the certification group

enhancing building performance

19 March 2008

Pittwater Council
PO Box 882
MONA VALE NSW 1660

Dear Sir/Madam,

Re Development Application No N0605/07
Our Construction Certificate No 238/2007
Premises 2 Ingleside Road, Ingleside

Please find attached a copy of the following -

- Construction Certificate, stamped approved plans and relevant documentation
- Notice to Commence Building Work
- Appointment of a Principal Certifying Authority

In accordance with the regulations we have enclosed a cheque for the sum of $30 00 for the submission of the Part 4A certificate

Should you have any further enquiries please do not hesitate to contact us and we will be pleased to assist you

NB·(Please forward receipt for the above $30 00 fee to The Certification Group P/L PO Box 870 Narrabeen NSW 2101)

Yours faithfully,

Mark Wysman- Director
The Certification Group P/L

R# 235973
19/3/2008

Unit 3/6 Wilmette Place Mona Vale NSW 2103 PO Box 870 Narrabeen NSW 2101
tel 9944 8222 fax 9944 6330 email info@thecgroup.com.au www.thecgroup.com.au acn 111 092 632

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CONSTRUCTION CERTIFICATE DETERMINATION

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

CONSTRUCTION CERTIFICATE NO	**238/2007**

DETERMINATION

Decision	Approved
Date of Decision	19 March 2008

SUBJECT LAND

Address	2 Ingleside Road, Ingleside
Lot No, DP	Lot 74 DP 11784

DESCRIPTION OF DEVELOPMENT

Dwelling & Garage / home office

APPLICANT

Name	Steve Samus
Address	2 Ingleside Road, Ingleside
Contact Number (tel)	tel 0418 442 457

OWNER

Name	Steve Samus
Address	2 Ingleside Road, Ingleside
Contact Number (tel)	tel 0418 442 457

OWNER BUILDER

Owner Builder permit No	351862P

Unit 3/6 Wilmette Place Mona Vale NSW 2103 PO Box 870 Narrabeen NSW 2101
tel 9944 8222 fax 9944 6330 email info@thecgroup.com.au www.thecgroup.com.au acn 111 092 632

PLANS AND SPECIFICATIONS

The development is to be carried out in compliance with the following plans and documentation listed below and endorsed with "The Certification Group" stamp

DRAWING NUMBER	DATE
Architectural Plan No's 52407 01/C, 52407 02/C, 52407 03/C prepared by HSA Architects	14/02/2008

ATTACHMENTS

Specification - 2 Ingleside Rd, Ingleside prepared by HSA Architects	January 2008
Structural Plan No's 080117 S01/A (February 08), 080117 S02, 080117 S03A (6 3 08), 080117 S04A (6 3 08), 080117 S05, 080117 S06, 080117 S07, 080117 S08, 080117 S09, 080117 S13 (Feb 08), 080117 S14 (Feb 08), 080117 S15 (Feb 08), 080117 S16 (Feb 08) prepared by Northern Beaches Consulting Engineers P/L	January 2008 unless dated
Stormwater Plan No's CO1 - Rev B, DA02 Rev B & CO3 - Rev B prepared by NORTHROP Consulting Engineers	17/03/08
Stormwater design certificate prepared by Northrop engineers	17/03/08
Landscape Plan No LC01 prepared by Urban Forestry Australia	15/09/07
Private sewer connection letter prepared by Peter Bird Plumbing	13/12/07
Private sewer connection letter prepared by Keith Gowenlock	30/11/07
Section 139 consent for works in Road reserve letter and conditions	23/10/07
Driveway Profiles prepared by Pittwater Council	18/02/2008
Work in Road Reserve Consent prepared by Pittwater Council	25/02/2008
Long Service Levy Receipt	18/02/2008
Sydney Water Quick Check Stamp Property No 3425361	22/02/2008
Construction Certificate Application Form	22/02/2008

CERTIFICATE

I certify that work completed in accordance with documentation accompanying the application for this certificate (with such modifications as verified by the undersigned as may be shown on that documentation) will comply with the requirements of the Environmental Planning and Assessment Regulation, as are referred to in section 81A(5) of the Environmental Planning and Assessment Act, 1979

SIGNATURE _____

DATE OF ENDORSEMENT **19 March 2008**

CERTIFICATE NO **238/2007**

CERTIFYING AUTHORITY

Name of Certifying Authority	THE CERTIFICATION GROUP P/L
Name of Accredited Certifier	Mark Wysman
Registration No	BPB 0449 - NSW Building Professionals Board
Contact No	PH (02) 9944 8222, FAX (02) 9944 6330
Address	PO BOX 870 NARRABEEN NSW 2101

DEVELOPMENT CONSENT

Council	Pittwater
Development Consent No	N0605/07
Date of Determination	13 December 2007 & modified 13 February 2008

BUILDING CODE OF AUSTRALIA CLASSIFICATION

1a & 10a

SPECIFICATION OF BUILDING WORKS

NEW RESIDENCE

AT

No 2 Ingleside Road
Ingleside

Hugh Slatyer & Associates
Architects

12A Carlow Street North Sydney
(02) 9925 0104

January 2008

CONSTRUCTION CERTIFICATE ISSUE

INDEX TO SPECIFICATION

SECTION 01- PRELIMINARIES

1 01 GENERALLY

01 Discrepancies

Any item shown on the drawings but not specified or otherwise listed in the Contract documents or visa-versa shall be carried out without additional charge to the Proprietor

Minor items not expressly mentioned in the Contract Documents but necessary for the satisfactory completion and performance of the work under the contract shall be supplied and executed by the Builder without adjustment to the Contract Sum

1 02 CONTRACT

01 Builder to Inform Himself

The Builder shall be deemed to have examined carefully and to have acquired detailed knowledge of the contract documents and any other information made available to him in writing by the Proprietor for the purposes of tendering

Failure by the Builder to do any of the things he is deemed to have done under this clause shall not relieve him of his liability to perform and complete the Contract in accordance with its terms and conditions

02 Visit the Site

The Builder is required to inspect the site determine the conditions above and below the surface of the site note levels services and local conditions and include for necessary work implied but not specifically shown on the drawings or specification

03 Obvious Work

Any item or work which is obviously necessary or inferred within the type or quality of the contract but which is not noted or detailed on the drawings and specification shall be included without charge to the Proprietor

The Builder shall notify the Proprietor at the time of tendering of any omission encountered

1 03 ADMINISTRATION

01 Working Hours and Noise

Comply with Council restrictions on working hours

1 04 SITE

01 Use of the Site

The Builder shall not use the site or permit the site to be used for any purpose other than the performance of the works

02 Protection of Persons and Property

The Builder shall provide erect and maintain all barricades guards and fencing necessary for the protection of the works and for the safety of the public and neighbours The Builder shall avoid interference with or damage to property on or adjacent to the site and shall provide temporary protection as required

03 Care of the Works

The Builder shall be solely liable for the care of the works construction plant and all materials brought on to the site for the purpose of carrying out the work or on behalf of the Builder or any of his sub contractors

The Builder shall at his own cost make good any loss or damage to the works construction plant or materials when such making good is necessary for the satisfactory completion of the works

1 06 MATERIALS AND WORKMANSHIP

01 Australian Standards

Unless otherwise specified materials and workmanship where applicable shall be in accordance with the relevant current standards of the Standards Association of Australia

In addition AS3959-1999 Construction of Buildings in Bushfire-prone areas will apply

02 Protection of Materials

Provide adequate secure and weatherproof storage for all materials and fitments

03 Dimensions and Levels

It shall be the Builders responsibility to verify all dimensions on the site and to set out the works to the correct levels

SECTION 02 - DEMOLITION and EXCAVATION

2 01 EXTENT OF WORK

Carry out all excavation indicated on the drawings noted in the conditions of development Consent and as summarized below

a) Bulk excavation for Garage building

b) Detail excavation for footings and service trenches

2 02 WORK BY OTHERS

Co-ordinate with a licensed plumber and electrician to disconnect or divert existing services

2 03 COINS AND ANTIQUITIES

Any coins or other items of historic value or interest shall remain the property of the owners and shall be turned over to them intact

2 04 TREES AND SHRUBS

Protect all tress and shrubs adjacent to the works throughout the course of the work unless noted otherwise

2 05 DISPOSAL OF MATERIALS

With the exception of items falling within the meaning of clauses 2 03 and 2 09 or clean fill which is intended for use in the works shall be immediately removed from the site unless otherwise specified or directed by the Proprietor

2 06 SITE PREPARATION

01 Setting Out
All dimensions shall be verified with existing dimensions

02 Inspection
Pursuant to Preliminaries the Builder is deemed to have inspected the site and in particular the extent and nature of the material to be excavated

SECTION 03 - CONCRETE WORK

3 01 GENERALLY

Read in conjunction with structural engineer s notes and details which shall take preference in the case of any conflict or discrepancy

All concrete work shall conform to the requirements of the S A A code for concrete in building AS 1480 as amended and AS 3600 A copy of this code shall be made available on the site by the builder and it shall be binding on any matters not set out hereunder Concrete shall also conform in all respects of quality materials and workmanship etc with the requirements of all other relevant codes of the Standards Association of Australia

Any requirements for concrete particularized under other sections of this specification shall be as specified under this section unless otherwise noted

3 02 STANDARDS

Refer to Engineers drawings

3 02 SUPERVISION OF CONCRETE WORK

The concrete work shall be carried out only under the direct supervision of a capable foreman experienced in reinforced concrete construction

3 03 INSPECTION OF CONCRETE WORK

All formwork, reinforcement cores etc shall be in place before an inspection will be made No concrete shall be poured until this inspection by the Project Manager has been completed and the work approved

Notify the Structural engineer prior to pouring of concrete

3 04 MATERIALS

Water
Clean potable free from oil salt acid alkali or other deleterious substances
Sand
To AS 1465 Clean sharp and free from salt clay vegetable or other impurities
Cement
To AS 1315 Type A Portland cement unless otherwise noted on Title Pages
Aggregate
To AS 1465 Clean hard tough and durable crushed stone and/or gravel free from elongated pieces dust clay or other deleterious matter

Reinforcement
Plain round bars (R) or hot-rolled deformed bars (S) shall conform to the requirements of AS 1302

Hard drawn steel wire for Reinforced Concrete shall conform to AS 1303 as amended

Welded wire fabric (F) and trench wire mesh (TM) shall conform to the requirements of AS 1304

3 05 READY MIXED CONCRETE

Ready mixed concrete conforming with this specification and the requirements of AS 1379 both in manufacture and handling by the manufacturer and the builder must be used for all structural concrete

The concrete shall be ordered by method "A" clause 3 (A) of the above-mentioned code and shall be supplied to the job in truck mixers at the specified slump No water or other materials shall be added at the job

The Project Manager shall have free access at all time, during working hours to the supplier's plant for inspection of plant and materials used and if so required shall be permitted to take samples for testing purposes

The builder must provide adequate means for handling and placing ready mixed concrete Notwithstanding any contrary requirements in AS 1379 as amended ready mixed concrete shall be completely discharged placed and compacted in its final position in the forms within 1 1/2 hours of the introduction of the cement to either the water, the aggregate or the mixer

Crushing tests shall satisfy the requirements of this specification All dockets for concrete delivered shall be marked with compressive strength and slump of same and a copy given to the Project Manager

3 06 TEMPERATURE OF MIX

Unless otherwise specified or permitted by the Project Manager concrete delivered in outdoor temperatures lower than 4 5 deg C shall arrive at the work having a temperature not less than 15 5 deg C and not more than 23 deg C Concrete delivered in outdoor temperature of not less than 10 deg C and not more than 23 deg C Concrete not in accordance with these requirements shall be liable to rejection

In extremely cold or very hot weather concreting operations shall be suspended unless adequate protection of the work is made available by the builder to the satisfaction of the Project Manager

3 07 SAMPLING & TESTING

Sampling slump and compression tests shall be carried out strictly in accordance with AS 1012 and as required by the engineer

3 08 STRENGTH OF CONCRETE

Refer to Engineers drawings

3 09 CORING AND CASING

In consultation with other trades concerned, provide and set cores or sleeves for all pipes ducts balusters conduit etc to pass through slabs accurately and firmly fixed to formwork

No opening shall exceed 225mm diameter unless shown on engineer s drawing Reinforcement shall be displaced around openings cutting of reinforcement will not be allowed

3 10 TRENCH FORMS

Forms may be omitted below ground if conditions will provide correct size and shape of concrete

3 11 TOLERANCES

The following are allowable tolerances in the structural concrete

CONDITION	TOLERANCE
Size of members or thickness of slab	Plus 6 mm Minus 0 mm
Concrete cover to reinforcement where the cover is 25mm or more	Minus 6 mm
Concrete cover to reinforcement where the nominal cover is less than 25mm	Plus 6 mm Minus 3 mm

3 12 REINFORCEMENT

Reinforcement shall comply with the Australian Standards noted on the engineer s drawings

Reinforcement before being placed shall be thoroughly cleaned of mill rust scale and of coatings which will destroy or reduce the bond Reinforcement appreciably reduced in section shall be rejected Where there is delay in placing concrete reinforcement shall be reinspected and cleaned if necessary

Reinforcement shall be accurately positioned and secured against displacement by using steel wire of not less than 1 62mm gauge or suitable clips at intersections Skilled persons shall be employed to place reinforcement and they shall be present at pourings for adjustments

Bottom reinforcement in slabs beams and footings shall be supported on approved steel chairs of height required to provide the cover specified hereunder Top reinforcement shall be similarly supported at correct height on approved steel chairs of sufficient strength to withstand the weight of workmen without buckling or bowing Spacing of chairs is to be sufficient to carry construction loads without displacement Extra supports and additional care shall be provided for the support of light gauge reinforcements or for the support of reinforcement in general when slab is cast against the ground

Reinforcement shall be in the positions indicated on the drawings Splices shall be made only where shown

Clear cover to reinforcement unless otherwise noted

	Slabs	Beams	Column
Permanently clear of ground	20mm	25mm	40mm
Permanently cast against ground	45mm	62mm	75mm
Slabs over polythene moisture barrier	32mm	-	-
Firmed and backfilled	32mm	40mm	50mm

This cover shall be clear of all stirrups ties wires etc

3 13 REJECTION OF CONCRETE

The Proprietor shall have the right to reject any fresh concrete before it is deposited in the forms if it appears not to conform with the specified tests requirements alternatively at his discretion he may order the taking of additional tests

Where hardened concrete is classed as defective and liable to rejection the criteria for rejection shall be as previously set out herein

3 14 FORMWORK

All formwork shall be approved by the Proprietor or his representative before the placing of concrete but approval shall not relieve the builder of responsibility for its sufficiency Materials except where otherwise specified shall be optional

Forms shall conform to the shape line and dimensions called for on the plans Timber used in forms for exposed surfaces shall unless otherwise specified be dressed to a uniform thickness and shall be free from loose knots and other defects

3 15 FORMWORK STRIPPING

Leave formwork in position until concrete has developed sufficient strength to support design as specified and as scheduled hereinafter Completely remove all timber formwork and clean underfloor areas of all superfluous timber prior to completion of contract

No permanent building component shall be erected nor any loading applied on any part of the structure while that part is still supported by formwork

3 16 PLACING OF CONCRETE

Concrete shall not be placed until and unless all reinforcement conduits outlet boxes anchors hangers sleeves bolts and other embedded materials are securely and properly fastened in their proper place and positions

Before depositing concrete debris shall be removed from the space to be occupied by the concrete and the forms shall be thoroughly wetted or oiled Reinforcement shall be thoroughly secured in position and approved by the Structural Engineer Concrete shall be handled from the mixer to the place of final deposit as rapidly as practicable by methods which prevent loss or separation of the ingredients It shall be deposited in the forms as nearly as possible in its final position to avoid rehandling

All necessary precautions shall be taken to ensure that reinforcement is not displaced from its true position during placement of concrete All planks used as walkways or access ways for barrows or skips shall be supported on stools clear of any reinforcement Under no circumstances will planks etc be permitted to rest on or touch reinforcement

No concrete shall be covered up until approved Damaged concrete shall be cut out and the work reconstructed

All concrete shall be placed during daylight and the placing of the concrete in any portion of the work shall not be commenced unless it can be completed in daylight

3 17 CONSTRUCTION JOINTS

Construction joints not specifically indicated in the drawings must not be made without the approval of the Proprietor or his representative Neatly square off breaks with boarding leaving reinforcement in position All construction joints shall be truly horizontal or vertical as shown on the drawings

3 18 CURING

Exposed surfaces of the concrete shall be kept constantly in a damp condition for at least the first seven (7) days after placing by covering with building paper lapped at least l00mm

Curing compound shall only be used with the approval of the Project Manager If approved curing compound shall be of such nature as to effectively reduce dehydration and provide maximum retention of the original mixing water within the concrete and then gradually disappear and leave the surface of the concrete unaffected Rendering or plastering shall not be applied until curing compound film has completely disappeared No compound which has an adverse effect on subsequent applied coatings will be permitted Approval of any compound shall not relieve the builder of responsibility for its sufficiency

Do not build upon concrete floor slab until permitted to do so by the Project Manager

3 19 STRIPPING CONCRETE

Centering and formwork shall remain and be maintained firmly in place until the concrete has attained the necessary strength to support its own weight and construction loads In addition they shall remain in place when required to protect the concrete against the effects of low temperature or excessive evaporation

3 20 CONCRETE SURFACES

Generally

All concrete surfaces shall be true and fair and free from excessive depressions or projections

All concrete shall be subject to inspection and approval after the stripping of formwork and before any finishing or patching work has been commenced

Should any detectable defect indicate inadequate compaction or other unsatisfactory work, the whole of the concrete work shall be removed between such limits as the Project Manager may decide and replaced with acceptable concrete work or such other remedial work as may be directed or approved

Floor Surface Finishes

Unless otherwise indicated on the drawings the surface of concrete slabs shall be finished as follows

Driveway	Selected pattern stamped- selected colour
Garages	Steel trowel

SECTION 04 – BRICKWORK and BLOCKWORK

4 01 GENERAL
Read in conjunction with structural engineers notes and details

01 Scope of Work
Supply all materials labour and equipment necessary to complete the works in accordance with this section

MATERIALS Supply bricks mortars and accessories such as wall ties lintels plate straps ant caps damp proof courses flashings trays vents and the like

WORKMANSHIP Perform the necessary operations including scaffolding laying jointing forming chases providing weepholes building in accessories frames services and the like cleaning down on completion

02 Standards
SAA Masonry Code shall apply in respect to all materials components and construction

4 02 BRICKS

01 Generally
Bricks shall be approved dry pressed clay bricks unless otherwise approved and shall be metric standard bricks hard sound well burnt of even size and shape with true

02 Bricks
Brickwork to be rendered shall be commons

4 03 MORTAR

01 Generally
Generally mortar to brickwork exposed to view shall be to colour to match existing brick walls

Mortar shall be in accordance with AS 1640 and as follows
Type A
Walls to dampcourse level dwarf walls brick on edge walling Brick steps brick capping piers sills and other wet walling

Mortar shall consist of one (1) part Portland
cement one-tenth (1/10) part hydrated lime or lime putty and three (3) parts sand (1 1/10 3) mixed with water

Type B
Walls not indicated above shall be laid in Type B mortar
Mortar shall comply with AS 1640 Appendix A Mortar shall be 'compo mortar' consisting of one (1) part Portland cement, one (1) part hydrated lime or lime putty or lime putty and six (6) parts sand (1 1 6) mixed with clean water and used within one hour of mixing

02 MORTAR MATERIALS

Sand From an approved source selected for colour and grading

Pre-mixed mortar Use only if approved

Water Clean and drinkable

Admixture Mortar admixtures approved by the Architect may be used strictly in accordance with the printed recommendations of the manufacture

D11 BLOCKS

Concrete blocks shall be first quality machine made well cured and matured hard, sound, uniform in shape and size, square and sharp on the arises

Provide as necessary all part size jamb sill lintel, corner pier coping and similar blocks all of the same manufacture type and finish as adjacent wall blocks

D12 MATERIALS

01 Mortar
Mortar and its constituents shall be to current relevant Australian standards

02 Mixing Mortar
Determine the mix of mortar by proportions and use a suitable method of accurately measuring materials by volume whenever mortar is mixed Batching by shovel will not be permitted

Mix batches of mortar where mixed on site on a watertight stage or by machine Mix mortar only in quantities sufficient for immediate use and use all mortar within thirty (30) minutes of first wetting Retempering of mortar will not be permitted

03 Premixed Mortar
Premixed mortar will be permitted provided it is used within the period of retardation permitted by the ready mixed mortar supplier

Transport mortar in covered containers so as to prevent excessive evaporation

04 Expanded Metal Lathing
Lysaght or equal approved expanded metal, made from galvanised steel

05 Control Joint Filler
Polystyrene or equal approved for normal block work extending to full width of block skin as detailed

Sealant Back-up Rods
Closed-cell, low density polyethylene foam extruded in soft compressible rod form Back-up rods shall be compatible with the sealant used and installed strictly in accordance with the manufacturer's instructions

Sealant
Two-part polysulphide, one-part acrylic terpolymer, one-part low modulus silicone

Use "gun-grade" sealant throughout of colour as approved by Architect and apply strictly in accordance with the manufacturer's instructions with special attention paid to recommended priming of surfaces to enhance adhesion under wet conditions

06 Storage of Materials
Store materials for mortar separately and in such a manner as to prevent deterioration and intrusion of foreign matter

07 Mortar Types
Cement Mortar 1 0 25 3 cement/lime/sand (12 4MPa) Add colour pigment

Composition Mortar 1 1 6 cement/lime/sand (6 2MPa)1 2 9 cement/lime/sand (3 4MPa) Add colour pigment

Waterproof Mortar As for mortar above with waterproofing compound added

08 Mortar Locations
Cement mortar for the bedding of all plates, beams and lintels, for the grouting up of longitudinal joints in multiple thickness walls and in

Composition mortar used throughout all block work not otherwise specified

Waterproof mortar used for all external block work and in pits, sumps, sills and to all flashings and damp proof courses and in

Core Filling Concrete for Reinforced Concrete Block work Refer Structural engineers details

D13 WORKMANSHIP

01 Generally
Set out all block work accurately to the respective thicknesses, heights and dimensions shown on the drawings and erect level, plumb and true to line, with all perpends in vertical lines in face work

02 Dry Blocks
Lay blocks dry and keep dry during intervals between laying operations

03 Cutting
Reduce cutting in finished work to a minimum by the skilful setting out of the block work

Cut blocks in face work with a masonry saw

05 Laying
Lay all blocks upon a full bed of mortar without furrowing and with vertical and horizontal joints solidly filled and full for solid block work and shell bedded for hollow block work, as the work proceeds

Do not exceed 10 mm in thickness of beds and joints of block work UOS or directed

Carry up all walls to a reasonably uniform height and with no work to rise more than 800mm above adjoining work on the same level Rake back to ends of lengths, corners and as required

Cogging or toothing will not be allowed except in approved circumstances

Carefully relay blocks disturbed after initial placement, with fresh mortar

06 Tolerances in Block work
Build all block work true and plumb within the tolerances prescribed in the following table Take care to keep the perpends properly aligned within 10mm over a 3m vertical height

ITEM	TOLERANCES
Deviation from the position shown on plan of any block work	15mm
more than one storey in height Deviation from vertical within a storey	10mm per 3m of height
Deviation from vertical in total height of building	20mm
Relative displacement between load bearing walls in adjacent storeys intended to be in a vertical alignment	5mm

08 Finish and Joints
In external and internal face work, brush down faces of all exposed block surfaces and maintain clear of mortar Set out all work to regular pattern and maintain good arrises and corners

when mortar has hardened sufficiently form with a jointing tool to a perfectly straight

Do not disturb freshly laid block work by its use for supporting scaffolding, formwork or other equipment

Protect newly erected block work against inclement weather so as to prevent mortar from being washed out of the joints and to keep the water content in the block work as low as possible Install protection copings and flashings promptly on completion of the main body of block work otherwise cover tops of incomplete walls with tarpaulins plastic sheeting or other suitable material

11 Cleaning Down

During the progress of the work make every effort to keep walls that are to be left exposed clean Promptly remove mortar smears by trowel or wire brush or both after being allowed to dry for a short period Remove mortar burns at once Avoid damage to mortar joints when cleaning

SECTION 05 - METALWORK

5 01 EXTENT OF WORK

Provide all metalwork and structural steelwork items indicated on the drawings and as summarized below including all fabrication fixings surface treatment delivery to site hoisting and erection

a) Floor finish angles
b) Aluminium doors and windows incl screens
c) Steel Beams as indicated on the structural engineer's drawings
d) Garage doors
e) Stainless steel glazed and wire balustrades
f) Internal painted steel balustrades

The Builder shall verify all dimensions by taking on-site measurements

5 02 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the relevant standards including the following

AS 1554 SAA Code for Welding
AS 2047 Aluminium Windows for Building
AS 2048 Code of Practice for Installation and Maintenance of Aluminium Windows in Building
AS 2105 Inorganic Zinc Silicate Paint

Use skilled tradesmen competent in the relevant field of all work All fabrication and assembly shall be carried out in the shop unless otherwise specified or permitted Match colour of sheet metals and extrusions in colour finished work Use metals suitable to the process of finish specified and to prevent galvanic corrosion between dissimilar metals

All joints in windows and doors shall be accurately fitted to a flush hairline

Make all necessary allowances for thermal expansion in joints and fastenings so as to avoid tearing buckling opening of joints undue stress or fatigue or other detrimental effect

5 03 SURFACE TREATMENT

01 Mild steel
Unless otherwise specified or indicated on the drawings all exposed steel elements or those built into an external wall or located outside the external wall line whether enclosed or exposed shall be galvanised as specified below

All steel elements which are wholly within the building shall be primed with ROZC as specified below

a) Priming
Thoroughly prepare all steelwork in accordance with the requirements of AS 1627 Part 4 Clause 1 UOS prime with Red Oxide Zinc Chromate (ROZC) paint corresponding to ASK211 Type 1 or 2 applied in accordance with Manufacturers recommendations

Repair damage to surface treatment in a manner consistent with the specified surface treatment

b) Hot Dip Galvanising
Prior to galvanising clean the surfaces of all dirt weld spatter grease slag oil paint and other deleterious materials

De-scale steel surfaces by chemical means or abrasive blast cleaning in accordance with AS 1627 to give a Class 3 standard of surface preparation

Unless otherwise specifically stated carry out galvanising by the hot dipping process

Apply the zinc coating so as to cover the whole surface with a smooth uniform and continuous coat without unduly filling up the interstices of bolt threads and similar intricate surfaces

Straighten each member distorted during the galvanising process by a permitted method and make to conform to its original shape size and condition without cracking or otherwise damaging either the member or its coating

Subject to the permission of the Architect should the continuity of the galvanised coating be broken by building operations or otherwise suitably clean the exposed steel surface to ensure the removal of any rust and/or foreign matter and immediately give not less than two coats of a zinc rich paint

02 Aluminium

All aluminium windows and doors shall be fabricated from sections pre-finished with an exterior grade polyester powder coating equal to Dulux Powdercote' to selected colour and applied by an approved applicator

All powder coating shall be to a minimum dry film thickness of 90 micrometres to a semi-gloss surface finish Any damage to the surface finish shall be rectified to the satisfaction of the Proprietor and if any repair is rejected by the Proprietor the damaged element shall be replaced at no cost to the Proprietor

5 04 FLOOR FINISH ANGLES

Supply and brass angles at edge of tiling at doors The angle shall be 3mm thick minimum fixed to sub floor with stainless or non-ferrous screws

