

27 September 2012

General Manager  
Pittwater Council  
PO Box 882  
Mona Vale NSW 1660

Dear Sir/Madam,

**Development Application No. N0346/10 (N0346/10/S96/1)**  
**50 Minkara Road, Bayview**

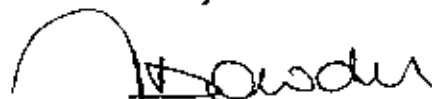
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For Council's information, please find enclosed Construction Certificate No. 2012/4868 issued for Stage 1: Carport slab, reconfigure driveway, reconstruction of existing verandah & installation of septic tank only, at the above address, accompanied by:

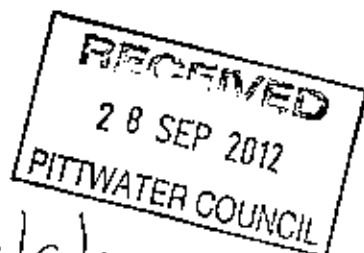
- Copy of Construction Certificate application form
- Notice of Commencement of Work and Appointment of Principal Certifying Authority
- Home Warranty Insurance Certificate
- Cheque for \$36.00 being the prescribed fee to receive the above certificate.

**NB: Please forward receipt for the above fee to Insight Building Certifiers Pty Ltd, PO Box 326, Mona Vale 1660.**

Yours faithfully



**Tom Bowden**  
**Insight Building Certifiers Pty Ltd**



336 REC: 330142 28/9/12

# Construction Certificate Determination

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

**Certificate No. 2012/4868**

<b>Council</b>	Pittwater
<b>Determination</b> Date of issue	Approved 27 September 2012
<b>Subject land</b> Address Lot No, DP No.	50 Minkara Road, Bayview Lot 9 DP 28908
<b>Applicant</b> Name Address Contact No.	Mr Willem & Mrs Margrite Van Vlymen 50 Minkara Road, Bayview NSW 2104 0419 909 101
<b>Owner</b> Name Address Contact No.	Mr Willem & Mrs Margrite Van Vlymen 50 Minkara Road, Bayview NSW 2104 0419 909 101
<b>Description of Development</b> Type of Work	Stage 1: Carport slab, Reconfigure driveway, Reconstruction of existing verandah & Installation of Septic Tank ONLY
<b>Builder or Owner/Builder</b> Name Contractor Licence No/Permit	Complete Property Service & Design 235557C
<b>Value of Work</b> Building	\$115,000.00
<b>Attachments</b>	
• Copy of completed Construction Certificate Application Form	
• Long Service Levy Corporation receipt no.665416537 dated 7 September 2012	
• BASIX Certificate no.A87530 dated 23 June 2010	

### Plans & Specifications certified

The development is to be carried out in compliance with the following plans and documentation listed below and endorsed with *Insight Building Certifiers* stamp.

- Architectural Plans & Construction Specification reference no. 1265, drawing no's 1, 2, 3, 4, 5, 6 & 7 (all Issue A), prepared by J D Evans & Company Pty Ltd dated 24 January 2011
- Structural Details reference no. 10-914, drawing no's S1, S2, S3, S4, S6, S9 & S11 prepared & endorsed by Peninsula Consulting Engineers dated January 2012
- Form 2 (Part A & Part B) Certificate issued by Peninsula Consulting Engineers dated 19 December 2011 & Jack Hodgson Consultants Pty Ltd dated 11 January 2012, respectively
- Wastewater Compliance Statement reference no.100902A, prepared & endorsed by Blue Mountains Geological and Environmental Services Pty Ltd, dated 10 September 2012

## Certificate

I hereby certify that the above Plans, documents or Certificates, satisfy:

- The relevant provisions of the Building Code of Australia
- The relevant conditions of this Development Consent

and that work completed in accordance with the documentation accompanying the application for this Certificate (and any modifications as verified by me and shown on that documentation) will comply with the requirements of the Environmental Planning & Assessment Regulation referred to in Section 81A(5) of the Environmental Planning & Assessment Act, 1979.

Signed



Date of endorsement  
Certificate No.

27 SEP 2012  
2012/4868

### Certifying Authority

Name of Accredited Certifier  
Accreditation No.  
Accreditation Authority  
Contact No.  
Address

Tom Bowden  
BPB0042  
Building Professionals Board  
(02) 9999 0003  
13/90 Mona Vale Road, Mona Vale NSW 2103

### Development Consent

Development Application No.  
Date of Determination

N0346/10 (N0346/10/S96/1)  
29 July 2010 (Modified 1 November 2011)

### BCA Classification

1a & 10b

6 - SEP 2012

Construction Certificate ☒Modified Construction Certificate ☐**APPLICATION FOR A CONSTRUCTION CERTIFICATE**

Environmental Planning and Assessment Act 1979 &amp; Environmental Planning and Assessment Regulation 2000

**Description of Building Work**

Renovation of Existing dwelling.

**Estimated cost of work**

\$ 115,000.- (Stage 1)

**BCA Classification(s)****Development Consent Reference no.**

N0346/10

**Date of Issue**

29-07-2010

**Modified Consent Reference no. (if applicable)**

N0346/10/396/1

**Date of Issue (if applicable)**

1-11-2011

**Property Address**

Unit/Street no.

50

Street name

Minkara Road

Suburb

Bayview

Post code

2104

Lot no. 1

9

DP no.

28908

**Accompanying Documents**

- Appropriate Architectural Plans and Specifications
- All information required by Part 3 of Schedule 1 Forms of the Regulation (see over)

I, the owner of the abovementioned property, hereby make application to Tom Bowden/Stephen Pinn of Insight Building Certifiers Pty Ltd ('Insight') for a Construction Certificate for the building work described above and, in doing so, I also declare that the documents provided and asserted by me as a copy of a development consent and incorporated plans are a true copy of same as issued by the relevant consent authority or the Land and Environment Court.

Owner's Name:

W.J. VAN VLYMEN

Owner's Address:

50 MINKARA Rd  
BAYVIEW NSW 2104

Daytime Telephone:

0419 909101

Mobile:

Owner's Signature:

Date:

07/09/12

[Office Use Only] Date received by Accredited Certifier: .....

All documents received as part of this Construction Certificate application have been stamped to that effect

Levy Online Payment Receipt



Thank you for using our Levy Online payment system. Your payment for this building application has been processed.

Applicant Name:	WJ VAN VLYMEN
Levy Application Reference:	5032737
Application Type:	DA
Application No.:	346/10/S96/1
Local Government Area/Government Authority:	PITTWATER COUNCIL
Site Address:	50 MINKARA ROAD
	BAYVIEW
	NSW
	2104
Value Of Work:	\$115,000
Levy Due:	\$402
Levy Payment:	\$402
Online Payment Ref.:	665416537
Payment Date:	7/09/2012 4:19:14 PM

# BASIX Certificate

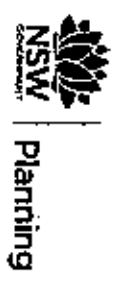
Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Alterations and Additions

Certificate number: A87530

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Alterations and Additions Definitions" dated 29/9/2006 published by Department of Planning. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

Director-General  
Date of issue: Wednesday, 23, June 2010



Project address	
Project name	Wim & Margriet Van Vlymen
Street address	50 Minkara Road Bayview 2104
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 28908
Lot number	9
Section number	0
Proposed type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at \$50,000 or more, and does not include a pool (and/or spa).

Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.			
Lighting and signs	Signage on building facade	Signage on building facade	Signage on building facade

Glazing requirements	Shading device or Plan Spec	Shading device or Plan Spec	Glazing device or Plan Spec
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Windows and glazed doors

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.

The following requirements must also be satisfied in relation to each window and glazed door:

Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.

Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.

Pergolas with adjustable shading may have adjustable blades or removable shade cloth (not less than 80% shading ratio). Adjustable blades must overlap in plan view.

Windows and glazed doors glazing requirements

Window Orientation	Area of glass (m <sup>2</sup> )	Overshadowing Height (m)	Shading device Distance (m)	Frame and glass type	
W1	E	9.87	0	0	eave/verandah/pergola/balcony Improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W2	E	4.08	0	0	pergola (adjustable shade) >=900 mm Improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W3	E	7.98	0	0	eave/verandah/pergola/balcony >=900 mm Improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)







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

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

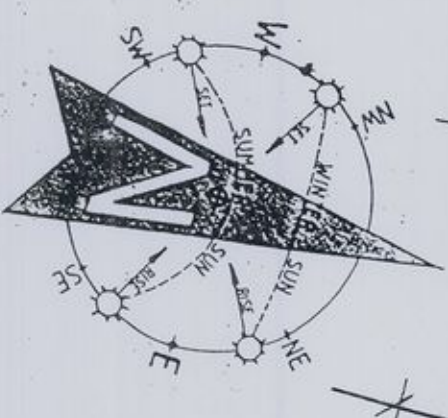
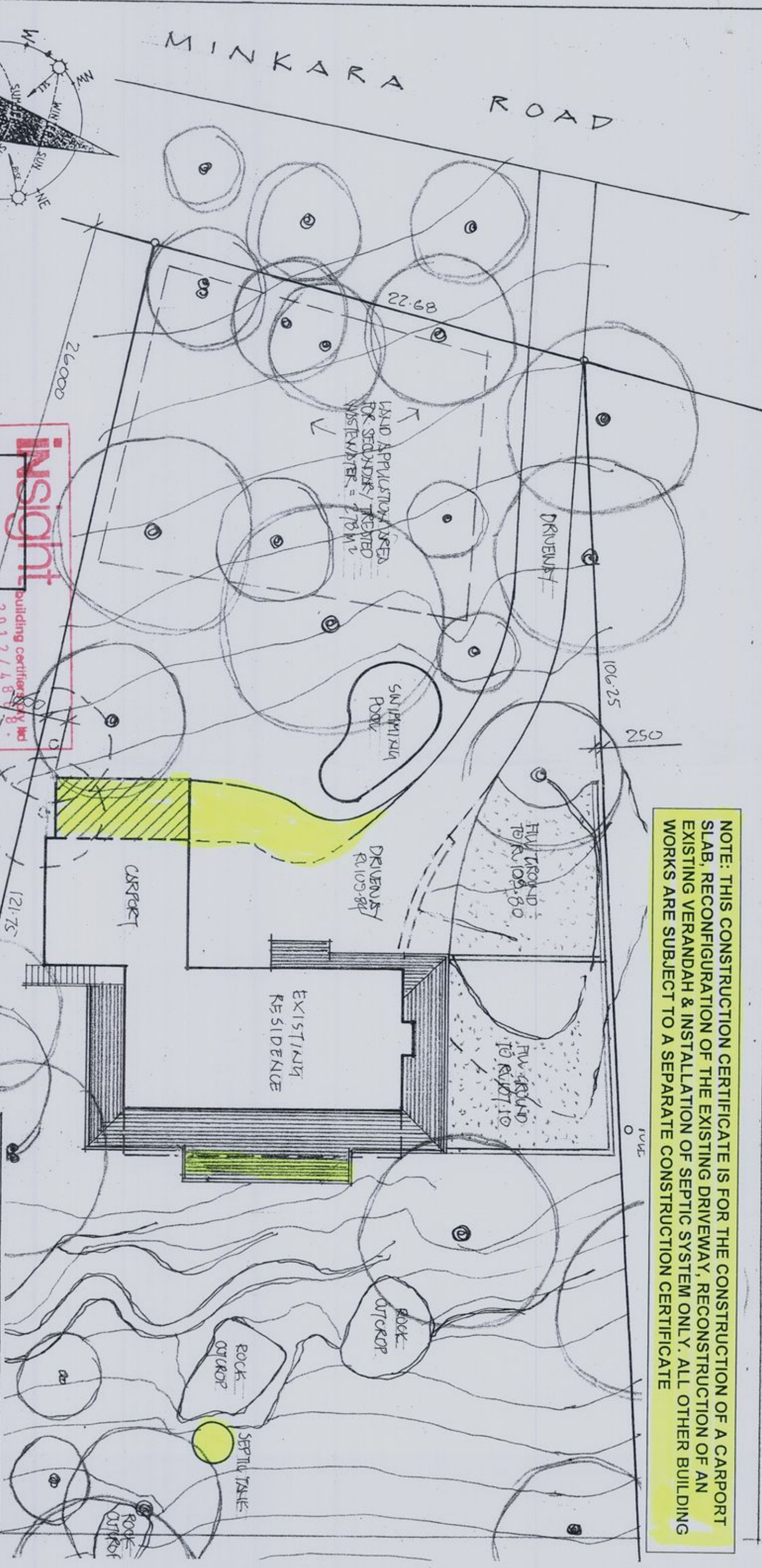
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.





