



# CODE COMPLIANCE CERTIFICATE

SECTION 95, BUILDING ACT 2004

## THE OWNER

Goodenough-Bayly Peter James & Goodenough-Bayly Holly Melissa 1 Moss Lane Raumati Beach	No. 100805
	Issue date 21/06/11
	Application date 15/10/10

## THE BUILDING

Street Address	1 Moss Lane, Paraparaumu
Valuation No.	1530132105
Legal Description	LOT 1 DP 380622 C/T 322928
Intended Use	Residential dwelling
Intended Life	Indefinite, but not less than 50 years
Current Use	Vacant land
Proposal	New Dwelling
Estimated Value	\$500,000

## Code Compliance

The building consent authority named below is satisfied, on reasonable grounds, that –

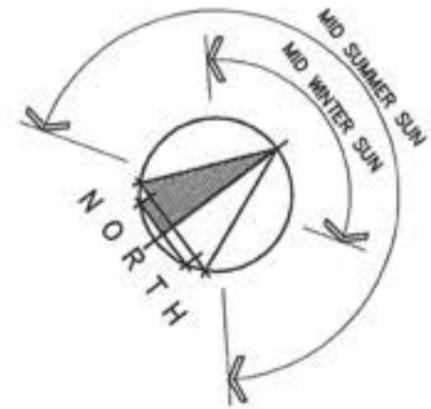
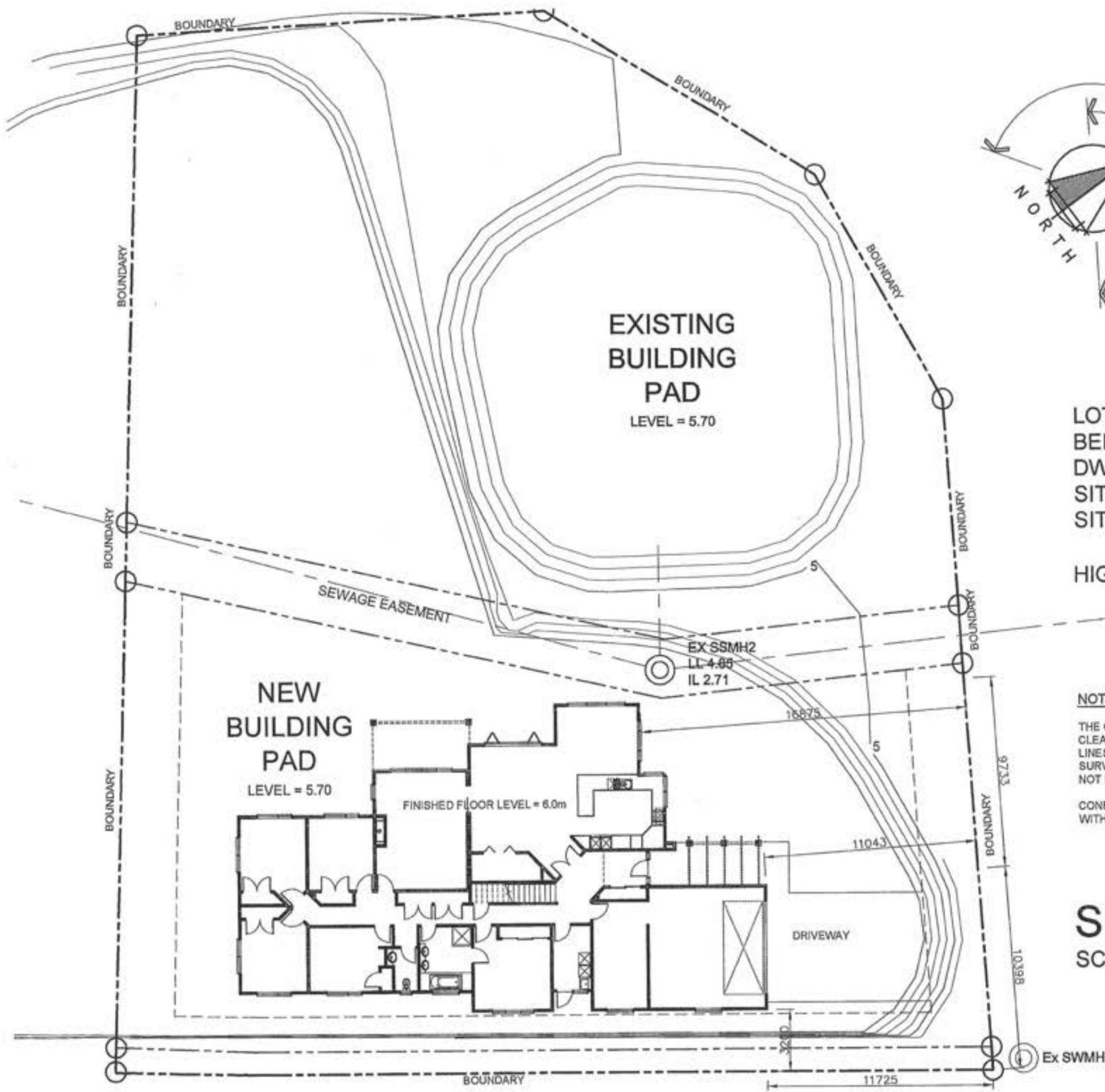
- The building work complies with the building consent; and
- The property owner must follow and carry out the manufacturers prescribed maintenance procedures.

Signed for and on behalf of the Kapiti Coast District Council:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

21/6/11



LOT 1, DP 380622  
 BEING PART LOT 1, DP 4864  
 DWELLING = 271m<sup>2</sup>  
 SITE AREA = 2197m<sup>2</sup>  
 SITE COVERAGE = 8.2%

HIGH WIND ZONE

**NOTE:**  
 THE OWNER/BUILDER IS RESPONSIBLE FOR CLEARLY DEFINING THE SITE BOUNDARY LINES & PEGS. THIS MAY REQUIRE A SURVEY. NOTE: ESTABLISHED FENCES ARE NOT NECESSARILY ON THE SITE BOUNDARY  
 CONFIRM POSITION OF DWELLING ON SITE WITH OWNER

**SITE PLAN**  
 SCALE 1:200

APPROVED BY  
 PLANNING  
 Janice Lee  
 2/11/2010

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**SITE PLAN**

Designer  
**COASTAL ARCHITECTURE LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 1  
 Rev: B

All work shall be carried out in accordance with Resource Consents (RMs 050345, 100164) and Section 221 Consent Notice (including Variation).

All work shall be in accordance with the NZBC. If in doubt AS/NZS 1170:2002 should be used. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

MINIMUM SIZE DRAIN 65MM  
"SWEEP" Y" JUNCTIONS TO BE USED

\* Water test all drainage under the slab at the time of the preslab plumbing inspection.

**NOTE:**

NO PIPES AT ANY POINT EXCEED 10m IN LENGTH FROM DN 100 VENTED DRAIN

ALL WORK TO COMPLY WITH AS/NZS 3500.2

100mm UPVC WASTE PIPE TO CONNECT TO LOCAL AUTHORITY SEWER MAIN, POSITION TO BE CONFIRMED ON SITE

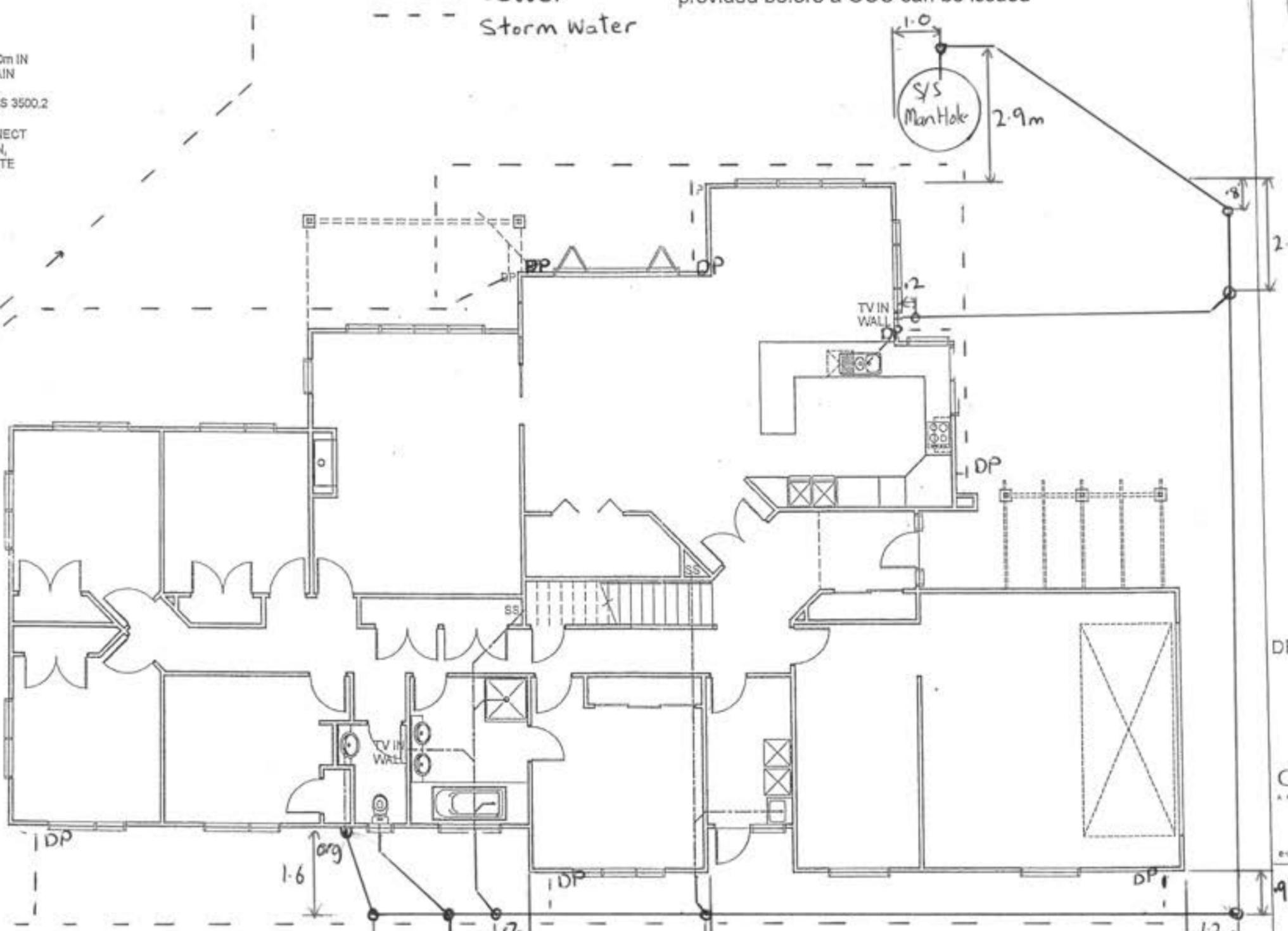
Lake ↑

— Sewer  
- - - Storm Water

ensure the tank used has water storage capacity of no less than 10,000lt. a producer statement from the tank manufacturer confirming this will need to be provided before a CCC can be issued

Revised: SEPTEMBER 10 rev A  
OCTOBER 2010  
**APPROVED BY**  
PLUMBING AND DRAINAGE  
Simon C  
21/10/2010

OVERFLOW FROM TANK TO STORMWATER STORAGE POND



Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title  
**DRAINAGE PLAN**

Designer  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0956  
e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
Drawn: bf  
Scale: AS shown

Job: 001  
Page of: 2  
Rev: B

BUILDER TO ENSURE THAT PROPOSED FOUNDATION HEIGHT WILL ALLOW A SATISFACTORY DRAINAGE CONNECTION TO THE COUNCILS SEWER

CERTIFYING PLUMBER/DRAINLAYER TO FILL OUT ATTACHED PRODUCER STATEMENT FORMS AND RETURN TO COUNCIL ALSO PROVIDE NEAT ASBUILT DRAINAGE PLAN SHOWING SEWER STORMWATER AND WATER

to the high water table take this into account an installing the water tank.

All work shall be in accordance with the NZBC. If in doubt AS/NZS 3500.2 must be used. The Contractor must verify all dimensions on the drawings. Figure dimensions are to be used, unless otherwise stated. This drawing and content are the copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from its use in any way without the written consent of Coastal Architecture Ltd.

MINIMUM SIZE DRAIN 65MM  
"SWEPT" Y" JUNCTIONS TO BE USED

\* Water test all drainage under the slab at the time of the preslab plumbing inspection.

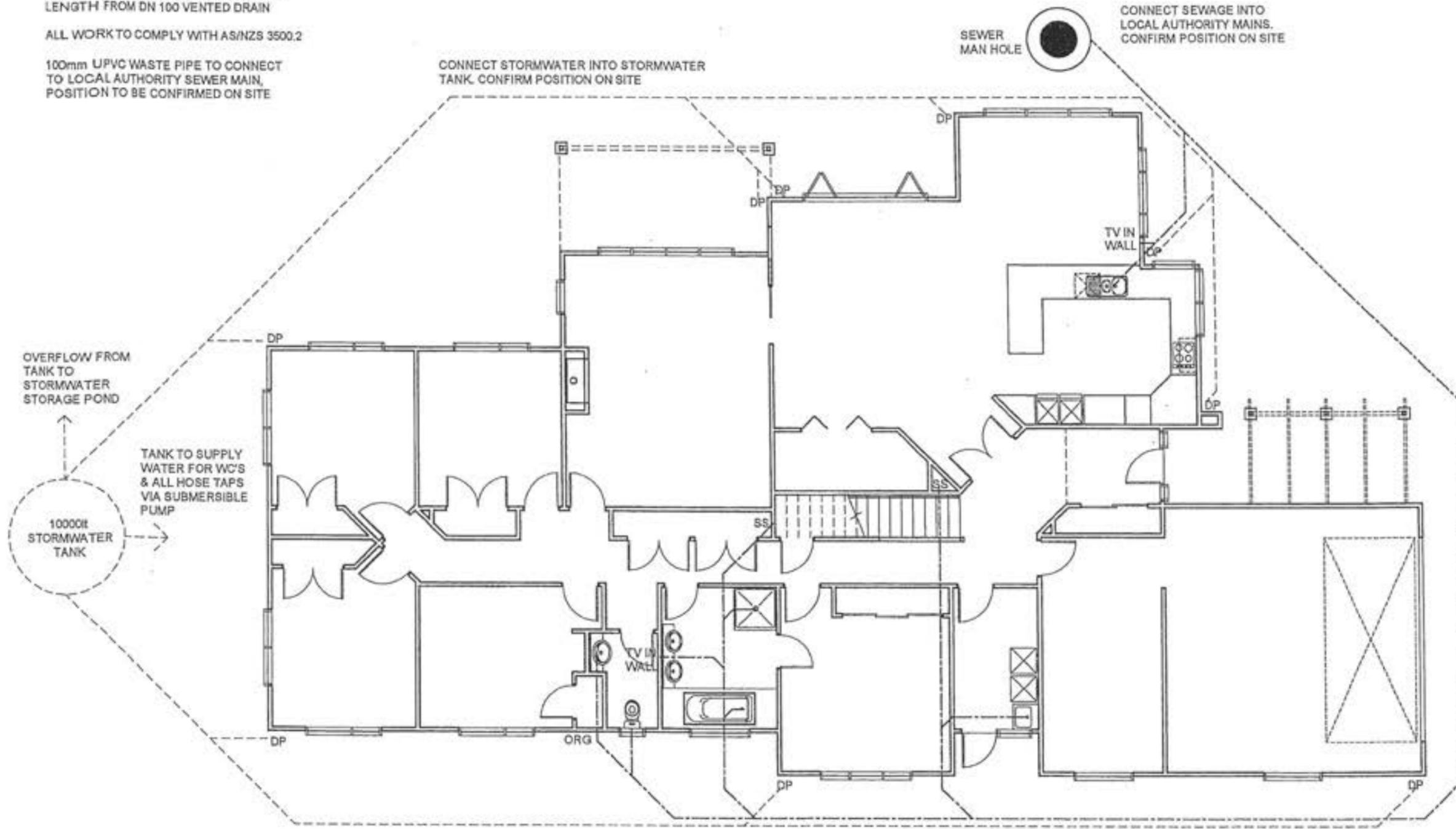
**NOTE:**

NO PIPES AT ANY POINT EXCEED 10m IN LENGTH FROM DN 100 VENTED DRAIN

ALL WORK TO COMPLY WITH AS/NZS 3500.2

100mm UPVC WASTE PIPE TO CONNECT TO LOCAL AUTHORITY SEWER MAIN, POSITION TO BE CONFIRMED ON SITE

ensure the tank used has water storage capacity of no less than 10,000lt. a producer statement from the tank manufacturer confirming this will need to be provided before a CCC can be issued



Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10  
**APPROVED BY**  
PLUMBING AND DRAINAGE  
16 NOV 2010  
Simon C  
21/10/2010

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 390622,  
RAUMATI

Drawing Title:  
**DRAINAGE PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
Drawn: bf  
Scale: as shown

Job: 001  
Page of: 2  
Rev: B

All work shall be in accordance with the NZBC, if in doubt ASK  
The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, unless dimensions must be verified.  
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due to the high water table take this into account when installing the water tank.

BUILDER TO ENSURE THAT PROPOSED FOUNDATION HEIGHT WILL ALLOW A SATISFACTORY DRAINAGE CONNECTION TO THE COUNCILS SEWER

CERTIFYING PLUMBER/DRAINLAYER TO FILL OUT ATTACHED PRODUCER STATEMENT FORMS AND RETURN TO COUNCIL ALSO PROVIDE NEAT ASBUILT DRAINAGE PLAN SHOWING SEWER STORMWATER AND WATER

**DRAINAGE PLAN** SCALE 1:100

Revises:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

16 NOV 2010

2.5

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOGS LANE  
 LOT 1, DP 380622,  
 RAUMATI

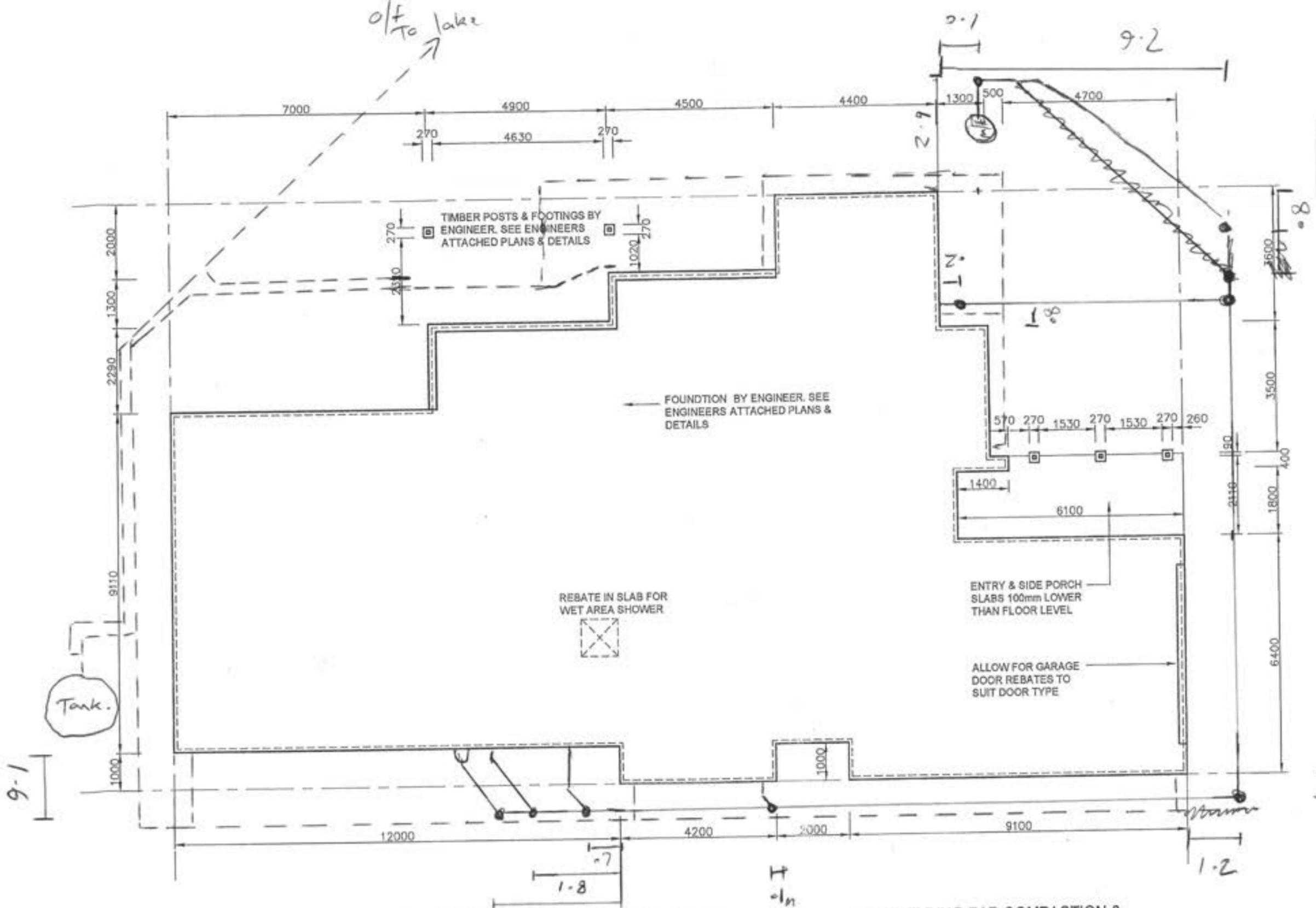
Drawing Title:  
**FOUNDATION PLAN**

Designer:  
**COASTAL ARCHITECTS LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: bill@coastalarchitects.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 7  
 Rev: B

All work shall be in accordance with the NZBC, if in doubt AS/NZS 1170:2002 shall apply.  
 The Contractor must verify all dimensions on the job before commencing any work or stop drawings. Figure dimensions are to be used, scaled dimensions must be verified.  
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**MINIMUM FLOOR HEIGHT**  
 PROTECTED GROUND  
 100MM BRICK VENEER  
 150MM OTHER CLADDINGS  
 UNPROTECTED GROUND  
 150MM BRICK VENEER  
 225MM OTHER CLADDINGS  
 HEIGHTS AS PER NZS3604 1999 SECTION 7

ALL CONSTRUCTION TO COMPLY WITH NZS3604:1999, NZBC AND BEST POSSIBLE TRADE PRACTICES  
 BOTTOM PLATES FIXING  
 10mmØ CAST IN @ MAX 900 CRS  
 12mmØ CAST IN @ MAX 1400 CRS  
 APPROVED ANCHORS (FIXED TO MANUFACTURERS SPECIFIC INSTRUCTIONS)

NZS 3604 1999 RECOMMENDS A CONTROL JOINT AROUND THE PERIMETER OF ANY AREAS WITH SOLID TILES ON FLOOR TO AVOID CRACKING. BUILDER TO VERIFY WITH OWNER SPECIFIC AREAS  
 AREA OF FOUNDATION = 296m<sup>2</sup>

NEW BUILDING PAD COMPACTION & GROUND STABILITY TO BE VERIFIED BY ENGINEER DURING & AFTER CONSTRUCTION. FOUNDATION DESIGN BY ENGINEER DESIGN IF REQUIRED

Pipes under the slab to be inspected before covering

**FOUNDATION PLAN** SCALE 1:100

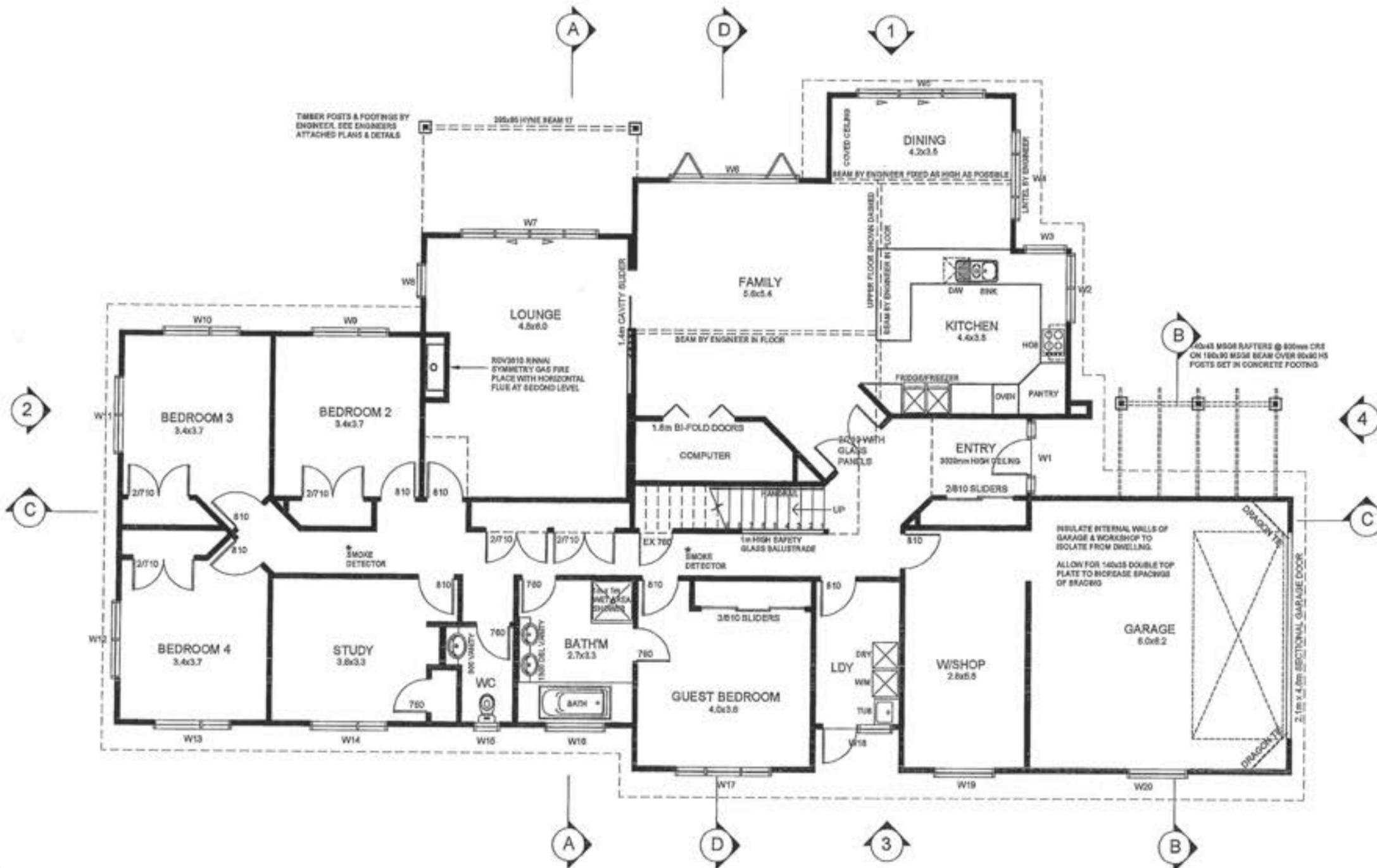
frost prone water pipes are to be lagged with a suitable type of insulation.

gas fitter to provide a compliance certificate to council

preline plumbing inspection required.

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER FLOOR PLAN**

Designer:

**COASTAL**  
 ARCHITECTURE LTD

17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **3** Rev: **C**

All work shall be in accordance with the NZBC. If in doubt, ASK. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, rounded dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

**NOTES:**

**GENERAL NOTES:**

- All work must be carried out to conform to relevant sections of the New Zealand Building Code and New Zealand Standards - in particular NZS 3604, NZS 3602 & NZS 4218. All references to Standards shall be taken as reference to the latest revision including amendments.
- Ground bearing must be reconfirmed on site following excavation but prior to placing concrete and reinforcing.
- Confirm site boundaries with licensed surveyor. Fences may not necessarily be on the legal boundary.
- All work to be carried out to best trade practice
- Do Not Scale off Building Consent Documentation issued from TA's as the plans may have been scanned and the scale distorted.
- All habitable rooms to have 5% of their floor area as opening windows or approved alternative to achieve ventilation requirements

- Pre nail framing and truss manufacturer to provide lintel sizes and provide a producer statement for framing, window lintels and trusses.
- Window openings to be 20mm larger than window sizes (10mm tolerance each side)
- All bottom plates and framing to shower areas to be H3.1. All framing in other at risk areas such as parapets and enclosed balconies to comply with NZS 3602 for particular situation.
- Allow for drwings to fix fittings as required by owner.
- Wall junctions shall be framed up with not less than 2 studs blocked and nailed.
- Maximum diameter hole in 90mm stud to be 25mm or 35mm diameter where not more than 3 consecutive studs are drilled.
- Lintels supporting rafters or trusses shall be secured against uplift as per clause 8.8.1.7 & table 8.14, NZS 3604:1999
- Confirm building wrap is able to be used with timber treatment.

**INTERNAL LININGS**

- WALLS:**
- Generally - 10mm Standard Gib Board
  - Bathrooms, Laundry & Kitchen - 10mm Gib Aqualine
- CEILING:**
- Generally - 13mm Standard Gib
  - Bathrooms, Laundry - 13mm Gib Aqualine
  - Beck block sheet joints and allow for control joints as required by manufacturer

**FRAMING**

- Exterior Walls & Internal Load Bearing Walls:
- Lower floor Up to 2.4m  
90x45 MSG8 at 400 c/s H1.2
  - Interior Non Load Bearing Walls:  
Up to 2.4  
90x45 MSG8 at 600 c/s H1.2
  - Upper floor Up to 2.4m  
90x45 MSG8 at 600 c/s H1.2
  - Interior Non Load Bearing Walls:  
Up to 2.4  
90x45 MSG8 at 600 c/s H1.2

**Top Plate Fixing**

The fixing of top plates supporting roof trusses to wall studs or lintels shall be in accordance with table 8.16, NZS 3604:1999

Joints in top plates to comply with clause 6.7.3 & figures 6.14-6.16, NZS 3604:1999

**Bottom Plate Fixing**

10mm Ø cast in @ max 900 c/s  
 12mm Ø cast in @ max 1400 c/s  
 Approved anchors (fixed to manufacturers specific instructions)

- Holes in plates to comply with clause 6.7.5 & figure 6.10, NZS 3604:1999
- Refer to Bracing Plan and Manufacturers specifications for additional framing fixings.

**LOWER FLOOR PLAN**

SCALE 1:100 AREA = 296m<sup>2</sup>

Ensure that the upstairs soil and wastepipes can run to the exterior without damaging any structural members



**BALUSTRADES**

Balustrade or part height wall must be a minimum of 1.0m on stairs above the leading edge of the nosing and landings.

The balustrade must be designed to comply with the requirements of NZBC F-4 safety from falling.

Timber balustrades must comply with NZBC B1AS2 Timber barriers, or be an alternative solution which can be shown as complying with the performance requirements of NZBC B1 and F4.

Adequate structural strength must be provided in the balustrade and its fixings so that it can support an applied force of 750 newtons / metre run.

**STAIRS**

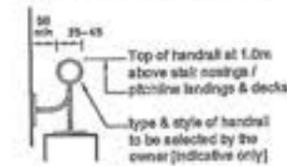
Stair formed with selected 60mm timber treads, risers and stringers to suppliers details. The contractor shall check & confirm on site prior to manufacture

TREADS : 275mm going with 200mm total tread min  
RISERS : 174mm high

**HANDRAILS**

Handrails should extend beyond the top and bottom riser for a minimum distance of 300mm

The handrail must provide a comfortable and safe handhold. Circular or oval shapes 35-45mm minimum diameter, or to comply with NZBC.



Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B  
NOVEMBER '10 rev C

16 NOV 2019

Project:  
**NEW DWELLING**  
Client:  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**UPPER FLOOR PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bilfrancis@coastal.net.nz

Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **4** Rev: **C**

All work shall be in accordance with the NZBC. If in doubt AS/NZS 1170:2002 shall apply. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content, for any purpose without the prior written consent of Coastal Architecture Ltd.

**NOTES:**

**GENERAL NOTES:**

- All work must be carried out to conform to relevant sections of the New Zealand Building Code and New Zealand Standards - in particular NZS 3604, NZS 3902 & NZS 4218. All references to Standards shall be taken as reference to the latest revision including amendments.
- Ground bearing must be reconfirmed on site following excavation but prior to placing concrete and reinforcing.
- Confirm site boundaries with licensed surveyor. Fences may not necessarily be on the legal boundary.
- All work to be carried out to best trade practice
- Do Not Scale off Building Consent Documentation issued from TA's as the plans may have been scanned and the scale distorted.
- All habitable rooms to have 5% of their floor area as opening windows or approved alternative to achieve ventilation requirements

- Prenail framing and truss manufacturer to provide intel sizes and provide a producer statement for framing, window lintels and trusses.
- Window openings to be 20mm larger than window sizes (10mm tolerance each side)
- All bottom plates and framing to shower areas to be H3.1. All framing in other at risk areas such as parapets and enclosed balconies to comply with NZS 3602 for particular situation.
- Allow for dings to fix fittings as required by owner.
- Wall junctions shall be framed up with not less than 2 studs blocked and nailed.
- Maximum diameter hole in 90mm stud to be 25mm or 35mm diameter where not more than 3 consecutive studs are drilled.
- Lintels supporting rafters or trusses shall be secured against uplift as per clause 8.6.1.7 & table 8.14, NZS 3604:1999
- Confirm building wrap is able to be used with timber treatment.

**INTERNAL LININGS**

- WALLS:**
- Generally - 10mm Standard Gib Board
  - Bathrooms, Laundry & Kitchen - 10mm Gib Aqualine
- CEILING:**
- Generally - 13mm Standard Gib
  - Bathrooms, Laundry - 13mm Gib Aqualine
  - Back block sheet joints and allow for control joints as required by manufacturer

**FRAMING**

- Exterior Walls & Internal Load Bearing Walls:**
- Lower floor Up to 2.4m 90x45 MSG8 at 400 cns H1.2
  - Interior Non Load Bearing Walls: Up to 2.4 90x45 MSG8 at 600 cns H1.2
  - Upper floor Up to 2.4m 90x45 MSG8 at 600 cns H1.2
  - Interior Non Load Bearing Walls: Up to 2.4 90x45 MSG8 at 600 cns H1.2

- Top Plate Fixing**  
The fixing of top plates supporting roof trusses to wall studs or lintels shall be in accordance with table 8.16, NZS 3604:1999  
Joints in top plates to comply with clause 8.7.3 & figures 8.14-8.16, NZS 3604:1999
- Bottom Plate Fixing**  
10mm Ø cast in @ max 600 cns  
12mm Ø cast in @ max 1400 cns  
Approved anchors (fixed to manufacturers specific instructions)
- Holes in plates to comply with clause 8.7.5 & figure 8.19, NZS 3604:1999
- Refer to Bracing Plan and Manufacturers specifications for additional framing fixings.

**UPPER FLOOR PLAN**

SCALE 1:100 AREA = 72m<sup>2</sup>

**Producer Statement**  
**Piped Services**  
**&**  
**Sanitary Plumbing Stacks**

**Construction Review**

Issued by Kapiti Plumbing Registration Number 12724

To Kapiti Coast District Council

In respect to the following

Piped Services installed in accordance with G12/AS1 as shown on the approved plans or as per the attached amended plan and Sanitary Plumbing Stacks installed in accordance with G13/AS1 or AS/NZS 3500.2.2

Installed at 1 Moss Lane, Raumati

Building Consent No. 100805

As a Craftsman plumber, currently holding an annual practicing license, certify that I, or personnel under my control, have carried out the installation of the above system and I believe on reasonable grounds that the installation complies with the New Zealand Building Code. Both hot and cold systems have been pressure tested for a period of 15 minutes at a pressure of 1500 kPa.

Name Mark Scate Signed [Signature] Date 26.5.11

---

**KCDC Office use only**

Producer Statement author authenticated and current registration verified

Verification & Registration checked: <https://www2.pgdb.co.nz/PGDB/PublicRegister>

Date.....

Name.....

Signature.....

Validly authenticated by  
appearance with policy 002

Signature: [Signature]

# Producer Statement

## Private Sewer Drains

### Construction Review

Issued by Kapiti Plumbing Registration Number 12724

To Kapiti Coast District Council

In respect to the following

Private Sewer Drains installed in accordance with G13 AS2 or AS/NZS 3500 .2.2 as shown on the approved plans or as per the attached amended plan

Installed at 1 Mosslane, Raumati

Building Consent No. 100805

As a registered drainlayer, currently holding an annual practicing license, certify that I, or personnel under my control, have carried out the installation of the above system and I believe on reasonable grounds that the installation complies with the New Zealand Building Code.

Name Mark Scate Signature [Signature] Date 26.5.11

Note: Fully dimensioned as built drain plan to be supplied. (scale 1:100)

*Drains may be laid and backfilled without inspection provided that the drain is left under test with a min of 1.0 m head and the inspection at the lateral left exposed.*

### KCDC Office use only

Producer Statement author authenticated and current registration verified

Verification & Registration checked: <https://www2.pgdb.co.nz/PGDB/PublicRegister>

Date..... Validity authenticated by  
accordance with PGDB Policy 002

Name.....

Signature.....

Signature: [Signature]

# Producer Statement

## Stormwater Drains

### Construction Review

Issued by Kapiti Plumbing Registration Number 12724

To Kapiti Coast District Council

In respect to the following

Stormwater Drains installed in accordance with E1 AS1 as shown on the approved plans or as per the attached amended plan

Installed at 1 Moss Lane, Raumati

Building Consent No. 100805

As a registered drainlayer, currently holding an annual practicing license, certify that I, or personnel under my control, have carried out the installation of the above system and I believe on reasonable grounds that the installation complies with the New Zealand Building Code.

Name Mark Scate Signed M Scate Date 26.5.11

*Note: Fully dimensioned as built drain plan to be supplied. (scale 1:100)*

---

#### KCDC Office use only

Producer Statement author authenticated and current registration verified

Verification & Registration checked: <https://www2.pgdb.co.nz/PGDB/PublicRegister>

Date..... Validity authenticated in accordance with Policy 002

Name.....

Signature.....

Signature 



## Kāpiti Coast District Council

Private Bag 60 601  
Paraparaumu 5254  
New Zealand

Tel (04) 296 4700  
or 0800 486 486

Fax (04) 296 4830 ■  
kapiti.council@kapiticoast.govt.nz ■  
www.kapiticoast.govt.nz ■

# Building consent 100805

Section 51, Building Act 2004

### The building

Street address of building: 1 Moss Lane, Paraparaumu

Legal description of land where building is located: LOT 1 DP 380622 C/T 322928

Valuation number: 1530132105

Building name:

Location of building within site/block number:

Level/unit number:

### The owner

Name of owner: Mr Peter Bayly

Contact person:

Mailing address: 1 Moss Lane, Paraparaumu

Street address/registered office:

Phone number: Landline: 04 298 9606

Mobile: 021 917 232

Daytime:

After hours: 04 298 9606

Facsimile number:

Email address: pbayly@clear.net.nz

Website:

First point of contact for communications with the council/building consent authority:

Full Name: Bill Francis

Mailing Address:

Phones: 027 249 9519; 905 0958

### Building work

The following building work is authorised by this building consent:

New Dwelling

Residential dwelling

This building consent is issued under section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building).

This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

This building consent is issued subject to the following conditions:

1. This consent is issued subject to Registration of Section 72 of the Building Act 2004.

**Compliance schedule**

A compliance schedule is not required for the building.

**Attachments**

Copies of the following documents are attached to this building consent:

Angela Smith  
Signature

CSO  
Position

On behalf of: KAPITI COAST DISTRICT COUNCIL

Date: 16/11/10

17 November 2010

Mr Peter Bayly  
1 Moss Lane  
Paraparaumu

Dear Sir/Madam

### **Approval of Building Consent: 100805**

Description: New Dwelling  
Location: 1 Moss Lane, Paraparaumu  
Legal Description: LOT 1 DP 380622 C/T 322928

I am pleased to inform you that the above building consent application has been approved. The building consent documents have been issued and are enclosed.

**Before starting any work please read ALL the building consent documents carefully and in full so that you as the owner understand the conditions under which the consent has been issued.**

As the owner you are also responsible for the following:

- ensuring that building work starts within 12 months of the approval of the building consent and that work progresses at a reasonable pace.
- ensuring that all required inspections are completed and that a Code Compliance Certificate is obtained once the work has been completed – please be aware that before a Code Compliance Certificate is issued, the building work must comply with the Building Act 2004 and the Building Code as at the date of final inspection.
- that no work with noisy equipment is to be carried out before 7.30 a.m. or after 6 p.m. Monday to Saturday. During the week there may be workers on site from 6.30 a.m. quietly preparing for work. Work with noisy equipment is not permitted on Sundays and public holidays.
- ensuring that no damage occurs to public property, for example footpaths or retaining structures. Should damage occur you will be required to pay for any repairs.
- ensuring that if you wish to make any changes to the approved building consent, then an amendment to the building consent will need to be lodged with us.

If you have any questions regarding your building consent or your responsibilities, please contact Kapiti Coast District Council on (04) 9045 617.

## Addenda to Application

### Application

Mr Peter Bayly 1 Moss Lane Paraparaumu	No.	100805
--	-----	--------

### Project

Description	New (& prebuilt) House, Unit, Bach, Crib, Town House etc. Being Stage 1 of an intended 1 Stages New Dwelling
Intended Life	Indefinite, but not less than 50 years
Intended Use	Residential dwelling
Estimated Value	\$500,000
Location	1 Moss Lane, Paraparaumu
Legal Description	LOT 1 DP 380622 C/T 322928
Valuation No.	1530132105

Designer:  
0958, 027 249 9519

Coastal Architecture Ltd 17 Fincham Rd, Raumati Beach : 905

### General Requirements

- a) The Building Inspector is to be given 24 hours' notice before carrying out the following inspections:
1. Foundations
  2. Pre-slab
  3. Pre-slab
  4. Drainage
  5. Pre Wrap
  6. Pre Clad
  7. Weathertightness
  8. Preline
  9. Preline
  10. Wet Area - pre Application
  11. Wet Area - post application
  12. Postline
  13. Brick Veneer
  14. Final Inspection
- b) To arrange for any of the above required inspections by Building Control Team, please contact the Call Centre on (04) 296 4700 between the hours of 8am and 5pm.

1. LAPSE AND CANCELLATION OF BUILDING CONSENT. A building consent shall lapse and be of no effect if the building work concerned has not been commenced within 12 calendar months after the date of issue. Or within such further period as the territorial authority allows.
2. The inspection of all specific design components of the building is the responsibility of the Design Engineer who is also required to supply a written report to Council.
3. All foundations are to be to solid bearing minimum of 300mm
4. NZS3604 is an Acceptable Solution in terms of the New Zealand Building Code and is a recommended reference document for timber framed buildings.
5. Note and comply with endorsements on approved plans.
6. Names and registration numbers of plumber and drainlayer are required before work commences.
7. Concealed soil and TV pipes and gas flues are only permitted built into ducts or minimum 150mm framed walls or with the Phillips top plate connecting bracket.
8. Both hot and cold water pipes are to be tested to 1500 KPA pressure.
9. Owner/builder is to ensure that the proposed foundation height will allow a satisfactory drainage connection to the sewer main.
10. Minimum heights of finished concrete slab-on-ground floors above adjoining finished ground level to comply with the current NZS3604.
11. Seismic restraint to be provided to appliance and flue as per the manufacturer's recommendations, NZBC, C.1 and Acceptable Solutions 9.1.2 and 9.2.2
12. Contractor to leave site clear of all demolition materials and in a tidy state.
13. Restrictor stays, limiting sash opening to max 100mm must be fitted wherever sill height is less than 760mm and the difference in levels are 1 metre or greater. Refer F4.NZBC
14. Exterior cladding system to be previously completed and inspected by Council's Inspector prior to any subsequent prelining inspection/approval being granted for the fixing of internal linings.
15. This project contains elements specifically designed by an engineer. The Owner/Builder is required to ensure the Engineer inspects the work and provides KCDC with written evidence of the inspections.
16. All work shall be carried out in accordance with RM100164, 050345 & Sect. 221 Consent Notice including variation 29/10/10. Resource Consent is required for any additional fixed cooking equipment which may be installed within the dwelling.

I have read the foregoing addenda to application, and the Owner/Builder/Authorised Person hereby agrees to comply with them.

**OWNER/BUILDER/  
AUTHORISED PERSON**

**Date:** \_\_\_\_\_

APPROVED BY BUILDING Leon Smith 6/11/2010

All references to standards and codes etc shall be taken as reference to latest version including amendments.

CAUTION Plans have been digitally reproduced and may not be to scale.

Cladding to be installed to manufacturers requirements in particular fixing and ground

Provide electrical certification after completion and prior to Code Compliance Certificate being issued

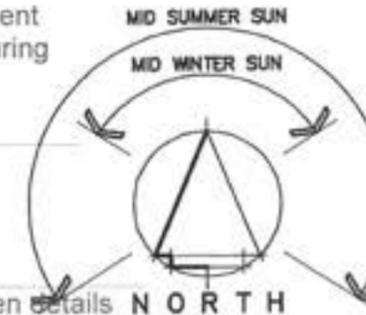
BOUNDARY LINES The Owner/Builder is responsible for clearly defining the site boundary lines and pegs. This may require a survey. NOTE: established fences are not necessarily on the site boundary.

# PROPOSED DWELLING

HIGH WIND ZONE

REVISED

Noisy Equipment It is the responsibility of the owner to ensure that no work with noisy equipment shall be carried out before 7:30 a.m. or after 6 p.m. Monday to Saturday. During the week there may be workers on site from 6:30 a.m. quietly preparing for work.



## FOR MR & MRS BAYLY

1 MOSS LANE, LOT 1, DP 380622, RAUMATI

ENGINEER STRUCTURAL DESIGN TAKES PRECEDENCE

### CONTENTS:

- 1 - SITE PLAN
- 2 - DRAINAGE PLAN
- 3 - LOWER FLOOR PLAN
- 4 - UPPER FLOOR PLAN
- 5 - LOWER FLOOR DIMENSION PLAN
- 6 - UPPER FLOOR DIMENSION PLAN
- 7 - FOUNDATION PLAN
- 8 - ROOF PLAN
- 9 - ELEVATIONS
- 10 - SECTIONS
- 11 - SECTIONS
- 12 - LOWER BRACING PLAN
- 13 - LOWER ELECTRICAL PLAN
- 14 - UPPER BRACING & ELECTRICAL PLANS
- 15 - DETAILS
- 16 - DETAILS
- 17 - DETAILS
- 18 - DETAILS
- 19 - DETAILS
- 20 - DETAILS
- 21 - DETAILS
- 22 - JOINERY SCHEDULE
- 23 - E2 MATRIX

Ensure that the lid of the tank is above the finished ground level

The plumber is to contact Simon Copp when the toby is to be changed/modified 042964773 or email [simon.copp@kapiticoast.govt.nz](mailto:simon.copp@kapiticoast.govt.nz) .the cost of this toby modification and any reinstatement work will be paid by the owner/agent when the invoice is sent out

No Hose Taps on the town water supply permitted

water pipes running to w.c's and all hose taps are to be marked non potable for entire lenght

I recommend that the lid be secured of the water stoarge tank to prevent unauthorised access

the water storage tank is to be topped up by a 600lt per day restricted supply from the second connection on the modified toby.No additional connections

# COASTAL

ARCHITECTURE LTD.

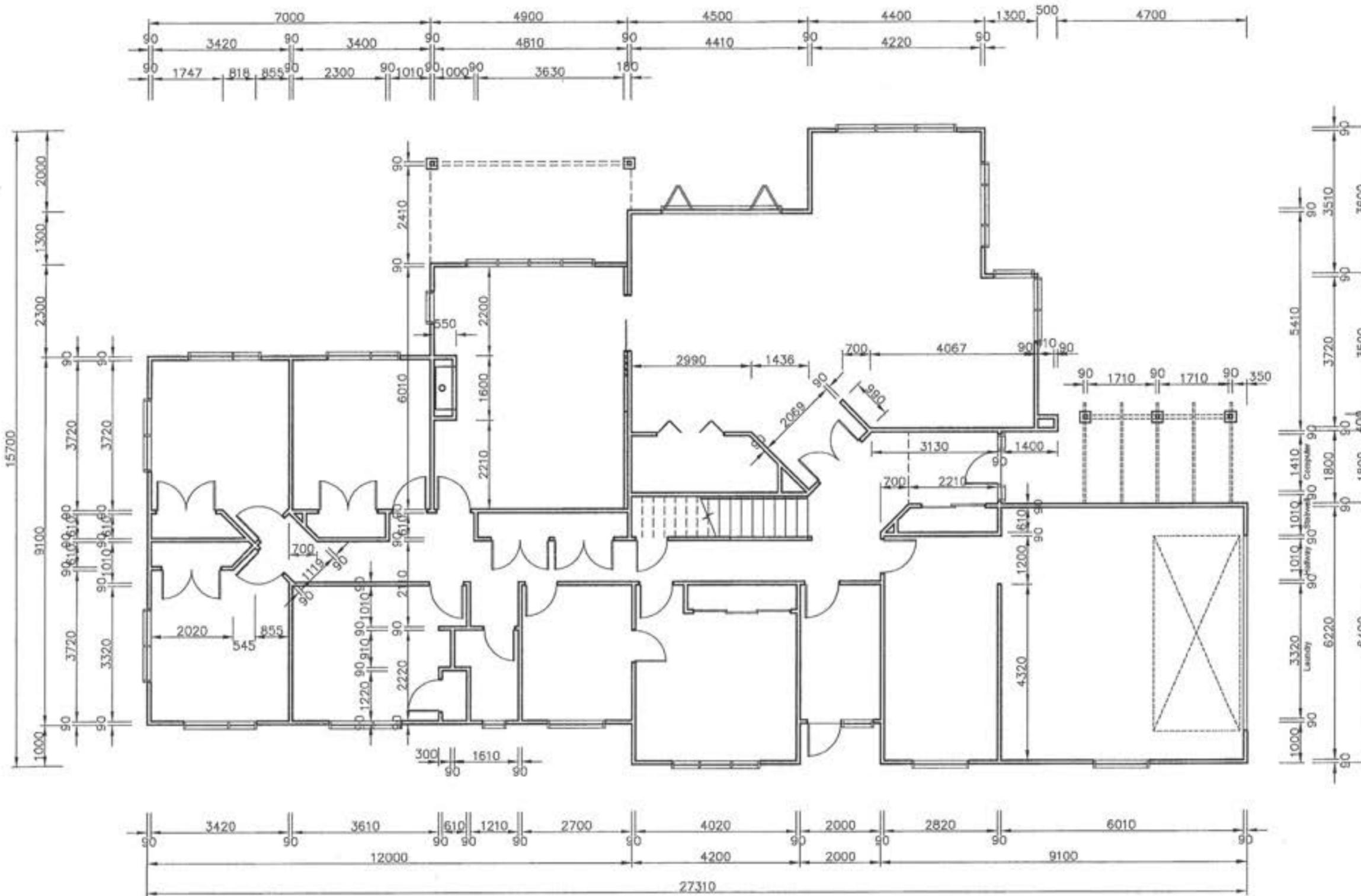
Architect, agent or builder to provide the applicant with suitable written details of a regular inspection and maintenance regime in respect of all flat roof, balcony and deck waterproof membranes and associated flashings.

All work carried out under jurisdiction of producer statement to meet the engineer's requirements fully. Engineer to sign off work supervision after construction



Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



Project:  
**NEW DWELLING**  
 Client:  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380822,  
 RAUMATI

Drawing Title:  
**LOWER DIMENSION PLAN**

Designer:  
**COASTAL ARCHITECTS LTD.**  
 17 Fincham Road  
 Raurimu Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

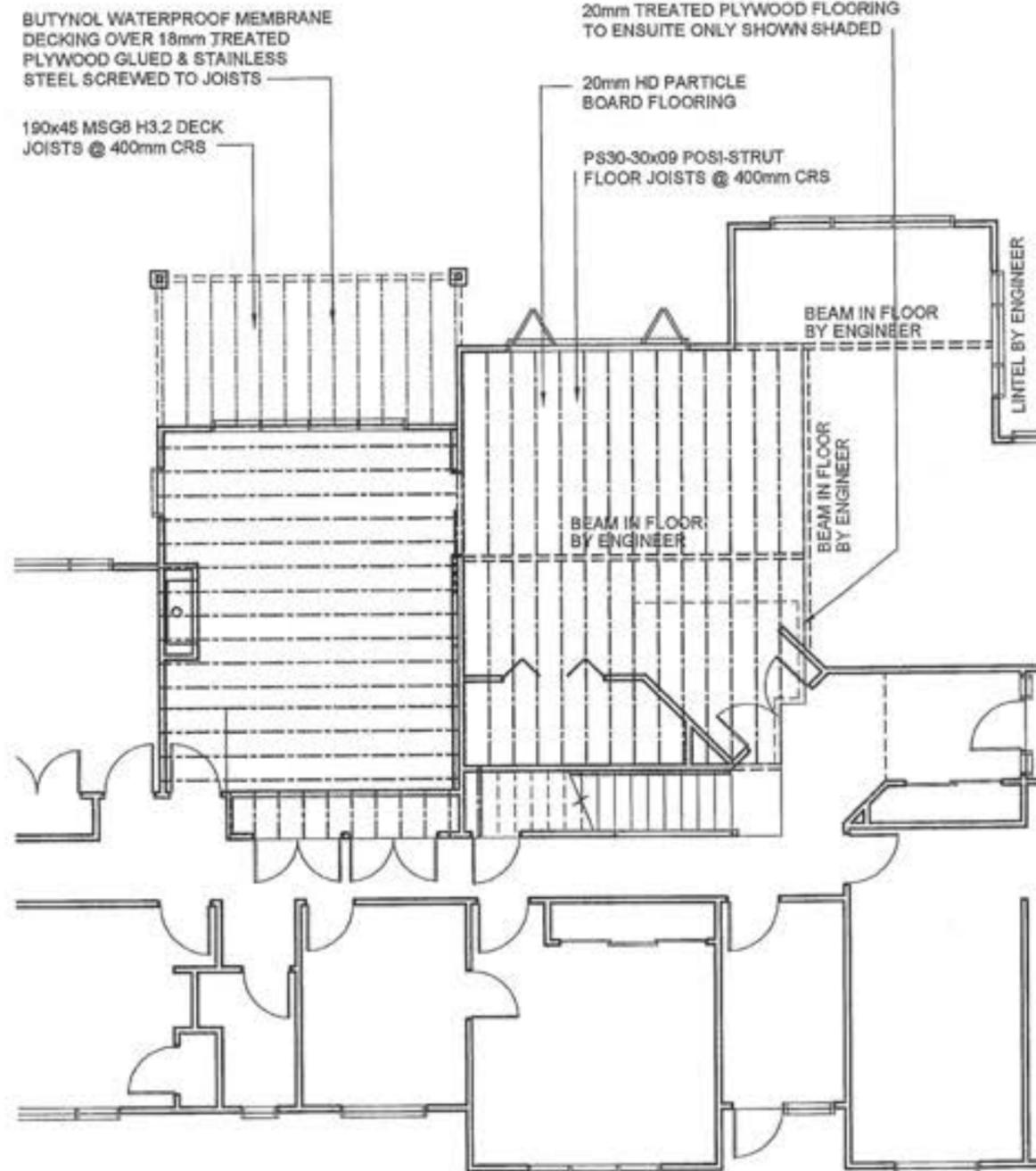
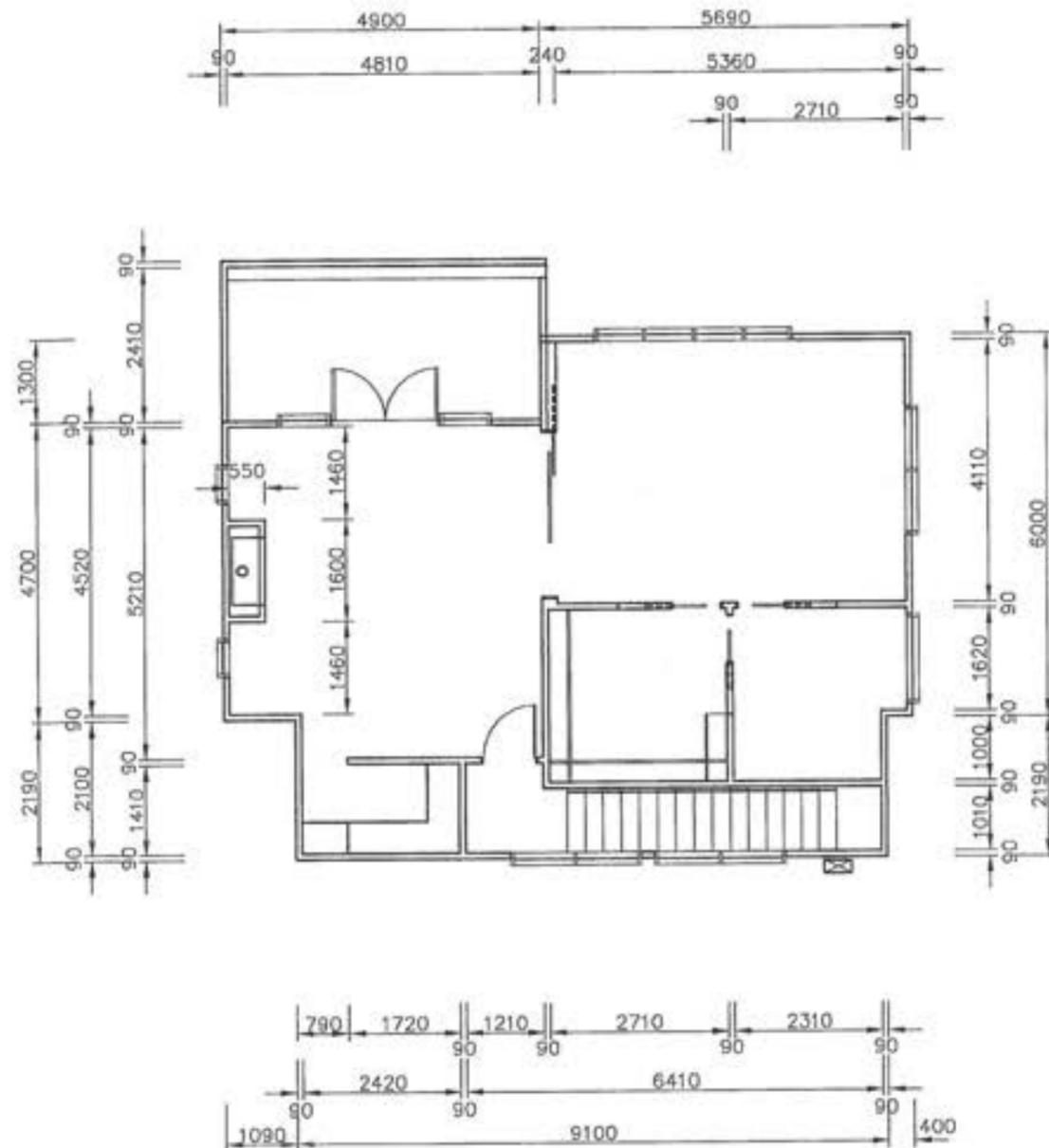
Job: 001  
 Page of: 5  
 Rev: C

All work shall be in accordance with the NZBC, if in doubt AS/NZS.  
 The Client must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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**LOWER DIMENSION PLAN** SCALE 1:100

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**UPPER DIMENSION PLAN & JOIST PLAN**  
 Designer:

**COASTAL ARCHITECTURE LTD.**

17 Finchem Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0938  
 e-mail: bfrancisco@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **6** Rev: **C**

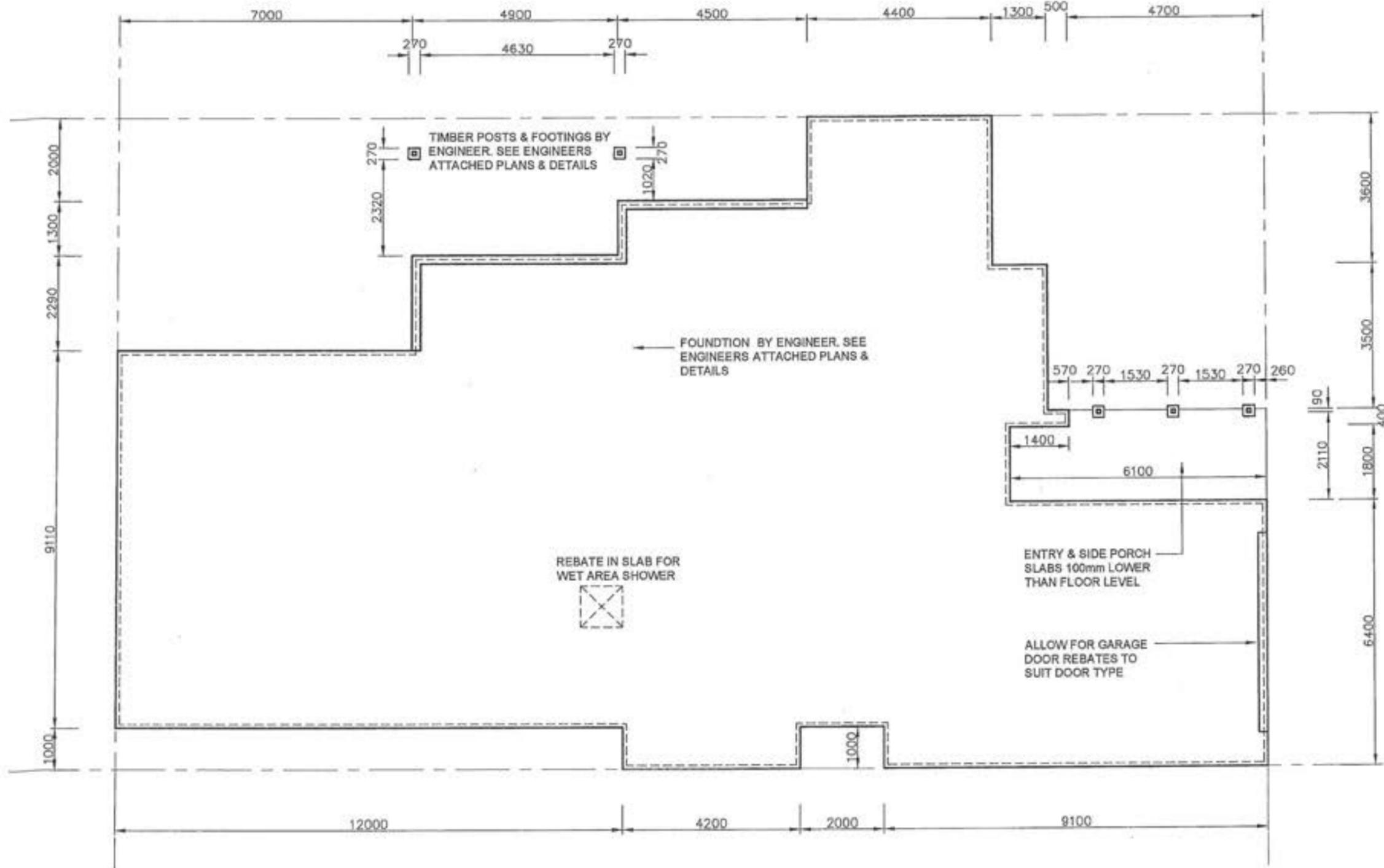
All work shall be in accordance with the NZBC, if in doubt AS/NZS. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, unless dimensions are to be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

**UPPER DIMENSION PLAN**  
 SCALE 1:100

**JOIST PLAN** SCALE 1:100

Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**FOUNDATION PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: bfrancis@paradise.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 7  
 Rev: B

All work shall be in accordance with the NZBC, if in doubt ASK.  
 The Contractor must verify all dimensions on the job before commencing any work or stop drawings. Figure dimensions are to be used, scaled dimensions must be verified.  
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**MINIMUM FLOOR HEIGHT**  
 PROTECTED GROUND  
 100MM BRICK VENEER  
 150MM OTHER CLADDINGS  
 UNPROTECTED GROUND  
 150MM BRICK VENEER  
 225MM OTHER CLADDINGS  
 HEIGHTS AS PER NZS3604 1999 SECTION 7

ALL CONSTRUCTION TO COMPLY WITH NZS3604:1999, NZBC AND BEST POSSIBLE TRADE PRACTICES

**BOTTOM PLATES FIXING**  
 10mmØ CAST IN @ MAX 900 CRS  
 12mmØ CAST IN @ MAX 1400 CRS  
 APPROVED ANCHORS (FIXED TO MANUFACTURERS SPECIFIC INSTRUCTIONS)

NZS 3604 1999 RECOMMENDS A CONTROL JOINT AROUND THE PERIMETER OF ANY AREAS WITH SOLID TILES ON FLOOR TO AVOID CRACKING. BUILDER TO VERIFY WITH OWNER SPECIFIC AREAS

AREA OF FOUNDATION = 298m²

**NEW BUILDING PAD COMPACTION & GROUND STABILITY TO BE VERIFIED BY ENGINEER DURING & AFTER CONSTRUCTION. FOUNDATION DESIGN BY ENGINEER DESIGN IF REQUIRED**

Pipes under the slab to be inspected before covering

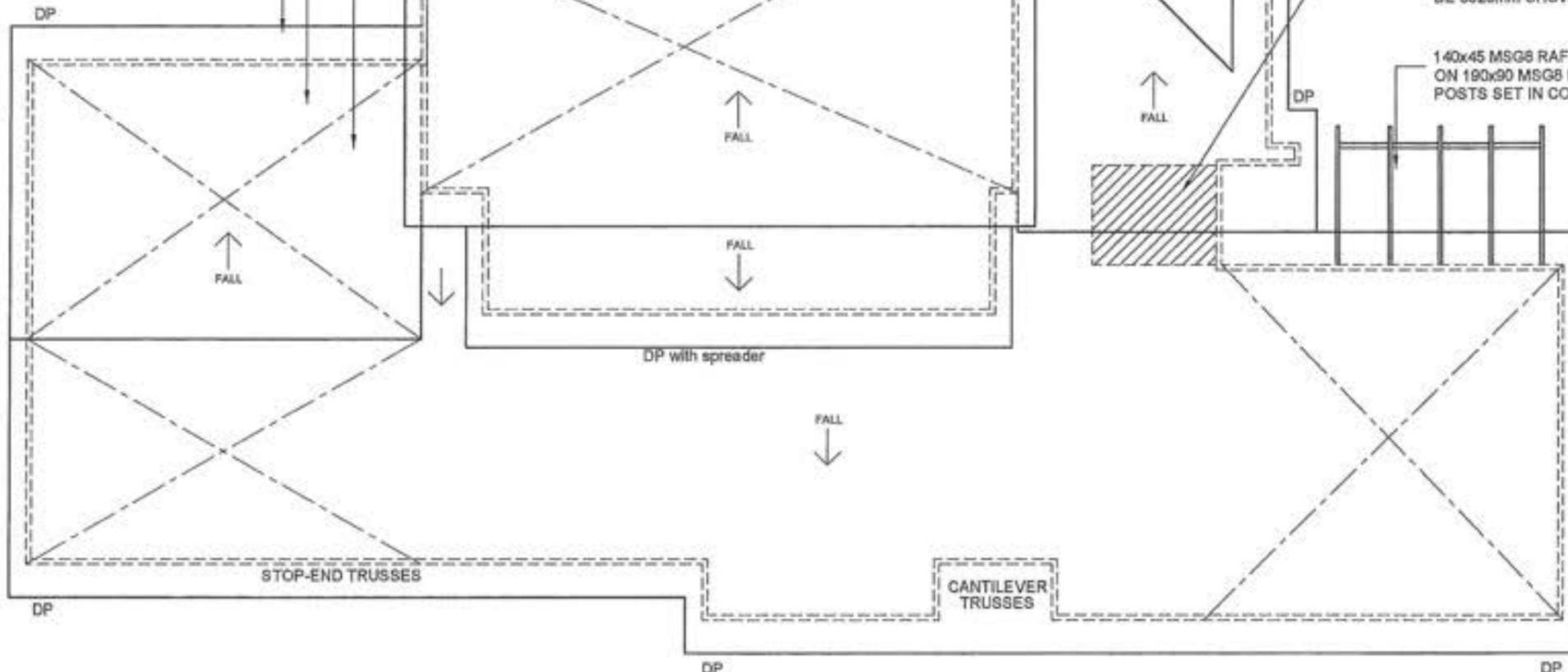
**FOUNDATION PLAN** SCALE 1:100

1.5mm BUTYNOL WATERPROOF MEMBRANE DECKING OVER  
18mm TREATED PLYWOOD GLUED & STAINLESS STEEL  
SCREWED TO 190x45 MSG8 H3.2 JOISTS @ 400mm CRS

GANGNAIL TRUSSES @  
900mm CRS FIXED EACH  
END WITH CYCLONE TIES

CORRUGATED COLOURSTEEL  
'ENDURA' ROOFING OVER 70x45  
MSG8 PURLINS @ 900mm CRS

600mm SOFFIT OVERHANG LINED  
WITH 4.5mm HARDIFLEX & PVC  
JOINTERS, 300mm TO GABLE ENDS



10° ROOF PITCH  
ALL DOWNPIPES 80mm Ø  
ALL TIMBER ROOF CONSTRUCTION  
TO BE H1.2 TREATED MIN  
METAL STRAP ROOF PLANE BRACING  
TO NZS 3604 1999 & 2 90x45 ROOF  
SPACE BRACES TO TRUSSED ROOF  
COLOURSTEEL SPOUTING  
& FASCIA SYSTEM  
CEILING HEIGHT IN ENTRY TO  
BE 3020mm SHOWN HATCHED  
140x45 MSG8 RAFTERS @ 900mm CRS  
ON 190x90 MSG8 BEAM OVER 90x90 H5  
POSTS SET IN CONCRETE FOOTING

Revisions:  
SEPTEMBER '10 rev A  
NOVEMBER '10 rev B

16 NOV 2010

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380822,  
RAUMATI

Drawing Title:  
**ROOF PLAN**

Designer:

**COASTAL**  
ARCHITECTURE LTD.  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bfrandseparadise.net.nz

Design: Bill Francis  
Drawn: bf  
Scale: as shown

Job: 001  
Page of: 8  
Rev: B

**NOTES**

TRUSSES

WHERE THE BOTTOM CHORD OF A TRUSS CROSSES AN INTERNAL WALL CONTAINING ONE OR MORE WALL BRACING ELEMENTS, THE TRUSS SHALL BE CONNECTED TO THE TOP PLATE OF THE WALL EITHER DIRECTLY OR BY A CEILING BATTEN RUNNING PARALLEL TO THE PLATE AND FIXED TO BOTH THE PLATE AND THE BOTTOM CHORD. AS PER CLAUSE 10.4.1.2 NZS 3604:1999

DO NOT SUPPORT BOTTOM CHORD OF TRUSS AT POINTS OTHER THAN THOSE DESIGNATED BY THE TRUSS MANUFACTURER

TRUSSES TO BE H1.1

VALLEY BOARDS TO BE H3.2 TO NZS 3602:2003

SOFFITS

UNFINISHED HARDIES SOFFITS MUST BE PAINTED TO COMPLY WITH NZBC DURABILITY REQUIREMENTS

SPOUTING

FRONT EDGE OF SPOUTING TO BE 20mm BELOW TOP EDGE OF FASCIA

ROOF FRAMING FIXINGS

TRUSSES  
FIXINGS FOR A ROOF TRUSS AT ITS SUPPORT SHALL BE AS GIVEN BY THE TRUSS MANUFACTURERS DESIGN BUT SHALL BE NOT LESS THAN:  
2/100x3.75 SKEWED NAILS & 4 WIRE DOGS

PURLINS TO TRUSSES

MAIN  
2/100x3.75 SKEWED NAILS

PERIPHERY  
2/100x3.75 SKEWED NAILS & 1 WIRE DOG

SUPPLY COPY OF RELEVANT WARRANTIES FOR ROOFING, MEMBRANE SYSTEMS & FASCIA / GUTTER SYSTEMS AS APPROPRIATE TO COUNCIL

ROOFING MATERIAL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS IN PARTICULAR, FIXING & MINIMUM PITCH (REFERENCE ALSO SECT 8 OF E2 NZ BUILDING CODE)

THERMAKRAFT 215 SELF SUPPORTING ROOF UNDERLAY

**ROOF PLAN** SCALE 1:100

All work shall be in accordance with the NZBC. If in doubt ASK  
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**NORTH ELEVATION 1**  
SCALE 1:100



WINDOW SILL SUPPORT BRACKETS ARE REQUIRED TO ALL WINDOW OR DOOR UNITS EXTENDING TO FLOOR LEVEL WHEREVER EXTERNAL WALLS INCORPORATE DRAIN CAVITY SYSTEMS

NOTE:  
ALL CLADDINGS, ROOFING & SPOUTING SYSTEMS TO BE MAINTAINED BY OWNER IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS & WARRANTEE REQUIREMENTS

ALL JUNCTIONS TO CLADDINGS & OTHER EXTERNAL MOISTURE PROTECTION AREAS TO HAVE CAPILLARY GAPS/BREAKS & INSEALS WHERE RELEVANT, STOPPING WIND DRIVEN OR SURFACE TENSION WATER

CLADDING TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS IN PARTICULAR FIXING & GROUND CLEARANCE.

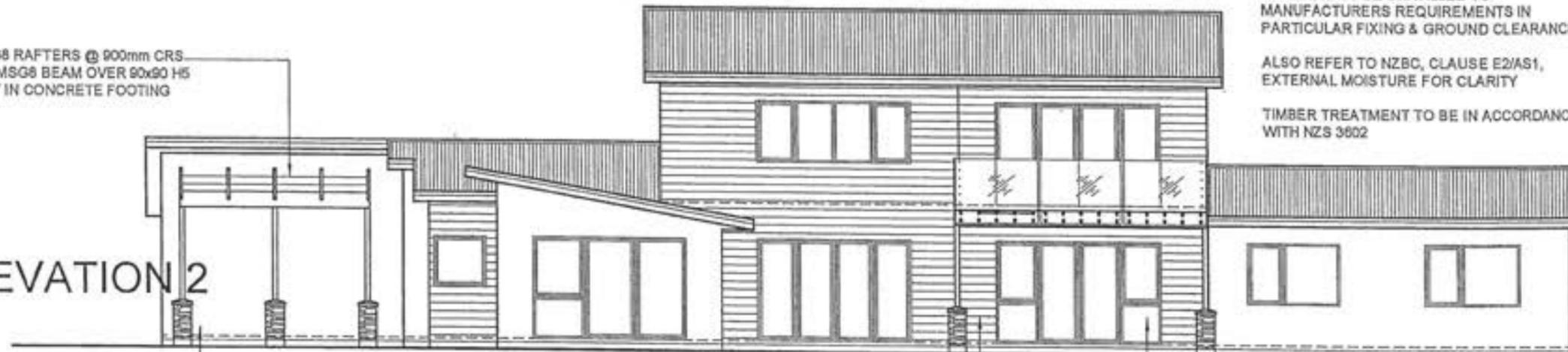
ALSO REFER TO NZBC, CLAUSE E2/AS1, EXTERNAL MOISTURE FOR CLARITY

TIMBER TREATMENT TO BE IN ACCORDANCE WITH NZS 3802

Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B

16 NOV 2010

**WEST ELEVATION 2**  
SCALE 1:100



140x45 MSG8 RAFTERS @ 900mm CRS ON 190x90 MSG8 BEAM OVER 90x90 H5 POSTS SET IN CONCRETE FOOTING

SELECTED 'ELDORADO STONE' BASE TO TIMBER POSTS

1m HIGH SAFETY GLASS BALUSTRADE TO NZBC REQUIREMENTS

BUTYNOL ON PLY DECK INSTALLED TO MANUFACTURERS SPECIFICATION

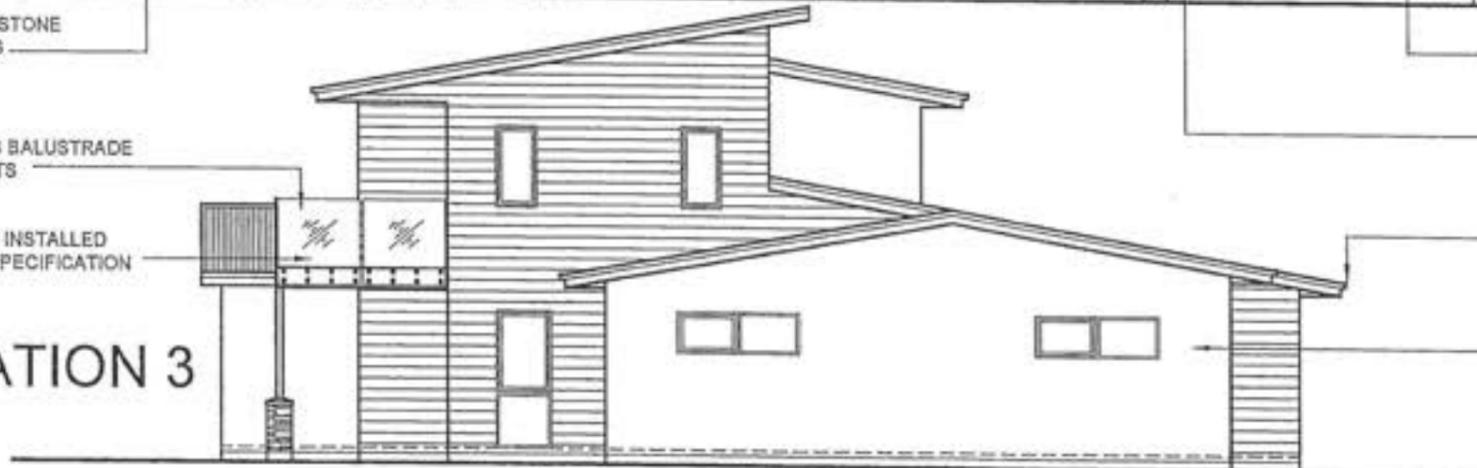
POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

BEVELBACK WEATHERBOARD EXTERIOR CLADDING TO FEATURE WALLS

KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

**SOUTH ELEVATION 3**  
SCALE 1:100



600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDIFLEX & PVC JOINTERS, 300mm OVERHANG TO GABLE ENDS

CORRUGATED COLOURSTEEL ROOFING OVER 70x45 MSG6 PURLINS @ 900mm CRS

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

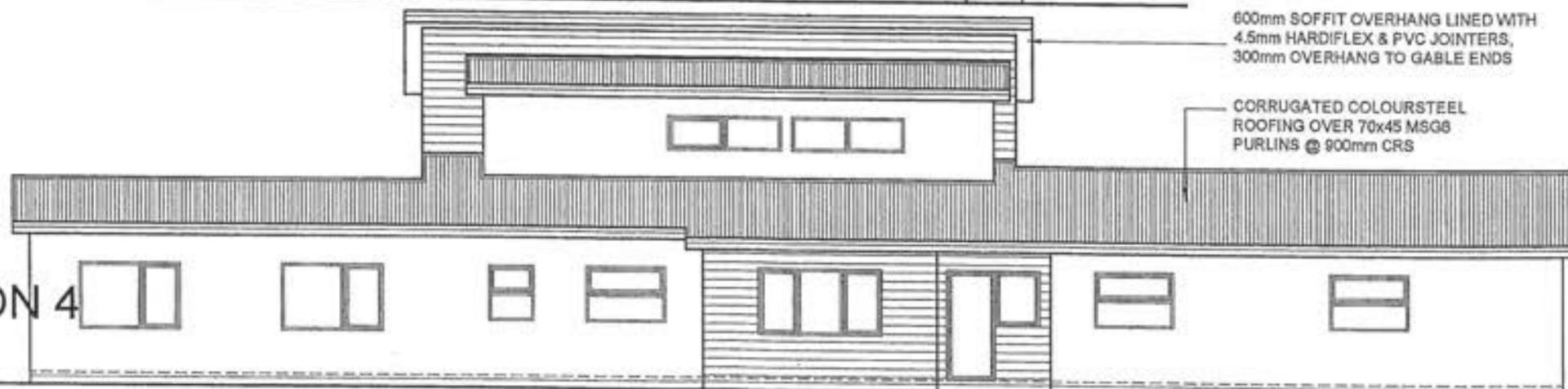
Drawing Title:  
**ELEVATIONS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0158  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **9** Rev: **B**

**EAST ELEVATION 4**  
SCALE 1:100



All work shall be in accordance with the NZBC. If in doubt AS/NZS 1170:2002 should be used.  
The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010

- CROSS SECTION NOTES**
- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
  - Also refer to NZBC, clause E2/AS1, external moisture: third edition for clarity
  - Direct fix cladding systems, fit head flashing and proprietary sill tray to external joinery and sill. Fit airseals to inner edge of joinery reveals (refer to details)
  - All junctions to claddings and other external moisture protection areas, to have capillary gaps/breaks and insole where relevant, stopping wind driven or surface tension water

CORRUGATED COLOURSTEEL 'ENDURA' ROOFING OVER 70x45 MSG8 PURLINS @ 900mm CRS

INSULATION:  
 R3.2 BATTS TO CEILINGS  
 R2.2 BATTS TO EXTERIOR WALLS

70x35 VSG8 CEILING BATTENS @ 400mm CRS TO TRUSSES

90x45 MSG8 FRAMING @ 600mm CRS LINED WITH 10mm GIB

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

165x300mm DEEP CONCRETE FOOTING WITH 2 D12 RODS & R6 TIES @ 600mm CRS

25mpa 100mm CONCRETE SLAB WITH 665 REINFORCING MESH ON DPM & SAND ON COMPACTED HARDFILL TO SUIT

THERMAKRAFT 215 SELF SUPPORTING ROOF UNDERLAY  
 THERMAKRAFT 'COVERUP' BUILDING WRAP

GANGNAIL TRUSSES @ 900mm CRS FIXED EACH END WITH CYCLONE TIES

KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDISOFFIT & PVC JOINTERS - 300mm OVERHANG TO GABLE ENDS

1.5mm BUTYNOL WATERPROOF MEMBRANE DECKING @ 1:60 MIN FALL OVER 18mm TREATED PLYWOOD GLUED & STAINLESS STEEL SCREWED TO JOISTS

1m HIGH GLASS BALUSTRADE TO NZBC REQUIREMENTS  
 DECK

**INTERNAL LININGS**

- WALLS:**
- Generally - 10mm Standard Gib Board
  - Bathrooms - 10mm Gib Aqualine
- BATHROOM**
- CEILINGS:**
- Generally - 13mm Standard Gib
  - Bathrooms - 13mm Gib Aqualine
  - Back block sheet joints and allow for control joints as required by manufacturer

20mm HD PARTICLE BOARD FLOORING OVER P930-30x09 POSTI-STRUT FLOOR JOISTS @ 400mm CRS

BEVELBACK WEATHERBOARD EXTERIOR CLADDING ON CAVITY SYSTEM TO FEATURE WALLS

POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

240x300mm DEEP CONCRETE FOOTING WITH 3 D12 RODS & R10 TIES @ 600mm CRS

**SECTION AA SCALE 1:50**

GANGNAIL TRUSSES @ 900mm CRS FIXED EACH END WITH CYCLONE TIES

600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDISOFFIT & PVC JOINTERS - 300mm OVERHANG TO GABLE ENDS

KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

CORRUGATED COLOURSTEEL 'ENDURA' ROOFING OVER 70x45 MSG8 PURLINS @ 900mm CRS

140x45 MSG8 RAFTERS @ 900mm CRS ON 190x90 MSG8 BEAM OVER 90x90 H5 POSTS SET IN CONCRETE FOOTING SK2K4 NAIL FIX RAFTERS TO BEAM. *BF*

70x35 VSG8 CEILING BATTENS @ 400mm CRS TO TRUSSES

90x45 MSG8 FRAMING @ 600mm CRS LINED WITH 10mm GIB

SELECTED 'ELDORADO STONE' BASE TO TIMBER POSTS

165x300mm DEEP CONCRETE FOOTING WITH 2 D12 RODS & R6 TIES @ 600mm CRS

25mpa 100mm CONCRETE SLAB WITH 665 REINFORCING MESH ON DPM & SAND ON COMPACTED HARDFILL TO SUIT

**SECTION BB SCALE 1:50**

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**SECTIONS**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: bfrfranch@paradise.net.nz

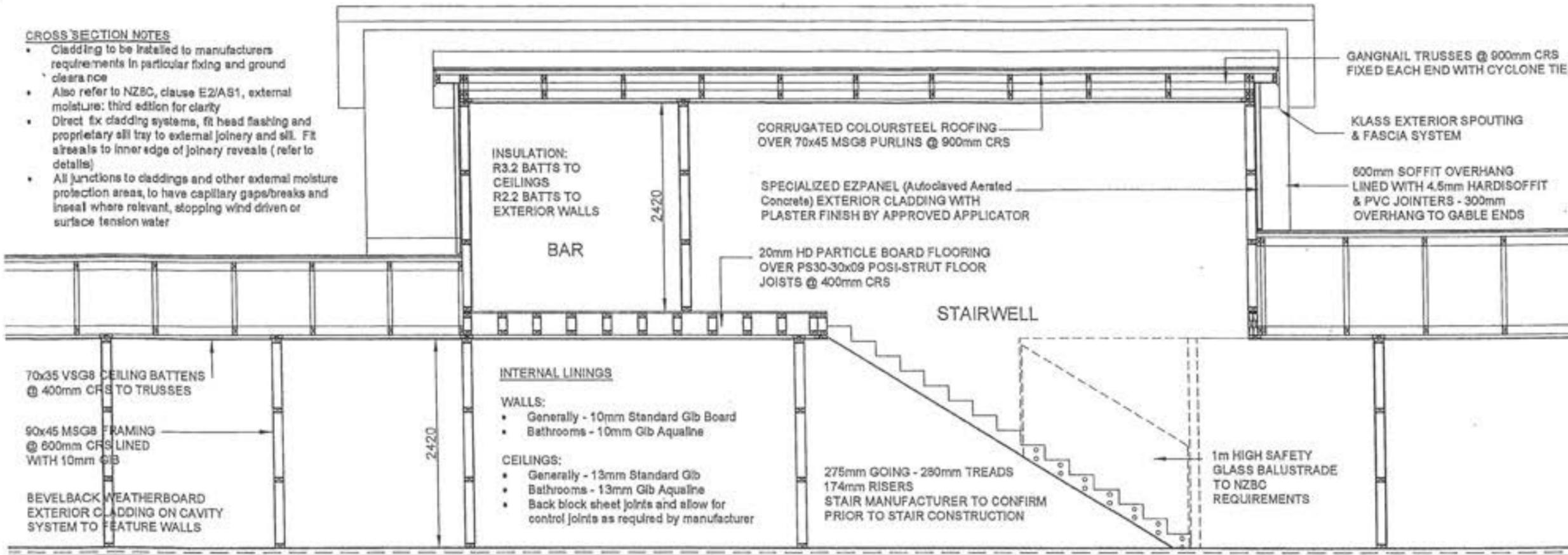
Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **10** Rev: **C**

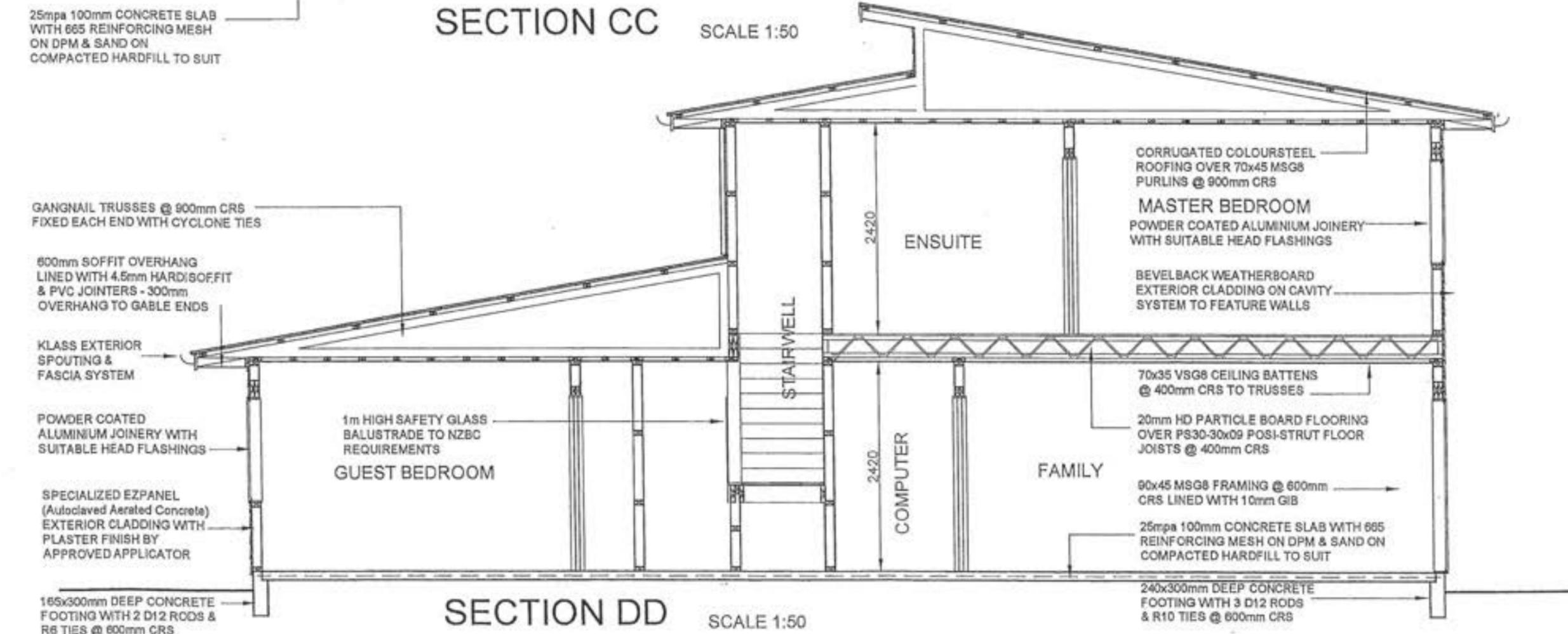
All work shall be in accordance with the NZBC, if in doubt AS/NZS 1170:2002 shall apply.  
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**CROSS SECTION NOTES**

- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Also refer to NZBC, clause E2/AS1, external moisture: third edition for clarity
- Direct fix cladding systems, fit head flashing and proprietary sill tray to external joinery and sill. Fit sills to inner edge of joinery reveals (refer to details)
- All junctions to claddings and other external moisture protection areas, to have capillary gaps/breaks and in seal where relevant, stopping wind driven or surface tension water



**SECTION CC** SCALE 1:50



**SECTION DD** SCALE 1:50

Revised:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B

16 NOV 2010

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**SECTIONS**

Designer:  
**COASTAL**  
ARCHITECTS LTD  
17 Fincham Road  
Sukhmat's Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bfrancis@paradise.net.nz

Design: Bill Francis  
Drawn: bf  
Scale: as shown

Job: 001  
Page of: 11  
Rev: B

All work shall be in accordance with the NZBC. If in doubt ASK  
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Revisions  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010

Project:  
**NEW DWELLING**  
 Client:  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

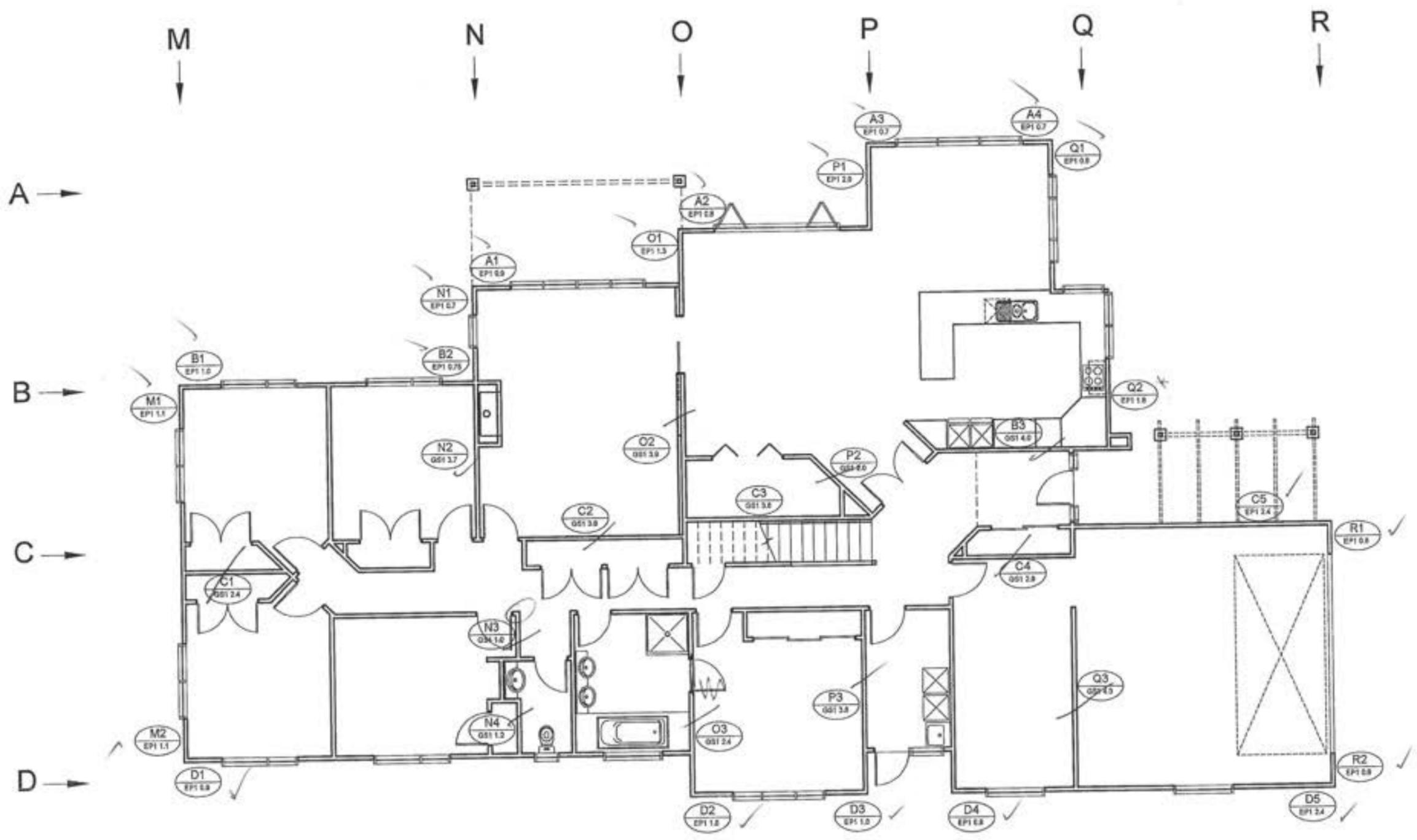
Drawing Title:  
**LOWER BRACING PLAN**

Designer:  
**COASTAL ARCHITECTS LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: bfi@francisparadise.net.nz

Design: Bfi Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 12  
 Rev: C

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**ALL PLY BRACES MUST BE REBATED INTO FRAMING BY PRENAIL MANUFACTURER**

**NOTES:**

- THIS SITE IS A HIGH WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3604 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTERGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PRENAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR. ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BUS UNDER.

