

PROCESSED

Cancil
15.00

C1302/04

NEPEAN BUILDING PERMITS

3 /1283 Pt.Nepean Rd. Rosebud

P.O.Box 2234 Rosebud 3939

Office phone (03) 5986 2466

Office fax (03) 5986 2045

Mobile:- Jim 0418 592 125

Mobile:- Rob 0419 885 035

Mobile:- Dan 0408 555 062

BUILDING PERMIT

Building Act 1993 Building Regulations 1994 :- Reg 2.6

PERMIT NO.**-1061/200317925/0****TO:**

Owner	CA & PM PUGH	address	3/4 CATHERINE STREET	town	McCrae	postcode	3938
Agent	MIKE SALPIETRO DRAFTING		PO BOX 859		Mornington		3931
Builder	CA & PM PUGH		3/4 CATHERINE STREET		McCrae		3938

ADDRESS FOR SERVING OR GIVING OF DOCUMENTS

Address PO BOX 859 Mornington 3931
 Name MIKE SALPIETRO DRAFTING Ph 59866714

1116

PROJECT ADDRESS :

No. 6 Lot 2 VIEW POINT ROAD McCrae 3938

Mornington Shire Council

The issuer or provider of the required insurance policy is:

title details PS114212

PlanningPermitNo: P02/1833

PlanningPermitDate:

06/08/2003

PROJECT DESCRIPTION Construction of DETACHED DWELLING & GARAGE As per plans

Total new floor area m2: 654

Project classification: 1A & 10A

No of project works: 1

No of storeys: 2

Project Estimated Value:

BuildingCommissionlevy

I&S

DWELLING DETAILS:

Existing dwellings: 0

To be constructed: 1

To be demolished: 0

New floor area,m2: 654

IMPORTANT An Occupancy Permit is required prior to use or Occupation**PERMIT** Building work is to commence by: 15-Dec-04 and is to be completed by: 15-Dec-05**DETAILS** Stages of work permitted: As shown on approved plans**MANDATORY INSPECTIONS**

PRE-POLYTHENE SLAB

PRE-POUR SLAB

PADS

RETAINING WALL CAVITY PRIOR TO PLACING
CONCRETE

FRAMEWORK PRIOR TO COVERING

OCCUPANCY PERMIT

PRACTITIONERS:

Salpietro Michael; DP-AD 1967

Rozychi Christopher; EC16445

FUNCTION AND ENGAGEMENT:

Prepared documents only

Prepared documents only

PERMIT CONDITIONS

Soil Engineer to inspect and approve in writing all bored pier excavations prior to pouring concrete.

RELEVANT BUILDING SURVEYOR JAMES SHEEDY

Registration no BS-1061

SIGNATURE**ISSUED DATE** Monday, 15 December 2003

Personal Information

ENTERED

5/2

Please complete and return with any alterations or
additional information

PROJECT FILE JOB ID: 200317925/0
15/12/2003

Building Act 1993
Building Regulations 1994
Regulation 9.2 FORM 10

Application for Occupancy Permit

To:- JAMES SHEEDY
RELEVANT BUILDING SURVEYOR
NEPEAN BUILDING PERMITS

From:- Owner:- CA & PM PUGH
3/4 CATHERINE STREET McCrae

Agent:- MIKE SALPIETRO DRAFTING
PO BOX 859 Mornington

**In accordance with section 42 of the Building Act 1993, I hereby apply for an
Occupancy Permit for the building at:-**

Address No: 6 Lot: 2 VIEW POINT ROAD McCrae
Mornington Shire Council

**Building Practitioners and/or Architects involved in the Building Work and who
were not known or not listed at the time of completion of application for
Building Permit.**

Name and Registration:-

Details of work performed:-

Use applied for:-

Part of building

Intended use

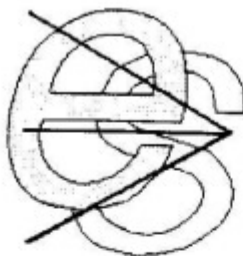
Class

Signature of Owner or Agent _____ **Dated** _____

NEPEAN BUILDING PERMITS

3 /1283 Pt.Nepean Rd. Rosebud

ph (03) 5986 2466 ph 0418 592 125 fax (03) 5986 2045



e-struct

Pty Ltd

civil and structural engineers

P.O. Box 7095, Karingal Centre, Karingal 3199

Ph: (03) 9785 6299

Mob: 0409 232 753

Fax: (03) 9789 7223

email: mail@e-struct.com.au

ACN 097 361 898

Form 13

**Building Act 1993
BUILDING REGULATIONS 1994
Regulation 15.7 (2)
CERTIFICATE OF COMPLIANCE - DESIGN**

To

Relevant Building Surveyor

Nepean Building Permits

Postal Address

PO Box 2234

Rosebud

3939

From

Building Practitioner Christopher Wladyslaw Rozycki - E-struct Pty Ltd Category/Class EC

Postal Address P.O. Box 7095, Karingal

Post Code 3199

Property Details

Address 6 View Point Road

City/Suburb/Town

McCrae

Municipal District

Shire of Mornington Peninsula

Compliance

I did prepared the design and I certify that the part of the design described as
foundation and framing design

Proposed Residence

Complies with the following provisions of the Regulations

AS1170.0-4 - 2002, AS1627 - 1997, AS1672.1 - 1997, AS1720.1 - 1997, AS2312 - 2002, AS2870 - 1996,
AS3500.3.5 - 2000, AS3600 - 2001, AS3700 - 2001, AS3972 - 1997, AS4100 - 1998, AS4455 - 1997
Part 3.11 of Building Code of Australia - 1996, Volume 2

Design Documents

Drawing Nos.

E5294-S1 to S10 &
S2 C, S3 A, S11 A

Prepared by

e-struct

Date

Oct 2003

Computations

E5294 pp1-52 & comp
output E5294a pp1-3

Prepared by

e-struct

Date

Oct 2003

Referenced Test Reports

Soil Report

02/0555

Prepared by

C.E Lawrance & Assoc.

Date

30/04/02

Signature

Registration No.

EC 16445

Personal Information

Signed Building Practitioner.....

Date

5/12/2003

www.e-struct.com.au

NEPEAN BUILDING PERMITS & CONSULTANTS

Form 1

Building Act 1993

BUILDING REGULATIONS 1994

Regulation 2.1(1)(a)

APPLICATION FOR A BUILDING PERMIT

To the Relevant Building Surveyor; - Nepean Building Permits

- P O Box 2234, ROSEBUD 3939

- Phone - (03) 5986 2466 Fax - (03) 5986 2045

From

Owner/Agent of Owner* C.A. & P.M. PUGH

Postal Address 3/4 CATHERINE ST M^CCREAE Postcode 3938

Address for serving or giving of documents % MIKE SALPIETRO DRAFTING

17 BOX 859 MORNINGTON Postcode 3931

Contact Person MIKE Phone 57866714 Fax 59861965
0425736931

Indicate if the applicant is a lessee or licensee of Crown Land to which this application applies (+tick if applicable) []+

Ownership Details (only if agent of owner listed above)

Owner.....

Postal Address.....Postcode.....

Contact Person.....Phone.....Fax.....

Property Details

Number 6 Street/Road VIEW POINT City/Suburb/Town M^CCREAE Postcode 3938

Int/s 2 LPPS 114212 Volume 09088 Folio 778

Crown Allotment ONE Section B Parish WARRAGEE County MORNINGTON

Municipal District M.P.S.C. Allotment Area (for new dwellings only) m² 1511Floor Area of New Works m² 378 Ground + 276 upperLand owned by the Crown or a public authority (+ tick if applicable) - 654m² TOTAL []+

Builder (if known)

Personal Information

Postal Address.....Postcode.....

Contact Person.....Phone.....Fax.....

Please Turn Over →

Building Practitioners and/or Architects(a) to be engaged in the building work¹

Name.....Category/Class.....Registration No.....

Name.....Category/Class.....Registration No.....

(If a registered domestic builder carrying out domestic building work attach details of the required insurance)

(b) who were engaged to prepare documents submitted with this application¹Name MICHAEL SALAETRO.....Category/Class DP AD.....Registration No 1267Name CHRISTOPHER KOZYCKI.....Category/Class EC.....Registration No 16445**Nature of Building Work***

Construction of a new building	<input checked="" type="checkbox"/>	Extension to an existing building	<input type="checkbox"/>
Alterations to an existing building	<input type="checkbox"/>	Change of use of an existing building	<input type="checkbox"/>
Demolition of a building	<input type="checkbox"/>	Removal of a building	<input type="checkbox"/>
Re-erection of a building	<input type="checkbox"/>	Other	<input type="checkbox"/>

*Tick if applicable or give other description

Proposed use of building¹ PERMITTING & GARAGE**Owner Builder (if applicable)**

I intend to carry out the work as an owner builder

[Yes / No]

Value of building work

Is there a contract for the building work?

[Yes / No]

If yes, state the contract price

\$

If no, state the estimated cost of building work

\$ I&S

(including the cost of labour and materials) and attach details of the method of estimation

Stage of building work

If application is to permit a stage of the building work:

Extent of stage:

Value of building work for this stage \$

Signature

I, the undersigned, have carefully read and fully understand the 'terms of engagement' specified on the following pages numbered 3 and 4 and accept responsibility for the payment of all fees incurred in the processing of the Building Application.

Irrelevant & Sensitive

Signature of owner or agent.....Date 2-12-03Name of Signatory CHARLES A. PUGH

Please Turn Over →

COPY

VICTORIA

REGISTER BOOK

VOL. 9038 FOL. 77

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

-IVAN-

WILLIAM MURRAY/ MAXWELL of 18 Hopetoun Road Toorak -----
 Medical Practitioner is the proprietor of an estate in fee simple -
 subject to the encumbrances notified hereunder in ALL THAT piece --
 of land coloured on the map hereon being Lot 2 on Plan of -----
 Subdivision No. 114212 and being part of Crown Portion One -----
 Section B Parish of Wannaeue County of Mornington -----

Issued under Regulation 12
 on the approval of the --
 above Plan of Subdivision-



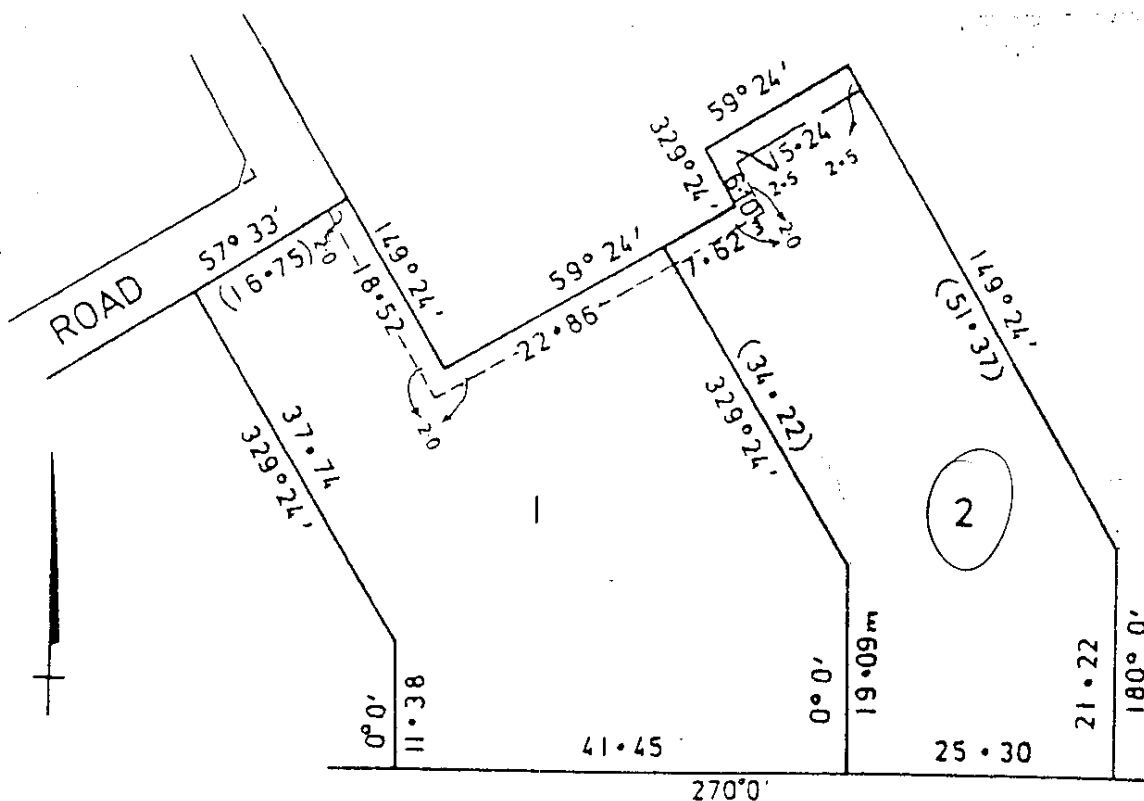
Assistant Registrar of Titles

ENCUMBRANCES REFERRED TO

MORTGAGE F.202767 ---

As to any land coloured blue

THE EASEMENTS (if any) existing over the same by ----
 virtue of Section 98 of the Transfer of Land Act -----



VIEW POINT

ROAD

LENGTHS ARE IN METRES
 AREAS (IF SHOWN) ARE IN HECTARES (ha)
 OR IN SQUARE METRES (m²)

DERIVED FROM VOL. 6097 FOL. 211 VOL. 6333 FOL. 510
 10/6/75.