NOTE: THIS CONSTRUCTION CERTIFICATE IS FOR THE CONSTRUCTION OF A CARPORT SLAB, RECONFIGURATION OF THE EXISTING DRIVEWAY, RECONSTRUCTION OF AN EXISTING VERANDAH & INSTALLATION OF SEPTIC SYSTEM ONLY. ALL OTHER BUILDING WORKS ARE SUBJECT TO A SEPARATE CONSTRUCTION CERTIFICATE



- NOTES:
1. THE BUILDER IS TO CHECK AND CONFIRM ALL NECESSARY DIMENSIONS AND LEVELS ON SITE PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION. DO NOT SCALE OFF THE DRAWING. T. BOWDEN
  2. SHOULD ANY DEVELOPMENT OR CONSTRUCTION OCCUR ON OR NEAR BOUNDARIES, THE BOUNDARIES SHOULD BE CLEARLY MARKED ON SITE BY THE REGISTERED LAND SURVEYORS.

**insight** building certificates ltd

CONSTRUCTION CERT. NO. 2012/4868

**CONSTRUCTION CERTIFICATE**

PLANS

I certify that the work completed in accordance with these plans & specifications will comply with the regulations referred to in Section 81A(5) of the Environmental Planning & Assessment Act 1979

**27 SEP 2012**

**PLAN**

LOT 9 IN D.P. 28908

DEVELOPMENT CALCULATIONS			
SITE AREA	4419.50 SQUARE METRES		
DESCRIPTION	EXISTING SQM	PROPOSED SQM	
FLOOR	214.50	214.50	
ROOF	107.25	107.25	
CARPORT	48.84	71.59	
VERANDAH	35.00	89.10	
SWIMMING POOL	32.00	32.00	
DRIVEWAY	156.00	147.70	
TOTAL HARD SURFACE	379.05 (8.58%)	447.54 (10.13%)	

1. Builder to check and confirm all necessary dimensions on site prior to construction. Do not scale the drawing.
2. All dimensions and levels to be confirmed with the registered land surveyors.
3. All work to be in accordance with BUILDING CODE of ACTONIA & to the satisfaction of local council requirements & other authorities.
4. Any alterations to the plans must be approved by the registered land surveyors.
5. Any alterations to the plans must be approved by the registered land surveyors.
6. Any alterations to the plans must be approved by the registered land surveyors.
7. All electrical power & light outlets to be determined by a registered electrician or as directed by local council inspectors.
8. All water & sewerage outlets to be determined by a registered plumber or as directed by local council inspectors.
9. All gas & oil outlets to be determined by a registered gas fitter or as directed by local council inspectors.
10. All other building works to be determined by a registered building practitioner or as directed by local council inspectors.

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NO. 1265-1

DATE 27/1

**J.D. EVANS AND COMPANY PTY. LTD.**

BUILDING DESIGN CONSULTANTS

74 RIVERVIEW AVE. AVALON BRANCH, 2107

Phone (02) 9918 9200 Fax (02) 9973 1434

Mobile 0408 976 596 WWW.JDECO.COM.AU

**PROPOSED ALTERATIONS/ADDITIONS**

No. 50 MINIKARA ROAD

BAYVIEW N.S.W. 2104

CLIENT

WIM & MARGRIET VAN VLYMEN

DATE 21/4/2010

SCALE 1:200

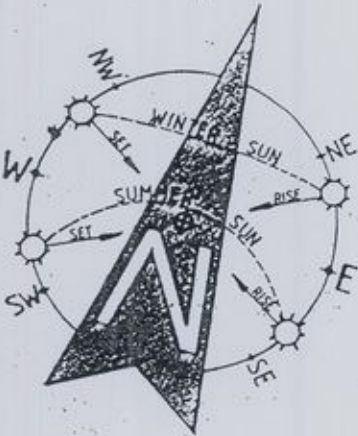
CHECKED

1265-1

24-1-11



- NOTES:
1. LIGHTING OF BATHROOM AND WC TO BE IN ACCORDANCE WITH PART 3.8.4 OF THE BUILDING CODE OF AUSTRALIA AND AS / NZS 1680.0
  2. VENTILATION OF BATHROOM AND WC TO BE IN ACCORDANCE WITH PART 3.8.3.3 OF THE BUILDING CODE OF AUSTRALIA AND AS / NZS 1680.2
  3. THE DOOR TO THE BATHROOM IS REQUIRED TO COMPLY WITH AMENDMENT 3 PART 3.8.3.3 (TO EITHER OPEN OUTWARDS, SLIDE OR BE READILY REMOVABLE FROM THE OUTSIDE OF THE COMPARTMENT).



- NOTES:
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  2. SHOULD ANY DEVELOPMENT OR CONSTRUCTION OCCUR ON OR NEAR BOUNDARIES, THE BOUNDARIES SHOULD BE CLEARLY MARKED ON SITE BY THE REGISTERED LAND SURVEYORS.

1. Builder to check and confirm all necessary dimensions on site prior to construction. Do not scale the drawing.
2. All construction to be in accordance with the Building Code of Australia and AS/NZS 1680.0.
3. All construction to be in accordance with the Building Code of Australia and AS/NZS 1680.0.
4. All construction to be in accordance with the Building Code of Australia and AS/NZS 1680.0.
5. Any existing structures to be demolished by the builder to the extent of the site.
6. Road width to be confirmed by the builder to the extent of the site.
7. All existing structures to be demolished by the builder to the extent of the site.
8. Make good and repair of existing footpaths damaged by new work. Make good and repair of existing footpaths damaged by new work.

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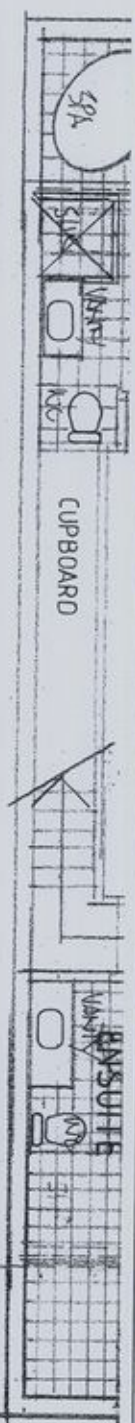
NO.	DATE	DESCRIPTION
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2	2010	REVISED
3	2010	REVISED
4	2010	REVISED
5	2010	REVISED
6	2010	REVISED
7	2010	REVISED
8	2010	REVISED
9	2010	REVISED
10	2010	REVISED

**J.D. EVANS and COMPANY PTY. LTD.**  
BUILDING DESIGN CONSULTANTS  
74 RIVERVIEW AVE, AVALON HEIGHTS, 2107  
Phone (02) 9918 9200 Fax (02) 9917 2454  
Mobile (02) 9918 9200 WWW.JDECO.COM.AU

PROJECT  
PROPOSED ALTERATIONS/ADDITIONS  
No. 50 MINKARA ROAD  
BAYVIEW N.S.W. 2104  
CLIENT  
WIM & MARGRIET VAN VLYMEN

DATE	2/4/2010	SCALE	1:100
DRAWN	JOE	CHECKED	
DRAWING NO.	1265-2	ISSUE	A

NOTE: THIS CONSTRUCTION CERTIFICATE IS FOR THE CONSTRUCTION OF A CARPORT SLAB, RECONFIGURATION OF THE EXISTING DRIVEWAY, RECONSTRUCTION OF AN EXISTING VERANDAH & INSTALLATION OF SEPTIC SYSTEM ONLY. ALL OTHER BUILDING WORKS ARE SUBJECT TO A SEPARATE CONSTRUCTION CERTIFICATE



CERAMIC FLOOR TILES ON JAS APPROVED  
WORK, PROVIDE GOOD DRAINS TO FLOOR ADJST.

## LOWER FLOOR PLAN

This plan / document  
forms part of  
Construction Certificate  
no. 2012 / 4868







