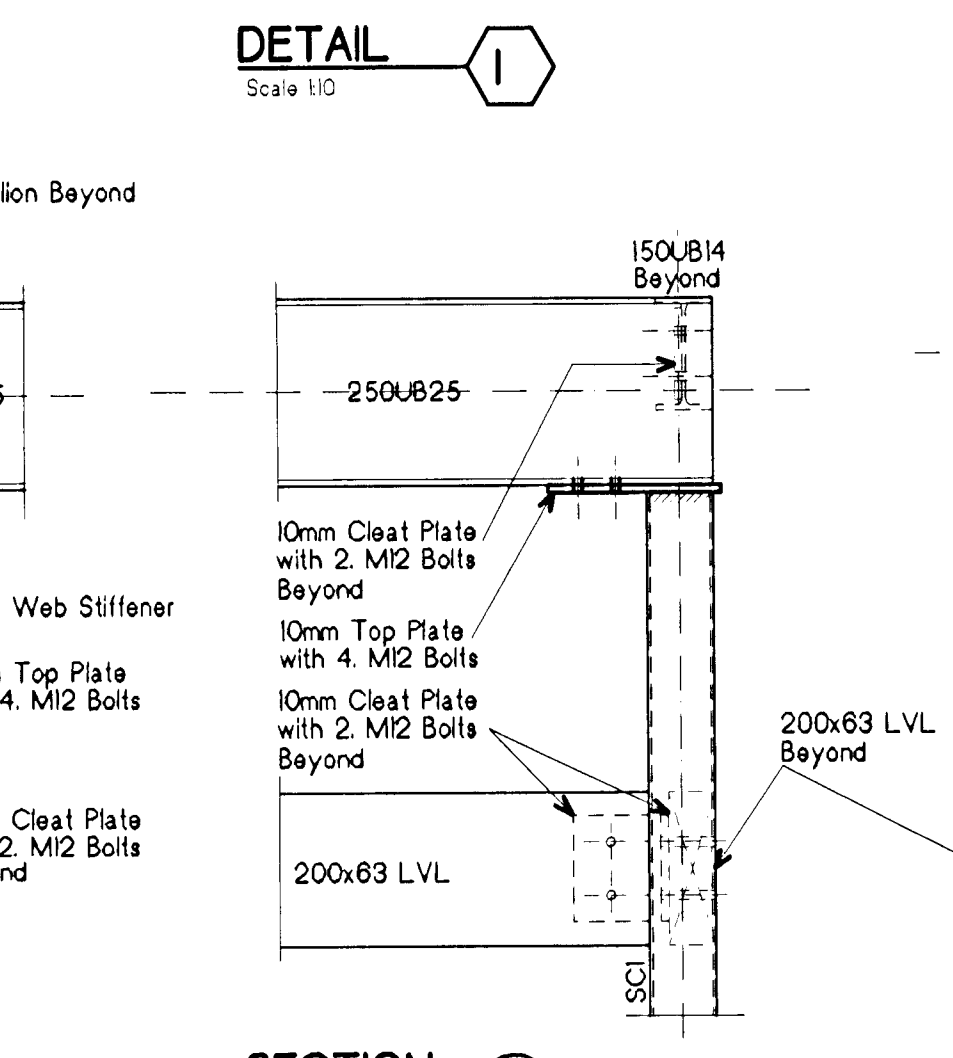


DETAIL J1
Scale 1:10

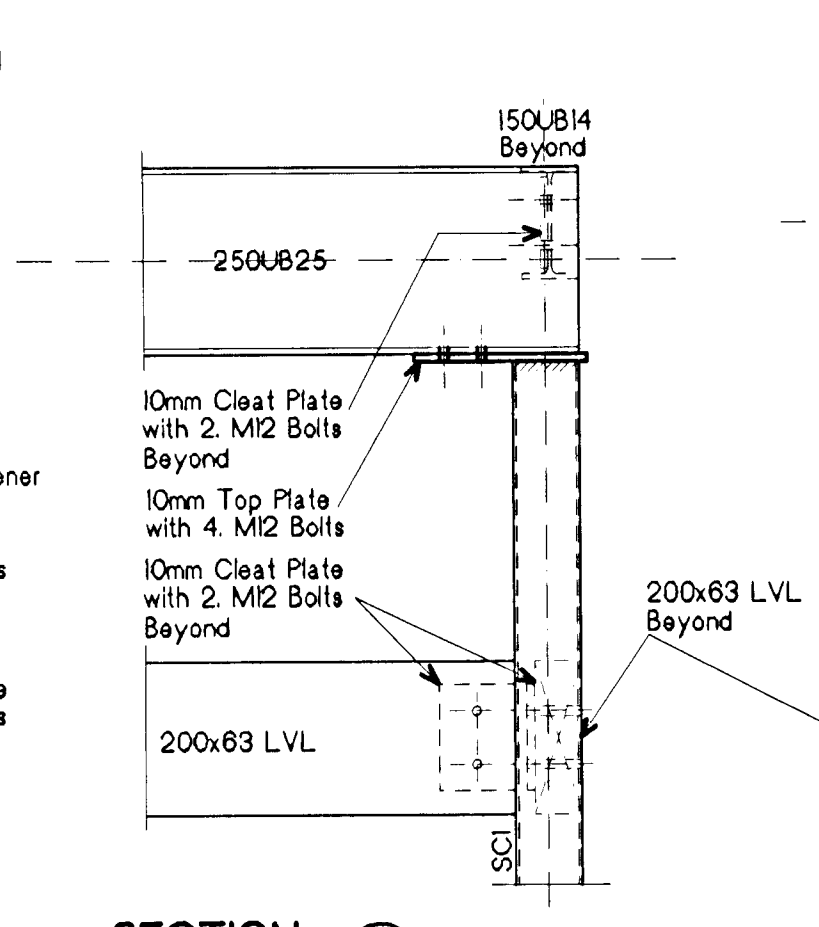


SECTION J1
Scale 1:10

SECTION J2
Scale 1:10



DETAIL I1
Scale 1:10



SECTION I1
Scale 1:10

SECTION I2
Scale 1:10

REFER TO DRAWING 1 FOR NOTES AND THE 'IMPORTANCE OF CURING CONCRETE' GRAPH.

No.	Amendment	Drawn	Date

PLAN OR DOCUMENT CERTIFICATION
 I am a qualified... CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER...
 I hold the following qualifications or licence No. MEngSc...
 F.I.E Aust. Nper3... Struct.Civil.No.149788
 Further I am appropriately qualified to certify this component of the project.
 I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS1170, AS1170.1, AS1170.2, AS1164, AS2870.1, AS3500, AS3600, AS 3700, AS4100 & AS1163
 Jack D. Hodgson *[Signature]*
 Name Date Signature

STEEL DETAILS

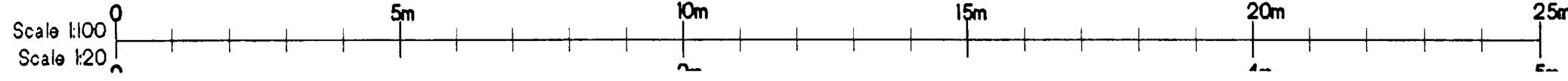
PROPOSED NEW RESIDENCE
73 INGLESIDE ROAD
INGLESIDE
MR AND MRS GLEN JOHNSON

Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder. (Halc Holdings P/L Date: Sept 2007, Dwg Sheets: 01-08)
 Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.
 The Structural Details shown on this Drawing are NOT to change under any circumstance.
 NO Certificate will be issued for work NOT in accordance with the Drawing.