5 05 TOWEL RAILS AND PAPER HOLDERS

Refer to 'Tiling and Floor Finishes'

5 06 ALUMINIUM DOORS AND WINDOWS

01 Aluminium Doors and Windows Generally

Doors and windows shall be carried out by a firms or firms approved by the Proprietor Windows and doors shall be glazed in accordance with the Glazing section of this specification

Unless otherwise specified this specification and drawings describe performance requirements and not particular proprietary sections and accessories

Unless otherwise directed by the proprietor all windows to be supplied and fitted with flyscreens as follows

Windows Selected commercial sections powdercote (to match windows) frame with stainless steel mesh

02 Dimensions and Tolerances

Dimensions of openings and spaces into which window and door units are to be installed shall be determined on site by the Builder prior to the commencement of fabrication

The following linear tolerances shall apply to the height and width of window and door frames and sashes

for dimensions 2 metres and less +/- 2 mm

for dimensions greater than 2 metres +/- 4 mm

The difference between the two diagonal dimensions shall not exceed 6 mm

03 Performance

Aluminium windows and sliding glass doors shall comply with current Australian standards for the appropriate sash type as shown on the drawings

All new window units shall be designed for wind loads appropriate to the terrain category appropriate to the location as set out in the relevant Australian standards

04 Fabrication and Assembly

Set out frames and sashes accurately and assemble square and true Provide all necessary accessories and fixings for completion of the work

Make joints by concealed mechanical connections sealed where necessary with a watertight filler No corner fixings shall be visible on exposed faces

Cut-outs recesses morticing or milling required for hardware shall be accurately made and reinforced by backing plates where necessary for strength or fixing All moving parts shall operate freely and smoothly without binding or sticking at correct tensions or pressures

05 Erection and Fixing

Frames hall be plumb square and level and their alignment and installed generally in accordance with AS 2048

06 Flashings and Weather Bars

Flashings and weather bars shall be compatible with other materials in the installation, and coated with a non-staining compound where necessary

07 Sliding Aluminium Door Assemblies

Sliding aluminium door assemblies shall consist of suitable and selected commercial section extruded aluminium alloy door and door frame sections fabricated into complete assemblies including all necessary hardware and fixing lugs for attachment to the building structure

The assembly shall be weatherproof with self draining sill sections and non-skid surfaces where trafficable

Doors shall be glazed by assembling the members around the glass using dry gasket glazing techniques by snap-in beads and resilient glazing gaskets

Glass thicknesses shall conform to the relevant parts of AS 1288

Doors shall be carried on a floor track integral with the frame sill and shall run on adjustable rollers in the bottom rail and be guided at the head by pile strips or nylon blocks The sliding action shall be-sticking non-rattling and light in operation Door assemblies shall be weather stripped all round with resilient gaskets and pile strips

Fit doors with approved pull handles and locks Provide rubber buffers against back slam on frames

08 Aluminium Window Sections

The window assemblies shall consist of suitable extruded aluminium alloy frame and sash sections fabricated into complete assemblies including all necessary hardware fixing lugs flashings and glazing

Fixed glazed panels shall be glazed by assembling the members around the glass using glazing and sealing techniques appropriate to the location and exposure Glass thickness shall conform to the relevant parts of AS 1288 The entire assembly shall be weatherproof

5 07 FLY SCREENS

Flyscreens shall be supplied and fitted to all sliding doors and opening window sashes For the purposes of tendering screens shall be fabricated using selected prefinished aluminium frames with stainless steel mesh Mesh shall have a maximum aperture size of 1 8mm

The colour of the frames shall match the window frames

5 08 STEEL BEAMS

Supply and install steel beams as detailed on the engineer's drawings

5 09 GARAGE DOORS

Supply and install panel lift door with selected pre-finished mesh facing as indicated on the drawings Fix with auto-open & close operation Provide two (2) hand held remote controls

5 10 STAINLESS STEEL AND SS WIRE HANDRAILS

Where indicated on the drawings supply and install stainless steel posts and handrails with tensioned stainless steel wires The latter to be of diameter and tensioned in accordance with the Building Code of Australia

Equal to Q-Railing system- phone (07) 5593 5688

5 11 INTERNAL STEEL BALUSTRADES

Stainless steel as above

SECTION 06 - CARPENTRY and JOINERY WORK

6 01 EXTENT OF WORK

Provide all labour and materials necessary to complete the work indicated on the drawings including but not limited to

a) Floor wall and roof framing
b) Internal and external doors
c) Timber flooring
d) Timber stairs
e) Skirtings and architraves
f) Kitchen and Laundry cupboards
g) Bathroom vanity cabinets
h) Cupboard shelving
j) Fibre cement soffits and cladding

6 02 STANDARDS

Materials and workmanship shall comply where applicable, to the relevant standards of the Standards Association of Australia Materials and workmanship may be rejected if they do not comply with the relevant standards

6 03 TIMBER

01 Generally
Timber shall be straight sound free from significant defects including white ants borer sap pockets shakes loose knots warp twist splits decay pith fractures or bruises

Unseasoned hardwood framing shall be medium shrinkage or better (less than 8%) as defined in AS 1684

02 Species and Grades
Stress grades for timber elements shall be generally as indicated on the drawings If no stress grade is indicated it shall be the grade normally used in the type of framing for which the timber is intended but shall not be less than F5 for softwood or F8 for hardwood framing

Unless otherwise noted on the drawings timber species shall be as follows

Floor framing	refer engineers details
Wall framing	Softwood to engineers requirements
External posts and beams including pergolas	Fire retardant treated timber in accordance with AS3959 1999
Decking	Blackbutt Jarrah Spotted Gum
Roof framing	Refer Engineers drawings

03 Tolerances
Unless otherwise specified the actual cross - sectional dimensions of timbers may vary from the dimensions stated on the drawings by the tolerances (if any) provided in the relevant Australian Standards and as follows

Framing timbers	AS 1684 tolerances govern
Gauged timbers	Tolerance +2mm -0

6 04 WORKMANSHIP

All carpentry work shall be of best trade practice using competent tradesmen and with all incidental work to produce the finished product Arris all edges of visible work Provide all necessary blocks trimming joists and fastenings

Each member shall not be spaced at centres exceeding those specified or indicated on the drawings or if not so specified as nominated in AS1684

All timber exposed to view shall be dressed Each dressed timber surface shall be finished smooth even and free from machine marks using machine and hand sanding End grain shall be primed prior to fixing in place

6 05 FASTENINGS

All nails and nailing shall conform to the recommendations of AS 1684 Timber shall be drilled for fastenings where appropriate and where necessary to prevent splitting

Nail length shall not be less than 2 5 times the thickness of the member the nail is being used to secure All nails in visible work shall be punched

All nailing and bolts to framing exposed to weather shall be galvanised unless otherwise noted or specified

6 06 FLOOR FRAMING

Floor and deck framing generally shall be in accordance with AS1684 and the engineers drawings

Where indicated supply and fix first floor framing complete with all necessary solid blocking and trimming joists

6 07 FLOORING SYSTEMS

a) Particelboard Sheet
Supply and fix 19mm thick tongue and grooved general purpose particleboard sheet flooring to the first floor Sheet flooring shall be laid as recommended by the manufacturer and include the application of glue to the joints and to the top of the joists

b) Compressed Fibre Cement Sheet Flooring
Supply and lay 15mm thick compressed fibre cement sheet to first floor bathrooms and first floor balconies fixed in accordance with the manufacturers recommendations and as detailed

6 08 STUD WALL FRAMING

Fabricate stud wall frames where indicated on the drawings All wall framing shall be minimum stress grade F5 and of the following sizes

Studs	90x45mm
Top and bottom plates	90x45 mm
Studs to openings	refer engineers drawings

Studs shall be at 450 mm centres maximum Fix noggings at minimum1200 centres Install bracing to each frame as shown on engineers drawings

6 09 ROOF FRAMING

Refer Engineers drawings

6 10 INTERNAL DOORS

New internal doors shall be flush panel hollow core Supply and install new internal doors, complete with door furniture and hardware and one pair of stainless steel but hinges

6 11 WINDOW /DOOR HARDWARE AND FURNITURE

Supply and fix door hardware as scheduled in the Schedule of Fittings and Finishes

The Builder shall allow for delivery to site and fitting to each door including supplying all hinges Hinges shall be 100 mm butt unless parliament hinges are required for doors opening out as indicated on the drawings

6 12 SKIRTINGS, ARCHITRAVES AND TRIMS

Supply and fix skirtings to the perimeter of all walls which are not to be tiled Likewise Supply and fix architraves to the perimeter of window and door openings

Profile MDF 90mm pencil round profile Paint finish

6 13 CUPBOARDS

Fabricate and install shelving to new Linen cupboards where indicated on the drawings

Generally shelving shall be fabricated from melamine lined 19mm thick particleboard with match edge strips In all cases allow for 5 layers of shelving with an area for vertical storage with a minimum size of 500mm wide and 1500 high

6 14 KITCHEN CUPBOARDS & BENCHTOP

The supply and installation of Kitchen cupboards benchtop and splashback shall be carried out by a nominated sub-contractor Allow the sum stated in the Schedule of Monetary Sums

The Builder shall allow attendance on the sub-contractor including labour and materials of a plumber and electrician for the connection of equipment

6 15 BATHROOM VANITY and SHAVING CABINETS

Supply and install bathroom vanity and shaving cabinets as schedule in the Schedule of Fittings and Finishes The supply and installation of these items shall be carried out by a sub-contractor approved by the Proprietor

The Builder shall allow for delivery to site and installing the cabinets in position including the attendance of a plumber for the connection of taps and spouts

6 16 WARDROBE FITOUT

The supply and installation of selected shelving hanging rails and drawers to new wardrobes shall be carried out by a nominated sub-contractor Allow the sum stated in the Schedule of Monetary Sums

6 17 INTERNAL TIMBER STAIRS

Timber stairs shall be fabricated from dressed selected timber risers and strings to match flooring finish to be tung oil in accordance with the manufacturers recommendations Risers to be open

6 18 EXTERNAL STAIRS

External stairs shall be fabricated from timber to match decking including strings and open treads Install galvanised steel tie rods between strings and centre

6 19 EAVES DETAIL

Barges and fascia panels to be as detailed Soffit linings to be fibre cement to manufacturers recommendations and as detailed

6 20 CLADDING

a) Sarking

All fibre cement cladding shall be fixed over a vapour permeable sarking membrane equal to CI Sisalation 499 fixed in accordance with the manufacturer s instructions

b) Sheet Cladding Panels

Sheet cladding shall consist of 6mm thick Hardiflex sheets where indicated on the drawings

Ensure that noggings are located behind each horizontal joint moulding External and internal corners shall be trimmed with the Hardie PVC corner mould painted with the wall panels

c) HardiTex (Blue Board) cladding

Supply and fix Harditex Base Sheet cladding where indicated on the drawings Fix sheets in accordance with the manufacturer's instruction Finish with selected texture paint coating to colour scheduled

d) HardiPlank' Cladding

Fix Hardiplank cladding where indicated Profile to be Smooth 230mm width Fix in accordance with manufacturers instructions

6 21 WALL INSULATION

Install insulation to all external stud walls Insulation shall be R2 5 minimum fibreglass fitted tightly between studs and plates

6 22 WATERPROOF FIBRE CEMENT BALCONY

Install a waterproof fibre cement deck with tiles laid over where indicated over timber joists in accordance with the details supplied by James Hardie and as noted on the drawings

SECTION 07 - ROOFING AND ROOF PLUMBING

7 01 EXTENT OF WORK

Provide all labour materials and plant necessary for the completion of the work indicated on the drawings and as summarized below

a) Colorbond Custom Orb roofing
b) Supply and fixing of new eaves gutters and downpipes
c) Roof insulation

7 02 WORKMANSHIP

01 Generally
Carry out the necessary operations for the satisfactory performance of the roof including at junctions, trimming around penetrations, flashing and the like

Protect the roofing materials and roofing system from damage throughout the work under contract and leave them clean and undamaged on completion Ensure the rainwater systems are free of foreign matter and leave them unobstructed on completion

02 Standards
Comply with the relevant standards of the Standards Association of Australia

7 03 ROOFING

Roofing shall be as follows

a) Custom Orb- 760mm cover with total coated thickness 0 48mm Lay roofing in single lengths with $1^{1/2}$ side laps

Colour	Selected standard colorbond colour
Insulation	R1 5 blanket insulation
Flashings	Colorbond steel Do not use lead flashing

7 04 DOWNPIPES

Downpipes shall be colorbond steel nominal size 100 diameter Install in the locations indicated on the drawings connected to the rainwater tanks

Supply and rainwater heads where indicated complete with all fixing brackets and overflow spigots

7 05 GUTTERS AND DOWNPIPES

Supply and fix new eaves gutters and downpipes Supply and install leaf guards to all gutters

Gutter profile	Equal to Stratco Smoothline gutter
Material	Colorbond steel
Colour	selected standard colour

SECTION 08 - PLASTERWORK

8 01 EXTENT OF WORK

Provide all labour materials and scaffolding necessary to complete the work indicated on the drawings and as summarized below

a) Plasterboard wall and ceiling linings
b) Cement render

8 02 STANDARDS

The materials and workmanship shall comply with the current relevant standards of the Standards Association of Australia and in particular the following

AS 2185	Fibrous Plaster Products
AS 2588	Gypsum Plasterboard
AS 2589	The application of gypsum plasterboard in framed dwelling construction
AS 2592	Gypsum Plaster for building purposes

8 03 CEILING LININGS

Install new plasterboard linings to all ceilings including the Garage Fix plasterboard lining to steal beam in the Garage

Plasterboard shall be 10mm thick for fixings at 450mm centres and 13mm thick for 600 centres, recessed edge to AS 2588 fixed in accordance with the manufacturers recommendations Joints shall be taped set and sanded to a smooth finish

Ceilings over bedrooms on the Ground Floor shall be two layers fixed to resilient mounted furring channels as detailed

8 04 WALL LININGS

a) Plasterboard
As for ceilings specified above

b) Fibre Cement

Supply and fix fibre cement linings to bathroom and Laundry walls Linings shall be fibre cement 6 mm thick equal to Hardies 'Villaboard II

Fix sheets horizontally directly to wall studs Fixing methods and spacings shall be to the manufacturer s current recommendations Joints and fixings shall be finished flush with gypsum based jointing cement as recommended by the manufacturers

8 04 EXTERNAL CEMENT RENDER

Cement render shall be composed of 4 parts sand to 1 part cement with lime putty or plasticiser added to improve workability with the approval of the Project Manager Cement render shall be composed of 1 part cement to 1 part lime putty to 6 parts sand

Finish surfaces true hard and even free from trowel and float marks and other blemishes

Apply one coat of cement render 15 mm minimum thickness to external brick walls

SECTION 09 - TILING AND FLOOR FINISHES

9 01 EXTENT OF WORK

Provide all labour and materials to complete the works indicated on the drawings hereafter specified and summarized below

a) Wall and floor tiling to bathrooms and Laundry Splashback tiling to Kitchen
b) Tiling to balcony

9 02 MATERIALS AND WORKMANSHIP

01 Materials

Materials shall conform to the relevant standards of the Standards Association of Australia and as follows

Sand	To AS CA27
Cement	To AS 1315 type A portland cement
Lime	To AS 1672
Water	Clean and drinkable

02 Workmanship

All tiling work shall be carried out by experienced tradesmen

Cut tiles neatly around fittings and at margins as necessary Drill holes without chipping and return tiles into reveals and openings Butt up to frames fittings and other finishes as indicated

Set out tiles with straight even width joints in both directions level and plumb using only whole tiles at margins where practicable and so that holes for fixtures and the like occur where possible at intersection of tile joints Any tiled area laid without straight even joints or out of plumb or level with adjacent tiles may be rejected

9 03 WALL TILING

01 Generally

Wall tiles are listed in the *Schedule of Fittings and Finishes* The Builder shall allow for taking delivery and transporting to the site and all labour and materials for installation

Wall tiles shall be bedded on a dry bed adhesive Brick walls which are to be tiled shall be rendered prior to tiling

Joints shall be grouted in white cement unless otherwise indicated and thoroughly cleaned down on completion

02 Extent of Tiling

Allow for the following extent of wall tiling

Bathroom all walls	2400mm
Border tile	allow 1 row for extent of perimeter height to be advised
Laundries	1200mm behind tub and washing machine balance of walls to have skirting tile
Kitchen	600mm above bench

9 04 FLOOR TILING

01 Generally

Floor tiles are listed in the *Schedule of Fittings and Finishes* The Builder shall allow for taking delivery and transporting to the site

02 Flashings and Shower Trays

Supply and install PVC sheet wet area membrane and flashing to the entire floor and shower areas of Bathroom and Laundry equal to that supplied and installed by April Shower plastics complete with outlets dressed into floor wastes and upturns behind wall lining

Seal brickwork to walls adjacent shower areas including over baths using a proprietary sealer compatible with tile adhesive Ensure that baths are sealed at junction with tiled walls using white silicone neatly applied and trimmed

03 Mortar Beds

Floor tiles shall be bedded on cement mortar beds Lightly dust the surface of the screeded mortar bed with dry cement and trowel level until the cement is damp Alternatively spread a thin slurry of neat cement or cement based thin bed adhesive on to the tile back

Mixing To AS CA27 from cement and sand with minimum water Proprietary admixtures may be used if approved Do not use mortar after the set has begun

Thick mortar beds select proportions from the range 1 3 to 1 4 cement sand Thick mortar beds may be used with deviations up to 6mm, when tested with a 2 metre straight edge, and with tiles having deep keys or frogs

Thin mortar beds Select proportions from the range 1 1 to 1 2 cement sand Include an admixture of the rubber latex type Thin mortar beds may be used when the background deviation does not exceed 2 mm when tested with a 2 metre straight edge the entire back of the tile shall be covered with adhesive when the tile is bedded

Preparation Wet the background as necessary to achieve suitable suction Alternatively apply a bonding agent to the background to improve adhesion

04 Falls and Levels

Grade floor tiling to even and correct falls to floor wastes Make level junctions with walls

Unless otherwise specified or indicated maintain finished floor levels without step or break at changes of floor finishes including carpet

Deviation of the finished floor from its true form (plane warped plane camber and the like shall not exceed 1 300

05 Jointing

Grout up floor tiles with cement grout mixed with fine sand in 1 1 proportion using minimum water consistent with workability Proprietary admixtures may be added

Fill the joints solid and tool flush Clean off surplus grout and wash down when set Polish the tile surface with a clean cloth on completion

Supply labour and materials for silicon pointing of tiling at junction with all Kitchen and Laundry bench tops baths and vanity cabinets In addition silicon seal internal vertical joints to wall tiling within shower cubicles

Silicon shall be white and neatly applied by means of masking with masking tape

9 05 TOWEL RAILS AND PAPER HOLDERS

As noted in the Schedule of Fittings and Finishes at the end of this specification The Builder shall transport to site and provide all labour and materials necessary for installation

SECTION 10 - GLAZING

10 01 EXTENT OF WORK

a) Window and door glazing
b) Shower screens
c)

10 02 STANDARDS AND CODES

All materials and workmanship shall conform to the following standards

AS 1170	SAA Loading Code Part 2
AS 1288	SAA Glass Installation Code
AS3959-1999	Construction of Buildings in Bushfire-prone areas

10 03 GLASS AND GLAZING

Types and thicknesses of glass for external application shall be designed in conformity with AS1170 part 2 and be selected from AS 1288 section 2(rule 2 3) and Section 3

Glass shall be installed using methods such that building movement resulting from wind or thermal effects, are not transferred to the glass

On completion of glazing work replace any damaged glass clean the glass by non-damaging methods and leave the whole of the work in good condition

10 04 SHOWER SCREENS

Supply and install shower screen to the bathroom where indicated Shower screens shall be semi-frameless toughened glass

SECTION 11 - PAINTING WORK

11 01 EXTENT OF WORK

Provide all labour materials scaffolding drop sheets ladders and planks necessary to complete the works as follows

a) All internal and external wall and ceiling linings
b) All internal and external woodwork
c) Fibre cement wall cladding and soffits

11 02 MATERIALS AND WORKMANSHIP

01 Generally

All painting work shall be carried out by experienced tradesmen The Proprietor may require that the Builder furnish references from the painting sub-contractor to ascertain their experience and suitability for the work

Materials and workmanship shall comply with the relevant standards of the Standards association of Australia where not in conflict with this specification The following standards shall apply in particular

AS 2311	The painting of Buildings
AS 1580	Methods for test for paints varnishes and related materials

Containers shall not be opened until required for use Thoroughly stir paint and keep at a uniform consistency during application Any thinning of primers or undercoats shall be to the manufacturers specification

No painting shall be executed during unsuitable weather and all areas shall be adequately protected with drop sheets or other approved means

02 Examination

Inspect surfaces and determine that they are in proper condition to receive the work to be performed under this Section

The starting of work under this Section will be taken to mean acceptance of such surfaces as being satisfactory and defects in work resulting from accepting poor surfaces are to be corrected at no cost to the Proprietor

03 Materials

General Where manufacturer makes more than one grade of any material specified use the highest grade of each type whether or not the material is mentioned by trade name in these Specifications

Paints and finishes used for the project may be manufactured by one or more of the following manufacturers

Taubmans
Dulux
Wattyl

Other products may be approved by Proprietor Apply to Proprietor for approval of alternatives

04 Priming Materials

Colours of priming coats (and body coats where specified) are to be lighter than those of finish coat

05 Surfaces Left Unpainted

Do not paint the following surfaces -

Externally	Prefinished materials
Internally	Prefinished materials tiled areas

06 Cleaning

At completion of work in each area remove paint spots oil and stain from adjacent surfaces including finish hardware

Replace hardware previously removed

07 Colours

Colours shall be to future selection and shall be made from the manufacturers standard colours No colour matching shall be done site unless otherwise authorized

11 03 PREPARATION OF SURFACES

01 Masonry and Rendered Surfaces

Thoroughly clean surfaces of all dirt dust slurry marks or other excrescences Remove efflorescence by brushing and wiping with a damp rag and ensure that all powder is removed before painting Wash off oil or grease film with sugar-soap or detergent solution that is non injurious to the surface of shop primers and rinse off completely with plain water Surfaces shall be dry unless dampening is required for a particular finish material

02 Timber

Clean down knot sandpaper stop and fill surfaces for painting Scrape clean resin and gum pockets prime and fill holes and depressions with putty Sandpaper surfaces to receive clear finishes to a fine finish Timber surfaces must be thoroughly clean and free of sap grease, oil and dust before painting Stopping, filling and puttying of surfaces shall be carried out after primer is applied wherever an opaque surface finish is specified Prime all end grain tongues and grooves and lap joints before fixing timber into position

03 Plaster, Fibre Cement and Plasterboard Surfaces

Sandpaper smooth remove all surface contaminants dust off and apply specified coatings Plaster surfaces must be thoroughly dry before painting

04 Structural Steel

Shop priming of structural steelwork shall be carried out by the fabricator and field priming by the erector of structural steelwork

Field priming shall include touching up shop priming where damaged during erection or by field welding and the like and priming of black bolts heads and nuts to leave surfaces in a sound condition to receive finishing coats of paint Similarly touch up galvanised and similar finishes Apply etch primers on site in preparation for field finishing coats

05 Galvanised Steel

Prime with an epoxy based zinc rich paint conforming to the requirements of the Government Paint Committee having a dry film weight of not less than 80% zinc Such zinc rich paints shall be recommended by the manufacturer as being suitable for coating untreated or unweathered galvanised steel surfaces

11 04 POINTING AND FILLING

Where surfaces to be painted are required to be filled as part of the preparation ABS *fill all holes cracks open joints* or other faults or irregularities with fillers appropriate to the materials and as recommended by the paint manufacturers

SECTION 12 - HYDRAULIC SERVICES

12 01 EXTENT OF WORK

Provide all labour materials equipment and services necessary for the complete installation testing and operation of hydraulic works as indicated on the drawings and as summarized below

a) Sanitary drainage and plumbing to fixtures
b) Hot and cold water service to fittings Gas HWS
c) Supply and installation of sanitary fixtures and taps
d) Stormwater drainage connect to water tanks and stormwater drainage system
e) Gas service and connect to fittings

12 02 GENERALLY

All drainage plumbing and water services shall comply with the regulations relevant supply authority, and shall be executed by a licensed plumber to the directions of the authorities inspectors

Make good damage to pavements paths and any existing services disturbed during the works

12 03 OBVIOUS WORK

Any item which is obviously necessary or inferred within the type or quality of the contract but omitted from the drawings and specification shall be included without charge to the Proprietor

The Builder shall notify the Proprietor at the time of tendering of any omission encountered

12 04 MATERIALS

All materials shall be new and the best of their respective kind conforming to the current specifications of the Standards Association of Australia

Sewerage and stormwater drains shall be unplasticised PVC (UPVC) to AS 1260 unless otherwise specified

12 05 FEES, PERMITS AND TESTING

Make all applications to the Authorities pay all fees and obtain all permits necessary to execute the works

Make all tests as shall be required or ordered by the Authorities having jurisdiction using methods prescribed by them

The Builder shall pay for and make good all damage and materials resulting from the tests

Provide copies to the Proprietor of all certificates issued by the Authorities

12 06 SANITARY DRAINAGE

01 Generally
Lay new sanitary drainage to connect new sanitary fixtures indicated on the drawings to the sewer drainage complete with all necessary traps and vents

Check locations levels and dimensions on site to ensure correct cover and fall to drainage lines

02 Materials
Sewerage and stormwater drains shall be unplasticised PVC (UPVC) to AS 1260 unless otherwise specified

12 07 STORMWATER AND AGRICULTURAL DRAINAGE

Lay new stormwater drainage to connect downpipes indicated on the drawings complete with all necessary cleaning openings pits and sumps Make connection to existing stormwater drainage Any pipe layouts shown on the drawings are indicative only Stormwater drainage lines shall be in UPVC

12 08 SANITARY PLUMBING

01 Generally

Supply install and connect up to the appropriate services all piping fittings and fixtures and other necessary items to complete the works

02 Materials

All pipework shall be in solid drawn copper or brass unless otherwise specified Exposed pipework such as traps shall be chromium plated Concealed traps and vents may be PVC

03 Sanitary Fixtures

Sanitary fittings shall be supplied by the Proprietor The Builder shall allow for the taking delivery and installing the fittings in the locations indicated

12 09 HOT AND COLD WATER SERVICE

Provide new hot and cold water service lines, as applicable to complete the works indicated All hot water lines shall be insulated

Take all necessary precautions to prevent the possibility of water hammer any occurrence of this condition will be rectified at no cost to the Proprietor

12 10 GAS SERVICE

Connect gas service to the following locations

- Kitchen cook top
- Bayonet fittings to Living and family Room
- Bayonet fitting to Ground Floor deck

Arrange for testing and ensure all points are working order prior to handing over the completed works

12 11 HOT WATER HEATER

Gas instantaneous gas equal to Rinnai Infinity minimum 3 star rating

12 12 TAPS AND SPOUTS

Taps and spouts shall be supplied by the Proprietor The Builder shall allow for the taking delivery and installing the fittings in the locations indicated

12 13 SHOWER TRAYS

Refer to Tiling and Floor Finishes'

12 14 HOSE COCKS

Allow for installation and supply of six (6) brass hose cocks in locations to be advised by the Proprietor

12 15 WATER TANKS

Supply and install water storage and detention tanks where indicated on the drawings Tanks to be equal to the sizes required for the volumes nominated Supply firm and stable base for each tank

SECTION 13 - ELECTRICAL and MECHANICAL SERVICES

13 01 EXTENT OF WORK

Supply all labour and materials including all necessary fabrication for the completion of electrical services shown on the drawings and summarized below

a) light and power outlets
b) Installation of Kitchen equipment
c) Mechanical ventilation to bathrooms and Laundry where indicated

13 02 WORKMANSHIP

All work shall be carried out by a licensed electrician and shall conform to SAA Wiring Rules AS 3000

Carry out all re-wiring necessary to wiring to existing light fittings and switches which will be concealed within the floor of the new first floor addition and inaccessible

13 03 TESTS

The electrical installation shall be tested and passed by the supply authority Any defects shall be made good by the Builder All labour and material required for testing shall be provided by the Builder

13 04 NOTICES AND FEES

The Builder shall pay all fees give all notices and obtain all permits

13 05 INSTALLATION

The lighting outlets and power outlets shall be installed in the positions shown approximately on the drawings The exact locations to be directed on site by the proprietor

Wiring shall be concealed in stud walls, cavities or roof space and run in TPS cable TPS cable alone shall not be used in any exposed location or where embedded in rendered masonry

13 06 LIGHT FITTINGS

Refer to *Schedule of Fittings and Finishes* for light manufacture Supply and fix all light fittings where indicated in accordance with the manufacturers instructions

13 07 GENERAL PURPOSE OUTLETS AND SWITCHES

All GPO's shall match the existing make All switches shall be flush mounted with removable face plates and of 10 amps minimum rating

13 08 PRE-WIRING FOR TELEPHONES

Co-ordinate with supply authority and install telephone cables to locations indicated on the drawings Allow for 2 incoming lines

13 09 SMOKE DETECTORS

Supply and install smoke detector(s) to current requirements of regulating authorities hard wired with battery backup

13 10 EARTH LEAKAGE SWITCH

Supply and install an earth leakage switch to main board, to current requirements of regulating authorities

13 11 KITCHEN APPLIANCES

Supply of Kitchen as scheduled in Schedule of Fittings and Finishes at the end of this specification

The Builder shall transport to site and provide all labour and materials necessary for installation

13 12 T V SYSTEM

Supply and install cable to each TV point indicated on the drawings pre-wired to allow for connection of pay TV via satellite

13 13 MECHANICAL VENTILATION

Supply and install mechanical ventilation fan and ductwork to bathrooms and laundry The mechanical ventilation system shall be manually switched from dedicated switches

SECTION 14- LANDSCAPING

14 01 EXTENT OF WORK

Supply all labour and materials necessary to complete the works indicated on the Landscape drawings noted in the Development Conditions and as summarised below The Landscape drawings and development conditions shall take precedence

a) External paving
b) Surface drains pits and grates
c) Soft Landscaping

14 02 SERVICES

Co-ordinate with the drainage sub contractor and electrical sub contractor for temporary disconnection and relocation of existing services and the provision of new services and drains

14 03 EXTERNAL PAVING

Selected paving blocks Where indicated supply and lay brick paving or equal on consolidated sand sub base

Form concrete kerb and gutter to the street frontage to council detail including layback and crossing

14 04 SOFT LANDSCAPING

Supply and installation of shrubs trees and ground covers shall be to landscape Architect details

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

14 Heather Street
Collaroy Plateau NSW 2097

TAX INVOICE

COUNCIL COPY

DATE 13.12.07

PETER BIRD PLUMBING

3095

ABN 26 924 918 320 Licence No 21482C
Quality Work - Affordable Prices
9971 0136 • MOBILE 0418 974 807

TO Tx/hom it may Concern.