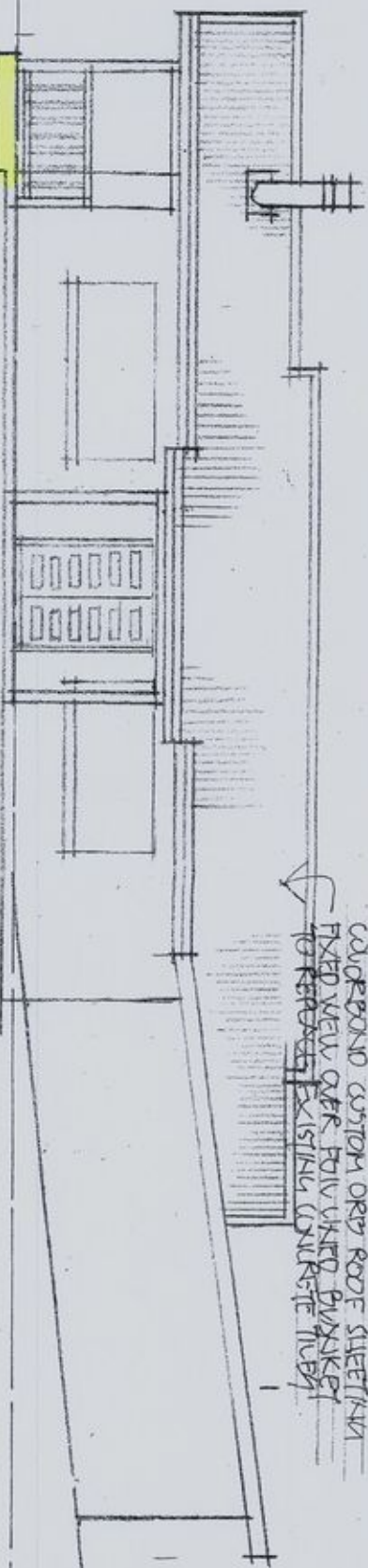




Range RV 114.00

UPPER FLOOR RV 109.99

LOWER FLOOR RV 107.19



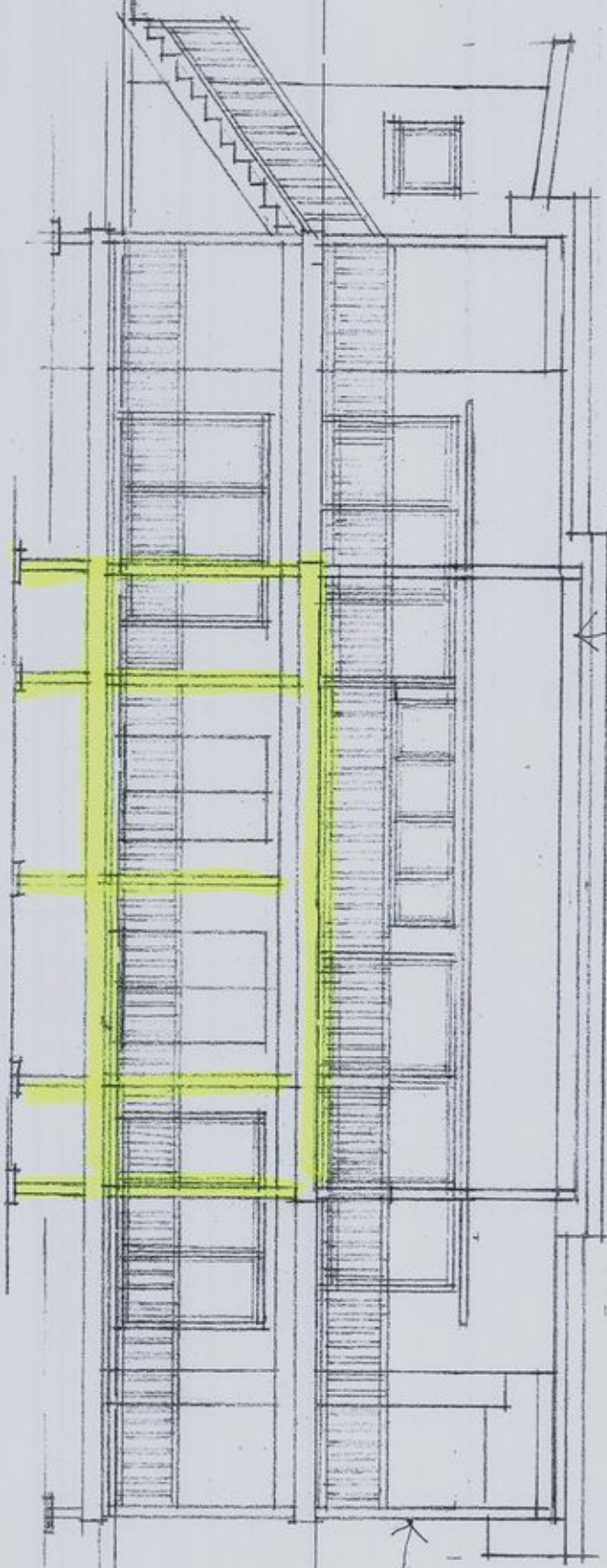
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## WEST ELEVATION

CUSTOMER CUSTOM DRY ROOF SHEETING  
FIXED NEW OVER EXISTING DRIVEWAY

UPPER FLOOR RV 109.99

LOWER FLOOR RV 107.19



200 X 200 TINDER POSTS  
ON 4.5' C/W. SPACES

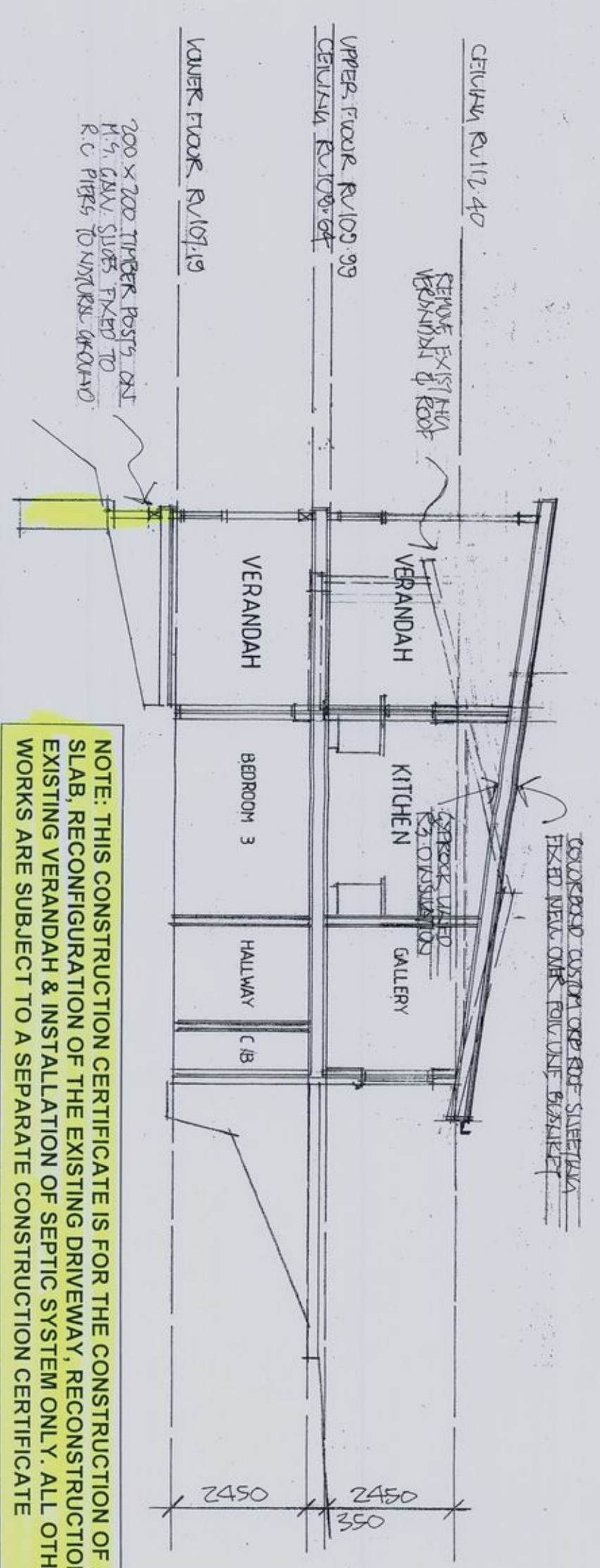
- NOTES:
1. THE BUILDER IS TO CHECK AND CONFIRM ALL NECESSARY DIMENSIONS AND LEVELS ON SITE PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION. DO NOT SCALE OFF THE DRAWING. SHOULD ANY DEVELOPMENT OR CONSTRUCTION OCCUR ON OR NEAR BOUNDARIES, THE BOUNDARIES SHOULD BE CLEARLY MARKED ON SITE BY THE REGISTERED LAND SURVEYORS.
  - 2.

## EAST ELEVATION

1. Builder to check and confirm all necessary dimensions on site prior to construction. Do not scale the drawing.  
2. All dimensions that relate to site boundaries and easements are subject to verification by a site survey.  
3. All work to be in accordance with the 2015/2016 CODE OF AUSTRALIA & to the satisfaction of local council requirements & other authorities.  
4. The builder is to ensure that the construction is in accordance with the "TENDER DRAWING" code.  
5. Any structural alterations to be in accordance with the "TENDER DRAWING" code.  
6. The builder is to ensure that the construction is in accordance with the "TENDER DRAWING" code.  
7. The builder is to ensure that the construction is in accordance with the "TENDER DRAWING" code.  
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LEGAL PROCEEDINGS WILL RESULT IN  
THE DESIGNER TAKING ACTION.  
J.D. EVANS and COMPANY PTY. LTD.  
11. BUILDING ACT 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SECTION A - A

SCHEDULE OF BASIC COMMITMENTS

THERMAL COMFORT COMMITMENTS

CONSTRUCTION INSULATION REQUIREMENTS

1. THE PROJECT MUST BE CONSTRUCTED IN ACCORDANCE WITH ALL THERMAL PERFORMANCE SPECIFICATIONS SET OUT IN THE CERTIFICATE NUMBER A87530, AND IN ACCORDANCE WITH THOSE ASPECTS OF THE DEVELOPMENT APPLICATION WHICH WERE USED TO CALCULATE THOSE SPECIFICATIONS.

WINDOWS & GLAZED DOORS GLAZING REQUIREMENTS

1. THE APPLICANT MUST INSTALL THE WINDOWS, GLAZED DOORS AND SHADING DEVICES, IN ACCORDANCE WITH THE SPECIFICATIONS LISTED IN THE CERTIFICATE NUMBER A87530. RELEVANT OVERSHADOWING SPECIFICATIONS MUST BE SATISFIED FOR EACH WINDOW AND GLAZED DOOR
2. FOR PROJECTIONS DESCRIBED IN MILLIMETRES, THE LEADING EDGE OF EACH EAVE, PERGOLA, VERANDAH, BALCONY OR AWNING MUST NOT BE OR MORE THAN 500MM ABOVE THE HEAD OF A WINDOW OR HEAD OF A GLAZED DOOR & NO MORE THAN 2400MM ABOVE THE SILL.

ENERGY COMMITMENTS

LIGHTING

1. THE APPLICANT MUST HAVE A MINIMUM OF 40% OF NEW AND ALTERED LIGHT FIXTURES ARE FITTED WITH FLUORESCENT, COMPACT FLUORESCENT, OR LIGHT-EMITTING-DIODE (LED) LAMPS.

NATURAL LIGHTING

1. THE DEVELOPMENT MUST HAVE A WINDOW IN THE KITCHEN FOR NATURAL VENTILATION.

OTHER

1. THE APPLICANT MUST INSTALL A GAS COOKTOP AND ELECTRIC OVEN IN THE KITCHEN.
2. THE APPLICANT MUST CONSTRUCT THE REFRIGERATOR SPACE IN THE RESIDENCE SO THAT IT IS WELL VENTILATED, AS DEFINED IN THE BASIC DEFINITIONS.

This plan / document  
forms part of  
Construction Certificate  
no. 2012 / 4868

- NOTES:
1. THE BUILDER IS TO CHECK AND CONFIRM ALL NECESSARY DIMENSIONS AND LEVELS ON SITE PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION. DO NOT SCALE OFF THE DRAWING. SHOULD ANY DEVELOPMENT OR CONSTRUCTION OCCUR ON OR NEAR BOUNDARIES, THE BOUNDARIES SHOULD BE CLEARLY MARKED ON SITE BY THE REGISTERED LAND SURVEYORS.