**LOWER BRACING PLAN**  
 SCALE 1:100

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B

16 NOV 2010

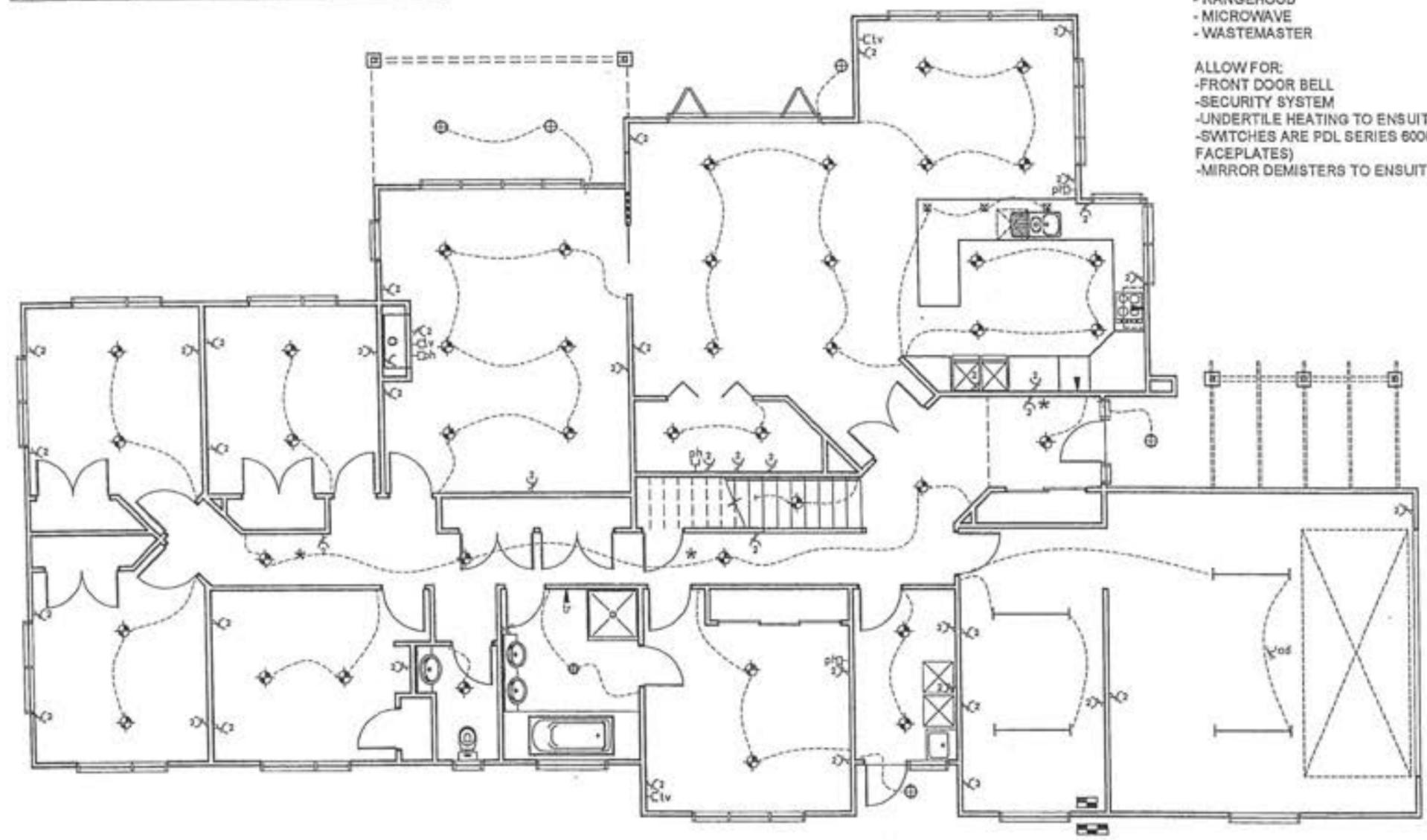
ELECTRICAL LEGEND			
⊕	External lighting point	⌋	Permanent Point
⬠	Recessed Downlight	tv	Television Point
⊠	Halogen	ph	Telephone Point
⊕	Ceiling Light / Extract Fan	tr	Heated Towel Rail
— —	Fluorescent tube	od	Auto Garage Door Opener
⌋	Power Point (2 denotes double)	SB	Switch Board
*	Smoke detector	MB	Meter Board

**ELECTRICAL**  
 RECESSED DOWNLIGHTS (IF USED) SHALL BE INSTALLED TO PREVENT TRANSFER OF MOISTURE INTO CEILING SPACE & MAINTAIN MIN CLEARANCE FROM INSULATION AS REQUIRED BY NZECP 54:2001

PROVIDE ELECTRICAL CERTIFICATE AFTER COMPLETION & PRIOR TO CODE COMPLIANCE CERTIFICATE BEING ISSUED

NOTE: ALLOW FOR POWER SUPPLY TO KITCHEN APPLIANCES  
 - DISHWASHER  
 - RANGEHOOD  
 - MICROWAVE  
 - WASTEMASTER

ALLOW FOR:  
 - FRONT DOOR BELL  
 - SECURITY SYSTEM  
 - UNDERTILE HEATING TO ENSUITE & BATHROOM  
 - SWITCHES ARE PDL SERIES 6000 (WHITE FACEPLATES)  
 - MIRROR DEMISTERS TO ENSUITE & BATHROOM



Project:  
**NEW DWELLING**  
 Client:  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER ELECTRICAL PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Finchan Road  
 Raymull Beach  
 New Zealand  
 Tel: 04 905 0938  
 e-mail: billfrancis@paradise.net.nz

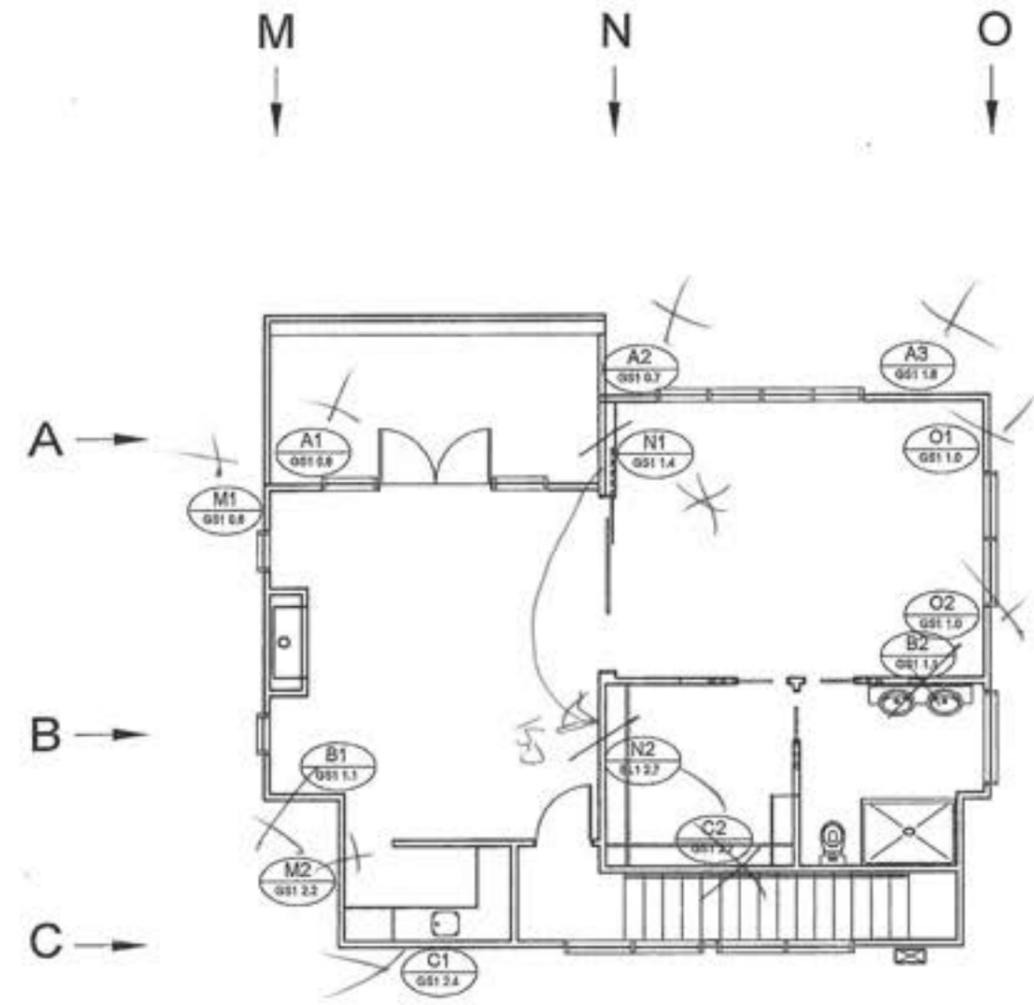
Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 13  
 Rev: B

All work shall be in accordance with the NZEC, if in doubt ASK  
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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

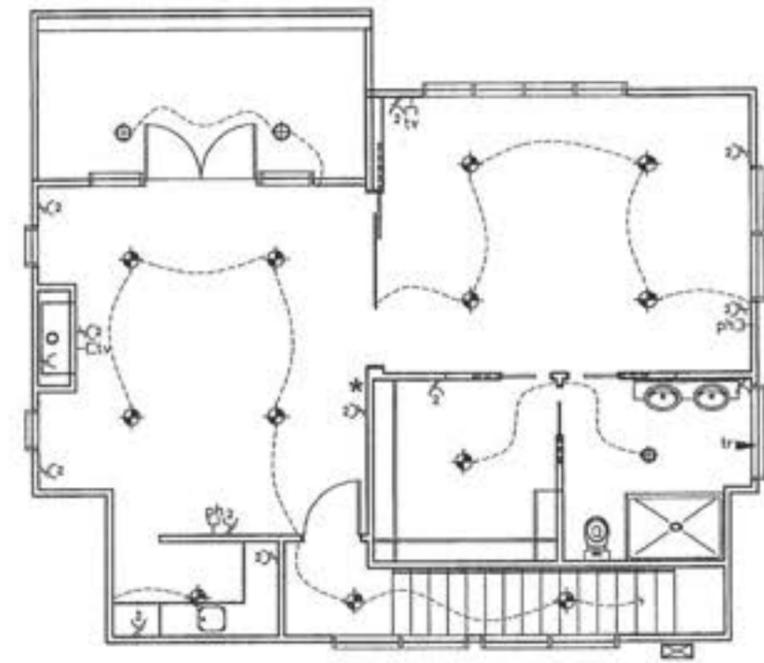
16 NOV 2010



**NOTES:**

- THIS SITE IS A HIGH WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3604 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTEGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PRENAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR, ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BU'S UNDER.

**UPPER BRACING PLAN**  
 SCALE 1:100



ELECTRICAL LEGEND			
⊕	External lighting point	▼	Permanent Point
⊙	Recessed Downlight	TV	Television Point
⊞	Halogen	TPH	Telephone Point
⊕	Ceiling Light/ Extract Fan	TR	Heated Towel Rail
— —	Fluorescent tube	TD	Auto Garage Door Opener
Y	Power Point (2 denotes double)	SB	Switch Board
*	Smoke detector	MB	Meter Board

**UPPER ELECTRICAL PLAN**  
 SCALE 1:100

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

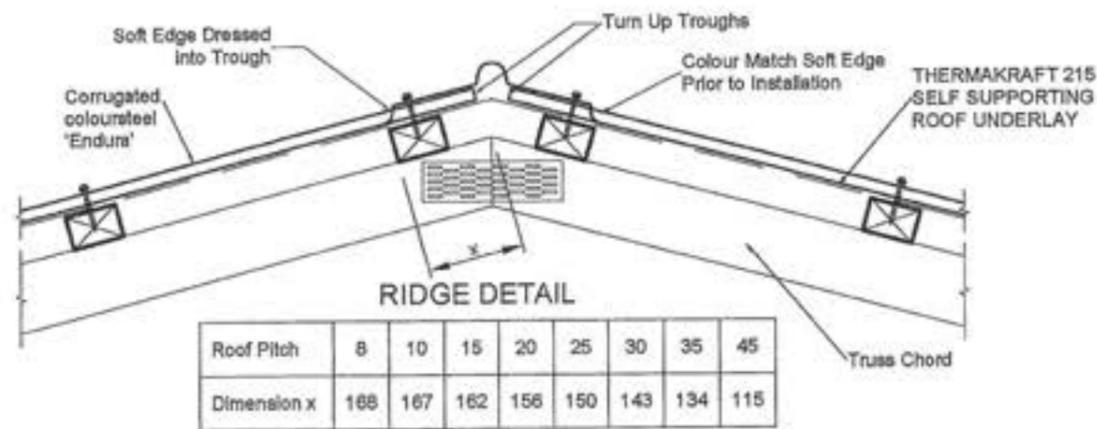
Drawing Title  
**UPPER BRACING & ELECTRICAL PLANS**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
 17 Pilscham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

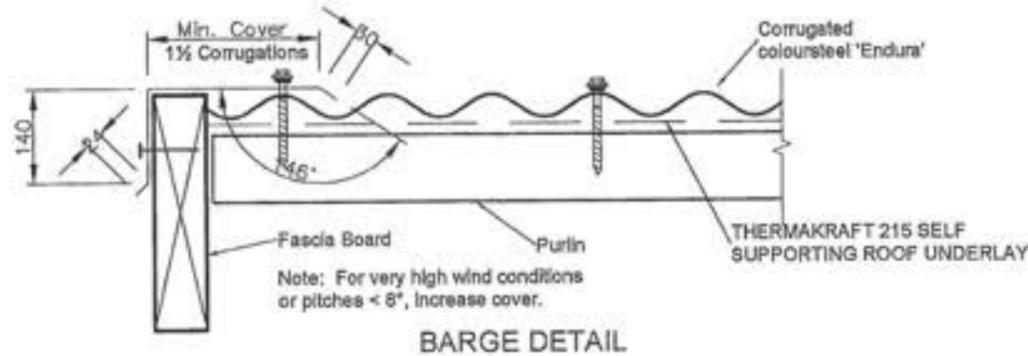
Job: **001** Page of: **14** Rev: **C**

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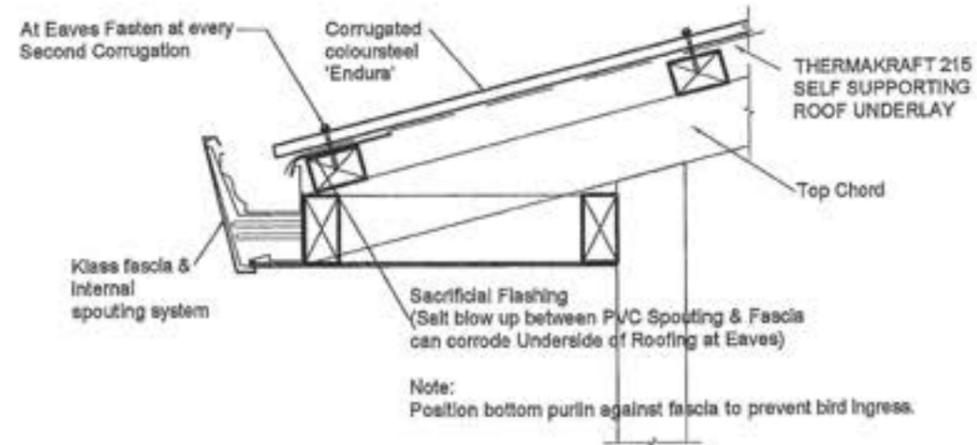


Roof Pitch	8	10	15	20	25	30	35	45
Dimension x	168	167	162	156	150	143	134	115

For Standard Ridge using ex 50mm Purlins on Flat



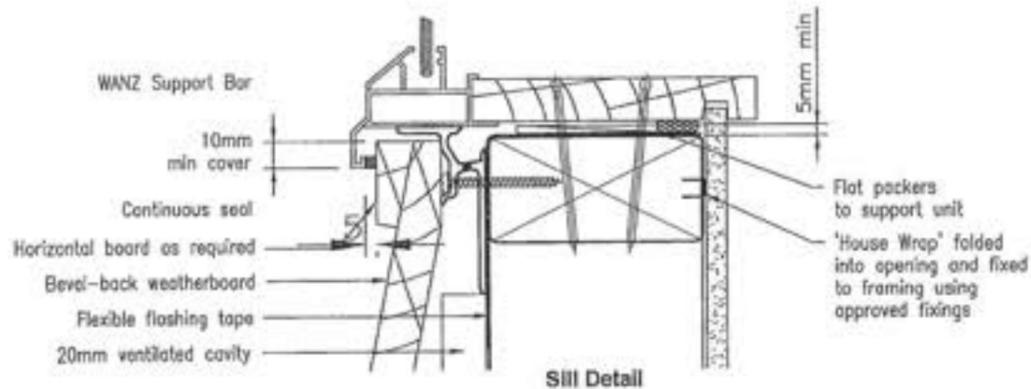
BARGE DETAIL



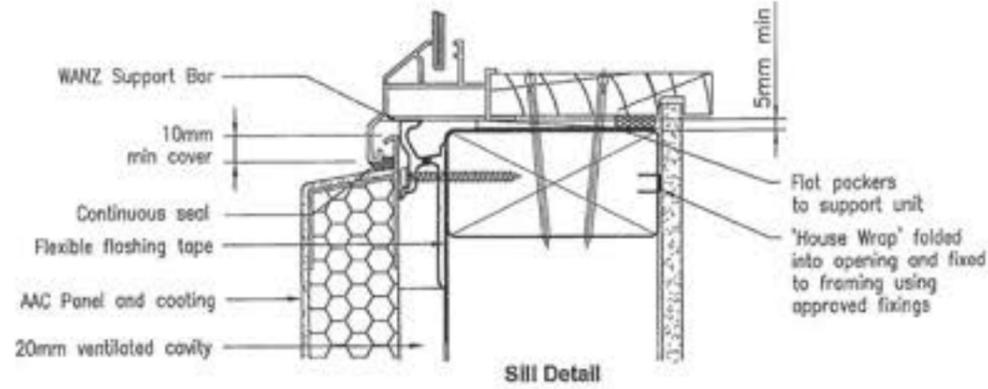
SOFFIT DETAIL



VALLEY GUTTER DETAIL



Sill Detail



Sill Detail

## WANZ SILL SUPPORT DETAILS

Revisions:  
SEPTEMBER '10 rev A  
NOVEMBER '10 rev B

16 NOV 2010

Project:  
**NEW DWELLING**  
Client:  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**DETAILS**

Designer:  
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New Zealand  
Tel: 04 105 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bili Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **15** Rev: **B**

All work shall be in accordance with the NZBC. If in doubt AS/NZS 1171:2009 shall apply. The Contractor must verify all dimensions on the job before commencing any work or other drawings. Fixed dimensions are to be used, stated dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing or content for any purpose without the prior written consent of Coastal Architecture Ltd.

Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

16 NOV 2019

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**DETAILS**

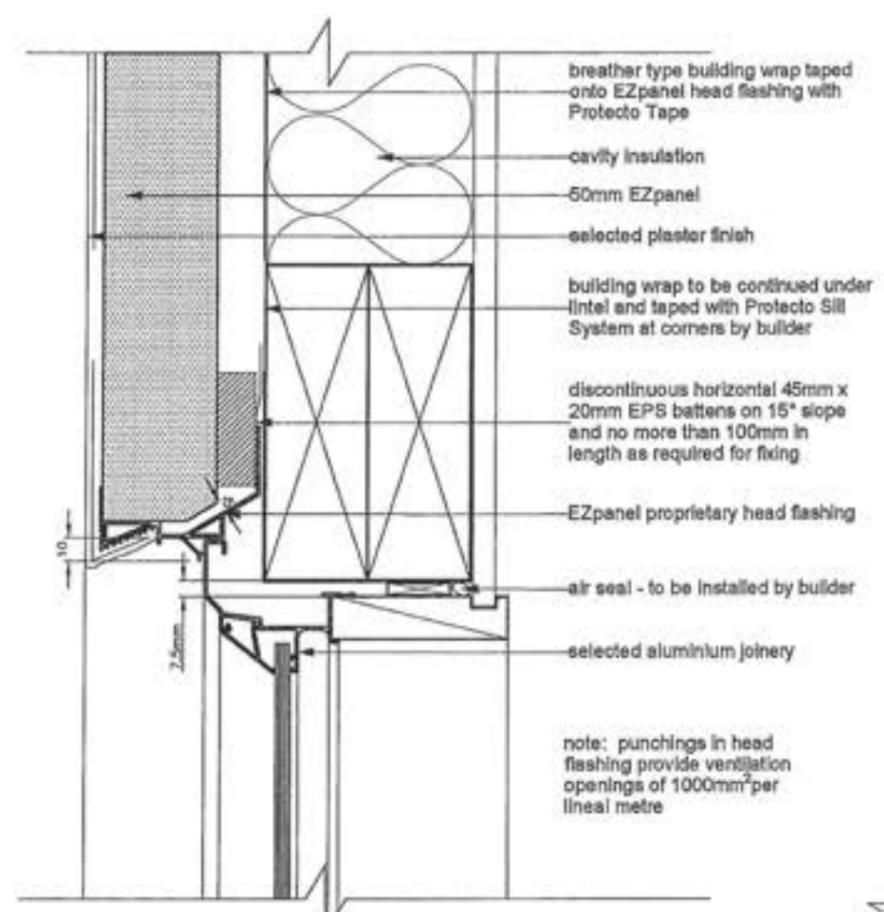
Designer:

**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

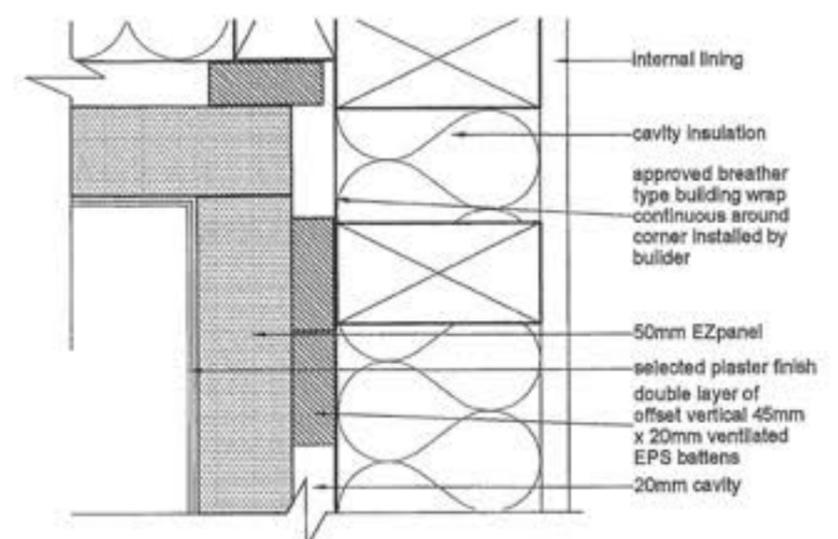
Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **16** Rev: **B**

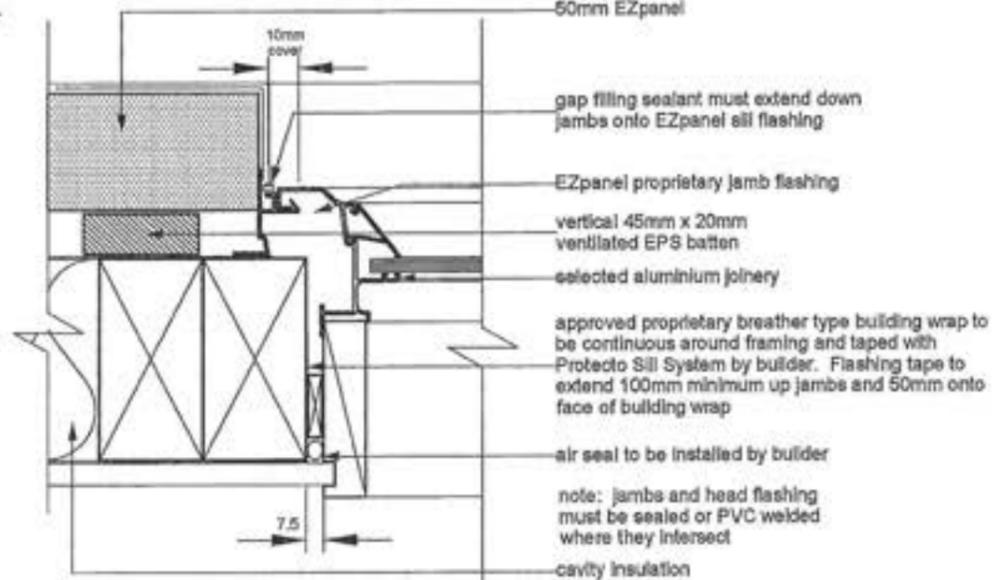
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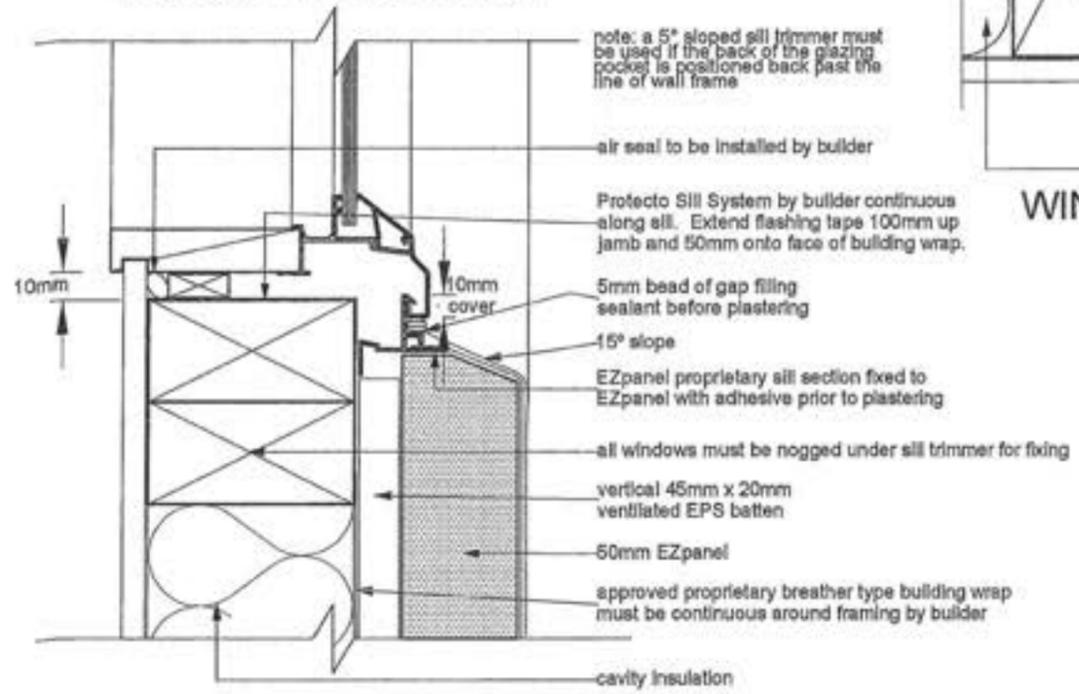
**WINDOW HEAD DETAIL**



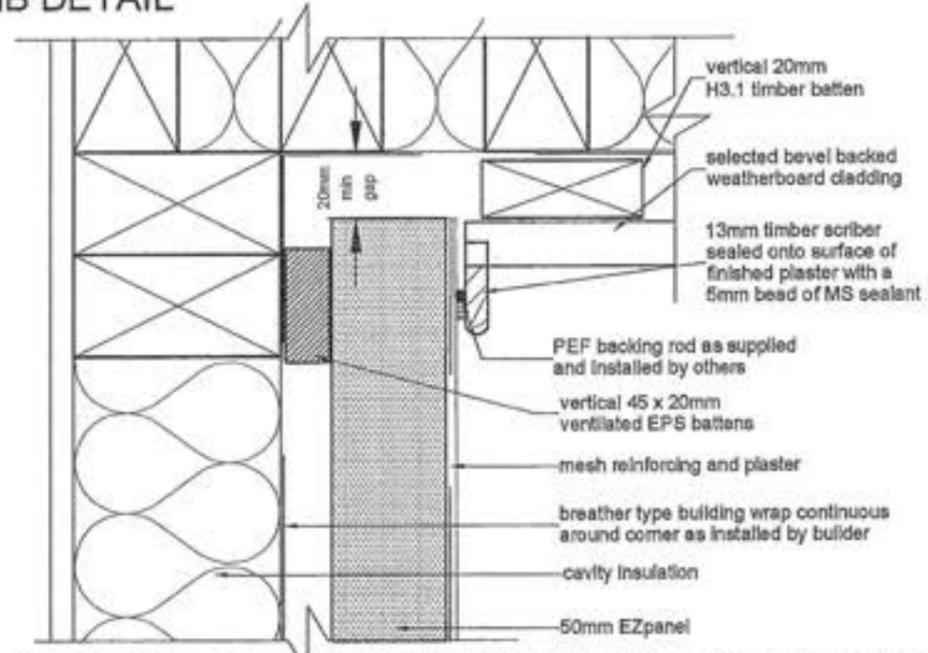
**INTERNAL CORNER DETAIL**



**WINDOW JAMB DETAIL**



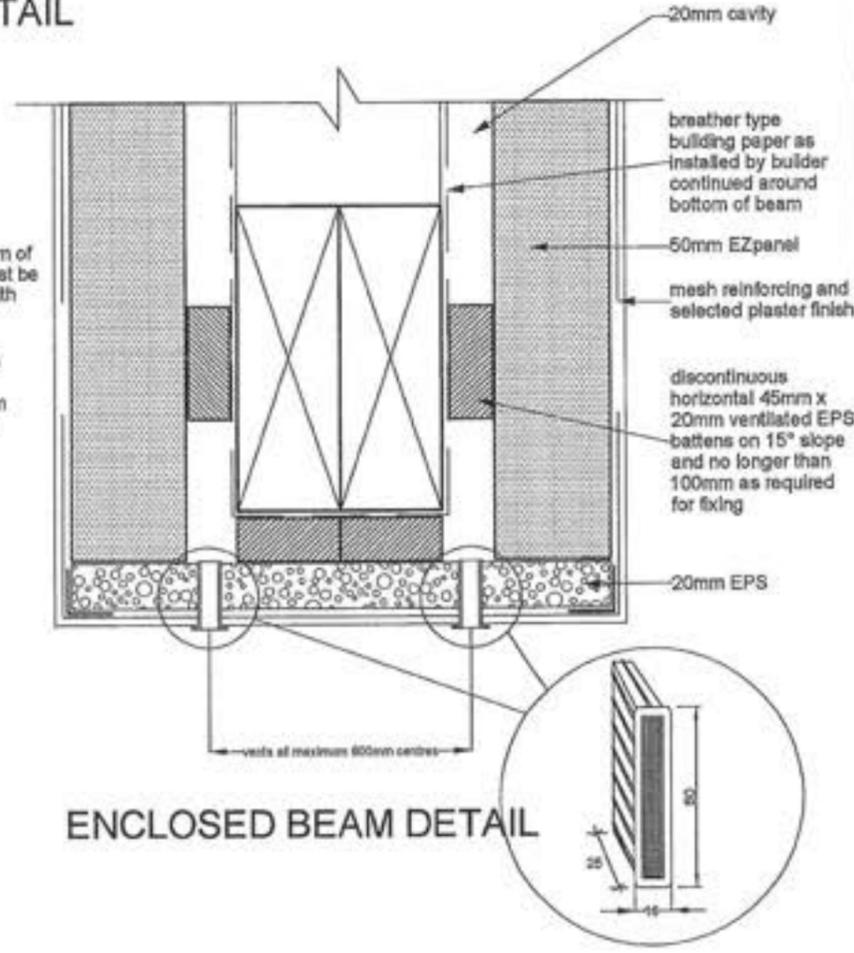
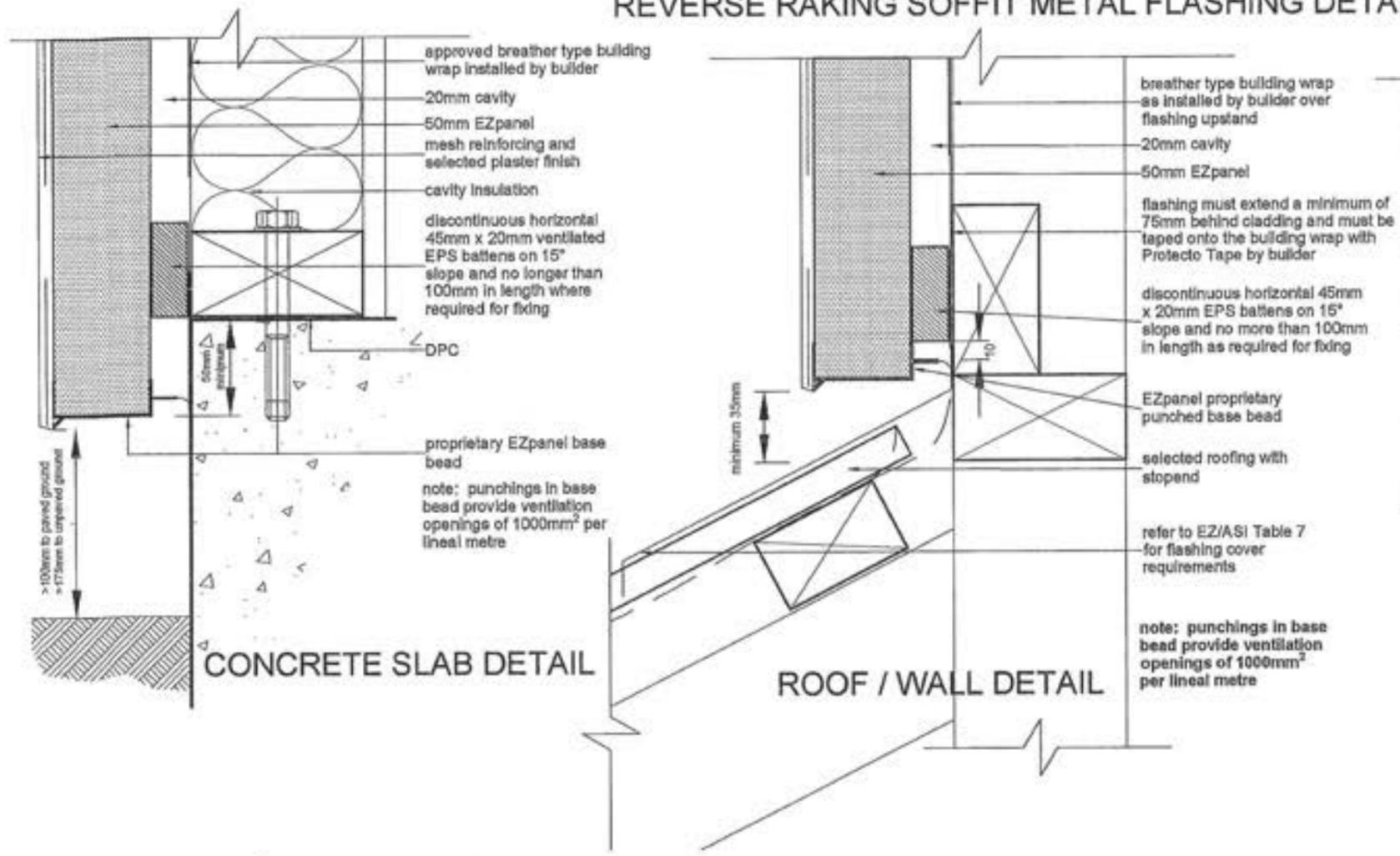
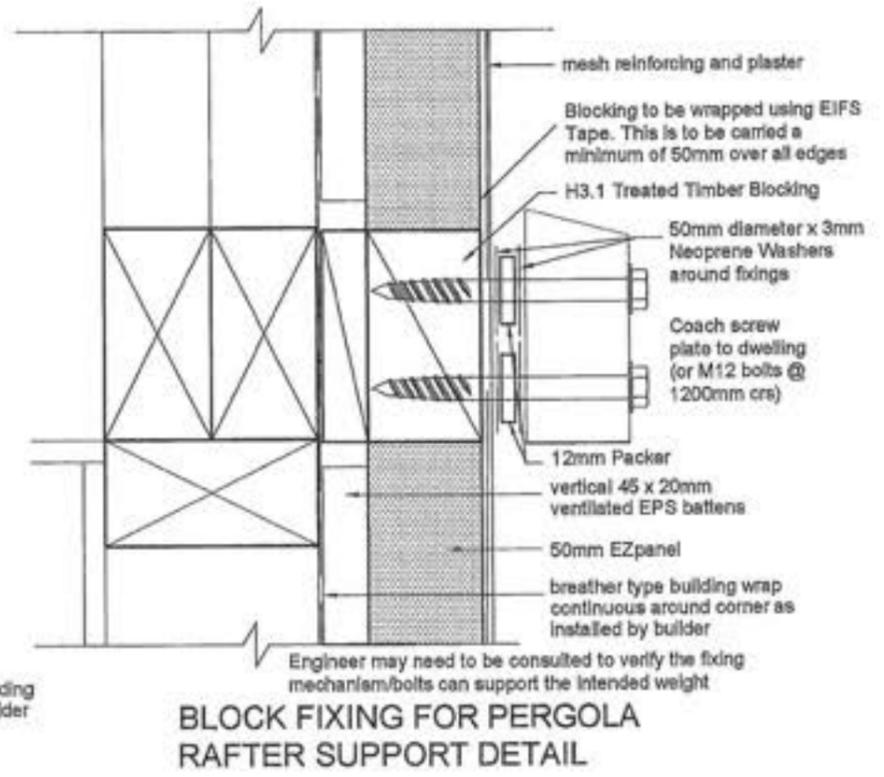
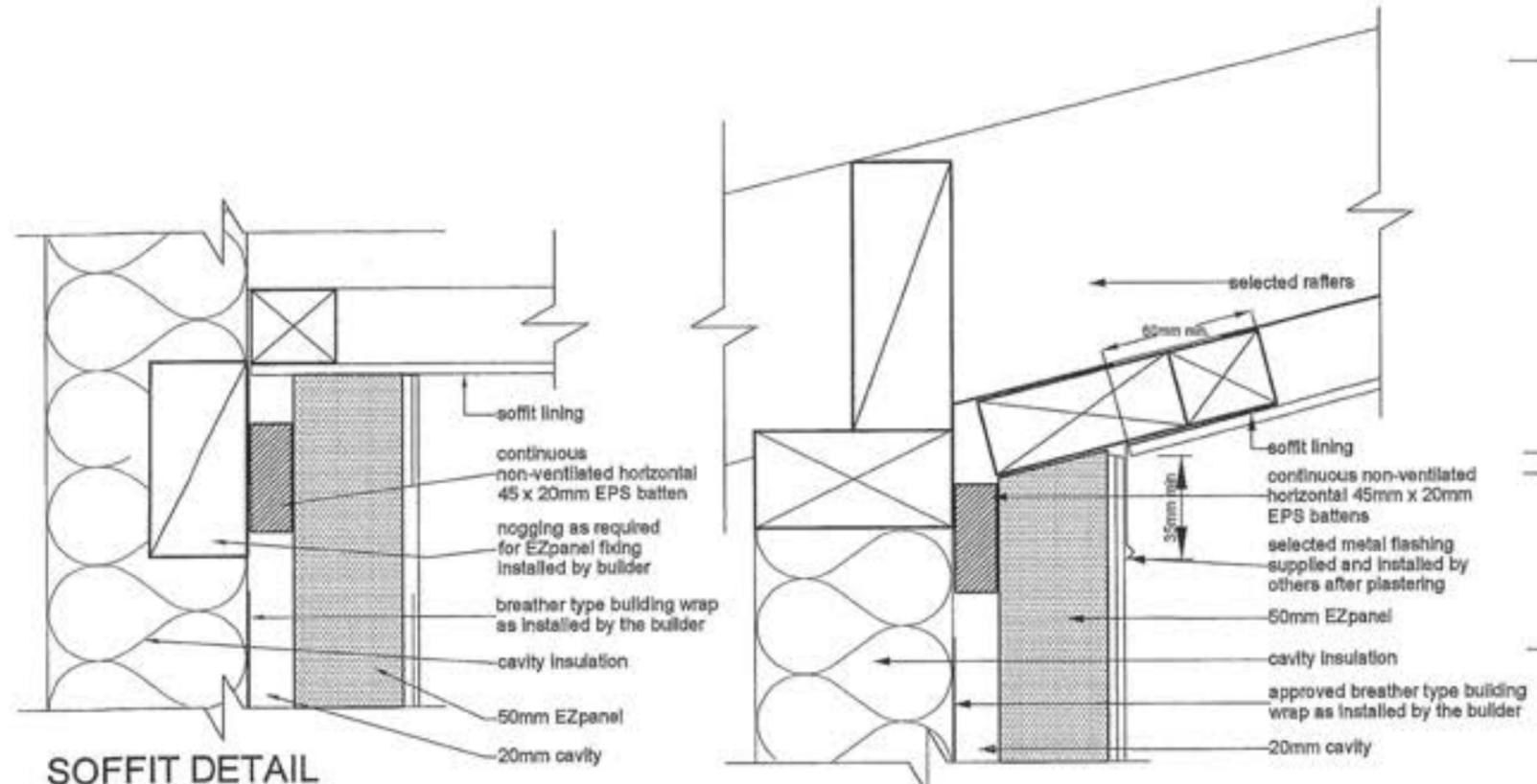
**WINDOW SILL DETAIL**



**INTERNAL CORNER WITH WEATHERBOARD DETAIL**

Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

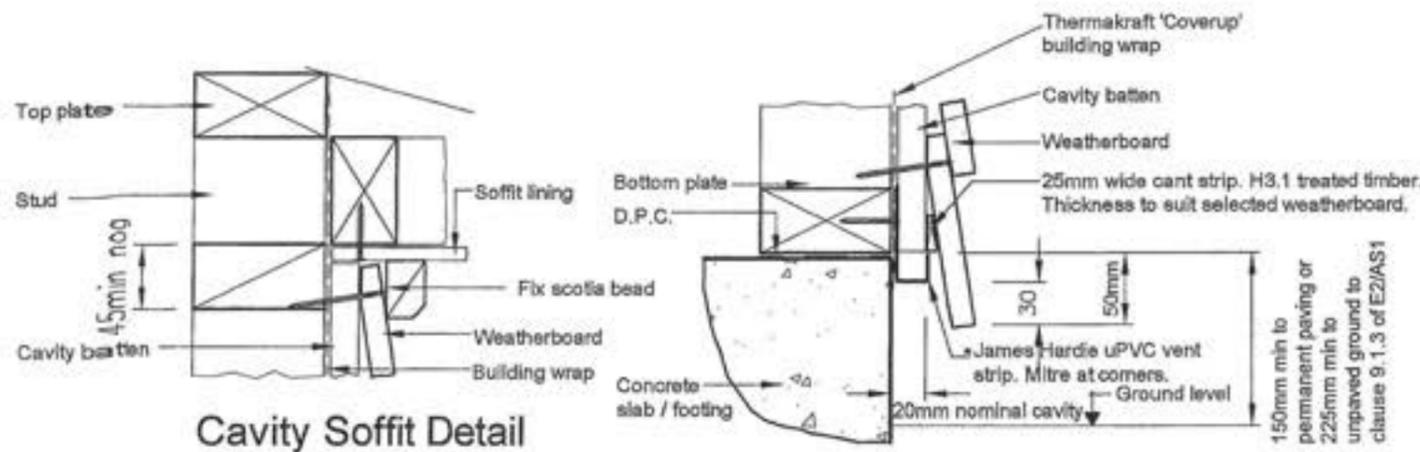
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Finchem Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0956  
 e-mail: bfrancis@paradise.net.nz

Design:  
**Bill Francis**  
 Drawn:  
**bf**  
 Scale:  
**as shown**

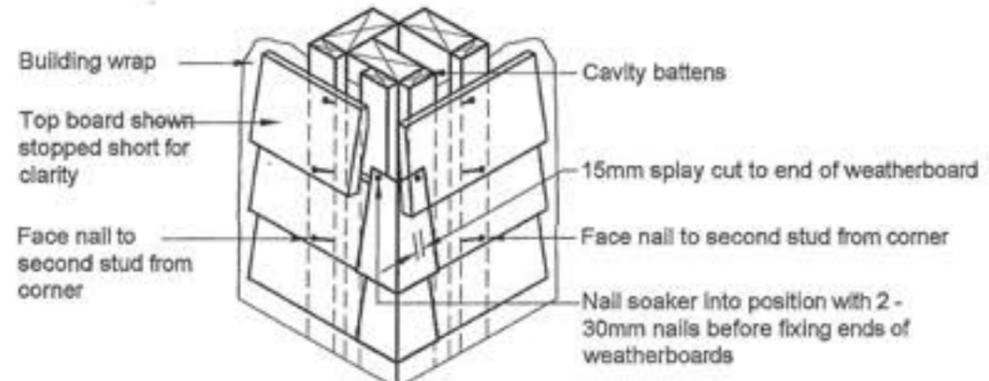
Job: **001** Page of: **17** Rev: **B**

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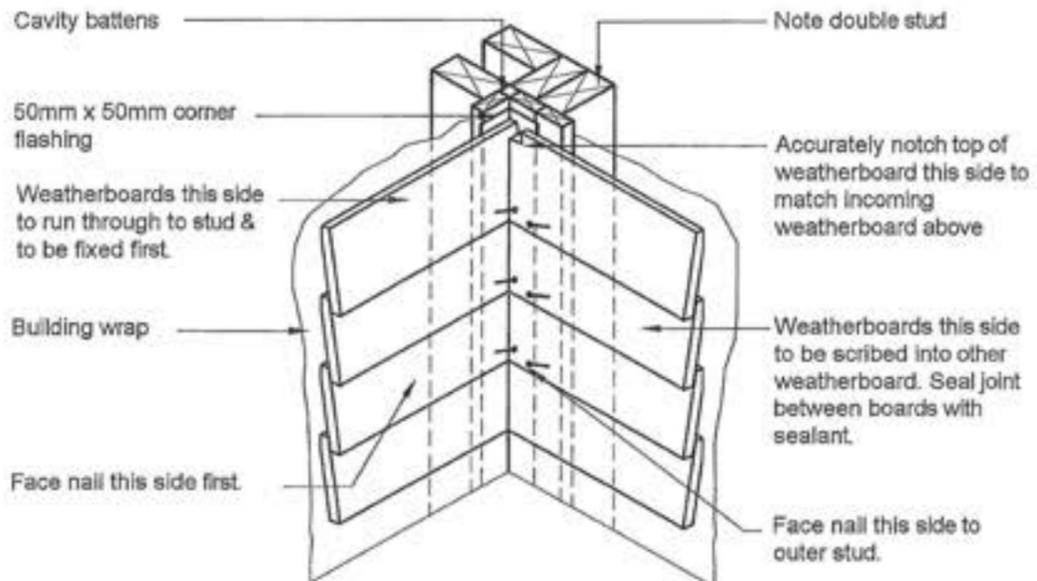
\*Drain holes in James Hardie uPVC vent strip are sufficient to achieve ventilation openings of 1000mm<sup>2</sup> per lineal metre

**Cavity Foundation Detail**

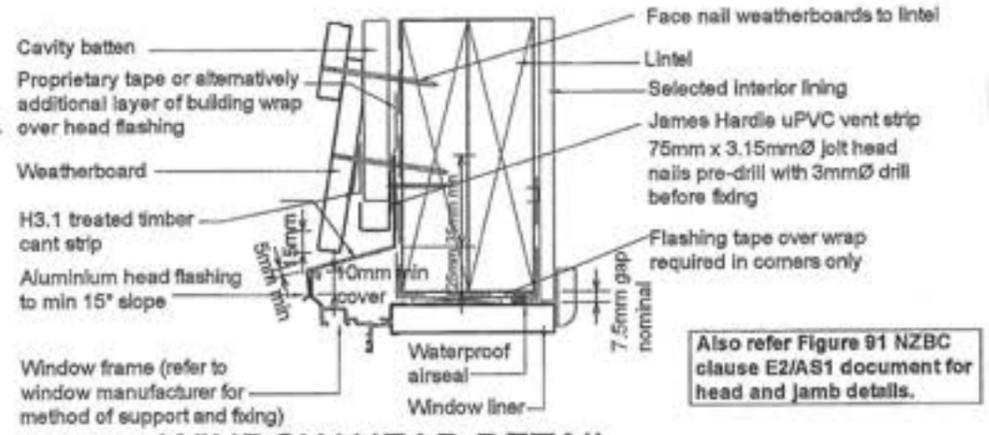


Soaker material	Nail material
Copper	Copper or phosphor bronze
Aluminium	Hot dip galvanised / Stainless steel
Stainless steel	Stainless steel

**CAVITY EXTERNAL CORNER SOAKER**

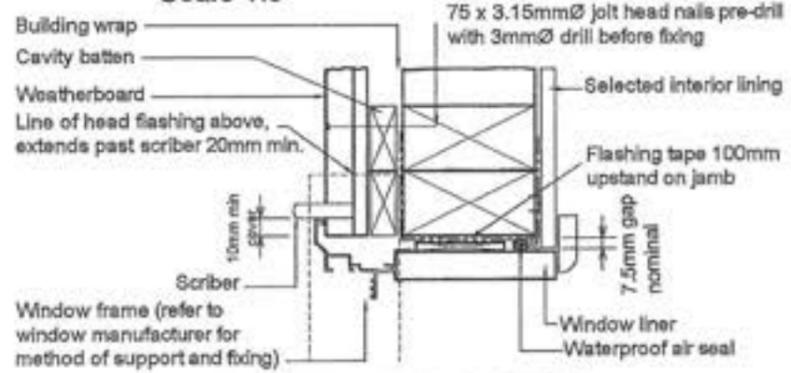


**CAVITY INTERNAL CORNER**

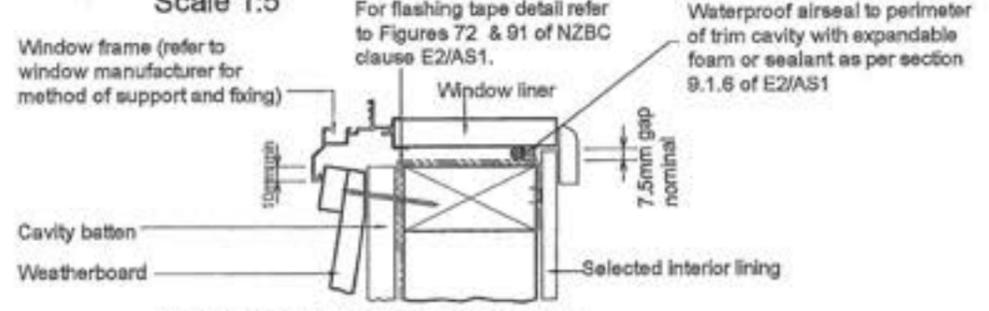


Also refer Figure 91 NZBC clause E2/AS1 document for head and jamb details.

**WINDOW HEAD DETAIL**



**WINDOW JAMB DETAIL**



**WINDOW SILL DETAIL**

**General notes for materials section**

- Flashing materials must be selected based on environmental exposure, refer to NZS 3804 and Table 20 of NZBC clause E2/AS1.
- Building wrap must comply with acceptable solution NZBC clause E2/AS1 and NZS 3804.
- Flashing tape must have proven compatibility with the selected building wrap and other materials with which it comes into contact as per Table 21 of NZBC clause E2/AS1.

Refer to the manufacturer or supplier for technical information for these materials

**LINEA NOTES:**

- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Thermakraft 'Coverup' building wrap with AluBand window sealing systems to be installed to manufacturers specifications and in accordance to NZBC E2/AS1
- Exposed Metal flashings to be colorsteel and colour matched to the cladding final colour. Metal flashings to comply with the durability requirements of Section 4 NZS 3804 & Table 20 NZBC E2/AS1
- Sealants to be colour matched to the coatings. Use manufacturer approved sealants only.
- Windows to be installed with WANZ sill flashings and support brackets as necessary
- Refer to James Hardie technical specifications for additional information
- Ensure all cut edges are sealed with approved and compatible sealant before installing
- Linea to be painted colours to comply with James Hardie Specifications

Revisions:  
SEPTEMBER '10 rev A  
NOVEMBER '10 rev B

16 NOV 2010

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

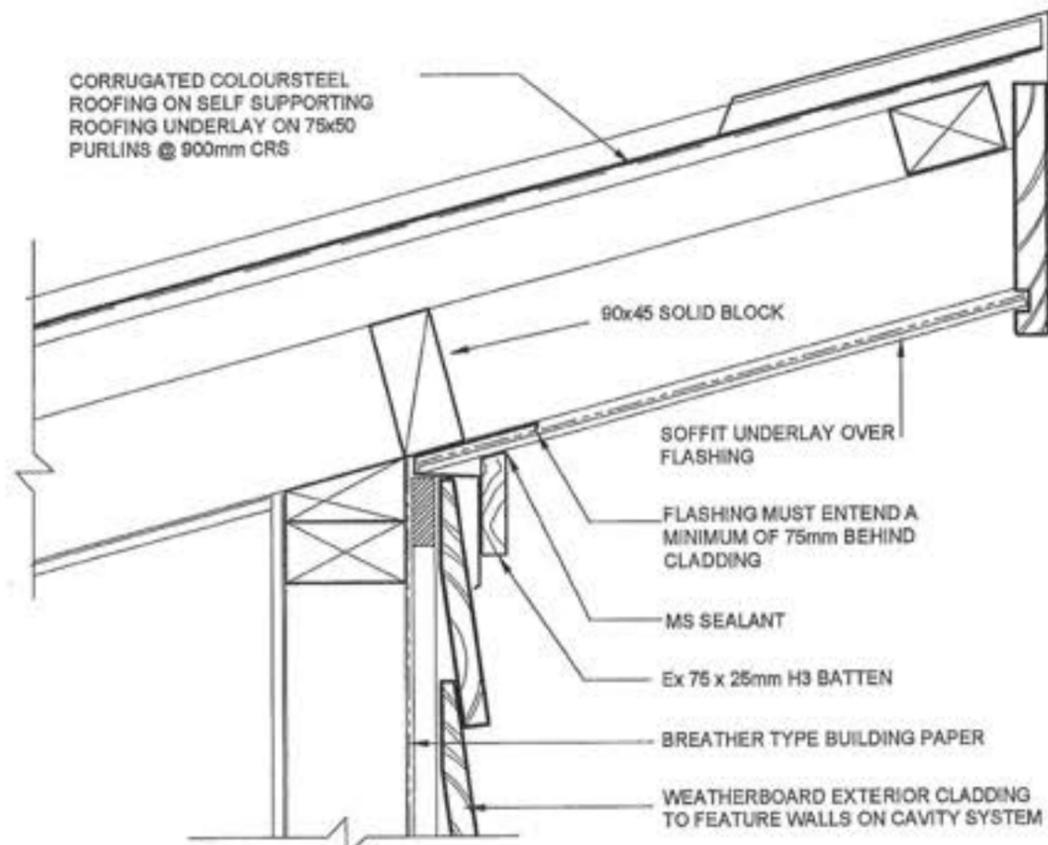
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0908  
e-mail: bil@coastalparadise.com

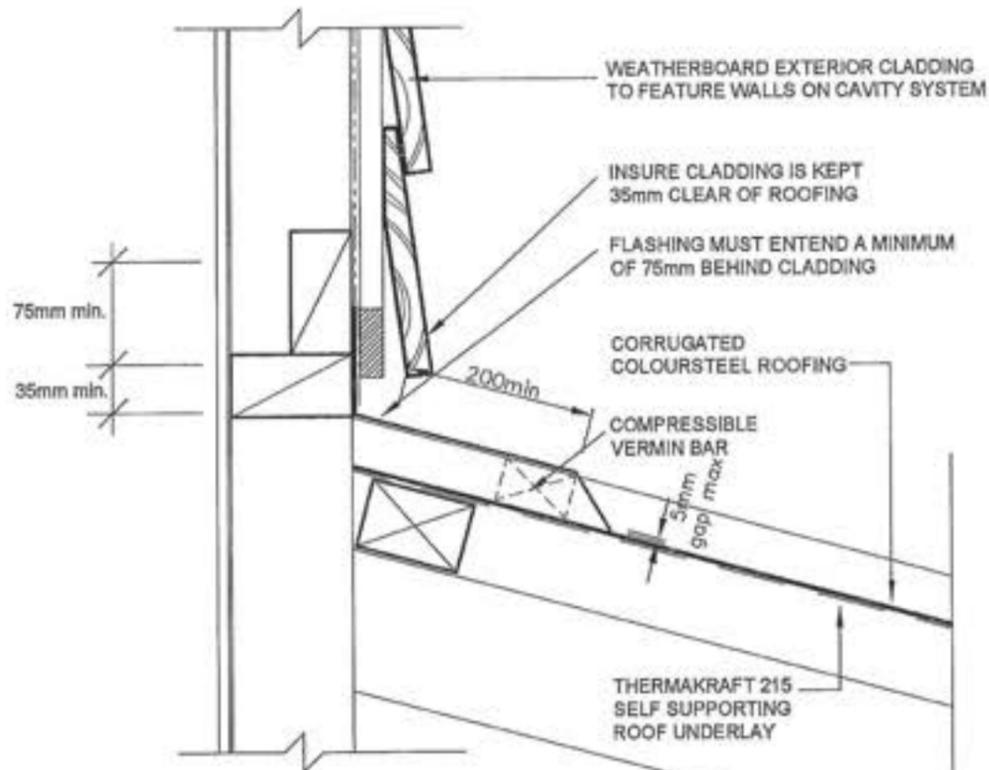
Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **18** Rev: **B**

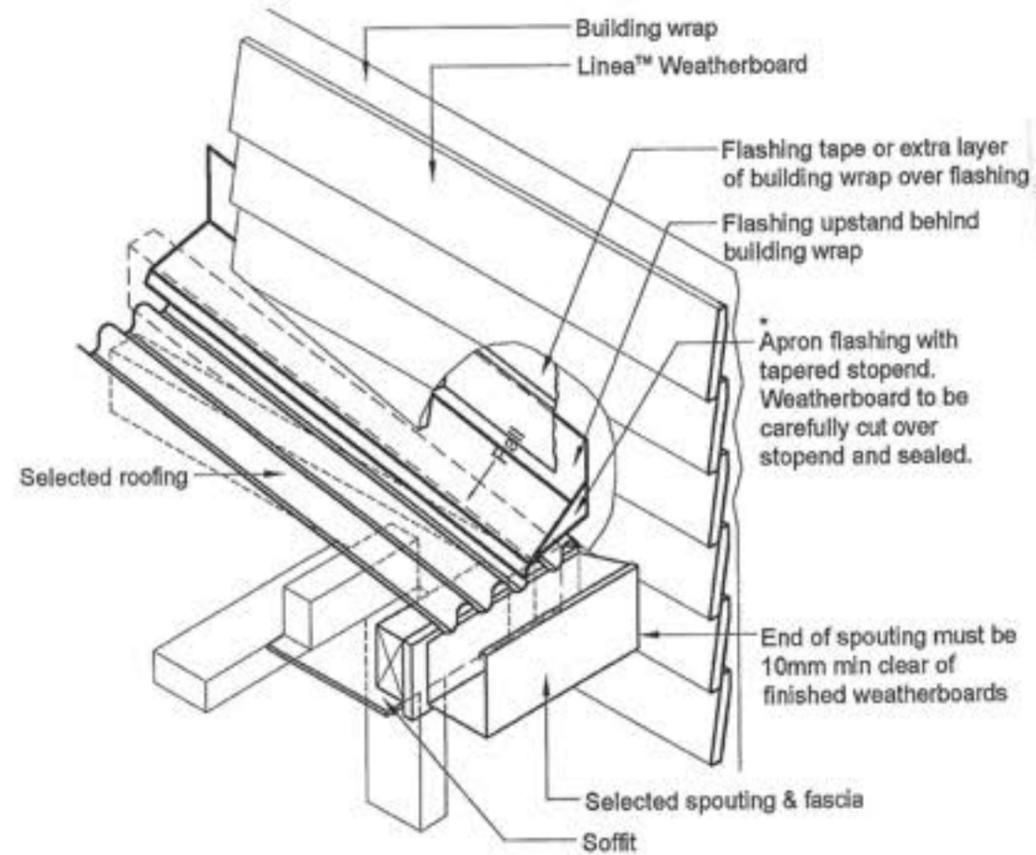
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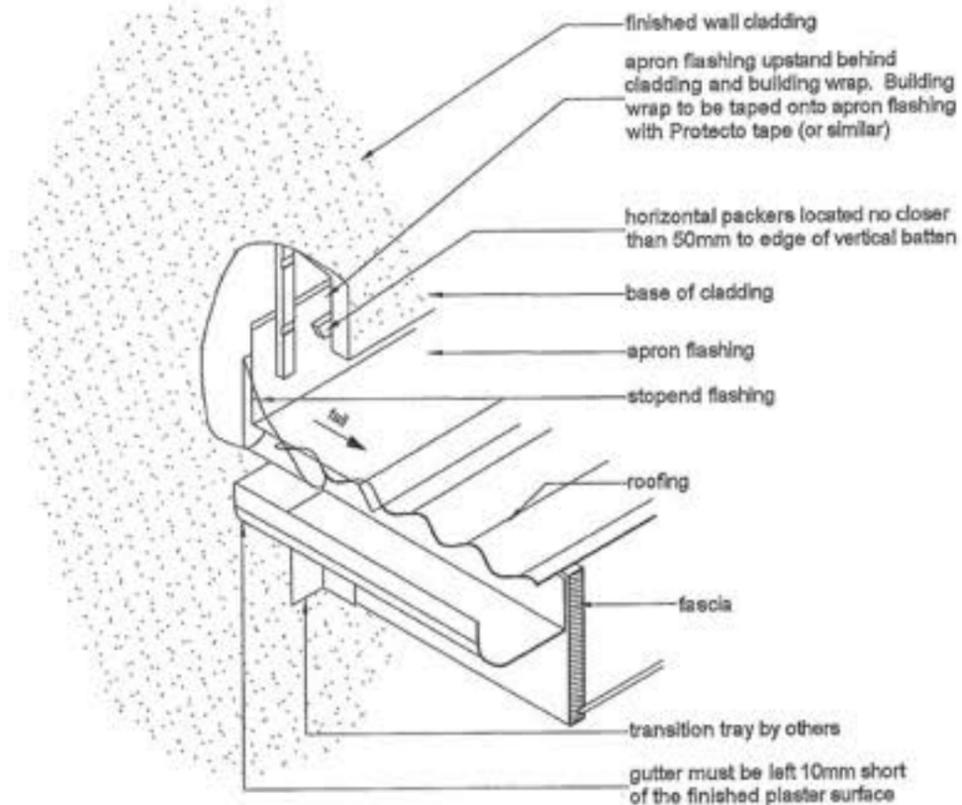
**REVERSE SOFFIT DETAIL** SCALE 1:5



**APRON FLASHING DETAIL** SCALE 1:5



• When 50 year durability for flashing is required refer Table 20 of E2/AS1 of NZBC.



**ROOF KICKOUT FLASHING**

Revisions:  
SEPTEMBER '10 rev A  
NOVEMBER '10 rev B

16 NOV 2010

Project:  
**NEW DWELLING**  
Client:  
BAYLY  
1 MOSS LANE  
LOT 1, DP 390622,  
RAUMATI

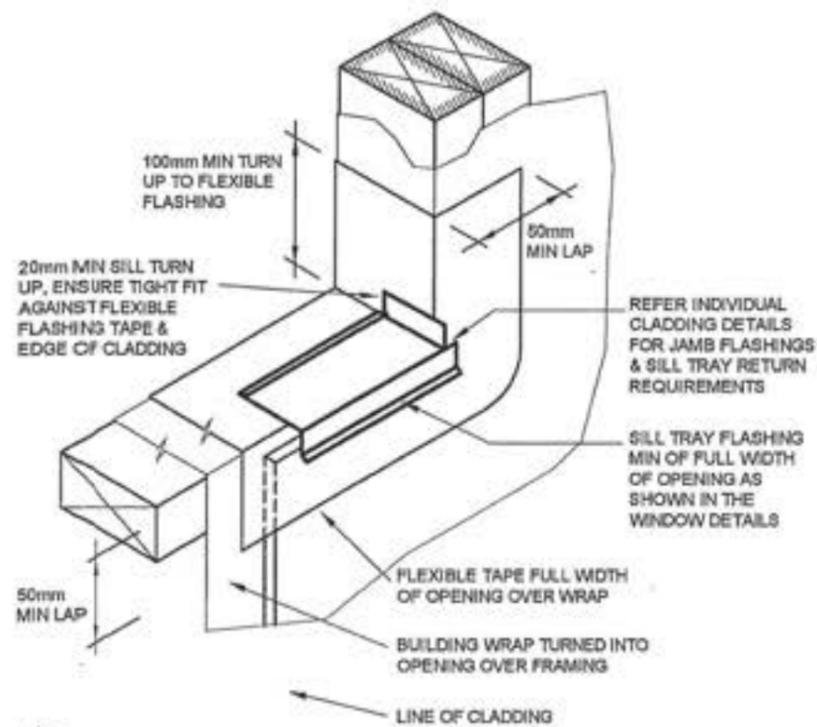
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
Drawn: bf  
Scale: as shown

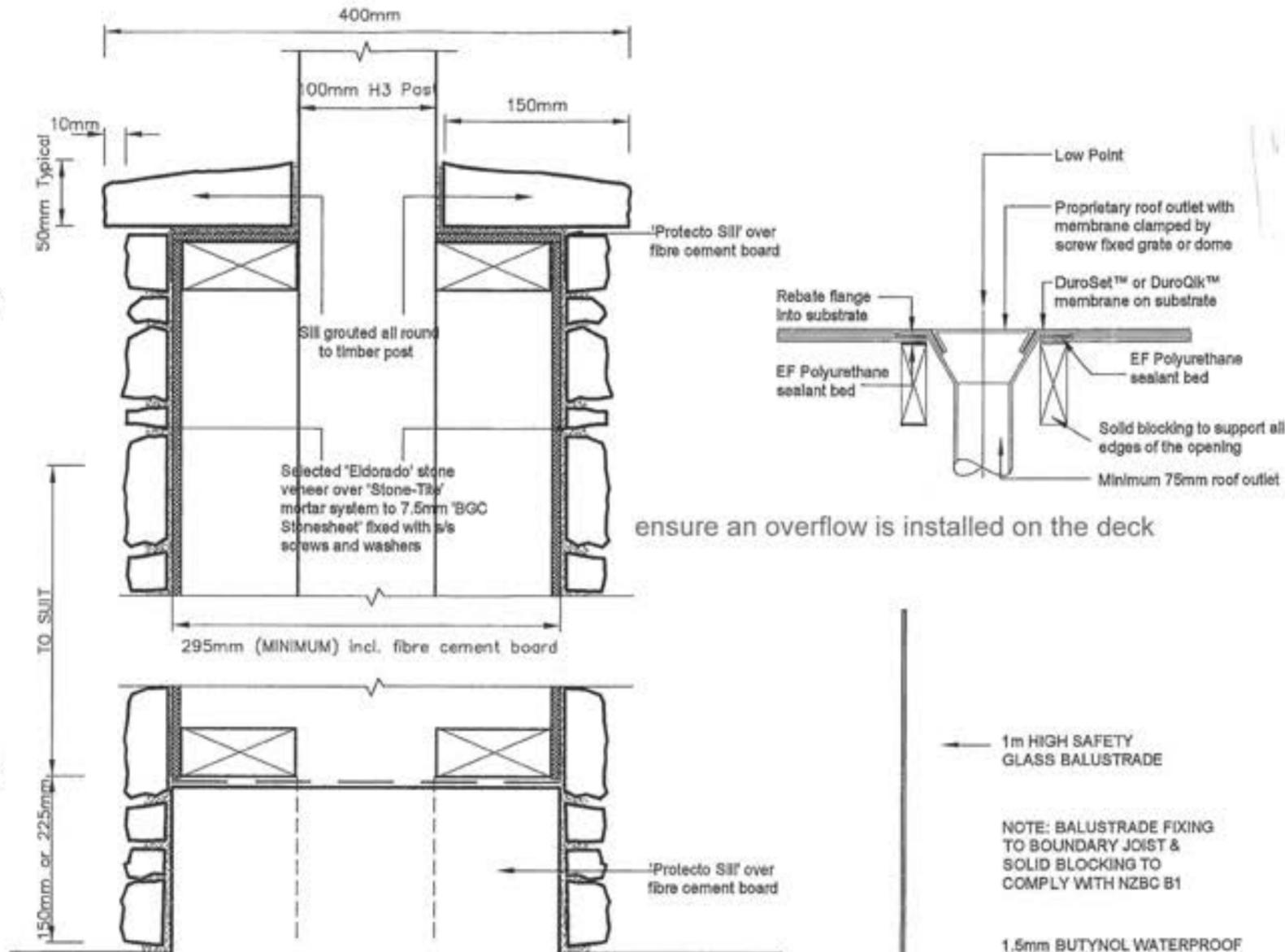
Job: 001  
Page of: 19  
Rev: B

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NOTE:  
 -SILL FLASHING SHALL EXTEND BACK PAST THE CONDENSATION CHANNEL OF THE WINDOW.  
 -HEAD TO BE TREATED SIMILARLY WITH CONTINUOUS BUILDING WRAP & FLEXIBLE TAPE AT CORNERS.  
 -OPENINGS IN CAVITY WALLS SHALL BE TREATED SIMILARLY, EXCEPT THE SILL FLASHINGS SHALL BE OMITTED

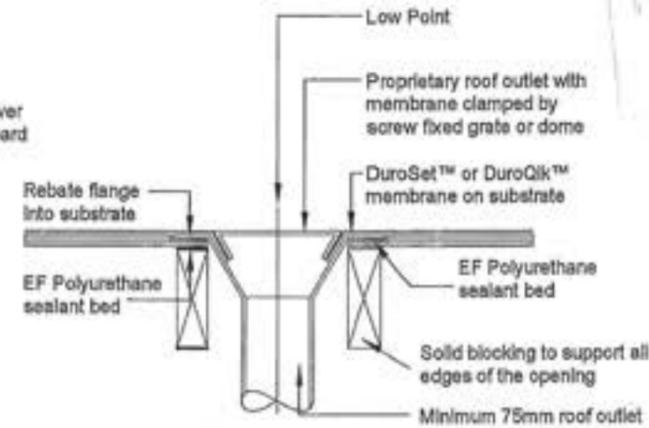
**BUILDING WRAP OPENING DETAIL n.t.s**



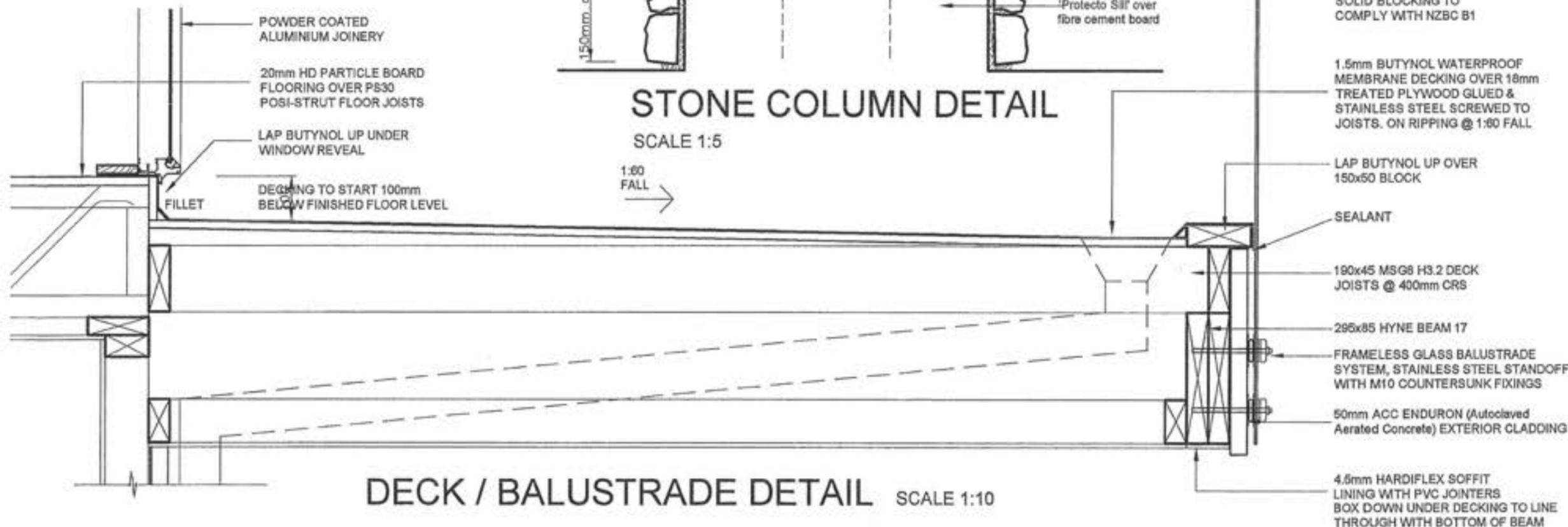
**STONE COLUMN DETAIL**

SCALE 1:5

1:80 FALL



ensure an overflow is installed on the deck



**DECK / BALUSTRADE DETAIL SCALE 1:10**

Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

6 NOV 2019

Project:  
**NEW DWELLING**  
 Client:  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

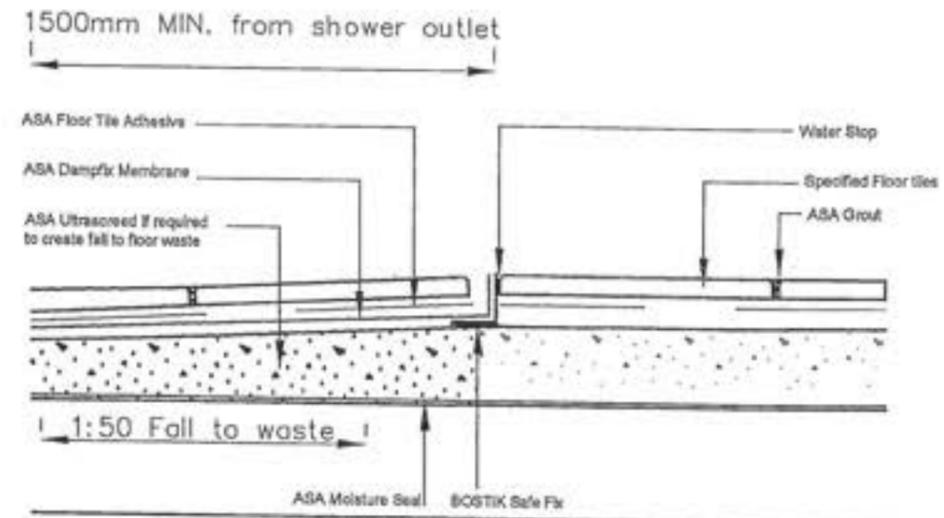
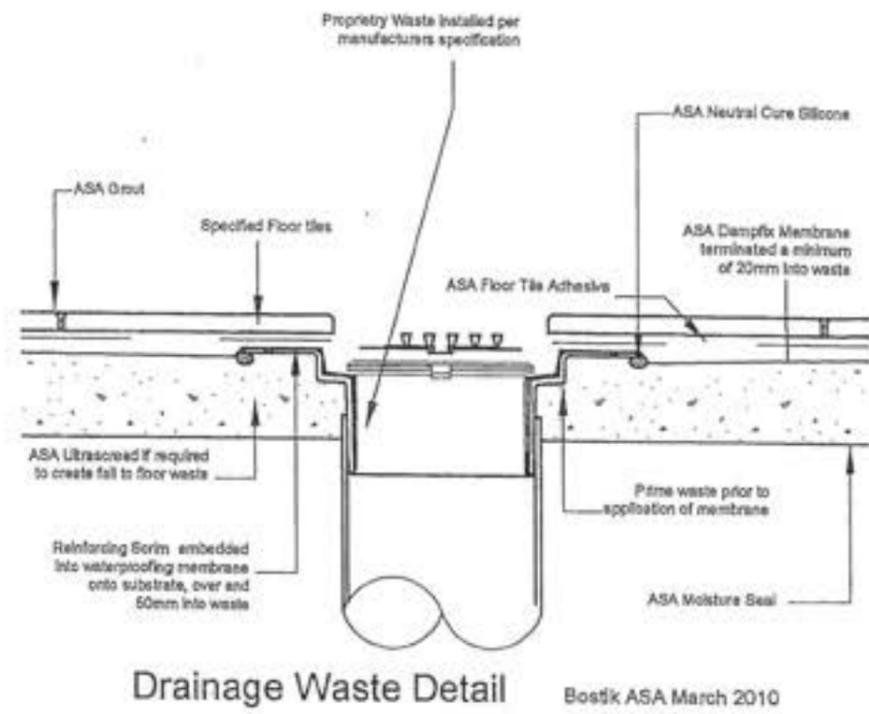
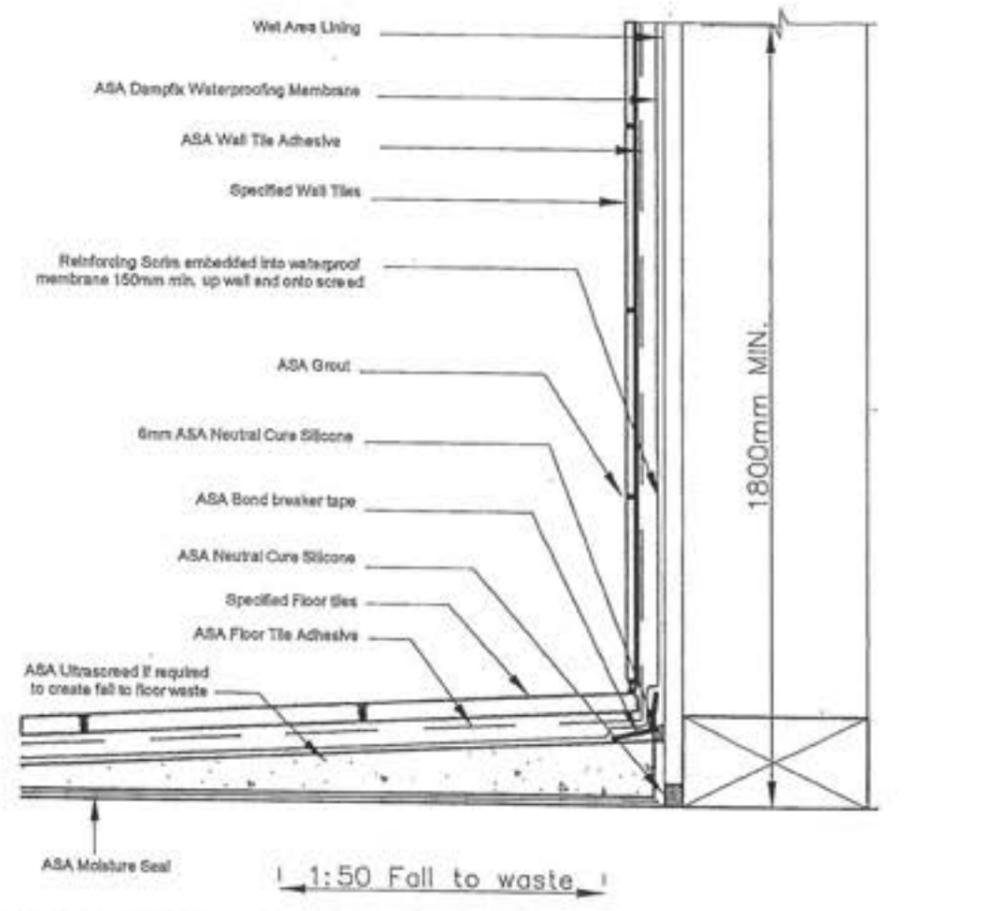
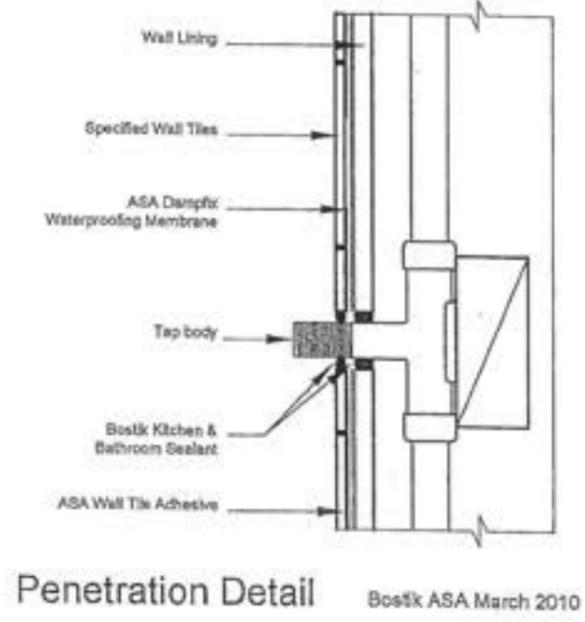
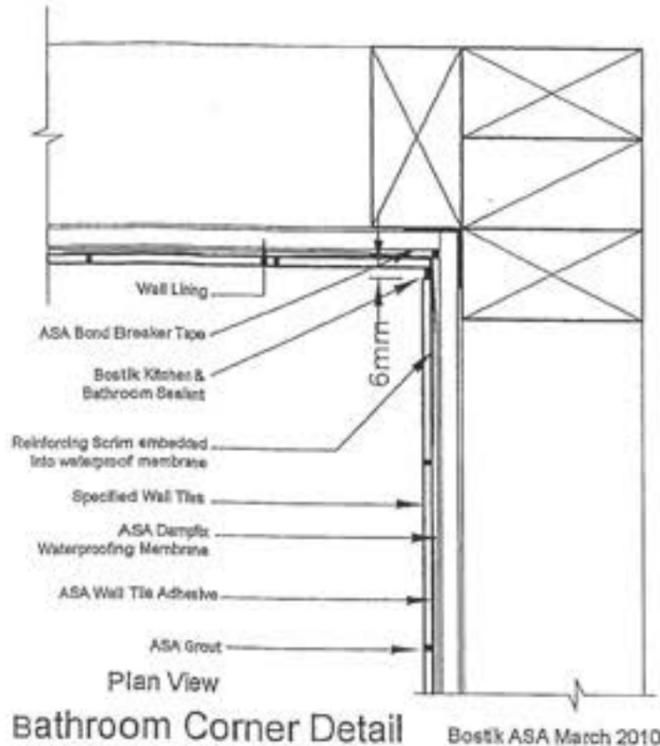
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTS LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 20  
 Rev: B

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NOTE: Refer to specifications for selected ASA waterproofing, grout and tile adhesive

Shower Hobless Detail

Source: Bostik ASA March 2010

Revisions:  
SEPTEMBER '10 rev A

16 NOV 2019

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Finchem Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bfr@coastalarch.co.nz

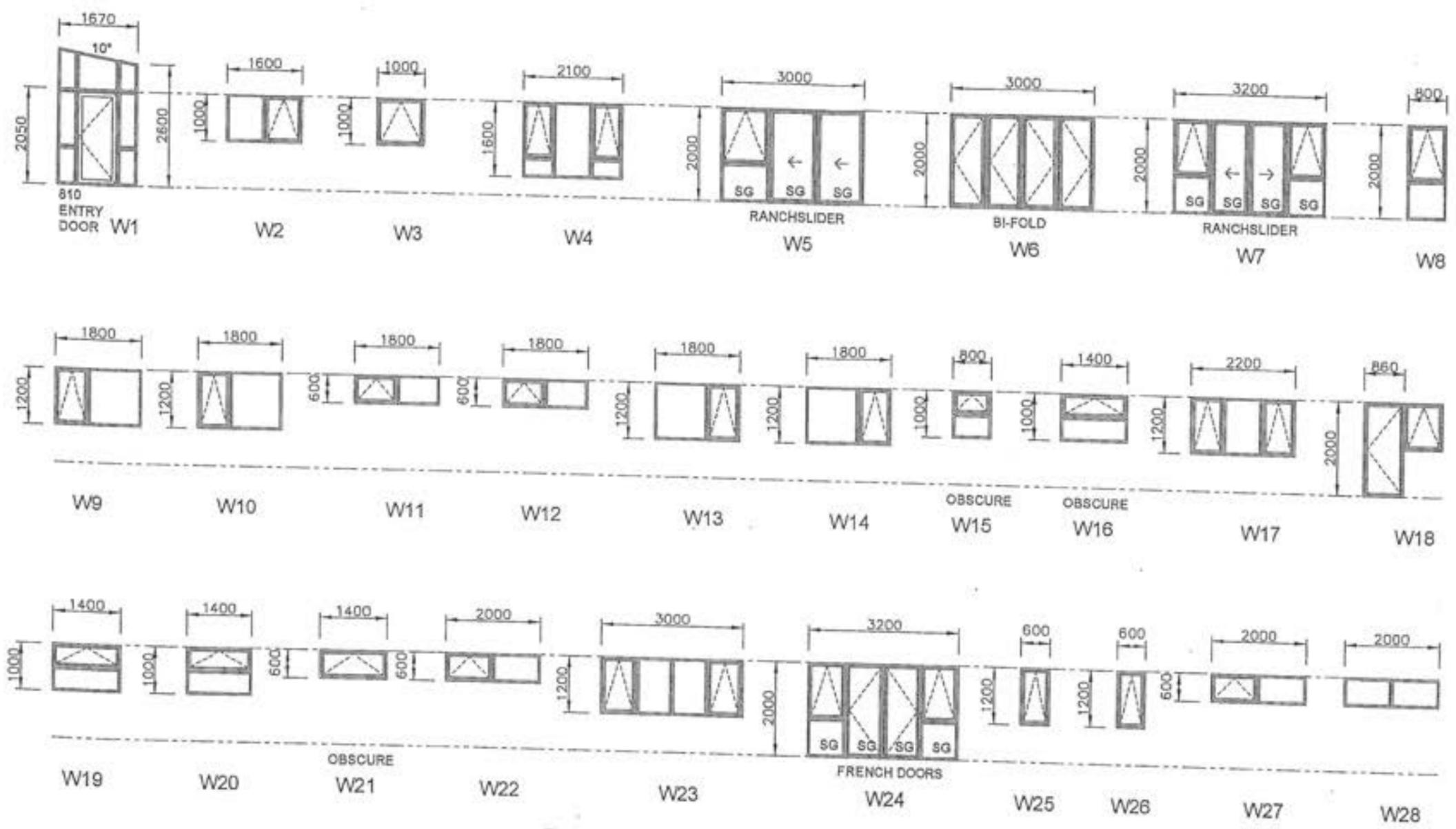
Design: Bill Francis  
Drawn: bf  
Scale: as shown

Job: 001  
Page of: 21  
Rev: A

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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B

16 NOV 2019



# WINDOW SCHEDULE

SCALE 1:100

The supplier and the main contractor shall check all dimensions on site and confirm prior to manufacture.

Exterior joinery to comply with NZS 4211, design to very high wind pressure and suitable head flashings to be fitted to all units.

GLAZING TO CONFORM NZS 4223 PT 1, 2 & 3 1999 VERSION  
 HIGH WIND 1100pa DWP  
 VERY HIGH WIND 1550pa DWP

RESTRICTOR STAYS TO LIMIT SASH OPENING TO MAX 100mm MUST BE FITTED WHEREVA SILL HEIGHT IS LESS THAN 760mm & THE DIFFERENCE IN LEVELS ARE 1m OR GREATER. REFER F4 NZBC

SAFETY GLASS AS REQUIRED BY NZS 4223 PT 3 1999 VERSION TO BE PROVIDED TO ALL WET AREA JOINERY, GLAZED DOORS, SIDE PANELS, FULL HEIGHT WINDOWS & WINDOWS WITH CILLS LESS THAN 500mm FROM FFL.

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**JOINERY SCHEDULE**

Designer  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **22** Rev: **B**

All work shall be in accordance with the NZBC. If in doubt ASK. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, noted dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

# E2/AS1 : Building Envelope Risk Matrix.

## Project Details.

Name NAME BAYLY  
 Street/No. STREET 1 MOSS LANE  
 Lot/DP/No. LOT LOT 1  
 City/Town/District CITY RAUMATI

Revisions:  
 SEPTEMBER '10 rev A  
 6 NOV 2019

### Definition of Risk [table 1 from E2/AS1]

Factor	Risk	Detail
A Wind Zone	LOW	LOW wind zone as described by NZS 3604
	MEDIUM	MEDIUM wind zone as described by NZS 3604
	HIGH	HIGH wind zone as described by NZS 3604
	V.HIGH	VERY HIGH wind zone as described by NZS 3604
B No. of storeys	LOW	One storey
	MEDIUM	Two storey in part
	HIGH	Two storey's
	V.HIGH	More than two storey's
C Roof / Wall Intersection Design	LOW	Roof / wall Intersection - Fully protected. [eg. hip / gable roof with eaves.]
	MEDIUM	Roof / wall Intersection - Partly exposed. [eg. hip / gable roof with NO eaves.]
	HIGH	Roof / wall Intersection - Fully exposed. [eg. Parapets or eaves greater than 90° vertical with soffit linings.]
	V.HIGH	Roof elements finished within the boundaries formed by exterior walls [eg. lower ends of aprons, chimney's etc.]
D Eaves width (1.)	LOW	Greater than 600mm at first floor level.
	MEDIUM	450 - 600mm at first floor level, or 600mm at second floor level
	HIGH	100-450mm at first floor level, or 400-600mm at second floor level
	V.HIGH	0 - 100mm at first floor level, or 100-400mm at second floor level or 450 - 600mm at third floor level
E Envelope Complexity	LOW	Simple rectangular, L, T, or boomerang shape with single cladding type
	MEDIUM	Complex angular or curved shape [eg. Y or arrow head] with single cladding type.
	HIGH	More complex angular or curved shape [eg. Y or arrow head] with multiple cladding type.
	V.HIGH	As for High risk, but with junctions not covered in C or F on this Table [eg. box windows, pergola's, multi storey re-entrant shapes etc.]
F Deck design	LOW	None or timber slat deck or porch at ground level
	MEDIUM	Fully covered in plan by roof, or timber slat deck attached at first or second floor level.
	HIGH	Enclosed deck exposed in plan or cantilevered at first floor level
	V.HIGH	Enclosed deck exposed in plan or cantilevered at second floor level or above.

NOTES  
 1. Eaves width measured from external face of the wall cladding to outer edge of overhang including gutters and fascias  
 2. Balustrades and parapets count as 0 mm eaves.

### Risk Severity by Face

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0	✓	1		2		4		0
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design	0	✓	2		4		6		0
<b>Total Risk Score for this Elevation</b>									<b>11</b>

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0		1	✓	2		4		1
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design	0		2		4	✓	6		4
<b>Total Risk Score for this Elevation</b>									<b>16</b>

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0	✓	1		2		4		0
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design	0	✓	2		4		6		0
<b>Total Risk Score for this Elevation</b>									<b>11</b>

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0		1	✓	2		4		1
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design	0		2		4	✓	6		4
<b>Total Risk Score for this Elevation</b>									<b>16</b>

### Selected Cladding Resulting from Risk Assessment

	Risk score from tables above.	Cladding Selected from table 3 [from tables on page 30 E2/AS1]	TICK SELECTED OPTION	
			DIRECT FIXED	DRAINED CAVITY
North Elevation	11	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓
South Elevation	16	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓
East Elevation	11	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓
West Elevation	16	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**E2 MATRIX**

Designer

**COASTAL**  
 ARCHITECTURE LTD

17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **23** Rev: **A**

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# BUILDING CONSENT LAYOUT

## CARTERS

### MANUFACTURING

National Office  
East Tamaki, Auckland  
(09) 272 7282

JOB No **UM8086**

Client: Holly Bayley  
Job Name: New Residence  
Address: 61 Rimu Rd  
Paraparaumu  
Wellington

Pitch: 10.0deg  
Roof Material: Galv Iron .5mm  
Soffit Overhang: 600mm  
Wind Area: High  
Snow Load(factored): 0.000kPa

Trusses and rafters at 900mm max centres unless stated otherwise.

