



COMCERT Building Certification Services

24 September 2004

Pittwater Council
PO Box 882
MONA VALE NSW 1660

Dear Sir/Madam

**CONSTRUCTION CERTIFICATE
PROPOSAL: New Dwelling
PREMISES: 13 Bynya Road, Whale Beach**

DEVELOPMENT APPLICATION N^o 120/01

I refer to the above matter and accordingly submit the following documentation for your records:

- Construction Certificate No. 01/64
- Form 7
- Landscape Plan prepared by Sally Bourne Landscapes
- Driveway Layout Plan prepared by WP Brown & Partners Pty Ltd Sheet No: C01-A & C02-A
- Specifications prepared by Lindsay Little & Associates
- Excavation Plan
- Structural Details prepared by WP Brown & Partners Pty Ltd Sheet No: S01-S15
- Hydraulic Details prepared by Craig McColl
- Architectural Details prepared by Lindsay Little & Associates Pty Ltd Job No: 2595/00/1-6
- Schedule of External Colours
- Cheque for \$1,500.00 being payment for the Long Service Leave Levy

In addition to the above please be advised that the builder for this project will be Granvista Enterprises Pty. Limited.

Should you have any queries in relation to this matter, please contact us immediately.

Yours Sincerely,

Greg Hough
MANAGER
CERTIFICATION SERVICES

S:\Jennifer Brittan\CC Advice to Council.doc

QLSL: REC: 152705
RMIC REC: 152706



COMCERT Building Certification Services

CONSTRUCTION CERTIFICATE N° 01/64

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

APPLICANT

Jennifer Brittan
3 Clue Crescent
BAYVIEW NSW 2104

OWNER

Jennifer Brittan
3 Clue Crescent
BAYVIEW NSW 2104

LAND TO BE DEVELOPED

Lot N°: 112
Street: Bynya Road

DP N°: 14961

House N°: 13
Suburb: Whale Beach

PROPOSED DEVELOPMENT

Class 1a
New Dwelling

DETAIL PLANS AND SPECIFICATION REFERENCES

- Landscape Plan prepared by Sally Bourne Landscapes
- Driveway Layout Plan prepared by WP Brown & Partners Pty Ltd Sheet No: C01-A & C02-A
- Specifications prepared by Lindsay Little & Associates
- Excavation Plan
- Structural Details prepared by WP Brown & Partners Pty Ltd Sheet No: S01-S15
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RIGHT OF APPEAL

Under Section 109K of the Environmental Planning & Assessment act where the Certifying Authority is a Council, an applicant may appeal to the Land and Environment Court against the refusal to issue a Construction Certificate within 12 months from the date of the decision.

CONSTRUCTION CERTIFICATE

CERTIFICATE

I certify that the work, if completed in accordance with these plans and specifications will comply with the requirements of the *Environmental Planning & Assessment Regulation 2000* as referred to in Section 81A(5) of the *Environmental Planning & Assessment Act 1979*.

Signature _____ Date of Endorsement 29/9/01

Note: PRIOR TO COMMENCEMENT OF WORK SECTIONS 81a(2)(b) AND (c), AND/OR SECTION 81A(4)(b) AND (c) OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979 MUST BE SATISFIED (SEE FORM 7).

CERTIFYING AUTHORITY

Greg Hough, Comcert Pty Ltd
Accreditation Number: P0006
Accreditation Body: DIPNR
13/265-271 Pennant Hills Road, Thornleigh NSW 2120
Phone (02) 9481 7413 Facsimile (02) 9481 7416

DEVELOPMENT CONSENT

Development Consent No 120/01

Date of Determination: 18 September 2001
Section 96 Approved 29/7/03

S:\Jennifer Brittan\CONSTRUCTION CERT 01-64.doc

EXTERNAL COLOURS

RE: Proposed New Residence

AT: 13 Bynya Road, Whale Beach

FOR: Mr & Mrs N. Brittan

Walls

Colourbond Foam Core panel
Paperbark



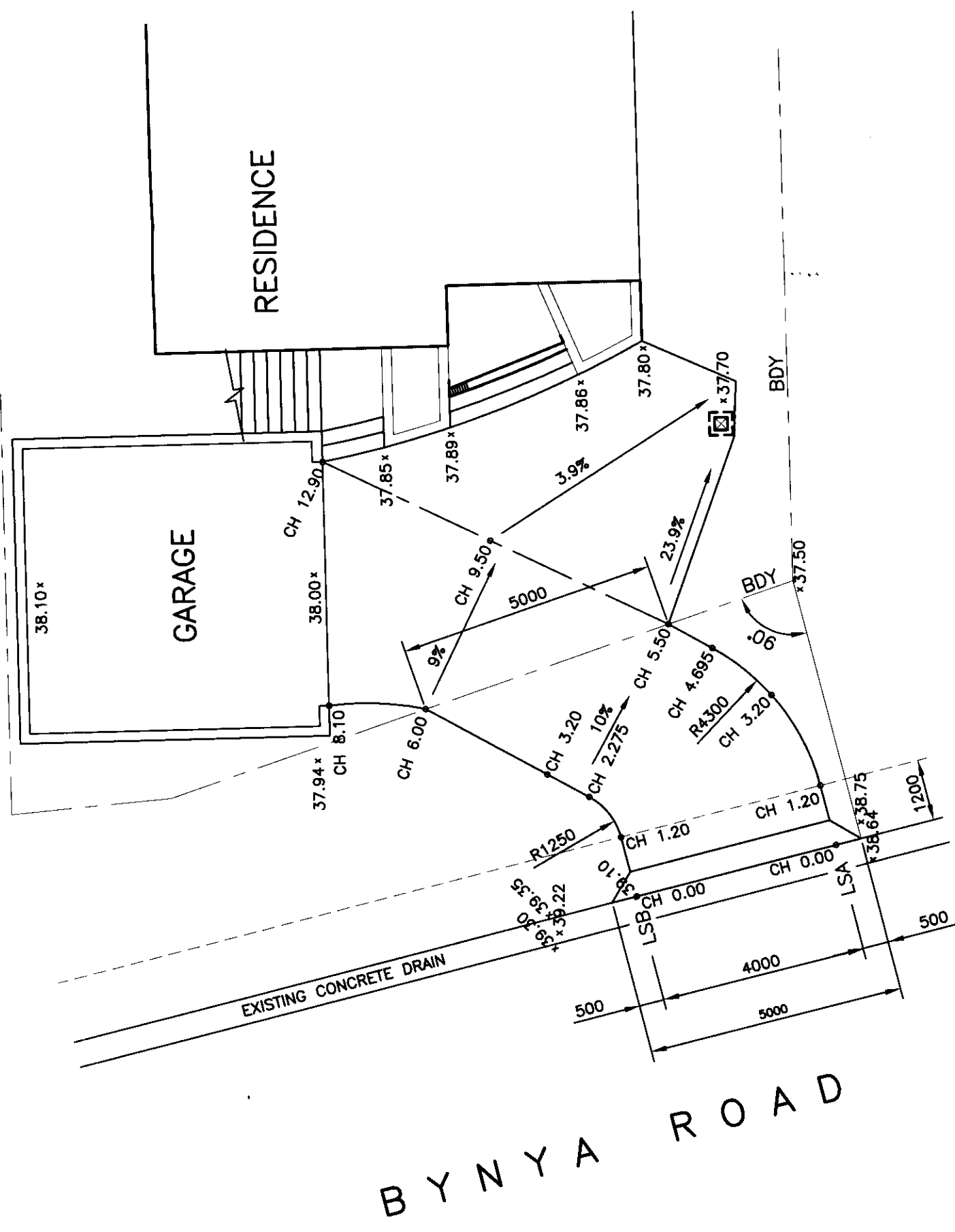
Roof

Colorbond corrugated iron
Pale Eucalypt



Windows

Aluminium
Colour to be confirmed



DRIVEWAY LAYOUT PLAN

NOTE: DRIVEWAY HAS BEEN DESIGNED IN ACCORDANCE WITH PITTSBURGH COUNCIL'S LOCAL APPROVALS POLICY AND DEVELOPMENT CONTROL PLAN NO.E3 - DRIVEWAYS AND INTERNAL ROADWAYS 1997

W P BROWN & PARTNERS PTY LTD

Consulting Engineers

82 WATERLOO ROAD

MACQUARIE PARK NSW 2113

TEL. 9900 1000

FAX. 9900 1099

MEMBER OF

OF CONSULTING

ACEA

THE ASSOCIATION

ENGINEERS AUSTRALIA

ACN 004327184

ABN 78396123968

Project

PROPOSED RESIDENCE

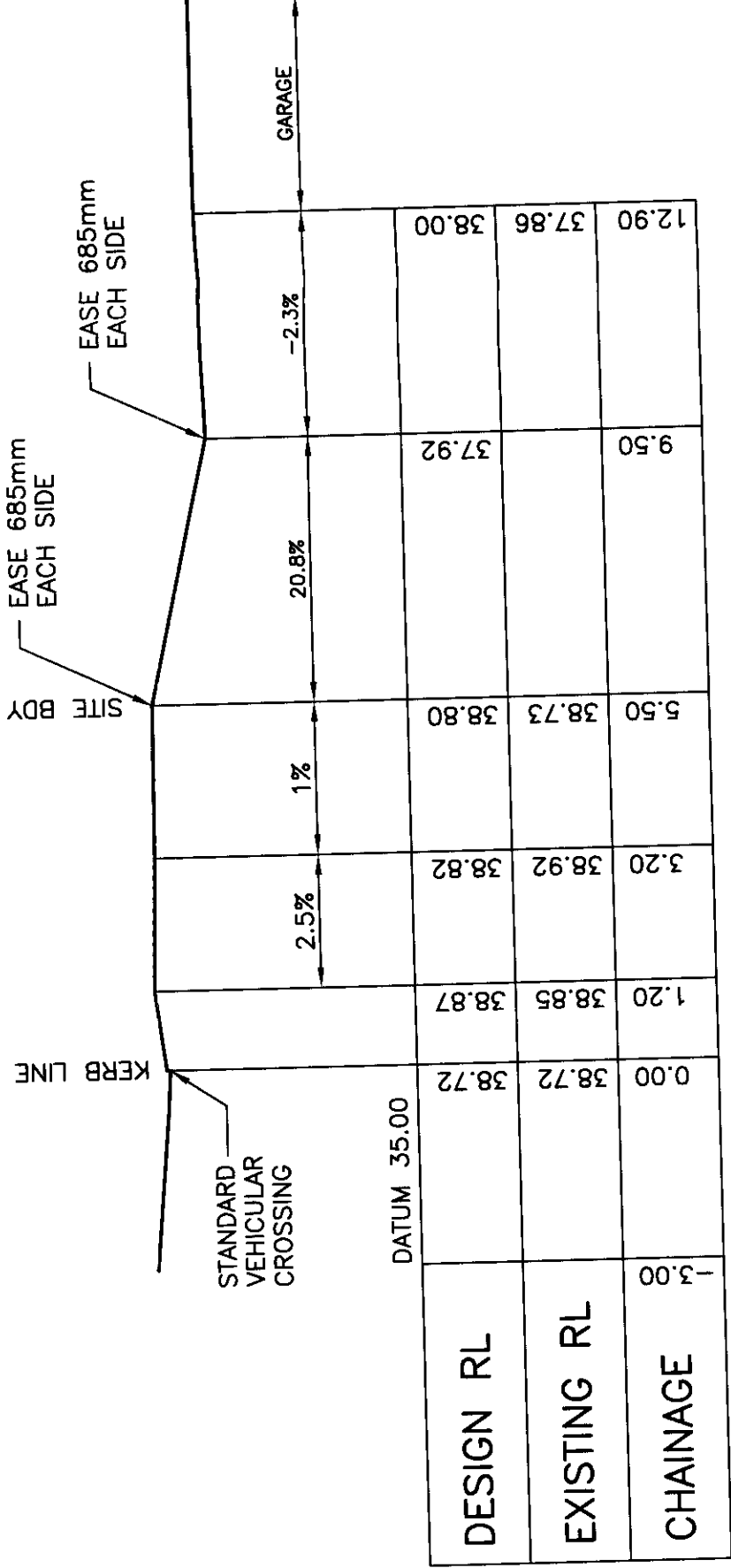
AT 13 BYNYA RD

WHALE BEACH NSW

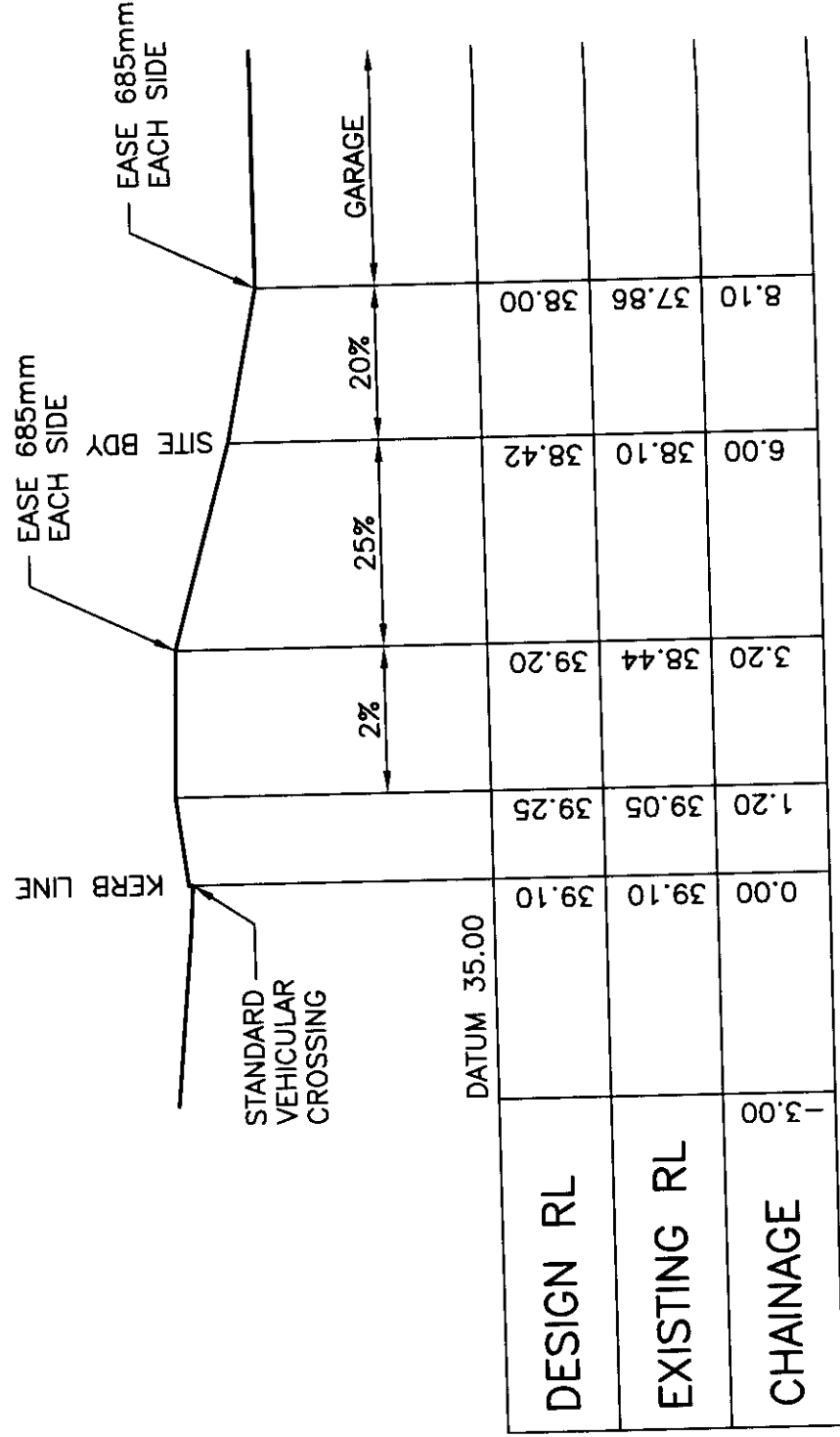
Sheet title	DRIVEWAY LAYOUT PLAN		
Drawn	PJD	Approved	<i>[Signature]</i>
Scale	1:100	Date	SEPT'04
Job No.	C01-A	Job No.	X04034

FOR COUNCIL APPROVAL	BY	DATE
A		15/09/04
AMENDMENT	BY	DATE

01 64



LONG SECTION - LSA



LONG SECTION - LSB

W P BROWN & PARTNERS PTY LTD

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82 WATERLOO ROAD

MACQUARIE PARK NSW 2113

TEL. 9900 1000

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MEMBER OF

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THE ASSOCIATION

OF CONSULTING

ENGINEERS AUSTRALIA

ACN

004327184

ABN

78396123988

Project

PROPOSED RESIDENCE

AT 13 BYNYA RD

WHALE BEACH NSW

Sheet title

DRIVEWAY

TYPICAL LONGSECTIONS

Drawn

PJD

Approved



Scale

1:100 NAT

Date

SEPT'04

Sheet No.

C02-A

Job No.

X04034

FOR COUNCIL APPROVAL

AMENDMENT

BY

DATE

PJD 15/09/04

Jeffery and Katauskas Pty Ltd

CONSULTING GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS
A.B.N. 17 003 550 801 A.C.N. 003 550 801



Principals

B F WALKER BE DIC MSc
P STUBBS BSc MICE FGS
D TREWEEK Dip Tech
E H FLETCHER BSc (Eng) ME

Senior Associates

F A VEGA BSc(Eng) GDE
A ZENON BSc(Eng) GDE
P C WRIGHT BE(Hons) MEngSc
L J SPEECHLEY BE(Hons) MEngSc

Associates

A B WALKER BE(Hons) MEngSc

Consultant

R P JEFFERY BE DIC MSc

39 BUFFALO ROAD
GLADESVILLE
NSW 2111

Tel: 02-9809 7322

02-9807 0200

Fax: 02-9809 7626

14 September, 2004

Ref: 16090W4 Let1

Lindsay Little & Associates Pty Ltd
Level 1, 6 Moore Street
LINDFIELD NSW 2070

ATTENTION: Mr Anthony Henry

Dear Sirs

DOCUMENTS FOR CONSTRUCTION CERTIFICATE
PROPOSED RESIDENTIAL DEVELOPMENT
13 BYNYA ROAD, WHALE BEACH

Further to your letter dated 25 August 2004, we have considered the supplied documents in relation to our previous Geotechnical Reprt dated 7 July 2003 (ref 16090W3rpt) and the Pittwater Council Geotechnical Risk Management Policy. We have stamped and annotated the documents as follows:

1. **Structural design drawings** by W P Brown & Partners Pty Ltd, Job NO X04034, sheets S01 to S15 inclusive all original issue (no amendment noted). We have stamped the plans. However, whilst these drawings are generally in accordance with our report there are some minor issues which we have annotated onto the drawings as follows:
2. Sheet S02 shows all strip and pad footings to bear on rock. We have annotated that we anticipate that rock will not be exposed at shallow depth at all locations, based on the results from our investigation. Once demolition of the existing dwelling is completed, it will be possible to better determine likely founding levels. Some revision to the footing designs, such as for a pier and beam system, may be required.



ENVIRONMENTAL INVESTIGATION SERVICES, FOUNDATION AND SLOPE STABILITY INVESTIGATIONS, ENGINEERING GEOLOGY, PAVEMENT DESIGN, EXPERT WITNESS REPORTS, DRILLING SERVICES, EARTHWORKS COMPACTION CONTROL, MATERIALS TESTING, ASPHALTIC CONCRETE TESTING, QA AND QC TESTING, AUDITING AND CERTIFICATION. N A T A REGISTERED LABORATORIES





3. Sheet S07 shows a cut face. We have annotated this section to state "stability of excavated face to be confirmed by Geotechnical Engineer." It is anticipated that such confirmation will result from site inspections carried out during the site excavation process as discussed below. In addition, a subsoil or spoon drain is to be provided at the toe of the batter also as annotated by us.
4. Sheets S09 and S10; the required filter fabric to the retaining wall subsoil drain has been annotated as "Bidim A34 or similar approved".
5. Sheet S12; the referred drawings for the sections should be S13 and S15.
6. Sheet S13; We have annotated this section to state "stability of excavated face to be confirmed by Geotechnical Engineer." It is anticipated that such confirmation will result from site inspections carried out during the site excavation process. The required filter fabric to the retaining wall subsoil drain has been annotated as "Bidim A34 or similar approved". The referred drawings for the sections should be S12.
7. Drawing Nos SWMP01 and SWMP02 dated 16 August 2004 by Granvista Enterprises Pty Ltd detail the required Soil and Water Management Plan. We have no comment on this drawing in relation to geotechnical issues but note that it must be read in conjunction with the other documents.
8. Drawing Nos H01 and H02 dated 16 August 2004 by Granvista Enterprises Pty Ltd detail the Site Stormwater Drainage Plan. The plans show discharge to the street via a pipe system which is in accordance with our recommendations. Provision is also made for a subsoil drain to the rear of the uphill side of the dwelling. We have annotated the drawing to show an additional drain to the uphill side of the lower floor excavation.
9. An Excavation Plan dated 6 September 2004 by Granvista Enterprises Pty Ltd. This plan shows the approximate extent of excavation anticipated. This plan is considered to be reasonable but as annotated must be read in conjunction with the Retention and Bulk Excavation Work Method Statement by Matthews Contracting. We assume that excavation will most likely proceed in a down hill



direction but this may be subject to on site access constraints which will be best clarified after demolition.

10. Work Method Statement by Matthews Contracting for Retention and Bulk Earthworks dated 1 September 2004. This statement covers possible sequential excavation and retention support requirements in a general manner. Some of the steps may not be relevant depending on conditions exposed after completion of the demolition. We note that steps 3 and 4 call for Inspection of the site and finalisation of the design of the retaining wall system. Based on the investigation results presented in our report we consider this to be reasonable and appropriate.
11. We have completed Pittwater Council Form 2 as attached with appropriate annotation to this letter.

The annotations shown on the drawing and discussed above should be incorporated into revised drawings by the respective designers and issued for use at site.

We note there are still a number of minor items to be addressed being:

- a) A design will be required for the boulder retaining walls shown on Drawing No SWMP02
- b) A design will be required for the timber crib wall if this is to be rebuilt
- c) The retaining walls between the new garage and the street should be reconstructed as per clause 6.1.8 of our previous report.

Details for these walls can be finalised once the extent of retention required is better known following demolition.

The dilapidation report on the adjacent property will be forwarded shortly under separate cover.

Should you require any further information regarding the above please do not hesitate to contact the undersigned.



Yours faithfully
For and on behalf of
JEFFERY AND KATAUSKAS PTY LTD

A handwritten signature in black ink, appearing to read 'Bruce F Walker'. The signature is written in a cursive, flowing style.

B F WALKER
Principal.

Encl stamped annotated documents as listed above.

CONSTRUCTION NOTES

GENERAL

G1 COPYRIGHT OF ALL DRAWINGS AND DOCUMENTS PROVIDED BY W.P. BROWN & PARTNERS PTY LTD FOR THIS PROJECT REMAIN ITS PROPERTY. THE PRINCIPAL ALONE SHALL HAVE A LICENCE TO USE THESE DOCUMENTS IN CONNECTION WITH THE PROJECT BUT SHALL NOT USE OR MAKE COPIES OF SUCH DOCUMENTS OTHER THAN IN CONNECTION WITH THIS PROJECT.

G2 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G3 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT SAA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARYED BY THE PROJECT SPECIFICATION.

G4 ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.

G5 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES. ANY EXCAVATION IN THE VICINITY OF NEIGHBOURING BUILDINGS IS THE RESPONSIBILITY OF THE BUILDER. APPROVAL OF ALL PROPOSALS MUST BE GRANTED BY THE CONSULTING ENGINEER PRIOR TO COMMENCEMENT OF WORK.

G6 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.

FOUNDATIONS

F1 ALL RESIDENTIAL FOOTINGS TO BE CONSTRUCTED IN ACCORDANCE WITH AS 2870 CURRENT EDITIONS.

F2 ALL FOUNDATION MATERIAL AND SUBGRADE PREPARATION TO BE IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT.

F3 FOOTINGS HAVE BEEN DESIGNED TO BEAR ON ROCK WITH AN ALLOWABLE BEARING INTENSITY OF 600 KPa.

F4 THE BUILDER SHALL OBTAIN APPROVAL OF THE FOUNDATION MATERIAL BEFORE PLACING CONCRETE.

F5 FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.

F6 DO NOT BACKFILL BEHIND:

(A) CANTILEVER RETAINING WALLS BEFORE THEY REACH THEIR REQUIRED DESIGN STRENGTH.

(B) PROPPED RETAINING WALLS UNTIL FLOOR CONSTRUCTION AT TOP AND BOTTOM IS COMPLETED.

ENSURE FREE DRAINING BACKFILL AND DRAINAGE IS IN PLACE.

F7 FOOTINGS TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE.

STRUCTURAL STEELWORK

S1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 & AS 1554 EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.

S2 UNLESS NOTED OTHERWISE ALL STEEL SHALL BE IN ACCORDANCE WITH AS 3678 & AS 3679 GRADE 250.