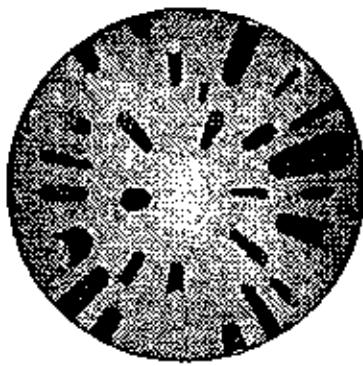
1. Builder to check and confirm all necessary dimensions on site prior to construction. Do not scale the drawings.  
2. All dimensions shall relate to the boundaries and setbacks are subject to verification by a site survey.  
3. All work to be in accordance with BUILDING CODE OF AUSTRALIA & to the satisfaction of local council requirements & staff.  
4. All construction to be in accordance with the "BASIS" Plans.  
5. All construction to be in accordance with the "BASIS" Plans.  
6. All construction to be in accordance with the "BASIS" Plans.  
7. All construction to be in accordance with the "BASIS" Plans.  
8. All construction to be in accordance with the "BASIS" Plans.  
9. All construction to be in accordance with the "BASIS" Plans.  
10. All construction to be in accordance with the "BASIS" Plans.

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THE WRITTEN PERMISSION WILL RESULT IN  
LEGAL PROCEEDINGS.  
J.D. EVANS and COMPANY PTY. LTD.  
74 RIVERVIEW AVE, AVALON BEACH, QLD  
PHONE: 08 936 596 FAX: 08 936 597  
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BUILDING DESIGN CONSULTANTS  
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PHONE: 08 936 596 FAX: 08 936 597  
WWW.JDECO.COM.AU

PROJECT  
PROPOSED ALTERATIONS/ADDITIONS  
No. 50 MINKARA ROAD  
BAYVIEW N.S.W. 2104  
CLIENT  
WIM & MARGRIET VAN VLYMEN

DRAWING NO.  
1265-724  
DATE  
2/4/2010  
SCALE  
1:100  
ISSUE  
A



**BLUE MOUNTAINS**  
**Geological and**  
**Environmental**  
**Services Pty. Ltd.**

ACN 069 994 056

20 Fifth Avenue, Katoomba 2780

Phone (02) 4782 5981

Fax (02) 4782 5074

10<sup>th</sup> September 2012

Ref. No. 100902A

Mr. W. Van Vlymen

PO Box 1456

MONA VALE NSW 1660

**RE: ON-SITE EFFLUENT MANAGEMENT AT LOT 9 DP 28908, No. 50 MINKARA  
ROAD, BAYVIEW – DA N0345/10/S96/1**

Dear Willem,

Further to our recent liaison and provision of the effluent management report from September 2010 (Ref. No. 100902) that was submitted to Pittwater Council and subsequently approved as part of the Development Application (DA), I am pleased to provide the following details. The report addressed the replacement of the existing absorption trench septic system with an aerated wastewater treatment system (AWTS) and subsurface dispersal area at 278m<sup>2</sup> in the front yard for the maximum design effluent volume of 870 litres/day when the proposed renovation works to the dwelling are carried out (i.e. no increase compared to existing).

Prior to release of the Construction Certificate, reference is made to conditions C6, B16, B17 and B18 of Council associated with the approval of the DA. These conditions relate to the proposed on-site effluent management system, being the AWTS and subsurface dispersal area.

**Condition C6**

On 7/9/12, the final choice was made in relation to the brand of the proposed AWTS. As you have conveyed, the proposed AWTS is an 'Aqua Nova' model comprising dual polymer tanks – i.e. a primary treatment tank with discharge to the secondary treatment tank. This is accredited as a ten person system for domestic dwellings with the NSW Health Department – Certification No: AWTS 006 issued 14<sup>th</sup> March 2008. Discussions in relation to this system and the requirements of Council have also been carried out with the supplier, Mr. W. Hutchison of Auswide Sales. It is confirmed that use of the proposed AWTS and subsurface dispersal area as outlined in the report is acceptable.

**Condition B16**

This condition relates to the use of low sodium, boron and phosphorus cleaning and washing products in the households to reduce the impact of potential increases in soil nutrient levels. Use of such products will also have a beneficial effect on the operation of the aerated system and levels of treatment achieved.

As confirmed, low salt and nutrient cleaning and washing products which are compatible with an on-site effluent management system will be utilised in the dwelling.

**Condition B17**

This condition relates to the proposed Aqua Nova AWTS in that it shall be installed and operated in accordance with the manufacturer's specification and associated operational guidelines. This has been confirmed with the system supplier, Mr. Hutchison, who has been made aware of the relevant conditions of approval associated with the DA.

The manufacturer's specifications will be provided by Mr. Hutchison for both Mr. Van Vlymen and submission to Council to address condition B17. Operational guidelines will also be provided. In addition, the operation of the AWTS will be confirmed by the 3 monthly system services carried out by an accredited service agent who will forward the required paperwork to Council.



**Condition B18**

There are six separate points in this condition relating to particular aspects of the proposed on-site effluent management system.

Point 1 relates to installation of irrigation equipment in a manner that it will not be readily subject to damage. The use of subsurface dispersal lines for land application as detailed in the effluent management report and approved by Council addresses the potential for damage in that they will be placed below the ground surface at a depth of at least 150mm. Furthermore, the irrigation plumbing lines from the AWTs to the subsurface dispersal area will be carefully laid to avoid future damage and any specific measures that may be required to ensure this will have to be put in place.

Point 2 relates to not growing vegetables or fruit for human consumption in the land application area for subsurface dispersal. As we confirmed, this is not an issue at the subject site and the condition will be adhered to.

Point 3 relates to the requirement to obtain written approval from Council if additional area or areas are considered for the land application of treated effluent beyond the approved area of 278m<sup>2</sup> delineated in Figure 1 associated with the effluent management report. No such proposal is considered at this point, but if extra land application area is ever proposed it would be subject to the formal consent of Council.

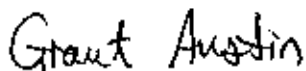
Point 4 relates to aeration of the effluent irrigation area so as to prevent any runoff. The potential for surface runoff is considered to be addressed by the use of subsurface dispersal lines for land application – i.e. as distinct to surface sprays where aeration would be beneficial. Furthermore, the proposed subsurface dispersal area in part of the landscaped front yard comprising mulch and mainly exotic trees, shrubs and flowering plants with a patchy grassy cover in parts and some scattered native trees lends itself to the application of treated effluent, whereby formal aeration would not be required (but would be carried out if ever required). However, the laying of the subsurface dispersal lines will also act to aerate the soils in the land application area.

Point 5 – refer to details under condition B17 above.

Point 6 relates to legislative requirements that are in place with regards to the proposed Aqua Nova AWTS and NSW Health accreditation.

In conclusion, based on the details above and associated information to be submitted to Council, it is confirmed that the proposed AWTS and associated subsurface dispersal area for the dwelling when renovation works are carried out will satisfy the relevant conditions associated with the DA approval. Do not hesitate to contact me if any further details are required in relation to on-site effluent management prior to Council releasing the Construction Certificate.

Yours faithfully,

A handwritten signature in black ink that reads "Grant Austin". The signature is written in a cursive, slightly slanted style.

GRANT AUSTIN

Engineering Geologist

MAIG, Affil. I.E. Aust



# PITTWATER COUNCIL

## GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER FORM NO. 2- PART A - To be submitted with detailed design for Construction Certificate

Development Application for	<b>Wim Van Vlymen</b>
	Name of Applicant
Address of site	<b>50 Minkara Road, Bayview</b>

**PART A:** Declaration made by Structural or Civil Engineer in relation to the Incorporation of the Geotechnical issues into the project design

I, **Bruce Lewis** on behalf of **Peninsula Consulting Engineers**  
(insert name) (trading or company name)

on this the **19 December 2011**  
(date)

certify that I am a Structural or Civil Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least \$2million. I 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 and that

Please mark appropriate box

- X the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto, the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy.

### Geotechnical Report Details:

Report Title: <b>Geotechnical analysis &amp; management report for 50 Minkara Road, Bayview, Project #MV 26926</b>
Report Date: <b>May 2010</b>
Author: <b>Ben White</b>
Author's Company/Organisation: <b>Jack Hodgson Consultants P/L</b>

<b>10-0914-S01-S16-Rev -</b>

### Structural Documents list:

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.

Signature

Name **Bruce Lewis**

Chartered Professional Status **CPEng NPER**

Membership No. **879131**

Company **Peninsula Consulting Engineers**

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

PART B Declaration made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the incorporation of the Geotechnical issues into the project design

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

on this the 11TH JANUARY, 2012  
(date)

certify that I am a Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater – 2009 and 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 reviewed the design plans and structural design plans in accordance for the Construction Certificate Stage and that I am satisfied that:

Please mark appropriate box

- ☒ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto  
☒ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy

Geotechnical Report Details :

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED DEVELOPMENT AT 50 MINKARA ROAD, BAYVIEW SECTION 98 LETTER DATED 11TH FEBRUARY, 2011 MV 26926

Report Date: 5TH MAY, 2010

Author: BEN WHITE

Documentation which relates to or is relied upon in report preparation:


ARCHITECTURAL PLANS PREPARED BY J D EVANS & COMPANY NUMBERED 1265-2 TO 7 THEN 1265-1A TO 4A AND 7A

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.

Ben White  
(name)

  
(signature)

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 in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature   
Name Ben White  
Chartered Professional Status M.Sc.Geol AusIMM CP GEOL.  
Membership No. 222757  
Company Jack Hodgson Consultants Pty Ltd



GENERAL NOTES:

GENERAL

- G1. The drawings are to be read together with all Architects drawings and specifications.
- G2. Engineer's drawings shall not be used for dimensions. All setting out dimensions shall be verified and discrepancies shall be referred to the Engineer prior to commencement of work.
- G3. 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.
- G4. Design, materials and workmanship are to be in accordance with current S.A. standards and statutory authority regulations except where varied by these documents.
- G5. Design live loads are in accordance with AS 1170.1

FOOTINGS

- F1. FOUNDATION STRATA IS ASSUMED FOR DESIGN PURPOSES IN ACCORDANCE WITH AS 2870-1996, 'RESIDENTIAL SLAB AND FOOTINGS-CONSTRUCTION'. SEE FOOTNOTE CLASSIFICATION TO BE VERIFIED BY A GEOTECHNICAL ENGINEER COMMISSIONED BY THE CLIENT FOR CERTIFICATION OF FOUNDATIONS.
- F2. Footings to be constructed and back filled as soon as possible following excavation to avoid softening by rain or drying out by exposure.
- F3. Footings must bear into undisturbed natural ground clear of organic material. Refer to details.
- F4. If rock or variable bearing strata is encountered during excavation of the footings all footings/piers are to be excavated to similar material of greater bearing capacity. The Engineer is to be contacted at that time for approval or review.
- F5. Footings to be cast in approved material having an allowable capacity as follows:
- Sand Foundations:
- S41. Required minimum bearing capacity 100 kPa.
- S42. Trenches must be cleared of all debris and hard compacted prior to placement of reinforcement.
- Clay Foundations:
- C11. Required minimum bearing capacity 150 kPa.
- C12. Trenches must be cleared of all debris. Soft spots must be cut out and filled as per compacted fill notes, prior to placement of reinforcement.
- Shale Foundations:
- S41. Required minimum bearing capacity 400 kPa.
- S42. Excavation for footings into shale must be cast or capped with plain concrete on the same day as excavation.
- Sandstone Foundations:
- S51. Required minimum bearing capacity 600 kPa.
- S52. Slope weathered surface to remove cleared sandstone under footings. Refer adjacent for assumed Design bearing strata.
- F6. Future development of neighboring properties may effect ground water conditions on this site. Consequently, reactivity in subsgrade beneath footings may be locally altered therefore putting footing at risk of differential settlement. We recommend that, particularly in clay subgrades, agricultural drainage is installed to the upstream perimeter of the building at a distance from the building which is outside the zone of influence of the footings. The agricultural drain must be installed below the fluctuating seasonal zone which should be identified by geotechnical investigation.