This layout is to be read in conjunction with the Architectural plans.

DRAWN BY Phil Edwards

DATE 11 Oct,2010 PAGE 1 of 2

#### FIXINGS

**A = 47x90 JH**  
**B = 47x120 JH**  
**D = 47x190 JH**  
**E = 95x165 JH**



Joist Hanger



CT 200

**C = CT200 (pair)**



Multi Grips

**M = Multigrips (pair)**

**N = Nailon Plate**

**Q = 9kN Pack**

**P = 16kN Pack**



Nailon plate

All other truss fixings must have two wire dogs unless indicated as above



CPC

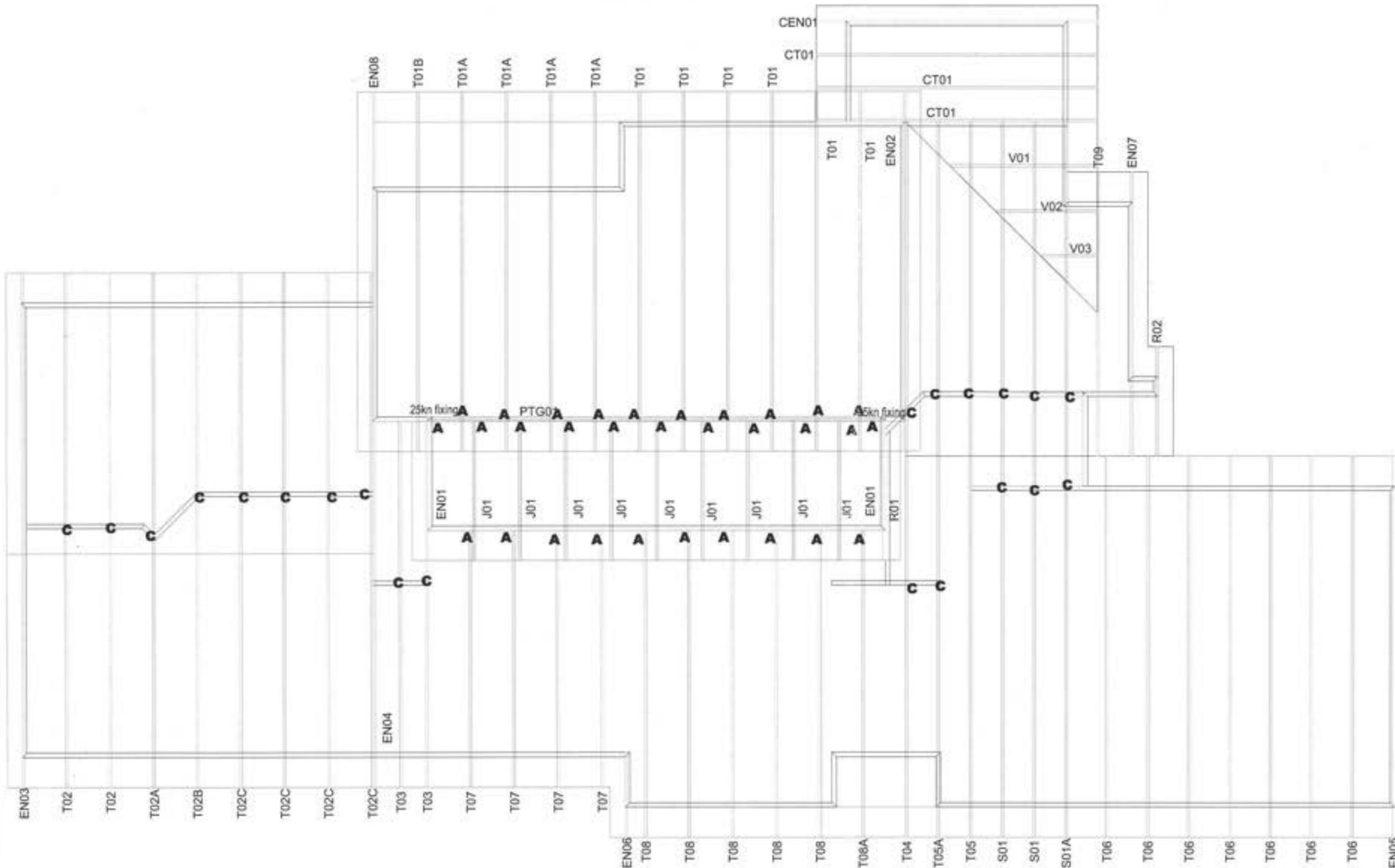
#### NOTE

Please contact your local CARTERS Manufacturing Branch for any queries regarding this layout or if any on site remedial work is required.

No modifications to Roof Trusses or Wall Frames are to be undertaken without first obtaining written authority from CARTERS Manufacturing.



See Page 2 for dimensions & lintel statement



# BUILDING CONSENT LAYOUT

## CARTERS

### MANUFACTURING

National Office  
East Tamaki, Auckland  
(09) 272 7282

JOB No **UM8086**

Client: Holly Bayley  
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This layout is to be read in conjunction with the Architectural plans.

DRAWN BY Phil Edwards

DATE 11 Oct,2010 PAGE 2 of 2

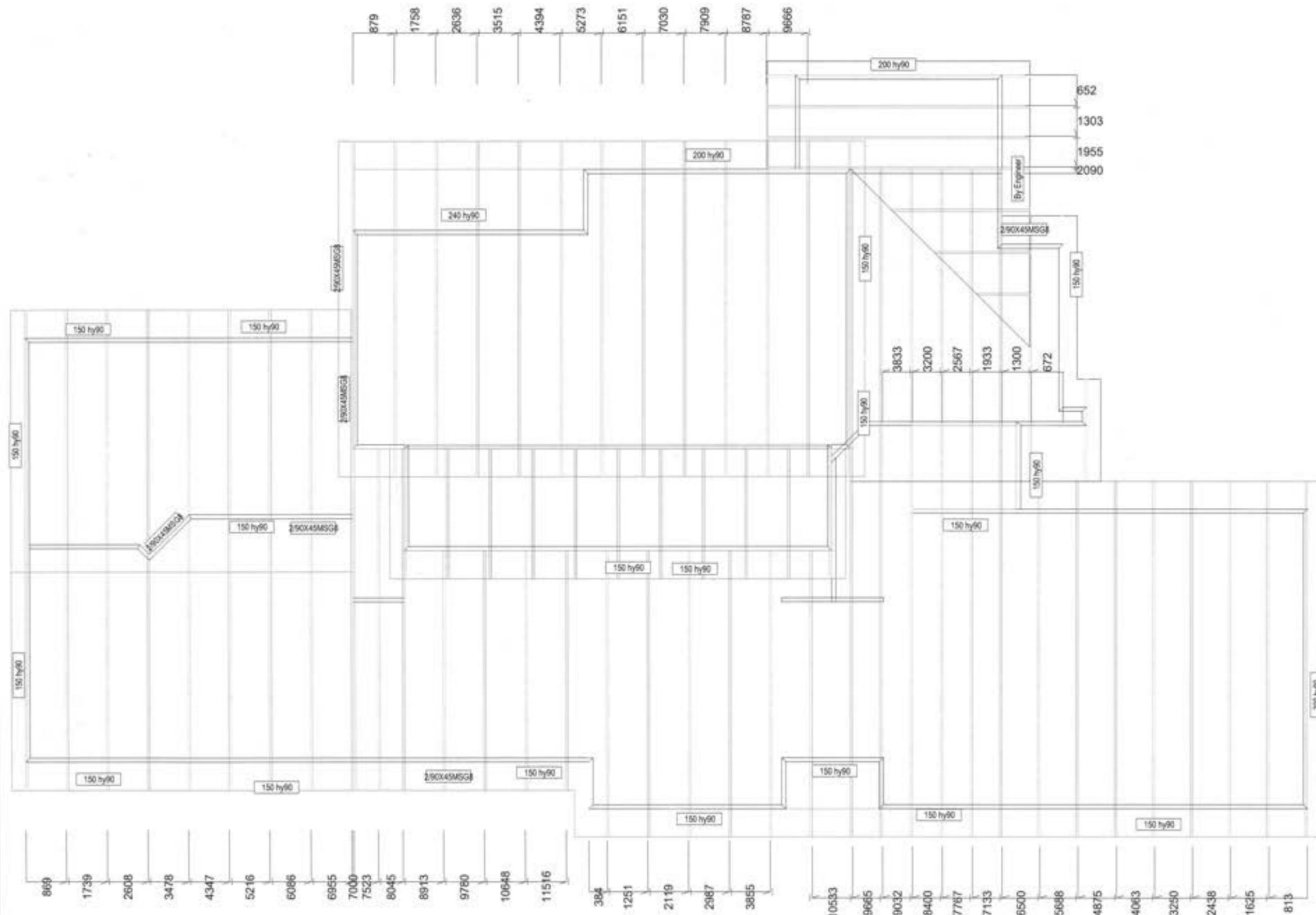
These lintels have been sized using one of the following :

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hy90 and hyONE lintels have been sized using designIT v4 NZ software (incl. sub versions) or selection manuals, hy90 Edition 1, and hyONE April 2008, as provided by CHH Woodproducts.

Unless otherwise stated the timber grade for all lintels is MSG8. Lintels not shown are to be selected as per NZS3604 1999.

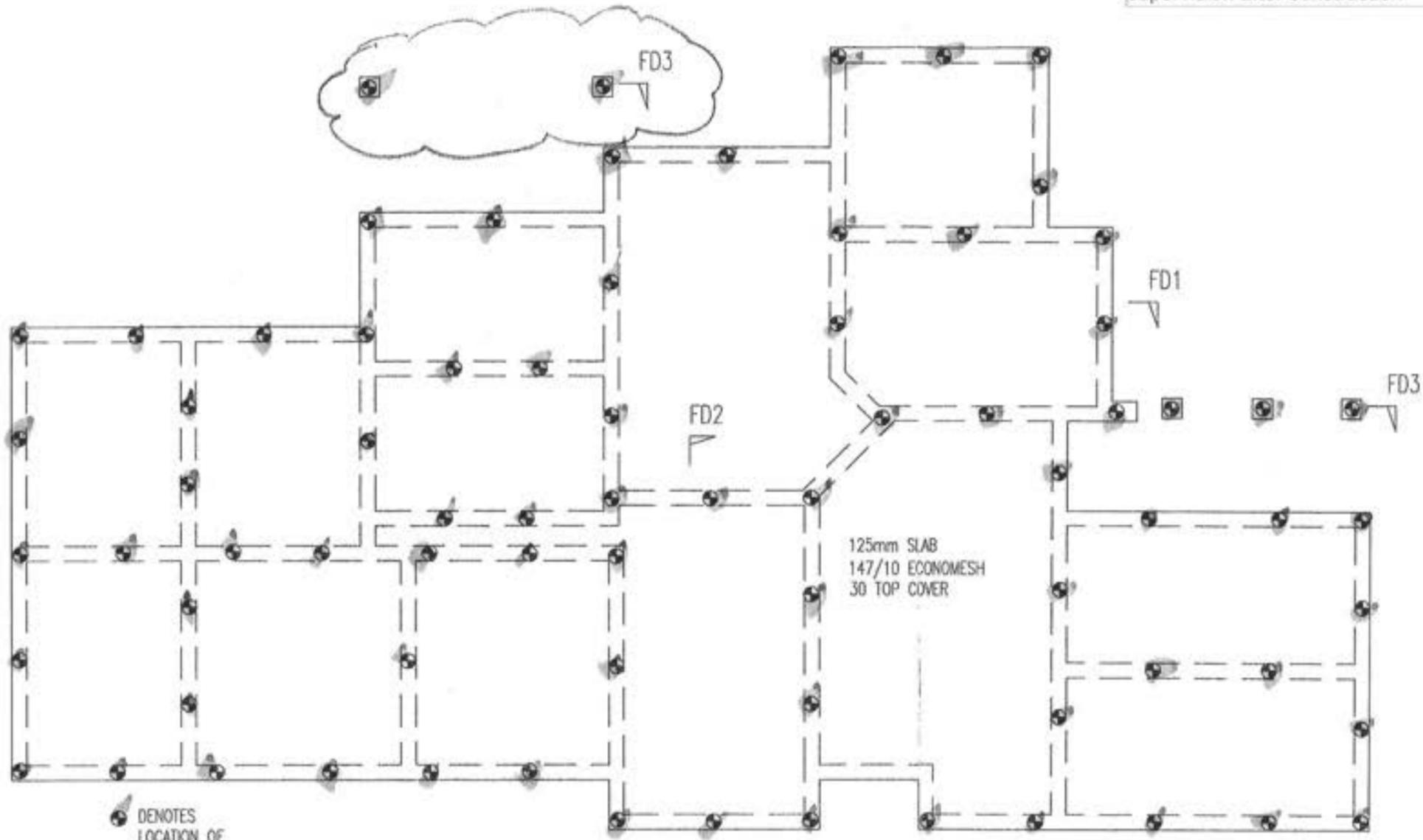
All walls shown on this layout are considered to be load bearing.



See Page 1 for  
Truss Layout and  
Fixings

SPECIFIC DESIGN

All work carried out under jurisdiction of producer statement to meet the engineer's requirements fully. Engineer to sign off work supervision after construction



DENOTES LOCATION OF CONCRETE PILE

125mm SLAB  
147/10 ECONOMESH  
30 TOP COVER

150  $\phi$  SET

76 no piles

FOUNDATION PLAN  
NOT TO SCALE

SPECIAL NOTE TO PILE DRIVER  
- CHECK NOTES FOR SETS  
- INSPECTION BY ENGINEER REQUIRED AT TIME OF DRIVING PILES

Peter Bayly  
021 917 232

No.	AMENDMENT	NAME	DATE
A	PADS ADDED	PB	18/10

NOTES:

PILES TO BE DRIVEN TO A SET NOT EXCEEDING 100mm PER 10 BLOWS FOR 480kg HAMMER FALLING 1800mm.

RECORD ALL PILE SETS AND LENGTHS AND SUBMIT COPY TO KCDC

PLACE D20-1000 LONG THROUGH PILE CAP

DO NOT TRIM PILES TO LESS THAN 120mm WIDTH

REINFORCING:  
D DENOTES GRADE 300 DEFORMED  
H DENOTES GRADE 500 DEFORMED

MINIMUM COVER 50mm EXCEPT WHERE SHOWN OTHERWISE, ENSURE 50mm SIDE COVER TO REQ. WIDEN FOOTING OR CRANK H12 AS REQUIRED

CONCRETE STRENGTH TO BE 25MPa AT 28 DAYS. VIBRATE ALL CONCRETE WHEN IN PLACE. ADD NO WATER ON SITE. CURE SLAB BY PONDING FOR 7 DAYS MINIMUM. SAWCUT TO ARCHITECTURAL DRAWINGS

PROVIDE 24HOURS NOTICE FOR INSPECTIONS BY ENGINEER

**Base Consulting Engineers Limited**

279 Oxford Street  
P O Box 434  
Levin 5540

Telephone Levin 06-387 0088  
Paraparaumu 04-297 0088  
Fax 06-387 0088  
Mobile 027 44 44 080

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STRUCTURAL DETAILS

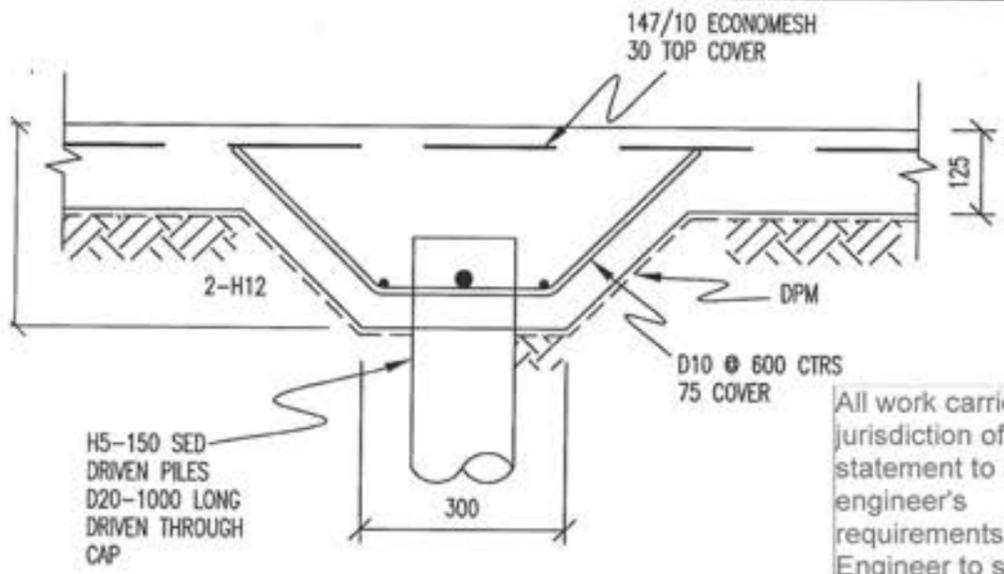
BAYLY DWELLING  
4 MOSS LANE  
PARAPARAUMU

SCALE  
AS SHOWN

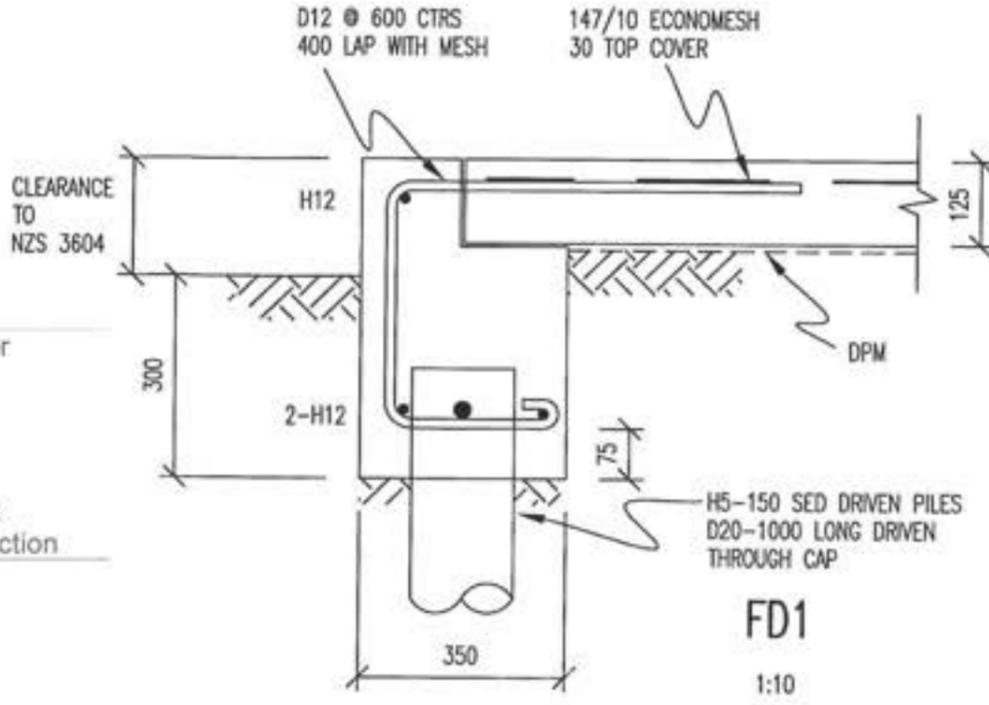
	NAME	DATE	DRAWING NUMBER
FIELDWORK			10142 SS1
DESIGNED	PB	10/10	
DRAWN	PB	10/10	
CHECKED	PB	10/10	

SHEET 1 OF 2 SHEETS

SPECIFIC DESIGN

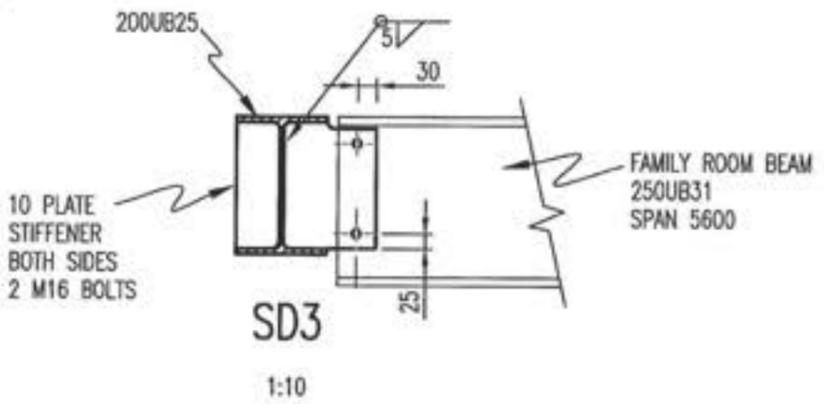


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1:10

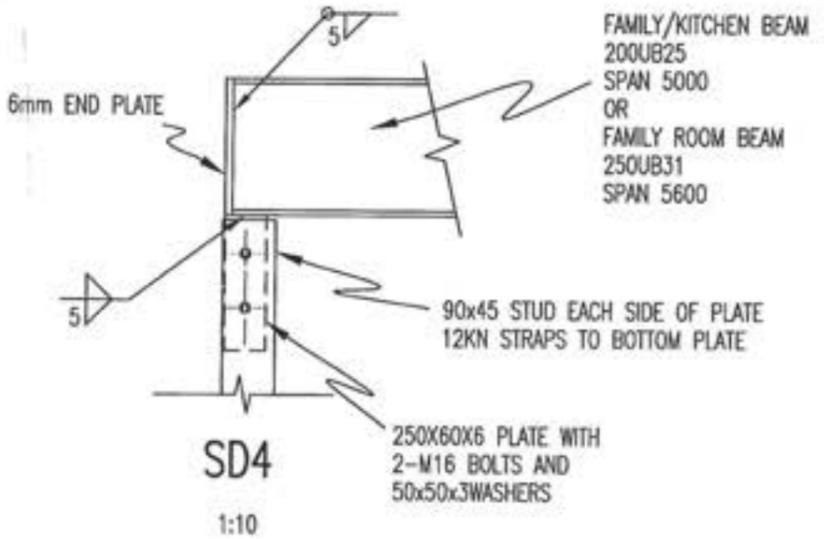


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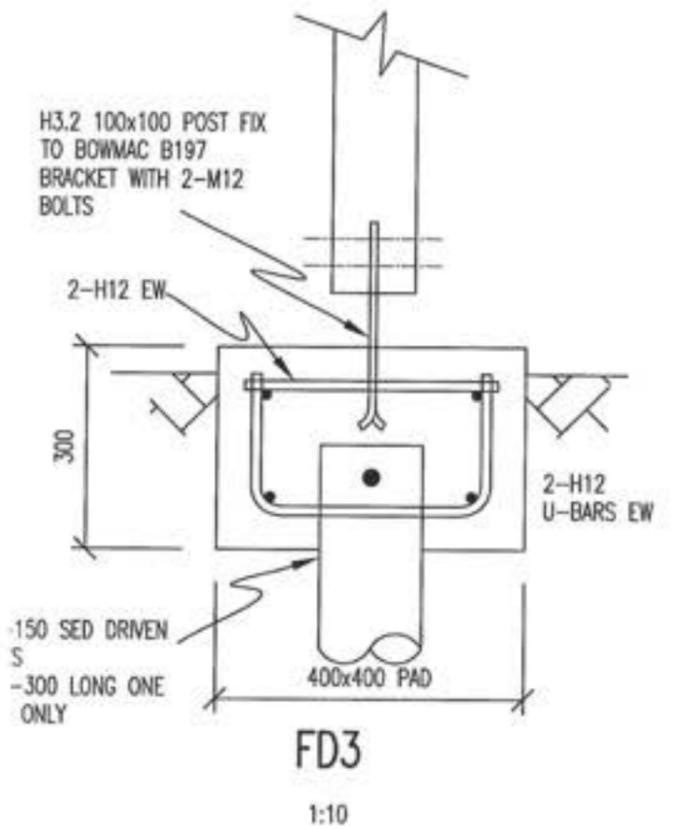
All work carried out under jurisdiction of producer statement to meet the engineer's requirements fully. Engineer to sign off work supervision after construction



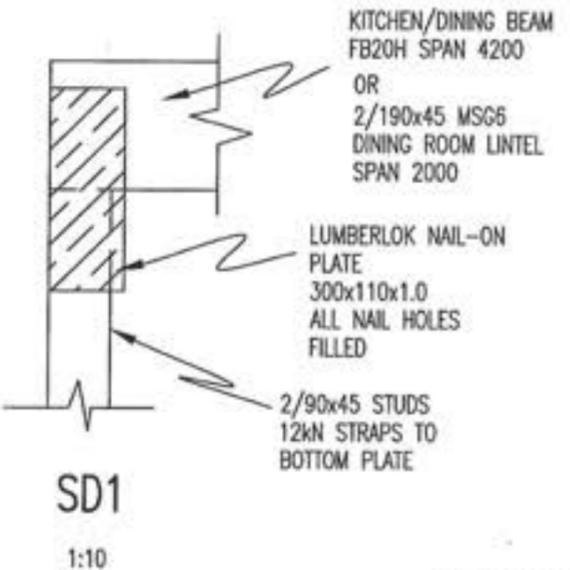
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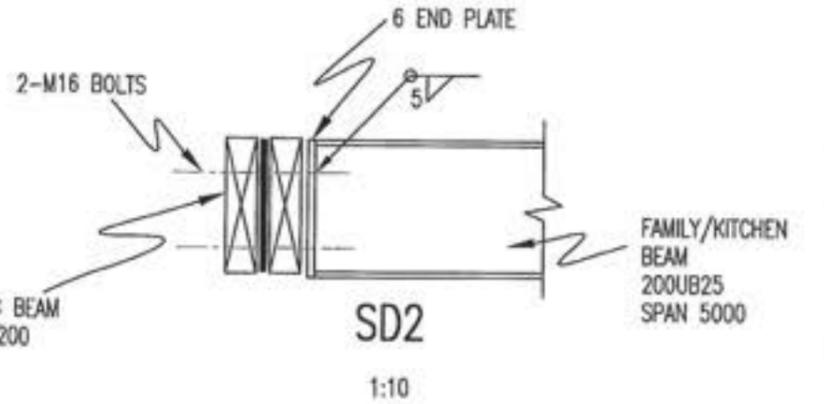
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1:10



FD3  
1:10



SD1  
1:10



SD2  
1:10

No.	AMENDMENT	NAME	DATE

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Paraparaumu 04-297 0088  
Fax 06-367 0058  
Mobile 027 44 44 080

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STRUCTURAL DETAILS

BAYLY DWELLING  
4 MOSS LANE  
PARAPARAUMU

SCALE  
AS SHOWN

FIELDWORK	NAME	DATE	DRAWING NUMBER <b>10142 SS2</b>
DESIGNED	PB	10/10	
DRAWN	PB	10/10	
CHECKED	PB	10/10	
SHEET 2 OF 2 SHEETS			

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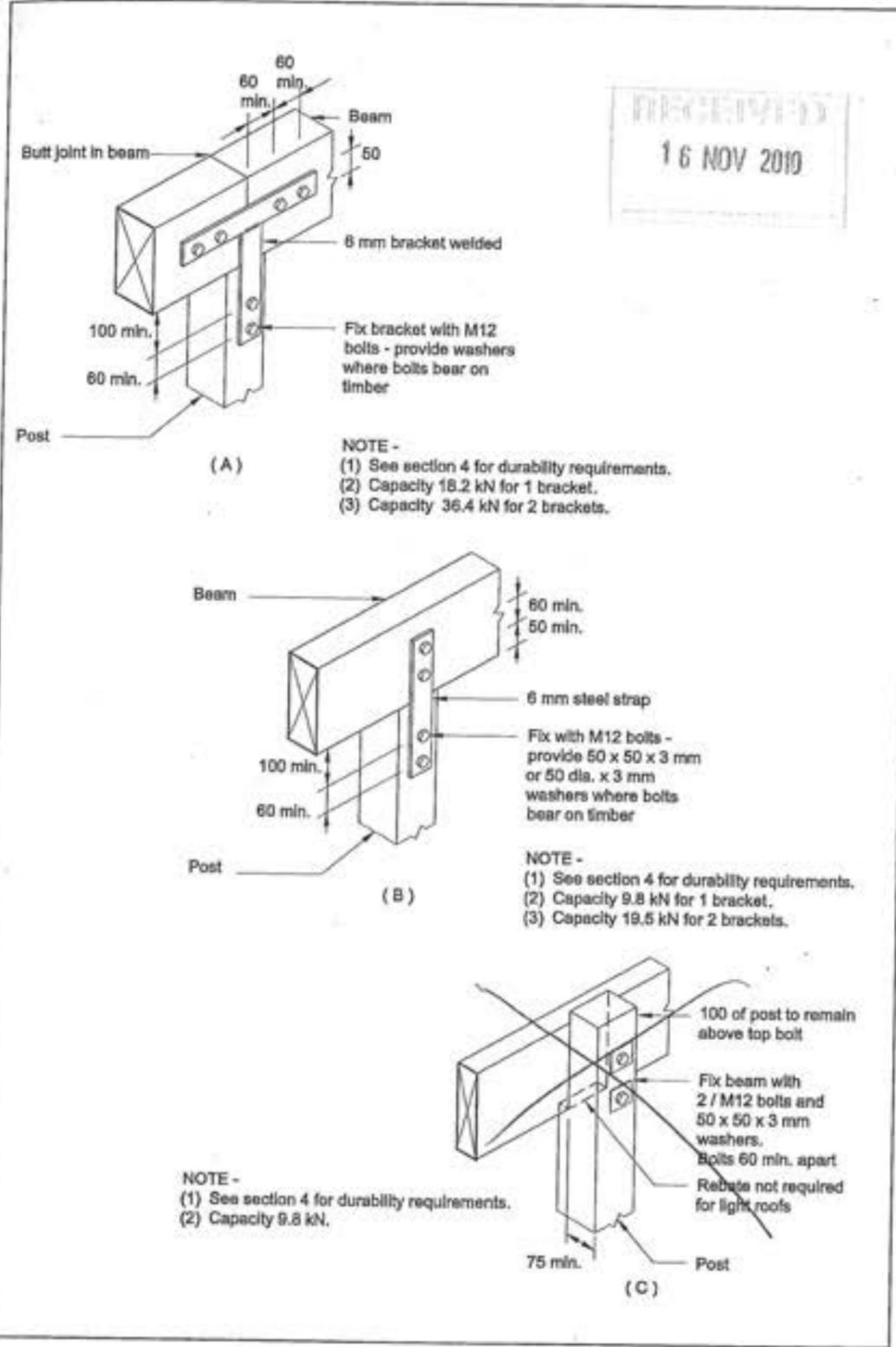


Figure 9.3 - Beam/post connections (see 9.3)

# BUILDING CONSENT LAYOUT

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Soffit Overhang: 600mm  
Wind Area: High  
Snow Load(factored): 0.000kPa

Trusses and rafters at 900mm max centres unless stated otherwise.

This layout is to be read in conjunction with the Architectural plans.

DRAWN BY Phil Edwards

DATE 11 Oct,2010 PAGE 1 of 2

#### FIXINGS

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**B = 47x120 JH**  
**D = 47x190 JH**  
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Joist Hanger



CT 200

**C = CT200 (pair)**  
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Nailon plate

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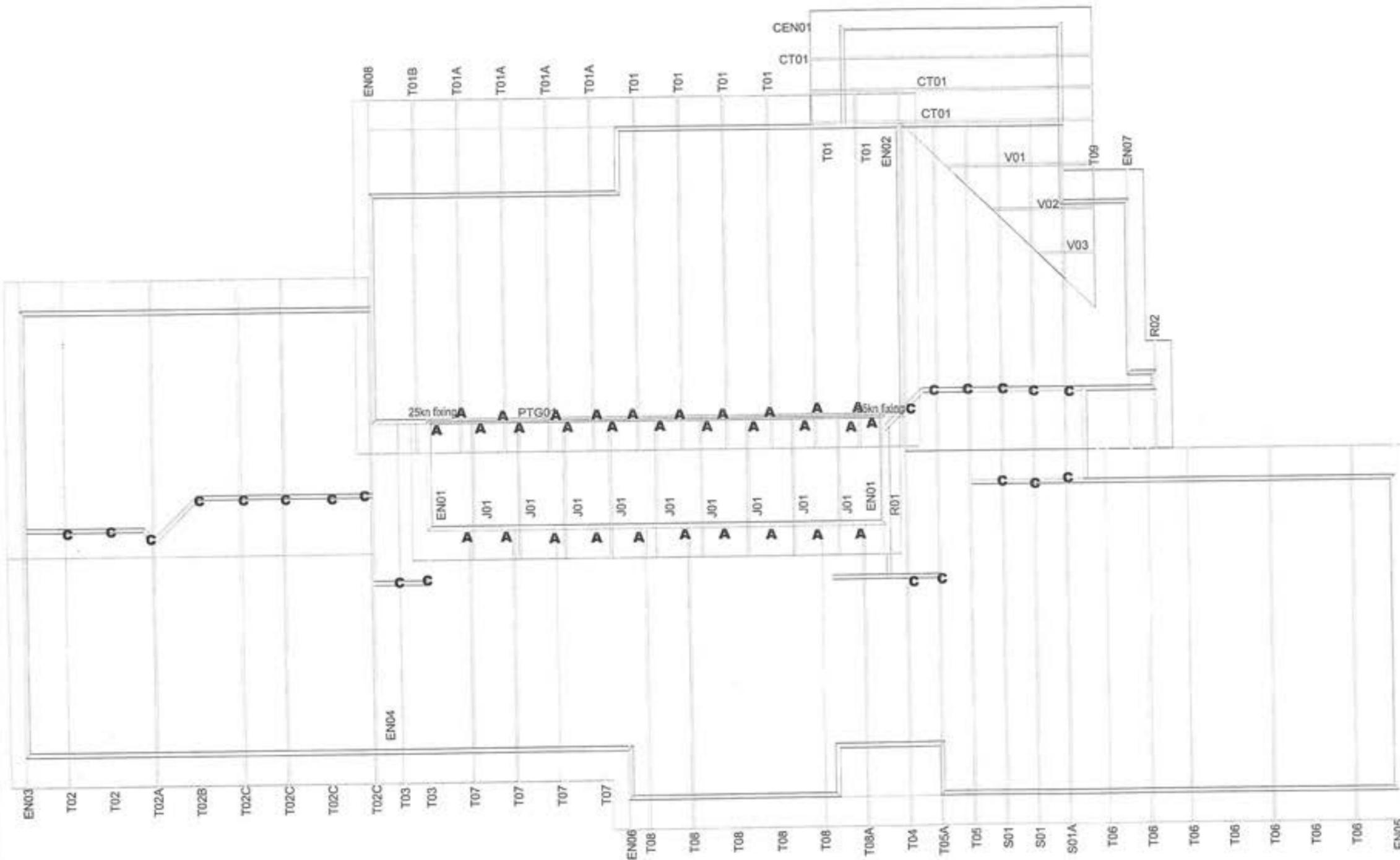


CPC

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See Page 2 for dimensions & lintel statement

# BUILDING CONSENT LAYOUT

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DATE 11 Oct,2010 PAGE 2 of 2

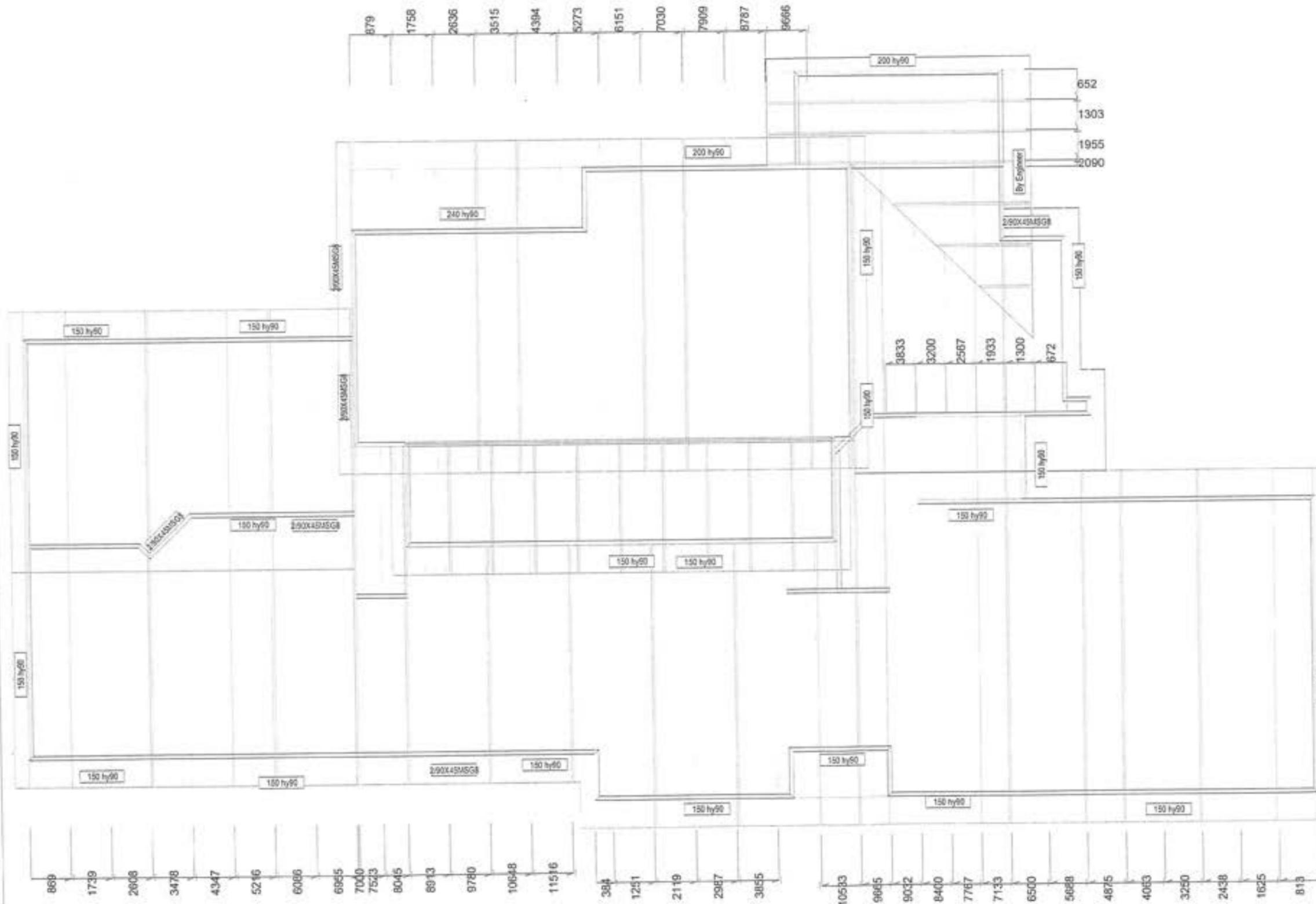
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All walls shown on this layout are considered to be load bearing.



See Page 1 for  
Truss Layout and  
Fixings

# PROPOSED DWELLING

FOR MR & MRS BAYLY  
1 MOSS LANE, LOT 1, DP 380622, RAUMATI



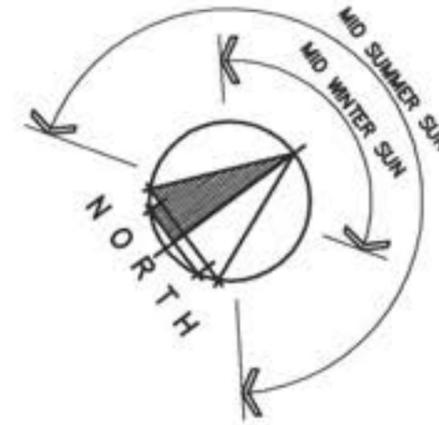
## CONTENTS:

- 1 - SITE PLAN
- 2 - DRAINAGE PLAN
- 3 - LOWER FLOOR PLAN
- 4 - UPPER FLOOR PLAN
- 5 - LOWER FLOOR DIMENSION PLAN
- 6 - UPPER FLOOR DIMENSION PLAN & JOIST PLAN
- 7 - FOUNDATION PLAN
- 8 - ROOF PLAN
- 9 - ELEVATIONS
- 10 - SECTIONS
- 11 - SECTIONS
- 12 - LOWER BRACING PLAN
- 13 - LOWER ELECTRICAL PLAN
- 14 - UPPER BRACING & ELECTRICAL PLANS
- 15 - DETAILS
- 16 - DETAILS
- 17 - DETAILS
- 18 - DETAILS
- 19 - DETAILS
- 20 - DETAILS
- 21 - DETAILS
- 22 - JOINERY SCHEDULE
- 23 - E2 MATRIX



COASTAL  
ARCHITECTURE LTD.

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B



LOT 1, DP 380622  
 BEING PART LOT 1, DP 4864  
 DWELLING = 271m<sup>2</sup>  
 SITE AREA = 2197m<sup>2</sup>  
 SITE COVERAGE = 8.2%

HIGH WIND ZONE

**NOTE:**

THE OWNER/BUILDER IS RESPONSIBLE FOR CLEARLY DEFINING THE SITE BOUNDARY LINES & PEGS. THIS MAY REQUIRE A SURVEY. NOTE: ESTABLISHED FENCES ARE NOT NECESSARILY ON THE SITE BOUNDARY

CONFIRM POSITION OF DWELLING ON SITE WITH OWNER

**SITE PLAN**  
 SCALE 1:200

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**SITE PLAN**

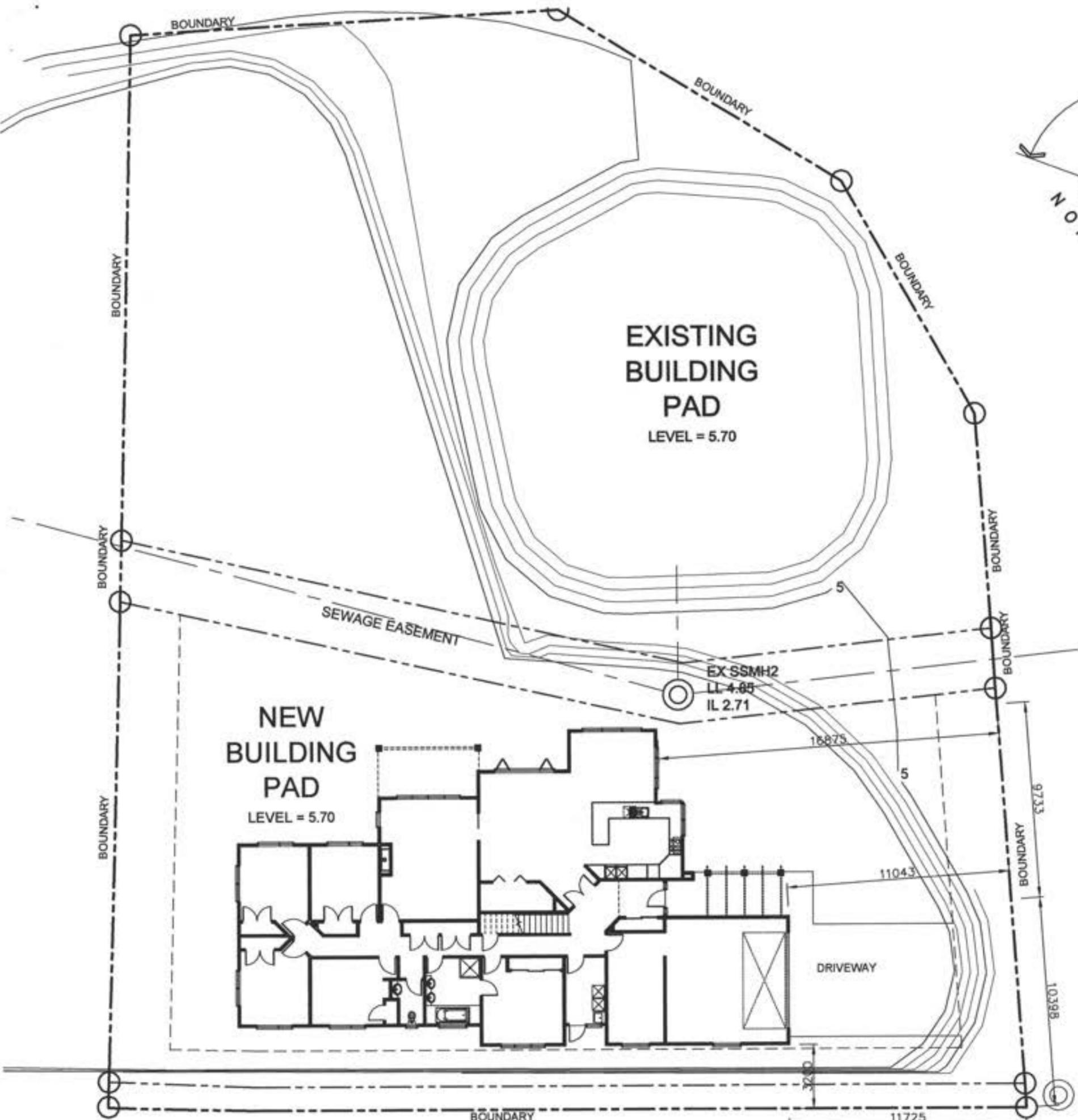
Designer:

**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001  
 Page of: 1  
 Rev: B

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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B

**NOTE:**

NO PIPES AT ANY POINT EXCEED 10m IN LENGTH FROM DN 100 VENTED DRAIN

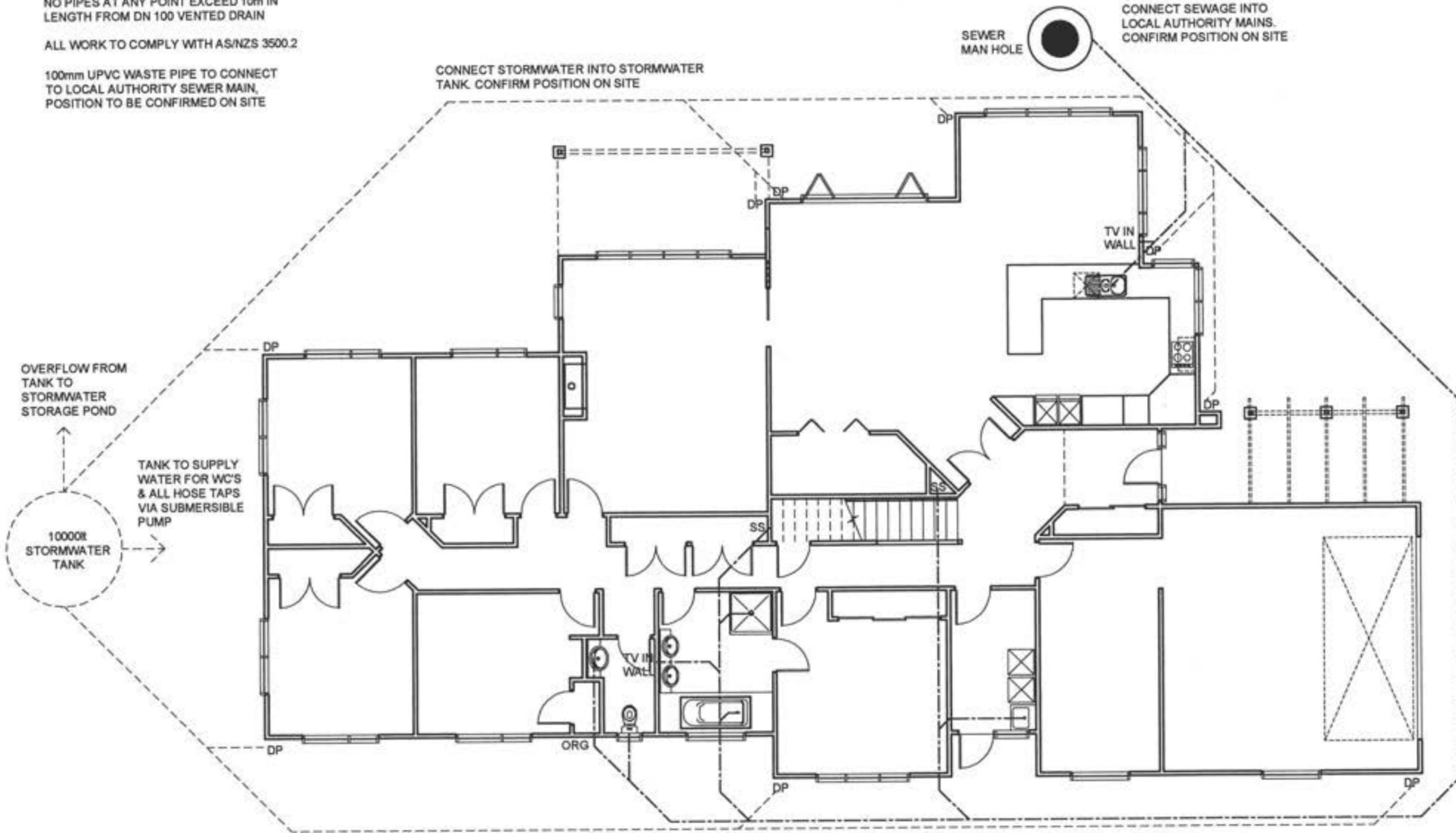
ALL WORK TO COMPLY WITH AS/NZS 3500.2

100mm UPVC WASTE PIPE TO CONNECT TO LOCAL AUTHORITY SEWER MAIN, POSITION TO BE CONFIRMED ON SITE

CONNECT STORMWATER INTO STORMWATER TANK. CONFIRM POSITION ON SITE

SEWER MAN HOLE

CONNECT SEWAGE INTO LOCAL AUTHORITY MAINS. CONFIRM POSITION ON SITE



Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

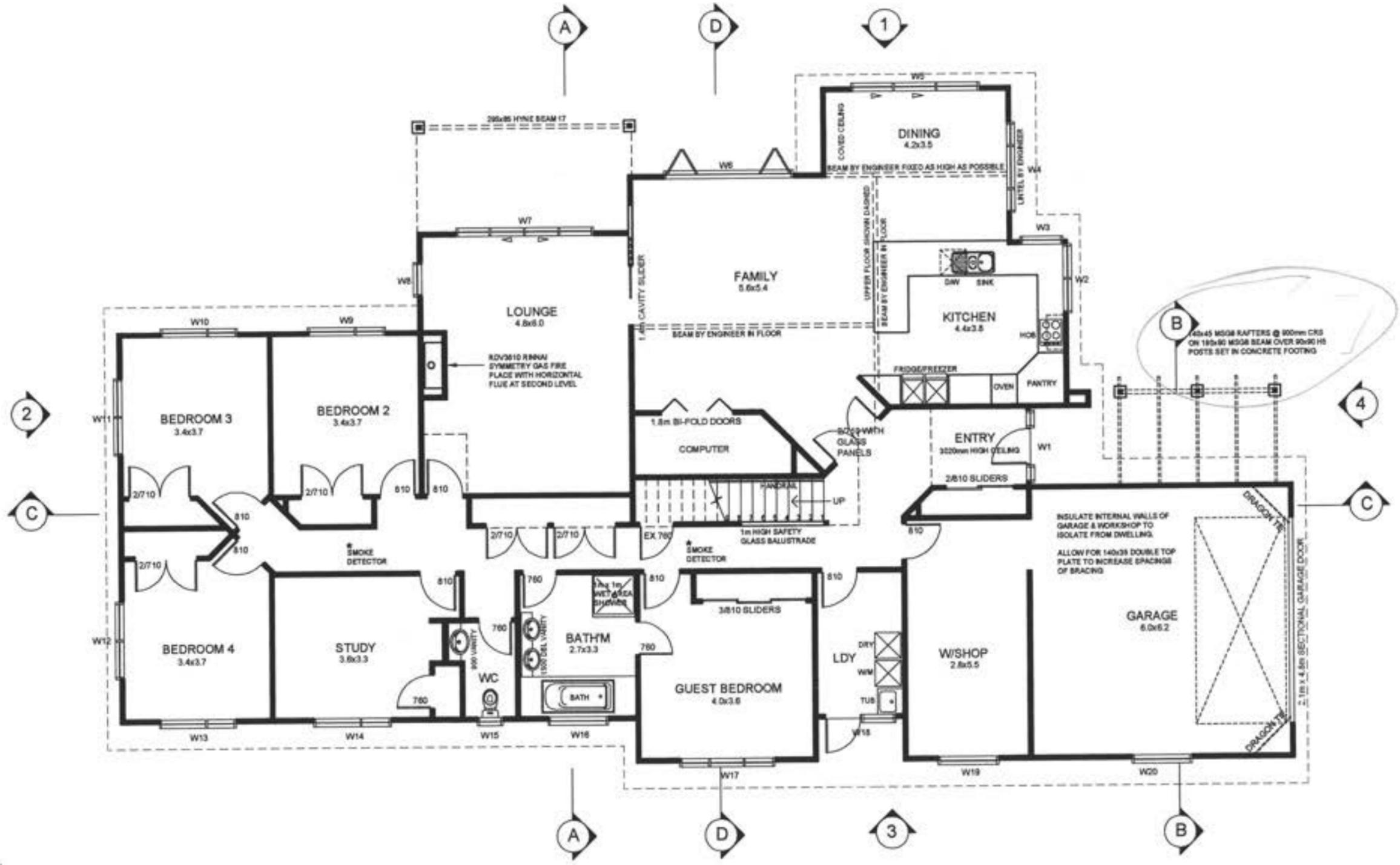
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**DRAINAGE PLAN**

Designer:  
**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **2** Rev: **B**

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Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER FLOOR PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **3** Rev: **B**

**NOTES:**

- GENERAL NOTES:**
- All work must be carried out to conform to relevant sections of the New Zealand Building Code and New Zealand Standards - in particular NZS 3604, NZS 3602 & NZS 4218. All references to Standards shall be taken as reference to the latest revision including amendments.
  - Ground bearing must be reconfirmed on site following excavation but prior to placing concrete and reinforcing.
  - Confirm site boundaries with licensed surveyor. Fences may not necessarily be on the legal boundary.
  - All work to be carried out to best trade practice
  - Do Not Scale off Building Consent Documentation issued from TA's as the plans may have been scanned and the scale distorted.
  - All habitable rooms to have 5% of their floor area as opening windows or approved alternative to achieve ventilation requirements

- Prenail framing and truss manufacturer to provide lintel sizes and provide a producer statement for framing, window lintels and trusses.
- Window openings to be 20mm larger than window sizes (10mm tolerance each side)
- All bottom plates and framing to shower areas to be H3.1. All framing in other at risk areas such as parapets and enclosed balconies to comply with NZS 3602 for particular situation.
- Allow for drwangs to fix fittings as required by owner.
- Wall junctions shall be framed up with not less than 2 studs blocked and nailed.
- Maximum diameter hole in 90mm stud to be 25mm or 35mm diameter where not more than 3 consecutive studs are drilled.
- Lintels supporting rafters or trusses shall be secured against uplift as per clause 8.6.1.7 & table 8.14, NZS 3604:1999
- Confirm building wrap is able to be used with timber treatment.

**INTERNAL LININGS**

- WALLS:**
- Generally - 10mm Standard Gib Board
  - Bathrooms, Laundry & Kitchen - 10mm Gib Aqualine
- CEILINGS:**
- Generally - 13mm Standard Gib
  - Bathrooms, Laundry - 13mm Gib Aqualine
  - Back block sheet joints and allow for control joints as required by manufacturer

**FRAMING**

- Exterior Walls & Internal Load Bearing Walls:
- Lower floor Up to 2.4m  
90x45 MSG8 at 400 c/s H1.2
  - Interior Non Load Bearing Walls:  
Up to 2.4  
90x45 MSG8 at 600 c/s H1.2
  - Upper floor Up to 2.4m  
90x45 MSG8 at 600 c/s H1.2
  - Interior Non Load Bearing Walls:  
Up to 2.4  
90x45 MSG8 at 600 c/s H1.2

- Top Plate Fixing**  
The fixing of top plates supporting roof trusses to wall studs or lintels shall be in accordance with table 8.18, NZS 3604:1999  
Joints in top plates to comply with clause 8.7.3 & figures 8.14-8.16, NZS 3604:1999
- Bottom Plate Fixing**  
10mm Ø cast in @ max 900 c/s  
12mm Ø cast in @ max 1400 c/s  
Approved anchors (fixed to manufacturers specific instructions)
- Holes in plates to comply with clause 8.7.5 & figure 8.19, NZS 3604:1999
- Refer to Bracing Plan and Manufacturers specifications for additional framing fixings.

All work shall be in accordance with the NZBC. If in doubt ASB. The Contractor must verify all dimensions on the job before commencing any work or ship drawings. Figured dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

**BALUSTRADES**

Balustrade or part height wall must be a minimum of 1.0m on stairs above the leading edge of the nosing and landings.

The balustrade must be designed to comply with the requirements of NZBC F-4 safety from falling.

Timber balustrades must comply with NZBC B1A.62 Timber barriers, or be an alternative solution which can be shown as complying with the performance requirements of NZBC B1 and F4.

Adequate structural strength must be provided in the balustrade and its fixings so that it can support an applied force of 750 newtons / metre run.

**STAIRS**

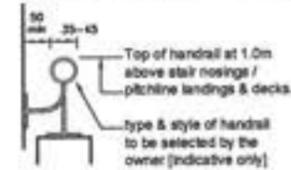
Stair formed with selected 6x50mm timber treads, risers and stringers to suppliers details. The contractor shall check & confirm on site prior to manufacture.

TREADS : 275mm going with 200mm total tread min  
 RISERS : 174mm high

**HANDRAILS**

Handrails should extend beyond the top and bottom riser for a minimum distance of 300mm.

The handrail must provide a comfortable and safe handhold. Circular or oval shapes 35-45mm minimum diameter, or to comply with NZBC.



**NOTES:**

**GENERAL NOTES:**

- All work must be carried out to conform to relevant sections of the New Zealand Building Code and New Zealand Standards - in particular NZS 3604, NZS 3602 & NZS 4218. All references to Standards shall be taken as reference to the latest revision including amendments.
- Ground bearing must be reconfirmed on site following excavation but prior to placing concrete and reinforcing.
- Confirm site boundaries with licenced surveyor. Fences may not necessarily be on the legal boundary.
- All work to be carried out to best trade practice
- Do Not Scale off Building Consent Documentation issued from TA's as the plans may have been scanned and the scale distorted.
- All habitable rooms to have 5% of their floor area as opening windows or approved alternative to achieve ventilation requirements

- Prenail framing and truss manufacturer to provide lintel sizes and provide a producer statement for framing, window lintels and trusses.
- Window openings to be 20mm larger than window sizes (10mm tolerance each side)
- All bottom plates and framing to shower areas to be H3.1. All framing in other at risk areas such as parapets and enclosed balconys to comply with NZS 3602 for particular situation.
- Allow for dwangs to fix fittings as required by owner.
- Wall junctions shall be framed up with not less than 2 studs blocked and nailed.
- Maximum diameter hole in 90mm stud to be 25mm or 35mm diameter where not more than 3 consecutive studs are drilled.
- Lintels supporting rafters or trusses shall be secured against uplift as per clause 8.6.1.7 & table 8.14, NZS 3604:1999
- Confirm building wrap is able to be used with timber treatment.

**INTERNAL LININGS**

- WALLS:**
- Generally - 10mm Standard Gib Board
  - Bathrooms, Laundry & Kitchen - 10mm Gib Aqualine
- CEILINGS:**
- Generally - 13mm Standard Gib
  - Bathrooms, Laundry - 13mm Gib Aqualine
  - Back block sheet joints and allow for control joints as required by manufacturer

**FRAMING**

- Exterior Walls & Internal Load Bearing Walls:**
- Lower floor Up to 2.4m  
90x45 MSG8 at 400 crs H1.2
  - Interior Non Load Bearing Walls: Up to 2.4  
90x45 MSG8 at 600 crs H1.2
  - Upper floor Up to 2.4m  
90x45 MSG8 at 600 crs H1.2
  - Interior Non Load Bearing Walls: Up to 2.4  
90x45 MSG8 at 600 crs H1.2

- Top Plate Fixing**  
The fixing of top plates supporting roof trusses to wall studs or lintels shall be in accordance with table 8.15, NZS 3604:1999  
Joints in top plates to comply with clause 8.7.3 & figures 8.14-8.16, NZS 3604:1999
- Bottom Plate Fixing**  
10mm Ø cast in @ max 900 crs  
12mm Ø cast in @ max 1400 crs  
Approved anchors (fixed to manufacturers specific instructions)
- Holes in plates to comply with clause 8.7.5 & figure 8.19, NZS 3604:1999
- Refer to Bracing Plan and Manufacturers specifications for additional framing fixings.

**UPPER FLOOR PLAN**

SCALE 1:100 AREA = 72m<sup>2</sup>

Project:  
**NEW DWELLING**  
 Client:  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**UPPER FLOOR PLAN**

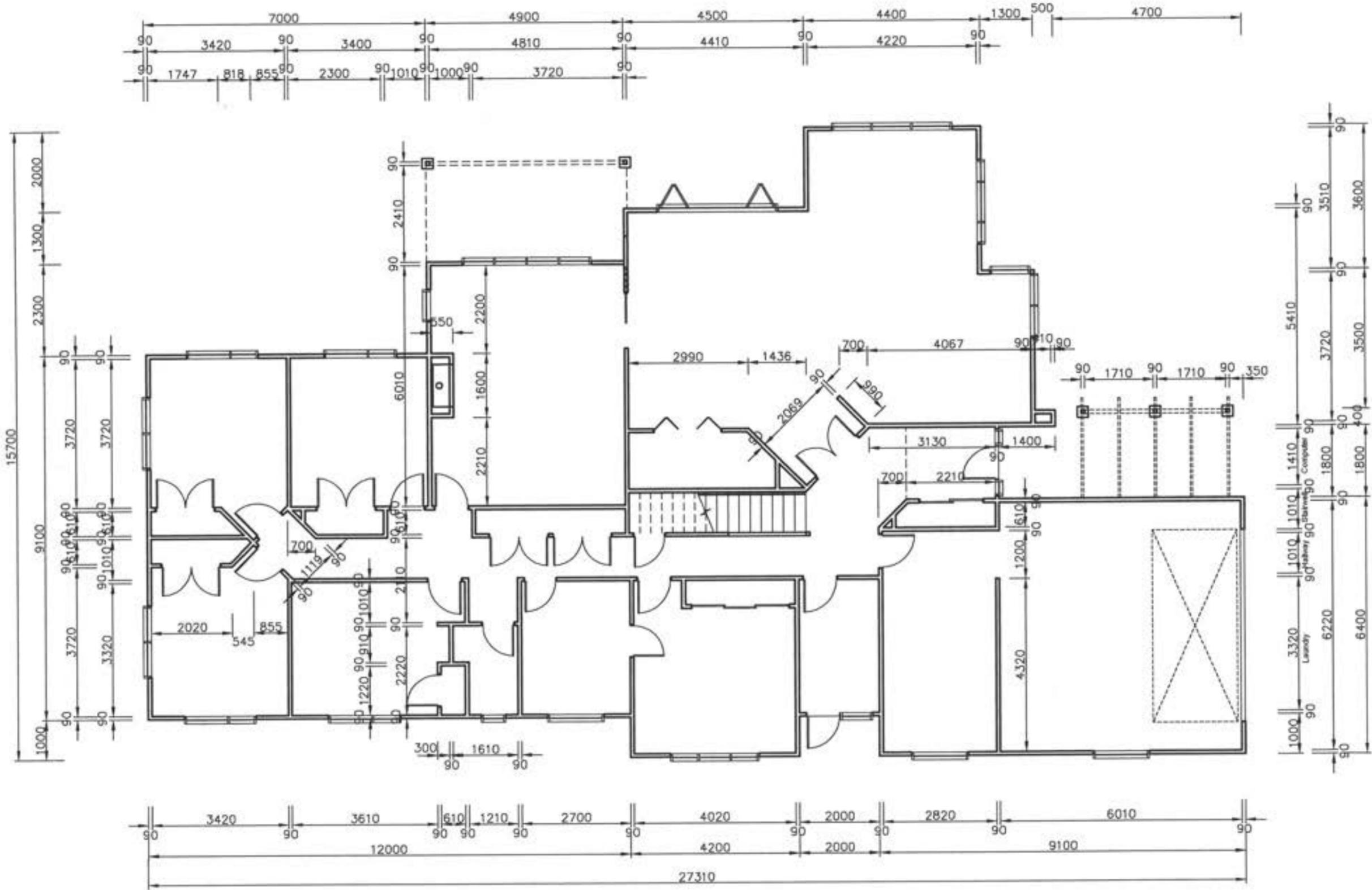
Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Finchem Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **4** Rev: **B**

All work shall be in accordance with the NZBC, if in doubt ASB. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B



LOWER DIMENSION PLAN SCALE 1:100

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER DIMENSION PLAN**

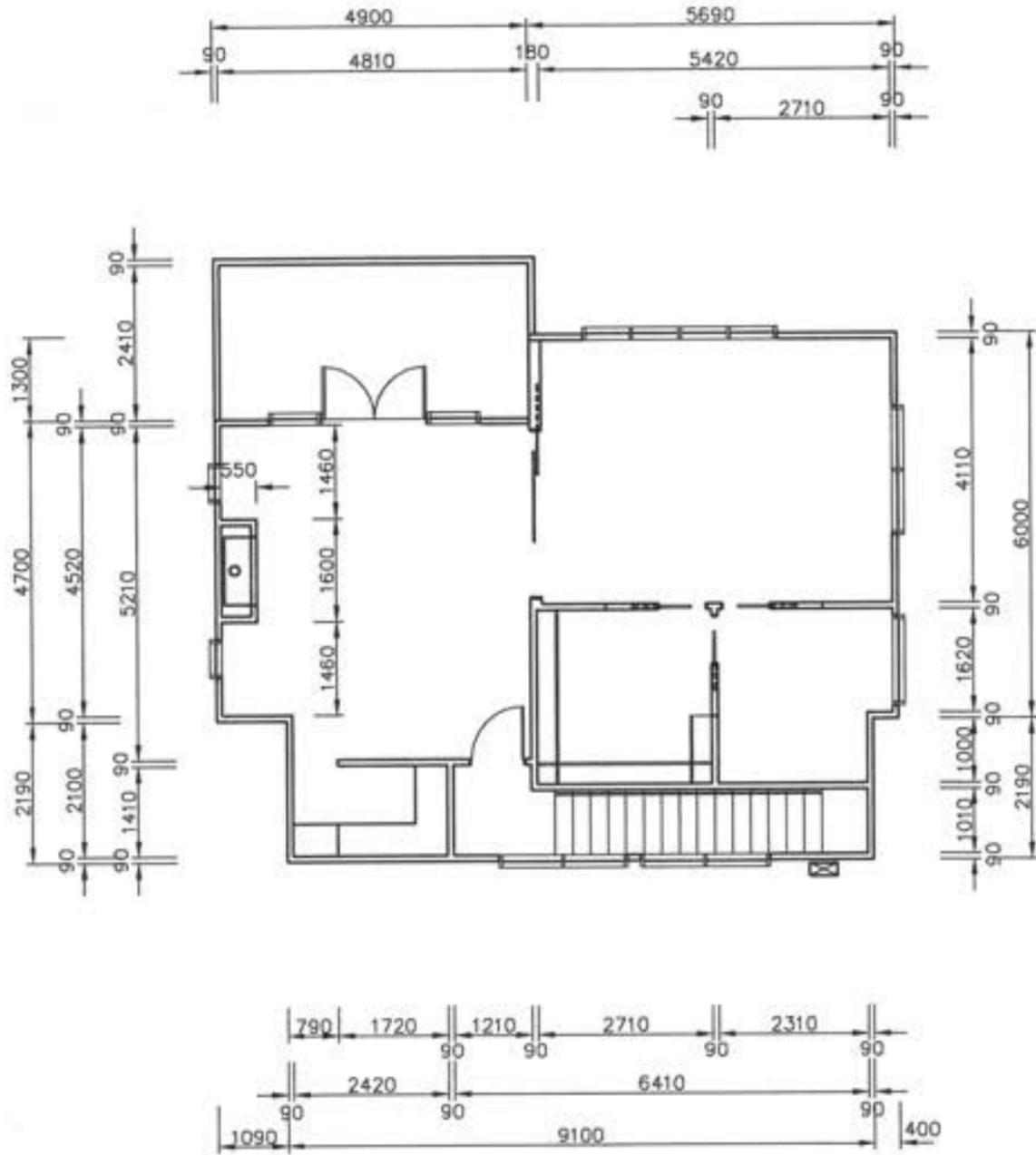
Designer:  
**COASTAL ARCHITECTURE LTD.**  
 17 Finchem Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

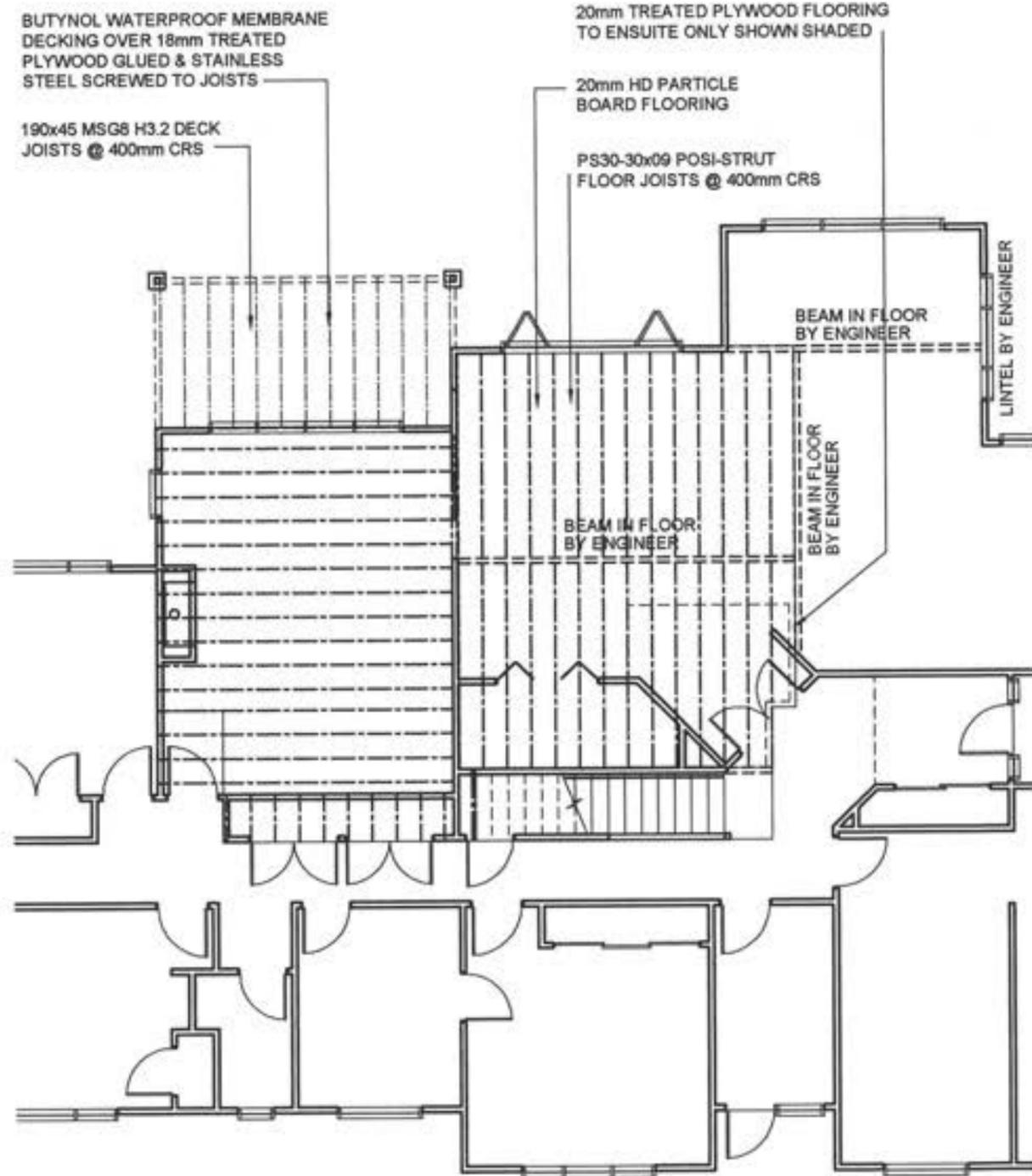
Job: **001** Page of: **5** Rev: **B**

All work shall be in accordance with the NZBC. If in doubt ASK.  
 The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B



**UPPER DIMENSION PLAN**  
 SCALE 1:100



**JOIST PLAN** SCALE 1:100

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**UPPER DIMENSION PLAN & JOIST PLAN**  
 Designer:

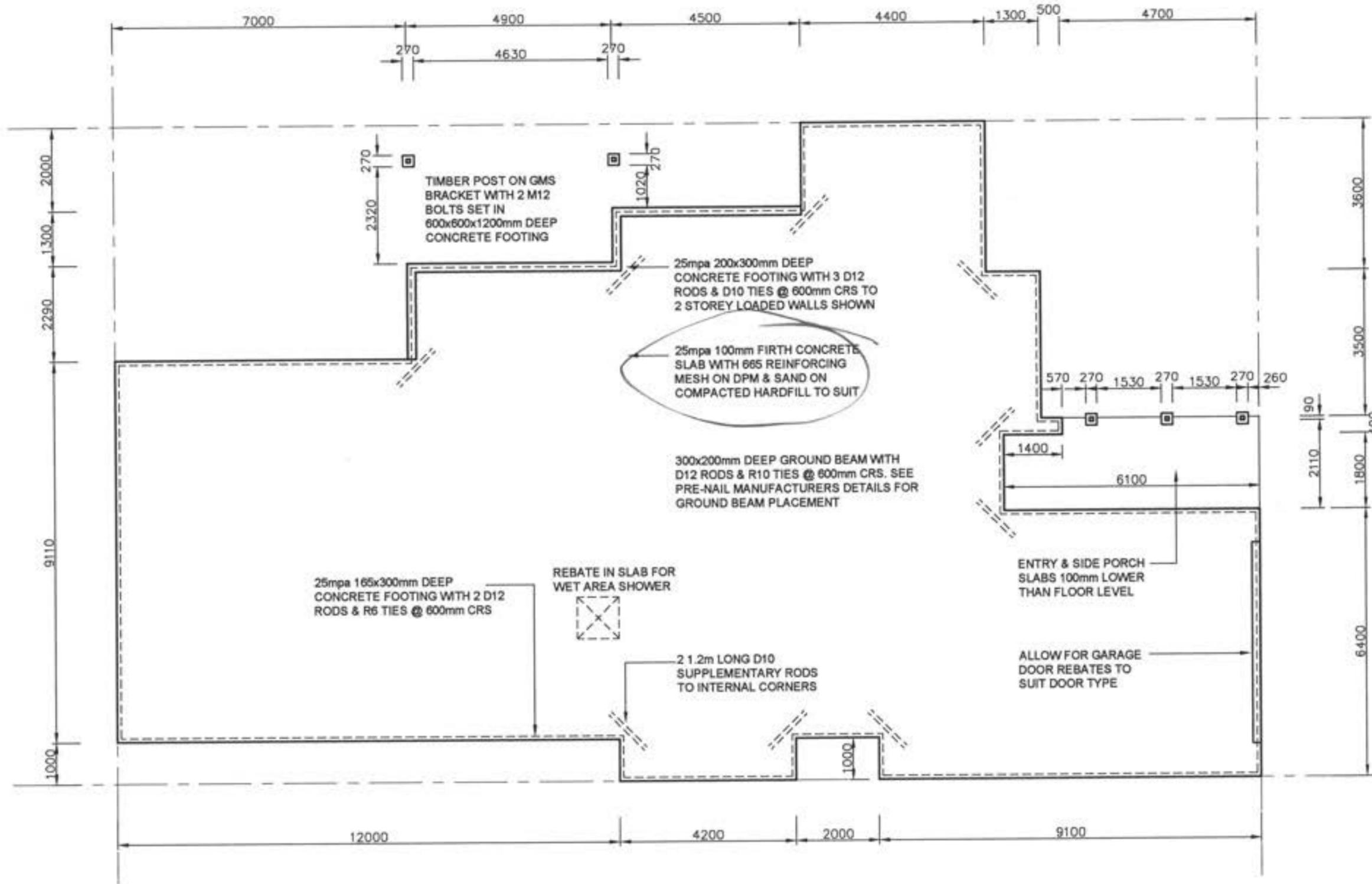
**COASTAL ARCHITECTURE LTD**

17 Fincham Road  
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 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **6** Rev: **B**

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**MINIMUM FLOOR HEIGHT**  
 PROTECTED GROUND  
 100MM BRICK VENEER  
 150MM OTHER CLADDINGS  
 UNPROTECTED GROUND  
 150MM BRICK VENEER  
 225MM OTHER CLADDINGS  
 HEIGHTS AS PER NZS3604 1999 SECTION 7

ALL CONSTRUCTION TO COMPLY WITH  
 NZS3604:1999, NZBC AND BEST  
 POSSIBLE TRADE PRACTICES

BOTTOM PLATES FIXING  
 10mmØ CAST IN @ MAX 900 CRS  
 12mmØ CAST IN @ MAX 1400 CRS  
 APPROVED ANCHORS (FIXED TO  
 MANUFACTURERS SPECIFIC  
 INSTRUCTIONS)

NZS 3604 1999 RECOMENDS A  
 CONTROL JOINT AROUND THE  
 PERIMETER OF ANY AREAS  
 WITH SOLID TILES ON FLOOR  
 TO AVOID CRACKING. BUILDER  
 TO VERIFY WITH OWNER  
 SPECIFIC AREAS

AREA OF FOUNDATION = 296m<sup>2</sup>

NEW BUILDING PAD COMPACTION &  
 GROUND STABILITY TO BE VERIFIED BY  
 ENGINEER DURING & AFTER  
 CONSTRUCTION. FOUNDATION DESIGN BY  
 ENGINEER DESIGN IF REQUIRED

# FOUNDATION PLAN SCALE 1:100

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**FOUNDATION PLAN**

Designer:

**COASTAL**  
 ARCHITECTURE LTD

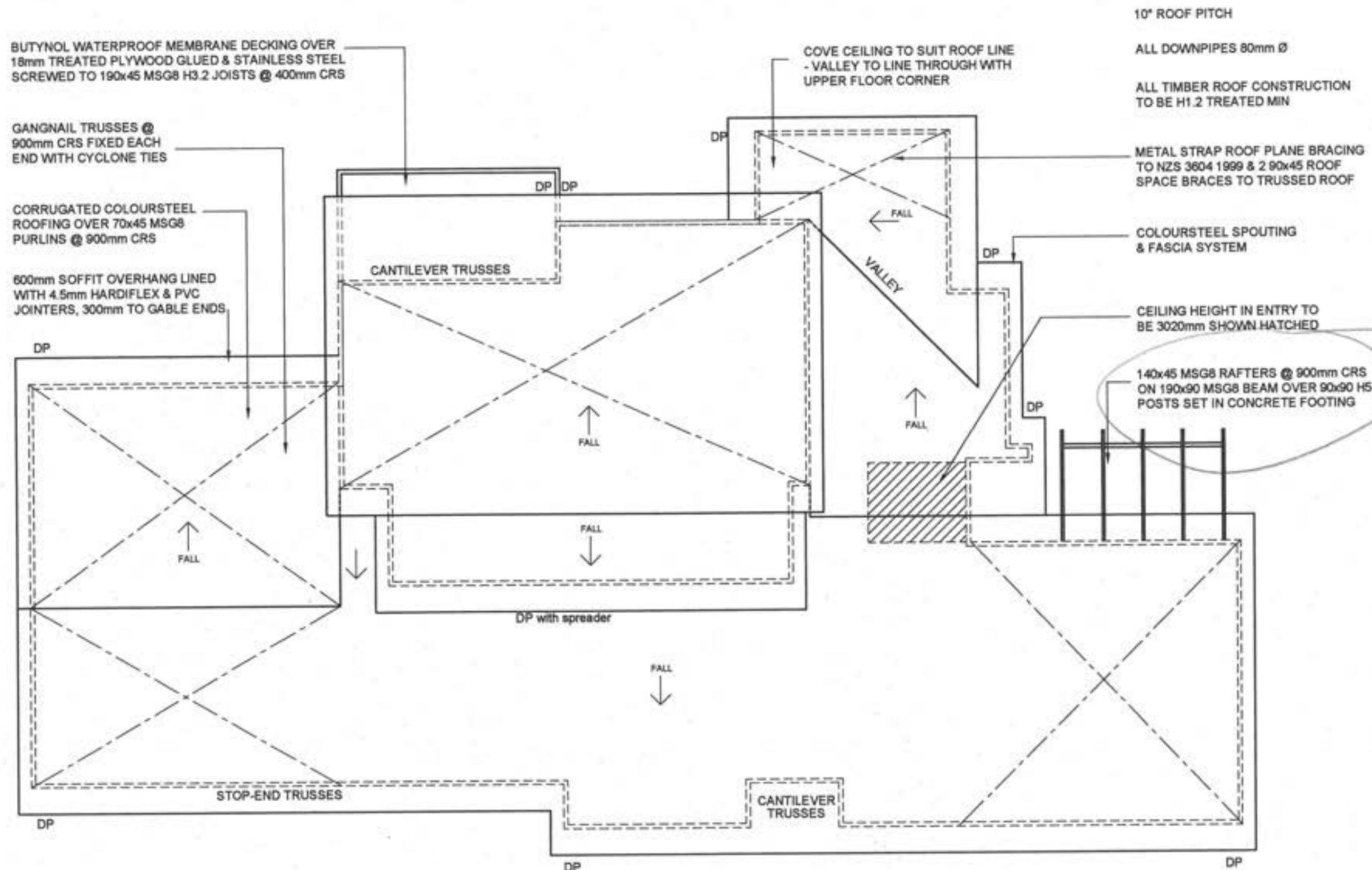
17 Finchem Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: Bill Francis	Drawn: bf
	Scale: as shown

Job: 001	Page of: 7	Rev: A
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All work shall be in accordance with the NZBC. If  
 in doubt ASK  
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 purpose without the prior written consent of  
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Revisions:  
SEPTEMBER '10 rev A



10° ROOF PITCH  
 ALL DOWNPIPES 80mm Ø  
 ALL TIMBER ROOF CONSTRUCTION TO BE H1.2 TREATED MIN  
 METAL STRAP ROOF PLANE BRACING TO NZS 3604 1999 & 2 90x45 ROOF SPACE BRACES TO TRUSSED ROOF  
 COLOURSTEEL SPOUTING & FASCIA SYSTEM  
 CEILING HEIGHT IN ENTRY TO BE 3020mm SHOWN HATCHED  
 140x45 MSG8 RAFTERS @ 900mm CRS ON 190x90 MSG8 BEAM OVER 90x90 H5 POSTS SET IN CONCRETE FOOTING

**NOTES**

**TRUSSES**

WHERE THE BOTTOM CHORD OF A TRUSS CROSSES AN INTERNAL WALL CONTAINING ONE OR MORE WALL BRACING ELEMENTS, THE TRUSS SHALL BE CONNECTED TO THE TOP PLATE OF THE WALL EITHER DIRECTLY OR BY A CEILING BATTEN RUNNING PARALLEL TO THE PLATE AND FIXED TO BOTH THE PLATE AND THE BOTTOM CHORD. AS PER CLAUSE 10.4.1.2 NZS 3604:1999

DO NOT SUPPORT BOTTOM CHORD OF TRUSS AT POINTS OTHER THAN THOSE DESIGNATED BY THE TRUSS MANUFACTURER

TRUSSES TO BE H1.1

VALLEY BOARDS TO BE H3.2 TO NZS 3602:2003

**SOFFITS**

UNFINISHED HARDIES SOFFITS MUST BE PAINTED TO COMPLY WITH NZBC DURABILITY REQUIREMENTS

**SPOUTING**

FRONT EDGE OF SPOUTING TO BE 20mm BELOW TOP EDGE OF FASCIA

**ROOF FRAMING FIXINGS**

TRUSSES  
 FIXINGS FOR A ROOF TRUSS AT ITS SUPPORT SHALL BE AS GIVEN BY THE TRUSS MANUFACTURERS DESIGN BUT SHALL BE NOT LESS THAN:  
 2/100x3.75 SKEWED NAILS & 4 WIRE DOGS

**PURLINS TO TRUSSES**

MAIN  
 2/100x3.75 SKEWED NAILS

PERIPHERY  
 2/100x3.75 SKEWED NAILS & 1 WIRE DOG

SUPPLY COPY OF RELEVANT WARRANTIES FOR ROOFING, MEMBRANE SYSTEMS & FASCIA / GUTTER SYSTEMS AS APPROPRIATE TO COUNCIL

ROOFING MATERIAL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS IN PARTICULAR, FIXING & MINIMUM PITCH (REFERENCE ALSO SECT 8 OF E2 NZ BUILDING CODE)

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**ROOF PLAN**

Designer  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 925 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **8** Rev: **A**

All work shall be in accordance with the NZBC. If in doubt ASK. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

**ROOF PLAN** SCALE 1:100

**NORTH ELEVATION 1**  
SCALE 1:100



WINDOW SILL SUPPORT BRACKETS ARE REQUIRED TO ALL WINDOW OR DOOR UNITS EXTENDING TO FLOOR LEVEL WHEREVER EXTERNAL WALLS INCORPORATE DRAIN CAVITY SYSTEMS

NOTE:  
ALL CLADDINGS, ROOFING & SPOUTING SYSTEMS TO BE MAINTAINED BY OWNER IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS & WARRANTY REQUIREMENTS

ALL JUNCTIONS TO CLADDINGS & OTHER EXTERNAL MOISTURE PROTECTION AREAS TO HAVE CAPILLARY GAPS/BREAKS & INSEALS WHERE RELEVANT, STOPPING WIND DRIVEN OR SURFACE TENSION WATER

CLADDING TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS IN PARTICULAR FIXING & GROUND CLEARANCE.