No. L370953W



Volume 09088 Folio 778

124002347662W

Page 1 / 1

Produced 16/07/2002

08:02 hr

CERTIFICATE OF TITLE - VICTORIA

Under the Transfer of Land Act 1958

I certify that the registered proprietor is the proprietor of the estate and interest in the land subject to the encumbrances, caveats and notices described

John Hartigan



REGISTRAR OF TITLES

LAND DESCRIPTION

Lot 2 on Plan of Subdivision 114212.

PARENT TITLES :

Volume 06097 Folio 211 Volume 06333 Folio 510

Created by instrument LP114212 10/06/1975

REGISTERED PROPRIETOR

Estate Fee Simple

Joint Proprietors

CHARLES ALEXANDER PUGH

PAMELA MARY PUGH both of 3/4 CATHERINE STREET MCCRAE VIC 3938

AB415868L 16/07/2002

ENCUMBRANCES, CAVEATS AND NOTICES

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE LP114212 FOR FURTHER DETAILS AND BOUNDARIES

END OF CERTIFICATE

114212

LP114212
EDITION 1
APPROVED 29/4/75


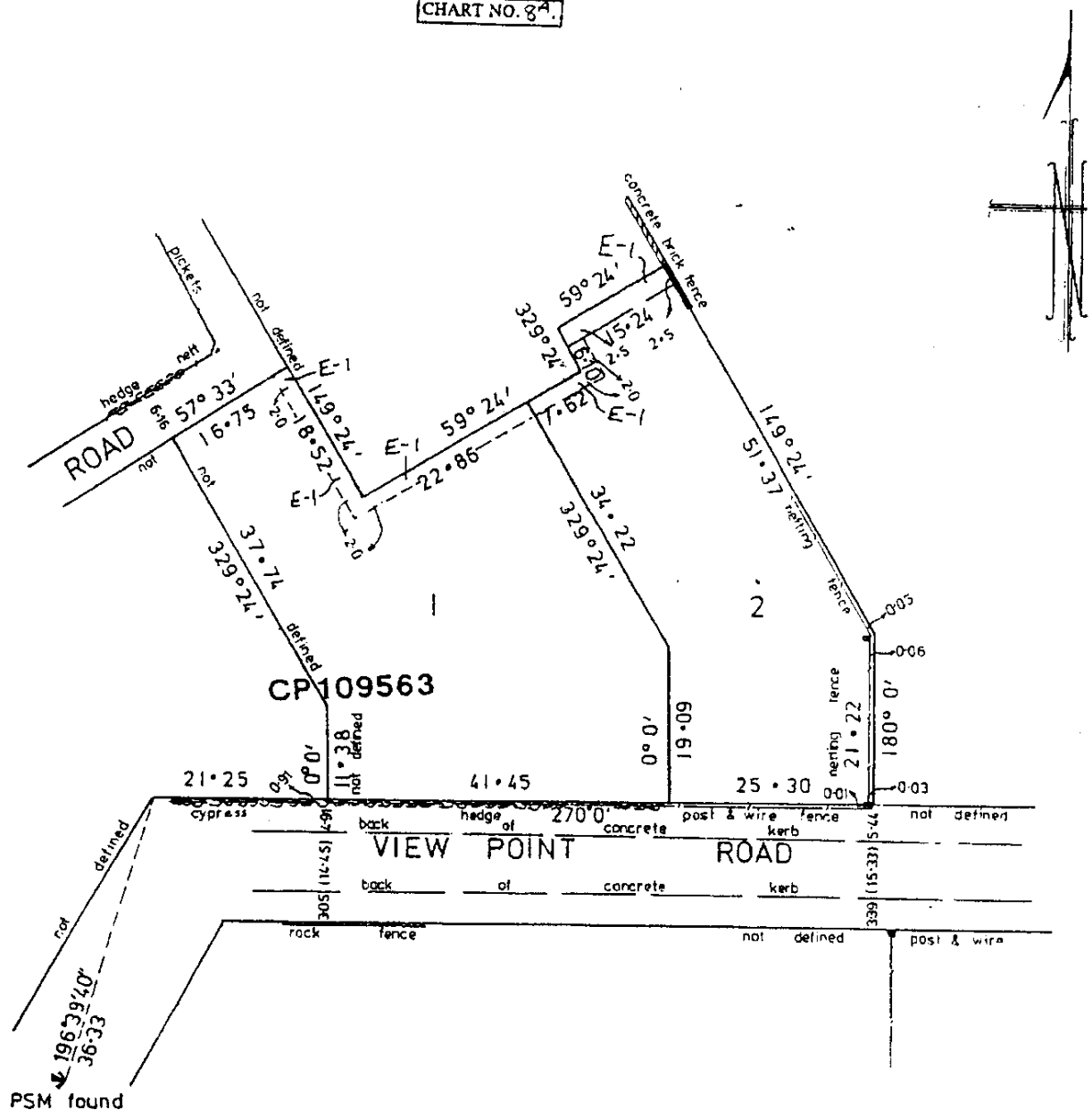
PLAN OF SUBDIVISION OF: PART OF CROWN PORTION I SECTION B PARISH: WANNAEUE COUNTY: MORNINGTON SCALE OF METRES 	APPROPRIATIONS DRAINAGE — BLUE	ENCUMBRANCES & OTHER NOTATIONS COLOUR CONVERSION E-1 = BLUE
--	---------------------------------------	---

CHART NO. 84.



ASSOCIATES P.L.L.C. 22707

NO.195 DO



C.E. Lawrance & Associates (Vic) Pty. Ltd. A.C.N. 052 42738
CONSULTING GEOTECHNICAL AND FOUNDATION ENGINEERS

P.O. Box 918, Ringwood, Victoria 3134 Telephone: (03) 9879 0384. Facsimile: (03) 9879 0256. Email: CEL@cel.com.au

Our Ref. : 02/0555
 Your Ref. : -

CLIENT : C A & P M Pugh
 3/4 Catherine Street
 McCRAE
 VIC 3938

Date: 30th April 2002



SITE INVESTIGATION REPORT

NUMBER 6 VIEW POINT ROAD, McCRAE.

It should be noted that **NO** responsibility will be taken if the following report is altered in any way or not reproduced in full.

For and on behalf of
C. E. Lawrance and Associates (Vic) Pty. Ltd.

Personal Information

C. E. Lawrance
 M. Eng. B. Eng. CP. Eng. Reg. Bld Practitioner No. EC1359

J.E. Lawrance & Associates (Vic) Pty.Ltd. ACN 052 142 739

CONSULTING GEOTECHNICAL AND FOUNDATION ENGINEERS

P.O. Box 918, Ringwood, Victoria 3134 Telephone: (03) 9879 0384. Facsimile: (03) 9879 0256. Email: CEL@cel.com.au

0 INTRODUCTION

1.1 Job Description

At this site a mainly ~~brick veneer~~ lightweight building is planned. This Company has been engaged by C A & P M Pugh to:

1. Place two boreholes over the proposed building area.
2. Conduct limited appropriate soil testing.
3. Classify the site in accordance with AS 2870.1996.
4. Recommend footing design details.

1.2 Field Testing Method

Boreholes were constructed using a hand auger. Representative insitu shear strength tests were conducted in any clay soils found at the site. The results of these tests, if undertaken, are given on the site investigation logs. Disturbed soil samples were collected and hand classified

1 SITE - SOIL CONDITIONS

2.1 Site Description

The site is located in an established residential estate. Over the approximate area of the proposed building the site falls up to 1000 mm. The existing site conditions that were present at the time of this investigation are shown on the photograph below.



2.2 Soil Profile

Full details of the soil profile, observed in the boreholes undertaken at this site, are given on the site investigation logs. It must be stressed that, as this company has only been commissioned to undertake two boreholes, variations in the soil profile may exist in areas not in close proximity to the boreholes (located as shown on the Borehole Plan). As such, it is recommended that the information given on the site logs be used as an 'approximate guide only' in determining costs associated with footing construction.

Any variations in the soil profile that are encountered during footing construction, which may involve significant alterations to the footings, must be notified to this company as soon as possible with all construction work being immediately stopped. If this situation arises or any

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significant earthworks are proposed or undertaken, then this report will need to be reviewed and, if appropriate, amended.

2.3 Site Geology

Based on the soil profile observed and an inspection of the appropriate geological map the site is located in an area of Devonian Granites.

2.4 Soil Moisture Condition

No ground water or perched water table was observed in the boreholes undertaken at this site. However, due to the slope of the site a cut-off drain along the entire high side of the proposed building area is also recommended. This drain must be founded at least 100 mm into the clay soil and should outlet to a legal point of discharge.

If construction is planned in the seasonally wetter months it may be necessary, FOR CONSTRUCTION PURPOSES ONLY, to dry out the building area by digging an open drain, 200 mm deeper than the founding depth of the recommended footings, alongside the high sides of the building area. It must be stressed that this drain will NOT be needed after footing construction has been completed.

2.5 Site Classification

After considering the area geology, soil profile, the results of hand classification tests, the building superstructure and AS 2870 this site has been classified as CLASS M. Note that the above classifications may have to be reconsidered if any proposed earthworks result in either a site cut over 500 mm or site filling over 400 mm in depth. It should be noted that this classification assumes potential differential surface soil movements of between 20 mm and 40 mm and consequently footing movements of the same order of magnitude. Therefore, it is recommended that the superstructure of the building be designed to tolerate this magnitude of movement.

In addition, ANY owner (current or future) of the site MUST be made aware of the following:

1. If the soil/footing movement, outlined above, occurs it may result in superstructure damage as outlined in Clause B3 pp 53 and Appendix C of AS 2870.
2. Their responsibilities (as outlined in the CSIRO document Sheet No 10-91). To be purchased from CSIRO Publications, 150 Oxford Street, (PO Box 1139), Collingwood, Victoria 3066, Australia Telephone (03) 9662 7500

0 FOOTING RECOMMENDATIONS (away from escarpment)

3.1 Footing Systems

The use of CLASS M type strip footings and stumps founded at a minimum depth of 600 mm but also 100 mm into the natural clayey sand to sand is recommended. Based on the observed condition of the sandy soils, an allowable bearing pressure of at least 175 kPa will exist beneath these footings

3.2 Concrete Slab

3.2.1 The use of a CLASS M type waffle slab with up to 300 max. fill.

OR

The use of the following CLASS M slab is recommended

3.2.1.1 A minimum slab freeboard of 150 mm.



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may be founded partly on the natural clayey sand to sand and partly on the natural sandy clay. The internal beams must have a maximum grid spacing of 6.0 metres and may be satisfactorily founded on any of the following materials; natural sandy clay, natural clayey sand to sand, shallow site derived filling or granular levelling filling (note that this spacing may be increased by 10 % in one direction where the spacing in the other direction is 20 % less than specified).