CONCRETE

- C1. All workmanship and materials shall be in accordance with AS 3600-2001.
- C2. Concrete quality shall be as follows and shall be verified by tests.
- C3. All concrete unless otherwise noted shall have a slump of 80mm at point of placement, a max. aggregate size of 20 mm.
- No water shall be added to the mix prior to or during placement of concrete. Strength as specified on plans.
- C4. Clear concrete cover to reinforcement shall be as follows unless otherwise shown-

ELEMENT	INTERIOR	EXTERIOR	EXTERIOR CAST AGAINST GROUND
FOOTINGS	-	-	50
COLUMNS/PEDESTALS	30 UNO	REFER TO PLAN	-
SLABS/WALLS	25	REFER TO PLAN	40 ON MEMBRANE
BEAMS	25 UNO	REFER TO PLAN	50
BLOCKWORK	35 FROM APPROPRIATE FACE		

REINFORCEMENT

- R1. All reinforcement specified is Grade D500 unless noted otherwise.
- R2. Reinforcement is represented diagrammatically it is not necessarily shown in true projection.
- R3. Top reinforcement is to be continuous over supports.
- Bottom reinforcement is to be lapped at supports.
- R4. Welding of reinforcement shall not be permitted unless shown on the structural drawings.
- R5. Pipes or conduits shall not be placed within the zone of concrete cover to the reinforcement without the approval of the engineer.
- R6. All reinforcing bars and fabric shall comply with AS 4671-2001.
- R7. Reinforcement symbols:
- N - Grade 500N deformed bar (D500) Normal Ductility.
- R - Grade 250N plain round bar (R250) Normal Ductility.
- SL - Grade 500L welded deformed ribbed mesh (D500) Square Low Ductility.
- RL - Grade 500L welded deformed ribbed mesh (D500) Rectangular Low Ductility.
- The number immediately following these symbols is the number of millimeters in the bar diameter.
- Example : 8 N12-D50
- Decribes 8, Grade 500N deformed bars, 12 mm diameter at 250 cts.
- R8. Fabric reinforcement to be lapped 1 complete square + 25 mm unless noted otherwise.
- R9 All reinforcement shall be firmly supported on bar chairs spaced at a maximum of 750 centres both ways under rod and fabric reinforcement. Reinforcement shall be tied at alternate intersections

FORMWORK

- F11. Formwork must be cleaned of all debris prior to casting of concrete.
- F12. Minimum stripping times for form work shall be as recommended in AS 3610 - 1995 or as directed by the engineer.
- F13. The finished concrete shall be a dense homogeneous mass, completely filling the form work, thoroughly embedding the reinforcement and free of stone pockets. All concrete elements including slabs on ground and footings shall be compacted with mechanical vibrators.
- F14. Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of 3 days, followed by prevention of loss of moisture for seven days followed by a gradual drying out. Approved sprayed on curing compounds may be used where no floor finishes are proposed. Polythene sheeting or wet hessian may be used if protected from wind and traffic.

BRICKWORK

- B1. Brickwork is to be constructed to AS 3700-2001.
- B2. Two layers of approved greased metal board slip material shall be used over all load bearing walls that support concrete slabs and placed on smooth brickwork or trowelled mortar finish. Non load-bearing walls shall have 10 mm compressible material and ties to the slab soffit.
- B3. No brickwork shall be constructed on suspended slabs until all propping has been removed from the underside of the slab and the concrete has the specified 28 day cylinder strength verified by tests.
- B3.4. Control joints to be placed at a maximum of 9m centres or in accordance with AS 3700-2001.
- B3.5. Exposure grade bricks to be used below damp proof course.
- B3.6. Vertical control joint material where specified on plan between slabs and brick walls shall be: 10 mm Spandex External UNO.
- B10mastic fibreboard internal UNO.

- B3.7. Provide stainless steel wall ties below DPC to AS 3700-2001. Provide galvanized wall ties above DPC to AS 3700 & Local Council Specifications.

BLOCKWORK

- B1. Concrete blocks shall have a minimum compressive strength of 15 MPa and conform to AS 3700-2001.
- B1.2. Where cores of hollow blocks are to be filled properly compacted 20MPa concrete with 10 mm aggregate and 230 mm slump shall be used. Clean out openings must be utilized for all cores.
- B1.3. Location of actual starters is critical to suit block cores, allow 55 mm cover from the outside face of blockwork. All reinforcement lap lengths to conform to AS 3600-2001.
- B1.4. Control joints to be placed at a maximum of 9 m centres or in accordance with AS 3700-2001.
- B1.5. Vertical control joint material where specified on plan between slabs and brick walls shall be: 10 mm Spandex External UNO.
- B10mastic fibreboard internal UNO.
- B1.6. Retaining walls or any reinforced and concrete core filled block walls to be of Double 'U' Block Construction.
- B1.7. No blockwork shall be constructed on suspended slabs until all propping has been removed from the underside of the slab and the concrete has the specified 28 day cylinder strength verified by tests, unless approved by the Structural Engineer.
- B1.8. Max. pour height for unrestrained blockwork is 1000 mm.

STEEL

- S1. All Structural steelwork to be Grade 300 or greater.
- Design, fabrication and erection to be in accordance with AS 4100-1998.
- S2. Materials and workmanship shall comply with AS 1250 - 1981, SAA Steel Structures Code and the specification for Structural Steel.
- S3. Rolled steel sections including steel plates shall comply with AS 3678 - 1996.
- S4. Cold formed steel sections shall be Grade 450 Zinc coated in accordance with AS 4600-2005.
- S5. Welded and seamless steel hollow sections shall comply with AS 1163, Grade 350.
- S6. Bolt Designation:
- 4.6S - Commercial bolts Grade 4.6, snug tightened.
- 8.8S - High Strength structural bolts Grade 8.8, snug tightened.
- 8.8TB - High Strength structural bolts Grade 8.8, fully tightened to AS 1511 and acting as a Bearing joint.
- 8.8TF - High strength structural bolts Grade 8.8, fully tensioned to AS 1511 and acting as a Bearing joint.
- Unless noted otherwise, all bolts will be 8.8S.
- S7. Unless shown otherwise, minimum connection shall be 2116 bolts, 10 thick gusset plates, firm continuous fillet welds.
- S8. Load indicating washers shall be used in all fully tensioned joints.
- S9. All welding shall be carried out in accordance with AS 1554-2007 SAA Structural Steel Welding Code.
- S10. Unless noted otherwise all welds shall be category SP using E41xx Electrodes. All butt welds shall be complete penetration butt welds category SP.
- S11. Grinding of anchor bolt, sleeves and base plates shall be completed by the contractor using High Strength, Non-Spark grit.
- S12. Fabrication and erection tolerances for Structural Steelwork shall be in accordance with AS 4100-1998.
- S13. Purin bolts shall be M12 - 4.6S galvanized.
- S14. Steel work shall have one of the following grades of corrosion protection:-
- INTERNAL
- a. Thoroughly cleaned wire brushing, followed by two coats of zinc phosphate primer equivalent to Dulux Luxoprime applied by hand using brushes to achieve a total dry film thickness of 70 microns.
- EXTERNAL ELEMENTS & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS
- b. Preparation Blast clean to a minimum standard Class 2.5 in accordance with AS 1627-1997 Part 4.
- Primer 2-pack epoxy phosphate at dft: 75 microns
- (e.g. Dulux Durepon P14).
- Barrier Coat 2-pack epoxy micaceous iron oxide, dft: 100 microns (e.g. Ferrtex No 3)
- Finish Coat 2-pack epoxy high gloss acrylic to dft: 75 microns (e.g. Dulux Acrothane 1 F) in an approved colour.
- c. Hot dipped galvanized to AS 4680-2006. (Only to be used where more than 5 km from salt water.)
- Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, inorganic zinc-rich paint (minimum 95% zinc content) is to be applied after wire brushing affected areas (see 3 coats minimum), or Hot Fetal Spray in accordance with AS 4680-2006.
- S15. Washdown drawings shall be prepared and two copies submitted to the engineer for review prior to fabrication commencement.

TIMBER

- T1. All workmanship and materials to be in accordance with AS 1684 -2006, AS 1720-1997 and as 3059-1999. All soft wood to be grade F7 unless noted otherwise. All hardwood to be minimum grade F14 unless otherwise noted. Exposed timber to be CCA treated (to AS 1684-2005), re-treated after full impregnation, or durability class 1, 2 or 3. We recommend that all softwood timber framing have a minimum treatment protection of H2 or T2 treatment for termite protection unless noted otherwise.
- T2. All joists deeper than 150 to have blocking over support, bracers and at a maximum 3000 mm centres.
- T3. Roof trusses to be designed by the manufacturer to the relevant standards. Pre camber to be an amount equal to dead load deflection u.n.o.
- T4. All heads for bolts to be exact size. Washers to be used under all heads and nuts to be at least 2.5 times the bolt diameter. Bolts to be M16 grade 4.6 unless noted otherwise.
- T5. Treat all exposed cut ends with Resol by Proform to manufacturers specification to achieve required Hazard Level Exposure Classification.
- T6. Bottoms for T & G to be Klin Dried to 12 %.
- 30mm minimum deep treated pine or as recommended by supplier. Flooring to be installed no sooner than 28 days after slab pour.
- T7. Hot dip galvanized nails/clou/screws to be used with all timber connections.
- T8. Continuous nailing must not be used for any timber connections.
- T9. All exposed CCA treated pine to have an application of penetrating sealer to reduce warping and twist of the timber due to varying moisture content in service.

COMPACTED FILL

- CF1. Compacted fill only to be used with approval of the Engineer and to be certified by a Geotechnical Engineer.
- CF2. Remove all organic material and topsoil under proposed slabs & footings.
- CF3. Filling shall be granular material compacted in not more than 200 mm layers to a minimum dry density ratio (AS 1289-2002) of 98 percent.
- CF4. During clearing and excavation for slabs and footings cut out soft spots and fill as above.

INSPECTIONS BY ENGINEER

- 48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION
1. Bearing strata of all footings to be inspected by the Geotechnical Engineer prior to concrete pour.
2. Any reinforcement prior to concrete pour.
3. Timber and Steel framing prior to cladding or lining.
4. Steel linets after installation.
5. Contact your PCA (Principal Certifying Authority) as to requirements for 'mandatory critical stage' inspections.