ALSO REFER TO NZBC, CLAUSE E2/AS1, EXTERNAL MOISTURE FOR CLARITY

TIMBER TREATMENT TO BE IN ACCORDANCE WITH NZS 3602

**WEST ELEVATION 2**  
SCALE 1:100



140x45 MSG8 RAFTERS @ 900mm CRS ON 190x90 MSG8 BEAM OVER 90x90 H5 POSTS SET IN CONCRETE FOOTING

POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

BEVELBACK WEATHERBOARD EXTERIOR CLADDING TO FEATURE WALLS

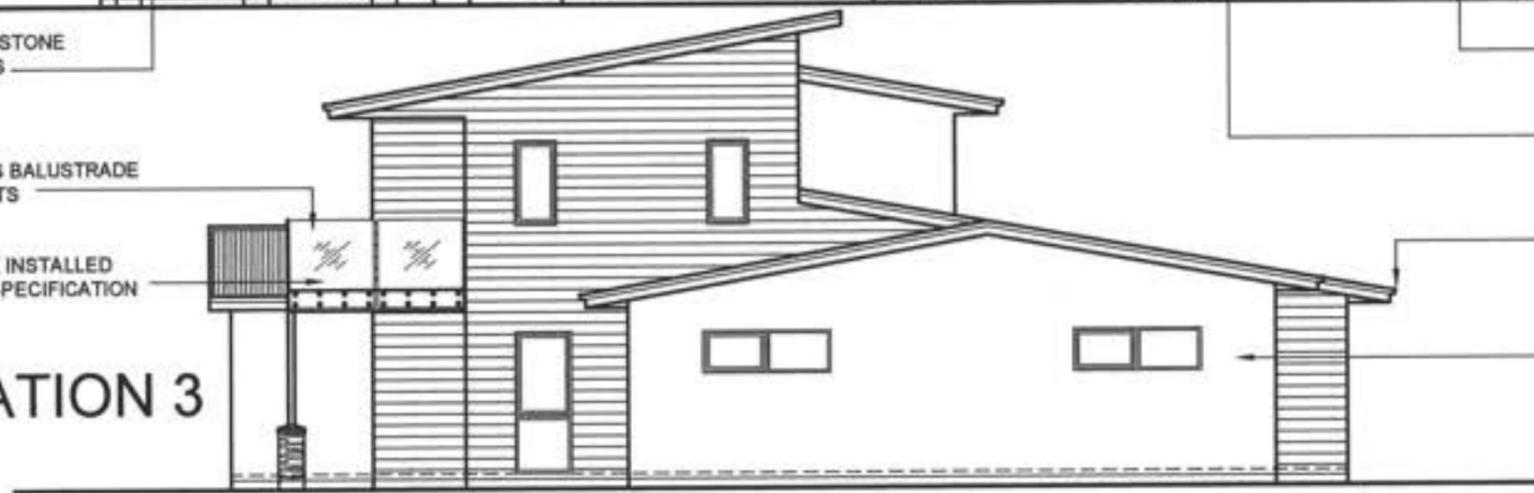
KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDIFLEX & PVC JOINTERS, 300mm OVERHANG TO GABLE ENDS

CORRUGATED COLOURSTEEL ROOFING OVER 70x45 MSG8 PURLINS @ 900mm CRS

**SOUTH ELEVATION 3**  
SCALE 1:100

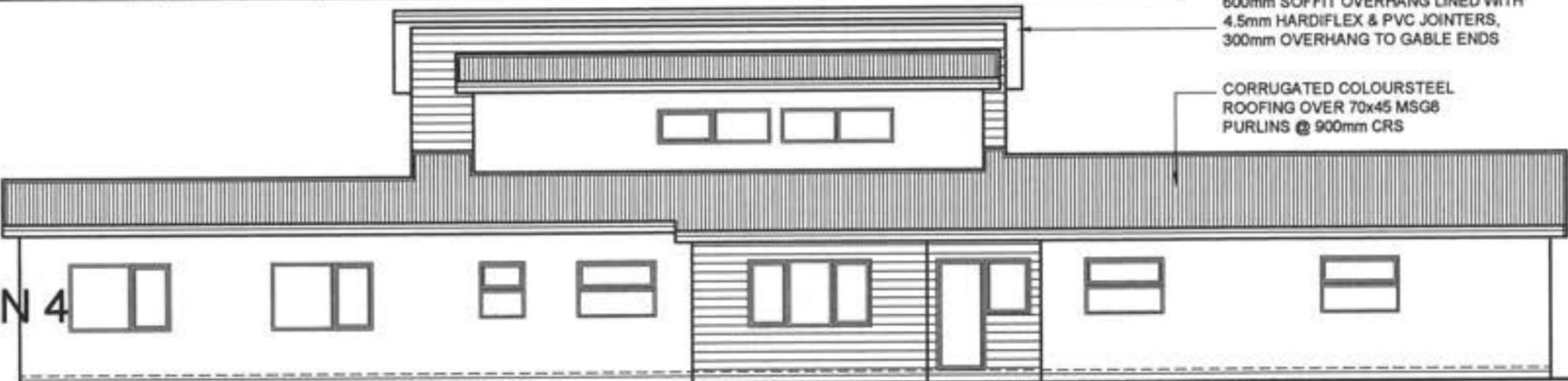


SELECTED 'ELDORADO STONE' BASE TO TIMBER POSTS

1m HIGH SAFETY GLASS BALUSTRADE TO NZBC REQUIREMENTS

BUTYNOL ON PLY DECK INSTALLED TO MANUFACTURERS SPECIFICATION

**EAST ELEVATION 4**  
SCALE 1:100



Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B

Project:  
**NEW DWELLING**  
Client:  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**ELEVATIONS**

Designer:  
**COASTAL ARCHITECTURE LTD.**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **9** Rev: **B**

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**CROSS SECTION NOTES**

- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Also refer to NZBC, clause E2/AS1, external moisture: third edition for clarity
- Direct fix cladding systems, fit head flashing and proprietary sill tray to external joinery and sill. Fit airseals to inner edge of joinery reveals (refer to details)
- All junctions to claddings and other external moisture protection areas, to have capillary gaps/breaks and in seal where relevant, stopping wind driven or surface tension water

CORRUGATED COLOURSTEEL ROOFING OVER 70x45 MSG8 PURLINS @ 900mm CRS

INSULATION:  
R3.2 BATTS TO CEILINGS  
R2.2 BATTS TO EXTERIOR WALLS

70x35 VSG8 CEILING BATTENS @ 400mm CRS TO TRUSSES

90x45 MSG8 FRAMING @ 600mm CRS LINED WITH 10mm GIB

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

165x300mm DEEP CONCRETE FOOTING WITH 2 D12 RODS & R6 TIES @ 600mm CRS

25mpa 100mm CONCRETE SLAB WITH 665 REINFORCING MESH ON DPM & SAND ON COMPACTED HARDFILL TO SUIT

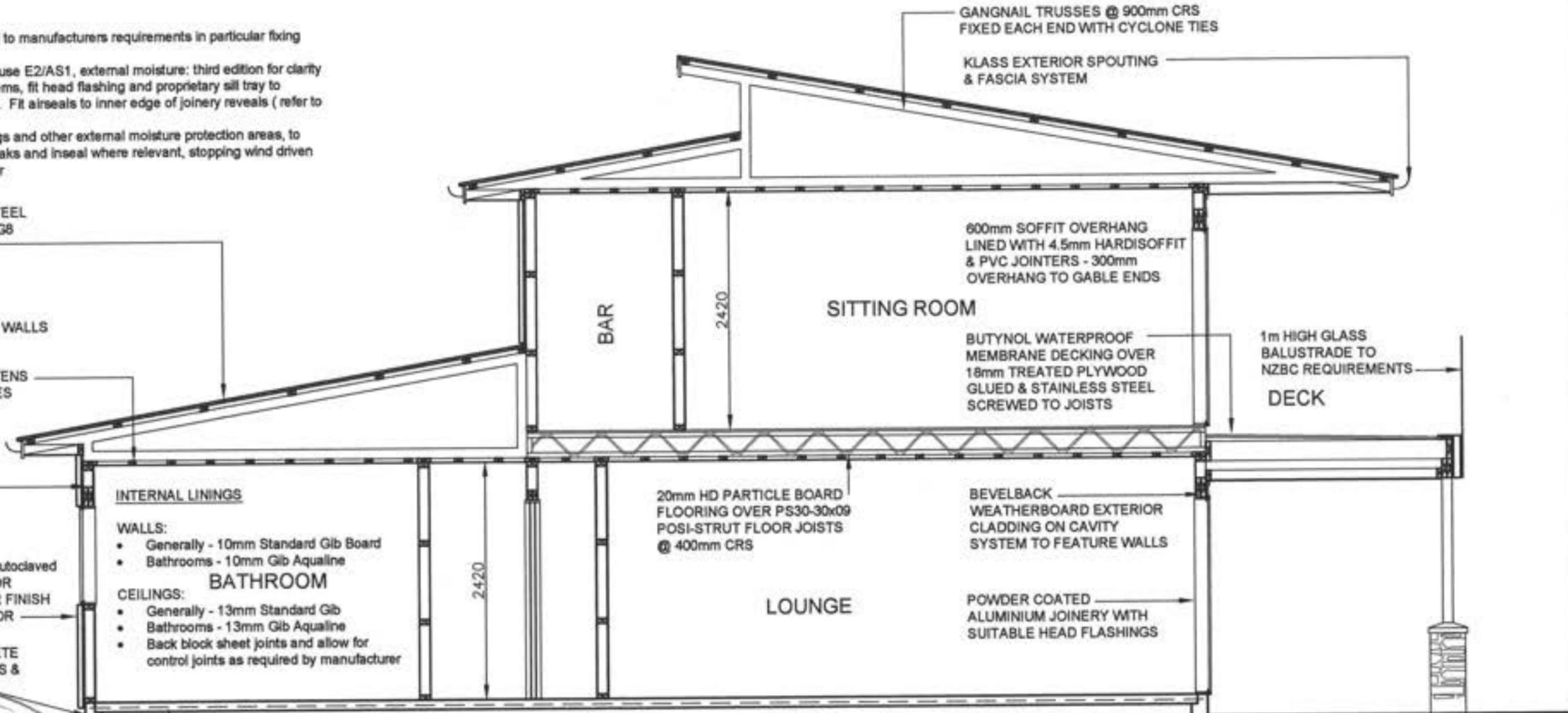
GANGNAIL TRUSSES @ 900mm CRS FIXED EACH END WITH CYCLONE TIES

600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDISOFFIT & PVC JOINTERS - 300mm OVERHANG TO GABLE ENDS

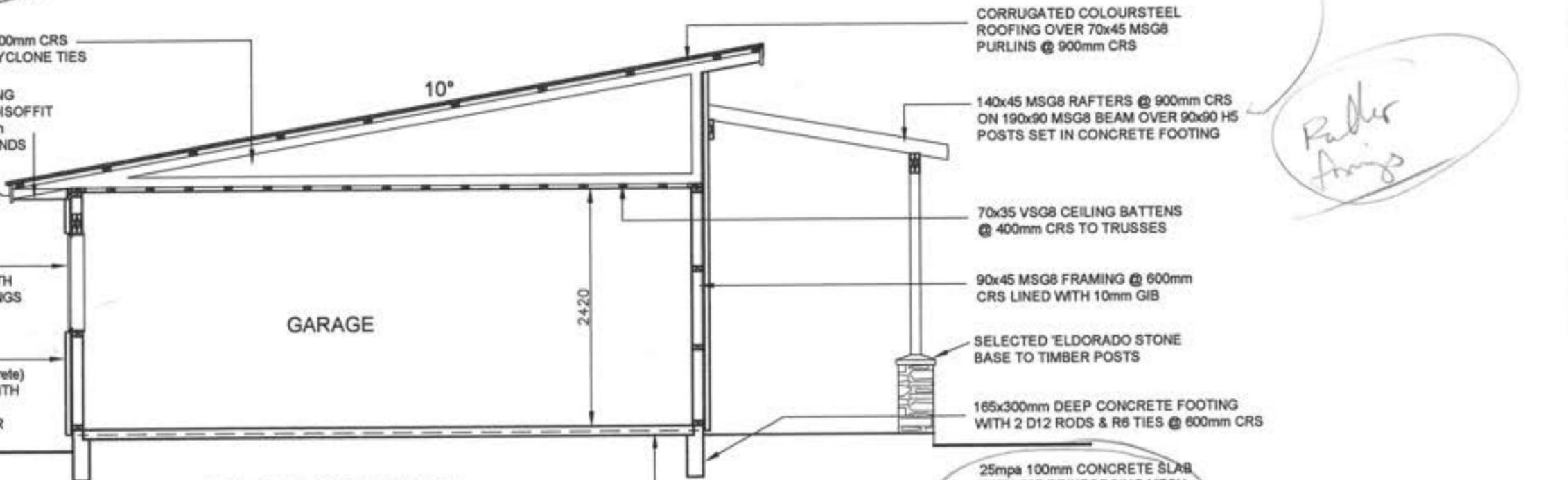
KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR



**SECTION AA** SCALE 1:50



**SECTION BB** SCALE 1:50

Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B

Project:  
**NEW DWELLING**  
Client:  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**SECTIONS**

Designer:

**COASTAL**  
ARCHITECTURE LTD  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bill@franchiseparadise.net.nz

Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **10** Rev: **B**

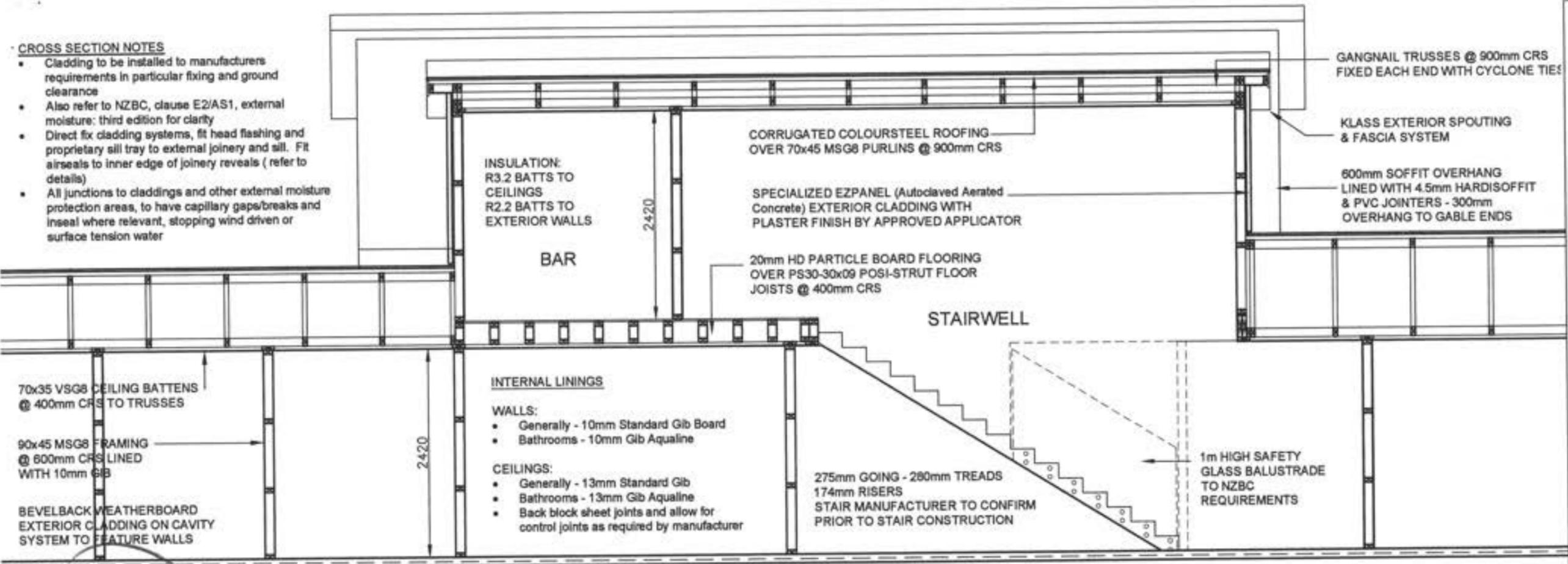
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*Radler Aris*

**CROSS SECTION NOTES**

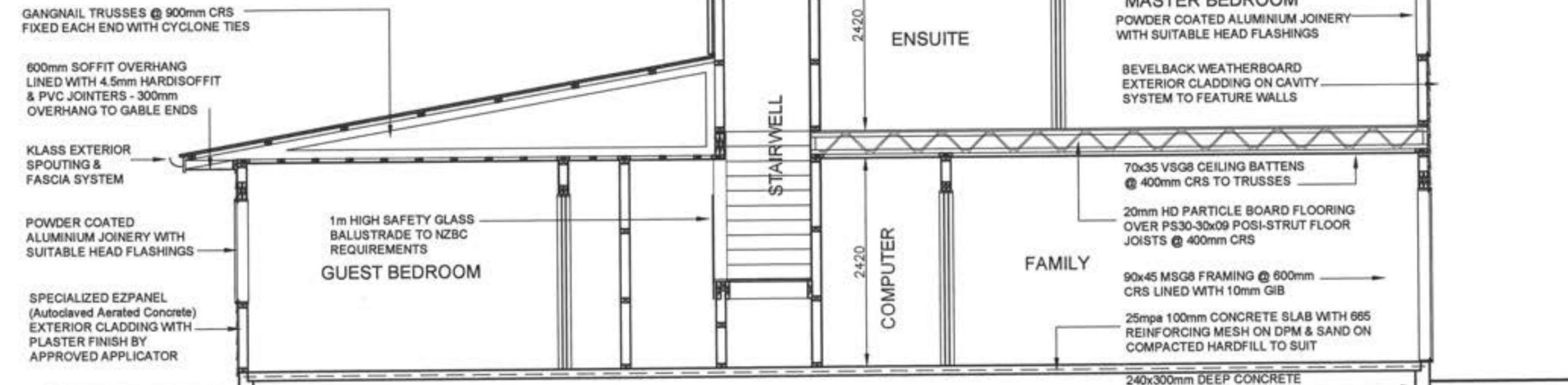
- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Also refer to NZBC, clause E2/AS1, external moisture: third edition for clarity
- Direct fix cladding systems, fit head flashing and proprietary sill tray to external joinery and sill. Fit airseals to inner edge of joinery reveals (refer to details)
- All junctions to claddings and other external moisture protection areas, to have capillary gaps/breaks and in seal where relevant, stopping wind driven or surface tension water

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B



**SECTION CC** SCALE 1:50

25mpa 100mm CONCRETE SLAB WITH 685 REINFORCING MESH ON DPM & SAND ON COMPACTED HARDFILL TO SUIT



**SECTION DD** SCALE 1:50

Project:  
**NEW DWELLING**  
 Client:  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**SECTIONS**

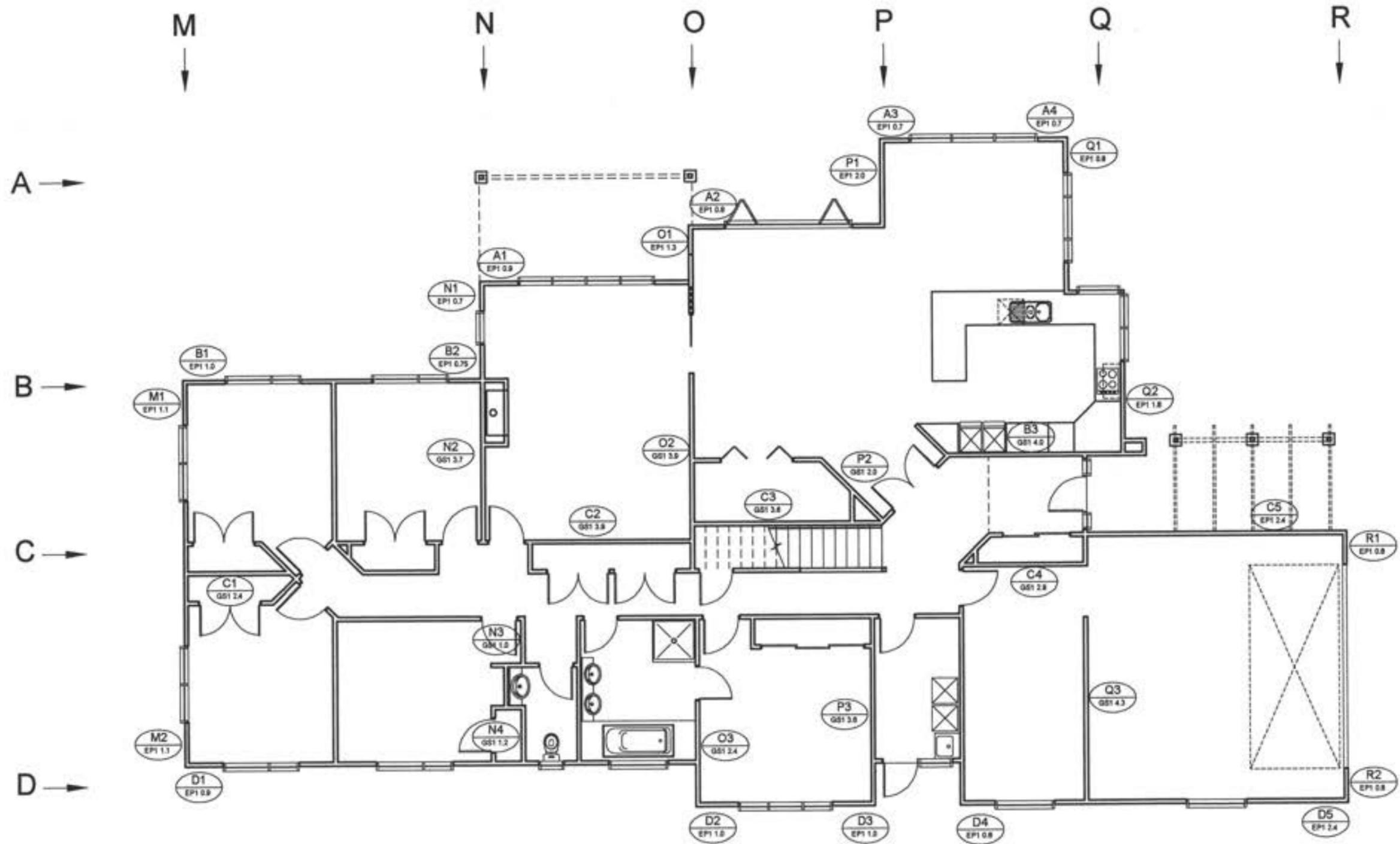
Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **11** Rev: **B**

All work shall be in accordance with the NZBC. If in doubt ASK. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

Revisions  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B



**ALL PLY BRACES MUST BE REBATED INTO FRAMING BY PRENAIL MANUFACTURER**

**NOTES:**

- THIS SITE IS A MEDIUM WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3604 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTEGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PRENAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR. ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BU'S UNDER.

**LOWER BRACING PLAN**

SCALE 1:100

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**LOWER BRACING PLAN**

Designer  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **12** Rev: **B**

All work shall be in accordance with the NZBC. If in doubt ASK  
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ELECTRICAL LEGEND			
⊕	External lighting point	▼	Permanent Point
◆	Recessed Downlight	tv	Television Point
■	Halogen	ph	Telephone Point
⊙	Ceiling Light / Extract Fan	tr	Heated Towel Rail
— —	Fluorescent tube	od	Auto Garage Door Opener
⌋	Power Point (2 denotes double)	SB	Switch Board
*	Smoke detector	MB	Meter Board

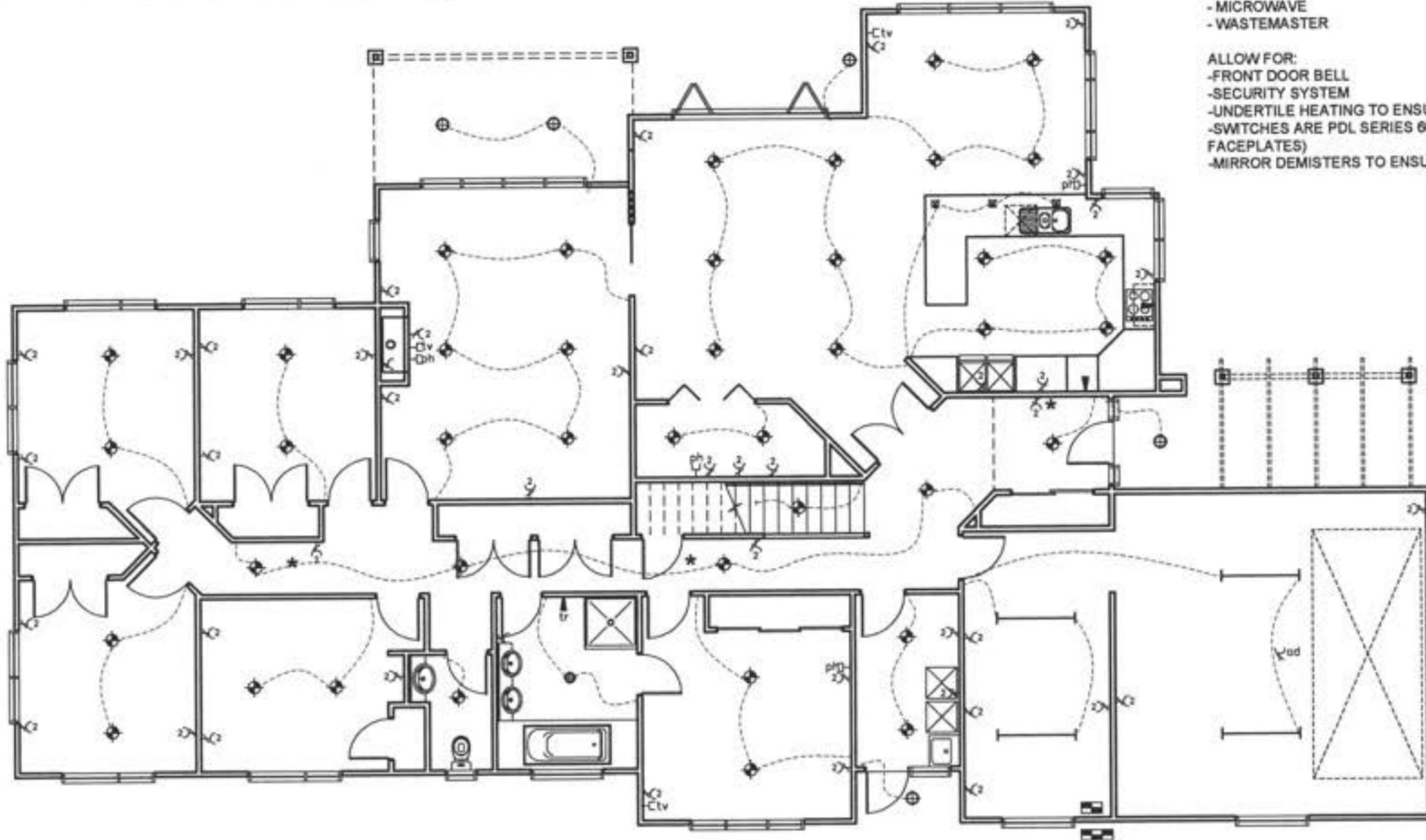
**ELECTRICAL**

RECESSED DOWNLIGHTS (IF USED) SHALL BE INSTALLED TO PREVENT TRANSFER OF MOISTURE INTO CEILING SPACE & MAINTAIN MIN CLEARANCE FROM INSULATION AS REQUIRED BY NZECP 54:2001

PROVIDE ELECTRICAL CERTIFICATE AFTER COMPLETION & PRIOR TO CODE COMPLIANCE CERTIFICATE BEING ISSUED

NOTE: ALLOW FOR POWER SUPPLY TO KITCHEN APPLIANCES  
 - DISHWASHER  
 - RANGEHOOD  
 - MICROWAVE  
 - WASTEMASTER

ALLOW FOR:  
 - FRONT DOOR BELL  
 - SECURITY SYSTEM  
 - UNDERTILE HEATING TO ENSUITE & BATHROOM  
 - SWITCHES ARE PDL SERIES 6000 (WHITE FACEPLATES)  
 - MIRROR DEMISTERS TO ENSUITE & BATHROOM



Project:  
**NEW DWELLING**  
 Client:  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER ELECTRICAL PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Finchem Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

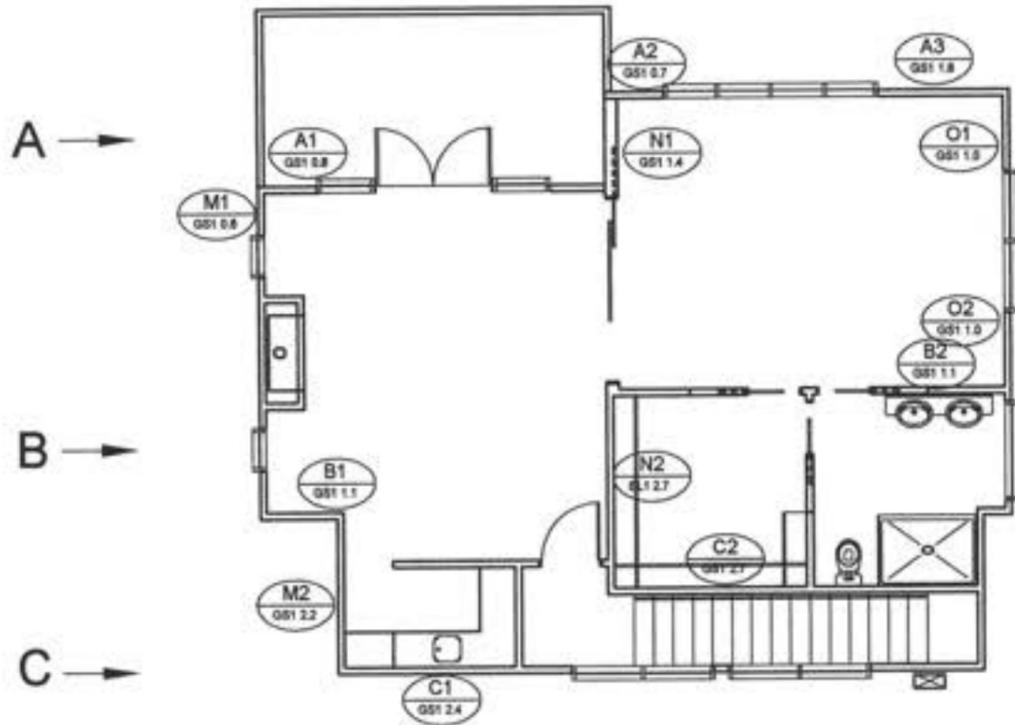
Design: Bill Francis	Drawn: bf
	Scale: as shown

Job: 001	Page of: 13	Rev: B
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All work shall be in accordance with the NZBC. If in doubt ASE  
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M                      N                      O

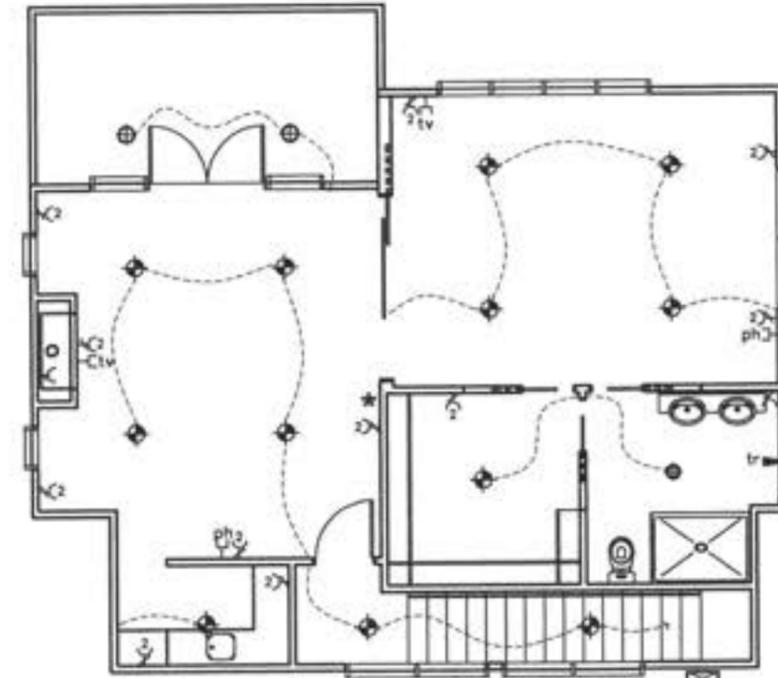
↓                              ↓                              ↓



**NOTES:**

- THIS SITE IS A MEDIUM WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3604 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTEGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PRENAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR. ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BU'S UNDER.

**UPPER BRACING PLAN**  
SCALE 1:100



ELECTRICAL LEGEND			
⊕	External lighting point	▼	Permanent Point
⊙	Recessed Downlight	tv	Television Point
■	Halogen	ph	Telephone Point
⊙	Ceiling Light / Extract Fan	tr	Heated Towel Rail
— —	Fluorescent tube	g.d	Auto Garage Door Opener
⌋	Power Point (2 denotes double)	SB	Switch Board
★	Smoke detector	MB	Meter Board

**UPPER ELECTRICAL PLAN**  
SCALE 1:100

Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B

Project:  
**NEW DWELLING**  
Client:  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

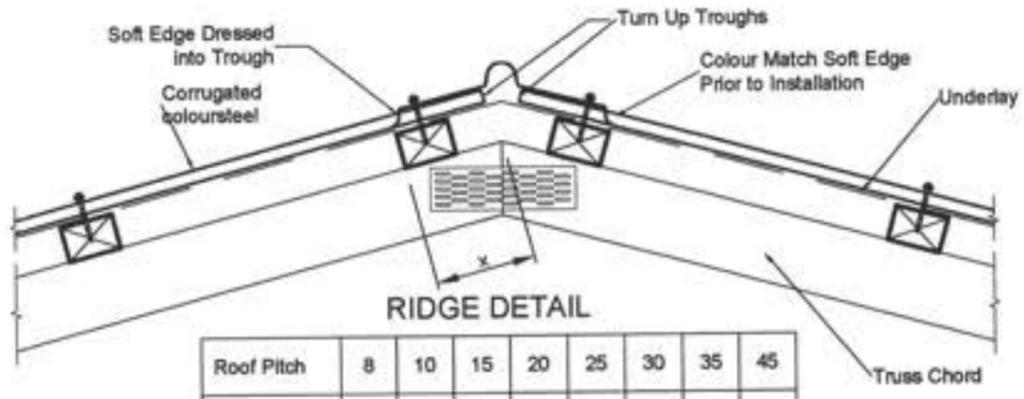
Drawing Title:  
**UPPER BRACING & ELECTRICAL PLANS**  
Designer:

**COASTAL**  
ARCHITECTURE LTD  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**      Drawn: **bf**  
Scale: **as shown**

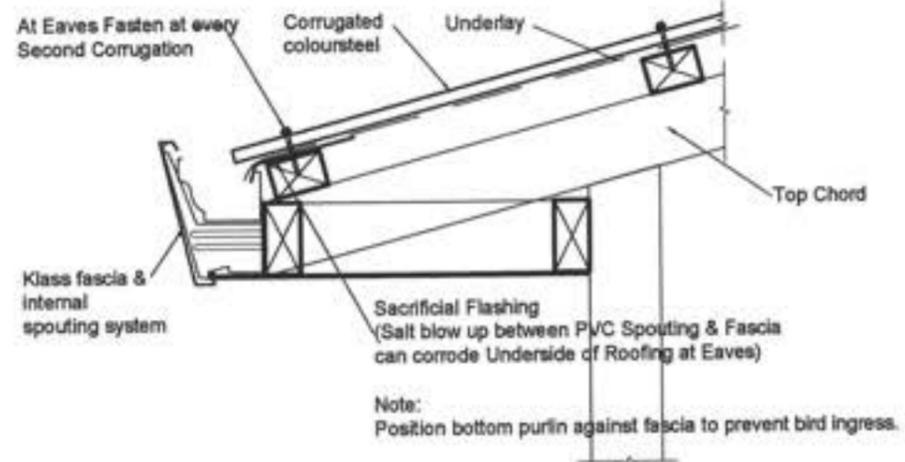
Job: **001**      Page of: **14**      Rev: **B**

All work shall be in accordance with the NZBC. If in doubt ASX.  
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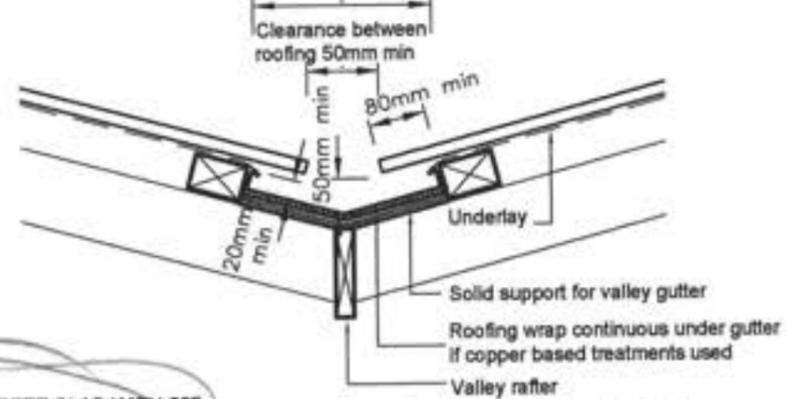
Roof Pitch	8	10	15	20	25	30	35	45
Dimension x	168	167	162	156	150	143	134	115

For Standard Ridge using ex 50mm Purlins on Flat

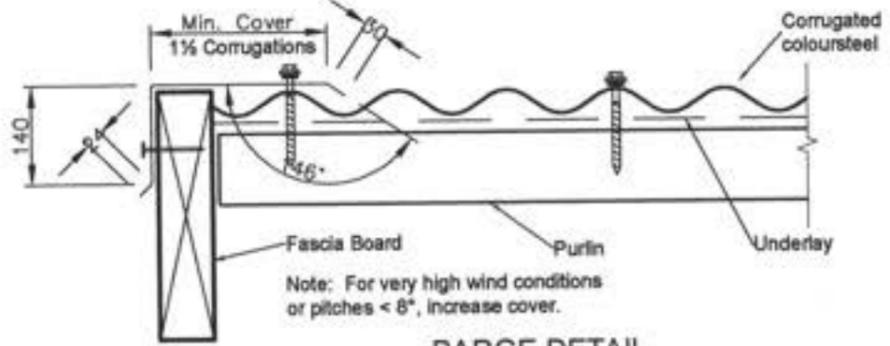


**SOFFIT DETAIL**

Overall valley gutter width 250mm min

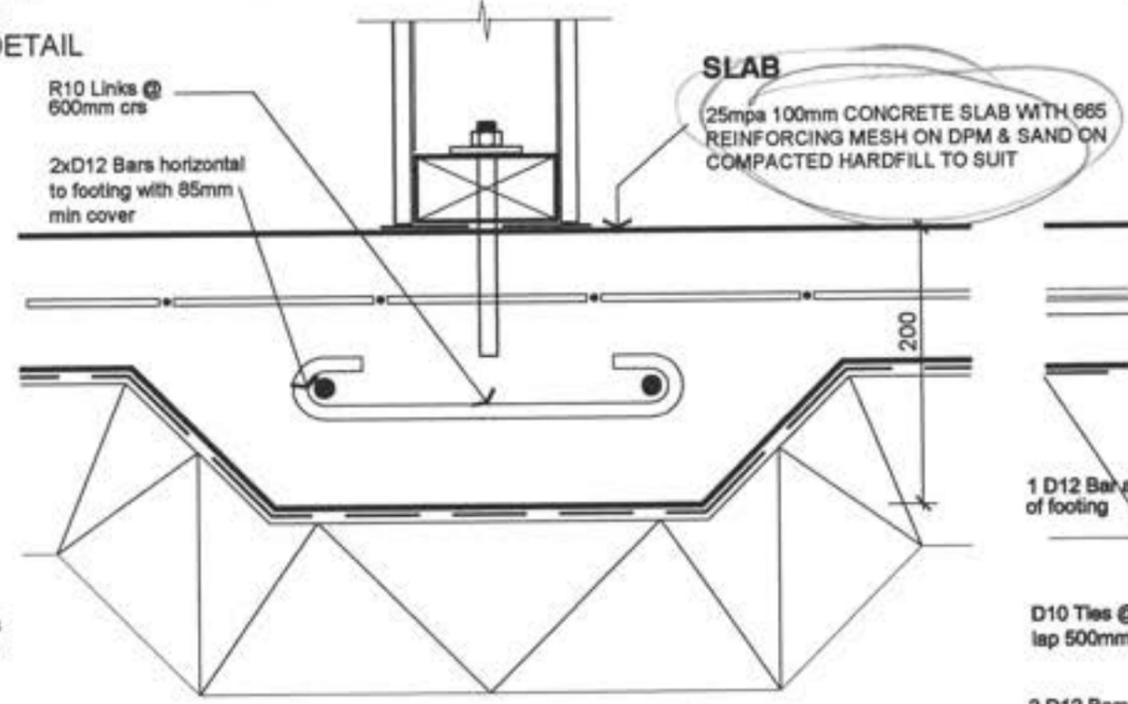


**VALLEY GUTTER DETAIL**

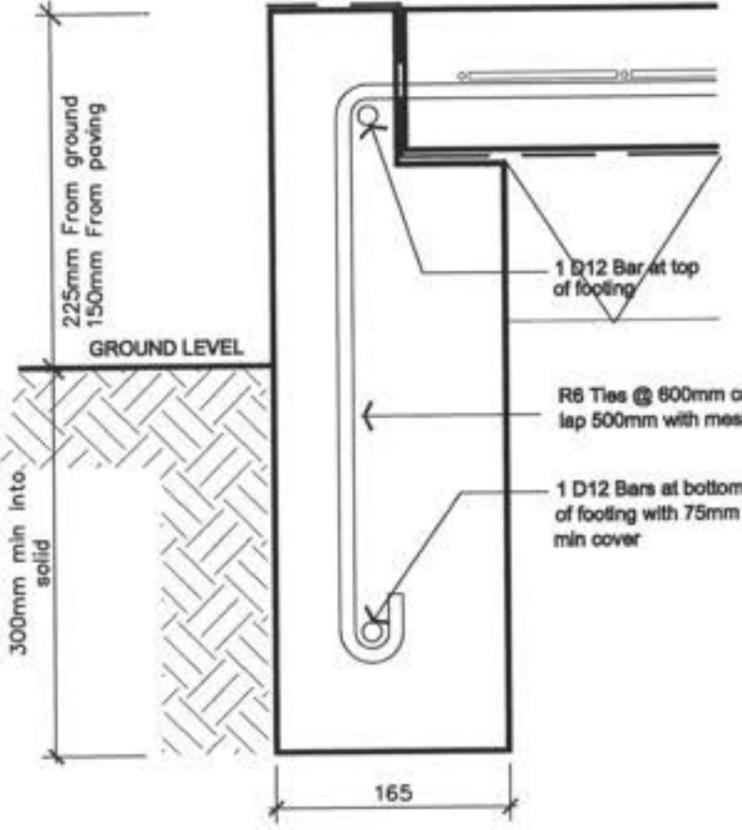


**BARGE DETAIL**

Note: For very high wind conditions or pitches < 8°, increase cover.



**SLAB**



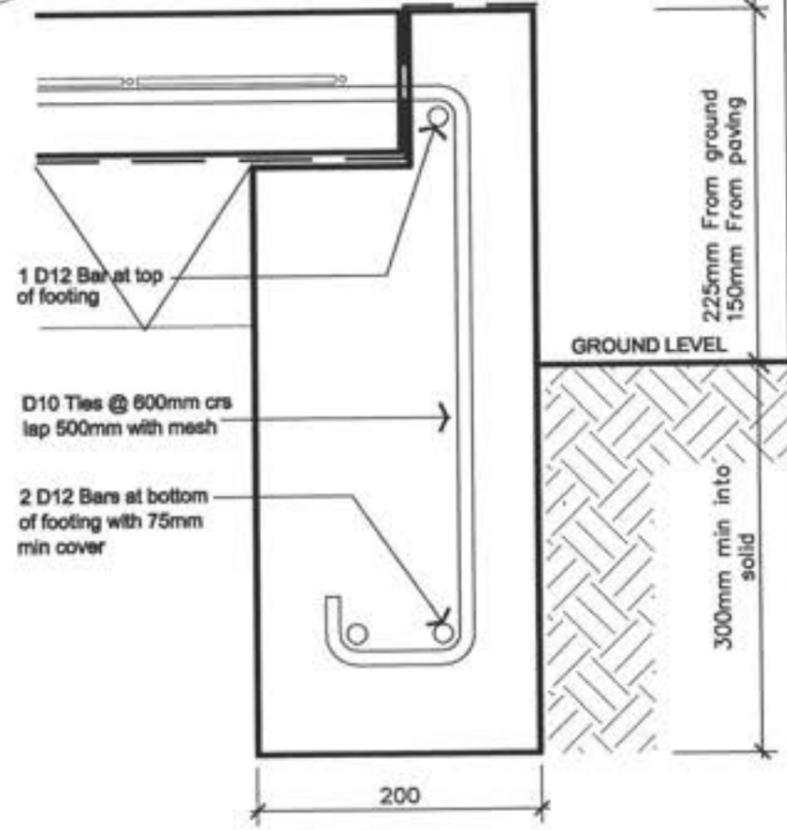
**FOOTING DETAIL SCALE 1:5.**



**GROUND BEAM SCALE 1:5.**

BOTTOM PLATE FIXING:  
APPROVED ANCHORS FIXED TO  
MANUFACTURERS SPECIFIC INSTRUCTIONS

CONCRETE FOOTING  
STRENGTH - 25mpa



**FOOTING DETAIL SCALE 1:5.**

Project  
**NEW DWELLING**  
Client  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**DETAILS**

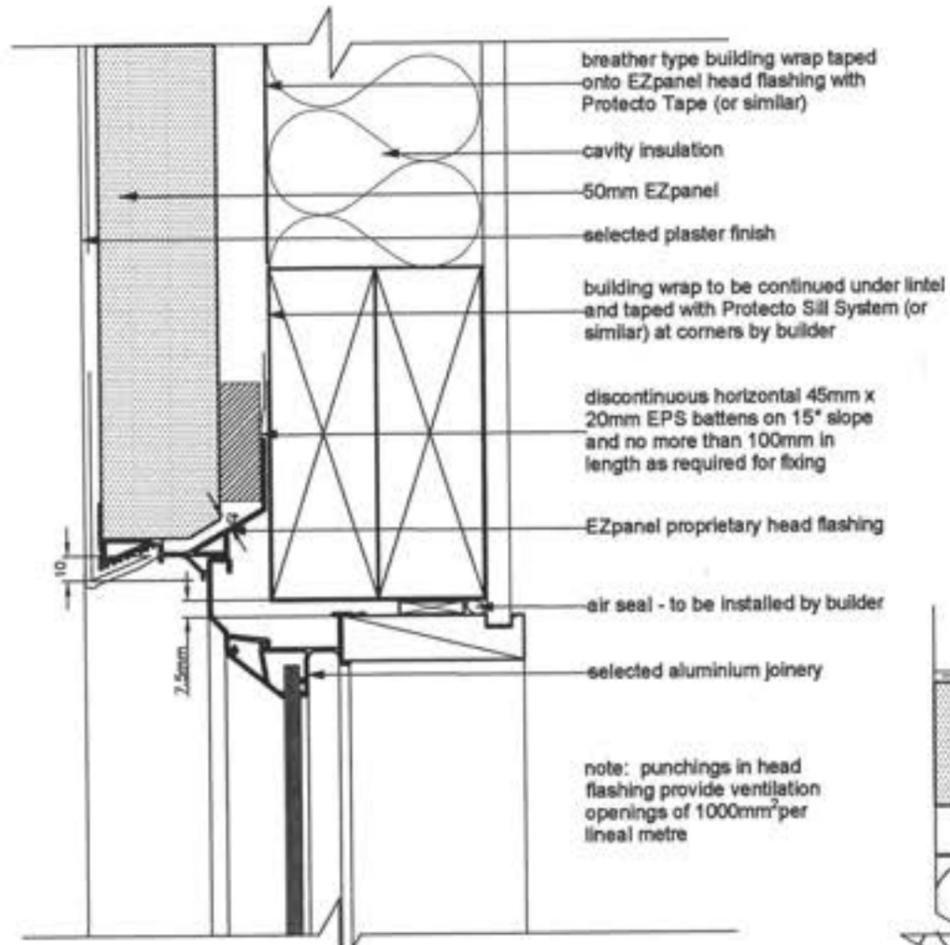
Designer:

**COASTAL**  
ARCHITECTURE LTD  
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Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: btlfranco@paradise.net.nz

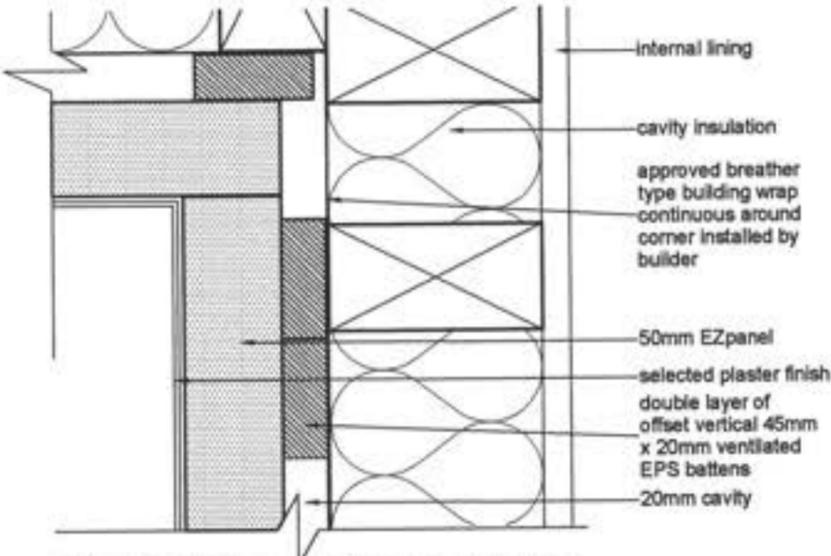
Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **15** Rev: **A**

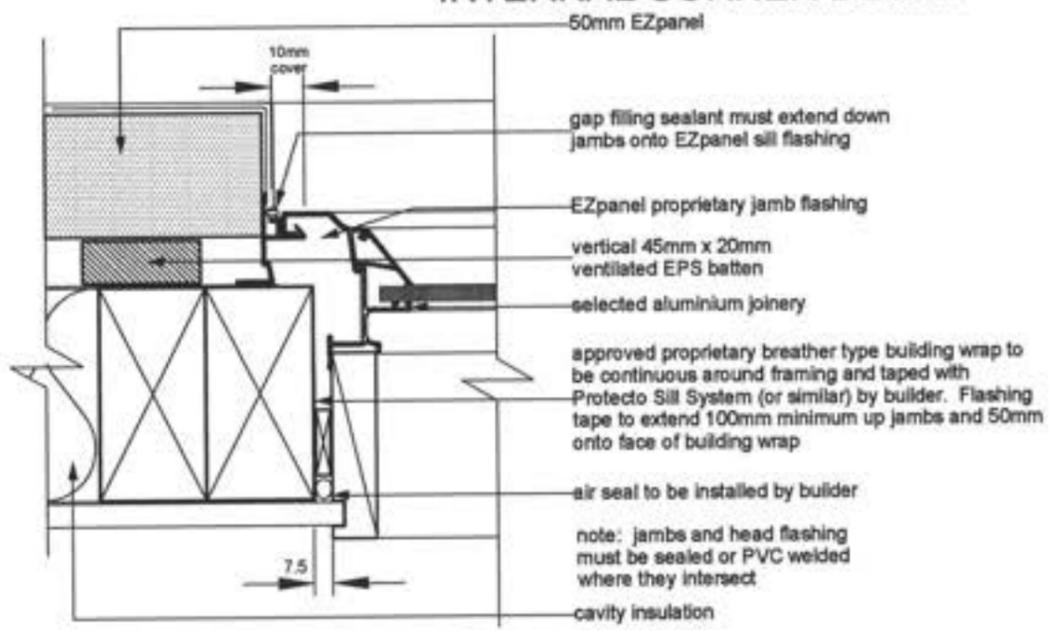
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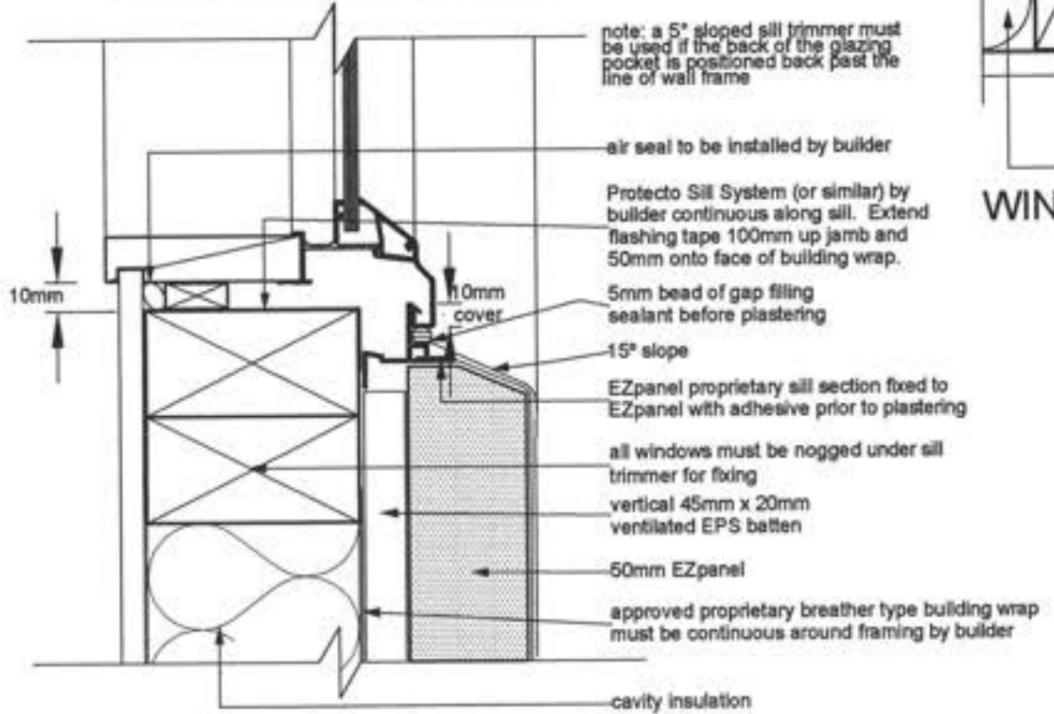
WINDOW HEAD DETAIL



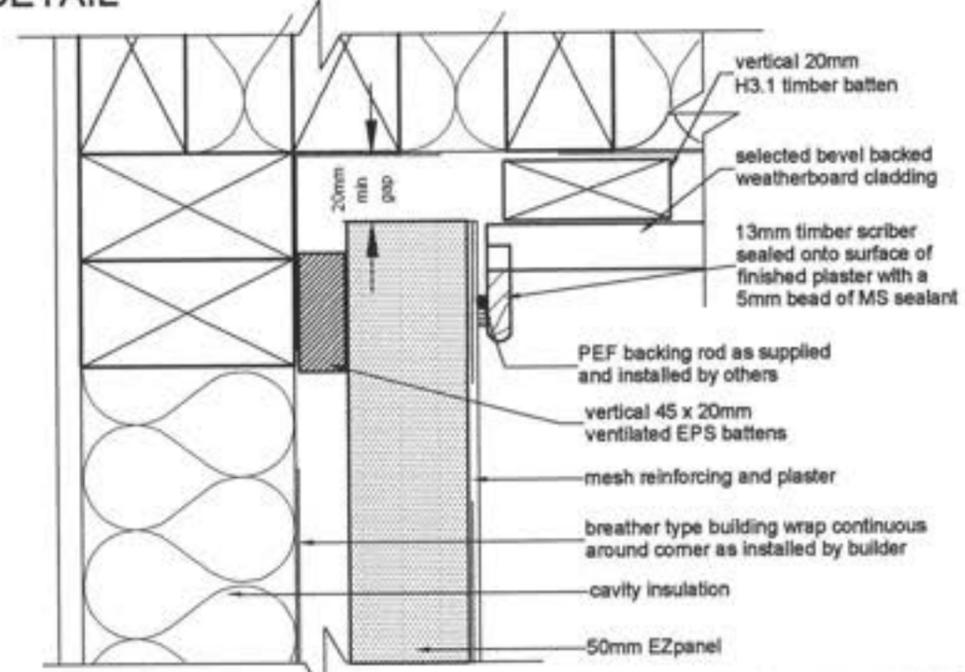
INTERNAL CORNER DETAIL



WINDOW JAMB DETAIL



WINDOW SILL DETAIL



INTERNAL CORNER WITH WEATHERBOARD DETAIL

Revisions:  
SEPTEMBER '10 rev A

Project:  
**NEW DWELLING**  
Client:  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

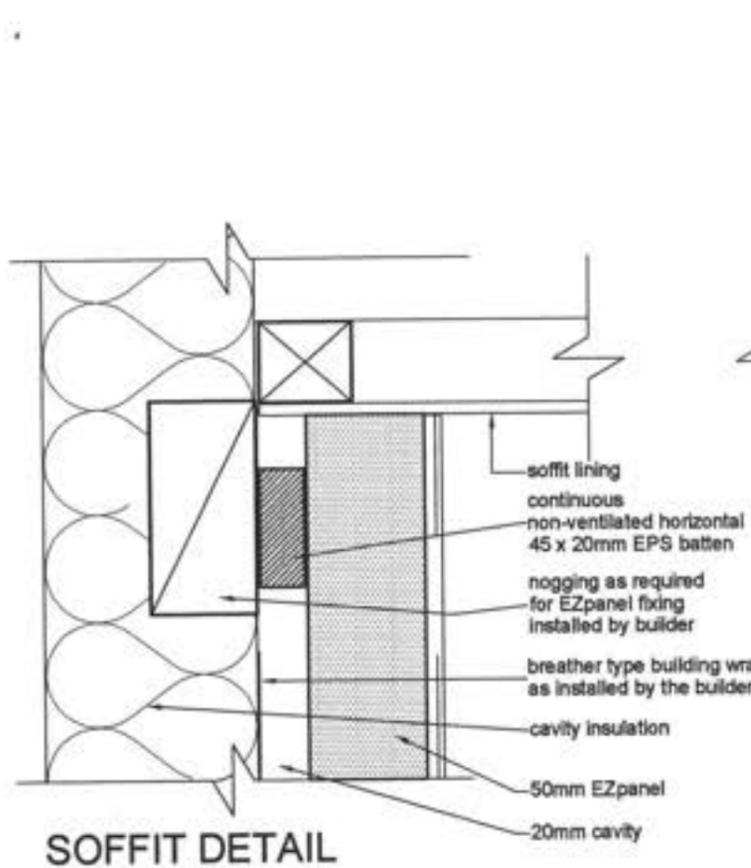
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bilfrancis@paradise.net.nz

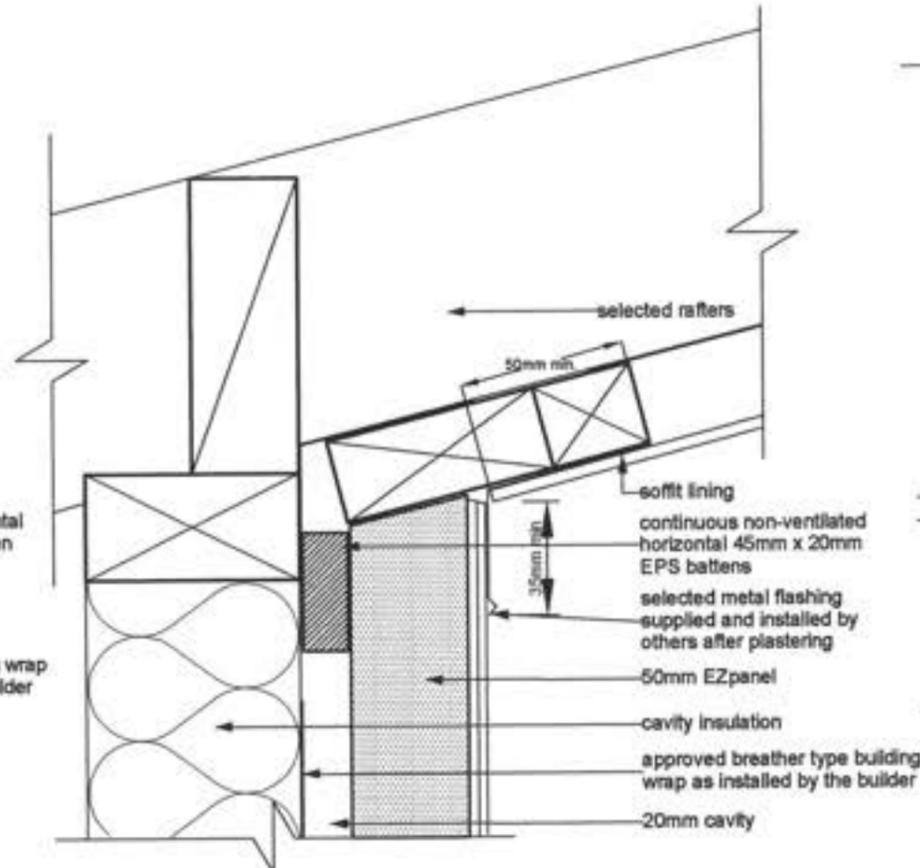
Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **16** Rev: **A**

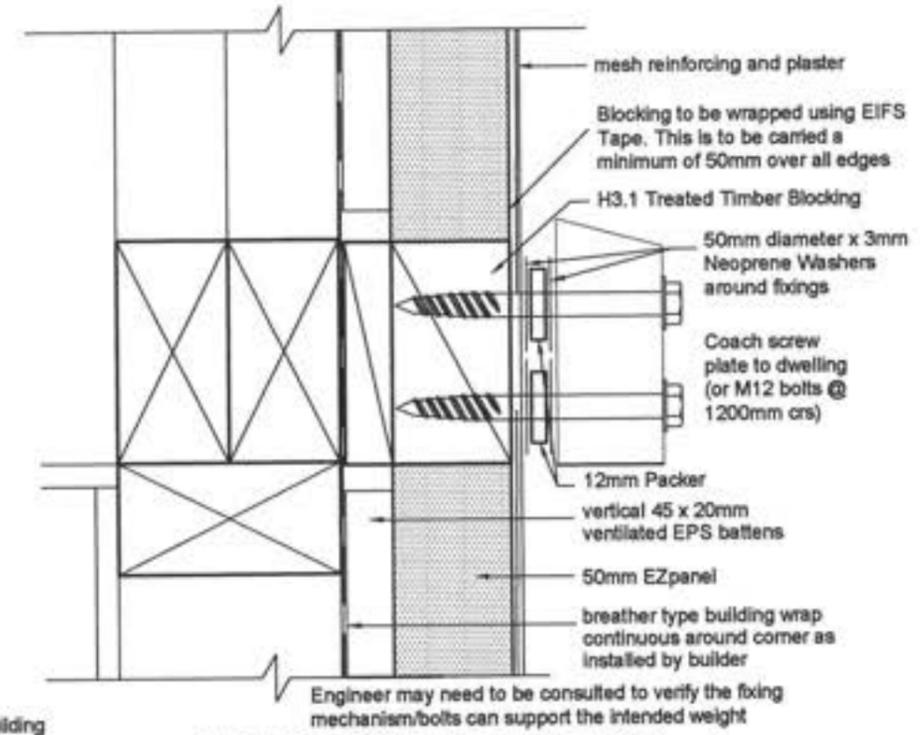
All work shall be in accordance with the NZBC. If in doubt ASX.  
The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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SOFFIT DETAIL

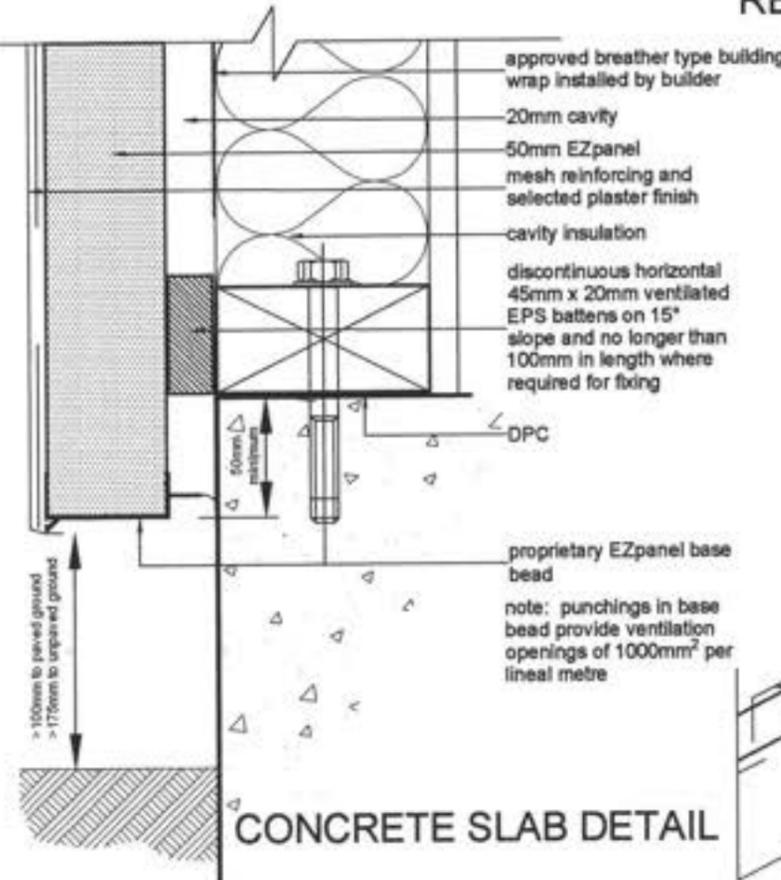


REVERSE RAKING SOFFIT METAL FLASHING DETAIL

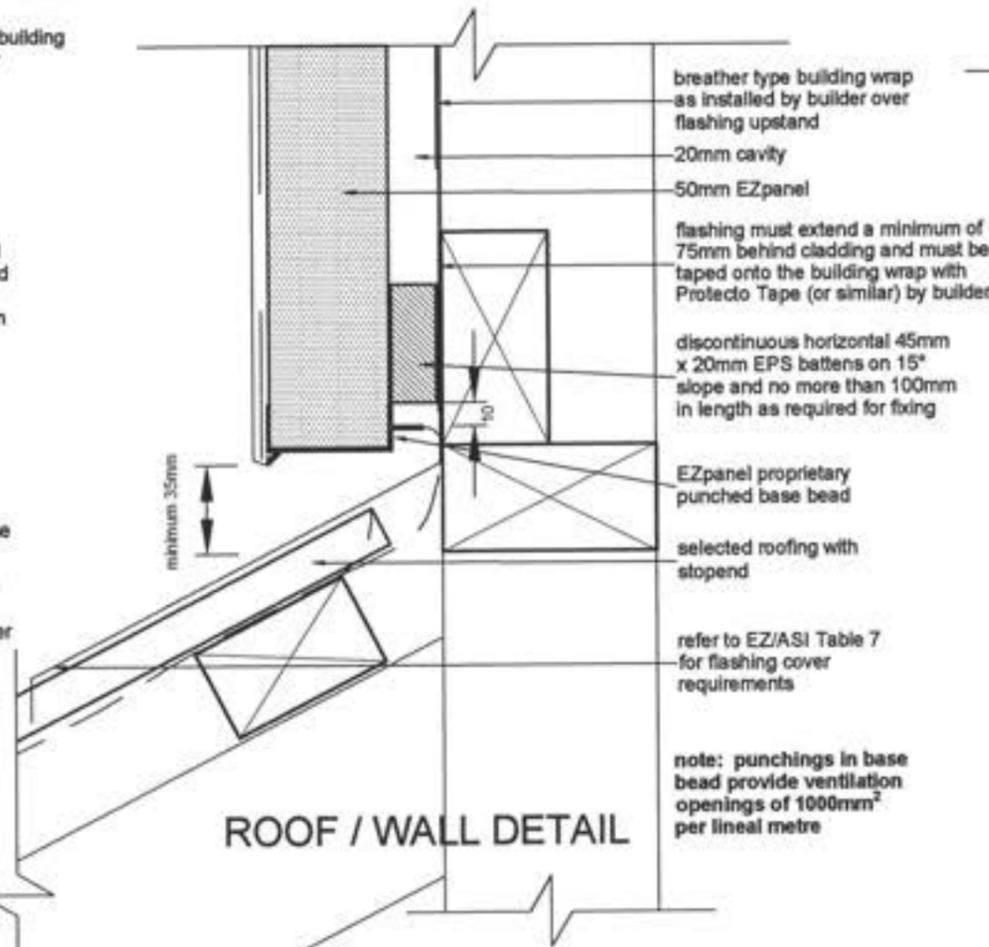


BLOCK FIXING FOR PERGOLA  
RAFTER SUPPORT DETAIL

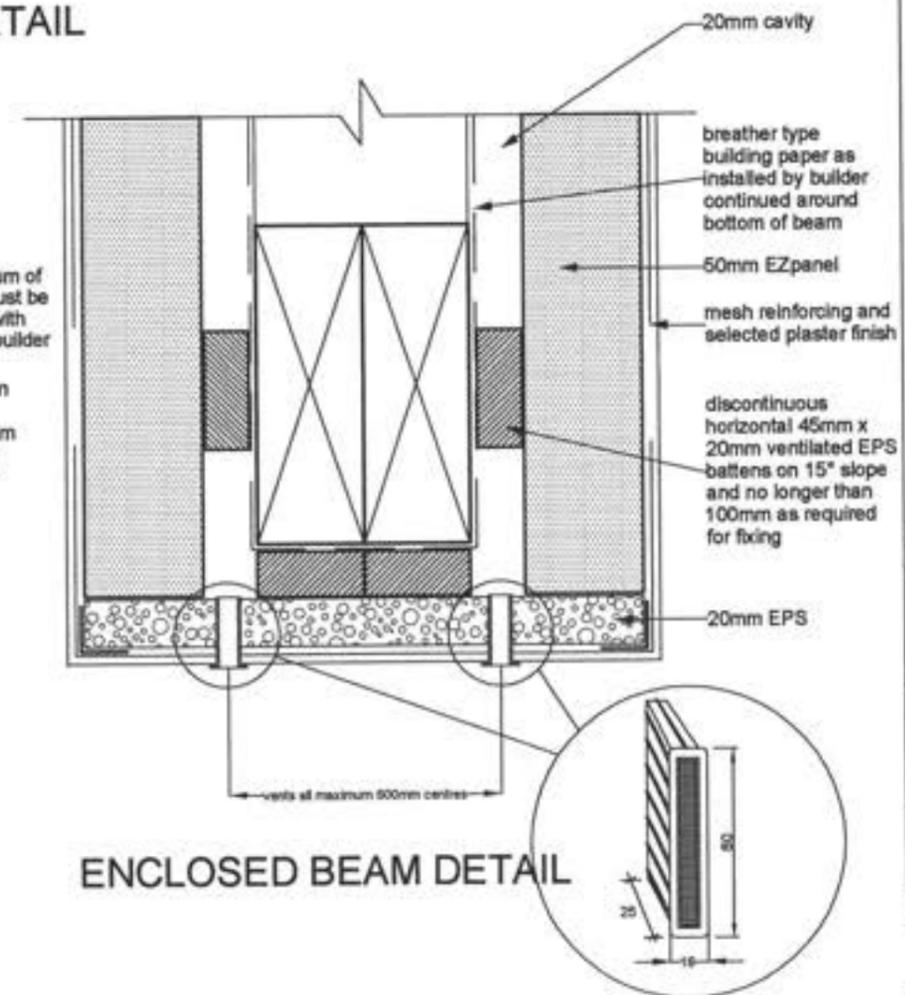
Engineer may need to be consulted to verify the fixing mechanism/bolts can support the intended weight



CONCRETE SLAB DETAIL



ROOF / WALL DETAIL



ENCLOSED BEAM DETAIL

Project  
**NEW DWELLING**  
Client  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

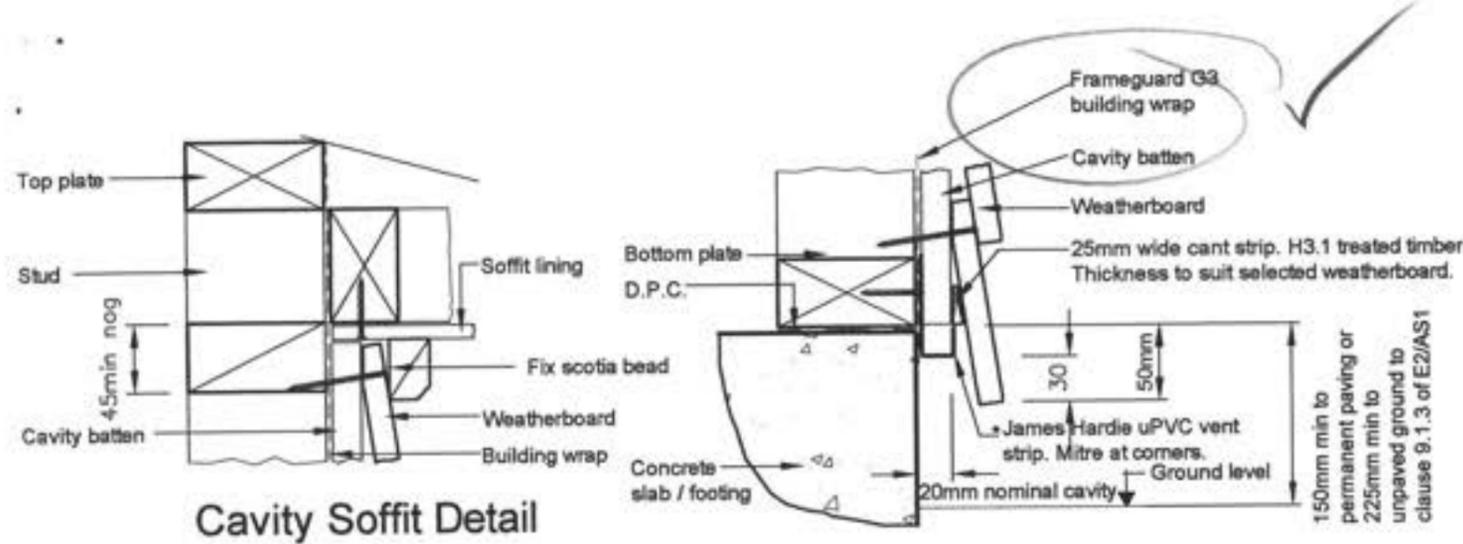
Drawing Title  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
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New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

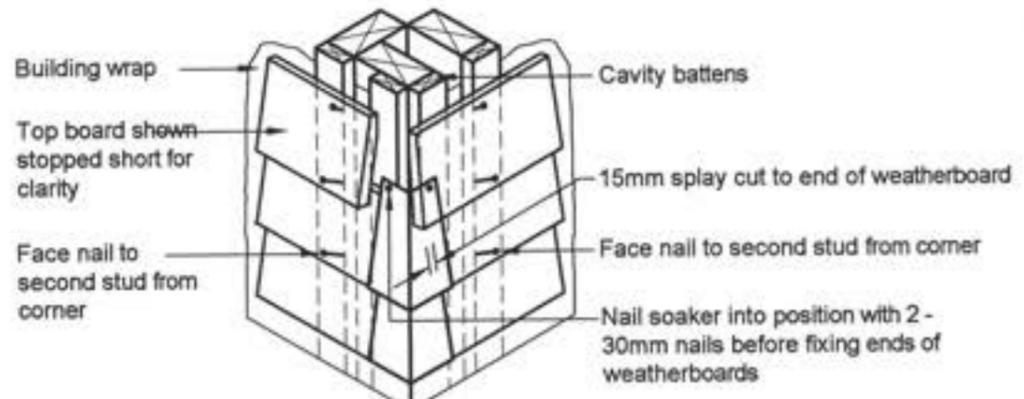
Job: **001** Page of: **17** Rev: **A**

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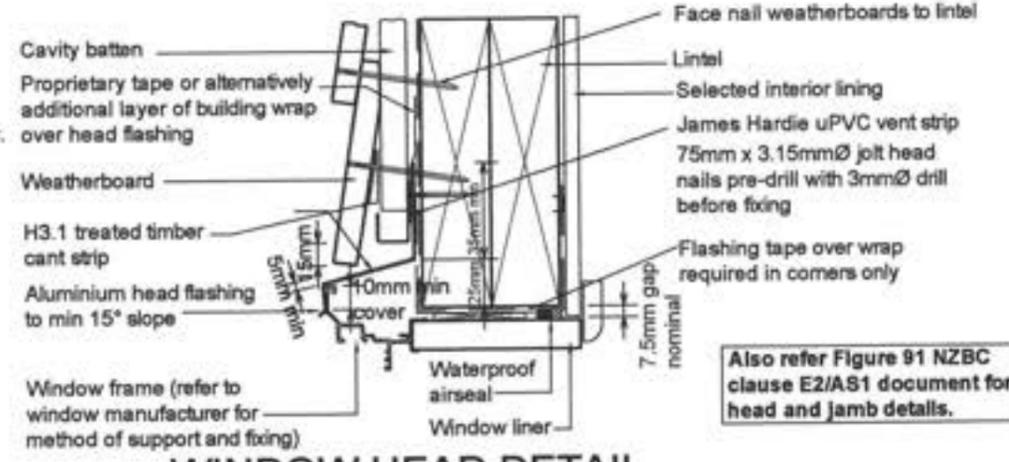
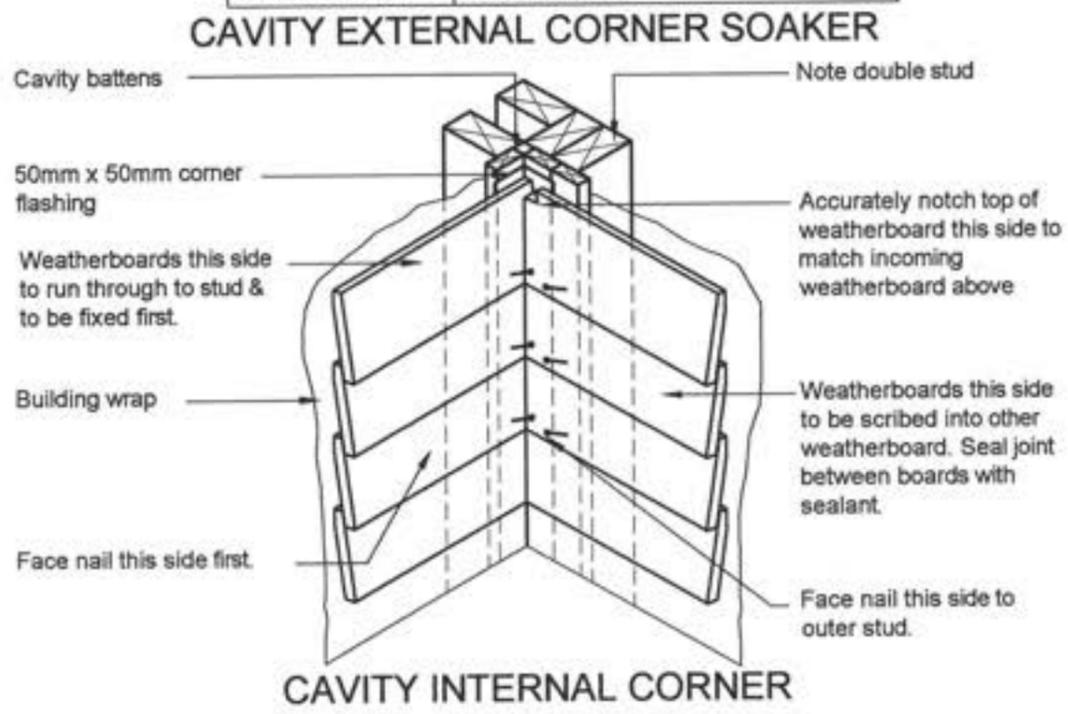


\*Drain holes in James Hardie uPVC vent strip are sufficient to achieve ventilation openings of 1000mm<sup>2</sup> per lineal metre

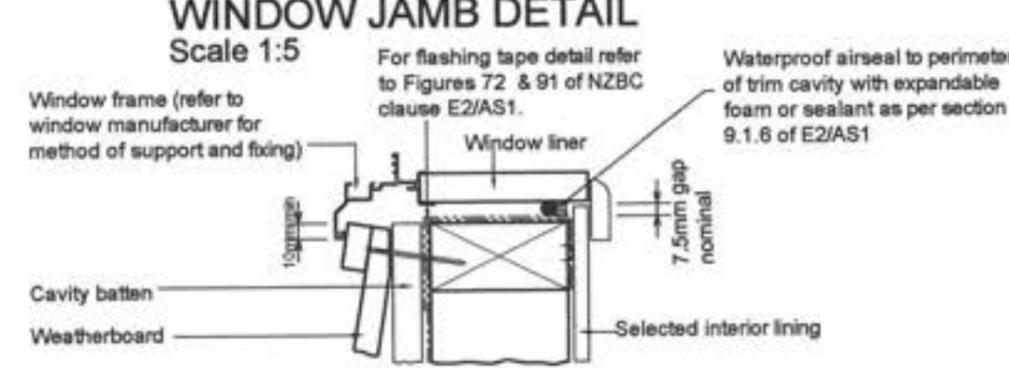
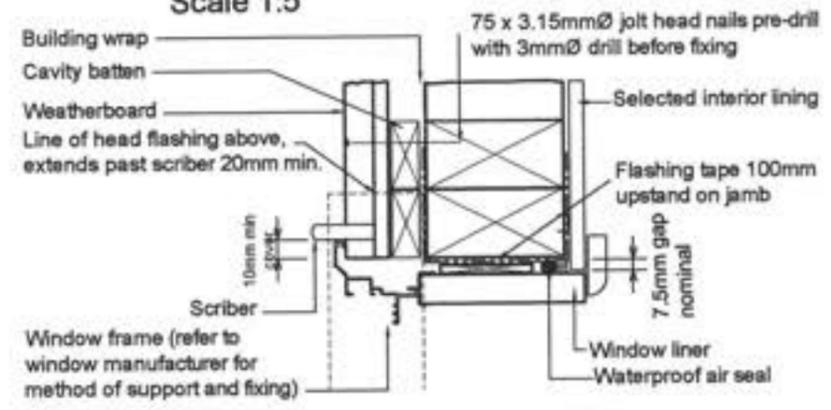
**Cavity Foundation Detail**



Soaker material	Nail material
Copper	Copper or phosphor bronze
Aluminium	Hot dip galvanised / Stainless steel
Stainless steel	Stainless steel



Also refer Figure 91 NZBC clause E2/AS1 document for head and jamb details.



**General notes for materials section**

- Flashing materials must be selected based on environmental exposure, refer to NZS 3604 and Table 20 of NZBC clause E2/AS1.
- Building wrap must comply with acceptable solution NZBC clause E2/AS1 and NZS 3604.
- Flashing tape must have proven compatibility with the selected building wrap and other materials with which it comes into contact as per Table 21 of NZBC clause E2/AS1.

Refer to the manufacturer or supplier for technical information for these materials

**LINEA NOTES:**

- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Frameguard G3 building wrap with AluBand window sealing systems to be installed to manufacturers specifications and in accordance to NZBC E2/AS1
- Exposed Metal flashings to be colorsteel and colour matched to the cladding final colour. Metal flashings to comply with the durability requirements of Section 4 NZS 3604 & Table 20 NZBC E2/AS1
- Sealants to be colour matched to the coatings. Use manufacturer approved sealants only.
- Windows to be installed with WANZ sill flashings and support brackets as necessary
- Refer to James Hardie technical specifications for additional information
- Ensure all cut edges are sealed with approved and compatible sealant before installing
- Linea to be painted colours to comply with James Hardie Specifications

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

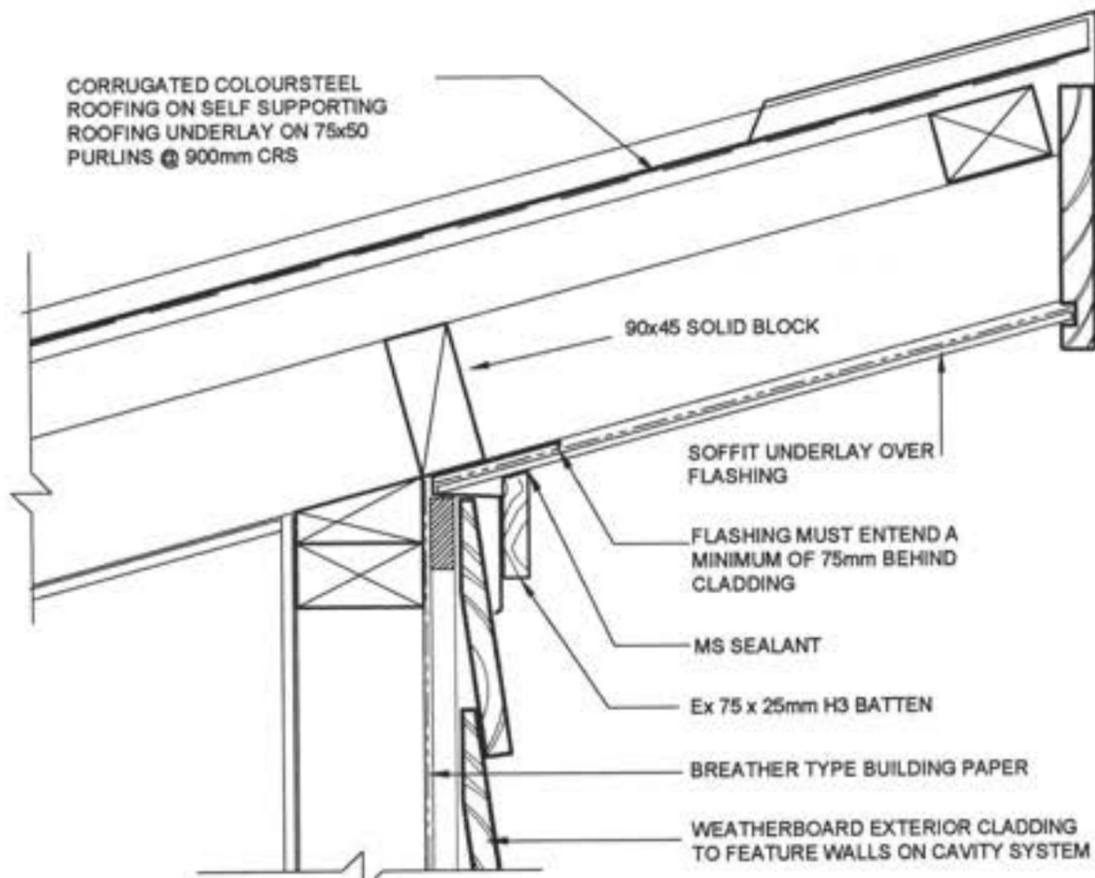
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

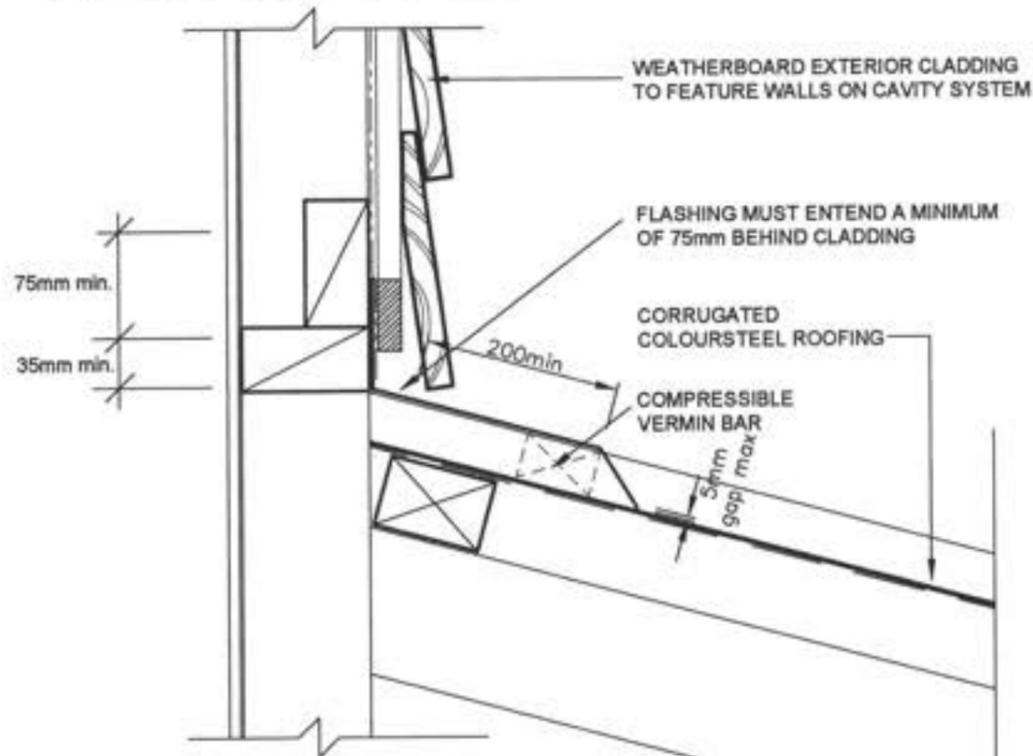
Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **18** Rev: **A**

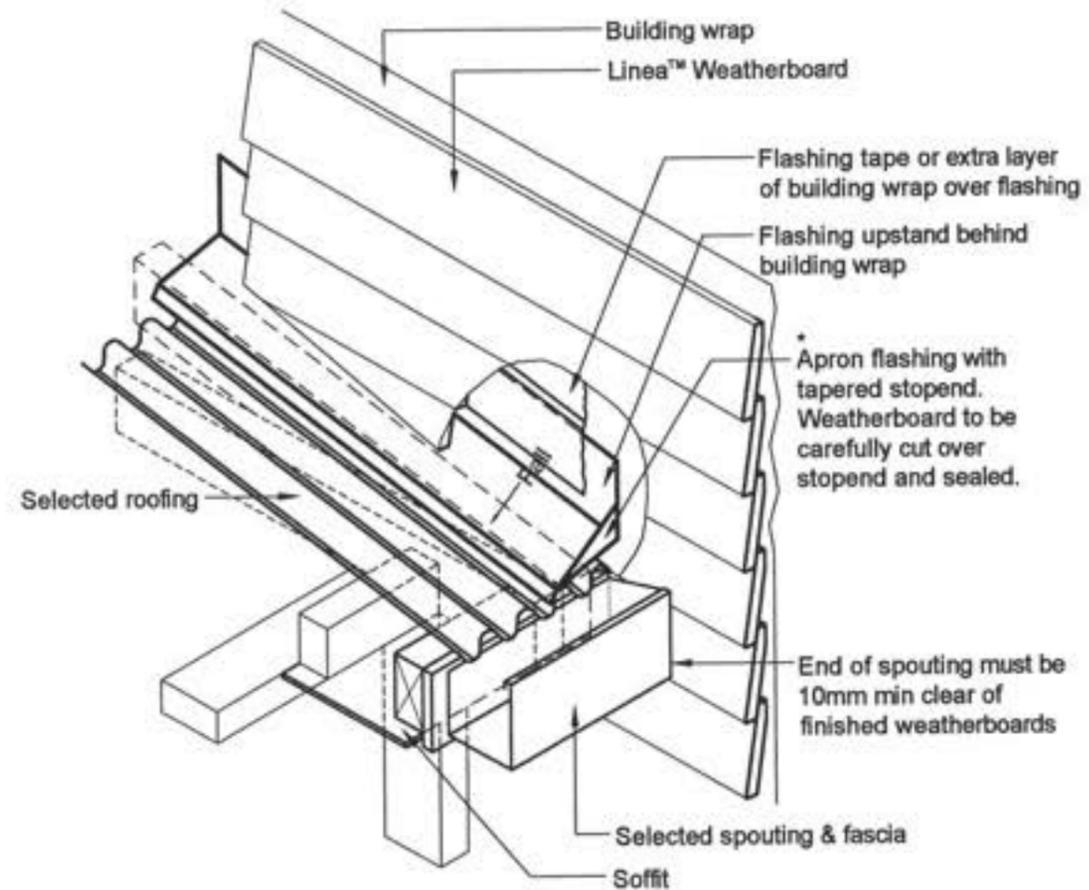
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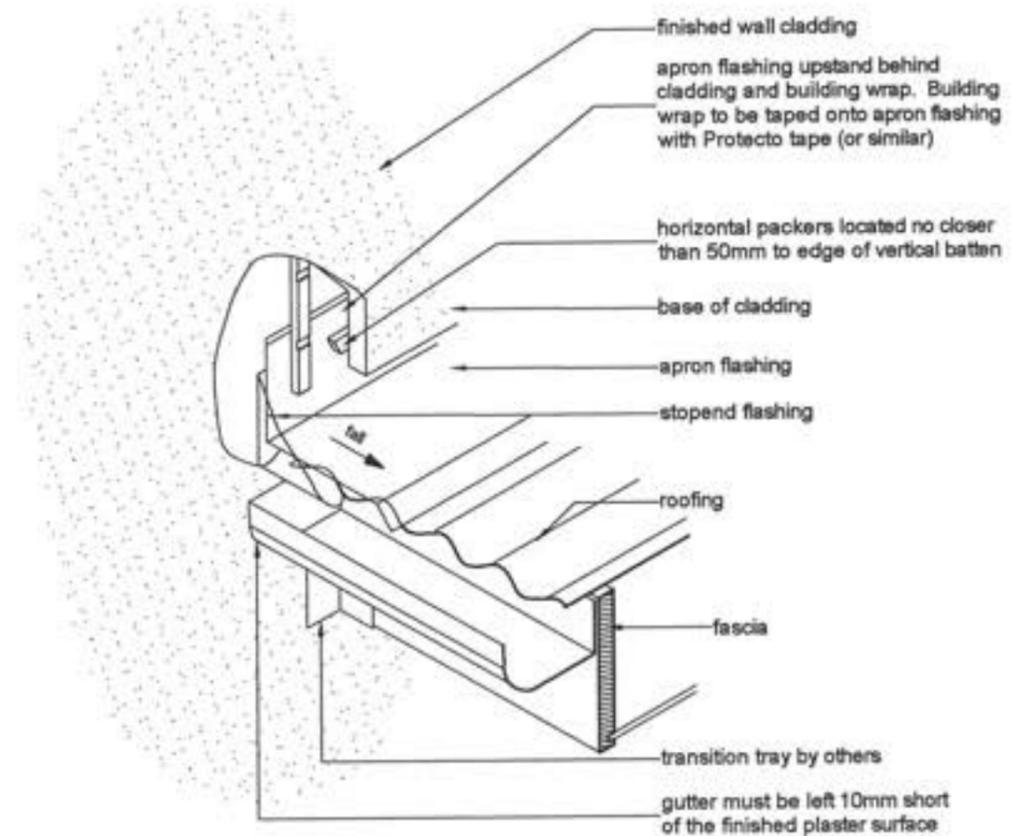
REVERSE SOFFIT DETAIL SCALE 1:5



APRON FLASHING DETAIL SCALE 1:5



\* When 50 year durability for flashing is required refer Table 20 of E2/AS1 of NZBC.