- 3.2.3 Based on the observed density of the natural sandy soils and the measured shear strengths in the natural sandy clay beneath the slab beams and after allowing for wetting up beneath the slab, an allowable bearing pressure of 125 kPa will exist beneath the slab beams founded on these natural soils.
- 3.2.4 Up to 600 mm of granular levelling fill or 300 mm of site derived filling may be placed under the slab panels and/or internal beams provided this filling is placed in 150 mm thick layers with each layer being well compacted with a light weight vibratory roller or vibratory plate tamper. Based on the likely condition of this levelling filling after having been placed in accordance with the above recommendations and after allowing for wetting up beneath the slab a conservative allowable bearing pressure of at least 50 kPa will exist beneath the slab panels and/or internal beams founded in this filling.
- 3.2.5 Over the building area where the total depth of filling exceeds 600 mm the slab panels must be designed as fully suspended and supported by a grid of deepened beams founded through the levelling filling in accordance with the above edge beam recommendations.
- 3.2.6 If shallow uncompacted surface filling is found to exist over parts of the site the internal beams and panels ONLY may be founded in this filling material provided that all soil with significant organic matter is removed prior to slab construction., once this is done an allowable bearing pressure of 30 kPa may be assumed in this shallow filling. If a higher bearing pressure is required the shallow fill must be compacted in accordance with clause 3.2.4 above.

FOOTING RECOMMENDATIONS (near escarpment)

4.1 Footing Systems

The use of deep bored piers founded well below a forty five degree angle taken from the base of the escarpment is recommended. Based on the observed condition of the sandy soils, an allowable bearing pressure of at least 400 kPa will exist beneath these piers. The piers must be used beneath either of the above footing systems in the vicinity of the escarpment. Their exact locations and depth will be determined once final house plans are completed.

In order to minimise the risk of further erosion of the escarpment face it is recommended that minimal excavation works and/or tree/scrub removal takes place. In fact it is recommended that further planting of deep rooted fast growing scrubs/trees be undertaken to help with stabilisation. Also care must be exercised with the design of the stormwater system. It is recommended that all stormwater be outlet to the street below by the use of sealed pipe work.

5.0 GENERAL INFORMATION

- 5.1 It should be noted that the colours of the various soil layers given on the site investigation log/s will vary with soil moisture content, therefore, colour alone should not be used to identify these soils.

Lawrance & Associates (Vic) Pty.Ltd. ACN 082 142 728 **CONSULTING GEOTECHNICAL AND FOUNDATION ENGINEERS**

P.O. Box 918, Ringwood, Victoria 3134 Telephone: (03) 9879 0384. Facsimile: (03) 9879 0256. Email: CEL@cel.com.au

- 5.2 The various soil layers observed in the boreholes are likely to vary in depth and thickness over the proposed building area, therefore, provided that the footings are founded in or on the soil described in the site investigation log/s then the requirements of this report will have been satisfied.
- 5.3 It must be stressed that varying the founding depths of the footings from the values recommended in this report may create problems for which this company will not accept responsibility
- 5.4 The construction and landscaping maintenance recommendations, detailed in the Appendix of this report, should be followed to ensure the satisfactory longterm performance of the recommended footings.

APPENDIX

Construction and Landscaping Maintenance

1. Unless a vertical barrier has been recommended at this site trees and large shrubs should not be planted or allowed to exist closer to the building than 0.75 times their mature height. This distance must be increased to 1.25 times the mature height where groups of trees exist on or adjacent to the site or bedrock exists close to the surface. If any trees are removed from the vicinity of the proposed building at this site, the soil in the affected area must be flooded or kept well watered for at least two to three months prior to any significant superstructure construction being commenced.
2. Once the footings have been placed the ground around them must be graded or drained so that no surface or ground water ponds against them.
3. Ensure that the superstructure of the proposed building is well articulated by eaves to footing construction joints at intervals of no greater than 5 metres, at the junction with any existing buildings and where the foundation material changes.
4. Any service drains that are constructed close to the proposed building (ie within a lateral distance which is equal to or less than the drain's depth) must be backfilled in 200 mm loose layers and well compacted by a vibratory plate tamper.
5. If a concrete slab is to be used at this site slab cracking due to concrete shrinkage is inevitable and can continue for up to 18 months. It is therefore not advisable to place brittle floor tiles for at least six months after the slab has been poured. This period allows the shrinkage cracks to develop and stabilise prior to laying brittle floor tiles. It is also advisable to use a flexible mortar or grout to fix the tiles to the slab.

C.E. LAWRENCE & ASSOCIATES P-L 1982/87

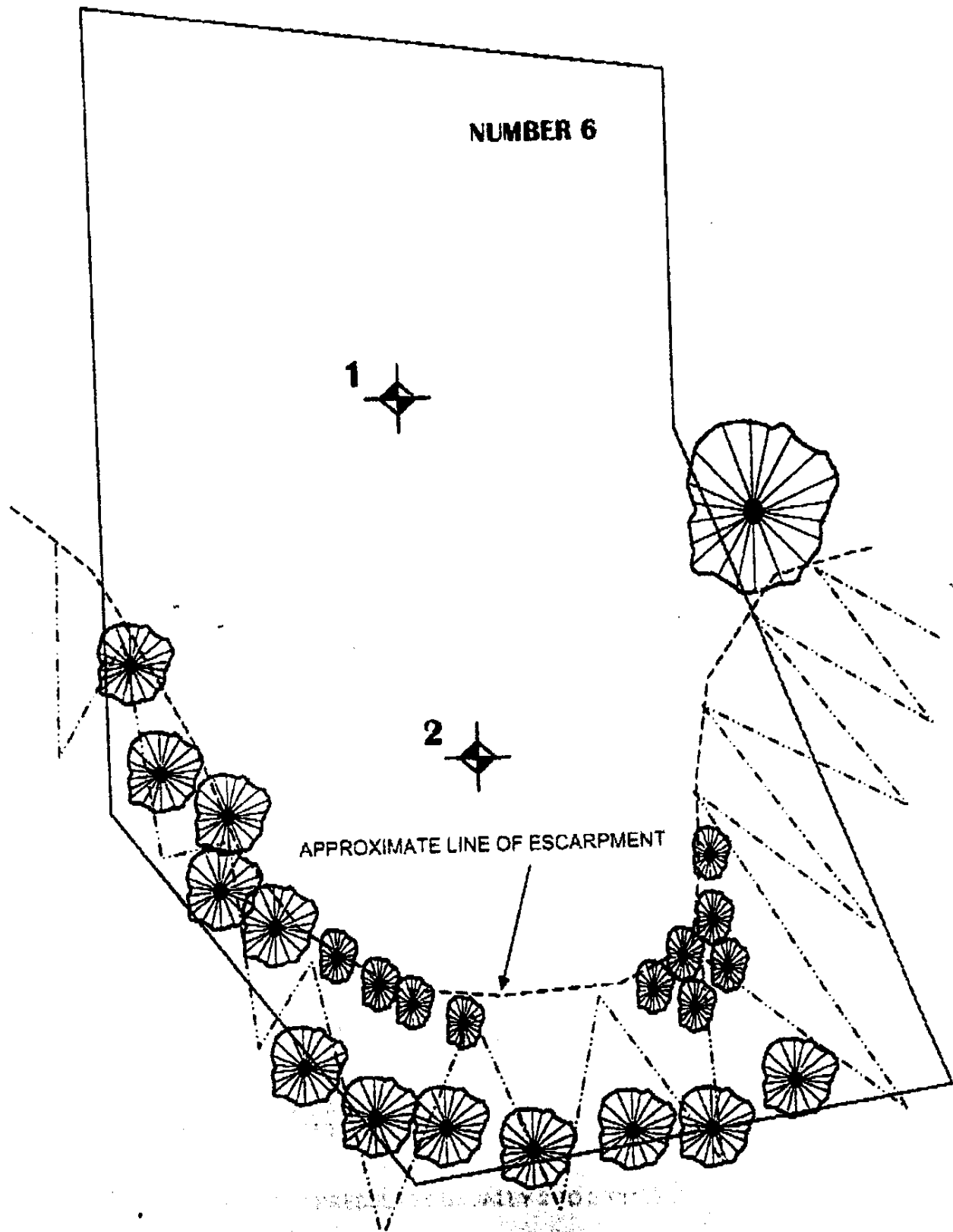
NO. 195 D06

Lawrence & Associates (Vic) Pty. Ltd. ACM 02 142 739
CONSULTING GEOTECHNICAL AND FOUNDATION ENGINEERS

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BOREHOLE PLAN
(NOT DRAWN TO SCALE)

VIEW POINT ROAD





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CONSULTING GEOTECHNICAL AND FOUNDATION ENGINEERS

P.O. Box 918, Ringwood, Victoria 3134 Telephone: (03) 9879 0384. Facsimile: (03) 9879 0256. Email: CEL@

SITE INVESTIGATION LOGS

BOREHOLE: ONE

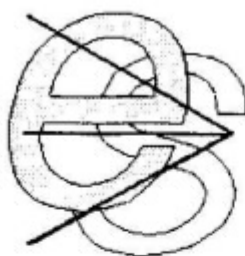
DEPTH m	DESCRIPTION	STRENGTH OR DENSITY *	MOISTURE CONDITION OR ESTIMATED CONTENT %
0.20	GREY/BROWN CLAYEY SAND AND SAND FILLING	MEDIUM DENSE	DRY
	GREY/BROWN CLAYEY SAND TO SAND BECOMING CEMENTED SAND	DENSE	DRY
	HAND AUGER REFUSAL 1.00 m		

BOREHOLE: TWO

DEPTH m	DESCRIPTION	STRENGTH OR DENSITY *	MOISTURE CONDITION OR ESTIMATED CONTENT %
0.10	GREY/BROWN CLAYEY SAND AND SAND FILLING	MEDIUM DENSE	DRY
	GREY/BROWN CLAYEY SAND TO SAND BECOMING CEMENTED SAND	DENSE	DRY
	HAND AUGER REFUSAL 1.10 m		

* FIRM = $C_v < 50 \text{ kPa}$
 STIFF = $50 \text{ kPa} < C_v < 100 \text{ kPa}$
 VERY STIFF = $100 \text{ kPa} < C_v < 150 \text{ kPa}$
 HARD = $150 \text{ kPa} < C_v$

NOTE : ALLOWABLE BEARING PRESSURES USUALLY 2 TO 3 TIMES C_v .



e-struct

Pty Ltd

civil and structural engineers

P.O. Box 7095, Karingal Centre, Karingal 3199

Ph: (03) 9785 6299

Mob: 0409 232 753

Fax: (03) 9789 7223

email: mail@e-struct.com.au

ACN 097 361 898

Form 13

**Building Act 1993
BUILDING REGULATIONS 1994
Regulation 15.7 (2)
CERTIFICATE OF COMPLIANCE - DESIGN**

To

Relevant Building Surveyor Nepean Building Permits
Postal Address PO Box 2234 Rosebud 3939

From

Building Practitioner Christopher Wladyslaw Rozycki - E-struct Pty Ltd Category/Class EC
Postal Address P.O. Box 7095, Karingal Post Code 3199

Property Details

Address 6 View Point Road City/Suburb/Town McCrae

Municipal District Shire of Mornington Peninsula

Compliance

I did prepared the design and I certify that the part of the design described as Proposed Residence
foundation and framing design

Complies with the following provisions of the Regulations

AS1170.0-4 - 2002, AS1627 - 1997, AS1672.1 - 1997, AS1720.1 - 1997, AS2312 - 2002, AS2870 - 1996,
AS3500.3.5 - 2000, AS3600 - 2001, AS3700 - 2001, AS3972 - 1997, AS4100 - 1998, AS4455 - 1997
Part 3.11 of Building Code of Australia - 1996, Volume 2

Design Documents

Drawing Nos. E5294-S1 to S10 Prepared by e-struct Date Oct 2003

Computations E5294 pp1-50 Prepared by e-struct Date Oct 2003

Referenced Test Reports

Soil Report 02/0555 Prepared by C.E Lawrance & Assoc. Date 30/04/02

Signature

Registration No. EC 16445

Personal Information

Signed Building Practitioner.....