DRAWING SCHEDULE:

- 501 - GENERAL NOTES AND DRAWING SCHEDULE
- 502 - FOOTING PLAN
- 503 - LOWER GROUND FLOOR SLAB PLAN
- 504 - LOWER GROUND FLOOR DETAILS SHEET 1
- 505 - LOWER GROUND FLOOR DETAILS SHEET 2
- 506 - LOWER GROUND FLOOR DETAILS SHEET 3
- 507 - LOWER GROUND FLOOR DETAILS SHEET 4
- 508 - LOWER GROUND FLOOR DETAILS SHEET 5
- 509 - UPPER FLOOR SLAB & FRAMING PLAN
- 510 - UPPER FLOOR DETAILS SHEET 1
- 511 - UPPER FLOOR DETAILS SHEET 2
- 512 - ROOF FRAMING PLAN
- 513 - ROOF FRAMING DETAILS SHEET 1
- 514 - ROOF FRAMING DETAILS SHEET 2
- 515 - TIE DOWN DETAILSplan / document
- 516 - BRACING DETAILS

forms part of

Construction Certificate

no. 2 0 1 2 / 4 8 6 8 ,

ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES - 'A'

ASSIGNED BEARING STRATA FOR DESIGN PURPOSES - ROCK, 1200 kPa.

REFER GEOTECHNICAL REPORT BY JACK HODGSON CONSULTANTS P/L REF: MV 26926, DATED 5 MAY 2010.

GEOTECHNICAL ENGINEER TO INSPECT ALL FOOTINGS

DOCUMENT CERTIFICATION

Date **20/12**

**Bruce Lewis** .....

(Principal) Peninsula Consulting Engineers)

BE(CIVIL) CPENG, MIEAust, NPEP

Institute of Engineers Membership No. 8719131



MEMBER

Date

Rev.

Amendment

Peninsula Consulting Engineers

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Brookvale NSW 2100  
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A.B.N. 60 493 390 399



The copyright of this drawing remains with Peninsula Consulting Engineers.

Project: **PROPOSED WORKS**  
**at: 50 Minkara Road**  
**Bayview**

for: **W. & M. Van Vlymen**

Drawing Title:

GENERAL NOTES AND DRAWING SCHEDULE

JOB NO:

**10-914**

Drawing No:

**501**

Rev:

-





NOTES:

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



DOCUMENT CERTIFICATION

Date: **12/12/2014**  
By: **Bruce Lewis**  
(Principal - Peninsula Consulting Engineers)  
BE(Civil) / CPEng / MIE Aust. / NPER  
Institute of Engineers' Membership No. 879131



Date:

Rev:

Amendment

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Project: **PROPOSED WORKS**  
at: **50 Minkara Road**  
**Bayview**  
for: **W. & M. Van Vlymen**

FOOTING PLAN

Job No: **10-914**

Drawing No: **S02**

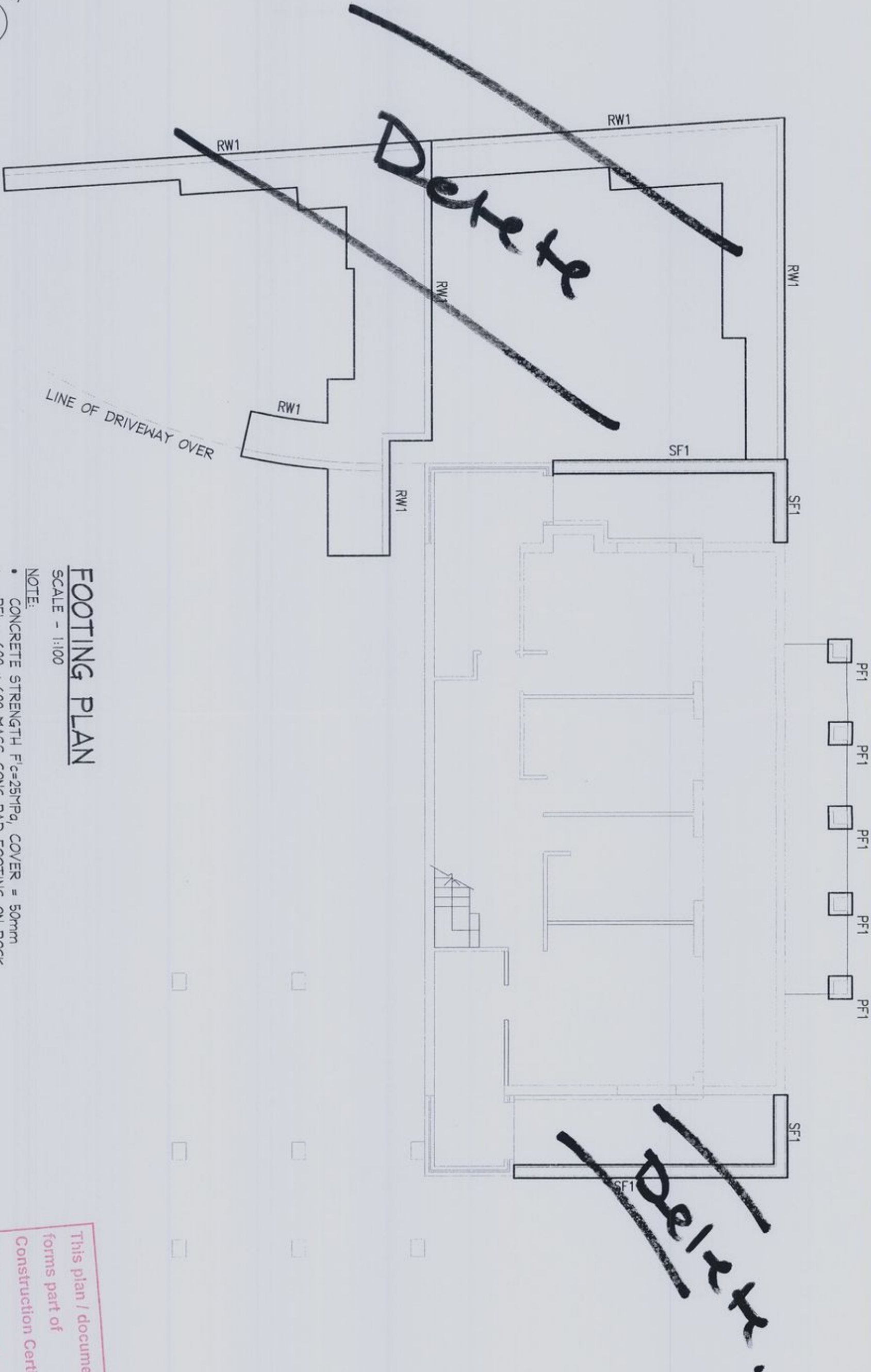
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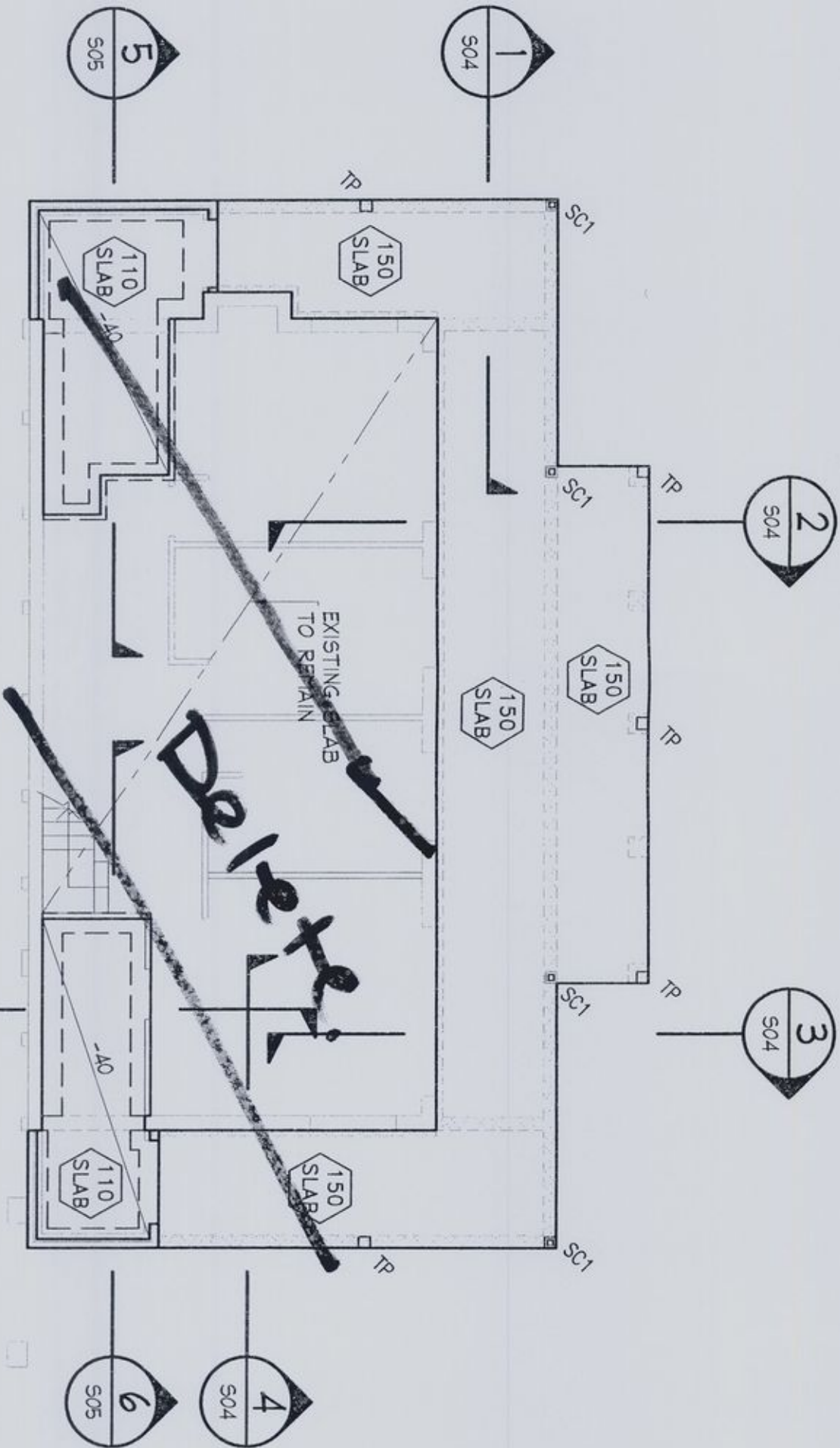
**FOOTING PLAN**  
SCALE - 1:100

NOTE:

- CONCRETE STRENGTH  $f'_{c}=25\text{MPa}$ , COVER = 50mm
- PF1 - 600 x 600 MASS CONC PAD FOOTING ON ROCK
- SF1 - 200 MIN THICK MASS CONC STRIP FOOTING ON ROCK

This plan / document forms part of Construction Certificate no. 2012 / 4868.