S3 TWO COPIES OF WORKSHOP DETAILS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO COMMENCEMENT OF FABRICATION. APPROVAL WILL COVER STRUCTURAL CONTENT ONLY.

S4 BOLT DESIGNATION

4.6/5 COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111-SNUG TIGHTENED.

8.8/5 HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 SNUG TIGHTENED.

8.8/TB HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 1511 AS A BEARING JOINT.

8.8/TF HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 1511 AS A FRICTION JOINT WITH FACING SURFACES LEFT UNCOATED.

UNLESS NOTED OTHERWISE ALL BOLTS SHALL BE M20 GRADE 4.6/5.

TB AND TF BOLTS TO BE INSTALLED USING APPROVED LOAD INDICATORS.

S5 UNLESS NOTED, ALL WELDS SHALL BE 6mm CONTINUOUS FILLET TYPE GP USING E41XX ELECTRODES - BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS TO AS 1554.

S6 UNLESS NOTED, ALL GUSSET PLATES TO BE 10mm.

S7 CONCRETE ENCASED STEELWORK SHALL BE WRAPPED IN ACCORDANCE WITH AS 4100 AND TO HAVE 50mm MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE.

S8 PROVIDE SEAL PLATES TO ALL HOLLOW SECTIONS, WITH "BREATHERS" HOLES IF MEMBERS TO BE HOT DIPPED GALVANISED.

S9 THE FABRICATOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER TO STEEL WHETHER OR NOT DETAILED IN THE DRAWINGS.

S10 THE BUILDER SHALL ENSURE THAT ALL STEELWORK IS SECURELY TEMPORARILY BRACED AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.

S11 ALL EXTERNAL STEELWORK TO BE PROTECTED IN ACCORDANCE WITH THE MODERATE / LONGTERM REQUIREMENTS OF AS 2312, TABLE 3.1

CONCRETE

C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.

C2 CONCRETE QUALITY:
ALL THE REQUIREMENTS OF THE ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

C3 PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3600

C4 NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.

C5 CONCRETE STRENGTH AND COVER - REFER TO RELEVANT DRAWING

C6 CONCRETE SIZES SHOWN DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.

C7 DEPTH OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.

C8 FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC. REFER TO ARCHITECT'S DETAILS. MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.

C9 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.

C10 CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS, AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 7 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.

C11 FORMWORK TO REMAIN IN POSITION FOR A MINIMUM OF 14 DAYS U.N.O. WHERE SLABS AND BEAMS ARE TO SUPPORT BRICKWORK OVER. FORMWORK AND PROPS MUST BE REMOVED PRIOR TO COMMENCEMENT OF THIS BRICKWORK.

C12 ALL CONCRETE TO BE MECHANICALLY VIBRATED AND THE VIBRATOR SHALL NOT BE USED TO SPREAD CONCRETE.

C13 CONDUITS, PIPES, ETC., MUST NOT BE PLACED IN CONCRETE COVER AND CAN ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS

C14 REINFORCEMENT SYMBOLS:

===== DENOTES MAIN WIRES OF RECTANGULAR FABRIC TO AS 4671

===== DENOTES SQUARE FABRIC TO AS 4671

===== DENOTES LIMITS OF AREAS COVERED BY BARS

===== DENOTES BAR

SL DENOTES GRADE D500L REINFORCING SQUARE FABRIC TO AS 4671
RL DENOTES GRADE D500L REINFORCING RECTANGULAR FABRIC TO AS 4671
R DENOTES GRADE 250R HOT ROLLED PLAIN BARS TO AS 1302
N DENOTES GRADE D500N BARS TO AS 4671

C15 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY, IT IS NOT NECESSARILY IN TRUE PROJECTION.

C16 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN AND SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT. FOR FABRIC THE OUTMOST WIRES SHOULD BE OVERLAPPED BY AT LEAST THE SPACING OF THESE OUTERMOST WIRES PLUS 25mm.

C17 WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWING.

C18 BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER CENTRES WITH 3 WRAPS OF THE WIRE.

C19 ALL UNSUPPORTED BARS SHALL BE TIED IN A TRANSVERSE DIRECTION WITH N12 AT 400 CTS.

C20 PROVIDE UPWARD CAMBER TO FORMWORK OF CANTILEVERS OF L/120, WHERE L IS THE SHORTEST PROJECTION BEYOND COLUMN OR WALL FACE, AND TO FORMWORK OF SLABS WHERE NOTED ON PLAN. MAINTAIN THE SLAB AND BEAM DEPTHS SHOWN

C21 ALL REINFORCEMENT TO BE ACCURATELY PLACED IN POSITION SHOWN TIED AND ADEQUATELY SUPPORTED TO GIVE SPECIFIED COVER.

C22 NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE ALLOWED.

FORMWORK

F1 DESIGN AND CONSTRUCTION AND STRIPPING TIMES TO COMPLY WITH AS 3610 AND AS 3600 UNLESS OTHERWISE APPROVED BY THE ENGINEER.

F2 DURING CONSTRUCTION, SUPPORT PROPPING WILL BE REQUIRED WHERE LOADS FROM STACKED MATERIALS, FORMWORK AND OTHER SUPPORTED SLABS INDUCE LOADS IN A SLAB OR BEAM WHICH EXCEED THE DESIGN LOAD FOR STRENGTH OR SERVICEABILITY AT THAT AGE. ONCE THE NOMINATED 28 DAY STRENGTH HAS BEEN ATTAINED, THESE LOADS SHALL NOT EXCEED THE DESIGN SUPERIMPOSED LOADS SET OUT ON THE DRAWINGS.

F3 IT IS ANTICIPATED IN MULTI-STORY CONSTRUCTION THAT PROPPING WILL EXTEND AT LEAST 3 LEVELS BELOW THE FLOOR BEING CAST. PROP REMOVAL IS TO BE PROGRAMMED TO AVOID DISTRESS TO PREVIOUSLY CAST FLOORS. RE-SHORING OR BACKPROPPING IS SUBJECT TO THE APPROVAL OF THE PROJECT DESIGN ENGINEER.

F4 THE FORMWORK SHALL NOT BE DESIGNED TO RELY ON RESTRAINT OR SUPPORT FROM THE PERMANENT STRUCTURE WITHOUT PRIOR APPROVAL FROM THE PROJECT DESIGN ENGINEER

F5 FORMWORK TO BE DESIGNED TO ACCOMMODATE MOVEMENTS DUE TO POST TENSIONING.

F6 THE DESIGN CERTIFICATION & PERFORMANCE OF THE FORMWORK AND FALSE WORK IS THE RESPONSIBILITY OF THE BUILDER.

BRICKWORK AND BLOCKWORK

B1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700.

B2 ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANISED STEEL STRIP JOINT BETWEEN THE CONCRETE SOFFIT AND THE TOP OF THE MASONRY ELEMENT.

B3 ALL BRICKWORK SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ANY CONTROL JOINTS IN THE CONCRETE.

B4 NO LOAD BEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY 10mm THICK CLOSED CELL POLYETHYLENE STRIP.

B5 NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.

B6 REINFORCED CONCRETE BLOCKWORK SHALL COMPLY WITH THE FOLLOWING U.N.O.

-BLOCKS SHALL BE STRENGTH GRADE 15 CONFORMING TO AS 2733

-MORTAR SHALL COMPRISE 1 CEMENT : 5 SAND.

-PROVIDE CLEANOUT HOLES AT BASE OF ALL WALLS AND ROD CORE HOLES TO REMOVE PROTRUDING MORTAR FINS.

-CORE FILLING GROUT TO BE F'c=20 MPa, 10mm AGGREGATE, 230mm SLUMP +/- 30mm

-PROVIDE 55mm COVER FROM THE OUTSIDE OF THE BLOCKWORK TO ALLOW ADEQUATE GROUT COVER.

B7 PROVIDE VERTICAL CONTROL JOINTS AT 10m MAX CENTRES, AND 5m MAXIMUM FROM CORNERS IN ALL MASONRY WALLS, UNLESS SHOWN OTHERWISE ON THE STRUCTURAL DRAWINGS.

B8 BACKFILL TO RETAINING WALLS TO BE FREE DRAINING GRANULAR MATERIAL. PROVIDE SUB-SOIL DRAIN OR WEEP HOLES.

B9 REFER TO CONCRETE NOTES FOR DE-PROPPING PRIOR TO CONSTRUCTION OF BRICKWORK ON SUSPENDED SLABS.

B10 BRICK MORTAR TO BE 1:1:6 PROPORTIONS BY VOLUME OF CEMENT, LIME AND SAND, UNLESS NOTED OTHERWISE.

B11 BRICK COMPRESSIVE STRENGTH FOR LOAD BEARING BRICKWORK TO BE A MINIMUM OF F'uc=20 MPa.

TIMBER

T1 ALL TIMBER DESIGN AND CONSTRUCTION TO BE TO AS 1720 OR AS 1684 WHERE APPROPRIATE. ALL SOFTWOOD TO BE GRADED F7 UNLESS NOTED OTHERWISE. ALL HARDWOOD TO BE MINIMUM GRADE F14.

T2 EXTERNAL TIMBER TO BE EITHER HARDWOOD DURABILITY GRADE I OR II OR IMPREGNATED PINE GRADE F7. PRESSURE TREATED TO AS 1608 AND RE-DRIED PRIOR TO USE.

T3 TIMBER TRUSSES TO BE PRE-CAMBERED AN AMOUNT EQUAL TO DEAD LOAD DEFLECTION. 2 COPIES OF SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL CLEARLY SHOWING THE DESIGN LOADS ON THE ROOF AND CEILING AND TRUSS NODE POINT LOADS & PRECAMBER.

T4 ALL BOLTS IN TIMBER CONSTRUCTION TO BE MINIMUM M16 4.6/5 U.N.O. BOLT HOLES TO BE DRILLED EXACT SIZE. WASHERS UNDER HEADS AND NUTS TO BE AT LEAST 2.5 TIMES THE BOLT DIAMETER.

T5 TIMBER DIMENSIONS ON THE FINISHED WIDTH & THICKNESS TO BE:

SEASONED SOFTWOOD +0 mm, -0 mm

UNSEASONED SOFTWOOD +3 mm, -3 mm

SEASONED HARDWOOD +2 mm, -0 mm

UNSEASONED HARDWOOD +3 mm, -3 mm

W P BROWN & PARTNERS PTY LTD

Consulting Engineers

82 WATERLOO ROAD
MACQUARIE PARK NSW 2113
TEL. 9900 1000
FAX. 9900 1099



MEMBER OF
OF CONSULTING
THE ASSOCIATION
ENGINEERS AUSTRALIA

ACN 004327164
ABN 78396123968

PROPOSED RESIDENCE

AT 13 BYNYA RD
WHALE BEACH NSW

GENERAL NOTES

Drawn	NJD	Scale	N/A	Issue	BY	DATE
Approved		Sheet No.	S01	Project No.	X04034	
(For and on behalf of W.P. Brown & Partners Pty. Ltd.)						

01 69

We have viewed this drawing and endorse

that recommendations given in our

Report No. 16092014 dated 7 July 03

have been adopted in principle, except

for modifications noted on underlined

in red which should be adopted.

Signed Bruce Fl Valler Date 2/9/04

For Jeffery and Katsukas Pty Ltd

39 Buffalo Road, Gladstone, 2111

Telephone : 9809 7322

Refer also covering Letter Ref 16092014 dated 14 September 2004

BP

1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa
3. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

[illegible]

4. COVER - UNLESS NOTED OTHERWISE

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm

5. R - DENOTES 1-N16 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE

A - DENOTES N12 BARS
B - DENOTES N16 BARS
C - DENOTES N20 BARS
D - DENOTES N24 BARS
NUMBER - DENOTES BAR
E - DENOTES N28 BARS
F - DENOTES N32 BARS
G - DENOTES N36 BARS
H - DENOTES N50 BARS
SPACING IN cm
eg. C20 DENOTES - N20 BARS AT 200mm SPACING

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Consulting Engineers

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FAX. 9900 1099



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ACN 004327164
ABN 78396123968

PROPOSED RESIDENCE
AT 13 BYNYA RD
WHALE BEACH NSW

১৯৮৫

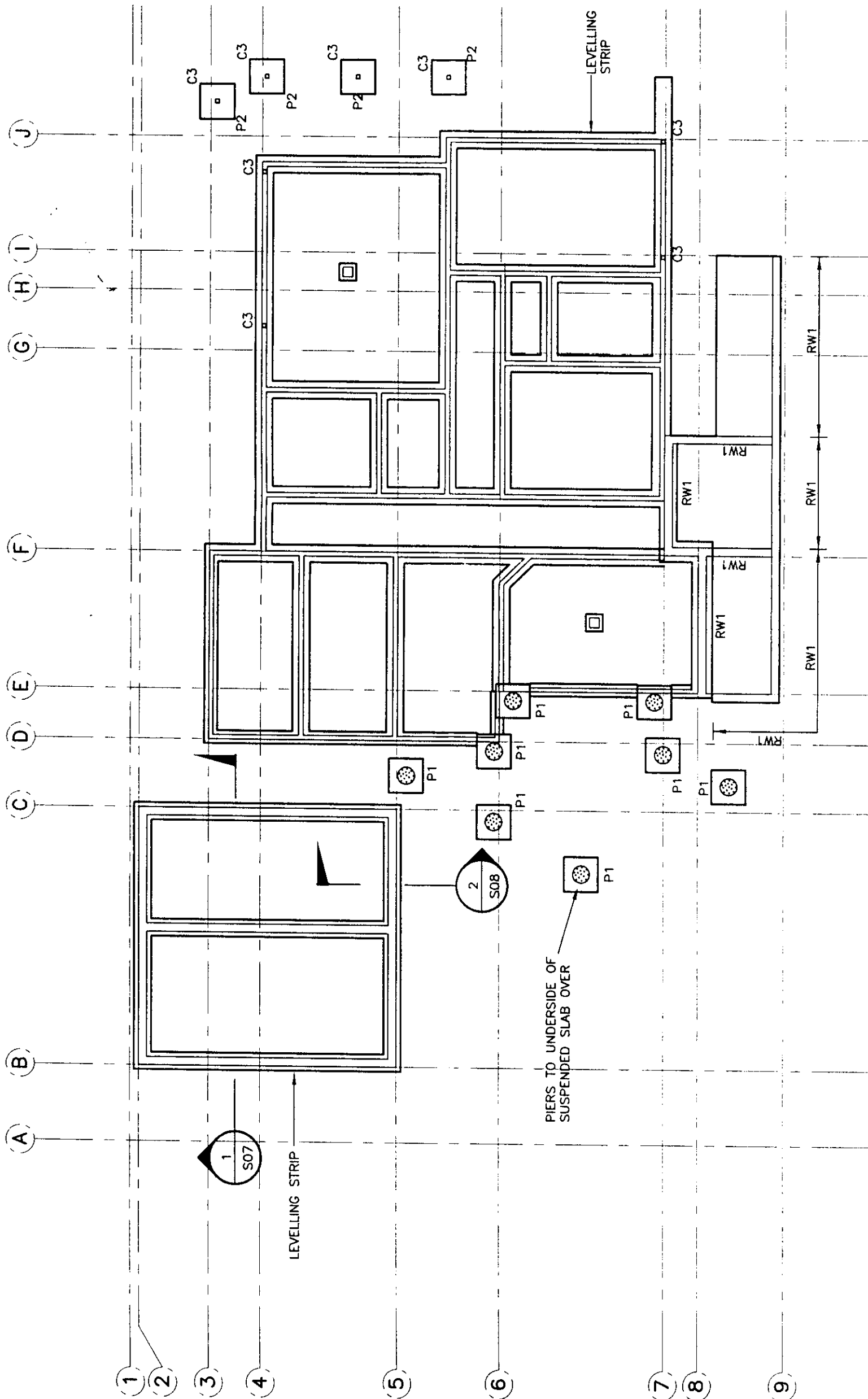
FOOTING PLAN

1000

NJD
For one on behalf of W.F. Brown & Partners P.A. (10)

cuie

1:100@A3	MAR '04	S02	X04034
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NOTE:

ALL FOOTINGS TO BEAR ON ROCK. ENGINEER
TO BE NOTIFIED IF ANY VARIATIONS OCCUR

ANTICIPATE ROCK WILL NOT BE EXPOSED AT SHALLOW DEPTH AT ALL LOCATIONS.

We have viewed this drawing and endorse that recommendations given in our Report No. 1609203 rf of (date) 7 July 03 have been adopted in principle, except for modifications noted or underlined in red which should be adopted.

Signed Bruce F. Waller Date 2/9/04
CF Eng
 For Jeffery and Katauskas Pty Ltd
 39 Buffalo Road, Gladsville, 2111
 Telephone : 800 7322

ISSUE	AMENDMENT	BY	DATE
-------	-----------	----	------

NOTES:

- FOR GENERAL NOTES SEE SHEET No. S01
- DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 KPa
STAIRS, LANDINGS AND BALCONIES = 4.0 KPa
- CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

ELEMENT	f'c MPa (28 DAYS)	SUMP MAX AGG SIZE	CEMENT TYPE
INTERNAL SLABS	25	80mm	A
EXTERNAL SLABS	32	80mm	A

4. COVER - UNLESS NOTED OTHERWISE

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm
	40mm	40mm

5. R - DENOTES 1-N16 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE

- A - DENOTES N12 BARS
 - B - DENOTES N16 BARS
 - C - DENOTES N20 BARS
 - D - DENOTES N24 BARS
 - E - DENOTES N28 BARS
 - F - DENOTES N32 BARS
 - G - DENOTES N36 BARS
 - H - DENOTES N50 BARS
- NUMBER - DENOTES BAR SPACING IN cm
eg. C20 DENOTES - N20 BARS AT 200mm SPACING

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FAX: 9900 1099



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ENGINEERS AUSTRALIA

ACN 004327164
ABN 78396123968

PROPOSED RESIDENCE
AT 13 BYNYA RD
WHALE BEACH NSW

Sheet No.

LEVEL 1 LAYOUT PLAN

Drawn

NJD

Approved

[Signature]

For and on behalf of W.P. Brown & Partners Pty. Ltd.

Scale

1:100@A3

Date

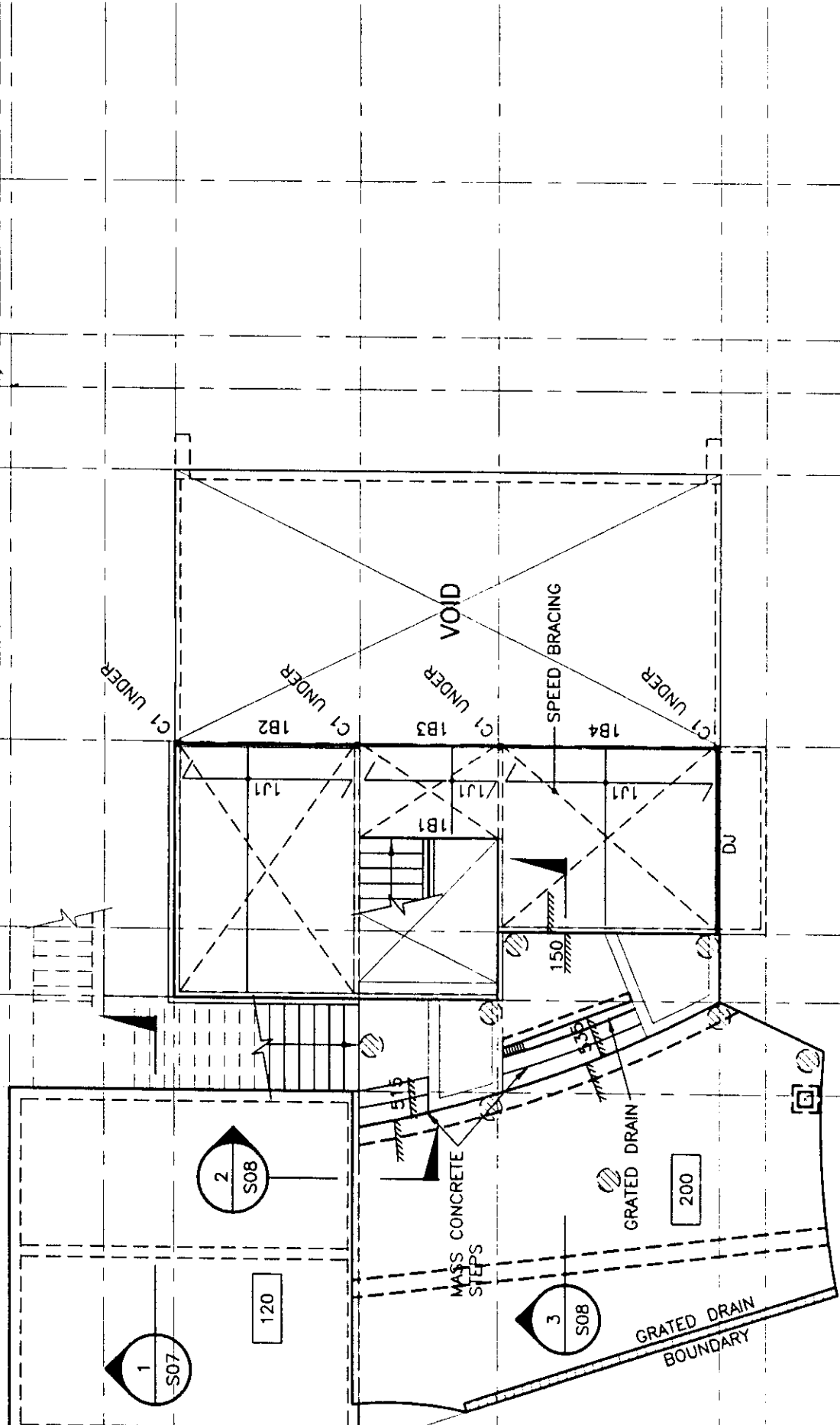
MAR '04

Sheet No.

S03

Project No.

X04034



LEVEL 1 PLAN

PROVIDE 30x0.8mm METAL STRAP WALL BRACING
TO ALL STUD WALLS

MEMBER SCHEDULE

- 1B1 ----- 240x45 HYPAN
- 1B2, 1B3, 1B4 ----- 240x63 HYPAN
- 1J1 ----- 240x45 HYPAN AT 450 CTS
- C1 ----- 90x90 F11 HW. FIX TO ADJACENT STUD

We have viewed this drawing and endorse
the recommendations given in our
Report No. 160920376 dated 2 July 2003
have been adopted in principle, except
for minor details noted or indicated
in red which should be adopted.