Date 18/11/2003

www.e-struct.com.au

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY WILL BE TAKEN FOR INCORRECT OR MISLEADING INFORMATION PROVIDED BY THE CLIENT OR PERSONS ACTING ON THE CLIENT'S BEHALF FOR THE PURPOSES OF ENGINEERING DESIGN & DRAWING SPECIFICATIONS. DRAWINGS USED TO OBTAIN A BUILDING PERMIT, ARE CONSIDERED TO BE AN ACCEPTANCE BY THE CLIENT OF ALL TERMS AND CONDITIONS. AVAILABLE FROM www.e-struct.com.au OR CONTACT THIS OFFICE FOR A COPY

- G2 REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT NOTED ON ENGINEER'S DRAWINGS. DO NOT SCALE ENGINEERING DRAWINGS.
G3 ALL DIMENSIONS AND SET OUT TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES TO BE REFERRED TO THE ENGINEER.
G4 SUBSTITUTION SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
G5 THE STRUCTURAL WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS

AREA	LIVE LOAD KN/M ²
ROOF	0.75
FLOOR	15

- G6 DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVER STRESSED UNDER CONSTRUCTION ACTIVITIES.
G7 ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH THE RELEVANT S.A.A. CODES INCLUDING ALL AMENDMENTS, AND THE LOCAL STATUTORY AUTHORITIES EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
G8 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE. ALL LEVELS ARE IN METRES.

CONCRETE NOTES

- C1 ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS3600

REINFORCEMENT	COVER
SLAB (TOP)	30
SLAB (BOTTOM)	40
SLAB BEAM (BOTTOM)	50
STRIP FOOTING	50
PADS	50

- SUPPORTED ON BAR CHAIRS AT MAXIMUM SPACINGS OF 1200mm.
C3 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
C4 CONCRETE SECTIONS SHOWN ARE MINIMUM AND NO REDUCTION OF THESE SIZES BY DUCTS, PIPES, CONDUITS, ETC. CAN BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
C5 CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE SHOWN OR SPECIFICALLY APPROVED BY THE ENGINEER.
C6 REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION.
C7 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN OR OTHERWISE APPROVED BY THE ENGINEER.
C8 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
C9 ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS, OR SUPPORT BARS.
C10 REINFORCEMENT SYMBOLS
R - STRUCTURAL GRADE PLAIN ROUND BAR TO AS 1302
F - HARD DRAWN STEEL WIRE REINFORCING FABRIC TO AS 1304
Y - HEAT TREATED DEFORMED BAR TO AS 1302
THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NORMAL BAR DIAMETER IN mm.
C11 CAMBER UNLESS OTHERWISE NOTED ON DRAWINGS, SLABS SHALL BE GIVEN A POSITIVE UPWARD CAMBER AT MIDSPAN OF 3mm PER 1000mm SPAN.
METHOD OF CAMBERING IS TO BE AGREED WITH THE ENGINEER.
BEAMS SHALL BE CAMBERED AS SHOWN ON THE DRAWINGS (NEGATIVE CAMBER NOT ALLOWED).

C12 CONCRETE COMPONENTS AND QUALITY SHALL ACHIEVE SEVEN (7) DAY CONCRETE STRENGTH AS FOLLOWS

ELEMENT	F _{cd} (MPa)	DENSITY
SLABS	20	-
FOOTINGS	20	-
PADS	20	-
BLINDING	15	-

- C13 FORMWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS 3610.
C14 ALL PROPS AND FORMWORK FOR BEAMS AND SLABS SHALL BE REMOVED BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR PARTITIONS ON THE FLOOR.
C15 PROVIDE TWO LAYERS OF SUITABLE MEMBRANE (MALTHOID ETC.) OVER BRICKWORK SUPPORTING CONCRETE.
C16 CONCRETE SLABS SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN DAYS AFTER POURING OF CONCRETE.

- C17 FORMWORK SHALL BE LEFT IN PLACE (UNLESS OTHERWISE NOTED) FOR
GROUND SLAB NOTES
SLABS - 21 DAYS
BEAMS - 28 DAYS

- N1 ALL TOPSOIL CONTAINING GRASS ROOTS OR OTHER ORGANIC MATERIAL TO BE REMOVED PRIOR TO SLAB CONSTRUCTION.
N2 DRAINAGE MUST BE CONSTRUCTED TO AVOID WATER PONDING AGAINST OR NEAR THE FOOTING. THE GROUND IN THE IMMEDIATE VICINITY OF THE PERIMETER FOOTING SHALL BE GRADED TO FALL 50mm MIN AWAY FROM THE FOOTING OVER A 1m DISTANCE.
N3 FOOTING DESIGN AS PER AS2870 'RESIDENTIAL SLABS AND FOOTINGS'.
N4 ALL WORKMANSHIP TO COMPLY WITH AS3600 'CONCRETE STRUCTURES' AND AS2870 'RESIDENTIAL SLABS AND FOOTINGS'.

SOIL CLASSIFICATION 'CLASS M'

REFER SOIL REPORT

02/0555, C.E. LAWRENCE & ASSOCIATES P/L

FOR FOUNDATION MATERIAL & DEPTHS

- N5 BUILDER/OWNER MUST COMPLY WITH ALL RECOMMENDATIONS & REQUIREMENTS SPECIFIED BY THE SOIL REPORT.
N6 SLAB MESH, SLAB BEAM OR STRIP FOOTING REINFORCEMENT SHALL BE LAPPED TO MANUFACTURER'S SPECIFICATIONS. ALL REINFORCEMENT TO BE SUPPORTED ON BAR CHAIRS AT MAXIMUM SPACINGS OF 1200mm.
N7 A VAPOUR BARRIER MEMBRANE MUST BE USED BENEATH THE SLAB AND CONSIST OF U.V. - PROOF POLYETHYLENE, 0.2mm THICK, LAPPED 300mm AND TAPED AT JOINTS.
N8 THE OWNER'S ATTENTION IS DRAWN TO 'APPENDIX B' OF AS2870 - 'PERFORMANCE REQUIREMENTS AND FOUNDATION MAINTENANCE'.
C.S.I.R.O. PAMPHLET 10/91 'GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE & FOOTING PERFORMANCE'.

TIMBER NOTES

- T1 ALL TIMBER FRAMING WORK SHALL COMPLY WITH WITH THE CURRENT AS 1720.1, AS1684 AND THE PROJECT SPECIFICATION.
T2 ALL TIMBER LAMINATIONS SHALL BE CONTINUOUSLY NAILLED & ALSO FOR THREE SECTIONS, M120 BOLTS @ 600 CTS.
T3 OREGON TIMBER SHALL BE UNSEASONED, STRENGTH GROUP S4, STRESS GRADE F7.
PINE TIMBER SHALL BE KILN DRIED SEASONED RADIATA PINE, STRENGTH GROUP SD4, STRESS GRADE F5, F7, F8.
KOHU TIMBER SHALL BE KILN DRIED SEASONED HARDWOOD, STRENGTH GROUP SD3, STRESS GRADE F17.
OBHU TIMBER SHALL BE UNSEASONED HARDWOOD, STRENGTH GROUP S4, STRESS GRADE F8.
LVL TIMBER SHALL BE LAMINATED VENEER LUMBER, STRESS GRADE F16 TO AS1720 & MANUFACTURER'S SPECIFICATIONS.
GLULAM TIMBER SHALL BE GLUE LAMINATED TIMBER, STRESS GRADE F13 TO AS1720 & MANUFACTURER'S SPECIFICATIONS.
T4 ALL TIMBER LINTELS OVER OPENINGS TO BE INSTALLED WITHIN FRAMING DIRECTLY UNDER TOP PLATE.
T5 ALL STEEL PLATES, WASHERS, BOLTS AND NUTS FOR TIMBER FIXINGS SHALL COMPLY WITH AS4100 & AS 1720.1.
T6 TIMBER FRAMING FOR FLOORS AND WALLS SHALL BE ADEQUATELY BRACED TO AS1684.

T7 THE BUILDER SHALL RE-TIGHTEN ALL EXPOSED BOLTS TO TIMBER WORK JUST PRIOR TO PRACTICAL COMPLETION. INACCESSIBLE BOLTS SHALL BE RE-TIGHTENED JUST PRIOR TO INSTALLATION OF FINISHES OR CLADDING.

T8 PROVIDE TIMBER BLOCKING BETWEEN ALL RAFTERS, FLOOR & BALCONY JOISTS AT 1800mm CENTRES MAXIMUM.

T9 IN GENERAL, UNLESS OTHERWISE NOTED, FOR BOLTED JOINTS END DISTANCE TO BOLTS SHALL BE NOT LESS THAN 5 TIMES THE NOMINAL BOLT DIAMETER. EDGE DISTANCE TO BOLTS SHALL BE NOT LESS THAN 4 TIMES THE NOMINAL BOLT DIAMETER.

T10 PROVIDE WEATHER RESISTANT TREATMENT TO ALL EXTERNAL & EXPOSED TIMBER FRAMING.

STEELWORK NOTES

- S1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100.
S2 WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554.
S3 BOLTS NOT DESIGNATED SHALL BE 4.6/5 BOLTS TO AS4100 TIGHTENED TO A SNUG FIT. BOLTS DESIGNATED 8.8/5, 8.8/TB & 8.8/TF BOLTS AS HIGH STRENGTH TO AS4100.
S4 THE CONTRACTOR SHALL PROVIDE AND LEAVE IN PLACE, UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED, SUCH TEMPORARY BRACING AS IS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.
S5 CONCRETE ENCASED STEELWORK SHALL BE WRAPPED WITH F41 FABRIC UNLESS NOTED OTHERWISE.
S6 THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH NOMINAL THICKNESS PLATES AND CONTINUOUS FILLET WELD UNLESS NOTED OTHERWISE.
S7 UNLESS NOTED OTHERWISE, WELDS TO BE 6mm CONTINUOUS FILLET.
S8 ALL INTERNAL STEELWORK, EXCEPTING THAT ENCASED IN CONCRETE, FIRE SPRAYED OR HSTF CONNECTIONS, SHALL BE THOROUGHLY WIRE BRUSHED TO AS 1627 AND PAINTED WITH ONE COAT OF APPROVED ZINC RICH PRIMER UNLESS NOTED OTHERWISE.
S9 ALL EXTERNAL STEELWORK & ALL STEELWORK WITHIN 1km OF THE COAST SHALL BE HOT DIPPED GALVANISED OR EQUIVALENT CORROSION PROTECTION TO AS 2311 & AS 2312. AS STEEL MAY BECOME BENT OR TWISTED FROM THIS PROCESS, BUILDER/OWNER TO VERIFY STEEL HAS BEEN STRAIGHTENED PRIOR TO INSTALLATION.
S10 ALL STEELWORK BELOW GROUND SHALL BE ENCASED IN 75mm CLEAR COVER OF 25MPa CONCRETE UNLESS NOTED OTHERWISE.
S11 BEFORE FABRICATION IS COMMENCED THE CONTRACTOR SHALL SUBMIT COPIES OF THE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW.
REVIEW DOES NOT INCLUDE CHECKING OF DIMENSIONS.
S12 ALL STEELWORK TO BE MINIMUM 300 GRADE TO AS4100 UNLESS NOTED OTHERWISE.

MASONRY NOTES

- B1 ALL MASONRY SHALL COMPLY WITH A.S. 4455 AND A.S. 3700, WITH STRENGTH:
F_{cd} = 15 MPa FOR STRUCTURAL CONCRETE BLOCKWORK
F_{cd} = 30 MPa FOR STRUCTURAL CLAY BRICKWORK.
B2 ALL MORTAR SHALL BE GP, VOLUME BATCHED, MACHINE MIXED CONCRETE MORTAR MIX (CEMENT : LIME : SAND) (COMPLYING WITH AS1672.1 & AS 3972 GENERALLY M3 TYPE (1 : 1 : 6 OR 1 : 0.5 : 5 & METHYL CELLULOSE WATER THICKENER) FOR SEVERE MARINE ENVIRONMENTS.
M4 TYPE (1 : 0.5 : 4.5 OR 1 : 0.4 : 4 & METHYL CELLULOSE WATER THICKENER).
B3 GROUT FOR RETAINING WALLS SHALL BE READY MIXED CONCRETE F_{cd} = 25 MPa MINIMUM UNLESS NOTED OTHERWISE, 10mm MAX. AGGREGATE PLACED IN 1000mm LIFTS MAXIMUM.
B4 PLACE 2 LAYERS OF MALTHOID UNDER CONCRETE FOR FULL THICKNESS AND LENGTH OF MASONRY WALL.
B5 VERTICAL CONTROL JOINTS SHALL BE LOCATED AT 6m MAX. CTS OR 4m CTS FOR CLASS HJ-D & P. ALSO MIN 0.5m & NO MORE THAN 3m FROM CORNERS TO COMPLY WITH AS3700 & RELEVANT AUTHORITY REGULATIONS.
B6 MASONRY LINTEL & TIES TO COMPLY WITH AS2649.1 GENERALLY R3 TYPE. HOT DIPPED GALVANISED FOR SEVERE MARINE ENVIRONMENTS. R4 OR R5 TYPE (STAINLESS STEEL).

Rev.	Date	Description

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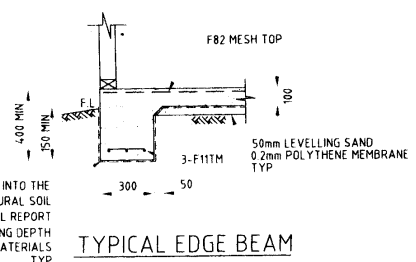


Design: PROPOSED RESIDENCE
6 VIEW POINT ROAD
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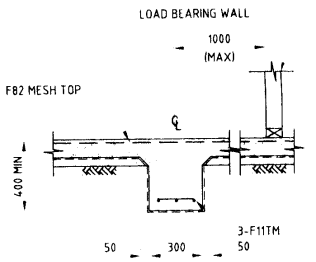
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Drawn: RGS	Sheet:
Job No: ES294-S1	Rev:

Design	CR	Date	OCT 03
Drawn	CR	Scale	1:200
Job No		Rev	
E5294-S2		C	

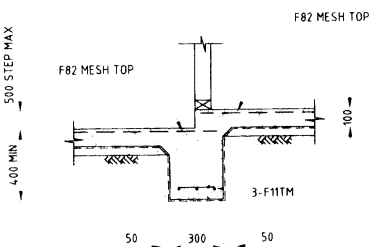
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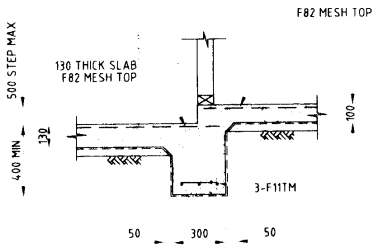
TYPICAL EDGE BEAM



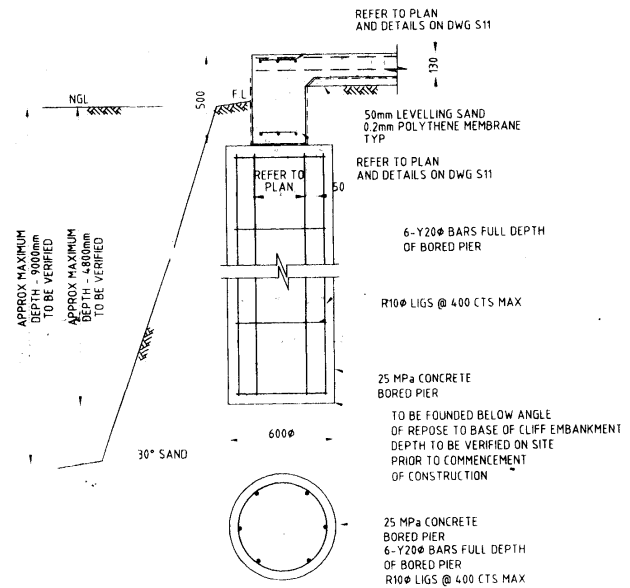
TYPICAL INTERNAL BEAM



TYPICAL SLAB STEP DETAIL



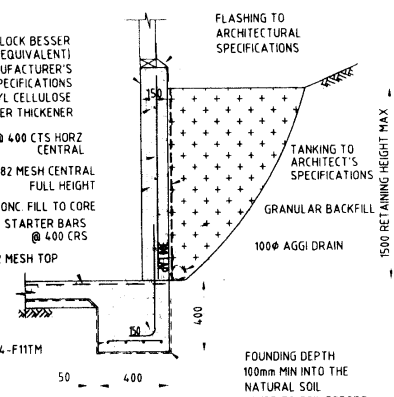
LIFT WELL SLAB STEP DETAIL



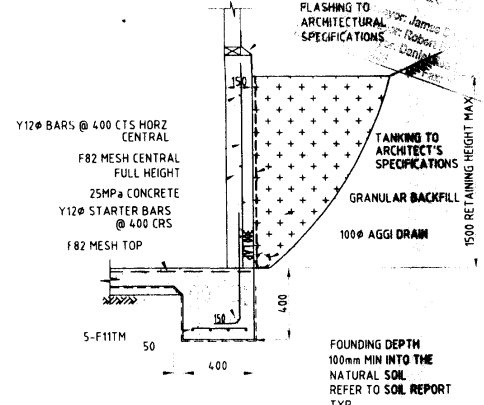
TYPICAL REINFORCED BORED PIER DETAIL

20-48 'H' BLOCK BESSER BLOCKWORK (OR EQUIVALENT) TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS 10-5 MORTAR & METHYL CELLULOSE WATER THICKENER

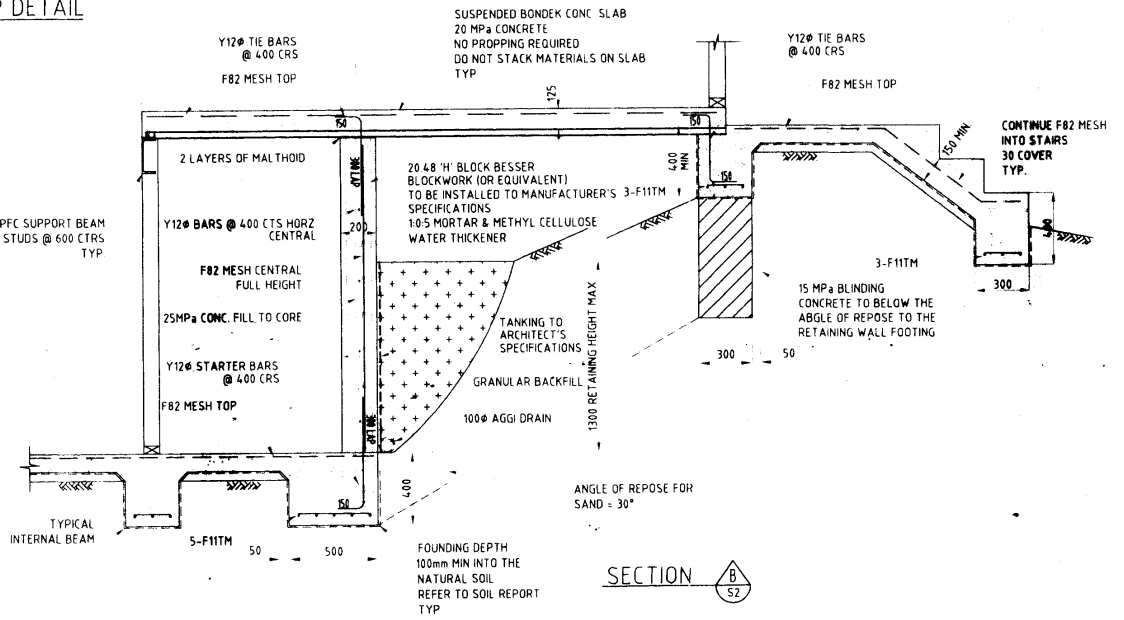
Y12@ BARS @ 400 CTS HORZ CENTRAL
F82 MESH CENTRAL FULL HEIGHT
25MPa CONC. FILL TO CORE
Y12@ STARTER BARS @ 400 CRS
F82 MESH TOP



TYPICAL RETAINING WALL SECTION C



ALTERNATIVE CONCRETE RETAINING WALL FULLY FORMED ON SITE FORMWORK AND PROPPING TO REMAIN UNTIL CONCRETE FULLY CURED IN BOTH RETAINING WALL AND FOOTINGS



SECTION B

Rev.	Date	Description
A	10/12/03	GENERAL MODIFICATIONS

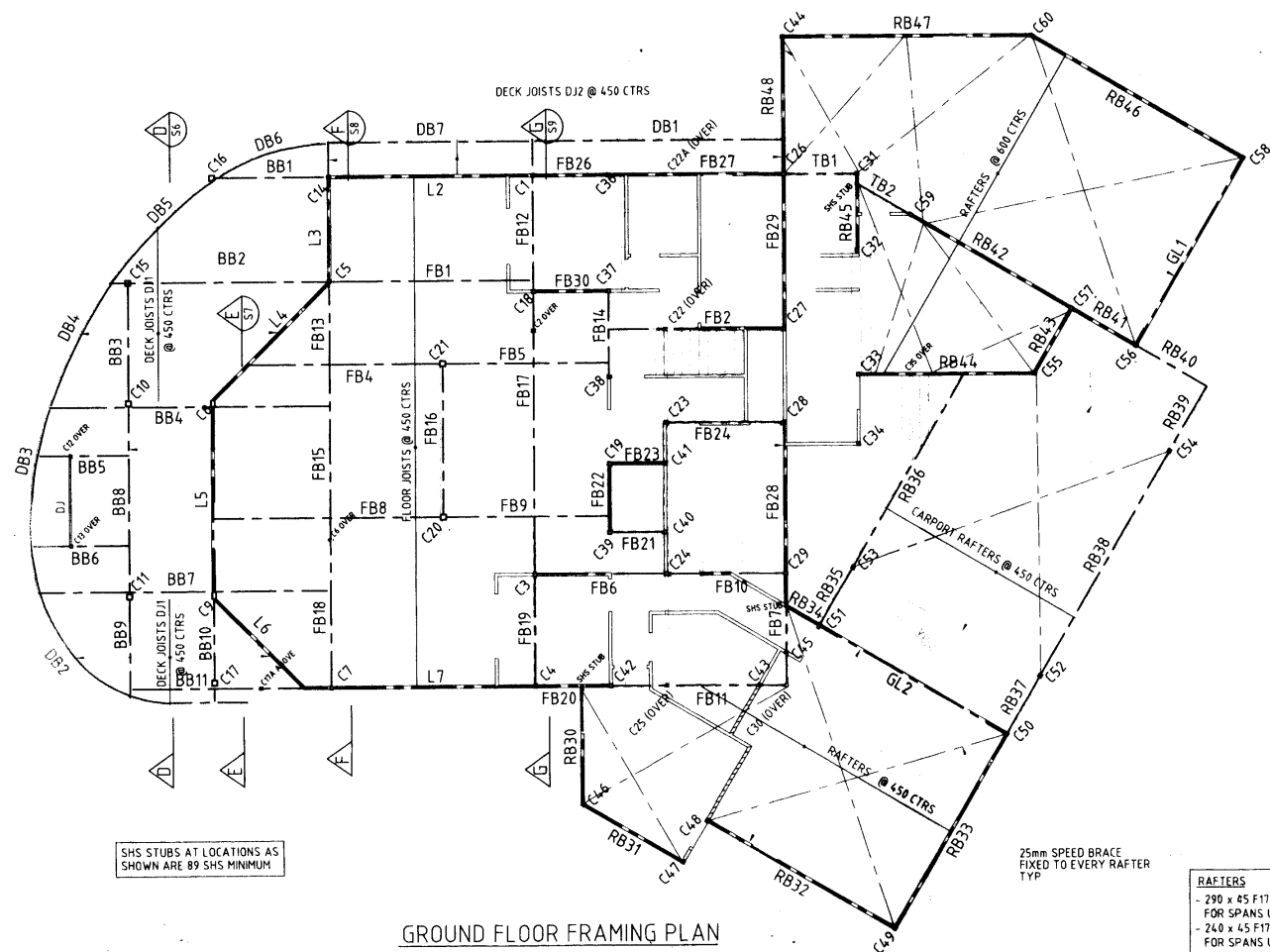
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Design	RG5	Date	AUG 02
Drawn	RG5	Scale	1:20
Job No	E5294-S3	Rev	A



GROUND FLOOR FRAMING PLAN

MEMBER SCHEDULE	
MARK	DESCRIPTION
DB1-DB8	300 PFC (CURVED TO SUIT ARCHITECTURAL SPEC.)
GL1, GL2, L6	200 PFC
FB3, FB7, FB21, FB23, FB28, FB29	200 PFC
FB1, FB5, FB9, FB14, FB22, FB30, BB1, BB2	200 UB 25
RB32, RB33, RB35, RB37, RB39, RB40-RB43, RB46-RB48	200 PFC
FB4, FB5, FB8, FB9	200 UC 52
L5, BB3, BB8, BB9	250 UB 37
TB1, TB2, RB30, RB31, RB34, RB45	180 PFC
RB36, RB38, RB44	250 PFC
L2, L3, L4, L7, FB11, FB16, FB20, FB26, FB27	250 PFC
BB4, BB7, BB10, BB11	250 PFC
FB1, FB2, FB6, FB10, FB12, FB13, FB15	200 UB 25
FB17, FB18, FB19, FB24, FB30, BB1, BB2, BB5, BB6, BB11	200 UB 25
C1, C3, C4, C5, C7, C14, C18	100x100x9 SHS (GR350)
C8, C9	200x100x6 SHS (GR350)
C10, C11, C15, C16, C17, C20, C21	150x150x9 SHS (GR350)
C19, C23, C24, C26-C29, C31-C60	89x89x6 SHS (GR350)
TKD	3/90 x 45 F17 KDHW, TRIPLE STUDS
KD	2/90 x 45 F17 KDHW, DOUBLE STUDS
DS	2/90 x 45 F5 PINE, DOUBLE STUDS

FLOOR JOISTS
- 240 x 45 F17 KDHW @ 450 CTS - MAX 4800 SPAN
- 250 NOM POSISTRUT FLOOR JOISTS @ 450 CTS (TO MANUFACTURERS SPECIFICATIONS)
- 250 NOM LONGREACH FLOOR JOISTS @ 450 CTS (TO MANUFACTURERS SPECIFICATIONS)

DECK JOISTS - DJ1
- 240 x 45 F7 TREATED PINE @ 450 CTS

DECK JOISTS - DJ2
- 140 x 45 F7 TREATED PINE @ 450 CTS

DJ - DENOTES DOUBLE JOISTS
DJ UNDER WALLS AND POINT LOADS TYP.

RAFTERS
- 290 x 45 F17 KDHW @ 600 CTRS FOR SPANS UP TO 6700
- 240 x 45 F17 KDHW @ 450 CTRS FOR SPANS UP TO 6300
- 240 x 45 F17 KDHW @ 600 CTRS FOR SPANS UP TO 6000
- 240 x 45 F17 KDHW @ 900 CTRS FOR SPANS UP TO 5400

CARPORT RAFTERS
- 240 x 45 F16 LVL SMARTFRAME LOSP TREATED (H3) @ 450 CTRS (MAX 6200 SPAN)

ALTERNATIVELY:
ROOF TRUSSES FOR SPANS AS MENTIONED TO DETAILS AND SPECIFICATIONS BY THE MANUFACTURER

BRACING
TYPE B1 - 4 kN/m BRACING
6mm THICK PLYWOOD PANEL
TIMBER STUDS @ 450 CTS
28mm P CLOUTS NAILLED AT:
50mm CENTRES ALONG TOP & BOTTOM PLATES
150mm CENTRES ALONG VERTICAL EDGES
300mm CENTRES ALONG INTERMEDIATE STUDS

TYPE B2 - 4 kN/m BRACING
DIAGONAL TENSION METAL BRACES
REFER TO 'TIMBER FRAMING MANUAL' FOR DETAILS
DENOTED ON PLAN AS - B1 (B2)

B2 BRACING CAN BE SUBSTITUTED FOR B1 BRACING
MIN B2 BRACING LENGTH 1.8m
B1 BRACING IS TO BE INSTALLED IN ALL EXTERNAL CORNERS OF WALLS BOTH DIRECTIONS (900mm OR TO NEAREST OPENING) UNLESS NOTED OTHERWISE

UPPER STOREY POST, STUD & COLUMN SIZES TO BE CARRIED THROUGH TO FOUNDATIONS UNLESS NOTED OTHERWISE

ALL TIMBER FRAMING, BRACING & TIE DOWNS TO BE IN ACCORD WITH AS1684 'LIGHT TIMBER FRAMING CODE'

ALL EXTERNAL TIMBER TO BE TREATED AGAINST WEATHER EXPOSURE

ALL TIMBER FRAMING & BRACING NOT SPECIFIED IS TO BE IN STRICT ACCORDANCE WITH AS1684 'LIGHT TIMBER FRAMING CODE' & ARCHITECTURAL SPECIFICATIONS

ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANISED OR EQUIVALENT CORROSION PROTECTION TO AS2311 & AS 2312

Rev	Date	Remarks

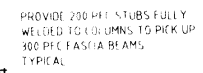
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Design	RG5
Drawn	RG5
Scale	1:100
Job No	E5294-S4
Rev	

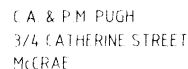


25mm SPEED BRACE
FIXED TO EVERY RAFTER
TYP

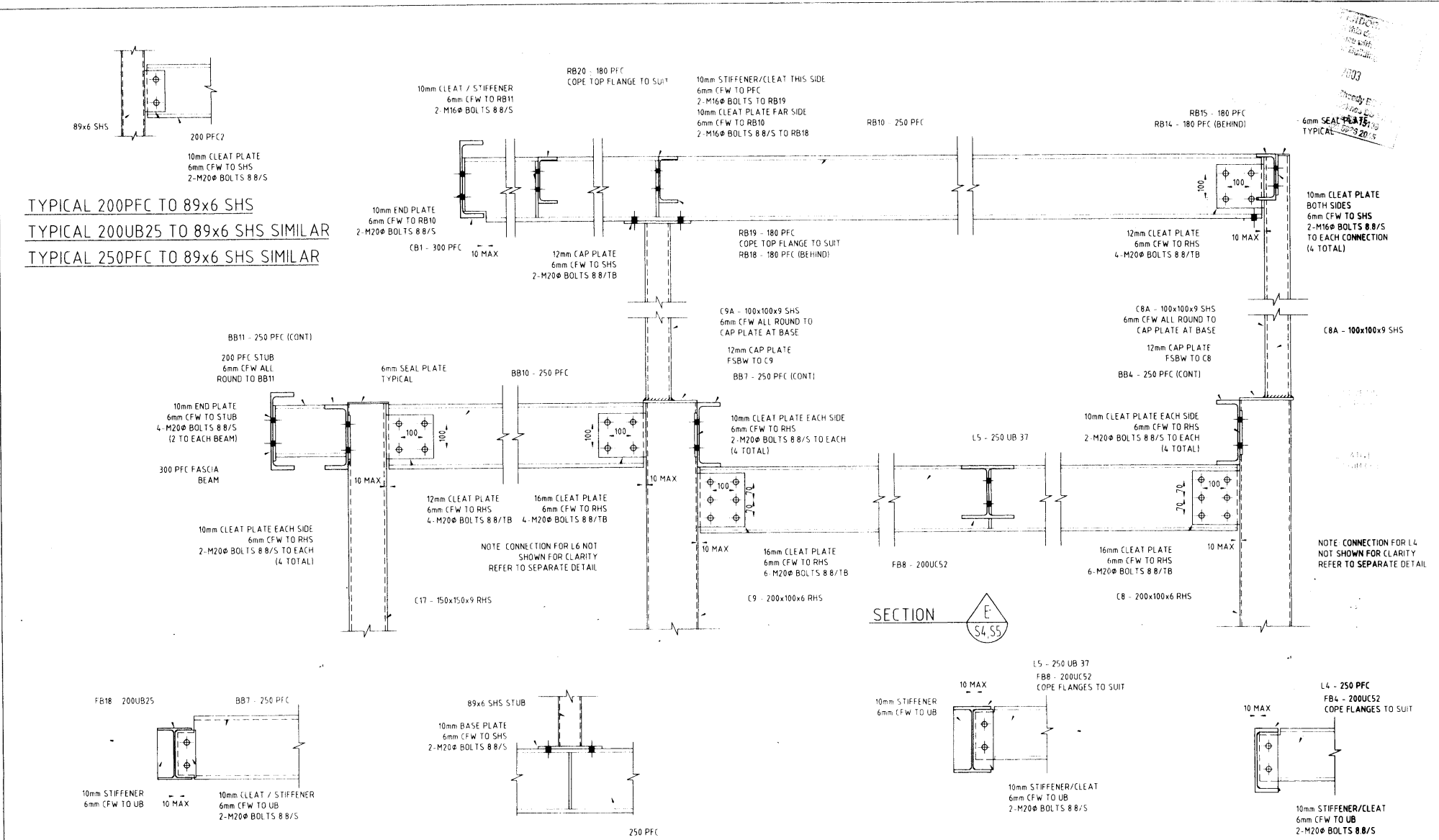
RAILINGS
240 x 45 F17 KDHW @ 600 CTRS
FOR SPANS UP TO 6000
240 x 45 F17 KDHW @ 900 CTRS
FOR SPANS UP TO 5400
ALTERNATIVELY
ROOF TRUSSES FOR SPANS AS MENTIONED
TO DETAILS AND SPECIFICATIONS BY THE
THE MANUFACTURER