JOB 2 INGLESIDE RD Ingleside

ORDER No

DATE	DESCRIPTION	$	¢
	This is to verify that I have spoken to a representative from Sydney Water regarding the private sewer pump line that runs directly outside No 2 Ingleside. He has informed me the size of the line is adequate to take the pump out from the above premises. An arrangment will need to be entered into between the owner of the line and the owner of No 2 Ingleside Rd The representative from Sydney Water is David Winstanley from the Tech Services Division Regards Peter Bird. 13 12 07		

TOTAL COST LABOUR/MATERIALS

This is a receipt for 7000^{00} , being payment for permission to connect to the sewer pipeline as described in MWS&DB diagram No 687423

I organized and paid for the installation of this sewer line in 1987 using John Bucknell Plumbing P/L

The pipeline is privately owned and maintenance is the responsibility of those connected to the line

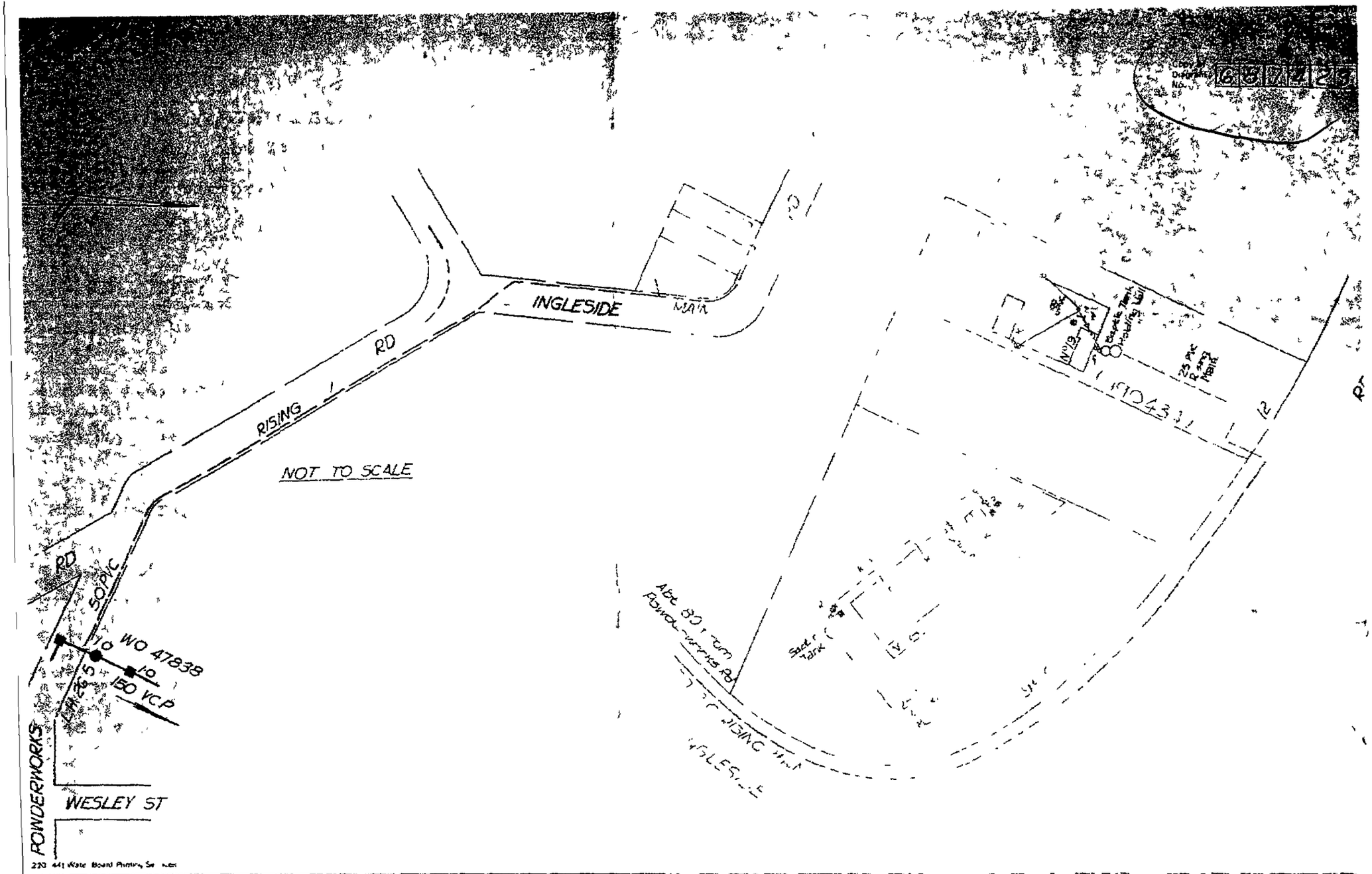
Your plumbing connection is to be in accordance with current plumbing regulations and carried out by a licensed plumber

x B Eames

K W Gowenlock.

Keith Gowenlock

30/11/07



SYMBOLS AND ABBREVIATIONS

DRAINAGE FITTINGS

P	P Trap	
R	Reflux Valve	
	Cleaning Eye	
	Vertical Pipe	
	Inclined Pipe	

INDICATES PLUMBING FIXTURE & DRAINAGE FITTINGS

CO	Cleanout	B	Bidet
	Grease Interceptor		Shower
	Tubs	DW	Dishwasher
	Kitchen Sink		Floor Waste
	Laundry Trough		Washing Machine

SEWERAGE SERVICE DIAGRAM

Property Address: Warrigal Street: Ingleside

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

COUNCIL COPY

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

Pittwater Council
Application for Road Opening Permit (and Consent)
With Road Restoration Fee - 1 July 2007 - 30 June 2008

Form No UI 201

COUNCIL COPY

PLEASE PRINT

Applicant Steven Samus

Company (if applicable) Good Day ELECTRICAL SERVICE

Postal Address Po Box 76 Narrabeen Postcode 2101

Phone (W) 99708002 (M) 0418442457

Owner's Name (if different from above)

Property Address 2 Ingleside Rd Ingleside (Lot 74)

Nature of Work Sydney water pipe line access

Proposed Date of Works 23-10-07

SECTION 139 - ROADS ACT 1993
Consent by Road Authority for Work in Road Reserve

Subject to the payment of the appropriate fee, the applicant is hereby permitted to make the Road Openings, as detailed below in strict accordance with the **CONDITIONS** overleaf
I/We the undersigned agree to abide by the said conditions

Applicant's Signature S Samus Date 23-10-07

ROAD RESTORATION FEES

AREA AFFECTED (Applicant to Complete)			Customer Service to Complete Applicable fees attached	
Road Reserve / Verge				
☐ Grass	Area	m^2	Fee $	
Footpath / Driveway				
☐ Concrete	Area	m^2	Fee $	
☐ Asphalt	Area	m^2	Fee $	
☐ Pavers	Area	m^2	Fee $	
Kerb & Gutter / Dish Drain				
☐ Concrete	Area	m	Fee $	
Road Pavement (Traffic Management Application will also be required if traffic control is required)				
☐ Asphalt	Area	m^2	Fee $	
☑ Unsealed Shoulder	Area 2	m^2	Fee $ 526 00	
			Permit Fee	**$113** (no gst payable)
			Total Fee	$ 639 00

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

Office Use Only	INSPECTION FOR RETURN OF BOND	Form No UI 201
Inspection Officer	Date of Inspection	
Bond refund recommended? YES/NO		
Reason for refusal		
CODE **EREC** Permit fee $113 **QBFD** Restoration fee	**1 7 07-30 6 08**	
FEE **$113 (No GST payable) + Restoration Fees**	**Late Fee $600 when work commenced prior to permit**	
RECEIPT NO 226399	ISSUED BY [illegible] DATE 23 10 07	

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 The Applicant shall accept all responsibility for public safety until the permanent restoration is effected (Temporary restoration is to be done by the permit holder)

7 Partial refund (less administration and testing charges) available (upon written request) if restoration meets Council standards

8 All restoration work to be done as per Council's 'Guide for Restoration Works on Road Reserves'

Sigi Melderis
Pittwater Council

9970 1348
on leave until end of oct

As Discussed with Pamela

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

Pittwater Council
Information for Access Driveway Profiles
1 July 2006 – 30 June 2007

COUNCIL COPY

To	Steven Samus	**Date**	25th February, 2008
Postal Address	PO Box 76 NARRABEEN 2101	**Receipt No** **Amount**	**233767** 71 00

ACCESS DRIVEWAY PROFILE AT **2 Ingleside Road, 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 3 6m long, 4 0m wide at gutter crossing to 4 0m wide at the boundary 'G' 800m from edge of road, 50m 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)

1 **NOTE THAT THIS INFORMATION SHEET DOES NOT CONSTITUTE AN APPROVAL TO COMMENCE OR PROCEED WITH ANY WORK ON SITE**

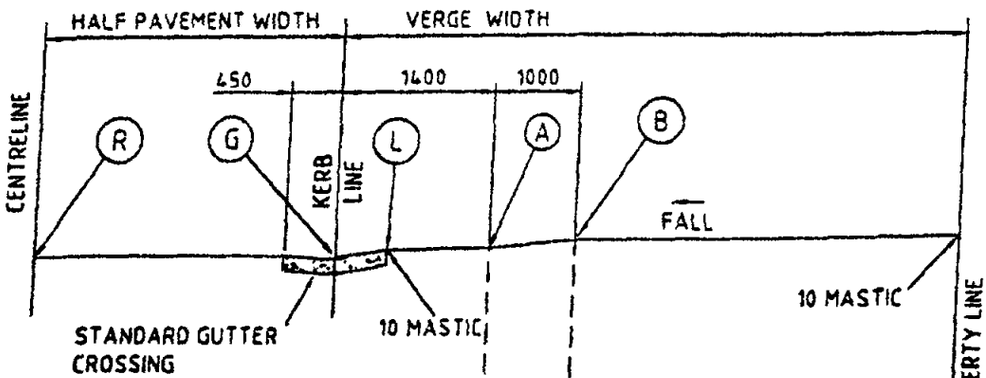
2 **A SECTION 139 CONSENT UNDER THE ROADS ACT – 1993 IS REQUIRED (FORM UI203)**

3 **FAILURE TO OBTAIN SUCH CONSENT PRIOR TO COMMENCING WORK WILL INCUR A PENALTY**

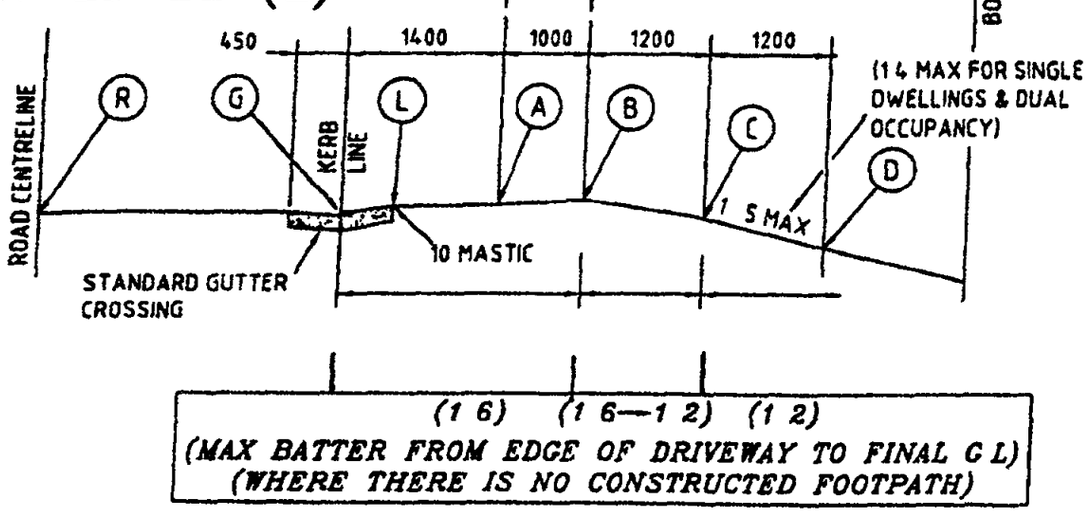
S. Melders

Sigi Melderis
ASSETS / RESTORATIONS OFFICER
Telephone 9970 1348

NORMAL (N)



LOW LEVEL (L)



POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
L	BACK OF LAYBACK	100 ABOVE "G
A	1400 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

LONG SERVICE

See reverse of form for instructions

APPLICATION FOR PARTIAL LEVY EXEMPTION
OWNER BUILDER

An owner builder may claim a partial exemption from the levy for the work personally performed by the owner builder.

PART A – DETAILS OF PERSON LIABLE TO PAY LEVY

PLEASE PRINT ALL DETAILS USING CAPITALS

Surname: SAMUS

Given names: STEVEN JOHN

POSTAL ADDRESS
No and street or PO Box: PO Box 76

Town/suburb: NARRABEEN

State: NSW Postcode: 2101

Business hours phone number: 0418442457

Owner Builder Permit No:

COPY OF OWNER BUILDER PERMIT MUST BE ATTACHED

PART B – ADDRESS OF BUILDING/CONSTRUCTION WORK

Number and street: 2 INGLESIDE ROAD

Town/suburb: INGLESIDE

State: NSW Postcode: 2101

PART C – COUNCIL DETAILS

Local Council Area: PITTWATER COUNCIL

(DA)/CC/CDC No (circle which): N0605/07

Estimated value of work (see reverse): $ 1,600,000 00

Estimated value of work personally performed by Owner Builder: $ 1,300,800 00

DO NOT MAKE ANY PAYMENT WITH THIS APPLICATION

PART D – REFUND (if applicable)

Amount paid $: 2,100 00

Date paid D 18 M 02 Y 2008

Where paid (tick one box only)

☑ COUNCIL INDICATED IN PART C ABOVE ☐ LONG SERVICE PAYMENTS CORPORATION

☐ ELSEWHERE (PLEASE STATE) _____

COPY OF RECEIPT MUST BE ATTACHED

PART E – DECLARATION – Any false or misleading information could result in prosecution under Section 58A

This aplication must be signed by the Owner Builder and copy of OWNER BUILDER PERMIT attached
I declare that the information provided on this form is true and correct to the best of my knowledge

Name Steve Samus Signature S Samus Date D 19 M 02 Y 2008

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

Building and Construction Industry Long Service Payments Corporation, Locked Bag 3000, Central Coast MC NSW 2252
Tel. 13 14 41 Fax (02) 9287 5685 Email. levy@lspc nsw gov au www lspc.nsw gov au ABN 93 646 090 808

Dec05/282

COUNCIL COPY

FORM NO

OFFICE USE ONLY

PLEASE PRINT ALL DETAILS USING CAPITALS

Surname (if person) or Company/Organisation name: SAMUS

Given names (if person): STEVEN

ABN (if applicable):

POSTAL ADDRESS
No and street or PO Box: PO BOX 76 NARRABEEN

Town/suburb: NARRABEEN

State: NSW Postcode: 2101 Bus hours phone: 0418442457

Number and street: 2 INGLESIDE RD

Town/suburb: INGLESIDE

State: NSW Postcode: 2101

Estimated start date: D 01 M 03 Y 2008 Estimated finish date: D 20 M 12 Y 2012

Local Council Area: OLTTWATER

[1] DA/CC/CDC No: N0605/97

Estimated value of work (see note on back): $ 600000.00 Levy payable $ 2100.00

[1] If you have provided a CC above please provide DA number here: N0C05/07

Signature of Officer/Private Certifier _____ Date D 15 M 02 Y 2008

Name of Officer/Private Certifier _____ Business hours phone

Department/Authority

Contract/DA No (circle which) Contract amount $

Levy payable $

Contact person (Print) _____ Phone number

Contact person (Signature) _____ Date D M 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 Steve Samus Signature _____ Date D 18 M 02 Y 2008

xemption Approval Certificate No

Building and Construction Industry Long Service Payments Corporation Locked Bag 3000 Central Coast MC NSW 2252
Tel 13 14 41 Fax (02) 9287 5685 Email levy@lspc nsw gov au www lspc nsw gov au / ABN 93 626 090 808

COMMONWEALTH BANK
EFTPOS
PITTWATER COUNCIL
MONA VALE NSW 3
TERMINAL 22192700

CUSTOMER COPY

CARD NO 516337-552
EXPIRY DATE 05/10
CREDIT 005615
PURCHASE 2336 13
TOTAL AUD2336 13

18 FEB 2008 16 11
WESTPAC MASTERCARD

APPROVED 08

DRIVEWAY

PREVAILING STORMS

SYDNEY WATER
APPROVED

Position of structure in relation o Syd- Water s a sets is satisfactory
Connections to Sydney Water sewer/wa services may only be made following the is of a permit to a licensed plumber/drainer
It is the owner s responsibility to ensure th all proposed fittings will drain to Sydn Water s sewer
Any Plumbing and/or Drainage Work to carried out in accordance with the Syd Water Act 1994 AS 3500 and the NSW C of Practi c
Gullies Inspection Shafts and Boundary Tra shall not be placed under any Roof Bal Verandah Floor or other cover or others to approved by Sydney Water

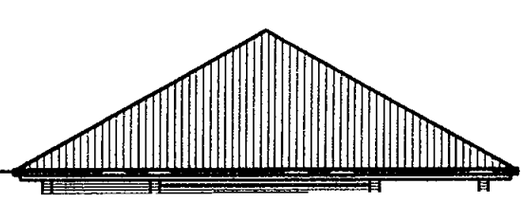
Property No. 3425361

Reece Mona Vale
Quick Check Agent on behalf of
SYDNEY WATER

R6666 21.2.08

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

COUNCIL COPY



the certification group

enhancing building performance

COUNCIL COPY

APPLICATION FORM

Made under the Environmental Planning and Assessment Act 1979 Sections 81A(2)(4) 84A 85A & 109C (1)(b)
Environmental Planning and Assessment Regulation 2000 clauses 126(1) 139(1) or 157(1)
To complete this form please place a cross in the boxes and fill out the white sections as appropriate

Application Sought

- ☐ Complying Development Certificate
- ☑ Occupation Certificate
- ☑ Construction Certificate
- ☑ Principal Certifying Authority

[redacted]

Subject Land

Address: 2 INGLESIDE RD, INGLESIDE

Lot No DP SP vol/fol Etc: LOT 74, DP 11784

Details of the applicant

Name /Company: STEVE SAMUS   Contact Person: ______

Postal Address: P.O BOX 76, NARRABEEN   Postcode: 2101   State: NSW

E mail: juliesamus@bigpond.com   Daytime telephone: ______

Fax: ______   Mobile: 0418 442 457

Applicant Signature: ______   Date: ______

Consent of Owner(s)

I/We as the owner/s of the above property authorise for either Mark Wysman or Wayne Treble to provide Construction Certification and to act as the Principal Certifying Authority for the subject building works including site inspections and to lodge the Notice of Commencement / Appointment of the Principal Certifying Authority with the relevant Council

Name(s)/ Company: STEVE SAMUS

Address: AS ABOVE   Postcode: ______   State: ______

Phone No: ______   Mobile: ______   Fax: ______

Signature of Registered owner(s) Company stamp or seal to be affixed if applicable

S Samus

______

______

Date: 22-2-08

Description of the work proposed

Type of work proposed

☑ New Building ☐ Additions / Alterations

Class of Building under Building Code of Australia 1a + 10a

Description of the work ERECTION OF A NEW HOUSE + GARAGE.

Construction Cost of Works $ 600,000

Details of Builder

Contact Person OWNER BUILDER

Name /Company Steve Samas

Fax _____ Mobile 0418 442 457.

Daytime telephone _____ Email julie samus @ bigpond com.

Builders address _____ Postcode _____

Details of the relevant Development Consent granted

Consent No N0605/07 Date the consent was granted 13 12 07

Applicant Checklist

☐ Complete Application Form – Pages 1 & 2

☐ Attach supporting documentation as nominated on Page 3

☐ Complete statistical Return on Page 4

Private Policy

The information you provide in this notice is required under the Environmental Planning and Assessment Act 1979 if you are going to erect a building If you do not provide the information to the consent authority you cannot commence the work. The information will be held by the consent authority and by the council (if the council is not the consent authority) Please contact the certification group if the information you have provided in this notice is incorrect or changes

Date of receipt (To be completed by Certifying Authority)

Date 22 2-08.

STATISTICAL RETURN FOR AUSTRALIAN BUREAU OF STATISTICS

What is the site area of land?	Area in square meters	2972 m²
Gross floor area of existing building (If no existing building write NIL)	Area in square meters	~ 1
What is the existing building or site used for at present?	Main Uses	Res Detail
	Other Uses	
Does the site contain dual occupancy?	☐ Yes ☑ No	
Gross floor area of the proposed building	in square meters	Approx 450 m²
What will the proposed building be used for?	Main Uses	Res Detail
	Other Uses	
How many dwellings:		
Are pre-existing at this property?	Dwellings	~ 1
Are proposed to be demolished?	Dwellings	~ 1
Are proposed to be constructed?	Dwellings	1
Are attached to an existing building?	Dwellings	~ 1
Are attached to a new building?	Dwellings	~ 1
How many storeys will the building consist of?	Storeys	2

What are the main building materials? *(Please tick appropriate boxes)*

WALLS
- ☐ Full Brick
- ☑ Brick Veneer
- ☐ Concrete or Stone
- ☐ Steel
- ☐ Fibrous Cement
- ☐ Timber/weatherboard
- ☐ Cladding aluminium
- ☐ Curtain glass
- ☐ Other
- ☐ Unknown

ROOF
- ☐ Aluminium
- ☐ Concrete or Slate
- ☐ Tile
- ☐ Fibrous Cement
- ☑ Steel
- ☐ Other
- ☐ Unknown

FLOOR
- ☑ Concrete or slate
- ☐ Timber
- ☐ Other
- ☐ Unknown

FRAME
- ☑ Timber
- ☐ Steel
- ☐ Aluminium
- ☐ Other
- ☐ Unknown

THE CERTIFICATION GROUP - [redacted] PO Box 870 Narrabeen NSW 2101
tel 9944 8222 fax 9944 6330 email info@thecgroup.com.au www.thecgroup.com.au acn 111 092 632

NORTHROP
CONSULTING ENGINEERS

Grafton Bond Store
60 Hickson Road
Sydney NSW 2000

PO Box H171
Australia Square NSW 1215

Telephone (02) 9241 4188
Facsimile (02) 9241 4324
Email sydney@northrop com au

17th March 2008

Job Number 07850

Mr Mark Wysman
The Certification Group Pty Ltd
PO Box 870
NARRABEEN NSW 2101

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

Dear Mark,

COUNCIL COPY

Re 2 INGLESIDE RD, INGLESIDE
DESIGN CERTIFICATE – CIVIL ENGINEERING WORKS

Northrop Consulting Engineers Pty Ltd, as the civil engineering consultant for the project hereby certifies to The Certification Group Pty Ltd that the design of the works shown on Northrop's drawings (see below) for the civil components of the project has been carried out by qualified engineers and technical staff,

- Generally in accordance with Pittwater Council s Development Control Plan 21, Part B5 8 Stormwater Management – On-Site Stormwater Detention

Civil Engineers drawings prepared by Northrop Consulting Engineers,
Drawing numbers C01-C03, dated 17/03/08,

This certification is based on our professional opinion and on design assumptions that we have made in accordance with normal engineering practice and correspondence with Pittwater Council We trust you find this information satisfactory If you have any queries please feel free to contact me – 9241 4188

Yours faithfully,

Andrew Dawes
Civil Engineer
NORTHROP ENGINEERS

Mathew Richards
Principal – Civil Engineering Manager
NORTHROP ENGINEERS

2 INGLESIDE ROAD
INGLESIDE

CIVIL WORKS & STORMWATER MANAGEMENT

SITE WORKS

1. ALL WORKS TO BE IN ACCORDANCE WITH LOCAL RELEVANT COUNCIL REQUIREMENTS, SPECIFICATIONS, AUSTRALIAN STANDARDS. CONFLICTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR DIRECTION.