Signed *Bruce F. Waller* Date *2/9/04*
CFW

For Jeffery and Katuskas Pty Ltd
39 Buffalo Road, Gladstoneville, 2111
Tel: 9900 1000

AMENDMENT

ISSUE

BY

DATE

NOTES:

1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
3. STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa
4. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

ELEMENT	f _c MPa (28 DAYS)	SUMP/ MAX AGG SIZE	CEMENT TYPE
INTERNAL SLABS	25	80mm	20mm A
EXTERNAL SLABS	32	80mm	20mm A

4. COVER - UNLESS NOTED OTHERWISE

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm
	40mm	40mm

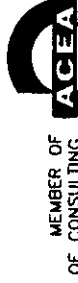
5. R - DENOTES 1-N16 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE

- A - DENOTES N12 BARS
- B - DENOTES N16 BARS
- C - DENOTES N20 BARS
- D - DENOTES N24 BARS
- E - DENOTES N28 BARS
- F - DENOTES N32 BARS
- G - DENOTES N36 BARS
- H - DENOTES N50 BARS
- NUMBER - DENOTES BAR SPACING IN CM
- eg. C20 DENOTES - N20 BARS AT 200mm SPACING

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ENGINEERS AUSTRALIA

ACN 004327164
ABN 78396123968

Project

PROPOSED RESIDENCE
AT 13 BYNYA RD
WHALE BEACH NSW

Sheet title

LEVEL 2 LAYOUT PLAN

Drawn

NJD

Approved

(For and on behalf of W P Brown & Partners Pty Ltd)

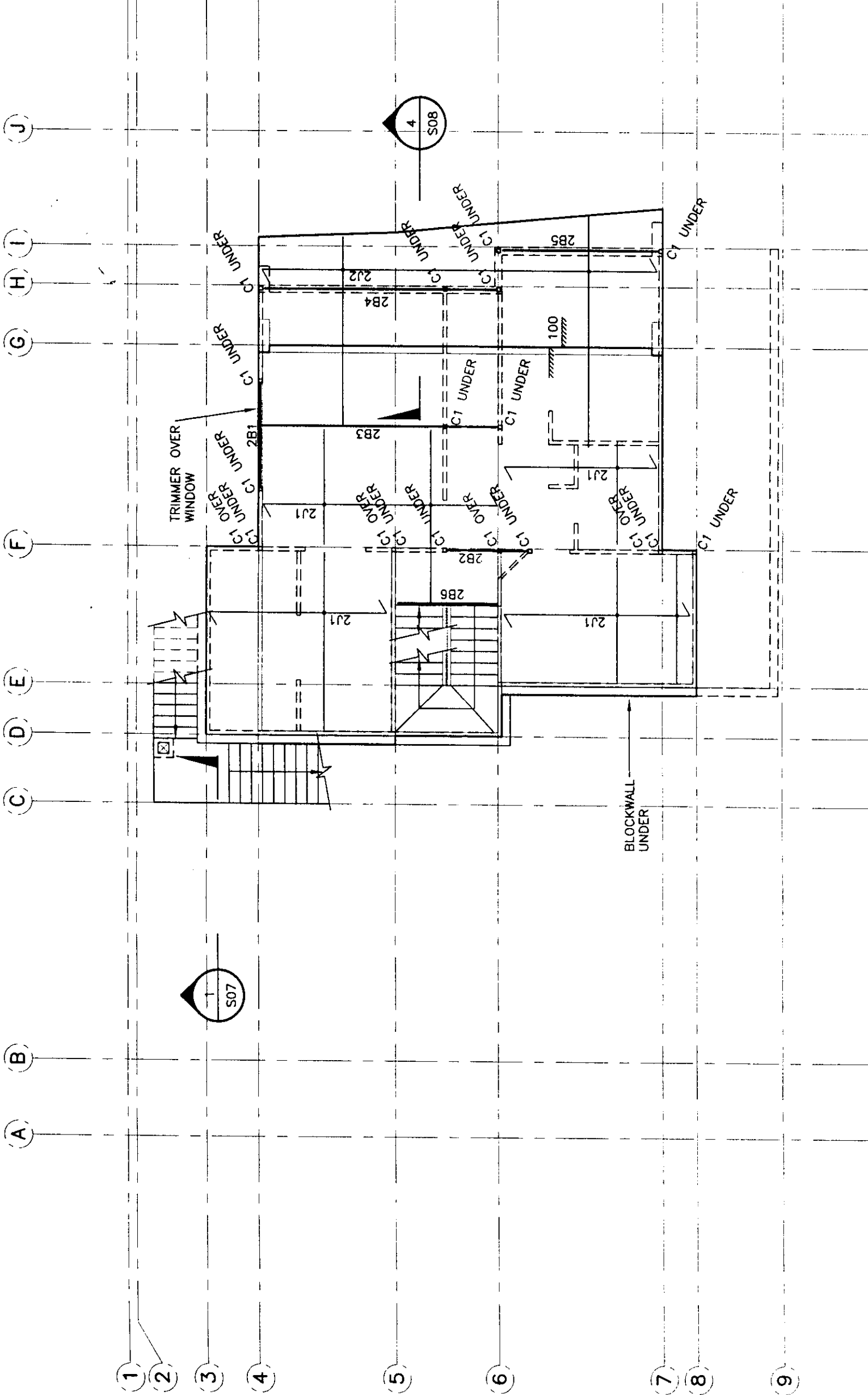
Date

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MAR '04

S04

X04034



LEVEL 2 LAYOUT PLAN

PROVIDE 30x0.8mm METAL STRAP WALL BRACING
TO ALL STUD WALLS
PROVIDE DOUBLE JOIST UNDERNEATH ALL ROOF
COLMUNS

MEMBER SCHEDULE

- 2B1, 2B2, 2B3, 2B4, 2B5 --- 2/240x63 HYPSPAN. NAIL TOGETHER
- 2B6 --- 240x45 HYPSPAN
- 2J1 --- 240x45 HYPSPAN AT 450 CTS
- 2J2 --- 360/260x45 HYPSPAN AT 450 CTS.
- C1 --- 90x90 F11 HW. FIX TO ADJACENT STUD

We have viewed this drawing and endorse
that recommendations given to our
Report No. 1602/2003 of (date) 7 July 03
have been adopted in principle, except
for modifications noted or underlined
in red which should be adopted.

Signed Bruce Flaherty Date 2/9/04
For Jeffrey and Kataras Pty Ltd
39 Buffalo Road, Gladesville, 2111
Telephone 9876 7322

01/04

DATE

BY

AMENDMENT

ISSUE

1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa
3. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

[illegible]

4. COVER -- UNLESS NOTED OTHERWISE.

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm

5. R - DENOTES 1-N18 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE

E - DENOTES N28 BARS
 F - DENOTES N32 BARS
 G - DENOTES N36 BARS
 H - DENOTES N50 BARS
 NUMBER - DENOTES BAR SPACING IN cm
 eg. C20 DENOTES - N20 BARS AT 200mm SPACING

50

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FAX. 9900 1099



MEMBER OF
OF CONSULTING

ACN 004327164
ABN 78396123968

10:00

PROPOSED RESIDENCE

AT 13 BYNYA RD

WHALE BEACH NSW

अभिज्ञान

SECTIONS SHEET 1

Approved

NJD
G. Guernsey,
(for and on behalf of W.F. Guernsey & Partners Ply. Ltd.)

Scale	Date
-------	------

1:20@A3
VAD

1.1

AMENDMENT

ENSS

1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
STAIRS, LANDINGS AND BALCONIES = 4.0 KPa
3. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

[illegible]

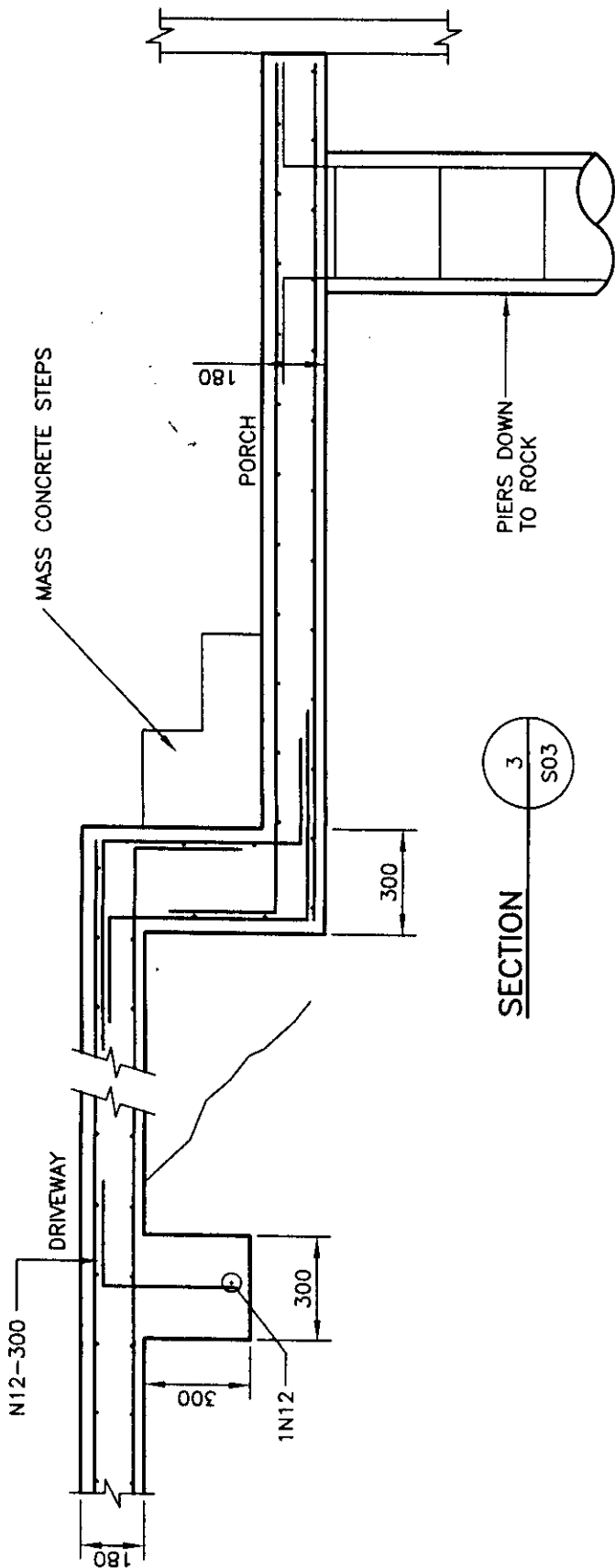
4. COVER - UNLESS NOTED OTHERWISE.

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm

5. R - DENOTES 1-N16 BAR x 1000 LONG

5. REINFORCEMENT SCHEDULE

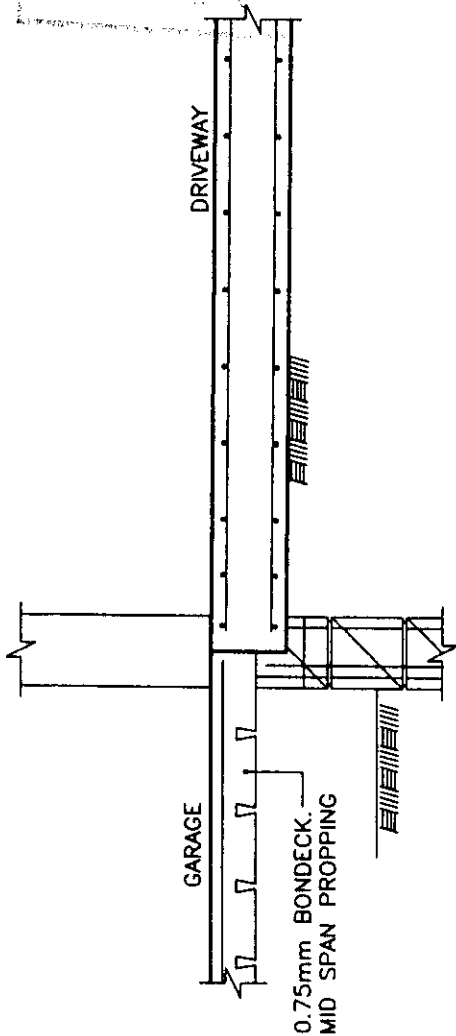
A - DENOTES N12 BARS
B - DENOTES N16 BARS
C - DENOTES N20 BARS
D - DENOTES N24 BARS
NUMBER - DENOTES BAR
eg. C20 DENOTES - N20 BARS AT 200mm SPACING



SECTION

3

503



SECTION

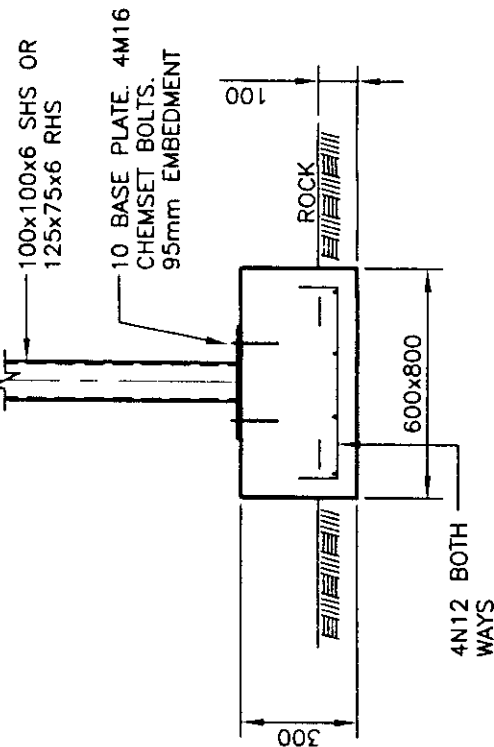
2

205

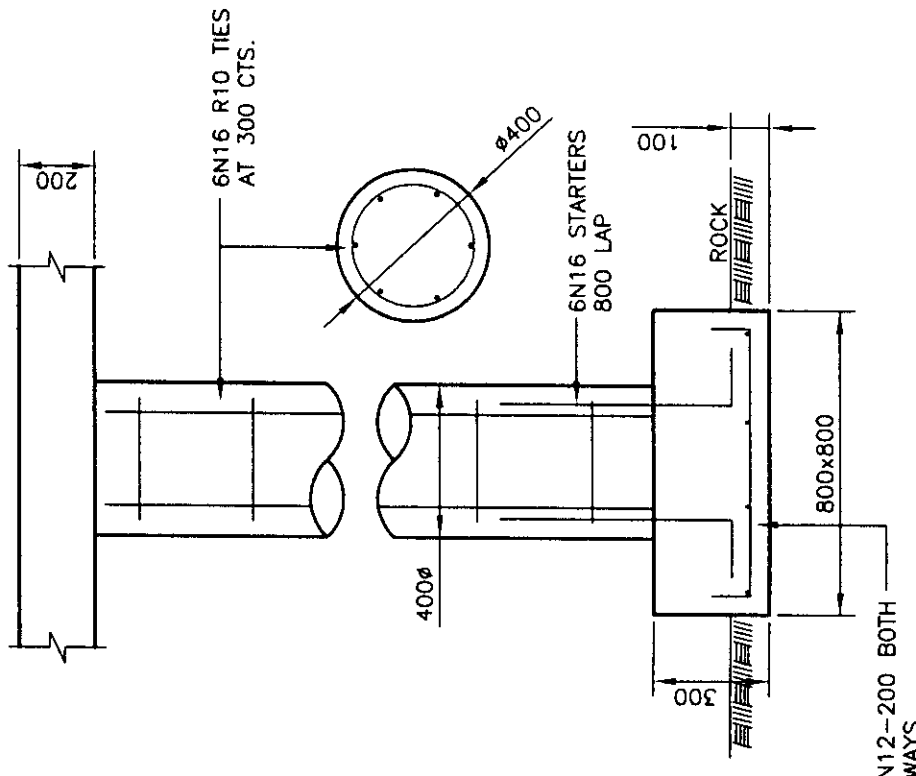
we have viewed this drawing and endorse the recommendations given in our Report No. 16090 Sept of 1946. 7 Jan have been adopted in principle, except for modifications noted or mentioned which should be adopted.

Grace F. Vetter 2/6/08

Electronika, UAB
20 Kairiai Road, Vilnius, Lithuania



TYPICAL P2 DETAIL



TYPICAL P1 DETAIL

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ENGINEERS AUSTRALIA
OF CONSULTING

ACN 004327164
ABN 78396123968

Project

PROPOSED RESIDENCE

AT 13 BYNYA RD

WHALE BEACH NSW

heel file

SECTIONS SHEET 2

UWBJ

Approved

for and on behalf of W.P. Brown & Partners, Fly, Ltd.)

note	note
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05/0

note	note
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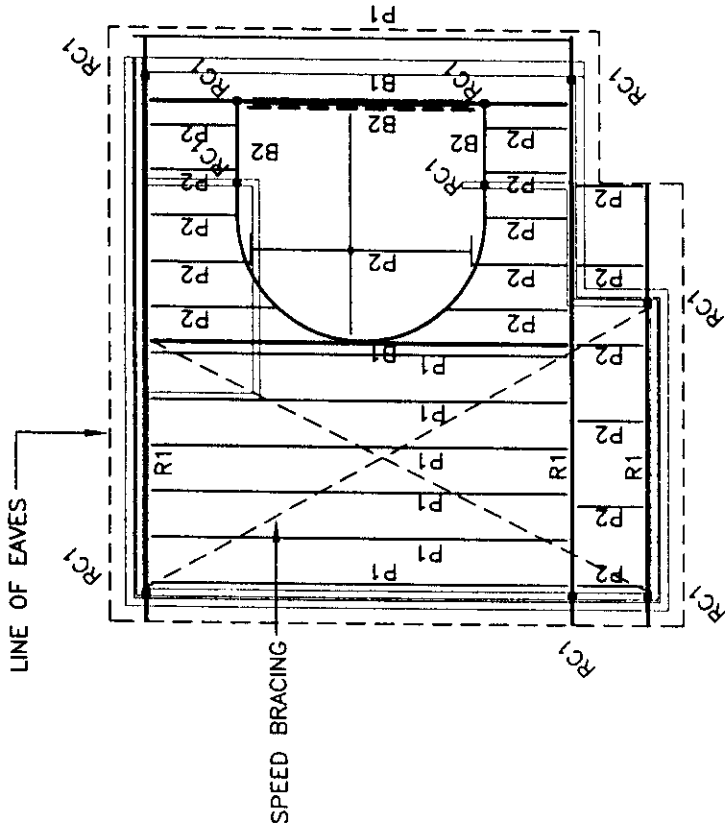
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note	
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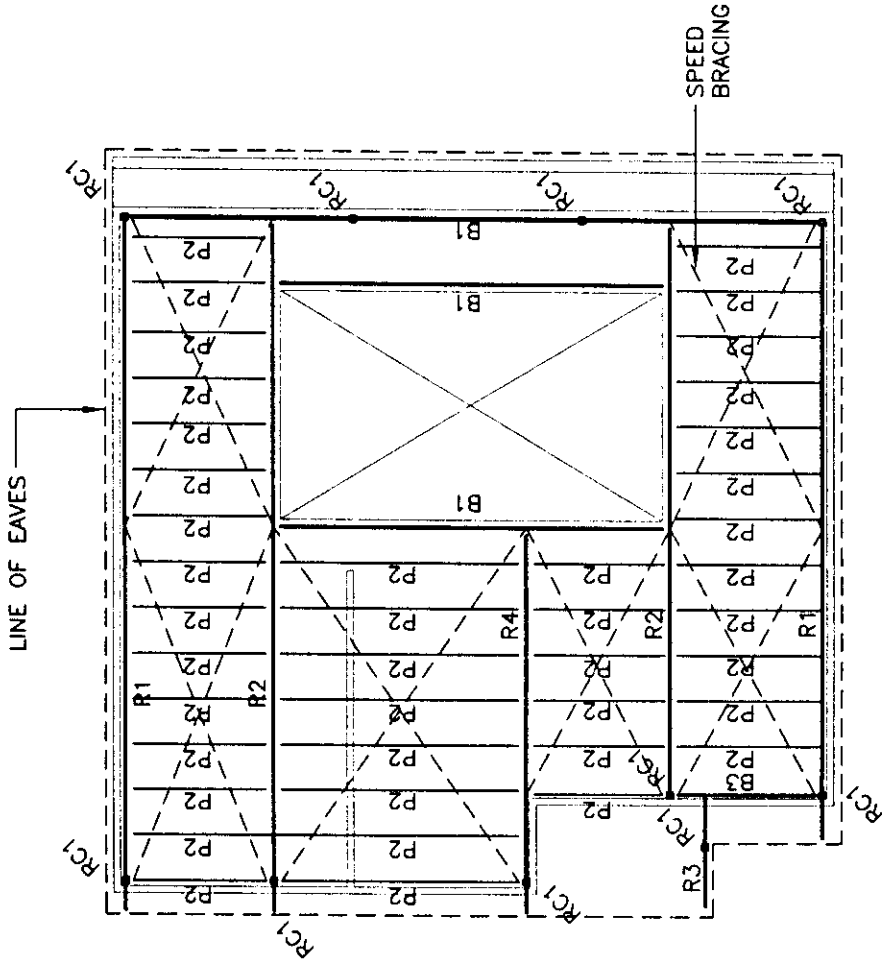
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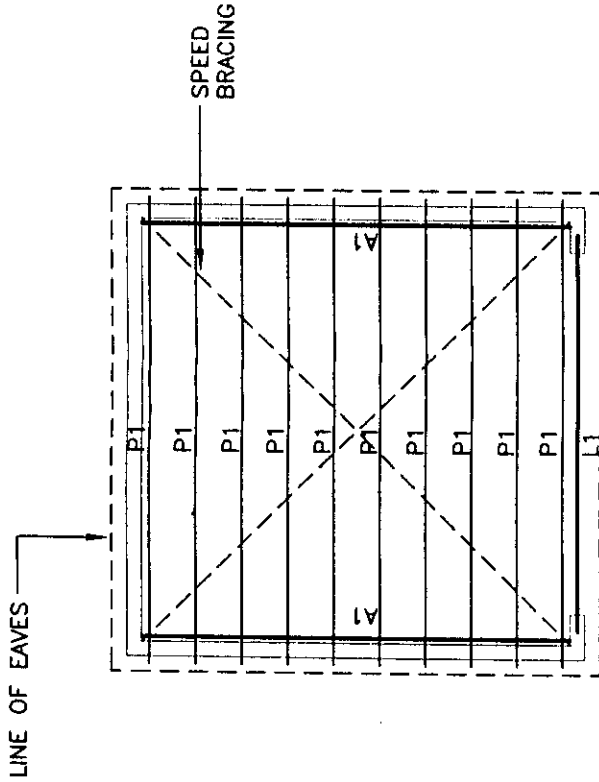
1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa



LOWER GARAGE ROOF PLAN



RESIDENCE ROOF PLAN



UPPER GARAGE ROOF PLAN

MEMBER SCHEDULE

A1	-----	150x100x10 UA (CURVED)	M12 CHEMSET AT 900 C/C 110 EMBEDMENT
B1	-----	200x75 PFC	
B2	-----	150x75 PFC (CURVED)	
B3	-----	150x75 PFC	
L1	-----	200x200x13 EA (200 END BEARING)	
P1	-----	C20019 S.S. AT 1200 C/C	
P2	-----	C15012 S.S. AT 1200 C/C	
R1	-----	230x75 PFC (CURVED)	
R2	-----	250UB37 (CURVED)	
R3	-----	150x75 PFC (CURVED)	
R4	-----	200UB18 (CURVED)	
RC1	-----	75x75x4 SHS. FIX TO ADJACENT STUD AT 600 C/C	

We have viewed this drawing and endorse the recommendations given to our client No. 16276123 of date 7 July 2003. It has been agreed in principle, except for minor details to be confirmed, that the drawings should be accepted.

Signed Bruce F. Walker Date 2/9/03

Ch Eng

Engineering and Consulting Pty Ltd

10/100, 10/100, 10/100, 10/100

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Consulting Engineers

82 WATERLOO ROAD
MACQUARIE PARK NSW 2113
TEL: 9900 1000
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ACN 004327164
ABN 78396123988

Project

PROPOSED RESIDENCE
AT 13 BYNYA RD
WHALE BEACH NSW

Sheet title

ROOF FRAMING PLANS

Drawn

NJD

Approved

[Signature]
For and on behalf of W P Brown & Partners Pty Ltd

Scale

1:100@A3

Date

MAR '04

Sheet No

S11

Job No

X04034

DATE

BY

AMENDMENT

ISSUE

NOTES:

1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa
3. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

ELEMENT	f _c MPa (28 DAYS)	SUMP MAX AGG SIZE	CEMENT TYPE
INTERNAL SLAB	32	80mm	A
RAFT SLAB	25	80mm	A
		20mm	A

4. COVER - UNLESS NOTED OTHERWISE

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm
	40mm	40mm

5. R - DENOTES 1-N16 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE

- A - DENOTES N12 BARS
B - DENOTES N16 BARS
C - DENOTES N20 BARS
D - DENOTES N24 BARS
E - DENOTES N28 BARS
F - DENOTES N32 BARS
G - DENOTES N36 BARS
H - DENOTES N40 BARS
NUMBER DENOTES BAR SPACING IN cm
eg. C20 DENOTES - N20 BARS AT 200mm SPACING

01 64

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Project

PROPOSED RESIDENCE

AT 13 BYNYA RD

WHALE BEACH NSW

Project title

LOWER GARAGE PLANS

Drawn

NJD

Scale

1:100@A3

Sheet No

S12

Set No

X04034

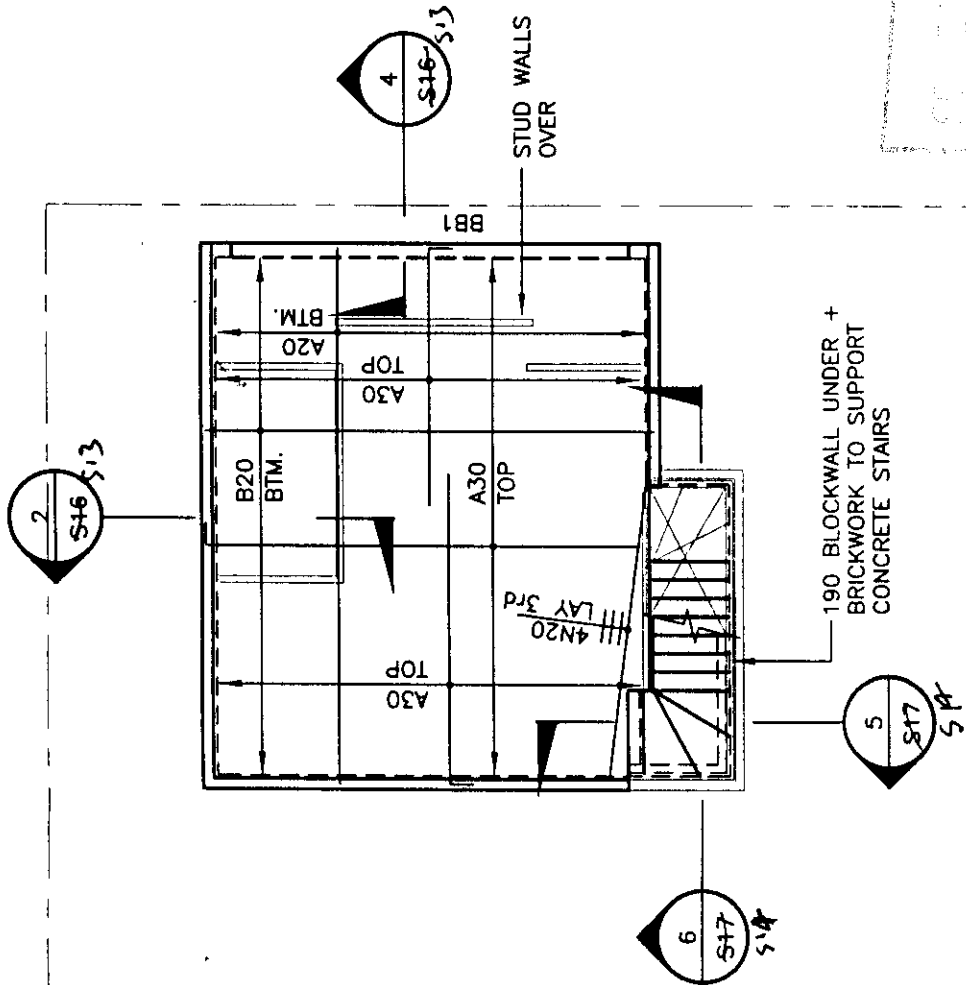
Date

MAR '04

For and on behalf of W P Brown & Partners Pty Ltd

Signature

01 64



UPPER LEVEL SLAB PLAN
220 THICK SLAB

REINFORCEMENT SHOWN THUS → LAID 1st & LAST

LOWER LEVEL SLAB PLAN
100 THICK SLAB

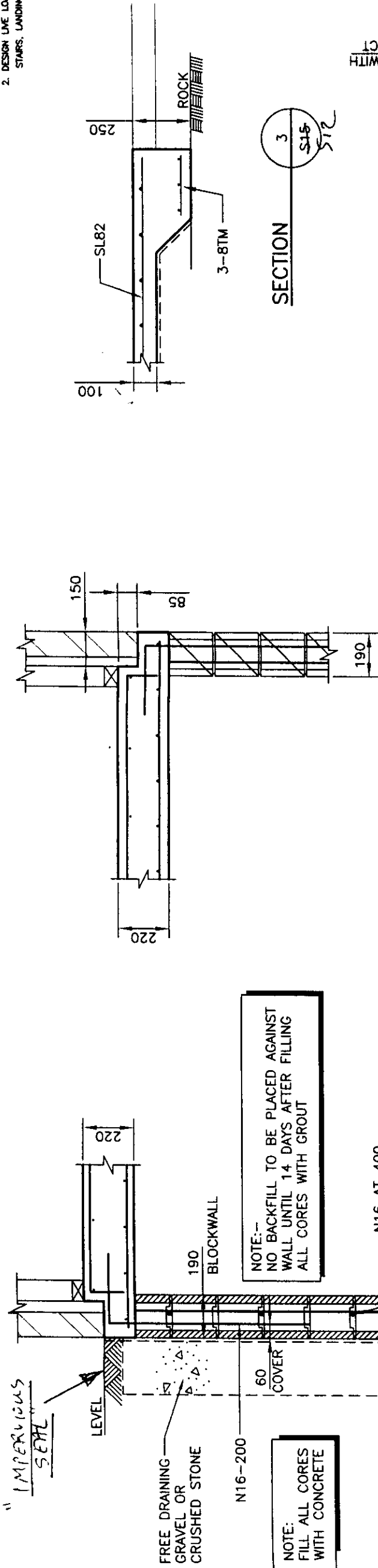
REINFORCEMENT ----- SL82 TOP THROUGHOUT

I have viewed this drawing and endorse the recommendations given in our report No. 1629003 of date 2 July 03. I have been satisfied in principle, except for provisions noted or indicated in red which should be adopted.