JACK HODGSON CONSULTANTS PTY. LIMITED.
 Consulting CIVIL, Geotechnical, and Structural Engineers.
 67 Daisy Street, WOODVALE 2003 P.O. Box 388, Post Code 1606.
 Telephone 1021 9919 8733. Facsimile 1021 9919 8928.
 Email info@jackhodgson.com.au web www.jackhodgson.com.au A.C.N. 053 405 011

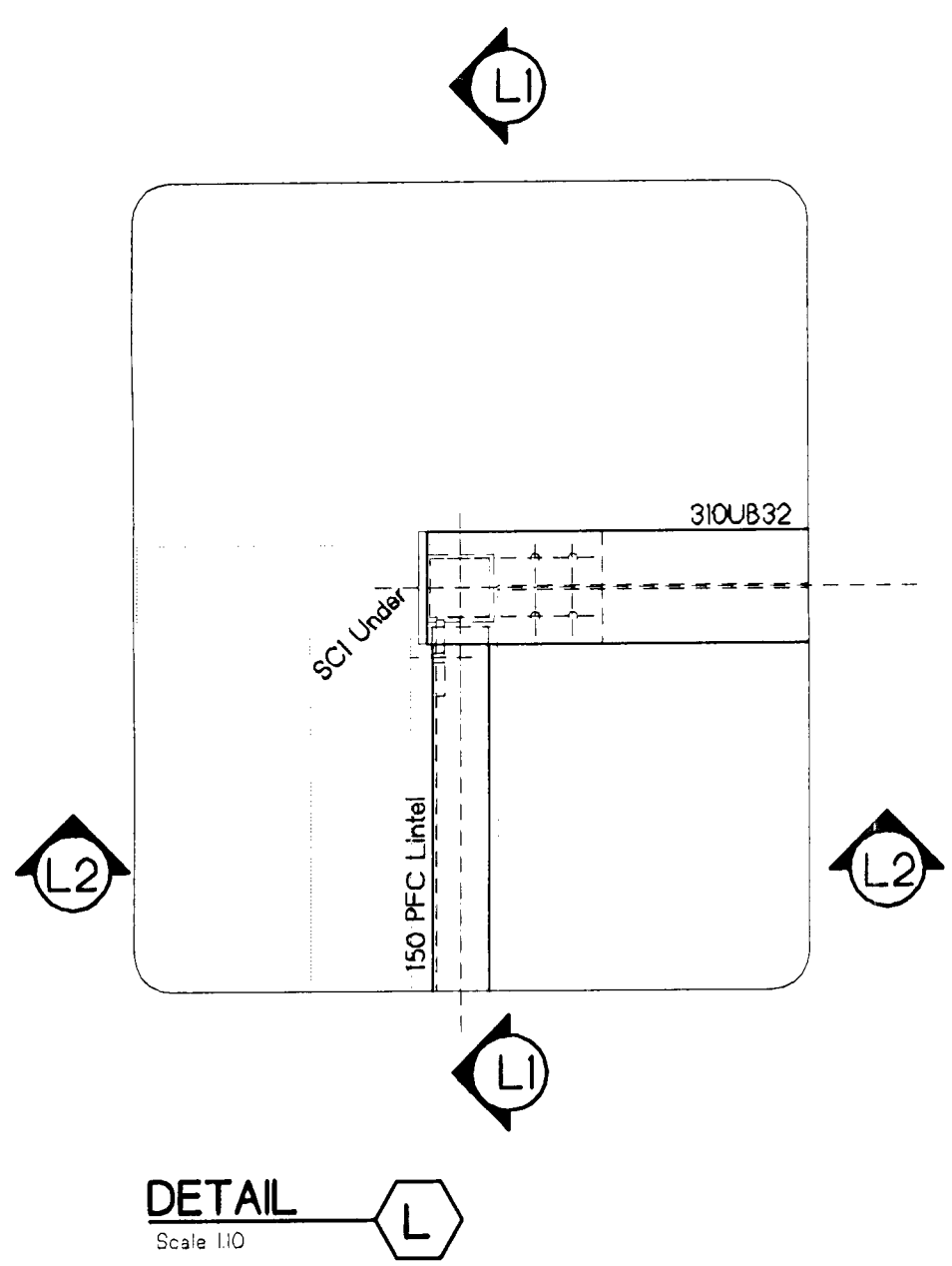
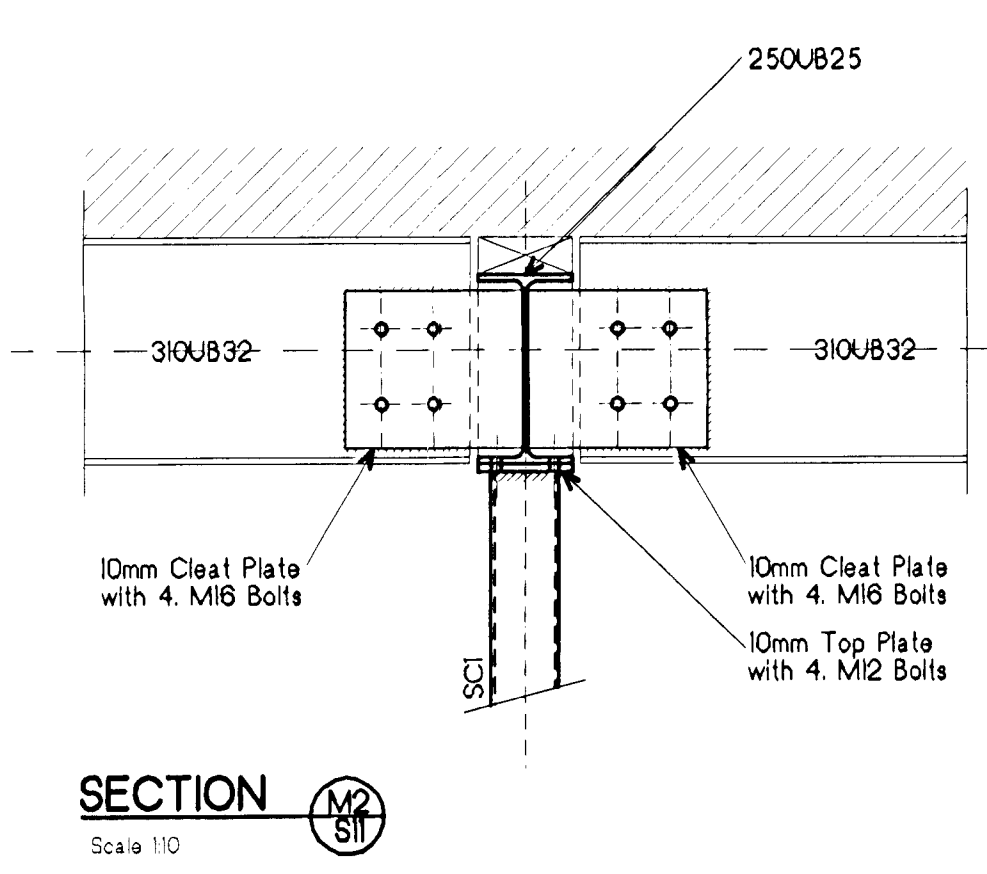
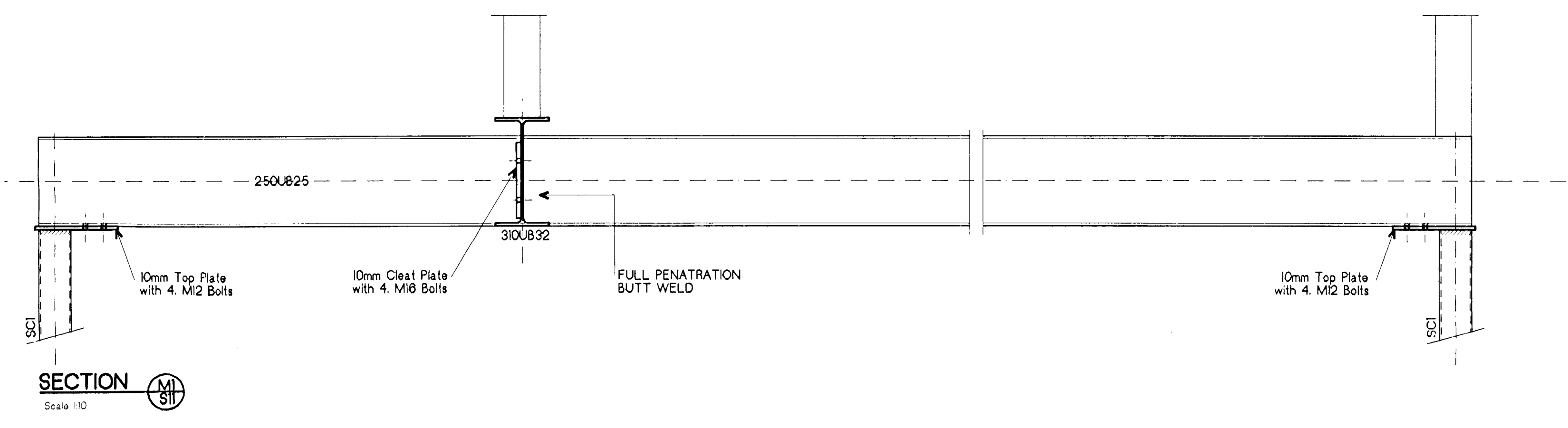
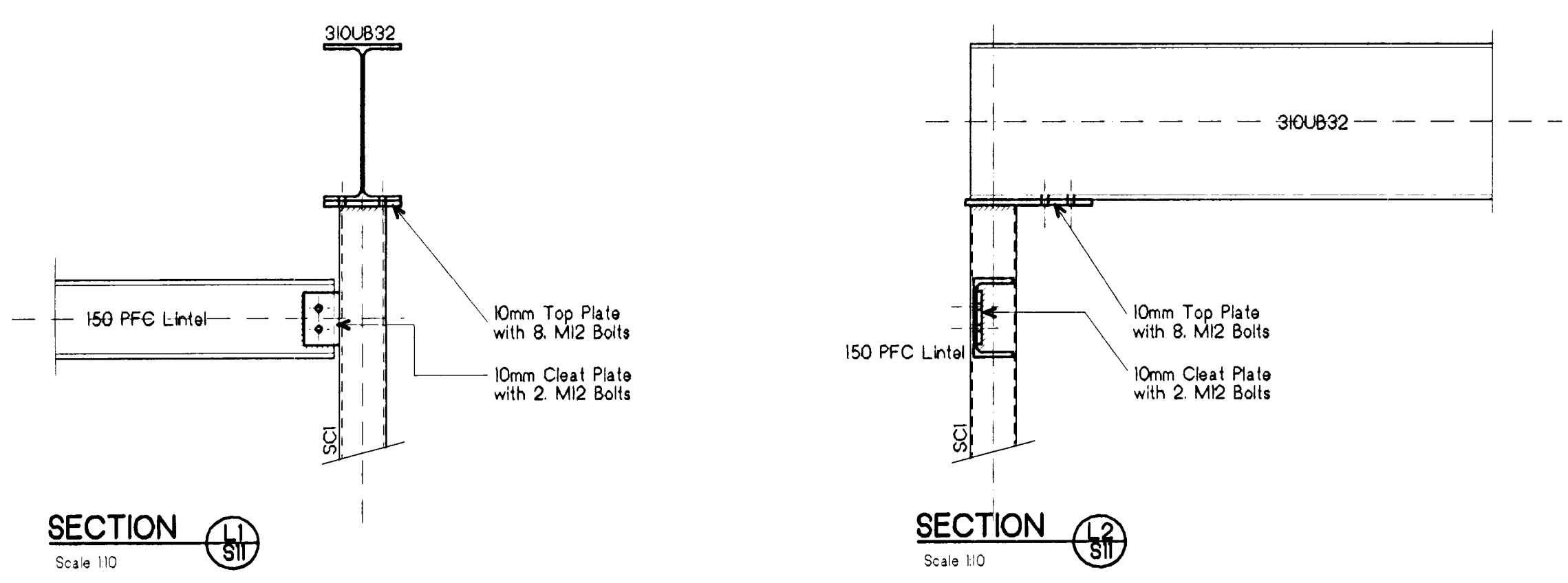
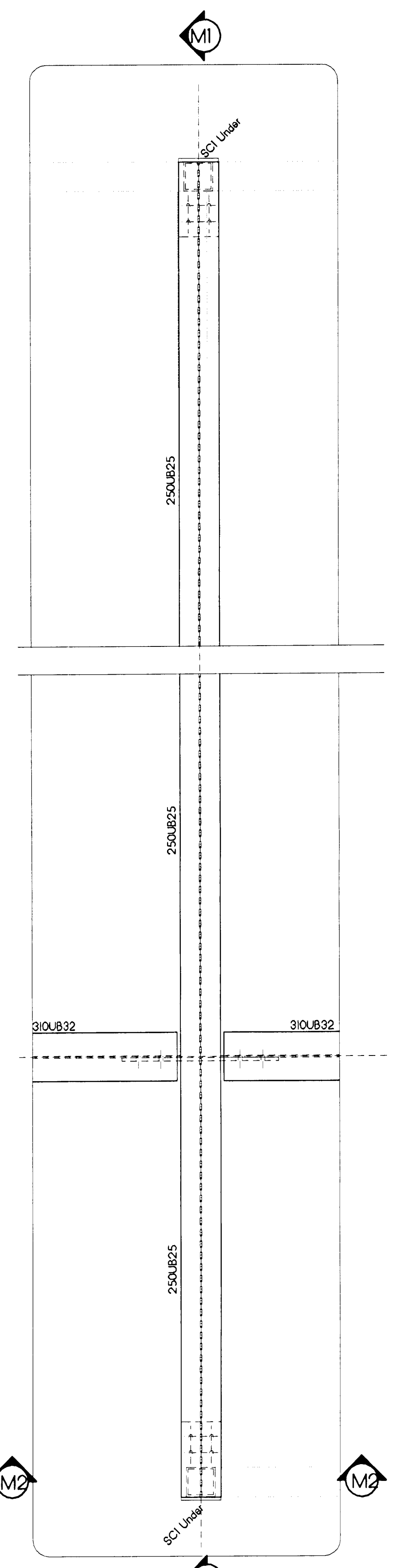
Designed	KX	Drawn	MJC	Job No.		Drawing No.	
Design Check	JDH		JDH				