## LOWER GROUND FLOOR SLAB PLAN

SCALE - 1:100

NOTE:

- CONCRETE STRENGTH  $F_c=32\text{MPa}$ , COVER = 30mm INT, 45mm EXT



### NOTES:

- ALL DIMENSIONS TO BE VERIFIED ON SITE
- BEFORE COMMENCING WITH WORK.
- FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



MEMBER

### DOCUMENT CERTIFICATION

Date: **20/12/2023**  
By: **Bruce Lewis**  
(Principal - Peninsula Consulting Engineers)  
BE(Civil)/CPEng/MIE Aust., NPER  
Institute of Engineers' Membership No. 879131



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Project: **PROPOSED WORKS**  
at: **50 Minkara Road**  
Bayview  
for: **W. & M. Van Vlymen**

Drawing Title:

**LOWER GROUND FLOOR SLAB PLAN**

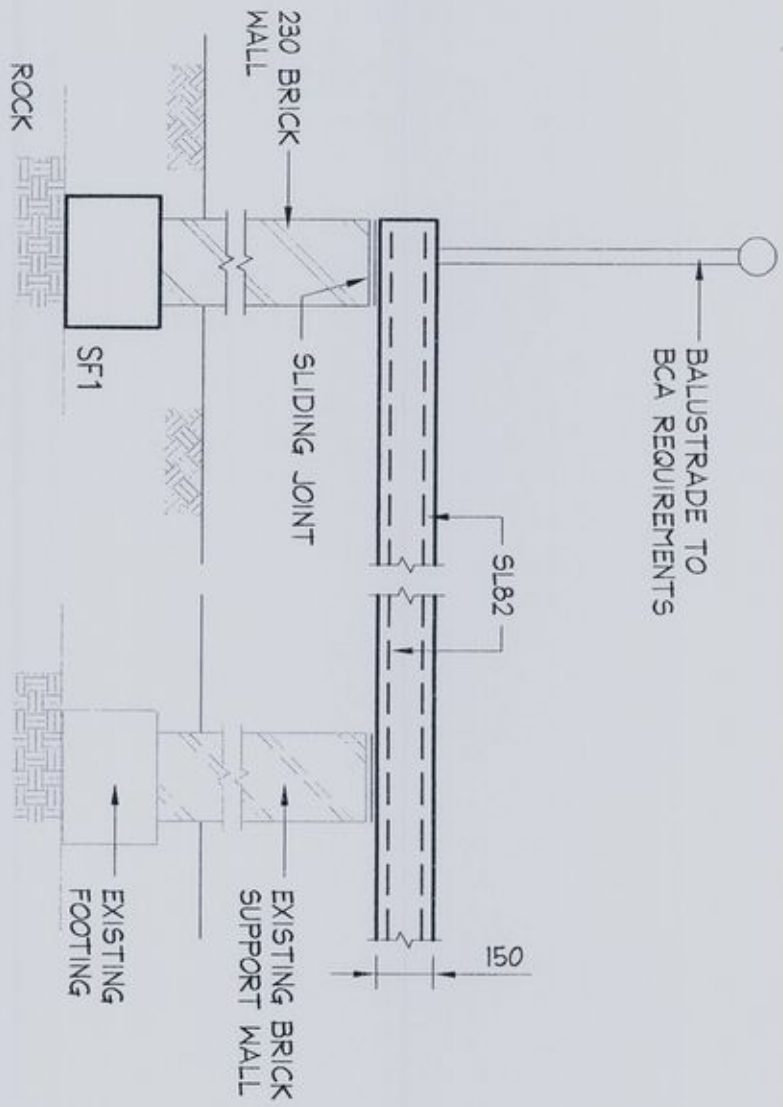
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Drawing No: **S03**

Rev: **-**

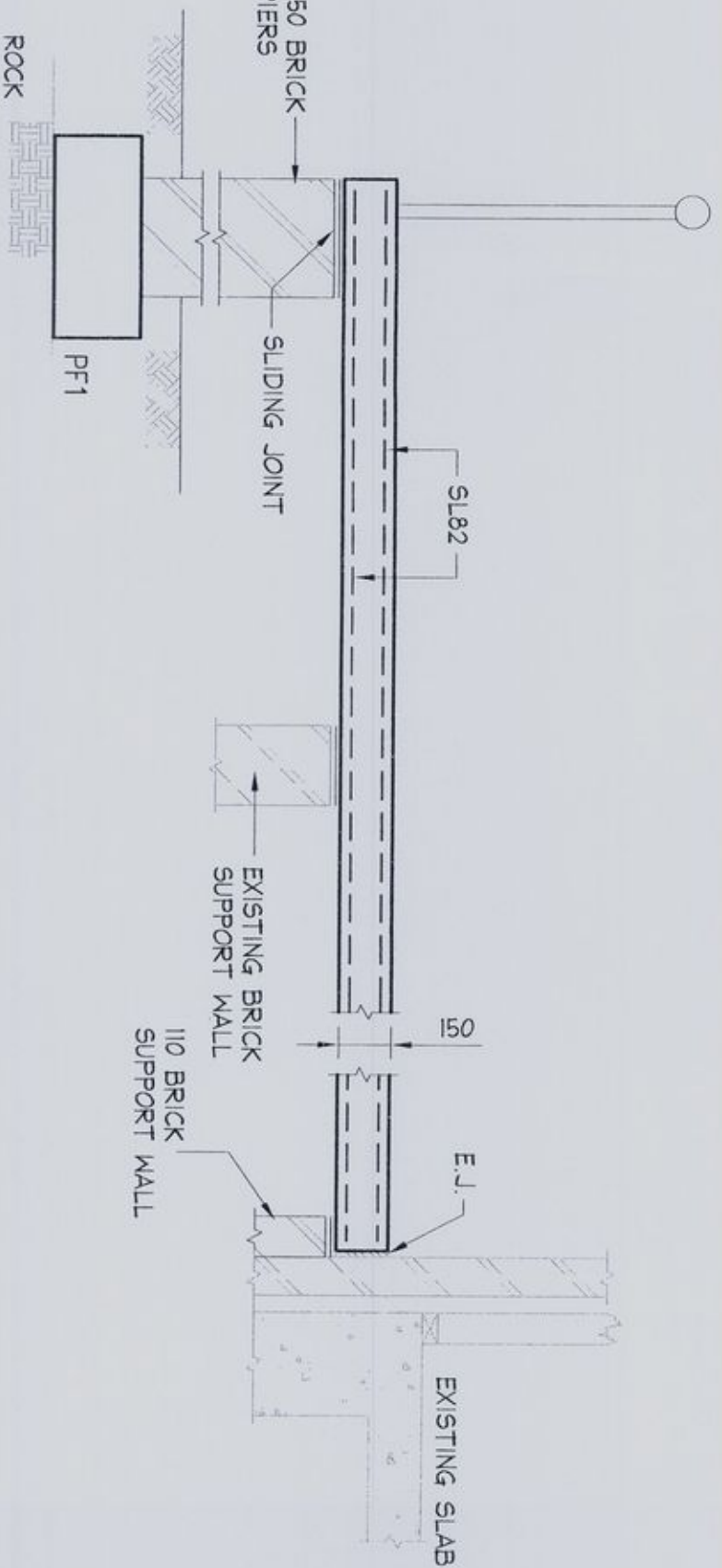
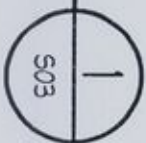
This plan / document  
forms part of  
Construction Certificate  
no. 2012 / 4868.





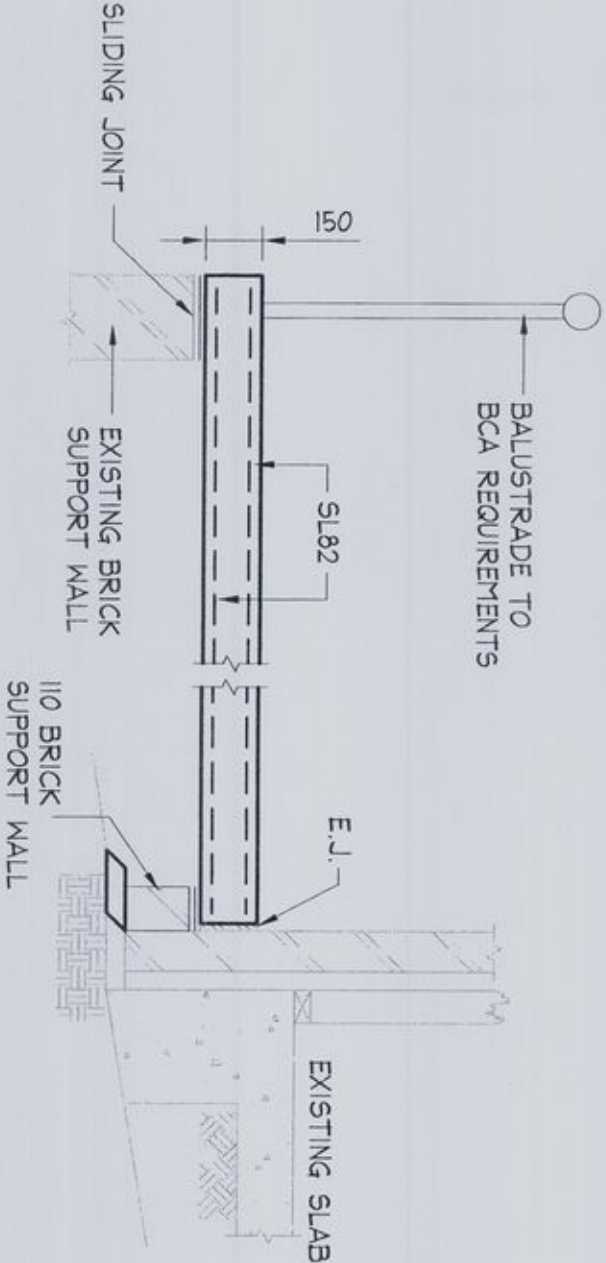
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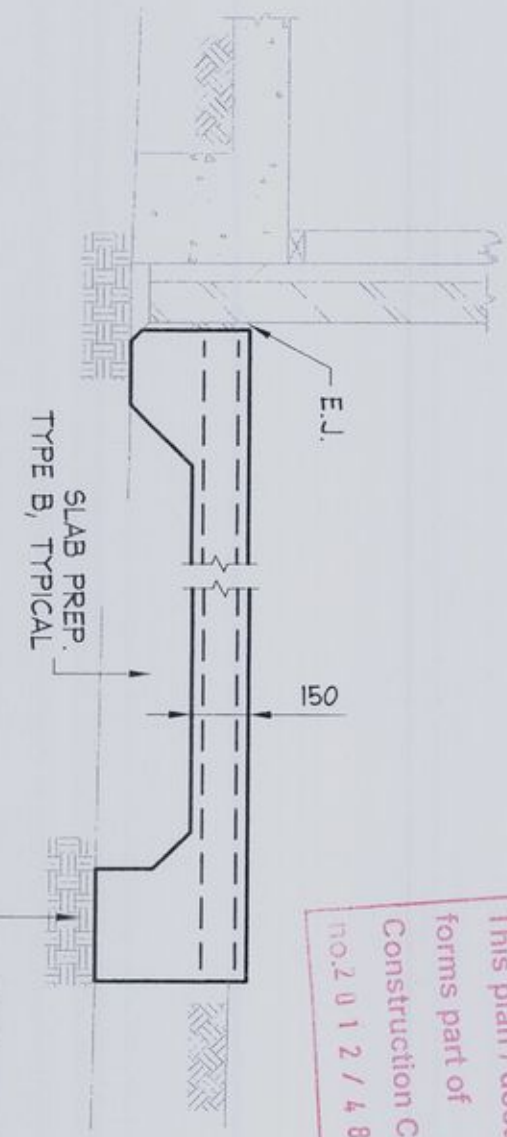
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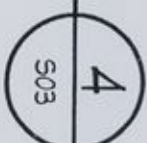
SECTION 3