Signed Ernest F. J. J. J. J. Date 2/9/04
For Jeffrey and Katuskas Pty Ltd
30 Bullfinch Road, Gladesville, 2111
NSW 1585

NOTES:

1. FOR GENERAL NOTES SEE SHEET No. S01
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 KPa
STAIRS, LANDINGS AND BALCONIES = 4.0 KPa



SECTION

2
S15
S12

STABILITY OF EXCAVATED FACE
TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

SECTION
BB1

4
S15
S12

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ENGINEERS AUSTRALIA

ACN 004327164
ABN 78396123968

PROPOSED RESIDENCE
AT 13 BYNYA RD
WHALE BEACH NSW

Sheet No.

LOWER GARAGE DETAILS

Drawn
NJD

Approved
S. J. J. J.

For and on behalf of W P Brown & Partners Pty Ltd

Date
MAR '04

Scale
1:20@A3

Job No.
X04034

ISSUE
AMENDMENT
BY
DATE

Have viewed the drawing and endorse
the recommendations given, in our
report No. 16296123968 dated 7 July 03
We have adopted the principle except
for modification noted or indicated
in red which should be adopted.

Signed Bruce Fildes Date 2/9/04
For Jeffery and Katakas Pty Ltd
39 Buffalo Road, Gladesville, 2111
Telephone 9819 7322

NOTES:

1. FOR GENERAL NOTES SEE SHEET No. 1
2. DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa
3. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

ELEMENT	f _c MPa (28 DAYS)	SUMP MAX AGG SIZE	CEMENT TYPE

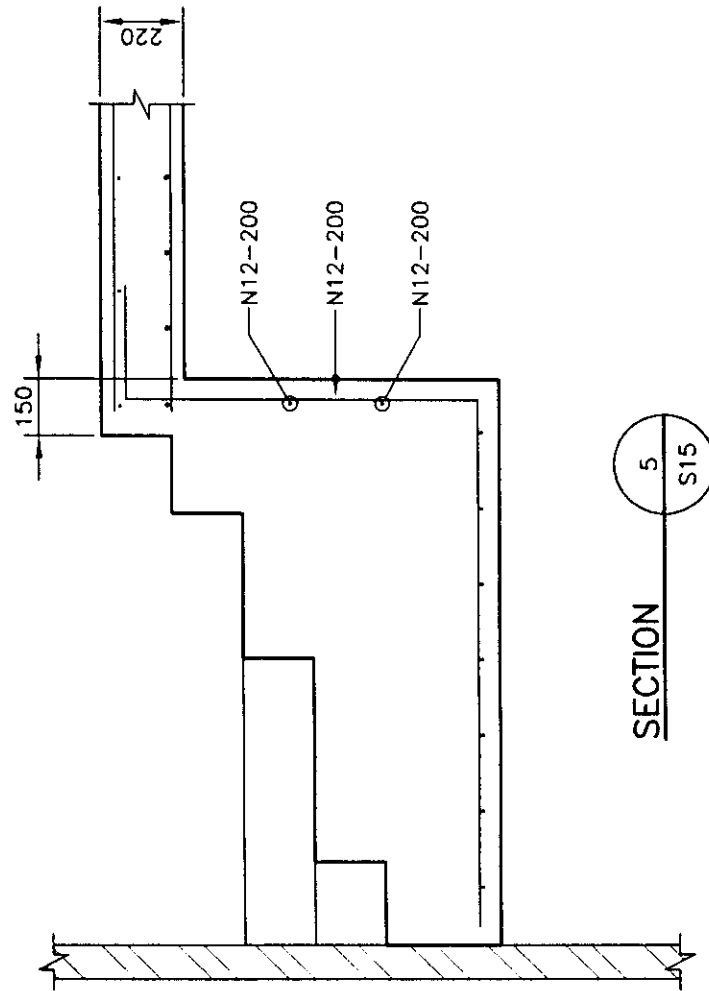
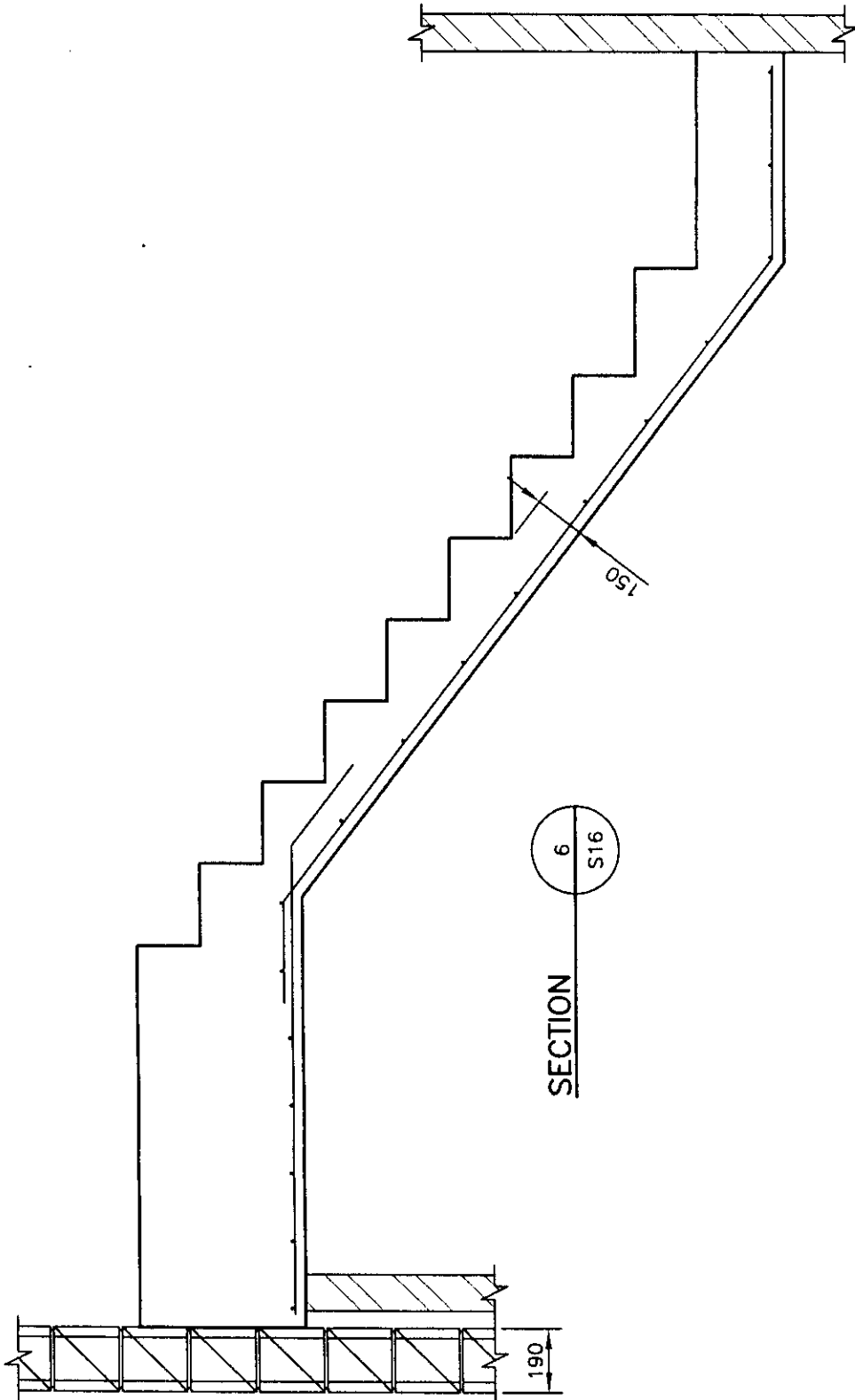
4. COVER - UNLESS NOTED OTHERWISE

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm

5. R - DENOTES 1-N16 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE

- A - DENOTES N12 BARS
B - DENOTES N16 BARS
C - DENOTES N20 BARS
D - DENOTES N24 BARS
E - DENOTES N28 BARS
F - DENOTES N32 BARS
G - DENOTES N36 BARS
H - DENOTES N50 BARS
NUMBER - DENOTES BAR SPACING IN mm
eg. C20 DENOTES - N20 BARS AT 200mm SPACING



I have viewed this drawing and certify
the information given is true
and correct to the best of my knowledge
and belief as of the date 2 July 03
and I understand that it is intended
to be used for the construction of the
works which should be adopted.

Signed Bruce H. Miller Date 2/9/04
CHD

For Jeffrey and Katerina Pty Ltd
30 Bedford Road, Chesham, NSW
2111
Tel: 9900 1000
Fax: 9900 1099

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MEMBER OF
OF CONSULTING
ACEA
THE ASSOCIATION
ENGINEERS AUSTRALIA

ACN 004327164
ABN 78396123968

PROPOSED RESIDENCE

AT 13 BYNYA RD

WHALE BEACH NSW

Sheet title

LOWER GARAGE DETAILS
SHEET 2

Drawn

NJD

Approved

[Signature]

For and on behalf of W P Brown & Partners Pty Ltd

Date

1:20

Sheet No

S14

Job No

X04034

DATE

BY

AMENDMENT

ISSUE

NOTES:

- FOR GENERAL NOTES SEE SHEET No. 1
- DESIGN LIVE LOAD FOR MAIN FLOOR = 1.5 Kpa
- STAIRS, LANDINGS AND BALCONIES = 4.0 Kpa
- CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

ELEMENT	f _c MPa (28 DAYS)	SUMP MAX AGG. SIZE	CEMENT TYPE
EXTERNAL SLABS	32	20mm	A

4. COVER - UNLESS NOTED OTHERWISE

ELEMENT	INTERIOR	EXTERIOR
FOOTINGS	50mm	
SLAB TOP	20mm	40mm
SLAB BTM	20mm	40mm
BEAM TOP	40mm	40mm
BEAM BTM	40mm	40mm
BEAM SIDE	40mm	40mm
COLUMNS	40mm	40mm

5. R - DENOTES 1-M16 BAR x 1000 LONG

6. REINFORCEMENT SCHEDULE
- A - DENOTES N12 BARS
 - B - DENOTES N16 BARS
 - C - DENOTES N20 BARS
 - D - DENOTES N24 BARS
 - E - DENOTES N28 BARS
 - F - DENOTES N32 BARS
 - G - DENOTES N36 BARS
 - H - DENOTES N50 BARS
- NUMBER - DENOTES BAR SPACING IN mm
- eg. C20 DENOTES - N20 BARS AT 200mm SPACING

01 64

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Consulting Engineers

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MACQUARIE PARK NSW 2113
TEL. 9900 1000
FAX. 9900 1099



ACN 004327164
ABN 78396123968

Project

PROPOSED RESIDENCE
AT 13 BYNYA RD
WHALE BEACH NSW

Sheet title

LEVEL 1 REINFT.PLAN

Drawn

NJD

Approved

[Signature]

For and on behalf of W P Brown & Partners Pty Ltd

Date

MAR '04

Sheet No

S15

Job No

X04034

Scale

1:100

BY

DATE

AMENDMENT

ISSUE

TOP REINFT.

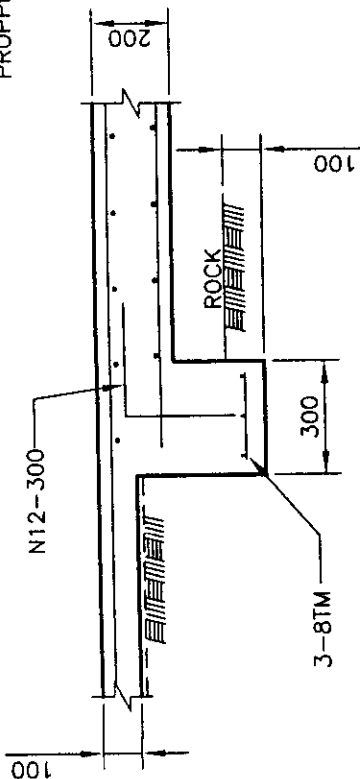
REINFORCEMENT SHOWN THUS

L A I D L A S T

LEVEL 1 DRIVEWAY/ENTRANCE SLAB PLAN
200 THICK SLAB U.N.O.

NOTES

- BK INDICATES 0.75mm BONDEK WITH MID-SPAN PROPPING FIXED TO MANUFACTURERS SPEC.



SECTION

12

BTM REINFT.

REINFORCEMENT SHOWN THUS

L A I D L A S T

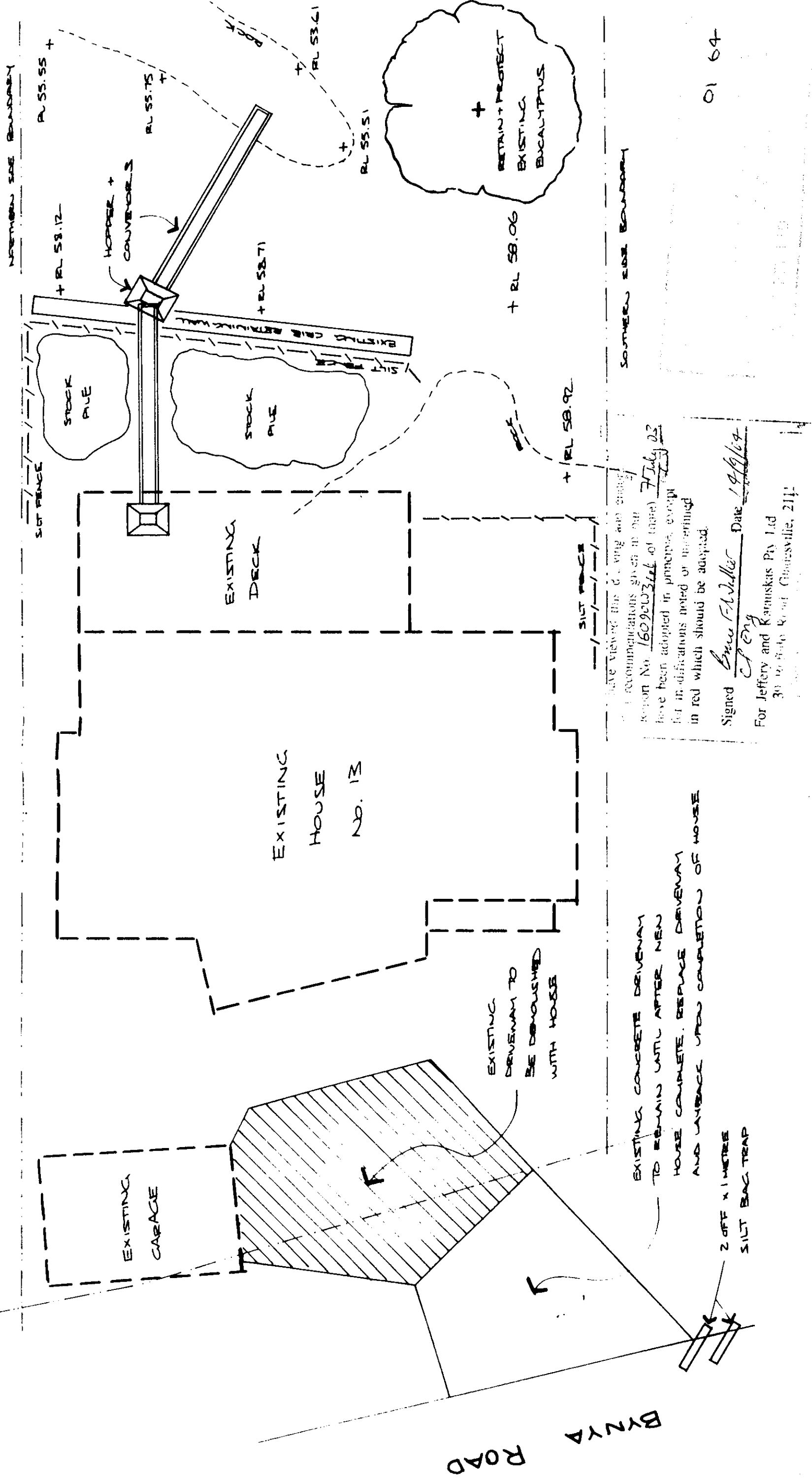
I have viewed this drawing and endorse the recommendations given in our report No. 16292/3 of 16/04/04. It is hereby applied in principle and all recommendations noted or understood and which should be adopted.

Signed Bruce Flaherty Date 2/9/04
CPEng
For Jeffrey and Katerinos Pty Ltd
13 Bynya Rd, Whale Beach, NSW 2111

9

ADJACENT HOUSE

NO. 15



01 64

Plan of Document Certification
I am a Licensed Plumber and Hydraulic Engineer
I hold the following qualification and license No
Associate Diploma Hydraulic Engineering (Plumbing) TAFE N.S.W.
Plumber License No. 46315C.
I advise that this plan has been designed to provide compliance with the NSW Department of Land and Water Conservation - Urban Erosion and Sediment Control Manual
Craig McColl Tuesday, August 16, 2004

Project: 13 Bynna Road, Whale Beach
Drawing: Soil and Water Management Plan
Drawing No: SWMP01

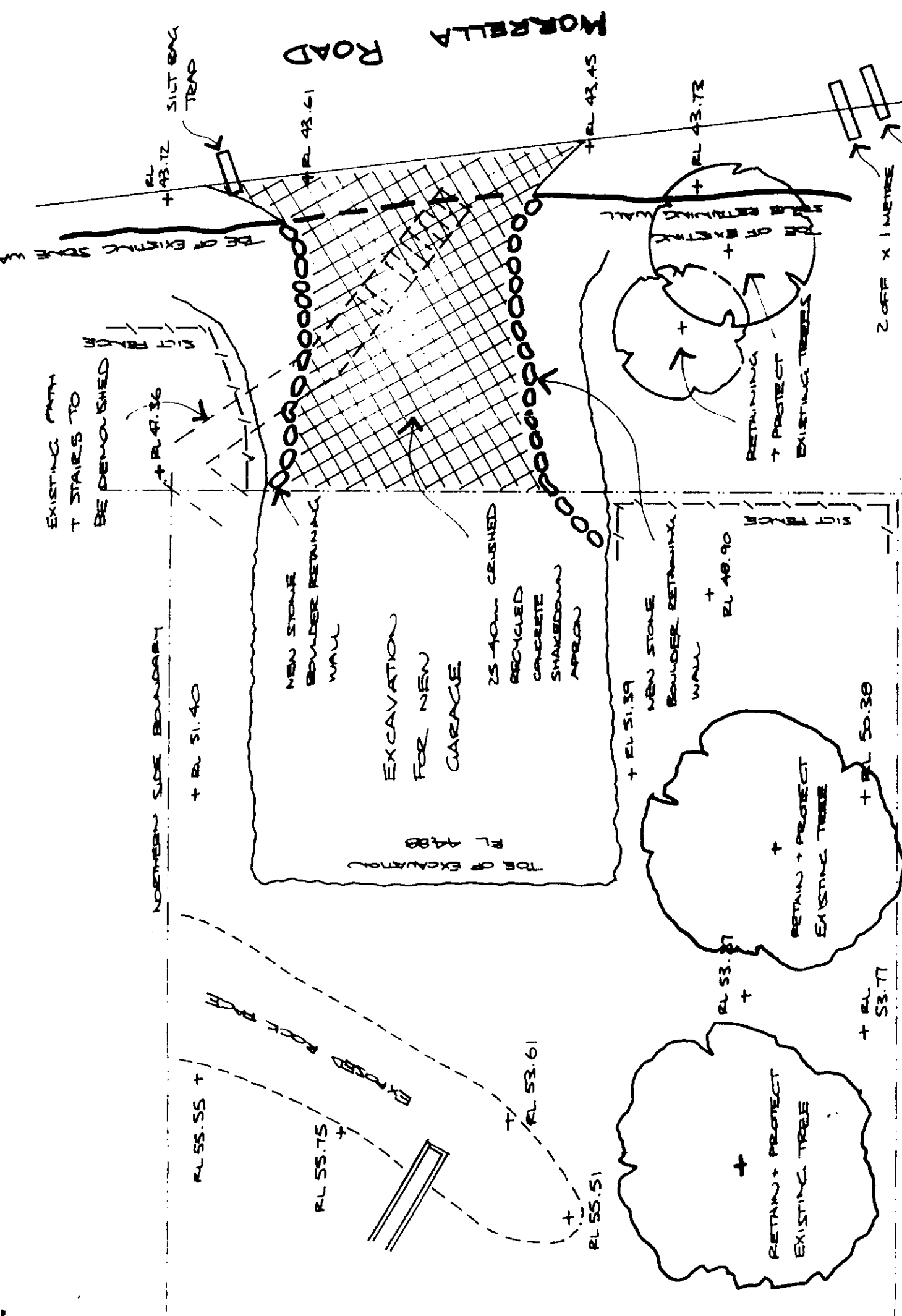
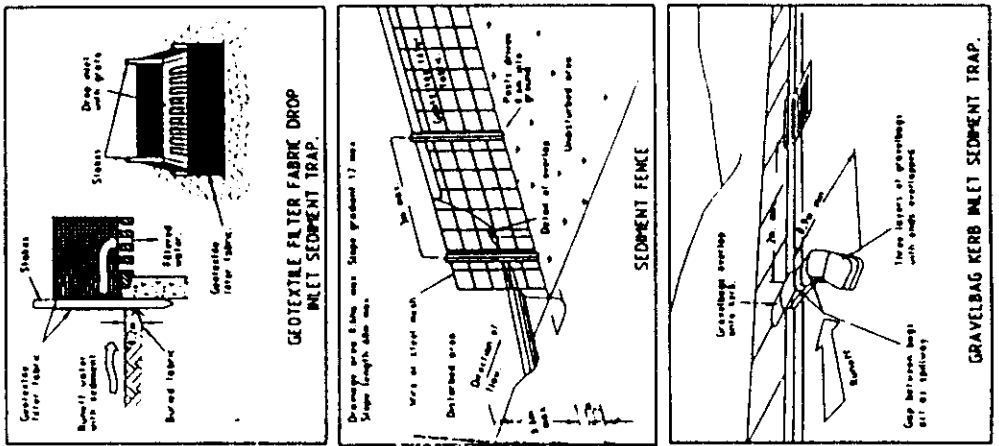
Granvista Enterprises Pty Ltd
100 Victor Road, Narraweena, NSW, 2099
Ph: 02 94017535 Fax: 02 94017545

EROSION AND SEDIMENT NOTES

- 1) ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH MANAGING URBAN STORMWATER SINKS AND CONSTRUCTION DEPARTMENT OF HOUSING
 - 2) MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
 - 3) WHEN STORMWATER PITS ARE CONSTRUCTED PREVENT SITE RUNOFF ENTERING UNLESS S&I FENCES ARE ERECTED AROUND PITS.
 - 4) MINIMIZE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.
 - 5) ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORK DAY, AND MODIFIED TO BEST SUIT CONDITIONS.
 - 6) WATER FROM UPSTREAM OF THE SITE MUST BE CONTROLLED SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.
 - 7) ALL CONSTRUCTION VEHICLES SHALL BE INSPECTED BEFORE LEAVING THE SITE.
 - 8) SOIL EROSION CONTROL WILL INVOLVE THE COLLECTION AND TREATMENT OF ALL STORMWATER RUNOFF, CONSTRUCTION AND WASHDOWN WATER PRIOR TO IT DRAINING TO THE COUNCIL'S STREET DRAINAGE SYSTEM.
- SEQUENCE OF WORKS
- THE INSTALLATION OF SOIL AND WATER MANAGEMENT FEATURES MUST BE INSTALLED IN THE FOLLOWING ORDER:
 - S1 CONSTRUCT S&I FENCES BELOW SITE AND ACROSS ALL RUNOFF AREAS.
 - S2 PROVIDE SANDBAG KERR INLET SEDIMENT TRAPS DOWNSTREAM OF THE PROPERTIES DRAINAGE OUTLETS.
 - S3 CONSTRUCT MEASURES TO DIVERT UPSTREAM FLOWS AWAY FROM SITE.

NOTE

THESE TYPICAL DETAILS ARE PROVIDED FOR THE ASSISTANCE OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR THEIR IMPLEMENTATION TO SUIT THE SITUATION OF THE WORKS AND TO COMPLY WITH THE PROVISIONS OF THE SPECIFICATION AND DIRECTIVES OF THE EPA AND/OR SUPERINTENDENT.



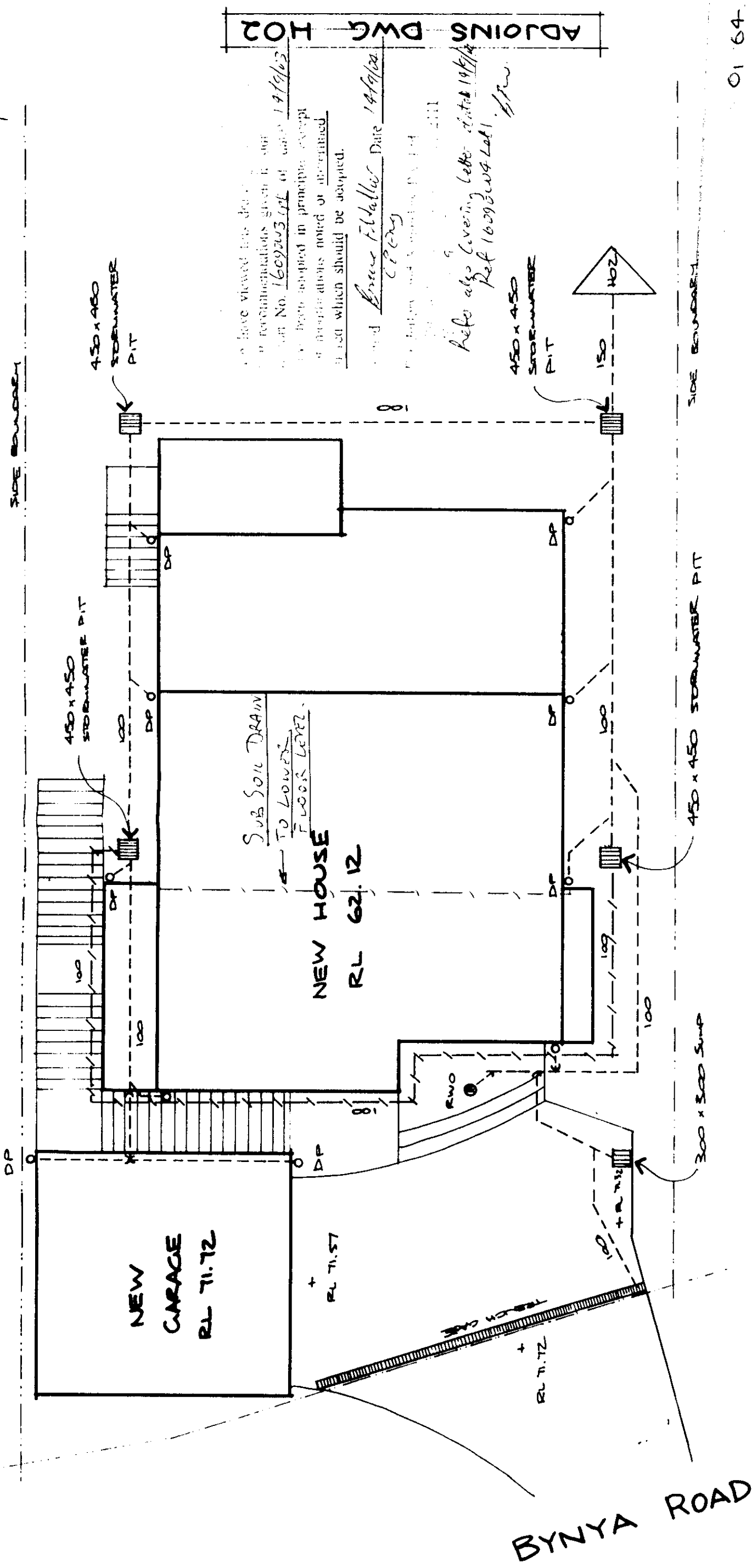
I have viewed this drawing and endorse the recommendations given in our Report No. 1609003 of (date) 7 July 03. Have been approved in principle, except for modifications noted or underlined in red which should be adopted.

Signed Bruce Flaxall Date 19/9/04
For Jeffery and Karamskas Pty Ltd
30 Bynya Road, Narrabeen, 2111
Telephone 9400 7535
Refer to 1609003 letter dated 19/9/04

Plan of Document Certification
I am a Licensed Plumber and Hydraulic Engineer.
I hold the following qualification and license No.
Associate Diploma Hydraulic Engineering (Plumbing) TAFE N.S.W.
Plumber License No. 46315C
I advise that this plan has been designed to provide compliance with the NSW Department of Land and Water Conservation - Urban Erosion and Sediment Control Manual
Craig McColl Tuesday, August 16, 2004

Project: 13 Bynya Road, Whale Beach
Drawing: Soil and Water Management Plan
Drawing No: SWMP02

Granvista Enterprises Pty Ltd
100 Victor Road, Narrabeen, NSW, 2099
Ph: 02 94017535 Fax: 02 94017545



ADJOINS DWG H02

to have viewed this drawing and to have noted the details of the stormwater drainage system and to have noted the details of the stormwater drainage system and to have noted the details of the stormwater drainage system.

Drawn: Bruce Fildall Date: 14/9/02

Checked: C.P. Day

Refer also covering letter dated 19/9/02 Ref: 1609304 Lot 1.1

KEY

- DOWNPIPE
- RAINWATER OUTLET
- STORMWATER PIT
- STORMWATER DRAINAGE
- /-/- SUB-SOIL DRAINAGE
- ▨ TRENCH GRATE

Plan of Document Certification

I am a Licensed Plumber and Hydraulic Engineer

I hold the following qualification and license No.

Associate Diploma Hydraulic Engineering (Plumbing) TAFE NSW

Plumber License No 46315C

I advise that this plan has been designed to provide compliance with AS3500 3.5.5

Craig McCall Tuesday, August 16, 2004

Project: 13 Bynya Road, Whale Beach

Drawing: Site Stormwater Drainage Plan

Drawing No: H01

Granvista Enterprises Pty Ltd

100 Victor Road, Narrabeena, NSW, 2099

Ph: 02 94017535 Fax: 02 94017545

SIDE BOUNDARY

ADJOINS DVC HOI

MORRELLA ROAD

+ RL 43.72

NEW GARAGE
RL 45.22

450 x 450
STORMWATER PIT

2 x 100 UPVC
DISCHARGE
TO KERB

+ RL 43.45

01/64

KEY

DOWNPIPE

RAINWATER OUTLET

STORMWATER PIT

STORMWATER DRAINAGE

SUB-SOIL DRAINAGE

TRENCH GATE

SIDE BOUNDARY

I have viewed this drawing and endorse
the calculations given in our
No. 1609023.72 of 10/08/03
and have adopted in principle, except
for the alterations noted on the original
to which should be adopted.

Signed Bruce Fidler Date 12/9/04
CLONG

For Jeffery and Katskas Pty Ltd
300 Wymah Road, Galesville, 2111
Tel: 02 9401 7535

Plan of Document Certification

I am a Licensed Plumber and Hydraulic Engineer
I hold the following qualification and license No.
Associate Diploma Hydraulic Engineering (Plumbing) TAFE NSW
Plumber License No. 46315C

I advise that this plan has been designed to provide compliance with AS3500 3.5.3

Craig McColl Tuesday, August 16, 2004

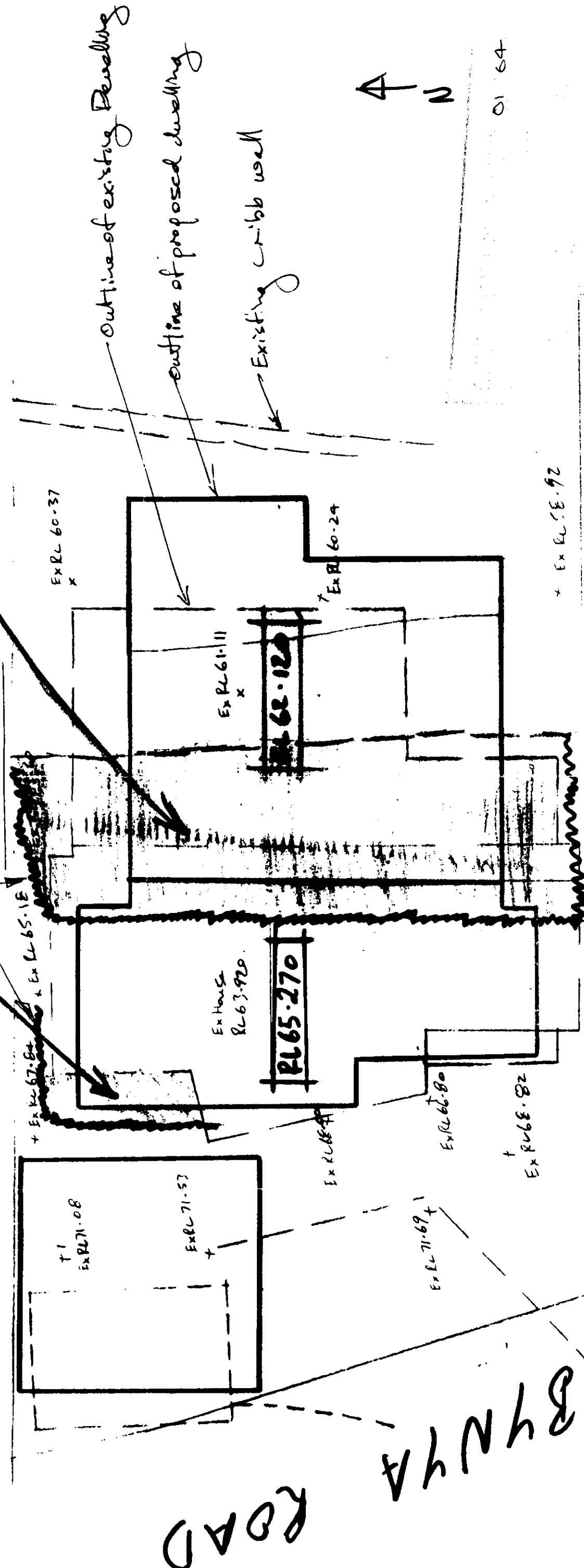
Project: 13 Bynya Road, Whale Beach
Drawing: Site Stormwater Drainage Plan
Drawing No: H02

Granvista Enterprises Pty Ltd
100 Victor Road, Narraweena, NSW, 2099
Ph: 02 94017535 Fax: 02 94017545

Ex. Dwelling.

Depth of cut 2.33mtrs

TEMPORARY BATTER / RETENTION
REQUIREMENTS TO BE CONFIRMED
FOLLOWING DEMOLITION



* Ex RL 58.92

We have viewed this drawing and endorse that recommendations given in our Report No. 16090W3 r.p.e. of (date) 17 July 03 have been adopted in principle, except for modifications noted or underlined in red which should be adopted.

Signed - Bruce F. Liller Date 18/9/04

For Jeffery and Katsikas Pty Ltd
39 Buffalo Road, Gladstone, 2111
Telephone : 9809 7322

TO BE READ IN CONJUNCTION WITH
MATHENS CONTRACTING SAFE WORK METHOD
STATEMENT DATED 1/9/04 AND
JEFFERY & KATSIKAS LETTER DATED 14/1/04

Excavation Plan 1:100
13 BYNYA ROAD
WHALE BEACH
C.M. 6-92
GRANUISTA ENT PT

Work Method Statement - Retention & Bulk Excavation			
Issue: 001 Rev 0 2002		CLIENT NAME: Granvista Enterprises Pty Ltd	
PROJECT: 13 Bynya Road, Whale Beach			
Name:	MATTHEWS CONTRACTING	WMS No:	2
Scope of Works:	Retention & Bulk Excavation	Form:	WMS-RAS
Date:	01/09/04	Client ID:	042515
Supervisor:	S Matthews	Control Measures	Implement hazard control measures
Signature:	Identify hazard and assess the risk	Has Risk Management Register been completed?	Y Yes
Job Step Break the job down into steps	Potential Hazard	Name of responsible persons that ensure control measures are implemented	N
1 Excavation We have viewed this document ^{WMS} and endorse that recommendations given in our Report No. 1609043 of (date) 7 July 03 have been adopted in principle, except for modifications noted or underlined in red which should be adopted. <i>Refer every lake 14/1/04 2/04/04 16/09/04</i> Signed <i>James Chubbler</i> Date <i>14/9/04</i> For <i>C Perry</i> Jeffery and Matuskas Pty Ltd 2111 9809 7322		Builder -Builder to establish site, erect signage and supply temporary facilities. Locate and document any contaminated material. -Builder to erect safety/boundary fences. -Builder to complete dilapidation report of adjoining property and installation of any vibration monitoring devices, where required. -Builder to identify and locate any underground services. Arrange for disconnection of any existing services, where possible, prior to excavation proceeding. -Where necessary, protect overhead electrical cables with tiger tails to ensure safety zone of 3m for excavator & trucks. -Where sillage pits or underground fuel sumps exist, these are to be emptied by the specialised contractors prior to commencement of excavation works. -Builder to set out site on profiles in preparation for bulk excavation lines.	

2	Concrete Piers	Establish working platform to level 2, Consultant Engineer's inspection	-Establish working platform to level 2 by cutting and shaping existing ground conditions, in preparation to drill test holes for inspection of ground conditions by geotechnical engineer.	Steve Matthews Jeffrey & Katauskas
3	Inspection	Consultant Engineer's inspection	-Due to angle of topography and potential slippage of ground conditions, geotechnical and structural engineers to inspect excavation or drilling works to determine retention methodology	Jeffrey & Katauskas
4	Final Design	Structural & geotechnical engineer to determine final design of retaining wall system	-Following inspection of test drilling of existing rock conditions by geotechnical engineer, information to be supplied to structural engineer and builder to determine final design of retaining wall system	Structural Engineer / Builder / Jeffrey & Katauskas / Steve Matthews
5	Excavation	Bulk Excavation Drawings	-Matthews Contracting to receive drawings for construction to define approved design methodology for piling and support of sloping topography to rear of site.	Steve Matthews
6	Retention System	Commence installation of concrete piers or structural retention system at level 2 to suit ground conditions	-Matthews Contracting to excavate local area at level 2 in preparation for drilling and placing reinforcement and concrete structural soldier piles to perimeter of excavation from level 2	Steve Matthews / Jeffrey & Katauskas
7	Concrete Piers	Commence installation of high level rock anchors and timbering to support ground conditions between piers	-Consultant engineers to determine extent and design loading for rock anchors and shotcrete wall system to be undertaken in support of the sloping topography to rear of site	Structural Engineer / Builder / Jeffrey & Katauskas
8	Staged Excavation	Cut and shape existing ground conditions in preparation for installation of timber sleepers and drainage panels between concrete piers from Level 2	-Excavation works are to be completed in stages with anchors and shotcrete wall to perimeter of excavation, in accordance with geotechnical and structural requirements	Steve Matthews
9	Rock Anchors	Supply & install temporary top anchors to retention system at	-Supply and insert timber sleepers and drainage panels to support sloping topography between concrete piers	Steve Matthews

Page 2 of 4

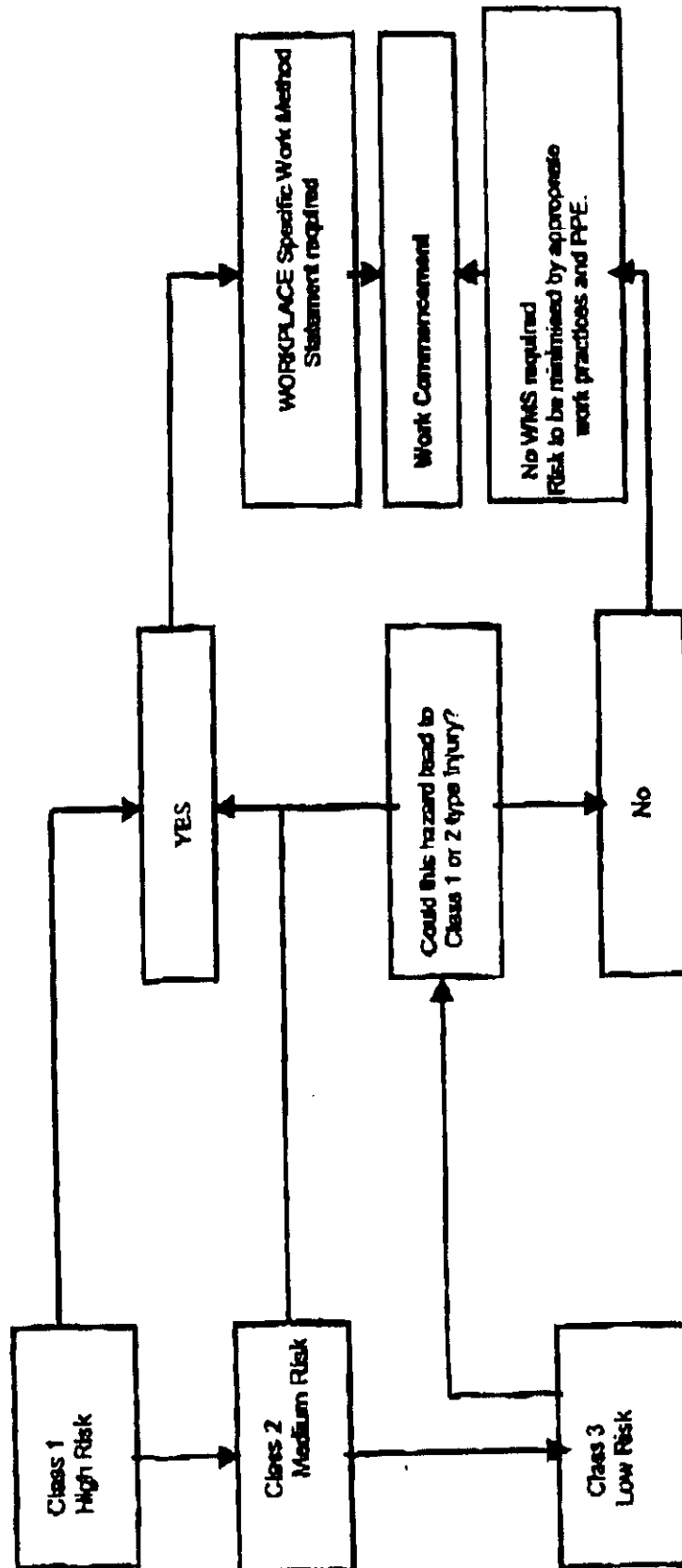
C:\Shared\Matthews Contracting Pty Ltd\Projects\1042515\1042515\WMS Bulk Exc & Retention.doc

10	Staged Excavation	High level of concrete piers Following approval of ground anchor installation proceed with staged excavation of 2.5m	-Supply and install temporary ground anchors to retain concrete piers at Stage 1 high level. -In accordance with the final structural design details, supply and install ground anchors through concrete piers to achieve required load at top of piers. -Grout anchors, cure and then load test in accordance with design requirements before any further excavation can proceed -To minimise vibration, grind perimeter excavation face, where rock conditions are found. -Using grinding attachment, cut and shape existing ground conditions between concrete piers in preparation for timber sleepers and/or shotcrete wall. -Following excavation between piers at maximum 1.8m depth, install steel reinforcement dowels to concrete piers at 300mm centres and epoxy grout into position. -Supply and install reinforcement mesh to form shotcrete wall between piers. -Inspection of reinforcement by structural engineer prior to placement by shotcrete method, in stages.	Steve Matthews / Specialised Contractor
11	Shotcrete Wall	Following staged excavation of ground conditions, prepare space between piers for shotcrete works	-In accordance with the final structural design details, supply and install ground anchors through concrete piers to achieve required load at bottom of piers. -Grout anchors, cure and then load test in accordance with design requirements before any further excavation can proceed. -Using grinding attachment, cut and shape existing ground conditions between concrete piers in preparation for timber sleepers and/or shotcrete wall. Bulk excavate general area of material in stages to suit design requirement and temporary support of retaining wall.	Builder / Vibration Consultant Steve Matthews
12	Rock Anchors	Supply & install temporary anchors to retention system at bottom of concrete piers	-Repeat staged works -Excavate, load, cure and tip rock material at nominated	Structural Engineer / Specialised Contractor
13	Staged Excavation	Following approval of ground anchor installation proceed with staged excavation of 2.5m	-Repeat staged works -Excavate, load, cure and tip rock material at nominated	Steve Matthews / Specialised Contractor
14	Repeat staged works	Repeat staged works	-Repeat staged works -Excavate, load, cure and tip rock material at nominated	Steve Matthews

Safety Work Method Statement - 1

Workplace Name:	Matthews Contracting Pty Ltd	Form SMS-1	Codes & Standards located at Office
Scope of Work:	Bulk Excavation in Rock	Supervisor:	Steve Matthews
Responsible	Responsible		Competencies:
Supervisor	Supervise safe work procedure Sign off SMS Conduct work in a safe manner Employ hygienic and sanitary practices	Safety Inspection Follow safe work procedures General good housekeeping	Industry Induction Course attendance WORKPLACE Specific Inductions Relevant Safety Team Talks
Applicable	Applicable	Y/N	Applicable
N/A	Occupational Health & Safety Act 2000 or as amended	Y	First Aid Regulation
	Occupational Health & Safety Regulation 2001	Y	Confined Space Regulation
	NOHSC Manual Handling Regulation	Y	WORKPLACE Injury Management Regulation
	NOHSC code of practice (for asbestos removal)	Y	Floors, Passages and Stairs Regulation
	COP Electrical practices	Y	WORKPLACE Substances, Transitional Regulation
	COP Hazardous Substances Regulation	Y	Asbestos Regulation
	OHS (Certificate of Competency) Regulation	Y	Building Code of Fire Detection/Protection requirement
	Standards Australia - Fire Extinguishers AS -	Y	Pest Control Regulation
	OHS Act Commencement in the WORKPLACE	Y	Factories, Shops & Industries Act: Dust
	OHS Act Notification of Accidents	N	
	Safety Alert SA 4039 fire risk "methylated spirits"		
Other applicable Code of Practice or Legislation:	Plant / Equipment	Y/N	Maintenance checks
PPE	Y/N	Y	Regular Safety Inspections
Hard hat	Y	Y	Work Activity Instruction
Protective footwear	Y	Y	All employees have been instructed in the Safe Work Method
Eye protection	Y	N	Print Name: Steve Matthews
Hearing protection	Y	Y	Signature:
Protective clothing	Y	Y	Date:
UVP Cream	Y	N	
Other:	Other:		

Issue: 001 Rev 0 2002		CLIENT ID: 042515		PROJECT:	
		Granvista Enterprises Pty Ltd		13 Bynya Road, Whala Beach	
WORKPLACE Name:		MATTHEWS CONTRACTING PTY LTD		Date: 1 September 2004	



Risk Management Form	
Issue: 001 Rev 0 2002	CLIENT ID: 042515 Granvista Enterprises Pty Ltd
PROJECT: 13 Bynya Road, Whale Beach	
Date: 1 September 2004	
WORKPLACE Name: MATTHEWS CONTRACTING PTY LTD	

Major Work Activity	Potential Hazards Identified for the Activity	Activity Risk Score	Work method statement is required for any Class 1 or 2 Risk	WMS No.	Date Produced
DISCONNECTION OR LOCATION OF STATUTORY SERVICES	PERSONNEL & PUBLIC AT RISK THROUGH DAMAGE OR CUTTING OF EXISTING SERVICES	1	Yes	By others	(Builder)
RETENTION SYSTEM	SITE PERSONNEL & PUBLIC AT RISK THROUGH ADEQUACY OF SUPPORT FOR THE EXCAVATED FACE	2	Yes	002	01/09/04
EXCAVATION	SITE PERSONNEL AND PUBLIC AT RISK THROUGH USE OF MAJOR PLANT WHEN EXCAVATING THE SITE. MAINTENANCE OF TEMPORARY RETENTION BARRIERS AROUND VOID AREAS TO PREVENT PUBLIC RISK	2	Yes	002	01/09/04

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

Development Application for NICK BRITTON
 Name of Applicant
 Address of site 13 BYNYA ROAD, WHALE BEACH

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

I, WILLIAMS on behalf of W.P. Brown & Partners
 (insert name) (trading or company name)

on this the 15.9.2004
 (date)

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

Geotechnical Report Details:

Report Title: REVISED REPORT TO GLENDINNIN MINTO & ASSOC. ON
 Report Date: 7 July 03 GEOTECHNICAL INVESTIGATION & STABILITY
 Author: B.F. Walker ASSESSMENT 13 BYNYA RD WHALE BEACH

Structural Documents list:

ENG NO X04034, SHEETS S01 - S15 incl. DATED MAR'04.

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

WILLIAMS
 (name)

[Signature]
 (signature)

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

I prepared and/or technically verified the abovementioned Geotechnical Report as per Form 1 dated 7/7/03 and now certify that I have viewed the above listed structural documents prepared for the same development. I am satisfied that the recommendations given in the Geotechnical Report have been appropriate taken into account by the structural engineer in the preparation of these structural documents. * I am aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature
 Name B.F. WALKER
 Chartered Professional Status CPEng FIE Aust
 Membership No. 199312

on behalf of Jeffery & Katsoulas
Phys Ltd.

Dated 2/9/04

Refer also Covering Letter dated 14 September 2003
Ref 1609004 Let 1.

WITH AMENDMENTS
AS NOTED ON STAMPED
COPY.

As Assessed by Structural
ENGINEER IN ACCORDANCE
WITH AS 3600

Issue: 001 Rev 0 2002		CLIENT NAME: Granvista Enterprises Pty Ltd		PROJECT: 13 Byma Road, Whale Beach	
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Name:	MATTHEWS CONTRACTING		WMS No:	2	Has Risk Management Register been completed?	Y	N
Scope of Works:	Retention & Bulk Excavation		Form:	WMS-RAS		Yes	
Date:	01/09/04						
Supervisor:	S Matthews						
Signature:			Client ID:	042515	Control Measures Implement hazard control measures		Name of responsible persons that ensures control measures are implemented
Job Step Break the job down into steps	Potential Hazard Identify hazard and assess the risk						

1	Excavation	Preparation for Bulk Excavation	-Builder to establish site, erect signage and supply temporary facilities. Locate and document any contaminated material. -Builder to erect safety/boundary fences. -Builder to complete dilapidation report of adjoining property and installation of any vibration monitoring devices, where required. -Builder to identify and locate any underground services. Arrange for disconnection of any existing services, where possible, prior to excavation proceeding. -Where necessary, protect overhead electrical cables with tiger tails to ensure safety zone of 3m for excavator & trucks. -Where sillage pits or underground fuel sumps exist, these are to be emptied by the specialised contractors prior to commencement of excavation works. -Builder to set out site on profiles in preparation for bulk excavation lines.	Builder
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64 10

2	Concrete Piers	Establish working platform to level 2,	-Establish working platform to level 2 by cutting and shaping existing ground conditions, in preparation to drill test holes for inspection of ground conditions by geotechnical engineer.	Steve Matthews Jeffrey & Katauskas
3	Inspection	Consultant Engineer's inspection	-Due to angle of topography and potential slippage of ground conditions, geotechnical and structural engineers to inspect excavation or drilling works to determine retention methodology	Jeffrey & Katauskas
4	Final Design	Structural & geotechnical engineer to determine final design of retaining wall system	-Following inspection of test drilling of existing rock conditions by geotechnical engineer, information to be supplied to structural engineer and builder to determine final design of retaining wall system	Structural Engineer / Builder / Jeffrey & Katauskas / Steve Matthews
5	Excavation	Bulk Excavation Drawings	-Matthews Contracting to receive drawings for construction to define approved design methodology for piling and support of sloping topography to rear of site.	Steve Matthews
6	Retention System	Commence installation of concrete piers or structural retention system at level 2 to suit ground conditions	-Matthews Contracting to excavate local area at level 2 in preparation for drilling and placing reinforcement and concrete structural soldier piles to perimeter of excavation from level 2	Steve Matthews / Jeffrey & Katauskas
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13	Staged Excavation	Following approval of ground anchor installation proceed with staged excavation of 2.5m	-Using grinding attachment, cut and shape existing ground conditions between concrete piers in preparation for timber sleepers and/or shotcrete wall. Bulk excavate general area of material in stages to suit design requirement and temporary support of retaining wall.	Steve Matthews / Specialised Contractor
14	Repeat staged works	Repeat staged works	-Repeat staged works -Excavate, load, cant and tip rock material at nominated	Steve Matthews

15	as noted above until completion	Detailed Excavation	landfill site.	Steve Matthews
	Excavation		-Following bulk excavation to nominated level, bulker to set out for footings, or piers, as necessary. -Proceed to excavate strip or pad footings as directed. If in rock conditions, rock sawing may be required to minimise over break and vibration affects. -Excavate, load, cart and tip rock at nominated landfill site, or reuse on site as directed.	

Reviewed by:

20

We the undersigned have been Inducted in the safe work procedures and understand the listed Work Method Statement.

[illegible]

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Page 1 of 4

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MATTHEWS CONTRACTING

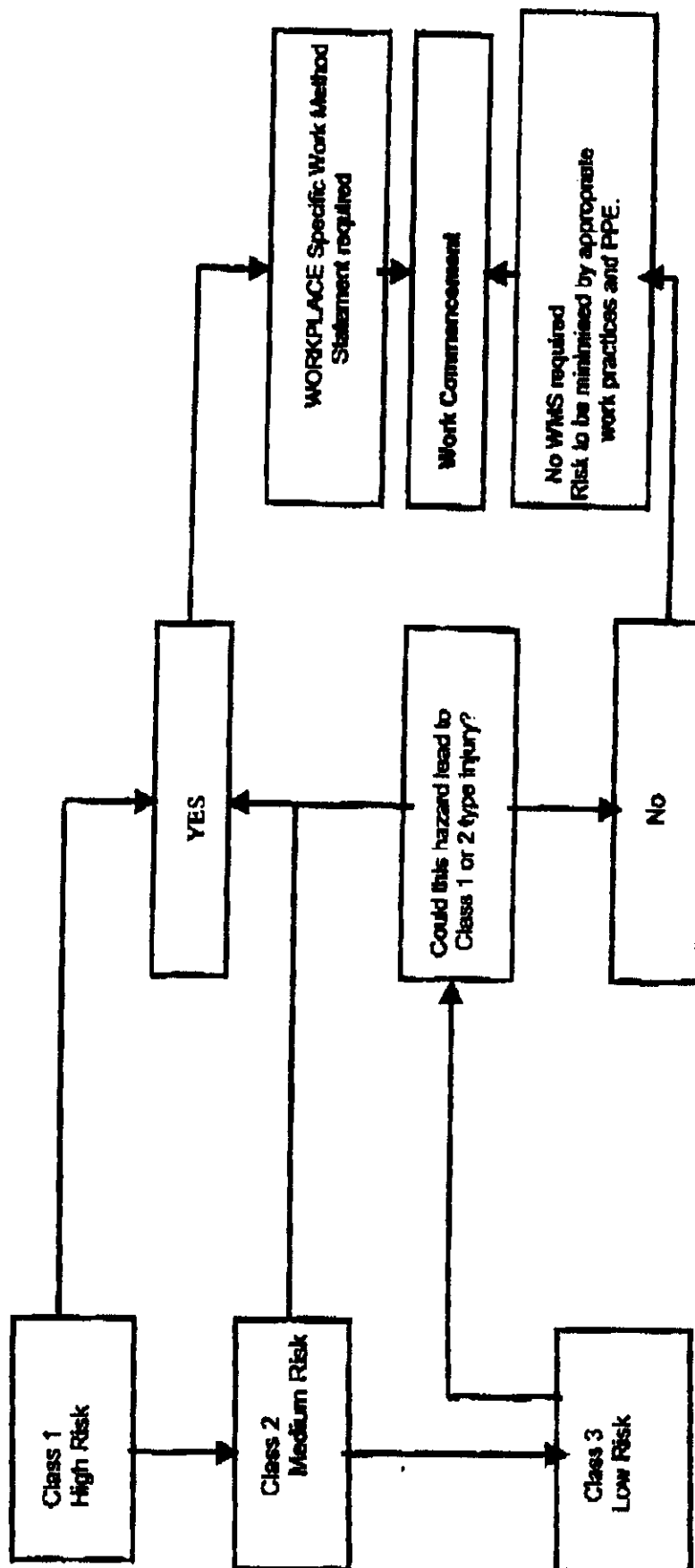
1-SEP-04 WED 17:17

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Safety Work Method Statement -1

Workplace Name:	Mathews Contracting Pty Ltd	Form SWMS-1	Codes & Standards located at Office
Scope of Work:	Bulk Excavation in Rock	Supervisor:	Steve Mathews
Personnel	Responsibilities		Competencies
Supervisor	Supervise safe work procedure Sign off WMS Conduct work in a safe manner Employ hygienic and sanitary practices	Safety Inspection Follow safe work procedures General good housekeeping	Industry Induction Course attendance WORKPLACE Specific Inductions Relevant Safety Team Talks
Engineering Details		Codes of Practice (Legislation)	
N/A	Applicable	Y/N	Applicable
	Occupational Health & Safety Act 2000 or as amended	Y	First Aid Regulation
	Occupational Health & Safety Regulation 2001	Y	Confined Space Regulation
	NOHSC Manual Handling Regulation	Y	WORKPLACE Injury Management Regulation
	NOHSC code of practice (for asbestos removal)	Y	Floors, Passages and Stairs Regulation
	COP Electrical practices	Y	Cardiogenic Substances Transitional Regulation
	COP Hazardous Substances Regulation	Y	Notes Regulation
	OHS (Certificate of Competency) Regulation	Y	Building Code: Fire Detection/Protection requirement
	Standards Australia - Fire Extinguishers AS -	Y	Pest Control Regulation
	OHS Act Committees in the WORKPLACE	Y	Factories, Shops & Industries Act: Dist
	OHS Act Notification of Accidents	Y	
	Safety Alert SA 4038 fire risk 'methylnated spirits'	N	
Other applicable Code of Practice or Legislation:			
PPE	Y/N	Plant / Equipment	Y/N
Hard hat	Y	Truck	Y
Protective footwear	Y	Excavator	Y
Eyes protection	Y	Hand Trolley	N
Hearing protection	Y	Specific Tools	Y
Protective clothing	Y	Specific Containers	Y
UNP Cream	Y	Specific Waste Disposal Unit	N
Other:		Other:	
		Maintenance checks	Work Activity Instruction
		Regular Safety Inspections	All employees have been instructed
			In the Safe Work Method
			Print Name: Steve Mathews
			Signature:
			Date:

Issue: 001 Rev 0 2002		CLIENT ID: 042515		PROJECT:	
		Granvista Enterprises Pty Ltd		13 Bynya Road, Whale Beach	
WORKPLACE Name:		MATTHEWS CONTRACTING PTY LTD		Date: 1 September 2004	

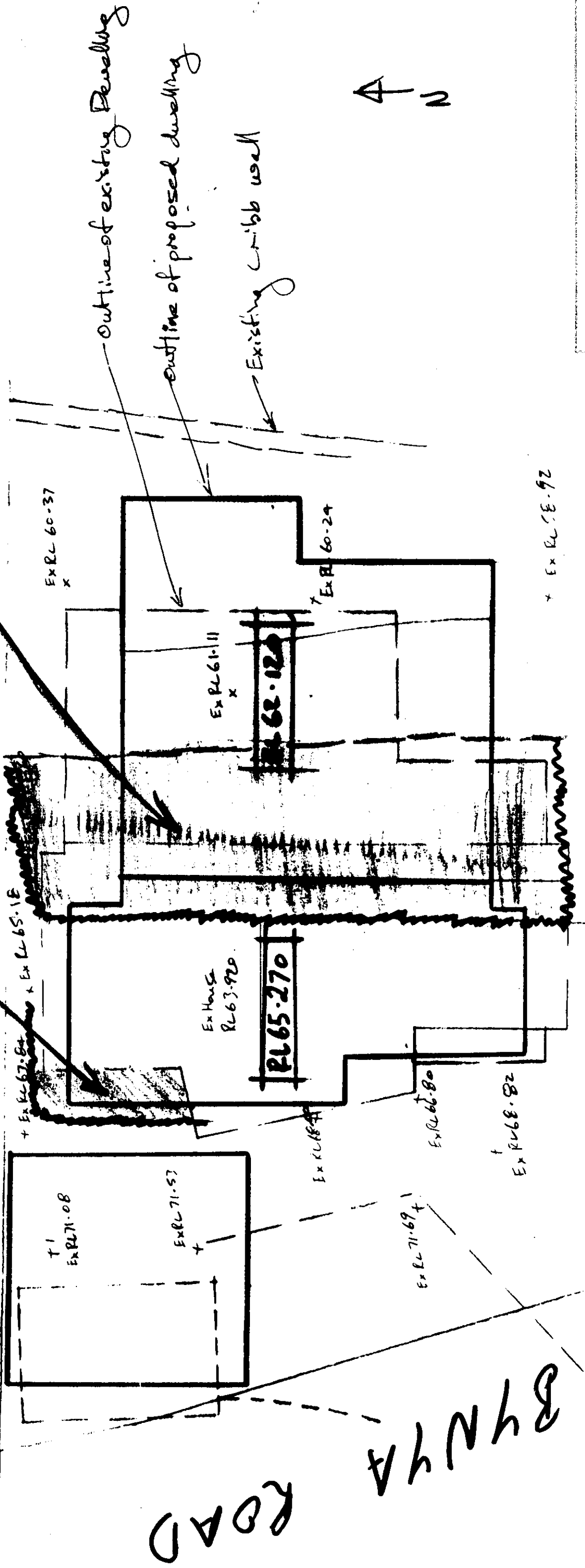


Risk Management Form	
Issue: 001 Rev 0 2002	CLIENT ID: 042515 Granvista Enterprises Pty Ltd
PROJECT: 13 Bynya Road, Whale Beach	
WORKPLACE Name: MATTHEWS CONTRACTING PTY LTD	Date: 1 September 2004

Major Work Activity	Potential Hazards Identified for the Activity	Activity Risk Score	Work method statement is required for any Class 1 or 2 Risk	WHS No.	Date Produced
DISCONNECTION OR LOCATION OF STATUTORY SERVICES	PERSONNEL & PUBLIC AT RISK THROUGH DAMAGE OR CUTTING OF EXISTING SERVICES	1	Yes	By others	(Builder)
RETENTION SYSTEM	SITE PERSONNEL & PUBLIC AT RISK THROUGH ADEQUACY OF SUPPORT FOR THE EXCAVATED FACE.	2	Yes	002	01/09/04
EXCAVATION	SITE PERSONNEL AND PUBLIC AT RISK THROUGH USE OF MAJOR PLANT WHEN EXCAVATING THE SITE. MAINTENANCE OF TEMPORARY RETENTION BARRIERS AROUND VOID AREAS TO PREVENT PUBLIC RISK.	2	Yes	002	01/09/04

Ex. Dwelling.

Depth of cut 2.33 meters



01 64

Excavation Plan
13 BYNYA ROAD
WHALE BEACH
CM 6-92
GRANUISTA ENT

GENERAL SPECIFICATION

of

Work to be done and materials to be used in the erection and completion of

CONSTRUCTION OF A NEW RESIDENCE

AT: 13 Bynya Road, Whale Beach

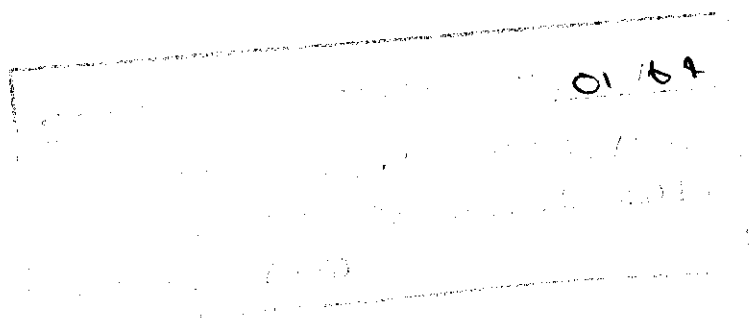
FOR: Mr & Mrs N Brittan

DATE: 23 April 2004

JOB NO. 2595/00

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1. GENERAL

Standard of Work

All work shall be carried out and completed to comply with the appropriate construction standards and the local government act (as amended).

Regulations and Notices

The contractor is to comply with Local Government (approvals) Regulation 1993 (as amended) or the Building Code of Australia; the requirements of legally constituted authorities for local government and/or for services; and the provisions of the building services corporation act, 1989. The contractor is to give all notices, obtain all permits and pay all fees required by such authorities.

Insurance

Insurance cover of the works against risks for fire, theft, malicious damage and materials on site are to be effected by the contractor at the contractor's expense. The contractor shall also at his expense adequately insure public liability and arrange worker's compensation cover in respect of any liability under the Worker's Compensation Act of New South Wales.

Labour and Materials

The contractor is to provide all labour and materials to construct and complete the building to the stage as specified in the contract documents. Materials to be of the standards specified. Workmanship in each trade to be performed by tradespeople of that particular trade and in conformity with accepted building practice.

Plans and specifications

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

Temporary toilet

The contractor shall provide temporary toilet accommodation for the workmen. Where the authority requires the temporary toilet to be connected to sewer mains, the additional cost plus contractor's margin of such shall be borne by the owner.

Setting out

The contractor is to ensure the building is set out in accordance with the site plan and within the boundaries of the site.

Electricity

The contractor is to make arrangements for any electric power to be used in the erection of the works and is to pay fees and costs incurred therein. Should additional poles, wiring, service risers or underground wiring etc., be required by the electricity supply authority, this additional cost plus contractor's margin shall be borne by the owner.

Water

The contractor is to allow for connecting water to the proposed building and fittings as set out in 9. Plumber – Water Services

Prime Cost Items

The prime cost items listed in part 20 of this specification are contractor's cost prices, they do not include

contractor's margin, cost of cartage and freight. Should any of these items not be required, refund will be made at the listed price in the contract.

Items Supplied by Owner

For all items referred to in the specification to be supplied by the Owner, it is the responsibility of the Owner to arrange payment for delivery of and protection against damage and theft of all these items. Delivery is to be made when requested by the contractor to the site. If not available when required, the Owner shall be obliged to make an alternative selection.

Sizes

Where sizes are shown throughout this specification those sizes are nominal only.

2. EXCAVATOR

Site

At the owner's expense clear the building site and grub all stumps, roots, etc. to a minimum distance of 2 metres outside the building or to the boundaries of the allotment, whichever is the less. Fill any depressions within the area covered by the building.

Trenches

Excavate for all footings for walls, piers, etc. If it is necessary to excavate deeper than 450mm to secure solid bottoms and even bearing throughout, the additional cost plus contractor's margin shall be borne by the Owner.

Rock or shale

Excavation in rock and/or removal from site will be an extra charge to the owner at the cost plus contractor's margin.

Removal of Excavated Material

Cost of removal plus contractor's margin of excavated soil from site, if necessary, is to be borne by the owner.

Compaction

When cut and fill operations are undertaken on a sloping block, compaction of fill must be to the satisfaction of a qualified Civil Engineer or Geotechnical Engineer. (alternatively, the Engineer when designing the foundation system, may decide to pier through the compacted fill to natural ground).

Levels

When cut and fill operations or any site preparation is undertaken, the required finished ground levels should be shown on the plan and these levels adhered to in practice. The contractor should provide the excavator with a clearly defined (starting point) from which the relative levels can be determined. These levels should not deviate by more than, plus or minus, 50mm over the whole site.

Batters

When excavating a site, the excavator should batter all unrestrained changes in ground level to an angle that will ensure stability under normal climatic conditions and will avoid the collapse of fill on to the building site or cause damage to an adjoining property.

Access drives

When undertaking site preparation the excavator should cut in the access drive, should same be necessary due to the contours of the site, at an angle which will satisfy local council requirements.

3. DRAINER

Sewered areas - AS3500.2 1990, NSW Code of Practice

Provide a drainage system from pedestal pan and from wastes of all fittings and connect to the sewer main, all to be in accordance with the rules and requirements of the authority for water supply and sewerage. Provide at least one gully outside the building. The relevant authority's approval to be obtained at completion of the work and certified accordingly. All work to be performed by a licensed plumber and drainer.

Septic System - AS3000.2, NSW Code of Practice (section 3)

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

Stormwater Drains - AS3500.3, NSW Code of Practice

Allow for the supplying and laying of storm water drains where shown on site plan. Drains to be 100mm socketed vitrified clay pipes or 90mm pvc pipes laid to an even and regular fall so as to have a minimum cover of 150mm. Drains to discharge into street gutter where possible.

Where outlets are shown within the site they are to discharge at least 3000mm clear of the building into a rubble packed sump or alternatively to the authority's requirements as a variation, any additional cost plus contractor's margin, is to be borne by the owner.

Mines Subsidence

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

Surface water and sub soil water

Cost of disposal of surface water or sub soil water, if necessary, is to be borne by the Owner as a variation.

Site Drainage

The contractor must ensure that suitable site drainage either in the form of run off trenches or subterranean drainage lines, properly installed, are provided in order to prevent entry of water into the building or affect the stability of the building or remove excess water from the site to avoid build up under the house foundations or ponding of water on the surface.

4. CONCRETOR

General - AS3600

All concrete to be ready mixed from an approved supplier at a minimum 20mpa for concrete in footings, 15mpa may be permitted elsewhere in pier or bulk pour but always subject to engineer's specification.

Footings - AS2870

Provide concrete footings in accordance with engineer's details, local authorities' requirements and/or the Building Code of Australia.

Filled or unstable ground

If because of the nature of the ground, the above mentioned footings are considered unsuitable, the footings be constructed in accordance with details provided by an engineer. The cost plus contractor's margin of engaging the engineer and the additional work involved will be borne by the owner as a variation.

Concrete floor slabs

Construct a concrete floor on the ground in accordance with the Architect's/Engineer's detailed drawings.

Concrete slabs - inside and outside dwellings

Screed the concrete with a fall to outlets, or level as required and finish the surfaces of floors to receive nominated floor coverings.

Paths

Provide paths as indicated on plan. Concrete is to be as previously specified and surfaces finished with a wooden float. Allow fall to paths and driveways to direct surface water away from dwelling. Where necessary, finished levels must consider the requirements of local authorities. Paths should at no time obstruct the operation of ventilation or weep holes provided in the external walls.

5. BRICKLAYER

General - AS3700 AS2121

All brickwork is to be properly bonded, carried up true and plumb in level courses to various heights and thickness as shown on plans.

Allowances to be made for slight variation to binding due to uneven sizing of bricks or the setting out of openings.

- (a) Bricks of clay and or shale origin are to be sound, hard and well fired.
- (b) Concrete bricks are to be manufactured in accordance with AS2733.
- (c) Sandlime (calcium silicate) bricks are to be manufactured in accordance with AS1653.

Face bricks

As selected for colour to be used on all external walls and exposed faces. Common bricks may be used for all other work. Bricks to be ordered in one batch unless otherwise specified to assist in continuity of colour. As bricks are made of natural clay product slight variation in colour is to be anticipated. Bricklayers to select from 3 pallets to blend bricks. All face brickwork is to be finished with neat joints as selected.

Mortars

All mortars to be proportioned and batched in accordance with AS3700.

* proportions to comply with "m" classification.

<u>Classification</u>	<u>Mix Proportions by Volume</u>		
	<u>Type GP Portland Cement</u>	<u>Type GP Blended Cement</u>	<u>Building Lime</u>
			<u>Sand</u>
M1	0	1	3
	1	2	9
M2	1	3	12
M3	1	1	6
	1	0	5
		+ water thickener	
M4	1	0 to 0.25	3
	1	0.5	4.5
	1	0	4
		+ water thickener	

Water thickener referred to is methyl cellulose. The particular methyl cellulose produce used is to be specifically suited for this application, and used in accordance with the manufacturer's or supplier's instructions.

- GP - General purpose Portland Cement (AS3072 - Portland & blended cement).
- GB - General purpose blended cement.

Brickwork of clay and/or shale origin

All bricks used below d.p.c. level and in high environments shall be exposure grade bricks. All other bricks above d.p.c. and in normal environment conditions shall be general purpose grade.