21 AUGUST 2008 **24908-S12**
 SHEET 12 OF 13



A B C D E G H

1
2
3
4
5
6



No.	Amendment	Drawn	Date
<p>PLAN OR DOCUMENT CERTIFICATION I am a qualified... CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER... I hold the following qualifications or licence No.MEngSc... F.I.E.Aust...Nper3...Struct.Civil.No.149788 Further I am appropriately qualified to certify this component of the project. I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia, AS1170, AS1170.1, AS1170.2, AS1684, AS2970.1, AS3500, AS3800, AS3700, AS4100 & AS1183 Jack D. Hodgson <i>[Signature]</i> Name Date Signature</p>			
<p>STEEL DETAILS PROPOSED NEW RESIDENCE 73 INGLESIDE ROAD INGLESIDE MR AND MRS GLEN JOHNSON</p>			
<p>Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder. (Halic Holdings P/L, Date: Sept 2007, Dwg Sheets: 01-08) Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations. The Structural Details shown on this Drawing are NOT to change under any circumstance. NO Certificate will be issued for work NOT in accordance with the Drawing</p>			
<p>JACK HODGSON CONSULTANTS PTY. LIMITED. Consulting Civil, Geotechnical, and Structural Engineers. 67 Darby Street, MONA VALE 2033, P.O. Box 388, Post Code 1660. Telephone (02) 9979 8733, Facsimile (02) 9979 8928. Email info@jackhodgson.com.au web www.jackhodgson.com.au ACN 053 405 011</p>			
Designed	KX	Drawn	MJC
Design Check	JDH	Drawing Check	JDH
Date	21 AUGUST 2008		24908-S13
			SHEET 13 OF 13

REFER TO DRAWING 1 FOR NOTES AND THE 'IMPORTANCE OF CURING CONCRETE' GRAPH