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SECTION 4

SCALE = 1:20



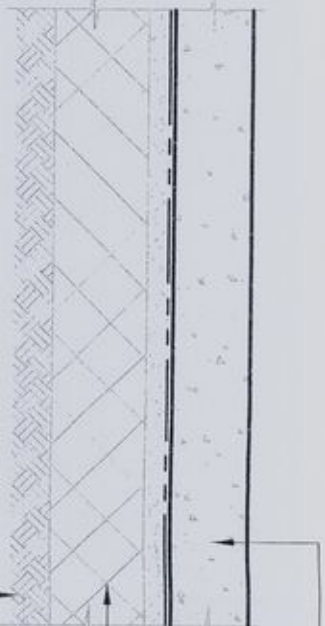
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NOTES:

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

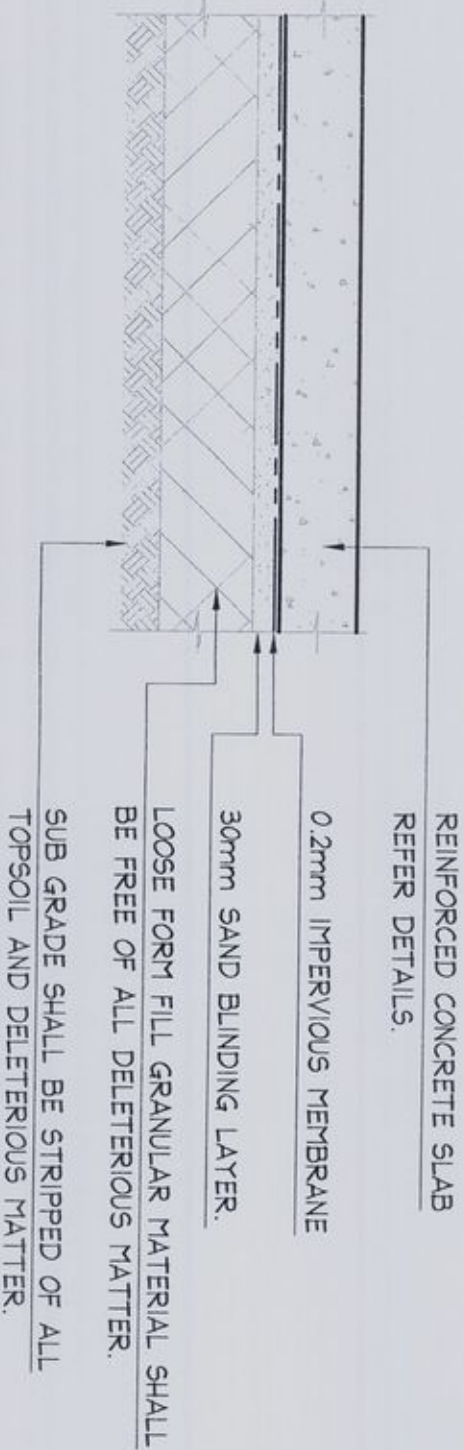
<b>CHARTERED</b> MEMBER		<b>DOCUMENT CERTIFICATION</b>		<b>Peninsula Consulting Engineers</b>		The copyright of this drawing remains with Peninsula Consulting Engineers.		<b>LOWER GROUND FLOOR DETAILS SHEET 1</b>	
Date: 10/12/2012		Bruce Lewis		80 Box 841 Brookvale, NSW 2100 Ph: 0424 253 818 Fax: (02) 9982 4122 E: bruce@peninsulaconsulting.com.au A.B.N. 60 493 390 399		Project: PROPOSED WORKS at: 50 Minkara Road Bayview		Job No: 10-914	
Date: -		Rev: -		Amendment: -		for: W. & M. Van Vlymen		Drawing No: S04	
Date: -		Rev: -		Amendment: -				Rev: -	





**NOTE :**  
SAND BLINDING, SUB-BASE, FILLING AND SUB GRADE TO BE MECHANICALLY COMPACTED TO A DRY DENSITY RATIO OF NOT LESS THAN 98% MAXIMUM DRY DENSITY TO A.S. 1289/2002. ALL AREAS TO BE TESTED BY GEOTECHNICAL ENGINEER AND RESULTS FORWARDED TO STRUCTURAL ENGINEER PRIOR TO POURING CONCRETE.

**TYPICAL SLAB PREPARATION TYPE A**  
**SLAB ON GRADE**  
N.T.S.



**TYPICAL SLAB PREPARATION TYPE B**  
**SUSPENDED SLAB ON LOOSE FORM FILL**  
N.T.S.

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MEMBER

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Date

*20/11/20*

*Bruce Lewis*

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Project

PROPOSED WORKS  
at: 50 Minkara Road  
Bayview

for: W. & M. Van Vlymen

Drawing Title

LOWER GROUND FLOOR  
DETAILS SHEET 3

Job No:

10-914

Drawing No:

S06

Rev:

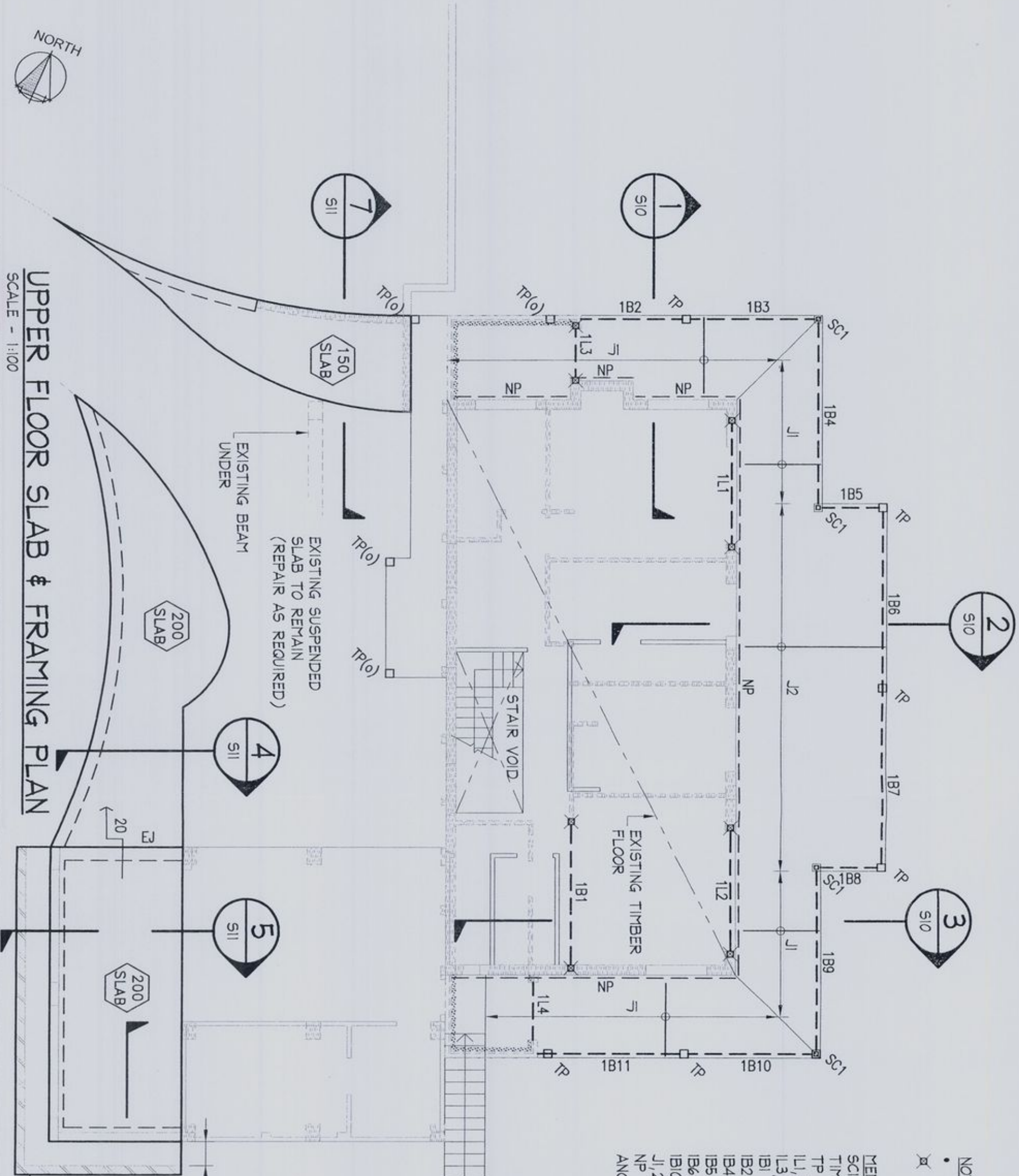
-



- NOTE:
- CONCRETE STRENGTH  $f_c=32\text{MPa}$ , COVER = 45mm
  - ✕ LOAD CONCENTRATION POINT, PROVIDE DOUBLE STUDS UNDER ALL LINTELS.

MEMBER SCHEDULE

SCI - 100 x 100 x 4 SHS GALV. STEEL COLUMN WITH  
TIMBER CLADDING TO MAKE EXTERNAL 200x200.  
TP - 200 x 200 HMD RECYCLED HMD POSTS  
LI, 2 - 300 x 63 LVL INT + 150 x 100 GALINTEL EXT  
LI, 3, 4 - 150 x 45 LVL INT + 100 x 100 GALINTEL EXT  
IB1 - 300 x 63 LVL OR 180UB18 BEARER  
IB2, 3 - 290 x 45 F17 HMD CONTINUOUS BEARER  
IB4, 9 - 2/290 x 45 F17 HMD BEARER  
IB5, 8 - 290 x 45 F17 HMD BEARER  
IB6, 7 - 2/290 x 45 F17 HMD CONTINUOUS BEARER  
IB10, 11 - 290 x 45 F17 HMD CONTINUOUS BEARER  
JI, 2 - 190 x 45 F17 HMD AT 450 CTS JOISTS  
NP - NAILING PLATE FIXED WITH M12 EPOXYSET  
ANCHORS AT 900 CTS



UPPER FLOOR SLAB & FRAMING PLAN

SCALE - 1:100

- NOTES:
1. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
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CHARTERED  
MEMBER

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DATE  
Bruce Lewis  
Principal : Peninsula Consulting Engineers  
BE(Civil) CPENG, MEAust., NPER  
Institute of Engineers' Membership No. 879131

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PROPOSED WORKS

at: 50 Minkara Road

Bayview

for: W. & M. Van Vlymen

Drawing Title:  
UPPER FLOOR SLAB  
& FRAMING PLAN

JOB NO.:  
10-914

Drawing No.:  
S09

Rev:  
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