Bricks of sand-lime (calcium silicate) and Concrete Masonry units

All to be laid in m3 mortar or in other mortars in accordance with provisions of as3700.

Floor level (timber floors)

To comply with drawings, and so as to provide not less than 200mm from ground surface to underside of ground floor bearers on sloping sites, and 300mm on level sites to allow access for inspection, pest treatments and repairs or additions to services.

Sub floor access

Give access under floors in position where directed.

Foundation walls

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

Engaged piers

To be a minimum of one brick spaced as required, tied to wall with wall ties every 4th course minimum. Maximum spacing 1800mm centres.

Foundation piers - isolated

Brick piers are to be built to a minimum of 230mm x 230mm up to 15 courses high (1300mm) spaced at not more than 1800mm centres. If piers are to be increased in height, the additional lower portion thereof is to be increased by a minimum of 50mm all round.

Sub floor - ventilation

Provide adequate cross-ventilated space between the underside of the floor if it is suspended above the ground surface under bearers. Similarly, ventilation is to be provided under verandah floors and suspended concrete floor slabs. No section of the under-floor area shall be constructed in such a manner that it will hold pockets of still air.

Dampcourse (D.P.C.)

On all brickwork, at level 1 to 2 courses above finished ground level, provide a continuous run of an approved dampcourse material, provide a second continuous run at lowest timber level.

Ant Capping

To all brickwork and piers, at the level of underside of floor bearers, ant capping of 0.5mm galvanised steel or other approved metal is to be set, projecting 40mm beyond the internal faces of all brickwork and turned down at a 45 degree angle, lapped 12mm and soldered or folded at all joints and corners so as to provide a continuous and effective barrier against termites throughout the entire length of the material.

Vermin proofing - for brick veneer construction

12mm mesh galvanised bird wire to be built into brickwork and taken across cavity sloping downwards and secured to the bottom plate (where bearers and joists are used).

Veneer Wall

To be 110mm brickwork providing a clear cavity of 40mm from timber frame. Building in 3mm galvanised veneer ties placed no further apart from 610mm horizontally and 460mm vertically. All load bearing framed walls and jamb studs to openings over 1800mm wide and posts carrying point loads are to be adequately supported on piers. All mortar droppings are to be removed from wall ties, vermin proofing and sub floor vents, before internal linings are fixed.

Metal Lintels

Brickwork over openings to be supported on galvanised mild steel bars or angles.

Flashing

Flashing needs to be firmly fixed or returned to ensure any water penetration is collected and channelled outside external cladding. In exposed areas side and head flashing is recommended. Particularly same is required on multi storey dwellings to prevent water penetration.

Cleaning

Clean all exposed brickwork with approved cleaning agent which pertains to the stain requiring removal and that care should be taken not to damage brickwork or joints and other fittings by the use of acids.

6. CARPENTER

Timber Framing Generally - AS1684 AS4055

All timber framework, sizes, spans, spacing, notching, checking and fixings shall comply with the provisions of Australian Standard 1684 - 1999 National Timber Framing Code. Alternative structural framing to Structural Engineer's details and certification.

Floor Framing

All floors not specified to be concrete are to be framed at the level shown and laid true, straight and level. All timber within 1350mm of ground level is to be of durability class two or better or preservative treated in accordance with AS1604 - preservative treated sawn timber. Span and spacing of bearers is to conform to the requirements of the span tables of the code for the appropriate member size, spacing or joists, is not to exceed 600mm. Deep joists to upper floors, where shown, are to be fitted with solid blocking or herringbone strutting as required. All sizes and stress grades are to be in accordance with AS1684 - 1999, or as amended. All ties to be in accordance with AS Code.

Wall Framing Timber

Plates are to be trenched to a depth not exceeding 10mm to provide uniform thickness where studs occur. Where plates are machine gauged to a uniform thickness, trenching may be omitted. Wall framing is to be erected plumb and straight and securely fastened to floor.

Framing - provide a clear space of 40mm between outer face of wall frame and inner face of brick veneer walls to studs with approved veneer ties. Ties are to slope downwards towards the veneer wall.

Bottom and Top Plates

To be in long lengths. Plates are to be halved and/or butted at joints and intersections. Top plates where butted are to be gang nailed.

Studs

Provide studs at a maximum of 600mm centres. Well block and securely fasten studs at all wall angles and intersections. Studs are to be checked as required to receive heads over openings and trimmers under windows.

Heads over Openings (lintels)

All sizes, stress grade and bearing area shall conform to the code. Heads exceeding 175mm in depth shall be seasoned or a low shrinkage timber species used. Plywood web lintels conforming to the requirements of Plywood Association of Australia may be used. Glue laminated beams if approved by the lending authority and conforming with AS1328 to be used. Laminated veneer lumber beams to manufacturer's specification and data sheets may be used.

Bracing

Bracing units shall be determined in accordance with AS1684 - 1999, or as amended, as appropriate for the design wind velocity for the building. Type "A" and/or "B" units are to be evenly distributed throughout the building as required by AS1684 - 1999.

Nogging

Studs in each panel of walling shall be stiffened by means of solid timber noggings or bridging pieces at not more than 1350mm centres over the height of the wall. Provide closer spacing as necessary for the support or fixing of cladding or lining. Nogging shall not be less than 25mm thick finished flush with surface of studs and shall not be offset vertically by more than their thickness from a straight line.

Roof framing - Timber AS1684 AS4055

Roofs are to be pitched to the slope shown on plan. All roof timbers are to be seated on timber plates with all roof loads transferred to the footings. Provide continuous tie-down from roof battens to footings as required by AS1684 - 1999, or as amended, for the appropriate design wind velocity and roof covering. Provide all rafters, ridges, hips, valleys, purlins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS1684 - 1999, or as amended.

Ceiling joists

Ceiling joists where possible to be similar in spacing and direction of main roof rafters. Fix trimmers to ceiling joists where required at maximum 600mm centres. Where two lengths of joists are used they are to be lapped and well spiked together over partition walls and to be secured to hangers with ceiling straps. Ceiling joists - where practicable - are to be at right angles to ridge and securely fixed to rafters to form a tie to prevent spreading of the roof.

Hangers

Where required by AS1684 - 1999, provide hangers to support ceiling joist. Hangers to be nailed and strapped to each ceiling joist.

Collar ties

Where coupled roof construction is used, collar ties are to be fixed to alternate pairs of rafters. Sizes, stress grade and fixings are to be determined from AS1684 - 1999 and be appropriate for the roof span and pitch.

Struts

Minimum size to be 75mm x 75mm up to a length of 2100mm spaced under purlins at a maximum 2100mm centres. Where this is not possible an alternative method of strutting is to be provided. struts must be seated on, or directly above, walls and must be tightly fitted and securely fastened to low angle. Provide chocks as required.

Valley Gutter Boards

To be a minimum 19mm thick and the full width of valley gutter. Where deep ribbed valley gutter is specified, valley boards may be omitted.

Roof trusses

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

Manhole

Trim where directed between ceiling joists for a manhole a minimum size of 600mm x 450mm. Line the opening and provide a suitable cover. Alternate means of access may be provided on approval by local authority.

Ventilation

Provide for room ventilation above floor as required by the particular local authority. Appropriate special provision must be made where a gas bath heater or gas copper is installed.

Hot water tank (AS 1529)

For roof model, provide a platform above ceiling joists to support hot water storage tank. The platform is to be positioned at an intersection of walls and to be supported by those walls. A suitable impervious safe tray shall be provided under all roof mounted hot water units with an overflow drainpipe which discharges to the outside of the building preferably near a window or door opening so as to be visible to the occupants in the event of an overflow.

Verandah Posts

To be checked at top plate and secured to floor joists or as otherwise shown on plan. Where fixed to concrete the base of the verandah post is to be supported on a galvanised metal dowel and stirrup with dowel set in the concrete.

Gables

Form gables as shown on drawings. Fit bargeboards as specified under 6.21. Fit fibre-cement sheet to provide bed for mortar pointing.

Frame gable faces as indicated on the drawings and cover with approved material. Line soffits as for eaves.

Where a preformed metal verge system is used, all installation and fixing is to be in accordance with manufacturer's written instructions.

Eaves

Project rafters to form eaves as shown on the drawings. To end of rafters fit fascia boards of seasoned solid or approved finger jointed/laminated timber, prime painted all round prior to fixing.

Thickness of fascia is to be as follows:

- 19mm finished thickness where fixed up to 600mm centres.
- 32mm finished thickness where fixed up to 900mm centres.

Where a preformed metal fascia system is used, all installation and fixing is to be in accordance with manufacturer's written instructions.

Line eaves soffit as shown with material indicated on the drawing.

Flooring

Cover floor joists with strip or sheet flooring as shown on plan. Thickness of flooring to be in accordance with AS1684 - 1999, or as amended for the appropriate joist spacing. Sheet flooring is to be installed in accordance with manufacturer's written instructions. All flooring is to be level sanded on completion.

External Wall Cladding

Where shown on the drawings to walls and/or gables, fix cladding as follows - solid timber is to have a moisture content not exceeding 15% and be of durability class 2 or better or preservative treated to Hazard Level 3 in accordance with AS1604 and the Timber Marketing Act of NSW. All boards are to be primed or sealed all around prior to fixing and cut ends to be sealed as they are cut. All nails are to be galvanised with one nail per board, nailed in such a way that the previous board is not penetrated.

Sheet materials or simulated board, cladding, where indicated, shall be fixed in accordance with the manufacturer's written instructions.

Timber lining

Where indicated on the drawing, lining boards are to have a moisture content not exceeding 15%. they are to be laid with tongues uppermost with one fixing per board.

6a. STEEL FRAMING

Sizes

As a minimum all frames to comply with the code and Australian Standards AS1397 and AS1538 and in addition roof framing to comply with AS1170 parts 1 and 2 and shall be manufactured from galvanised cold formed sections to be designed and certified by a practising structural engineer.

Floor Framing

All floors specified to be of steel floor framing to be framed at level shown and are to be laid true and level. All bearers and joists to be sized, laid, joined and spaced in accordance with manufacturer's specifications.

Wall framing

To be assembled prior to erection by either welding or other approved fastening such as self tapping screws, blind rivets or tabs or a combination of the above as specified by the manufacturer. Where welding is used, welds to be cleaned and touched up with a suitable zinc rich paint. Each wall section to be diagonally braced where possible and bracing to be fixed in accordance with manufacturer's specifications. Wall framing is to be erected plumb and straight and securely fastened to floor framing. Provide a clear space of 25mm between outer wall frames and internal face of brick veneer walls. Secure frames to the veneer walls by fixing veneer ties (as specified under "bricklayer") to the studs. Ties are to slope downwards towards the veneer wall.

Bottom and Top Plates

To be in long lengths as specified and to be joined/connected at joints and intersections in accordance with manufacturer's specifications.

Studs

Provide studs at a maximum of 600mm centres to be plumbed and securely fastened to the flanges of the top and bottom plates. Studs to be in single lengths without splices. For stud lengths up to 2700mm the studs shall be restrained by one row of noggings centrally located. The size of the heads over openings and top and bottom plates to be adequate for the loads imposed. To ensure continuity the ends of the plates shall be securely spliced.

Head Trimmers

Head sizes and strengths must conform to AS 1684.

Bracing

Diagonal braces to each wall section to meet manufacturer's specifications. Additional temporary bracing shall be provided to prevent racking of the wall frame during construction.

Nogging

Nogging to be fixed between studs at not more than 1200mm centres and meet manufacturer's specification.

Services

Service holes shall not be greater than 25mm in diameter and where electrical services are required, bushes shall be provided around the hole. All services pipes to be effectively separated from the steel framing by suitable material.

Roof framing

Rafters and trusses shall comply with that shown on the drawings but shall not exceed 1200mm for metal sheet roofing or 900mm for tiled roofs. Diagonal bracing fixed to each rafter or top chord shall be provided in the plane of the roof at approximately 45 degrees angle to resist the design wind loading. In addition - ties at approximately 1/3rd of the span shall be fastened to the top of the bottom chord at each truss. Where the spacing of trusses exceeds the spacing requirements of the selected internal lining material ceiling battens spaced at a maximum of 600mm centres shall be fixed to the bottom chord or ceiling joist.

Ceiling joist

Joists to be a maximum of 600mm centres. Joists to be joined only over supports or at locations approved by the manufacturer; joists not to exceed specified span or spacing.

Note: Electrical metal frames must be adequately earthed

7. JOINER

Generally

Joinery timber is to be seasoned and free of those defects that might affect its appearance and durability. All to be accurately cut and fitted and securely fixed. Windows, doors and glazing to be the relevant Australian Standard or AS1288-89.

Jamb Linings and Doors

To all internal door openings provide rebated door jamb linings out of 38mm thick timber and the width is determined by the thickness of the finished wall and/or jamb linings with any planted on stops that may be used. Provide doors as specified.

Accurately fit to door jamb linings. Hang front, rear and other doors, unless specified elsewhere, with three 85mm steel butt hinges. External doors to be as selected. Furnish with selected lock and furniture. External double doors are to be rebated together and suitably weathered.

Provide where shown on plan sliding door frame/s complete with fittings and doors of selected width and furnish with selected furniture. Provide aluminium doors and frames, if shown on plan. Glazing to all external doors and sidelights to be in accordance with the relevant Australian Standard.

Windows

Windows shall be manufactured and glazed in accordance with the relevant AS1288-89.

Architraves

Provide architraves to all doors, windows and other openings internally.

Skirting

Provide skirting to all rooms except tiled areas or where other finishes are specified.

Kitchen Cupboards

Provide properly constructed floor and wall cupboards in position and to dimensions indicated on plan. Floor cupboards to have raised floors with toe space under front face. Cover top of floor cupboards with material as selected. Provide doors as selected. Doors to be accurately fitted and hung and finished with selected catches and handles. All cupboards are to be securely fixed in position and neatly finished at wall and floor intersections.

Built-in Cupboards

Frame up and fix cupboard/s in position and to dimensions shown on plan. Provide doors and door furniture as selected.

Baths

Under exposed edges of bath provide a properly constructed frame ready to receive covering specified elsewhere, or build brick-on-edge walls in classification "M4" mortar and leave ready to receive tiles as specified under "Tile Layer". Make provision for the area under bath to be properly drained and ventilated.

8. ROOFER**Tiles - AS 2050 AS 2049 AS1684**

Cover the roof of the dwelling with first quality approved roofing tiles as selected. The tiles are to be fixed to approved battens of sizes appropriate to the spacing of rafters/trusses in accordance with manufacturer's recommendations. Cover hips and ridges with capping and all necessary starters and apex caps. Capping and verge tiles are to be well bedded on lime mortar and neatly pointed with coloured cement mortar. Roofing adjacent to valleys should be so fixed to minimise as far as practicable water penetration. As roof tiles are made of natural products, light variation in colour is to be anticipated. Roof tilers to select from 3 pallets to maintain consistency in colour.

Sarking

Tiles with underchecks

Concrete: over 17 degrees no sarking required.
12.5 degrees to 17 degrees sarking required - 75mm minimum overlap

Terracotta - Marseilles - Swiss or similar:

over 20 degrees no sarking required

15 degrees to 20 degrees sarking required
- 75mm minimum overlap. not to be laid under
15 degrees

over 20 degrees no sarking required

To have a flammability index of 5 or less.

Steel Roof Decking

Where "not to be laid under 12.5 degrees" shown on plan or steel deck roofing specified, provide and install a steel deck roof together with accessories all in accordance with the manufacturer's instructions.

Incompatible materials shall not be used for flashings.

9. PLUMBER

All plumbing work must comply with the requirements of the supply authority and the work is to be carried out by a licensed plumber.

Eaves and Gutters

Provide selected guttering to all eaves. Set in position with a minimum grade 1:200 to downpipes and secure with brackets if required space at maximum 1200mm.

Downpipes

Provide downpipes as required. Connect each pipe to gutter and roof water drains and secure to walls at a maximum spacing of 2000mm, minimum of two each downpipe.

Valley gutters

Selected valley gutters are to be fixed to valley boards with edges beaded, well lapped in direction of flow and soldered at joints. (approved ribbed valleys may be fixed without valley boards).

Flashing

Flash around chimney stacks, exhaust flues and wherever else required with lead dressed well down on to roof slopes and taken up vertical faces at least 75mm.

Sanitary Plumber - NSW Code of Practice 1992 - AS3500

Sewered and unsewered areas. Fit bath, wash basin, kitchen, wash tubs, pedestal pan and floor grate to shower recess in positions shown on plan. (refer to schedule of fittings). Provide waste pipes with traps to the above fittings and connect to the drainage system. The whole of the work to be performed by a licensed plumber and drainer in accordance with the rules and requirements of the sewerage authority concerned.

Floor wastes

Provide overflow outlet in bathroom and separate w.c. floors. Fit grating and wastes.

Water services - NSW Code of Practice, AS3500.1 AS1684 - 1999

Connect from the supply main with copper tube to the meter and provide a stopcock. Studs should be adequately protected against burning when joining pipework. Extend service in copper or galvanised pipe to the house. Branch off to cisterns, bath, breeching piece for shower, wash basins, laundry tub, washing machine, kitchen sink and hot water unit. Notches cut for piping should not be greater than 20mm. Piping concealed behind all wall linings must be copper. Properly secure all piping and provide chrome-plated flanges at internal wall faces. Terminate over fittings with approved high pressure taps and with high pressure brass hose cocks to garden points. Provide for fixing cistern and hot water unit. Provide stand pipes where shown on plan. Holes drilled into the piping shall not exceed 1/4th the width of face.

Meter

Procure from the authority concerned and fix a water meter.

Hot water services

Hot water unit to be as described in the schedule of fittings. Extend from mains pressure or storage unit with copper tubing points over bath, basins, showers, kitchen sink, laundry tub and washing machine. Terminate at these points with taps or cock required. Provide inlet stopcock to hot water as required. All piping to be insulated with approved lagging.

Gas service

If required the whole of the work from the fence alignment is to be in accordance with the rules and requirements of the supply authority.

Gas Appliances

If required provide for the connection in the prescribed manner - cooking stove, hot water unit, room heater, central heating unit.

10. ELECTRICIAN

General

Provide all labour and materials necessary for the proper installation of electricity service by a licensed electrician in accordance with the appropriate AS3000 AS3006 wiring and the requirements of the local supply authority.

Lighting

Provide for the proper installation and connect all light points in positions shown on plan. Installation of light fittings is excluded unless otherwise specified and/or detailed on the plan.

Power

Unless otherwise specified, provide power points of flush type with switches in positions marked on plan.

Hot water

Provide electrical circuits and connect to the terminals of the equipment marked on the plan.

Appliances

Connect all appliances as indicated on plan to local supply authority requirements.

Telephone - data cabling

Provide and install all conduits and wall outlet boxes in positions as indicated on plan.

Meter box

Provide box to enclose meters and other equipment in accordance with the requirements of the supply authority concerned.

Supply Mains

Arrange with supply authority for connection from supply mains to meter board. Should connection of mains be from underground or if from above ground requiring special brackets or additional poles, the extra costs will be borne by the Owner.

Fire Detection

Provide and install all conduits or wiring for fire detection systems as specified or indicated on plan.

11. INTERNAL WALL LININGS

General

Line all walls with gypsum plasterboard or selected materials. To wet areas approved water resistant sheets shall be used. All internal wet areas to be completely waterproofed by a licensed applicator using a proprietary system designed for wet areas (BCA - FL.7) or as amended.

Gypsum Plasterboard

Fix horizontally with full length sheets, or staggered end joints, to ceiling heights. Sheets are to have recessed edges and be minimum 10mm thick when fixed to studs spaced at up to 600mm centre. Fixing is to be with plasterboard galvanised clouts or plasterboard ring shanked nails and/or approved adhesive and to be strictly in accordance with the manufacturer's recommendations. Internal angles from floor to ceiling to be set.

Ventilation

Provide plaster vents to internal walls and/or ceilings, as required by the particular local authority, set flush with wall surface.

Ceiling Fixer

Provide gypsum plasterboard or other selected material to all ceilings. Sheets to have recessed edges and be fixed to ceiling joists/battens at manufacturer's recommended centres. Fixing is to be with plasterboard galvanised clouts or plasterboard ring shanked nails and/or approved adhesive and be strictly in accordance with manufacturer's recommendations.

Cornice

Set corners or provide cornices to ceiling as required, properly fixed and set at all angles. Cornices to be in full wall lengths where practicable.

12. WATERPROOFER

Bathrooms, Toilets and Laundries

All internal wet areas to be completely waterproofed by a licensed applicator using a proprietary accredited product designed for wet areas. Membrane should be waterproof not water resistant. Area to be waterproofed should be clear of all obstructions and thoroughly cleaned prior to application of product. System must include upstands, angles, a turn up should be provided at door thresholds. Membranes should be dressed into floor waste outlets. For concrete floors full shower base should be sealed. Where sheet flooring is in use the whole area should be waterproofed. Metal or other approved shower trays may be used in lieu of waterproof membranes to shower areas. All shower trays to be installed to manufacturer's instructions.

Balconies

Balcony areas over internal habitable rooms to be treated under same guidelines as internal wet areas. Accredited products should be used and applied by licensed waterproofing contractor and the manufacturer's instructions to be explicitly followed.

13. TILER – FLOOR & WALL

Generally

All vertical and horizontal joints between walls and fixtures eg. benchtop, bath etc. to be filled in bathroom silicone. Where practicable spacing between tiles should be even and regular. Provide expansion joints where necessary.

Walls

Cover specified wall faces with selected neatly grouted tiles. Tiles are to be fixed to wall sheeting with approved adhesive. Provide all necessary strips, vent tiles and recess fittings.

Floor

Lay selected floor tiles in sand and cement mortar or approved adhesive to specified areas. If required fit aluminium or brass edge strips to exposed edges in doorways. Provide adequate and even fall to wastes where necessary.

14. GLAZIER

Generally

All glass to be in accordance with the relevant Australian glazing standard and installed in a tradesmanlike manner. Clean all glass on completion of work. All glazing materials are to be in accordance with the provisions of AS288.

15. PAINTER

Generally

All paints, stains, varnishes, sealers and water colours are to be of approved brands as selected. materials used for priming and undercoating are to be the same brand as the finishing paints or as recommended by the manufacturers of the finishes used. Paint finish to be free of foreign particles such as dust, paint skins etc. Ensure base surface has less than 12% moisture content before painting.

Externally

All external woodwork to be given -

- (a) one coat of primer, one coat of oil based undercoat and one coat of selected oil paint, or
- (b) two coats of pure acrylic timber finish, or
- (c) two coats of stain

Metalwork

Eaves, gutters, downpipes, exposed service pipes and all wrought iron, etc. to be cleaned and primed and painted in accordance with manufacturer's instructions.

Fibre-cement

Clean and prepare all external fibre-cement surfaces, seal and finish with two coats of acrylic paint.

Internally

All internal woodwork to be given at least two coats of stain or one undercoat and one finished coat and is to be stopped and sanded down between coats.

Ceilings and walls

To be sealed and given further coats of selected paint in accordance with manufacturer's instructions.

16. FENCER

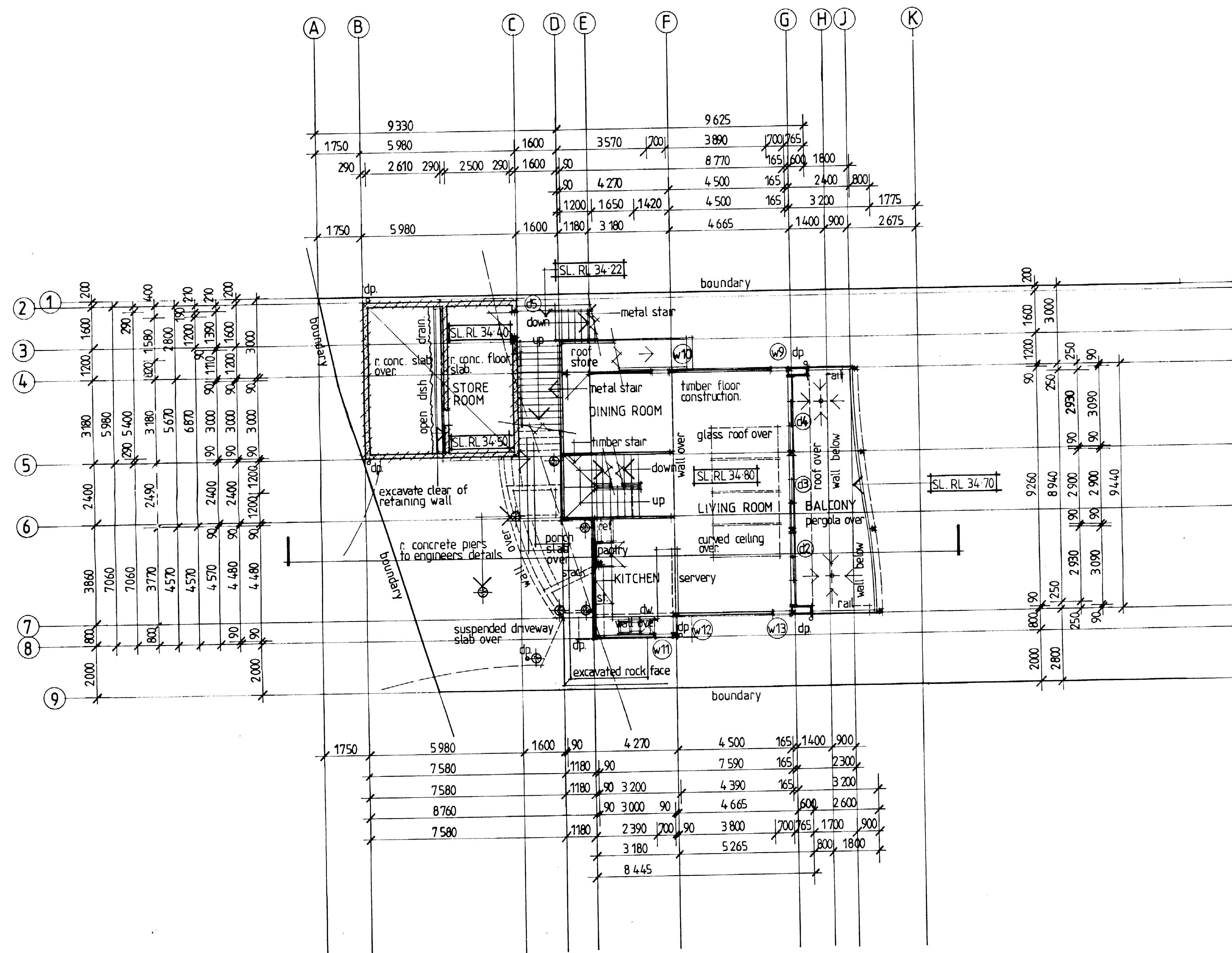
To be erected where shown on plan or as specified elsewhere.