ROOF KICKOUT FLASHING

Revisions:  
SEPTEMBER '10 rev A

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

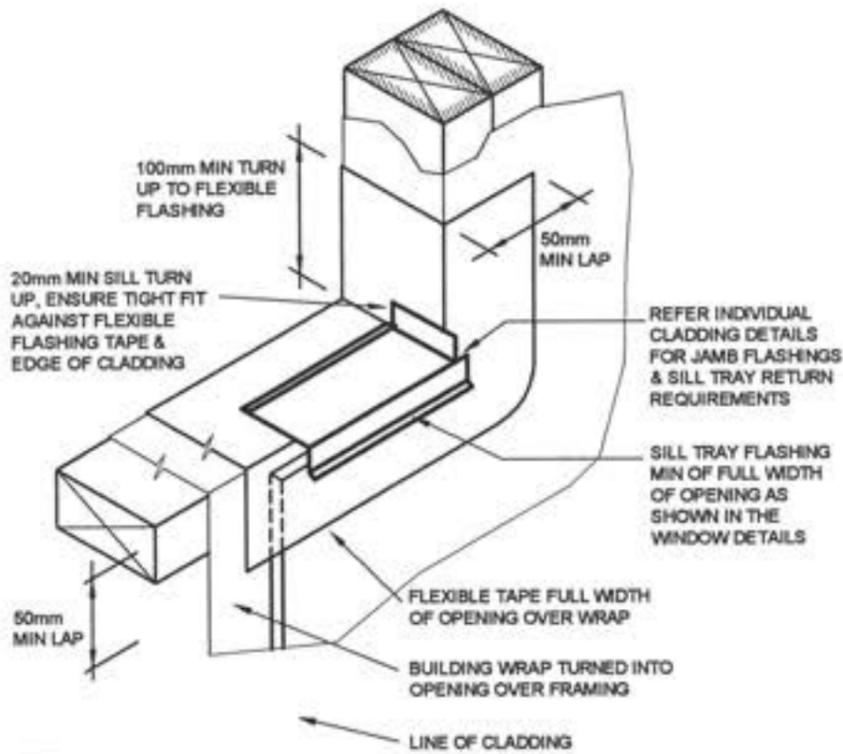
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

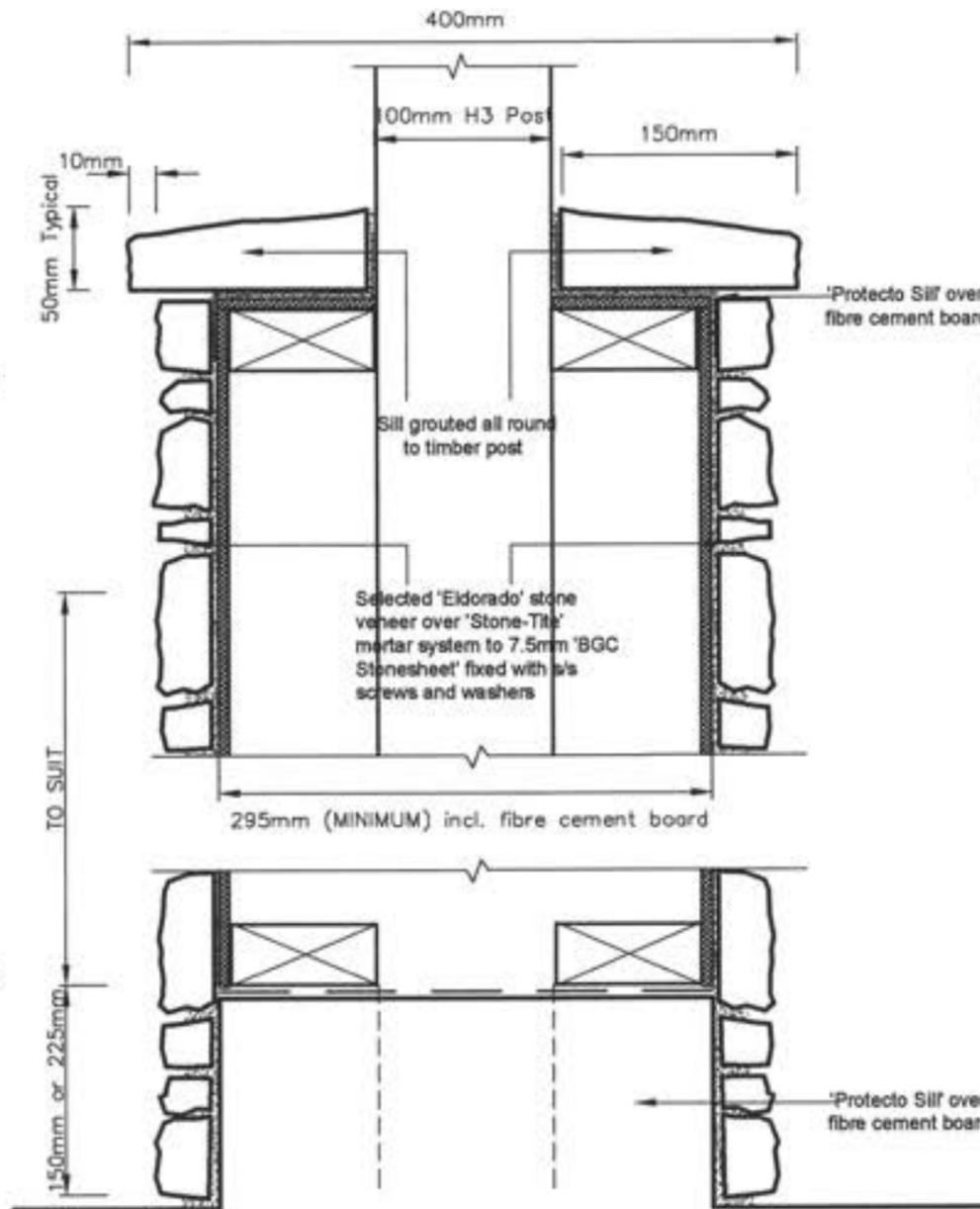
Job: **001** Page of: **19** Rev: **A**

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NOTE:  
-SILL FLASHING SHALL EXTEND BACK PAST THE CONDENSATION CHANNEL OF THE WINDOW.  
-HEAD TO BE TREATED SIMILARLY WITH CONTINUOUS BUILDING WRAP & FLEXIBLE TAPE AT CORNERS.  
-OPENINGS IN CAVITY WALLS SHALL BE TREATED SIMILARLY, EXCEPT THE SILL FLASHINGS SHALL BE OMITTED

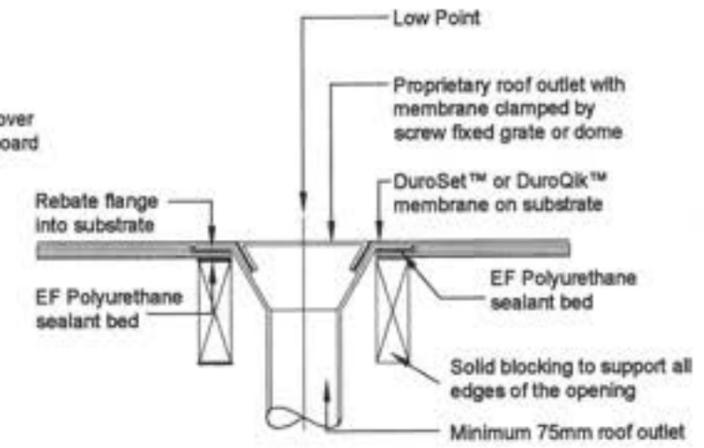
**BUILDING WRAP OPENING DETAIL n.t.s**



**STONE COLUMN DETAIL**

SCALE 1:5

1:60 FALL



1m HIGH SAFETY GLASS BALUSTRADE

NOTE: BALUSTRADE FIXING TO BOUNDARY JOIST & SOLID BLOCKING TO COMPLY WITH NZBC B1

BUTYNOL WATERPROOF MEMBRANE DECKING OVER 18mm TREATED PLYWOOD GLUED & STAINLESS STEEL SCREWED TO JOISTS. ON RIPPING @ 1:60 FALL

LAP BUTYNOL UP OVER 150x50 BLOCK

SEALANT

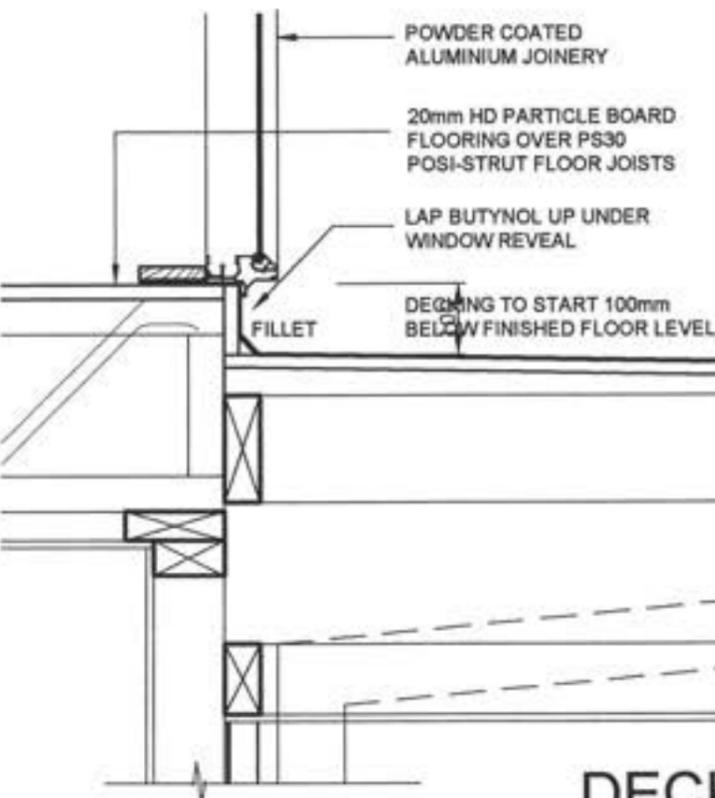
190x45 MSG8 H3.2 DECK JOISTS @ 400mm CRS

295x85 HYNÉ BEAM 17

FRAMELESS GLASS BALUSTRADE SYSTEM, STAINLESS STEEL STANDOFF WITH M10 COUNTERSUNK FIXINGS

50mm ACC ENDURON (Autoclaved Aerated Concrete) EXTERIOR CLADDING

4.5mm HARDIFLEX SOFFIT LINING WITH PVC JOINTERS BOX DOWN UNDER DECKING TO LINE THROUGH WITH BOTTOM OF BEAM



**DECK / BALUSTRADE DETAIL**

SCALE 1:10

Project  
**NEW DWELLING**  
Client  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**DETAILS**

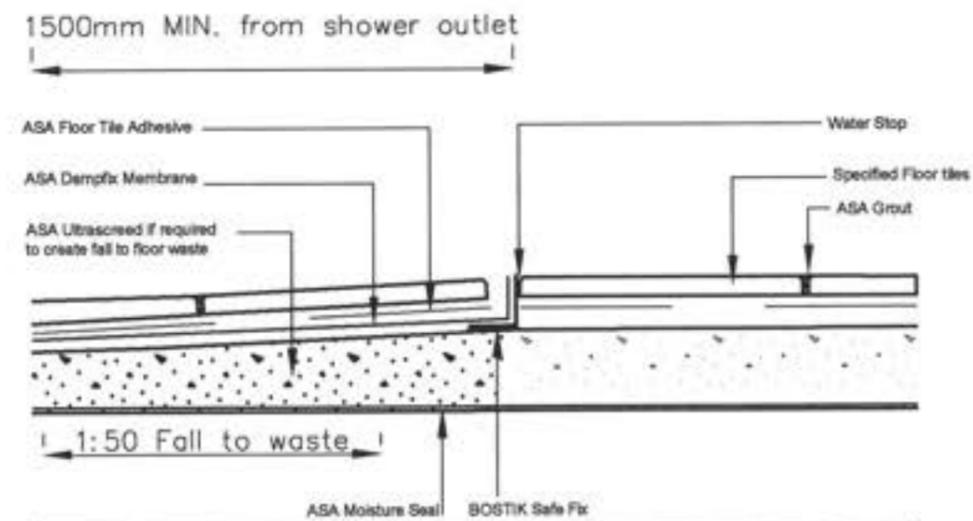
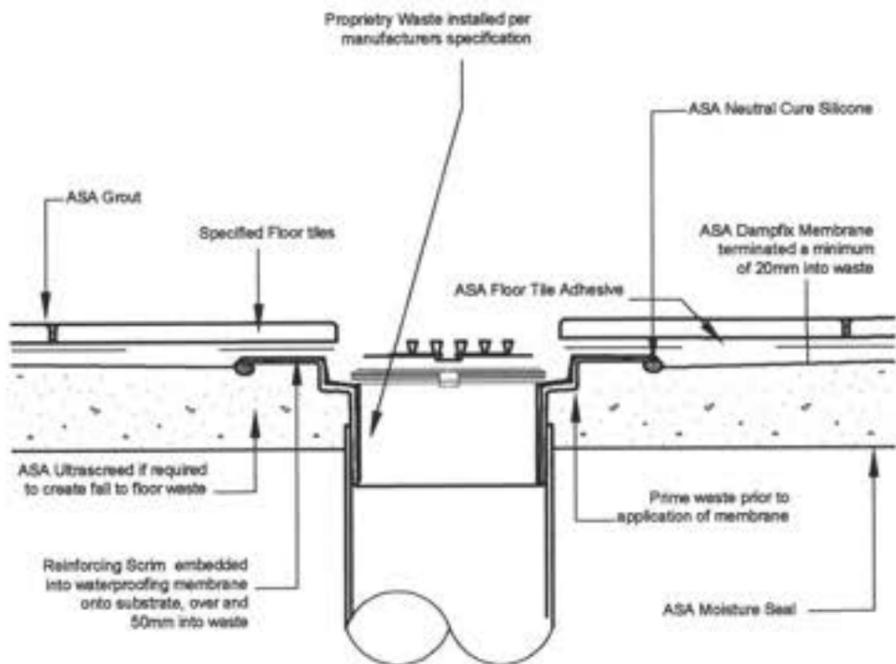
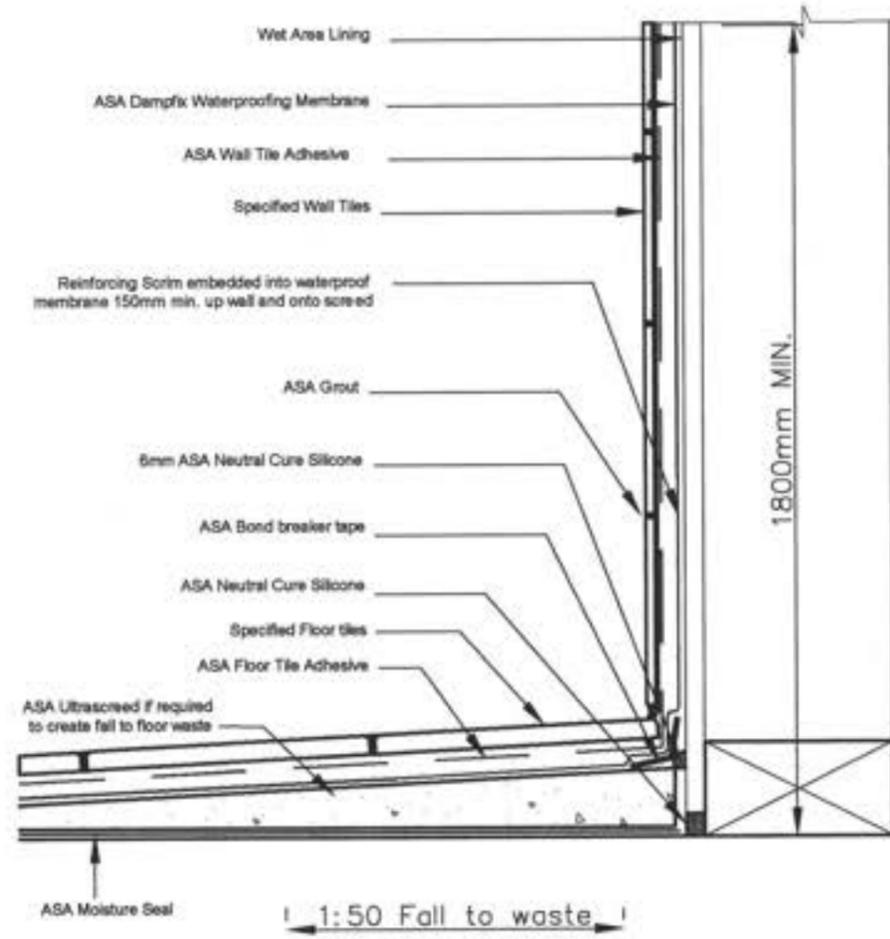
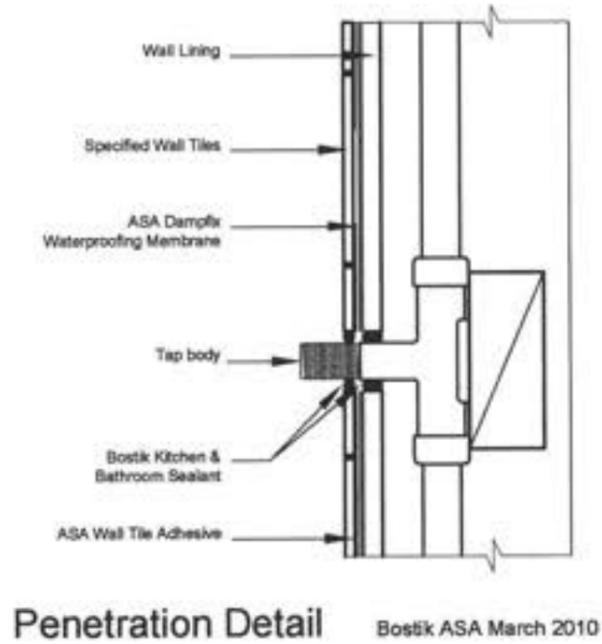
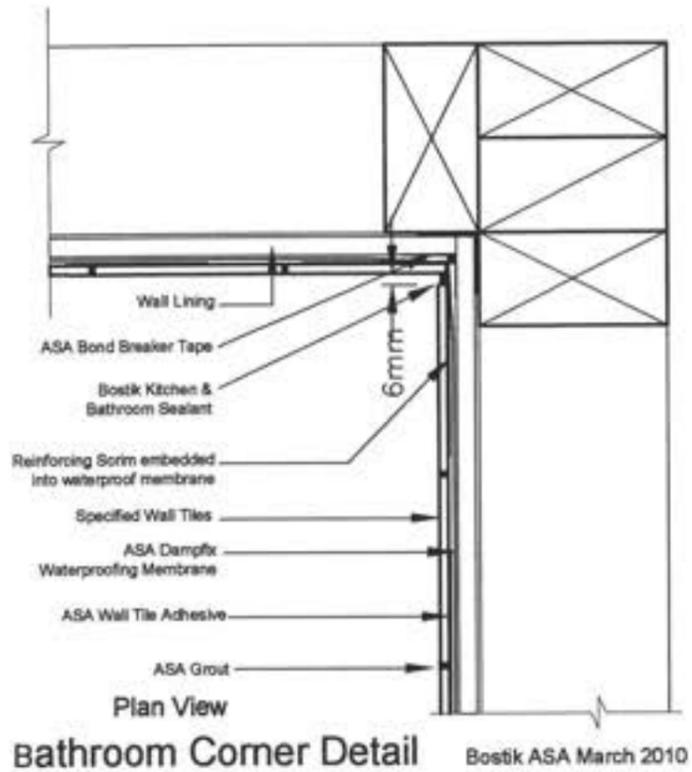
Designer:

**COASTAL**  
ARCHITECTURE LTD  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0956  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **20** Rev: **A**

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NOTE: Refer to specifications for selected ASA waterproofing, grout and tile adhesive

Project  
**NEW DWELLING**  
Client  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

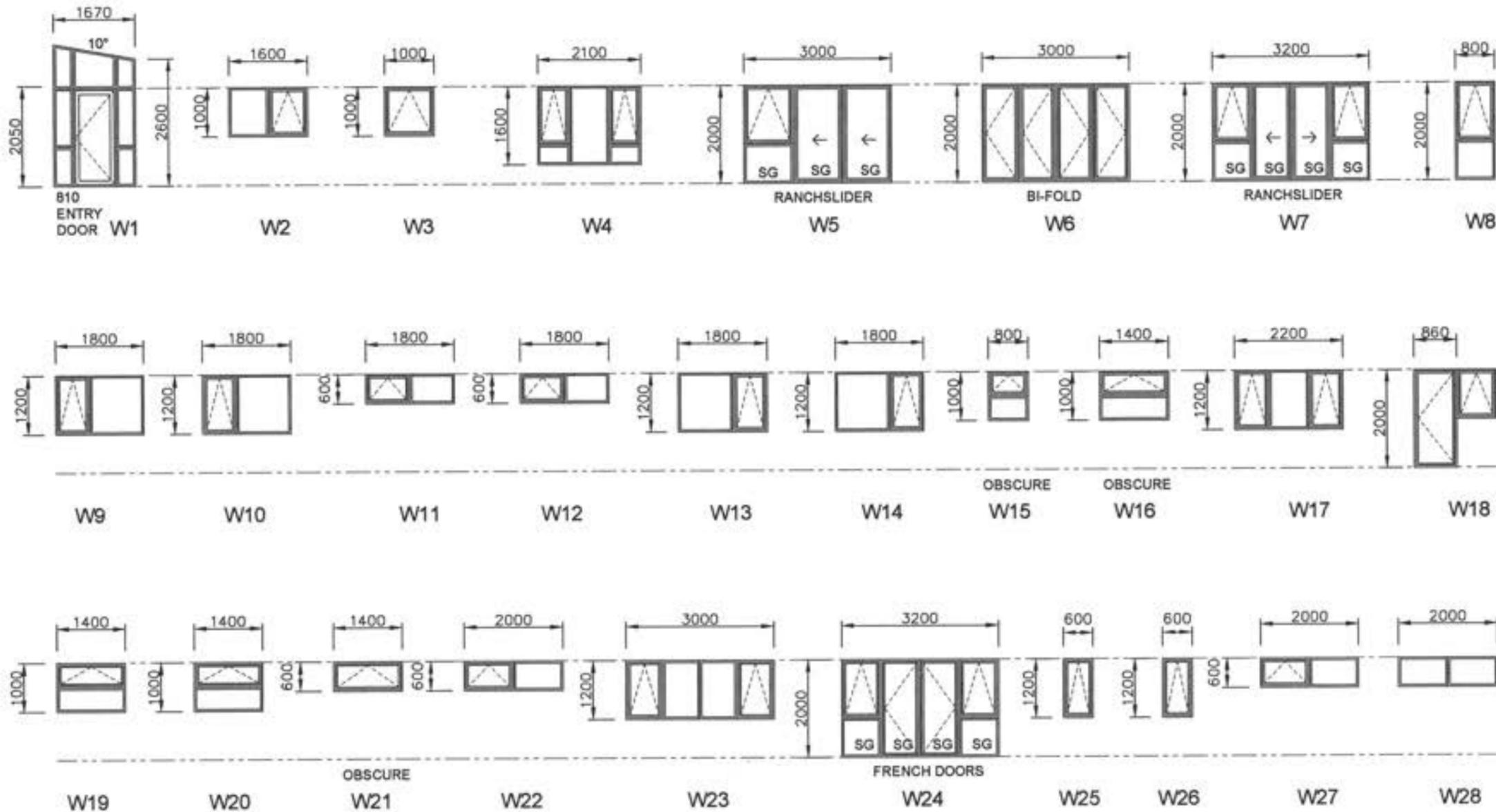
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
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Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **21** Rev: **A**

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# WINDOW SCHEDULE

SCALE 1:100

The supplier and the main contractor shall check all dimensions on site and confirm prior to manufacture.

Exterior joinery to comply with NZS 4211, design to very high wind pressure and suitable head flashings to be fitted to all units.

GLAZING TO CONFORM NZS 4223 PT 1, 2 & 3 1999 VERSION  
 HIGH WIND 1100pa DWP  
 VERY HIGH WIND 1550pa DWP

RESTRICTOR STAYS TO LIMIT SASH OPENING TO MAX 100mm MUST BE FITTED WHEREVA SILL HEIGHT IS LESS THAN 760mm & THE DIFFERENCE IN LEVELS ARE 1m OR GREATER. REFER F4 NZBC

SAFETY GLASS AS REQUIRED BY NZS 4223 PT 3 1999 VERSION TO BE PROVIDED TO ALL WET AREA JOINERY, GLAZED DOORS, SIDE PANELS, FULL HEIGHT WINDOWS & WINDOWS WITH CILLS LESS THAN 500mm FROM FFL.

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**JOINERY SCHEDULE**

Designer:

**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **22** Rev: **B**

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# E2/AS1 : Building Envelope Risk Matrix.

## Project Details.

Name NAME BAYLY  
 Street/No. STREET 1 MOSS LAKE  
 Lot/DP/No. LOT LOT 1  
 City/Town/District. CITY RAUMATI

### Definition of Risk [table 1 from E2/AS1]

Factor	Risk	Detail
A Wind Zone	LOW	LOW wind zone as described by NZS 3604
	MEDIUM	MEDIUM wind zone as described by NZS 3604
	HIGH	HIGH wind zone as described by NZS 3604
	V.HIGH	VERY HIGH wind zone as described by NZS 3604
B No. of storeys	LOW	One storey
	MEDIUM	Two storey in part
	HIGH	Two storey's
	V.HIGH	More than two storey's
C Roof / Wall intersection Design.	LOW	Roof / wall intersection - Fully protected. [eg. hip / gable roof with eaves.]
	MEDIUM	Roof / wall intersection - Partly exposed. [eg. hip / gable roof with NO eaves.]
	HIGH	Roof / wall intersection - Fully exposed [eg. Parapets or eaves greater than 90° vertical with soffit linings.]
	V.HIGH	Roof elements finished within the boundaries formed by exterior walls [eg. lower ends of aprons, chimney's etc.]
D Eaves width (1.)	LOW	Greater than 600mm at first floor level.
	MEDIUM	450 - 600mm at first floor level, or 600mm at second floor level
	HIGH	100-450mm at first floor level, or 450-600mm at second floor level
	V.HIGH	0 -100mm at first floor level, or 100-450mm at second floor level or 450 - 600mm at third floor level
E Envelope Complexity	LOW	Simple rectangular, L,T, or boomerang shape with single cladding type
	MEDIUM	Complex angular or curved shape [eg. Y or arrow head] with single cladding type.
	HIGH	More complex angular or curved shape [eg. Y or arrow head] with multiple cladding type.
	V.HIGH	As for high risk, but with junctions not covered in C or F on this Table [eg. box windows, pergola's, multi storey re - entrant shapes etc.]
F Deck design.	LOW	None or timber slat deck or porch at ground level
	MEDIUM	Fully covered in plan by roof, or timber slat deck attached at first or second floor level.
	HIGH	Enclosed deck exposed in plan or cantilevered at first floor level
	V.HIGH	Enclosed deck exposed in plan or cantilevered at second floor level or above.

NOTES  
 1. Eaves width measured from external face of the wall cladding to outer edge of overhang including gutters and fascias  
 2. Balustrades and parapets count as 0 mm eaves.

### Risk Severity by Face

North Elevation.									
RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0	✓	1		2		4		0
Roof / Wall intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0	✓	2		4		6		0
<b>Total Risk Score for this Elevation</b>									<b>11</b>

South Elevation.									
RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0		1	✓	2		4		1
Roof / Wall intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0		2		4	✓	6		4
<b>Total Risk Score for this Elevation</b>									<b>16</b>

East Elevation.									
RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0	✓	1		2		4		0
Roof / Wall intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0	✓	2		4		6		0
<b>Total Risk Score for this Elevation</b>									<b>11</b>

West Elevation.									
RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0		1	✓	2		4		1
Roof / Wall intersection	0		1		3		5	✓	5
Eaves width	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0		2		4	✓	6		4
<b>Total Risk Score for this Elevation</b>									<b>16</b>

### Selected Cladding Resulting from Risk Assessment

	Risk score from tables above.	Cladding Selected from table 3 [ from tables on page 30 E2/AS1 ]	TICK SELECTED OPTION	
			DIRECT FIXED	DRAINED CAVITY
North Elevation.	11	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓
South Elevation.	16	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓
East Elevation.	11	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓
West Elevation.	16	Bevelback Weatherboard Specialized 'Ezpanel' (Autoclaved Aerated Concrete)		✓

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LAKE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**E2 MATRIX**

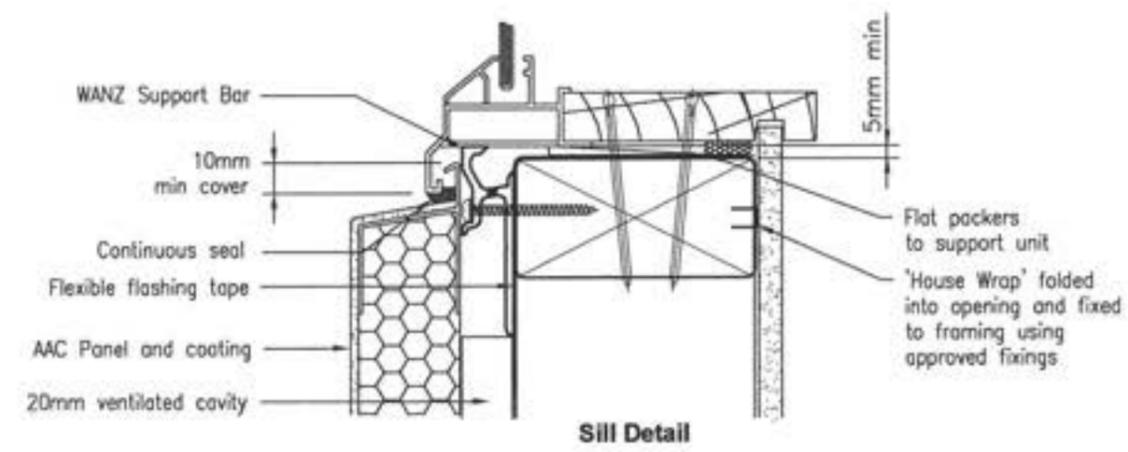
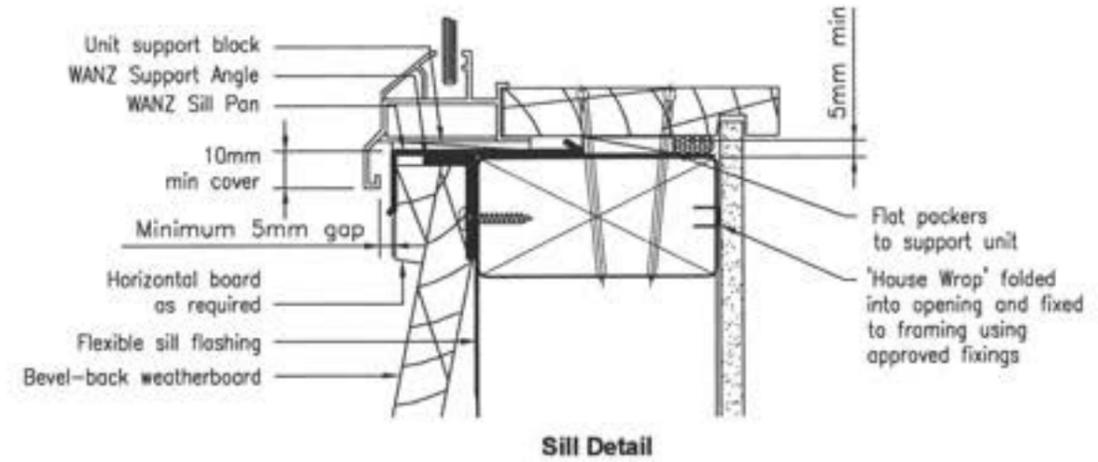
Designer:

**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **23** Rev: **A**

All work shall be in accordance with the NZBC. If in doubt ASK  
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Project:  
**NEW DWELLING**  
 Client:  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**WANZ SILL SUPPORT DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
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 Tel: 04 905 0956  
 e-mail: bill@francisparadise.net.nz

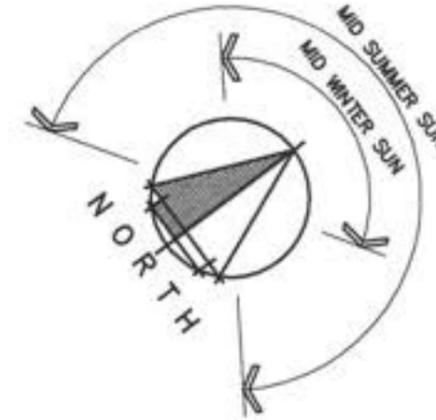
Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **24** Rev: **A**

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16 NOV 2010



**EXISTING BUILDING PAD**  
 LEVEL = 5.70

LOT 1, DP 380622  
 BEING PART LOT 1, DP 4864  
 DWELLING = 271m<sup>2</sup>  
 SITE AREA = 2197m<sup>2</sup>  
 SITE COVERAGE = 8.2%

HIGH WIND ZONE

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**SITE PLAN**

Designer:

**COASTAL**  
 ARCHITECTURE LTD

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Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

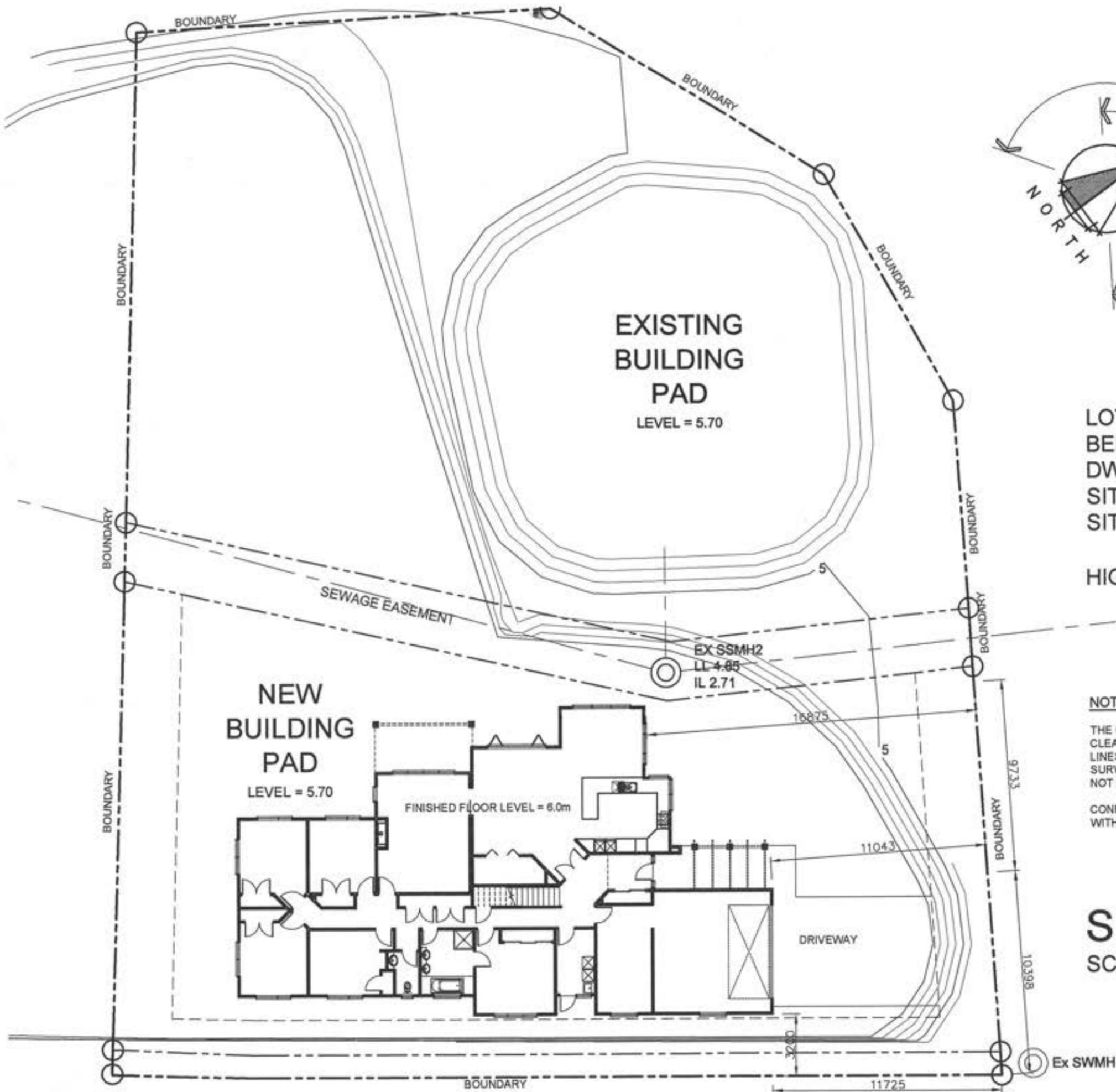
Job: 001  
 Page of: 1  
 Rev: B

**NOTE:**

THE OWNER/BUILDER IS RESPONSIBLE FOR CLEARLY DEFINING THE SITE BOUNDARY LINES & PEGS. THIS MAY REQUIRE A SURVEY. NOTE: ESTABLISHED FENCES ARE NOT NECESSARILY ON THE SITE BOUNDARY

CONFIRM POSITION OF DWELLING ON SITE WITH OWNER

**SITE PLAN**  
 SCALE 1:200



All work shall be in accordance with the NZSBC. If in doubt, ASK. The Contractor must verify all dimensions on the job before commencing any work or site drawings. Figured dimensions are to be used, stated dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

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**NOTE:**

NO PIPES AT ANY POINT EXCEED 10m IN LENGTH FROM DN 100 VENTED DRAIN

ALL WORK TO COMPLY WITH AS/NZS 3500.2

100mm UPVC WASTE PIPE TO CONNECT TO LOCAL AUTHORITY SEWER MAIN, POSITION TO BE CONFIRMED ON SITE

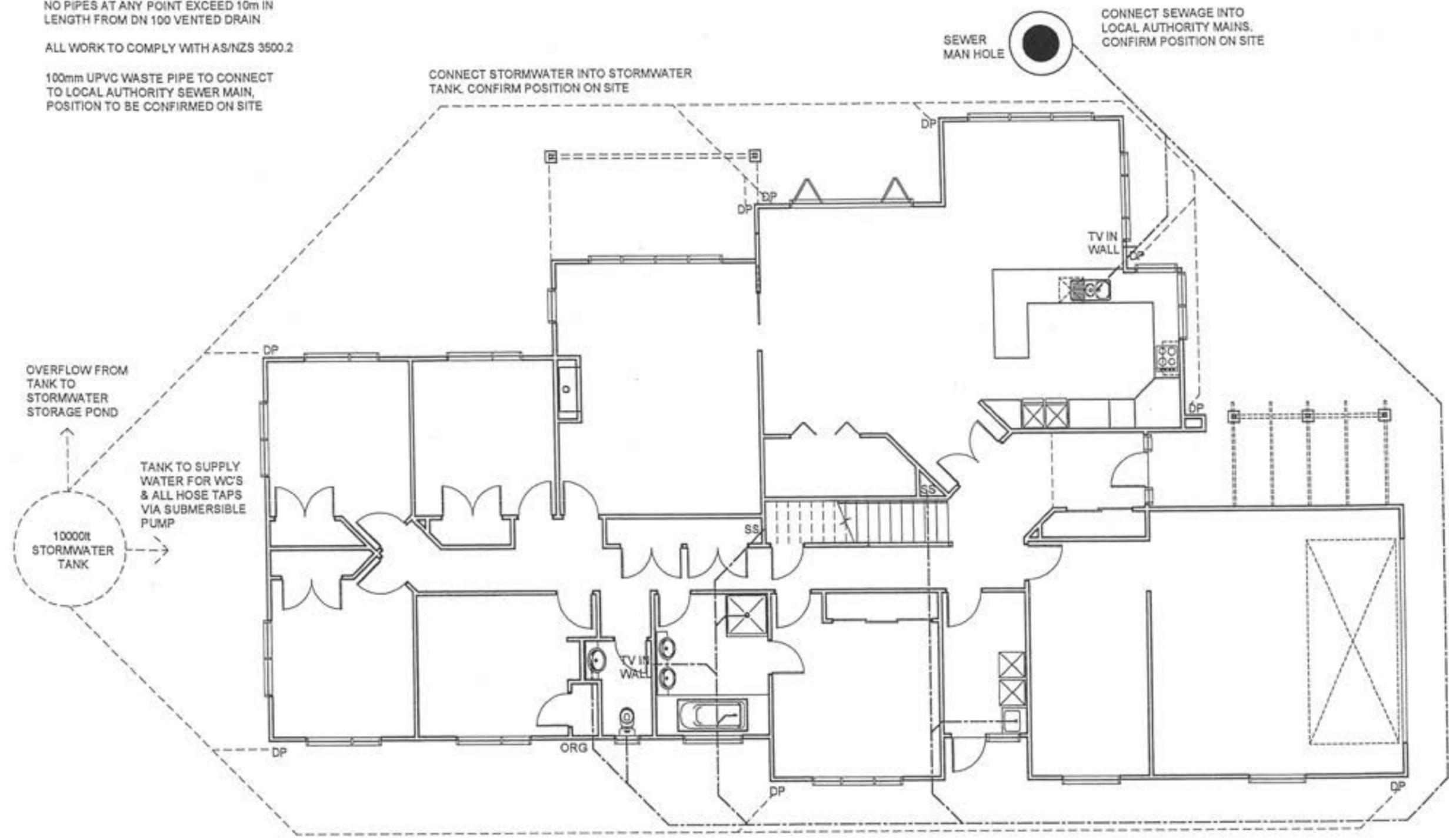
CONNECT STORMWATER INTO STORMWATER TANK. CONFIRM POSITION ON SITE

SEWER MAN HOLE  
 CONNECT SEWAGE INTO LOCAL AUTHORITY MAINS. CONFIRM POSITION ON SITE

OVERFLOW FROM TANK TO STORMWATER STORAGE POND

TANK TO SUPPLY WATER FOR WC'S & ALL HOSE TAPS VIA SUBMERSIBLE PUMP

10000lt STORMWATER TANK



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**DRAINAGE PLAN**

Designer  
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 e-mail: billfrancis@paradise.net.nz

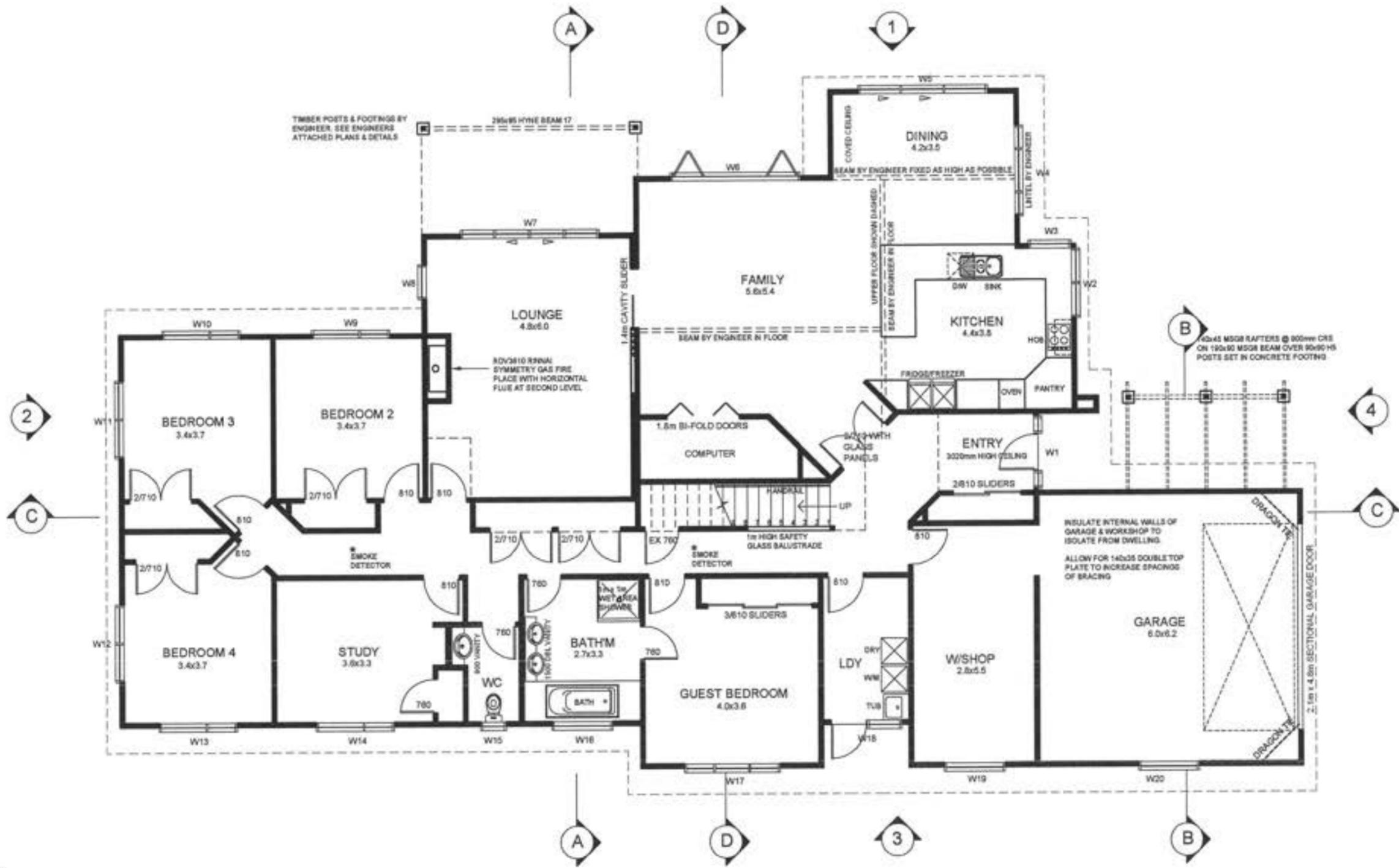
Design: Bill Francis	Drawn: bf
	Scale: as shown

Job:	Page of:	Rev:
001	2	B

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16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER FLOOR PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
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 Raumati Beach  
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 Tel: 04 905 0938  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **3** Rev: **C**

**NOTES:**

**GENERAL NOTES:**

- All work must be carried out to conform to relevant sections of the New Zealand Building Code and New Zealand Standards - in particular NZS 3604, NZS 3602 & NZS 4218. All references to Standards shall be taken as reference to the latest revision including amendments.
- Ground bearing must be reconfirmed on site following excavation but prior to placing concrete and reinforcing.
- Confirm site boundaries with licenced surveyor. Fences may not necessarily be on the legal boundary.
- All work to be carried out to best trade practice
- Do Not Scale off Building Consent Documentation issued from TA's as the plans may have been scanned and the scale distorted.
- All habitable rooms to have 5% of their floor area as opening windows or approved alternative to achieve ventilation requirements

- Prenail framing and truss manufacturer to provide lintel sizes and provide a producer statement for framing, window lintels and trusses.
- Window openings to be 20mm larger than window sizes (10mm tolerance each side)
- All bottom plates and framing to shower areas to be H3.1. All framing in other at risk areas such as parapets and enclosed balconys to comply with NZS 3602 for particular situation.
- Allow for dwangs to fit fittings as required by owner.
- Wall junctions shall be framed up with not less than 2 studs blocked and nailed.
- Maximum diameter hole in 90mm stud to be 25mm or 35mm diameter where not more than 3 consecutive studs are drilled.
- Lintels supporting rafters or trusses shall be secured against uplift as per clause 8.6.1.7 & table 8.14, NZS 3604:1999
- Confirm building wrap is able to be used with timber treatment.

**INTERNAL LININGS**

- WALLS:**
- Generally - 10mm Standard Gib Board
  - Bathrooms, Laundry & Kitchen - 10mm Gib Aqualine
- CEILING:**
- Generally - 13mm Standard Gib
  - Bathrooms, Laundry - 13mm Gib Aqualine
  - Back block sheet joints and allow for control joints as required by manufacturer

**FRAMING**

- Exterior Walls & Internal Load Bearing Walls:**
- Lower floor Up to 2.4m  
90x45 MSG8 at 400 crs H1.2
  - Interior Non Load Bearing Walls:  
Up to 2.4  
90x45 MSG8 at 600 crs H1.2
  - Upper floor Up to 2.4m  
90x45 MSG8 at 600 crs H1.2
  - Interior Non Load Bearing Walls:  
Up to 2.4  
90x45 MSG8 at 600 crs H1.2

- Top Plate Fixing**  
The fixing of top plates supporting roof trusses to wall studs or lintels shall be in accordance with table 8.18, NZS 3604:1999  
Joints in top plates to comply with clause 8.7.3 & figures 8.14-8.16, NZS 3604:1999
- Bottom Plate Fixing**  
10mm Ø cast in @ max 900 crs  
12mm Ø cast in @ max 1400 crs  
Approved anchors (fixed to manufacturers specific instructions)
- Holes in plates to comply with clause 8.7.5 & figure 8.19, NZS 3604:1999
- Refer to Bracing Plan and Manufacturers specifications for additional framing fixings.

**LOWER FLOOR PLAN** SCALE 1:100 AREA = 296m<sup>2</sup>

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**BALUSTRADES**

Balustrade or part height wall must be a minimum of 1.0m on stairs above the leading edge of the nosing and landings.

The balustrade must be designed to comply with the requirements of NZBC F-4 safety from falling.

Timber balustrades must comply with NZBC B1AS2 Timber barriers, or be an alternative solution which can be shown as complying with the performance requirements of NZBC B1 and F4.

Adequate structural strength must be provided in the balustrade and its fixings so that it can support an applied force of 750 newtons / metre run.

**STAIRS**

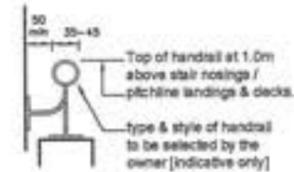
Stair formed with selected Ex50mm timber treads, risers and stringers to suppliers details. The contractor shall check & confirm on site prior to manufacture.

TREADS : 275mm going with 280mm total tread min  
 RISERS : 174mm high

**HANDRAILS**

Handrails should extend beyond the top and bottom riser for a minimum distance of 300mm.

The handrail must provide a comfortable and safe handhold. Circular or oval shapes 35-45mm minimum diameter, or to comply with NZBC.



**NOTES:**

**GENERAL NOTES:**

- All work must be carried out to conform to relevant sections of the New Zealand Building Code and New Zealand Standards - in particular NZS 3604, NZS 3602 & NZS 4218. All references to Standards shall be taken as reference to the latest revision including amendments.
- Ground bearing must be reconfirmed on site following excavation but prior to placing concrete and reinforcing.
- Confirm site boundaries with licensed surveyor. Fences may not necessarily be on the legal boundary.
- All work to be carried out to best trade practice.
- Do Not Scale off Building Consent Documentation issued from TA's as the plans may have been scanned and the scale distorted.
- All habitable rooms to have 5% of their floor area as opening windows or approved alternative to achieve ventilation requirements.

- Prenail framing and truss manufacturer to provide lintel sizes and provide a producer statement for framing, window lintels and trusses.
- Window openings to be 20mm larger than window sizes (10mm tolerance each side)
- All bottom plates and framing to shower areas to be H3.1. All framing in other at risk areas such as parapets and enclosed balconies to comply with NZS 3602 for particular situation.
- Allow for dwangs to fix fittings as required by owner.
- Wall junctions shall be framed up with not less than 2 studs blocked and nailed.
- Maximum diameter hole in 90mm stud to be 25mm or 35mm diameter where not more than 3 consecutive studs are drilled.
- Lintels supporting rafters or trusses shall be secured against uplift as per clause 8.6.1.7 & table 8.14, NZS 3604:1999
- Confirm building wrap is able to be used with timber treatment.

**INTERNAL LININGS**

**WALLS:**

- Generally - 10mm Standard Gib Board
- Bathrooms, Laundry & Kitchen - 10mm Gib Aqualine

**CEILINGS:**

- Generally - 13mm Standard Gib
- Bathrooms, Laundry - 13mm Gib Aqualine
- Back block sheet joints and allow for control joints as required by manufacturer

**FRAMING**

**Exterior Walls & Internal Load Bearing Walls:**

Lower floor Up to 2.4m  
 90x45 MSG8 at 400 cns H1.2  
 Interior Non Load Bearing Walls:  
 Up to 2.4  
 90x45 MSG8 at 600 cns H1.2

Upper floor Up to 2.4m  
 90x45 MSG8 at 600 cns H1.2  
 Interior Non Load Bearing Walls:  
 Up to 2.4  
 90x45 MSG8 at 600 cns H1.2

**Top Plate Fixing**

The fixing of top plates supporting roof trusses to wall studs or lintels shall be in accordance with table 8.18, NZS 3604:1999

Joints in top plates to comply with clause 8.7.3 & figures 8.14-8.16, NZS 3604:1999

**Bottom Plate Fixing**

10mm Ø cast in @ max 900 cns  
 12mm Ø cast in @ max 1400 cns  
 Approved anchors (fixed to manufacturers specific instructions)

- Holes in plates to comply with clause 8.7.5 & figure 8.19, NZS 3604:1999
- Refer to Bracing Plan and Manufacturers specifications for additional framing fixings.

**UPPER FLOOR PLAN**

SCALE 1:100 AREA = 72m<sup>2</sup>

Project:  
**NEW DWELLING**  
 Client:  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**UPPER FLOOR PLAN**

Designer:

**COASTAL ARCHITECTURE LTD.**

17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

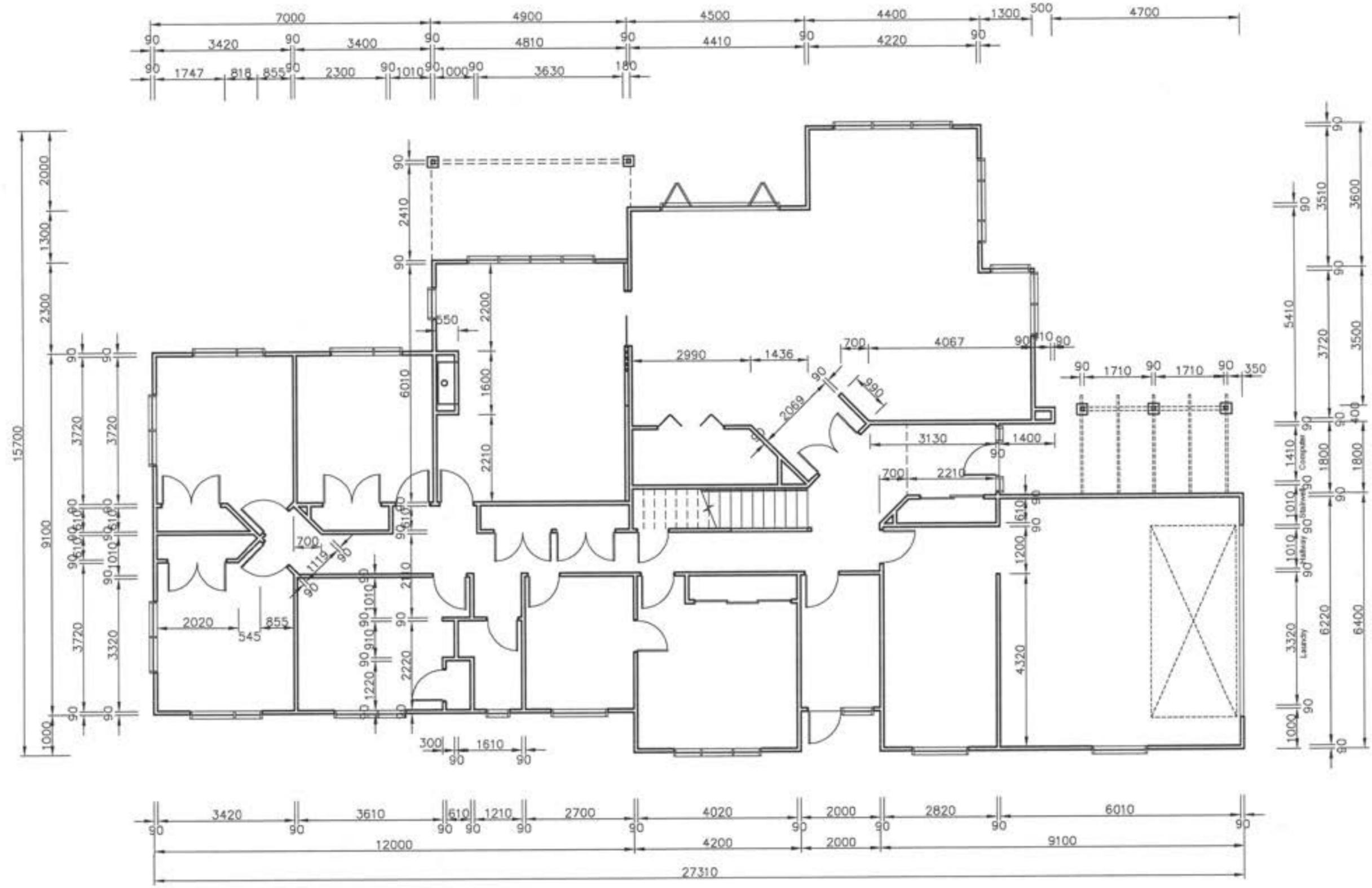
Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **4** Rev: **C**

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 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**LOWER DIMENSION PLAN**

Designer:

**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

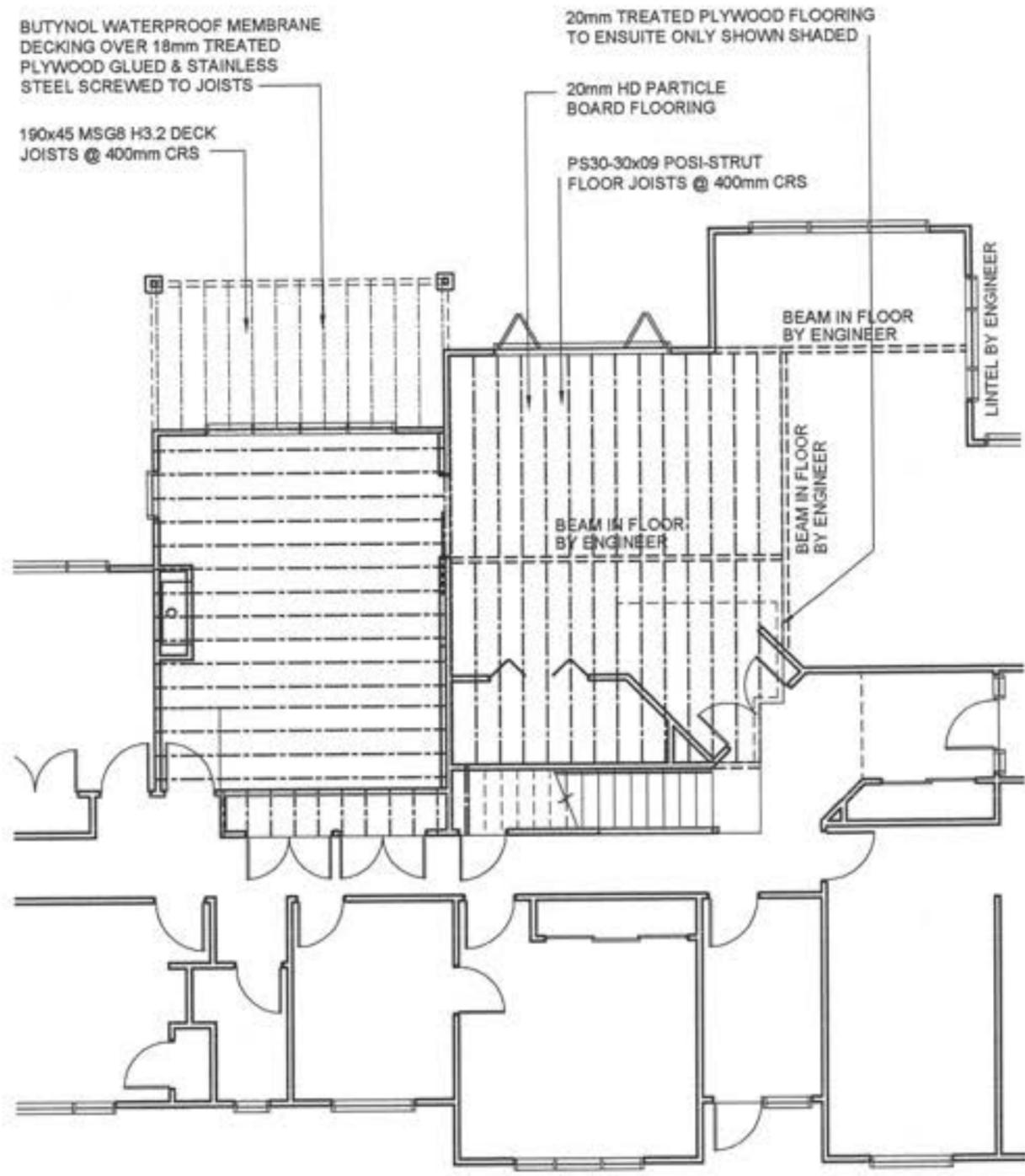
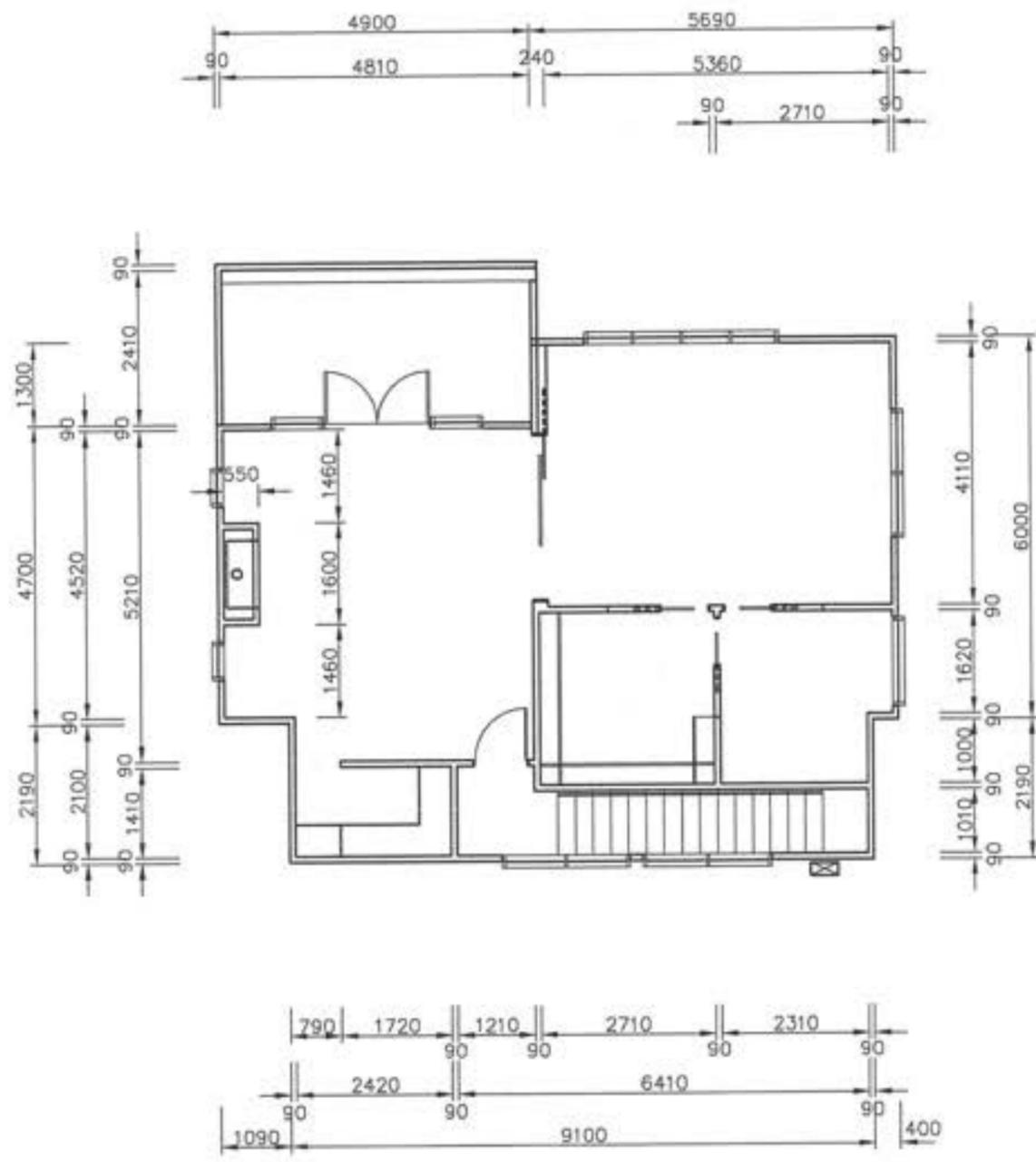
Job: **001** Page of: **5** Rev: **C**

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**LOWER DIMENSION PLAN** SCALE 1:100

Revisions:  
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 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



UPPER DIMENSION PLAN  
 SCALE 1:100

JOIST PLAN  
 SCALE 1:100

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**UPPER DIMENSION PLAN & JOIST PLAN**

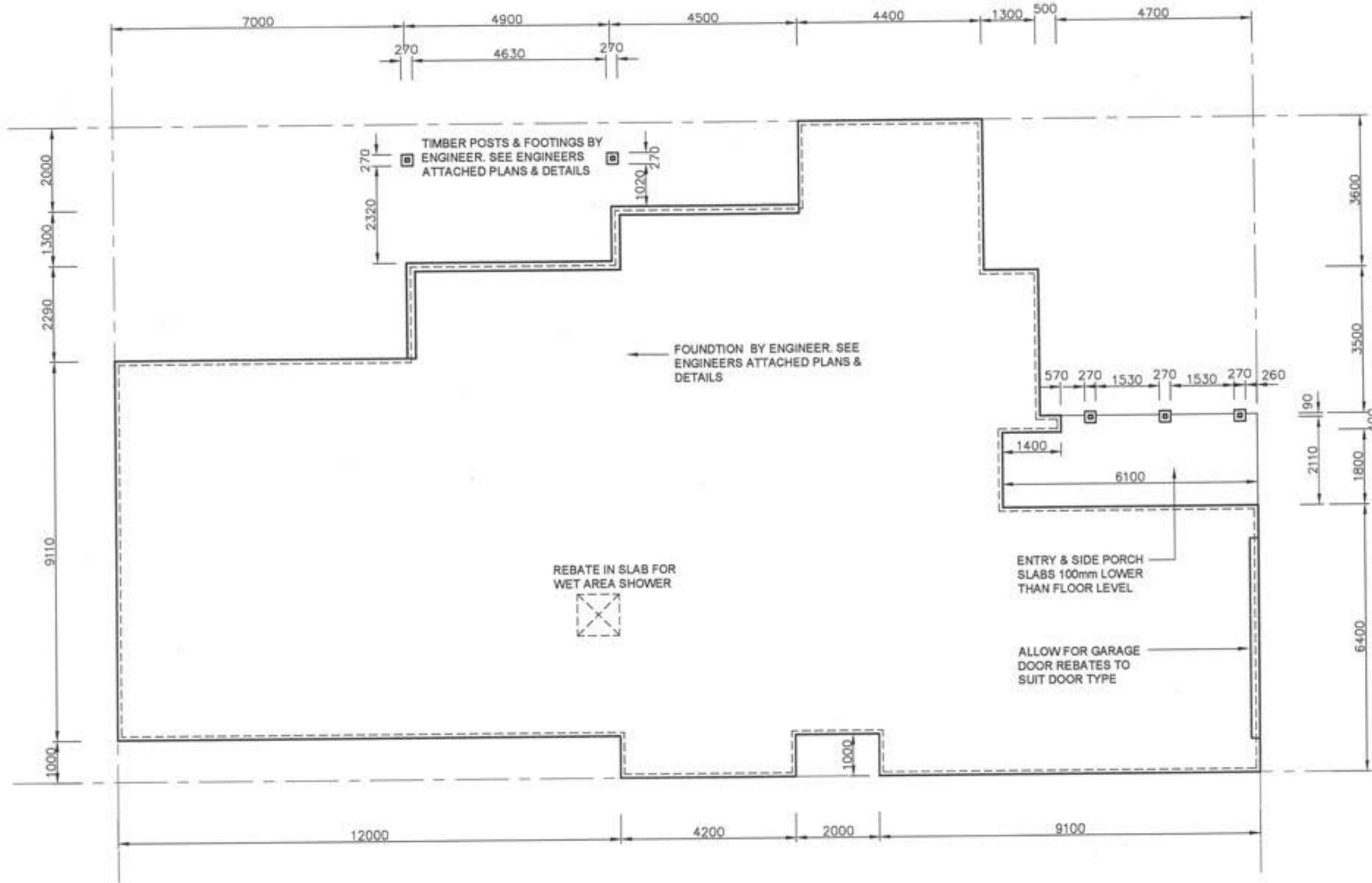
Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
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 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **6** Rev: **C**

All work shall be in accordance with the NZBC, if in doubt ASK.  
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16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 390522,  
 RAUMATI

Drawing Title:  
**FOUNDATION PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **7** Rev: **B**

**MINIMUM FLOOR HEIGHT**  
 PROTECTED GROUND  
 100MM BRICK VENEER  
 150MM OTHER CLADDINGS  
 UNPROTECTED GROUND  
 150MM BRICK VENEER  
 225MM OTHER CLADDINGS  
 HEIGHTS AS PER NZS3604 1999 SECTION 7

ALL CONSTRUCTION TO COMPLY WITH  
 NZS3604:1999, NZBC AND BEST  
 POSSIBLE TRADE PRACTICES  
  
 BOTTOM PLATES FIXING  
 10mmØ CAST IN @ MAX 900 CRS  
 12mmØ CAST IN @ MAX 1400 CRS  
 APPROVED ANCHORS (FIXED TO  
 MANUFACTURERS SPECIFIC  
 INSTRUCTIONS)

NZS 3604 1999 RECOMENDS A  
 CONTROL JOINT AROUND THE  
 PERIMETER OF ANY AREAS  
 WITH SOLID TILES ON FLOOR  
 TO AVOID CRACKING. BUILDER  
 TO VERIFY WITH OWNER  
 SPECIFIC AREAS

AREA OF FOUNDATION = 296m<sup>2</sup>

**NEW BUILDING PAD COMPACTION &  
 GROUND STABILITY TO BE VERIFIED BY  
 ENGINEER DURING & AFTER  
 CONSTRUCTION. FOUNDATION DESIGN BY  
 ENGINEER DESIGN IF REQUIRED**

**FOUNDATION PLAN** SCALE 1:100

All work shall be in accordance with the NZBC, if in doubt, AS. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, scaled dimensions must be verified. This drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.





10°

WINDOW SILL SUPPORT BRACKETS ARE REQUIRED TO ALL WINDOW OR DOOR UNITS EXTENDING TO FLOOR LEVEL WHEREVER EXTERNAL WALLS INCORPORATE DRAIN CAVITY SYSTEMS

NOTE:  
ALL CLADDINGS, ROOFING & SPOUTING SYSTEMS TO BE MAINTAINED BY OWNER IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS & WARRANTEE REQUIREMENTS

ALL JUNCTIONS TO CLADDINGS & OTHER EXTERNAL MOISTURE PROTECTION AREAS TO HAVE CAPILLARY GAPS/BREAKS & INSEALS WHERE RELEVANT, STOPPING WIND DRIVEN OR SURFACE TENSION WATER

CLADDING TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS IN PARTICULAR FIXING & GROUND CLEARANCE.

ALSO REFER TO NZBC, CLAUSE E2/AS1, EXTERNAL MOISTURE FOR CLARITY

TIMBER TREATMENT TO BE IN ACCORDANCE WITH NZS 3602

Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B

16 NOV 2019

**NORTH ELEVATION 1**

SCALE 1:100

140x45 MSG8 RAFTERS @ 900mm CRS  
ON 190x90 MSG8 BEAM OVER 90x90 H5  
POSTS SET IN CONCRETE FOOTING

**WEST ELEVATION 2**

SCALE 1:100

SELECTED 'ELDORADO STONE'  
BASE TO TIMBER POSTS

1m HIGH SAFETY GLASS BALUSTRADE  
TO NZBC REQUIREMENTS

BUTYNOL ON PLY DECK INSTALLED  
TO MANUFACTURERS SPECIFICATION

POWDER COATED ALUMINIUM JOINERY  
WITH SUITABLE HEAD FLASHINGS

BEVELBACK WEATHERBOARD EXTERIOR  
CLADDING TO FEATURE WALLS

KLASS EXTERIOR SPOUTING  
& FASCIA SYSTEM

SPECIALIZED EZPANEL (Autoclaved Aerated  
Concrete) EXTERIOR CLADDING WITH  
PLASTER FINISH BY APPROVED APPLICATOR

600mm SOFFIT OVERHANG LINED WITH  
4.5mm HARDIFLEX & PVC JOINTERS,  
300mm OVERHANG TO GABLE ENDS

CORRUGATED COLOURSTEEL  
ROOFING OVER 70x45 MSG8  
PURLINS @ 900mm CRS

Project:  
**NEW DWELLING**

Client:  
**BAYLY**  
  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**ELEVATIONS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**      Drawn: **bf**  
Scale: **as shown**

Job: **001**      Page of: **9**      Rev: **B**

All work shall be in accordance with the NZBC, if in doubt ASK  
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**SOUTH ELEVATION 3**

SCALE 1:100

**EAST ELEVATION 4**

SCALE 1:100

**CROSS SECTION NOTES**

- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Also refer to NZBC, clause E2/AS1, external moisture; third edition for clarity
- Direct fix cladding systems, fit head flashing and proprietary sill tray to external joinery and sill. Fit airseals to inner edge of joinery reveals (refer to details)
- All junctions to claddings and other external moisture protection areas, to have capillary gaps/breaks and in seal where relevant, stopping wind driven or surface tension water

CORRUGATED COLOURSTEEL 'ENDURA' ROOFING OVER 70x45 MSG8 PURLINS @ 900mm CRS

INSULATION:  
R3.2 BATTS TO CEILINGS  
R2.2 BATTS TO EXTERIOR WALLS

70x35 VSG8 CEILING BATTENS @ 400mm CRS TO TRUSSES

90x45 MSG8 FRAMING @ 600mm CRS LINED WITH 10mm GIB

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

165x300mm DEEP CONCRETE FOOTING WITH 2 D12 RODS & R6 TIES @ 600mm CRS

25mpa 100mm CONCRETE SLAB WITH 665 REINFORCING MESH ON DPM & SAND ON COMPACTED HARDFILL TO SUIT

GANGNAIL TRUSSES @ 900mm CRS FIXED EACH END WITH CYCLONE TIES

600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDISOFFIT & PVC JOINTERS - 300mm OVERHANG TO GABLE ENDS

KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

SPECIALIZED EZPANEL (Autoclaved Aerated Concrete) EXTERIOR CLADDING WITH PLASTER FINISH BY APPROVED APPLICATOR

THERMAKRAFT 215 SELF SUPPORTING ROOF UNDERLAY

THERMAKRAFT 'COVERUP' BUILDING WRAP

GANGNAIL TRUSSES @ 900mm CRS FIXED EACH END WITH CYCLONE TIES

KLASS EXTERIOR SPOUTING & FASCIA SYSTEM

600mm SOFFIT OVERHANG LINED WITH 4.5mm HARDISOFFIT & PVC JOINTERS - 300mm OVERHANG TO GABLE ENDS

1.5mm BUTYNOL WATERPROOF MEMBRANE DECKING @ 1.60 MIN FALL OVER 18mm TREATED PLYWOOD GLUED & STAINLESS STEEL SCREWED TO JOISTS

1m HIGH GLASS BALUSTRADE TO NZBC REQUIREMENTS  
DECK

**INTERNAL LININGS**

**WALLS:**

- Generally - 10mm Standard Gib Board
- Bathrooms - 10mm Gib Aqualine

**BATHROOM**

**CEILINGS:**

- Generally - 13mm Standard Gib
- Bathrooms - 13mm Gib Aqualine
- Back block sheet joints and allow for control joints as required by manufacturer

20mm HD PARTICLE BOARD FLOORING OVER PS30-30x09 POSI-STRUT FLOOR JOISTS @ 400mm CRS

BEVELBACK WEATHERBOARD EXTERIOR CLADDING ON CAVITY SYSTEM TO FEATURE WALLS

POWDER COATED ALUMINIUM JOINERY WITH SUITABLE HEAD FLASHINGS

**SECTION AA SCALE 1:50**

CORRUGATED COLOURSTEEL 'ENDURA' ROOFING OVER 70x45 MSG8 PURLINS @ 900mm CRS

140x45 MSG8 RAFTERS @ 900mm CRS ON 190x90 MSG8 BEAM OVER 90x90 HS POSTS SET IN CONCRETE FOOTING SK24 NAIL FIX AFTER D. REAM. JB

70x35 VSG8 CEILING BATTENS @ 400mm CRS TO TRUSSES

90x45 MSG8 FRAMING @ 600mm CRS LINED WITH 10mm GIB

SELECTED 'ELDORADO STONE' BASE TO TIMBER POSTS

165x300mm DEEP CONCRETE FOOTING WITH 2 D12 RODS & R6 TIES @ 600mm CRS

25mpa 100mm CONCRETE SLAB WITH 665 REINFORCING MESH ON DPM & SAND ON COMPACTED HARDFILL TO SUIT

**SECTION BB SCALE 1:50**

Revisions:  
SEPTEMBER '10 rev A  
OCTOBER '10 rev B  
NOVEMBER '10 rev C

16 NOV 2010

Project  
**NEW DWELLING**  
Client  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**SECTIONS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Francham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **10** Rev: **C**

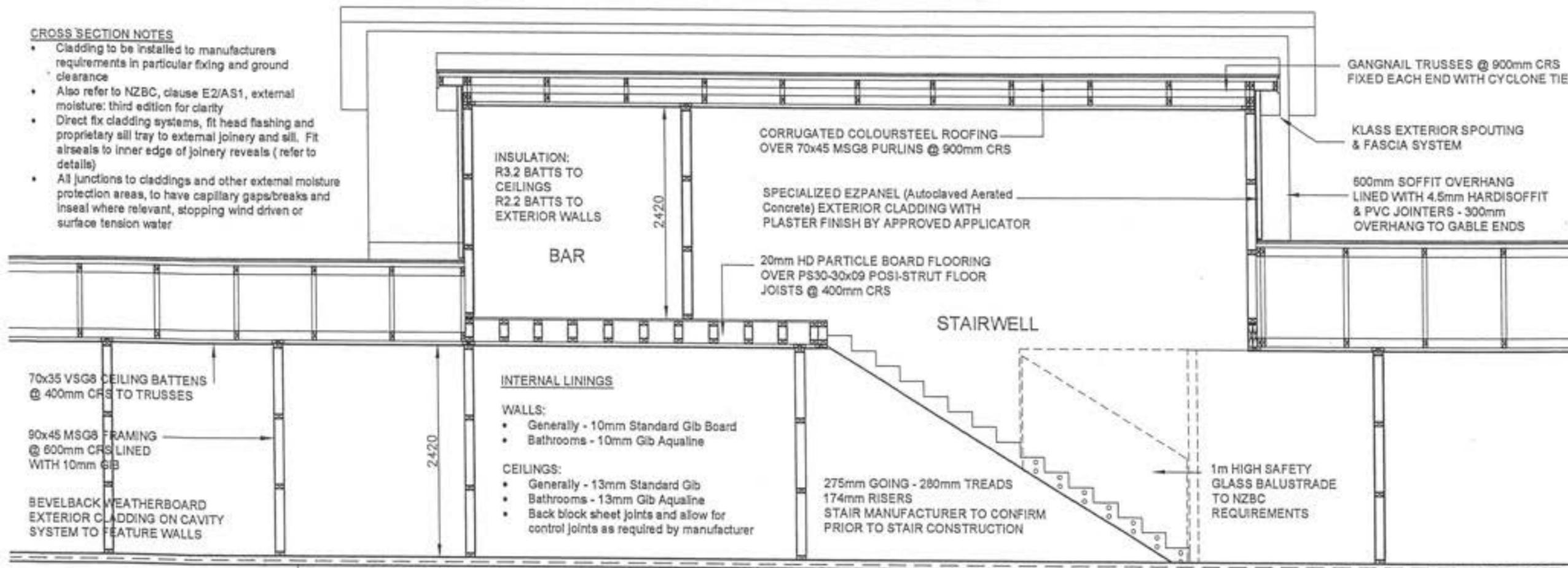
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**CROSS SECTION NOTES**

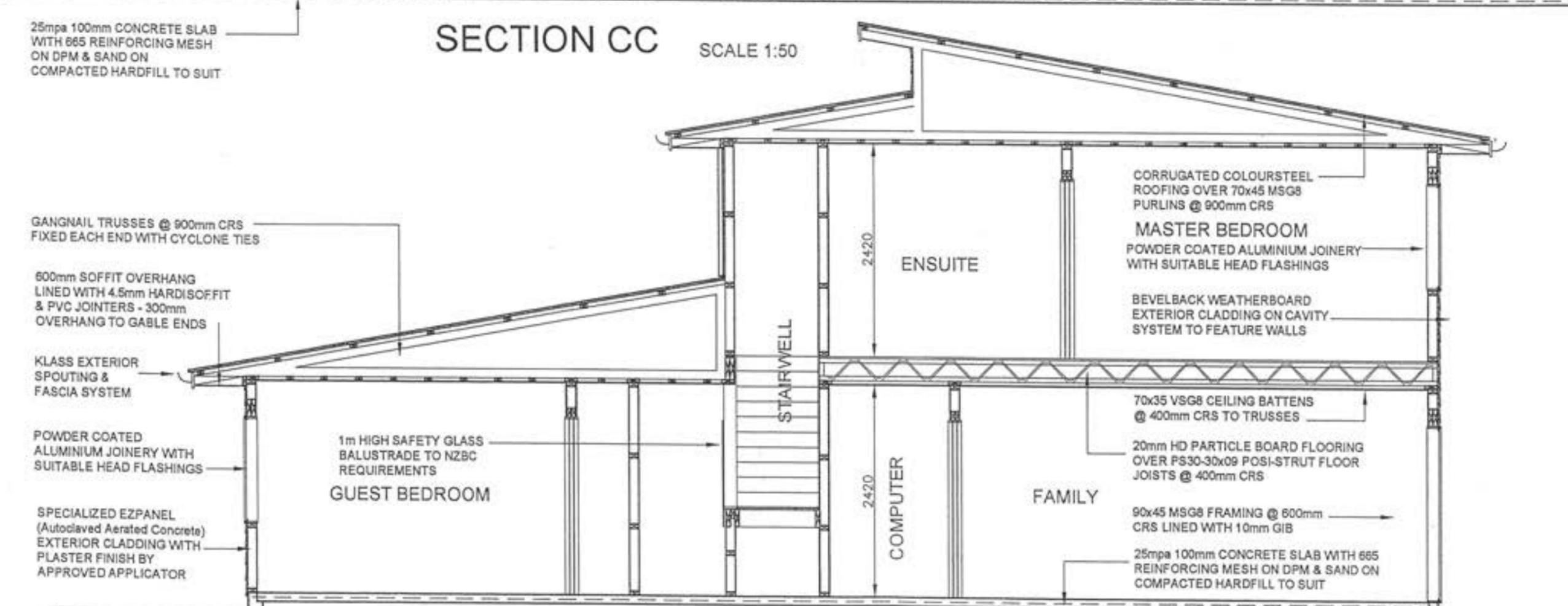
- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Also refer to NZBC, clause E2/AS1, external moisture: third edition for clarity
- Direct fix cladding systems, fit head flashing and proprietary sill tray to external joinery and sill. Fit a seals to inner edge of joinery reveals (refer to details)
- All junctions to claddings and other external moisture protection areas, to have capillary gaps/breaks and in seal where relevant, stopping wind driven or surface tension water

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B

16 NOV 2010



**SECTION CC** SCALE 1:50



**SECTION DD** SCALE 1:50

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**SECTIONS**

Designer:  
**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

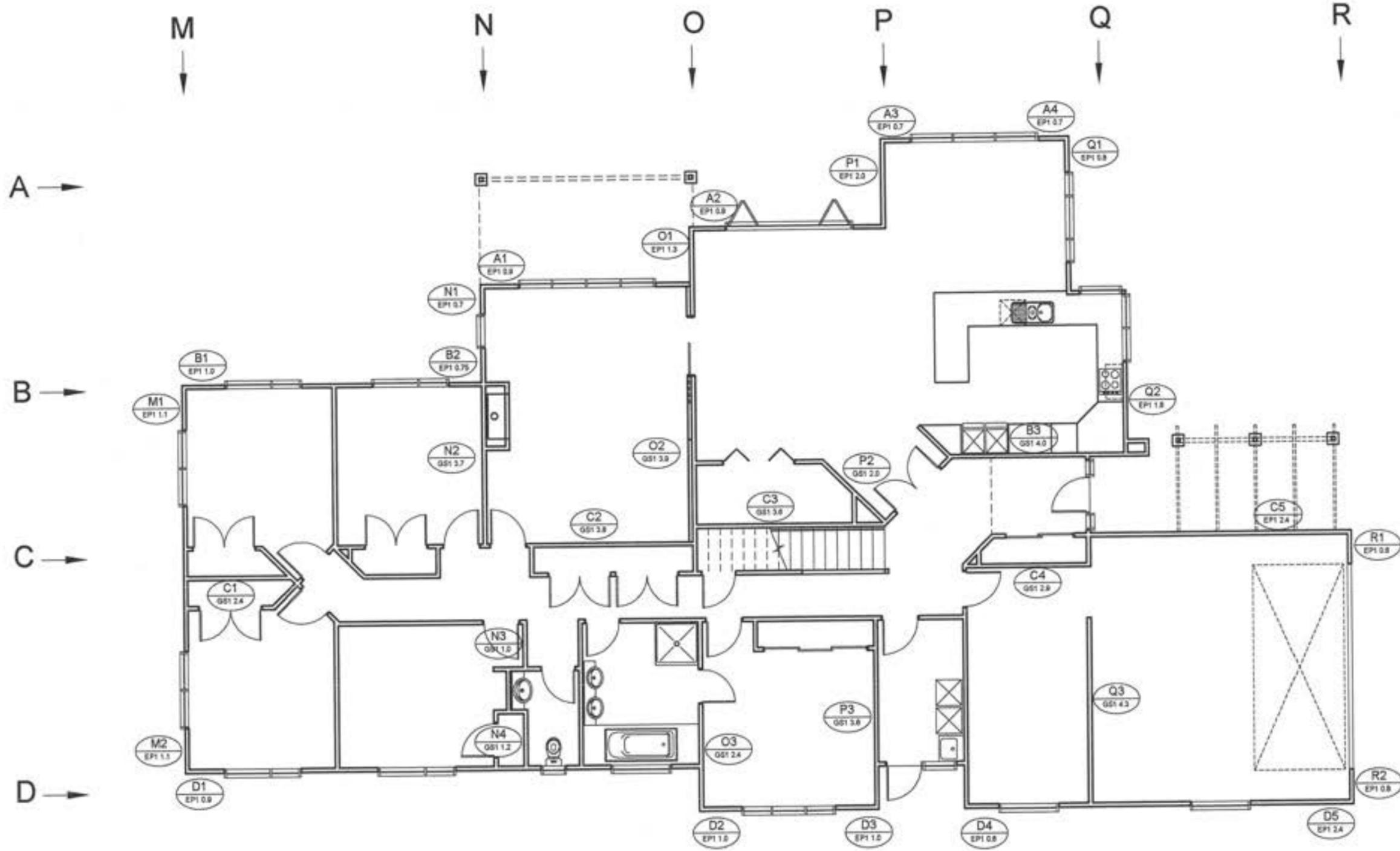
Design: **Bill Francis** Drawn: **bf**  
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Job: **001** Page of: **11** Rev: **B**

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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**LOWER BRACING PLAN**

Designer:  
**COASTAL**  
 ARCHITECTURE LTD  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: bil@francisparadise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **12** Rev: **C**

**ALL PLY BRACES MUST BE REBATED INTO FRAMING BY PRENAIL MANUFACTURER**

**NOTES:**

- THIS SITE IS A HIGH WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3804 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTEGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PRENAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR. ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BU'S UNDER.

**LOWER BRACING PLAN**  
 SCALE 1:100

All work shall be in accordance with the NZBC, if in doubt ASK  
 The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B

16 NOV 2010

ELECTRICAL LEGEND			
⊕	External lighting point	⌋	Permanent Point
⬠	Recessed Downlight	⌋TV	Television Point
⊞	Halogen	⌋PH	Telephone Point
⊙	Ceiling Light / Extract Fan	⌋tr	Heated Towel Rail
— —	Fluorescent tube	⌋od	Auto Garage Door Opener
⌋	Power Point (2 denotes double)	⊞	Switch Board
*	Smoke detector	⊞	Meter Board

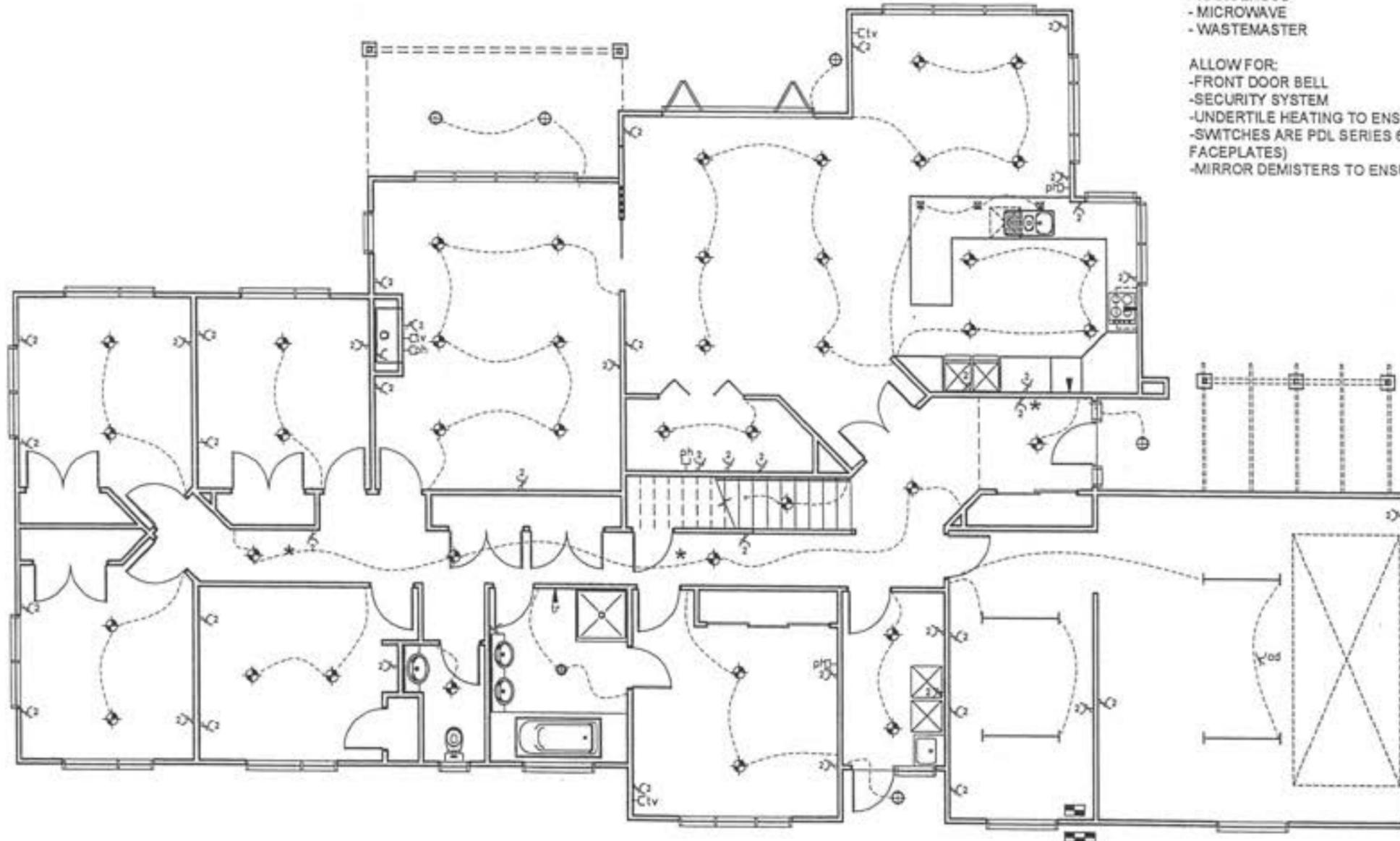
**ELECTRICAL**

RECESSED DOWNLIGHTS (IF USED) SHALL BE INSTALLED TO PREVENT TRANSFER OF MOISTURE INTO CEILING SPACE & MAINTAIN MIN CLEARANCE FROM INSULATION AS REQUIRED BY NZECP 54:2001

PROVIDE ELECTRICAL CERTIFICATE AFTER COMPLETION & PRIOR TO CODE COMPLIANCE CERTIFICATE BEING ISSUED

NOTE: ALLOW FOR POWER SUPPLY TO KITCHEN APPLIANCES  
 - DISHWASHER  
 - RANGEHOOD  
 - MICROWAVE  
 - WASTEMASTER

ALLOW FOR:  
 - FRONT DOOR BELL  
 - SECURITY SYSTEM  
 - UNDERTILE HEATING TO ENSUITE & BATHROOM  
 - SWITCHES ARE PDL SERIES 6000 (WHITE FACEPLATES)  
 - MIRROR DEMISTERS TO ENSUITE & BATHROOM



Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 360622,  
 RAUMATI

Drawing Title:  
**LOWER ELECTRICAL PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

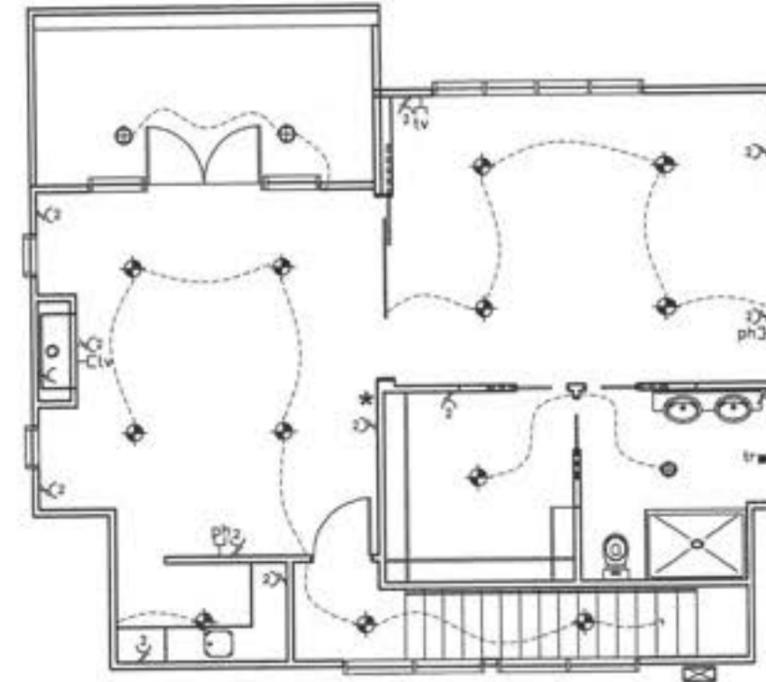
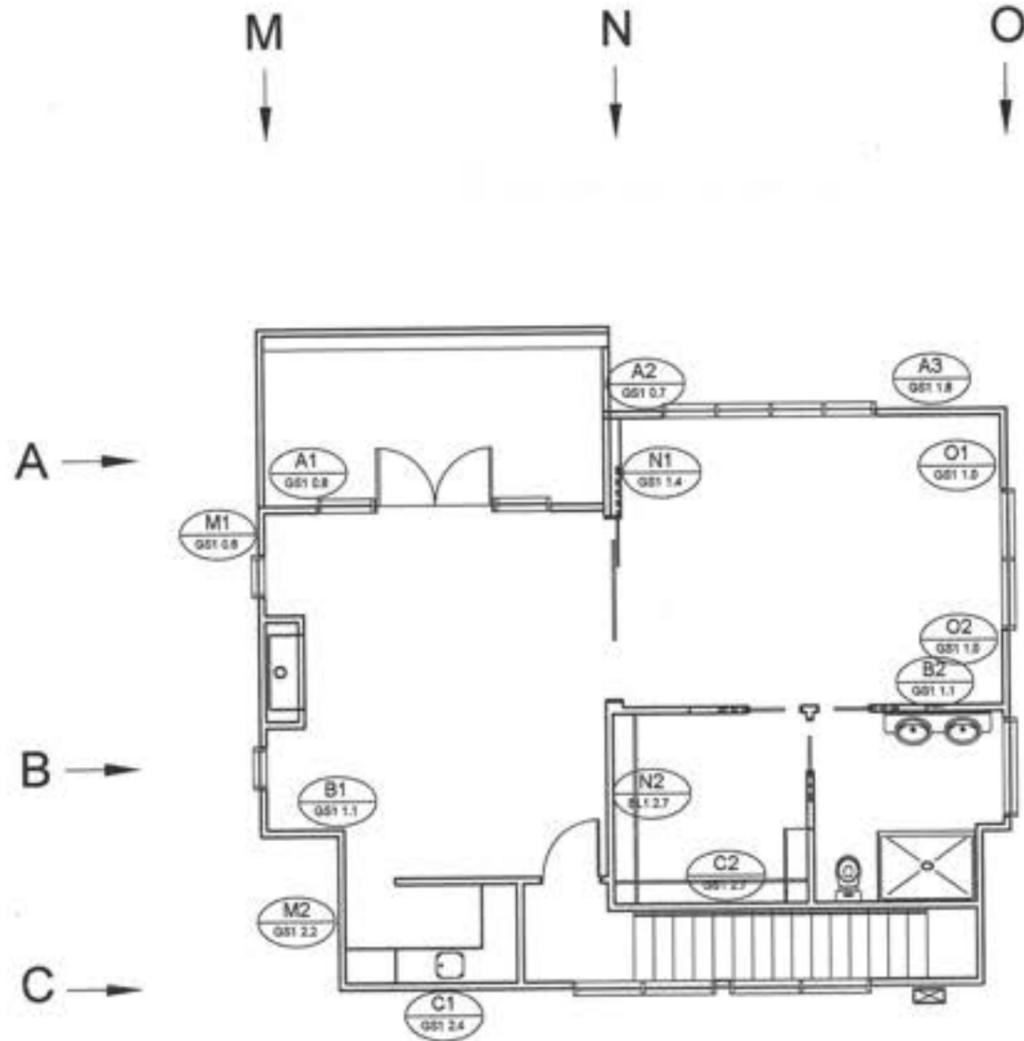
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 Scale: **as shown**

Job: **001** Page of: **13** Rev: **B**

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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C

16 NOV 2010



**NOTES:**

- THIS SITE IS A HIGH WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3604 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTEGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PREAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR. ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BU'S UNDER.