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH NOTES. SEE

RGS	Date	01/01/00
RGS	Time	1100
F5294-S5		



DATE	RGS	FILE	07102
	RGS	SERIAL	116
		E5294-S6	



TYPICAL 200PFC TO 89x6 SHS
TYPICAL 200UB25 TO 89x6 SHS SIMILAR
TYPICAL 250PFC TO 89x6 SHS SIMILAR

BB7 TO FB18 CONNECTION DETAIL
BB4 TO FB15 CONNECTION SIMILAR
BB11 TO FB18 CONNECTION SIMILAR

TYPICAL STUB TO 250 PFC DETAIL

FB8 TO L5 CONNECTION DETAIL

FB4 TO L4 CONNECTION DETAIL

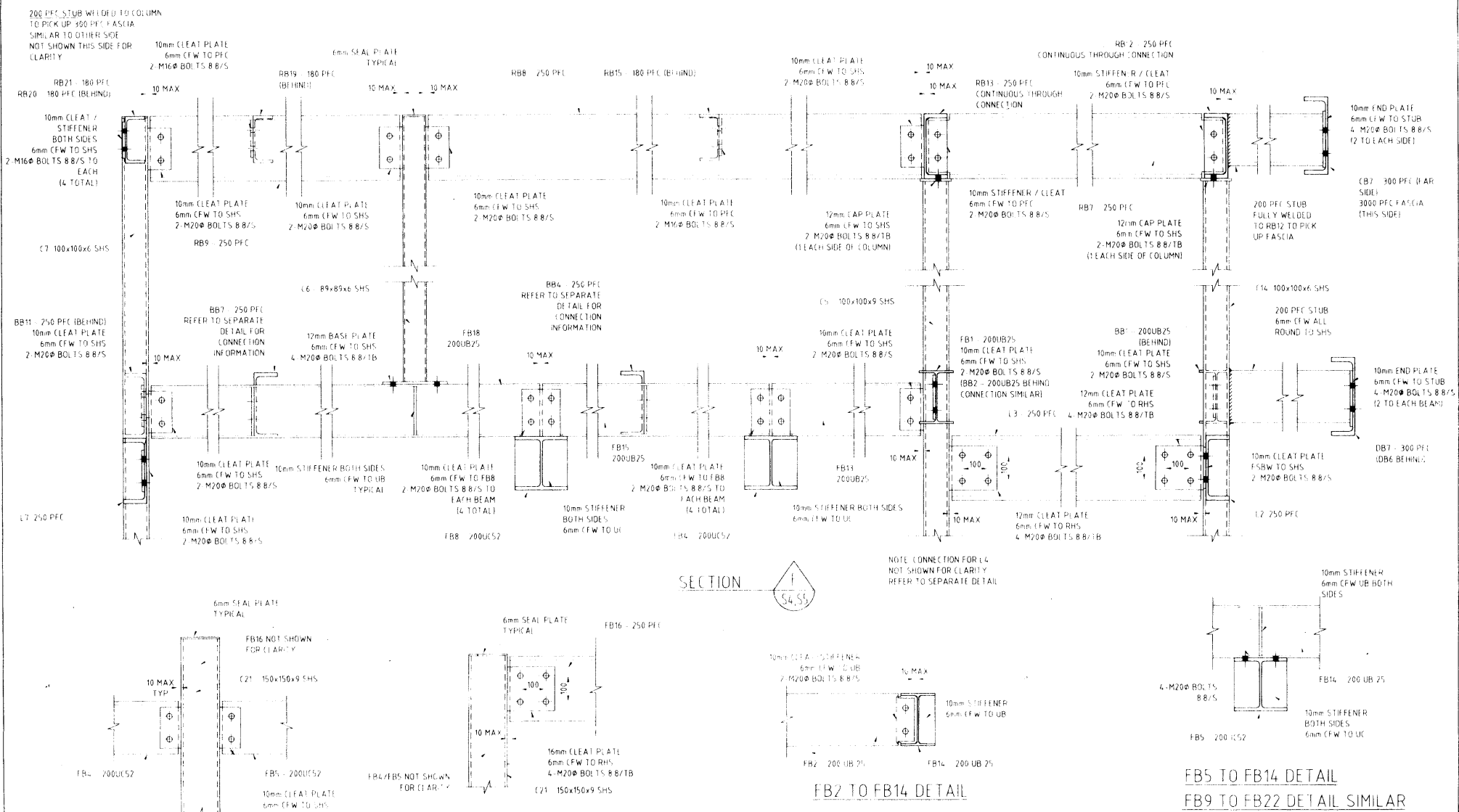
NO	DATE	REVISIONS

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DESIGNED	RG	DATE	OCT 03
CHECKED	RG	SCALE	1:10
DRAWN	RG		
PROJECT NO.	E5294-S7		



FB4 & FB5 TO C21 DETAIL
FB8 & FB9 TO C20 SIMILAR

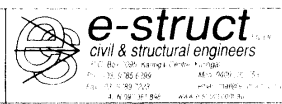
FB16 TO C21 DETAIL
FB16 TO C20 SIMILAR

FB2 TO FB14 DETAIL

FB5 TO FB14 DETAIL
FB9 TO FB22 DETAIL SIMILAR

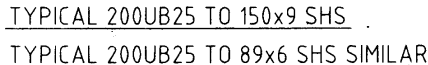
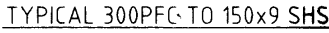
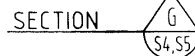
NO.	REV.	DESCRIPTION

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TYPICAL 200UB25 TO 300 PFC FASCIA

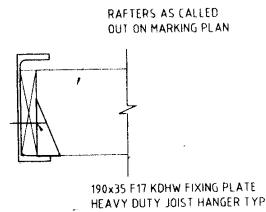
Rev.	Date	Remarks

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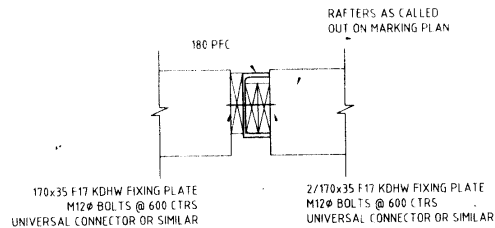


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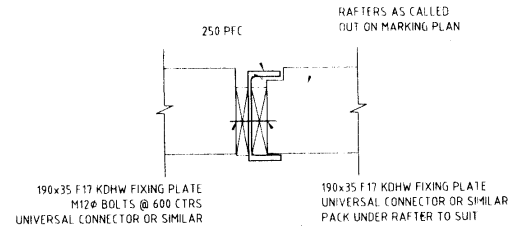
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Drawn	RGS	Scale	1:10
Job No	E5294-S9		Rev



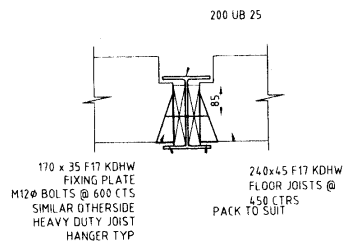
TYP. RAFTERS TO 300 PFC



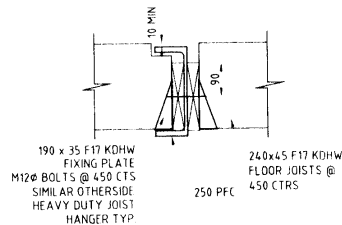
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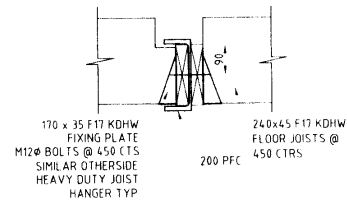
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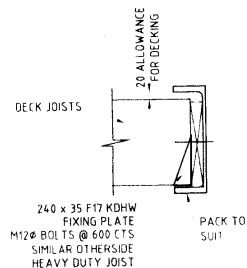
TYP. FLOOR JOISTS TO 200UB25



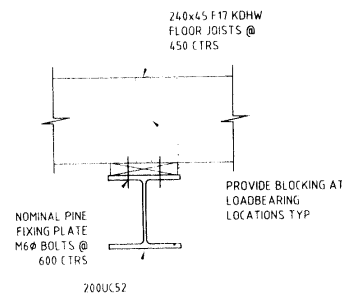
TYP. FLOOR JOISTS TO 250 PFC



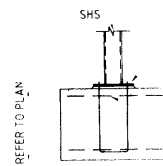
TYP. FLOOR JOISTS TO 200 PFC



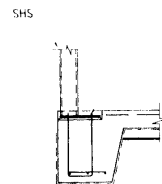
TYP. DECK JOISTS TO 300 PFC



TYP. FLOOR JOISTS TO 200 UC 52



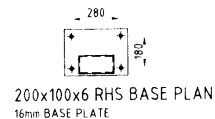
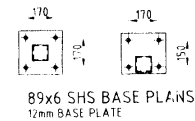
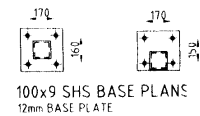
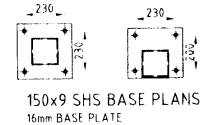
PAD FOOTING FIXITY



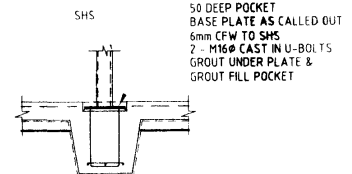
EDGE BEAM FIXITY

BASE PLATE AS CALLED OUT
6mm CFW TO SHS
4 - M16 CHEMSETS
GROUT UNDER PLATE &
100mm (MINI) CONCRETE COVER
OVER CONNECTION

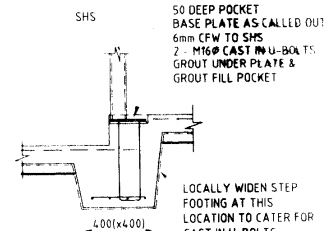
F82 MESH TOP & BOTTOM



TYPICAL COLUMN BASE DETAILS



INTERNAL BEAM FIXITY



INTERNAL BEAM FIXITY

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH NOTES SHEET

Rev	Chg	Description

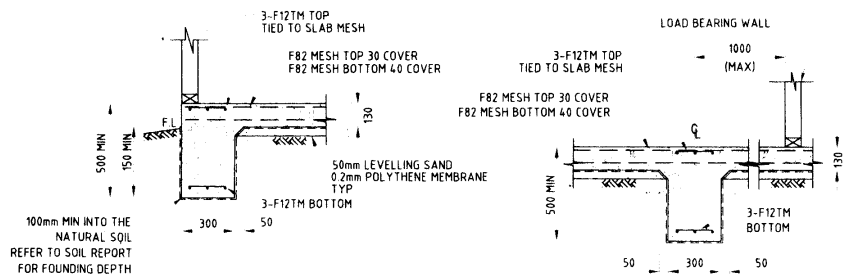
C A & P.M. PUGH
3/4 CATHERINE STREET
McCRAE



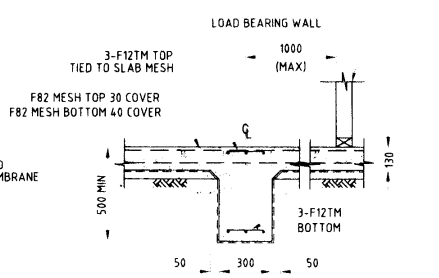
PROPOSED RESIDENCE
6 VIEW POINT ROAD
McCRAE