17. FLOOR SANDER AND POLISHER

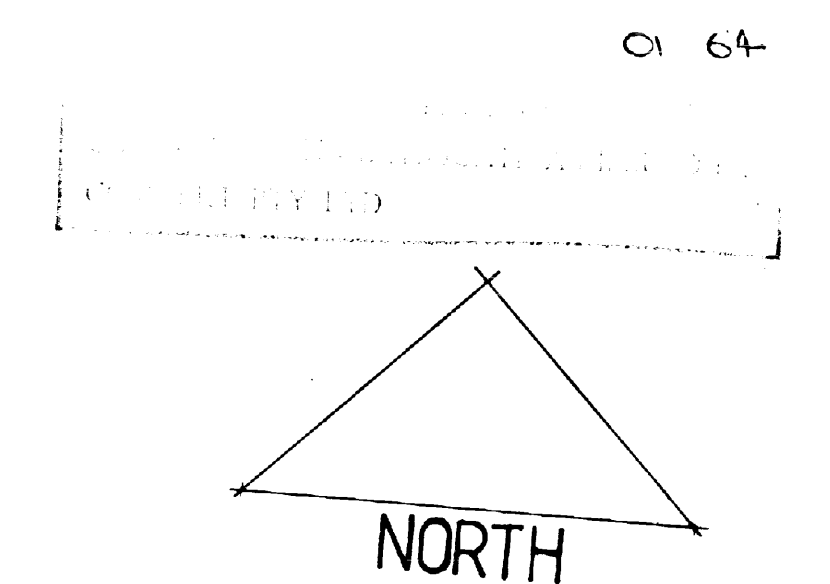
Flooring boards where required, are to be machine sanded to even surface. Where specified, sanded to a smooth surface and where specified two coats of clear liquid finish applied.

18. COMPLETION

Clean out premises, remove all builder's rubbish, clean all glass, fittings, etc. and leave in clean and habitable condition. Clean up site. Ease sashes and doors and ensure locks are operational. Generally the premises must be deemed fit for occupation.

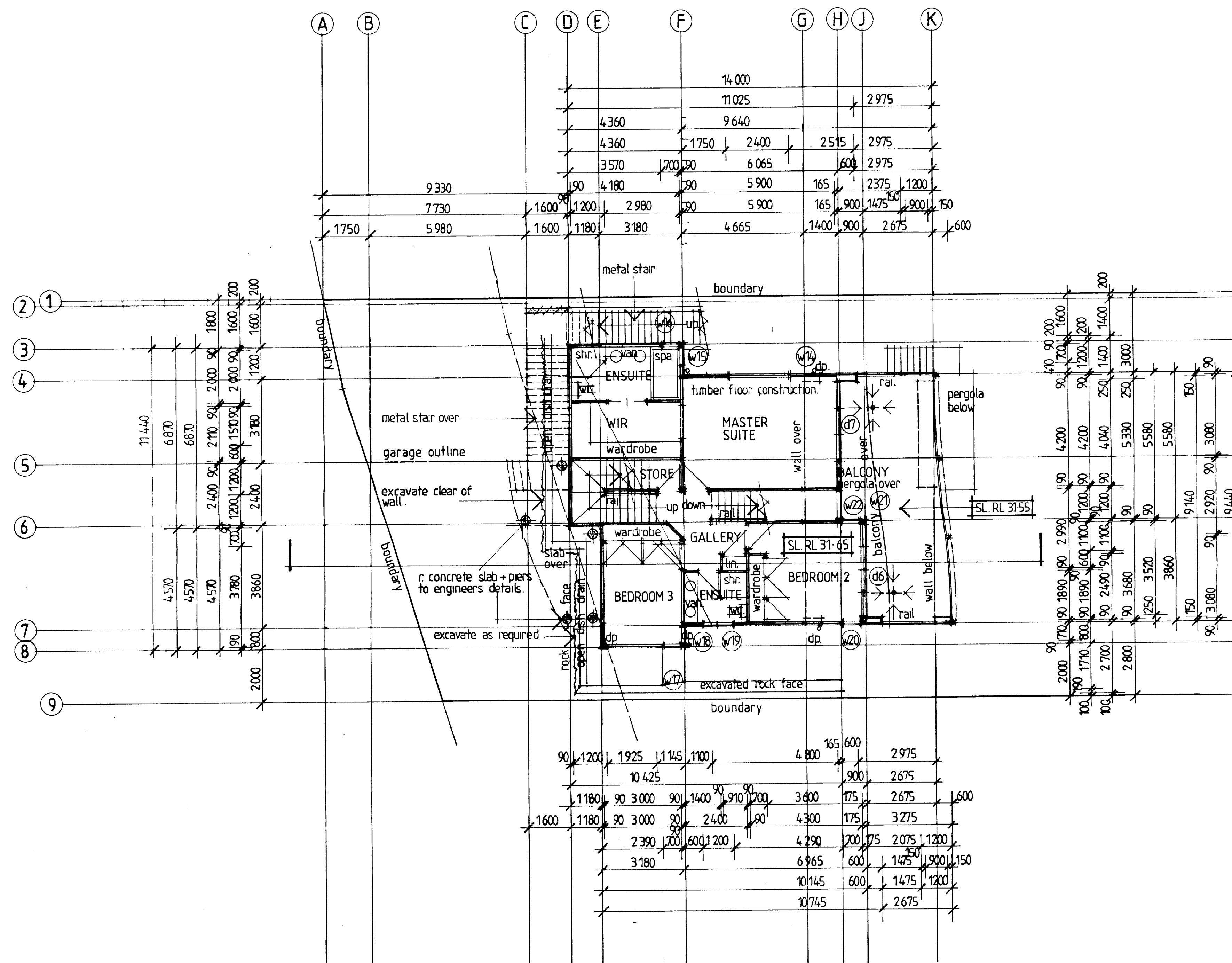


LEVEL 2 - KITCHEN + LIVING ROOM LEVEL.



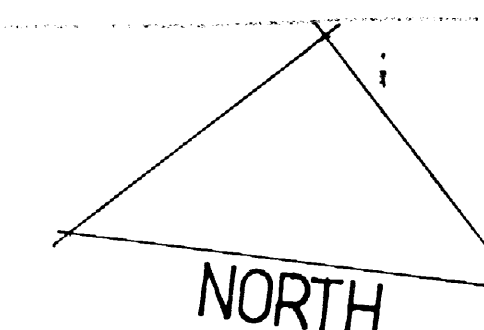
STAGE 1.

AMENDMENTS 25th July 2004 - AMEND PLANS AS INSTRUCTED		LINDSAY LITTLE & ASSOCIATES PTY LTD ABN 78 055 729 363 ARCHITECTS BUILDING CONSULTANTS PROJECT MANAGERS LEVEL 1, 6 MOORE AVE LINDFIELD NSW 2070 PHONE: 9416 6300 FAX: 9416 3500		CONSTRUCTION SETOUT PLAN. MR. + MRS. N. BRITTAN. LOT 112, NO. 13 BYNYA ROAD WHALE BEACH.	
ALL DIMENSIONS TO BE CHECKED ON SITE BY BUILDER PRIOR TO CONSTRUCTION FIGURE DIMENSIONS TO BE USED IN PREFERENCE TO SCALE ALL BOUNDARIES AND LEVELS SUBJECT TO SURVEY PLAN RETAIN ALL TREES UNLESS OTHERWISE NOTED		JOB No. 2595/00-2	SCALE 1:100	DRAWN GINO M.	DATE 11 FEB. 2004

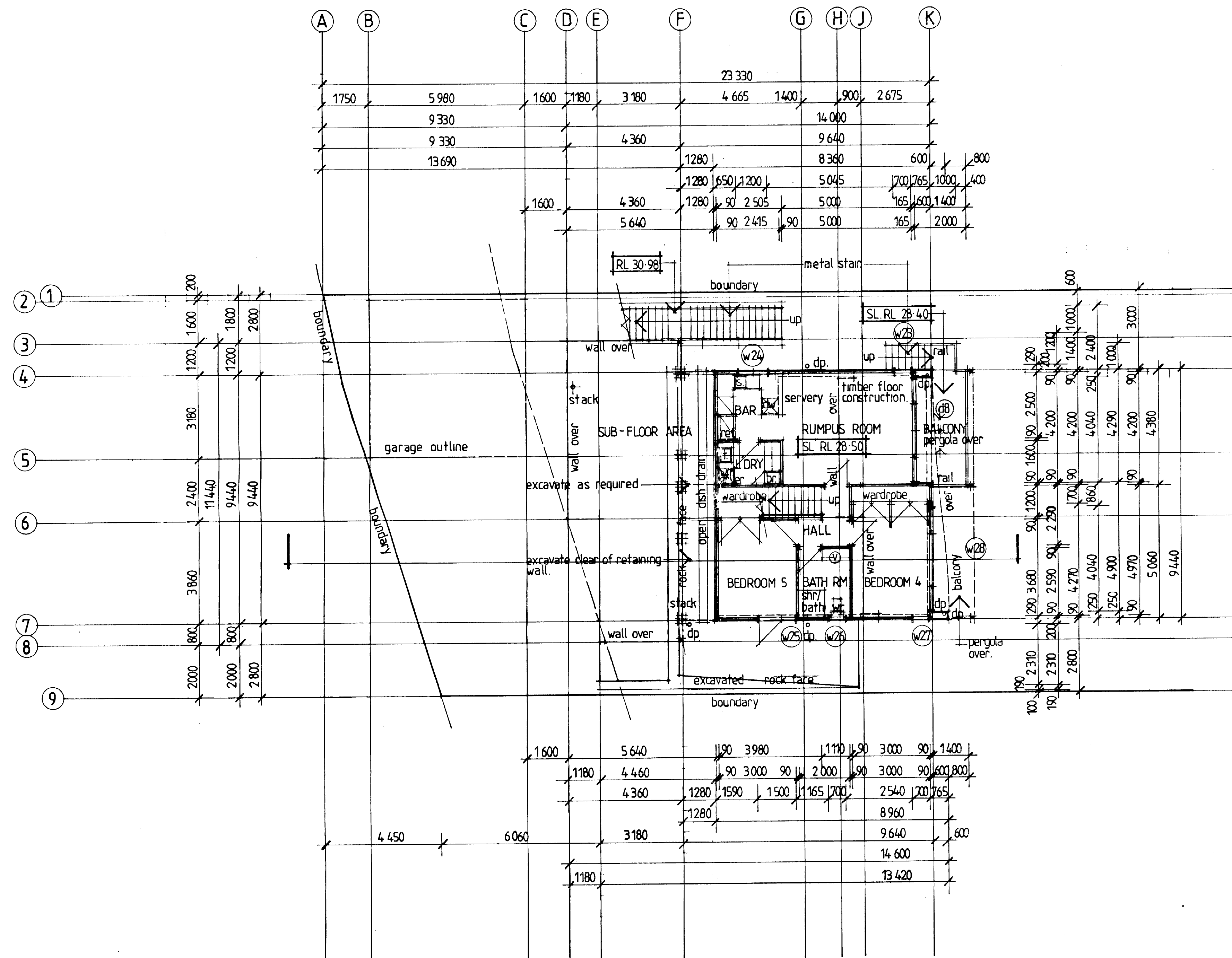


LEVEL 3 ◊ BEDROOM LEVEL.

STAGE 1.



AMENDMENTS 25/04/04 - AMEND PLANS AS INSTRUCTED.		LINDSAY LITTLE & ASSOCIATES PTY LTD ABN 78 055 729 363		CONSTRUCTION SETOUT PLAN.	
ALL DIMENSIONS TO BE CHECKED ON SITE BY BUILDER PRIOR TO CONSTRUCTION FIGURE DIMENSIONS TO BE USED IN PREFERENCE TO SCALE ALL BOUNDARIES AND LEVELS SUBJECT TO SURVEY PLAN RETAIN ALL TREES UNLESS OTHERWISE NOTED		ARCHITECTS BUILDING CONSULTANTS PROJECT MANAGERS LEVEL 1, 6 MOORE AVE LINDFIELD NSW 2070 PHONE: 9416 6300 FAX: 9416 3500		MR. + MRS. N. BRITTAN LOT 112, NO. 13 BYNYA ROAD WHALE BEACH.	
JOB No. 2595/00-3-10		SCALE 1:100		DRAWN GINO M.	DATE 13 FEB. 2004.

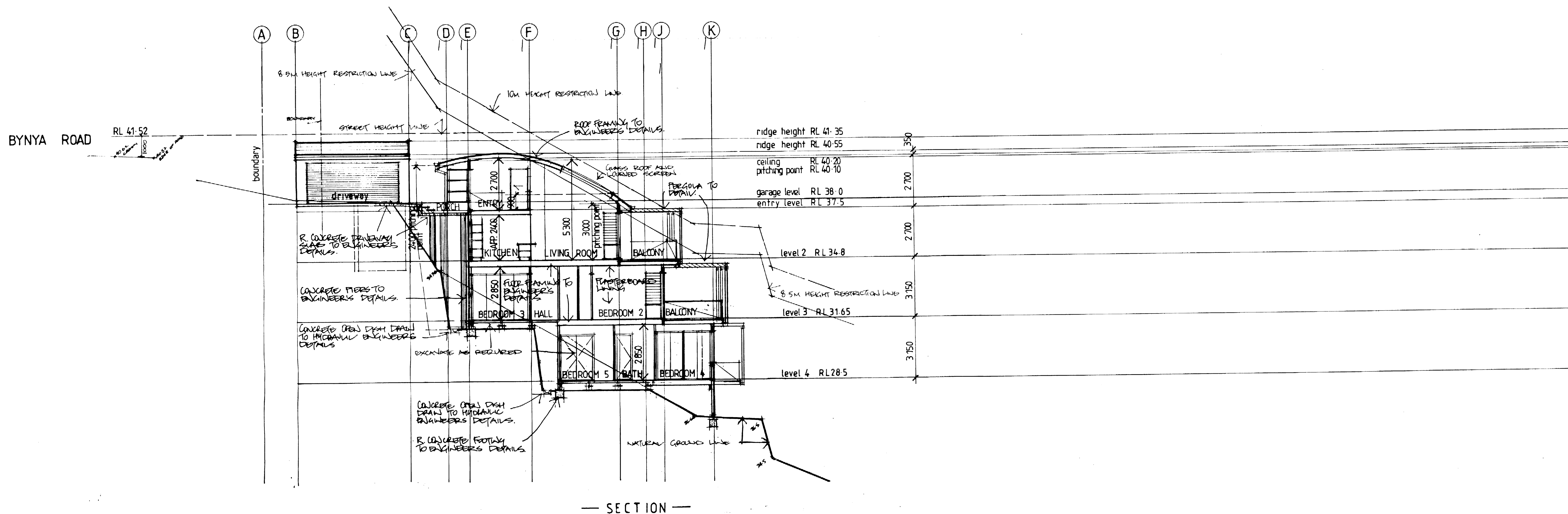


LEVEL 4 - RUMPUS + BEDROOM LEVEL.

STAGE 1.

NORTH

AMENDMENTS 26th May 2004 - Amend Plans as instructed.		LINDSAY LITTLE & ASSOCIATES PTY LTD ABN 78 055 729 363		CONSTRUCTION SETOUT PLAN. MR. + MRS. N. BRITTAN.	
ALL DIMENSIONS TO BE CHECKED ON SITE BY BUILDER PRIOR TO CONSTRUCTION FIGURE DIMENSIONS TO BE USED IN PREFERENCE TO SCALE ALL BOUNDARIES AND LEVELS SUBJECT TO SURVEY PLAN RETAIN ALL TREES UNLESS OTHERWISE NOTED		ARCHITECTS BUILDING CONSULTANTS PROJECT MANAGERS LEVEL 1, 6 MOORE AVE LINDFIELD NSW 2070 PHONE: 9416 6300 FAX: 9416 3500		LOT 112, NO. 13 BYNYA ROAD WHALE BEACH.	
JOB No. 2595/00-410		SCALE 1:100		DRAWN GINO M.	
				DATE 14 FEB. 2004.	



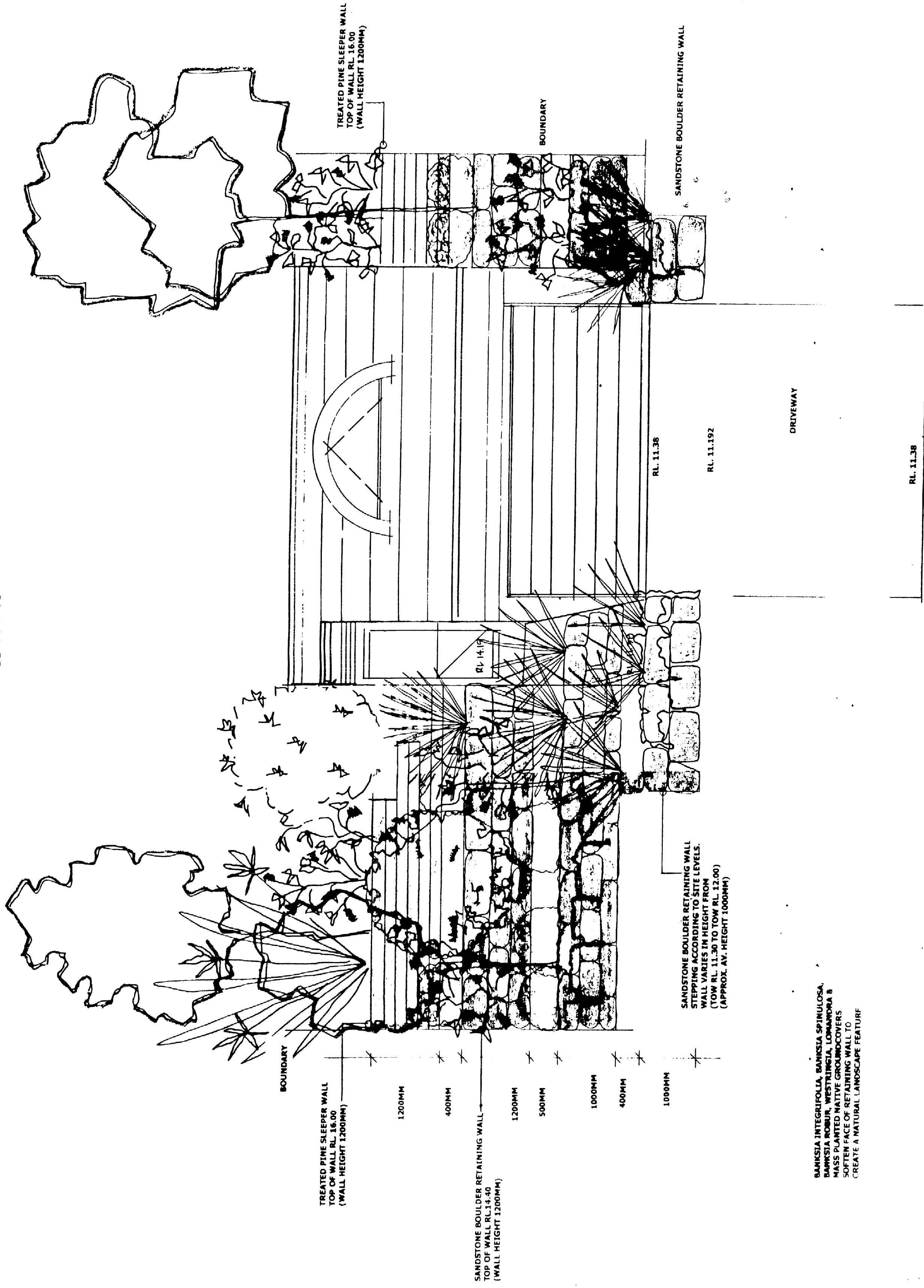
— SECTION —

SLOPE 27.6° or 52.35 % (length 45.31 m. + height 23.72 m. to centre of site)
 rl 38.0 at centre of site
 rl 14.28 at centre of site

STAGE 1.

AMENDMENTS 24th APRIL 2005 - REDUCE SITE COVERAGE 19th FEB. 2004 - COMPLETE PLAN FOR CONSTRUCTION CERTIFICATE 24th JULY 2004 - MAKE PLANS AS INSTRUCTED		LINDSAY LITTLE & ASSOCIATES PTY LTD A.C.N. 055 729 383 ARCHITECTS BUILDING CONSULTANTS PROJECT MANAGERS 51A HILL STREET, ROSEVILLE NSW 2069 PHONE: 9416 6300 FAX: 9416 3500		NEW RESIDENCE 13 BYNYA ROAD WHALE BEACH FOR MR & MRS N. BRITTAN	
ALL DIMENSIONS TO BE CHECKED ON SITE BY BUILDER PRIOR TO CONSTRUCTION FIGURE DIMENSIONS TO BE USED IN PREFERENCE TO SCALE ALL BOUNDARIES AND LEVELS SUBJECT TO SURVEY PLAN RETAIN ALL TREES UNLESS OTHERWISE NOTED		JOB No. 2595/00-6-10	SCALE 1:100	DRAWN H.L.	DATE 30.11.00

SCALE 1: 50



PLAN OF DOCUMENT CERTIFICATION

I AM A QUALIFIED HORTICULTURIST AND LANDSCAPE DESIGNER.
 I HOLD THE FOLLOWING QUALIFICATIONS AND LICENCE NO:
 CERTIFICATE IN HORTICULTURE, ASS. DIP. APP. SCIENCE (LANDSCAPE).

I ADVISE THAT THIS PLAN HAS BEEN DESIGNED TO PROVIDE COMPLIANCE WITH PITTSBURGH COUNCILS DEVELOPMENT AND CONTROL PLAN NO 23 - LANDSCAPE AND VEGETATION MANAGEMENT.

SALLY BOURNE Monday, September 06, 2004

PROPOSED NEW RESIDENCE

AT: 13 BYNYA ROAD, WHALE BEACH

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**AMENDED LANDSCAPE PLAN NO.
ELEVATION & TYPICAL SECTION**

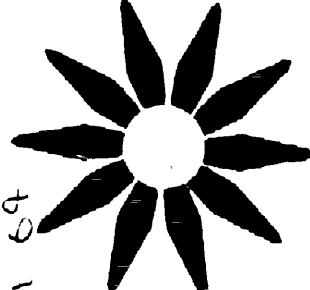
SCALE: 1:100

DATE: 6 September, 2004

DWG NO: 26/04 (2/2)
 AMENDMENT NO. 1: PROVIDE SHOT GRIFF WALL BEARS OF GARAGE WITH GYM ROOF OVER & REVISED ACCESS FROM INCULCATOR TO GARDEN.
 AMENDMENT NO. 2: PROVIDED MASS PLANTINGS TO NATURE STRIP OF MORELLA AND VISUALLY SOFTEN STREETSCAPE.
 AMENDMENT NO. 3: DWG NO: 16/03 DATED 20/2/03: REVISED DESIGN OF RETAINING WALLS FACING MORELLA RD, PROVIDED ELEVATION & TYPICAL CROSS SECTION.
 AMENDMENT NO. 4: REVISED LANDSCAPE PLAN TO MEET AMENDED ARCHITECTUALS DATED 13/05/03 & ARBUST REPORT DATED 5/6/03.
 AMENDMENT NO. 5: REVISED LANDSCAPE PLANS TO MEET CONDITIONS OF CONSENT.

SALLY BOURNE LANDSCAPES

SALLY BOURNE LANDSCAPES
LANDSCAPE CONSULTANT
& DESIGNER
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CAROWINDRA ROAD,
GOOLOOGONG NSW 2805
PHONE & FAX: 4448122
MOBILE: 0417 227 246



TYPICAL CROSS SECTION OF RETAINING WALLS A -A1

SCALE 1: 50.