ELECTRICAL LEGEND			
⊕	External lighting point	▼	Permanent Point
◆	Recessed Downlight	tv	Television Point
⊞	Halogen	ph	Telephone Point
⊕	Ceiling Light / Exhaust Fan	tr	Heated Towel Rail
— —	Fluorescent tube	gd	Auto Garage Door Opener
Y	Power Point (2 denotes double)	SB	Switch Board
★	Smoke detector	MB	Meter Board

Project  
**NEW DWELLING**  
 Client  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**UPPER BRACING & ELECTRICAL PLANS**

Designer:

**COASTAL**  
 ARCHITECTURE LTD.

17 Fincham Road  
 Raumati Beach  
 New Zealand

Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

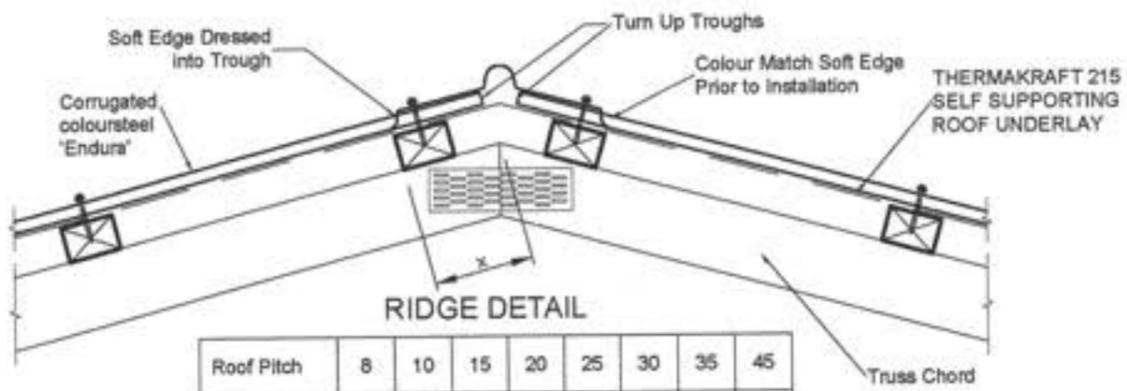
Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **14** Rev: **C**

**UPPER BRACING PLAN**  
 SCALE 1:100

**UPPER ELECTRICAL PLAN**  
 SCALE 1:100

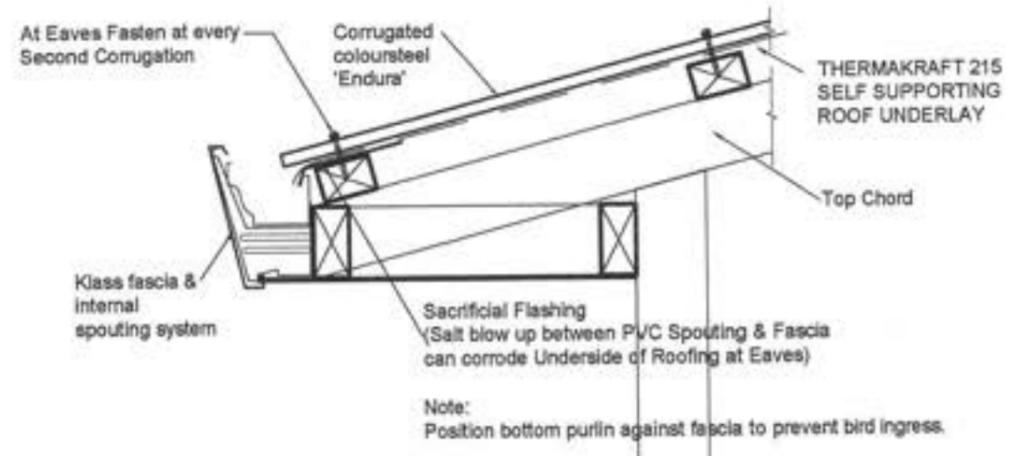
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**RIDGE DETAIL**

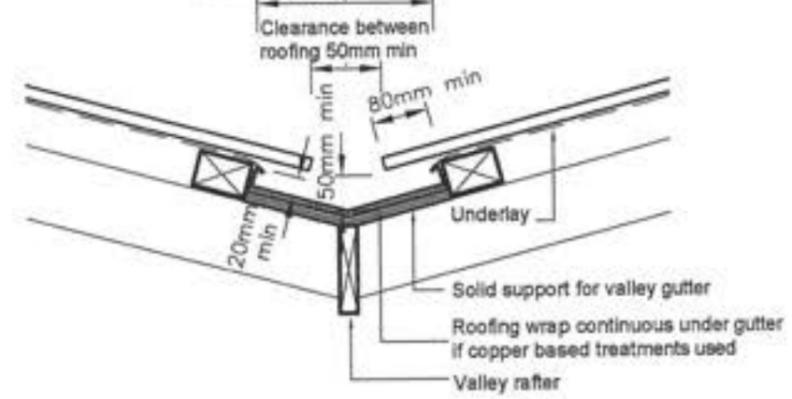
Roof Pitch	8	10	15	20	25	30	35	45
Dimension x	168	167	162	156	150	143	134	115

For Standard Ridge using ex 50mm Purlins on Flat

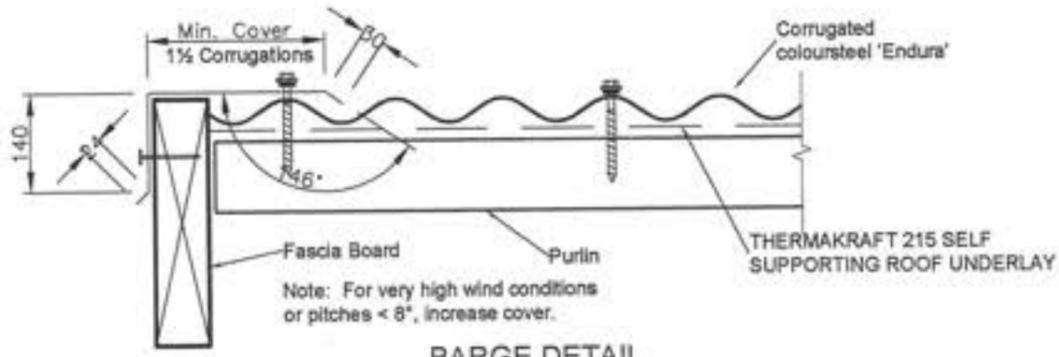


**SOFFIT DETAIL**

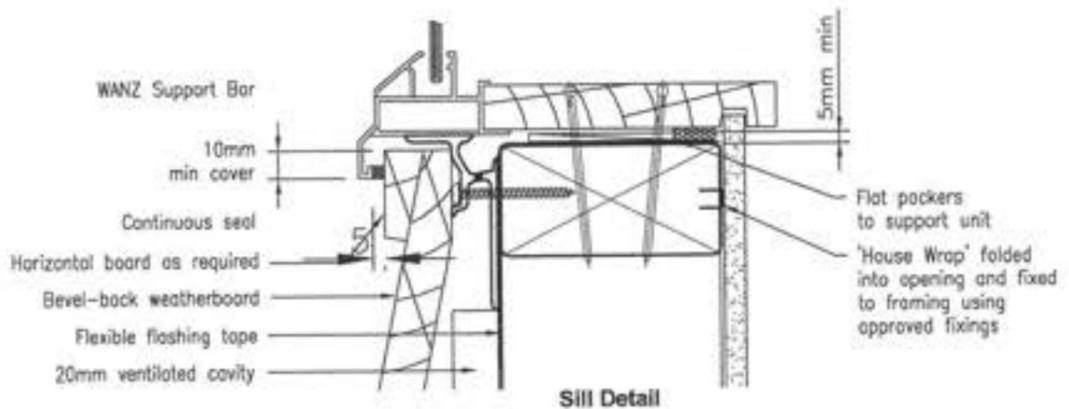
Overall valley gutter width 250mm min



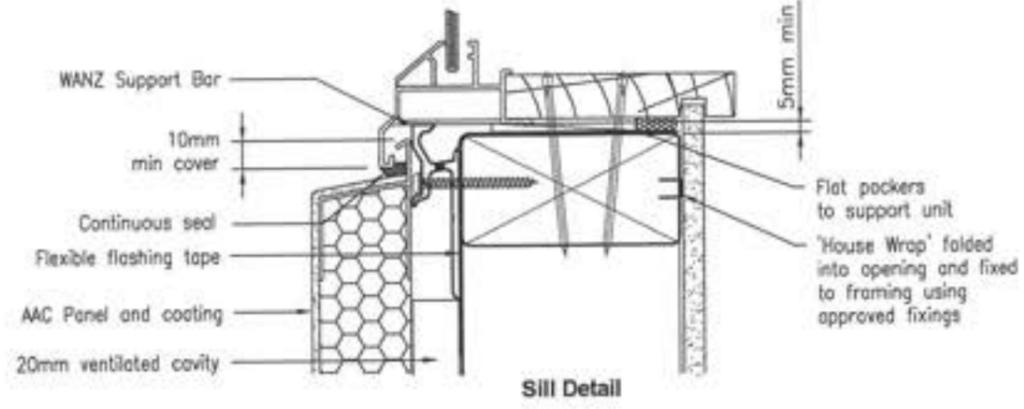
**VALLEY GUTTER DETAIL**



**BARGE DETAIL**



**Sill Detail**



**Sill Detail**

**WANZ SILL SUPPORT DETAILS**

Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

16 NOV 2010

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Project  
**NEW DWELLING**

Client  
 BAYLY

1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

---

Drawing Title:  
**DETAILS**

---

Designer:  
**COASTAL ARCHITECTURE LTD.**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 925 0958  
 e-mail: billfrancis@paradise.net.nz

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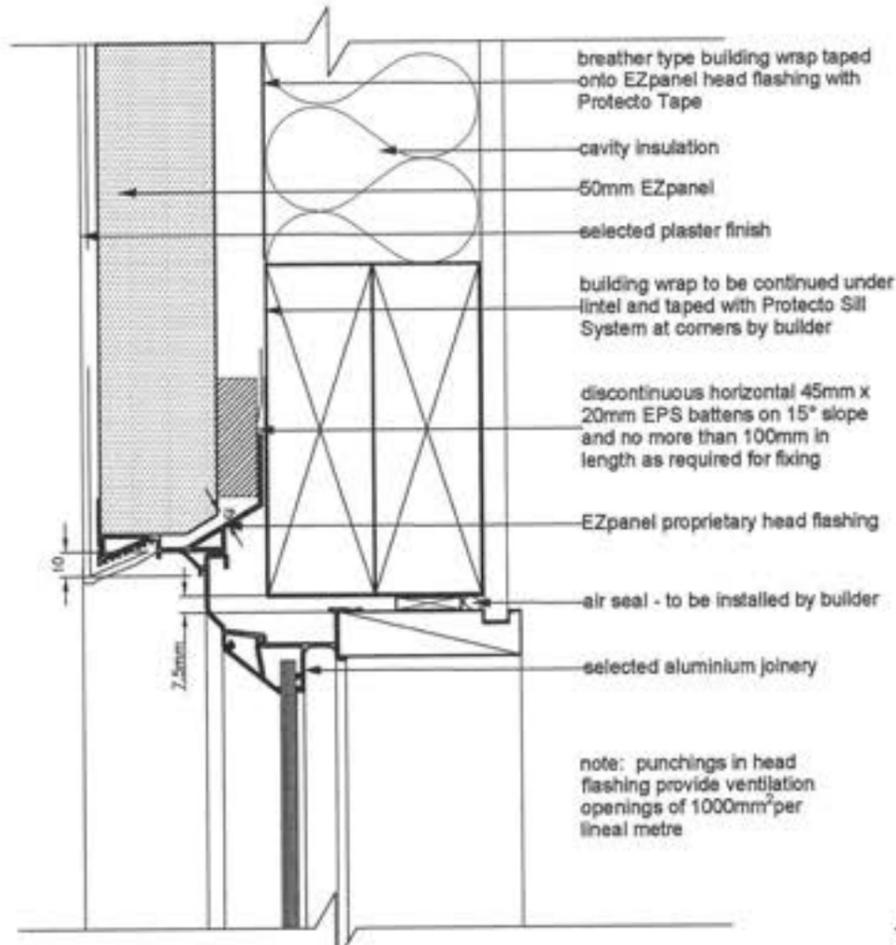
Design: <b>Bill Francis</b>	Drawn: <b>bf</b>
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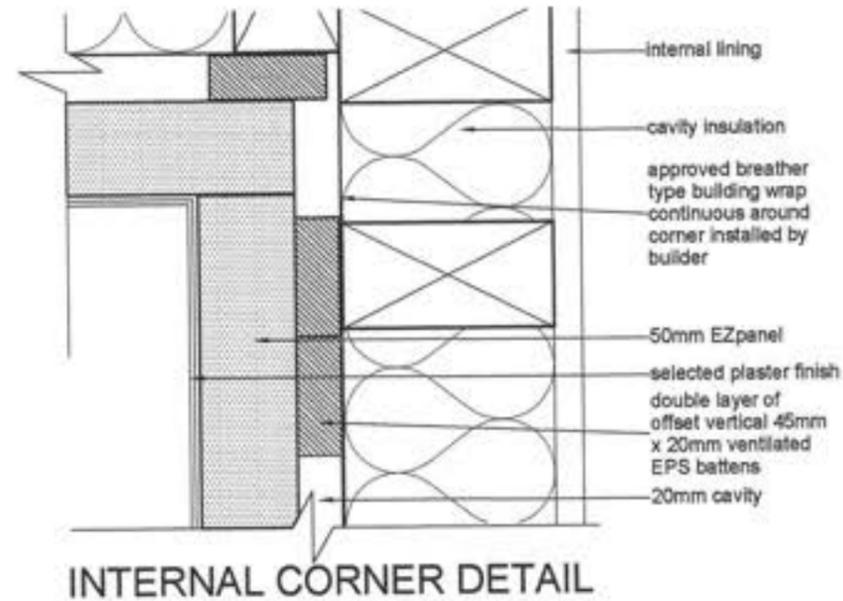
Job: <b>001</b>	Page of: <b>15</b>	Rev: <b>B</b>
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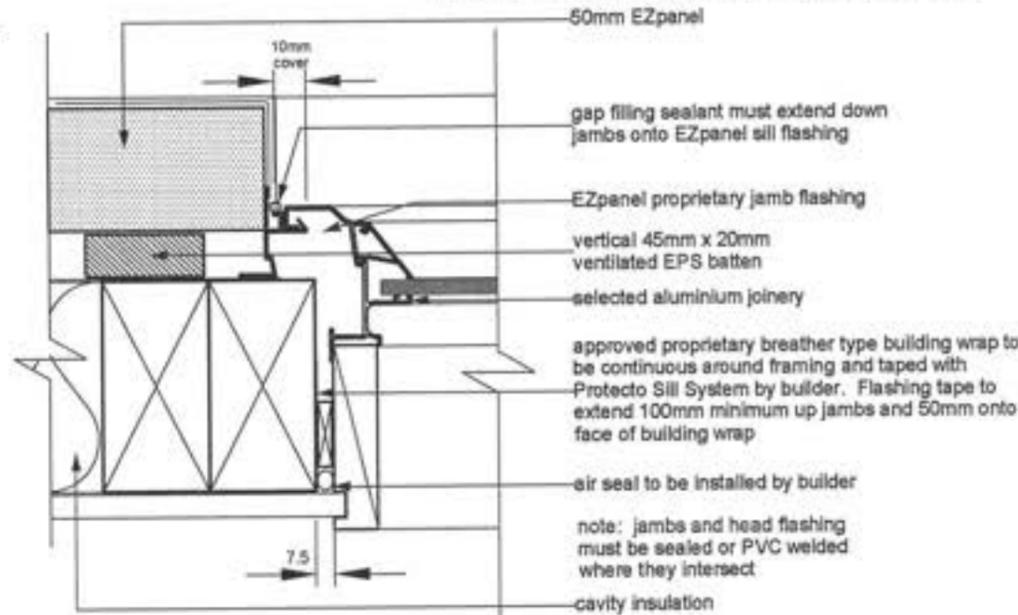
16 NOV 2010



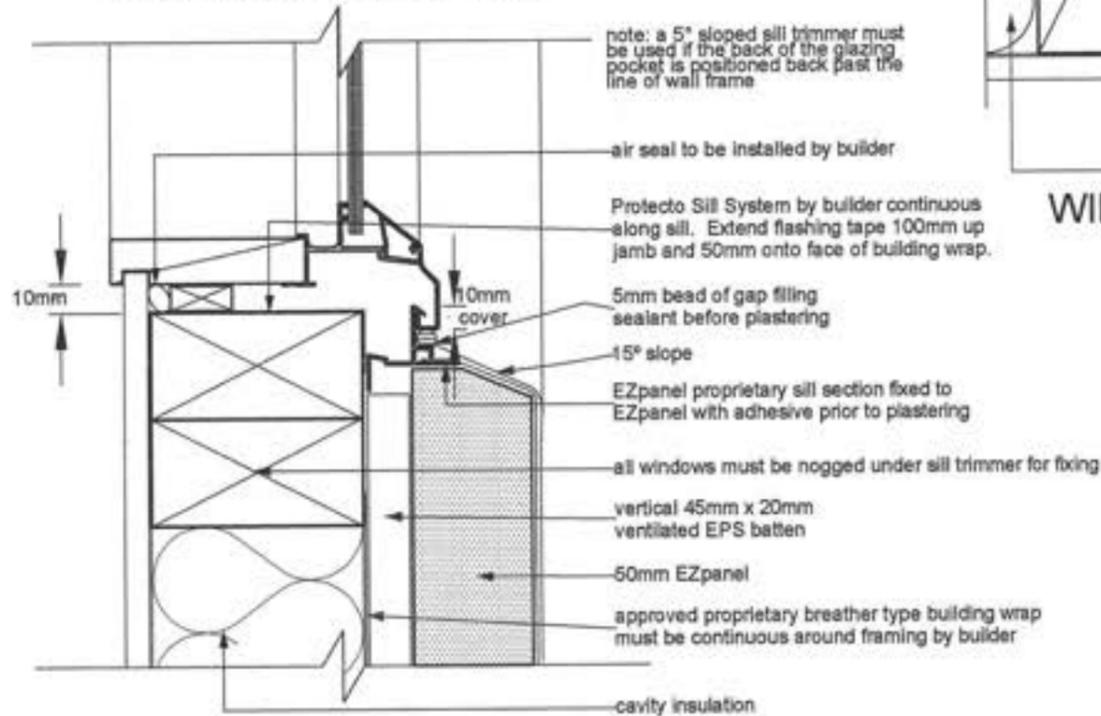
WINDOW HEAD DETAIL



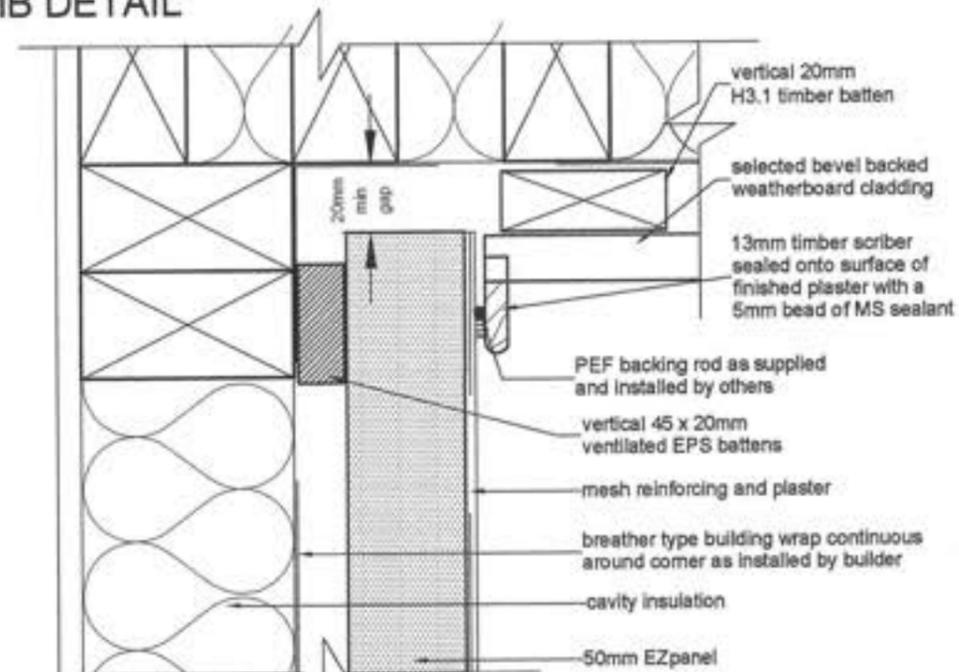
INTERNAL CORNER DETAIL



WINDOW JAMB DETAIL



WINDOW SILL DETAIL



INTERNAL CORNER WITH WEATHERBOARD DETAIL

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**DETAILS**

Designer:

**COASTAL**  
 ARCHITECTURE LTD.

17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

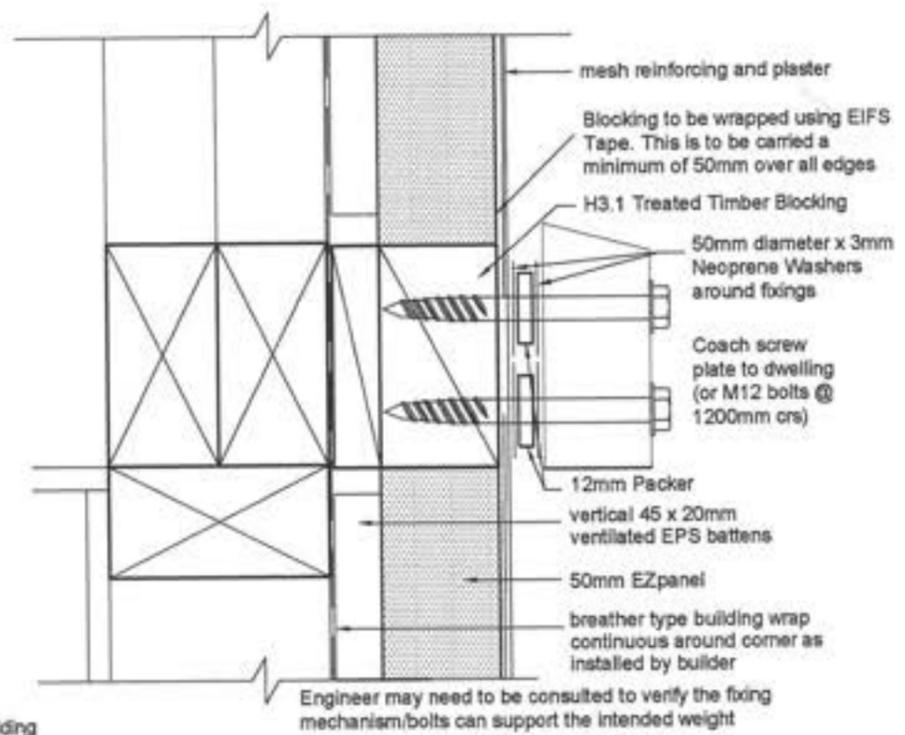
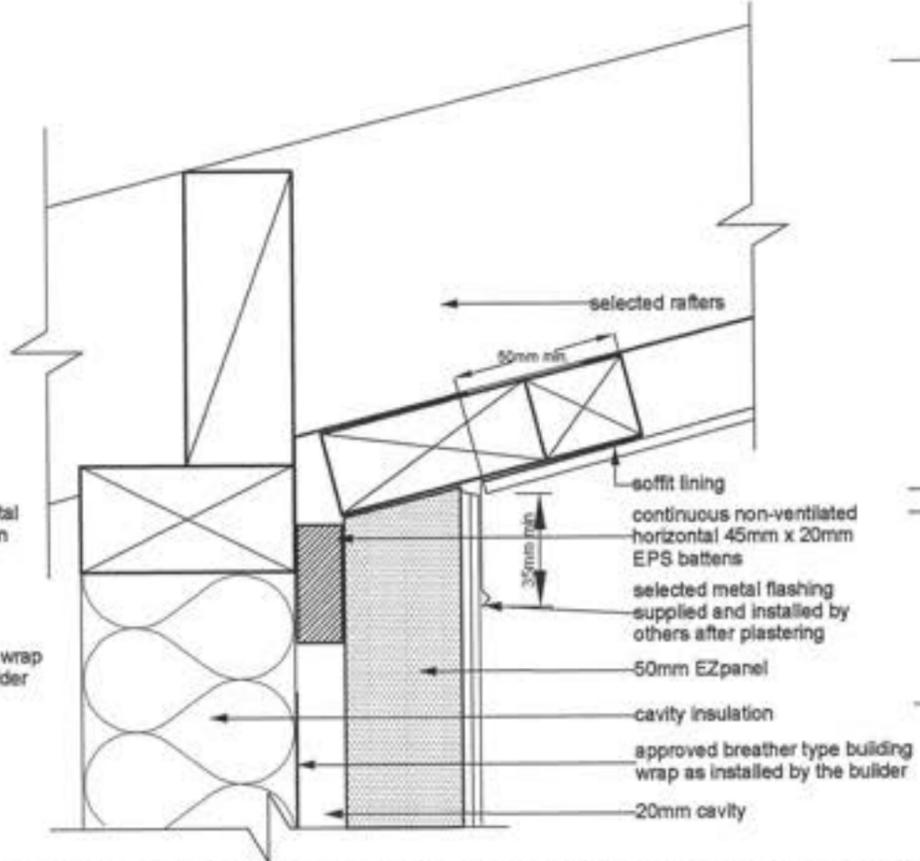
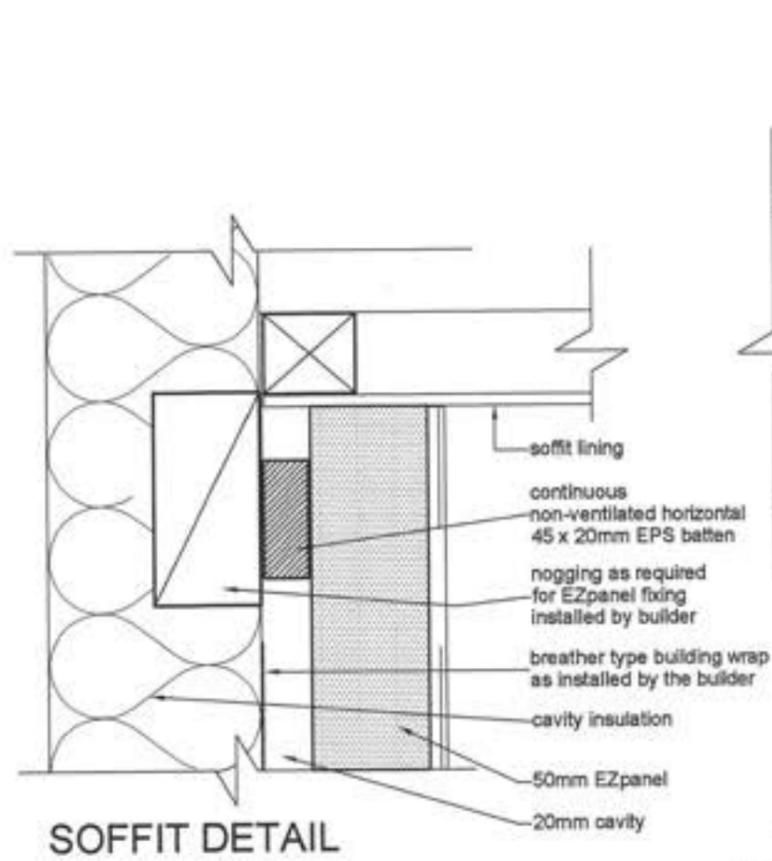
Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **16** Rev: **B**

All work shall be in accordance with the NZBC, if in doubt AS/NZS 1171:2009 shall apply.  
 The Contractor must verify all dimensions on the job before commencing any work or stop drawings. Figure dimensions are to be used, scaled dimensions must be verified.  
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Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

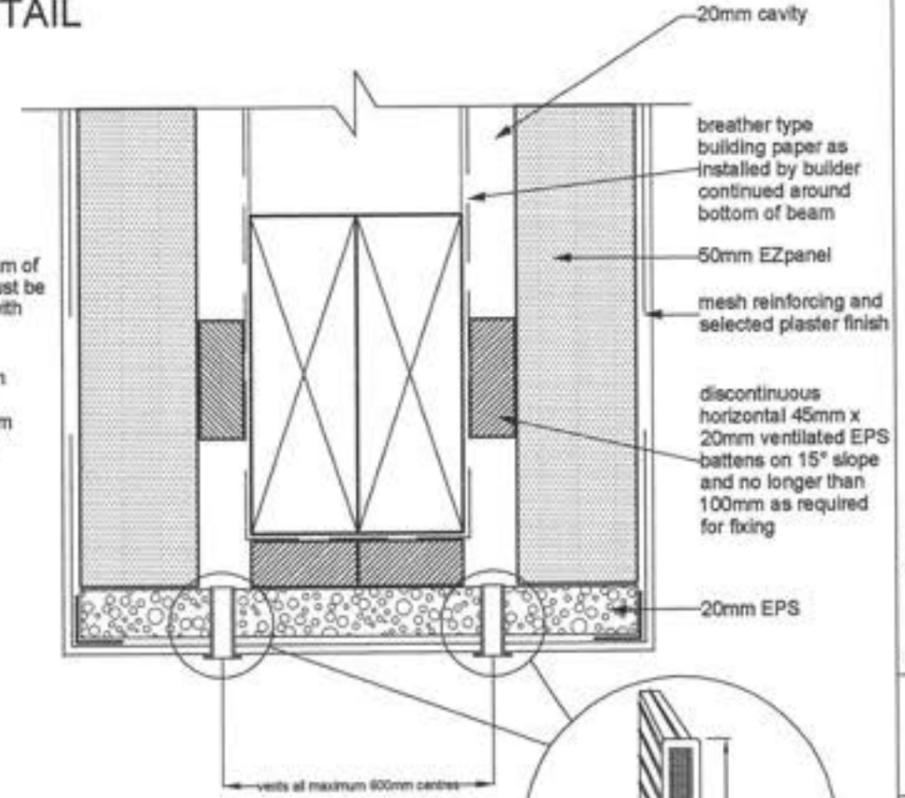
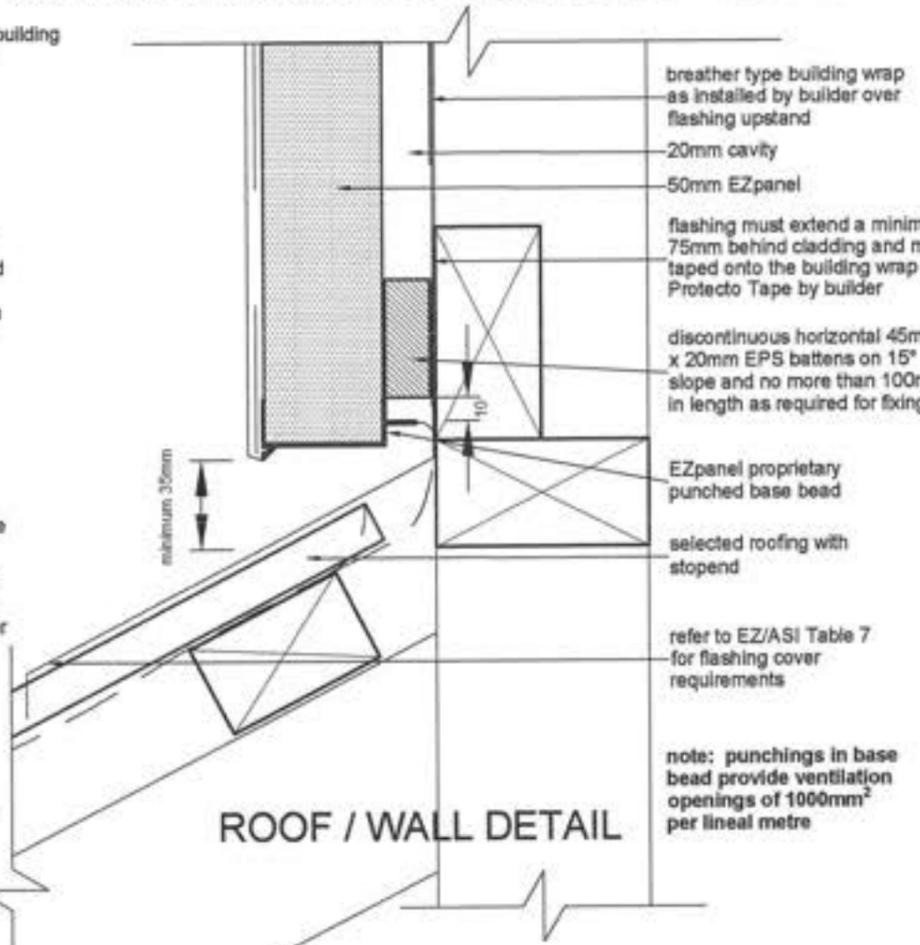
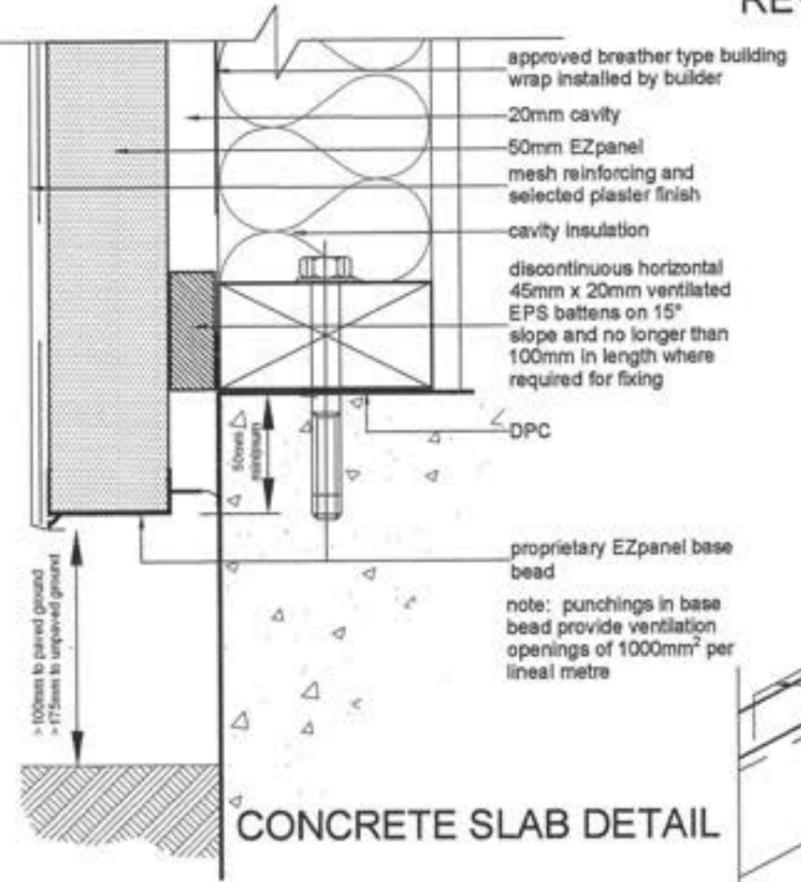
16 NOV 2010



SOFFIT DETAIL

REVERSE RAKING SOFFIT METAL FLASHING DETAIL

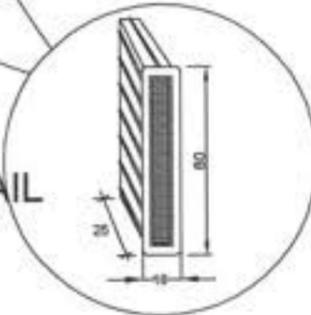
BLOCK FIXING FOR PERGOLA RAFTER SUPPORT DETAIL



CONCRETE SLAB DETAIL

ROOF / WALL DETAIL

ENCLOSED BEAM DETAIL



Project:  
**NEW DWELLING**  
 Client:  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

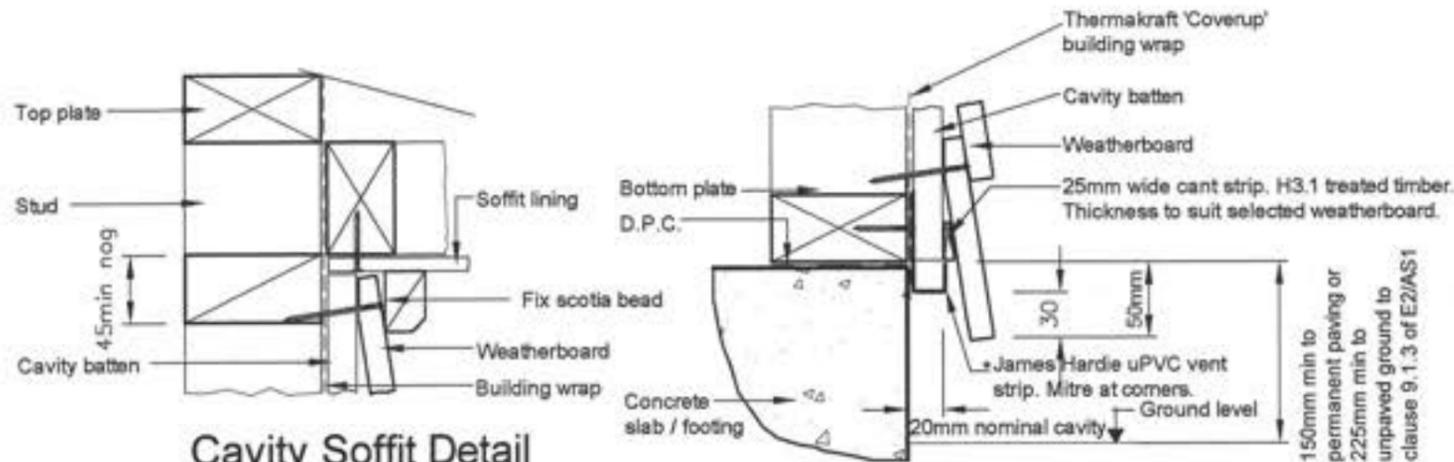
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

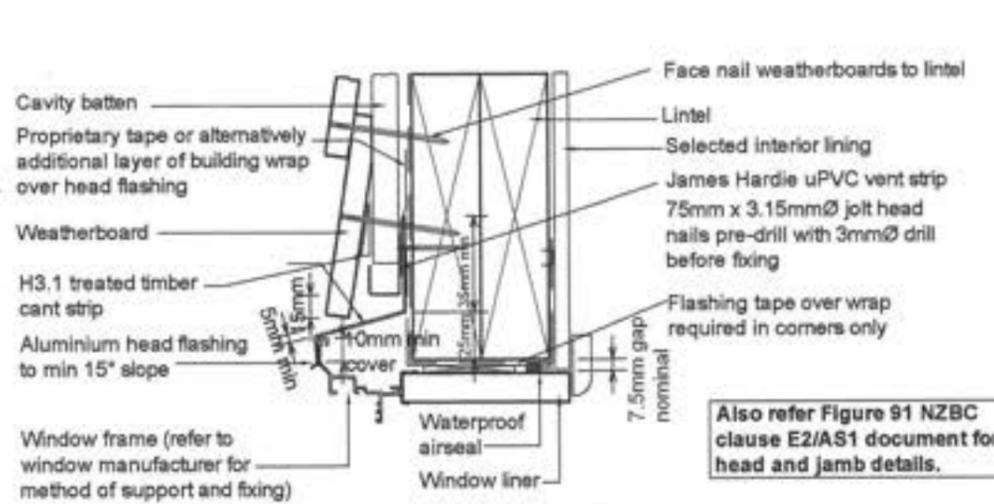
Drawn:  
**Bill Francis**  
 Drawn:  
**bf**  
 Scale:  
**as shown**

Job: **001** Page of: **17** Rev: **B**

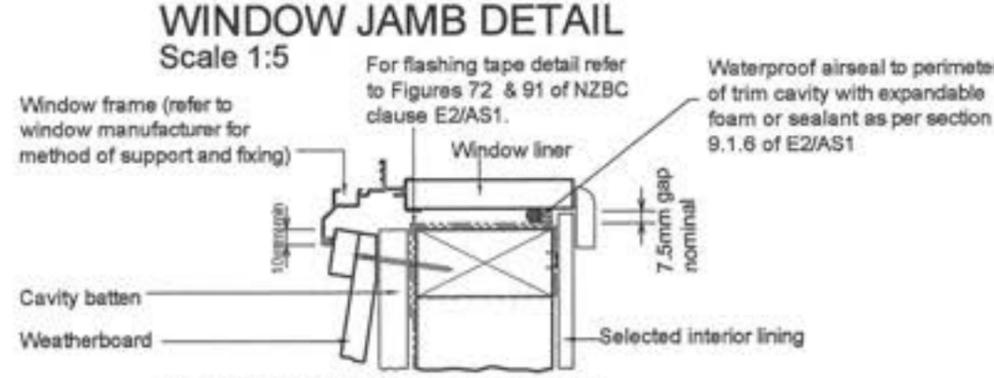
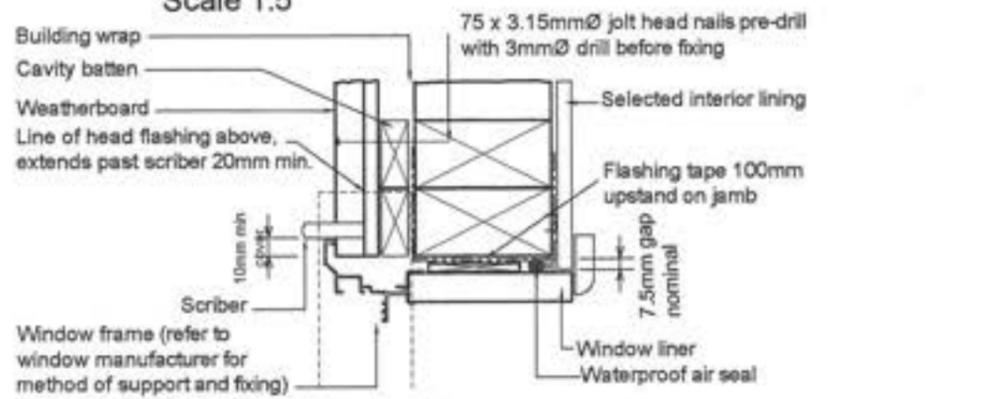
All work shall be in accordance with the NZBC, if in doubt AS/NZS 1170.0:2002.  
 The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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\*Drain holes in James Hardie uPVC vent strip are sufficient to achieve ventilation openings of 1000mm<sup>2</sup> per lineal metre



Also refer Figure 91 NZBC clause E2/AS1 document for head and jamb details.

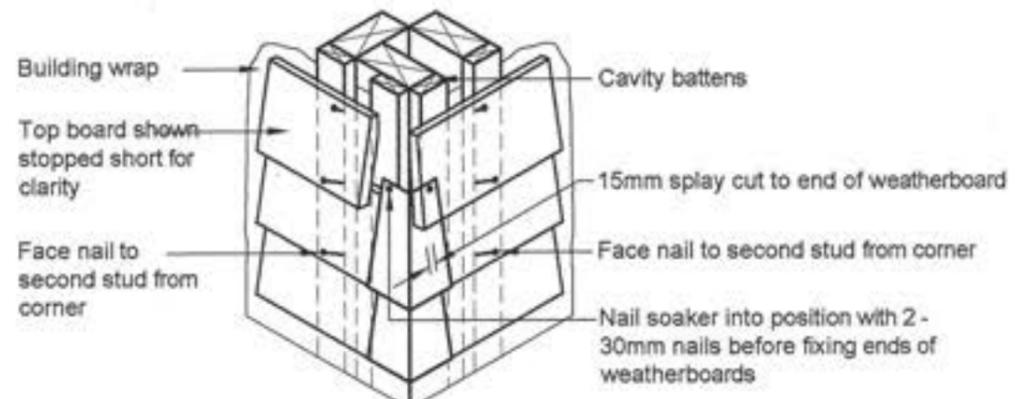


**General notes for materials section**

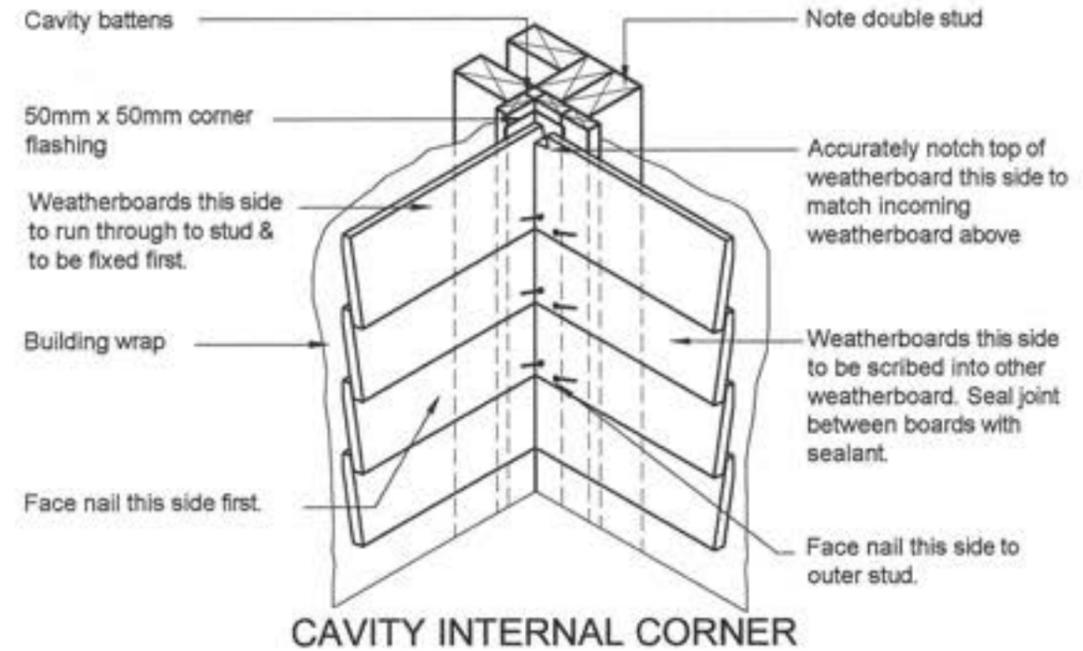
- Flashing materials must be selected based on environmental exposure, refer to NZS 3604 and Table 20 of NZBC clause E2/AS1.
- Building wrap must comply with acceptable solution NZBC clause E2/AS1 and NZS 3604.
- Flashing tape must have proven compatibility with the selected building wrap and other materials with which it comes into contact as per Table 21 of NZBC clause E2/AS1. Refer to the manufacturer or supplier for technical information for these materials

**LINEA NOTES:**

- Cladding to be installed to manufacturers requirements in particular fixing and ground clearance
- Thermakraft 'Coverup' building wrap with AluBand window sealing systems to be installed to manufacturers specifications and in accordance to NZBC E2/AS1
- Exposed Metal flashings to be colorsteel and colour matched to the cladding final colour. Metal flashings to comply with the durability requirements of Section 4 NZS 3604 & Table 20 NZBC E2/AS1
- Sealants to be colour matched to the coatings. Use manufacturer approved sealants only.
- Windows to be installed with WANZ sill flashings and support brackets as necessary
- Refer to James Hardie technical specifications for additional information
- Ensure all cut edges are sealed with approved and compatible sealant before installing
- Linea to be painted colours to comply with James Hardie Specifications



Soaker material	Nail material
Copper	Copper or phosphor bronze
Aluminium	Hot dip galvanised / Stainless steel
Stainless steel	Stainless steel



Revisions:  
SEPTEMBER '10 rev A  
NOVEMBER '10 rev B

16 NOV 2010

Project:  
**NEW DWELLING**  
Client:  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

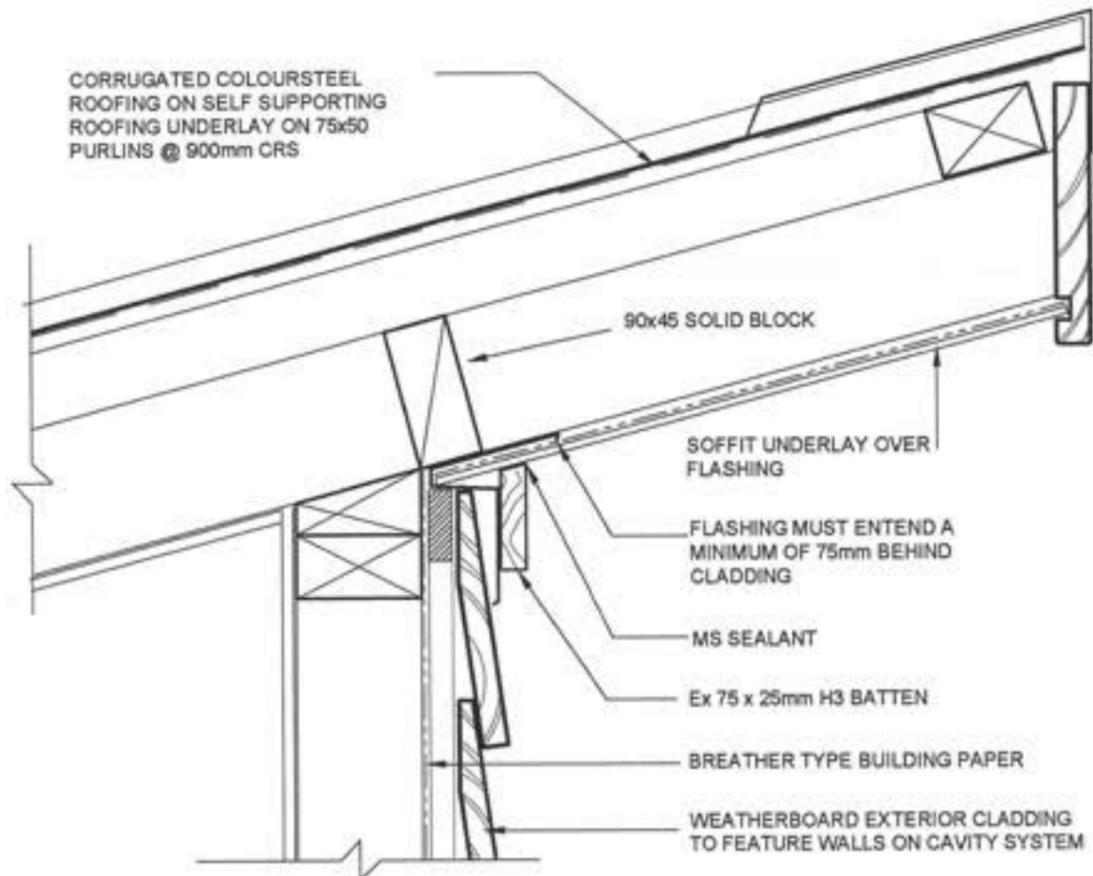
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Pincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: bfr@coastalparadise.net.nz

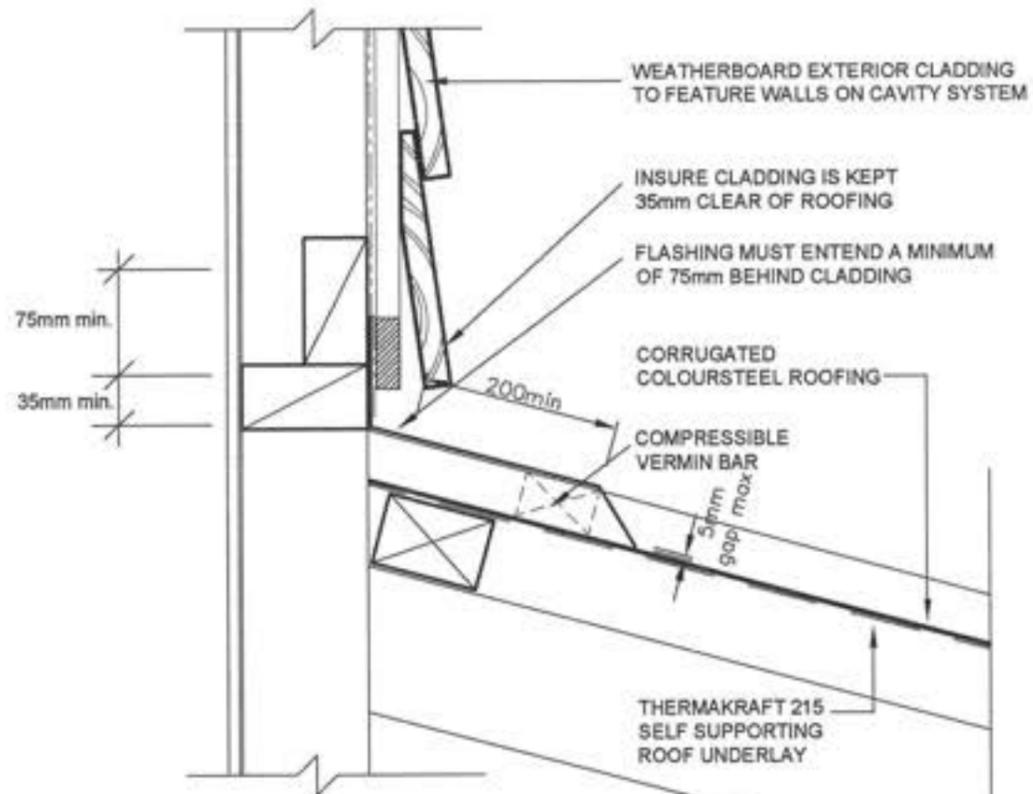
Design: **Bill Francis**  
Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **18** Rev: **B**

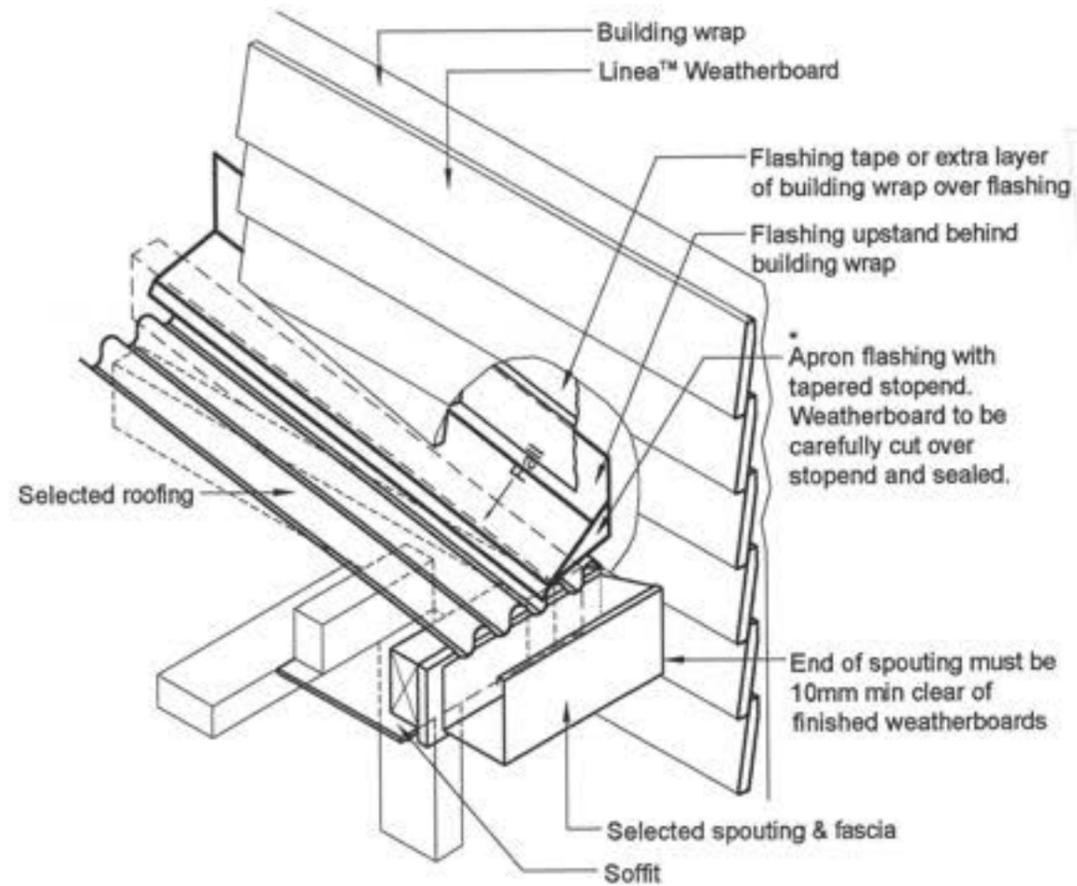
All work shall be in accordance with the NZBC. If in doubt AS1.  
The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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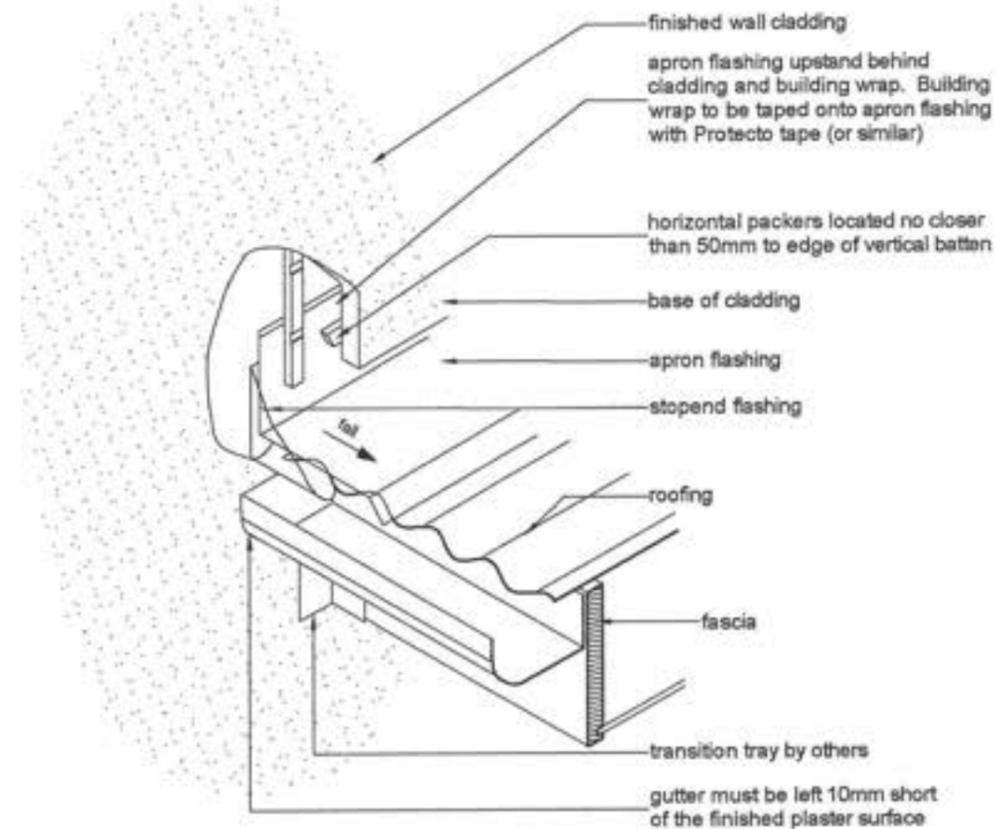
**REVERSE SOFFIT DETAIL** SCALE 1:5



**APRON FLASHING DETAIL** SCALE 1:5



\* When 50 year durability for flashing is required refer Table 20 of E2/AS1 of NZBC.



**ROOF KICKOUT FLASHING**

Revisions:  
SEPTEMBER '10 rev A  
NOVEMBER '10 rev B

16 NOV 2010

Project:  
**NEW DWELLING**  
Client:  
BAYLY  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

Drawing Title:  
**DETAILS**

Designer:

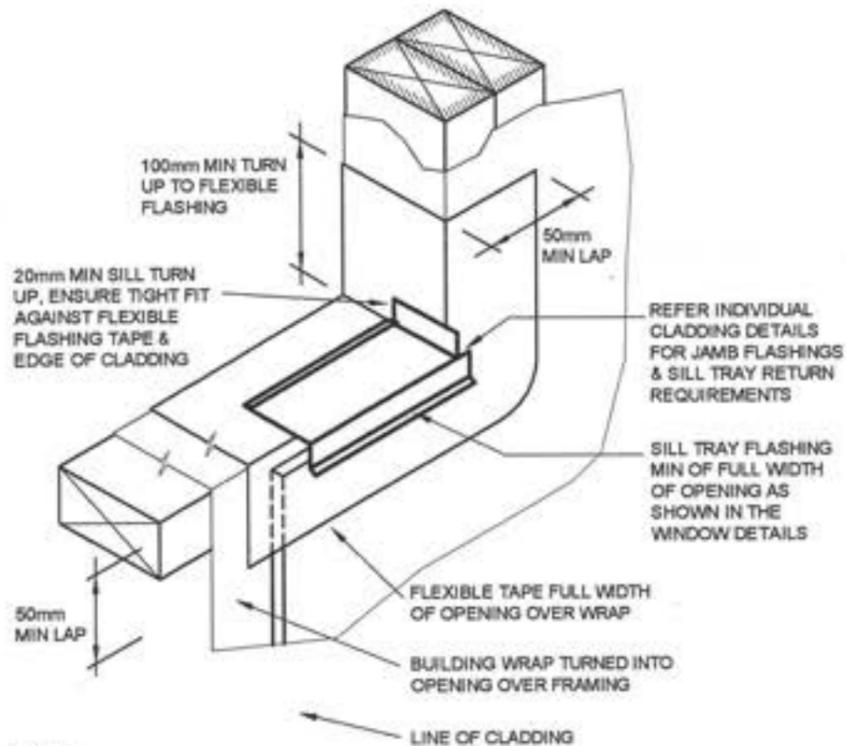
**COASTAL ARCHITECTS LTD.**

17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

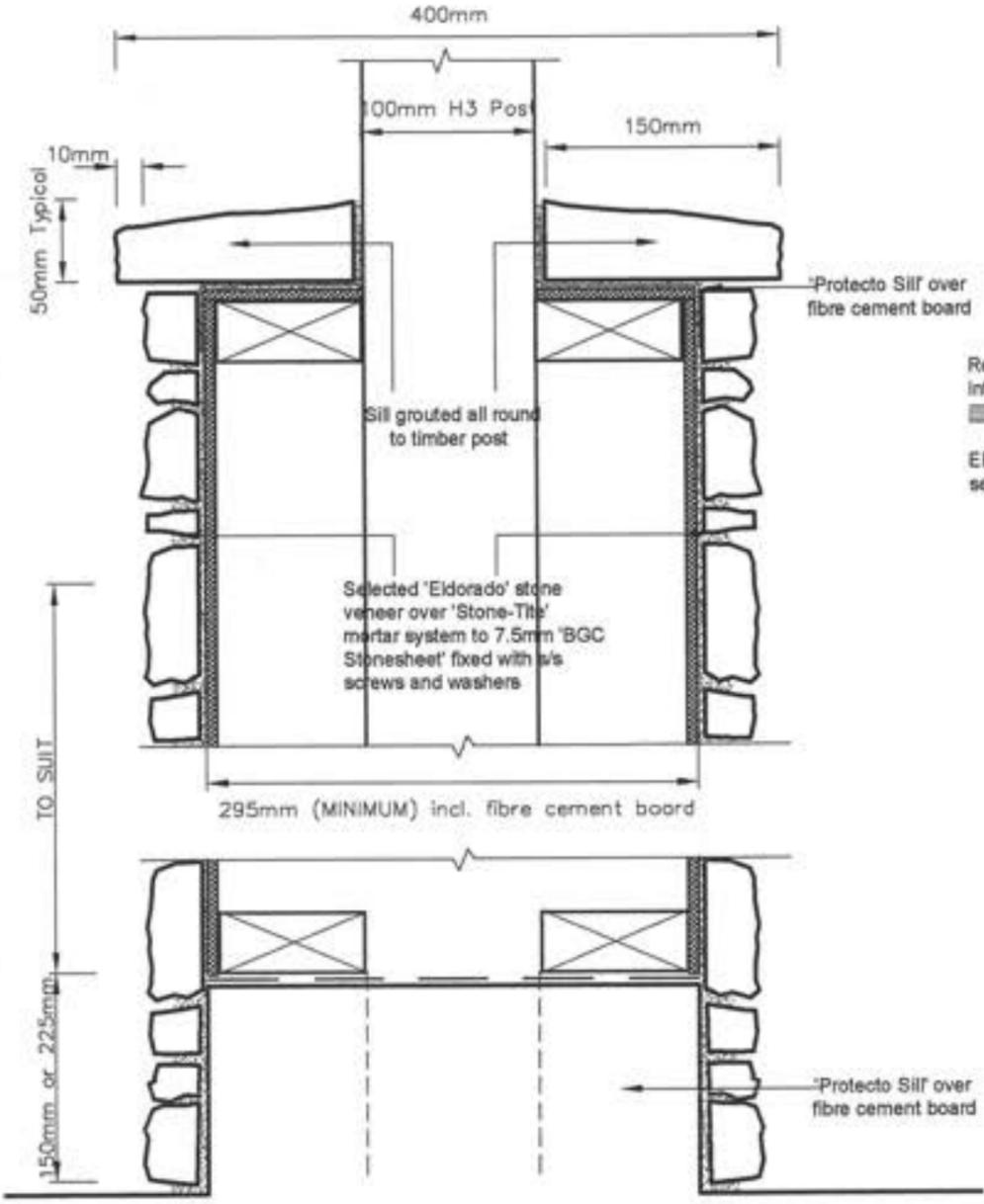
Job: **001** Page of: **19** Rev: **B**

All work shall be in accordance with the NZBC, if in doubt AS/NZS.  
The Contractor must verify all dimensions on the job before commencing any work or site drawings. Figured dimensions are to be used, unfigured dimensions must be verified.  
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NOTE:  
 -SILL FLASHING SHALL EXTEND BACK PAST THE CONDENSATION CHANNEL OF THE WINDOW.  
 -HEAD TO BE TREATED SIMILARLY WITH CONTINUOUS BUILDING WRAP & FLEXIBLE TAPE AT CORNERS.  
 -OPENINGS IN CAVITY WALLS SHALL BE TREATED SIMILARLY, EXCEPT THE SILL FLASHINGS SHALL BE OMITTED

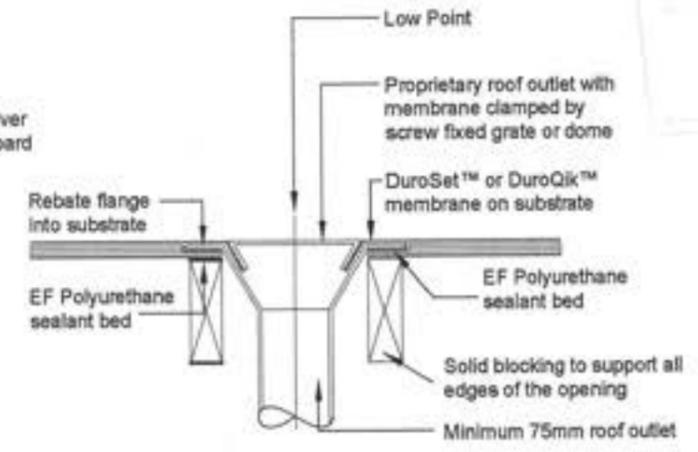
**BUILDING WRAP OPENING DETAIL n.t.s**



**STONE COLUMN DETAIL**

SCALE 1:5

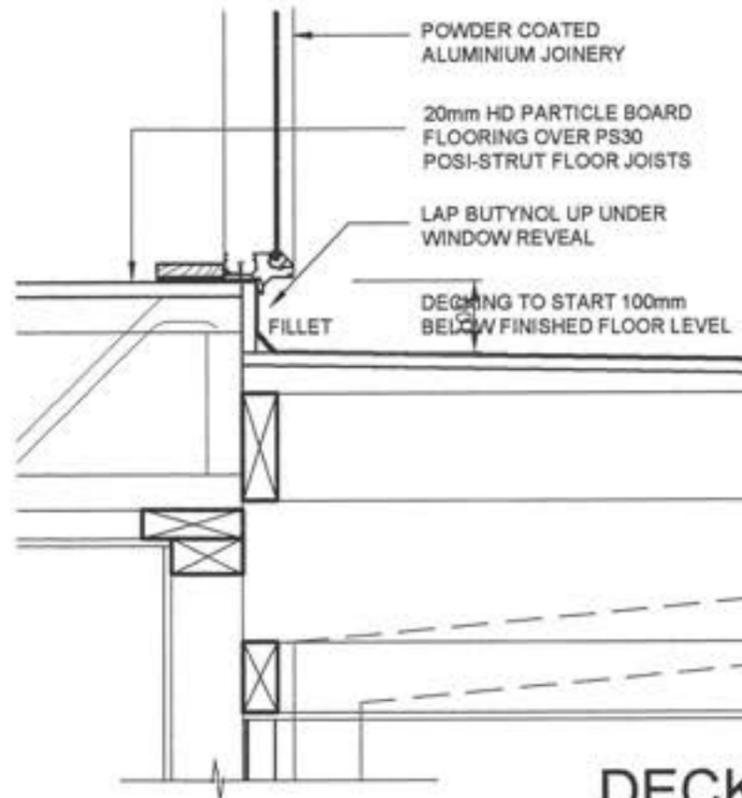
1:60 FALL



1m HIGH SAFETY GLASS BALUSTRADE

NOTE: BALUSTRADE FIXING TO BOUNDARY JOIST & SOLID BLOCKING TO COMPLY WITH NZBC B1

1.5mm BUTYNOL WATERPROOF MEMBRANE DECKING OVER 18mm TREATED PLYWOOD GLUED & STAINLESS STEEL SCREWED TO JOISTS. ON RIPPING @ 1:60 FALL



**DECK / BALUSTRADE DETAIL SCALE 1:10**

Revisions:  
 SEPTEMBER '10 rev A  
 NOVEMBER '10 rev B

16 NOV 2010

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0956  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
 Scale: **as shown**

Job: **001** Page of: **20** Rev: **B**

All work shall be in accordance with the NZBC. If in doubt ASK  
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16 NOV 2010

Project  
**NEW DWELLING**  
Client  
**BAYLY**  
1 MOSS LANE  
LOT 1, DP 380622,  
RAUMATI

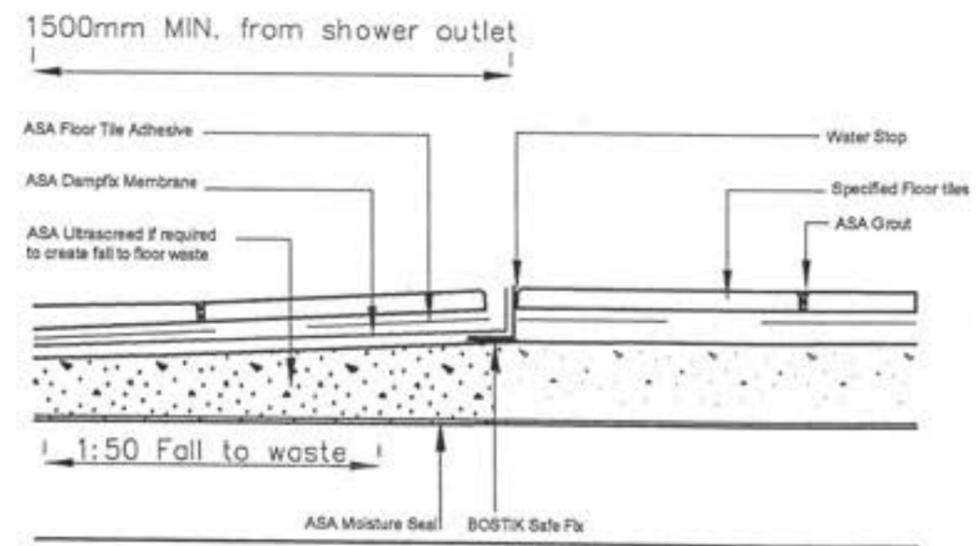
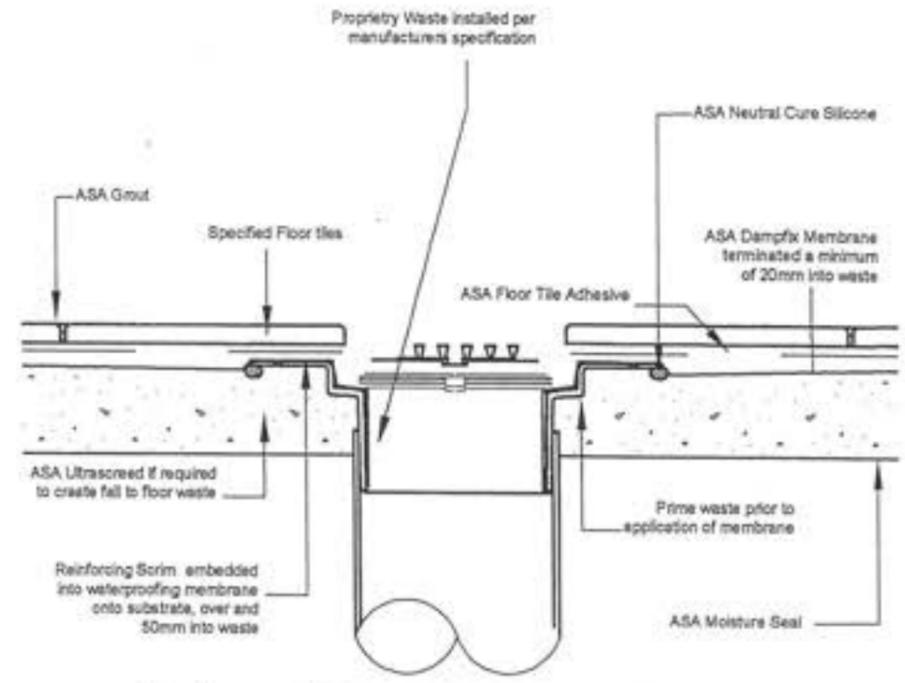
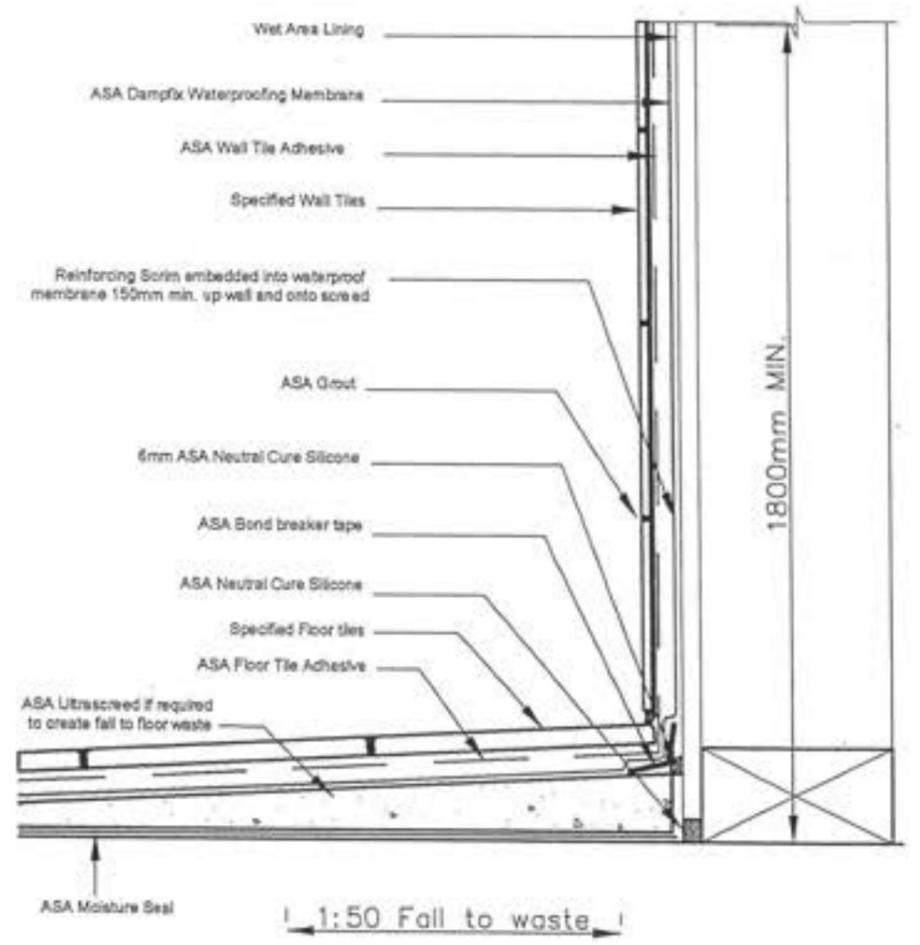
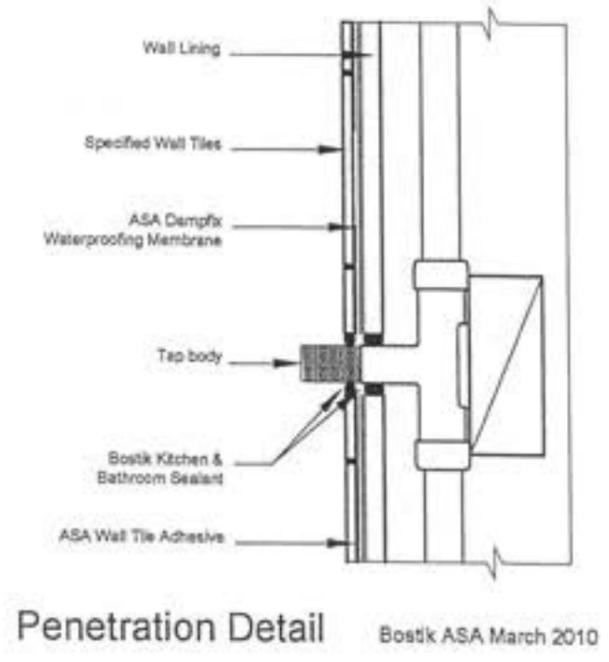
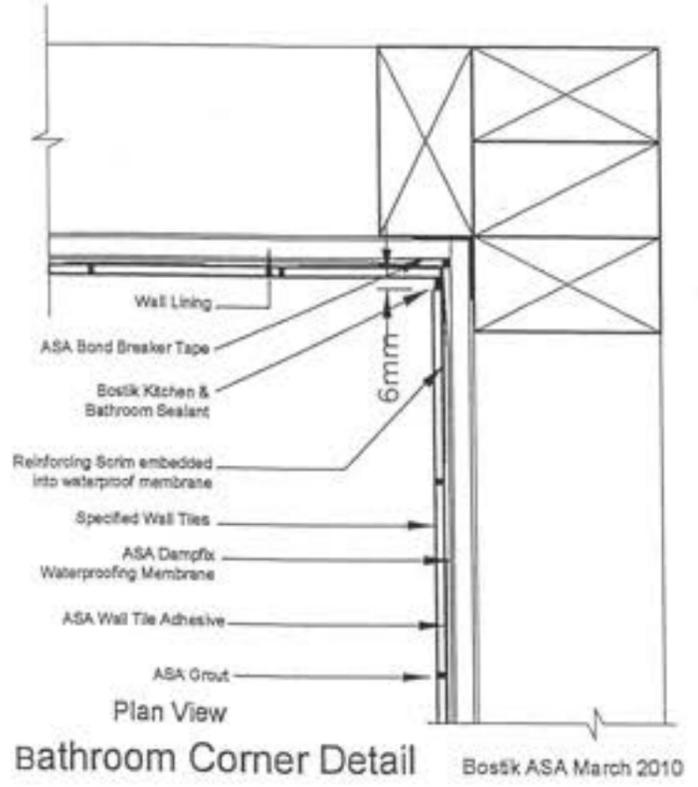
Drawing Title:  
**DETAILS**

Designer:  
**COASTAL ARCHITECTURE LTD**  
17 Fincham Road  
Raumati Beach  
New Zealand  
Tel: 04 905 0958  
e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis** Drawn: **bf**  
Scale: **as shown**

Job: **001** Page of: **21** Rev: **A**

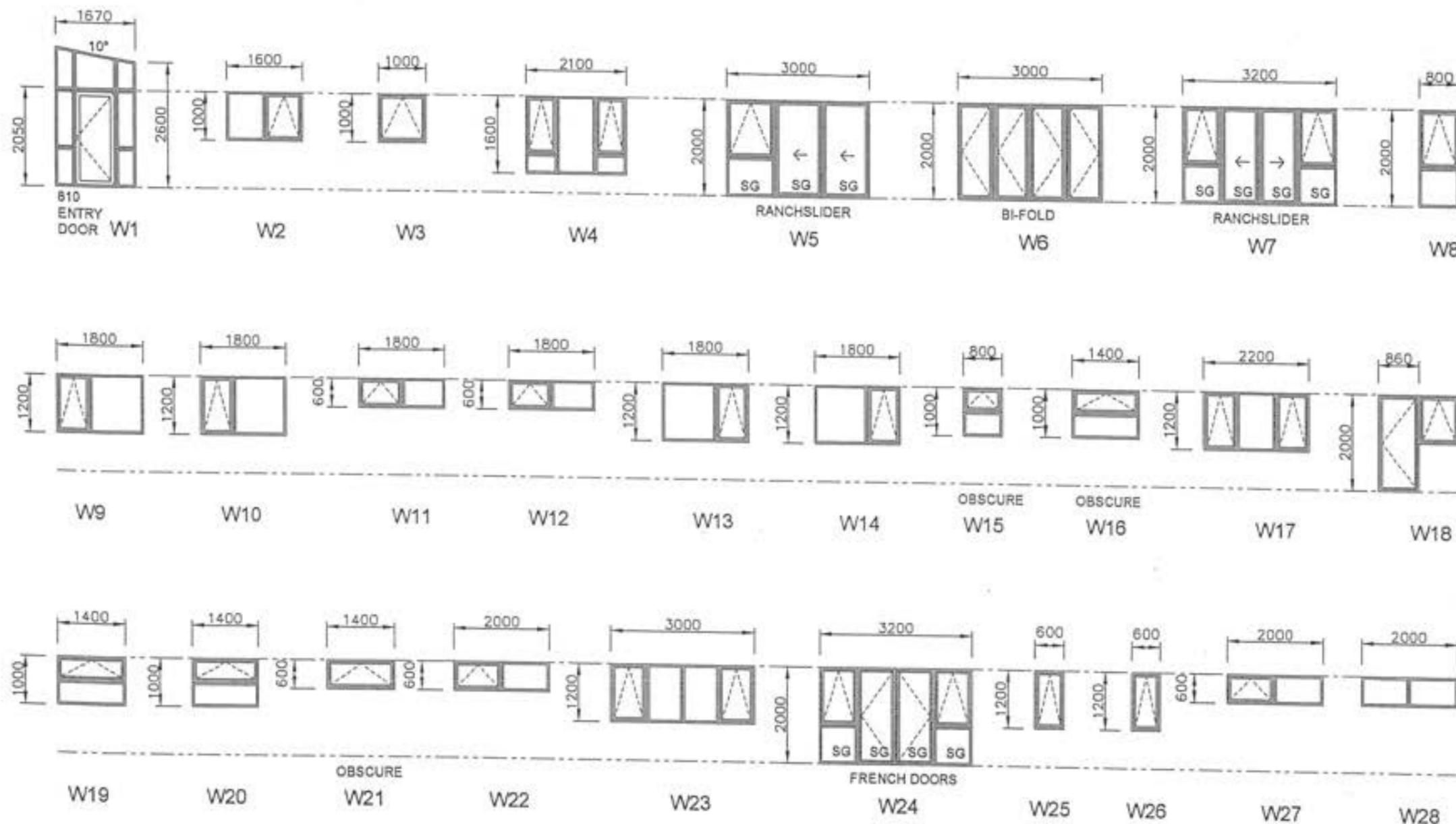
All work shall be in accordance with the NZBC, if in doubt ASX  
The Contractor must verify all dimensions on the job before commencing any work or stop drawings. Figured dimensions are to be used, scaled dimensions must be verified.  
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NOTE: Refer to specifications for selected ASA waterproofing, grout and tile adhesive

Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B

16 NOV 2010



# WINDOW SCHEDULE

SCALE 1:100

The supplier and the main contractor shall check all dimensions on site and confirm prior to manufacture.

Exterior joinery to comply with NZS 4211, design to very high wind pressure and suitable head flashings to be fitted to all units.

GLAZING TO CONFORM NZS 4223 PT 1, 2 & 3 1999 VERSION  
 HIGH WIND 1100pa DWP  
 VERY HIGH WIND 1550pa DWP

RESTRICTOR STAYS TO LIMIT SASH OPENING TO MAX 100mm MUST BE FITTED WHEREVA SILL HEIGHT IS LESS THAN 760mm & THE DIFFERENCE IN LEVELS ARE 1m OR GREATER. REFER F4 NZ8C

SAFETY GLASS AS REQUIRED BY NZS 4223 PT 3 1999 VERSION TO BE PROVIDED TO ALL WET AREA JOINERY, GLAZED DOORS, SIDE PANELS, FULL HEIGHT WINDOWS & WINDOWS WITH CILLS LESS THAN 500mm FROM FFL.

Project:  
**NEW DWELLING**  
 Client:  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**JOINERY SCHEDULE**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: Bill Francis  
 Drawn: bf  
 Scale: as shown

Job: 001 Page of: 22 Rev: B

All work shall be in accordance with the NZBC. If in doubt ASK. The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figured dimensions are to be used. Actual dimensions must be verified. The drawing and concept are copyright of Coastal Architecture Ltd. The recipient of this document is prohibited from disclosing its content for any purpose without the prior written consent of Coastal Architecture Ltd.

# E2/AS1 : Building Envelope Risk Matrix.

## Project Details.

Name NAME BAYLY  
 Street/No. STREET 1 MOSS LAKE  
 Lot/DP/No. LOT LOT 1  
 City/Town/District CITY RAUMATI

Revisions:  
 SEPTEMBER '10 rev A

6 NOV 2010

### Definition of Risk [table 1 from E2/AS1]

Factor	Risk	Detail
A Wind Zone	LOW	LOW wind zone as described by NZS 3604
	MEDIUM	MEDIUM wind zone as described by NZS 3604
	HIGH	HIGH wind zone as described by NZS 3604
	V.HIGH	VERY HIGH wind zone as described by NZS 3604
B No. of storeys	LOW	One storey
	MEDIUM	Two storey in part
	HIGH	Two storey's
	V.HIGH	More than two storey's
C Roof / Wall Intersection Design	LOW	Roof / wall intersection - Fully protected. [eg. hip / gable roof with eaves.]
	MEDIUM	Roof / wall intersection - Partly exposed. [eg. hip / gable roof with NO eaves.]
	HIGH	Roof / wall intersection - Fully exposed. [eg. Parapets or eaves greater than 90° vertical with soffit linings.]
	V.HIGH	Roof elements finished within the boundaries formed by exterior walls [eg. lower ends of eaves, chimney's etc.]
D Eaves width (1)	LOW	Greater than 600mm at first floor level.
	MEDIUM	450 - 600mm at first floor level, or 600mm at second floor level
	HIGH	100-450mm at first floor level, or 450-600mm at second floor level
	V.HIGH	0-100mm at first floor level, or 100-450mm at second floor level or 450 - 600mm at third floor level
E Envelope Complexity	LOW	Simple rectangular, L, T, or boomerang shape with single cladding type
	MEDIUM	Complex angular or curved shape [eg. Y or arrow head] with single cladding type.
	HIGH	More complex angular or curved shape [eg. Y or arrow head] with multiple cladding type.
	V.HIGH	As for high risk, but with junctions not covered in C or F on this Table [eg. box windows, pergola's, multi storey re-entrant shapes etc.]
F Deck design.	LOW	None or timber slat deck or porch at ground level
	MEDIUM	Fully covered in plan by roof, or timber slat deck attached at first or second floor level.
	HIGH	Enclosed deck exposed in plan or cantilevered at first floor level
	V.HIGH	Enclosed deck exposed in plan or cantilevered at second floor level or above.

NOTES  
 1. Eaves width measured from external face of the wall cladding to outer edge of overhang including gutters and fascias  
 2. Balustrades and parapets count as 0 mm eaves.

### Risk Severity by Face

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0	✓	1		2		4		0
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width.	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0	✓	2		4		6		0
<b>Total Risk Score for this Elevation</b>									<b>11</b>

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0		1	✓	2		4		1
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width.	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0		2		4	✓	6		4
<b>Total Risk Score for this Elevation</b>									<b>16</b>

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0	✓	1		2		4		0
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width.	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0	✓	2		4		6		0
<b>Total Risk Score for this Elevation</b>									<b>11</b>

RISK FACTOR	LOW	Score	MED	Score	HIGH	Score	V.HIGH	Score	Sub totals for each risk factor.
Wind Zone as NZS 3604	0		0		1	✓	2		1
No. of storey's	0		1	✓	2		4		1
Roof / Wall Intersection	0		1		3		5	✓	5
Eaves width.	0		1		2	✓	5		2
Envelope Complexity	0		1		3	✓	6		3
Deck design.	0		2		4	✓	6		4
<b>Total Risk Score for this Elevation</b>									<b>16</b>

### Selected Cladding Resulting from Risk Assessment

	Risk score from tables above.	Cladding Selected from table 3 [from tables on page 30 E2/AS1]	TICK SELECTED OPTION	
			DIRECT FIXED	DRAINED CAVITY
North Elevation.	11	Bevelbeck Weatherboard Specialized "Ezpanel" (Autoclaved Aerated Concrete)		✓
South Elevation.	16	Bevelbeck Weatherboard Specialized "Ezpanel" (Autoclaved Aerated Concrete)		✓
East Elevation.	11	Bevelbeck Weatherboard Specialized "Ezpanel" (Autoclaved Aerated Concrete)		✓
West Elevation.	16	Bevelbeck Weatherboard Specialized "Ezpanel" (Autoclaved Aerated Concrete)		✓

Project  
**NEW DWELLING**  
 Client  
**BAYLY**  
 1 MOSS LAKE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title  
**E2 MATRIX**

Designer  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0958  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

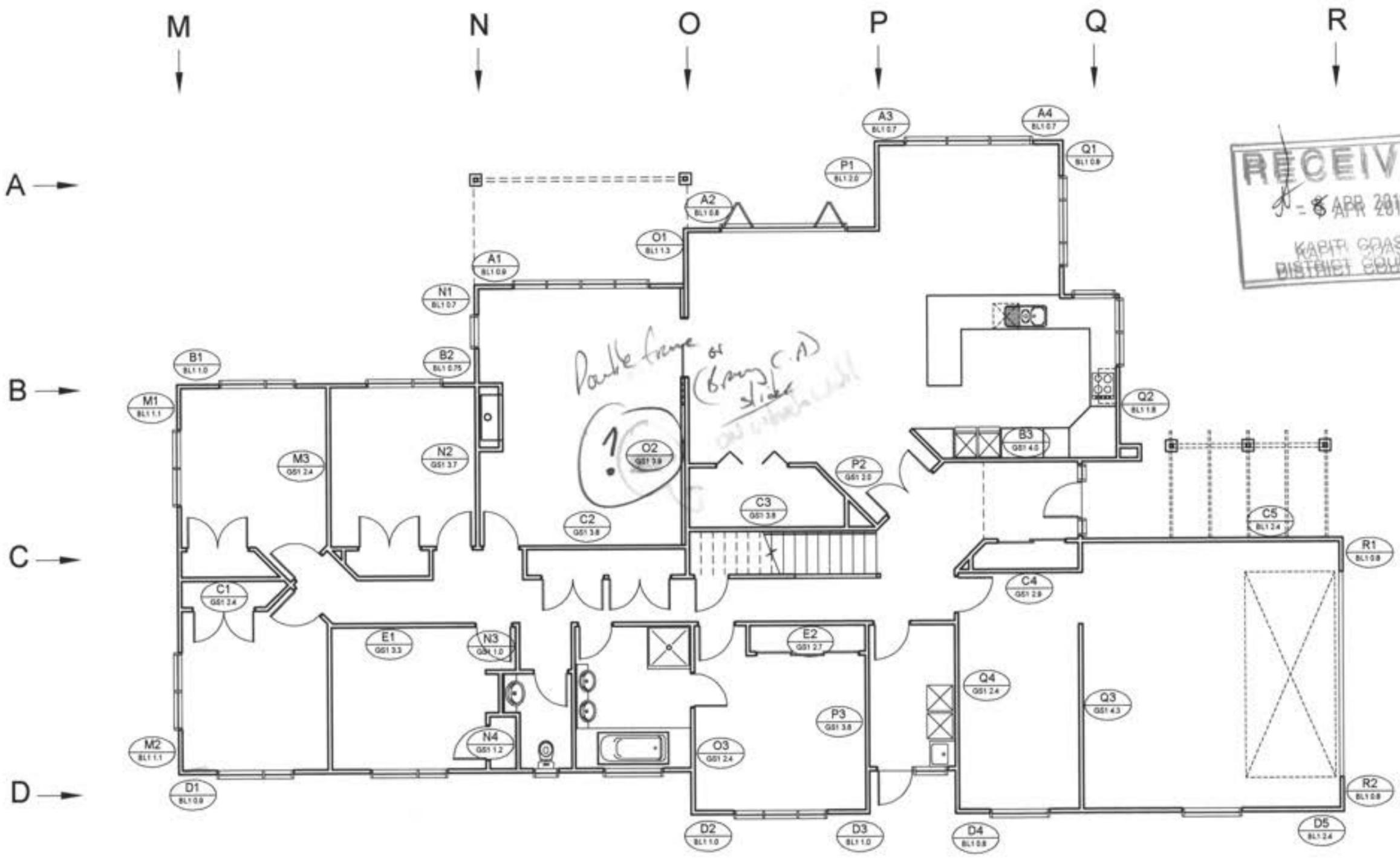
Job: **001** Page of: **23** Rev: **A**

All work shall be in accordance with the NZBC. If in doubt ASK  
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Revisions:  
 SEPTEMBER '10 rev A  
 OCTOBER '10 rev B  
 NOVEMBER '10 rev C  
 APRIL '11 rev D

**RECEIVED**  
 - 8 APR 2011  
 KAPITI COAST DISTRICT COUNCIL

**RECEIVED**  
 - 8 APR 2011  
 KAPITI COAST DISTRICT COUNCIL



Project:  
**NEW DWELLING**  
 Client:  
 BAYLY  
 1 MOSS LANE  
 LOT 1, DP 380622,  
 RAUMATI

Drawing Title:  
**LOWER BRACING PLAN**

Designer:  
**COASTAL ARCHITECTURE LTD**  
 17 Fincham Road  
 Raumati Beach  
 New Zealand  
 Tel: 04 905 0950  
 e-mail: billfrancis@paradise.net.nz

Design: **Bill Francis**  
 Drawn: **bf**  
 Scale: **as shown**

Job	Page of	Rev.
001	12	D

**NOTES:**

- THIS SITE IS A HIGH WIND ZONE
- BRACING TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS - WINSTONES GIB EZY 2009
- BRACING DISTRIBUTION TO NZS 3604 CLAUSE 5.5.3
- BATH INSTALLATION MUST NOT PENETRATE THE INTEGRITY OF THE WALL LINING SHEET - ESPECIALLY BRACING ELEMENTS
- ENSURE CONTRACTORS/PRENAILERS ARE ADVISED OF THE BRACING DESIGN REQUIREMENTS
- A CEILING DIAPHRAGM MAY BE SQUARE OR RECTANGULAR. ITS LENGTH SHALL NOT EXCEED TWICE ITS WIDTH AND EACH BRACING LINE MUST HAVE A MINIMUM OF 100 BU'S UNDER.