2. THE CONTRACTOR IS TO DESIGN, OBTAIN APPROVALS AND CARRY OUT REQUIRED TEMPORARY TRAFFIC CONTROL PROCEDURES DURING CONSTRUCTION IN ACCORDANCE WITH RTA AND LOCAL COUNCIL REGULATIONS AND REQUIREMENTS.

3. THE CONTRACTOR IS TO OBTAIN ALL AUTHORITY APPROVALS AS REQUIRED.

4. RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION ON COMPLETION OF WORKS. WHERE PLANTING OF NEW GRASS IS NECESSARY REFER TO LANDSCAPE ARCHITECT DOCUMENTATION.

5. ON COMPLETION OF ANY TRENCHING WORKS, ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL, GRASSED AREAS AND ROAD PAVEMENTS.

6. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.

7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO LODGMENT OF TENDER AND ON SITE WORKS. THE PRICE AS TENDERED SHALL BE INCLUSIVE OF ALL WORKS SHOWN ON THE TENDER PROJECT DRAWINGS. ADDITIONAL PAYMENTS FOR WORKS SHOWN ON THE TENDER PROJECT DRAWINGS WILL NOT BE APPROVED.

8. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT OF THE SUBJECT SITE.

9. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
   - A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE:
   - B) ENSURING THAT NOTHING IS NAILED TO THEM:
   - C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
     - i) ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS GREATER.
     - ii) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH.
     - iii) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

10. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.

11. IN CASE OF DOUBT OR DISCREPANCY REFER TO SUPERINTENDENT FOR CLARIFICATION OR CONFIRMATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

12. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.

13. MAKE SMOOTH TRANSITION TO EXISTING FEATURES AND MAKE GOOD WHERE JOINED.

14. THESE PLANS SHALL BE READ IN CONJUNCTION WITH ALL APPROVED DRAWINGS AND SPECIFICATIONS PREPARED BY OTHER PROJECT CONSULTANTS.

15. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.

16. ALL CIVIL ENGINEERING DESIGN HAS BEEN DOCUMENTED UNDER THE ASSUMPTION THAT ALL NECESSARY SITE CONTAMINATION REMEDIATION WORKS HAVE BEEN SATISFACTORILY COMPLETED (IF APPLICABLE) AND THAT THE SITE IS NOT AFFECTED BY ANY SOIL STRATA OR GROUNDWATER TOXIC CONTAMINATION.

EXISTING SERVICES

1. ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA, THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AND CONFIRM THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.

2. CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS.

3. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS. ANY AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.

4. THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR ADJUSTMENT (IF REQUIRED) OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS.

5. THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF EXISTING SERVICES IN AREA AFFECTED BY WORKS UNLESS DIRECTED OTHERWISE ON THE DRAWINGS OR BY THE SUPERINTENDENT.

6. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.

7. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF THE PROGRAM FOR THE RELOCATION AND/OR CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY.

8. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.

ACCESS & SAFETY

1. THE CONTRACTOR SHALL COMPLY WITH ALL STATUTORY AND INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING TRAFFIC CONTROL.

2. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES ACCESS TO ALL BUILDINGS ADJACENT THE WORKS IS NOT DISRUPTED.

3. WHERE NECESSARY THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND/OR PEDESTRIANS THROUGH OR BY THE SITE.

SEDIMENT & EROSION

1. THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH STATUTORY REQUIREMENTS AND IN PARTICULAR THE "BLUE BOOK" (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION, PRODUCED BY THE DEPARTMENT OF HOUSING). THESE MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED.

2. THE SITE SUPERINTENDENT SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THE DRAWINGS.

3. INFORM ALL CONTRACTORS OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.

4. THE SEDIMENT & EROSION CONTROL PLAN PRESENTS CONCEPTS ONLY, THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME MEETING COUNCIL'S DESIGN, AND ALL OTHER REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES.

5. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
   - A) INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES. WHERE FENCES ARE ADJACENT TO EACH OTHER THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER FENCE.
   - B) CONSTRUCT TEMPORARY STABILISED SITE ACCESS. INCLUDING SHAKE DOWN AND WASH PAD.
   - C) INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THE APPROVED PLANS.

6. UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.

7. MAINTAIN AND MANAGE ENVIRONMENTAL PROTECTION MEASURES THROUGHOUT CONTRACT.

8. AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.

9. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) SHALL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.

10. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED OUT.

11. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.

12. ALLOW FOR GRASS STABILISATION OF EXPOSED AREAS, OPEN CHANNELS AND ROCK BATTERS.

13. ALLOW FOR THE ESTABLISHMENT OF OTHER EROSION PROTECTION MEASURES.

14. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

15. ACCEPTABLE RECEPTORS SHALL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.

16. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.

STORMWATER DRAINAGE

1. ALL PIPES LESS THAN OR EQUAL TO ø225mm ARE TO BE SOLVENT WELD-JOINTED SEWER GRADE uPVC CLASS SH, OR (min) CLASS 2 RUBBER-RING JOINTED RCP (UNO).

2. WHERE uPVC STORMWATER LINES PASS UNDER FLOOR SLABS SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.

3. PIPES GREATER THAN OR EQUAL TO ø300mm ARE TO BE (min) CLASS 2 RUBBER-RING JOINTED RCP (UNO).

4. FRC PIPES EQUIVALENT TO THE STEEL REINFORCED CONCRETE PIPE CLASS SPECIFIED ON THE DRAWINGS MAY BE USED – OBTAIN SUPERINTENDENTS APPROVAL.

5. ALL PIPES ARE TO BE LAID AT (min) 1.0% GRADE (UNO)

6. THE USE OF PRE-CAST STORMWATER DRAINAGE PITS IS NOT ACCEPTED WITHOUT CONFIRMATION BETWEEN NORTHROP ENGINEERS AND THE CONTRACTOR REGARDING QUALITY CONTROL, AND CERTIFICATION OF FINISHES.

7. COVERS
   - A) USE HOT DIPPED GALVANISED COVERS AND GRATES COMPLYING WITH RELEVANT AUSTRALIAN AND COUNCIL STANDARDS.
   - B) ALL COVERS AND GRATES TO BE POSITIONED IN A FRAME AND MANUFACTURE AS A UNIT.
   - C) ALL COVERS AND GRATES TO BE FITTED WITH POSITIVE COVER LIFTING KEYS.
   - D) OBTAIN SUPERINTENDENT'S APPROVAL FOR THE USE OF CAST IRON SOLID COVERS AND GRATES. CAST IRON SOLID COVERS (IF APPROVED) TO CONSIST OF CROSS-WEBBED, CELLULAR CONSTRUCTION WITH THE RIBS UPPERMOST TO ALLOW INFILLING WITH CONCRETE. INSTALL POSITIVE COVER LIFTING KEYS AND PLASTIC PLUGS.
   - E) UNLESS DETAILED OR SPECIFIED OTHERWISE COVERS AND GRATES TO BE CLASS "C" IN VEHICULAR PAVEMENTS AND CLASS "B" ELSEWHERE.

8. ALL PIPE BENDS, JUNCTIONS, ETC. ARE TO BE PROVIDED USING PURPOSE MADE FITTINGS OR STORMWATER PITS.

9. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT PIPE PENETRATIONS SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.

10. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTERS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.

11. U.N.O. MATERIAL USED FOR BEDDING OF PIPES SHALL BE APPROVED NON-COHESIVE GRANULAR MATERIAL HAVING HIGH PERMEABILITY AND HIGH STABILITY WHEN SATURATED AND FREE OF ORGANIC AND CLAY MATERIAL.

12. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (OR 75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK.

13. BEDDING SHALL BE (UNO) TYPE HS2 UNDER ROADS; H2 GENERAL AREAS, IN ACCORDANCE WITH CURRENT RELEVANT INDUSTRY STANDARDS AND GUIDELINES.

14. THE CONTRACTOR SHALL ENSURE AND PROTECT THE INTEGRITY OF ALL STORMWATER PIPES DURING CONSTRUCTION. ANY AND ALL DAMAGE TO THESE PIPES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.

15. NOTE THAT THE PIT COVER LEVEL NOMINATED IN GUTTERS ARE TO THE INVERT OF THE GUTTER WHICH ARE 40mm LOWER THAN THE PAVEMENT LEVEL AT LIP OF GUTTER.

16. ø100mm SUB-SOIL DRAINAGE LINES WITH NON-WOVEN GEOTEXTILE SOCK SURROUND SHALL BE CONNECTED TO A STORMWATER DRAINAGE PIT (AT min. 1% LONGITUDINAL GRADE) AND PROVIDED IN THE FOLLOWING LOCATIONS:
   - A) THE HIGH SIDE OF PROPOSED TRAFFICKED AND CARPARK PAVEMENT AREAS.
   - B) ALL PLANTER AND TREE BEDS PROPOSED ADJACENT TO PAVEMENT AREAS.
   - C) BEHIND RETAINING WALLS (IN ACCORDANCE WITH DRAWINGS)
   - D) ALL OTHER AREAS SHOWN ON THE DRAWINGS.

17. THE CONTRACTOR SHALL INSTALL INSPECTION OPENINGS TO ALL SUBSOIL DRAINAGE LINES AND DOWNPIPE LINES AS SPECIFIED ON DRAWINGS, AT MAXIMUM 60m CENTERS AND AT ALL UPSTREAM ENDPOINTS.

18. WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS SEALED uPVC SEWER GRADE PIPE SHALL BE USED.

19. PROVIDE 3.0m LENGTH OF ø100 SUBSOIL DRAINAGE PIPE WRAPPED IN A NON-WOVEN GEOTEXTILE FABRIC, TO THE UPSTREAM SIDE OF STORMWATER PITS, LAID IN STORMWATER PIPE TRENCHES AND CONNECTED TO THE DRAINAGE PIT.

20. ALL RECTANGULAR HOLLOW SECTIONS (RHS) SPECIFIED AS STORMWATER CONDUITS TO BE HOT DIPPED GALVANISED AND HAVE (MINIMUM) 5mm WALL THICKNESS.

DRAWING SCHEDULE

COUNCIL COPY

THIS CERTIFICATION GROUP PTY LTD APPROVED CONSTRUCTION CERTIFICATE FOR DOCUMENTATION

FOR CONSTRUCTION

DESIGNED A.DAMES
DRAWN S.WARD
JOB MANAGER S.FRYER
VERIFIER M.RICHARDS

ISSUE	AMENDMENT	VERIFIED	APPROVED	DATE
A	ISSUED FOR CONSTRUCTION CERTIFICATE		A.D.	07.03.08
B	RE-ISSUED FOR CONSTRUCTION CERTIFICATE	M.R.	A.D.	17.03.08

Client: MR & MRS SAMUS

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

Architect: HSA ARCHITECTS

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE MAKING ANY SHOP DRAWINGS OR COMMENCING ANY WORK

NORTHROP
Bringing people, ideas & engineering together
Sydney
The Grafton Bond Store, 60 Hickson Road, Sydney, N.S.W. 2000
Ph (02) 9241 4188 Fax (02) 9241 4324 Email sydney@northrop.com.au
P.O. Box H171 Australia Square, N.S.W. 1215 ABN 81 094 433 100

PROJECT: 2 INGLESIDE ROAD INGLESIDE

DRAWING TITLE: COVER SHEET, NOTES & DRAWING SCHEDULE

JOB NUMBER: 07850

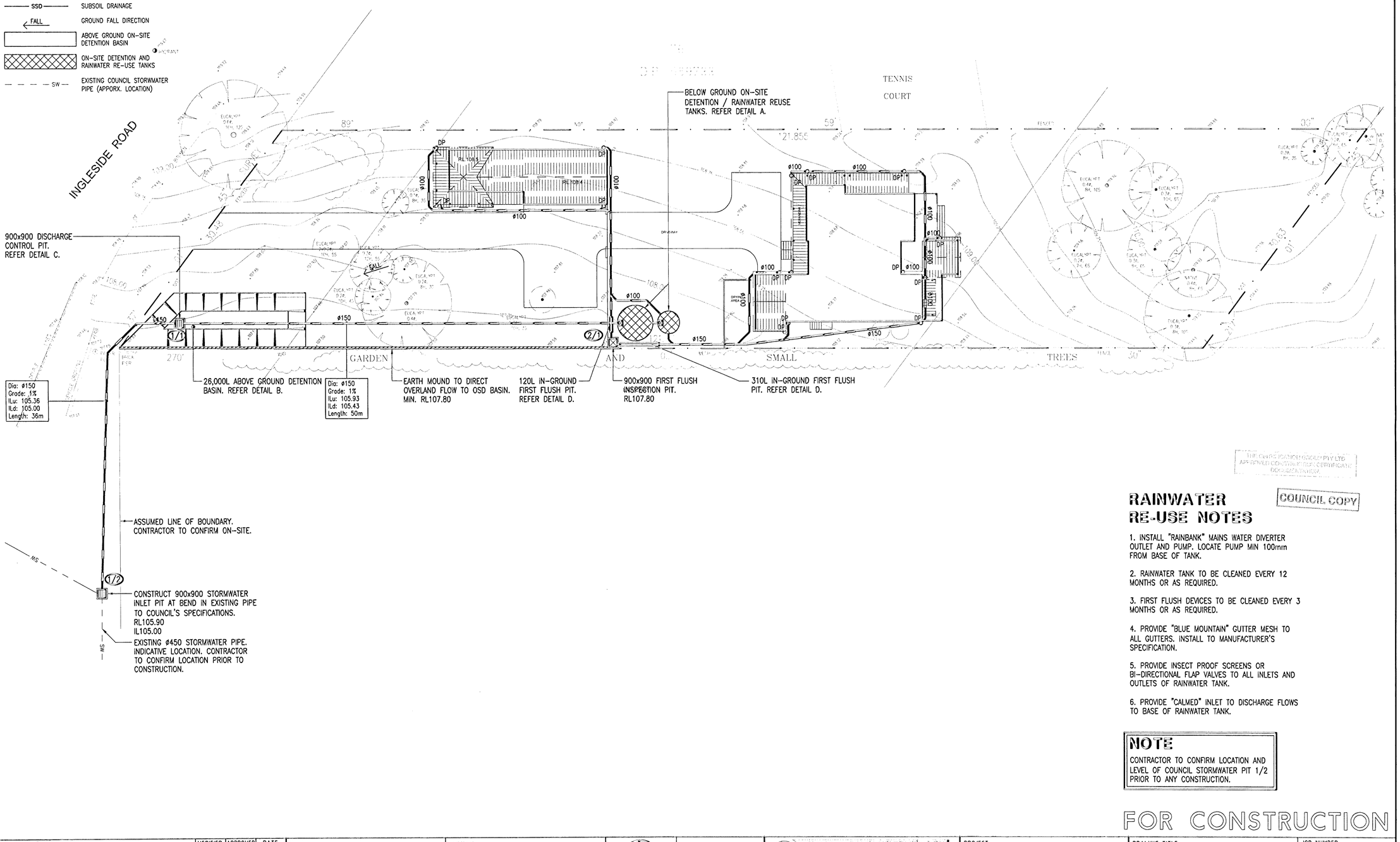
DRAWING NUMBER: C01

REVISION: B

DRAWING SHEET SIZE = A1

LEGEND

- PROPOSED STORMWATER PIT
- PROPOSED STORMWATER PIPE
- DP — PROPOSED DOWNPIPE
- HER — HIGH END RISER
- SSD — SUBSOIL DRAINAGE
- FALL — GROUND FALL DIRECTION
- ABOVE GROUND ON-SITE DETENTION BASIN
- ON-SITE DETENTION AND RAINWATER RE-USE TANKS
- SW — EXISTING COUNCIL STORMWATER PIPE (APPORX. LOCATION)



DESIGNED A.DAWES
DRAWN S.WAID
JOB MANAGER S.FRYER
VERIFIER M.RICHARDS

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

COUNCIL COPY

RAINWATER RE-USE NOTES

1. INSTALL "RAINBANK" MAINS WATER DIVERTER OUTLET AND PUMP. LOCATE PUMP MIN 100mm FROM BASE OF TANK.

2. RAINWATER TANK TO BE CLEANED EVERY 12 MONTHS OR AS REQUIRED.

3. FIRST FLUSH DEVICES TO BE CLEANED EVERY 3 MONTHS OR AS REQUIRED.

4. PROVIDE "BLUE MOUNTAIN" GUTTER MESH TO ALL GUTTERS. INSTALL TO MANUFACTURER'S SPECIFICATION.

5. PROVIDE INSECT PROOF SCREENS OR BI-DIRECTIONAL FLAP VALVES TO ALL INLETS AND OUTLETS OF RAINWATER TANK.

6. PROVIDE "CALMED" INLET TO DISCHARGE FLOWS TO BASE OF RAINWATER TANK.

NOTE
CONTRACTOR TO CONFIRM LOCATION AND LEVEL OF COUNCIL STORMWATER PIT 1/2 PRIOR TO ANY CONSTRUCTION.

FOR CONSTRUCTION

ISSUE	AMENDMENT	VERIFIED	APPROVED	DATE
A	ISSUED FOR CONSTRUCTION CERTIFICATE		A.D.	07.03.08
B	RE-ISSUED FOR CONSTRUCTION CERTIFICATE	M.R.	A.D.	17.03.08

Client: MR & MRS SAMUS

Architect: HSA ARCHITECTS

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0 2 4 6 8 10m SCALE 1:200 @ A1
0 2 4 6 8 10m SCALE 1:400 @ A3

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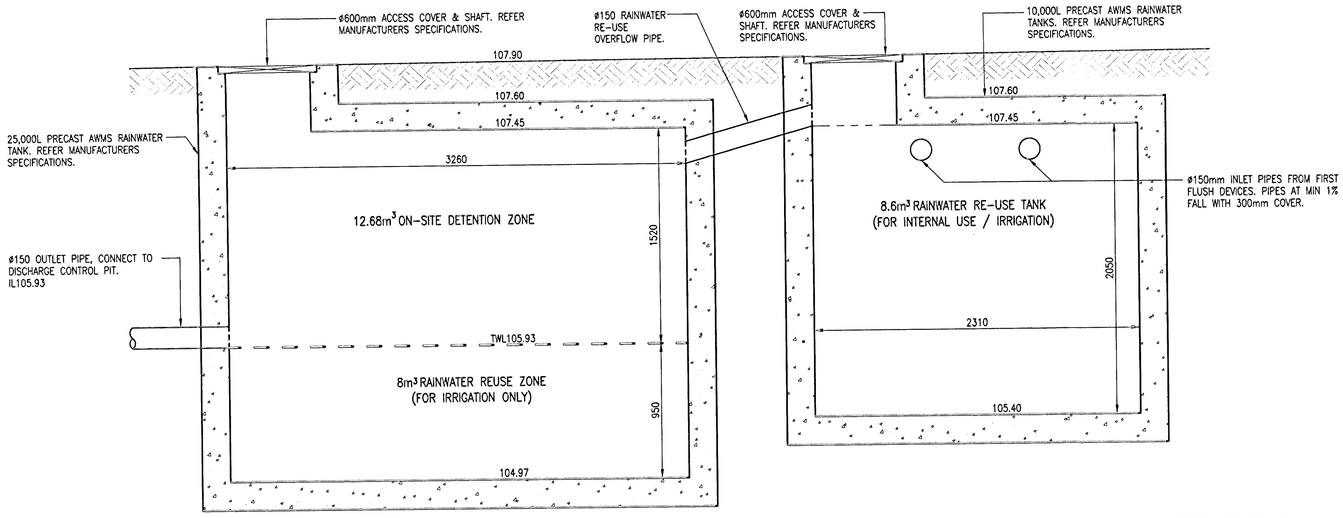
Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT: 2 INGLESIDE ROAD INGLESIDE

DRAWING TITLE: STORMWATER MANAGEMENT PLAN

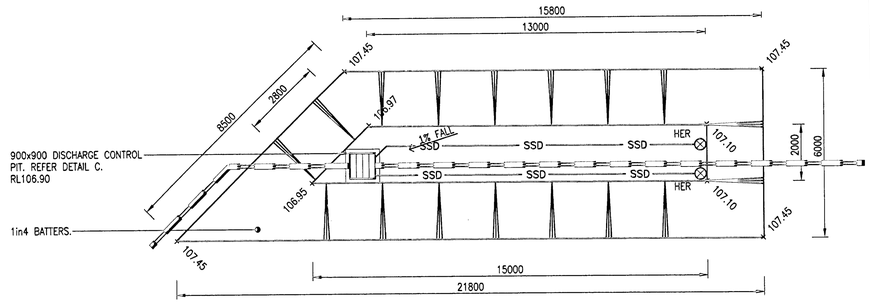
JOB NUMBER: 07850
DRAWING NUMBER: C02
REVISION: B
DRAWING SHEET SIZE = A1



DETAIL A - BELOW GROUND ON-SITE DETENTION/RAINWATER REUSE TANKS

SCALE 1:20

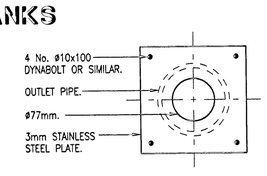
NOTES: 1. TOTAL RAINWATER REUSE VOLUME = 16.6m³
2. TOTAL ONSITE DETENTION VOLUME = 38m³



DETAIL B - 26m³ ABOVE GROUND ON-SITE DETENTION BASIN

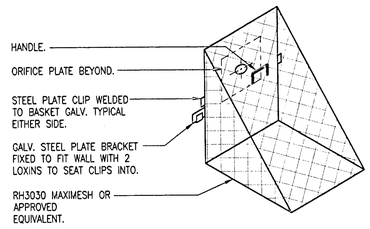
NOT TO SCALE

NOTES: 1. ALLOWANCE OF 10% ADDITIONAL STORAGE MADE FOR LANDSCAPING



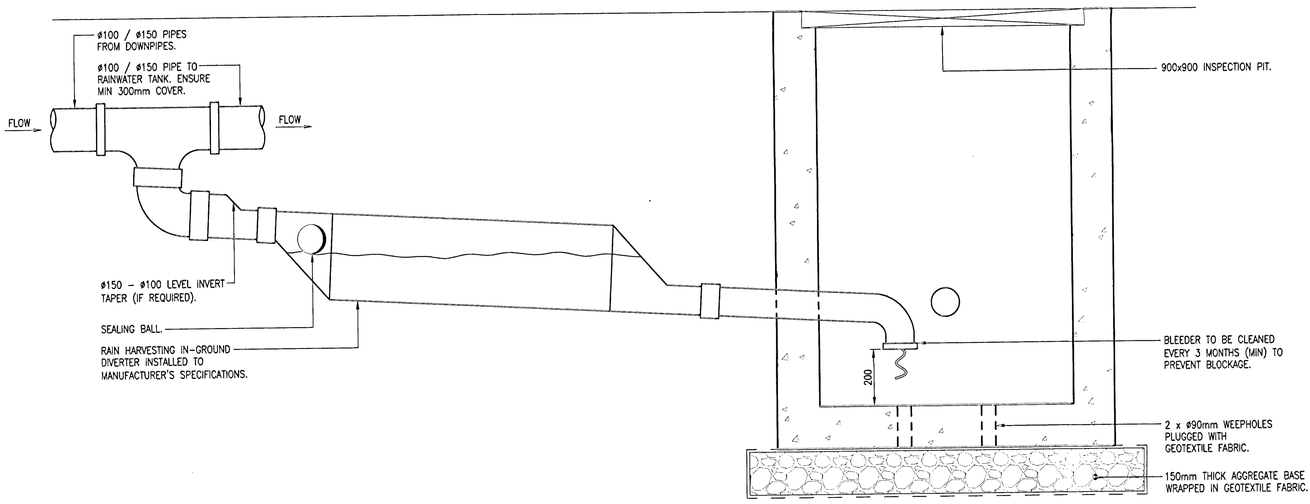
ORIFICE PLATE DETAIL

NOT TO SCALE



TRASH SCREEN DETAIL

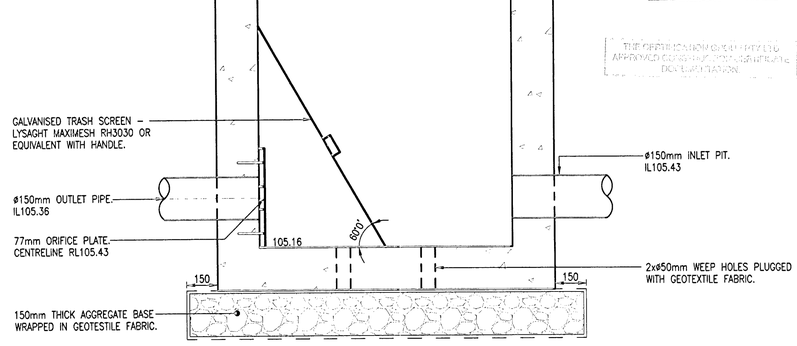
NOT TO SCALE



DETAIL D - TYPICAL FIRST FLUSH DEVICE

SCALE 1:10

PROVIDE STEP IRONS TO AUSTRALIAN STANDARDS.



DETAIL C - PIT 1/1 DISCHARGE CONTROL PIT

SCALE 1:10

PROVIDE STEP IRONS TO AUSTRALIAN STANDARDS.

COUNCIL COPY

THE CERTIFICATION IS NOT TO BE APPROVED CONSTRUCTION CERTIFICATE OR CONSTRUCTION

FOR CONSTRUCTION

VERIFIER M.R(HAND) JOB MANAGER S.PRYCE DESIGNED A.DAWES DRAWN S.WAID

ISSUE	AMENDMENT	VERIFIED	APPROVED	DATE
A	ISSUED FOR CONSTRUCTION CERTIFICATE		A.D.	07.03.08
B	RE-ISSUED FOR CONSTRUCTION CERTIFICATE	M.R.	A.D.	17.03.08

Client: MR & MRS SAMUS

Architect: HSA ARCHITECTS

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P.O. Box H171 Australia Square, N.S.W. 1215 ABN 81 094 433 100

PROJECT: 2 INGLESIDE ROAD INGLESIDE

DRAWING TITLE: DETAILS SHEET

JOB NUMBER: 07350

DRAWING NUMBER: C03

REVISION: B

DRAWING SHEET SIZE = A1

TREE SCHEDULE

TREE No.	BOTANIC NAME	COMMON NAME	HEIGHT x SPREAD x STEM DIAMETER AT BREAST HEIGHT	AGE, HEALTH AND CONDITION	COMMENTS.
1	Eucalyptus haemastoma	Scribbly Gum	8 x 10 x 600	Mature, fair health and condition	Thin crown, old branch failures. Well clear of proposed development. Protect from construction activities.
2	Eucalyptus robusta	Swamp Mahogany	8 x 3 x 110	Semi-mature, good health and condition.	Small area of bark and stem damage. Protect from driveway construction. Monitor.
3	Eucalyptus robusta	Swamp Mahogany	8 x 4 x 2 stems x 130	Semi-mature, fair health, fair to poor condition.	Sparse, thinning crown. Primary roots damaged. Within driveway footprint. Remove.
4	Eucalyptus robusta	Swamp Mahogany	9 x 4 x 200	Semi-mature, good health, fair to good condition.	Small areas of bark damage to stem. Narrow crown. Disturbed root zone. Protect from works. Monitor.
5	Eucalyptus robusta	Swamp Mahogany	8 x 3 x 150	Semi-mature, fair health, poor condition.	Significant stem damaged, virtually ringbarked. Low stem epicormic shoot. Removal recommended. Remove.
6	Eucalyptus robusta	Swamp Mahogany	11 x 8 x 310	Semi-mature, good health, fair condition.	Bark and stem damage, Primary roots damaged. Disturbed root zone. Must have condition monitored to determine safe retention span.
7	Eucalyptus robusta	Swamp Mahogany	10 x 3 x 200	Semi- mature, good health, fair condition.	Damaged stem to N. Within footprint of turning area. Remove.
8	Eucalyptus haemastoma	Scribbly Gum			Not individually assessed – well clear of proposed development. Protection fencing to be provided.
9	Eucalyptus oblonga	Common Sandstone Stringybark			Not individually assessed – well clear of proposed development. Protection fencing to be provided.
10	Corymbia gummifera	Red Bloodwood			Not individually assessed – well clear of proposed development. Protection fencing to be provided.
11	Corymbia gummifera	Red Bloodwood			Not individually assessed – well clear of proposed development. Protection fencing to be provided.
12	Corymbia gummifera	Red Bloodwood			Not individually assessed – well clear of proposed development. Protection fencing to be provided.
13	Banksia serrata	Old Man Banksia			Not individually assessed – well clear of proposed development. Protection fencing to be provided.
14	Corymbia gummifera	Red Bloodwood			Not individually assessed – well clear of proposed development. Protection fencing to be provided.

TREE PROTECTION

Trees to be retained must be provided with appropriate protection devices before any approved tree removals or development works are begun.
The arboriculturist is to inspect the installed TPZ devices, and provide written confirmation that the TPZ's are in accordance with this landscape plan and industry standards.

Methods of Protection
The following measures may need to be adopted for trees to be protected. These requirements need to be confirmed by the arboriculturist.
Tree Guards – Tree guards may be required during some stages of works where fencing may need to be removed to allow work access.
Root/ground Protection Area – Trees may need to be provided with coarse grade mulch to a thickness of 100mm over the existing ground. If the area is to be used for foot traffic, wide timber planks, or similar sturdy, inflexible material is to be placed over the mulch.For vehicle access, the inclusion of rumble boards or similar sturdy device is to be placed over the mulched areas.
Tree Protection Fencing – The trees, or group of trees are to be protected by sturdy fencing in accordance with the advice of the project arboriculturist.

Tree Protection Installation
The Tree Protection Zones (TPZ) are to be in accordance with the following:
- The most appropriate fencing for TPZ is 1.8m chainlink with 50mm metal pole supports.
- During installation care must be taken to avoid damage to significant roots.
- Locate fencing as shown on the landscape plan.
- Locate any large primary roots by careful removal of soil within the fencing area.
- *Do not drive any posts or pickets into tree roots.* Replace soil back over tree roots.
- Protection devices may include mulching, tree guards and other devices other than, or in addition to, fencing.
- TPZ must be in place prior to any site works commencing, including clearing, demolition or grading.
- Any areas of the root zone (i.e. CRZ/PRZ) outside the Tree Protection Zone (TPZ) must, where practicable, be covered in thick, coarse mulch to a depth of 100mm to reduce soil compaction and soil moisture losses.
- It is recommended that the arboriculturist provide written certification that the TPZ is installed and will satisfy tree protection requirements.
- Nothing should occur inside the TPZ, so therefore all access to personnel and machinery, storage of fuel, chemicals, cement or site sheds is prohibited.
- No washing or rinsing of tools is to be carried out upslope of any trees, or within 8 metres of the trees.
- Signage should explain exclusion from the area defined by TPZ and carry a contact name for access or advice.
- *The TPZ cannot be removed, altered, or relocated without the project arborist's prior assessment and approval.*

MANAGEMENT OF VEGETATION IN INNER PROTECTION AREA

1. Raking or manual removal of fine fuels
   In terms of priorities of addressing bush fire attack, priority should be given to preventing flame impingement by not allowing fine debris to accumulate close to the building. Secondly, removal of understorey fuels aids in the reduction of flame heights and likely canopy fire, thereby reducing overall radiant heat. Removal of loose bark and fine fuels reduces both heat output and ember generation, while the retention of taller trees with canopies will also assist in filtering out embers.
   Ground fuels such as fallen leaves, twigs (less than 6 mm in diameter) and bark should be removed on a regular basis. This is fuel that burns quickly and increases the intensity of a fire. Fine fuels can be removed by hand or with tools such as rakes, hoes and shovels. Do not remove or unnecessarily disturb topsoils within the canopy driplines of trees.
2. Mowing or grazing of grass
   Maintain a clear area of low cut lawn or pavement adjacent to the house; Grass (including turf and native grasses) needs to be kept short and, where possible, green.
3. Removal or pruning of trees, shrubs and understorey
   The control of existing vegetation involves both selective fuel reduction (removal, thinning and pruning) and the retention of vegetation.
   Prune or remove trees so that you do not have a continuous tree canopy leading from the hazard to the dwelling. Separate tree crowns by two to five metres.
   A canopy should not overhang within two to five metres of a dwelling.
   Native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the area.
4. Weed removal
   Consult a bush regenerator, horticulturist for correct identification of weeds prior to any cutting or poisoning. Remove noxious and environmental weeds first.
5. Pruning for Inner Protection Area (IPA) management
   Prior to commencing any pruning of trees to be retained, an arboriculturist is to be consulted to ensure only necessary works are performed.
   Prune in accordance with Australian Standard 4373-2006 (Pruning of Amenity Trees), and the following standards:
   • Use sharp tools. These will enable clean cuts and will minimise damage to the tree.
   • Decide which branches are to be removed before commencing work. Ensure that you maintain a balanced, natural distribution of foliage and branches.
   • Remove only what is necessary.
   • Cut branches just beyond bark ridges, leaving a small scar.
   • Remove smaller branches and deadwood first.
   There are three primary methods of pruning trees in APZs:
   1. Crown lifting (skirting)
   Remove the lowest branches (up to two metres from the ground). Crown lifting may inhibit the transfer of fire between the ground fuel and the tree canopy.
   2. Thinning
   Remove smaller secondary branches whilst retaining the main structural branches of the tree. Thinning may minimise the intensity of a fire.
   3. Selective pruning
   Remove branches that are specifically identified as creating a bush fire hazard

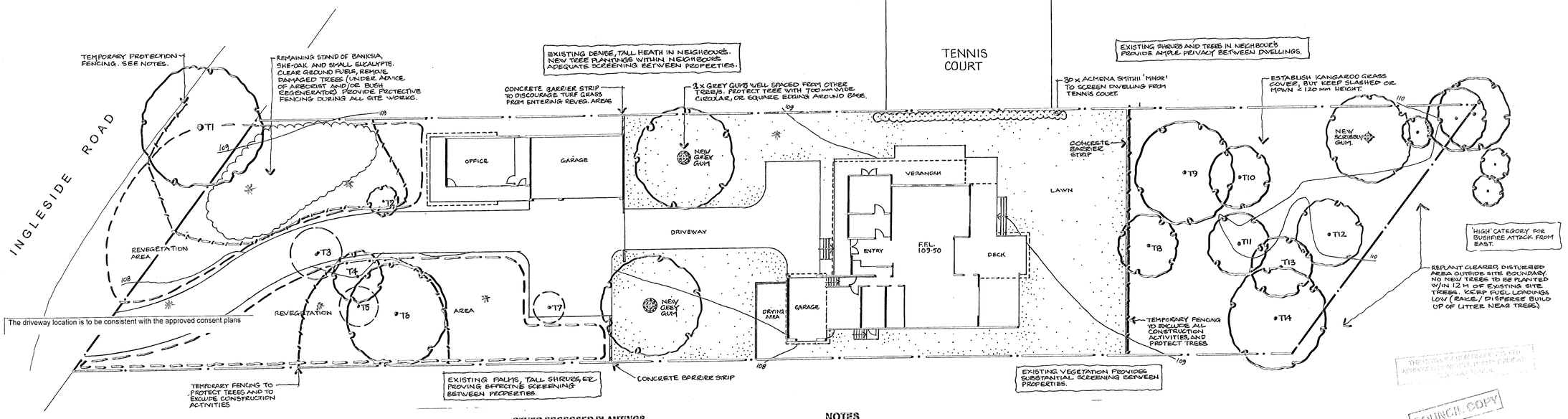
PLAN CERTIFICATION

I am a qualified arboriculturist, horticulturist and landscape designer
I hold the following qualifications:
Horticulture Certificate (Hons), Associate Diploma of Applied Science – Landscape (Dist) Diploma of Horticulture – Arboriculture (Dist)

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

I hereby state that these plans or details comply with the landscape and natural resources requirements of Pittwater Council's DCP 21.

Catriona Mackenzie 15/09/07



REVEGETATION AREAS (approximate total 500m2)

Tubestock of the following species to be planted in disturbed areas, as indicated on the landscape plan.
Planting numbers and locations to be determined by qualified bush regenerator or environmental horticulturist.

BOTANIC NAME	COMMON NAME	BOTANIC NAME	COMMON NAME
Medium to large shrubs		Low shrubs, Groundcovers, Grasses.	
Acacia suaveolens	SWEET-SCENTED WATTLE	Actinotus helianthi	FLANNEL FLOWER
Allocasuarina distyla	SCRUB SHE-OAK	Bauera rubioides	RIVER ROSE
Banksia serrata	OLD MAN BANKSIA	Billardiera scandens	APPLE BERRY
Banksia ericifolia	HEATH-LEAVED BANKSIA	Bossiaea heterophylla	VARIABLE BOSSIAEA
Callistemon citrinus	CRIMSON BOTTLEBRUSH	Dianella caerulea	BLUE FLAX LILY
Calytrix tetragona	FRINGE-MYRTLE	Eustrephus latifolius	WOMBAT BERRY
Crowea saligna	CROWEA	Glycine clandestina	LOVE CREEPER
Epacris longiflora	NATIVE FUSCHIA	Hardenbergia violacea	FALSE SARSAPARILLA
Gahnia sieberana	RED-FRUITED SWORD SEDGE	Kennedia rubicunda	DUSKY CORAL PEA
Darwinia fascicularis var.fascicularis	DARWINIA	Lomandra longifolia	SPINY-HEADED MAT-RUSH
Dillwynia retorta	HEATHY PARROT PEA	Patersonia sericea	SILKY PURPLE FLAG
Grevillea linearifolia	WHITE SPIDER FLOWER	Platysace lanceolata	NATIVE PARSNIP
Grevillea sericea	PINK SPIDER FLOWER	Scaevola ramosissima	PURPLE FANFLOWER
Grevillea speciosa	RED SPIDER FLOWER	Themeda australis	KANGAROO GRASS
Jacksonia scoparia	DOGWOOD		
Kunzea capitata	PINK KUNZEA		
Lambertia formosa	MOUNTAIN DEVIL		
Leptospermum squarrosum	PINK TEA-TREE		
Pultenaea stipularis	FINE-LEAF BUSH-PEA.		

OTHER PROPOSED PLANTINGS

Canopy Trees
1 x Eucalyptus haemastoma - Scribbly Gum
2 x Eucalyptus punctata - Grey Gum
Determine soil depths prior to purchase, to ascertain appropriate container size at planting. Do not stake trees unless otherwise advised by an arboriculturist.
Plant trees in locations shown on landscape plan.
6x Selected Canopy trees = #
Screening Shrubs
30x Acmena smithii 'Minor' - Dwarf Lilly Pilly
Screening to 5m. Plant as shown, opposite neighbour's tennis court.

NOTES

This landscape plan has been prepared in accordance with the recommendations of the Bushfire Risk Assessment, prepared by Fire Base Consulting, June 2007, and Planning for Bushfire Protection 2006
Principles applied to this Landscape plan to provide bush fire protection aim to:
- Prevent flame impingement on the dwelling;
- Provide a defendable space for property protection;
- Reduce fire spread;
- Deflect and filter embers;
- Provide shelter from radiant heat; and
- Reduce wind speed.

The landscape plan also provides for the requirements of C1.1 of Pittwater Council's DCP 21, and the use and re-instatement of locally indigenous plant species in accordance with Council's Natural Resources requirements for promoting local biodiversity.

All trees to be retained should be routinely inspected by an arboriculturist during and after construction to monitor their health, condition and safe life expectancy.

THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY COUNCIL

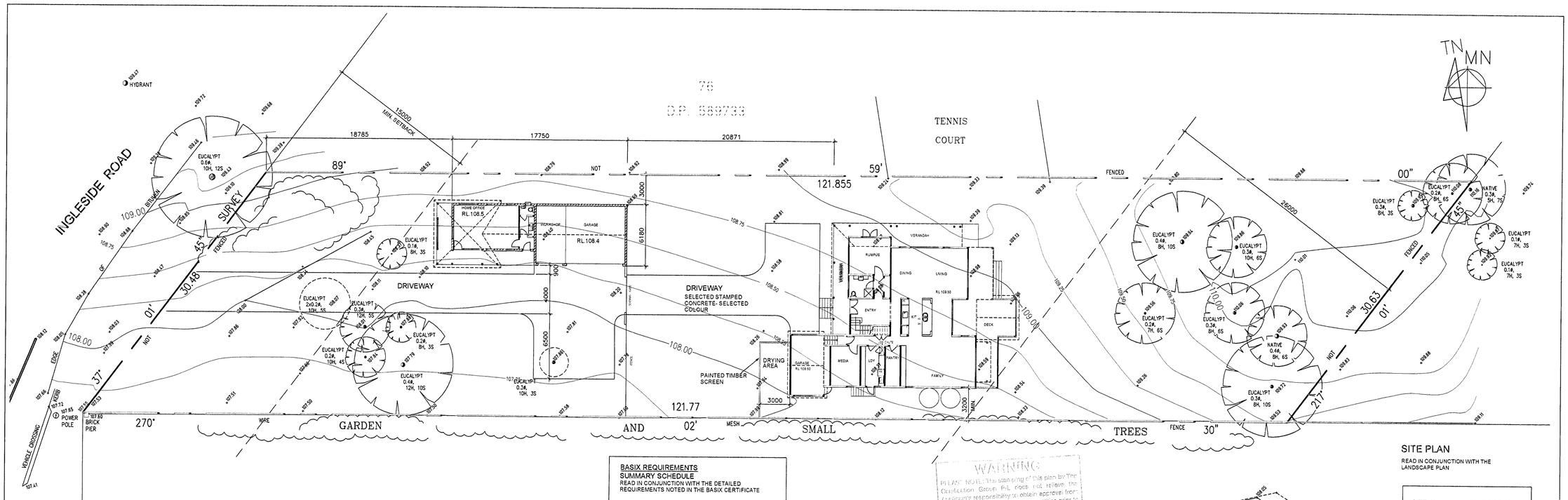
COUNCIL COPY

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

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

Client	STEVE SAMUS	
Project	NEW DWELLING 2 INGLESIDE ROAD, INGLESIDE	
Title	LANDSCAPE CONCEPT PLAN	
Date of Issue 15/09/07	Scale 1:200 @ A1	Drawing No LC01
Reason for Issue DEVELOPMENT APPLICATION		

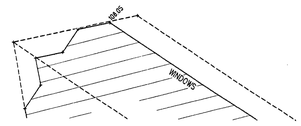
URBAN FORESTRY AUSTRALIA
Consulting Arboriculturists, Horticulturists and Landscape Designers
PO BOX 151 NEWPORT BEACH, NSW 2106
Ph (02) 9918 9833 Fax (02) 9918 9844 Mobile 0414 997 417
email cat@urbanforestryaustralia.com.au



SITE PLAN

READ IN CONJUNCTION WITH THE LANDSCAPE PLAN

SITE AREA	2972.0 SQ.M
SITE COVER	418.8 SQ.M



BASIX REQUIREMENTS
SUMMARY SCHEDULE
READ IN CONJUNCTION WITH THE DETAILED REQUIREMENTS NOTED IN THE BASIX CERTIFICATE

FIXTURES & SYSTEMS
SHOWER HEADS- 3 STAR RATING
TOILET CISTERNS- 1 STAR RATING MIN.
TAPS 4 STAR RATING

ALTERNATIVE WATER
12000 LITRE RAINWATER TANK. CONNECT TO ALL TOILETS AND CW TAP IN LAUNDRY

ARTIFICIAL LIGHTING- PRIMARY TYPE TO BE FLUORESCENT OR LED TO BATHROOMS, LAUNDRY & HALLWAYS

HOT WATER- GAS INSTANTANEOUS 4 STAR

BUSHFIRE CONSTRUCTION
READ IN CONJUNCTION WITH AS 3959-1999 AND CONDITIONS OF DA CONSENT

A8- GARAGE ROOLER OR TILT DOORS SHALL BE SEALED TO PREVENT ENTRY OF EMBERS

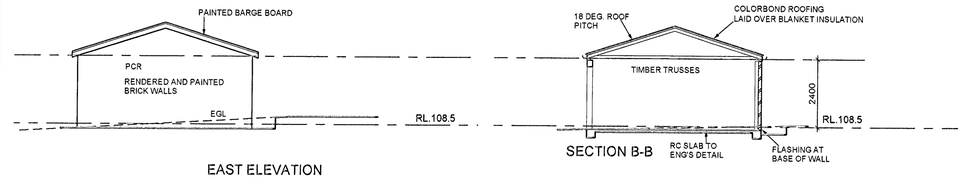
A9- GUTTERS TO BE LEAFLESS AND VALLEY GUTTERS SCREENED TO PREVENT THE BUILD UP OF FLAMMABLE MATERIAL

A10- THE PROPERTY SHALL BE MANAGED AS A INNER PROTECTION ZONE. REFER DA CONDITIONS

A11- NORTH, SOUTH AND EAST ELEVATIONS TO BE LEVEL 2 CONSTRUCTION IN ACCORDANCE WITH AS 3959

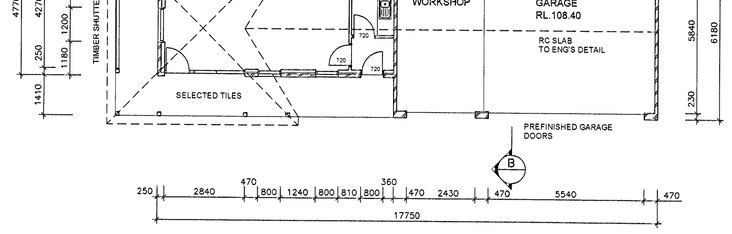
A12- WEST ELEVATION TO BE LEVEL 1 CONSTRUCTION IN ACCORDANCE WITH AS 3959

TERMITE CONTROL MEASURES
TERMITE CONTROL MEASURES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3660

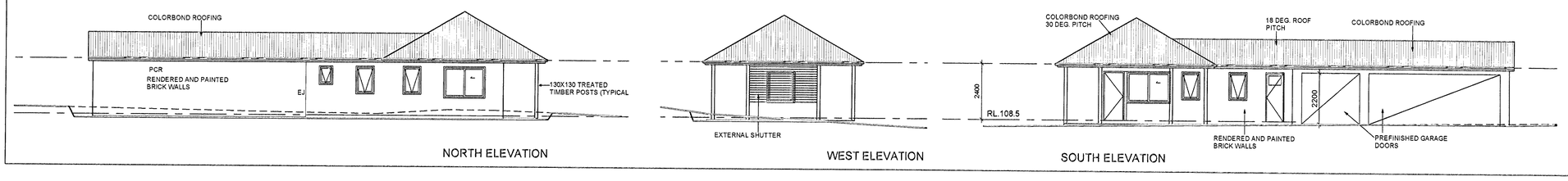


EAST ELEVATION

SECTION B-B



GARAGE PLAN



NORTH ELEVATION

WEST ELEVATION

SOUTH ELEVATION

THE CERTIFICATION GROUP PTY LTD
CONSTRUCTION CERTIFICATE No. 238/2007 MOD 1 13/3/08
Consent No. N0605/07 Date. 13/12/07
Plans or documentation associated with the issue of the Construction Certificate
..... Date. 19/3/08
Mark Wysman Accreditation BPB0449

COUNCIL COPY

Roof Colour: Windspray

ISSUE	DATE	ISSUE / AMENDMENT
C	14.2.08	CONSTRUCTION CERTIFICATE
B	6.11.07	Driveway straightened at West boundary
A	17.9.07	DEVELOPMENT APPLICATION

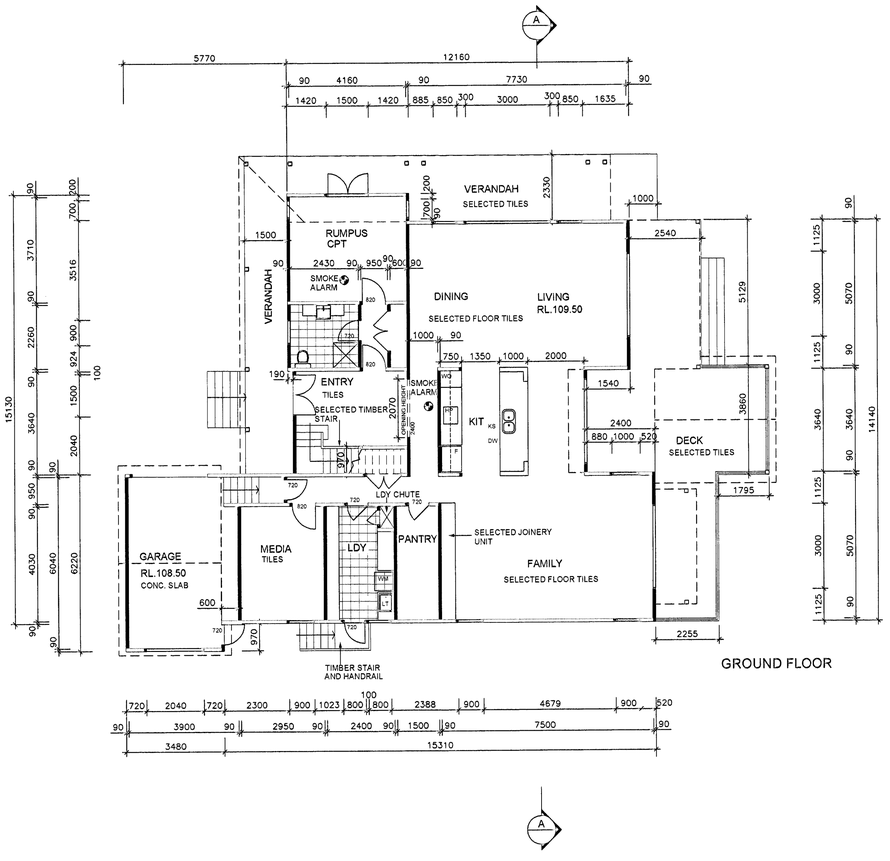
HSA architects
Artect Pty Ltd trading as Hugh Stalyer & Associates
ABN 75 001 873 669
NSW Board of Architects Registration 3311
12A Carlow St. North Sydney 2060
Phone: (02) 9925 0104
Fax : (02) 9475 4299
email : artect@ozemail.com.au

PROJECT
PROPOSED NEW HOUSE
AT
No.2 INGLESIDE ROAD, INGLESIDE
(LOT 8 DP 11784)
FOR
MR. AND MRS SAMUS

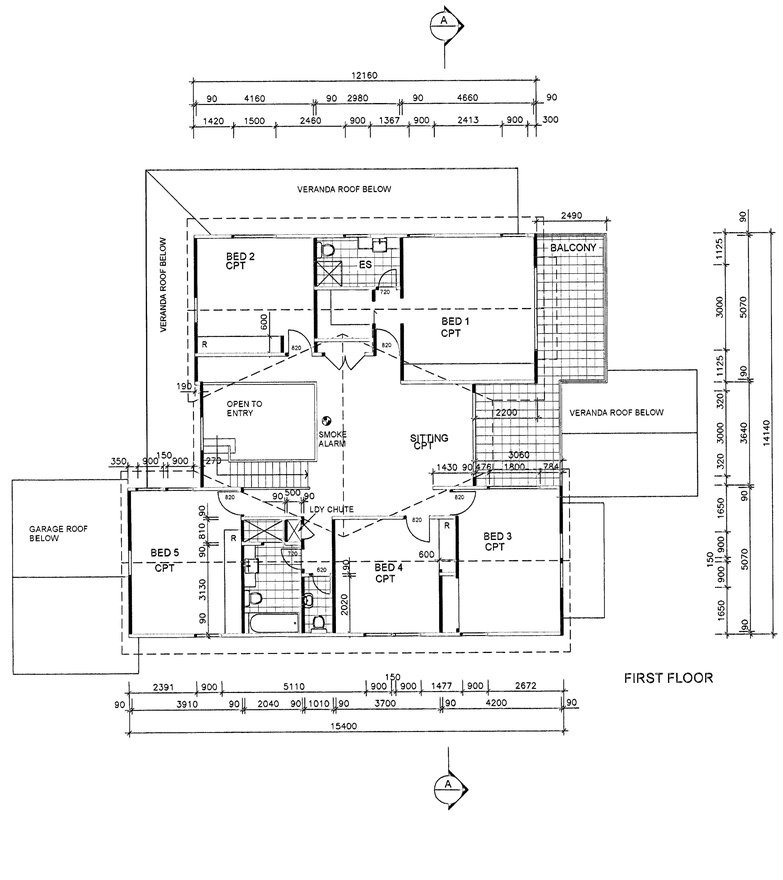
DRAWING
SITE PLAN
GARAGE PLAN & ELEVATIONS

52407.01 | ISSUE C

SCALE	DATE	APPROVED
1:200 1:100	SEPT.07	



GROUND FLOOR



FIRST FLOOR

BASIX REQUIREMENTS
SUMMARY SCHEDULE
READ IN CONJUNCTION WITH THE DETAILED REQUIREMENTS NOTED IN THE BASIX CERTIFICATE

FIXTURES & SYSTEMS
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TERMITE CONTROL MEASURES
TERMITE CONTROL MEASURES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3660

0 1 2 3 4 5

ISSUE	DATE	ISSUE / AMENDMENT
C	14.2.08	CONSTRUCTION CERTIFICATE
B	6.11.07	Ground Floor- some room uses changed
A	17.9.07	DEVELOPMENT APPLICATION