Design	RGS	Date	OCT 03
Check	RGS	Scale	1:10
Drawn			

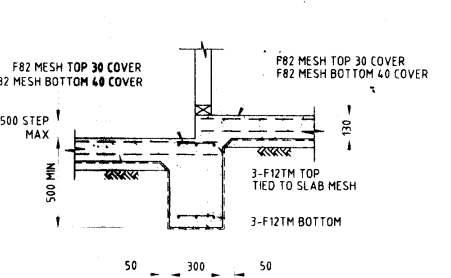
E5294-S10



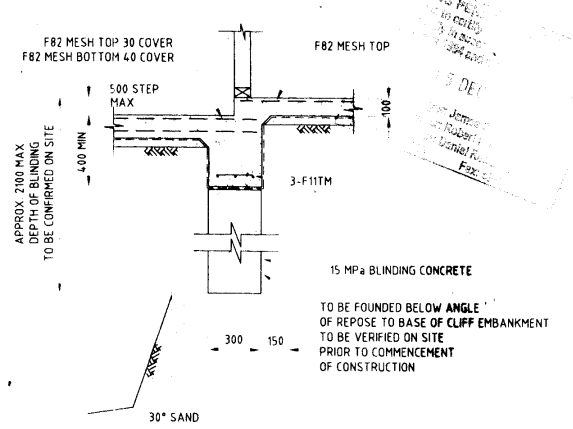
TYPICAL SUSPENDED EDGE BEAM



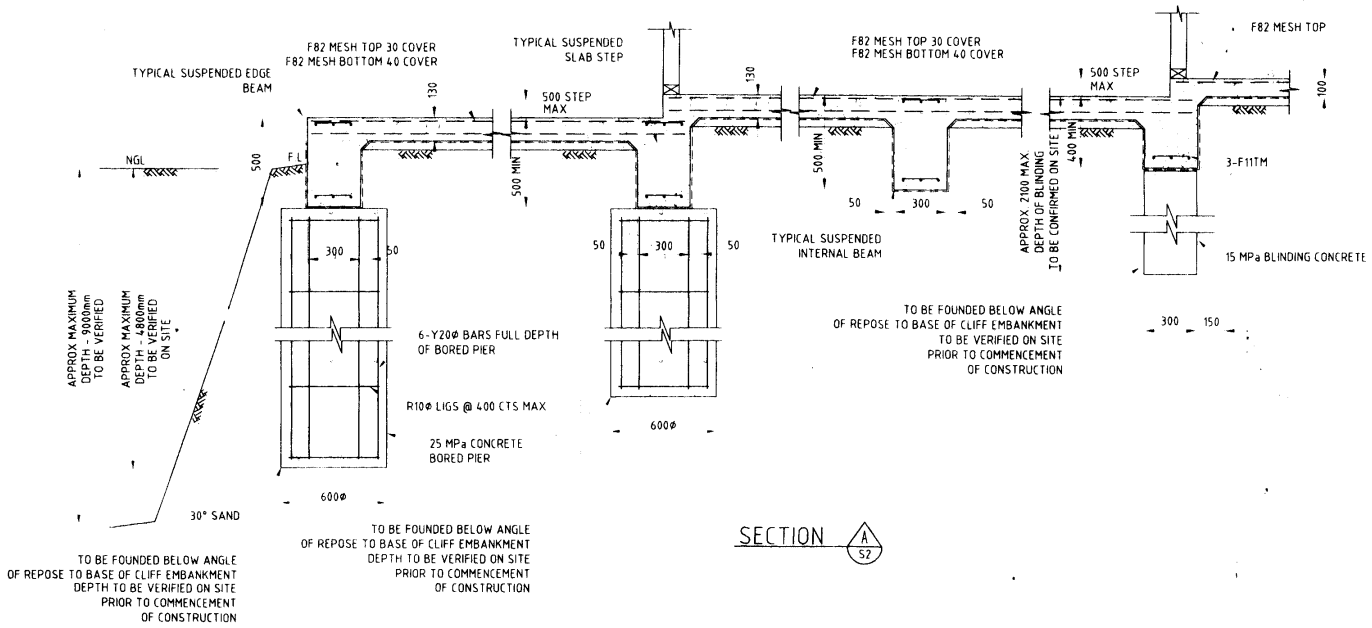
TYPICAL SUSPENDED INTERNAL BEAM



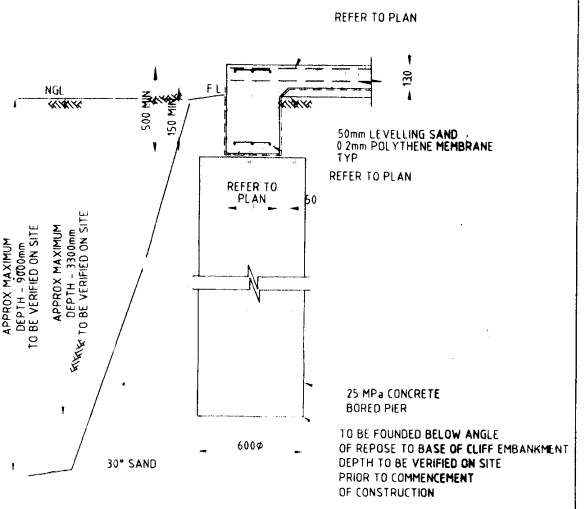
TYPICAL SUSPENDED SLAB STEP DETAIL



TYPICAL ANGLE OF REPOSE ON SLAB STEP



SECTION A-A



TYPICAL 'URP' UNREINFORCED BORED PIER DETAIL

Rev	Date	Description
A	12/12/03	SECTION ADDED

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Ph: (08) 9750 6970 Fax: (08) 9750 7223
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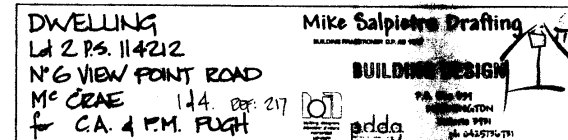
PROPOSED RESIDENCE
6 VIEW POINT ROAD
McCRAE

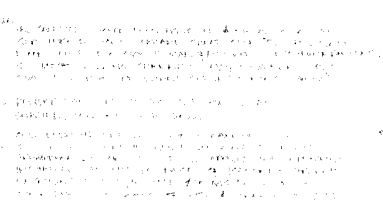
Design	RG5	Date	DEC 03
Drawn	RG5	Scale	1:20
Job No	E5294-S11	Rev	A

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH NOTES SHEET

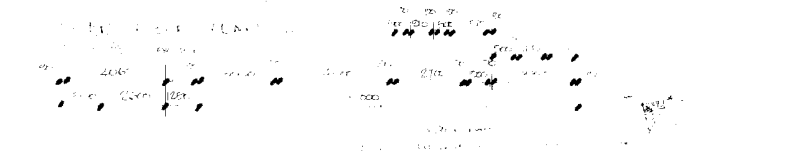
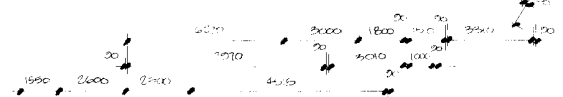
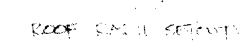
General Notes for Residential Works (new)

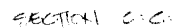
SITE / CONTEXT PLAN: 1:2500





* Affine: $z = \frac{1}{2}(x+y)$ and $w = \frac{1}{2}(x-y)$ are the new coordinates. The new axes are $x = z+w$ and $y = z-w$.



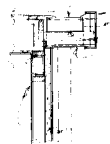
[illegible]

It is important to note that the above results are based on the assumption that the system is in a steady state. In practice, the system may be in a transient state, and the results may differ. However, the above results provide a useful approximation for the steady-state behavior of the system.

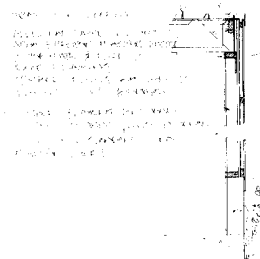
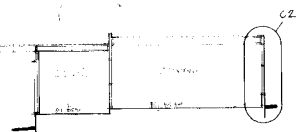


CONFIDENTIAL

TYPICAL BOX GUTTER DETAILS:


$$\frac{d}{dt} \left(\int_{\Omega} u^2 dx + \int_{\Gamma} u^2 dS \right) = -2 \int_{\Omega} u \Delta u dx - 2 \int_{\Gamma} u \nabla_T u \cdot \nu dx$$

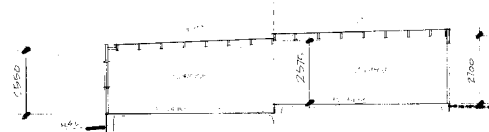
2. *Phragmites* *communis* L.



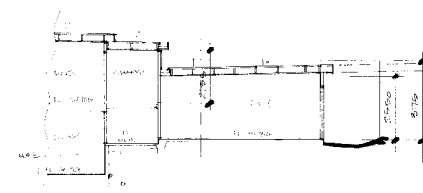
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1. The first step in the process of developing a business plan is to conduct a market analysis. This involves researching the industry, identifying potential customers, and understanding the competitive landscape. A thorough market analysis provides valuable insights into the viability of the business idea and helps to shape the overall strategy.

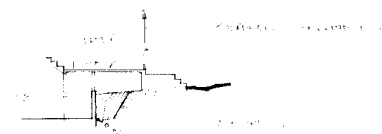
1. 在 1990 年 12 月 31 日，公司资产为 1000 万，负债为 400 万，所有者权益为 600 万。
 2. 在 1991 年 1 月 1 日，公司资产为 1100 万，负债为 450 万，所有者权益为 650 万。
 3. 在 1991 年 2 月 1 日，公司资产为 1200 万，负债为 500 万，所有者权益为 700 万。
 4. 在 1991 年 3 月 1 日，公司资产为 1300 万，负债为 550 万，所有者权益为 750 万。
 5. 在 1991 年 4 月 1 日，公司资产为 1400 万，负债为 600 万，所有者权益为 800 万。
 6. 在 1991 年 5 月 1 日，公司资产为 1500 万，负债为 650 万，所有者权益为 850 万。
 7. 在 1991 年 6 月 1 日，公司资产为 1600 万，负债为 700 万，所有者权益为 900 万。
 8. 在 1991 年 7 月 1 日，公司资产为 1700 万，负债为 750 万，所有者权益为 950 万。
 9. 在 1991 年 8 月 1 日，公司资产为 1800 万，负债为 800 万，所有者权益为 1000 万。
 10. 在 1991 年 9 月 1 日，公司资产为 1900 万，负债为 850 万，所有者权益为 1050 万。
 11. 在 1991 年 10 月 1 日，公司资产为 2000 万，负债为 900 万，所有者权益为 1100 万。
 12. 在 1991 年 11 月 1 日，公司资产为 2100 万，负债为 950 万，所有者权益为 1150 万。
 13. 在 1991 年 12 月 31 日，公司资产为 2200 万，负债为 1000 万，所有者权益为 1200 万。



SECTION 1: Overview



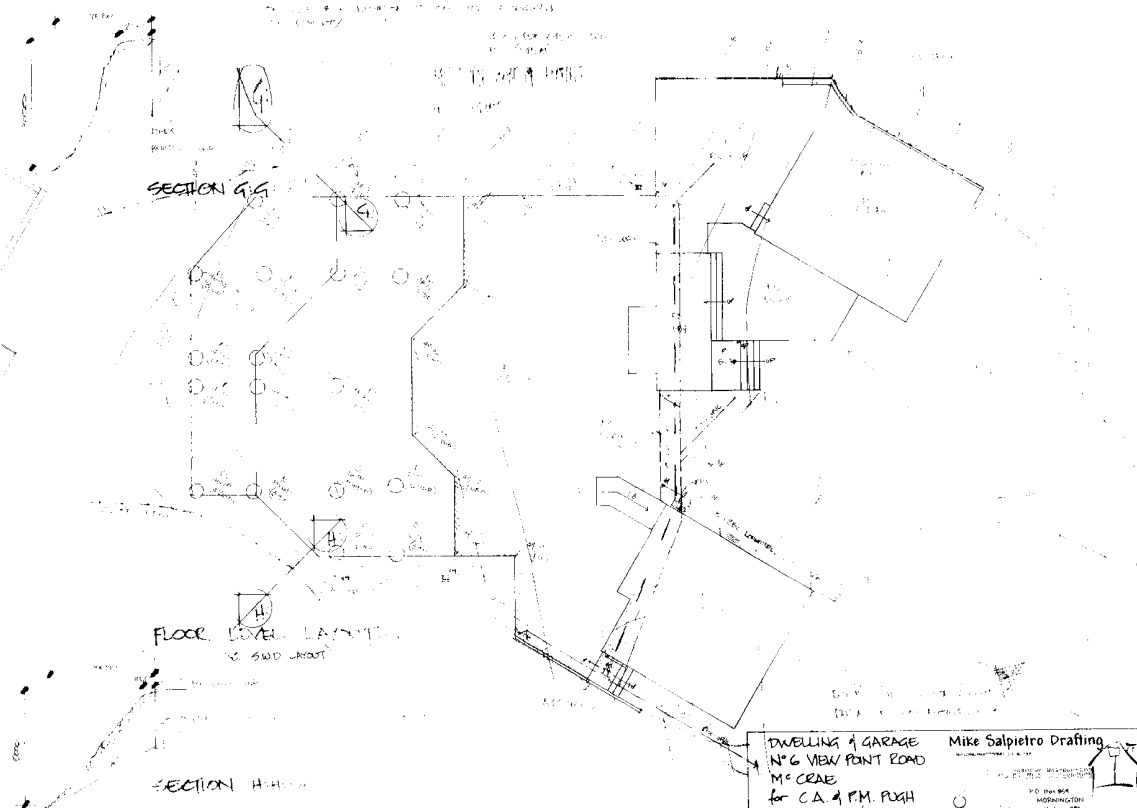
SECTION: E.E.



SECTION F.F:



TYPICAL BOUNDARY WALL DETAILS:

[illegible]

SECTION 9.5

FLOOR LEVEL LAYOUT
W. SWD LAYOUT

SECTION 44-10

DWELLING & GARAGE
N°6 VIEW POINT ROAD
M^c CRAE
for C.A. & P.M. PUGH
M-217 Via 3 & 4

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