**LOWER BRACING PLAN**  
 SCALE 1:100

All work shall be in accordance with the NZBC. If in doubt AS/NZS.  
 The Contractor must verify all dimensions on the job before commencing any work or shop drawings. Figure dimensions are to be used, scaled dimensions are to be verified.  
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# Electrical Certificate of Compliance

No. 3373736

for a low voltage installation if prescribed electrical work has been done on any part of it and the prescribed electrical work involved placing, replacing, or repositioning conductors or fittings attached to conductors.

No. of attachments

To be completed whether or not an Inspection is required.

**CUSTOMER INFORMATION - PLEASE PRINT CLEARLY**

Name of customer Peter bailey Phone: \_\_\_\_\_  
 Address of installation moss lane Raumati  
 Postal address of customer (if not as above) \_\_\_\_\_

**DECLARATION OF CONFORMITY** (Please tick (✓) appropriate boxes)

In accordance with Regulation 58 of the Electricity (Safety) Regulations 2010, the design of the installation or part of the installation to which this certificate applies

- (a) complies with either Part 2 of AS/NZS 3000:2007  or Part 1 of AS/NZS3000:2007 and Regulation 59  and
- (b) the supply system of the installation or part of the installation to which this certificate applies is  
 230V/400 V MEN  or attached other system

**WORK DETAILS**

94 No. of lighting outlets      1 No. of ranges  
 52 No. of socket outlets      0 No. of water heaters  
 Was any installation work carried out by the homeowner?      Yes  No

Please tick (✓) as appropriate where work includes:  
 Mains       Main earthing system  
 MEN Switchboard closest to point of supply       Electric lines

Description of work carried out (If necessary attach any pages with work done) New House Connection

25m<sup>2</sup> 1ØN/S - E-loop 0.18Ω P.F.C 1.29kA

main earth 0.02Ω Bonding 0.02Ω

RCD 1, 23.9mS 3, 32.3mS 5, 30.6mS

2, 22.7mS 4, 26.7mS

**CERTIFICATION OF WORK** (Please tick (✓) appropriate boxes)

I certify that the completed installation or part of the installation to which this certificate applies

- has been installed in accordance with the design detailed in the Declaration of Conformity section above
- has had tests which are required by the Electricity (Safety) Regulations 2010 satisfactorily completed
- has an earthing system that is correctly rated
- contains fittings which are safe to connect to a power supply
- is safe to connect to a power supply

Validity authenticated in accordance with KDC Policy 002

**ELECTRICAL WORKER DETAILS**

Name M. Knowles  
 Company Laser electrical  
 Signature [Signature]

Registration No. E241675  
 Contact Ph No. 042971535  
 Date 10-5-11  
 17 JUN 2011

**INSPECTION DETAILS**

Electrical work requiring inspection by a registered electrical inspector

- Mains work (mains, MEN switchboards closest to the point of supply, or main earthing systems)
  - Attached other
  - Work carried out in accordance with Part 1 of AS/NZS 3000:2007
- I certify that the items identified above are electrically safe and that the inspection has been carried out in accordance with the Electricity (Safety) Regulations 2010.

Name ASSTELINGWERF  
 Signature [Signature]

Registration No. I2866  
 Date 10-5-11  
 Contact Ph No. \_\_\_\_\_

This form is approved by the Electrical Workers Registration Board (PO Box 10-156, Wellington. Freephone 0800 66 1000) for the purposes of the Electricity (Safety) Regulations 2010.

**GASFITTING CERTIFICATE OF COMPLIANCE**  
Pursuant to the Gas Act 1992 and the Gas (Safety and Measurement) Regulations 2010  
**ENERGY WORK CERTIFICATE**  
(Pursuant to the Building Act 2004)

Level 9, 70 The Terrace  
PO Box 10655, Wellington 6143  
Tel 04 494 2970, Fax 04 494 2975  
www.pgdb.co.nz

**Certifier Copy. This certificate is not transferable**

Consumer: Peter Bayly  
Installation Address: 1 Moss Lane  
Raumati Beach  
Paraparaumu 5032

Certificate Number: **661335**  
Gas Supplier: contact  
Category: Domestic  
Type (Regulation 44(1)): NEW  
Gas Type: NG  
Certification Date: 30 May 2011

**Test Results:** 10 min Duration  
3.50kPa test pressure  
0.00kPa Loss / Gain  
2.66kPa Working pressure

Vehicle Registration:  
Vessel Registration:

**Other Testing:**  
**Test Date:** 30 May 2011

**DESCRIPTION OF GASFITTING TO WHICH THIS CERTIFICATE APPLIES**

Qty	Item Type	Item Location	Make/ Model	Input Rate	Flue Type	Flue Location	Vent Type	Vent Location
1	Pipework							
1	Freestanding cooker	kitchen	smeg 42016	33.3	Unflued		Adventitious	
1	Space heater inbuilt	lounge	rinnai symmetry rdv3610	33	Natural Draught Flue (Room Sealed)	roof	balanced	outside
1	Space heater inbuilt	Upstairs lounge	rinnai symmetry rdv3610	33	Natural Draught Flue (Room Sealed)	roof	balanced	outside
1	Water heater continuous flow	outside east wall	rinnai xr26 reu2626wg-zk	199	Forced Draught Flue (Power)	outside	Natural	outside

**I certify that:**

- I Certify that all appliances and fittings worked on by me or by persons working under my supervision are safe to connect to a gas supply and that all work carried out was in accordance with all applicable requirements of the Gas Act 1992 and Gas (Safety and Measurement) Regulations 2010.
- I Certify that the Gasfitting to which this certificate applies does not make other parts of the installation unsafe or otherwise non-compliant with the Gas Act 1992 and Gas (Safety and Measurement) Regulations 2010.
- I Certify that the Gasfitting work to which this certificate applies does NOT include work on an appliance or fitting imported or manufactured for the consumers use.

**Signed:**  
**Certifier**

Authorisation No: 12724  
Name: Scaife, Mark

Validity authenticating  
according to PGDB Policy 002

Signature:



30 May 2011

**Installer(s) supervised by certifier**

Authorisation No: 23671

Name: Dal Din, Carl

Authorisation No:

Name:

**Certificate Owner**

Authorisation No: 12724

Name: Scaife, Mark

Company: laserplumbing paraparaumu

# Workmanship Guarantee

The Certified Plasterer guarantees that this project has been completed with materials that meet the specifications of Specialized Construction Products Limited and that all work has been carried out in accordance with the installation instructions of Specialized Construction Products Limited.

The Certified Plasterer guarantees for a period of five years, that should any defect in the plastering system occur due to an application fault, the Certified Plasterer will, at their discretion, replace, repair or make a contribution to the rectification of that defect. The system must have been properly maintained and subjected to no more than normal conditions of exposure.

This guarantee does not cover: any damage or defects arising from a problem with the condition of the substrate or the dwelling which was notified by the Certified Plasterer to the project manager or the main contracting party and which that party elected not to alter, remedy or repair; defects arising from movement in any Aerated Concrete Panel substrate that has been incorrectly applied, inadequately jointed or cracked prior to application; damage caused by movement that has resulted from a lack of control joints in the substrate; damage or defects arising from normal wear and tear or from inadequate maintenance; damage of any kind due to defective building structure, hydrostatic pressure, mechanical or physical abuse or any other abnormal cause; any kind for consequential damage to any building component that has occurred as a result of the use of untreated framing and any occurrence which is normally covered under contract of insurance.

This guarantee will terminate and the Certified Plasterer shall not be liable for any claims raised against the building if any remedial work is undertaken by a third party without the prior written consent of the Certified Plasterer.

The system applied is dependant upon the correct specification of the construction details of Specialized Construction Products Limited, as provided in their current detailed data sheets and specifications at the time of construction. The Certified plasterers will accept no responsibility for alternative construction details which are specified unless they have been agreed to in writing prior to their construction on-site.

**The Certified plasterer will not honour this Guarantee unless all work has been fully paid.**

Guarantee Issued to:	P Bayly
Related to plaster work at:	1 Moss Lane, PARAPARAUMU
Date of completion of work:	09 May 2011
Components or plaster system applied:	EZpanel System
Finish applied:	Float
Paint Colour and Manufacturer:	Dulux X10 Low Sheen – Narrow Neck Double

**Signed on behalf of the Certified Plasterer:**

**Date:** 23/05/11

Texturite Coatings 2003 Ltd  
IP. Barry

16 NOV 2010

**HYNE**

HYNE TIMBER AUSTRALIA PTY LTD

160 Kent St. Maryborough Qld 4650

T 07 4121 1211 F 07 4122 4607

E [info@hynetimber.com.au](mailto:info@hynetimber.com.au)

[hynetimber.com.au](http://hynetimber.com.au)

## Producer Statement

Issued: December 2009

Hyne-I-Beam is a unique combination of timber resources, components and advanced technology forming a structurally efficient 'T' section. Manufactured at the Hyne plant in Brisbane, Hyne-I-Beams are produced using high performance finger jointed pine flanges (Machine Graded According to AS/NZS 1748 2006) and 9.5mm structural OSB webs (EN 300 Oriented Strand Boards (OSB) – Definitions, classification and specification). All components are assembled using only durable grade adhesives. Hyne I-Beam is available untreated or treated to H3.1 on order. Hyne I-Beams can only be used at internal application.

The design properties have been evaluated from comprehensive testing based on ASTM D5055 'Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists' and AS/NZS 4063 'Timber - Stress-Graded - In grade strength and stiffness evaluation'.

HYNEBEAM 17 products are high grade glued-laminated timber beams formed from Australian pine, into larger rectangular sections. The HYNEBEAM 17 product range is manufactured in accordance with AS1328.1 by Hyne in Maryborough. The HYNEBEAM 17 is made from pine feedstock. All components are assembled using only durable, exterior grade adhesives (service class 3). The beams are specified as cambered (C) to 600 m radius. Available in appearance grades structural (STR). HYNEBEAM 17 is available untreated or treated to H3.1. Third party certified through the Glue Laminated Timber Association of Australia (GLTAA) and is produced under the ISO 9002 quality system.

HYNEBEAM 18 products are high grade glued-laminated timber beams formed from Australian hardwoods, into larger rectangular sections. The HYNEBEAM product range is manufactured by Hyne in Maryborough. The HYNEBEAM is made from Tasmanian Oak. All components are assembled using only durable, exterior grade adhesives (service class 3). The beams are specified as cambered (C) to 600 m radius with option of straight (S) or curved. Available in select grade (SEL). HYNEBEAMS 18 can only be used at internal application. HYNEBEAMS 18 are produced under the ISO 9002 quality system.

HYNEBEAM 21 products are high grade glued-laminated timber beams formed from Australian hardwoods, into larger rectangular sections. The HYNEBEAM product range is manufactured in accordance with AS1328 by Hyne in Maryborough. All components are assembled using only durable, exterior grade adhesives (service class 3). The beams are specified as cambered (C) to 600 m radius with option of straight (S) or curved. Available in appearance grades structural (STR) or select (SEL). Third party certified through the Glue Laminated Timber Association of Australia (GLTAA) and is produced under the ISO 9002 quality system.

Hyne EDGEBEAM LGL 44 is a high grade edge glued-laminated timber beam product assembled from finger jointed pine scantling, into deeper rectangular sections. The Hyne EDGEBEAM LGL 44 product range is manufactured by Hyne in Maryborough. All components are assembled using only durable, exterior grade adhesives (service class 3). Available in a range of depths to ensure compatibility with Hyne-I-Beam. Hyne EDGEBEAM LGL 44 is available H3.1 treated only. Hyne EDGEBEAM LGL is produced under the ISO 9002 quality system.

Hyne LGL 65 is a glued-laminated timber beam formed from plantation pine into larger rectangular sections. The Hyne LGL 65 product is manufactured in accordance with AS1328 by Hyne in Maryborough. All components are assembled using only durable, exterior grade adhesives (service class 3). Hyne LGL 65 is manufactured straight (S) and is available in structural (STR) grade only. Hyne LGL 65 is available in H3.1 treated only. Hyne LGL is produced under the ISO 9002 quality system.

TRADITION STRENGTH INNOVATION

Correspondence from : **AUCKLAND**  
40 Neales Road, East Tamaki 2013  
PO Box 58-014, Botany 2163  
Phone: 09 274 7109  
Fax: 09 274 7100

**CHRISTCHURCH**  
14 Pilkington Way, Wigram 8042  
PO Box 8387, Riccarton 8440  
Phone: 03 348 8691  
Fax: 03 348 0314

[www.mitek.nz.co.nz](http://www.mitek.nz.co.nz)

Printed: 11:32:31 11 Oct 2010

MiTek 20/20 Engineering 4.6.4.14

**PRODUCER STATEMENT for MiTek 20/20<sup>TM</sup> TRUSS DESIGN - Version 4.6**

ISSUED BY: **MiTek New Zealand Ltd**  
TO: **National Office**  
IN RESPECT OF: **GANG-NAIL Truss Designs**



This producer statement covers the MiTek 20/20<sup>TM</sup> truss design and the structural performance of the GANG-NAIL plate for the job reference **UM8086** and may be used by a Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

The MiTek 20/20<sup>TM</sup> truss design program has been developed by MiTek New Zealand Ltd for the design of GANG-NAIL<sup>®</sup> timber roof, floor and attic trusses in New Zealand. The truss designs computed by MiTek 20/20<sup>TM</sup> are prepared using sound and widely accepted engineering principles, and in accordance with compliance documents of the New Zealand Building Code and Verification Method B1/VM1; and internationally accepted standard ANSI/TPI 1 - 2002 as an alternative solution to satisfy the requirements of Clause B1 of the New Zealand Building Code.

**On behalf of MiTek New Zealand Ltd,** and subject to:

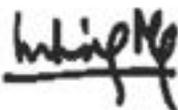
- i) All proprietary products meeting their performance specification requirements
- ii) The provision of adequate roof bracing and overall building stability
- iii) Correct selection and placement of GANG-NAIL connector plates
- iv) Correct input of Truss Design Data as shown in the Fabricator Design Statement for this job
- v) The design being undertaken by the accredited fabricator under the terms of the software licence

**I believe on reasonable grounds** that the trusses, if constructed in accordance with the MiTek 20/20<sup>TM</sup> truss design and shop drawings, will comply with the relevant provisions of the New Zealand Building Code.

MiTek New Zealand Ltd holds a current policy of Professional Indemnity Insurance no less than \$500,000.

**On behalf of MiTek New Zealand Ltd,**

**Date: April 2010**



In Ling Ng, BE (Hons), CPEng, IntPE, MIPENZ (ID: 146585)  
**TECHNICAL SERVICES MANAGER, MiTek New Zealand Ltd**

25 May 2011

## PRODUCER STATEMENT

**Project: Bailey House**  
**1 Moss Lane, Paraparaumu**

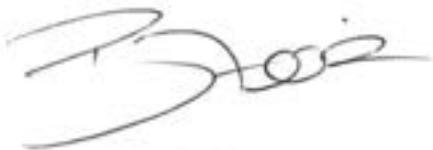
We certify that the products supplied by our company for this project, meets specific wind design for this area as requirements of the New Zealand Building Code, NZS 4211:1985 Performance of Windows and NZS 4223 Glazing in Buildings.

More specifically, we have manufactured the aluminium windows and doors for this project in accordance with the design and manufacturing specifications provided by Fletcher Aluminium, a division of Fletcher Building Products Limited, and those required by NZS 4223.

Window and door units manufactured to these specifications have been tested to, and comply with, the wind pressure rating, deflection, weather performance and glazing requirements of the above New Zealand Standards. The application of Pascal rating stickers on the window and door units is further confirmation that the window and door units have been manufactured to the prescribed specifications and comply with NZS 4211.

The products supplied by our company for this project, can be expected to have a serviceable life of not less than 15 years in accordance with section B2 of the New Zealand Building Code. This relates specifically to the structural elements of the windows and doors.

Over time, even with regular maintenance, decorative elements and non-structural fittings such as handles, fasteners, door rollers, mohairs and other similar components may require replacement as they wear out. This process does not contravene the Durability Requirements of section B2 of the New Zealand Building Code or this Producer Statement.



Brian Fullick

100805

### PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on the reverse side)

ISSUED BY: BASE CONSULTING ENGINEERS LTD  
(Construction Review Firm)

TO: MR. P. BAYLY  
(Owner/Developer)

TO BE SUPPLIED TO: KAPITI COAST DISTRICT COUNCIL  
(Building Consent Authority)

IN RESPECT OF: BAYLY DWELLING  
(Description of Building Work)

AT: 4 MOSS LANE, PARAPARAUMU  
(Address)

(BCE JOB NO: 10142) LOT DP SO

BASE CONSULTING ENGINEERS LTD has been engaged by MR. P. BAYLY  
(Construction Review Firm)

to provide  CM1  CM2  CM3  CM4  CM5 (Engineering Categories) or  OL1  OL2  OL3  OL4 (Architectural Categories)

observation  or other ..... services

in respect of clause(s) B1 VM1 of the Building Code for the building work described in

documents relating to Building Consent No. .... and those relating to

Building Consent Amendment(s) Nos. .... issued during the

course of the works. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions / variation(s) No. 3 SITE REPORTS DATED 11 & 23/11/10 & 02/12/10 (copies attached)

or by the attached Schedule  have been issued during the course of the works.

On the basis of  this  these review(s) and information supplied by the contractor during the course of the works, I

believe on reasonable grounds that  All  Part only of the building works have been completed in accordance with

the relevant requirements of the Building Consents and Building Consent Amendments identified above, with respect to

Clause(s) B1 of the Building Regulations.

I, PETER BOLTON am:  CPEng No. 56179

(Name of Construction Review Professional)

Reg Arch No. ....

I am a Member of:  IPENZ  NZIA and hold the following qualifications: BE, CIVIL

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000\*.

The Construction Review Firm is a member of ACENZ:  YES  NO

SIGNED BY PETER BOLTON ON BEHALF OF BASE CONSULTING ENGINEERS LTD

Date: 03/12/2010 Signature: *P. Bolton*

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Construction Review Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to the building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000\*.

This form to accompany Forms 6 or 8 of the Building (Form) Regulations 2004 for the issue of a Code Compliance Certificate.

Kapiti Coast District Council  
16 JUN 2011  
Time 10:21  
May 2007

100805

# METRO GLASSTECH

## PRODUCER STATEMENT - PS3 Construction Glass and Glazing

Kapiti Coast District Council  
at Paraparaumu  
16 JUN 2011  
By Gareth Hamill Time 10:20

TO (Customer) Peter Bayly

In RESPECT OF (Project) House

AT (Location) 1 Moss Lane, Raumati Beach

LOT No. 1 DP 380622 Consent No. 100805

SCOPE of WORK Balustrading, external cantilevered 12mm toughened glass fixed with MB50 double disc system. Internal infill balustrade in 12mm toughened glass. Showers, frameless 10mm toughened glass. Splashback 5mm toughened low iron. Mirrors 5mm

The glass and glazing in the above project has been supplied and installed in accordance with the drawings provided and the following;

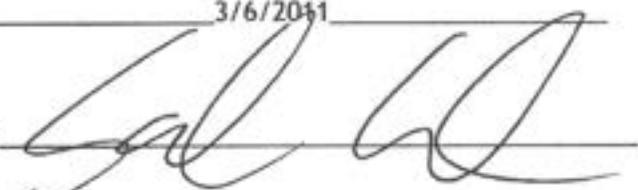
<b>A. STANDARDS</b>	
NZS 4223:	Glazing in Buildings
Part 1:2008	Glass selection and glazing
Part 3:1999	Human impact safety requirements
Part 4:2008	Wind, dead, snow and live actions
AS/NZS 1170 set	Structural design actions
AS/NZS 2208:1996	Safety glazing materials in buildings
AS/NZS 4667:2000	Quality requirements for cut-to-size and processed glass
AS/NZS 4668:2000	Glossary of terms used in the glass & glazing industry

<b>B. NEW ZEALAND BUILDING CODE - Compliance Documents</b>	
NZBC Clause F2	HAZARDOUS BUILDING MATERIALS (July 1992) Acceptable Solution F2/AS1 (Dec 2000)
NZBC Clause F4	SAFETY FROM FALLING (September 2007) Acceptable Solution F4/AS1 (Sept 2007)
NZBC Clause B1	STRUCTURE (July 1992) Acceptable Solution B1/AS1 (Amend 9-Sept 2010) Verification Method B1/VM1 (Amend 9-Sept 2010) ULS design wind pressure VH kPa external Balustrade Occupancy Type C3
NZBC Clause B2	DURABILITY (Feb 1998) Acceptable Solution B2/AS1 (Amend 6- Sept 2010)

COMPANY Metropolitan Glass & Glazing Ltd

NAME Gareth Hamill

DATE 3/6/2011

SIGNATURE 

Metro GlassTech are a member of the Glass Association of NZ (GANZ)

90 - 104 Felton Mathew Ave,  
P.O. Box 18 071, Glen Innes,  
Auckland, New Zealand  
Freephone: 0800 104 868  
Freefax: 0800 766 324  
Email: info@gerardroofs.co.nz  
Web: www.gerardroofs.co.nz

Name of Purchaser **Total Roofing**  
Address Warranted **61 Rimu Rd**  
**Paraparaumu**  
Type of Warranty **Klass Warranty**  
Installation Contractor **Roofworkz Wellington Ltd**  
Date of Warranty **17.12.2010**  
Brand **Klass Fascia 155 Ironsand**

Warranty number  
110894

Purchase Order No.  
1860f

AHI Roofing is proud to provide you with the attached **Gerard Roofs © Warranty**.

Our Rainwater Systems are made from Zinalume coated steel. This manufacturing system provides long term protection in the harshest of climates, including marine environments. This is why we are able to offer you fully backed 10-year pro rata **surface coating warranties**.

Most building materials require some servicing and maintenance during their product life and roofs are no exception. It is therefore important that you take the time to **read the attached warranty and maintenance guide** for your Gerard Product.

In addition, please undertake the following actions to **validate your Gerard Roofs Warranty**:

1. Please **complete the attached warranty card** and post back to Gerard Roofs.
2. Please **input your name and address details** (in the space provided) in the upper left-hand corner, of the first page of your warranty.
3. Please **file your warranty** in a safe place.

For more information about Gerard Roofs, suggested maintenance programs or your warranty please visit **www.gerardroofs.co.nz**.

Or alternatively you can call the Gerard Roofs Helpline on **0800 104 868** during office hours.

You can also contact us by fax, e-mail or via the internet.

Yours sincerely



Max Goode  
Customer Service Manager

# Warranty Plus

ROOFING warranty for 61 Rimu Road

## COLORSTEEL® Endura™

### Material Warranty

Steel & Tube Roofing Products warrants that COLORSTEEL® Endura™ coated steel materials as detailed below, will perform as follows;

Durability	Roofing will not perforate through corrosion within 30 years.		
Coatings	Roofing will not flake, peel or excessively fade within 18 years.		
Drinking Water	Products will be a suitable surface for the collection of rainwater for drinking.		
Performance	Products will perform in accordance with our published design literature current at the time of supply.		
Standards	NZS/AS 1397-93 Steel sheet and strip -Hot dipped zinc coated or aluminium/zinc coated, NZS/AS 2728-97 Prefinished/prepainted sheet metal products for interior/exterior building applications.		

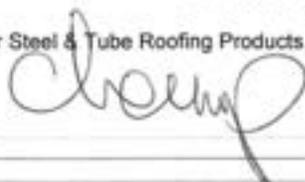
Issued to	Peter Bayly	Profile	.40 Custom Orb
Address	61 Rimu Road	Colour	Ironsand
City	Paraparaumu	Invoice No(s)	67677797RI
Environment	Moderate Marine	Lift No(s)	407836

Minor white corrosion, which may appear at unwashed tension bends or cut edges, is a natural weathering phenomenon of COLORSTEEL® Endura™ and does not constitute a failure of the coating system. The life of the product may be extended beyond the warranty period by regular maintenance.

Important :This warranty is offered subject to maintenance by the occupier consisting of manual washing of unwashed areas and high risk areas every 3 months

Please see overleaf for Terms and Conditions of warranty

Signed for Steel & Tube Roofing Products, 9 May 2011



### Installer Warranty

Installed by	Total Roofing	Install Date	March, 2011
--------------	---------------	--------------	-------------

Total Roofing warrants the product for 5 years against faulty workmanship or defects caused by poor installation. The installer does not warrant the product against mechanical damage occurring after installation.

**TR**  
**TOTAL ROOFING**

Signed for Total Roofing

## Terms & Conditions of Warranty

1. *This warranty is issued according to information supplied to Steel & Tube Roofing Products.* Environmental Classifications are as described in the table below. The warranty shall not apply if the environment described herein is not an accurate assessment of the actual site details.
2. *Maintenance must be carried out in accordance with the maintenance schedule printed on the front of this document.*
3. Prepainted material is subject to normal wear and tear which may include uniform fading, chalking and dirt collection.
4. The product must be processed, installed and maintained in accordance with manufacturer's published literature, Steel & Tube Roofing Products' literature and accepted good trade practice.
5. The products must be sold as prime material.
6. Garage doors are not included in this warranty.
7. Damage or corrosion resulting from the following circumstances is not covered:
  - Mechanical, chemical, heat or wet storage damages.
  - Contact with, or run off from dissimilar metals such as stainless steel, lead or copper.
  - Contact with, or run off from corrosive materials such as fertiliser or wet concrete.
  - Exposed soffits or aggressive internal environments.
  - Special Conditions as defined in New Zealand Steel or Pacific Coilcoaters literature.
  - Storm, volcanic activity or other causes beyond the control of the roofing manufacturer.

If the product has failed to perform as warranted, Steel & Tube Roofing Products will at its own option repair or replace the affected material. A new warranty shall be issued to cover the balance of the original offer for perforation protection.

Steel & Tube Roofing Products shall not be liable for any consequential loss or damages except as may be required by law.

### Environmental Classifications

Category	Characterised by	Typical Zones
<b>Extreme Marine</b>	<ul style="list-style-type: none"> <li>• Heavy salt deposits.</li> <li>• Almost constant smell of salt spray in air.</li> </ul>	Within 50 metres from breaking surf on East Coast, and 100 metres from breaking surf on West Coast.
<b>Very Severe Marine</b>	<ul style="list-style-type: none"> <li>• Heavy salt deposits.</li> <li>• Almost constant smell of salt spray in air.</li> </ul>	Within 50 –100 metres from breaking surf on East Coast, 100-200 metres from breaking surf on West Coast.
<b>Severe Marine</b>	<ul style="list-style-type: none"> <li>• Light salt deposits.</li> <li>• Frequent smell of salt in the air.</li> </ul>	Commencing from Very Severe zone up to 500 metres or more inland from breaking surf; or in the immediate vicinity of calm salt water such as harbour foreshores.
<b>Moderate Marine</b>	<ul style="list-style-type: none"> <li>• Little or no salt deposits.</li> <li>• Occasional smell of salt in the air.</li> </ul>	500 metres to 1km from breaking surf; or in the immediate vicinity of calm salt water such as estuaries.
<b>Moderate Inland</b>	<ul style="list-style-type: none"> <li>• No obvious marine influences.</li> </ul>	More than 1000 metres from salt water.

**Note:** Industrial and Geothermal areas are subject to individual assessment.

The above terms are subject to correct design, storage, installation and maintenance provisions.

**WHANGAREI:**  
 9 Southend Avenue  
 Otaka  
 PO BOX 1869  
 Phone 09 438 4600  
 Fax 09 438 0342

**NORTH SHORE:**  
 2 Ride Way  
 Nth Hbr Ind Estate  
 PO BOX 100 182  
 Phone 09 415 8080  
 Fax 09 415 9192

**AUCKLAND:**  
 14 Kerwyn Avenue  
 East Tamaki  
 PO BOX 58 216  
 Phone 09 274 4056  
 Fax 09 274 8972

**HAMILTON:**  
 32 Kaimiro Street  
 Pukete Ind Estate  
 PO Box 10 458  
 Phone 07 850 9200  
 Fax 07 850 9330

**TAURANGA:**  
 67 Koromiko Street  
 Judea  
 PO Box 2001  
 Phone 07 578 1089  
 Fax 07 578 0186

**WELLINGTON:**  
 201 Gracefield Road  
 Lower Hutt  
 PO Box 36 082  
 Phone 04 568 4359  
 Fax 04 568 6770

**CHRISTCHURCH:**  
 106 Antigua Street  
 Sydenham  
 PO Box 7306  
 Phone 03 377 0994  
 Fax 03 377 2680



## Producer Statement

Producer statement issued by & work completed by: **PRESTIGE TILE & STONE LTD**  
0210360595 - 9054595

To (owner): Peter Bayly

To be supplied to (Territorial authority): Kaiti Coast District Council

In respect of (system being installed): ASA Damofix - Waterbased PU membrane. (internal)

Applicator License #: 1061022

Builder: Peter Bayly

Site Address: 1 Moss Lane, Raumati, Paraparaumu

BCN : 100805

Date of work completion: 27/05/2011

Prestige Tile & Stone Ltd certifies that all work has been completed with materials that meet (Australian Structural Adhesives) product specifications and that all work has been carried out in accordance with the installation instructions related to that product. All data and installation instructions are freely available on the website, [www.bostik.co.nz](http://www.bostik.co.nz)

As such, the product is stated to be in compliance with NZBC clauses:  
(Select as appropriate)

- B2 - Durability
- E2 - External Moisture
- E3 - Internal moisture

This statement does not cover materials other than those supplied by Prestige Tile & Stone Ltd.  
This Statement does not imply any warranty or otherwise by ASA on behalf of the product installation.

Regards

Doug Sutherland-Copeland  
Prestige Tile & Stone Ltd  
[prestigetileandstone@gmail.com](mailto:prestigetileandstone@gmail.com)



The Adhesive Company

**MATERIAL DURABILITY STATEMENT**

Warranty #	40,693.42	
Date of Completion	07/05/2011	
Project		
Address	1 Moss Lane , Raumati , Paraparaumu	
Client	Peter Bayly	
Tiler		
Applicator	Prestige Tile & Stone Ltd	
Registration #	1061022	
Bostik Products		
	Primers	ASA N40 primer, ASA Multiprime, ASA NC Silicone Bondbreaker
	Membrane	DAMPFIX GOLD
	Adhesive Floors	Conflex
	Adhesive Walls	Megafix
Area of use		
	Bathrooms	FLOORS AND WALLS (75mm up wall)
	Showers	FLOOR AND WALLS (1800mm up wall and/or 300mm past rose)
	Kitchen	N/A
	Laundry	N/A
	Toilets	FLOORS
Term of Product Warranty		
	Waterproofing	15 years
	Tile Adhesive	10 years
Council Inspection	Passed	

**Terms & Conditions**

The waterproofing materials listed above have a current BRANZ appraisal or CSIRO test results and the Company confirms their suitability for the application. The products meet the AS/NZS4858-2004 standards.

Material Durability Statement is given subject to the products listed being applied and installed according to the ASA System Specification. Substitution of any product or component will be a breach of the specification and may render the guarantee null and void.

This is not a workmanship warranty. Any defects, leaks, or damage of any nature, caused by Applicator, and the costs associated with rectification of these defects etc shall be the Applicator's sole responsibility.

It is the Applicator's responsibility to ensure all work is done to the relevant standards. It remains the Applicator's responsibility to provide a Producer Statement. This statement, together with the Q.A. sheets must also be provided to the Company in support of the Material Durability Statement.

ASA, or it's appointed agents, reserves the right to inspect any alleged failure and must be given reasonable time to investigate claims of product failure. The Company must accept the claim of product failure in writing and agree to costs BEFORE the commencement of remedial work.

The company will not be liable for any costs unless and until such liability is accepted in writing.



## Producer Statement – Construction

(For residential, light commercial or commercial/industrial contracts)

Issued by: **Premier Roofing Wellington Ltd** \_\_\_\_\_ (The Roofing Company)

of: **P O BOX 2227, WELLINGTON 6140** \_\_\_\_\_ (Address)

to **Peter Bayley** \_\_\_\_\_ (Name of Client/Principal)

in respect to (description of building work) **1.5mm Trelleborg EPDM Membrane to Deck** \_\_\_\_\_

at (site address) **1 Moss Lane Raumati** \_\_\_\_\_

has contracted to **Peter Bayley** \_\_\_\_\_ (Name of Client/Principal)

to carry out and complete certain building works in accordance with a contract titled:  
**"1 Moss Lane Raumati" Building Consent N<sup>o</sup> 1008505** \_\_\_\_\_ ("The Contract")

I **Craig Lamm** \_\_\_\_\_ (Name of Duly Authorized Agent)

a duly authorised representative of **Premier Roofing Wellington Ltd** \_\_\_\_\_ (Name of Roofing Company)

believe on reasonable grounds that: (tick the appropriate box)

all



part only as specified in the attached particulars

of the building contract works have been carried out and completed in accordance with "the contract"

Signed: \_\_\_\_\_ Date: **11/05/11** \_\_\_\_\_

(Signature of the Duly Authorized Agent  
on behalf of "The Roofing Company")

### Copy distribution:

- One (1) signed copy to be retained by the **Issuing party**
- One (1) signed copy to be issued to the **Client party**

This standard document is intellectual property of the Roofing Association of New Zealand Inc (RANZ) and is permitted for use only by RANZ members. The Roofing Association of New Zealand does not underwrite or accept any liability for any claim or statement made in completion of this Producer Statement form by its members.

## Membrane Applicator Workmanship Warranty

Contract Name 1 Moss Lane

Date Of Application 1 04 12011

Application Address 1 Moss Lane Raumati

Area Installed 16sqm Sqm

Product Type & Use 1.5mm Grey Trelleborg EPDM

Roof  Gutter  Deck  Other

The applicator warrants its workmanship subject to the conditions below

- \* All membrane products have been installed in accordance with the manufacturers specifications
- \* The workmanship is warranted for a period of ( 5 ) years from completion date
- \* Application of the material shall maintain a waterproof barrier for the period specified above

This warranty is subject to the following conditions:

- The warranty covers the workmanship of the installer and not the material installed
- The warranty does not apply to any consequential damages such as water intrusion, injury, loss or damage whatsoever arising
- The warranty does not apply to any cause such as government or environmental interference or any other cause beyond reasonable control of the installer
- The warranty does not apply to mechanical/chemical damages caused by any other party other than the applicator during or after the installation period
- The warranty does not cover Acts of God, nature and/or damage caused by war
- The warranty does not cover causes outside the specification of the product including inadequate construction, drainage, ponding or ventilation
- All claims must be in writing and must be sent to the installer within 14 days of discovery
- Where repairs are required, the customer or contractor must provide clear access to affected areas and also provide safe height and access availability
- Costs arising from incorrect or false claims must be paid by the party who generates the initial claim
- The customer shall have made payment in full to the installer for the work carried out within the terms of the applicator's contract prior to the customer making a claim under the warranty
- In the event where any materials have been purchased for personal, domestic or household use then this warranty shall be subject to the guarantees contained in the Consumers Guarantees Act 1993
- The customer acknowledges that the applicator is not employed by nor is an agent of the manufacturer of the materials and that the manufacturer is not liable to any person for the workmanship, acts or defaults of the applicator

Applicator Company Name (print) Premier Roofing Wellington Ltd

Address of Applicator (City) P.O. Box 2227 Wgtn

Signature of Applicator 

Date 11 1 05 11

Fax completed form to: (03) 3428201 for approval of Materials Warranty

WATERPROOFING SOL



## Waterproofing Solutions Ltd Rubber Membrane Product Warranty

Warranty Number 678 Date of Installation 1/04/2011  
 Contract Name 1 Moss Lane Contract Address 1 Moss Lane, Raumati  
 Approved Installer Premier Roofing Wellington Ltd Material 1.5mm Gray Trelleborg EPDM  
 Use of Membrane 

Roof	Deck **	Gutters	Dorma's
------	---------	---------	---------

 Area Installed 16 sqm

Waterproofing Solutions Limited hereby offers a product warranty on the above contract for a period of 20 years from the date of installation, subject to the following conditions:

- This warranty only applies to any manufacturing defect in the membrane or premature deterioration due to weathering, which permits any water to pass through the membrane and cause leakage. This warranty covers only the waterproofing properties of the membrane. Waterproofing Solutions will not be liable for any non-waterproofing claims including any aesthetic issues.
- The warranty covers the membrane provided it has been supplied by, and installed in accordance to, Waterproofing Solutions Ltd.
- The warranty does not cover any workmanship faults. This is the responsibility of the installer.
- An installer that is currently accredited by Waterproofing Solutions Ltd has installed the membrane.
- Waterproofing Solutions Ltd will have no further liability or responsibility other than what is set out in this warranty. This warranty will not cover any costs resulting from consequential damages arising from faulty product, workmanship or installation.
- The warranty period may be compromised with a lack of proof of regular yearly inspections and maintenance of the membrane as per our membrane care and maintenance guidelines.
- The building owner provides inspection reports as proof of annual maintenance and cleaning.

This warranty will not cover nor will Waterproofing Solutions be held liable for the following acts, conditions, circumstances or and damage or defects which may arise from:

- Damage caused by falling objects, traffic or any other outside source.
- Building movement including settlement, expansion and contraction of joints, flashings, terminations or movement between dissimilar substrates.
- Any new installations over the membrane.
- Improper installation of other services, electrical or mechanical.
- Negligent, misuse, improper or unapproved use of the membrane.
- Improper substrate preparation, including fixings and quality of surface.
- Where construction is not in accordance with the current building/membrane roofing code.
- The failure of material or structures to conform to the manufacturer's specifications.
- Where membrane has not been installed by a Waterproofing Solutions Ltd approved installer.
- Storage, handling or treatment of membrane or membrane accessories other than in accordance with Waterproofing Solution's recommendations.
- Other roofing material failures causing undue stress on the membrane.
- Defects in/or improper design.
- Acts of God, floods, fire, earthquake, hail, lightning, hurricane, tornado or any other unusual weather conditions.
- The advice from an outside party not approved by Waterproofing Solutions Ltd.
- Exposure to chemicals, fire, radiation or any other toxic waste.
- Moisture, air or gases both internally or externally.
- Deliberate or accidental modifications, tampering or willful damage to the membrane.

#### Claims:

- Any claims must be forwarded to Waterproofing Solutions Ltd within 14 days of discovery. Replacement of product will be in accordance with the current Consumer Guarantees Act.
- This warranty is in addition to, and not in substitution for any rights which the consumer may have in terms of the Consumer Guarantees Act 1993.
- Claims will be settled by replacement of materials in accordance with current New Zealand Law and to a maximum of total value of initial materials purchased.

#### Access To Materials And Site:

- In the event of replacement or inspection, the owner shall supply adequate access to the affected membrane before reparation can occur.
- Waterproofing Solutions Ltd will not be liable or required to carry out movement, removal or replacement of any items such as plant, railings, ladders or any other items, including any of the costs incurred.

#### Other Warranty Claims:

- In no circumstance will any other warranty be honored by Waterproofing Solutions Ltd except a signed, approved and original document produced by Waterproofing Solutions Ltd. All other warranty claims are hereby excluded.

#### Validity Of Warranty:

- This warranty is valid and enforceable on the condition full payment has been received by Waterproofing Solutions Ltd for the materials supplied.
- This warranty shall be interpreted according to the laws of New Zealand and any disputes shall be decided in the courts of New Zealand.

*PK Maurits*

Received Time 12. May. 10:03

12, 5, 2011  
Date



**NZBC Clause B1**

**STRUCTURE (July 1992)**

Acceptable Solution B1/AS1, (Amd 2, August 94),  
Clause 7.1

Based on a the specified design wind pressures of;

Ultimate Limit State (ULS) 1200 kPa. (high zone) Serviceability Limit State (SLS) 0.78 kPa.
--

Or

Based on selected design wind pressure from NZS  
4223:Part 4:2000 of;

Ultimate Limit State (ULS) _____ kPa. Serviceability Limit State (SLS) _____ kPa.
--

**NZBC Clause B2**

**DURABILITY (July 1992)**

Glass when installed and maintained in accordance  
with the manufacturers instructions will satisfy the  
durability performance requirements of Clause  
B2.3(c) for a minimum serviceability life of 15 years.

Ordinary annealed monolithic glass has a service  
history in excess of 50 years when regularly  
maintained with standard cleaning procedures

Processed glass types, such as Laminated Glass and  
Insulating Glass Units often require special glazing  
considerations to satisfy durability performance  
requirements and manufacturers instructions must  
be adhered to.

Metal fittings used in toughened glass systems will  
also satisfy 15 years durability performance  
requirements as long as they are maintained in  
accordance with the manufacturers instructions and  
this may include routine maintenance checks.

COMPANY Metropolitan Glass & Glazing Ltd  
& Metro Frameless Glass Ltd

NAME

DATE

SIGNATURE

## B. NEW ZEALAND BUILDING CODE

The balustrade has been designed to comply with the NZBC as follows

**NZBC Clause F2 HAZARDOUS BUILDING MATERIALS (July 1992)**

F2 / AS1

Acceptable Solution F2/ AS1 (Amd 1 & 2, Dec 2000) Clause 1.1 & 1.2

Toughened safety glass is used in accordance with NZS 4223: Part 3:1999 Clause 312, Balustrades and Fences

**NZBC Clause F4 F4/ AS1**

**SAFETY FROM FALLING (February 1998) Acceptable Solution**  
Clause 1.1 Barrier Heights  
Clause 1.2 Barrier Construction  
Clause 2.0 Construction Site Barriers  
Clause 3.0 Swimming Pool Barriers  
Clause 4.0 Opening Windows

Based on design load from NZS 4203: 1992 Clause 3.5 Balustrades and Parapets Table 3:5.1

Top edge horizontal SLS load of 0.36 kN/m Infill horizontal load of SLS 0.75 kPa
---

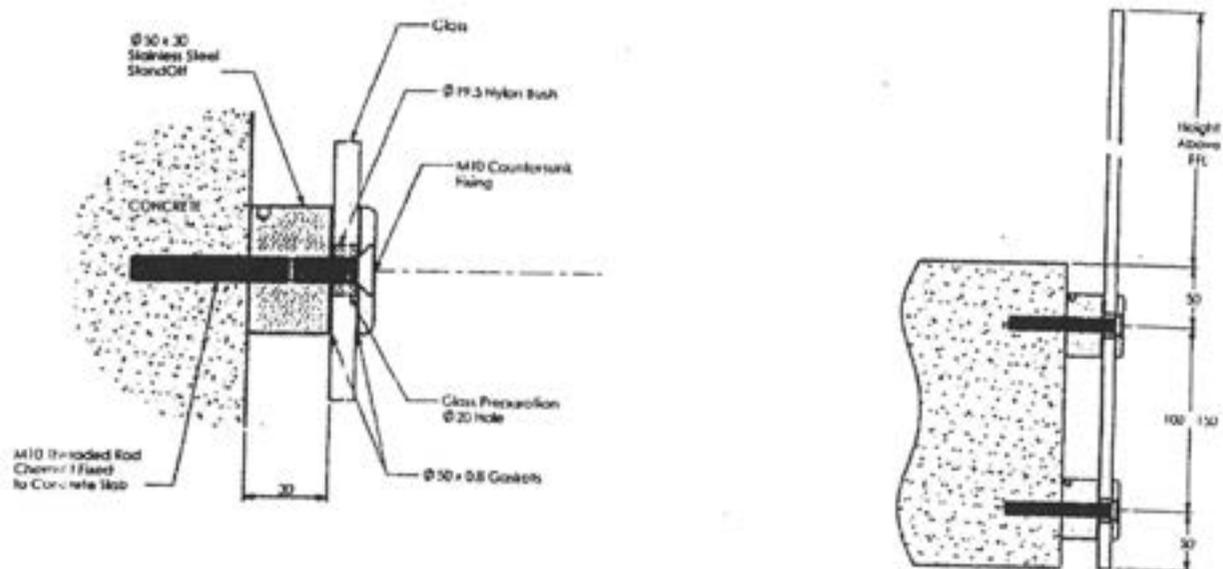
The toughened glass thickness of 12 mm has been calculated to comply with these design loads at a height of 1100 mm from the top fixing. The SLS deflection in the glass only has been calculated not to exceed 30mm which is industry standard.

The MFG MB50 series stainless steel double disc fixings have been designed and computer modelled by an independent consulting engineering company using Finite Element Analysis. The results show that the design stress in the toughened glass is not exceeded for fixing at 400mm maximum centres and 75mm – 150mm vertical centres.

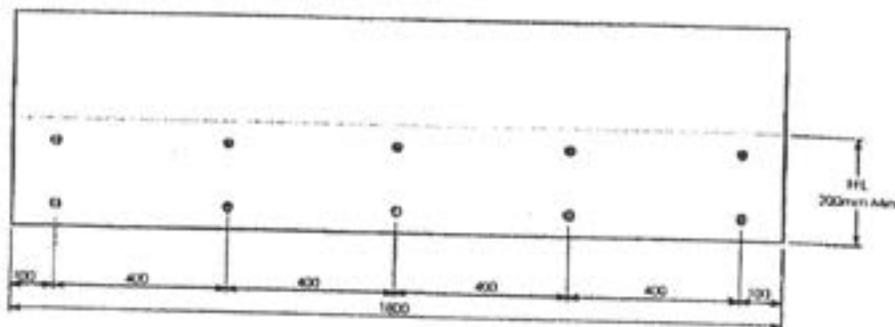
Note 1. The structural stability of the structure supporting the balustrade system is not part of this producer statement unless otherwise stated, and may increase deflection in the glass. Note 2. Interlinking handrails are recommended in case of glass breakage to ensure safety from falling.

**Frameless Balustrade Systems**

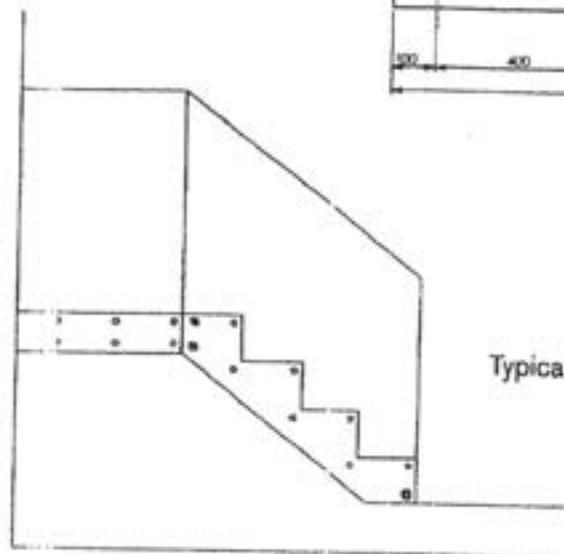
**Typical Setouts for Balustrade Fittings**



Typical Balustrade panel layout at 350 to 400mm centres



Typical Stair Layout





NEW ZEALAND SOCIETY OF ARCHITECTS



MFG Test: Double Disc 50mm Domestic  
Test D1B

**PRODUCER STATEMENT – PS1 – DESIGN**  
(Guidance notes on the use of this form are printed on the reverse side)



ISSUED BY: **Robert Good for Nancekivell Cairn Ltd**  
(Specially qualified Design Professional)

TO: \_\_\_\_\_  
(Owner)

TO BE SUPPLIED TO: \_\_\_\_\_  
(Territorial Authority)

IN RESPECT OF: **Load Testing to MB50/S/T30 Double Disc at min 75mm pitch and fixed at 400mm CRS with 12mm toughened glass to 1050mm height above upper rod fixing to resist AS/NZS 1170 occupancy A,B,C3, & E and ULS wind load of 2.10 kPa**  
(Description of Building Work)

.....**Nancekivell Cairn Ltd**.....has been engaged by ...**Metro Frameless Glass Systems Ltd**.....  
(Design Firm) (Owner/Developer/Contractor)

to provide ..... **Monitoring to Load Tests and Confirmation of Loading Achieved**..... in respect of the requirements of Clause(s) .....**B1, B2, F2, F4**..... of the Building Code for

Part only as specified

of the building work. The design has been prepared in accordance with **B1/VM1, B2/AS1, F2/AS1, F4/AS1**  
(verification method/stipulated solutions(s))  
(respectively) of the approved documents issued by the Department of Building & Housing and the work is described on

.....**Metro Frameless Glass Ltd**..... drawings titled ... **Double Disc – Domestic, Concrete, Steel, and Timber Fixing**  
(Design Firm)

and numbered .....**D1/1, D1/2, D1/3**..... and the specification and other documents according to which the building is proposed to be constructed.

As an independent design professional covered by a current policy of Professional Indemnity Insurance to a minimum value of \$200,000. I BELIEVE ON REASONABLE GROUNDS that subject to:

- (i) **Structure to which Balustrade is fixed is to be engineered to resist Ultimate Limit State Moment of 0.47KNm per fixing comprising Pull Out Load of 6.74 KN at upper rod and Push In Load of 6.29KN at lower rod**
- (ii) **Excludes installation not explicitly in accordance with drawings D2/1, D2/2, D2/3 attached**

and (iii) all proprietary products meeting the performance specification requirements, the drawings, specifications, and other documents according to which the building is proposed to be constructed comply with the relevant provisions of the building code.

*Robert Good*  
(Signature, specially qualified Design Professional)

Date **21-04-2009**

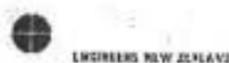
**MEng Sts, BE(civil), CPEng no. 142660**  
(Professional Qualifications)

Member **ACENZ**   
**IPENZ**   **NZIA**

.....**P.O. Box 355-377 Browns Bay**.....

This project contains elements specifically designed by an engineer. The owner/builder is required to ensure the engineer inspects the work and provides KCDC with written evidence of the inspection.

All work carried out under jurisdiction of producer statement to meet the engineer's requirements fully. Engineer to sign off work supervision after construction.



Building Code Clause(s) .....

**PRODUCER STATEMENT – PS1 – DESIGN**

*(Guidance notes on the use of this form are printed on the reverse side\*)*

ISSUED BY: ..... BASE CONSULTING ENGINEERS LTD .....  
(Design Firm)

TO: ..... MR. P. BAYLY .....  
(Owner/Developer)

TO BE SUPPLIED TO: ..... KAPITI COAST DISTRICT COUNCIL .....  
(Building Consent Authority)

IN RESPECT OF: ..... BAYLY DWELLING .....  
(Description of Building Work)

AT: 4 MOSS LANE, PARAPARAUMU .....  
(Address)

..... LOT ..... DP ..... SO .....

We have been engaged by the owner/developer referred to above to provide THE STRUCTURAL DESIGN FOR: .....  
 DRIVEN TIMBER PILE FOUNDATIONS & BEAMS ..... services in respect of the requirements of  
(Extent of Engagement)  
 Clause(s) B1.VM1 ..... of the Building Code for  
 All or  Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:  
 Compliance Documents issued by Department of Building & Housing B1.VM1; AS/NZS: 1170; .....  
(Verification method / acceptable solution)  
 NZS:3603; NZS: 3404; NZS: 3101 ..... or  
 Alternative solution as per the attached schedule .....

The proposed building work covered by this producer statement is described on the drawings titled BAYLY DWELLING .....  
 ..... and numbered 10142 .....  
 together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:  
 (i) Site verification of the following design assumptions AS PER CUTTRISS REPORT JOB NO: 20444 .....  
 (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code.

I, ..... PETER BOLTON ..... am:  CPEng 56179 ..... #  
(Name of Design Professional)  
 Reg Arch ..... #

I am a Member of:  IPENZ  NZIA and hold the following qualifications: .. BE .. CIVIL .....

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000\*.  
 The Design Firm is a member of ACENZ  YES  NO

SIGNED BY ..... PETER BOLTON ..... ON BEHALF OF ..... BASE CONSULTING ENGINEERS LTD .....  
(Design Firm)

Date 13/10/10 ..... (signature) .....

*Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000\*.*

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent.

# Specialized

## CONSTRUCTION PRODUCTS LTD

### EZpanel System Guarantee

**Guarantee Number:** 1467

**Date of Issue:** 17 May 2011

Specialized Construction Products Limited (SCPL) is a manufacturer and supplier of plastering components and materials. SCPL warrants to the original contractor purchaser that the materials and components for the EZpanel system applied were free from defects when supplied and will remain so for a period of 15 years from the date of practical completion of the plastering application in which the components supplied were used.

Any products found to be defective within that 15 year period will be repaired or replaced, at the option of SCPL without charge, provided that:

- 1) The product was not misused or improperly maintained or repaired by any person not authorized by SCPL,
- 2) The product was not altered chemically during the installation process through the introduction of other raw materials not specified by SCPL,
- 3) The products failure resulted from a defect in material or workmanship during the SCPL manufacturing process before delivery to site and was not damaged on site, during installation or due to a use other than its intended purpose.
- 4) The product was not subjected to unusual or abnormal conditions of exposure.
- 5) SCPL has been paid in full for the components and products supplied.

The recommendations, suggestions, statements and technical data provided by SCPL at the time of supply of the components and products are based on the best current knowledge available and are given for information purposes only without any responsibility for their use. SCPL neither assumes, nor authorizes, any others to assume for it, any liability with respect to the application of the products. All on-site application is beyond the control of SCPL and therefore, no warranty is made, expressed or implied, as to the results or on site quality that can be obtained from the use of the SCPL products or components.

SCPL are not liable for:

- 1) Third party claims against the certified plasterer or user for the incorrect installation of its products.
- 2) Loss of, or damage to records and or data caused by the incorrect use or application of its products.
- 3) Special, incidental, or indirect damages or for any economic consequential damages (including lost profits or savings) caused by the misuse of its products.

The long-term durability of any cladding system is dependent upon the correct preparation and application of all of its components strictly in accordance with all the relevant written instructions and detail sheets. The on-site use of the components and products covered by this guarantee is beyond the control of SCPL. On-site supervision, quality control and staff training is the responsibility of the tradesperson or Certified Plasterer and is warranted by them in the form of an independent 5-year workmanship guarantee.

Guarantee Issued to:	Texturite Coatings 2003 Ltd
Related to plaster work at:	1 Moss Lane, PARAPARAUMU
Date of completion of work:	09 May 2011
Components or system applied:	EZpanel System
Finish applied:	Float
Paint colour and manufacturer:	Dulux X10 Low Sheen – Narrow Neck Double

**Signed on behalf of Specialized Construction Products Limited:**



# SPECIFICATION

OF WORK TO BE DONE & MATERIALS TO BE USED IN CARRYING OUT  
THE WORKS SHOWN ON THE ACCOMPANYING DRAWINGS



FOR MR & MRS BAYLY

LOT 1 BEING PART SUBDIVISION OF ~~61 RIMU RD, RAUMATI~~  
DP 380622 1 MOSS LAKE PARAPAPUW

A handwritten signature or set of initials, possibly "B", written in black ink.

SEPTEMBER 2010

## 1201 PRELIMINARIES AND GENERAL

### 1. THE PROJECT

#### 1.1 THE WORKS

The works are as described in this specification and as shown on the drawings.

#### 1.2 SITE

The site of the works, the site address and the legal description are shown on the drawings. Confine access and work to the area of site indicated on the drawings.

#### 1.3 SITE ACCESS AND LIMITS

Off Telford Way

#### 1.4 EXISTING SERVICES

Nil

#### 1.5 EXISTING STRUCTURES AND FEATURES

Nil

### 2. DOCUMENTATION

#### Contract related issues

#### 2.1 INCONSISTENCIES IN CONTRACT DOCUMENTS

For the method of handling ambiguities, they will be resolved as follows:

- The drawings take precedence over specifications.
- Figured dimensions on drawings take precedence over scaled dimensions.
- Drawings to a larger scale take precedence over drawings to a smaller scale.
- Drawings showing particular parts of the contract works take precedence over drawings for more general purposes.

#### Specification structure

#### 2.2 SPECIFICATION STRUCTURE

The designation and numbering of individual specification sections follows the CBI (Co-ordinated Building Information) system for the co-ordination and classification of construction information. Sections are for reference and convenience only and do not profess to define subcontracts.

Read all sections together and read 1201 PRELIMINARIES AND GENERAL with all other sections.

#### 2.3 INTERPRETATIONS

Required:	Required by the documents, or by a statutory authority.
Proprietary:	Identifiable by naming the manufacturer, supplier, installer, trade name, brand name, catalogue or reference number.
Approval:	Approval in writing.
Direction:	Direction in writing.
Provide and fix:	"Provide" or "fix" or "supply" or "fix" if used separately mean provide and fix unless explicitly stated otherwise.
Notified:	Notified in writing

#### 2.4 ABBREVIATIONS

The following abbreviations are used throughout the specification sections:

AS	Australian Standard
AS/NZS	Joint Australian/New Zealand Standard
BRANZ	Building Research Association of New Zealand
BS	British Standard
ECP	Electrical Code of Practice
FTMA	Frame and Truss Manufacturers Association of New Zealand

- 2.11 **MANUFACTURERS AND SUPPLIERS DOCUMENTS**  
Refer to individual sections for a detailed list of manufacturers and suppliers documents relating to work on this project. Retain current copies of the documents listed, and other relevant manufacturers' technical literature, on site. Make this information available to all personnel and ensure they are familiar with requirements for handling, storing, preparing for, fixing and finishing products before commencing work.
- 2.12 **REFERENCED DOCUMENTS**  
Throughout this specification, reference is made to various New Zealand Building Code acceptable solutions (NZBC \_\_/AS\_) and verification methods (NZBC \_\_/VM\_) for criteria and/or methods used to establish compliance with the Building Act 2004.
- Reference is also made to various Standards produced by Standards New Zealand (NZS, AS/NZS, NZS/AS), overseas standards (AS, BS) and to listed Acts, Regulations and various industry codes of practice and practice guides. The latest edition (including amendments and provisional editions) at the date of this specification applies unless stated otherwise.
- It is the responsibility of the contractor to be familiar with the materials and expert in the techniques quoted in these publications, and to ensure that all those engaged in construction of the works to be similarly informed.
- Documents cited both directly and within other cited publications are deemed to form part of this specification.
- 2.13 **PRECEDENCE OF REFERENCED DOCUMENTS**  
This specification takes precedence in the event of it being at variance with and requiring a higher standard than, the cited documents.
- Resolution of any variance must be confirmed in writing and where building consent approval is affected, the change notified to the Building Consent Authority prior to any further work proceeding.
- 2.14 **DOCUMENTS REFERRED TO**  
Documents referred to in this preliminaries and general section are:
- Building Act 2004  
Health and Safety in Employment Act 1992  
Smoke Free Environments Act 1990
- 2.15 **BUILDING CONSENT COMPLIANCE**  
It is an offence under the Building Act 2004 to carry out any work not in accordance with the building consent. Refer the resolution of matters concerning compliance to the owner for a direction. Where building consent approval is affected refer any change to the Building Consent Authority.
- 2.16 **STATUTORY OBLIGATIONS**  
Comply with all statutory obligations and regulations of regulatory bodies controlling the execution of the works.
- 2.17 **BUILDING CONSENT**  
Obtain the building consent from the owner and keep them on site. Liaise with the Building Consent Authority for all notices to be given and all inspections required during construction to ensure compliance. Return the consent form and documents to the owner on completion.
- 2.18 **PRODUCER STATEMENTS**  
When producer statements verifying construction are required, provide copies to both the Building Consent Authority and the owner. Producer statements to be in the form required by the Building Consent Authority.

### 3. ESTABLISHMENT

#### 3.1 APPROVALS

Attend on Building Consent Authority officers, statutory and network utility inspectors, as necessary to obtain approvals (in addition to building consent approval) for and the satisfactory completion of the works.

### 4. TEMPORARY WORKS AND SERVICES

#### 4.1 SITE TELEPHONE AND FACSIMILE

Provide on site telephone and facsimile facilities for the duration of the works.

#### 4.2 SITE ACCOMMODATION

Provide, erect and maintain scaffolding, sheds, toilets, water, power, hoardings and access to the site. Provide cartage, craneage, plant hire and storage necessary for carrying out the works. Provide temporary works and services necessary for the completion of the works. Pay fees and remove temporary works and services on completion of the works.

#### 4.3 PROTECT WORKS AND EXISTING FEATURES

Protect parts of the work liable to damage, including adjoining public or private property, existing buildings, existing roads, footpaths, fences, site services, trees, landscaping and existing retained site features, until completion of the works. Construct a temporary fence at the outer edge of the drip line of trees to be protected. Comply with territorial authority requirements.

Take all precautions necessary to protect the works from damage by unauthorised entry or inclement weather. Brace and support all parts of the works against damage during construction.

Make good damage to existing property and site features arising from construction activities or failure to protect.

#### 4.4 PROVIDE SEDIMENT AND SILT RUN-OFF PROTECTION

Provide appropriate measures to prevent or minimise sediment generation and silt run off. Comply with territorial and other authority requirements relating to carrying out earthworks.

Prevent silt run off by:

- exposing only as much ground as required at any time
- providing run off channels, contour drains or earth bunds to divert clean water away from the site on to stable sealed or grassed ground
- capture silt by the use of silt fences, vegetation buffer strips, sediment ponds or earth bunds.

Provide sediment control by:

- earth bunds constructed across the slope to control and detain run off
- silt fences constructed using filter fabric stretched between posts at a maximum of 1 metre spacing

Pump water from trenches and other areas of the site using methods to prevent sediment entering any drain or watercourse. Filter dirty water before discharging into drainage system.

#### 4.5 SPECIAL PROTECTION

None required

#### 4.6 STORAGE

Provide temporary storage areas and protective covers and screens. Fillet stack and protect all framing and structural members from moisture and contamination. Completely protect finishing materials from the weather and damage and store in accordance with the

- bring radios/audio players on to the site.

## 6. CONSTRUCTION

### 6.1 QUALITY ASSURANCE

Carry out and record regular checks of material quality and accuracy, including:

- Concrete quality and finishes (refer to 3101 CONCRETE).
- Dimensional accuracy of structural columns (following completion of foundations).
- All perimeter columns and frames for plumb.
- Levels of all floors relative to the site datum.
- Framing timber moisture content (refer to 3801 CARPENTRY).

Where any material, quality or dimension exceeds specified or required tolerances, obtain written confirmation of remedial action from the owner. When building consent approval is affected, confirm with the Building Consent Authority.

Provide all materials, equipment, plant, attendances, supervision, inspections and programming to ensure the required quality standards are met.

### 6.2 DAMAGE AND NUISANCE

Take all reasonable precautions to prevent damage and nuisance from water, fire, smoke, vehicles, dust, rubbish, noise and all other causes resulting from the contract works. Comply with the requirements of the territorial authority and relevant Acts and Standards.

### 6.3 SET-OUT AND DATUM

Set out the works to conform with the drawings. Establish a permanent site datum to confirm the proposed building ground floor level and its relationship to all other existing and new building levels.

### 6.4 SET-OUT BY LICENSED CADASTRAL SURVEYOR

Before commencing construction provide the owner with a certificate prepared by a licensed cadastral surveyor that the set-out is complete and that the building is accurately placed on the site in accordance with the plans.

### 6.5 CERTIFY HEIGHT TO BOUNDARY BY LICENSED CADASTRAL SURVEYOR

When the building has reached critical framing stage(s) for height to boundary, a licensed cadastral surveyor is to check that the height to boundary complies with the approved documents. Provide the owner with a certificate confirming the height to boundary complies with the approved documents.

### 6.6 OWNER TO SIGHT SET-OUT

While it remains the contractor's responsibility to set out the works accurately and correctly and to confirm any changes from the approved location with the Building Consent Authority, obtain the owner's written confirmation that they have sighted the proposed building location, site datum and profiles, before commencing any further work.

### 6.7 EXECUTION

Conform to the requirements of this specification. Ensure work is level, plumb, and true to line and face. Employ only experienced workers familiar with the materials and techniques specified.

### 6.8 MATERIALS AND PRODUCTS

Use only new materials and products, unless stated otherwise, of the specified quality and complying with all cited documents.

Substitution of alternative materials, products, plant or equipment from those specified must first be confirmed by the owner in writing. If the building consent approval is affected, obtain the approval of the Building Consent Authority for the substitution.

## 2201 PREPARATION AND GROUNDWORK

### 1. GENERAL

This section deals with the clearance, excavation and backfilling of the site area in preparation for footings and floor slabs, and backfilling behind basement retaining walls.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZS 3604	Timber framed buildings
OSH	Approved code of practice for safety in excavation and shafts for foundations

#### 1.2 SITE SAFETY

Provide adequate support for all excavations. Cover holes and fence off open trenches and banks.

#### 1.3 ANTIQUITIES AND ITEMS OF VALUE

Report the finding of any fossils, antiquities and other items of value. All to remain undisturbed until approval is given for removal, and all remain the property of the owner.

### 2. PRODUCTS

#### 2.1 EXCAVATED FILL

Material from other formations in the excavation which may be selected and approved as suitable for filling by having grading and moisture content properties that will allow recompaction to 95% of maximum density.

#### 2.2 VOLCANIC TUFF FILL

Scoriaceous tuff of variable grading excluding excessive silt or clay material, capable of being placed and compacted as specified.

#### 2.3 ROCK FILL

Hard material comprising rock, broken stone, hard brick, concrete, run of pit scoria, or other comparable inert material capable of being placed and compacted as specified.

#### 2.4 SAND FILL

Clean sand of such grading in particle size to achieve mechanical compaction to 90% maximum density.

#### 2.5 HARD FILL

Scoria or crushed rock to GAP (General All Passing) 40 grading.

#### 2.6 GRANULAR FILL

Approved screened crushed gravel or scoria, graded in size from 20 mm to 7 mm, clean. When tested with a standard sieve of 4.75 opening no material is to pass.

#### 2.7 DRESSING COURSE

Scoria to GAP 20 grading, or "dirty footpath scoria", or equivalent "all in" graded crushed metal aggregate.

#### 2.8 FREE-DRAINING AGGREGATE

Scoria or crushed gravel graded 50 to 14 clean.

### 3. EXECUTION

#### 3.1 EXCAVATION GENERALLY

Carry out excavation to the guidelines set by the OSH publication: Approved code of practice for safety in excavation and shafts for foundations.

#### 3.2 BURNING OF MATERIALS

Burning of materials is not permitted on site.

- 3.14 **GENERAL BACKFILLING**  
Obtain written confirmation from the owner before using any excavated material.  
Compact approved backfilling in 150 mm layers with the last 200 mm in clean topsoil,  
lightly compacted and neatly finished off.
- 3.15 **RETAINING WALLS**  
Backfill behind retaining walls with free draining granular material and compact in 200 mm  
layers. Ensure any tanking membranes, drain coil and damp-proofing are not damaged.
- 3.16 **SURPLUS MATERIAL**  
Remove surplus and excavated material from the site.

Ensure reinforcement is clean and remains clean so that at the time of placing concrete it is free of all loose mill scale, loose rust and any other contamination that may reduce bonding capacity.

### 3.2 FALSEWORK AND FORMWORK

Use falsework and formwork of sufficient strength to retain and support the wet concrete to the required profiles and tolerances. Select formwork finish to produce the specified finished quality. Ensure timber or plywood used for formwork is non-staining to the set concrete.

Securely fix and brace formwork sufficiently to support loads and with joints and linings tight enough to prevent water loss. Do not use tie wires or rods unless approved in writing by the owner. Unless detailed otherwise, provide a 19 mm chamfer or fillet strip at all interior and exterior angles of beam and column forms. Mitre at intersections.

Water blast to clean formwork. Keep formwork wet before concrete is placed.

Unless detailed otherwise, set up soffit boxing for beams and slabs to provide a camber when forms are stripped, of 3 mm rise for every 3 metres of total clear span.

### 3.3 INSTALL DAMP-PROOF MEMBRANE

Apply polythene membrane to prepared basecourse with 150 mm laps between sheets. Tape seal laps and penetrations with 50 mm wide pressure sensitive plastic tape. Refer to drawings for perimeter details.

### 3.4 INSTALL CELLULAR POLYSTYRENE INSULATION

Install EPS insulation system to manufacturer's requirements.

### 3.5 CUT AND BEND REINFORCEMENT

Cut and bend bars using proper bending tools to avoid notching and to the requirements of NZS 3109: 3.3 Hooks and bends. Minimum radii of reinforcement bends to NZS 3109: table 3.1, Minimum radii of reinforcement bends. Do not rebend bars. Where rebending is necessary, use a purpose built tool, proper preparation and preheating.

### 3.6 ADJUSTMENTS

Use a purpose built tool for on site bending and to deal with minor adjustments to steel reinforcement.

### 3.7 TOLERANCES, BENDING

To NZS 3109: clause 3.9, Tolerances for reinforcement.

### 3.8 SECURE REINFORCEMENT

Secure reinforcement adequately with tying wire and place, support and secure against displacement when concreting. Bend tying wire back well clear of the formwork. Spacing as dimensioned, or if not shown, to the clear distance minimums laid down in NZS 3109: clause 3.6, Spacing of reinforcement.

### 3.9 LAPPED SPLICES

Length of laps where not dimensioned on the drawings in accordance with the SELECTIONS. Increase laps of plain round steel by 100%. Provide laps only where indicated on the drawings. Tie all lapping bars to each other.

### 3.10 REINFORCEMENT COVER

Minimum cover to all reinforcing bars, stirrups, ties and spirals, as shown on the drawings. Where cover is not shown on drawings provide minimum cover to NZS 3101 part 1, table 3.6, Minimum required cover for a specified intended life of 50 years. Fix chairs for top reinforcement in slabs at 1.0 metre centres or to ensure adequate support. Cover tolerances to NZS 3109: clause 3.9, Tolerances for reinforcement.

### 3.11 CASTING IN

Build in all grounds, bolts and fixings for wall plates and bracing elements, holding down bolts, pipes, sleeves and fixings as required by all trades and as shown on the drawings, prior to pouring the concrete.

- 3.22 **CURING OF CONCRETE**  
Keep damp for not less than seven days. Ensure curing of slabs commences as soon as possible after final finishing, by the use of continuous water sprays, or ponding. Alternately, apply a curing membrane. Ensure any membrane used will not affect subsequent applied finishes.
- 3.23 **STRIKE FORMWORK**  
Strike formwork without damaging or overloading structure. Do not remove formwork before the following minimum periods:
- |           |   |
|-----------|---|
| 12 hours: | Sides of beams, walls and columns   |
| 4 days:   | Slabs in beam and slab construction<br>(leave props under slab spans over 2 metres) |
| 10 days:  | Props from under slab spans over 2 metres   |
| 18 days:  | Beams, soffits and slab spans over 5 metres   |
- 3.24 **CLEAN OUT**  
Clean out saw cuts. Fill with cement grout where the floor will be covered with carpet or vinyl.
- 3.25 **REMOVE**  
Remove all unused materials and all concrete and reinforcing debris from the site.

- 2.8 **PLYWOOD**  
Structural plywood to AS/NZS 2269 for bracing, bracketing, sarking and floors.
- 2.9 **COMPRESSED FIBRE CEMENT SHEET FLOORING**  
Eighteen mm thick high density sheet of Portland cement, fine sand, cellulose fibre and water, with a smooth finish both sides.
- 2.10 **HARDWOOD SPACED BOARDING FOR EXTERIOR DECKS**  
Plantation-grown hardwood. Dressed four sides and with arrises removed.
- 2.11 **SOFTWOOD SPACED BOARDING FOR EXTERIOR DECKS**  
Selected radiata pine, treated to H3.2 CCA to NZS 3640, clause 6.3.1, Round, part round, or sawn timber. Dressed four sides and with arrises removed.  
Moisture content: ~% prior to laying
- 2.12 **NAILS**  
Steel, stainless steel and galvanized steel of pattern to suit the location and to BRANZ Bulletin 453 Fasteners selection.
- 2.13 **BOLTS AND SCREWS**  
Steel, stainless steel and galvanized steel of pattern to suit the location and to BRANZ Bulletin 453 Fasteners selection.
- 2.14 **NAIL PLATES**  
Stainless steel and/or galvanized steel toothed or nailed plates to the plate manufacturer's design for the particular locations as shown on the drawings.
- 2.15 **CONNECTORS**  
Galvanized steel connectors and structural brackets to the connector manufacturer's design for particular locations shown on drawings.
- 2.16 **POLYETHYLENE DPC**  
Polyethylene film to AS/NZS2904 and embossed on both sides. Thickness 500 microns minimum, manufactured for use as a damp-proof course and concealed flashings to doors and windows.
- 2.17 **BITUMINOUS IMPREGNATED DPC**  
Heavy Kraft impregnated with high grade bitumen and coated with higher heat resistant bitumen to AS/NZS 2904 and AS/NZS 4347.
3. **EXECUTION**
- 3.1 **EXECUTION GENERALLY**  
To NZS 3603 and NZS 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).
- 3.2 **SEPARATION**  
Separate all timber framing timbers from concrete, masonry and brick by: -  
- a full length bituminous damp-proof membrane overlapping timber by at least 6 mm; or  
- a 12 mm minimum free draining air space
- 3.3 **ATTENDANCE**  
Provide and fix blocks, nogs, openings and other items as required by other trades.
- 3.4 **MOISTURE CONTENT**  
Maximum allowable equilibrium moisture content (EMC) for non air-conditioned or centrally heated buildings for framing to which linings are attached.  
Framing at erection: 24% maximum  
Framing at enclosure: 20% maximum  
Framing at lining: 16% maximum  
Timber strip flooring: 10% at time of laying

- 3.18 **LAYING FIBRE CEMENT UNDERLAY**  
Punch existing floor fixings and course sand level. Set out and fix strictly in accordance with the underlay manufacturer's requirements, using 25 mm x 2.5 mm annular-threaded underlay nails. Drive heads flush with the sheet surface.
- 3.19 **LAYING TIMBER SPACED BOARDING FOR EXTERIOR DECKS**  
Confirm whether the grooved side of the boards are face up or face down. Avoid excessively short or long lengths, drill for all fixings, stagger end joints and space boards a maximum of 2 mm apart in general conditions, or maximum 3 mm apart if boards are likely to swell after fixing. Fix using annular grooved galvanized jolt head nails, heads driven flush with the board surface.
- 3.20 **DPC TO LOSP TREATED TIMBER**  
Lay polyethylene DPC under LOSP treated bottom plate of all external timber framed walls on concrete, in a single layer with 50 mm overlaps at joints to provide a waterproof barrier.
- 3.21 **DPC TO TIMBER**  
Lay bituminous DPC under the bottom plate of all external timber framed walls on concrete, in a single layer with 50 mm overlaps at joints to provide a waterproof barrier.
- 3.22 **INSTALL PROPRIETARY FIREPLACE**  
Prepare for the installation as detailed and as required by the manufacturer. Install strictly in accordance with AS/NZS 2918 and the manufacturer's stated and detailed requirements.

2.3 STANDARD WEIGHT PERFORATED ALUMINIUM FOIL  
Standard weight perforated double sided reinforced reflective aluminium foil to NZS 4200  
Pliable building membranes and underlays, consists of two layers of aluminium foil bonded to quality high strength Kraft and reinforced.

2.4 HEAVY WEIGHT PERFORATED ALUMINIUM FOIL  
Heavy weight perforated double sided reinforced reflective aluminium foil to NZS 4200  
Pliable building membranes and underlays, consists of two layers of aluminium foil bonded to quality high strength Kraft and reinforced lengthwise through the membrane.

#### Wall wraps

2.5 POLYETHYLENE BREATHER TYPE MEMBRANE  
High tensile coated polyolefin woven into sheet form with micro sized pores that allow the membrane to breathe with a fire retardant flammability index of 1, tested to AS 1530.

2.6 POLYPROPYLENE BREATHER TYPE MEMBRANE  
Absorbent breathable spun bonded non-woven polypropylene type building membrane.

2.7 BITUMINOUS STANDARD WEIGHT BUILDING PAPER  
Bituminous standard weight building paper tested to NZS 4200.

2.8 BITUMINOUS HEAVY WEIGHT BUILDING PAPER  
Bituminous heavy weight building paper tested to NZS 4200.

2.9 FIRE RETARDANT STANDARD WEIGHT BUILDING PAPER  
Fire retardant, solvent free, water repellent standard weight Kraft paper tested to AS 1530.

2.10 FIRE RETARDANT HEAVY WEIGHT BUILDING PAPER  
Fire retardant heavy weight Kraft paper coated with a water repellence formula and is a solvent free building paper tested to AS 1530.

#### Roofing underlay

2.11 BITUMINOUS HEAVY WEIGHT BUILDING PAPER  
Bituminous heavy weight building paper tested to NZS 2295.

2.12 BITUMINOUS SELF SUPPORTING  
Bituminous self supporting roofing underlay tested to NZS 2295.

2.13 FIRE RETARDANT HEAVY WEIGHT BUILDING PAPER  
Fire retardant heavy weight Kraft paper coated with a water repellence formula and is a solvent free building paper tested to AS 1530.

2.14 FIRE RETARDANT SELF SUPPORTING TWO WAY REINFORCED  
Self supporting roofing underlay consisting of two layers of heavy weight Kraft paper, surfaced coated with water repellence formula which is solvent free, two way reinforced, and then laminated using a fire retardant adhesive tested to AS 1530.

2.15 SARKING OVERLAY – MOISTURE VAPOUR BARRIER  
Film woven from polyethylene tapes then coated both sides with a polyethylene film.

#### Accessories

2.16 WINDOW DOOR SEALING SYSTEM  
Proprietary window and door flashing tape.

2.17 STUD STRAPS  
19 mm wide polyethylene straps.

- 3.9 **WIRE NETTING**  
Lay 75 mm galvanized wire netting at right angles across the purlins and drawn taut before fixing. Tie edges of netting together with galvanized wire clips.
- 3.10 **BUILDING PAPER ROOF UNDERLAY**  
Lay vertically over purlins on wire netting with a 150 mm side lap. Fix securely to purlins with galvanized fixing clips. Lay underlay to avoid excessive dishing between purlins. When used vertically limit individual runs to 10 metres for bituminous based papers and 7 metres for fire retardant underlays.
- Lay horizontally across the rafter/trusses starting at the gutter line with succeeding sheets in true alignment and lapping 150 mm. Scribe around and fit neatly to all penetrations. Avoid prolong exposure by installing the roof immediately.
- 3.11 **GUTTER AND UNDER FLASHINGS**  
Lay bituminous breather type building paper cut to width by manufacturer for use as an underlay to valley, apron flashings, internal gutters and soffit liner. Lap under flashings with adjoining underlays. Fix soffit liner from top plate down 150 mm past ribbon plate.
- Completion**
- 3.12 **CLEAN UP**  
Clean up as the work proceeds.
- 3.13 **LEAVE**  
Leave work to the standard required by following procedures.
- 3.14 **REMOVE**  
Remove debris, unused materials and elements from the site.

- 2.8 **TIMBER WEATHERBOARD**  
Dressing grade to NZS 3631, to NZS 3617 for profile and treated to NZS 3602, table 2, reference 2.A1, Requirements for wood-based building components to achieve a 15-year durability performance.
- 2.9 **BOARD AND BATTEN**  
In long lengths to profile detailed with species and grading to the requirements of NZS 3602 but with all knots excluded. Treated to NZS 3602, table 2A, Requirements for wood-based building components to achieve a 15-year durability performance. Treated H3.1 if not heart timber.
- 2.10 **FIBRE-CEMENT WEATHERBOARD**  
Cellulose cement autoclaved sheets to NZS/AS 2908.2.
- 2.11 **FIBRE CEMENT SHEET CLADDING**  
Cellulose cement autoclaved sheets to NZS/AS 2908.2.
- 2.12 **FIBRE-CEMENT SOFFIT LINING**  
Cellulose cement autoclaved sheets to AS/NZS 2908.2.
- 2.13 **TIMBER FASCIAS AND BARGE BOARDS**  
Dressing grade to NZS 3631 and treated to NZS 3602, table 2, reference 2A.3, Requirements for wood-based building components to achieve a 15-year durability performance. Finger jointed timber to AS/NZS 1491.
- 2.14 **PVC JOINTERS**  
To suit sheet thickness.
- 2.15 **NAILS, SCREWS AND FASTENINGS**  
Metal, size and pattern, to cladding manufacturer's requirements and complying with the relevant aspects of NZS 3604, section 4: Durability.
- 2.16 **FLASHINGS**  
Material, grade and colour as detailed and scheduled. Ensure that materials used for flashings are compatible with the window frame materials and fixings and cladding materials and fixings.
3. **EXECUTION**
- 3.1 **MOISTURE CONTENT**  
Maximum allowable moisture content to NZS 3602 for:  
Equilibrium moisture content (EMC)
- |                              |                       |
|------------------------------|-----------------------|
| - Framing:                   | 20% at closing in     |
| - Weatherboards:             | 14% at time of fixing |
| - Exterior joinery and trim: | 14%                   |
- 3.2 **EXECUTION METHODS AND PRACTICES**  
To NZS 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).
- 3.3 **FIX WRAPS AND UNDERLAYS**  
Fix to framing, with laps and fixing to the cladding manufacturer's requirements.
- 3.4 **PENETRATIONS**  
Confirm that exterior wall openings have been prepared ready for the installation of all window and door frames and other penetrations through the cladding. Required preparatory work includes the following:
- wall cladding underlay/building wrap to openings finished and dressed off ready for the installation of window and door frames and other penetrations
  - claddings neatly finished off to all sides of openings
  - installation of flashings (those required to be installed prior to installation of penetrating elements).

# ENDURON MASONRY VENEER

## 1. GENERAL

This section deals with the supply and fixing of Enduron exterior wall cladding system based on standard masonry veneer cladding specifications.

### 1.1 RELATED SECTIONS

Refer to ~ for ~.

### 1.2 DOCUMENTS

Documents referred to in this section are:

NZBC B1/AS1	Structure - General, 2.0 Masonry
	AS/NZS 1170.2 Structural design actions - Wind actions
NZS 1170.5	Structural design actions - Earthquake actions – New Zealand
NZS 3604	Timber framed buildings
NZS 4203	General structural design and design loadings for buildings
NZS 4210	Masonry construction: materials and workmanship
BRANZ	Bulletin 436 Masonry veneer construction

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

### 1.3 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

PSL documents relating to work in this section are:

PSL Product Manual

Copies of the above literature are available from ~

Web: [www.plastersystems.co.nz](http://www.plastersystems.co.nz)

Telephone: 0800 114400

Facsimile: 09 444 9561

### 1.4 QUALIFICATIONS

Use only applicators that are approved to install the PSL Enduron system.

### 1.5 FIXINGS, WIND

Design and use the fixings appropriate for the wind zone (R) and topographical classification (T) of this site and building height; as required by NZS 3604 and the wind loads on various wall areas as given by NZS 4203 or AS/NZS 1170.2.

### 1.6 FIXINGS, EARTHQUAKE

Use fixings and methods capable of sustaining the loads appropriate to the area as set out in NZS 3604 and NZS 4210 and as required by NZS 4203 or NZS 1170.5.

## 2. PRODUCTS

### 2.1 ENDURON PANEL

75mm wide by 300mm high by 2200mm long extruded masonry wall panel.

### 2.2 DAMP-PROOF MEMBRANE

Heavy kraft, strip laminates saturated and coated with bitumen, butyl rubber sheet with adhesive, or equivalent.

### 2.3 DAMP-PROOF COURSE

Polyethylene based strip used as a damp-proof course and flashing.

### 2.4 ENDURON TIES

Enduron Ties are zincalume in all areas except sea spray zones giving 50 year durability, according to Table 20 E2/AS1 and stainless steel for sea spray zones.

- 3.10 **TIE SPACING**  
Enduron Ties to be fixed to every stud at 600 centres.
- 3.11 **SEPARATION JOINTS**  
Provide for wall movements of veneer with control joints to NZS 4210: 2.10 Methods of controlling wall movements. Weatherproof as necessary.
- 3.12 **FORM REVEALS**  
Form heads, jambs and sills as detailed complete with damp-proofing and all ready for following work.
- 3.13 **FORM OPENINGS**  
Provide a flexible damp-proof course, extending 200 mm beyond opening and sloping to weep holes over all openings in cavity walls.
- 3.14 **DAMP COURSE TO JAMBS**  
Provide a flexible damp-proof course to jambs of openings in cavity walls, fully lapped with horizontal damp-proof courses at head and sill.
- 3.15 **DAMP COURSE TO SILLS**  
Provide a flexible damp-proof course under jointed sills, turned up at back and ends.
- 3.16 **FINISHING**  
Refer to SELECTIONS for type and colour.
- 3.17 **COARSE MESHING RENDER**  
Apply coarse meshing render coat 3 mm minimum. Embed fibreglass mesh into the wet render. Overlap each successive length by 50 mm minimum. To opening reveals mesh over the uPVC flashings. Apply diagonal reinforcement strips at all corners of windows, doors and other exterior openings.
- 3.18 **POLYMER MODIFIED FINISH**  
Apply the coating of the selected texture, to the PSL recommended techniques and thicknesses.
- 3.19 **ACRYLIC COATING FINISHES**  
Apply the coating of the selected texture, to the PSL recommended techniques and thicknesses.
- 3.20 **CURE FINISHES**  
Cure and protect from rapid drying in accordance with the PSL requirements.
- 3.21 **PAINT FINISH**  
Apply two coats of **Insulcote** 100% acrylic latex paint to exterior plastered surfaces. Allow a minimum of 3 days for the cement plaster to dry before the application of the paint system.
- 3.22 **CLEANING**  
Remove debris, unused materials and elements from the site relating to the plaster system application. Replace damaged, cracked or marked elements. Leave the whole of this work to the required standard.
- 3.23 **FINAL INSPECTION**  
A final inspection by the approved applicator of the entire finished cladding to take place immediately after completion of the wall cladding work and any defects or subsequent damage made good immediately.
4. **SELECTIONS**
- 4.1 **ENDURON PANEL**  
Dimensions: 75mm Wide by 300mm High

## 4301D DIMOND PROFILED ROOFING

### 1. GENERAL

This section deals with the supply and fixing of Dimond profiled roofing complete with accessories.

#### 1.1 DOCUMENTS REFERRED TO

Documents referred to in this section are:

AS/NZS 2728	Prefinished/pre-painted sheet metal products for interior/exterior building applications - performance requirements
NZS 3604	Timber framed buildings
AS/NZS 4534	Zinc and zinc/aluminium-alloy coatings on steel wire
AS 3566	Self-drilling screws for the building and construction industries
NZMRM	NZ Metal roof and wall cladding - Code of practice

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

#### 1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:  
**Dimond Roofing and Cladding Systems Manual, September 2001**

Copies of the above literature are available from **Dimond**

Web: [www.dimond.co.nz](http://www.dimond.co.nz) (Architects and specifiers section)

Telephone: 0800 DIMOND (0800 346 663)

#### 1.3 ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:

BMT	Base metal thickness
NZMRM	New Zealand Metal Roofing Manufacturers Inc

#### 1.4 NO SUBSTITUTIONS

Substitutions are not permitted to any specified system, or associated components and products.

#### 1.5 QUALIFICATIONS

Roofers to be Dimond Certified Installer, or experienced, competent roofers familiar with **Dimond** products.

#### 1.6 MAINTENANCE INSTRUCTIONS

Provide one bound copy of all relevant **Dimond** maintenance information on completion of the roofing work.

#### 1.7 WARRANTY

Warrant this work under normal environmental and use conditions against:

Coating:	15 year Failure of coating adhesion (manufacturer's standard warranty)
Penetration:	15 year weatherproofing by material penetration (manufacturer's standard warranty)
Execution:	5 year weatherproofing by substandard workmanship

From: Date of completion of installation

Refer to the PRELIMINARIES AND GENERAL section for details of when completed warranty must be submitted.

#### 1.8 WIND LOADINGS

Use fixings and methods capable of sustaining the wind loads appropriate to the area as set out in NZS 3604, section 5.

- 3.1 **INSPECTION**  
Inspect the roof framing and supporting structure to ensure that it is complete and fully braced ready for roofing and free from any misalignments or protrusions that could damage the roofing.
- 3.2 **STORAGE**  
Take delivery of and accept packs of roofing dry and undamaged on delivery. Reject all damaged material. Store on a level firm base clear of the ground, with packs well ventilated and completely protected from weather and damage. Do not allow moisture to build up between sheets.
- 3.3 **HANDLING**  
Avoid distortion and contact with damaging substances, including cement. Do not drag sheets across each other or other materials. Protect edges and surface finishes from damage. Use soft, flat sole shoes when fixing and for all other work on the roof.
- 3.4 **SEPARATION**  
Isolate dissimilar materials in close proximity as necessary by painting the surfaces or fitting separator strips of compatible materials. Place isolators between metals and treated timber and cement based materials. Do not use unpainted lead sheet in contact with or allow water run-off onto galvanized steel or Zinalume®.
- 3.5 **SET-OUT & LAYING**  
Carefully set out to allow cover flashings of equal width at the ends of the building. Lay sheets with side laps away from the line of sight ensuring ends of sheets are true to line. Check during fixing to eliminate creep or spread and use string lines along purlin centres to keep fastenings in line.
- 3.6 **FORMING**  
Form stop-ends and downturns to **Dimond** recommendations.
- 3.7 **END LAPS**  
End laps are not permitted, except where specifically detailed to **Dimond** requirements.
- 3.8 **THERMAL MOVEMENT**  
Roof fixing and jointing to conform with **Dimond** requirements for thermal movement.
- 3.9 **FIXING GENERALLY**  
Install and fix in accordance with the Dimond Roofing and Cladding Systems Manual and the NZMRM NZ Metal roof and wall cladding - Code of practice and to **Dimond** required fixing patterns and details for each area of the building roofing. Use only screws as required by **Dimond**. Paint colour matched fixings and accessories before installation.
- 3.10 **FIX UNDERLAY**  
Fix wire netting where specified, drawn tight and nailed or screwed to purlins with edges butted and wired together to form a complete net. Fit and lap roofing underlay over the netting to suit roofing sheets, with 40 mm oversail into gutter, to the underlay manufacturer's requirements.
- 3.11 **MARKING AND CUTTING**  
Cut only by shearing tools. Do not use black lead pencils for marking Zinalume®, Colorsteel® or ColorCote® products.
- 3.12 **FIX SHEETS**  
Fix sheets in place using the fastening system required by **Dimond** for specified profiles, making due allowance for dynamic local wind pressures on the building and thermal movement in the sheet.
- 3.13 **FLASH**  
Flash roof to parapets, walls and penetrations to detail in the Dimond Roofing and Cladding Systems Manual and to the NZMRM NZ Metal roof and wall cladding - Code of practice. Cut accurately and fix using sealant and rivets to detail and to **Dimond**

## 4502 ALUMINIUM WINDOWS AND DOORS

### 1. GENERAL

This section deals with the manufacture, supply and installation of aluminium windows and doors and associated flashings.

#### 1.1 RELATED SECTIONS

Refer to GLAZING for glazing for type and thickness.

#### 1.2 DOCUMENTS

Documents referred to in this section are:

NZS 3604	Timber framed buildings
AS 3715	Metal finishing - Thermoset powder coatings for architectural applications
NZS 4223	Code of practice for glazing in buildings - Human impact safety requirements
WANZ	Aluminium Window Handbook
WANZ	Specification for powder coatings on architectural aluminium products
WANZ	Installation code for aluminium joinery products
WANZ	Window installation system: An Alternative Solution for the installation of Windows and doors
BRANZ Bulletin 349	Finishes for aluminium

#### 1.3 SUBMIT SAMPLE SECTIONS

Submit full size section samples, with the selected finish of all profiles offered.

#### 1.4 SHOP DRAWINGS

Shop drawings to show, but not be limited to:

- Fully dimensioned elevations of all elements (minimum scale 1:20)
- Dimensions of all typical elements and of any special sizes and shapes
- Glazing specification and details

Provide a copy of shop drawings revised to include required modifications, before proceeding with any fabrication or erection.

#### 1.5 CERTIFICATION

Provide a certificate from a laboratory accredited by International Accreditation of New Zealand that the windows and doors offered comply with the performance requirements of NZS 4211.

#### 1.6 QUALIFICATIONS

Fabrication by a member of WANZ.

#### 1.7 PERFORMANCE

The structural and weather-tight performance of the completed window installation, the glazing and infill panels is the responsibility of the window manufacturer.

## 2. PRODUCTS

### 2.1 WINDOW AND DOOR SECTIONS

Form all aluminium members from extruded sections. Folded sections are restricted to flashings and concealed members only.