HSA architects
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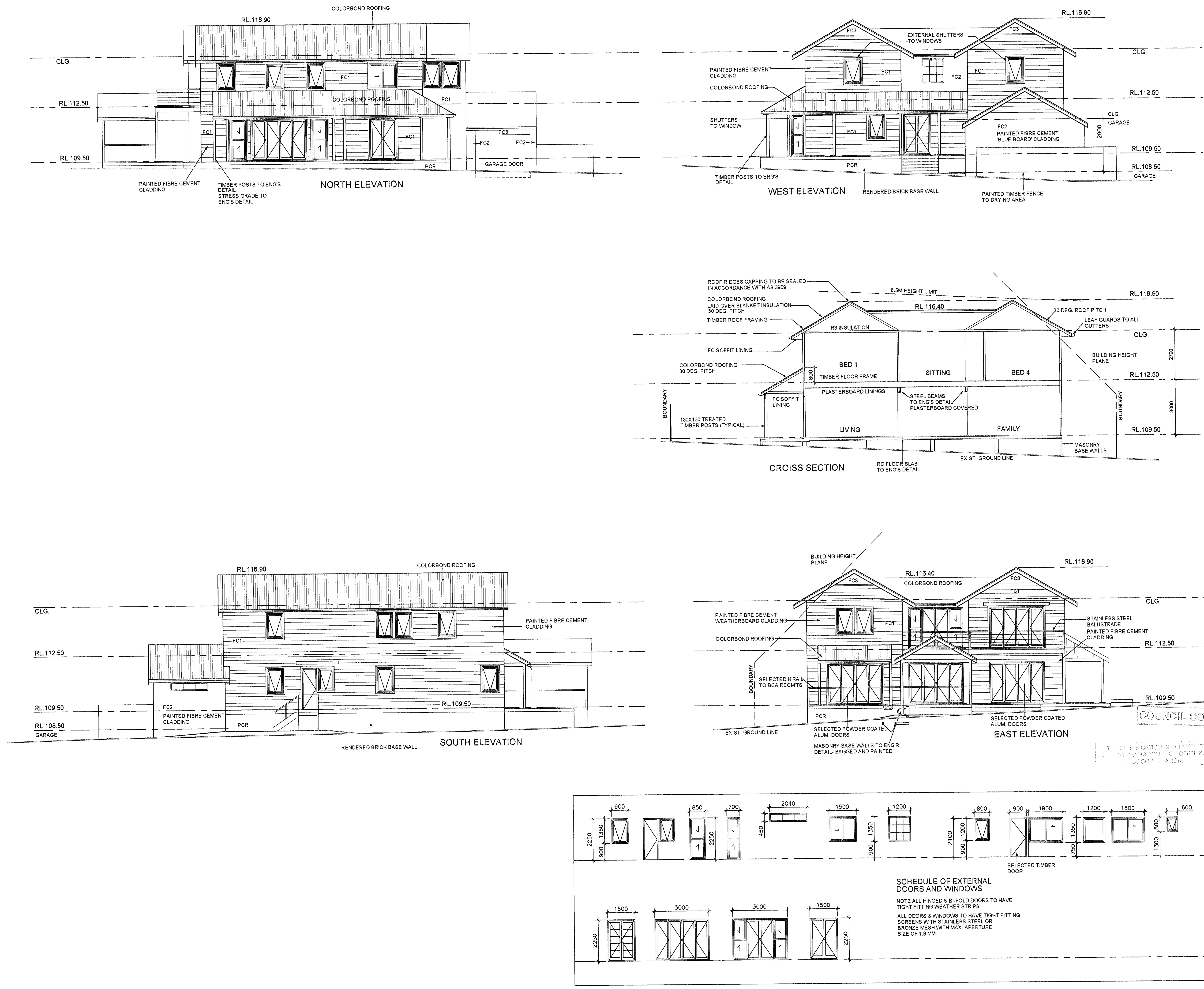
email : artect@ozemail.com.au

PROJECT
PROPOSED NEW HOUSE
AT
No.2 INGLESIDE ROAD, INGLESIDE
(LOT 8 DP 11784)
FOR
MR. AND MRS SAMUS

DRAWING
HOUSE PLANS

52407.02 | ISSUE C

SCALE	DATE	APPROVED
1:200 1:100	SEPT.07	



LEGEND

FC1	'HARDIPLANK' SMOOTH 230 WIDE
FC2	'HARDITEX'- SELECTED TEXTURE PAINT
FC3	'HARDIFLEX' SHEET
PCR	PAINTED CEMENT RENDER

NOTE: REFER TO DA CONDITIONS AND AS 3959 FOR CONSTRUCTION IN BUSHFIRE PRONE AREAS

ISSUE	DATE	ISSUE / AMENDMENT
C	14.2.08	CONSTRUCTION CERTIFICATE
B	8.10.07	Ridge and First floor levels added- Council req'mt
A	17.9.07	DEVELOPMENT APPLICATION

HSA architects

Artect Pty. Ltd. trading as Hugh Slatyer & Associates
ABN 75 001 873 669
NSW Board of Architects Registration 3311

12A Carlow St. North Sydney 2060
Phone: (02) 9925 0104
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PROJECT
PROPOSED NEW HOUSE
AT
No.2 INGLESIDE ROAD, INGLESIDE
(LOT 8 DP 11784)
FOR
MR. AND MRS SAMUS

DRAWING
HOUSE ELEVATIONS

52407.03 ISSUE C

SCALE	DATE	APPROVED
1:200 1:100	SEPT.07	

GENERAL NOTES:

GENERAL

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

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

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

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

G5 Design live loads are in accordance with AS 1170 1

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

FOOTINGS

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

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

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

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

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

Sand Foundations

SA1 Required bearing capacity 100 kPa

SA2 Trenches must be cleaned of all debris and hand compacted prior to placement of reinforcement

Clay Foundations

CL1 Required bearing capacity 150 kPa

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

Shale Foundations

SH1 Required bearing capacity 400 kPa

SH2 Excavation for footings into shale must be cast or capped with plain concrete on the same day as excavation

Sandstone Foundations

SS1 Required bearing capacity 600 kPa

SS2 Scrape weathered surface to remove cleaved sandstone under footings

Refer adjacent for assumed Design bearing strata

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

CONCRETE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REINFORCEMENT

R1 All reinforcement specified is Grade D500 unless noted otherwise

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

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

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

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

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

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

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

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

FORMWORK

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

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

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

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

BRICKWORK

BR1 Brickwork is to be constructed to AS 3700

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

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

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

BR5 Exposure grade bricks to be used below damp proof course

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

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

BLOCKWORK

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

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

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

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

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

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

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

BL8 Max pour height for unrestrained blockwork is 2000

STEEL

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

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

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

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

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

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

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

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

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

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

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

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

S13 Purlin bolts shall be M12 - 4 6S galvanised

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

INTERNAL

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

EXTERNAL ELEMENTS, & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS

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

c Hot dipped galvanized to AS 4680
Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, inorganic zinc-rich paint (minimum 95% zinc content) is to be applied after wire brushing affected area (use 3 coats minimum) or Hot Metal Spray in accordance with AS 4680

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

TIMBER

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

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

T3 Roof trusses to be designed by the manufacturer to the relevant standards Pre camber to be an amount equal to dead load deflection u.n o

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

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

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

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

T8 Continuous nailing must not be used for any timber connections

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

COMPACTED FILL

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

CF2 Clear organic material and topsoil under proposed slabs/footings

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

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

INSPECTIONS BY ENGINEER

48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION

1 Bearing strata of all footings prior to concrete pour
2 Any reinforcement prior to concrete pour
3 Timber and Steel framing prior to cladding or lining
4 Steel lintels after installation
5 CONTACT YOUR PCA (Principal Certifying Authority) AS TO REQUIREMENTS FOR MANDATORY CRITICAL STAGE INSPECTIONS IN ACCORDANCE WITH REVISED EP&A ACT REGULATIONS EFFECTIVE JULY 1, 2004

DRAWING SCHEDULE:

ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES -
ASSUMED BEARING STRATA FOR DESIGN PURPOSES -
CONTRACTOR TO ENGAGE GEOTECHNICAL CONSULTANT TO VERIFY FOUNDATION CLASSIFICATION

Date.	Rev	Amendment:
FEB '08	A	S13 - S16 added

A3

DOCUMENT CERTIFICATION

Date : JAN 08'

Rick G Wray
(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
I hold the following qualifications:
BE(Civil),CPEng,MIEAust.,NPER.
Institute of Engineers Membership No 803938
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

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

Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

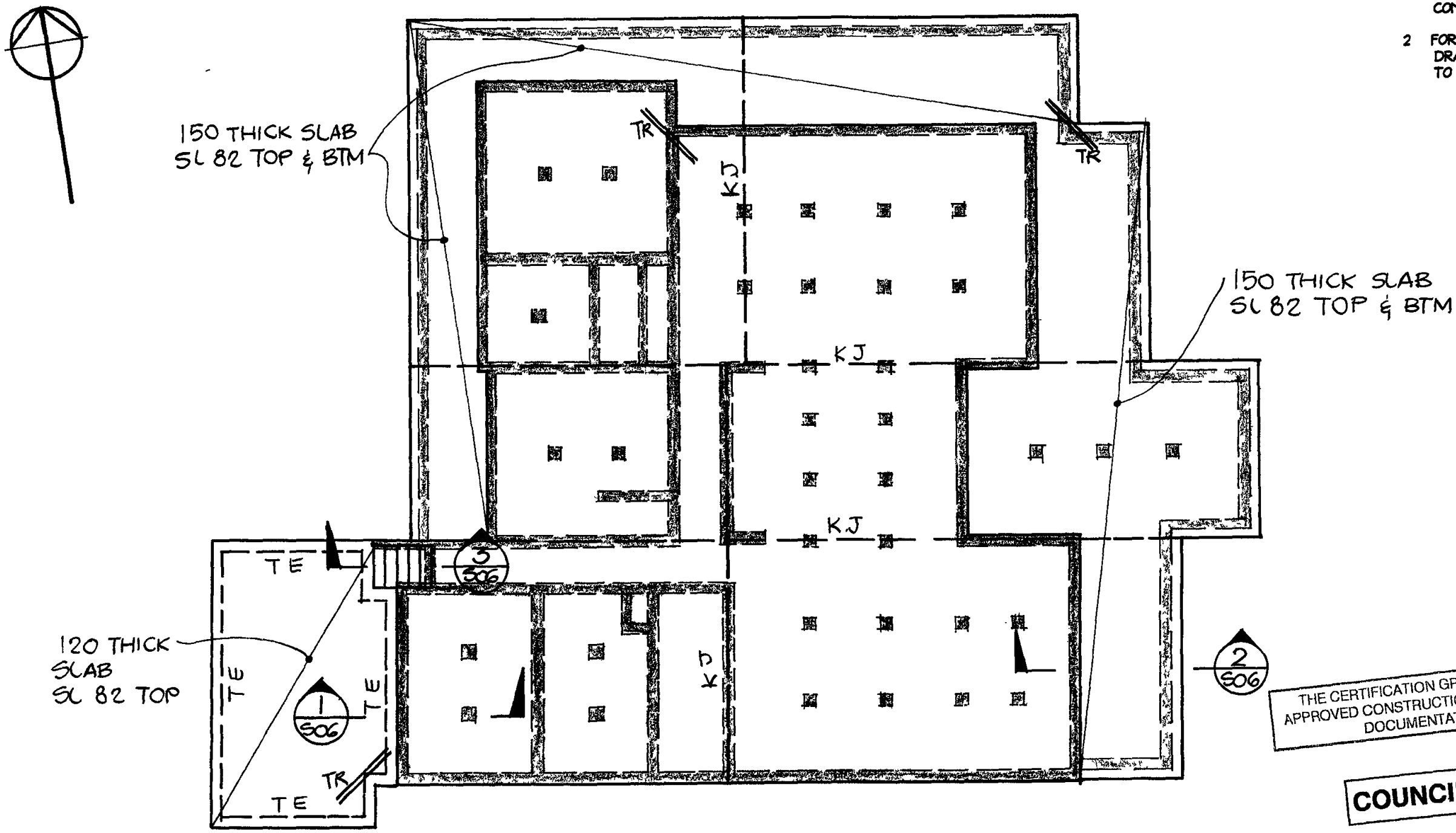
Drawing Title: GENERAL NOTES AND DRAWING SCHEDULE

Date:	Design.	Drawn:	Checked
JAN '08	RW/FM	LFC	RGW
Job No.		Drawing No	Rev
080117		S01	A

NOTES

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

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



THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

COUNCIL COPY

GROUND FLOOR SLAB/FRAMING PLAN

TR – TRIMMER BARS
REFER S05 FOR DETAILS

1100

- 130 THICK SLAB UNO
- SL 92 CENTRAL
- F'c = COVER =

KJ – KEY JOINT
REFER S07 FOR DETAILS

A3

Date	Rev	Amendment

DOCUMENT CERTIFICATION

Date JAN 08 R. Wray
Rick G Wray
(Director Northern Beaches Consulting Engineers)

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DEE WHY N S W 2099
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e-mail nb@nbconsulting.com.au
web page www.nbconsulting.com.au

Project: NEW RESIDENCE AT N°2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: GROUND FLOOR SLAB/ FRAMING PLAN

Date	Design	Drawn	Checked
JAN '08	RW/FM	LFC	RGW

Job No	Drawing No	Rev
080117	S02	

J1 - 200x45 LVL OR HJ 240 45
OR 240x45 F7 @ 450cts

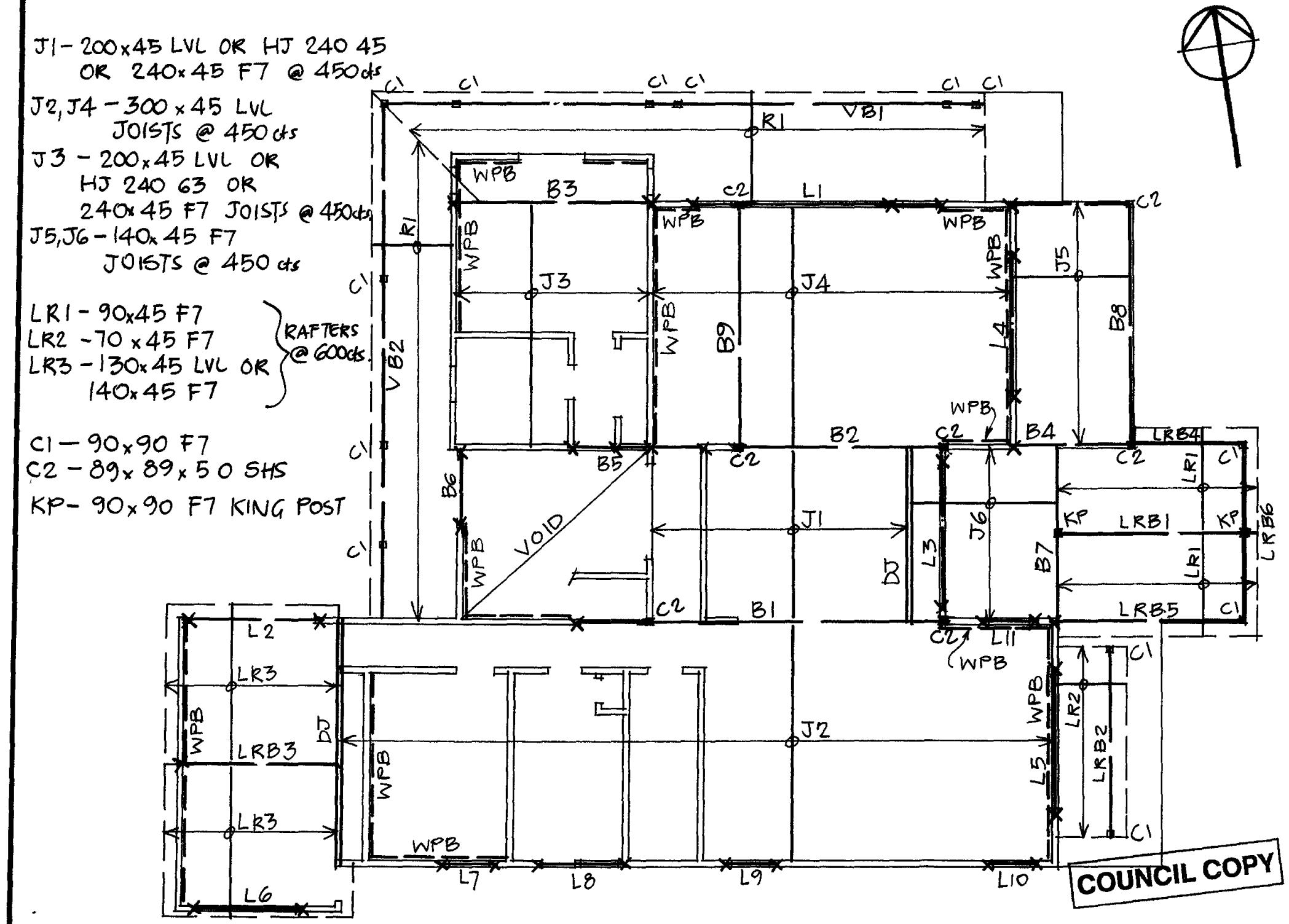
J2, J4 - 300 x 45 LVL
JOISTS @ 450 cts

J3 - 200x45 LVL OR
HJ 240 63 OR
240x45 F7 JOISTS @ 450cts

J5, J6 - 140x45 F7
JOISTS @ 450 cts

LR1 - 90x45 F7
LR2 - 70 x 45 F7
LR3 - 130x45 LVL OR
140x45 F7
} RAFTERS @ 600cts

C1 - 90x90 F7
C2 - 89x 89x 5.0 SHS
KP - 90x90 F7 KING POST



BRACING - WPB - PLY BRACE
- ALL OTHER WALLS STRAP BRACED
(REFER DRG S08 FOR DETAILS)

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

B1, B2, B9 - 250 UB 25
B3 - 2 x 300 x 45 LVL
B4 - 2/240x45 F17
B5 - 95x63 LVL OR 2/90x45 F7
B6 - 2/140x45 F7
B7 - 2/240x45 F17 OR 200 PFC
B8 - 200 PFC

VB1, VB2 - 230x65 HYNE 21C

LRB1 - 240x63 LVL OR 2/290x45 F7
LRB2 - 230x65 HYNE 21C
LRB3 - 200x63 LVL OR 2/240x45 F7
LRB4 - 190x45 F7
LRB5 - 2/290x45 F7
LRB6 - 2/240x45 F17

L1 - 2/290x45 LVL
L2, L6 - 2/200x45 LVL OR
2/240x45 F7
L3 - 2/240x45 LVL
L4, L5 - 300x45 LVL
L7 - 2/90x45 F7
L8 - 2/170x45 F7
L9 - L11 - 2/130x45 LVL OR 2/90x45 F7

COUNCIL COPY

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

FIRST FLOOR & LOWER ROOF FRAMING PLAN

1:100

X - LOAD CONCENTRATION POINT, TRIPLE STUDS OR 90x90 F7 POST

Date	Rev	Amendment
G 3 08	A	BRACING LOCATIONS ADDED

A3

DOCUMENT CERTIFICATION
Date JAN 08
Rick G Wray
(Director Northern Beaches Consulting Engineers)

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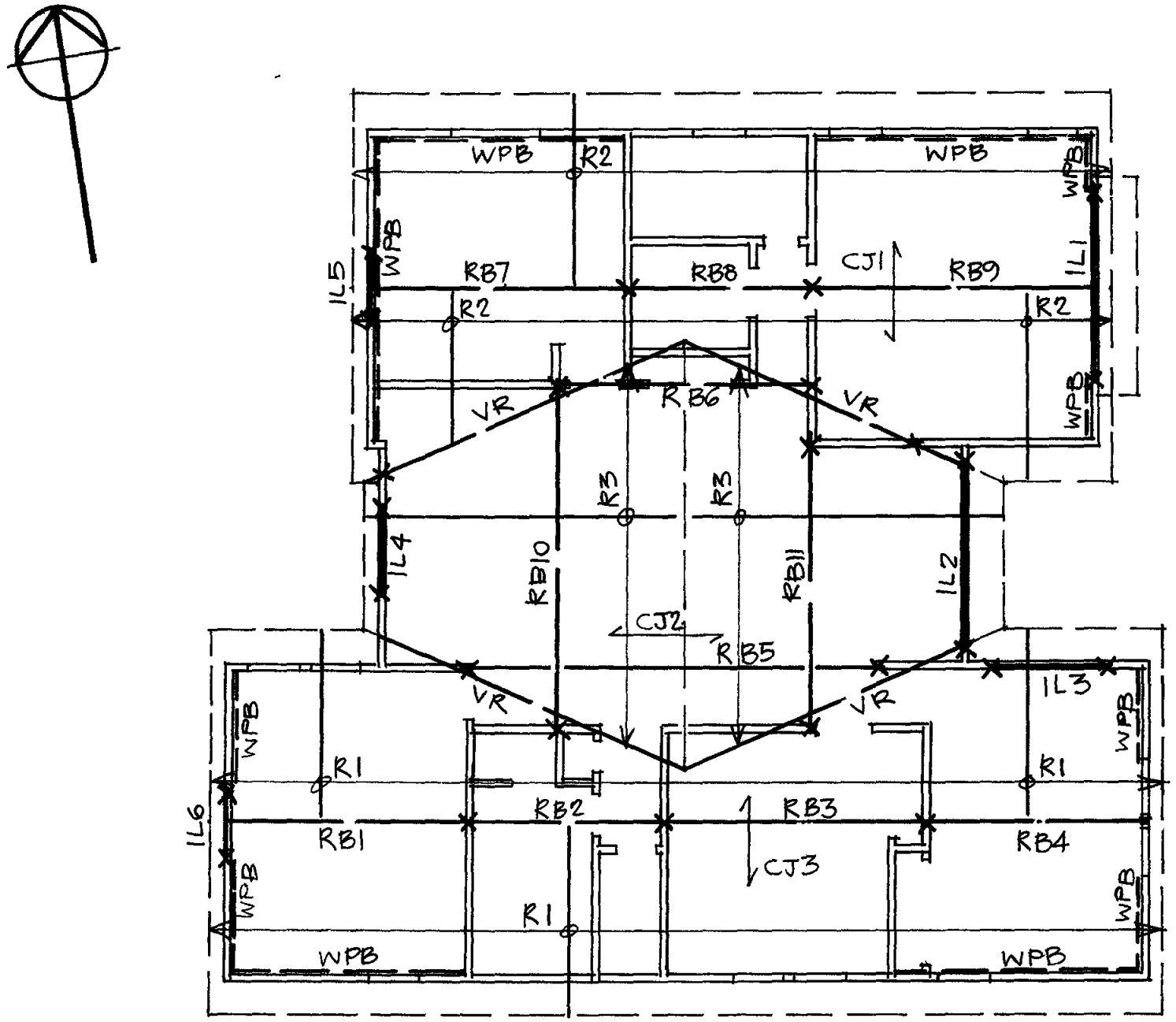
Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: FIRST FLOOR & LOWER ROOF FRAMING PLAN

Date	Design	Drawn	Checked
JAN '08	RW/PM	LFC	

Job No	Drawing No.	Rev
080117	S03	A



BRACING – WPB – PLY BRACE
– ALL OTHER WALLS STRAP BRACED
(REFER DRG S08 FOR DETAILS)

NOTES:

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

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

RB1 – RB4 } 2x240x45 LVL
RB7 – RB9 }

RB5 – 240x45 LVL

RB6 – 2x90x45 F7 (TOP PLATE)

RB10, RB11 – 400x75 LVL

CJ1, CJ3 – 95x45 LVL OR 120x45 F7 } CEILING JOISTS @ 450 ctrs
CJ2 – 95x45 LVL OR 140x45 F7 }

R1, R2, R3 – 140x45 F7 RAFTERS @ 600 ctrs

IL1 – 2/240x45 LVL OR 2/290x45 F7
IL2 – 2/200x45 LVL OR 2/240x45 F7
IL3, IL4 – 2/130x45 LVL OR 2/140x45 F7
IL5, IL6 – 2/140x45 F7

VR – 200x45 LVL

NOTE
- CEILING JOISTS CONSISTING OF UNSEASONED SOFTWOOD (F7) REQUIRE OVER BATTENING
- ALL UNDER PURLINS 95x63 LVL REQUIRE STRUTS EVERY 1900mm OR 2/90x45 F7 REQUIRE STRUTS EVERY 1500mm
- DOUBLE JOISTS BELOW ALL LOAD BEARING WALLS U N O

ROOF FRAMING PLAN (FOR PITCHED ROOF)

1:100

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE DOCUMENTATION

COUNCIL COPY

Date	Rev	Amendment:
G 308	A	BRACING LOCATIONS ADDED

A3

DOCUMENT CERTIFICATION

Date 14/1/08

Rick G Wray

(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
I hold the following qualifications
BE(Civil), CPEng, MIEAust, NPER
Institute of Engineers Membership No 803938
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards

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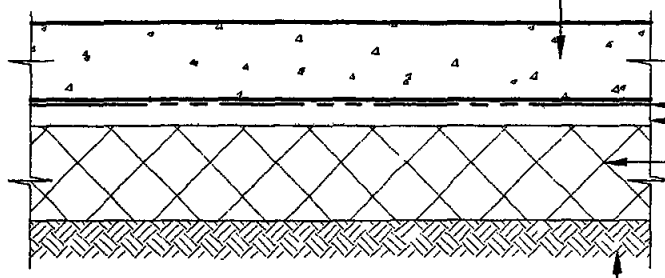
Project. NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: ROOF FRAMING PLAN

Date	Design	Drawn	Checked
JAN '08	RW/PM	LFC	

Job No	Drawing No	Rev
080117	S04	A

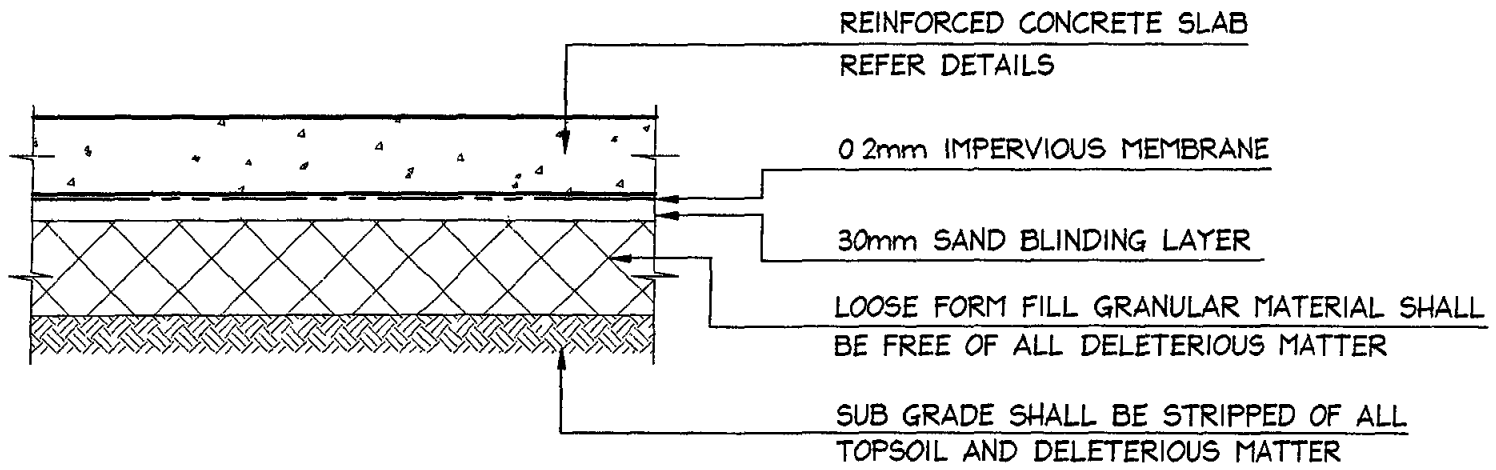


NOTE

SAND BLINDING, SUB-BASE, FILLING AND SUB GRADE TO BE MECHANICALLY COMPACTED TO A DRY DENSITY RATIO OF NOT LESS THAN 98% MAXIMUM DRY DENSITY TO A S 1289/E4 2 1982 ALL AREAS TO BE TESTED BY GEOTECHNICAL ENGINEER AND RESULTS FORWARDED TO STRUCTURAL ENGINEER PRIOR TO POURING CONCRETE

TYPICAL SLAB PREPARATION TYPE A
SLAB ON GRADE

NTS



TYPICAL SLAB PREPARATION TYPE B
SUSPENDED SLAB ON LOOSE FORM FILL

NTS

NOTES:

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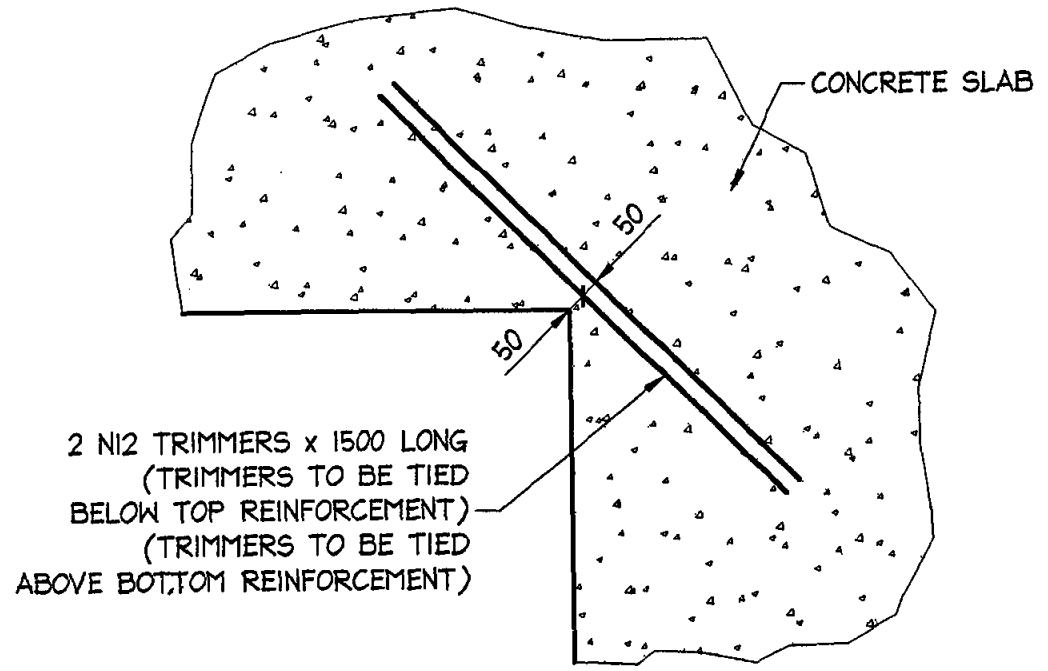

TYPICAL TRIMMER DETAIL

SCALE = 1 20

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THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

A3

Date	Rev	Amendment

DOCUMENT CERTIFICATION

Date : JAN 08 R. Wray

Rick G Wray
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Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: TYPICAL SLAB DETAILS

Date	Design	Drawn	Checked
JAN '08	RW/PM	LFC	

Job No	Drawing No	Rev
080117	S05	

NOTES:

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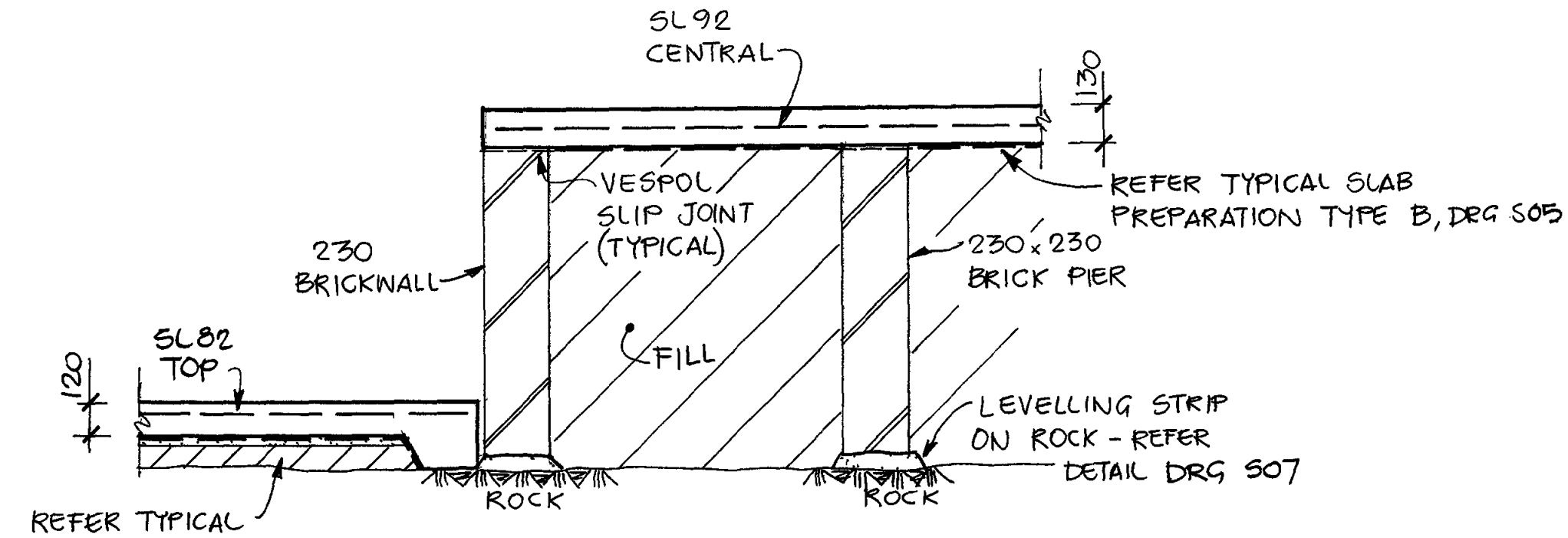

SECTION 1 / S02
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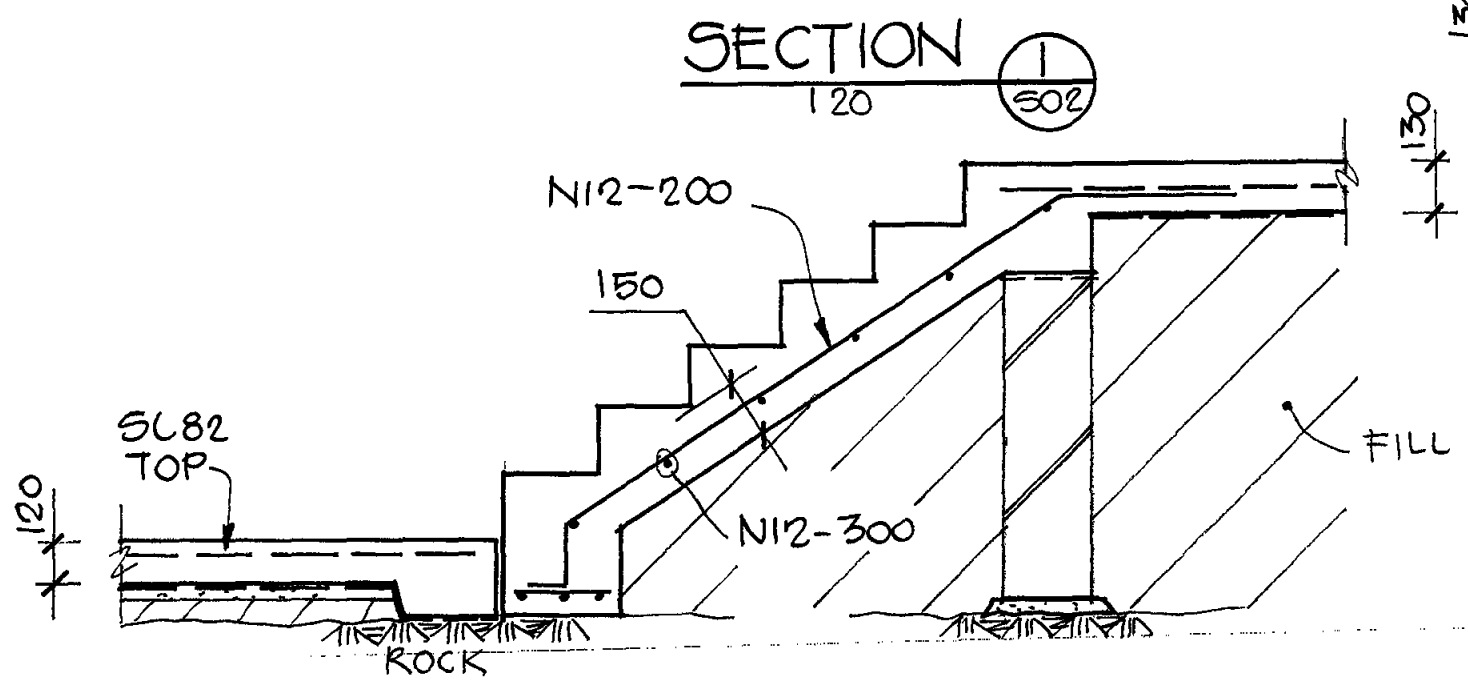

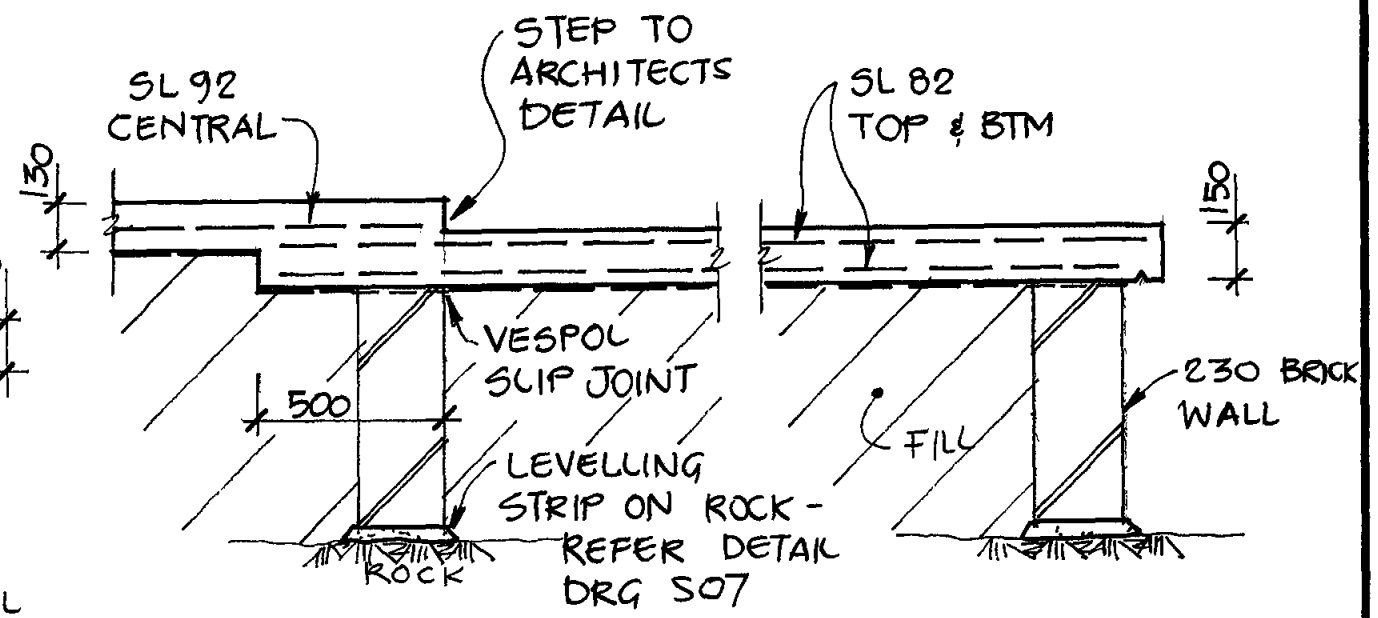

SECTION 2 / S02
1 2 0

SECTION 3 / S02
1 2 0

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DOCUMENTATION

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Date JAN 08' R. Wray
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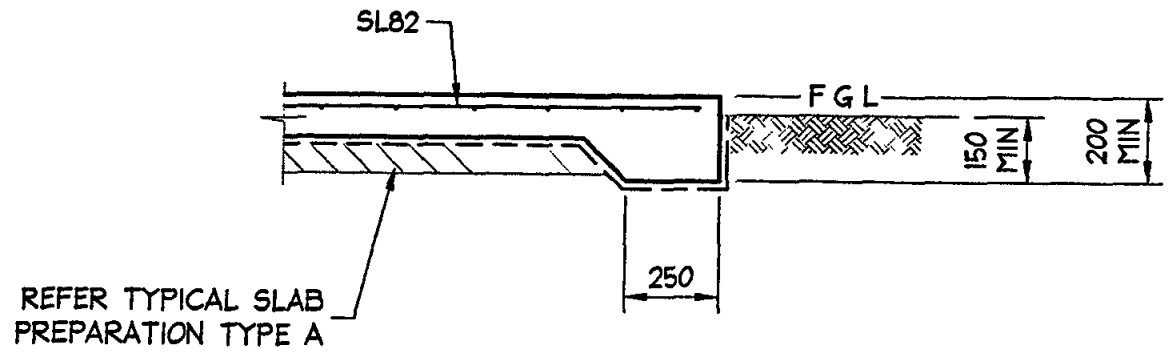
Project: NEW RESIDENCE AT N°2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: SLAB SECTIONS

Date	Rev	Amendment

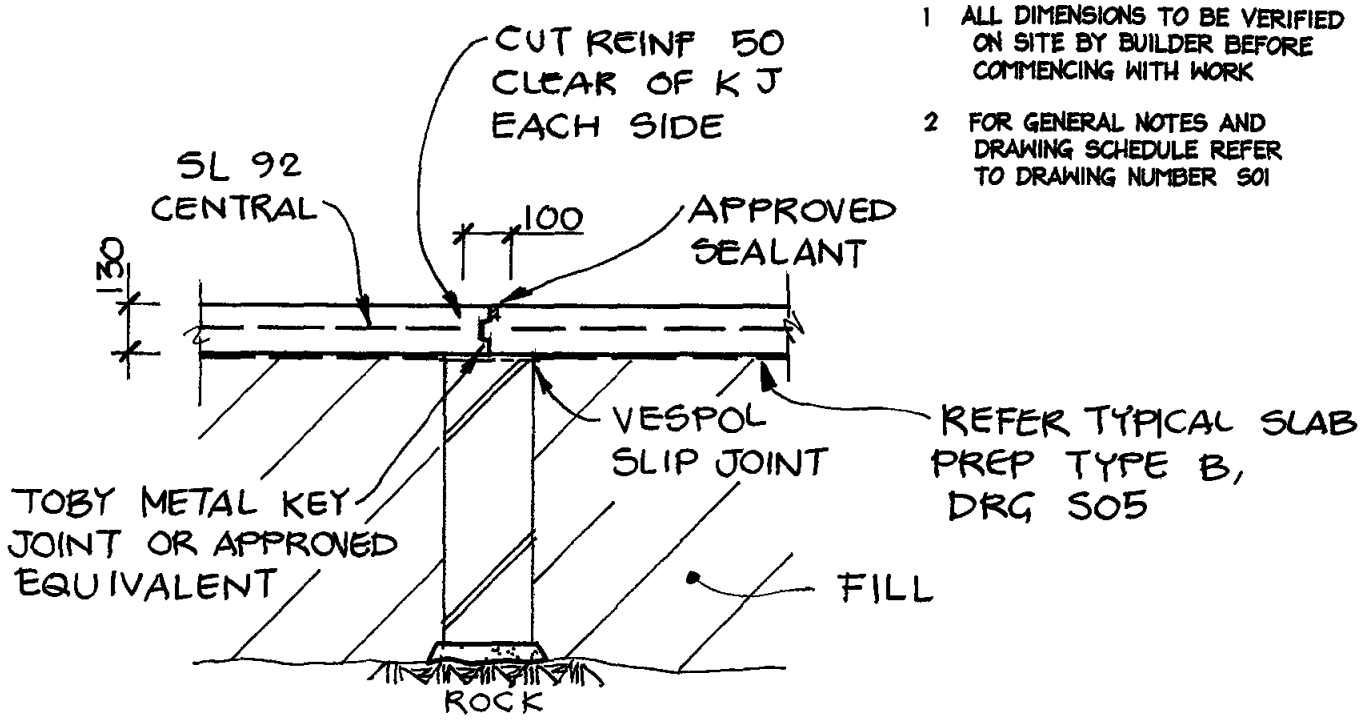
Date	Design	Drawn	Checked
JAN 08	RW/PM	LFC	RGW

Job No	Drawing No	Rev
080117	S06	



THICKENED EDGE DETAIL DENOTED T.E. ON PLAN

SCALE = 1 20



KEYED JOINT DETAIL DENOTED K J ON PLAN

NOTES:

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ALL FOOTINGS MUST BEAR ON ROCK IF ENCOUNTERED DURING EXCAVATION

WALLS GENERALLY

FOOTING DETAILS FOR ROCK

SCALE = 1 20

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Date	Rev	Amendment

A3

DOCUMENT CERTIFICATION

Date : JAN 08

Stewart McGeady

(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
I hold the following qualifications
B E (Civil), MIEAust, P Eng
Institute of Engineers Membership No 194677
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards

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Project: NEW RESIDENCE AT N°2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

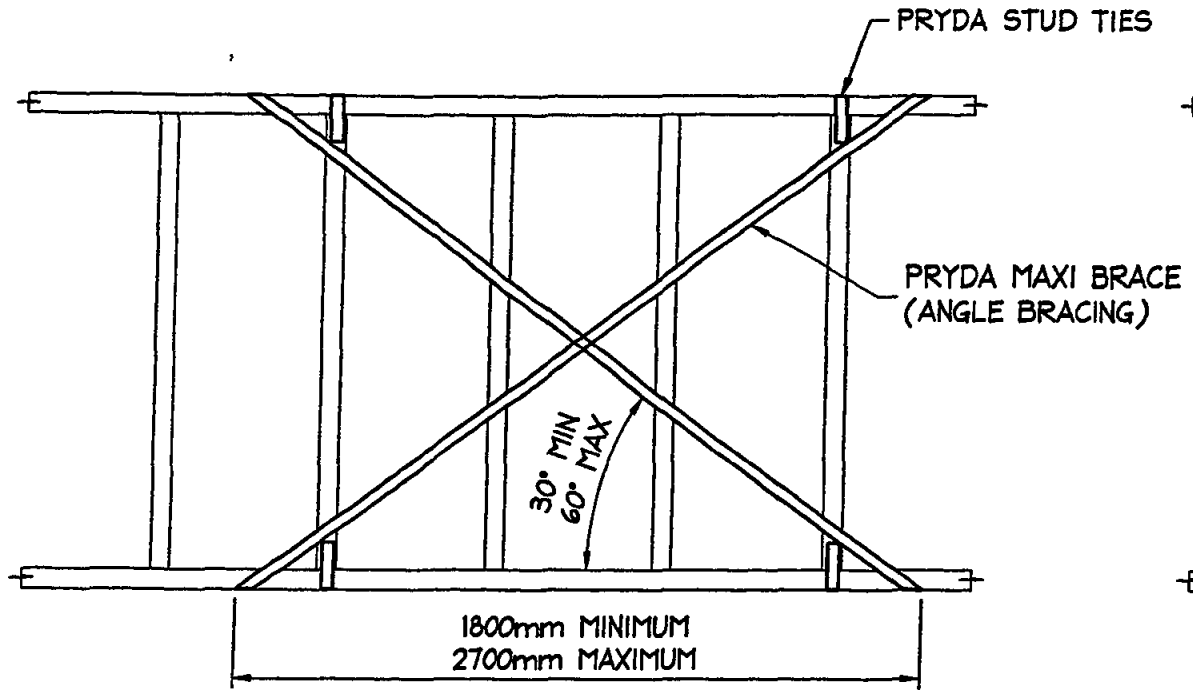
Drawing Title: TYPICAL DETAILS

Date	Design	Drawn	Checked
JAN 08	RW/PM	LFC	

Job No	Drawing No	Rev
080117	S07	

METAL TENSION STRAP BRACING

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



NOTES

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

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

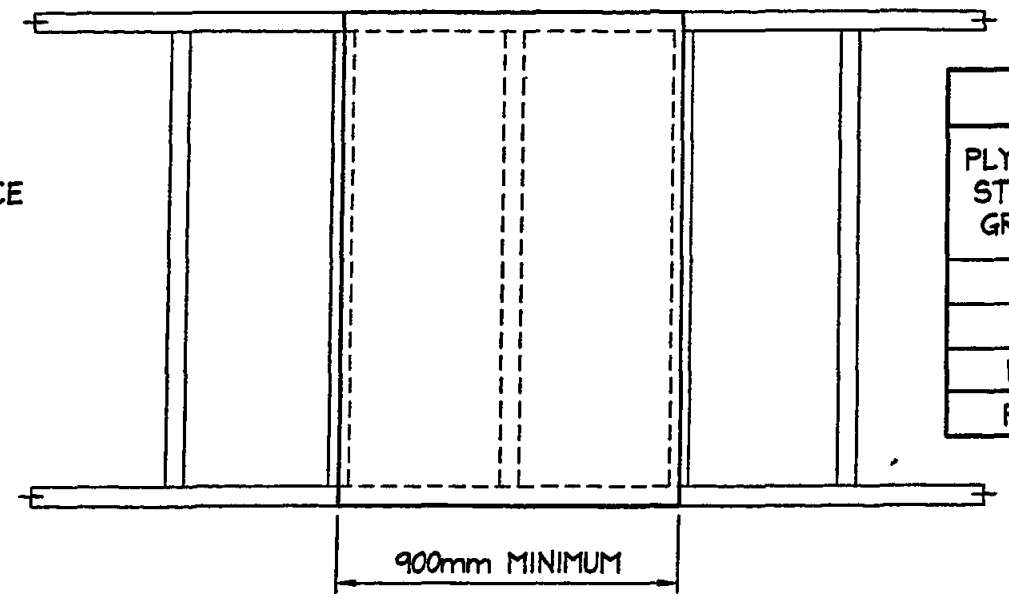
WALL STRAP BRACING DETAILS

DENOTED 'WSB' ON PLAN

SCALE = 1 20

PLYWOOD BRACING:

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



NOTES

1 FOR PLYWOOD THICKNESS REFER TO TABLE
2 FOR POWER DRIVEN NAILS AND STAPLES REFER ABOVE
3 PANEL EDGES SHALL BE SUPPORTED BY STUDS
4 NOGGINGS HAVE BEEN OMITTED FOR CLARITY

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

WALL PLY BRACING DETAILS

DENOTED 'WPB' ON PLAN

SCALE = 1 20

NOTES:

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

2 FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER 501

PLYWOOD THICKNESS

PLYWOOD STRESS GRADE	PLYWOOD THICKNESS MAXIMUM STUD SPACING	
	450mm	600mm
F8	7 0mm	9 0mm
F11	6 0mm	7 0mm
F14	4 0mm	6 0mm
F27	4 0mm	4 5mm

COUNCIL COPY

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

A3

DOCUMENT CERTIFICATION
Date : JAN 08
Rick G Wray
(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
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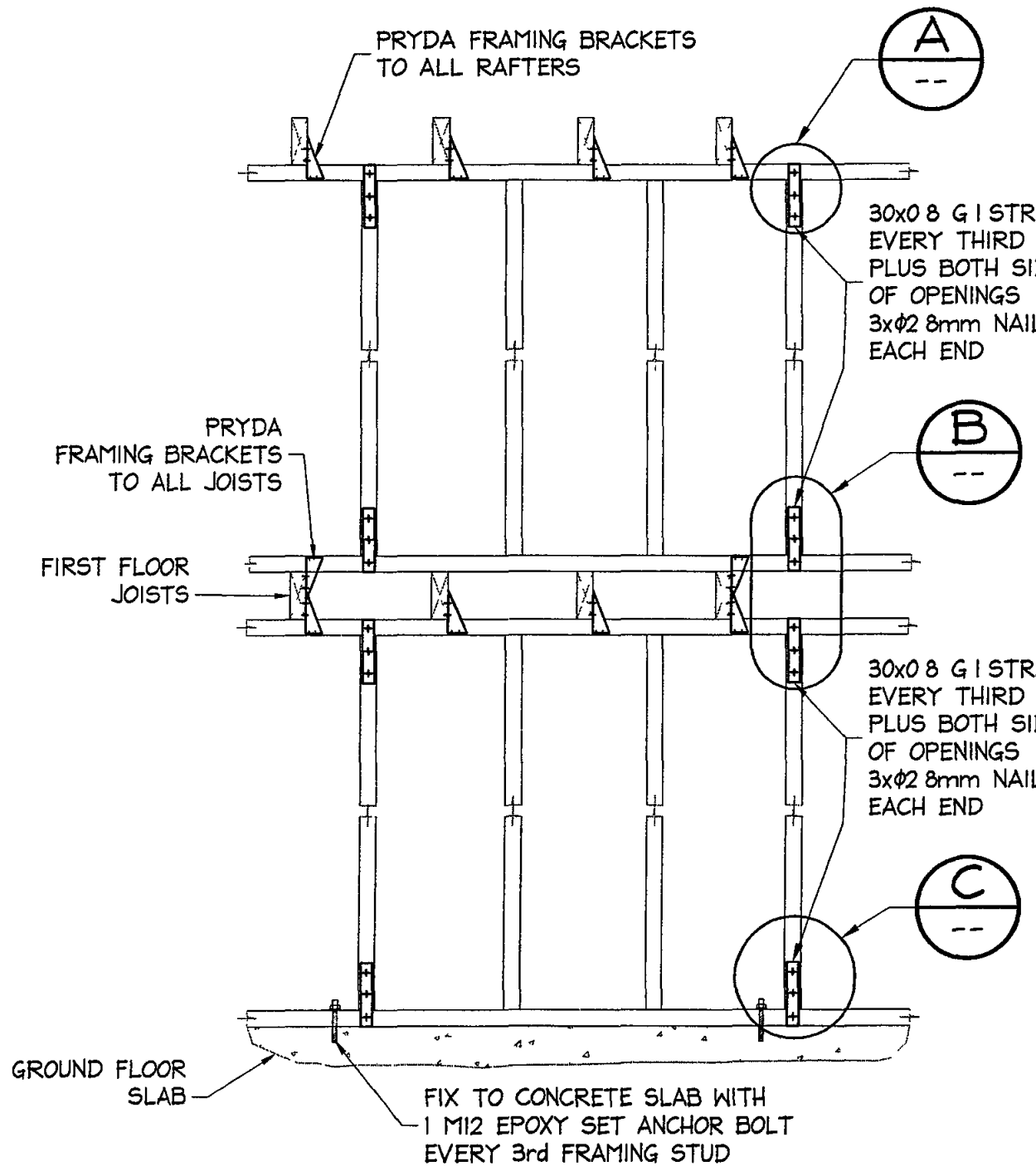
Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: WALL BRACING DETAILS

Date:	Rev	Amendment:

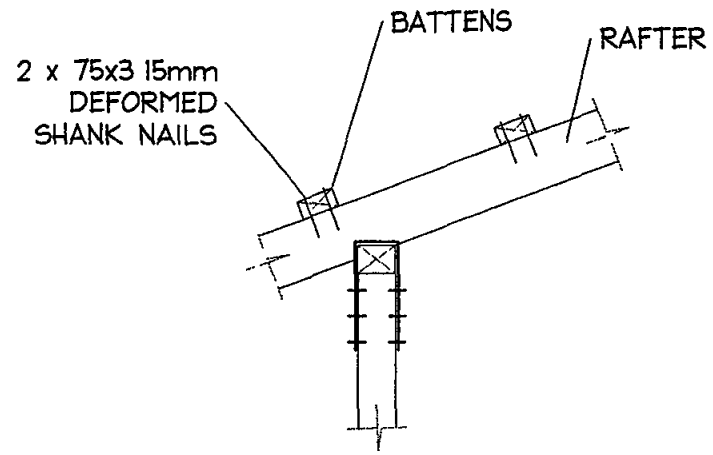
Date	Design:	Drawn.	Checked:
JAN '08	RW/PM	LFC	RGW

Job No:	Drawing No:	Rev
080117	S08	



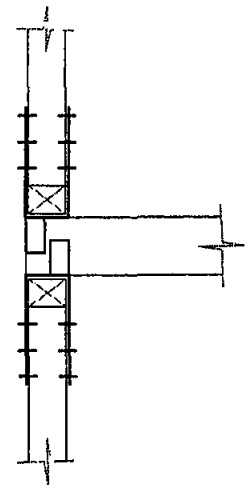
TYPICAL TIE DOWN DETAIL

SCALE = 1 20



DETAIL A

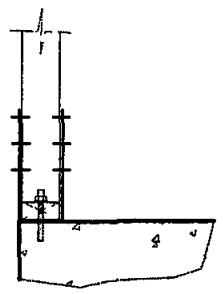
SCALE =1 20



FIRST FLOOR

DETAIL B

SCALE =1 20



DETAIL C

SCALE =1 20

NOTES

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

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APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

Date	Rev	Amendment

A3

DOCUMENT CERTIFICATION

Date : JAN 08

Rick G Wray

(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
I hold the following qualifications
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Institute of Engineers Membership No 803938
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards

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Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: TYPICAL TIE DOWN DETAILS

Date	Design	Drawn	Checked
JAN '08	RW/PM	LFC	RW

Job No	Drawing No	Rev
080117	S09	

NOTES.

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

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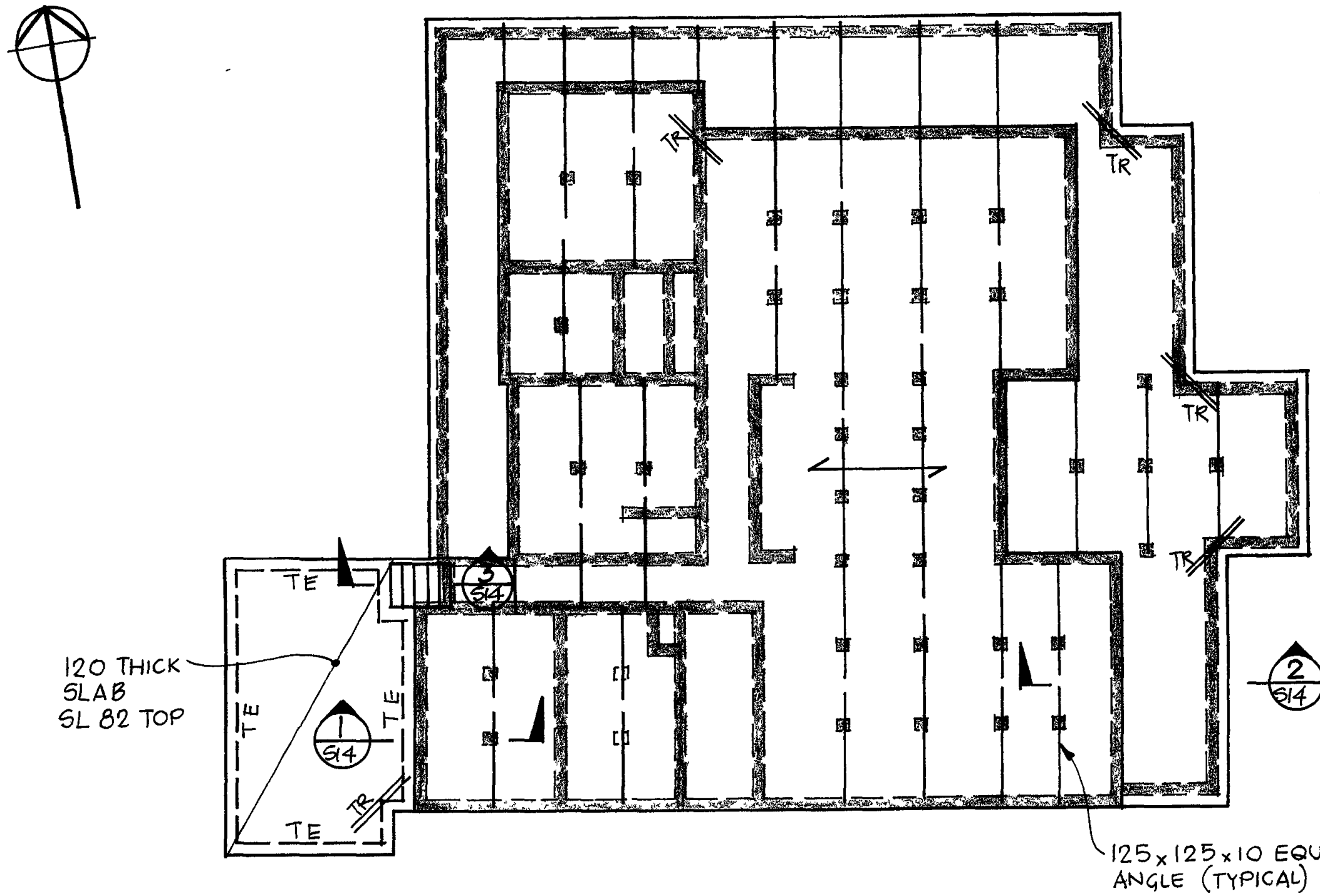

NOTE

THERE ARE NO CONTROL JOINTS SPECIFIED, AT REQUEST OF CLIENT

THE CERTIFICATION GROUP
APPROVED CONSTRUCTION CERTIFICATE
DOCUMENTATION

COUNCIL COPY

GROUND FLOOR PLAN - BONDEK ALTERNATIVE

⟷ DENOTES DIRECTION OF 10mm BONDEK

• 120 THICK SLAB, SL72 TOP UNO

TR - TRIMMER BARS - REFER DRG S05 FOR DETAILS

A3

DOCUMENT CERTIFICATION

Date FEB 08

Rick G Wray

(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
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Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: GROUND FLOOR PLAN- BONDEK ALTERNATIVE

Date	Rev	Amendment:

Date	Design	Drawn	Checked
FEB '08	RW	LFC	RW

Job No	Drawing No	Rev
080117	S13	

NOTES.

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

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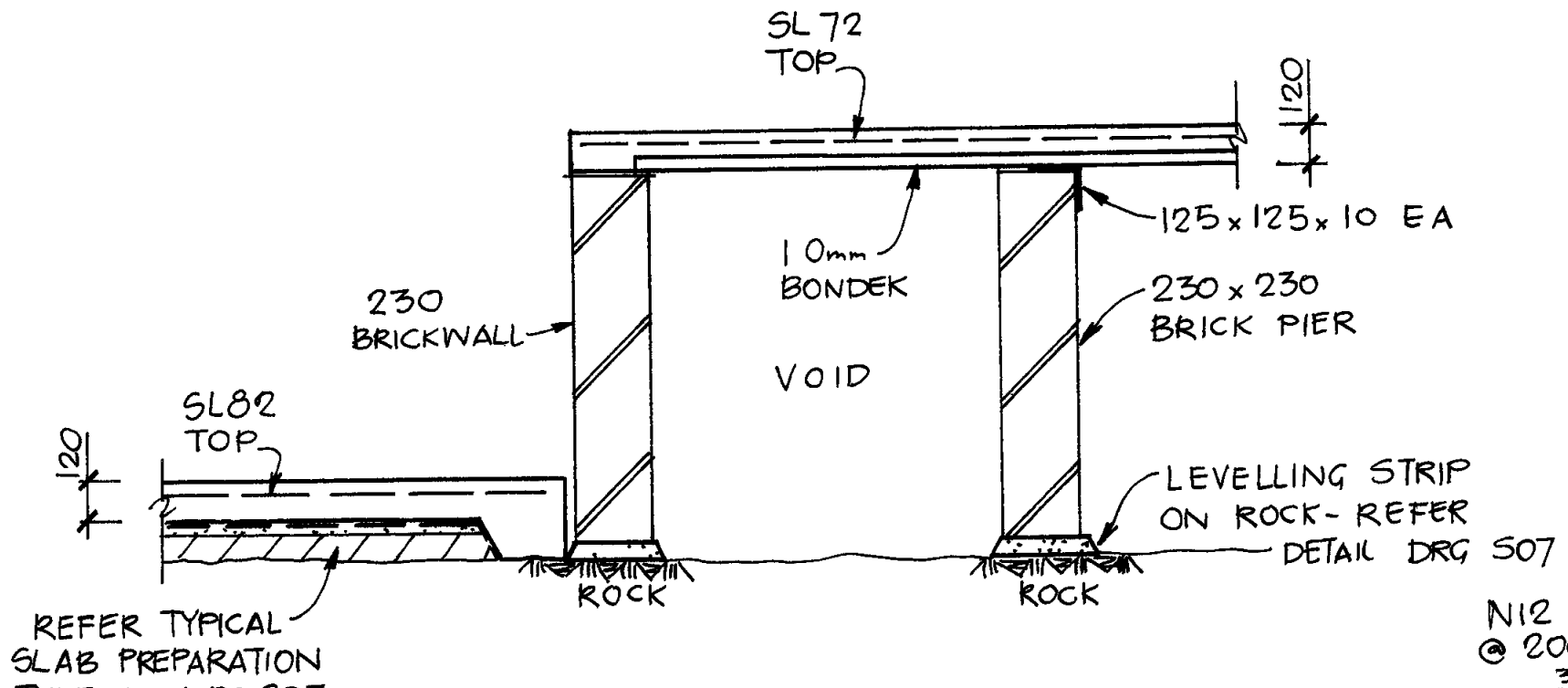
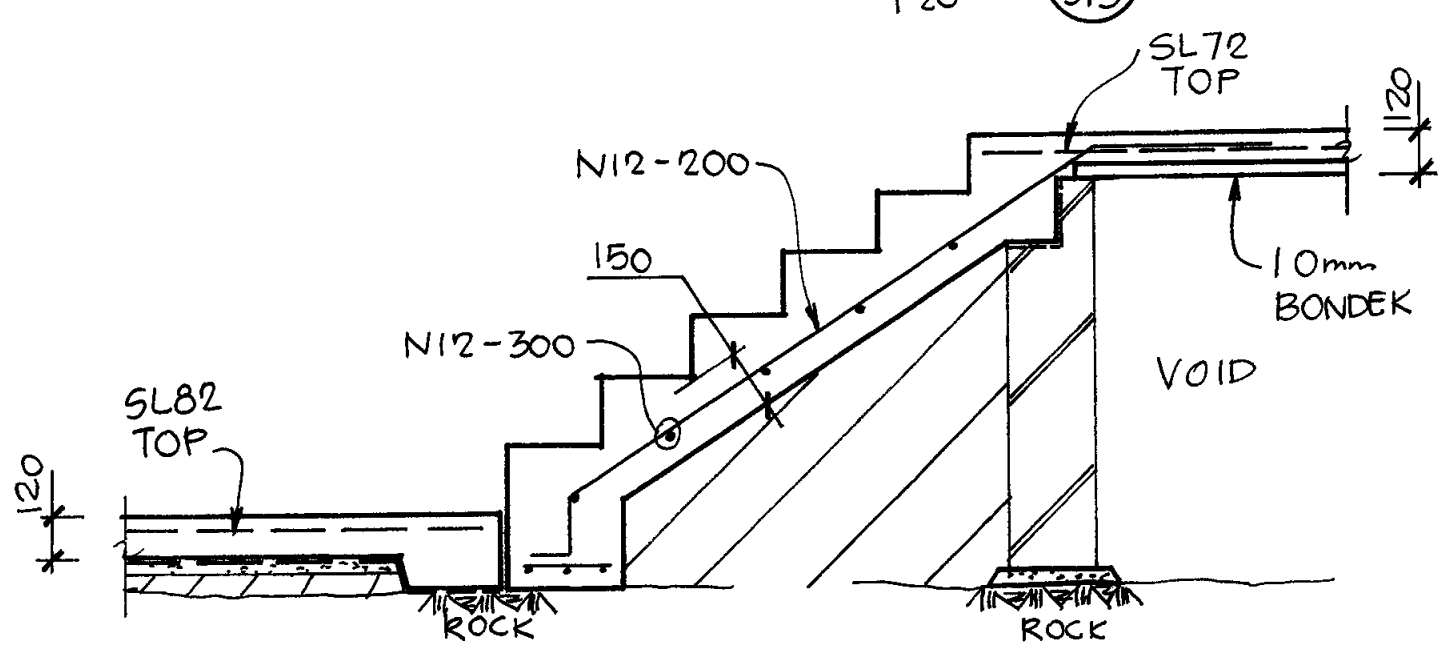
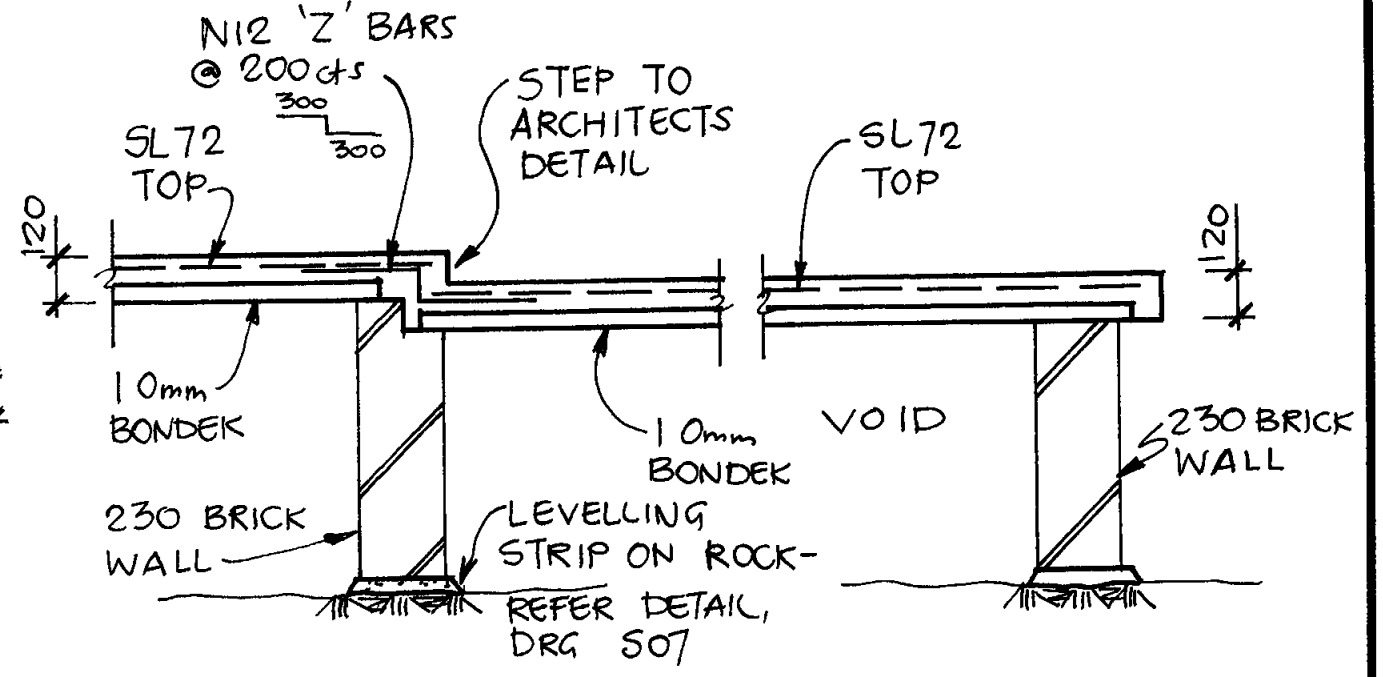


SECTION 1 / 120 / 513



SECTION 3 / 120 / 513



SECTION 2 / 120 / 513

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Date	Rev	Amendment

A3

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web page www.nbconsulting.com.au

Project: NEW RESIDENCE AT N° 2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: ALTERNATIVE SLAB SECTIONS

Date	Design	Drawn	Checked
FEB '08	RW	LFC	RW

Job No	Drawing No	Rev
080117	S14	

NOTES:

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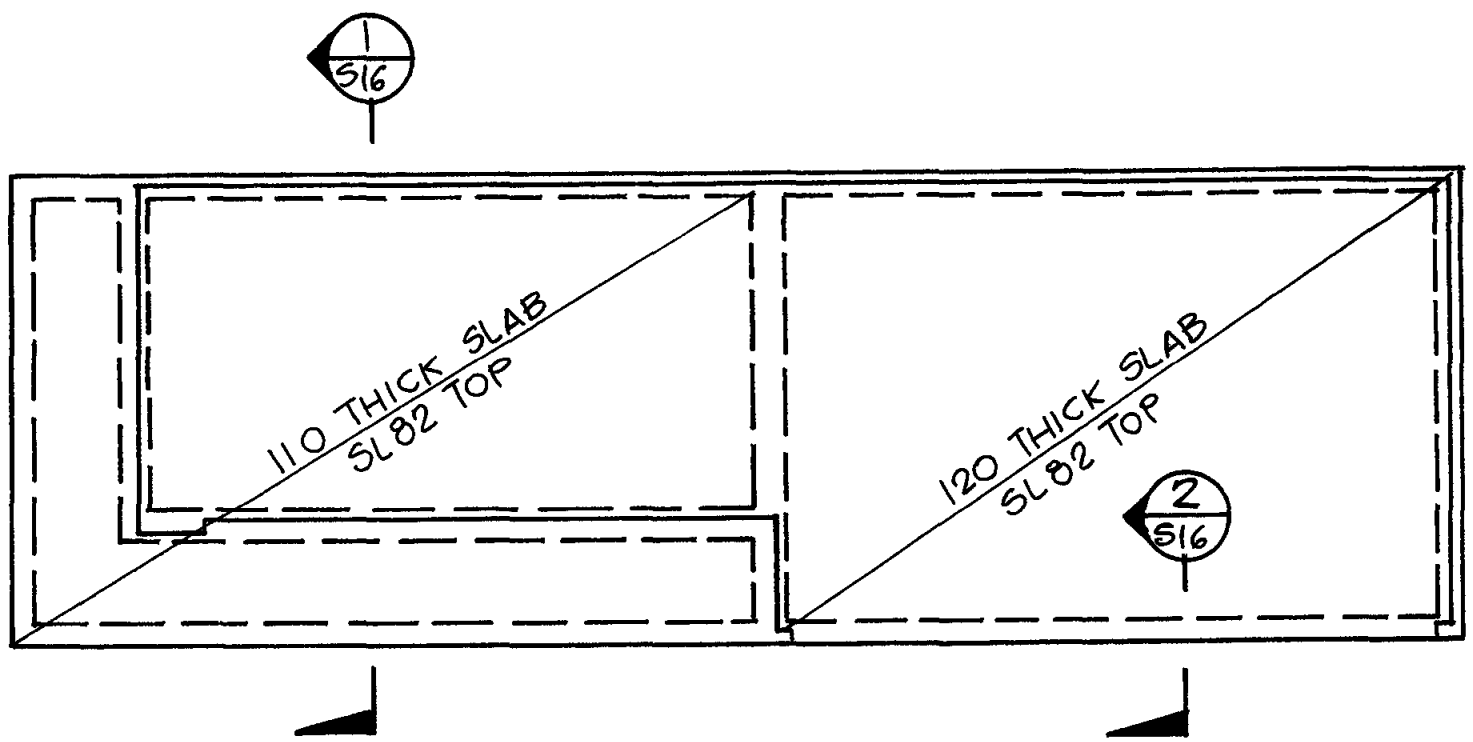
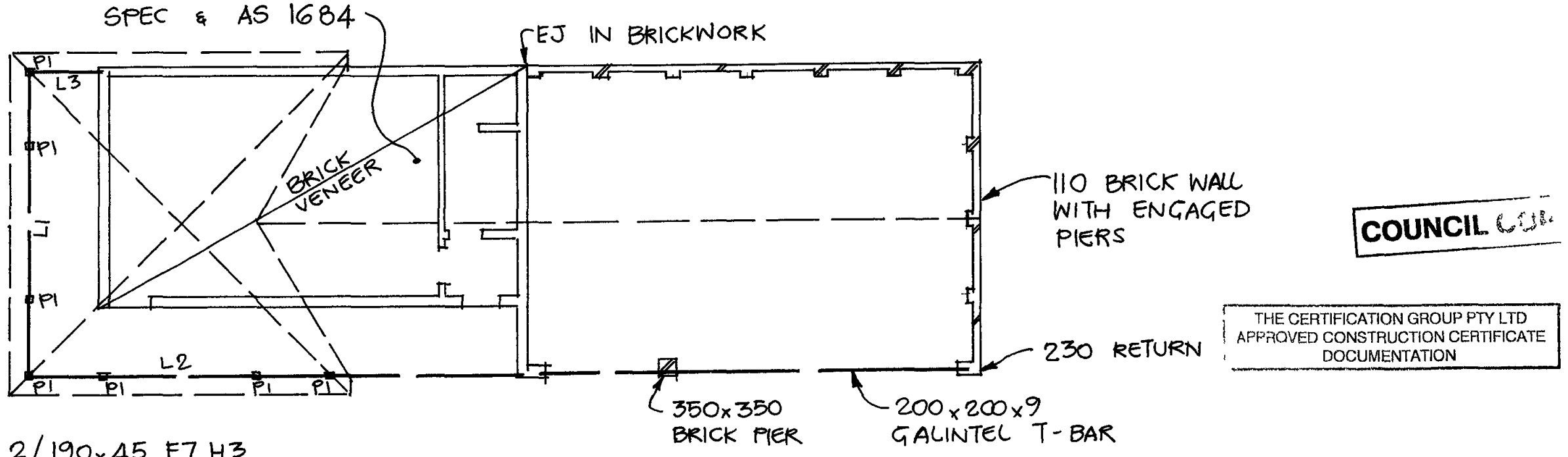


SLAB PLAN
1100



L1-L3 2/190x45 F7 H3 (FOR TRUSS SUPPORT)

P1 90x90 F7 POST

ROOF FRAMING PLAN
1100

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Date	Rev	Amendment

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web page www.nbconsulting.com.au

Project: NEW RESIDENCE AT N°2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: ALTERNATIVE (BRICKWORK) GARAGE PLANS

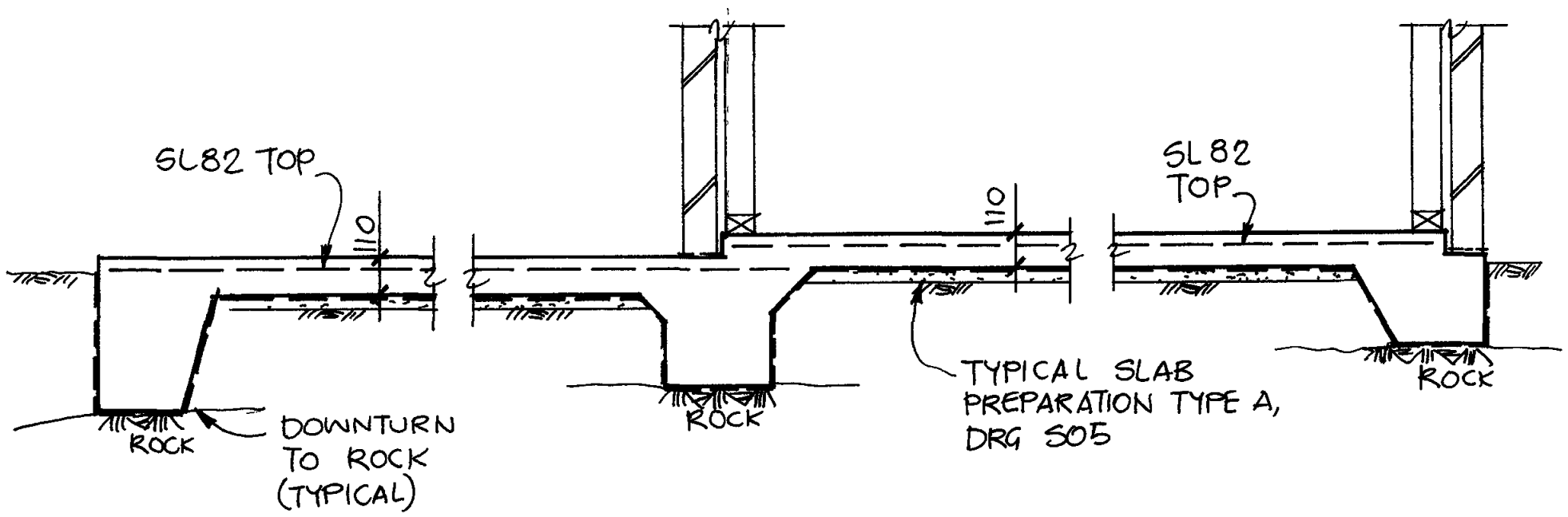
Date	Design	Drawn	Checked
FEB '08	RW	LFC	RW

Job No	Drawing No	Rev
080117	S15	

NOTES:

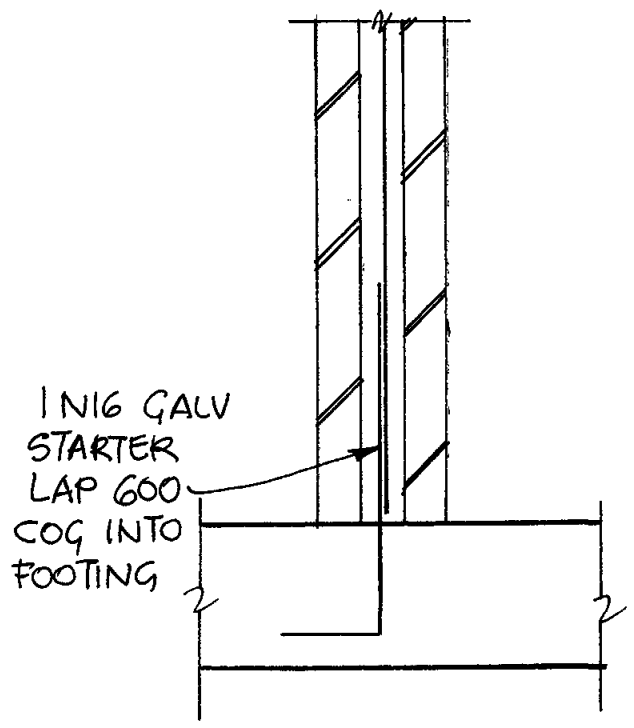
1 ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK

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

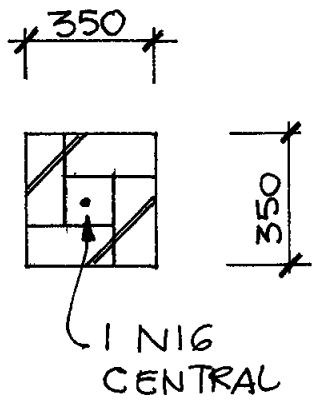


SECTION 1/S15
120

SECTION 2/S15
120



BRICK PIER DETAIL
1:20



COUNCIL COPY

THE CERTIFICATION GROUP PTY LTD
APPROVED CONSTRUCTION CERTIFICATE DOCUMENTATION

Date	Rev	Amendment

A3

DOCUMENT CERTIFICATION

Date FEB 08' R. Wray
Rick G Wray
(Director Northern Beaches Consulting Engineers)

I am a qualified Structural/Civil Engineer
I hold the following qualifications
BE(Civil), CPEng, MIEAust, NPER
Institute of Engineers Membership No 803938
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards

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Project: NEW RESIDENCE AT N°2 INGLESIDE RD INGLESIDE FOR MR & MRS SAMUS

Drawing Title: ALTERNATIVE GARAGE SECTIONS

Date	Design	Drawn	Checked
FEB '08	RW	LFC	RW

Job No	Drawing No	Rev
080117	S16	