### 2.2 FLASHINGS GENERALLY

Material, grade and colour of head flashings to match the window frames. Ensure that materials used for head, jamb and sill flashings are compatible with the window frame materials and fixings and cladding materials.

**Components – for direct fix systems**

- 3.2 **EXECUTION GENERALLY**  
Execute all fabrication and installation work in accordance with the requirements of NZS 4211, WANZ Aluminium window handbook and WANZ Installation code for aluminium joinery products.
- 3.3 **HARDWARE GENERALLY**  
Factory fit all required and scheduled hardware. Account for all keys and deliver separately to the site manager.
- 3.4 **SAFETY STAYS**  
Factory fit safety stays to all windows scheduled for safety stays and to all windows where safety stays are required to comply with NZBC F4/AS1 4.0, Opening windows.
- 3.5 **HANDLING**  
Avoid distortion of elements during transit, handling and storage. Prevent pre-finished surfaces from rubbing together. Prevent contact with mud, plaster and cement. Do not deliver to site any elements which cannot be immediately unloaded into suitable conditions of storage.
- 3.6 **CORROSION PROTECTION**  
Seal or suitably coat cut ends and holes drilled in aluminium before the frames are installed. Before fixing, apply bituminous coatings, slips or underlays between dissimilar metals in contact, or aluminium in contact with concrete.
- 3.7 **CONFIRM PREPARATION OF WALL OPENINGS**  
Confirm that wall openings have been prepared ready for the installation of all window and door frames. Do not proceed with the window and door installation until required preparatory work has been completed.
- Required preparatory work includes the following:
- wall cladding underlay/building wrap to openings finished and dressed off ready for the installation of window and door frames
  - claddings neatly finished off to all sides of openings
  - interior linings neatly trimmed ready for installation of jamb liners and completion of air seals to all sides of openings
  - installation of flashings (those which are required to be installed prior to frames).
- 3.8 **FIX FRAMES**  
Fix frames rigidly in place without distortion, to the window manufacturers and WANZ Aluminium window handbook requirements, plumb, true to line and face, weathertight and with all openings operating freely.
- 3.9 **DRAINAGE**  
Provide anti-condensation channels to all sills. Sills to sashes and fixed lights to incorporate positive drainage to the exterior.
- 3.10 **INSTALLATION GENERALLY**  
Fix to comply with the reviewed shop drawings and installation details including flashings and bedding compounds, pointing sealants and weathering sealants.
- 3.11 **INSTALLATION DIRECT FIX**  
Install to window manufacturers details and drawings including sill pans to window and door units.
- 3.12 **INSTALLATION CAVITY CONSTRUCTION**  
Install to WANZ Installation System details and drawings including WANZ cavity closers, support bars and support angles

**Flashings and air seals**

## 4505 GARAGE DOORS

### 1. GENERAL

This section deals with the manufacture, supply and installation of garage door systems including required opening/operating systems.

#### Related work

#### 1.1 RELATED SECTIONS

Refer to GLAZING for glazing not forming part of the proprietary garage door.  
Refer to PAINTING AND PAPERHANGING for painting not forming part of the proprietary garage door.  
Refer to ELECTRICAL for power supply to opening system

#### 1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

AS/NZS 1170	Structural design actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
NZS 3604	Timber framed buildings
AS/NZS 4505	Domestic garage doors

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

#### Performance

#### 1.3 LOADS

Garage doors complete with hinges, roller assemblies and fasteners to comply with wind and seismic load performance requirements to NZS 3604, table 5.1, Determination of building wind zone, AS/NZS 1170 and NZS 1170.

#### 1.4 RESPONSIBILITY FOR PERFORMANCE

Accept responsibility for the structural and weather-tight performance of the completed garage door installation.

### 2. PRODUCTS

#### 2.1 GARAGE DOOR

Manufactured to AS/NZS 4505 complete with a compliance label stating manufacturer, serial number, wind and seismic classification and testing/certification details

#### 2.2 MOTORISED DOOR OPENER

To be advised

### 3. EXECUTION

#### 3.1 PREPARATION FOR INSTALLATION

Check that the trimmed and lined openings are formed and constructed to suit the required door units. Do not proceed until openings are properly formed.

#### 3.2 MANUFACTURERS REQUIREMENT FOR INSTALLATION

Install door, track and operating equipment complete with all specified and necessary accessories and hardware to the manufacturer's requirements.

#### 3.3 START UP

Carry out start up procedures and verify proper performance of the doors.

#### 3.4 ADJUSTMENT

Lubricate bearings and sliding parts and adjust doors to operate easily, free of warp, twist or distortion with a weather tight fit round the entire perimeter.

## 4601 GLAZING

### 1. GENERAL

This section deals with the supply and glazing of glass into external and internal joinery on or off site, and other speciality glasswork (e.g. shower and bath screens, glass balustrade panels and mirrors).

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC B1/AS1	Structure, 7.0 Glazing
NZBC F2/AS1	Hazardous building materials, 1.0 Glazing
NZBC F4/AS1	Safety from falling, 1.0 Barriers in buildings
NZS 3604	Timber framed buildings
NZS 4223.1	Glazing in buildings - The selection and installation of glass in buildings
NZS 4223.3	Glazing in buildings - Human impact safety requirements
NZS 4223.4	Glazing in buildings - Dead, wind and snow loading
AS/NZS 2208	Safety glazing materials in building
AS/NZS 4666	Insulating glass units
AS/NZS 4667	Quality requirements for cut-to-size and processed glass

### 2. PRODUCTS

#### 2.1 GLASS

Processed glass to AS/NZS 4667, thickness to NZS 4223 parts 1, 3 and 4 unless otherwise specified:

Clear float glass:	Clear annealed transparent float glass
Patterned glass:	Translucent, annealed, rolled glass with a decorative pattern on one surface.
Wired glass:	With 13 mm square welded, treated steel wire mesh in the centre.
Laminated glass:	Grade A safety glazing material to AS/NZS 2208 with PVB or CIP resin interlayer.
Toughened glass:	Grade A safety glazing material to AS/NZS 2208.
Tinted float glass:	Body tinted float glass

Special glass, thickness to NZS 4223 parts 1, 3 and 4 unless otherwise specified:

Solar float glass:	Coated glass and low-E glass made from float glass
Insulating glass units (IGU's):	To AS/NZS 4666 and IGU Manufacturer's Association (IGUMA) requirements.

#### 2.2 TEMPORARY PROTECTION FILM

Factory applied UV resistant film to protect the glass from construction damage.

#### 2.3 MIRROR GLASS

Float mirror glass to NZS 4223.1, clause 101.2.2.2: (b) Silvering quality (selection S), with silver and copper plating and 2 coats of protective paint.

#### 2.4 SAFETY MIRROR GLASS

Float mirror glass with silver plating and vinyl backing, safety glazing material to AS/NZS 2208.

#### 2.5 GLASS SCREENS

Proprietary shower/bath screens, formed to shape before toughening, complete with matching hardware.

#### Components, timber glazing

#### 2.6 PUTTY, TIMBER FRAME

Linseed oil based, knife grade putty.

#### 2.7 SPRIGS

Diamond metal pieces to retain glass in timber sashes and frames.

### **Application aluminium**

- 3.8 **INSTALL GLASS TO ALUMINIUM FRAMES**  
Install glass to NZS 4223.1.  
- Bead glaze to 105.9 Glazing with beads.  
- Channel glaze to 105.10 Glazing in grooves
- 3.9 **INSTALL SAFETY GLASS**  
To NZS 4223.3, as modified by NZBC F2/AS1.

### **Application mirrors**

- 3.10 **MIRRORS, SCREW FIXED**  
Fix with proprietary countersunk-head screws, fitted with black neoprene washers with fine-threaded upstands to receive chrome plated dome screw covers.
- 3.11 **MIRRORS, CHANNEL MOUNTED**  
Fix with proprietary mounting channels, to the channel manufacturer's requirements.
- 3.12 **MIRRORS, ADHESIVE FIXED**  
Fix with adhesive mirror-mastic and double-sided adhesive tape.

### **Application miscellaneous**

- 3.13 **INSTALL GLASS BALUSTRADES**  
Confirm/design and carry out installation to requirements of NZBC B1/AS1: 7.0 Glazing, NZBC F2/AS1: Glazing and NZBC F4/AS1: Safety from falling: 1.0 Barriers in buildings.
- 3.14 **INSTALL GLASS SCREENS**  
Install shower and bath screens and doors to manufacturer's requirements. Fix wall channel with silicone sealant.

### **Finishing**

- 3.15 **SAFETY**  
After glazing indicate the presence of transparent glasses, with whiting, tape or signs compatible with the glass type.
- 3.16 **MANIFESTATIONS**  
To comply with NZS 4223.3, 303.1. Manifestations (making glass visible)
- 3.17 **TRADE CLEAN**  
Clean off or remove safety indicators and any temporary protection film at completion of the building.

- 2.4 **ACOUSTIC PINK® BATTS® SILENCER® NOISE CONTROL PADS**  
**Pink® Batts® Silencer®**, bio-soluble glass wool manufactured from up to 80% recycled glass in pads and coloured grey for identification.
- 2.5 **MID FLOOR ACOUSTIC PADS**  
**Pink® Batts® Silencer® Mid Floor**, bio-soluble glass wool manufactured from up to 80% recycled glass and coloured grey for identification.

### 3. EXECUTION

#### 3.1 STORAGE

Accept materials undamaged and dry and store in a location that protects them from the weather and damage. Avoid distortion, stretching, compression, puncturing and damage to edges of materials. Do not use damaged or wet insulation materials.

#### 3.2 HANDLING

Wear protective clothing as necessary and when handling, avoid delamination or distortion of the rectangular form. Maintain full thickness unless compression is an installation system requirement.

#### 3.3 INSPECTION

Before starting installation of blankets and pads, check that the location and framing are free from moisture, that the cavities are not interconnected and that mesh, building papers and vapour barriers are in place.

#### **Application, thermal insulation**

#### 3.4 FIT GLASS WOOL THERMAL INSULATING PINK® BATTS® ULTRA™

Lay, install, fit and fix Environmental Choice \*Licence No. 2504017 – Thermal (resistive type) building insulants\*, **Pink® Batts® Ultra™** to NZBC H1/AS1: Energy efficiency, 2.0 Building thermal envelope. Install in housing to NZS 4218 and in large buildings to NZS 4243.

Friction fit insulating **Pink® Batts® Ultra™** in place to completely fill the whole of the cavities with no gaps and with no folds and to the Tasman Insulation requirements. Slightly oversize length for friction fit and cut across pad and fill cavity. Cut smaller pieces for smaller spaces and around penetrations. Leave no gaps between, and maintain full thickness of the insulating segments over the whole of the installation. Do not cover vents. Leave a clear 150 mm clear gap around recessed light fittings and metal flues.

#### 3.5 FIT GLASS WOOL THERMAL INSULATING PINK® BATTS® INSULATION

Lay, install, fit and fix **Pink® Batts®** to assist in meeting NZBC H1/AS1: Energy efficiency, 2.0 Building thermal envelope. Install insulation to comply with R values to meet relevant table requirements in housing to NZS 4218 and in large buildings to NZS 4243.

Friction fit insulating **Pink® Batts®** insulation in place to completely fill the whole of the cavities with no gaps and with no folds and to the Tasman Insulation requirements. Slightly oversize length for friction fit and cut across pad and fill cavity. Cut smaller pieces for smaller spaces and around penetrations. Leave no gaps between, and maintain full thickness of the insulating segments over the whole of the installation. Do not cover vents. Leave a clear 150 mm clear gap around recessed light fittings and metal flues.

#### 3.6 FIT GLASS WOOL MASONRY WALL INSULATION

Lay, install, fit and fix **Pink® Batts®** masonry wall insulation to assist in meeting NZBC H1/AS1: Energy efficiency, 2.0 Building thermal envelope. Install insulation to comply with R values to meet relevant table requirements in housing to NZS 4218.

Friction fit insulating **Pink® Batts®** between strapping to completely fill the whole of the cavities with no gaps and with no folds and to the Tasman Insulation requirements. Slightly oversize length for friction fit and cut across pad and fill cavity. Staple top of insulation to batten to hold insulation until wall linings are in place. Cut smaller pieces for

# 5101G GIB® PLASTERBOARD LININGS

## 1. GENERAL

This section deals with the supply, fixing and jointing of GIB® plasterboard linings and accessories to timber and steel framed walls and ceilings to form standard, bracing, fire-rated, wet area, impact resistant and sound insulation systems.

### Related work

## 1.1 RELATED SECTIONS

Refer to GIB ULTRALINE® PLUS LINING SYSTEM for GIB Ultraline® PLUS plasterboard linings.

### Documents

## 1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

AS/NZS 2588	Gypsum plasterboard
AS/NZS 2589	Gypsum linings - Application and finishing
NZS 3604	Timber framed buildings

BRANZ technical paper P21: A wall bracing test and evaluation procedure

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

## 1.3 ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:

FRR	Fire resistance rating
IIC	Impact insulation class
STC	Sound transmission class

## 1.4 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents which refer to work in this section are:

General:	GIB® Site Guide (May 2006)
Sound:	GIB® Noise Control Systems (March 2006) GIB® Sound Barrier® Noise control system for Floors (July 2002)
Wet areas:	GIB Aqualine® Wet Area Systems (October 2002 v2)
Bracing:	GIB® Bracing Systems (March 2006)
Fire:	GIB® Fire Rated Systems (January 2006) Penetrations in GIB® Fire Rated Systems (August 2003) GIB® Residential Garage Boundary Walls (May 2006)
Ceilings:	GIB® Rondo® Metal Ceiling Batten Systems
Accessories:	GIB-Cove® GIB® Goldline™ Platinum Tape-on Trims GIB® UltraFlex high impact corner mould

Copies of the above literature are available at

Web: [www.gib.co.nz](http://www.gib.co.nz)

Telephone: 0800 100 442

### Requirements

## 1.5 NO SUBSTITUTIONS

Substitutions are not permitted to any specified GIB® systems, GIB® system components, GIB® plasterboard, associated GIB® products or GIB® accessories.

## 1.6 INSTALLER WORK SKILLS AND QUALIFICATIONS

GIB® plasterboard fixers and plasterers to be experienced competent workers, familiar with GIB® plasterboard lining systems installation and finishing techniques. Submit evidence of experience on request. For example:

- 2.7 CONTROL JOINTS  
GIB® Rondo® P35 control joints.
- 2.8 TAPE ON TRIMS AND EDGES  
GIB® Goldline™ tape-on paper tape and galvanized steel trims and edges or GIB® UltraFlex high impact corner mould.

#### Accessories

- 2.9 ADHESIVE  
Timber frame: GIBFix® Wood Bond wallboard adhesive.  
Timber frame LOSP treated: GIBFix® All-Bond wallboard adhesive.  
Steel frame: GIBFix® All-Bond wallboard adhesive.
- 2.10 JOINTING COMPOUND  
Bedding compound: GIB Tradeset®, GIB Lite Blue®, GIB Promix® All Purpose, GIB® AquaMix, GIB Plus 4®  
Finishing compound: GIB ProMix® All Purpose GIB ProMix® Lite, GIB® All Purpose and GIB Plus 4®, GIB® Topcoat  
Cove: GIB-Cove® Bond
- 2.11 JOINTING TAPE  
GIB® paper jointing tape.
- 2.12 ACOUSTIC SEALANT  
GIB Soundseal® acoustic sealant.

#### Finishes

### 3. EXECUTION

#### Conditions

- 3.1 STORAGE  
Store GIB® plasterboard sheets and accessories in dry conditions stored indoors out of direct sunlight in neat flat stacks on either an impervious plastic sheet or clear of the floor with no sagging and avoiding damage to ends, edges and surfaces. Reject damaged material. Refer to GIB® Site Guide (May 2006).
- 3.2 LEVELS OF PLASTERBOARD FINISH  
Provide the selected plasterboard surfaces to the pre decorative levels of finish specified in AS/NZS 2589. Refer to GIB® Site Guide (May 2006).
- 3.3 CONFIRM LEVELS OF PLASTERBOARD FINISH ACCEPTANCE  
Before commencing work, agree in writing upon the surface finish assessment procedure necessary to ensure that the levels of finish specified, along with the effect of the type and/or angle of illumination on them, are obtained and are acceptable.

**Do not apply decorative treatment until it is agreed in writing by the contractor, subcontractors and decorator that the required plasterboard level of finish has been achieved.**

"Levels of plasterboard finish" is a tool for specifying the required quality of finish when installing and flush stopping GIB® plasterboard prior to the application of a range of decorative finishes under various lighting conditions. Refer to GIB® Site Guide (May 2006).

- 3.4 SUBSTRATE  
Do not commence work until the substrate is plumb, level and to the standard required by the sheet manufacturer's requirements. Refer to GIB® Site Guide (May 2006).

- 3.20 **CLEAN DOWN**  
Clean down completed surfaces to remove irregularities and finally sand down with fine paper to the sheet manufacturer's requirements, to leave completely smooth and clean.
- 3.21 **REMOVE**  
Remove debris, unused materials and elements from the site.
- 3.22 **LEAVE**  
Leave work to the standard required by following procedures.

- Brace square and provide protection to assemblies during delivery to site. Where factory glazed, indicate the presence of transparent glasses with whiting, tape or signs compatible with the glass type.

#### **Internal doors**

- 3.5 **INTERNAL JOINERY FRAMES**  
Fabricate as detailed. Wedge and rigidly fix in place without distortion, plumb, and true to line and face. Pre drill for fixings through frame. Countersink and plug frames scheduled for clear finish.
- 3.6 **INTERNAL DOOR FRAMES, SOLID REBATED**  
Fabricate as detailed. Hang doors to operate freely on hinges, sliding, or bi-fold gear and to the door manufacturer's requirements. Pre drill for fixings through frame. Countersink and plug frames scheduled for clear finish. Fit hardware.
- 3.7 **INTERNAL DOOR LINERS**  
Heads and jambs finished minimum 18 mm, with 10 mm planted door stops. Width to match width of lined walls. Hang doors on hinges, sliding, or sliding-folding gear to the door manufacturer's requirements and to operate freely. Countersink and plug frames scheduled for clear finish. Fit hardware.
- 3.8 **INTERNAL DOOR LINERS, EXTENDED**  
Heads and jambs finished 30 mm, rebated for wall linings and extended a minimum of 10 mm. 10 mm planted door stops. Hang doors on hinges, sliding and bi-fold gear to the door manufacturer's requirements and to operate freely. Countersink and plug frames scheduled for clear finish. Fit hardware.
- 3.9 **INTERNAL CAVITY SLIDERS**  
Install in accordance with the door manufacturer's requirements, allowing for removal of top trim for maintenance.

#### **Completion**

- 3.10 **CHECK**  
Check and adjust operation of all sashes, doors, hardware and furniture.
- 3.11 **TEMPORARY PROTECTION**  
On completion remove any temporary protection and leave ready for following work.

- 2.14 **BUTT HINGES**  
Butt, broad butt, flush butt or overlay, steel, zinc-plated steel, stainless steel, or brass, to suit the location, or as detailed.
- 2.15 **CONCEALED HINGES**  
All-metal zinc alloy with automatic spring and screw-fixed. Plastic button door stops.
- 2.16 **DRAWER RUNNERS**  
Single action under mounted or side mounted powder coated runners or groove mounting type, precision running ball-mounted single-stage extension, bright steel finish system.
- 2.17 **GLUES AND ADHESIVES**  
As approved by the manufacturer for the timber, timber product, or pre-finished timber product joint being used.
- 2.18 **LIGHT DUTY COATING SYSTEM**  
Single pack, clear or pigmented nitro-cellulose or pre-catalysed lacquer.
- 2.19 **MEDIUM DUTY COATING SYSTEM**  
Two pack, clear or pigmented acid catalysed coating.
- 2.20 **HEAVY DUTY COATING SYSTEM**  
Two pack, clear or pigmented polyurethane coating.
- 3. EXECUTION**
- 3.1 **JOINERY FIXTURES GENERALLY**  
Execution to include those methods, practices and processes contained in the current syllabus for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs). Take responsibility for the completed joinery fixtures including fittings included within fixtures and the on site installation.
- 3.2 **SITE MEASURE**  
Site check and confirm dimensions after wall linings have been fixed. Verify positions of electric power outlets, wiring to light fittings included in joinery fixtures, water supplies and waste pipe locations.
- 3.3 **FABRICATION QUALITY**  
Carry out machining within the practices required for the particular timber, wood product or pre-finished wood product being used. Machine drill and cut holes and recesses and form joints to the componentry manufacturer's requirements. Ensure work is accurate, square and true to line and face.
- 3.4 **FABRICATE JOINERY FIXTURES**  
Carry out jointing, dowelling and other operations necessary for the proper assembly of the fittings as detailed, with fixings concealed unless otherwise detailed. Use glue joints where provision for shrinkage is not required, with contact surfaces, glueing and pressure all applied to the glue manufacturer's requirements. Locate and drive connectors and fasteners to the bolt manufacturer's requirements. Scribe fit adjustable shelves with 4 shelf pins and locate force fit pin holes at 50 mm maximum centres in solid cheeks. Hang doors on concealed hinges.
- 3.5 **MAKE CUT OUTS FOR APPLIANCES AND FITTINGS**  
Obtain fitting templates from the appliances and other fittings to be installed within joinery fixtures and bench tops. Ensure appliances and fittings can be installed with the required tolerances and clearances. Where bench tops are being provided under other work sections, provide templates and confirm dimensions to others.
- 3.6 **FABRICATE DRAWERS**  
Construct drawers as detailed, using proprietary metal section drawer runners. Fit drawers with 3 mm clearance into the drawer space.

## 6201 TILING

### 1. GENERAL

This section deals with the supply and setting of ceramic tiles to walls and floors, over concrete, masonry and lined timber substrates.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

- AS 2358 Adhesives - For fixing ceramic tiles
- AS 3740 Waterproofing of wet areas within residential buildings
- AS 3958.1 Ceramic tiles, 3958 - Guide to the installation of ceramic tiles
- BS 6431 Ceramic floor and wall tiles
- BRANZ Good practice guide Tiling

#### 1.2 QUALIFICATIONS

Carry out tiling work using competent tilers, experienced with the materials and techniques specified.

#### 1.3 ADHESIVES COMPATIBILITY

Adhesives selected for use on proprietary substrates or waterproof membranes to have documented compatibility approval from the respective manufacturers.

#### 1.4 SAMPLES

Submit samples of the tiles specified, sufficient to show the pattern and the range of colour finish.

## 2. PRODUCTS

### 2.1 TILES

To BS 6431, parts 1 to 23 inclusive. Refer to SELECTIONS for type and location.

### 2.2 RIGID SHEET UNDERLAYS

Refer to CARPENTRY.

### 2.3 SHEET WATERPROOFING MEMBRANE

Proprietary sheet waterproofing system.

### 2.4 LIQUID WATERPROOFING MEMBRANE

To AS 3740.

### 2.5 UNDERTILE HEATING

Proprietary electric undertile heating system complete with thermostat/controller.

### 2.6 CEMENT BASED SCREED

Mix of 3:1 Portland cement, wash-mix sand, gauged with liquid polymer additive to the tile manufacturer's requirements.

### 2.7 TILE ADHESIVE

To AS 2358.

### 2.8 GROUT

Cement based, compressible and to suit the particular location and use.

### 2.9 MOVEMENT CONTROL JOINT SEALANT

To BRANZ Good practice guide: Tiling, section 5.0, Detailing.

## 3. EXECUTION

### 3.1 HANDLING AND STORAGE

Take delivery of packets of tiles undamaged and dry. Handle tiles with care to avoid chipping, soiling and damage. Store on hard level standings in non-traffic, non work areas that are enclosed, clean and dry.

- 3.14 **APPLYING LIQUID WATERPROOFING MEMBRANE**  
Apply the selected liquid waterproof membrane system to the membrane manufacturer's requirements and in accordance with AS 3740 and to BRANZ Good tiling practice, 7.0 Waterproofing interior wet areas.
- 3.15 **INSTALL WATERPROOFING MEMBRANE**  
Install waterproofing membrane between the tile adhesive and the substrate. Reinforce all junctions of the waterproofing membrane to BRANZ Good tiling practice; 7.0 Waterproofing interior wet areas. Unless otherwise specified or shown on the drawings, install waterproof membranes as follows: -
- Unenclosed shower cubicle  
To 1800 mm above floor and 300 mm above shower rose.  
To at least 1500 mm from shower rose.  
To the floor within 1500mm of the shower rose.
- Bath with a shower over and no shower screen  
To 1500 mm from the shower rose and top edge.  
To 1800 mm above base of bath.  
To the floor within 1500mm of the shower rose.
- Bath with shower over and a screen for the shower  
To 1800 mm height around sides of bath.
- Bath  
To 150 mm minimum around the sides and along walls horizontally 150 mm minimum.
- Splashback to a vanity  
To 300 mm minimum up wall behind the vanity.  
To the floor level at least twice the width of the vanity and 500 mm min beyond it at each end.
- 3.16 **INSTALL UNDERTILE HEATING**  
Clean thoroughly and prepare as for tiling. Remove any paint overspray and plaster spills. Ensure that waterproofing has been completed. Install electric undertile heating system to manufacturers requirements with the element connected to a continuity tester during installation. Leave ready for tiling and connection to the electrical system.
- 3.17 **LAYING CEMENT SCREED**  
Apply a proprietary cement slurry bond coat over the whole of the floor to the tile manufacturer's requirements. Mix and place a 40 mm thick mortar bed over the bond coat and firmly tamp, screed and compact to the required level. Form screeds with a deviation from plane of not more than 5 mm over 3 metres.
- In waterproofed areas where the cement screed has been laid over the waterproofing membrane, prepare the screed surface by applying a further waterproof coating before laying tiles.
- 3.18 **FALLS**  
Form screeds in areas where water is used in significant amounts with a deviation from plane of not more than 5 mm over 3 metres. Unless otherwise specified form screeds with the following falls:
- |                |   |
|----------------|---|
| 1 : 40 minimum | For tiled decks which also act as a roof      |
| 1 : 40 minimum | For paving over ground                        |
| 1 : 40 minimum | For shower bases                              |
| 1 : 40         | For shower bases for people with disabilities |
| 1 : 50 minimum | For commercial kitchens                       |
- 3.19 **TILE FIXING GENERALLY**  
Apply adhesive, prepare and fix tiles by the method required by the adhesive manufacturer and tap them firmly into place.

## 6221B DAMPFIX GOLD WATERPROOFING SYSTEM

### 1. GENERAL

This section relates to the preparation of floor and wall surfaces for tiling systems with **Bostik ASA**:

- levelling screeds
- primers
- waterproofing systems
- adhesives
- sealants
- grouts

### 1.1 RELATED WORK

Refer to ~ for ~.

#### Documents

### 1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC E3/AS1	Internal moisture 3.0 Watersplash
AS/NZS 3661.1	Slip resistance of pedestrian surfaces - Requirements
AS 3740	Waterproofing of wet areas within residential buildings
AS 3958.1	Ceramic tiles - Guide to the installation of ceramic tiles
AS/NZS 4858	Wet area membranes
AS 4992	Ceramic tiles - products for installation
BRANZ	Good practice guide: Tiling

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

### 1.3 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

- ASA Technical Data Sheets
- ASA Safety Data Sheets
- BRANZ Appraisal 654 - Bostik Safe Stud Adhesive
- BRANZ Appraisal 662 - Bostik Safe Fix Adhesive

Copies of the above literature are available from Bostik  
Telephone: 0-9-257 5847 Auckland  
Email: [nzsales@bostik.com](mailto:nzsales@bostik.com)  
Website: [www.bostik.co.nz](http://www.bostik.co.nz)

#### Warranties

### 1.4 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material **Bostik ASA** warranty for:

- 15 years: For materials for waterproofing systems only
- 10 years: For adhesive materials only

- Provide this warranty on the manufacturer's standard form.

Refer to the general section WARRANTIES for additional requirements.

### 1.5 WARRANTY - INSTALLER/APPLICATOR WATERPROOFING SYSTEM

Provide an installer/applicator warranty:

- 2years: For installation of waterproofing system

- Provide this warranty in the installer/applicator standard form.

Refer to the general section WARRANTIES for additional requirements.

- 1.18 **INTERNAL / EXTERNAL MOISTURE**  
Wet area membranes under tiled areas to AS 3740, NZBC E2/AS1, NZBC E3/AS1 and to BRANZ Good Tiling Practice.

## 2. PRODUCTS

### Materials

### Levelling

- 2.2 **BOSTIK ULTRASCREEED**  
Fast setting high build modified cementitious underlay/screed designed for use with ASA wet area waterproofing systems. It is formulated for quick and easy application to achieve required falls without any shrinkage or cracking. Application thickness from 15mm (bonded screed) and 25mm to 200mm (un-bonded screed) in a single application to AS 3958.

- 2.3 **ASA SELF LEVELLING COMPOUND**  
Rapid hardening, self levelling, polymer modified cementitious underlay that has been specifically formulated to achieve a smooth flat surface prior to tiling and waterproofing. Ideal for smoothing most floors prior to the application of ceramic tiles.

### Primers / sealers

- 2.4 **ASA MULTIPRIME**  
Synthetic, latex based liquid for priming of porous substrates prior to tiling and waterproofing. Multiprime reduces porosity and eliminates dust.
- 2.5 **BOSTIK N40 PRIMER**  
Clear, non-staining solvent based etching primer for promoting the adhesion of urethane sealants to natural stone, most metals and some organic finishes where exceptional adhesion is required. Used to prime PVC wastes in showers and drainage outlets.

### Wet area membranes waterproofing systems

- 2.7 **DAMPFIX GOLD WATERPROOFING SYSTEM**  
An elastomeric one part, fibre reinforced water based polyurethane membrane. Dampfix Gold system includes: ASA Multiprime for porous substrates, ASA Multiprime 2 Part for non porous substrates, Bostik N40 Primer for etching PVC wastes, Dampfix Moisture Seal for sealing against rising damp, and ASA Flexible Silicone (neutral cure) for use as an expansion joint filler and bond breaker for wall/wall and wall/floor junctions. To AS/NZS 4858. Refer to CSIRO Test Report No. 3918.

### Adhesives - substrate

- 2.8 **BOSTIK SAFE STUD ADHESIVE.**  
Multi purpose construction adhesive based on silane-modified polymers. Refer to BRANZ Appraisal 654 for materials to be adhered to the substrate.
- 2.9 **BOSTIK SAFE FIX ADHESIVE**  
Multi purpose construction adhesive based on silane-modified polymers. Refer to BRANZ Appraisal 662 for materials to be adhered to the substrate.

### Adhesives - tiles

- 2.10 **CONFLEX**  
Flexible, polymer modified cement based powdered adhesive for wall and floor applications.
- 2.11 **MEGAFIX**  
Polymer modified adhesive for internal thin bed wall and floor applications, in wet of dry situations. Must be used with an Epoxy Primer over Dampfix PU.

- 3.6 **PREPARATION OF BACKGROUNDS**  
Prepare backgrounds in accordance with AS 3958.1, section 4 and in accordance with the manufacturer's instructions for the selected substrate.
- Conditions**
- 3.7 **SERVICES AND ACCESSORIES**  
Ensure that all services and accessories are in place and located to suit the tile layout, and that the substrate, background and adjoining surfaces (with the preparation called for in this section) are of the quality necessary to allow tiling of the required standard.
- 3.8 **DO NOT START**  
Do not start laying tiles until concrete floors are cured, moisture content of floors is such that shrinkage is complete, thermal movement has been accommodated and the levels and surface finish will allow for tile laying of the required standard.
- 3.9 **SUBSTRATE TEMPERATURE**  
Do not carry out tiling where the substrate temperature is below 5°C or above 40°C.
- 3.10 **MOISTURE CONTENT**  
Ensure the floor is dry and if in doubt check for moisture content by hygrometer. Do not proceed with tiling work until readings for the whole area show 75% relative humidity or less.
- Application**
- 3.11 **APPLICATION GENERALLY**  
Prepare backgrounds as described in AS 3958.1, Section 4. Suitably prepare backgrounds and substrates in accordance with the manufacturer's instructions to receive the bedded finish. Remove all dirt, dust, grease, oil, loose particles and any other form of contamination or deleterious material. Ensure that substrates are sound and dry.
- Installation to be in accordance with AS 3958.1, Section 5, including setting out, fitting, movement joints, sealants, tile finish and joints, and grouting.
- 3.12 **SETTING OUT**  
Setting out, cutting and fitting of tiles to be as described in AS 3958.1, clauses 5.4.2 and 5.4.3. Set out tiling as shown on the drawings. Confirm bond and pattern before installing. Provide even and correct falls to floor tiles where required, including falls to floor wastes. Ensure that a level finish is provided at wall lines. Where falls are not required ensure that the tiles are laid level.
- 3.13 **TILE FINISH AND JOINTS**  
Provide tile finish and joints, including tolerances, as described in AS 3958.1, clause 5.4.6. Joint widths to be suited to tile and in accordance with the manufacturer's instructions.
- 3.14 **GROUTING**  
Grout tiling as described in AS 3958.1, clause 5.7.
- 3.15 **ADHESIVE APPLICATION METHODS**  
Ensure that the whole of the back of the tile is in good contact with the adhesive with no voids. Remove a tile periodically during installation to ensure correct coverage. Do not fix tiles over skinned adhesive.
- Notched trowel method  
Adhesive application to be as described in AS 3958.1, clause 5.6.2(a). Notched trowel sizes shall be 4.5mm x 4.5mm x 4.5mm (mosaics) 6mm x 6mm x 6mm, 10mm x 10mm x 10mm, 12mm x 12mm x 12mm. Use an appropriately notched trowel to achieve full coverage.
- Buttering method  
Adhesive application to be as described in AS 3958.1, Clause 5.6.2(c).

	Type:	Multiprime
4.3	INTERNAL WET AREA MEMBRANE WATERPROOFING	
	Location:	~
	Material:	Dampfix Gold
4.4	ADHESIVE FLOOR	
	Location:	~
	Type:	Conflex
4.5	ADHESIVE WALL	
	Location:	~
	Type:	Megafix
4.6	SEALANT	
	Location:	~
	Type:	ASA Flexible Silicone
	Colour:	~
4.7	GROUT	
	Location:	~
	Type:	~
	Additive:	ASA Grout Additive
	Colour:	~

## 6401 VINYL SURFACING

### 1. GENERAL

This section deals with floor preparation (thin sheet underlays and floor levelling compound) and the supply and installation of PVC sheet, PVC tiles, to floors and PVC sheet to wall surfaces, complete with skirtings, covings, trims and edgings.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

- AS/NZS 1859.2 Reconstituted wood-based panels - Dry processed fibreboard
- AS/NZS 1859.4 Reconstituted wood-based panels - Hardboard
- NZS/AS 1884 Floor coverings - resilient sheet and tiles - laying and maintenance practices.

BRANZ Bulletin 330 Thin flooring materials - 2 preparation and laying

#### 1.2 QUALIFICATIONS

Carry out work using competent, experienced layers, familiar with the materials and techniques specified.

#### 1.3 SAMPLES

Submit samples of sheet, tile and accessories to the owner, sufficient to show the pattern and the range of colour finish.

### 2. PRODUCTS

#### Floors

#### 2.1 THIN FIBREBOARD UNDERLAY

Medium density fibreboard to AS/NZS 1859.2.

#### 2.2 HARDBOARD UNDERLAY

High density standard hardboard sheet to AS/NZS 1859.4.

#### 2.3 VINYL SHEET AND TILES

High vinyl content homogeneous monolayer flexible PVC sheet/tile flooring.

#### 2.4 VINYL COVINGS

Commercial coving: pencil cove method, with butterfly mitres to all external and internal corners. Domestic coving: pencil cove or fillet cove method.

#### 2.5 WALL AND FLOOR VINYL JOINING STRIP

White PVC floor to wall finishing strip.

#### 2.6 THERMO-WELDING

Manufacturer supplied colour matched weld rod.

#### Walls

#### 2.7 VINYL SHEET WALL COVERING

High vinyl content homogenous flexible PVC sheet wall covering.

### 3. EXECUTION

#### Preparing substrate

#### 3.1 NEW CONCRETE

Clear substrate of debris, clean off surface contamination and carry out surface repairs using a proprietary levelling compound. Carefully feather out at perimeters of repaired areas. Grind level, then vacuum to remove all dust. Check for moisture content by hygrometer to BRANZ Bulletin 330 and do not commence laying vinyl until readings for the whole area show 75% relative humidity or less.

- 3.12 **LAYING**  
Carry out the whole of the work to NZS/AS 1884, BRANZ Bulletin 330 "Thin flooring materials - 2 preparation and laying" and to the flooring manufacturer's requirements.
- 3.13 **LAYOUT**  
Before beginning the installation confirm the proposed layout of material, location of seams and other visual considerations of the finished work.
- Vinyl floor laying**
- 3.14 **PREPARATION**  
Check that each colour supplied is from the same batch. Follow the vinyl manufacturer's requirements for conditioning of rolls and the working temperatures and conditions before, during and after laying. Protect work from solar heat gain and switch off under-floor heating during and for 48 hours either side, of the work period.
- 3.15 **ADHESIVE APPLICATION**  
Apply approved adhesive as required by the vinyl manufacturer and without trowel marks after setting. Follow requirements for open time, taking note of substrate porosity, ambient temperature and relative humidity. Remove excess adhesive as the work proceeds using required techniques.
- 3.16 **LAYING VINYL SHEET**  
Roll out, cut, leave to condition and install sheet vinyl to the vinyl manufacturer's requirements. Ensure there are no air bubbles or twisting, that the seams are kept clear of adhesive, and immediately the sheet is adhered roll with a 68 kg roller.
- 3.17 **THERMO-WELDING VINYL SHEET**  
Machine groove and thermo-weld all seams in specified areas, heating the sheet and weld rod to a sufficient temperature to melt and fuse them together into a single mass. Trim the weld to leave a smooth, flush surface with the sheet.
- 3.18 **CROSS JOINS**  
Plan and allow cuts to avoid cross joins. Obtain written approval of the owner before proceeding if cross joins are unavoidable. Cross joins are not acceptable in wet areas.
- 3.19 **COVE VINYL**  
Pencil cove flooring to the specified height and finish off as detailed.
- 3.20 **MITRES**  
Perform butterfly method to internal and external mitres. Thermo-weld mitres.
- 3.21 **VINYL TO STAIRCASES**  
Fit selected nosings to each tread and at the top of each stair flight, in accordance with the nosing manufacturer's requirements. Lay pre-cut vinyl sheets to each tread and riser, pencil coved at the rear of each tread.
- 3.22 **LAYING VINYL TILES**  
Set out from the centre of the area in two preparatory runs and modify to suit before laying tiles from the centre to the vinyl manufacturer's requirements. Ensure air is expelled and, as each section is completed, immediately roll with a 68 kg roller. Complete sections before scribing the perimeter tiles.
- 3.23 **FIT VINYL SKIRTINGS**  
Fit skirtings in accordance with the skirting manufacturer's requirements.
- 3.24 **FIT VINYL EDGING**  
Fit tapered vinyl edging to all borders, except where abutting carpet.
- 3.25 **CLEAN**  
Leave vinyl flooring surfaces free of adhesive, dirt and debris. Vacuum off, damp mop with a low foam neutral detergent, with a pH level of 7 to 8. Allow to dry and finally buff

## 6501 CARPETING

### 1. GENERAL

This section deals with the supply and installation of woven or tufted carpet on underlay.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

AS/NZS 2455.1 Textile floor coverings - Installation practice - General

The New Zealand Carpet Manufacturers' Association Conditions of Warranty and Installation Guide

#### 1.2 QUALIFICATIONS

Carpet layers to be experienced competent workers, familiar with the materials and the techniques specified and with AS/NZS 2455.1.

### 2. PRODUCTS

#### 2.1 UNDERLAY

Refer to SELECTIONS for brand/type.

#### 2.2 CARPET

Refer to SELECTIONS for brand/type and location.

#### 2.3 BINDER BARS

Anodised aluminium section with fluted face.

#### 2.4 DIVIDER STRIPS

Hardwood strips 20 mm x 15 mm or as specified. Refer to SELECTIONS for type and size.

#### 2.5 EDGE GRIPPER

Timber/plywood with steel grippers to carpet manufacturer's requirements.

#### 2.6 STAIR NOSINGS

Refer to SELECTIONS for type.

#### Accessories

#### 2.7 ADHESIVE, UNDERLAY

To AS/NZS 2455.1, clause 1.5.3. and underlay manufacturer's requirements.

#### 2.8 ADHESIVE, CARPET

To AS/NZS 2455.1, clause 1.5.3. and carpet manufacturer's requirements.

#### 2.9 TAPE

To carpet manufacturer's requirements.

### 3. EXECUTION

#### 3.1 COMPLY

Comply with the requirements of the carpet manufacturer including preparation of and procedures over the various substrates.

#### 3.2 SUBSTRATE

Before starting work inspect the substrate to ensure it will allow work of the required standard and that all fittings and fixtures around which the carpet is to be scribed, are in place.

#### 3.3 PROTECTION

Protect adjoining work surfaces and finishes during installation and make good any damage to same.

## 6701 PAINTING AND PAPERHANGING

### 1. GENERAL

This section deals with decorative coating and sealing work on prepared surfaces and with the supply and application of paper-backed wallpaper.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

OSH Guidelines for the management and removal of asbestos

Health and Safety in Employment Act 1992

#### 1.2 MANUFACTURER'S MANUALS

Refer to the paint manufacturer's manuals and follow their preparation, sequence and application requirements applying to each system. Ensure all paint coats in any system are supplied by the same manufacturer.

#### 1.3 QUALIFICATIONS

Carry out work using competent and experienced painters and paperhangers.

#### 1.4 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992 and if elimination or isolation is not possible, then minimise the hazards in this work.

Minimise hazards when carrying out the following:

- Treating or removing lead based paint.
- Burning off paint.
- Sanding off paint.
- Using solvent based paint removers.

#### 1.5 CONTROL SAMPLES

Prepare samples of the finished work as scheduled, including preparation and colour as specified. Obtain approval of the appearance before proceeding. Refer to SELECTIONS for requirements.

## 2. PRODUCTS

### 2.1 PAINT

To the paint manufacturer's standards for exterior and/or interior primers, undercoats, sealers, stains, clear coatings, solvent-borne and water-borne paints.

### 2.2 GAP FILLERS

Linseed oil, putty, plastic wood, wood filler or plastic filler, to suit and to match the surface being prepared.

## 3. EXECUTION

### 3.1 INSPECT

Inspect surfaces for painting and report to the owner any that will not, after the preparatory work laid down by the paint manufacturer, allow work of the required standard. Confirm that all areas have adequate lighting and are sufficiently free of other construction activities to enable painting and/or paperhanging work to proceed.

### 3.2 PROTECT

Cover up adjoining surfaces and areas liable to damage or over-painting.

### 3.3 REMOVE HARDWARE

Remove hardware and door/window furniture and replace on completion. Do not paint over permanently attached hinges, or any hardware items which cannot be removed. Refer to SELECTIONS for type and location.

## 7101 HOT AND COLD WATER SYSTEM

### 1. GENERAL

This section deals with the potable water supply connection to the project, and the installation of hot and cold water supply pipework, hot and cold water fixtures and tapware throughout.

#### Related work

### 1.1 RELATED SECTIONS

Refer to SANITARY FIXTURES, TAPWARE AND ACCESSORIES for sanitary fixtures and tapware selections.

### 1.2 DOCUMENTS

Documents referred to in this section are:

NZBC B2/AS1	Durability
NZBC G12/VM1	Water supplies
NZBC G12/AS1	Water supplies
NZBC H1/AS1	Energy Efficiency
AS/NZS 2642.2	Polybutylene pipe fittings Polybutylene pipe systems - Polybutylene (PB) pipe for hot and cold water applications
AS/NZS 2642.3	Polybutylene pipe systems - Mechanical jointing fittings for use with polybutylene pipes for hot and cold water applications
AS 2492	Cross Linked Polyethylene (PE-X) pipe for hot and cold water applications
AS/NZS 2537	Mechanical joining fittings for use with cross-linked Polyethylene (PE-X) fittings for hot and cold water applications
AS/NZS 3500.5	National plumbing and drainage – Domestic installations
NZS 3501	Specification for copper tubes for water, gas and sanitation
NZS 4602	Low pressure copper thermal storage electric water heaters
NZS 4606.3	Storage water heaters - Specific requirements for water heaters with composite shells
NZS 4607	Installation of thermal storage electric water heaters: valve-vented systems
NZS 4617	Tempering (3-port mixing) valves
DIN 8077	Polypropylene (PP-R) Pipe dimensions
DIN 8078	Polypropylene (PP-R) Pipes Types 1, 2 & 3, General Quality Requirements and Testing.

Plumbers, Gasfitters and Drainlayers Act 1976

### 1.3 QUALIFICATIONS

Plumbers to be experienced competent workers, familiar with the materials and the techniques specified. Carry out all work under the direct supervision of a plumber registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

#### Warranties

### 1.4 WARRANTY

Warrant this work under normal environmental and use conditions against failure of materials and execution.

Warranty period: 2 years

Refer to the PRELIMINARIES AND GENERAL section for the required form of warranty agreement and details of when completed warranty must be submitted.

## 2. PRODUCTS

### 2.1 POLYBUTYLENE PIPE

Polybutylene tubing to AS/NZS 2642.1, AS/NZS 2642.2 and AS/NZS 2642.3 complete with fittings and accessories brand-matched with durability to NZBC B2/AS1 Durability, table 1 and NZBC G12/AS1 Water supplies table 1.

- 3.5 **CORROSION**  
Separate all metals subject to electrolytic action from each other and from treated timber, concrete and other lime substances by space, painting of surfaces, taping, or separator strips.
- 3.6 **THERMAL MOVEMENT**  
Accommodate movement in pipes resulting from temperature change by the layout of the pipe runs, by expansion joints and by sleeving through penetrations.
- 3.7 **PIPE SIZE**  
Flow rates to each outlet to be no less than those given in NZBC G12/VM1 or G12/AS1: Water supplies, table 3, Acceptable flow rates to sanitary fixtures. Pipe size as determined in table 4, Tempering valve and nominal pipe diameters.
- 3.8 **ELECTROLYTIC ACTION**  
Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.
- 3.9 **EXCAVATE**  
Excavate for the water main to a firm, even trench base in straight runs. Allow to backfill.
- Application - jointing**
- 3.10 **JOINTING POLYBUTYLENE PIPE**  
Aluminium clamped, seal ring compression or push fit "O" ring seal jointing to pipe system manufacturer's requirements.  
**Application – pipework installation**
- 3.11 **WATER SUPPLY CONNECTION**  
Arrange with the network utility operator for a connection to the water main and from there through a water meter and gate valve. Provide back flow prevention to NZBC G12/AS1: Water supplies.
- 3.12 **POTABLE WATER SUPPLY PIPEWORK INSTALLATION**  
From connection point, run pipes complete with all fittings, support and fixing, joins and install to manufacturers specifications. Size the pipes and branches in straight runs to deliver the acceptable flow rate to NZBC G12/AS1: Water supplies, table 3, Acceptable flow rates to sanitary fixtures at each outlet. Allow for the expected concurrent use of adjoining fixtures and size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Pipework support spacing to be firmly fixed and buffered to eliminate noise and hammer, with preformed tee-connection take-offs and branches, with machine made 3 diameter bends, complete with necessary valves and fittings. Conceal pipework and pressure test before the wall linings are fixed.
- 3.13 **HOT WATER PIPEWORK**  
Use a take-off spigot to give separate branches to each fitting, lay out pipes with support spacing to NZBC G12/VM1 or G12/AS1: Water supplies, table 7 Water supply pipework support spacing. Fix firmly and buffer to eliminate noise and hammer, with preformed tee-connection take-offs and branches, and preformed 3 diameter bends, complete with all necessary valves and fittings.
- Lag all pipes with rigid insulation to the manufacturer's requirements and G12/VM1 or G12/AS1: Water supplies.
- 3.14 **EQUIPOTENTIAL BONDING**  
Earth metallic water supply pipe and metallic sanitary fixtures to NZBC G12/AS1: Water supplies: 9.0.
- 3.15 **IN LINE FILTER**  
Install an in line filter immediately adjacent to the main isolating valve at the point of entry to the building, in an accessible position to allow for easy cleaning.

## 7201 GAS SYSTEM

### 1. GENERAL

This section deals with the fabrication, installation and operation of piping systems and appliances for low pressure natural gas. The section also includes the supply of gas appliances, except for gas water heaters supplied under WATER SYSTEM.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC G10/AS1 Piped services (Gas)  
NZBC G11/AS1 Gas as an energy source  
NZS 5258 Gas distribution  
NZS 5261 Installation of gas burning appliances and equipment  
NZS 7646 Polyethylene pipes and fittings for gas reticulation  
Electricity Regulations 1997  
Gas Regulations 1993  
Plumbers, Gasfitters and Drainlayers Act 1976

#### 1.2 REGULATIONS

Comply with the Gas Regulations, Electricity Regulations and other network utility operator's requirements. Give notices for inspections and carry out tests as required.

#### 1.3 PRIMARY CONNECTION

Include for the cost of the primary gas connection, complete with excavation and backfilling.

#### 1.4 QUALIFICATIONS

Gasfitters to be experienced competent craftsman gasfitters, or registered gasfitters working under the direction of a craftsman gasfitter, familiar with the materials and techniques specified.

#### 1.5 AS-BUILT PLANS

Supply a 1:100 scale as-built plan of gas pipe runs, sizes, componentry and fittings at completion of the installation.

#### 1.6 PIPING DESIGN

Design the piping system with pipe sizes to give a minimum pressure at any appliance inlet of 1.13 kPa for natural gas, when all appliances are in use; and with a maximum design pressure drop from meter outlet to any appliance of 80 Pa. All to NZS 5261.

#### 1.7 PRESSURE TEST

Pressure test the system for leakage to NZS 5261 before pipework is concealed by linings.

#### 1.8 FINAL INSPECTION AND TEST

Submit the work for inspection and test and prove to the satisfaction of the gas retailer that the installation complies with all Acts and Regulations and has been tested for leakage and proved to be sound.

#### 1.9 CERTIFICATION CERTIFICATE

Provide a Gasfitting Certification Certificate as required by Regulation 24 of the Gas Regulations 1993.

### 2. PRODUCTS

#### 2.1 COPPER PIPE

Complete with fittings to NZS 5261.

#### 2.2 POLYETHYLENE PIPE

Mains supplied to NZS 7646 and complete with fittings to NZS 5261.

## 7402 SANITARY PLUMBING SYSTEM

### 1. GENERAL

This section deals with the supply and fitting of waste disposal pipework, sanitary fixtures and accessories.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC G1/AS1	Personal hygiene, 2.0 Fixture construction and installation 3.0 Location of sanitary fixtures
NZBC G13/AS1	Foul water - sanitary plumbing
AS/NZS 1260	PVC pipes and fittings for drain, waste and vent applications
AS/NZS 3500.2	Plumbing and drainage - Sanitary plumbing and drainage
NZS 7641	Unplasticised PVC waste and ventilating pipe, fittings and accessories, 32 mm, 40 mm and 50 mm

Plumbers, Gasfitters and Drainlayers Act 1976

#### 1.2 QUALIFICATIONS

Carry out work by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

### 2. PRODUCTS

#### 2.1 uPVC WASTE, SOIL AND VENT PIPES

uPVC pipe to NZS 7641 and AS/NZS 1260 complete with fittings brand-matched to the pipe manufacturer's requirements.

#### 2.2 EXPOSED PIPES AND TRAPS

Chrome plate on copper pipes and associated copper and brass fittings.  
White polybutylene or PVC, including all associated fittings.

#### 2.3 SEALANT, SANITARY FIXTURES

For between sanitary fixtures and accessories and adjacent floor or wall surfaces.  
1-part, silicone, containing mildew resistant agents.  
Colour: White

### 3. EXECUTION

#### 3.1 EXECUTION GENERALLY

Carry out this work and complete all tests to AS/NZS 3500.2.  
Carry out this work and complete all tests to NZBC G1/AS1: 2.0, 3.0 and G13/AS1.

#### 3.2 ELECTROLYTIC ACTION

Avoid electrolytic action by eliminating actual contact or continuity of water between dissimilar metals.

#### 3.3 INSTALL SANITARY FIXTURES

Fit and install sanitary fixtures and associated screens, elements and hardware, plumb, true to line and rigid, to the fixture manufacturer's requirements. Supply standard chrome plated brass wastes and plastic plugs on chrome plated chains with all basins, tubs and baths.

#### 3.4 INSTALL TRAPS, WASTE AND VENT PIPES

Connect waste outlets to traps and run waste pipes and back vents concealed, sized and fixed to AS/NZS 3500.2 /NZBC G13/AS1. Discharge wastes into the drainage system stack, soil pipe, or gully trap as shown. Bird proof mesh to all roof vents and vermin proof mesh to all untrapped waste pipes.

#### 3.5 PENETRATIONS

At penetrations through constructions provide and fit collars and escutcheon plates to match pipework.

## 7403 DRAINAGE

### 1. GENERAL

This section deals with the supply and laying of foul water, stormwater and field drains.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC B1/AS1	Structure – general, 6.0 Drains
NZBC E1/AS1	Surface water 3.0 Drainage system materials and construction
NZBC G13/AS2	Foul Water – drainage
AS/NZS 1254	PVC pipes and fittings for storm and surface water applications
AS/NZS 1260	PVC pipes and fittings for drain, waste and vent applications
AS/NZS 1546.1	On-site domestic wastewater treatment units - Septic tanks
AS/NZS 1547	On site domestic wastewater management
AS/NZS 4130	Polyethylene pressure pipes (PE)
AS/NZS 4671	Steel reinforcing materials
NZS 3107	Precast concrete drainage and pressure pipes
NZS 3104	Specification for concrete production
AS/NZS 3500.2	Plumbing and drainage - Sanitary plumbing and drainage
AS/NZS 3500.3	Plumbing and drainage - Stormwater drainage
NZS 7643	Installation of unplasticised PVC pipe systems

Plumbers, Gasfitters and Drainlayers Act 1976

#### 1.2 AS-BUILT DRAWINGS

Supply a 1:100 scale as-built drawing of drains and fittings to the territorial authority and to the owner on completion.

#### 1.3 QUALIFICATIONS

Drainlayers to hold a current licence within the terms of the Plumbers Gasfitters & Drainlayers Act 1976 and be experienced, competent and familiar with the materials and techniques specified.

## 2. PRODUCTS

#### 2.1 CONCRETE

17.5 MPa prescribed mix to NZS 3104.

#### 2.2 REINFORCEMENT

Plain round and/or deformed steel bars, Grade 300 to AS/NZS 4671.

#### 2.3 uPVC PIPES

uPVC Pipes bends, junctions, fittings and joints to AS/NZS 1254 and AS/NZS 1260.

#### 2.4 FIELD DRAINS

Plastic piping for field drains perforated (straight sections or coiled) with filter fabric to prevent silting of the pipe.

#### 2.5 GULLY TRAPS

To NZBC G13/AS2: 3.3, complete with grating.

#### 2.6 SURFACE WATER SUMP GRATINGS

Cast iron frame with lift-up grating.

#### 2.7 STRIP DRAIN CHANNEL

Proprietary, modular, variable invert, PVC or precast concrete drainage channel sections and drainage sump, embedded in site concrete and fitted with selected metal gratings.

#### 2.8 INSPECTION COVERS

Cast iron frame with screw-down cover.

- 3.12 **INSTALL FOUL WATER INSPECTION CHAMBERS**  
To NZBC G13/AS2, with ceramic channels to form a 75 mm fall across the chamber. Channel top should be 100 mm above the pipe soffit. Bench from channels 1V on 10H. Benching should be made of 17.5 MPa concrete vibrated to smooth finish. Plastering is not allowed. Fit a cast iron cover and frame.
- 3.13 **SOAKHOLES OR TRENCHES**  
Dispose of stormwater on site as shown on the drawings, by soakage, to suit local geology and soil structure; all as directed by the territorial authority.
- 3.14 **CONCRETE ENCASEMENT**  
Concrete encase shallow drains and drains under driveways, on a 100 mm deep 17.5 MPa concrete bed reinforced with three 10 mm mild steel bars. Surround pipes with a polythene membrane to allow movement and encase in 100 mm 17.5 MPa concrete.
- 3.15 **FIELD TEST**  
Field test drains for watertightness (UPVC to NZS 7643 section 11) to the satisfaction of the territorial authority inspector.
- 3.16 **BACKFILL**  
Backfill drain lines in 150 mm layers, well tamped but without disturbing the drains. Finish off with 150 mm of topsoil, slightly mounded above the finished ground line.
- 3.17 **INSTALL SEPTIC TANK SYSTEM**  
Install to manufacturer's instructions.
- 3.18 **INSTALL AERATED WASTEWATER TREATMENT SYSTEM**  
Install to AS/NZS 1547 and manufacturers instructions.

## Performance

- 1.9 **FINAL INSPECTION AND TEST**  
Submit the work for inspection and test and prove to the satisfaction of the network utility operator that the installation complies with all Acts and Regulations and has been tested for leakage and proved to be sound.

Testing should be at the time of completion. Confirm this timing before carrying out any tests. Test and demonstrate the system according to manufacturer's specification and to NZS 5261.

- 1.10 **CERTIFICATE OF COMPLIANCE**  
Provide a Gasfitting Certificate of Compliance as required by Regulation 24 of the Gas Regulations 1993 within 7 days of completion.

## 2. PRODUCTS

### Materials - hot water heating units

- 2.1 **CONTINUOUS FLOW HOT WATER HEATING UNIT**  
Rinnai Infinity continuous flow hot water heating unit with an integral gas burner. Water temperature electronically preset by digital controllers where selected. Refer to SELECTIONS for controller type.
- 2.2 **SOLAR BOOST CONTINUOUS FLOW HOT WATER HEATING UNIT**  
Rinnai Infinity continuous flow hot water heating unit with integral gas burner designed as a boost for domestic solar installations.
- 2.3 **DIGITAL CONTROLLER(S)**  
Rinnai digital controller for Rinnai Infinity continuous flow hot water heating units. Refer to SELECTIONS for type.

### Components

- 2.4 **FLUES**  
Matching Rinnai Flue system.
- 2.5 **FROST KITS**  
Rinnai Infinity frost kit. Refer to SELECTIONS for type.
- 2.6 **SECURITY BRACKET**  
Rinnai Infinity security bracket.
- 2.7 **RECESSED BOX**  
Rinnai Infinity recessed box for housing the external Infinity unit, pipe work and power supply behind a hinged door.
- 2.8 **PIPE COVER**  
Rinnai Infinity pipe cover (where a recessed box is not being used), attaches to the base of the Rinnai Infinity unit.
- 2.9 **PREHEATER**  
Rinnai Infinity SmartStart Preheater for circulating ring main applications with Rinnai Infinity continuous flow hot water heating unit. Single pump system designed specifically to reduce water wasted in hot water dead legs.
- 2.10 **MANIFOLDING**  
Connections for Rinnai Infinity units to enable them to be manifolded together. Refer to SELECTIONS for types.

## 3. EXECUTION

### Conditions

## 7701 ELECTRICAL

### 1. GENERAL

This section deals with the wiring for power and lighting, electrical automation, VDI and security system complete with componentry and electrical and electrically-powered fittings, for domestic and small scale commercial installations.

### 1.1 RELATED WORK

Refer to HOT AND COLD WATER SYSTEM for electrical hot water system.

#### Documents

### 1.2 DOCUMENTS

Documents referred to in this section are:

NZBC F7/AS1	Warning systems, 3.1 Domestic smoke alarms
AS/NZS 1125	Conductors in insulated electric cables and flexible cord
AS/NZS 2293	Emergency evacuation lighting for buildings
AS/NZS 3000	Electrical installations – Australia/New Zealand Wiring Rules
AS/NZS 3008	Electrical installations - Selection of cables - Typical New Zealand installation conditions
AS/NZS 3086	Telecommunications installations – Integrated telecommunications cabling systems for small office/home office premises
AS/NZS 3100	Approval and test specification-general requirements for electrical equipment
AS/NZS 3190	Approval and test specification - Residual current devices (current-operated earth-leakage devices)
AS/NZS 3350	Safety of household and similar electrical appliances - General requirements
AS/NZS 3439.3	Low-voltage switchgear and controlgear assemblies - Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards
AS 1670.6	Fire detection, warning, control and intercom systems – System design, installation and commissioning – Smoke alarms
AS 3786	Smoke alarms
NZS 4301.1	Intruder alarm systems – systems installed in clients premises
NZS 6401	Electric cables PVC insulated for working voltages up to and including 600/1000v
AS/NZS ISO/IEC 15018:	Information technology-generic cabling for homes
Electricity Regulations 1997	
New Zealand electrical codes of practice (ECP)	

### 1.3 ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:

MCB	multiple circuit breaker
RCCB	residual current-operated circuit breakers
RCBO	residual current-operated circuit breaker with over current protection
RCD	residual current device
PCB	printed circuit board
PTC	permit to connect
TPS	tough plastic sheathed
GLS	general lighting service
CFL	compact fluorescent lamp
ELV	extra low voltage
SIA	security integration architecture
LED	light emitting diode
LCD	liquid crystal display
VDI	voice, data, image
PIR	passive infrared

#### Requirements

- 2.4 **DISTRIBUTION BOARD**  
Flush surface mount boards manufactured to AS/NZS 3439.3 and installed in accordance with AS/NZS3000. Manufactured from engineering grade resin with a glow wire rating of 850°C, complete with neutral and earth busbars, and insulated comb phase bar. Distribution boards to have 20% spare capacity for future additions and alterations.
- 2.5 **CIRCUIT PROTECTION**  
General requirements including main switch 63A or 100A. Residual current protection 30mA, ensure RCCBs meet Type A and comply with AS/NZS 3190. MCBs to 4.5kA or 6kA rated.
- 2.6 **WALL BOXES**  
Standard grid size or equivalent to be manufactured from plastic or metal, with 2 or more gang size to be metal, all screw fixed.
- 2.7 **SWITCH UNITS**  
Single pole switches to be sixteen amp minimum rated, double pole or intermediate to be 10 amp minimum rated. All switches to be 230 volt a.c. polycarbonate flushplate units. Refer to drawings/schedules for number of switches per unit, dimmer units, neon (indicator or toggle) units, locator units and 2 way units.
- 2.8 **HOT WATER SYSTEM SWITCH**  
One way 20 amp switch complete with cable clamp for flexible PVC conduit to element enclosure.
- 2.9 **SWITCHED SOCKET UNITS**  
10 amp, 230 volt flat 3 pin socket outlets fitted with safety shutters and manufactured to AS/NZS 3100, AS/NZS 3112 and AS/NZS 3133, single or multi gang as detailed.
- 2.10 **SMOKE ALARMS**  
To AS 3786. A wired 230 volt ionised smoke detector type.
- 2.11 **SURGE PROTECTION**  
Protection for the homes appliances with medium surge protection devices fitted to the switchboard. For variable electronic equipment fit fine surge protection to switched socket outlets.
- 2.12 **CEILING ROSES**  
White plastic mounting base with screwed cover. Terminal type. Cylindrical section TPS for suspended fittings.
- 2.13 **BATTEN HOLDERS**  
Standard white plastic bayonet cap, with cap angled where wall mounted. Brass liners.
- 2.14 **DOOR BELL SYSTEM**  
Complete with transformer for mounting on distribution board.
- 2.15 **DATA WIRING**  
To AS/NZS 3086. Cables and RJ45 connectors Telepermitted to PTC225 standards. Category 7 rated or higher cable.
- 2.16 **TV CABLING**  
Co-axial cable and outlets.
- 2.17 **TV AERIAL**  
Aerial suitable for both VHF and UHF reception of all local free-to-air broadcast channels.
- 2.18 **LIGHT FITTINGS**  
Fluorescent and High Intensity Discharge fittings with low loss control gear and power factor corrected to 0.90 minimum. Control gear suitable for dimming if this is required. All fittings complete with lamps; Incandescent GLS lamps pearl, coiled-coil 240v rated,

External siren can be either a stainless steel design or have hardened plastic casing. Both designs to be fully weatherproof but not limited to IP66 Rating. The siren box to contain a strobe diffuser in either blue or red. The siren shall contain a horn speaker, 12v speaker or an electronic siren. The external siren box to have both a cover and rear wall tamper mechanism.

#### 2.28 CABLING

Security alarm wiring to NZS 4301 for installation.  
Security alarm wiring to NZS/AS 1125 for cables.  
Security alarm wiring to be multi stranded and not single stranded.

#### 2.29 PERIPHERALS

Fit anti-tamper devices to detectors, control panels and equipment housings, programmed to give a tamper indication when the system is unset and a tamper alarm when the system is set.

Standard keypad manufactured of moulded hardened plastic with either a LED or LCD screen, to match the style of the wiring accessories in diameter, colour and aesthetics.

#### 2.30 COMMUNICATIONS

Digital dialler to be built into the PCB of all control panels, with the options for both monitoring and remote dial in windows based software. Digital dialler to comply with all the industry standard communication formats including contact I.D and SIA, and NZ Telepermit certification.

Remote software able to upload / download programming changes and or history events and change status of the security alarm with the ability to be turned off if required.

### 3. EXECUTION

#### 3.1 MAIN SUPPLY

Lay underground mains to the network utility operator's requirements. Excavate trench, install cable and marker tape and backfill.

#### 3.2 METER BOX

Fit to meter box manufacturer's and network utility operator's requirements. Recess into external wall in sheltered area and flash to weatherproof to NZBC E2/AS1 fig 69. Arrange for meter installation and connection.

#### 3.3 DISTRIBUTION BOARD

Fit to AS/NS 3000 and board manufacturer's requirements. Recess into wall or surface mount and ensure fire containment properties of the enclosure are maintained.

#### 3.4 CIRCUIT PROTECTION

Install MCBs at distribution board to AS/NZS3000 to protect each final sub circuit.

#### 3.5 EARTH BONDS

Bond together and to earth all plumbing fittings not adequately isolated, to AS/NZS 3000, the Electricity Regulations 1997 and the fitting manufacturer's requirements.

#### 3.6 MAIN EARTH

Provide a plastic toby box or UPVC tube to contain and protect the earth pin. Fix the connecting earth wiring closely and securely against wall surfaces.

#### 3.7 EARTH LEAKAGE PROTECTION

Install RCD protection to AS/NZS 3000.

#### 3.8 DOMESTIC INSTALLATIONS

Install 30mA RCD protection at the distribution board for all final sub circuits to control socket outlets and lighting except for fixed or stationary cooking equipment.

- 3.18 **ELECTRIC HOT WATER SYSTEM**  
Wire as a separate circuit through a wall-mounted isolating switch, with the cable from switch to element encased in flexible PVC conduit, clamp fixed at each end. Hot water cylinders, thermostats and 3000 watt element supplied and fitted under HOT AND COLD WATER SYSTEM.
- 3.19 **TELEPHONE WIRING**  
Install telephone cable to telephone outlet positions shown on the drawings. Install in conduit for outlets on masonry surface. Fix and connect outlets to NZ Telecom requirements and terminate wiring at incoming terminal block.
- 3.20 **DATA WIRING**  
Install data wiring to outlet positions shown on the drawings. Install in conduit for outlets on masonry surface.
- 3.21 **TV AERIAL AND CABLING**  
Fix aerial, run cabling concealed below the roof and fit outlets where shown on the electrical drawings. Ensure the system is suitable for high quality reception of all VHF and UHF channels - Sky TV installation practices minimum. Cable penetrations through the cladding to be weatherproofed to comply with NZBC E2/AS1.
- 3.22 **SPACE HEATERS**  
Install to the heater manufacturer's requirements, and to AS/NZS 3000. Fit neatly and without damage to surrounding finishes. Ensure control switches and thermostats are fitted to appliance, or otherwise connect to a control switch located adjacent to the heater and a remote thermostat.
- 3.23 **SMOKE ALARMS**  
Install Type 1 domestic smoke alarm system to NZBC F7/AS1 3.1, AS 1670.6 and to the alarm manufacturer's requirements. Fit neatly and without damage to the surrounding finish.
- 3.24 **SURGE PROTECTION**  
Install surge protection devices to manufacturer's requirements and in accordance with AS/NZS 3000. When fitting medium protection at the switchboard, protect the device by a dedicated MCB.
- 3.25 **ELECTRIC POWERED FITTINGS AND EQUIPMENT**  
Install and wire fittings and equipment to individual fittings and equipment manufacturer's requirements. Refer to the drawings for required layouts and locations for equipment. Refer to SELECTIONS for schedules of fittings.
- 3.26 **BATHROOM ELECTRICAL FIXTURES**  
Install all electrical fixtures. Connect the following bathroom and toilet electrical items:  
 - Heated towel rails: Install to manufacturers requirements and installed in accordance with AS/NZS 3000 and the NZBC G9/AS1  
 - Mirror demisters: Locate centrally above the wash hand basin(s). Connect wiring to room lighting unless specified otherwise.  
 - Exhaust fans: Install exterior ducted fans to manufacturer requirements. Installed in accordance with AS/NZS 3000 and the NZBC G4/AS1.
- 3.27 **OUTDOOR/EXTERIOR SERVICES**  
Install all wiring systems in accordance with AS/NZS 3000.3 and in accordance with the manufacturer's recommendations:  
  
Provide circuits and connections for exterior installations, including ELV 12/24 Volt path lighting and electronic irrigation systems. Refer to drawings for connection points. Where underground, ensure appropriate protection, such as thickness of sheathing, conduit, depth of cabling, and proximity to other services.

## 8101 RETAINING WALLS

### 1. GENERAL

This section deals with the supply and erection of proprietary, fabricated, retaining wall systems.

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC E1/AS1	Surface water, 3.0 Drainage system materials and construction
NZS 3104	Specification for concrete production
NZS 3602	Timber and wood-based products for use in building
NZS 3605	Timber piles and poles for use in buildings
AS/NZS 4671	Steel reinforcing materials

#### 1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

~

Copies of the above literature are available from ~

Web:	~
Email:	~
Telephone:	~
Facsimile:	~

#### 1.3 QUALIFICATIONS

Carry out retaining wall work using competent, experienced people, familiar with the materials and techniques specified.

## 2. PRODUCTS

### 2.1 CONCRETE

Prescribed mix to NZS 3104, minimum 17.5 MPa. Maximum aggregate size 10 mm.

#### Timber retaining walls

### 2.2 TIMBER ELEMENTS

Corsican or radiata pine, to NZS 3602, table 1A, Requirements for wood-based building components to achieve a 50-year durability performance.

### 2.3 TIMBER POLES

Corsican or radiata pine, selected in accordance with NZS 3605, treated H5 to NZS 3602 table 1A, Requirements for wood-based building components to achieve a 50-year durability performance and to NZS 3605 for cross-section, length, straightness and strength branding. Do not put cut ends into ground. Treat all cut ends or notches with a liberal brush coat of copper naphthenate or equivalent wood preservative before sealing with a bituminous sealer.

#### Precast concrete retaining walls

### 2.4 PRECAST CONCRETE UNITS

Reinforcing steel: grade 300 to AS/NZS 4671. Cover: minimum 40 mm. Concrete strength: a minimum 28 day strength of 20MPa.

### 2.5 INTERLOCKING CONCRETE BLOCK WALLS

Precast concrete blocks with fibreglass connecting pins. Pins: 12 mm diameter, thermoset isophthalic polyester resin-pultruded fibreglass reinforced rods. Construction adhesives as required by the precast concrete unit manufacturer.

### 2.6 BASE LEVELLING PADS

Well graded compacted crushed stone, or concrete, to the retaining wall manufacturer's requirements.

3.7 **SUBSOIL RELIEF DRAINS**  
 Lay perforated PVC coil piping firmly in a granular bed in straight runs to correct gradients, discharging into a cesspit. Carry the granular bed up and over the pipes without disturbing them, to a total depth of 300 mm. Cover with filter fabric, to the pipe manufacturer's requirements. Carry the high end of all lines up to the surface in capped, solid PVC to provide for flushing out.

3.8 **BACKFILLING**  
 Compact backfilling in 150 mm loose layers, using a suitable vibrating roller, until no further compaction is discernible. Top with 150 mm of clean topsoil.

3.9 **TAKE AWAY**  
 Take away from the site plant and material not used.

**4. SELECTIONS**

**Timber retaining walls**

4.1 **TIMBER ELEMENTS**  
 Timber: ~  
 Treatment: ~

4.2 **TIMBER POLES**  
 Timber: ~  
 Treatment: ~  
 Minimum pole butt diameter: ~ mm  
 Pole finish: ~

4.3 **TIMBER RAILS**  
 Timber: ~  
 Treatment: ~  
 Size: ~ mm x ~ mm

**Precast concrete retaining walls**

4.4 **PRECAST CONCRETE UNITS**  
 Brand: ~  
 Type: ~

4.5 **INTERLOCKING CONCRETE BLOCK WALLS**  
 Brand: ~  
 Type: ~  
 Colour: ~

**General**

4.6 **FIELD RELIEF DRAINS**  
 Pipe brand/type: ~  
 Fabric brand/type: ~

4.7 **FIXINGS AND BOLTS**  
 Minimum coating thickness: ~

4.8 **FILTER FABRIC**  
 Brand: ~  
 Type: ~

### Producer Statement - PS1- Design

ISSUED BY: MiTek New Zealand Ltd

TO BE SUPPLIED TO: Building Consent Authorities in New Zealand

IN RESPECT OF: Posi-STRUT Design Manual, June 2008

AT: Various Locations in New Zealand

16 NOV 2008

MiTek New Zealand Ltd has provided engineering design services in respect of the requirements of Clause B1 of the NZ Building Code for

All  Part only as specified – Posi-STRUT trusses

of the proposed building work.

The selection charts within this design manual have been prepared in accordance with Compliance Documents and Verification Method B1/VM1 of the NZ Building Code and in accordance with sound and widely accepted engineering principles.

On behalf of **MiTek New Zealand Ltd**, and subject to:

1. The verification of the design assumptions within this manual
2. All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that the use of Posi-STRUT trusses in the building, if constructed in accordance with the drawings, specifications and other documents provided, will comply with the relevant provisions of the Building Code.

MiTek New Zealand Ltd holds a current policy of Professional Indemnity Insurance of not less than \$500,000.

On behalf of MiTek New Zealand Ltd

Date: December 2008



.....  
In Ling Ng  
Technical Services Manager  
BE (Hons), CPEng, IntPE  
MIPENZ (ID: 146585)

#### MiTek New Zealand Ltd.

AUCKLAND: 40 Neales Road, East Tamaki 2013 PO Box 58-014, Greenmount 2141 Ph: 09-274 7109 Fax: 09-274 7100  
CHRISTCHURCH: 14 Pilkington Way, Wigram 8042 PO Box 8387, Riccarton 8440 Ph: 03-348 8691 Fax: 03-348 0314



# MiTek New Zealand Ltd.

Correspondence from : **AUCKLAND**  
40 Neales Road, East Tamaki 2013  
PO Box 58-014, Botany 2163  
Phone: 09 274 7109  
Fax: 09 274 7100

**CHRISTCHURCH**  
14 Pilkington Way, Wigram 8042  
PO Box 8387, Riccarton 8440  
Phone: 03 348 8691  
Fax: 03 348 0314

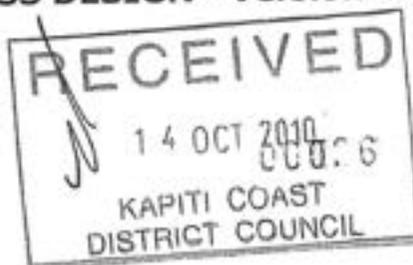
[www.miteknz.co.nz](http://www.miteknz.co.nz)

Printed: 11:32:31 11 Oct 2010

MiTek 20/20 Engineering 4.6.4.14

## PRODUCER STATEMENT for MiTek 20/20™ TRUSS DESIGN - Version 4.6

ISSUED BY: MiTek New Zealand Ltd  
TO: National Office  
IN RESPECT OF: GANG-NAIL Truss Designs



This producer statement covers the MiTek 20/20™ truss design and the structural performance of the GANG-NAIL plate for the job reference **UM8086** and may be used by a Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

The MiTek 20/20™ truss design program has been developed by MiTek New Zealand Ltd for the design of GANG-NAIL® timber roof, floor and attic trusses in New Zealand. The truss designs computed by MiTek 20/20™ are prepared using sound and widely accepted engineering principles, and in accordance with compliance documents of the New Zealand Building Code and Verification Method B1/VM1; and internationally accepted standard ANSI/TPI 1 - 2002 as an alternative solution to satisfy the requirements of Clause B1 of the New Zealand Building Code.

On behalf of **MiTek New Zealand Ltd**, and subject to:

- i) All proprietary products meeting their performance specification requirements
- ii) The provision of adequate roof bracing and overall building stability
- iii) Correct selection and placement of GANG-NAIL connector plates
- iv) Correct input of Truss Design Data as shown in the Fabricator Design Statement for this job
- v) The design being undertaken by the accredited fabricator under the terms of the software licence

**I believe on reasonable grounds** that the trusses, if constructed in accordance with the MiTek 20/20™ truss design and shop drawings, will comply with the relevant provisions of the New Zealand Building Code.

MiTek New Zealand Ltd holds a current policy of Professional Indemnity Insurance no less than \$500,000.

On behalf of **MiTek New Zealand Ltd**,

Date: April 2010

In Ling Ng, BE (Hons), CPEng, IntPE, MIPENZ (ID: 146585)  
**TECHNICAL SERVICES MANAGER, MiTek New Zealand Ltd**



## National Office

Slab Thickening Report - Page 1

Job: UM558

Client: Holly Bayley  
Phone:Site: New Residence  
61 Rima Rd  
Paraparaumu  
WellingtonDescription:  
Building Consent No.:  
370-220-Exempt-LS-LV

Mitretek Systems Ltd

Phone: 04-231-1196-222

TRUSS BEARINGS EXCEEDING 10KN REPORT - Ultimate Limit State  
LoadsGANG-NAIL Truss ListLegend: ? = input only, ~~Tw~~ = failed design, Ø = non certified, Unmarked trusses = designed successfully

Critical Trusses	Qty	Span (mm)	Joint	Bearing Reactions (kN)	
				Down	Uplift
PTG01	1D	9100	G	14.223	15.133
			L	16.758	16.459

**Note:**

1) Select appropriate Slab Thickening Detail from the Mittek 'Internal Load Bearing On Concrete Floor Slabs' brochure.



S Y S T E M S

METRO FRAMELESS GLASS SYSTEMS

PRODUCER STATEMENT - Balustrade Design

TO (Customer)	
In RESPECT OF (Project)	
AT (Location)	
LDT No.	Consent No.

Design drawings and specifications;

PREPARED BY (Design Firm)
SPECIFICATION
DRAWING NUMBERS
VARIATIONS NOTES

The balustrade glass and glazing in the above project must be supplied and installed by Metropolitan Glass or MFG in accordance with the following;

A. GLASS STANDARDS

- |                  |  |
|------------------|--|
| NZS 4223:        | Code of Practice for Glazing in Buildings.               |
| Part 1:1985      | The Selection and Installation of Glass in Buildings.    |
| Part 3:1999      | Human Impact Safety Requirements.                        |
| Part 4:2000      | Dead, Wind and Snow Loading                              |
| AS/NZS 4667:2000 | Quality requirements for cut-to-size and processed glass |
| AS/NZS 4668:2000 | Glossary of terms used in the glass & glazing industry   |

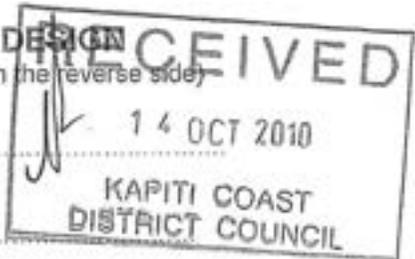
METRO FRAMELESS GLASS SYSTEMS LIMITED

Unit 19, 761 Great South Road, Penrose PO Box 112 196 Penrose Auckland N.Z.



MFG Test: Double Disc 50mm Domestic  
Test D1B

**PRODUCER STATEMENT – PS1 – DESIGN**  
(Guidance notes on the use of this form are printed on the reverse side)



ISSUED BY: **Robert Good for Nancekivell Cairn Ltd**  
(Solely qualified Design Professional)

TO: .....  
(Owner)

TO BE SUPPLIED TO: .....  
(Territorial Authority)

IN RESPECT OF: **Load Testing to MB50/S/T30 Double Disc at min 75mm pitch and fixed at 400mm CRS with 12mm toughened glass to 1050mm height above upper rod fixing to resist AS/NZS 1170 occupancy A,B,C3, & E and ULS wind load of 2.10 kPa**  
(Description of Building Work)

.....**Nancekivell Cairn Ltd**.....has been engaged by ...**Metro Frameless Glass Systems Ltd**.....  
(Design Firm) (Owner/Developer/Contractor)

to provide ..... **Monitoring to Load Tests and Confirmation of Loading Achieved**..... in respect of the requirements of Clause(s) .....**B1, B2, F2, F4**..... of the Building Code for

Part only as specified

of the building work. The design has been prepared in accordance with **B1/VM1, B2/AS1, F2/AS1, F4/AS1**  
(Verification methods/acceptable solutions)

(respectively) of the approved documents issued by the Department of Building & Housing and the work is described on

.....**Metro Frameless Glass Ltd**..... drawings titled ...**Double Disc – Domestic, Concrete, Steel, and Timber Fixing**

(Design Firm)

and numbered .....**D1/1, D1/2, D1/3**..... and the specification and other documents according to which the building is proposed to be constructed.

As an independent design professional covered by a current policy of Professional Indemnity Insurance to a minimum value of \$200,000. I BELIEVE ON REASONABLE GROUNDS that subject to:

- (i) **Structure to which Balustrade is fixed is to be engineered to resist Ultimate Limit State Moment of 0.47KNm per fixing comprising Pull Out Load of 6.74 KN at upper rod and Push In Load of 6.29KN at lower rod**
- (ii) **Excludes installation not explicitly in accordance with drawings D2/1, D2/2, D2/3 attached**

and (iii) all proprietary products meeting the performance specification requirements, the drawings, specifications, and other documents according to which the building is proposed to be constructed comply with the relevant provisions of the building code.

*Robert Good*  
(Signature solely qualified Design Professional)

Date **21-04-2009**

**MEng Sts, BE(civil), CPEng no. 142660**

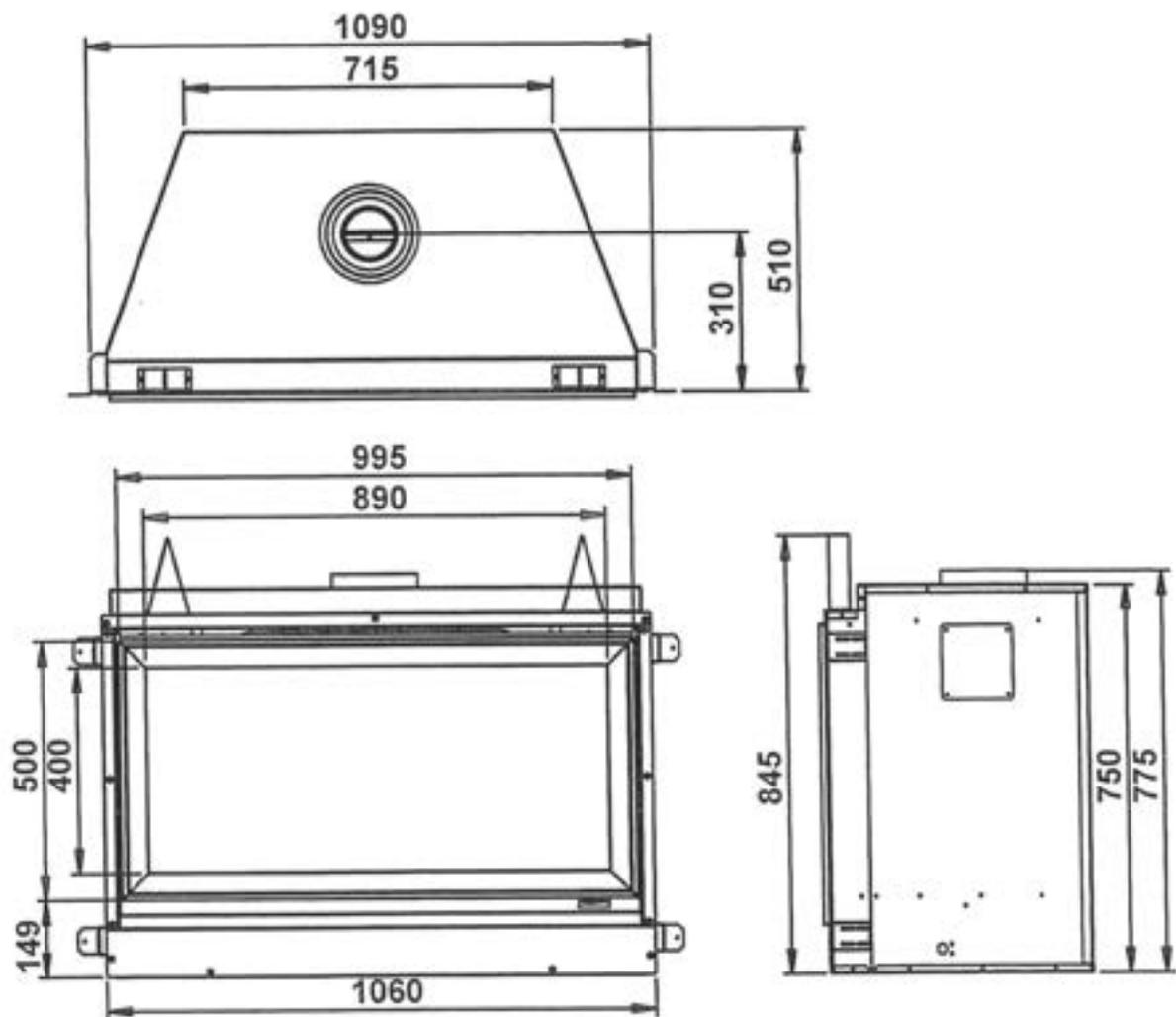
(Professional Qualifications)

Member ACENZ   
IPENZ  NZIA

.....**P.O. Box 355-377 Browns Bay**.....

## Dimensions (mm)

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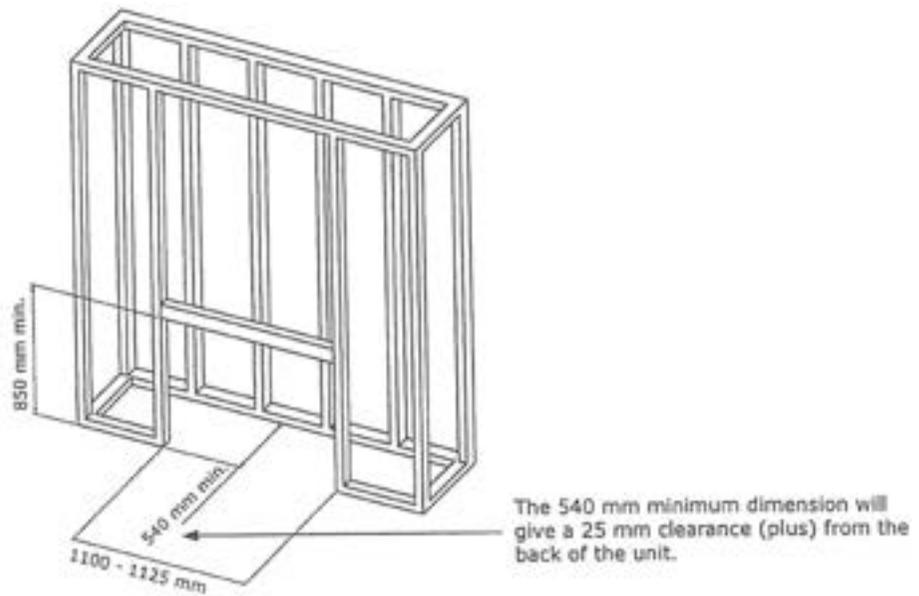


# Location

The main points governing location are flueing and warm air distribution. The heater must not be installed where curtains or other combustible materials could come into contact with the appliance. In some cases curtains may need restraining. Refer next page for clearance details.

The heater must be positioned on a flat level surface. For installations further up the wall, the heater needs to be supported, either construct a base using board or support with joists.

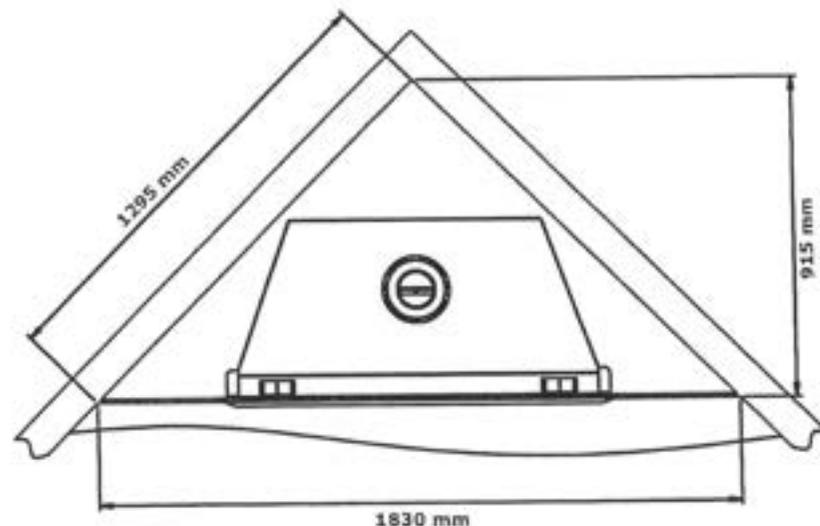
## Enclosure dimensions



A 25 mm clearance is required around the unit (sides and back).

## Enclosure dimensions in a corner

These are the minimum dimensions required if using the width, height and depth dimensions above.





ENGINEERS NEW ZEALAND



ARCHITECTS



Building Code Clause(s) .....

### PRODUCER STATEMENT – PS1 – DESIGN

(Guidance notes on the use of this form are printed on the reverse side\*)

ISSUED BY: ..... BASE CONSULTING ENGINEERS LTD. (Design Firm)

TO: ..... MR. P. BAYLY (Owned/Developer)

TO BE SUPPLIED TO: ..... KAPITI COAST DISTRICT COUNCIL (Building Consent Authority)

IN RESPECT OF: ..... BAYLY DWELLING (Description of Building Work)

AT: 4 MOSS LANE, PARAPARAUMU (Address)

..... LOT ..... DP ..... SO .....



We have been engaged by the owner/developer referred to above to provide THE STRUCTURAL DESIGN FOR: DRIVEN TIMBER PILE FOUNDATIONS & BEAMS services in respect of the requirements of Clause(s) B1.VM1 of the Building Code for  All or  Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:  
 Compliance Documents issued by Department of Building & Housing B1.VM1; AS/NZS: 1170; NZS:3603; NZS: 3404; NZS: 3101 (verification method / acceptable solution) or  
 Alternative solution as per the attached schedule .....

The proposed building work covered by this producer statement is described on the drawings titled BAYLY DWELLING, and numbered 10142, together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions AS PER CUTTRISS REPORT JOB NO: 20444
- (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code.

I, PETER BOLTON am:  CPEng 56179 #

Reg Arch #

I am a Member of:  IPENZ  NZIA and hold the following qualifications: BE, CIVIL

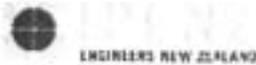
The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000\*. The Design Firm is a member of ACENZ  YES  NO

SIGNED BY PETER BOLTON ON BEHALF OF BASE CONSULTING ENGINEERS LTD. (Design Firm)

Date 13/10/10 (signature)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000\*.

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent.



Building Code Clause(s) .....

### PRODUCER STATEMENT – PS1 – DESIGN

(Guidance notes on the use of this form are printed on the reverse side\*)

ISSUED BY: ..... **BASE CONSULTING ENGINEERS LTD** .....  
(Design Firm)

TO: ..... **MR. P. BAYLY** .....  
(Owner/Developer)

TO BE SUPPLIED TO: ..... **KAPITI COAST DISTRICT COUNCIL** .....  
(Building Consent Authority)

IN RESPECT OF: ..... **BAYLY DWELLING** .....  
(Description of Building Work)

AT: **4 MOSS LANE, PARAPARAUMU** .....  
(Address)

..... **LOT** ..... **DP** ..... **SO** .....

We have been engaged by the owner/developer referred to above to provide **THE STRUCTURAL DESIGN FOR:** .....  
**DRIVEN TIMBER PILE FOUNDATIONS & BEAMS** ..... services in respect of the requirements of  
(Extent of Engagement)  
Clause(s) **B1.VM1** ..... of the Building Code for  
 All or  Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:

Compliance Documents issued by Department of Building & Housing **B1.VM1; AS/NZS: 1170;** .....  
**NZS: 3603; NZS: 3404; NZS: 3101** ..... (verification method / acceptable solution)

Alternative solution as per the attached schedule ..... **OR** .....

The proposed building work covered by this producer statement is described on the drawings titled **BAYLY DWELLING** .....  
..... and numbered **10142** .....

together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions **AS PER CUTTRISS REPORT JOB NO: 20444** .....
- (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code.

I, ..... **PETER BOLTON** ..... am:  CPEng 56179 ..... #  
(Name of Design Professional)

Reg Arch ..... #

I am a Member of:  IPENZ  NZIA and hold the following qualifications: **BE CIVIL** .....

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000\*. The Design Firm is a member of ACENZ  YES  NO

SIGNED BY ..... **PETER BOLTON** ..... ON BEHALF OF **BASE CONSULTING ENGINEERS LTD** .....  
(Design Firm)

Date **13/10/10** ..... (signature) .....

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000\*.

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent.