WAIKATO BUILDING CONSENT GROUP
BUILDING CONSENT APPLICATION

PRINT CLEARLY WITH BLUE OR BLACK PEN

OFFICE ONLY	Consent No. 2008/21044
Date received RECEIVED 07 JUL 2008 BUILDING	Document or Parcel No. 4559993
	Valuation No.
	PIM No. 6 new Townhouses with attach garages

1. APPLICATION TYPE (tick one)

☐ Building Consent and PIM

☐ PIM only

2. THE BUILDING/PROJECT LOCATION

Street No. 28 Street name ENDERLEY AVE

Town HAMILTON Level or Unit _____ Building name _____

Lot(s) 2 DP/S 28854 Site area _____ (ha) 1271 (m²)

Other information PHONED

3. OWNER

Name/Company CKC Holdings Ltd.

Mail address _____

Phone (daytime) 021 905858

Fax _____

Mobile 021 905858

Email _____

Attention Keith Clayson Ph _____

AGENT (if application is made on behalf of the owner)

Name/Company McPherson Goodwin Surveyors

Mail address 7 HARDLEY ST. HAMILTON

Phone (daytime) 839 1335

Fax 839 1292

Mobile _____

Email marina@mgsl.co.nz

Attention MARINA Ph 839 1335

Relationship to owner Arch. Designer

Invoice to: ☑ Owner ☐ Agent

First point of contact for communication: ☐ Owner ☑ Agent

4. EVIDENCE OF OWNERSHIP ATTACHED:

☑ Certificate of Title ☐ Lease agreement ☐ Agreement for Sale and Purchase ☐ Other

Duplicate Issued

5. THE PROJECT: Tick one - if more than one project please list on a separate page

☑ New Building ☑ Demolition ☐ Addition ☐ Alteration

☑ Relocation ☐ Change of Use ☐ Other (please specify below)

Description of Work: 6 New Units (Town Houses) DEVELOPMENT

Current, lawfully established, use: (Include no. of occupants per level and per use if more than 1)

HAMILTON CITY COUNCIL APPROVED SUBJECT TO CONDITIONS TO BE KEPT ON SITE

Year First constructed: (approximate date acceptable) _____

Intended life of building (If less than 50yrs) _____

Estimated value of work: inc GST $ 600,000.00

Existing floor area: _____ m² New Floor Area 588 m²

6. PIM Information: Please supply any relevant information/documents/diagrams and tick checkboxes if your project involves one or more of these:

- ☐ Is there a proposed subdivision for this land?
- ☐ Are you digging out the site for a building platform?
- ☐ Are there new or altered connections to Council sewer, storm water or water mains?
- ☐ Are you altering domestic sewer or storm water drains?
- ☐ Are you building near or over any road or public space?
- ☐ Are you building near or over existing domestic sewer, storm water, water mains or wells?
- ☐ Are you building or altering a vehicle crossing (entrance)?
- ☐ Is the site contaminated?
- ☐ Will the building be sited on sloping ground, or near to a bank, a stream or a coastal zone?
- ☐ Is there any other relevant information? Please state in the box or attach information

7. BUILDING PRACTITIONERS INVOLVED IN THIS PROJECT

List all your trade's people, their contact details and their trade registration numbers (eg Master Plumber registration number) where appropriate.

BUILDER:			
Name:		Registration Number:	
Address:			
Telephone:	Fax:	Mobile:	Email:

PLUMBER:			
Name:		Registration Number:	
Address:			
Telephone:	Fax:	Mobile:	Email:

DRAINLAYER:			
Name:		Registration Number:	
Address:			
Telephone:	Fax:	Mobile:	Email:

DESIGNER:			
Name:		Registration Number:	
Address:			
Telephone:	Fax:	Mobile:	Email:

GAS FITTER:			
Name:		Registration Number:	
Address:			
Telephone:	Fax:	Mobile:	Email:

Project Role:			
Name:		Registration Number:	
Address:			
Telephone:	Fax:	Mobile:	Email:

9. COMPLIANCE SCHEDULE - THE FOLLOWING SYSTEMS APPLY TO/ARE MODIFIED BY THIS PROJECT
This is only required if you need a compliance schedule and a Building Warrant of Fitness, for a commercial building. A Compliance Schedule lists the inspection, maintenance and reporting procedures for systems within a building such as lifts, automatic sprinklers, automatic doors, air conditioning and fire alarms.

Please tick appropriate boxes

Automatic systems for fire suppression	☐ New	☐ Modified
Automatic or manual emergency warning systems for fire and other dangers	☐ New	☐ Modified
Electromagnetic or automatic doors or windows	☐ New	☐ Modified
Emergency lighting systems	☐ New	☐ Modified
Escape route pressurisation systems	☐ New	☐ Modified
Riser mains for use by fire services	☐ New	☐ Modified
Automatic back-flow preventers connected to potable water supplies	☐ New	☐ Modified
Mechanical ventilation or air conditioning systems	☐ New	☐ Modified
Laboratory fume cupboards	☐ New	☐ Modified
Audio loops or other assisted listening systems	☐ New	☐ Modified
Smoke control systems	☐ New	☐ Modified
Lifts, escalators, travelators or other systems to move people or goods within buildings	☐ New	☐ Modified
Building mainenance units providing access to exterior and interior walls of buildings	☐ New	☐ Modified
Emergency power systems for, or signs to, a system or feature specified in the above clauses	☐ New	☐ Modified

10. CONFIDENTIALITY
This is generally for reasons of building security in commercial or public buildings. If you think this project may require confidentiality, please discuss this with a Building Review Officer and if they agree, then tick the box and state why it is needed.

☐ Confidentiality required

11. PLEASE ENSURE THAT YOUR APPLICATION FOR BUILDING CONSENT CONTAINS:

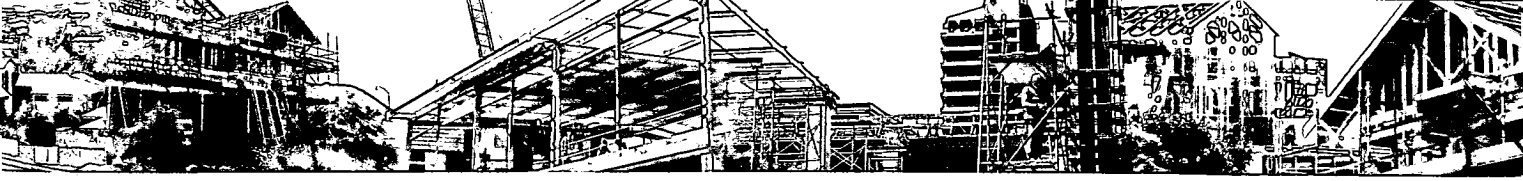
☐ Complete application form with relevant documents ☐ Accurate set of specifications
☐ Accurate set of plans and design statements ☐ Other information relevant to this application, please specify

12. COLLECTION OF CONSENTS
If your building consent application is at Waikato or Matamata Piako District Councils, please tick which of your council offices you wish to collect your consent from when it is ready:

WAIKATO	MATAMATA PIAKO
☐ Ngaruawahia ☐ Raglan ☐ By post ☐ Huntly ☐ Hamilton CC	☐ Te Aroha ☐ Matamata ☐ Morrinsville

13. DECLARATION: Signed by the OWNER or by the AGENT on behalf of and with the authority of the owner

Print name:	Signature:	Date:
MARINA SPASOVSKA		04/07/08.



GUIDE FOR FILLING IN THE APPLICATION FORM

1. **APPLICATION TYPE:** This application is for Building Consent and Project Information Memorandum (PIM), or just a PIM. A PIM is required under the building act for a specific building project. It provides details about special features of the site relevant to the project design such as location of services on the site, ground stability and geology, risk of flooding, public access, district plan non-compliance and Historic Places Trust protection. Information provided by a PIM must be acted upon in the design.
2. **THE BUILDING/PROJECT LOCATION:** The legal description is the lot and the deposited plan number. You can get this information from several sources:
   - A rates demand; or
   - A copy of the Certificate of Title, this can be obtained from Land Information NZ, www.linz.govt.nz.

   If subdivision consent has been issued, then include a copy of the consent. If necessary put additional information that will assist in describing the location of the project in the 'Other Information' field.
3. **OWNER / AGENT:** The legal definition of an owner is: the owner in relation to any land and any buildings on the land, means the person who is entitled to the rack rent from the land, or would be so entitled if the land were let to a tenant at a rack rent, and includes the owner of the fee simple of the land and any person who has agreed in writing, whether conditionally or unconditionally, to purchase the land or any leasehold estate or interest in the land, or to take a lease of the land and is bound by the agreement because the agreement remains in force.
   If the Owner is a company, please state the company's name. Also put the name and phone number of the contact person in the 'Attention' and 'Ph' fields at the bottom of the box. Only complete the AGENT box if the owner is not the contact person and you are making an application on behalf of the owner. If you are a company please state the company's name and put the name and phone number of the contact person in the 'Attention' and 'Ph' fields.
4. **EVIDENCE OF OWNERSHIP ATTACHED:** Please check with your council as to what Proof of Ownership documents they require. The Certificate of Title is a record of property ownership. Your council may require additional documents such as a Lease Agreement or Agreement of Sale and Purchase document or a letter of authorisation from the owner if an agent makes the Building Consent application. This provides evidence that the owner has given permission for the agent to act on the owner's behalf.
5. **THE PROJECT:** Please tick the checkbox that best describes what you are planning to do. Describe the work providing sufficient information to enable the scope of the work to be fully understood. If you tick the check box 'Other', please specify what you are planning to do in the Description of work box e.g. new 3 bedroom dwelling and attached garage or bathroom addition. For 'Established use' please state whether the building is for residential or commercial use. Note: your Council may not require existing floor area, please check with them.
6. **INFORMATION REQUIRED FOR PIM ONLY:** In order to insure the success of your project, the Council needs to know what your project involves. The Council will add this information to that on their files to create a PIM so that the Building Control Officers will have all the information needed when assessing the suitability of the design you plan to use.
   This information can include: Heritage buildings, special land features (Ground stability, geological history, filled areas, unstable ground, flood risk, permitted footpath crossing, details district plan non-compliances), details of existing stormwater or wastewater utility systems on or adjacent to the site of the proposed building work, provision of fire escapes, details of requirements in respect to network utility operators (power, gas, phone), requirements of development contributions if any, and requirements under the Resource Management Act. Please indicate if your project may involve one or more of the items listed, attach any additional information about the site and provide information about what you are planning to do. For example, you may plan to alter the contours of the land and need to know what information the Council has on the site's ground stability, geological history, filled areas, unstable ground and/or flood risk. If this is the case, then tick the box and provide the appropriate information.
   Please note: Contaminated land is defined as land that is more contaminated than the national environmental standard allows; or land that has a hazardous substance in or on it that has significant adverse effects on the environment; or is reasonably likely to have adverse effects on the environment, for example an old sheep dip.
7. **BUILDING PRACTITIONERS:** List all your trade's people and their contact details. Contact details of building practitioners will be mandatory for Building Consents under the Building Act 2004 after 30 November 2010. Voluntary licensing begins on 1 November 2007.
8. **THE BUILDING WORK WILL COMPLY WITH THE BUILDING CODE AS FOLLOWS:** Get your designer to fill in this part of the form.
9. **COMPLIANCE SCHEDULES:** Get your designer to fill in this part of the form.

10– 13. Fill in these boxes as indicated. If the application is incomplete, processing cannot begin and you will be asked to complete the application and re-submit it.

8. THE BUILDING WORK WILL COMPLY WITH THE BUILDING CODE AS FOLLOWS:
What alternatives to the Building Code are you using in your construction? Tell us what you are doing that does not comply with the Building Code that require modification or waiver. **Get your designer to fill in this section.**

Building Code Clause (tick relevant clause)	Means of Compliance (refer to the relevant compliance document(s) or detail of alternative solution in the plans and specifications; if not applicable, put n/a)	Waiver/modification required (state nature of waiver or modification of building code required; if not applicable, put n/a)
◯ B1 Structure		
◯ B2 Durability		
◯ C1 Outbreak of fire		
◯ C2 Means of escape		
◯ C3 Spread of fire		
◯ C4 Structural stability during fire		
◯ D1 Access routes		
◯ D2 Mechanical installations for access		
◯ E1 Surface water		
◯ E2 External moisture		
◯ E3 Internal moisture		
◯ F1 Hazardous agents on site		
◯ F2 Hazardous building materials		
◯ F3 Hazardous substances and processes		
◯ F4 Safety from falling		
◯ F5 Construction and demolition hazards		
◯ F6 Lighting for emergency		
◯ F7 Warning systems		
◯ F8 Signs		
◯ G1 Personal hygiene		
◯ G2 Laundering		
◯ G3 Food preparation & contamination prevention		
◯ G4 Ventilation		
◯ G5 Interior environment		
◯ G6 Airborne and impact sound		
◯ G7 Natural light		
◯ G8 Artificial light		
◯ G9 Electricity		
◯ G10 Piped services		
◯ G11 Gas as an energy source		
◯ G12 Water supplies		
◯ G13 Foul water		
◯ G14 Industrial liquid waste		
◯ G15 Solid waste		
◯ H1 Energy efficiency		

(Add additional pages if necessary)

OFFICE USE ONLY

FEES PAYABLE	
Project Information Memorandum	$ 360
Building Consent - Application Fee	$ 7670
- Approval fee	$
- Inspection fee	$
- Mileage	$
Code Compliance Certificate	$ 100
BRANZ levy	$ 600·00
DBH levy	$ 1182·00
Photocopying	$
Microfilm - A4	$ 352·00
- A3	$
Street crossing administration	$
Structural check	$
Amendments to consent	$
External consultants check 1 Acoustic	$ 2812·50
External consultants check 2	$
NZ Fire Service check	$
Planning bond/Resource Consent	$
Reserves contribution	$
Rural connection	$
Fire main	$
Water connection	$ 1355
Water disconnection	$ 220
Wastewater/Sewerage connection	$
Wastewater disconnection	$
Backflow inspection	$
Stormwater connection - Mains	$ —
- Kerb and channel	$ —
Stormwater disconnection	$
CCTV Survey wastewater	$
CCTV Survey stormwater	$
Cellar indemnity	$
Council bonds	$
Compliance Schedule	$
Development contributions	
- Water	$
- Stormwater	$
- Wastewater	$
- Transport/roading	$
- Community infrastructure	$
BCA Accreditation Levy	$
	$
Total fees (Inc GST)	$
Deposit paid - Receipt No.: 2439974 - Date: 7/7/08	$ 8130 —
Remainder fees due	$ 6086·50
	$

REFERRALS
Structural consultant:
Name:
Sent: Returned:
Structural consultant:
Name:
Sent: Returned:
Other consultant:
Name:
Sent: Returned:
Other consultant:
Name:
Sent: Returned:
New Zealand Fire Service
Sent: Returned:
Historic Places Trust (Notification) Date advised:

ADDITIONAL NOTES AND/OR FEES

AUTHORISED BY: Planning Officer Date:
AUTHORISED BY: Building Officer Kim Southcombe. Date: 10/11/08
AUTHORISED BY: Engineer Date:
CHECKED BY: Date:
ISSUED BY: Ian Shirreffs
DATE ISSUED: 10/11/08
RECEIPT No. RECEIPT No. 2593576

BC FORM 2 Version 4 May 2008

Consent Reference: 2008/21044

Project Address: 28 Enderley AVE

Issue Date: 10-Nov-08

ISSUED CCC DENNIS HUTT

Owner: CKC Holdings Ltd

Builder: McPherson Goodwin Surveyors Ltd

Description of Work: 6 New Townhouses attached Garages

Property Reference: Lot 2 DP S28854

See over TR 1

Sec 17/12/09

BUILDING INSPECTIONS

	SIGN	APPROVED Yes	APPROVED No	DATE
Siting ° 3/4		✓		11.12.08
Foundation ° 3/4 5/6	Kay.	✓		11.12.08
Bond Beam				
Concrete Floor 5+6 °		✓		18.12.08
Tilt Slab				
Framing °	WGM WGM	✓ ✓		18.5.09 27.5.09
Cavity/Batten				
Cladding 3+4 ° 1/5	WGM	✓		2.6.09 25/6/09.
Prelining	WGM	✓		27.5.09
Postlining °	WGM	✓		18.6.09
Fire protection				
Crossing °	KAV	✓		24-7-09
Crossing Final				

Consultant/Installer Statement	Requested	Received
Driven Piles		✓
~~Engineers~~		
~~Plaster Coating/Paint~~		✓
Electrical Certificate		
~~Automatic Sprinklers~~		
~~Fire Alarm~~		
Emergency Lighting		
~~Lifts, Escalators~~		
~~Mechanical Ventilation~~		
Automatic Doors		
~~Acustic Engineer~~		

COMPLETION SIGN WGMcPherson DATE 6-8-09

COMMENTS:

PLUMBING & DRAINAGE INSPECTIONS

	SIGN	APPROVED Yes	APPROVED No	DATE
Concrete Floor 3+4 ° 1+2 °	DL DL	✓ ✓		10/12/09 1/12/09
Prelining °	TKMarp	✓		29/5/09
Stack Test				
Waste & Soil				
Foulwater °	S2-8	✓		19-1-09
Stormwater Part * °	S2-8	✓		19-1-09
Chimney				
Heater				
Other				

DRAINLAYER: 4 4

PLUMBER: Waikato Plumbing

Consultant/Installer Statement	Requested	Received
Pressure Test	✓	
As Laid Drainage Plan	✓	
~~Back Flow Prevention Device~~		
Gas Certificate		

COMPLETION SIGN [signature] DATE 6/8/09

COMMENTS:

* P.S.4 required for stwater soakage pits. 19-1-09 gsc.

Amendments

Date	BRO	Description of Work	Located?

Siting + Fdns units 5+6 approved 18.12.06

Code Compliance Certificate
No 2008/21044

Section 95, Building Act 2004

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

Issued by Hamilton City Council
Building Consent ref: 2008/21044
Historic ref:

Date: 06 August 2009

Applicant: CKC Holdings Ltd
Mailing Address: C/O Keith Clapson
PO Box 904
Hamilton 3240

Application Lodged: 07/07/2008

Project:
Application Description: 6 New Townhouses with attached Garages
Intended Use: Detached Dwelling - Live As A Family
Work Type: New Construction
Intended Life: >50 years
Value of Work: $600000

Property:
Address: 28 Enderley Avenue HAMILTON 2001
Property Reference: Lot 2 DP S28854

This is:

(x) A final code compliance certificate issued in respect of the building work under the above building consent.

( ) This Certificate is issued subject to the conditions specified in the attached page(s) headed "Conditions of Code Compliance Certificate No. 2008/**21044**"(being this certificate)

Signed for and on behalf of the Hamilton City Council:

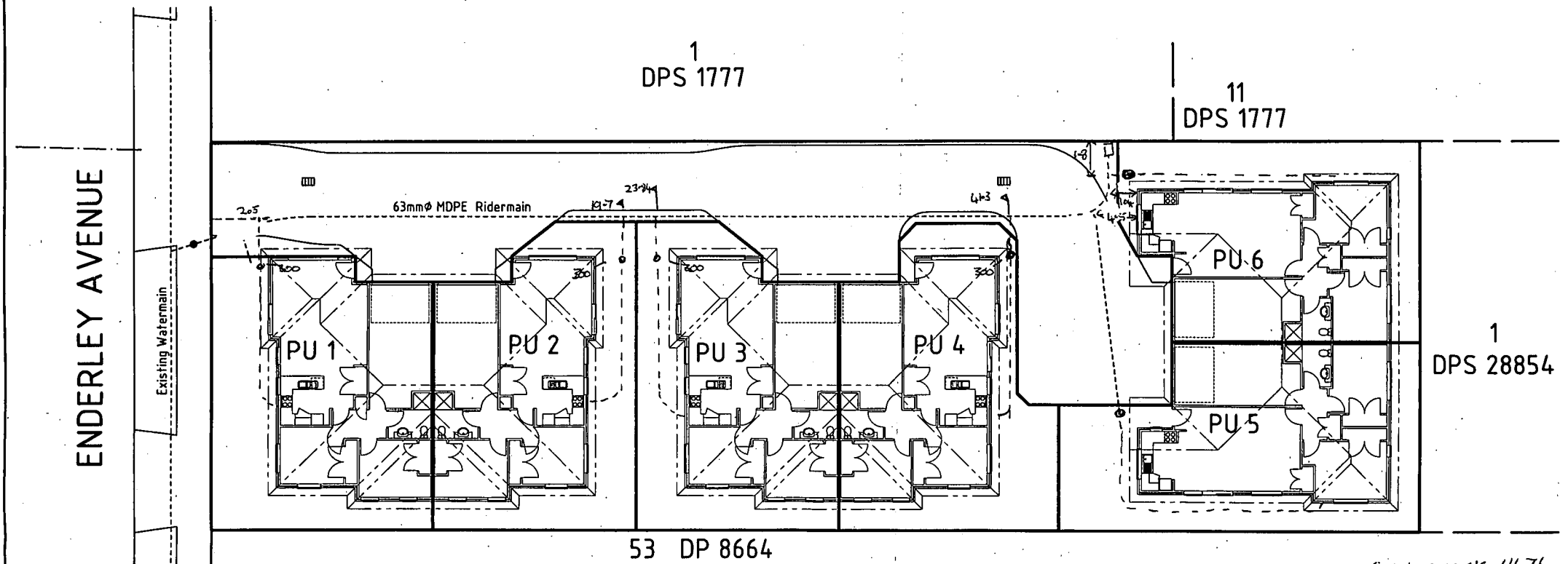
Name: 06 August 2009

Phil Saunders

Position: Authorised Officer

Building Control Unit

Building



C Woodcock 11676
Consent: 2008/21044

Waikato Plumbing Services Ltd
255 Bankwood Road
Chartwell, Hamilton 3210
Ph: 07 855 0001 Fax: 07 855 8800
wps@wave.co.nz

ASBUILTS OF WATER RETICULATION

Amendment:	Description:

NOTES:

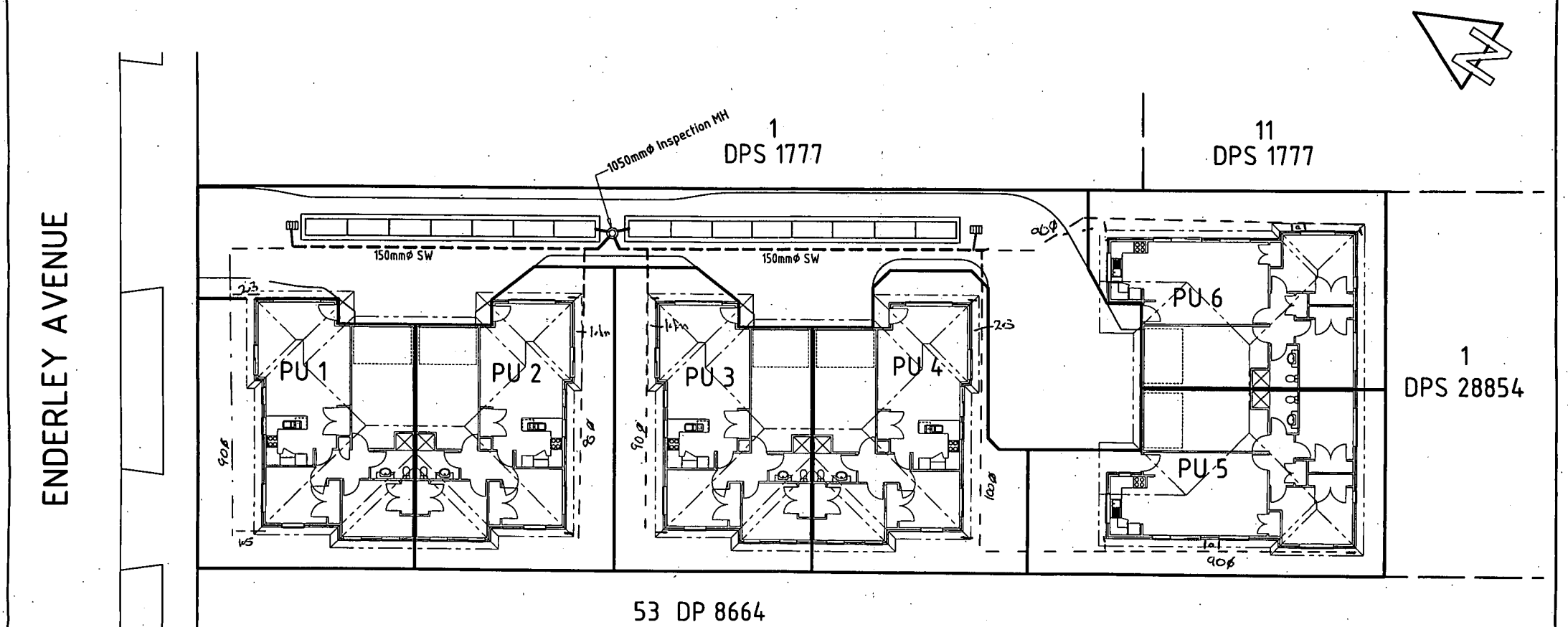
SERVICES ASBUILT PLAN FOR PROPOSED SUBDIVISION OF LOT 2 DPS 28854

Prepared for: CKC Holding Ltd. | Comprised in C.T. SA26C/1158 | Address: 28 Enderley Avenue, Hamilton

Surveyors–Land Engineers –Land Development, Resource Management and Town Planning Consultants
7 HARDLEY STREET–HAMILTON–NEW ZEALAND P.O. BOX 9379
E–mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

Surveyor:	Checked: G.I. Ruffell	Scale: 1:200 @ A3	Sheet of
Drawn: M.S.	Date: February/ 2008		Ref.: 14966



C·WOODCOCK 11676
Consent: 2008/210444

Waikato Plumbing Services Ltd
255 Bankwood Road
Chartwell, Hamilton 3210
Ph: 07 855 0001 Fax: 07 855 8800
wps@wave.co.nz

ASBUILTS OF STORMWATER DRAINAGE

Amendment:	Description:

NOTES:

SERVICES ASBUILT PLAN FOR PROPOSED SUBDIVISION OF LOT 2 DPS 28854

Prepared for: CKC Holding Ltd. | Comprised in C.T. SA26C/1158 | Address: 28 Enderley Avenue, Hamilton

Surveyors–Land Engineers
–Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET–HAMILTON–NEW ZEALAND P.O. BOX 9379
E–mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

Surveyor:	Checked: G.I. Ruffell	Scale: 1:200 @ A3	Sheet of
Drawn: M.S.	Date: February/ 2008		Ref.: 14966

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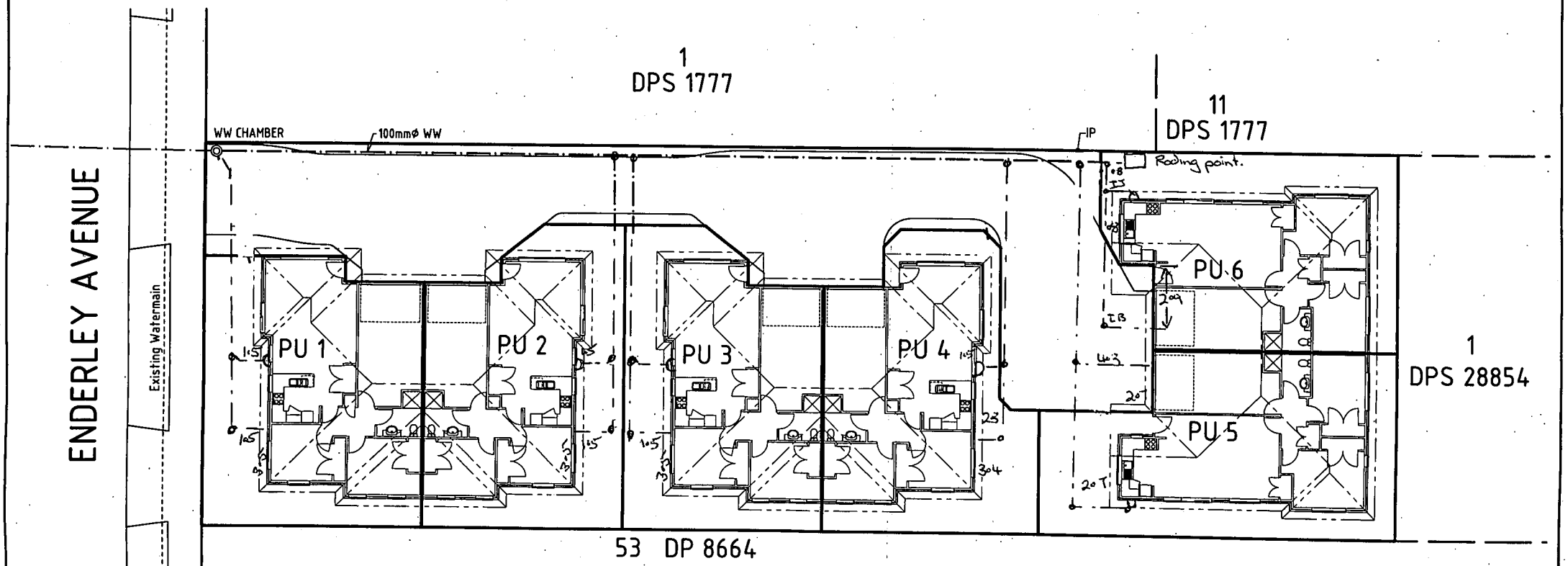

C. Woodcock 11676
Building Consent: 2008/21044

Waikato Plumbing Services Ltd
255 Bankwood Road
Chartwell, Hamilton 3210
Ph: 07 855 0001 Fax: 07 855 8800
wps@wave.co.nz

ASBUILTS OF WASTEWATER DRAINAGE

Amendment:	Description:

COPYRIGHT

The information on this plan is the property of McPherson Goodwin Surveyors Ltd (M.G.S.L.)
M.G.S.L. acknowledges the supply of some base data from The relevant Local Authorities and L.I.N.Z. in the preparation of this plan.

NOTES:

SERVICES ASBUILT PLAN FOR PROPOSED SUBDIVISION OF LOT 2 DPS 28854

Prepared for: CKC Holding Ltd. | Comprised in C.T. SA26C/1158 | Address: 28 Enderley Avenue, Hamilton

Surveyors—Land Engineers
—Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET—HAMILTON—NEW ZEALAND P.O. BOX 9379
E-mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

Surveyor:	Checked: G.I. Ruffell	Scale: 1:200 @ A3	Sheet of
Drawn: M.S.	Date: February/ 2008		Ref.: 14.966

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Original sheet size A3 (420?297)

HAMILTON CITY COUNCIL
PRIVATE BAG
HAMILTON

PRODUCER STATEMENT
PLUMBING SYSTEM PRESSURE TEST

OWNER.....CKC Holdings Ltd.....
PROPERTY ADDRESS....Unit A.....28....Engleley Ave, Hamilton
LOT.....DPS.....CONSENT NO.....2008/21044.....

TO THE HAMILTON CITY COUNCIL

Please be advised that our company **Waikato Plumbing Services Ltd**

Has completed a pressure test on the plumbing system in the building at the above address. We certify that the system was tested to 1500kpa for a period of 30 minutes and in accordance with the manufacturer recommendations and complies with the provisions of the New Zealand Building Code Approved Solution G12 and AS3500 as appropriate.

We advise that we have current public liability insurance to the value of at least $500,000 and have approved quality control measures in place.

We understand that the **Hamilton City Council** will conduct random audits of our work where a producer statement has been used and if a workmanship or technical fault is detected from these audits then we undertake to carry out appropriate remedial work as necessary.

Issued By **WAIKATO PLUMBING SERVICES LTD**

ADDRESS **P O BOX 20001 TE RAPA**

CONTACT PHONE NUMBER **07-8550001**

SIGNATURE Chris Woodcock 9/7/09 REGISTRATION NUMBER..**11676**

HAMILTON CITY COUNCIL
PRIVATE BAG
HAMILTON

PRODUCER STATEMENT
PLUMBING SYSTEM PRESSURE TEST

OWNER.....CKC Holdings Ltd.....
PROPERTY ADDRESS....Unit B 28 Engleley Ave, Hamilton
LOT.....DPS.....CONSENT NO.....2008/21044.....

TO THE HAMILTON CITY COUNCIL

Please be advised that our company Waikato Plumbing Services Ltd

Has completed a pressure test on the plumbing system in the building at the above address. We certify that the system was tested to 1500kpa for a period of 30 minutes and in accordance with the manufacturer recommendations and complies with the provisions of the New Zealand Building Code Approved Solution G12 and AS3500 as appropriate.

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Issued By **WAIKATO PLUMBING SERVICES LTD**

ADDRESS **P O BOX 20001 TE RAPA**

CONTACT PHONE NUMBER **07-8550001**

SIGNATURE Chris Woodcock 9/7/09 REGISTRATION NUMBER..**11676**

HAMILTON CITY COUNCIL
PRIVATE BAG
HAMILTON

PRODUCER STATEMENT
PLUMBING SYSTEM PRESSURE TEST

OWNER.....CKC Holdings Ltd.....
PROPERTY ADDRESS....Unit C....28....Enderley Ave, Hamilton
LOT.....DPS.....CONSENT NO.....2008/21044.....

TO THE HAMILTON CITY COUNCIL

Please be advised that our company **Waikato Plumbing Services Ltd**

Has completed a pressure test on the plumbing system in the building at the above address. We certify that the system was tested to 1500kpa for a period of 30 minutes and in accordance with the manufacturer recommendations and complies with the provisions of the New Zealand Building Code Approved Solution G12 and AS3500 as appropriate.

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Issued By **WAIKATO PLUMBING SERVICES LTD**

ADDRESS **P O BOX 20001 TE RAPA**

CONTACT PHONE NUMBER **07-8550001**

SIGNATURE Chris Woodcock 9/7/09 REGISTRATION NUMBER..**11676**

HAMILTON CITY COUNCIL
PRIVATE BAG
HAMILTON

PRODUCER STATEMENT
PLUMBING SYSTEM PRESSURE TEST

OWNER.....CKC Holdings Ltd.....
PROPERTY ADDRESS....Unit D 28 Enderley Ave, Hamilton
LOT.....DPS.....CONSENT NO.....2008/21044.....

TO THE HAMILTON CITY COUNCIL

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Issued By **WAIKATO PLUMBING SERVICES LTD**

ADDRESS **P O BOX 20001 TE RAPA**

CONTACT PHONE NUMBER **07-8550001**

SIGNATURE Chris Woodcock REGISTRATION NUMBER...**11676**
9/7/09

HAMILTON CITY COUNCIL
PRIVATE BAG
HAMILTON

PRODUCER STATEMENT
PLUMBING SYSTEM PRESSURE TEST

OWNER.....CKC Holdings Ltd.....
PROPERTY ADDRESS....Unit E 28 Eaglesley Ave, Hamilton
LOT.....**DPS**.....**CONSENT NO**.....2008/21044.....

TO THE HAMILTON CITY COUNCIL

Please be advised that our company **Waikato Plumbing Services Ltd**

Has completed a pressure test on the plumbing system in the building at the above address. We certify that the system was tested to 1500kpa for a period of 30 minutes and in accordance with the manufacturer recommendations and complies with the provisions of the New Zealand Building Code Approved Solution G12 and AS3500 as appropriate.

We advise that we have current public liability insurance to the value of at least $500,000 and have approved quality control measures in place.

We understand that the **Hamilton City Council** will conduct random audits of our work where a producer statement has been used and if a workmanship or technical fault is detected from these audits then we undertake to carry out appropriate remedial work as necessary.

Issued By **WAIKATO PLUMBING SERVICES LTD**

ADDRESS **P O BOX 20001 TE RAPA**

CONTACT PHONE NUMBER **07-8550001**

SIGNATURE Chris Woodroof.....REGISTRATION NUMBER...**11676**
9/7/09

HAMILTON CITY COUNCIL
PRIVATE BAG
HAMILTON

PRODUCER STATEMENT
PLUMBING SYSTEM PRESSURE TEST

OWNER.....CKC Holdings Ltd.....
PROPERTY ADDRESS....Unit F 28 Engleley Ave, Hamilton
LOT.....**DPS**.....**CONSENT NO**.....2008/21044.....

TO THE HAMILTON CITY COUNCIL

Please be advised that our company **Waikato Plumbing Services Ltd**

Has completed a pressure test on the plumbing system in the building at the above address. We certify that the system was tested to 1500kpa for a period of 30 minutes and in accordance with the manufacturer recommendations and complies with the provisions of the New Zealand Building Code Approved Solution G12 and AS3500 as appropriate.

We advise that we have current public liability insurance to the value of at least $500,000 and have approved quality control measures in place.

We understand that the **Hamilton City Council** will conduct random audits of our work where a producer statement has been used and if a workmanship or technical fault is detected from these audits then we undertake to carry out appropriate remedial work as necessary.

Issued By **WAIKATO PLUMBING SERVICES LTD**

ADDRESS **P O BOX 20001 TE RAPA**

CONTACT PHONE NUMBER **07-8550001**

SIGNATURE Chris Woodrow.....REGISTRATION NUMBER..:**11676**
9/7/09

EWRB 55

Electrical Certificate of Compliance

No. 2994687

No. of attachments 0

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).
To be completed whether or not an Inspection is required.

ELECTRICAL WORKERS REGISTRATION BOARD
Safety • Competency

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 Regulations 1997.

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer: C.K.C Holdings LTD Phone: 021 905 858 (Keith)

Address of installation: 28A Enderley Ave, Hamilton.

Postal address of customer (if not as above): ✓

WORK DETAILS

15	No. of lighting outlets	1	No. of ranges
18	No. of socket outlets	1	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
✓	Switchboard		Electric lines

Description: New house + mains to m/box on Unit B of wall, x1 extract fan to bathroom Main Earth under m/box, Bonding @ m/box x1 2kw Atlantic panel heater.

It is recommended that test results be recorded here:

Visual Examination	✓
Earth Continuity	✓
Bonding	✓
Polarity	✓
Insulation Resistance	>100 Mohm
Other	

If necessary attach any pages with sketches of work done

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name	Nathan Edwards.
Registration no.	E246662.
Company	Viking Electrical.
Signature	N J Edwards.
Date	03/07/09
Contact Ph No.	027285726

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name	
Registration no.	
Company	
Signature	
Date	
Contact Ph No.	

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

✓ New mains ✓ Switchboard ✓ Earthing system X Installation work in hazardous areas

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name	T Turner
Signature	
Registration no.	T1349
Date	9-7-2009
Daytime Contact Ph No.	8562631

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED

TO BE RETAINED BY THE WORKER RESPONSIBLE FOR CERTIFYING THE WORK

EWRB 551

ELECTRICAL WORKERS REGISTRATION BOARD
Safety • Competency

Electrical Certificate of Compliance

No. 2994688

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).

To be completed whether or not an Inspection is required.

No. of attachments: 0

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer: C.K.C Holdings LTD

Phone: 021 905858 (Keith)

Address of installation: 28B Endesley Ave Hamilton

Postal address of customer (if not as above): —

WORK DETAILS

15	No. of lighting outlets	1	No. of ranges
18	No. of socket outlets	1	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
- [✓] Switchboard
- [ ] Electric lines

Description: New house including x1 extract fan to bathroom, 16mm² 2Ø NS to pillar box. Bonding @ upbox, main Earth under upbox, x1 Atlantic 2kw panel heater

If necessary attach any pages with sketches of work done

It is recommended that test results be recorded here:

- Visual Examination ✓
- Earth Continuity ✓
- Bonding ✓
- Polarity ✓
- Insulation Resistance >100 Mohm
- Other

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name	Nathan Edwards
Registration no.	E246462
Company	Vikery Electrical
Signature	N Edwards
Date	08/07/09
Contact Ph No.	0272817706

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name	
Registration no.	
Company	
Signature	
Date	
Contact Ph No.	

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

- [✓] New mains
- [✓] Switchboard
- [✓] Earthing system
- [X] Installation work in hazardous areas

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name	I Turner	Registration no.	I1349
Signature	[signature]	Date	9/7/2009
		Daytime Contact Ph No.	8502631

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED

TO BE RETAINED BY THE WORKER RESPONSIBLE FOR CERTIFYING THE WORK

ELECTRICAL WORKERS REGISTRATION BOARD
Safety • Competency

EWRB 55

Electrical Certificate of Compliance

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).

To be completed whether or not an Inspection is required.

No. 2994698

No. of attachments: 0

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer: C.K.C Holdings LTD

Phone: 021 905 808 (Heath)

Address of installation: 28C Enderley Ave, Hamilton

Postal address of customer (if not as above): —

WORK DETAILS

No. of lighting outlets	16
No. of socket outlets	16
No. of ranges	1
No. of water heaters	1

Was any installation work carried out by the homeowner? Yes [ ] No [✓]

Please tick (✓) as appropriate where work includes:

- [✓] Mains
- [✓] Main earthing system
- [✓] Switchboard
- [ ] Electric lines

Description: New house including x1 extract fan to bathroom x1 2kw wall heater, 16mm2 2C NS u/g mains to pillar box. Main Earth under m/box, bonding in m/box

It is recommended that test results be recorded here:

- Visual Examination ✓
- Earth Continuity ✓
- Bonding ✓
- Polarity ✓
- Insulation Resistance >100 Mohm
- Other

If necessary attach any pages with sketches of work done

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name: Whitman Edwards

Registration no.: E46442

Company: Viking Electrical

Signature: N/G Edwards

Date: 27/07/09

Contact Ph No.: 0272817708

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name:

Registration no.:

Company:

Signature:

Date:

Contact Ph No.:

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

- [✓] New mains
- [✓] Switchboard
- [✓] Earthing system
- [X] Installation work in hazardous areas

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name: I Turner

Signature: [signature]

Registration no.: I1549

Date: 3-8-2009

Daytime Contact Ph No.: 8562431

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED

ELECTRICAL WORKERS REGISTRATION BOARD
Safety • Competency

EWRB 55

Electrical Certificate of Compliance

No. 2994699

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).

To be completed whether or not an Inspection is required.

No. of attachments 0

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer: CKC Holdings LTD
Phone: 021 901 888 (Keith)
Address of installation: 28D Endeley Ave Hamilton
Postal address of customer (if not as above): —

WORK DETAILS

16 No. of lighting outlets
16 No. of socket outlets
1 No. of ranges
1 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
[✓] Switchboard
[ ] Electric lines

Description: New house including x1 extract fan to bathroom, x1 Elec wall heater. Main Earth under M/box, bonding in m/box.

If necessary attach any pages with sketches of work done

It is recommended that test results be recorded here:

Visual Examination [✓]
Earth Continuity [✓]
Bonding [✓]
Polarity [✓]
Insulation Resistance >100 Mohm
Other

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name: Nathan Edwards
Registration no.: E246442
Company: Viking Electrical
Signature: NJ Edwards
Date: 27/07/09
Contact Ph No.: 0272817706

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name
Registration no.
Company
Signature
Date
Contact Ph No.

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

[✓] New mains
[✓] Switchboard
[✓] Earthing system
[X] Installation work in hazardous areas

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name: D Turner
Registration no.: I1340
Signature: [signature]
Date: 3-8-2009
Daytime Contact Ph No.: 8562431

EWRB 551

ELECTRICAL WORKERS REGISTRATION BOARD
Safety • Competency

Electrical Certificate of Compliance

No. 2994694

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).

To be completed whether or not an Inspection is required.

No. of attachments: 0

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer: C.K.C Holdings LTD

Phone: 021 905 85 (Keith)

Address of installation: 28E Enderby Ave, Hamilton

Postal address of customer (if not as above): —

WORK DETAILS

No. of lighting outlets	15
No. of socket outlets	16
No. of ranges	1
No. of water heaters	1

Was any installation work carried out by the homeowner? Yes ☐ No ☑

Please tick (✓) as appropriate where work includes: Mains ☑ Main earthing system ☑ Switchboard ☑ Electric lines ☐

Description: New house including +1 extract fan to bathroom 2kw panel heater to lounge. Main Earth under m/box, bonding @ m/box.

Electrician doing all - Sparrow Services (left out.)

It is recommended that test results be recorded here:

- Visual Examination ☑
- Earth Continuity ☑
- Bonding ☑
- Polarity ☑
- Insulation Resistance >100 Mohm
- Other

If necessary attach any pages with sketches of work done

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name: Nathan Edwards

Registration no.: E246442

Company: Viking Electrical

Signature: N.J.Edwards

Date: 22/07/09

Contact Ph No.: 0272817706

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name:

Registration no.:

Company:

Signature:

Date:

Contact Ph No.:

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

New mains ☑ Switchboard ☑ Earthing system ☑ Installation work in hazardous areas ☒

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name: D Turner

Signature: [signature]

Registration no.: I1349

Date: 22-7-09

Daytime Contact Ph No.: 85-62431

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED

TO BE RETAINED BY THE WORKER RESPONSIBLE FOR CERTIFYING THE WORK

EWRB 55

Electrical Certificate of Compliance

No. 2994693

No. of attachments 0

for prescribed electrical work that is carried out on electrical installations and involves the placing or positioning or the replacing or repositioning of conductors (including fittings attached to those conductors).

To be completed whether or not an Inspection is required.

ELECTRICAL WORKERS REGISTRATION BOARD
Safety • Competency

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 Regulations 1997.

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer: C.K.C Holdings LTD Phone: 021 905855 (Keith)

Address of installation: ✓ 28F Enderley Ave Hamilton.

Postal address of customer (if not as above): ✓

WORK DETAILS

15	No. of lighting outlets	1	No. of ranges
16	No. of socket outlets	1	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
✓	Switchboard		Electric lines

Description: New house including ex/feed to bathroom, 2kw panel heater to lounge & u/g mains to pillar box. Main Earth under m/box, bonding @ m/box.

Electrician Fitting add - S/main Fuses Left out

If necessary attach any pages with sketches of work done

It is recommended that test results be recorded here:

Visual Examination	✓
Earth Continuity	✓
Bonding	✓
Polarity	✓
Insulation Resistance	7100 Mohm
Other	

CERTIFICATION OF WORK

I certify that the above electrical work has been carried out in accordance with the requirements of the Electricity Act 1992 and Electricity Regulations 1997.

ELECTRICAL WORKER DETAILS

Name	Nathan Edwards
Registration no.	E24642
Company	Viking Electrical
Signature	N Edwards
Date	22/07/09
Contact Ph No.	027281706.

CERTIFICATION OF ELECTRIC LINES

(to be completed where a separate electrical worker has installed the electric line portion of the mains)

Name	
Registration no.	
Company	
Signature	
Date	
Contact Ph No.	

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

✓ New mains ✓ Switchboard ✓ Earthing system ✗ Installation work in hazardous areas

I certify that the inspection has been carried out in accordance with the requirements of regulation 41 of the Electricity Regulations 1997.

Name	F J Turner
Signature	
Registration no.	I1349
Date	22-7-09
Daytime Contact Ph No.	8562431

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

FINAL BUILDING INSPECTION
Units A-B-C-D-E-F
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** | X **Failed** | ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Hamilton

LOT: _____ **DP/S:** _____ **CONSENT NO:** 2008 / 21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ Check you are on correct site
- ✓ Check street number on letter box
- ✓ Approved Building Consent documents on site
- ✓ Check Conditions

EXTERIOR

- ✓ External envelope complete and weatherproof
- ✓ Flashings/sealants complete
- ✓ Wet area/kitchen vents
- ✓ Safety glass
- ✓ Ground/paving heights
- ✓ Crossing and footpath for damage
- ✓ Brick veneer weep and ventilation holes
- ✓ Exterior decorated
- ✓ Weathering of penetrations
- Construction of decks/steps/handrails/timber treatment
- Barrier heights and construction/timber treatment
- Sub floor access/ponding/ventilation/insulation
- ✓ Roof cladding/flashing fixings/roof penetrations
- ✓ Landscaping complete – retaining walls
- ✓ Roof pitch for cladding used
- ✓ Wall cladding fixings/soakers/scribers etc
- Fire ratings

INTERIOR

- ✓ Ceiling and wall insulation in place
- Fire ratings stopped
- ✓ Correct installation of shower/bath linings, splash boards etc
- ✓ Safety glass
- ✓ Shower curtain/screen
- ✓ Wet areas completed, walls, ceilings, floors sealed
- ✓ Bathroom, ensuite, wc, laundry, kitchen vents ducted to exterior
- ✓ Heights of window sashes
- Heights of barriers and handrails/details
- ✓ All inspections have been completed
- ✓ All certificates have been received
- ✓ Smoke Alarms Fitted

Builder/Sub-Contractor/Owner
Inspector

- Energy Certificates Provided
- Acoustic Engineers Certificate Provided

COMMERCIAL

- Surface finishes, smoke development and spread of flame for ceilings, walls, floor coverings
- Stopping of fire walls and penetrations
- Penetrations/light fittings/fire collars etc
- Means of escape, door hardware, signage
- Fire ratings
- Fire and smoke doors: hardware, tags, self closers/magnetic hold open device and signage
- Signage: fire alarm
- Check off Compliance Schedule checklist in consent jobcard and request certificates for all features

ACCESSIBILITY

- ACCESSIBLE CARPARK easy to see, marked out, close to entrance, surfaces non slip
- FOOTPATH RAMPS non slip, width, length, upstands, handrails, kerb ramps 1000 wide
- ENTRANCE signage, threshold, width, floor surfaces
- PUBLIC RECEPTION counters or desks
- LIFT sizes, controls, handrails, lobby width
- STAIRS width, handrails, landings, risers, treads, nosings
- DOORWAYS/CORRIDORS Clear width, glazing, colour contrasted, projections into corridors
- ALERTING DEVICES audible and visual signal
- TOILET size, controls, doors, wash hand basin, taps
- SHOWERS size, controls, door/s
- LAUNDERING size and turning circle
- SIGNAGE entrance doors, information board and facilities signage
- SURFACE FINISHES stable firm and non slip
- Sound system, stage podium access, listening system
- SIGNAGE for listening system
- ACCESSIBLE ROUTE car parks, identifiable route from street to and through building, surface finishes stable firm and non slip

Name of Builder/Sub-Contractor/Owner Completing Check List: CLC Holdings LN

Signature: _____ **Date:** 6/8/09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required Yes ☐ No ✓ **Inspector** _____ **Date of Inspection** 6.8.09

Approved as in accordance with the plans & specifications approved for this consent ✓ **Auditor** _____ **Date** _____

GEON

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

FINAL PLUMBING /DRAINAGE INSPECTION

BUILDING CHECKLIST

NOTE TO CONTRACTOR : Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderby Ave Hamilton

LOT : _____ **DP/S:** _____ **CONSENT NO:** 2008/21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous Comments
- ✓ ✓ Check street number on letterbox
- ✓ ✓ Ensure plumbers and drainlayers names are recorded on job card
- ✓ ✓ As-laid drain plan provided
- ✓ ✓ Pressure test Producer Statement provided if required
- ✓ ✓ Relevant inspections have been called for
- ✓ ✓ If cross lease/subdivision ensure all drainage requirements have been met
- ✓ ✓ Trade waste application approved if applicable
- ✓ ✓ Gully dishes correct height
- ✓ ✓ Ensure overflow gully minimum 150mm below lowest fixture
- ✓ ✓ Waste pipes/bends sealed at point of entry into rear of gully dishes as per G13
- ✓ ✓ Terminal vent position, flashings, cowls fitted
- ✓ ✓ Downpipes clipped and connected to stormwater drainage
- ✓ ✓ If timber floor check wastepipe clipping complies
- ✓ ✓ Noveflow drainage is through sump
- ✓ ✓ Site drainage
- ✓ ✓ Stormwater to correct outfall
- ✓ ✓ Valves, fixings of external cylinder

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Drain and expansion valve drains have been installed and conveyed to the exterior
- ✓ ✓ All wastes are vented if greater than 3.5m and have acceptable falls
- ✓ ✓ General workmanship of all flashings and roof penetrations
- ✓ ✓ Back flow prevention devices where required
- ✓ ✓ Septic tank installation, has been installed as per engineers design (Certificate supplied)

INTERIOR

- ✓ ✓ Water hammer
- ✓ ✓ Toilet cisterns screwed to wall securely
- ✓ ✓ Hot water cylinder for correct type and positions of valves and seismic restraints provided
- ✓ ✓ Cylinder safe tray if required
- ✓ ✓ Cylinder drain/valve pipes
- ✓ ✓ Ternimal vents continuous in ceiling space
- ✓ ✓ Position of vent valves
- ✓ ✓ Insulation of pipes in ceiling space
- ✓ ✓ Traps fitted and holding seals
- ✓ ✓ Venting required to waste or soil pipes is correctly installed
- ✓ ✓ Tub fixed in position
- ✓ ✓ Water temperature = 55 Celcius
- ✓ ✓ Gas certificate provided

PS 4 to Come
Stating all +
Consent No.

Name of Contractor Completing Check List: CKC Holdings Ltd

Signature: _____ **Date:** 6/8/09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required ☐ Yes ☑ No **Inspector** _____ **Date of Inspection** 6/8/09

Approved as in accordance with the plans & specifications approved for this consent ☐ ☐ **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

CROSSINGS

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley ave

LOT: _____ DP/S: _____ CONSENT NO: 2008/21818

- ✓ Builder/Sub-Contractor/Owner ☐ Inspector
- ✓ ✓ Check you are on correct site ☐ ☐ Check street number
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions ☐ ☐ Check for previous Comments
- ✓ ✓ Request safety barrier around crossing
- ☐ ☐ In the event of a crossing being formed on a section of road which has not yet been fully constructed refer to Transportation
- ☐ ☐ Crossings in rural areas shall be constructed to the same standard as the road they come off. Design shall be as per Drawing No. DCS301 (Volume 5) If any concerns, refer to Transportation
- ☐ ☐ Shared environment crossing refer to Transportation
- ☐ ☐ If any of the following apply refer to Transportation. Driveway steeper than 12°. Coloured concrete required. Slot crossing required. Stormwater grate, manhole, bus stop, power pole, bin, trees etc. in crossing area
- ✓ ✓ Crossings shall not interfere with footpath or berm profile, except for minor filling between boundary and footpath. No retaining walls or structures are to encroach onto the berm and no lowering of the berm is permitted
- ✓ ✓ Crossing is to be constructed of the same material as the ajacent footpath, except that for chipsealed or slurry footpaths, the crossing shall be asphaltic concrete
- ☐ ☐ For wide commercial crossings, in areas of moderate to high pedestrian use, thought should be given to reinforce the priority of the footpath over the crossing. A pavement marked pedestrian crossing may be appropraite.
- ✓ ✓ Crossing standards apply to the full width of the berm between the kerb and road boundary. Crossing must be formed to property boundary
- ✓ ✓ When contsructing a new crossing, cut out existing footpath if present, and reconstruct to vehicle crossing standards
- ✓ ✓ Cracked existing kerb and channel is to be removed and incorporated into crossing construction works
- ✓ ✓ Sub-grade and sub-base preparation is to extend 200m beyond the crossing edges

RESIDENTIAL CROSSINGS

- ☐ ☐ Crossing width 3.0m minimum
- ✓ ✓ Crossing width 5.5m maximum
- ☐ ☐ Crossing width 6.5m maximum at kerb & channel which includes 500mm splay each side of crossing
- ☐ ☐ 1000mm total splay each side of crossing if crossing width is less than 4.0m and street width is less than 9.0m
- ☐ ☐ **Asphalt Footpath 25mm asphalt + 75mm gap 20**
- ✓ ✓ Crossing less than 7 dwellings 25mm asphalt + 175mm gap 40
- ☐ ☐ Crossing 7 or more dwellings 30mm asphalt + 220mm gap 40
- ☐ ☐ **Concrete Footpath 100mm concrete + 25mm sand**
- ✓ ☐ Crossing less than 7 dwellings 125mm concrete + 75mm gap 20 or 665 mesh
- ☐ ☐ Crossing 7 or more dwellings 150mm concrete + 75mm gap 20 or 665 mesh
- ☐ ☐ Cobblestone Footpath 60mm paver + 25mm sand
- ☐ ☐ Crossing less than 7 dwellings 60mm paver + 25mm sand + 90mm gap 40
- ☐ ☐ Crossing 7 or more dwellings 80mm paver + 25mm sand + 95mm gap 40

COMMERCIAL/INDUSTRIAL OR 7 OR MORE DWELLINGS

- ☐ ☐ Crossing width 5.0m minimum
- ☐ ☐ Crossing width 7.5m maximum
- ☐ ☐ Crossing width 9.5m maximum at kerb & channel, kerb & channel reinforced beam to extend 1.5m past each side of crossing width
- ☐ ☐ 500mm splay each side of crossing
- ☐ ☐ 1000m total splay each side of crossing where street width is less than 9.0m
- ☐ ☐ If asphalt footpath, remove footpath and construct as per crossing standard
- ☐ ☐ If concrete footpath, remove footpath and construct as per crossing standard
- ☐ ☐ If no footpath, can construct crossing in asphalt, concrete or cobblestones

ASPHALT

- ☐ ☐ Commercial / Industrial crossing 50mm MIX 10 asphalt + 250 gap 40

CONCRETE

- ☐ ☐ Commercial / Industrial crossing, 150mm concrete + 75mm gap 20 + 2 Layers of 665 mesh
- ☐ ☐ Or 175mm concrete + 75mm gap 20

INTERLOCKING BLOCK PAVING

- ☐ ☐ Commercial / Industrial crossing, 80mm paving block + 25mm bedding sand + 120mm gap 40

BEAM

- ✓ ✓ Depressed kerb channel crossing Pedestrian footpath/residential crossing less than 7 dwellings 75mm gap 20
- ☐ ☐ 7 or more dwellings 75mm gap 20 + 2 D12 & 6mm links at 600mm centres
- ☐ ☐ Industrial / commercial crossings 75mm gap 20 + 4 D12 & 6mm links & 600mm centres
- ☐ ☐ Beam must extend 1.5m each side of crossing

Any changes to the above, please have Transportation Unit approve prior to approval

Name of Builder/Sub-Contractor/Owner Completing Check List: Rob Carlton

Signature: _____ **Date:** 24.7.09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required ☐ Yes ✓ No **Inspector** _____ **Date of Inspection** 24/7/09

Approved as in accordance with the plans & specifications approved for this consent ✓ Yes ☐ No **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

POST LINING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave

LOT: 2 DP/S: 28854 CONSENT NO: 21044

☑ Builder/Sub-Contractor/Owner
☑ Inspector

- ☑ ☑ Check you are on correct site
- ☑ ☑ Approved Building Consent documents on site
- ☑ ☑ Check Conditions
- ☑ ☑ Check for previous comments

- ☑ ☑ Floor/Ceiling nailed off as diaphragm
- ☑ ☑ Position of sheet bracing
- ☑ ☑ Fixing of sheet bracing
- ☑ ☑ Holes in sheet braces
- ☑ ☑ Safety glass
- ☑ ☑ Type of wall linings used; i.e. Fyreline, Noiseline, Aqualine, Braceline, etc

- ☑ ☑ STC Rating Requirements
- ☑ ☑ Stopping and penetrations, light switched, power points etc to fire walls

COMMERCIAL

- ☑ ☐ Fire philosophy
- ☐ ☐ Compliance schedule for features
- ☑ ☐ Fire rating

☑ Builder/Sub-Contractor/Owner
☐ Inspector

- ☑ ☐ Stopping of fire ratings
- ☑ ☐ Penetrations
- ☐ ☐ Discuss Compliance Schedule features and request certificates for completion

ACCESSIBILITY CHECKLIST/DISCUSS

- ☐ ☐ Accessible Carpark
- ☐ ☐ Footpath Ramps
- ☐ ☐ Entrance
- ☐ ☐ Public Reception Area
- ☐ ☐ Lifts
- ☐ ☐ Stairs
- ☐ ☐ Doorways, Corridors
- ☐ ☐ Controls (Auto Doors etc)
- ☐ ☐ Alerting Devices
- ☐ ☐ Toilets
- ☐ ☐ Showers
- ☐ ☐ Laundering
- ☐ ☐ Food Preparation
- ☐ ☐ Signage
- ☐ ☐ Surface Finishes
- ☐ ☐ Accessible Route

Name of Builder/Sub-Contractor/Owner Completing Check List: C-I-C Holdings

Signature: [signature] **Date:** 18-6-09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required ☐ Yes ☑ No

Approved as in accordance with the plans & specifications approved for this consent ☑

Inspector [signature] **Date of Inspection** 18-6-09

Auditor _____ **Date** _____

GEON

POST LINING - BUILDING File Copy - White Owners Copy - Pink Builders Copy - Blue BC-PLB01 11/03/08

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

SANITARY SEWER AND STORMWATER
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | | **Not Applicable**

PROPERTY ADDRESS: 28 ENDERLEY

LOT: 2 DP/S: 288954 CONSENT NO: 2008/21044

☐ Builder/Sub-Contractor/Owner
☑ Inspector

☐ ☑ Check you are on correct site
☐ ☑ Approved Building Consent documents on site
☐ ☑ Check Conditions
☐ ☑ Check for previous Comments

SEWER

☐ ☑ Confirm drainlayers name
☐ ☑ Ensure sanitary sewer is connected to an appropriate connection
☐ ☑ Check pipe size is correct
☐ ☑ Check pipe material is approved
☐ ☑ Check material, pipe is bedded in
☐ ☑ Ensure sanitary sewer drains have correct falls and are laid straight
☐ ☑ Check leakage during water test
☐ ☑ Drainlayer to release testing equipment to ensure sanitary sewer connection is clear
☐ ☑ Correct fittings used
☐ ☑ Check for terminal vents and positions
☐ ☑ Discuss protection over drains for inadequate depth
☐ ☑ Remind drainlayer to provide as laid drainage plan
☐ ☑ Discuss heights of gully traps
☐ ☑ Discuss bends on wastes and seal wastes into gullies (plumber)

6X units

☐ Builder/Sub-Contractor/Owner
☑ Inspector

STORMWATER

☐ ☑ Confirm drainlayers name
☐ ☑ Ensure stormwater is connected to an appropriate connection
☐ ☑ Check pipe size is correct for given roof area
☐ ☑ Check pipe material is approved
☐ ☑ Check material, pipe is bedded in
☐ ☑ Check adequate number of downpipes for roof area
☐ ☑ Check stormwater drains have correct falls and are straight
☐ ☑ Correct fittings used
☐ ☑ Discuss protection over drains for inadequate depth
☐ ☑ Remind drainlayer to provide as laid drainage plan

P.S.4 for soakage system

6X units

Name of Builder/Sub-Contractor/Owner Completing Check List:

Signature: Woodward **Date:** 21-1-09

Comments Memo No: **Notice to Fix No:**

☐ **Further Inspection Required** ☑ **Approved** **Inspector** [signature]

Date of Inspection 21-1-09 **Auditor** **Date**

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

POST LINING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Eveleigh Ave unit 1

LOT: 2 DP/S: 28954 CONSENT NO: 2008/2044

☐ Builder/Sub-Contractor/Owner
☑ Inspector

- ☐ ☑ Check you are on correct site
- ☐ ☑ Approved Building Consent documents on site
- ☐ ☑ Check Conditions
- ☐ ☑ Check for previous comments

- ☐ ☑ Floor/Ceiling nailed off as diaphragm
- ☐ ☑ Position of sheet bracing
- ☐ ☑ Fixing of sheet bracing
- ☐ ☑ Holes in sheet braces
- ☐ ☑ Safety glass
- ☐ ☑ Type of wall linings used; i.e. Fyreline, Noiseline, Aqualine, Braceline, etc

- ☐ ☐ STC Rating Requirements
- ☐ ☑ Stopping and penetrations, light switched, power points etc to fire walls

COMMERCIAL

- ☐ ☐ Fire philosophy
- ☐ ☐ Compliance schedule for features
- ☐ ☐ Fire rating

☐ Builder/Sub-Contractor/Owner
☐ Inspector

- ☐ ☐ Stopping of fire ratings
- ☐ ☐ Penetrations
- ☐ ☐ Discuss Compliance Schedule features and request certificates for completion

ACCESSIBILITY CHECKLIST/DISCUSS

- ☐ ☐ Accessible Carpark
- ☐ ☐ Footpath Ramps
- ☐ ☐ Entrance
- ☐ ☐ Public Reception Area
- ☐ ☐ Lifts
- ☐ ☐ Stairs
- ☐ ☐ Doorways, Corridors
- ☐ ☐ Controls (Auto Doors etc)
- ☐ ☐ Alerting Devices
- ☐ ☐ Toilets
- ☐ ☐ Showers
- ☐ ☐ Laundering
- ☐ ☐ Food Preparation
- ☐ ☐ Signage
- ☐ ☐ Surface Finishes
- ☐ ☐ Accessible Route

Name of Builder/Sub-Contractor/Owner Completing Check List: C.I.C Holdings

Signature: _____ **Date:** 4-6-09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required ☐ Yes ☑ No **Inspector** _____ **Date of Inspection** 4.6.09

Approved as in accordance with the plans & specifications approved for this consent ☑ **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

POST LINING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Unit 2

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous comments

- ✓ ✓ Floor/Ceiling nailed off as diaphragm
- ✓ ✓ Position of sheet bracing
- ✓ ✓ Fixing of sheet bracing
- ✓ ✓ Holes in sheet braces
- ✓ ✓ Safety glass
- ✓ ✓ Type of wall linings used; i.e. Fyreline, Noiseline, Aqualine, Braceline, etc
- ✓ ✓ STC Rating Requirements
- ✓ ✓ Stopping and penetrations, light switched, power points etc to fire walls

COMMERCIAL

- ✓ ✓ Fire philosophy
- ✓ ✓ Compliance schedule for features
- ✓ ✓ Fire rating

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Stopping of fire ratings
- ✓ ✓ Penetrations
- ✓ ✓ Discuss Compliance Schedule features and request certificates for completion

ACCESSIBILITY CHECKLIST/DISCUSS

- ✓ Accessible Carpark
- ✓ Footpath Ramps
- ✓ Entrance
- ✓ Public Reception Area
- ✓ Lifts
- ✓ Stairs
- ✓ Doorways, Corridors
- ✓ Controls (Auto Doors etc)
- ✓ Alerting Devices
- ✓ Toilets
- ✓ Showers
- ✓ Laundering
- ✓ Food Preparation
- ✓ Signage
- ✓ Surface Finishes
- ✓ Accessible Route

Name of Builder/Sub-Contractor/Owner Completing Check List: C.K.C Holdings

Signature: [signature] **Date:** 8-6-09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required ☐ Yes ✓ No

Approved as in accordance with the plans & specifications approved for this consent ✓

Inspector Wynmont **Date of Inspection** 8-6-09

Auditor _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

EXTERIOR CLADDING SYSTEMS - BUILDING

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Units 1 & 2

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner	Inspector	
✓	✓	Check you are on correct site
✓	✓	Approved Building Consent documents on site
✓	✓	Check Conditions
✓	✓	Check for previous Comments
		BRICK VENEER
✓		Correct type, position and condition of building wrap
✓		Cavity size 40mm minimum
✓		Number, spacing and location of ties
✓		Connection of brick ties
✓		Cavity cleaned
✓		Brick support on foundation max. 20mm overhang and max. 20mm joint under brick
✓		Weep/ventilation holes
✓		Flashing detail into joinery
✓		Flashing requirements/fixing position
✓		Minimum panel sizes
✓		Maximum height of veneer
✓		Lintel bars, size/type of fixing details
✓		Cavity sealed from roof space
✓		Slope to sills 15° min.
		WEATHERBOARD TYPE SYSTEMS
		Correct type, position and condition of building wrap
		Flashing requirements/fixing/position
		Cladding fixing details
		Details at ground level
		Battens (ventilated cavity)
		Bottom of cladding provides weathering to bottom plates, floor joists and behind decking
		MONOLITHIC TYPE CLADDING
		Correct type, position and condition of building wrap
		Fixing detail of backing
		Sheet joining/flashing detail
		Joinery head/side and sill flashing detail
		Flashing connections to each other
		Slope to parapet/sill detail
		Roof/wall and parapet flashing details
		Detail at ground level
		Requirements for expansion/contraction joint details both horizontal and vertical
		Spacer spacing, fixings etc.
		Battens ventilated cavity

Builder/Sub-Contractor/Owner	Inspector	
✓		
		Reinforcement type/fixing etc.
		General workmanship
		Weathering detail for barriers/downpipes/weatherboards and penetrations
		Remind installer about installation certificate
		Internal/external angles
		PREPLASTER - RIGID BACKING
		Fibre cement sheet
		H3 plywood
		H3 diagonal sheeting
		PREPLASTER - NON RIGID BACKING (CAVITY SYSTEM)
		Support
		Allowable deflection of flexible backer (e.g. riblath)
		PREPLASTER - SOLID PLASTER (MESH)
		Mesh type
		Reinforcement around openings
		6–9mm spacers
		Galvanised
		Propriatory self-spacing mesh
		Fixings
		Propriatory control joints
		PREPLASTER - FIBRE CEMENT SHEET
		Timber moisture content (battens)
		Building wrap/sill approved
		BATTENS
		H3 timber or plywood
		H grade polystyrene
		Correct size and placement
		Fixings
		Sheet layout
		Spacing
		ALL MONOLITHIC SYSTEMS
		Certificate on paint system from applicator
		DECKS
		Substrate
		Upstand and step between main floor level
		Drainage for sealed decking
		Membrane
		Barrier Cladding

Name of Builder/Sub-Contractor/Owner Completing Check List: C.I.C. Holdings

Signature: [signature] **Date:** 2-6-09

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ☑ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature]

Date of Inspection 2-6-09 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE PLUMBING

PLUMBING CHECKLIST

NOTE TO PLUMBER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderly ave. Units 1 and 2.

LOT: _____ **DP/S:** _____ **CONSENT NO:** 2008 / 2 1044.

- ✓ Plumber
- ✓ Inspector
- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous comments
- ✓ ✓ Approved type of pipes/identification/standard K²

(complete details of pipe system used)

- ✓ ✓ Support of pipework
- ✓ ✓ Pipes secured to prevent water hammer
- ✓ ✓ Pressure test ✓ 1500 kpa ✓ mains only
- ✓ ✓ Producer statement required ✓ yes ☐ no
- ✓ ✓ Pipes sealed through building wrap.
- ✓ ✓ Sludge and relief drains run via tundish/air gap
- ✓ ✓ Soil and waste pipe work correctly installed.
- ✓ ✓ Pipes are protected from frost damage
- ✓ ✓ Pipes within 100mm of roof to be insulated
- ✓ ✓ Notches and holes in framing as per NZS 3604 Walls Section 8 Figure 8.4 Floors Section 7Figure 7.8
- ✓ ✓ Terminal vent installed
- ✓ ✓ Pipes protected from electrolysis and sharp objects
- ✓ ✓ Pipes correctly sized
- ‖ ‖ Test on Stack System ☐ yes ☐ no
- ✓ ✓ Position of hot water cylinder/infinity system is closest to most frequently used tap (kitchen sink) as per AS3500.4 see 5.3.1 Page 36
- ✓ ✓ Check hot water cylinder if in ceiling and completed ✓ yes ☐ no
- ‖ ‖ Fire hose reel pipe work run in metallic only

- ✓ Plumber
- ☐ Inspector
- ✓ ✓ Plumber
- ✓ ✓ Inspector
- ☐ ☐ Air conditioning condensate drains run to outside(not to outside gully dish)
- ☐ ☐ Back flow philosophy followed
- ☐ ☐ Solar panel installation correct ☐ yes ☐ no
- ☐ ☐ Wetback Installation correct ☐ yes ☐ no
- ☐ ☐ Fire Collars installed where required
- ☐ ☐ Overflows fitted to decks and run to exterior To be same size as outlet
- ✓ ✓ Further Inspection Fee Required ☐ yes ☐ no

Notes: _____

Name of Plumber Completing Check List: Saul Burningham

Name: _____ **Rego:** 23834 **Signature:** Saul Burn **Date:** 28/5/09

Comments Memo No: _____ **Notice to Fix No:** _____

Please tick as appropriate

✓ **Pass** – in accordance with the plans & Specifications approved for this consent ☐ **Fail** Further requirements: ☐ Documentation ☐ Inspection

Inspector SR **Auditor** _____

Date of inspection 28-5-09 **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

POST LINING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Units 1 & 2

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner
Inspector

- Check you are on correct site
- Approved Building Consent documents on site
- Check Conditions
- Check for previous comments

- Floor/Ceiling nailed off as diaphragm
- Position of sheet bracing
- Fixing of sheet bracing
- Holes in sheet braces
- Safety glass
- Type of wall linings used; i.e. Fyreline, Noiseline, Aqualine, Braceline, etc
- STC Rating Requirements
- Stopping and penetrations, light switched, power points etc to fire walls

COMMERCIAL

- Fire philosophy
- Compliance schedule for features
- Fire rating

Builder/Sub-Contractor/Owner
Inspector

- Stopping of fire ratings
- Penetrations
- Discuss Compliance Schedule features and request certificates for completion

ACCESSIBILITY CHECKLIST/DISCUSS

- Accessible Carpark
- Footpath Ramps
- Entrance
- Public Reception Area
- Lifts
- Stairs
- Doorways, Corridors
- Controls (Auto Doors etc)
- Alerting Devices
- Toilets
- Showers
- Laundering
- Food Preparation
- Signage
- Surface Finishes
- Accessible Route

Name of Builder/Sub-Contractor/Owner Completing Check List: C-K-C Holdings

Signature: [signature] **Date:** 28-5-09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required ☐ Yes ☑ No **Inspector** [signature] **Date of Inspection** 29.5.09

Approved as in accordance with the plans & specifications approved for this consent ☑ **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

STRUCTURAL FRAMING

Unit 1 + 2 BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave

LOT: 2 DP/S: 28854 CONSENT NO: 2008 / 21044

☐ Builder/Sub-Contractor/Owner
☑ Inspector

- ☐ ☑ Check you are on correct site
- ☐ ☑ Approved Building Consent documents on site
- ☐ ☑ Check for previous comments
- ☐ ☑ Check conditions

SUBFLOOR

- ☐ ☐ Bearer/joist sizes
- ☐ ☐ Bearer/joist spans
- ☐ ☐ Bracing/braced piles/anchor piles
- ☐ ☐ Bracing/pile connections
- ☐ ☐ Solid blocking to joists
- ☐ ☐ Insulation
- ☐ ☐ Subfloor ventilation
- ☐ ☐ Crawl space
- ☐ ☐ Water ponding under floor
- ☐ ☐ Polythene on ground
- ☐ ☐ Confirm types of pile bearer/floor joist fixing to be used and level of protection required, i.e. galvanised, stainless steel (including nails)
- ☐ ☐ Timber treatment
- ☐ ☐ Check flooring joint layout

WALL FRAMING

- ☐ ☑ Timber treatment
- ☐ ☑ Framing sizes
- ☐ ☑ Framing height
- ☐ ☑ Bottom plate fixings
- ☐ ☑ Lintel sizes
- ☐ ☑ Top plate for roof support, truss, beams, bracing lines
- ☐ ☑ Nogging for vertical cladding

☐ Builder/Sub-Contractor/Owner
☑ Inspector

- ☐ ☑ Nailing general
- ☐ ☐ Exterior ply bracing
- ☐ ☐ Window sash heights above floor

ROOF

- ☐ ☐ Bracing, dragon ties etc
- ☐ ☑ Roof correct pitch for material used
- ☐ ☑ Correct trusses for roof material used and spacing
- ☐ ☑ Joist hangers and fixings to intersecting trusses and girder trusses
- ☐ ☑ Support of girder trusses
- ☐ ☑ Z-nails connecting trusses to top plates
- ☐ ☑ Truss fixing to design requirements
- ☐ ☐ Strutting beam and ceiling runner sizes to close coupled roofs
- ☐ ☐ Rafter spans, collar ties, cleats and under purlin sizes to close coupled roofs
- ☐ ☑ Ceiling batten sizes, correct spans and nailing (if in place)
- ☐ ☐ Purlin fixings

OTHER

- ☐ ☐ Construction of decks, bracing, hangers etc
- ☐ ☐ Verandah post connections
- ☐ ☐ Timber treatment
- ☐ ☐ Nailing general
- ☐ ☐ Barrier framing

Name of Builder/Sub-Contractor/Owner Completing Check List: _____

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ☑ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** W Gilchrist

Date of Inspection W Gilchrist **Auditor** _____ **Date** 18.5.09

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PREFLOOR BUILDING

Units 1+2 BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 26 Enderley Ave

LOT: 2 DP/S: 28854 CONSENT NO: 2008/21044

Builder/Sub-Contractor/Owner	Inspector	
✓		Check you are on correct site
✓		Approved Building Consent documents on site
✓		Check Conditions
✓		Check for previous Comments
✓		Floor thickenings
✓		Confirm concrete grade 17.5 MPA standard
✓		Thickness of slab
		Location of piles if driven piles
✓		Sand fill compaction and excavation ie. No topsoil underneath
✓		Compaction Certificate
✓		Manufacture of steel/mesh
		Mesh is correct type and gauge and tied
✓		Mesh is cut if expansion cuts are required
✓		Mesh supported on chairs

Builder/Sub-Contractor/Owner	Inspector	
✓		Check that polythene is correct thickness, is lapped and taped
✓		Holes and penetrations in polythene are taped
✓		Reinforcing bars to internal corners
		Clean bond will be made between floor slab and bond beams or header blocks
✓		Remind builder to seal brick rebate
		Emulsion sealer to be used inside header blocks on wet sites
✓		Types and spacing of bottom plate connectors to be used
✓		Floor levels will be sufficient for ground clearance
		Engineers design – request letter of supervision
✓		Request truss design

Name of Builder/Sub-Contractor/Owner Completing Check List: Andrew Hansen

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ✓ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** _____

Date of Inspection 2-12-08 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

SITING, FOUNDATION AND REPILE INSPECTION

Unit 1+2 BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** X **Failed** | **Not Applicable**

PROPERTY ADDRESS: 28 Endesley Ave

LOT: 2 DP/S: 28854 CONSENT NO: 2008/21044

Builder/Sub-Contractor/Owner ✓
Inspector

- ✓ Check you are on correct site
- ✓ Approved Building Consent documents on site
- ✓ Check Conditions

SITING

- ✓ Locate boundary pegs – where required
- ✓ Lot number on pegs
- ✓ Dimensions between pegs
- ✓ Measure distance from project to boundary conforms to site plan
- ✓ Dimensions of building
- ✓ Profile height in relation to floor heights
- ✓ Building height in relation to boundary
- Excavations, safe slopes, hoarding, shoring, underpinning and barriers for site safety. (Plans for retaining walls)
- Council or private drains under building
- Siting by surveyor — to provide letter
- ✓ Discuss site stormwater drainage

DESIGN

- Engineers designed foundation
- ✓ Request engineers letter of supervision on sand pad
- ✓ Name of Engineer Maunsell
- ✓ Foundation to NZS 3604

DRIVEN PILES

- Request engineers confirmation of supervision and report on length of piles and sets achieved

PILES/DRILLED FOUNDATIONS

- Height of profile in relation to top of piles
- Correct size and treatment of piles

Builder/Sub-Contractor/Owner ✓
Inspector

- Pile spacing for bearers/joists
- Floor heights conform to bracing elements provided
- Height for 450mm crawl space
- Layout of subfloor bracing
- Pile heights correct for type of bracing element i.e. anchor or braced pile
- Pile depths into cleared ground
- 100kpa or greater bearing capacity (including pre-floor excavation)
- Holes clean and sides vertical
- Confirm types of pile bearer/floor joist fixing to be used and level of protection required, i.e. galvanized/stainless steel (including nails)

CONCRETE FOUNDATIONS

- ✓ Foundation dimensions and minimum 200 mm depth into cleared ground
- ✓ Foundation clean, square, level and no water in excavations
- ✓ 100kpa soil bearing capacity
- ✓ Discuss floor height to proposed finished ground levels as per NZS 3604
- ✓ Manufacture of steel
- ✓ Steel sizes
- ✓ Correct type, i.e. high tensile or deformed etc
- ✓ Steel laps
- ✓ All steel has been tied up
- ✓ Steel is clean
- ✓ Cover and height pegs
- ✓ Fire wall. Foundation and reinforcement

Name of Builder/Sub-Contractor/Owner Completing Check List: Andrew Hansen

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required Yes ☐ No ☐ **Inspector** _____ **Date of Inspection** 2-12-08

Approved as in accordance with the plans & specifications approved for this consent Yes ✓ No ☐ **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PREFLOOR PLUMBING AND DRAINAGE

PLUMBING CHECKLIST

NOTE TO PLUMBER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave

LOT: 2 **DP/S:** 28854 **CONSENT NO:** 2003/21044

☑ Plumber
☐ Inspector

- ☑ ☐ Check you are on correct site
- ☑ ☐ Approved Building Consent documents on site
- ☑ ☐ Check Conditions
- ☑ ☐ Check for previous comments
- ☑ ☐ System used AS3500 ☑ G13 ☐
- ☑ ☐ Fixture discharge pipe sizes followed
- ☑ ☐ Fall on all discharge pipes 1:40 for pipe diameter 65mm or less
- ☐ ☐ Length of all discharge pipes. An unvented waste pipe cannot exceed 3.5m for G13
- ☑ ☐ Waste pipes protected where penetrating through floor slab.
- ☑ ☐ Waste pipes are separated at foundation exit point to allow for bends
- ☑ ☐ Water heater drain pipe is graded/correctly terminated
- ☑ ☐ Check location of terminal vent
- ☐ ☐ Main or branch drain longer than 10m to be vented for AS3500
- ☐ ☐ Main or branch drain longer than 6m to be vented for G13
- ☑ ☐ Vent pipe down stream from last fixture connection
- ☑ ☐ Minimum vent diameter 50mm for AS3500
- ☐ ☐ Minimum vent diameter 80mm for G13
- ☐ ☐ 80mm W/C pipe maximum length 2.5m unvented
- ☑ ☐ TORG min 150mm below lowest fixture outlet
- ☑ ☐ Test on AS3500 drains for 2 or more fixtures inline

Units 1 & 2

☑ Plumber
☐ Inspector

- ☑ ☐ Venting continuous on AS3500 pipework
- ☑ ☐ Level inverts installed 2 o'clock or higher for AS3500
- ☑ ☐ Clean outs (COS) installed where required or 2x 45° bends 2x diameter apart directly under fixture.
- ☐ ☐ Amended floor plan for all changes
- ☐ ☑ Drainage behind masonry walls greater than 300mm
- ☑ ☐ One fixture only above terminal vent
- ☐ ☐ Flood relief floor waste for all urinals and multi unit buildings
- ☐ ☐ Stainless steel Straps installed at 1.0m intervals to support soil and waste pipes for pile driven foundations
- ☐ ☐ Copper waste to commercial machines operating over 65°C
- ☐ ☐ Further Inspection Fee Required ☐ yes ☐ no
- ☐ ☐ Soakage Drainage for Over 300mm step in Footing

Notes:

Name of Plumber Completing Check List: Chris

Name: _____ **Rego:** 11767 **Signature:** _____ **Date:** 1/12/08

Comments Memo No: _____ **Notice to Fix No:** _____

Please tick as appropriate

☑ **Pass** – in accordance with the plans & Specifications approved for this consent

☐ **Fail** Further requirements: ☐ Documentation ☐ Inspection

Inspector _____ **Auditor** _____

Date of inspection 4/12/08 **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

POST LINING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

[✓] **Inspected** [X] **Failed** [ ] **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave units 3-4

LOT: 2 DP/S: 28854 CONSENT NO: 21044

[✓] Builder/Sub-Contractor/Owner
[✓] Inspector

- [✓][✓] Check you are on correct site
- [✓][✓] Approved Building Consent documents on site
- [✓][✓] Check Conditions
- [✓][✓] Check for previous comments

- [✓][✓] Floor/Ceiling nailed off as diaphragm
- [✓][✓] Position of sheet bracing
- [✓][✓] Fixing of sheet bracing
- [✓][✓] Holes in sheet braces
- [✓][✓] Safety glass
- [✓][✓] Type of wall linings used; i.e. Fyreline, Noiseline, Aqualine, Braceline, etc

- [✓][ ] STC Rating Requirements
- [✓][ ] Stopping and penetrations, light switched, power points etc to fire walls

COMMERCIAL

- [✓][ ] Fire philosophy
- [ ][ ] Compliance schedule for features
- [✓][ ] Fire rating

[✓] Builder/Sub-Contractor/Owner
[ ] Inspector

- [ ][ ] Stopping of fire ratings
- [ ][ ] Penetrations
- [ ][ ] Discuss Compliance Schedule features and request certificates for completion

ACCESSIBILITY CHECKLIST/DISCUSS

- [ ][ ] Accessible Carpark
- [ ][ ] Footpath Ramps
- [ ][ ] Entrance
- [ ][ ] Public Reception Area
- [ ][ ] Lifts
- [ ][ ] Stairs
- [ ][ ] Doorways, Corridors
- [ ][ ] Controls (Auto Doors etc)
- [ ][ ] Alerting Devices
- [ ][ ] Toilets
- [ ][ ] Showers
- [ ][ ] Laundering
- [ ][ ] Food Preparation
- [ ][ ] Signage
- [ ][ ] Surface Finishes
- [ ][ ] Accessible Route

Name of Builder/Sub-Contractor/Owner Completing Check List: C.K.C Holdings

Signature: [signature] **Date:** 31-7-09

Comments Memo No: **Notice to Fix No:**

Further Inspection Required [ ] Yes [✓] No **Inspector** WGMount **Date of Inspection** 1-7-09

Approved as in accordance with the plans & specifications approved for this consent [✓] **Auditor** **Date**

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE - BUILDING

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave unit 3-4

LOT: 1 DP/S: 29954 CONSENT NO: 2009/21044

☐ Builder/Sub-Contractor/Owner
☑ Inspector

- ☐ ☑ Check you are on correct site
- ☐ ☑ Approved Building Consent documents on site
- ☐ ☑ Check Conditions
- ☐ ☑ Check for previous comments

SUBFLOOR

- ☐ ☐ Pile/Brace connections
- ☐ ☐ Insulation
- ☐ ☐ Subfloor ventilation
- ☐ ☐ Water ponding under floor
- ☐ ☐ Polythene on ground

EXTERIOR

- ☐ ☐ Construction of decks, bracing, hangers etc
- ☐ ☐ Verandah post connections
- ☐ ☑ Roof cladding type, flashings, nailing
- ☐ ☐ Fireratings

☐ Builder/Sub-Contractor/Owner
☐ Inspector

INTERIOR

- ☐ ☑ Bottom plate fixings
- ☐ ☐ Moisture content (timber) = ____ %
- ☐ ☑ Insulation/moisture content
- ☐ ☐ Floor nailed off (diaphragm)
- ☐ ☑ Holes and notches in framing
- ☐ ☑ Wall bracing, fixings
- ☐ ☑ Upper floor joists, joist hangers, holes
- ☐ ☑ Safety glass
- ☐ ☐ STC ratings (Design test for multi unit dwellings)
- ☐ ☑ Fire ratings, penetrations
- ☐ ☑ Joinery provides correct lighting, ventilation to each room
- ☐ ☑ Window sash heights above floor
- ☐ ☑ Post/beam connections
- ☐ ☐ Discuss smoke alarm requirements

ROOF

- ☐ ☐ Bracing, dragon ties etc
- ☐ ☑ Roof underlay grade, netting
- ☐ ☑ Roof correct pitch for material used
- ☐ ☑ Correct trusses for roof material used and spacing
- ☐ ☑ Joist hangers and fixings to intersecting trusses onto girder trusses
- ☐ ☑ Z nails connecting trusses to top plates
- ☐ ☑ Truss fixing to design requirements
- ☐ ☑ Ceiling batten sizes, correct spans and nailing (if in place)
- ☐ ☐ Ceiling diaphragms
- ☐ ☐ Purlin Fixings
- ☐ ☐ Vapour barrier for skillion roofs
- ☐ ☑ Insulation to ceiling, correct position

Name of Builder/Sub-Contractor/Owner Completing Check List: _____

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ☑ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** W Gilmour

Date of Inspection 1-7-09 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE - BUILDING

BUILDING CHECKLIST

☐ Builder/Sub-Contractor/Owner
☐ Inspector

GENERAL

☐☐ Stair rail openings
☐☐ Configuration of stair/type
☐☐ Width between rails
☐☐ Heights of barriers and ballustrading to landings, decks and stairs
☐☐ Glazing requirements

COMMERCIAL

☐☐ Fire philosophy
☐☐ Compliance Schedule list of features
☐☐ Discuss fire ratings
☐☐ Discuss Compliance Schedule features and request certificates for completion
☐☐ Fire collars/penetrations through fire ratings

☐ Builder/Sub-Contractor/Owner
☐ Inspector

ACCESSIBILITY CHECKLIST

☐☐ Accessible carparks
☐☐ Footpath ramps
☐☐ Entrance
☐☐ Public reception
☐☐ Lifts
☐☐ Stairs
☐☐ Doorways, corridors
☐☐ Controls (Auto Doors etc)
☐☐ Alerting devices
☐☐ Toilets
☐☐ Showers
☐☐ Laundering
☐☐ Food preparation
☐☐ Signage
☐☐ Surface finishes
☐☐ Accessible route

Name of Builder/Sub-Contractor/Owner Completing Check List: _____

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ☐ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** _____

Date of Inspection _____ **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE PLUMBING

PLUMBING CHECKLIST

NOTE TO PLUMBER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | **Not Applicable**

PROPERTY ADDRESS: 28 Enderly ave units 3 and 4

LOT: _____ **DP/S:** _____ **CONSENT NO:** 2008/21044

Plumber	Inspector	
✓	✓	Check you are on correct site
✓	✓	Approved Building Consent documents on site
✓	✓	Check Conditions
✓	✓	Check for previous comments
✓	✓	Approved type of pipes/identification/standard NZ
		_____
✓		(complete details of pipe system used)
✓	✓	Support of pipework
✓	✓	Pipes secured to prevent water hammer
✓	✓	Pressure test ☐ 1500 kpa ✓ mains only
✓	✓	Producer statement required ✓ yes ☐ no
✓	✓	Pipes sealed through building wrap.
✓	✓	Sludge and relief drains run via tundish/air gap
✓	✓	Soil and waste pipe work correctly installed.
✓	✓	Pipes are protected from frost damage
✓	✓	Pipes within 100mm of roof to be insulated
✓	✓	Notches and holes in framing as per NZS 3604 Walls Section 8 Figure 8.4 Floors Section 7Figure 7.8
✓	✓	Terminal vent installed
✓	✓	Pipes protected from electrolysis and sharp objects
✓	✓	Pipes correctly sized
✓	✓	Test on Stack System ☐ yes ☐ no
✓	✓	Position of hot water cylinder/infinity system is closest to most frequently used tap (kitchen sink) as per AS3500.4.see 5.3.1 Page 36
✓	✓	Check hot water cylinder if in ceiling and completed ✓ yes ☐ no
✓	☐	Fire hose reel pipe work run in metallic only

Plumber	Inspector	
☐	☐	Plumber
☐	☐	Inspector
☐	☐	Air conditioning condensate drains run to outside(not to outside gully dish)
☐	☐	Back flow philosophy followed
☐	☐	Solar panel installation correct ☐ yes ☐ no
☐	☐	Wetback Installation correct ☐ yes ☐ no
☐	☐	Fire Collars installed where required
☐	☐	Overflows fitted to decks and run to exterior To be same size as outlet
☐	☐	Further Inspection Fee Required ☐ yes ☐ no

Notes: Relief run into 40 PVC behind Tubs

Name of Plumber Completing Check List: Saul Burningham

Name: _____ **Rego:** 23834 **Signature:** _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

Please tick as appropriate

✓ **Pass** – in accordance with the plans & Specifications approved for this consent ☐ **Fail** Further requirements: ☐ Documentation ☐ Inspection

Inspector _____ **Auditor** _____

Date of inspection 26/6/09 **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

EXTERIOR CLADDING SYSTEMS - BUILDING

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Everglen Unit 3&4

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner | Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous Comments

BRICK VENEER

- ✓ ✓ Correct type, position and condition of building wrap
- ✓ ✓ Cavity size 40mm minimum
- ✓ ✓ Number, spacing and location of ties
- ✓ ✓ Connection of brick ties
- ✓ ✓ Cavity cleaned
- ✓ ✓ Brick support on foundation max. 20mm overhang and max. 20mm joint under brick
- ✓ ✓ Weep/ventilation holes
- ✓ ✓ Flashing detail into joinery
- ✓ ✓ Flashing requirements/fixing position
- ✓ ✓ Minimum panel sizes
- ✓ ✓ Maximum height of veneer
- ✓ ✓ Lintel bars, size/type of fixing details
- ✓ ✓ Cavity sealed from roof space
- ✓ ✓ Slope to sills 15° min.

WEATHERBOARD TYPE SYSTEMS

- ✓ ✓ Correct type, position and condition of building wrap
- ✓ ✓ Flashing requirements/fixing/position
- ✓ ✓ Cladding fixing details
- ✓ ✓ Details at ground level
- ✓ ✓ Battens (ventilated cavity)
- ✓ ✓ Bottom of cladding provides weathering to bottom plates, floor joists and behind decking

MONOLITHIC TYPE CLADDING

- ✓ ✓ Correct type, position and condition of building wrap
- ✓ ✓ Fixing detail of backing
- ✓ ✓ Sheet joining/flashing detail
- ✓ ✓ Joinery head/side and sill flashing detail
- ✓ ✓ Flashing connections to each other
- ✓ ✓ Slope to parapet/sill detail
- ✓ ✓ Roof/wall and parapet flashing details
- ✓ ✓ Detail at ground level
- ✓ ✓ Requirements for expansion/contraction joint details both horizontal and vertical
- ✓ ✓ Spacer spacing, fixings etc.
- ✓ ✓ Battens ventilated cavity

Builder/Sub-Contractor/Owner | Inspector

- ✓ ✓ Reinforcement type/fixing etc.
- ✓ ✓ General workmanship
- ✓ ✓ Weathering detail for barriers/downpipes/weatherboards and penetrations
- ✓ ✓ Remind installer about installation certificate
- ✓ ✓ Internal/external angles

PREPLASTER - RIGID BACKING

- ✓ ✓ Fibre cement sheet
- ✓ ✓ H3 plywood
- ✓ ✓ H3 diagonal sheeting

PREPLASTER - NON RIGID BACKING (CAVITY SYSTEM)

- ✓ ✓ Support
- ✓ ✓ Allowable deflection of flexible backer (e.g. riblath)

PREPLASTER - SOLID PLASTER (MESH)

- ✓ ✓ Mesh type
- ✓ ✓ Reinforcement around openings
- ✓ ✓ 6–9mm spacers
- ✓ ✓ Galvanised
- ✓ ✓ Propriatory self-spacing mesh
- ✓ ✓ Fixings
- ✓ ✓ Propriatory control joints

PREPLASTER - FIBRE CEMENT SHEET

- ✓ ✓ Timber moisture content (battens)
- ✓ ✓ Building wrap/sill approved

BATTENS

- ✓ ✓ H3 timber or plywood
- ✓ ✓ H grade polystyrene
- ✓ ✓ Correct size and placement
- ✓ ✓ Fixings
- ✓ ✓ Sheet layout
- ✓ ✓ Spacing

ALL MONOLITHIC SYSTEMS

- ✓ ✓ Certificate on paint system from applicator

DECKS

- ✓ ✓ Substrate
- ✓ ✓ Upstand and step between main floor level
- ✓ ✓ Drainage for sealed decking
- ✓ ✓ Membrane
- ✓ ✓ Barrier Cladding

Name of Builder/Sub-Contractor/Owner Completing Check List: C K C Holdings

Signature: [signature] **Date:** 25-6-09

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ✓ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature] J. Williams

Date of Inspection 25/06/09 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

STRUCTURAL FRAMING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** | X **Failed** | || **Not Applicable**

PROPERTY ADDRESS: 29 Endeavour Ave Units 3-4

LOT: 2 DP/S: 78954 CONSENT NO: 208/21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ Check you are on correct site
- ✓ Approved Building Consent documents on site
- ✓ Check for previous comments
- ✓ Check conditions

SUBFLOOR

- ✓ Bearer/joist sizes
- ✓ Bearer/joist spans
- ✓ Bracing/braced piles/anchor piles
- ✓ Bracing/pile connections
- ✓ Solid blocking to joists
- ✓ Insulation
- ✓ Subfloor ventilation
- ✓ Crawl space
- ✓ Water ponding under floor
- ✓ Polythene on ground
- ✓ Confirm types of pile bearer/floor joist fixing to be used and level of protection required, i.e. galvanised, stainless steel (including nails)
- ✓ Timber treatment
- ✓ Check flooring joint layout

WALL FRAMING

- ✓ Timber treatment
- ✓ Framing sizes
- ✓ Framing height
- ✓ Bottom plate fixings
- ✓ Lintel sizes
- ✓ Top plate for roof support, truss, beams, bracing lines
- ✓ Nogging for vertical cladding

Builder/Sub-Contractor/Owner
Inspector

- ✓ Nailing general
- ✓ Exterior ply bracing
- ✓ Window sash heights above floor

ROOF

- ✓ Bracing, dragon ties etc
- ✓ Roof correct pitch for material used
- ✓ Correct trusses for roof material used and spacing
- ✓ Joist hangers and fixings to intersecting trusses and girder trusses
- ✓ Support of girder trusses
- ✓ Z nails connecting trusses to top plates
- ✓ Truss fixing to design requirements
- ✓ Strutting beam and ceiling runner sizes to close coupled roofs
- ✓ Rafter spans, collar ties, cleats and under purlin sizes to close coupled roofs
- ✓ Ceiling batten sizes, correct spans and nailing (if in place)
- ✓ Purlin fixings

OTHER

- ✓ Construction of decks, bracing, hangers etc
- Verandah post connections
- Timber treatment
- Nailing general
- Barrier framing

Name of Builder/Sub-Contractor/Owner Completing Check List: _____

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required Yes ☐ No ✓

Approved as in accordance with the plans & specifications approved for this consent ✓

Inspector [signature] **Date of Inspection** 12-6-09

Auditor _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

SITING, FOUNDATION AND REPILE INSPECTION

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Unit 3/4

LOT: 2 DP/S: 28854 CONSENT NO: 2008/21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions

SITING

- ✓ ✓ Locate boundary pegs – where required
- ✓ ✓ Lot number on pegs
- ✓ ✓ Dimensions between pegs
- ✓ ✓ Measure distance from project to boundary conforms to site plan
- ✓ ✓ Dimensions of building
- ✓ ✓ Profile height in relation to floor heights
- ✓ ✓ Building height in relation to boundary
- ✓ ✓ Excavations, safe slopes, hoarding, shoring, underpinning and barriers for site safety. (Plans for retaining walls)
- ✓ ✓ Council or private drains under building
- ✓ ✓ Siting by surveyor – to provide letter

DESIGN

- ✓ ✓ Engineers designed foundation
- ✓ ✓ Request engineers letter of supervision Mansel
- ✓ ✓ Foundation to NZS 3604

DRIVEN PILES

- ✓ ✓ Request engineers confirmation of supervision and report on length of piles and sets achieved

PILES/DRILLED FOUNDATIONS

- ✓ ✓ Height of profile in relation to top of piles
- ✓ ✓ Correct size and treatment of piles

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Pile spacing for bearers/joists
- ✓ ✓ Floor heights conform to bracing elements provided
- ✓ ✓ Height for 450mm crawl space
- ✓ ✓ Layout of subfloor bracing
- ✓ ✓ Pile heights correct for type of bracing element i.e. anchor or braced pile
- ✓ ✓ Pile depths into cleared ground
- ✓ ✓ 100kpa or greater bearing capacity (including pre-floor excavation)
- ✓ ✓ Holes clean and sides vertical
- ✓ ✓ Confirm types of pile bearer/floor joist fixing to be used and level of protection required, i.e. galvanized/stainless steel (including nails)

CONCRETE FOUNDATIONS

- ✓ ✓ Foundation dimensions and minimum 300mm depth into cleared ground
- ✓ ✓ Foundation clean, square, level and no water in excavations
- ✓ ✓ 100kpa soil bearing capacity
- ✓ ✓ Discuss floor height to proposed finished ground levels as per NZS 3604
- ✓ ✓ Manufacture of steel
- ✓ ✓ Steel sizes
- ✓ ✓ Correct type, i.e. high tensile or deformed etc
- ✓ ✓ Steel laps
- ✓ ✓ All steel has been tied up
- ✓ ✓ Steel is clean
- ✓ ✓ Cover and height pegs
- ✓ ✓ Fire wall. Foundation and reinforcement

letter from Mansel required.

Name of Builder/Sub-Contractor/Owner Completing Check List: Andrew Hansen

Signature: _____ **Date:** 11/12/08

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ✓ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** _____

Date of Inspection 11-12-08 **Auditor** _____ **Date** _____

GEON

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PREFLOOR BUILDING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | | **Not Applicable**

PROPERTY ADDRESS: 28 Cranleigh Ave Unit 3/4

LOT: 2 DP/S: 28854 CONSENT NO: 2008/2044.

✓ Builder/Sub-Contractor/Owner
✓ Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous Comments

- ✓ ✓ Floor thickenings
- ✓ ✓ Confirm concrete grade 17.5 MPA standard.
- ✓ ✓ Thickness of slab
- ✓ ✓ Location of piles if driven piles
- ✓ ✓ Sand fill compaction and excavation ie. No topsoil underneath
- ✓ ✓ Compaction Certificate Maunsel
- ✓ ✓ Manufacture of steel/mesh
- ✓ ✓ Mesh is correct type and gauge and tied
- ✓ ✓ Mesh is cut if expansion cuts are required
- ✓ ✓ Mesh supported on chairs

✓ Builder/Sub-Contractor/Owner
✓ Inspector

- ✓ ✓ Check that polythene is correct thickness, is lapped and taped
- ✓ ✓ Holes and penetrations in polythene are taped
- ✓ ✓ Reinforcing bars to internal corners
- ✓ ✓ Clean bond will be made between floor slab and bond beams or header blocks
- ✓ ✓ Remind builder to seal brick rebate
- ✓ ✓ Emulsion sealer to be used inside header blocks on wet sites
- ✓ ✓ Types and spacing of bottom plate connectors to be used
- ✓ ✓ Floor levels will be sufficient for ground clearance
- ✓ ✓ Engineers design – request letter of supervision
- ✓ ✓ Request truss design

Name of Builder/Sub-Contractor/Owner Completing Check List: Andrew Hansen

Signature: [signature] **Date:** 11/12/08

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ✓ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature]

Date of Inspection 11-12-08 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PREFLOOR PLUMBING AND DRAINAGE

PLUMBING CHECKLIST

NOTE TO PLUMBER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | | **Not Applicable**

PROPERTY ADDRESS: 28 enderley ave

LOT: 2 DP/S: 28854 CONSENT NO: 2008/2144

☐	☐	Plumber
☑	☐	Inspector
☑	☐	Check you are on correct site
☑	☐	Approved Building Consent documents on site
☑	☐	Check Conditions
☑	☐	Check for previous comments
☐	☑	System used AS3500 ☑ G13 ☐
☐	☐	Fixture discharge pipe sizes followed
☑	☐	Fall on all discharge pipes 1:40 for pipe diameter 65mm or less
☑	☐	Length of all discharge pipes. An unvented waste pipe cannot exceed 3.5m for G13
☑	☐	Waste pipes protected where penetrating through floor slab.
☑	☐	Waste pipes are separated at foundation exit point to allow for bends
☑	☐	Water heater drain pipe is graded/correctly terminated
☑	☐	Check location of terminal vent
☑	☐	Main or branch drain longer than 10m to be vented for AS3500
☐	☐	Main or branch drain longer than 6m to be vented for G13
☑	☐	Vent pipe down stream from last fixture connection
☑	☐	Minimum vent diameter 50mm for AS3500
☐	☐	Minimum vent diameter 80mm for G13
☐	☐	80mm W/C pipe maximum length 2.5m unvented
☑	☐	1 ORG min 150mm below lowest fixture outlet
☑	☐	Test on AS3500 drains for 2 or more fixtures inline

units 3 & 4

☐	☐	Plumber
☐	☐	Inspector
☑	☐	Venting continuous on AS3500 pipework
☑	☐	Level inverts installed 2 o'clock or higher for AS3500
☑	☐	Clean outs (COS) installed where required or 2x 45° bends 2x diameter apart directly under fixture.
☑	☐	Amended floor plan for all changes
☑	☐	Drainage behind masonry walls greater than 300mm
☑	☐	One fixture only above terminal vent
☑	☐	Flood relief floor waste for all urinals and multi unit buildings
☐	☐	Stainless steel Straps installed at 1.0m intervals to support soil and waste pipes for pile driven foundations
☐	☐	Copper waste to commercial machines operating over 65°C
☐	☐	Further Inspection Fee Required ☐ yes ☐ no
☐	☐	Soakage Drainage for Over 300mm step in Footing

Notes: _____

Name of Plumber Completing Check List: Mark

Name: _____ **Rego:** 23469 **Signature:** _____ **Date:** 10-12-08

Comments Memo No: _____ **Notice to Fix No:** _____

Please tick as appropriate

☑ **Pass** – in accordance with the plans & Specifications approved for this consent

☐ **Fail** Further requirements: ☐ Documentation ☐ Inspection

Inspector _____ **Auditor** _____

Date of inspection 10/12/08 **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE - BUILDING

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Units 5 & 6

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous comments

SUBFLOOR

- ✓ ✓ Pile/Brace connections
- ✓ ✓ Insulation
- ✓ ✓ Subfloor ventilation
- ✓ ✓ Water ponding under floor
- ✓ ✓ Polythene on ground

EXTERIOR

- ✓ ✓ Construction of decks, bracing, hangers etc
- ✓ ✓ Verandah post connections
- ✓ ✓ Roof cladding type, flashings, nailing
- ✓ ✓ Fireratings

Builder/Sub-Contractor/Owner
Inspector

INTERIOR

- ✓ ✓ Bottom plate fixings
- ✓ ✓ Moisture content (timber) = Lep - 18 %
- ✓ ✓ Insulation/moisture content
- ✓ ✓ Floor nailed off (diaphragm)
- ✓ ✓ Holes and notches in framing
- ✓ ✓ Wall bracing, fixings
- ✓ ✓ Upper floor joists, joist hangers, holes
- ✓ ✓ Safety glass
- ✓ ✓ STC ratings (Design test for multi unit dwellings)
- ✓ ✓ Fire ratings, penetrations
- ✓ ✓ Joinery provides correct lighting, ventilation to each room
- ✓ ✓ Window sash heights above floor
- ✓ ✓ Post/beam connections
- ✓ ✓ Discuss smoke alarm requirements

ROOF

- ✓ ✓ Bracing, dragon ties etc
- ✓ ✓ Roof underlay grade, netting
- ✓ ✓ Roof correct pitch for material used
- ✓ ✓ Correct trusses for roof material used and spacing
- ✓ ✓ Joist hangers and fixings to intersecting trusses onto girder trusses
- ✓ ✓ Z nails connecting trusses to top plates
- ✓ ✓ Truss fixing to design requirements
- ✓ ✓ Ceiling batten sizes, correct spans and nailing (if in place)
- ✓ ✓ Ceiling diaphragms
- ✓ ✓ Purlin Fixings
- ✓ ✓ Vapour barrier for skillion roofs
- ✓ ✓ Insulation to ceiling, correct position

Name of Builder/Sub-Contractor/Owner Completing Check List: CKC Holdings

Signature: [signature] **Date:** 10-6-09

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ☑ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature]

Date of Inspection 10.6.09 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE - BUILDING

BUILDING CHECKLIST

☐ Builder/Sub-Contractor/Owner
☐ Inspector

GENERAL

☐☐ Stair rail openings
☐☐ Configuration of stair/type
☐☐ Width between rails
☐☐ Heights of barriers and ballustrading to landings, decks and stairs
☐☐ Glazing requirements

COMMERCIAL

☐☐ Fire philosophy
☐☐ Compliance Schedule list of features
☐☐ Discuss fire ratings
☐☐ Discuss Compliance Schedule features and request certificates for completion
☐☐ Fire collars/penetrations through fire ratings

☐ Builder/Sub-Contractor/Owner
☐ Inspector

ACCESSIBILITY CHECKLIST

☐☐ Accessible carparks
☐☐ Footpath ramps
☐☐ Entrance
☐☐ Public reception
☐☐ Lifts
☐☐ Stairs
☐☐ Doorways, corridors
☐☐ Controls (Auto Doors etc)
☐☐ Alerting devices
☐☐ Toilets
☐☐ Showers
☐☐ Laundering
☐☐ Food preparation
☐☐ Signage
☐☐ Surface finishes
☐☐ Accessible route

Name of Builder/Sub-Contractor/Owner Completing Check List: _____

Signature: _____ **Date:** _____

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ☐ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** _____

Date of Inspection _____ **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PRELINE PLUMBING

PLUMBING CHECKLIST

NOTE TO PLUMBER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderly ave. units 5 and 6

LOT: _____ **DP/S:** _____ **CONSENT NO:** 2008 /2 1044.

- ✓ Plumber
- ✓ Inspector
- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous comments
- ✓ ✓ Approved type of pipes/identification/standard K2

(complete details of pipe system used)

- ✓ ✓ Support of pipework
- ✓ ✓ Pipes secured to prevent water hammer
- ✓ ✓ Pressure test ☐ 1500 kpa ✓ mains only
- ✓ ✓ Producer statement required ☐ yes ☐ no
- ✓ ✓ Pipes sealed through building wrap.
- ✓ ✓ Sludge and relief drains run via tundish/air gap
- ✓ ✓ Soil and waste pipe work correctly installed:
- ✓ ✓ Pipes are protected from frost damage
- ✓ ✓ Pipes within 100mm of roof to be insulated
- ✓ ✓ Notches and holes in framing as per NZS 3604 Walls Section 8 Figure 8.4 Floors Section 7Figure 7.8
- ✓ ✓ Terminal vent installed
- ✓ ✓ Pipes protected from electrolysis and sharp objects
- ✓ ✓ Pipes correctly sized
- ☐ ☐ Test on Stack System ☐ yes ☐ no
- ✓ ✓ Position of hot water cylinder/infinity system is closest to most frequently used tap (kitchen sink) as per AS3500.4 see 5.3.1 Page 36
- ✓ ✓ Check hot water cylinder if in ceiling and completed ✓ yes ☐ no
- ☐ ☐ Fire hose reel pipe work run in metallic only

- ✓ Plumber
- ✓ Inspector
- ✓ ✓ Plumber
- ✓ ☐ Inspector
- ☐ ☐ Air conditioning condensate drains run to outside(not to outside gully dish)
- ☐ ☐ Back flow philosophy followed
- ☐ ☐ Solar panel installation correct ☐ yes ☐ no
- ☐ ☐ Wetback Installation correct ☐ yes ☐ no
- ☐ ☐ Fire Collars installed where required
- ☐ ☐ Overflows fitted to decks and run to exterior To be same size as outlet
- ☐ ☐ Further Inspection Fee Required ☐ yes ☐ no

Notes: _____

Name of Plumber Completing Check List: Saul Burningham / Craig Woodcock

Name: Waikato Plumbing. **Rego:** 23834 **Signature:** Saul Burningham **Date:** 9/6/09

Comments Memo No: _____ **Notice to Fix No:** _____

Please tick as appropriate

✓ **Pass** – in accordance with the plans & Specifications approved for this consent ☐ **Fail** Further requirements: ☐ Documentation ☐ Inspection

Inspector _____ **Auditor** _____

Date of inspection 9-6-09 **Date** _____

GEON

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

EXTERIOR CLADDING SYSTEMS - BUILDING

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave, Units 5-6

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner	Inspector	
☑	☑	Check you are on correct site
☑	☑	Approved Building Consent documents on site
☑	☑	Check Conditions
☑	☑	Check for previous Comments
		BRICK VENEER
☑	☑	Correct type, position and condition of building wrap
☑	☑	Cavity size 40mm minimum
☑	☑	Number, spacing and location of ties
☑	☑	Connection of brick ties
☑	☑	Cavity cleaned
☑	☑	Brick support on foundation max. 20mm overhang and max. 20mm joint under brick
☑	☑	Weep/ventilation holes
☑	☑	Flashing detail into joinery
☑	☑	Flashing requirements/fixing position
☑	☑	Minimum panel sizes
☑	☑	Maximum height of veneer
☑	☑	Lintel bars, size/type of fixing details
☑	☑	Cavity sealed from roof space
☑	☑	Slope to sills 15° min.
		WEATHERBOARD TYPE SYSTEMS
		Correct type, position and condition of building wrap
		Flashing requirements/fixing/position
		Cladding fixing details
		Details at ground level
		Battens (ventilated cavity)
		Bottom of cladding provides weathering to bottom plates, floor joists and behind decking
		MONOLITHIC TYPE CLADDING
		Correct type, position and condition of building wrap
		Fixing detail of backing
		Sheet joining/flashing detail
		Joinery head/side and sill flashing detail
		Flashing connections to each other
		Slope to parapet/sill detail
		Roof/wall and parapet flashing details
		Detail at ground level
		Requirements for expansion/contraction joint details both horizontal and vertical
		Spacer spacing, fixings etc.
		Battens ventilated cavity

Builder/Sub-Contractor/Owner	Inspector	
		Reinforcement type/fixing etc.
		General workmanship
		Weathering detail for barriers/downpipes/weatherboards and penetrations
		Remind installer about installation certificate
		Internal/external angles
		PREPLASTER - RIGID BACKING
		Fibre cement sheet
		H3 plywood
		H3 diagonal sheeting
		PREPLASTER - NON RIGID BACKING (CAVITY SYSTEM)
		Support
		Allowable deflection of flexible backer (e.g. riblath)
		PREPLASTER - SOLID PLASTER (MESH)
		Mesh type
		Reinforcement around openings
		6–9mm spacers
		Galvanised
		Propriatory self-spacing mesh
		Fixings
		Propriatory control joints
		PREPLASTER - FIBRE CEMENT SHEET
		Timber moisture content (battens)
		Building wrap/sill approved
		BATTENS
		H3 timber or plywood
		H grade polystyrene
		Correct size and placement
		Fixings
		Sheet layout
		Spacing
		ALL MONOLITHIC SYSTEMS
		Certificate on paint system from applicator
		DECKS
		Substrate
		Upstand and step between main floor level
		Drainage for sealed decking
		Membrane
		Barrier Cladding

Name of Builder/Sub-Contractor/Owner Completing Check List: C.K.C Holdings

Signature: [signature] **Date:** 8-6-

Comments Memo No: **Notice to Fix No:**

☐ **Further Inspection Required** ☑ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature]

Date of Inspection 8.6.09 **Auditor** **Date**

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

STRUCTURAL FRAMING

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Units 5 & 6

LOT: 2 DP/S: 28854 CONSENT NO: 21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check for previous comments
- ✓ ✓ Check conditions

SUBFLOOR

- ✓ Bearer/joist sizes
- ✓ Bearer/joist spans
- ✓ Bracing/braced piles/anchor piles
- ✓ Bracing/pile connections
- ✓ Solid blocking to joists
- ✓ Insulation
- ✓ Subfloor ventilation
- ✓ Crawl space
- ✓ Water ponding under floor
- ✓ Polythene on ground
- ✓ Confirm types of pile bearer/floor joist fixing to be used and level of protection required, i.e. galvanised, stainless steel (including nails)
- ✓ Timber treatment
- ✓ Check flooring joint layout

WALL FRAMING

- ✓ ✓ Timber treatment
- ✓ ✓ Framing sizes
- ✓ ✓ Framing height
- ✓ ✓ Bottom plate fixings
- ✓ ✓ Lintel sizes
- ✓ ✓ Top plate for roof support, truss, beams, bracing lines
- ✓ ✓ Nogging for vertical cladding

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Nailing general
- ✓ ✓ Exterior ply bracing
- ✓ ✓ Window sash heights above floor

ROOF

- ✓ ✓ Bracing, dragon ties etc
- ✓ ✓ Roof correct pitch for material used
- ✓ ✓ Correct trusses for roof material used and spacing
- ✓ ✓ Joist hangers and fixings to intersecting trusses and girder trusses
- ✓ ✓ Support of girder trusses
- ✓ ✓ Nails connecting trusses to top plates
- ✓ ✓ Truss fixing to design requirements
- ✓ ✓ Strutting beam and ceiling runner sizes to close coupled roofs
- ✓ ✓ Rafter spans, collar ties, cleats and under purlin sizes to close coupled roofs
- ✓ ✓ Ceiling batten sizes, correct spans and nailing (if in place)
- ✓ ✓ Purlin fixings

OTHER

- ✓ Construction of decks, bracing, hangers etc
- ✓ Verandah post connections
- ✓ Timber treatment
- ✓ Nailing general
- ✓ Barrier framing

Name of Builder/Sub-Contractor/Owner Completing Check List: C.K.C Holdings

Signature: [signature] **Date:** 28-5-09

Comments Memo No: _____ **Notice to Fix No:** _____

Further Inspection Required Yes ☐ No ✓

Approved as in accordance with the plans & specifications approved for this consent ☐

Inspector [signature] **Date of Inspection** 28.5.09

Auditor _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

PREFLOOR BUILDING
BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** ‖ **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Unit 5/6

LOT: 2 DP/S: 28854 CONSENT NO: 2005/21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions
- ✓ ✓ Check for previous Comments

- ✓ ✓ Floor thickenings
- ✓ ✓ Confirm concrete grade 17.5 MPA Standard
- ✓ ✓ Thickness of slab
- ✓ ✓ Location of piles if driven piles
- ✓ ✓ Sand fill compaction and excavation ie. No topsoil underneath
- ✓ ✓ Compaction Certificate to come
- ✓ ✓ Manufacture of steel/mesh
- ✓ ✓ Mesh is correct type and gauge and tied
- ✓ ✓ Mesh is cut if expansion cuts are required
- ✓ ✓ Mesh supported on chairs

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check that polythene is correct thickness, is lapped and taped
- ✓ ✓ Holes and penetrations in polythene are taped
- ✓ ✓ Reinforcing bars to internal corners
- ✓ ✓ Clean bond will be made between floor slab and bond beams or header blocks
- ✓ ✓ Remind builder to seal brick rebate
- ✓ ✓ Emulsion sealer to be used inside header blocks on wet sites
- ✓ ✓ Types and spacing of bottom plate connectors to be used
- ✓ ✓ Floor levels will be sufficient for ground clearance
- ✓ ✓ Engineers design – request letter of supervision
- ✓ ✓ Request truss design

Name of Builder/Sub-Contractor/Owner Completing Check List: Andrew Hansen

Signature: [signature] **Date:** 18/12/06

Comments Memo No: _____ **Notice to Fix No:** _____

☐ **Further Inspection Required** ✓ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature]

Date of Inspection 18/12/06 **Auditor** _____ **Date** _____

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6677

SITING, FOUNDATION AND REPILE INSPECTION

BUILDING CHECKLIST

NOTE TO BUILDERS/SUB CONTRACTOR/OWNER: Please check that you have completed all items as listed and ticked the appropriate boxes before arranging for an inspection. This form needs to be shown to the inspector at the time of inspection.

✓ **Inspected** ✗ **Failed** | **Not Applicable**

PROPERTY ADDRESS: 28 Enderley Ave Units 5/6

LOT: 2 DP/S: 28654 CONSENT NO: 2008/21044

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Check you are on correct site
- ✓ ✓ Approved Building Consent documents on site
- ✓ ✓ Check Conditions

SITING

- ✓ ✓ Locate boundary pegs – where required
- ✓ ✓ Lot number on pegs
- ✓ ✓ Dimensions between pegs
- ✓ ✓ Measure distance from project to boundary conforms to site plan
- ✓ ✓ Dimensions of building
- ✓ ✓ Profile height in relation to floor heights
- ✓ ✓ Building height in relation to boundary
- | | Excavations, safe slopes, hoarding, shoring, underpinning and barriers for site safety. (Plans for retaining walls)
- | ✓ Council or private drains under building
- ✓ ✓ Siting by surveyor – to provide letter

DESIGN

- | ✓ Engineers designed foundation
- ✓ ✓ Request engineers letter of supervision
- ✓ ✓ Foundation to NZS 3604

Mainsel

DRIVEN PILES

- | | Request engineers confirmation of supervision and report on length of piles and sets achieved

PILES/DRILLED FOUNDATIONS

- | | Height of profile in relation to top of piles
- | | Correct size and treatment of piles

Builder/Sub-Contractor/Owner
Inspector

- ✓ ✓ Pile spacing for bearers/joists
- | | Floor heights conform to bracing elements provided
- | | Height for 450mm crawl space
- | | Layout of subfloor bracing
- | | Pile heights correct for type of bracing element i.e. anchor or braced pile
- | | Pile depths into cleared ground
- | | 100kpa or greater bearing capacity (including pre-floor excavation)
- | | Holes clean and sides vertical
- | | Confirm types of pile bearer/floor joist fixing to be used and level of protection required, i.e. galvanized/stainless steel (including nails)

CONCRETE FOUNDATIONS

- ✓ ✓ Foundation dimensions and minimum 300mm depth into cleared ground
- ✓ ✓ Foundation clean, square, level and no water in excavations
- ✓ ✓ 100kpa soil bearing capacity
- ✓ ✓ Discuss floor height to proposed finished ground levels as per NZS 3604
- ✓ ✓ Manufacture of steel
- ✓ ✓ Steel sizes
- ✓ ✓ Correct type, i.e. high tensile or deformed etc
- ✓ ✓ Steel laps
- ✓ ✓ All steel has been tied up
- ✓ ✓ Steel is clean
- ✓ ✓ Cover and height pegs
- | | Fire wall. Foundation and reinforcement

Name of Builder/Sub-Contractor/Owner Completing Check List: Andrew Hansen

Signature: [signature] **Date:** 18/12/08

Comments Memo No: **Notice to Fix No:**

☐ **Further Inspection Required** ✓ **Approved as in accordance with the plans & specifications approved for this consent** **Inspector** [signature]

Date of Inspection 18-12-08 **Auditor** **Date**

Hamilton City Council
Te kaunihera o Kirikiriroa
PH: (07) 838 6444

PREFLOOR PLUMBING AND DRAINAGE

BUILDING CHECKLIST

PROPERTY ADDRESS: 28 enderby ave. Unit 5 & 6.

LOT: 2 DP/S: 28854 CONSENT NO: 2008/21044

- [x] Approved Building Consent documents on site
- [x] Obtain plumbers and drainlayers names
- [x] Identify what system to be used G13 or AS3500
- [x] Plans for position of fixtures and stormwater/sewer connections
- [x] Fixture discharge pipe sizes
- [ ] Number of fixtures, ensure same number of waste pipes exit foundation
- [ ] Combined wastes, each fixture must be vented
- [x] Shower waste must be separate
- [ ] Fall on all discharge pipes 1:40 (25mm/m) for pipe diameter less than or equal to 65mm min.
- [ ] Length of all discharge pipes. An unvented waste pipe cannot exceed 3.5m
- [x] Waste pipes protected where penetrating through floor slab
- [x] Waste pipes are separated at foundation exit point to allow for bends

- [x] No water pipes are laid under concrete slab
- [x] If a water heater drain pipe is fitted ensure it has fall
- [x] Pipe protection from concrete
- [x] Drain vents may be in the floor slab
- [ ] Main or branch drain longer than 10m to be vented for AS3500
- [ ] Main or branch drain longer than 6m for G13
- [ ] Vent pipe down stream from last fixture connection
- [ ] Only one gully upstream of vent
- [x] Minimum vent diameter 50mm for AS3500
- [ ] Minimum vent diameter 80mm for G13
- [ ] 80mm W/C pipe maximum length 2.5m unvented
- [ ] Check for 1 gully 150mm lower than floor

COMMENTS:

- [ ] **Further Inspection Required**
- [x] **Approved**

Date 17/12/08.

Inspector [signature]

Checked

- [x] **Inspected**
- [X] **Failed**
- [ ] **Not Applicable**

Building Consent No: 2008/21044

Section 51, Building Act 2004

Issued by Hamilton City Council

Date: 10.11.2008

The building:
Street address of building: 28 Enderley Avenue HAMILTON 2001
Legal description of land where building is located: Lot 2 DP S28854

The owner
Name of owner: CKC Holdings Ltd
Mailing Address: C/O Keith Clapson
P O Box 904
HAMILTON 3240

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

Hamilton City Council
Municipal offices
Garden Place
Private Bag 3010
Hamilton 2001

Phone 07 838 6677
Fax 07 838 6684

Building work
The following building work is authorised by this building consent:

Application Description:	6 New Townhouses attached Garages
Intended Use:	Detached Dwelling - Live As A Family
Work Type:	New Construction
Intended Life:	>50 years
Value of Work:	$600000

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.

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

Compliance schedule
A compliance schedule is not required for the building.

As per attached.

Attachments
Copies of the following documents are attached to this building consent:
Project information memorandum number 2008/21044

Signed for and on behalf of the Hamilton City Council:

Name: 10/11/08

Position: Authorised Officer

Building Control Unit

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

10 November 2008

McPherson Goodwin Surveyors Ltd
7 Hardley Street
HAMILTON 2001

Dear Sir/Madam

Consent Number: 2008/21044
Project: 6 New Townhouses attached Garages
Project Address: 28 Enderley Avenue HAMILTON 2001
Legal Description: Lot 2 DP S28854

Thank you for the application for building consent. We are pleased to advise that this consent has been processed and is now ready for collection.

Your next steps are:

1. If this consent has not been pre-paid, please come in, pay for, and pickup your copy of the plans.

2. Please ensure that your approved documentation is kept on the building site for the building inspector to view.

3. This Building Consent is issued subject to the advisory notes outlined on page 2. In particular please note the requirements for inspections. The phone number to arrange inspections is 838 6677 available from 8:00 am to 11:00 pm. Please quote your consent number when making the booking.

4. Your final step after the completion of the project, is to apply for the issue of a Code Compliance Certificate.

Good luck with your building project and we look forward to our staff assisting you with this and any future building work.

Regards

Kim Southcombe
Council Building
Garden Place, Hamilton
Phone: 07 838 6677
Fax: 07 838 6684
Email: kim.southcombe@hcc.govt.nz

These are your Building Consent Advisory Notes.
Please read these carefully

Building

(1) Please quote building consent number when requesting an inspection.

(2) A foundation/siting inspection required. Please provide 48 hours notice

(3) A bond beam inspection required. Please provide 24 hours notice.

(4) A pre-concrete floor inspection required. Please provide 24 hours notice.

(5) A pre-lining inspection required. Please provide 24 hours notice.

(6) Completion inspection required prior to issue of final code compliance.

(7) A cladding inspection is required. Please provide 24 hours notice.

(8) A post lining inspection is required. Please provide 24 hours notice and ensure that all sheet braces are nailed off and no skirtings or cornice are fitted.

(9) Smoke alarms shall be located on the escape routes on all levels within the household unit. On levels containing the sleeping spaces, the smoke alarms shall be located either:
a) In every sleeping space, or
b) Within 3.0m of every sleeping space door. In this case the smoke alarms must be audible to sleeping occupants on the other side of the closed doors.
Smoke alarms shall comply with at least one of the following standards:
UL 217, ULC S531, AS 3786, BS 5446 Part 1, and be fitted with a hush button.

(10) A structural framing inspection is required. Please provide 24 hours notice and ensure that:
- all sub floor bracing/connections are complete,
- all wall and roof framing, including all bracing and connections, are completed
- no wall or roof claddings are filled.

(11) A cavity/batten inspection is required. Please provide 24 hours notice and ensure that:
- all battens are as per cladding manufactures specification and;
- that no claddings are fitted.

(12) Truss layout plan to be made available to building inspector at pre-floor stage, and also show lintel and floor loading points.

(13) Please supply electrical certificate of compliance for the electrical fire safety features. This is required prior to the issue of the Code Compliance Certificate.

(14) Inspection of foul water drains required. Please give 24 hours notice. Please note: If new internal drainage runs to existing connection, depth of connection must be confirmed before drainage is laid. If new connection has been requested, no internal drainage shall be laid until new connection has been installed.

(15) Inspection of stormwater drains required. Please provide 24 hours notice.

(16) Preline inspection of Plumbing Installation required. Please provide 24 hours notice.

(17) Prefloor inspection of Plumbing and Soil Waste system required. Please provide 24 hours notice.

(18) All under floor drainage systems serving 2 or more sanitary fixtures must be:
a) Plugged and filled with water to test and;
b) Left completely exposed until approved by inspector.

(19) Crossing to be constructed to a minimum residential crossing specification.

(20) Please call for inspection of prepared base for crossing. Please give 24 hours notice.

(21) Please note that the final inspection for a crossing will be carried out at Code Compliance Certificate time or when requested.

(22)

Water and Drainage

nil

Please refer to PIM 2008/21044 issued for this development for any addition requirements that may effect this development.

Roads and Traffic

nil

Please refer to PIM 2008/21044 issued for this development for any addition requirements that may effect this development.

Health

nil

Please refer to PIM 2008/21044 issued for this development for any addition requirements that may effect this development.

Important Notes:

1. **The Project Information Memorandum lapses if a building Consent for the work concerned has not been issued within 24 months after the date of the issue of the Project information Memorandum.**

2. **Please be aware that the consent has a lifespan of two years, and you need to apply for a Code of Compliance Certificate before this date. You will be notified before this time to remind you of the expiry date, and you may be able to extend this frame by agreement with HCC.**

3. Please check with your local Network Utilities Operator as to where your services are located, i.e. Telecom, Wel Energy and Gas.

4. To avoid unreasonable noise affecting neighboring properties it is requested that noisy construction activities that would cause sleep disturbance not be undertaken until after 07:30am, and not at all on Sundays and public holidays.

5. Berm Protection

   Kerb and channel, footpaths and grassed areas must be protected whilst work is undertaken on the site. You may be charged for any damage that is done to the berm in front of your property, or any berm that is damanged by you or your contractors accessing your site.

   Where catchpits or berm pits are located within 1m of the temporary crossing point, the consent holder is responsible for ensuring that the grate is kept clear at all times.

5. Silt Control

   Where stormwater runoff from the site is flowing to the road kerb and channel, or to an adjacent waterway, the consent holder is required to provide adequate silt control measures. Where material from the site is found to be causing a hazard on a road, the consent holder is required to remove the material as soon as possible. If this is not undertaken, Council will undertake to clear the hazard, the cost of which will be sought from the Consent holder.

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

10 November 2008

McPherson Goodwin Surveyors Ltd
7 Hardley Street
HAMILTON 2001

Dear Sir/Madam

Consent Number: 2008/21044
Project: 6 New Townhouses attached Garages
Project Address: 28 Enderley Avenue HAMILTON 2001
Legal Description: Lot 2 DP S28854

Thank you for the application for Project Information Memorandum. We are pleased to advise that this consent has been processed and is included in this letter.

Your next steps are:

1. PIM only:
   -Read carefully the Project Information Memorandum comments on page 2 of this letter. This information may be important to you during the construction process.
   - When you have completed the design and have all the documentation, please lodge your consent application with us. If you have carefully followed this PIM, then this should make the consent application process a lot quicker and easier for you.

2. PIM/Consent application:
   -Read carefully the Project Information Memorandum comments on page 2 of this letter. This information may be important to you during the construction process.

Good luck with your building project and we look forward to our staff assisting you with the consent and any future building work.

Yours faithfully

Kim Southcombe
Council Building
Garden Place, Hamilton
Phone: 838 6677
Email: kim.southcombe@hcc.govt.nz

Creation date 10/11/2008 8:41:00 AM
Save date 10/11/2008 8:41:00 AM

This is your Project Information Memorandum

This describes (if relevant) any special features of the land, Information of other Acts relating to the land or buildings, Details of waste and storm water systems and confirmation that the works will comply with the Building Act subject to the requirements of the building consent.

Planning

1. (1) The Conditions of Resource Consent 10/2008/19400-38/1/4211 apply to this project. Note that the correct site layout is the approved resource consent plan received 8 August 2008.
2. Please ensure that the conditions are complied with as the work progresses on the site and the apartments are established.

Building

(1) Please ensure boundary pegs and boundary lines are clearly defined to check siting of building.

(2) Wind zone is rated as low.

(3) The Earthquake Zone for your area is designated as B.

(4) Any damage to the Council footpath or berm area outside your property resulting from construction works, will be charged to the person responsible or the property owner if not repaired.

Electricity Transmission Lines and Towers

Please be aware that if your property is built under or adjacent to high-voltage electricity lines, or transmission towers/pylons, you are required to ensure that the proposed building complies with the clearances prescribed in the New Zealand Electrical Code of Practice for Electrical Safety Devices (NZECP34:2001).

It is the responsibility of the property owner to ensure compliance with NZCEP34:2001 and if necessary to contact the line owner to determine whether the proposed building will comply, prior to commencing any site activity or construction.

Please check with your Local Network Utilities Operator as to where your services are located, ie Telecom, WEL Energy and the Gas Centre.

Project Information Memorandum
No: 8.2008.21044.1

Section 34, Building Act 2004
Issued by the Hamilton City Council

Date:	10 November 2008
Applicant:	CKC Holdings Ltd
Mailing Address:	C/O Keith Clapson P O Box 904 HAMILTON 3240
Application Lodged:	07/07/2008
Project	
Application Description:	6 New Townhouses attached Garages
Stage:	
Intended Use:	Detached Dwelling - Live As A Family
Work Type:	New Construction
Intended Life:	>50 years
Value of Work:	$600000
Property	
Address:	28 Enderley Avenue HAMILTON 2001
Property Reference	Lot 2 DP S28854

This is:
Confirmation that the proposed building work may be undertaken, subject to the provisions of the Building Act 2004 and any requirements of the building consent.

( ) Not yet applied for.
( ) No.:8.**2008.21044.1** attached.
( ) Not yet issued.

Creation date 10/11/2008 8:41:00 AM
Save date 10/11/2008 8:41:00 AM

BCU5-03
Version 1
20/03/07

Building

This Project Information Memorandum includes the following information:

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

- ☐ (a) Information likely to be relevant to the proposed building work that identifies
  - (i) the heritage status of the building (if any); and
  - (ii) each special feature of the land concerned (if any); and

- ☐ (b) Information likely to be relevant to the proposed building work that, in terms of any other Act, has been notified to the territorial authority by a statutory authority; and

- ☐ (c) Details of any existing stormwater or wastewater utility systems that
  - (i) relate to the proposed building work; or
  - (ii) are on, or adjacent to, the site of the proposed building work; and

- ☐ (d) details of any authorisation in respect of the proposed building work that the territorial authority, on its own behalf and on behalf of any network utility operator (if the territorial authority is acting as agent for a network utility operator by prior agreement with the network utility operator), is authorised to refuse or require under any Act, except this Act, and, in respect of each authorisation,
  - (i) a statement of the requirements to be met in order for the authorisation to be granted or imposed; and
  - (ii) the conditions to which an authorisation will be subject; and

- ☐ (e) if the territorial authority considers that the owner of the building or proposed building to which the project information memorandum relates is likely to be required, under section 21A of the Fire Service Act 1975, to make provision for a scheme that provides for evacuation from the scene of a fire, a statement to that effect; and

- ☐ (f) if the territorial authority considers that notification to the New Zealand Historic Places Trust is likely to be required under section39, a statement to that effect; and

- ☐ (g) either
  - (i) confirmation, subject to this Act, that building work may be carried out subject to the requirements of a building consent and subject also to all other necessary authorisations being obtained; or
  - (ii) notification that building work may not be carried out because any necessary authorisation has been refused, despite the issue of any building consent; and
- (h) if section 75 applies, the statement referred to in section 75(2).

Signed for and on behalf of the Hamilton City Council:

Name: 10/11/08

Position: Authorised Officer
Building Control Unit

Creation date 10/11/2008 8:41:00 AM
Save date 10/11/2008 8:41:00 AM

Building

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Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

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September 16, 2008

Mc Pherson Goodwin Surveyors
7 Hardley Street
Hamilton

Attn Keith Clapson

Dear Keith

RE; PARTIAL RELEASE OF 2008/21044 28 ENDERLEY AVENUE

Please take this letter as approval to remove the existing dwelling off 28 Enderley Avenue. All service disconnections associated are to be taken care of within the consent proper and carried out once the complete Building Consent is issued.

Yours sincerely

Kim Southcombe
Building Inspector

22 July 2008

McPherson Goodwin Surveyors Ltd
7 Hardley Street
HAMILTON 2001

Dear Sir/Madam

Consent Number: 2008/21044
Project: 6 New Townhouses attached Garages
Project Address: 28 Enderley Avenue HAMILTON 2001
Legal Description: Lot 2 DP S28854

FURTHER INFORMATION

Thank you for the application for a building consent. Before we can approve this application, we need you to supply us with the following information:

(1) We are waiting on completion of the Resource Consent before we can sign off the Building Consent for this proposal.

Notes:

1. Please provide **2 copies of all the information** requested within 20 working days so that we can continue to process this consent. If this information has not been received by then, we may cancel your consent.

2. Please ensure that you bring a copy of this letter with you so that our front counter can tick off the information has been provided. Please ensure that changes to plans are clearly noted on the drawing title block with clouded on the plans. We reserve the right to refuse to take information from you, if only part of it has been supplied.

3. Please contact the relevant officer(s) if you require any additional information and to advise of likely time frames. Please note that the clock has stopped and will not be started again until the information has been lodged in our system.

Regards

Kim Southcombe
Council Building
Garden Place, Hamilton
Phone: 07 838 6677
email: kim.southcombe@hcc.govt.nz

Domestic Dwelling
Lodgment Checklist

Hamilton City Council
Te kaunihera o Kirikiriroa

KEY:
P = provided
F = further information required
NA = Not Applicable

28 ENDELLEY.

Date: 04/07/08	Officer: DAWN

Specifications	Cust	HCC
Has a comprehensive, job specific specification been provided? These must be relevant to the job and not contain information about products and materials not used on the project.		✓
Ground Works / Siting / Site Preparation		
Does the site plan demonstrate distances to boundaries & other buildings on the site? Are contours shown? *Rec min. of 4 dimensions be provided.*		✓
Are the boundary distances in relation to spread of fire correct? *Consider 1 metre to property boundaries (excluding road) requires fire rating. Has this been considered, details provided?*		✓
Is the Wind zone correct? (Refer Risk matrix / bracing calcs to check)		✓
Will proposed excavations affect or impact on other buildings / properties? *Consider easements, gradients, & provisions required to retain surcharge.*		NA
Is there a proposed vehicle crossing? SUBJECT TO SUBDIV (LOADING ZONE LOCATION)		NA
Are floor levels & datum provided? *Request these if they are not provided.*		✓
Sanitary Drainage		
Is the sizing and gradient of drainage pipes shown?		✓
Does the system incorporate access points, chambers, rodding points & inspection points as appropriate?		✓
Sanitary Plumbing (*NZBC G13*)		
Has an isometric plan been provided for dwellings of 2 or more storey's?		NA
Is waste pipe size / length, gradient & venting shown?		
Storm water Drainage		
Are drain invert levels provided?		✓
Are drain sizes, alignment & gradient shown?		✓
WWS dept		
Are new connections required? WWS connection form been completed? Has the applicant signed the form?		NA
Is CCTV required? Has it been booked? ALREADY DONE @ SUBDIVISION		✓
Footing/Foundation		
Soil report provided?		✓
Does any aspect of the footing / foundation design require checking by a structural engineer? E.g. building near council pipes, poor soils, etc. Producer statement for design		NA
Are masonry block work details provided?		NA

Do foundations require tanking? *Areas where block work is retaining soils. Tanking product must be specified, and have 15 year warranty and testing*		
Piles		
Are pile footings size, connection details, grading and treatment provided? *Anchor - 900 x 350 x 350 Brace - 450 x 350 x 350Driven - Obtain specification (NZS 3604 or SED)* *Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades'*		
Bearers		
Are bearer spans, grade, spacing, fixings & treatment specified?		
Floor Joists		
Are joist grade, treatment, size, span, spacing, fixings & blocking provided? *Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades' & call size, now 'Actual Minimum Dried Size'*		
Stringers		
Do stringer size, grade, treatment & fixing comply with floor load & durability demands? *Refer NZS3604, Section 6, Table 6.7 or 14.7 (for 3 kPa loading)*		
Flooring		
Is flooring thickness & type detailed – timber floors and mid floors *Ref. Tables 7.4 & 14.9*		
Sub floor spaces		
Is sub floor ventilation provided? *If not specified request details* *NZS3604 clause 6.14.1*		
Is sub floor insulation detailed?		
Concrete floor		
Is floor height above finished ground level detailed? *NZS 3604, Section 7, Fig 7.10.*		✓
Is hard fill type and depth detailed?		✓
Is DPM / DPC detailed?		✓
Wall Framing		
Are stud height, grade, size, spacing, & treatment shown? *NZS3604 table 8.2Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades' & call size, now 'Actual Minimum Dried Size'*		✓
Do top & bottom plate grade, size, & treatment comply? *Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades' & call size, now 'Actual Minimum Dried Size'*		✓
Bracing		
Are wall bracing elements & fixings shown?		✓
Are wall bracing elements clear of showers?		✓
Are bracing calculations provided? Does the wind zone match?		✓
Lintels & Sills		
Is lintel and sill span, size, grade, treatment shown? *Ref. NZS 3604 Table 8.8 - 8.15*		✓
Roofing		
Is the truss plan provided? Manufacturers statement?		✓
Is the timber grade and treatment for all roofing timbers specified? (Shown for trusses, purlins, beams, rafters etc)		✓
Are roof fixing details specified?		✓
Are specialist beams used? (Hyjoists, lvl, pryda, steel beams etc) have the sizing tables or engineering been provided?		N/A
Roof Cladding		

Has the roof cladding been identified		✓
Has the roof pitch been shown? *Refer E2, Section 8.2, cl 8.2.3 & Table 10.*		✓
If metal profile roof, has the profile been shown (corrugated, trapezoidal, trough section)		NA
Have details & flashings been provided for the hips, ridges, valleys, aprons & barges? *Refer E2, 8.2, cl 8.2.6 & fig 23-28. Are there relevant stop ends, turn downs etc? E2 8.4 fig 41-49*		✓
Have roof penetration details been provided? *Refer E2, Section 8, cl 8.1.7 'Roof penetrations'*		NA
Membrane Roofs		
Has the membrane been specified?		NA
Has the substrate grade, thickness & treatment been specified?		NA
Exterior Cladding		
Does the cladding require a drainage cavity system? Has a risk matrix from NZBC E2 been supplied? *Refer to NZBC E2 Risk matrix.*		1
Is the proposed design within the limitations of E2? *Refer E2, 9.7.1 & 9.7.1.1.*		1
Are full flashing details provided for window & door openings and penetrations *Refer E2, Refer E2, 9.1.10, 9.1.10.1-9.1.10.7 & figures 115 & 116, or manufacturers specifications.*		✓
Cladding materials are clearly identified on plans?		✓
Internal and external corner details are provided?		NA
Junctions between differing claddings are detailed?		F
Have manufacturers installation/fixing details been supplied? Remind customer only relevant details are required, and that microfilming per page will add up.		NA
Has the wrap/air barrier been specified for walls?		F
Have parapets/enclosed deck barrier junctions/flashings been detailed? Refer to E2 section 6.0, fig 9 - 13		NA
Have appropriate wall/soffit junctions been detailed?		✓
Is brick cavity size shown?		✓
All plaster/coating systems are a complete and approved system (tested by an approved testing body)? Letter of intent from applicator?		NA
Enclosed decks		
Is the timber treatment, grade, size span & spacing specified for the deck framing?		
Is the timber substrate?		
Have details for storm water drainage & overflow relief been provided?		
Is the membrane specified butyl Rubber or EPDM? Approved product? Warranty? *If not then it is an alternative solution*		
Have falls been specified to the deck area & tops of the barriers?		
Decks / Balconies / Barriers		
Are fixings shown? (Durability shown? Stainless or galvanized?)		
Deck features detailed? (Top rails, balusters, bottom rails)		
Has deck timber treatment, grading, sizing etc been shown?		
Deck connection to house detailed, showing appropriate step down from internal floor?		
Kitchen		
Has a floor waste gully been detailed if this is a multi unit dwelling?		

Is facility provided for washing utensils / food & wastewater disposal, cooking?		✓
Laundry		
Have facilities with a laundry tub or space & connections for a washing machine been provided? *G2/AS1,cl 1.0.1 Laundering facilities shall be provided with: a) A laundry tub, or b) Space and service connections for a washing machine.*		✓
Wet areas / WCs		
If the wet area has a timber floor, is the flooring treatment shown? VINYL. *In wet areas where maintenance of an impervious coating cannot be assured plywood or timber flooring that has been treated to a min. of H3.1 shall be used (ref. NZS 3602: 2003 sec. 10.3.1)*		N
Has the shower type been specified (tiled or proprietary cubicle) ADDED BY CUST *If tiled shower, have details been provided for the tiling substrate and waterproofing membrane.*		✓
If shower is level access is proposed, has non-slip flooring been specified? *Refer D1, Table 2.*		|
If level access or tiled shower is proposed, have falls been shown to drain?		|
Has a complying waterproofing membrane been specified?		|
Ventilation		
Are openings providing natural ventilation shown? (E.g. are windows shown as opening)		✓
Is mechanical ventilation shown? (Used in bathrooms / laundries where no natural ventilation provided)		✓
Insulation		
Is floor, wall and ceiling insulation shown?		✓
Glazing		
Has safety glass been detailed in wet areas, and other areas subject to human impact requirements?		NA
Do habitable rooms have natural light?		✓
Stairs / Landings / Handrails		
Are handrails specified & detailed?		NA
Are the stair tread & rise detailed?		
C2 - Means of Escape from Fire		
Are domestic smoke alarms correctly specified and correctly located? *(Refer NZBC F7)*		✓

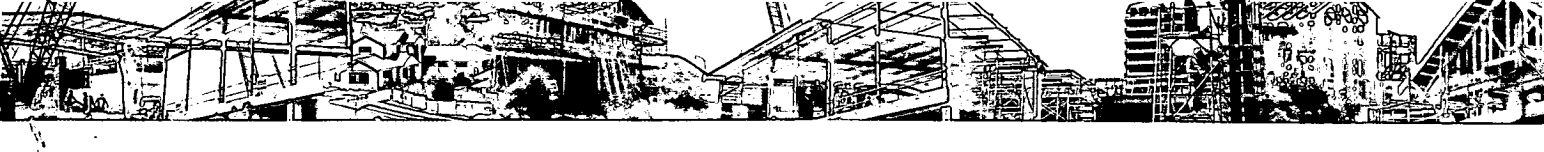
OFFICE ONLY

☐ I have NOT accepted this application for lodgment because the required documentation is INCOMPLETE

Checked by HCC..... ☐ Date 4/7/08

☐ I have accepted this application for lodgment because the required documentation is complete

Checked by HCC..... ☐ Date 4/7/08



Building Unit: Dwelling Checklist

We strongly advise you talk to Planning Guidance about your project, **before** you lodge your building consent, or visit them at our offices. To assist you in filling this out, please read the attached Guidance Notes. These help explain what each item means.

Compulsory Items to be provided:		**Yes**
1.	Two copies of Certificate of Title	☑
2.	Two copies of a Site Plan	☑
3.	**Three copies of Floor plans**	☑
4	Two copies of elevations	☑
5.	Two copies of cross sections	☑
6.	Two copies of foundation details	☑
7.	Two copies of a soil Test	☑
8.	Two copies of a drainage plan	☑
9.	Two copies of a truss/rafter plan	☑
10.	Two copies of specific construction details	☑
11.	Two copies of a specification	☑
12.	Two copies of bracing calculations	☑
13.	A deposit cheque	☐

The following may be required. If unsure, please ask our front counter staff or Technical Officer		**Yes**	**No**
14.	Two copies of mid floor layouts	☐	☑
15.	Two copies of cladding risk matrix	☐	☑
16.	Two copies of engineers details	☐	☑
17.	Pre –Application meeting booked –phone 838 6677 to arrange this	☑	☐
18.	Crossing details. **Existing damage area.....m2**	☑	☐
19.	Connection details	☑	☐

Signed by applicant: ..... **Date** 04/07/08

OFFICE ONLY

☑ I have NOT accepted this application for lodgment because the required documentation is INCOMPLETE

Checked by HCC..... ☐ **Date** 4/7/08

☑ I have accepted this application for lodgment because the required documentation is complete

Checked by HCC..... ☐ **Date** 4/7/08

Fee category	**Dwelling,** ☐	**Minor,** ☐	**Garage/minor,** ☐	**Outbig,** ☐	**Alts/adds,** ☐

Guidance notes

Planning Guidance notes

It is important to talk to Planning Guidance staff at your earliest convenience. Your project will need to comply with the District Plan and Resource Management Act 1991. If you need a Resource Consent, or need to get neighbours consent, for example, you should organise these before you lodge your Building Consent. Please phone 07 838 6800 to arrange a Planning appointment.

Building Guidance notes

Plans

Please supply two sets of plans. These must be of a clear and professional standard. You should contact a design professional to assist you with this.

- Acceptable scales: 1:200, 1:100, 1:50, 1:10

1. **Certificate of Title.** This is an important document that identifies which piece of land the project is to be built on and **must** be supplied with all applications. This can be obtained from Land Information New Zealand; corner Victoria and Rostrevor Streets, Hamilton.

2. **Site Plan** - You need to show:
   - From building line to boundary
   - All new and existing buildings on site
   - Dimensions:
     - -New building roof gutter to boundary
     - -Between new and existing buildings
   - Existing and proposed drainage on site
   - Reduced levels from the corners of the section
   - Building restriction lines and the top of gully (where applicable)
   - Vehicle crossing with dimensions

3. **Floor Plan** - You will need to show:
   - Floor layout (existing and proposed) of each room including dimensions
   - Provide overall floor area including roof overhang
   - Window dimensions
   - Lintel & beam sizes
   - Show fittings and fixtures such as kitchen and bathrooms

4. **Elevations** - You will need to show:
   - An elevation of each external wall
   - Heights from each corner to finished ground
   - Land contours for the site, proposed and existing
   - Specify claddings being used

5. **Cross sections** - You will need to show:
   - Foundations
   - Walls
   - Truss/rafters
   - Insulation
   - Heights from ground

6. Foundation details - Please **detail:**
   - Pile layout including bearers, joists bracing and anchor pile layout
   - For concrete floors:
     - -Concrete floor plan showing location of corner bars
     - -cross section plan showing width, depth, reinforcing, underlay and hard fill locations
     - -Plan view showing thickening locations and corner bars
   - Foundation walls:
     - -cross section plan and footing showing width, depth, reinforcing and brick veneer layout (where applicable)

7. **Soil Test**
   A copy of the sub-divisional soil test, with a test on your site, or a specific on site soil test will be required from a structural soils engineer.

8. **Drainage plans** - On the site plan show:
   - Waste & Water Services application form to be filled out only if new connections are required
   - The location of the sewer and storm water drains, where they connect to the Council mains, soak holes

- Where a water connection has not been provided, please show the preferred size and location on site plan

Please provide a separate plan of:

- A drainage longitudinal design showing the gradient of the drain detailing pipe sizes, venting etc
- On two story plumbing please provide an isometric drainage design detailing pipe sizes, venting etc

9. **Truss/rafter plan** - A plan of the trusses/rafters showing:
   - The location of and types of trusses/rafters. **Note: a truss plan must be supplied by a truss manufacturer, supplying truss, framing and load bearing information**
   - Load bearing points
   - Roof bracing
   - As an alternative, a letter of intent to design and supply trusses, point loadings and floor loadings will be accepted as an alternative

10. **Specific Construction Details** - Please provide the following specific details where appropriate
    - Flashing details between roofs and walls
    - Flashing and weathering details between upper floor decks and floors
    - Fixings for ballustrading to decks
    - Flashing details between claddings and joinery
    - Ground heights to floor
    - Lintels designs supporting point loads
    - Post/beam fixings
    - Foundation details such as reinforcing size and location

11. **Specification** - A specification must be provided to:
    - Cover any building elements not included in the building plans
    - Summarise all trades and compliance with acceptable standards
    - The specification **must** be specific to the project

12. **Bracing Calculations** - Please supply the following:
    - Calculations for wall bracing and sub floor bracing
    - A floor plan showing the location of the braces

13. **Mid floor framing layout** - Provide a plan that shows all joist and beam locations, any point loads and blocking

14. **Fees:** A deposit will be required as part of the application for consent. Please check our fees and charges booklet to see what your deposit is. Payment options are cash, cheque or Eftpos.

15. **Cladding Risk Matrix** - Please supply the following:
    - A risk calculation for each face of the building

16. **Engineers Details** - Please supply the following:
    - Engineers calculations
    - A producer statement from the engineer (called a PS1)
    - Engineers plans for their design, or alternatively, the engineer to sign the architects plans where their designs are drawn

17. **Pre-application Meeting** - Please book this meeting by either phoning 07 838 6677, or arranging with our Building Unit Administration Officer at the Front Counter.

18. **Crossing details/Connection details** - Do you wish to construct a new/alter an existing crossing?
    - Residential 3.0m minimum, 5.5m maximum.
    - Commercial 5.0m minimum, 7.5m maximum
    - Please detail width and location of new/altered crossing on plan detailing pipe sizes, venting etc
    - Is there existing damage? If so please advise the approximate square area of damage on the front of the form.

19. **Connection details** -Is there a new or altered connection required to Councils sewer, storm water or water services. If so, please fill out form
"WWS –CS –Connection" form. Our front counter staff have a copy of this if you need it.

For Building Enquiries please contact the Hamilton City Council Building Unit Ph: 07 838 6677,
Web site: http://www.buildhamilton.co.nz

Building Consent Application

Pre-Lodgement Memo

Project No.: _____

Project Address: 28 ENDERLEY

Applicant's Name: CKC

Deposit Required: $QUOTED BY AA
To be paid at Pre-Lodgement

Drop Off: ☑

Another meeting required: ☐

Building review officer (print name): DAWN

Date: 4/7/08

Issues to Address:

1/ BUILDING WRAP TYPE

2/ JUNCTIONS BETWEEN DIFFERING CLADDING.

Please continue on another sheet if necessary

Data base checked ☐ WWS drainage logs attached ☐ CCTV ☐

Notes:

1. This may not be a full and final request for information.
2. A copy of this memo and two copies of all documentation must be returned with the application.
3. If requested please book another pre-lodgement meeting (Ph 838 6677) when you have collated all the information requested.

PLANNING GUIDANCE UNIT PIM/BUILDING CONSENT CHECKSHEET

PG M10
Version July 2007

PIM/BUILDING CONSENT NUMBER: 21044

RESOURCE CONSENT REQUIRED: NO ☐ YES ☑

Resource Consent in progress ☑ Planner Andrew File Number : 10/2008/19400 - 38/1/4211 →	APPROVED ☑ File Number :

DEVELOPMENT CONTRIBUTIONS NOT REQUIRED ☐

DEVELOPMENT CONTRIBUTIONS REQUIRED YES ☑

• Entered into DC BC Invoicing database (F drive)	☑
• DC advice letter sent to owner	☑
• Copies of letter, calculation sheet, and map saved to Attachment folder in DC BC Invoicing database (F drive)	☑

Comments
as per resource consent estimate letter

RESERVE CONTRIBUTION: NO ☐ YES ☐ Condition No.....of Consent.....

**To be paid at time of building consent issue, and to be included in the BUILDING CONSENT FEES LIST AND ENTERED INTO AUTHORITY IN THE BUILDING CONSENT Amount

$_____ Inc GST

APPLICANT CONTACT: N/A ☐ YES ☐ ☑ Phone ☐ Fax ☐ Email

Unsuccessful Attempt Made ☐

NOTES

WITHHOLD BUILDING CONSENT

Comments: Resource Consent in progress

Planner: [signature] Date: 8/7/08

Attention Building Review Officer --
Please do not release any building consent for this work until the above issues have been resolved.

RELEASE BUILDING CONSENT/PIM

Comments: Conditions of resource consent 10/2008/19400 apply

Planner: [signature] Date: 7/11/08

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Historical Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**SA26C/1158**
Land Registration District	**South Auckland**
Date Issued	29 January 1981

Prior References
SA474/102

Estate	Fee Simple
Area	1271 square metres more or less
Legal Description	Lot 2 Deposited Plan South Auckland 28854

Original Proprietors
Grant Leigh Jenkins and Therese Marie Jenkins

Interests

B117255.2 Mortgage to Post Office Bank Limited - 10.12.1992 at 9.15 am
5837996.1 Discharge of Mortgage B117255.2 - 15.12.2003 at 9:00 am
5837996.2 Transfer to Grant Leigh Jenkins, Therese Marie Jenkins and Bruce John Sparrow - 15.12.2003 at 9:00 am
5917658.1 Mortgage to ASB Bank Limited - 3.3.2004 at 9:00 am
6240425.1 Discharge of Mortgage 5917658.1 - 6.12.2004 at 9:00 am
6240425.2 Transfer to North Ridge Homes Limited - 6.12.2004 at 9:00 am
6240425.3 Mortgage to ASB Bank Limited - 6.12.2004 at 9:00 am
6388510.1 Discharge of Mortgage 6240425.3 - 19.4.2005 at 9:00 am
6388510.2 Transfer to CKC Holdings Limited - 19.4.2005 at 9:00 am
6388510.3 Mortgage to ANZ National Bank Limited - 19.4.2005 at 9:00 am

References
Prior C/T 474/102

Transfer No.
N/C. Order No. H.325123.3

Land and Deeds 69

No. 26C/1158

REGISTER

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 29th day of January one thousand nine hundred and eighty one under the seal of the District Land Registrar of the Land Registration District of SOUTH AUCKLAND

WITNESSETH that CRAFTMASTER HOMES LIMITED a duly incorporated company having its registered office at Hamilton

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 1271 SQUARE METRES more or less being Lot 2 on Deposited Plan S.28854 and being part Allotment 191 Parish of Kirikiriroa

DISTRICT LAND REGISTRAR SOUTH AUCKLAND, N.Z.

ASSISTANT LAND REGISTRAR

H.359870.1 Transfer to Christopher Earl Stevenson-Wright of Hamilton public servant and Gail Helen Stevenson-Wright his wife produced 14.8.1981 at 2.24 o'c

for A.L.R.

H.359870.2 Mortgage to The Housing Corporation of New Zealand produced 14.8.1981 at 2.24 o'c

565758.1

DISCHARGED

for A.L.R.

H.359870.3 Mortgage to Her Majesty the Queen pursuant to the Post Office Act 1959 produced 14.8.1981 at 2.24 o'c

565758.2

DISCHARGED

for A.L.R.

H.528112 Mortgage to ANZ Banking Group (New Zealand) Limited produced 16.6.1984 at 10.57 o'c

565758.3

DISCHARGED

for A.L.R.

H.565758.4 Transfer to Maxwell John Stairmand hairdresser and Kerry-Ann Maree Queenin real estate salesperson both of Hamilton produced 15.1.1985 at 9.01 o'c

for A.L.R.

H.565758.5 Mortgage to New Zealand Permanent Building Society produced 15.1.1985 at 9.01 o'c

H.647582.1

DISCHARGED

for A.L.R.

H.565758.6 Mortgage to Westpac Banking Corporation produced 15.1.1985 at 9.01 o'c

H.647582.2

DISCHARGED

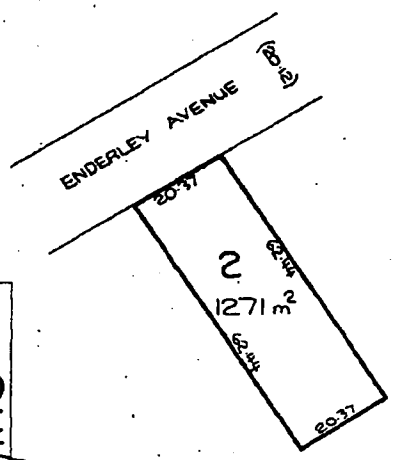
for A.L.R.

H.647582.3 Transfer to John Edgar Turnbull of Hamilton bank manager and Georgina Frances Anne Turnbull his wife produced 26.3.1986 at 11.05 o'c

for A.L.R.

over

Hamilton City



Measurements are Metric

H.C.M.

No. 26C/1158

Register copy for L. & D. 69, 71, 72.

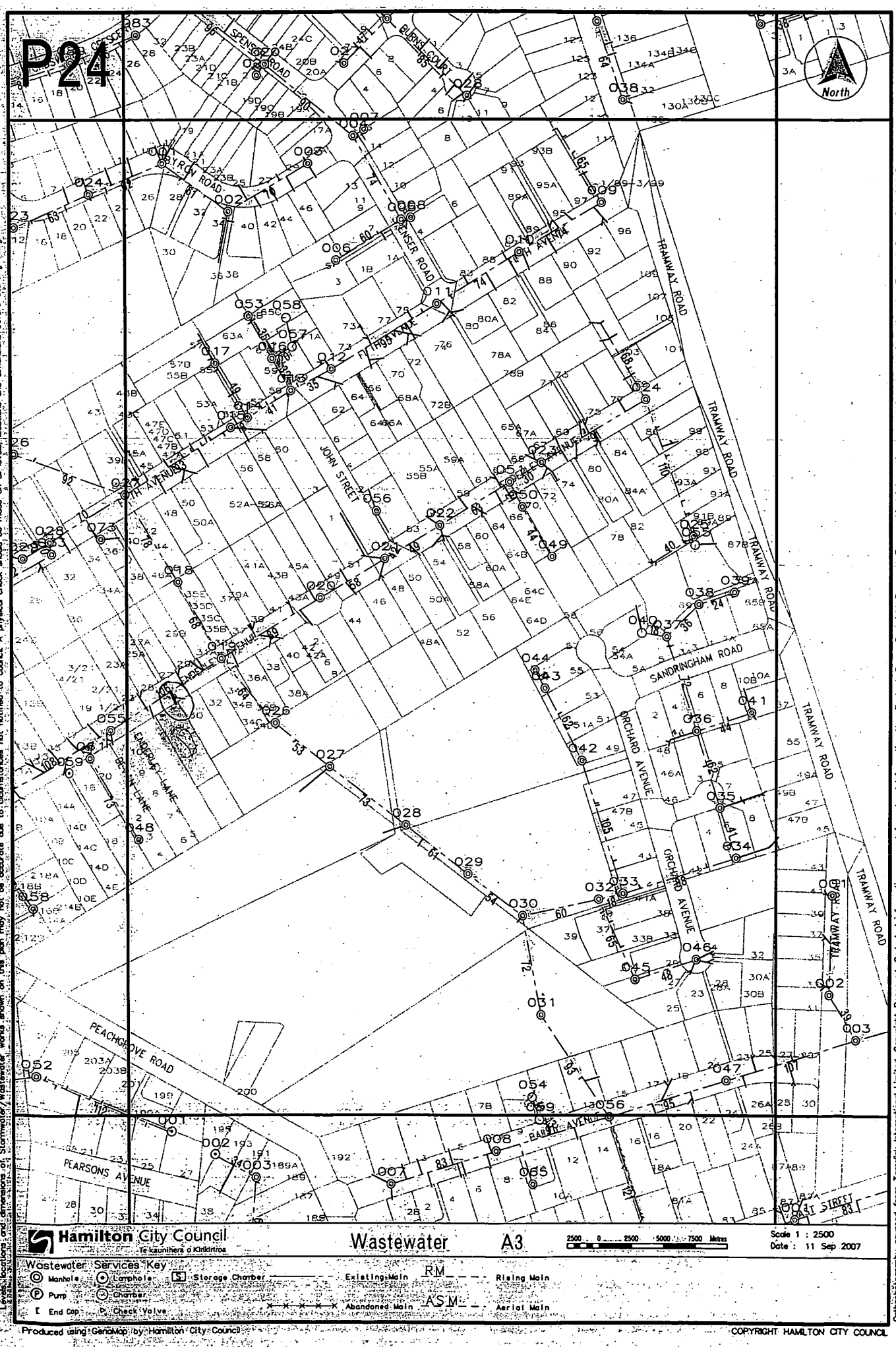
CT 26C/1158

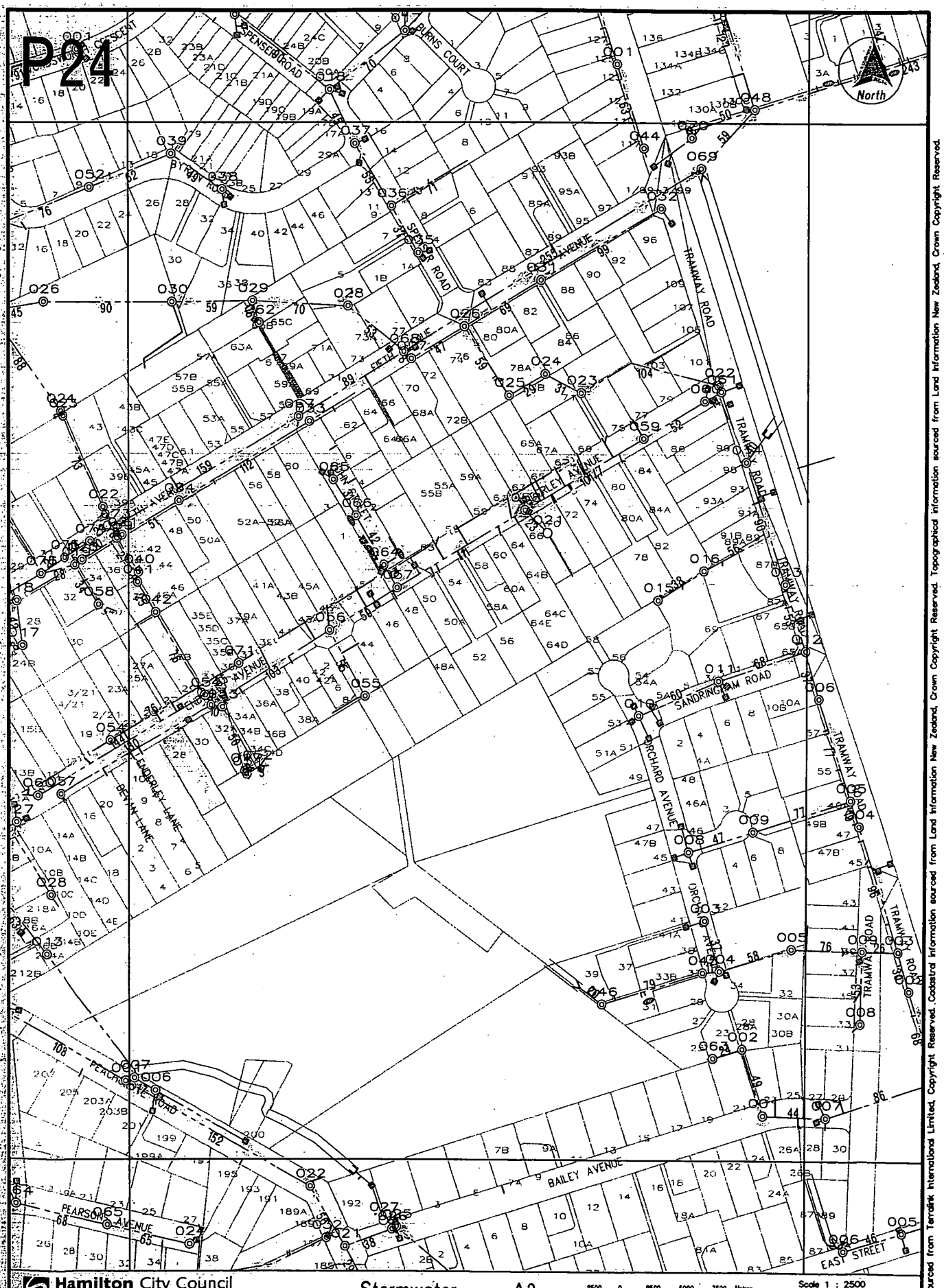
B.I17255.1 Transfer to Grant Leigh Jenkins architect and Therese Marie Jenkins laboratory assistant both of Hamilton - 10.12.1992 at 9.15 o'c

for A.L.R.

B.117255.2 Mortgage to Post Office Bank Limited - 10.12.1992 at 9.15 o'c

for A.L.R.



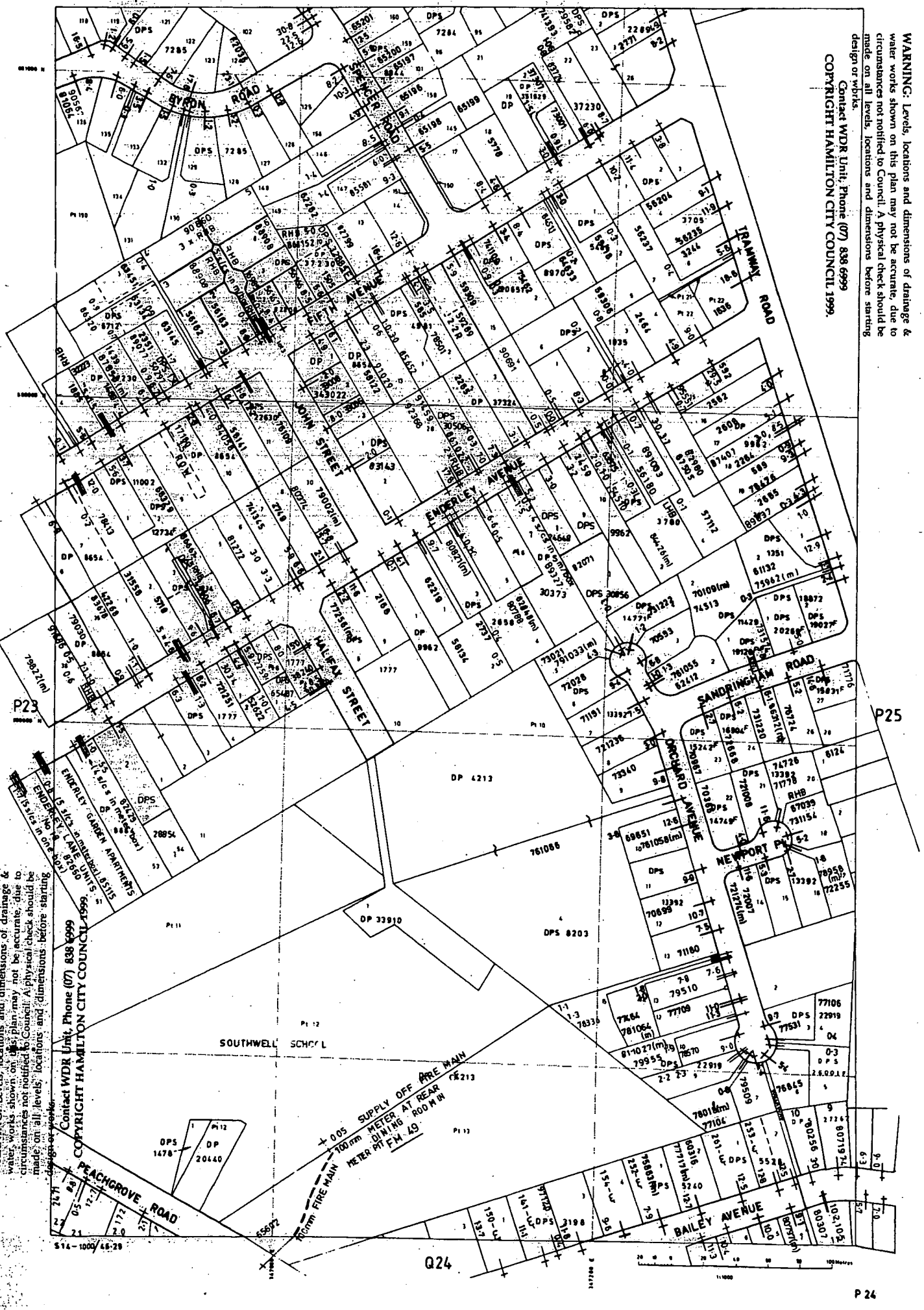


Levels, locations and dimensions of Stormwater/Wastewater works shown on this plan may not be accurate due to circumstances not notified to council. A physical check should be made on all levels, locations and dimensions before starting design or works. Contact WWS Unit, phone: (07) 838 6999.

Orthophotography sourced from Terralink International Limited. Copyright Reserved. Cadastral information sourced from Land Information New Zealand, Crown Copyright Reserved. Topographical information sourced from Land Information New Zealand, Crown Copyright Reserved.

HCC WWS Updated 14 Jan 2008

P 24

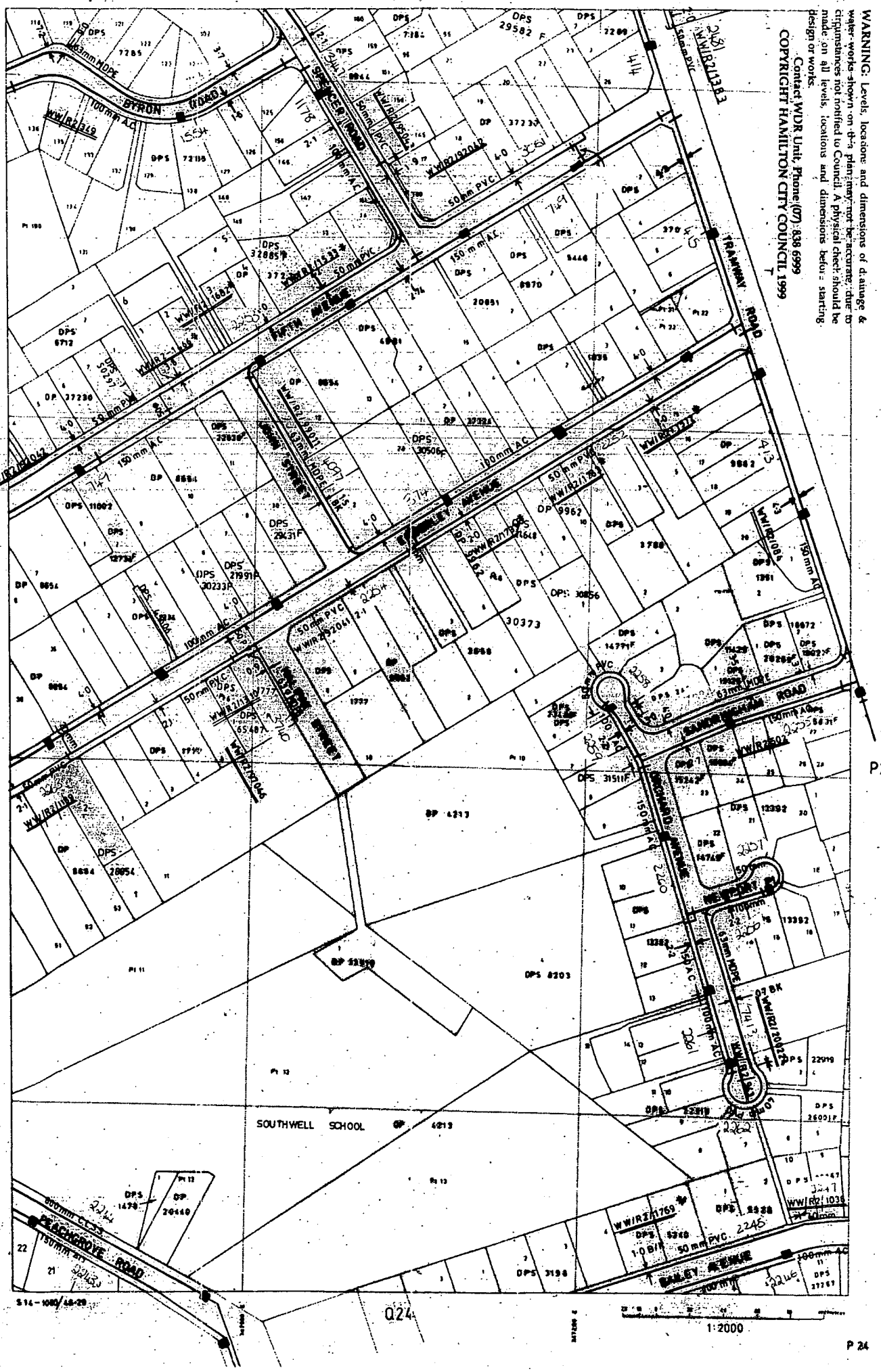


WARNING: Levels, locations and dimensions of drainage & water works shown on this plan may not be accurate, due to circumstances not notified to Council. A physical check should be made on all levels, locations and dimensions before starting design or works.
Contact WDR Unit, Phone (07) 838 6999
COPYRIGHT HAMILTON CITY COUNCIL 1999.

WARNING: Levels, locations and dimensions of drainage & water works shown on this plan may not be accurate, due to circumstances not notified to Council. A physical check should be made on all levels, locations and dimensions before starting design or works.
Contact WDR Unit, Phone (07) 838 6999
COPYRIGHT HAMILTON CITY COUNCIL 1999.

S14 - 1000/46-29

P 24



1:2000

Hamilton City Council
Te kaunihera o Kirikiriroa

BUILDING CONSENT
ACCOUNT DUE

TAX INVOICE
G.S.T. REG. No. 11-174-531

Private Bag 3010, Waikato Mail Centre, Hamilton 3240
Phone 07 838 6699, Fax 07 838 6684
Office Hours: Monday to Friday 8am to 4.45pm

PLEASE QUOTE ACCOUNT No. ON ALL CORRESPONDENCE

CKC Holdings Ltd
C/O McPherson Goodwin Surveyors
P O Box 9379
HAMILTON 2015

Account No. 13717.37
Page 1 of 1
Date 10/11/2008

DATE	INVOICE No.	DETAILS		BALANCE
10/11/2008	21044-02	2008/21044 - 28 Enderley Avenue HAMILTON		
		GST	*39.11*	352.00
		A4 Microfilming		352.00
		GST	*0.00*	1,182.00
		DBH Levy		1,182.00
		GST	*0.00*	600.00
		Branz Levy		600.00
		GST	*18.33*	165.00
		Street Crossings		165.00
		GST	*312.50*	2,812.50
		External Consultants Check		2,812.50
		GST	*150.56*	1,355.00
		Water Connection (Nearside)		1,355.00
		GST	*24.44*	220.00
		Water Disconnection		220.00
		Invoice Total (including GST if applicable)		6,686.50

Total Value non-taxable supply(s)	1,782.00
Total Value taxable supply(s) excluding GST	4,359.56
Total GST Payable	544.94

ALL QUERIES TO BUILDING CONSENTS

DUE DATE 10/11/2008 **TOTAL DUE 6,686.50**

ALL FEES & CHARGES MUST BE PAID PRIOR TO THE BUILDING CONSENT BEING UPLIFTED. THIS ACCOUNT INCLUDES G.S.T.
THE CUSTOMER WILL BE LIABLE FOR UNPAID DEBTS AS WELL AS ASSOCIATED COLLECTION COSTS.

HAMILTON CITY COUNCIL BUILDING CONSENTS
PRIVATE BAG 3010, WAIKATO MAIL CENTRE
HAMILTON 3240

DUE DATE 10/11/2008 TOTAL DUE **6,686.50**

INVOICE No. 21044-02

CKC Holdings Ltd
C/O McPherson Goodwin Surveyors
P O Box 9379
HAMILTON 2015

ACCOUNT No. 13717.37

IF ADDRESS IS INCORRECT PLEASE COMPLETE THE FOLLOWING:

NAME: _____ ☐ THIS ACCOUNT ONLY

ADDRESS: _____ ☐ ALL COUNCIL SERVICES

Hamilton City Council
Te kaunihera o Kirikiriroa

BUILDING CONSENT
ACCOUNT DUE

TAX INVOICE
G.S.T. REG. No. 11-174-531

Private Bag 3010 Hamilton, Phone 07 838 6699, Fax 07 838 6684
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PLEASE QUOTE ACCOUNT No. ON ALL CORRESPONDENCE

CKC Holdings Ltd
C/O McPherson Goodwin Surveyors
P O Box 9379
HAMILTON 2015

Account No. 13717.37
Page 1 of 1
Date 7/07/2008

DATE	INVOICE No	DETAILS		BALANCE
7/07/2008	21044-01	2008/21044 - 28 Enderley Avenue HAMILTON		
		GST	*852.22*	7,670.00
		Building Consent	7,670.00	
		GST	*11.11*	100.00
		Code Compliance Certificate	100.00	
		Invoice Total (including GST if applicable)		7,770.00

Total Value non-taxable supply(s)	0.00
Total Value taxable supply(s) excluding GST	6,906.67
Total GST Payable	863.33

ALL QUERIES TO BUILDING CONSENTS

DUE DATE 7/07/2008

TOTAL DUE **7,770.00**

ALL FEES & CHARGES MUST BE PAID PRIOR TO THE BUILDING CONSENT BEING UPLIFTED. THIS ACCOUNT INCLUDES G.S.T.
THE CUSTOMER WILL BE LIABLE FOR UNPAID DEBTS AS WELL AS ASSOCIATED COLLECTION COSTS.

HAMILTON CITY COUNCIL BUILDING CONSENTS
PRIVATE BAG 3010
HAMILTON

DUE DATE 7/07/2008

TOTAL DUE **7,770.00**

INVOICE No. 21044-01

CKC Holdings Ltd
C/O McPherson Goodwin Surveyors
P O Box 9379
HAMILTON 2015

ACCOUNT No. 13717.37

IF ADDRESS IS INCORRECT PLEASE COMPLETE THE FOLLOWING:

NAME: _____

ADDRESS: _____

☐ THIS ACCOUNT ONLY

☐ ALL COUNCIL SERVICES

Hamilton City Council
Te kaunihera o Kirikiriroa

BUILDING CONSENT
ACCOUNT DUE

TAX INVOICE
G.S.T. REG. No. 11-174-531

Private Bag 3010 Hamilton, Phone 07 838 6699, Fax 07 838 6684
Office Hours: Monday to Friday 8am to 4.45pm

PLEASE QUOTE ACCOUNT No. ON ALL CORRESPONDENCE

CKC Holdings Ltd
C/O McPherson Goodwin Surveyors
P O Box 9379
HAMILTON 2015

Account No. 13717.39
Page 1 of 1
Date 7/07/2008

DATE	INVOICE No	DETAILS		BALANCE
7/07/2008	21044-01	2008/21044 - 28 Enderley Avenue HAMILTON		
		GST	*40.00*	360.00
		Project Information Memorandum	360.00	
		Invoice Total (including GST if applicable)		360.00

Total Value non-taxable supply(s)	0.00
Total Value taxable supply(s) excluding GST	320.00
Total GST Payable	40.00

ALL QUERIES TO BUILDING CONSENTS

DUE DATE 7/07/2008

TOTAL DUE **360.00**

ALL FEES & CHARGES MUST BE PAID PRIOR TO THE BUILDING CONSENT BEING UPLIFTED. THIS ACCOUNT INCLUDES G.S.T. THE CUSTOMER WILL BE LIABLE FOR UNPAID DEBTS AS WELL AS ASSOCIATED COLLECTION COSTS.

HAMILTON CITY COUNCIL BUILDING CONSENTS
PRIVATE BAG 3010
HAMILTON

DUE DATE 7/07/2008

TOTAL DUE **360.00**

INVOICE No. 21044-01

CKC Holdings Ltd
C/O McPherson Goodwin Surveyors
P O Box 9379
HAMILTON 2015

ACCOUNT No. 13717.39

IF ADDRESS IS INCORRECT PLEASE COMPLETE THE FOLLOWING:

NAME: _____ ☐ THIS ACCOUNT ONLY

ADDRESS: _____ ☐ ALL COUNCIL SERVICES

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 2020
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

11 June 2008

RECEIVED
11 JUN 2008

McPherson Goodwin Surveyors Ltd
P.O. Box 9379
HAMILTON

Attn: Anna Griffin

Dear Sir/Madam

Application Acknowledgement

Thank you for your application **officially** received by the Planning Guidance Unit on 9 June 2008 We wish to advise the following details:

Applicant	**: CKC Holdings Ltd**
Address	**: 28 Enderley Avenue**
Your Reference	**: 14966**
Our file Number	**: 10.2008.19400.001 & 11.2008.19401.001 (38/1/4211 & 48/1/E153)**
Council Contact	**: Andrew Wilson** **Phone:** (07) 838 **6804**

The application will be assessed within 20 working days under the Resource Management Act **from the date the application was officially received by Council**.

The above officer who is assessing your application will contact you in writing if any further information is required in order for Council to better understand the nature of your application. **Please note that should any further information be required, the 'clock' will stop and the working days will not resume until this information is received**. If you have submitted a 'joint' landuse and subdivision application, the statutory working days for the subdivision application will not begin until the landuse application has been granted.

Should the category of activity change during assessment of the application (e.g. A controlled activity was applied for, but through failing standards the application becomes a discretionary activity) additional fees will be required.

Please be advised that it may be necessary for a Council officer to inspect the site in order to assess the application.

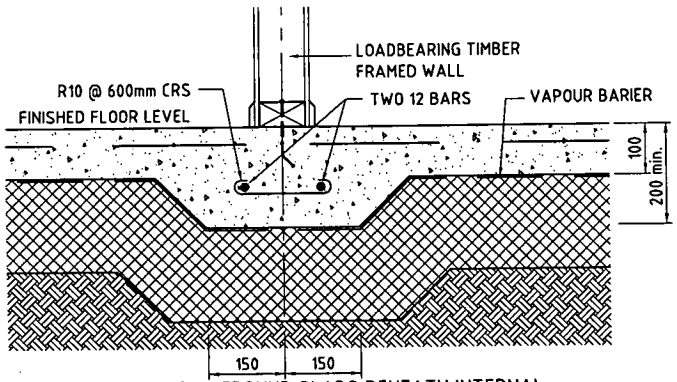
Yours faithfully

GULAB BILIMORIA
PLANNING GUIDANCE MANAGER
Per:

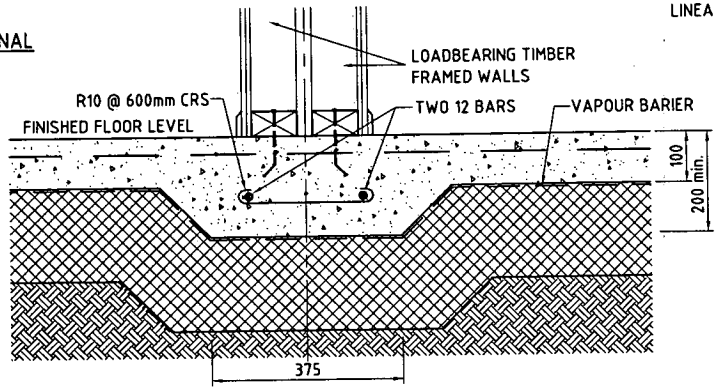
SARAH MCDONALD
PLANNING ADMINISTRATION SUPPORT OFFICER

Municipal Offices
Garden Place, Hamilton
Phone 07 838 6800
Fax 07 838 6819
Email sarah.mcdonald@hcc.govt.nz

Planning Guidance



DETAIL 'B' - GROUND SLABS BENEATH INTERNAL LOADBEARING WALL
SCALE: 1:10



DETAIL 'C' - GROUND SLABS BENEATH INTERNAL LOADBEARING FIRE RATED WALL
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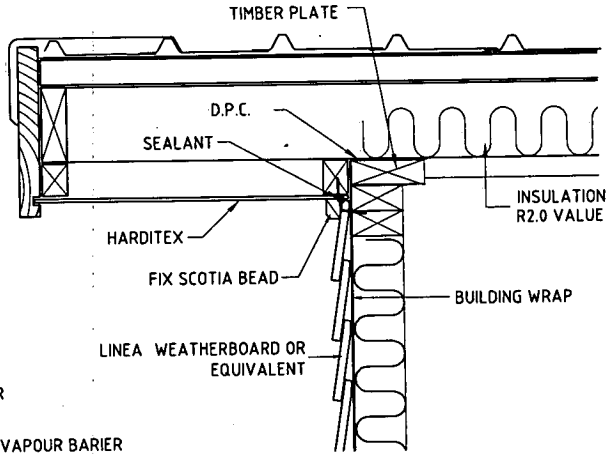
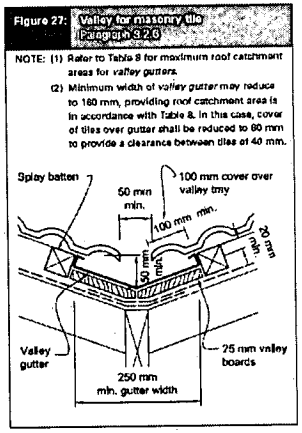
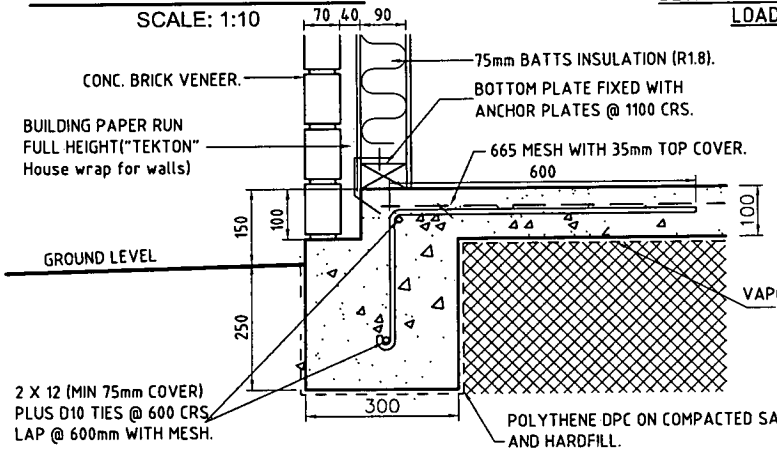
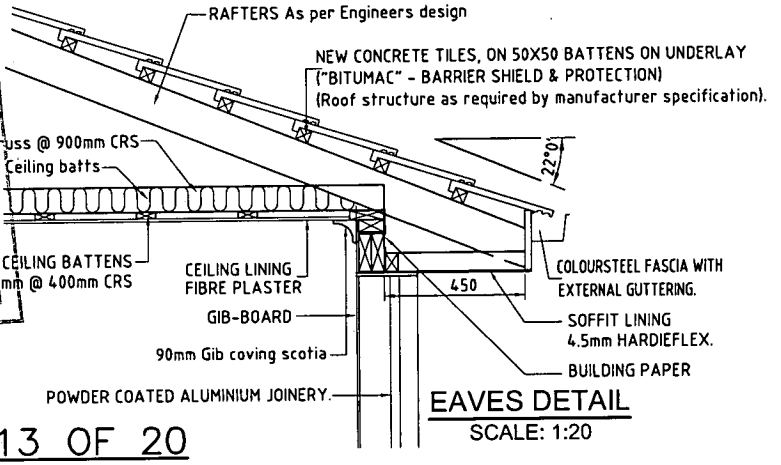


GABLE END DETAIL
SCALE 1:10



FOUNDATION DETAIL 'A'
SCALE: 1:10





EAVES DETAIL
SCALE: 1:20

REPLACEMENT PAGE 13 OF 20

Amendment:	Description:

NOTES:
1. Areas and distances are subject to survey.
2. Total CT area: 1271m².
3. Site coverage: 580m² = 46%
4. IF IN ANY DOUBT - ASK!

PROPOSED UNIT DEVELOPMENT ON LOT 2 DPS 28854

Comprised in C.T. SA26C/1158

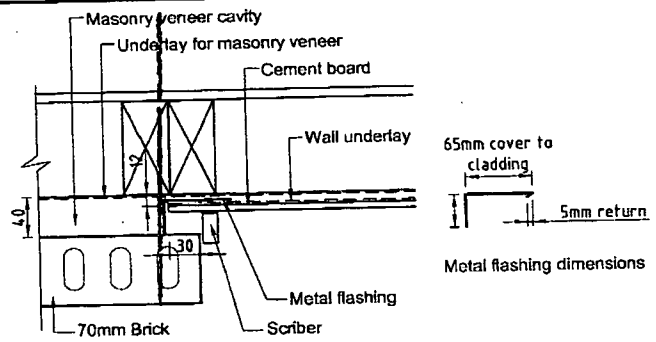
Prepared for: CKC Holdings Ltd.

Address: 28 Enderley Avenue, Hamilton

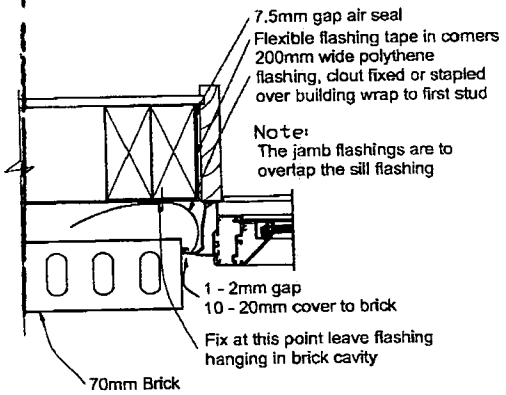
McPherson Goodwin
Surveyors—Land Engineers
—Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET—HAMILTON—NEW ZEALAND P.O. BOX 9379
E-mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

Surveyor:	Checked: G.I. Ruffell	Scale: As shown @ A3	Sheet 13 of 20
Design/ Drawn: M.Spasovska	Date: JUNE/ 2008		Ref.: 14966

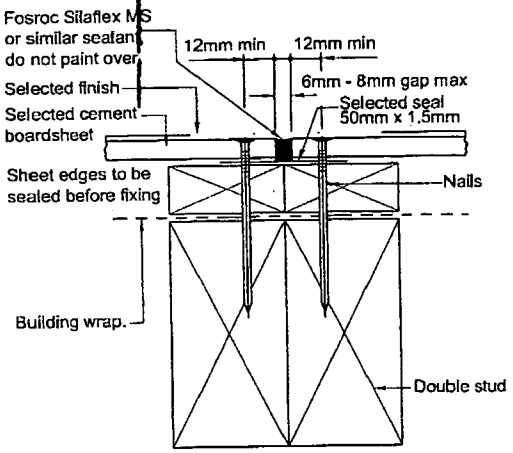
McPherson Goodwin Surveyors Ltd_MS_ 4/07/2008 12:29 p.m. _14966_ARCH.dwg Original sheet size A3 (420*297)



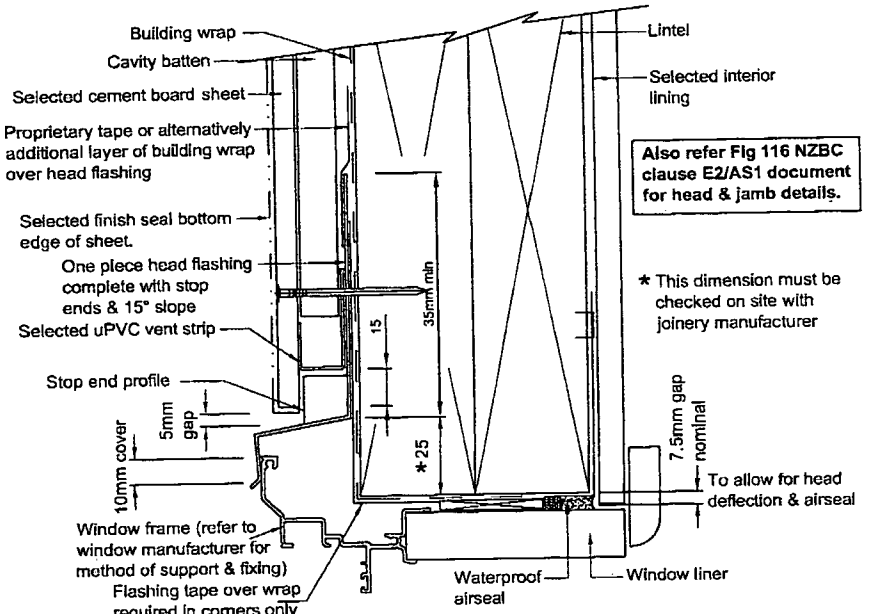
BRICK TO CEMENT BOARD DETAIL
Scale 1:5



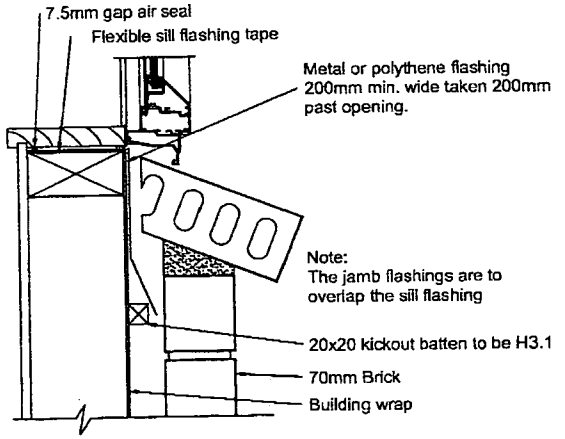
WINDOW JAMB - ALUMINIUM
Scale 1:5



CAVITY VERTICAL SEALANT JOINT - CEMENT BOARD
NTS



CAVITY WINDOW HEAD - CEMENT BOARD
NTS



WINDOW SILL - ALUMINIUM
Scale 1:5

SUBJECT TO CONDITIONS TO BE KEPT ON SITE
APPROVED
HAMILTON CITY COUNCIL

ADDITIONAL DIAGRAM PAGE

Amendment:	Description:

NOTES:
1. Areas and distances are subject to survey.
2. Total CT area: 1271m².
3. Site coverage: 580m² = 46%
4. IF IN ANY DOUBT - ASK!

PROPOSED UNIT DEVELOPMENT ON LOT 2 DPS 28854

Comprised in C.T. SA26C/1158

Prepared for: CKC Holdings Ltd.

Address: 28 Enderley Avenue, Hamilton

McPherson Goodwin
Surveyors—Land Engineers
—Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET—HAMILTON—NEW ZEALAND P.O. BOX 9379
E—mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

Surveyor:	Checked: G.I. Ruffell	Scale: As shown @ A3	Sheet 21 of 21
Design/ Drawn M.Sparsovska	Date: JUNE/ 2008		Ref.: 14966

Hamilton City Council
Te kaunihera o Kirikiriroa

Private Bag 3010
Hamilton 3240
New Zealand

Phone 07 838 6699
Fax 07 838 6599

info@hcc.govt.nz
www.hamilton.co.nz

4 September 2008

McPherson Goodwin Surveyors Ltd
P O Box 9379
HAMILTON

Attn: Anna Griffin

LAND USE RESOURCE CONSENT: 010/2008/19400 - (38/1/4211)
To establish six apartment units at 28 Enderley Avenue, Hamilton

In relation to the above mentioned application I am pleased to advise the following;

*That pursuant to the provisions of sections 19, 94, 104A and 108 of the Resource Management Act 1991 and the Hamilton City Proposed District Plan (references version), Council **grants consent** to the application by CKC Holdings Ltd being Resource Consent No. 10/2008/19400 (38/1/4211) assessed as a Controlled Activity, to establish six apartment units on a site in the Residential High Density Zone, situated on Lot 2 DPS 28854 at 28 Enderley Avenue, Hamilton, subject to the following conditions:*

Use

1. *That the development be in general accordance with the plans and information received by Council on 6 June 2008 and 12 June 2008 and the amended site plan received on 8 August 2008.*
2. *That prior to the release of any building consents the consent holder shall submit written assurance, that is to the satisfaction of The Manager, Planning Guidance Unit, that verifies that Council's Parking Management Sub-Committee has approved the relocation of the loading zone situated immediately outside 28 Enderley Avenue.*

Transportation

3. *The consent holder shall pay for all Council costs involved with the hearing to be held by the Parking Management Sub-Committee to consider the uplifting of the existing loading zone and for the Loading Zone to be relocated such that a new vehicle crossing can be installed to provide vehicular access to the proposed 6 unit development at 28 Enderley Avenue.*

4. *That the consent holder shall ensure yellow no stopping lines are installed on the road outside the new vehicle crossing. The lines to be instated in the area between the existing no stopping lines and the Loading Zone. The consent holder is to pay all costs involved, including staff costs for preparing a report to the Management Parking sub committee.*

5. *That a 4.8 metre wide commercial vehicle crossing shall be contracted to the requirements of the Hamilton City Development Manual.*

6. *The location of the proposed vehicle crossing will require that the existing Loading Zone be relocated. The applicant shall pay all costs for the removal and replacement of the Loading Zone.*

7. *That a minimum distance of 2 metres along the cadastral boundary adjoining Southwell School, commencing at the road frontage, be kept clear of any visual obstructions above the height of 800mm that might conceal the presence of pedestrians or other traffic. NB: A fence may extend higher then 800mm provided it does not form a solid screen.*

8. *When the commercial lowered kerb and channel is concreted, the edges are to be boxed with a minimum width of 500mm. The existing road surface is to be concrete cut and removed. The road surface is to be reinstated with basecourse and asphaltic concrete.*

9. *The obsolete vehicle crossing shall be removed and the kerb and channel, footpath and grass berm be reconstructed as applicable to match the surroundings.*

10. *The right of way/shared access/common area shall be designed and constructed for the intended purpose, and shall include access to the public road network, all-weather dust-free surfacing such as concrete, cobblestones, chip seal or asphalt, and water run-off collection and transportation systems connected to the public drainage network.*

Water and Waste

11. *This property is also subject to a current Subdivision Consent 11.2008.19653.001 and all water and drainage conditions of that Consent should be followed with regard to this Land Use Consent. Failure to follow those conditions may lead to newly laid pipework being relaid, at the developers expense, to meet the Subdivision conditions prior to release of the 224C Certificate.*

General

12. *That all works shall be done to the requirements of the Hamilton City Development Manual and/or to the satisfaction of the General Manager Works and Services.*

13. *The plans for the above engineering works are to be submitted to the Planning Guidance Unit and approved prior to work commencing at the site. The plans for the internal roading works are to include (but are not limited to): Right of Way/Shared Access/Common Area: Location plan Drainage plan Long section Cross sections showing: type of surface, construction material, sub-grade.*

Reasons for the Decision

Objectives and Policies

a. Subject to the above conditions, the proposal is not contrary to the relevant objectives and policies of the Hamilton City Proposed District Plan.

Planning Guidance

Resource Management Amendment Act 2003

b. In making this decision Council has not assessed this proposal under the provisions of the Transitional District Plan, in accordance with the requirements of Section 19 of the Resource Management Amendment Act 2003 as there are no references to the relevant provisions of the Proposed District Plan, and the application was received after the 1 August 2003.

Consideration of Applications

c. Having regard to section 104(1) of the Resource Management Act 1991, any actual and potential adverse effects on the environment of granting consent will be able to be avoided, remedied, or mitigated by the imposition of the above conditions.

Non-notification

d. Pursuant to sections 93 and 94 of the Resource Management Act 1991 the application has not been publicly notified and notice has not been served as the adverse effects of the proposal will be minor and no persons are considered to be adversely affected by the granting of this consent.

Relevant Statutory Provisions Considered in the Assessment of This Application:

e. Part II and Sections 19, 94, 104, 108, Resource Management Act 1991.

Relevant Plan Provisions Considered in the Assessment of This Application:

f. Hamilton City Proposed District Plan (References Version):
   - Residential Areas Objectives and Policies
   - Rule 4.0 Residential Zone
   - Rule 5.0 City Wide Standards

Conditions

g. A all weather dust free surface will ensure the shared access/common area will remain of a high standard for the occupants of the site and will help to preserve the amenity of the locality into the future.

h. Any building consents associated with the proposed development will not be released until the loading zone issue is resolved in order to ensure the development does not contravene any decision the Parking Management Sub-Committee makes in relation to the proposed relocation of the loading zone.

i. The obsolete vehicle crossing is to be reinstated to match the surroundings in order to prevent any adverse affect on the amenity of the locality.

j. Two metres along the cadastral boundary adjoining Southwell School, commencing at the road frontage, is to be kept clear of any visual obstructions in order to promote the safety of pedestrians and other traffic utilising both the school and the proposed development.

k. Yellow No Stopping Lines are to be installed outside the new vehicle crossing in order to discourage persons from parking vehicles in front of the vehicle crossing.

l. Plans for the engineering works are to be submitted to Council prior to work commencing to ensure the works will comply with Council requirements.

m. The applicant is to pay all costs related to the matters that are to go before the Parking Management Sub-Committee and any costs associated with the relocation and installation of road markings as the applicants will be the sole benefactors of any such activity.

Main Findings of Fact:

n. The development is considered to result in a good standard of amenity for the occupants of the site, and will not adversely affect adjoining sites.

Advisory Notes

- That compliance in all other respects with Council Bylaws, all relevant Acts, Regulations, and rules of law be met.

- *This property is also subject to a current Subdivision Consent 11.2007.19401 and all water and drainage conditions of that Consent should be followed with regard to this Land Use Consent. Failure to follow those conditions may lead to newly laid pipe work being re-laid, at the developers expense, to meet the Subdivision conditions prior to release of the 224C Certificate. The applicant is advised that the subdivision requirements will include, but are not limited to the following;*

  i) Any existing connections and private pipework not required by the proposed development shall be appropriately disconnected and removed to the satisfaction of the Manager, Water & Waste Services. Removal of existing connections shall be done by Council at the consent holders expense.

  ii) That separate wastewater connections are provided to each unit.

  iii) No private wastewater drains shall pass between one unit and another.

  iv) That there is water supply to all units.

  v) That no private water supply pipes pass between one unit and another.

  vi) That a new 50mm water connection is to be installed by Council and extended internally by others as a 63mdpe ridermain with flushing point at the end. This line is to provide a separate supply to each unit with tobies outside their respective building footprint. This line to be pressure tested and sampled by a Contracts Engineer from Water and Waste Services prior to connection to the main network.

  vii) That each unit is provided with a means for disposal of stormwater and control runoff from the whole development.

- *All operations affecting in-service Hamilton City Council water, wastewater or storm water pipelines are to be carried out by Hamilton City Council staff (Utilities Unit) unless specific approval is given as outlined in the Hamilton City Development Manual*

- The current existing wastewater connection is not able to service the development. A 150mm connection is needed.

- The Consent Holder is advised that some roading specifications have been upgraded and are available from the Hamilton City Development Manual via Council's web site.

It is the responsibility of the Consent Holder to ensure that the correct specifications are used in the construction. In particular there are increased depths of base-course and of the concrete thickness. See Volume 3, Standard Technical Specifications, Drawing, TS 310 and under, Volume 2, Guide Design, clause 3.11.

- This is not a Building consent. A Building Consent may also be required before giving effect to this resource consent. Please contact Council's Building Unit on 838-6677 for information on Building Consent matters.

- All construction noise shall comply with the provisions of New Zealand standards NZS 6803:1999 "The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work" and shall be measured and assessed in accordance with NZS 6803:1999.

- Council's rating policy charges rates based on the actual "use" or "uses" of a property as at 1 July each year, not the zoning. If the property is currently being used for residential purposes and is to be changed to commercial use, there will be a change in the rating of the property from residential to commercial. If you wish to discuss the rating impact, or other rating issues, please contact the Rates Department on (07) 838-6688.

- If this property is on-sold to a new owner(s) please ensure that a copy of this resource consent is forwarded to the new owner(s).

Objections
Pursuant to section 357(C) of the Resource Management Act 1991, if you disagree with this decision or any conditions of consent, you may lodge, in writing to Council an objection within 15 working days after the receipt of this letter.

Please note, if you do not intend to object to the consent or any of the conditions of consent, you may complete a Declaration Form (PG C9), return it to the Planning Guidance Unit, and have the planning aspect of your building consent approved prior to the 15 working day objection period expiring.

Compliance and Monitoring
This resource consent allows the land use to be carried out at the site specified in the consent, provided the conditions of the consent are met. Under section 35 of the Resource Management Act 1991, Council will monitor and enforce compliance with resource consents it has granted.

Pursuant to section 127 of the Resource Management Act 1991, consent conditions may be amended or cancelled on application to Council if there has been a change in circumstances making the conditions unnecessary or inappropriate.

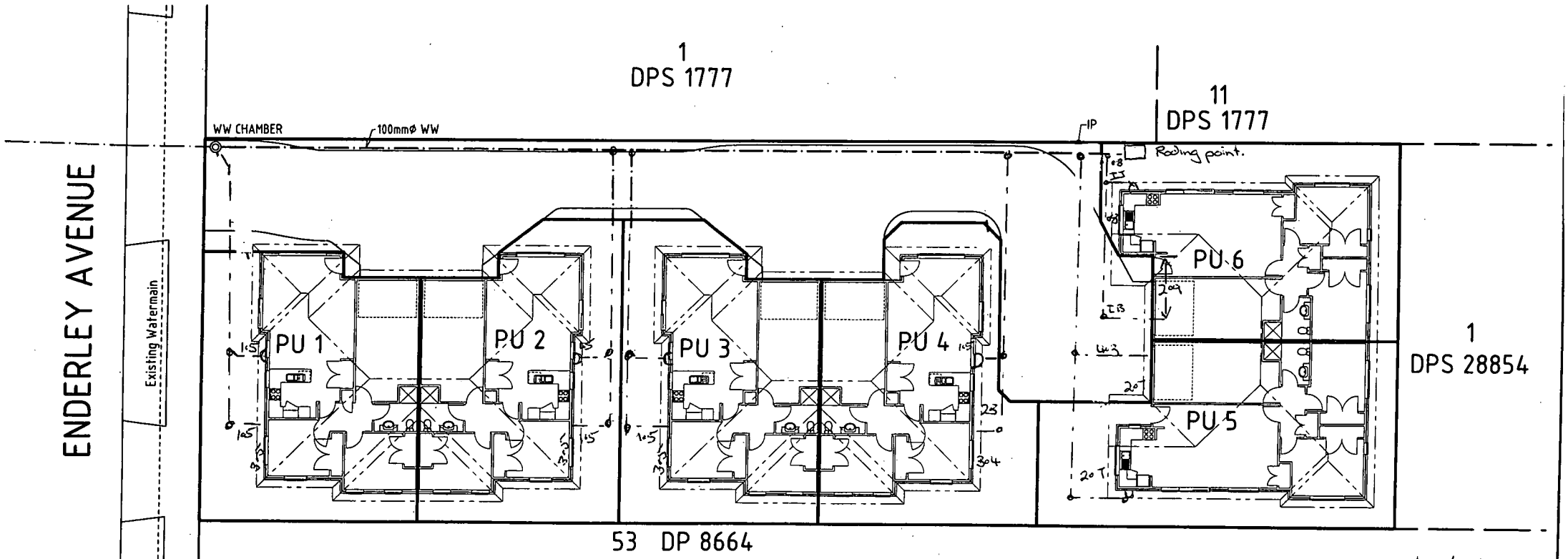
Lapse of Consent
This resource consent lapses on the expiry of five years after the date of this letter being 29/5/2013, unless the consent is given effect to by the end of that period. To give effect to this consent, the activity allowed by this consent must be established and the conditions contained in this consent complied with. Please note that there must be compliance with all of the consent conditions once the land use has been established

Planning Guidance

Yours faithfully,

GULAB BILIMORIA
PLANNING GUIDANCE MANAGER
For more information please contact:
Andrew Wilson
Planner
Municipal Offices
Garden Place, Hamilton
Phone 07 838 6804
Fax 07 838 6819

Planning Guidance



C. Woodcock 11676
Building consent: 2008/2104

Waikato Plumbing Services Ltd
255 Bankwood Road
Chartwell, Hamilton 3210
Ph: 07 855 0001 Fax: 07 855 8000
wps@wavo.co.nz

ASBUILTS OF WASTEWATER DRAINAGE

Amendment:	Description:

NOTES:

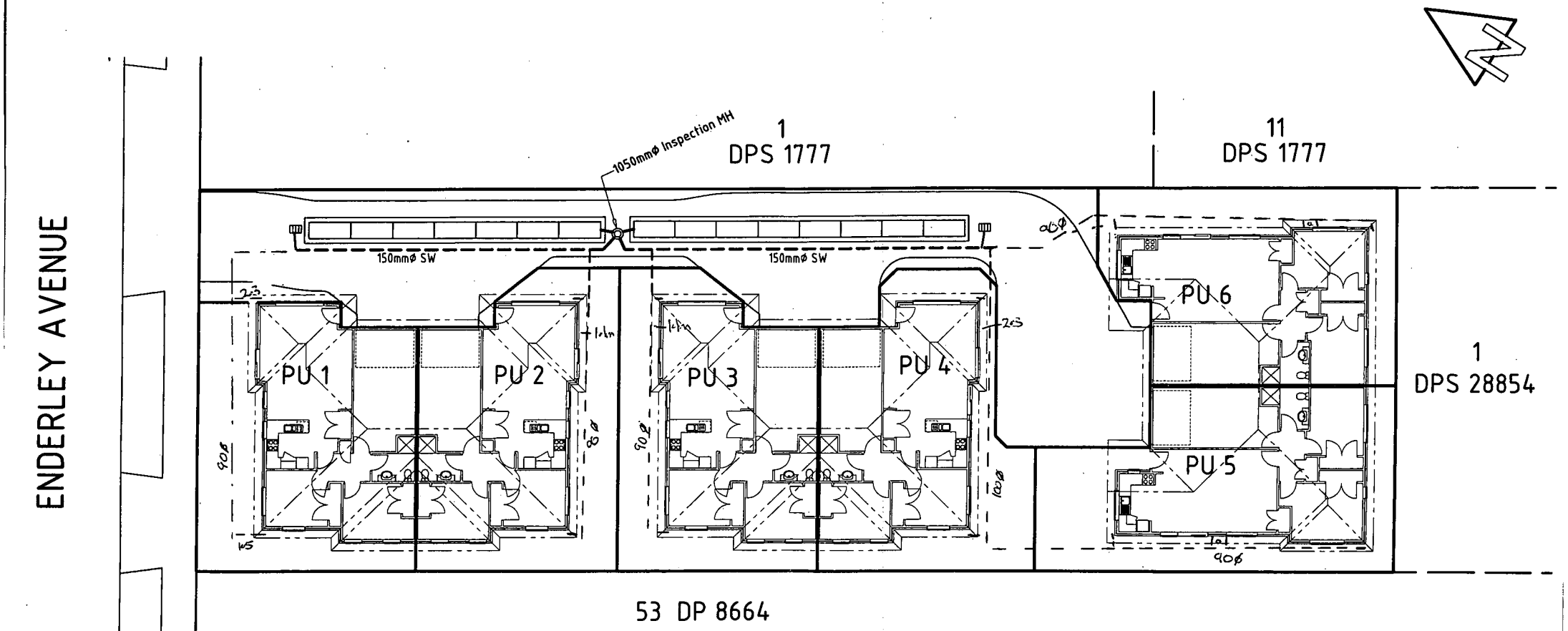
SERVICES ASBUILT PLAN FOR PROPOSED SUBDIVISION OF LOT 2 DPS 28854

Prepared for: CKC Holding Ltd. | Comprised in C.T. SA26C/1158 | Address: 28 Enderley Avenue, Hamilton

Surveyors—Land Engineers
—Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET—HAMILTON—NEW ZEALAND P.O. BOX 9379.
E—mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

Surveyor:	Checked: G.I. Ruffell	Scale: 1:200 @ A3	Sheet of
Drawn: M.S.	Date: February/ 2008		Ref.: 14966



C. WOODCOCK 11676
Consent: 2008/21044

Waikato Plumbing Services Ltd
255 Bankwood Road
Chartwell, Hamilton 3210
Ph: 07 855 0001 Fax: 07 855 8000
wps@wave.co.nz

ASBUILTS OF STORMWATER DRAINAGE

Amendment:	Description:

NOTES:

SERVICES ASBUILT PLAN FOR PROPOSED SUBDIVISION OF LOT 2 DPS 28854

Prepared for: CKC Holding Ltd. | Comprised in C.T. SA26C/1158 | Address: 28 Enderley Avenue, Hamilton

McPherson Goodwin
Surveyors–Land Engineers
–Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET–HAMILTON–NEW ZEALAND P.O. BOX 9379
E–mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

Surveyor:	Checked: G.I. Ruffell	Scale: 1:200 @ A3	Sheet of
Drawn: M.S.	Date: February/ 2008		Ref.: 14966

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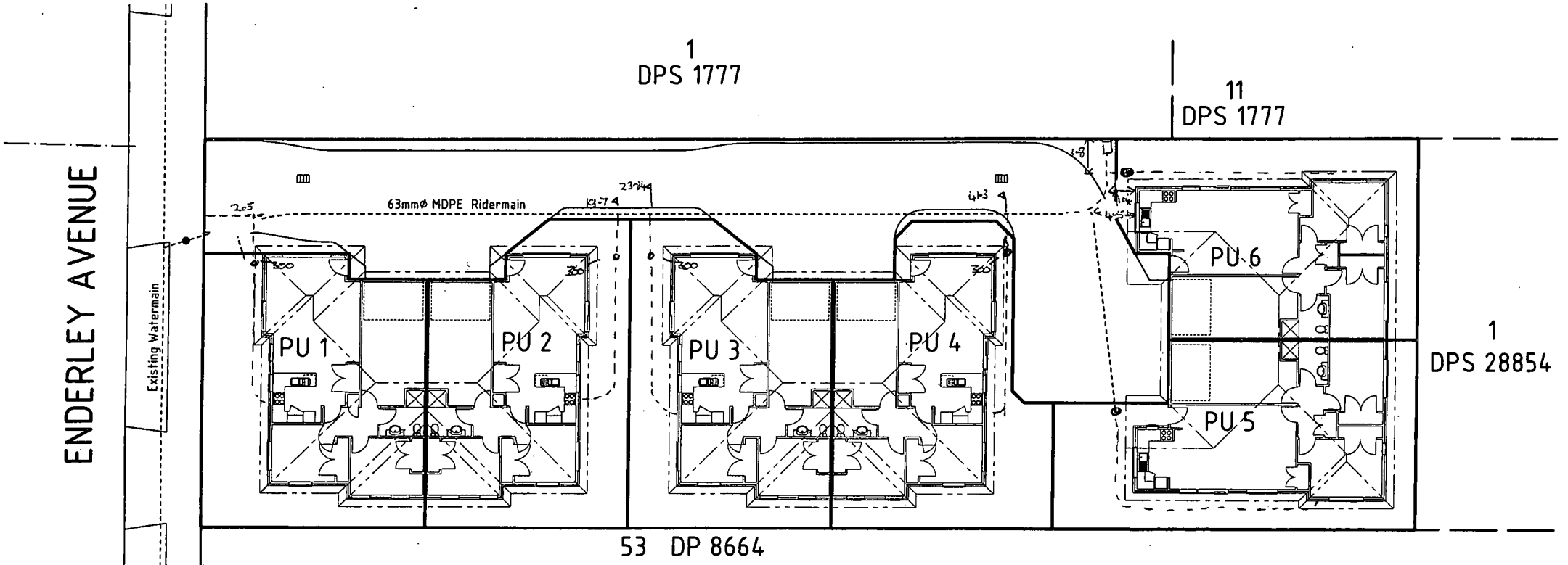

C. WOODLOCK 11676
Consent: 2008/21044

Waikato Plumbing Services Ltd
255 Bankwood Road
Chartwell, Hamilton 3210
Ph: 07 855 0001 Fax: 07 855 8800
wps@wave.co.nz

ASBUILTS OF WATER RETICULATION

Amendment:	Description:

COPYRIGHT
The information on this plan is the property of McPherson Goodwin Surveyors Ltd (M.G.S.L.) M.G.S.L. acknowledges the supply of some base data from The relevant Local Authorities and LINZ. in the preparation of this plan.

NOTES:

SERVICES ASBUILT PLAN FOR PROPOSED SUBDIVISION OF LOT 2 DPS 28854

Prepared for: CKC Holding Ltd. | Comprised in C.T. SA26C/1158 | Address: 28 Enderley Avenue, Hamilton

Surveyors–Land Engineers
–Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET–HAMILTON–NEW ZEALAND P.O. BOX 9379
E-mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

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IPENZ ENGINEERS NEW ZEALAND | NEW ZEALAND INSTITUTE OF ARCHITECTS INCORPORATED | ACENZ

Building Code Clause(s) B1

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on the reverse side).

ISSUED BY: Maunsell Ltd

TO: CKC Holding Ltd *(Construction Review Firm)*

TO BE SUPPLIED TO: Hamilton City Council *(Owner/Developer)*

IN RESPECT OF: Excavated sand pad foundation for a 6 unit residential development *(Building Consent Authority)*

AT: 28 Enderley Avenue, Hamilton *(Description of Building Work)*

LOT 2 **DP** 8664 **SO**

Maunsell Ltd has been engaged by: CKC Holding Ltd

to provide ⊙CM3 *(engineering categories)* or OOL1 OOL2 OOL3 OOL4 (architecture categories)

O or other *(Extent of Engagement)* services

in respect of clause(s) B1 of the Building Code for the building work described in documents relating to Building Consent No: 2008/21044 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 attached to them.

On the basis of O this ⊙ these review(s) and information supplied by the contractor during the course of the works, **I believe on reasonable grounds that** O 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, Colin Barry Jacobson *(Name of Design Professional)*

I am a member of IPENZ and hold the following qualifications: NZCE, BE Civil (Hons)

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.

Signed by Colin Barry Jacobson ON BEHALF OF Maunsell Ltd

Date: 1 December 2008 *(signature)* C. B. Jacobson

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 Forms 6 or 8 of the Building (Forms) Regulations 2004 for the issue of a Code Compliance Certificate.

Attn Dean's

IPENZ ENGINEERS NEW ZEALAND | NEW ZEALAND INSTITUTE OF ARCHITECTS INCORPORATED | ACENZ

Building Code Clause(s) E1/VM1

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on the reverse side)

ISSUED BY: AECOM New Zealand Ltd *(Construction Review Firm)*

TO: CKC Holdings Ltd *(Owner/Developer)*

TO BE SUPPLIED TO: Hamilton City Council *(Building Consent Authority)*

IN RESPECT OF: Subdivision site soakage system *(Description of Building Work)*

AT: 28 Enderley Avenue, Hamilton

LOT 2 **DPS** 28854 **SO**

Maunsell Ltd has been engaged by: CKC Holdings Ltd

to provide ⊙CM3 *(engineering categories)* or ○OL1 ○OL2 ○OL3 ○OL4 (architecture categories)

○ or other services *(Extent of Engagement)*

In respect of clause(s) E1/VM1 of the Building Code for the building work described in documents relating to Building Consent No: 2008/21044 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 attached to them.

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 stormwater soakage works have been completed in accordance with the relevant requirements of the Subdivision Consent and Subdivision Consent Amendments identified above, with respect to Clause(s) E1/VM1 of the Building Regulations.

I, Scott Dean King *(Name of Design Professional)*

I am a member of IPENZ and hold the following qualifications: BEng, MSc, MIPENZ (Civil), CPEng

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.

Signed by Scott Dean King ON BEHALF OF Maunsell Ltd

Date: 6 August 2009 *(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 **Forms 6 or 8 of the Building (Forms) Regulations 2004** for the issue of a Code Compliance Certificate.

Maunsell Limited
121 Rostrevor Street, Hamilton 3204, New Zealand
P O Box 434, Waikato Mail Centre, Hamilton 3240, New Zealand
T +64 7 834 8980 F +64 7 834 8981 www.maunsell.com

Ref: 600 44 751/issued docs/reports/CKC01

CKC Holdings Ltd
PO Box 904
Hamilton
Attention: Keith Clapson

19 May 2008

Dear Keith

Proposed Development, 28 Enderley Avenue, Hamilton: Geotechnical Investigation

1.0 Introduction

In accordance with your instructions, a soils investigation at 28 Enderley Avenue, Hamilton has been undertaken to determine whether the subsoils have sufficient strength to provide the necessary 300 kPa ultimate soil bearing capacity for residential type development, as required by NZS 3604:1999 *"Timber Framed Buildings"*. It is our understanding that it is proposed to construct three new single storey timber framed duplex dwellings on the property (six units in total), which will be clad with a colorsteel roofs and brick veneer walls. The proposed dwellings will be supported on reinforced concrete floor slabs.

The soils investigation of the property has also been undertaken to determine the soakage characteristics of the soils such that recommendations for on-site stormwater management can be provided.

The requirements of the Hamilton City Council Plan, with regard to stormwater disposal design standards are summarised below:

- Stormwater from lots for 2 year ARI storm events to be discharged to ground by soakage (where conditions permit)
- Stormwater from lots for storm events greater than 2 year ARI to drain, via overland flowpaths, to the roading network

The results from the geotechnical investigation on the property and our conclusions and recommendations are as summarised below.

2.0 Geotechnical Investigation

The NZ Geological Map of the Enderley Avenue area indicates the soils beneath the property are the Hinuera Formation, i.e. current bedded pumiceous sands, silts and gravels interbedded with peats.

On 13 May 2008, the following geotechnical and site investigations were carried out:

- Inspection of the property by a Civil Technician to assess the property and note any relevant site features.

- Soil testing consisting of 5 hand augered drillholes to a depth of 2.2m to 2.6m below existing ground level and associated scala penetrometer tests to a depth of 3.0m to 3.6m below existing ground level. A further two hand augered drillholes were undertaken to a depth of 2.0m below ground level to measure the permeability of the soils on the property.

The tests were carried out at the locations as shown on the attached site plan.

- Drillhole Auger 1 showed the soils to consist of moist, firm, dark brown silt (topsoil), to a depth of 0.3m below ground level. From 0.3m to 0.95m below ground level, the soils consist of moist, firm, brown mottled light grey and orange silt, becoming grey streaked orange from 0.6m. Beneath this layer from 0.95m to the end of the borehole at 2.6m below ground level (due to the hole collapsing), the soils were logged as moist to wet, medium dense, light grey streaked orange fine to medium sand with a trace of silt, becoming dark brownish orange and wet from 1.1m, with the watertable at 1.6m.

- Drillhole Auger 2 showed the soils to consist of moist, firm, dark brown silt (topsoil), to a depth of 0.4m below ground level. From 0.4m to 0.9m below ground level, the soils consist of moist, soft, dark grey mottled black silt with minor fine sand, becoming light grey mottled dark orange and firm from 0.6m. Beneath this layer from 0.9m to the end of the borehole at 2.4 m below ground level (due to the hole collapsing), the soils were logged as moist to wet, medium dense, grey mottled orange fine to medium sand with minor silt, with no silt from 1.0m, wet from 1.2m, and saturated (watertable) at 1.5m, with the hole collapsing from 2.0m.

- Drillhole Auger 3 showed the soils to consist of moist, firm, dark brown silt (topsoil), to a depth of 0.35m below ground level. From 0.35 m to 0.9m below ground level, the soils consist of moist, firm, light grey streaked orange silt. Beneath this layer from 0.9m to the end of the borehole at 2.2m below ground level (due to the hole collapsing), the soils were logged as moist to wet, medium dense, light grey streaked orange fine to medium sand with a trace of silt, becoming light grey and wet from 1.1m, and saturated (watertable) at 1.6m, with the hole collapsing from 2.0m.

- Drillhole Auger 4 showed the soils to consist of moist, firm, dark brown silt (topsoil), to a depth of 0.2m below ground level. From 0.2 m to 0.4m below ground level, the soils consist of moist, firm, dark brownish grey silt. From 0.4 m to 0.9m below ground level, the soils consist of moist, firm, light grey streaked orange silt, with a trace of fine sand, with minor fine to medium sand from 0.6m. Beneath this layer from 0.9m to the end of the borehole at 2.6m below ground level (due to the hole collapsing), the soils were logged as moist to wet, medium dense, brownish orange mottled grey fine to medium sand with a trace of silt, becoming brownish grey speckled black and wet from 1.3m, medium sand and saturated (watertable) at 1.6m, with the hole collapsing from 2.4m.

- Drillhole Auger 5 showed the soils to consist of moist, firm, dark brown silt (topsoil), to a depth of 0.35m below ground level. From 0.35 m to 0.85m below ground level, the soils consist of moist, firm, light grey streaked orange silt, with a trace of fine sand, with a trace of fine gravel from 0.5m, and minor fine to medium sand, with iron staining from 0.6m. From 0.85m to 1.5m the soils consist of moist to wet, medium dense, brownish orange silty fine to medium sand. Beneath this layer from 1.5m to the end of the borehole at 2.2m below ground level (due to the hole collapsing), the soils were logged as saturated, medium dense, brownish grey fine to medium sand, with the hole collapsing from 1.8m.

- The scala penetrometer tests show that the ultimate bearing pressure the soil can provide was variable across the proposed building site, with 300kPa ultimate bearing generally available at a depth of between 0.6m to 1.2m below ground level.

3.0 Foundation Recommendations

Based on the results from our soils investigation and considering the type of construction proposed for the site (three single storey duplex dwellings consisting of a light timber framed structure supported on a reinforced concrete floor slab), we recommend that an excavated sand pad foundation system would be suitable for each duplex.

For an excavated sand pad, our tests indicate the soils will need to be excavated to a minimum depth of 0.6m below ground level beneath the footprint of the proposed dwelling to remove all topsoil and any soft near surface soils. The excavations for the sand pad should also extend for a distance of 0.6m outside the external edge of the proposed foundation floor slab.

After excavation, the exposed subgrade must be proof-rolled with a static roller to compact the subgrade and the Engineer is to complete a series of Scala Penetrometer tests on the alignment of the proposed load bearing foundations.

In the event that proof-rolling identifies soft areas in the foundations where the ultimate bearing capacity is less than 300 kPa, the Engineer will confirm the extent of these areas and they are then to be removed and replaced with compacted sand fill. It is almost certain that further excavations to a depth of 0.9m below existing ground level will be required in the vicinity of scala tests 1, 2 & 3.

Any soft areas encountered beneath the line of any external or internal load bearing footings would need to be removed in a trench 1.2m wide and replaced with compacted sand fill

Suitable imported pit sand should then be placed and compacted in the trenches and over the full extent of the foundation pad up to the underside of the proposed floor slab, in 150mm thick layers, to a compaction standard of 300kPa ultimate.

Maunsell are available to undertake the necessary subgrade and sand pad tests with a minimum of 24 hours notice.

Once Maunsell have certified the compaction of the completed sand pad, standard reinforced concrete strip foundations complying with NZS 3604:1999, Section 7.5 can then be excavated into the sand pad to support the proposed house.

4.0 Percolation Test and Results

With regard to the soakage properties of the soils, the soils investigation on the property consisted of two percolation tests to a depth of 2.0m below ground level. The tests were carried out at the locations shown on the attached site plan.

The results from the test, undertaken on the 13 May 2008, were as below:

- Drillhole Perc 1 showed the soils to consist of moist, firm, dark brown silt with some fine sand and a trace of medium gravel (topsoil), to a depth of 0.2m below ground level. From 0.2m to 0.4m below ground level, the soils consist of moist, firm, dark brown speckled black, mottled light grey silt. Beneath this layer from 0.4m to 1.2m below ground level, the soils consist of moist, firm, light grey speckled orange and black silt with a trace of fine sand, with some sand from 0.7m and iron staining from 0.8m. From 1.2m to the end of the borehole at 2.0m below ground level, the soils were logged as wet, medium dense, light grey speckled black fine to medium sand with a trace of silt.

- Drillhole Perc 2 showed the soils to consist of moist, firm, dark brown silt with some fine sand and a trace of medium gravel (topsoil), to a depth of 0.3m below ground level. From 0.3m to 0.9m below ground level, the soils consist of moist, medium dense, brownish grey speckled black fine to medium pumiceous sand with a trace of fine gravel. From 0.9m to 1.4m below

ground level, the soils consist of moist to wet, soft to firm, light grey mottled orange silt with a trace of fine sand. Beneath this layer from 1.4m to the end of the borehole at 2.0m below ground level, the soils were logged as wet, medium dense, grey fine to medium sand.

- The ground water table (perched) on the property was located at a depth of 1.5m to 1.6m below ground level at the date of (May 2008)

- A minimum percolation rate of 315mm/hr was noted in Perc Test 1. See attached percolation test logs and graphs.

- For design purposes a soakage rate of 235mm/hr has been adopted for the lot. This allows for a 25% reduction in soakage capacity over time due to silt ingress etc.

5.0 Stormwater Management System

Design of the stormwater soakage systems will be required for runoff from roof and driveway areas on the lot derived from the worst case duration 2 year storm event.

For the design of the onsite stormwater soakage systems, the following parameters were either adopted or calculated:

- A 2 year ARI storm event was used to size the soak systems
- Different storm durations (10min, 20min, 30min, 1hr and 2hr) were analysed to determine the worst case storm event
- For the roof and driveway areas, C = 0.90
- The Rational Formula was used to determine the design runoff from the lots
- Percolation rate of 235mm/hour was assumed based on the percolation testing outlined above, with the base of the soakage system being set at approximately 1.0m below ground level

6.0 Site Stormwater Disposal

6.1 Recommended Option

The recommended stormwater management system for the lot is to dispose of stormwater to ground via soakage. Due to the poor soakage of the soils on the site, the quantity of standard soakage trenches and soakholes are likely to be prohibitively costly and too large for the lots. We recommend the use of Stormtech SC310 units which can be located beneath trafficked areas (i.e. driveways, parking areas etc) and can detain and soak a greater volume of water per unit length than soakholes or soakage trenches. For the outline design for on-site stormwater soakage for the subdivision, the following parameters were either adopted or calculated:

- 2 year ARI storms with storm durations between 10 minutes and 2 hours were investigated with the worst case storm duration used to size the soakage system for the property
- Rainfall depths for the various storm durations were taken from NIWA Charts
- For the impermeable areas on the lots C=0.90
- The Rational Formula was used to determine the design stormwater runoff
- Based upon the percolation test results a design soil soakage rate of 235mm/hr was used for design. This soakage rate allows for a reduction in efficiency of the Stormtech SC310 system due to silt ingress over time and variations in soakage between winter and summer months.

6.2 Stormtech SC310 Units

For a Stormtech SC310 system, our calculations show that a single 2.17m long unit (installed in accordance with the manufacturer's specifications) can service a roof/hard surface area of 72m^2.

The number of SC310 units required for each lot can be determined once the area draining to each SC310 location is known by dividing the roof area plus the hardstand paved areas by $72m^2$.

7.0 Silt Trap Recommendations

Prior to discharging stormwater to any on-site soakage system, stormwater shall be collected into sumps so as to prevent a silt build up within the system which would reduce its capacity and long-term effectiveness.

8.0 Overland Flow Path

For storm events exceeding the capacity of the on-site soakage system on the lot, ponding on the ground surface will occur. We therefore recommend that suitable overland flowpaths be provided from the lot to enable excess stormwater to drain from the property and onto the Enderley Avenue carriageway. For greater than 2 year storm events, the overflow path from the rear of the site will require piping to a bubble up chamber behind the kerb or the reticulated stormwater system on Enderley Avenue while stormwater from the front of the lot can drain directly to the Enderley Avenue kerb and channel via the car parking area and driveway.

9.0 Limitations

The recommendations and opinions contained in this report are based upon data from the drillhole and scala penetrometer tests. Inferences about the nature and continuity of subsoil away from drillhole are considered reasonable but cannot be guaranteed. This report has been prepared for the particular project described in the owner's brief to us and no responsibility is accepted for the use of any part of this report in other contexts or for any other purposes.

Yours faithfully

Greg Wiechern
Senior Civil Technician
greg.wiechern@maunsell.com

Colin Jacobson
Engineering Manager
colin.jacobson@maunsell.com
Mobile: 0274 714-359

encl: Drillhole Logs, Locations Plan.

Maunsell Limited
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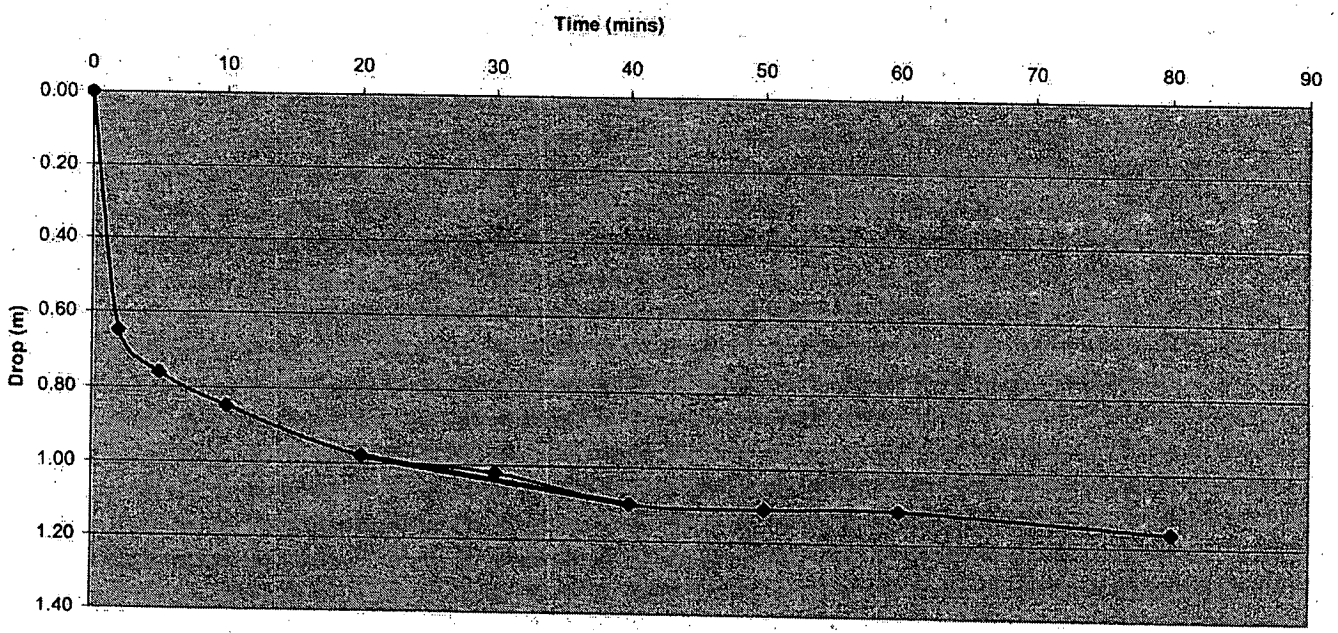
MAUNSELL | AECOM

Perc Test Results

PROJECT : Soils Investigation
CLIENT : CKC Holdings Ltd
LOCATION : 28 Enderley Avenue
AUGER No. : Perc 1
File Name: I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.8 Geotech\[Perc 1.xls]Perc

PROJECT No. : 600 44 751
DATE : 13/05/2008

Source Table	
Time (mins)	Drop (m)
0	0.00
2	0.65
5	0.76
10	0.85
20	0.98
30	1.02
40	1.10
50	1.11
60	1.11
80	1.16



Percolation Rate Calculation:

Time (mins)	Drop (m)	
20	0.98	Minimum Slope - Lower
40	1.10	Minimum Slope - Upper

Percolation Rate = 0.006 m/min = 360 mm/hr

9/06/2008 2:56 p.m.

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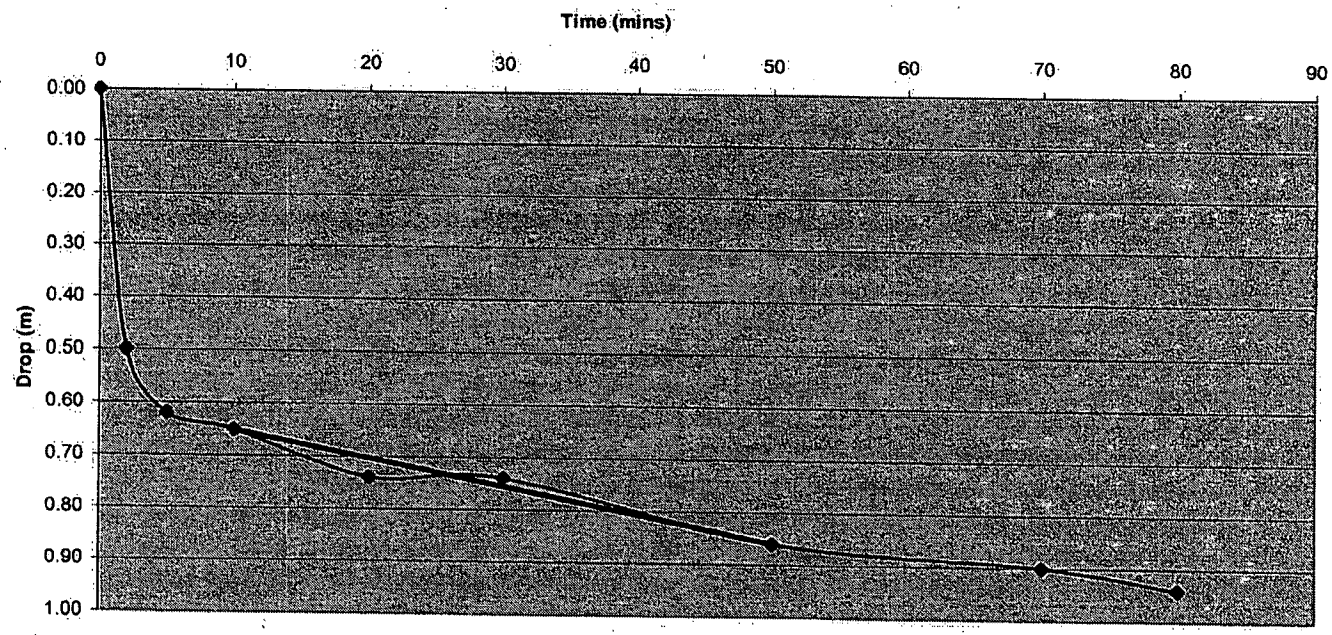
Perc Test Results

PROJECT : Soils Investigation
CLIENT : CKC Holdings Ltd
LOCATION : 28 Enderley Avenue
AUGER No. : Perc 2
File Name: I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.8 Geotech\[Perc 2.xls]Perc

PROJECT No. : 600 44 751
DATE : 13/05/2008

Source Table	
Time (mins)	Drop (m)
0	0.00
2	0.50
5	0.62
10	0.65
20	0.74
30	0.74
50	0.86
70	0.90
80	0.94



Percolation Rate Calculation:

Time (mins)	Drop (m)	
10	0.65	Minimum Slope - Lower
50	0.86	Minimum Slope - Upper

Percolation Rate = 0.00525 m/min = 315 mm/hr

9/06/2008 2:56 p.m.

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Soakage Design - 2 year ARI - ROWs (Stormtech SC-310)

28 Enderley Ave, Hamilton

Job No.	600 44 751		
Computed:	GPW	**Date:**	28 May 2008
Checked:		**Date:**	
File Name	I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.3 Engineering\[Stormtech 310 Soakage - ROW Hardstand Areas - 2yr ARI.xls]Cover		

CALCULATION SUMMARY

Type of Soakage System: SC-310 - provides 0.878 m³ storage, for 1 chamber (2.17m length, installed in 1.47m wide and 0.71m deep trench)

Design soakage Rate: 235 mm/hr

Design Storm: 2 yr ARI

Runoff coefficient for ROW area, C: 0.9 (Roof & driveway)

Design Rainfall Intensities from Rainfall Intensity Curves derived from NIWA observations at Ruakura over the period 1947 to 1985 - Refer to relevant District Code of Practice for Details

Design Calculation Results

(see attached sheets)

2yr ARI Storm Duration	Rainfall Intensity mm/hr	Rainfall Depth mm	SOAKTRENCH Area served by 1.5m wide x 2.17m long stormtech SC-310
10 mins	60.0	10.0	111
20 mins	42.0	14.0	89
30 mins	36.0	18.0	77
60 mins	25.0	25.0	72
120 mins	14.0	28.0	94

Thus, for worst case 2yr ARI storm - 2.17m long stormtech SC-310 chamber, in 1.5m wide and 0.71m deep trench, could serve 72 m² of hard stand/roo

OR

1m length could serve 33.1 m² of hard stand/roof area

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MAUNSELL | AECOM

Soakage Design - 2 year ARI - ROWs (Stormtech SC-310)

28 Enderley Ave, Hamilton

Job No.	600 44 751		
Computed:	GPW	**Date:**	28 May 2008
Checked:		**Date:**	
File Name	I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.3 Engineering\Stormtech 310 Soakage - ROW Hardstand Areas - 2yr ARI.xls]10min		

Type of Soakage System SC-310
Design Soakage Rate 235 mm/hr
Design Storm **10 mins duration**
Design Storm, 2 yr ARI, duration 10 mins, rainfall depth (from NIWA Charts) = 10.0 mm

SOAKTRENCH DESIGN - Soakage for 1.47m wide trench x 2.17m long SC-310 chamber (installed in stone surround) - depth 0.71m

Volume of runoff disposed by soakage = Vsoak

V_{soak} (m^3) = (As x Sr x Sd)/1000

Where:
As = soakage area, which for 2.17m long by 1.47m wide stormtech SC-310 = 3.15 m^2
Sr = Soakage Rate = 235 mm/day
Sd = Storm Duration (in hours) 0.17 hrs
Thus Vsoak = **0.12 m^3**

Volume of runoff held in storage = Vstore

V_{store} (m^3) = As x Ds x Vrf

Where:
From Stormtech Literature, for 1 SC-310 chamber (2.17m long) 0.878 m^2
Thus Vstore = **0.88 m^3**

Thus for 1 stormtech SC-310 chamber (trench 2.17m long and 1.5m wide), Vsoak + Vstore = **1.00 m^3**

AREAS SERVED

SOAKTRENCH

Runoff capacity of 1 Stormtech SC-310 chamber (2.17m long) 1.00 m^3
Rainfall runoff volume for 2yr ARI 10mins design storm = Rc

Rc (m3) = 10 x C x I x A

Where:
C = Runoff coefficient for ROW area = 0.9
I = depth of rainfall for design storm (mm) = 10.0 mm
Thus A = 0.01113 ha
or 111 m^2

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Soakage Design - 2 year ARI - ROWs (Stormtech SC-310)

28 Enderley Ave, Hamilton

Job No.	600 44 751		
Computed:	GPW	**Date:**	28 May 2008
Checked:		**Date:**	
File Name	I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.3 Engineering\Stormtech 310 Soakage - ROW Hardstand Areas - 2yr ARI.xls]20min		

Type of Soakage System: SC-310
Design Soakage Rate: 235 mm/hr
Design Storm: 20 mins duration
Design Storm, 2 yr ARI, duration 20 mins, rainfall depth (from NIWA Charts) = 14.0 mm

SOAKTRENCH DESIGN - Soakage for 1.47m wide trench x 2.17m long SC-310 chamber (installed in stone surround) - depth 0.71m

Volume of runoff disposed by soakage = Vsoak

Where:
As = soakage area, which for 2.17m long by 1.47m wide stormtech SC-310 = 3.15 m^2
Sr = Soakage Rate = 235 mm/day
Sd = Storm Duration (in hours) 0.33 hrs

$Vsoak\ (m^3) = (As \times Sr \times Sd)/1000$
Thus Vsoak = 0.25 m^3

Volume of runoff held in storage = Vstore

Where: From Stormtech Literature, for 1 SC-310 chamber (2.17m long)

$Vstore\ (m^3) = As \times Ds \times Vrf$
0.878 m^2
Thus Vstore = 0.88 m^3

Thus for 1 stormtech SC-310 chamber (trench 2.17m long and 1.5m wide), Vsoak + Vstore = 1.12 m^3

AREAS SERVED

SOAKTRENCH
Runoff capacity of 1 Stormtech SC-310 chamber (2.17m long) 1.12 m^3
Rainfall runoff volume for 2yr ARI 20mins design storm = Rc

Where:
C = Runoff coefficient for ROW area = 0.9
I = depth of rainfall for design storm (mm) = 14.0 mm

$Rc\ (m3) = 10 \times C \times I \times A$
Thus A = 0.00893 ha
or 89 m^2

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Soakage Design - 2 year ARI - ROWs (Stormtech SC-310)

28 Enderley Ave, Hamilton

Job No.	600 44 751		
Computed:	GPW	**Date:**	28 May 2008
Checked:		**Date:**	
File Name	I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.3 Engineering\[Stormtech 310 Soakage - ROW Hardstand Areas - 2yr ARI.xls]30min		

Type of Soakage System	SC-310
Design Soakage Rate	235 mm/hr
Design Storm	**30 mins duration**
Design Storm, 2yr ARI, duration 30 mins, rainfall depth (from NIWA Charts) =	18 mm

SOAKTRENCH DESIGN - Soakage for 1.47m wide trench x 2.17m long SC-310 chamber (installed in stone surround) - depth 0.71m

Volume of runoff disposed by soakage = Vsoak

$Vsoak\ (m^3) = (As \times Sr \times Sd)/1000$

Where:
- As = soakage area, which for 2.17m long by 1.47m wide stormtech SC-310 = 3.15 m^2
- Sr = Soakage Rate = 235 mm/day
- Sd = Storm Duration (in hours) 0.50 hrs

Thus Vsoak = 0.37 m^3

Volume of runoff held in storage = Vstore

$Vstore\ (m^3) = As \times Ds \times Vrf$

Where: From Stormtech Literature, for 1 SC-310 chamber (2.17m long) 0.878 m^2

Thus Vstore = 0.88 m^3

Thus for 1 stormtech SC-310 chamber (trench 2.17m long and 1.5m wide), Vsoak + Vstore = 1.25 m^3

AREAS SERVED

SOAKTRENCH

Runoff capacity of 1 Stormtech SC-310 chamber (2.17m long) 1.25 m^3

Rainfall runoff volume for 2yr ARI 30mins design storm = Rc

$Rc\ (m3) = 10 \times C \times I \times A$

Where:
- C = Runoff coefficient for ROW area = 0.9
- I = depth of rainfall for design storm (mm) = 18.0 mm

Thus A = 0.00770 ha
or 77 m^2

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Soakage Design - 2 year ARI - ROWs (Stormtech SC-310)

28 Enderley Ave, Hamilton

Job No:	600 44 751		
Computed:	GPW	**Date:**	28 May 2008
Checked:		**Date:**	
File Name	I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.3 Engineering\[Stormtech 310 Soakage - ROW Hardstand Areas - 2yr ARI.xls]60min		

Type of Soakage System	SC-310
Design Soakage Rate	235 mm/hr
Design Storm	**1 hour duration**
Design Storm, 2 yr ARI, duration 60 mins, rainfall depth (from NIWA Charts) =	25 mm

SOAKTRENCH DESIGN - Soakage for 1.47m wide trench x 2.17m long SC-310 chamber (installed in stone surround) - depth 0.71m

Volume of runoff disposed by soakage = Vsoak

Vsoak (m^3) = (As x Sr x Sd)/1000

Where:
As = soakage area, which for 2.17m long by 1.47m wide stormtech SC-310 = 3.15 m^2
Sr = Soakage Rate = 235 mm/day
Sd = Storm Duration (in hours) 1.00 hrs

Thus Vsoak = 0.74 m^3

Volume of runoff held in storage = Vstore

Vstore (m^3) = As x Ds x Vrf

Where: From Stormtech Literature, for 1 SC-310 chamber (2.17m long) 0.878 m^2

Thus Vstore = 0.88 m^3

Thus for 1 stormtech SC-310 chamber (trench 2.17m long and 1.5m wide), Vsoak + Vstore = 1.62 m^3

AREAS SERVED

SOAKTRENCH

Runoff capacity of 1 Stormtech SC-310 chamber (2.17m long) **1.62 m^3**

Rainfall runoff volume for 2yr ARI 1hr design storm = Rc

Rc (m3) = 10 x C x i x A

Where:
C = Runoff coefficient for ROW area = 0.9
i = depth of rainfall for design storm (mm) = 25.0 mm

Thus A = 0.00719 ha
or 72 m^2

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MAUNSELL | AECOM

Soakage Design - 2 year ARI - ROWs (Stormtech SC-310)

28 Enderley Ave, Hamilton

Job No.	600 44 751		
Computed:	GPW	**Date:**	28 May 2008
Checked:		**Date:**	
File Name	I:\Projects\Engineering\60044751 HGT MISC 1009 28 Enderley Ave, Hamilton\4. Tech work area\4.3 Engineering\[Stormtech 310 Soakage - ROW Hardstand Areas - 2yr ARI.xls]120min		

Type of Soakage System	SC-310	
Design Soakage Rate	235 mm/hr	
Design Storm	**2 hours duration**	
Design Storm, 2yr ARI, duration 120 mins, rainfall depth (from NIWA Charts) =		28 mm

SOAKTRENCH DESIGN - Soakage for 1.47m wide trench x 2.17m long SC-310 chamber (installed in stone surround) - depth 0.71m

Volume of runoff disposed by soakage = Vsoak

Vsoak (m^3) = (As x Sr x Sd)/1000

Where: As = soakage area, which for 2.17m long by 1.47m wide stormtech SC-310 =		3.15 m^2
Sr = Soakage Rate =		235 mm/day
Sd = Storm Duration (in hours)		2.00 hrs
	Thus Vsoak =	**1.48 m^3**

Volume of runoff held in storage = Vstore

Vstore (m^3) = As x Ds x Vrf

Where: From Stormtech Literature, for 1 SC-310 chamber (2.17m long)		0.878 m^2
	Thus Vstore =	**0.88 m^3**

Thus for 1 stormtech SC-310 chamber (trench 2.17m long and 1.5m wide), Vsoak + Vstore = 2.36 m^3

AREAS SERVED

SOAKTRENCH

Runoff capacity of 1 Stormtech SC-310 chamber (2.17m long) **2.36 m^3**

Rainfall runoff volume for 2yr ARI 2hr design storm = Rc

Rc (m3) = 10 x C x I x A

Where: C = Runoff coefficient for ROW area =		0.9
I = depth of rainfall for design storm (mm) =		28.0 mm
	Thus A =	0.00936 ha
	or	94 m^2

Job: 8272 Client: CKC HOLDING Site: CKC HOLDING (UNITS 1 & 2)
Phone: 28 ENDERLEY AVENUE
HAMILTON
Description:
Building Consent No.: Phone:

PRODUCER STATEMENT
MiTek 20/20™ TRUSS DESIGN PROGRAM

Certification of MiTek 20/20™ Truss Design Program

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 this program are prepared using sound and widely accepted engineering principles, and in accordance with NZS 4203, NZS 3603 and NZS 3604 as verification methods and acceptable solutions of the approved documents of the New Zealand Building Code to satisfy the requirements of the Building Regulations 1992: Clause B1 - Structure. This computer design for the proposed building complies with the relevant provisions of the NZ Building Code. This is subject to all proprietary products meeting their performance specification requirements, the provision of adequate bracing, fixings and the correct input of design data carried out by suitably trained personnel.

Summary of MiTek 20/20™ Truss Design Data and Output

The MiTek 20/20™ computer design output for this job titled and located at the site identified on the top of this page is based on the following parameters entered into the program. The owner must ensure that the following job details below are current and relevant to the project before fabrication and erection of the GANG-NAIL trusses.

Job Details

Roof Truss

Timber Group:	MSGx45 TRUSS	Pitch:	22.000 deg	Std Overhang:	450 mm
Roof		**Ceiling**		**Wind**	
Material:	Monier Concrete Tiles	Material:	Standard	Area:	Medium (37.0 m/s)
Dead Load:	0.600 kPa	Dead Load:	0.200 kPa	Pressure Coeff:	Cpe = varies; Cpi = -0.30, 0.20
Restraints:	400 mm centres	Restraints:	400 mm centres		
Live Load:	Qur = 0.250 kPa Qc = 1.000 kN				

These trusses must be fabricated and erected in accordance with the GANG-NAIL manual. Proper erection bracing must be installed to hold the components true and plumb and in a safe condition until permanent bracing is fixed. All permanent bracing and fixing must be installed before any loads are applied. The specifications for timber shall be as shown on the output. The timber shall be standard gauged and treated to the requirements of NZS 3640:2003. Unless otherwise noted, this design assumes that the steel fixings and timber connectors are situated in a closed environment, as defined by NZS3604:1999 Section 4.

Truss List

Legend: * = detail only, ? = input only, ~~Txx~~ = failed design, Unmarked trusses = designed successfully, LB = lateral bracing required
CF = Chemical Free Treatment

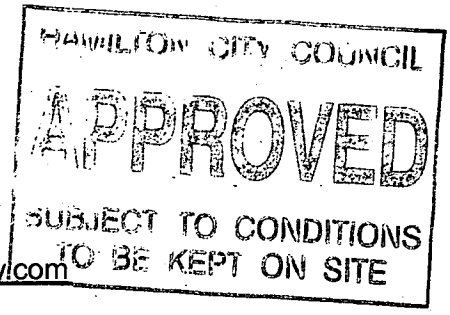
Roof Truss

Treatment: Top Chords - CF Bottom Chords - CF Webs - CF

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
*HB01	1	5857	15.944	900	J05B	2	3514	22.000	900	*R01A	8	763	22.000	900
*HB01A	1	5857	15.944	900	J05C	2	3514	22.000	900	*R02	2	718	22.000	900
*HB02	2	8151	15.944	900	J05F	2	3514	22.000	900	*R02A	2	718	22.000	900
*HB03	1	4641	15.944	900	J06	1	2614	22.000	900	*R03	2	1727	0.000	900
*HB03A	1	4641	15.944	900	J06A	1	2614	22.000	900	*R04	2	2472	0.000	900
*HB04	4	3560	15.944	900	J06B	1	2614	22.000	900	T01	1	11373	22.000	900
HJ01	1	2923	15.944	900	J06C	1	2614	22.000	900	T01A	1	11373	22.000	900
HJ01A	1	2923	15.944	900	J07	1	1714	22.000	900	T02	2	8458	22.000	900
HTG01	1D	4570	22.000	900	J07A	1	1714	22.000	900	T02A	4	8458	22.000	900
HTG01A	1D	4570	22.000	900	J07B	1	1714	22.000	900	T03	1	4180	22.000	900
HTG02	1D	3725	22.000	900	J07C	1	1714	22.000	900	T03A	1	4180	22.000	900
HTG03	1D	3725	22.000	900	J08	1	814	22.000	900	T03B	1	4180	22.000	900
HTG04	1	3514	22.000	900	J08A	1	814	22.000	900	T03C	1	4180	22.000	900
HTG05	1	3514	22.000	900	J09	2	2067	22.000	900	T04	1	2903	-22.000	900
J01	2	2903	-22.000	900	J09A	2	2067	22.000	900	T04A	1	2903	-22.000	900
J02	1	2825	22.000	900	J09B	2	2067	22.000	900	TG01	1D	7680	22.000	900
J02A	1	2825	22.000	900	J10	1	1167	22.000	900	TG01A	1D	7680	22.000	900
J02B	1	2825	22.000	900	J10A	1	1167	22.000	900	TR01	1	5465	22.000	900
J02C	1	2825	22.000	900	J10B	1	1167	22.000	900	TR01A	1	5465	22.000	900
J03	1	1925	22.000	900	J10C	1	1167	22.000	900	V01	2	655	22.000	900
J03A	1	1925	22.000	900	J11	4	2067	22.000	900	V02	2	1746	22.000	900
J03B	1	1925	22.000	900	J11A	2	2067	22.000	900	V03	2	1212	22.000	900
J03C	1	1925	22.000	900	J12	1	1180	22.000	900	V04	2	612	22.000	900
J04	1	1025	22.000	900	J12A	1	1180	22.000	900	V05	2	2238	22.000	900
J04A	1	1025	22.000	900	J12B	1	1180	22.000	900	V06	2	1017	22.000	900
J05	2	3514	22.000	900	J12C	1	1180	22.000	900					
J05A	2	3514	22.000	900	*R01	8	763	22.000	900					

Roof Truss quantity : 124

Total quantity : 124



Job: 8272

Client: CKC HOLDING
Phone:

Site: CKC HOLDING (UNITS 1 & 2)
28 ENDERLEY AVENUE
HAMILTON

Description:
Building Consent No.:

Phone:

The computer design input has been carried out by:

Signed: .....

Date: 2/07/2008

Name of Computer Operator: Skip Johanson

Qualifications and Title: Designer

Company: THOMSONS BUILDING CENTRE

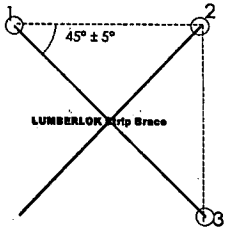
Truss Fixings

	Qty
D - Pair of LUMBERLOK Wire Dogs	80
X - LUMBERLOK JH47x90 Joist Hanger	56
Z - LUMBERLOK JH47x120 Joist Hanger	18
P - LUMBERLOK JH47x190 Joist Hanger	
E - LUMBERLOK JH95x165 Joist Hanger	
O - Pair of LUMBERLOK CT200 Ceiling Ties	
H - LUMBERLOK CT400 Cyclone Tie	16
B - LUMBERLOK CT600 Cyclone Tie	
M - Pair of LUMBERLOK Multi Grips	6
NP - LUMBERLOK Nailon Plate	
N - LUMBERLOK N21 Diagonal Cleat	
W - Pair of LUMBERLOK CPC40 Cleats	18
K - LUMBERLOK 16kN Truss to Top Plate set	
S/S - 300mm Sheet Brace Strap @1200mm crs	
LUMBERLOK product nails required	12

Roof Bracing

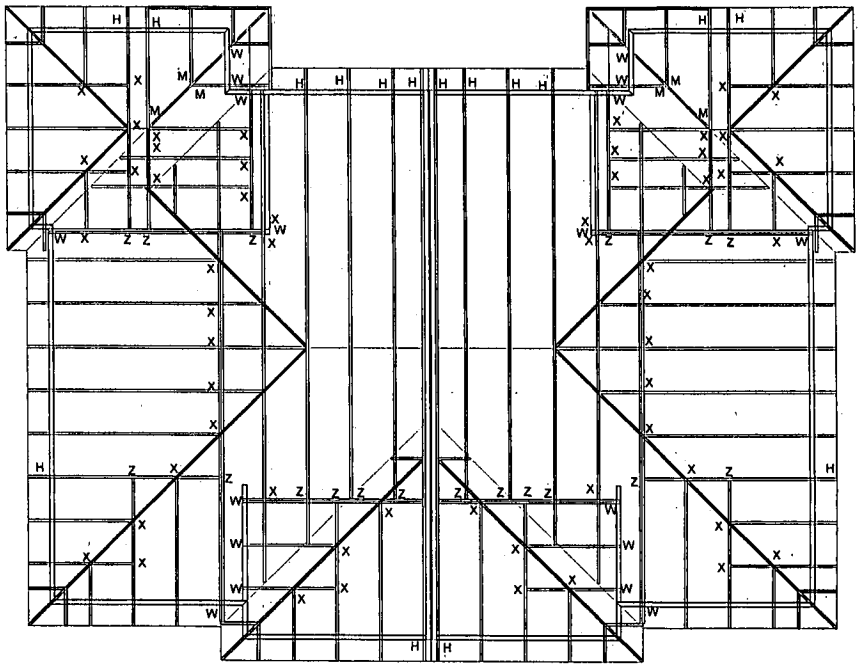
Refer to:
LUMBERLOK Roof Bracing Specifications brochure 08/2006 for end fixing details.

The brace must be located such that it forms an angle of 45° ± 5° to the wall



NOTES:

All other areas must have a minimum of a pair of 90mm skew nails for truss to top plate connections.
Refer to:
LUMBERLOK Timber Connectors Characteristic Loadings Data brochure 03/4



THOMSONS BUILDING CENTRE
Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 1 & 2)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Truss Fixings & Roof Bracing

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	: 22.0 Deg	Truss Centres	: 900 mm
Roof Material	: Monier Concrete Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Standard	Floor Live Load	: kPa
Wind Zone	: Medium	Wind Speed	: 37 m/s
Roof Snow Load	: 0.000 kPa		

PrimeCad v4.4.1697.62
MiTek
Job Title : 8272
Sheet : 5
Revision Number :

Stud to top plate fixing details

Type A is minimum fixing required unless specified otherwise.

FIXING TYPE A
0.7kN

2/90x3.33 plain steel wire nails driven vertically into stud.

FIXING TYPE B
1.4kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus single LUMBERLOK Tylok 2T4 plate.

FIXING TYPE C
2.7kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus pair LUMBERLOK Tylok 2T4 plates.

FIXING TYPE D
6.0kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus LUMBERLOK 6kN Stud Anchor.

OR

2/90x3.33 plain steel wire nails driven vertically into stud, plus LUMBERLOK Tylok Stud Tie

OR

LUMBERLOK Sheet Brace Strap 400 with 6/30x3.15 nails each stud face

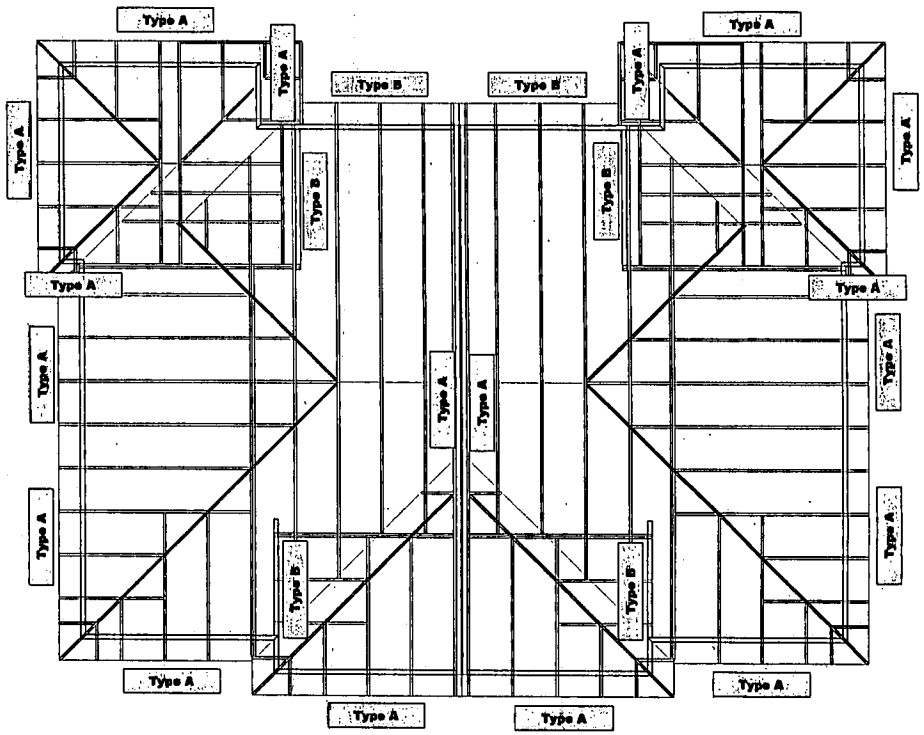
OR

LUMBERLOK Stud Strap

NOTES:

Refer to:
LUMBERLOK Wall Fixing Chart - Stud to Top Plate Fixing Schedule 01/10

(Alternative to NZS3604:1999 Table 8.18)



THOMSONS BUILDING CENTRE
Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 1 & 2)
28 ENDERLEY AVENUE
HAMILTON

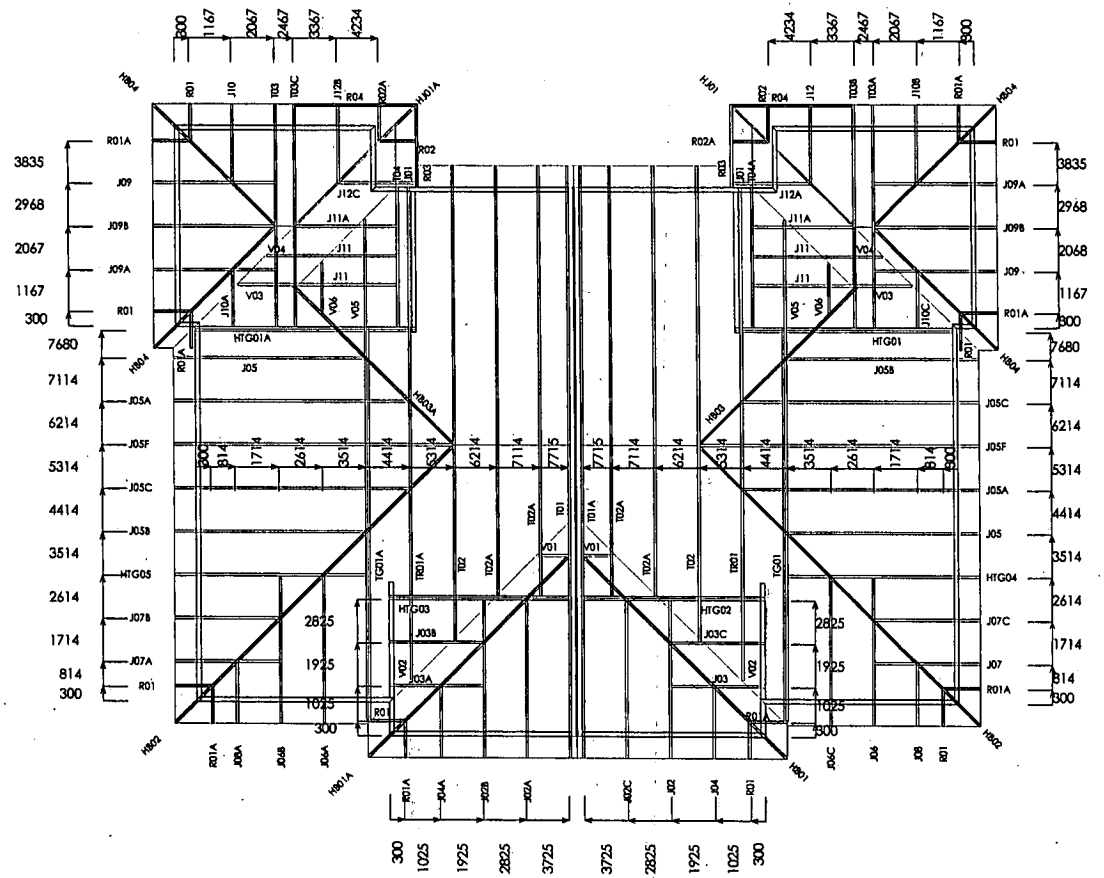
Sheet Title :
For Building Consent
Stud To Top Plate Fixing

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:
Roof Pitch : 22.0 Deg
Roof Material : Monier Concrete Tiles
Ceiling Material : Standard
Wind Zone : Medium
Roof Snow Load: 0.000 kPa

Truss Centres : 900 mm
Roof Live Load : 0.250kPa
Floor Live Load : kPa
Wind Speed : 37 m/s

PrimeCad v4.4.1597.52
MiTek™
Job Title : 8272
Sheet : 4
Revision Number :



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Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 1 & 2)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Buildable Truss Layout

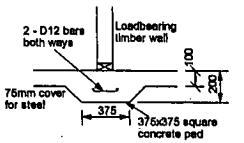
Date : 1 Jul,2008 | Drawn : Administrator.
Scale : 1: 100 | System : MiTek 20/20

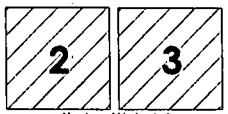
Job Details:
Roof Pitch : 22.0 Deg
Roof Material : Monier Concrete Tiles
Ceiling Material : Standard
Wind Zone : Medium
Roof Snow Load: 0.000 kPa

Truss Centres : 900 mm
Roof Live Load : 0.250kPa
Floor Live Load : kPa
Wind Speed : 37 m/s

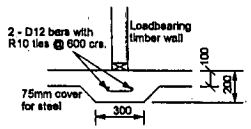
PrimeCad v4.4.1897.62
MiTek
Job Title : 8272
Sheet : 1
Revision Number :

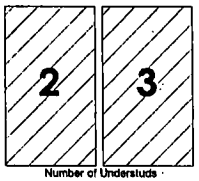
Slab Thickening Details



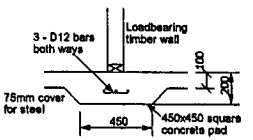


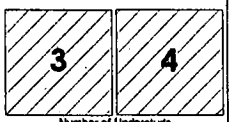
TYPE FP1 - 375x375mm Pad



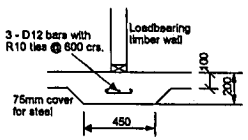


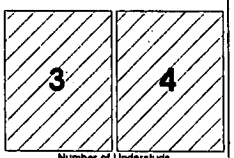
TYPE FS1 - 300mm Strip footing





TYPE FP2 - 450x450mm Pad

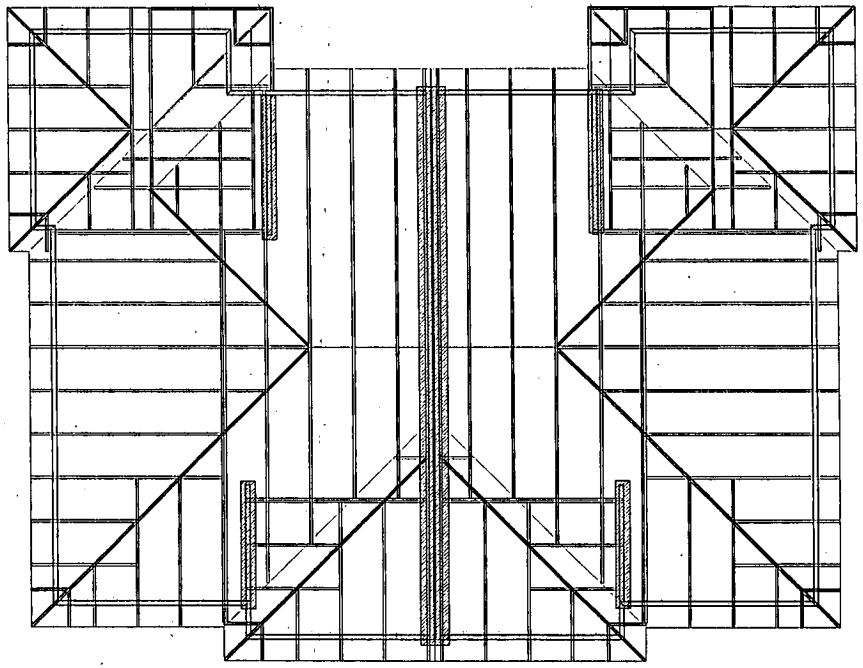




TYPE FS2 - 450mm Strip footing

NOTES:

The numbers found within the hatched area is the number of studs required below each truss.
Refer to:
GANG-NAIL Internal Load Bearing on Concrete Floor Slabs brochure 12/2006



THOMSONS BUILDING CENTRE
Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 1 & 2)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Slab Thickening

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	:22.0 Deg		Truss Centres	: 900	mm
Roof Material	: Monier Concrete Tiles		Roof Live Load	: 0.250	kPa
Ceiling Material	: Standard		Floor Live Load	:	kPa
Wind Zone	: Medium		Wind Speed	: 37	m/s
Roof Snow Load	: 0.000 kPa				

PrimeCad v4.4.1597.52

MiTek

Job Title : 8272
Sheet : 2
Revision Number :

Job: 8271 Client: CKC HOLDING Site: CKC HOLDING (UNITS 5 & 6)
Phone: 28 ENDERLEY AVENUE
HAMILTON
Description:
Building Consent No.: Phone:

PRODUCER STATEMENT
MiTek 20/20™ TRUSS DESIGN PROGRAM

Certification of MiTek 20/20™ Truss Design Program

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 this program are prepared using sound and widely accepted engineering principles, and in accordance with NZS 4203, NZS 3603 and NZS 3604 as verification methods and acceptable solutions of the approved documents of the New Zealand Building Code to satisfy the requirements of the Building Regulations 1992: Clause B1 - Structure. This computer design for the proposed building complies with the relevant provisions of the NZ Building Code. This is subject to all proprietary products meeting their performance specification requirements, the provision of adequate bracing, fixings and the correct input of design data carried out by suitably trained personnel.

Summary of MiTek 20/20™ Truss Design Data and Output

The MiTek 20/20™ computer design output for this job titled and located at the site identified on the top of this page is based on the following parameters entered into the program. The owner must ensure that the following job details below are current and relevant to the project before fabrication and erection of the GANG-NAIL trusses.

Job Details

Roof Truss

Timber Group:	MSGx45 TRUSS	Pitch:	22.000 deg	Std Overhang:	450 mm
Roof		**Ceiling**		**Wind**	
Material:	Monier Concrete Tiles	Material:	Standard	Area:	Medium (37.0 m/s)
Dead Load:	0.600 kPa	Dead Load:	0.200 kPa	Pressure Coeff:	Cpe = varies; Cpi = -0.30, 0.20
Restraints:	400 mm centres	Restraints:	400 mm centres		
Live Load:	Qur = 0.250 kPa				
	Qc = 1.000 kN				

These trusses must be fabricated and erected in accordance with the GANG-NAIL manual. Proper erection bracing must be installed to hold the components true and plumb and in a safe condition until permanent bracing is fixed. All permanent bracing and fixing must be installed before any loads are applied. The specifications for timber shall be as shown on the output. The timber shall be standard gauged and treated to the requirements of NZS 3640:2003. Unless otherwise noted, this design assumes that the steel fixings and timber connectors are situated in a closed environment, as defined by NZS3604:1999 Section 4.

Truss List

Legend: * = detail only, ? = input only, ~~Txx~~ = failed design, Unmarked trusses = designed successfully, LB = lateral bracing required
CF = Chemical Free Treatment

Roof Truss

Treatment: Top Chords - CF Bottom Chords - CF Webs - CF

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	
*HB01	1	4690	15.944	900	J04B	2	1924	22.000	900	T04	1	3893	22.000	900	
*HB01A	1	4690	15.944	900	J05	1	1024	22.000	900	T04A	1	3893	22.000	900	
*HB02	1	5673	15.944	900	J05A	1	1024	22.000	900	T05	2	4570	22.000	900	
*HB02A	1	5673	15.944	900	J05B	1	1024	22.000	900	T06	1	4570	22.000	900	
*HB03	4	3357	15.944	900	J05C	1	1024	22.000	900	T06A	1	4570	22.000	900	
J01	1	3764	22.000	900	*R02	1	682	21.999	900	T07	6	3764	22.000	900	
J01A	2	3764	22.000	900	*R02A	1	682	21.999	900	*T09	2	11174	0.000	900	
J01B	1	3764	22.000	900	*R03	1	768	22.000	900	TG01	1	11129	22.000	900	LB
J01C	2	3764	22.000	900	*R03A	1	768	22.000	900	TG01A	1	11129	22.000	900	LB
J01D	1	3764	22.000	900	*R04	4	763	22.000	900	TR01	1	11174	22.000	900	
J01E	1	3764	22.000	900	*R04A	4	763	22.000	900	TR01A	1	11174	22.000	900	
J01F	2	3764	22.000	900	T01	1	3893	22.000	900	V01	2	1424	22.000	900	
J02	1	3764	22.000	900	T01A	1	3893	22.000	900	V02	2	1158	22.000	900	
J02A	1	3764	22.000	900	T02	1	3893	22.000	900						
J04	2	1924	22.000	900	T02A	1	3893	22.000	900						
J04A	2	1924	22.000	900	T03	6	11174	22.000	900	LB					

Treatment: Top Chords - H1.2 Bottom Chords - H1.2 Webs - H1.2

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
ETB01	2	5025	22.000	900

Roof Truss quantity : 76

Total quantity : 76

Job: 8271 Client: CKC HOLDING Site: CKC HOLDING (UNITS 5 & 6)
Phone: 28 ENDERLEY AVENUE
HAMILTON

Description:
Building Consent No.: Phone:

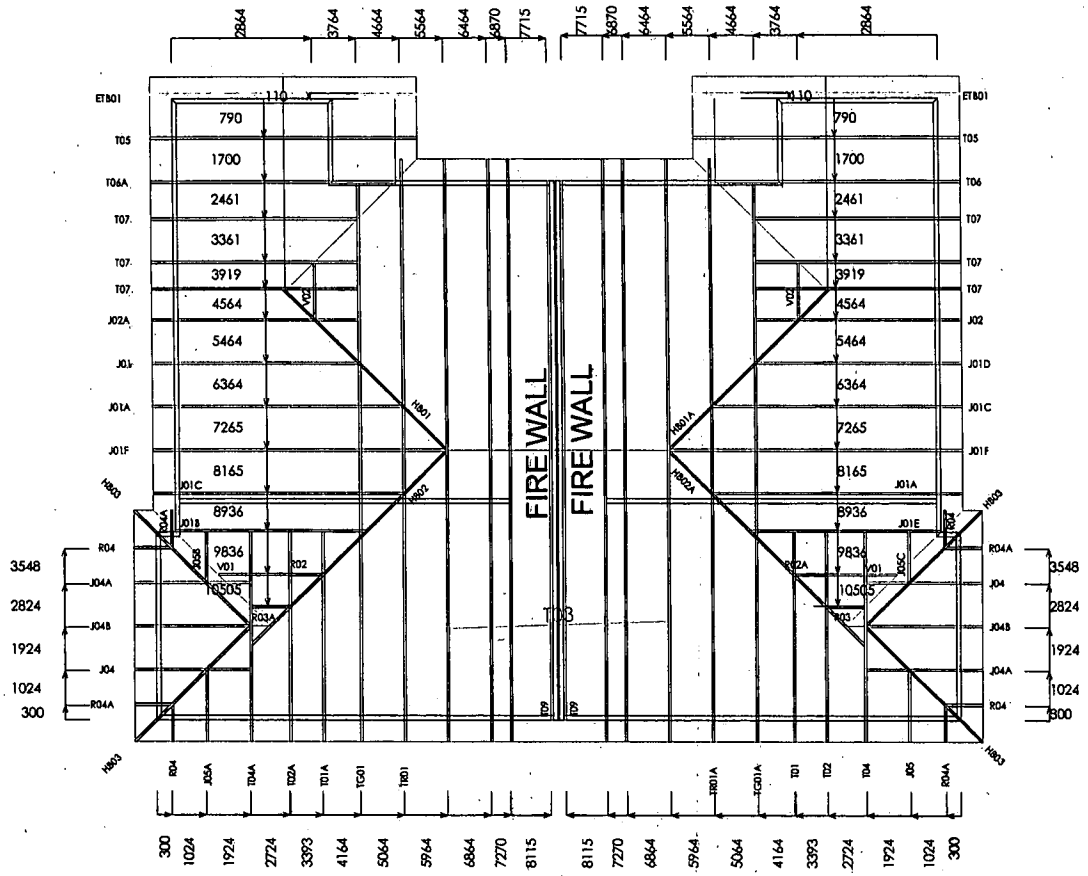
The computer design input has been carried out by:

Signed: ..... Date: 2/07/2008

Name of Computer Operator: Skip Johanson

Qualifications and Title: Designer

Company: THOMSONS BUILDING CENTRE



THOMSONS BUILDING CENTRE
Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 5 & 6)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Buildable Truss Layout

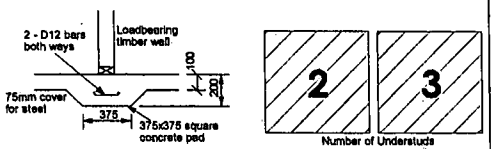
Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:
Roof Pitch : 22.0 Deg
Roof Material : Monier Concrete Tiles
Ceiling Material : Standard
Wind Zone : Medium
Roof Snow Load: 0.000 kPa

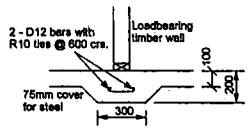
Truss Centres : 900 mm
Roof Live Load : 0.250kPa
Floor Live Load : kPa
Wind Speed : 37 m/s

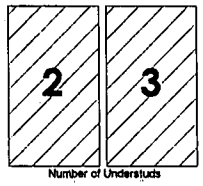
PrimeCad v4.4.1587.52
MiTek
Job Title :
8271
Sheet :
1
Revision Number :

Slab Thickening Details

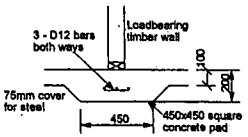


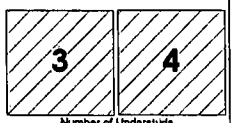
TYPE FP1 - 375x375mm Pad



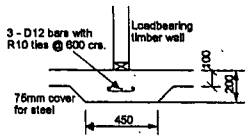


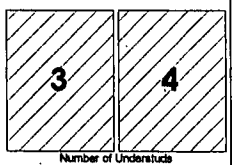
TYPE FS1 - 300mm Strip footing





TYPE FP2 - 450x450mm Pad

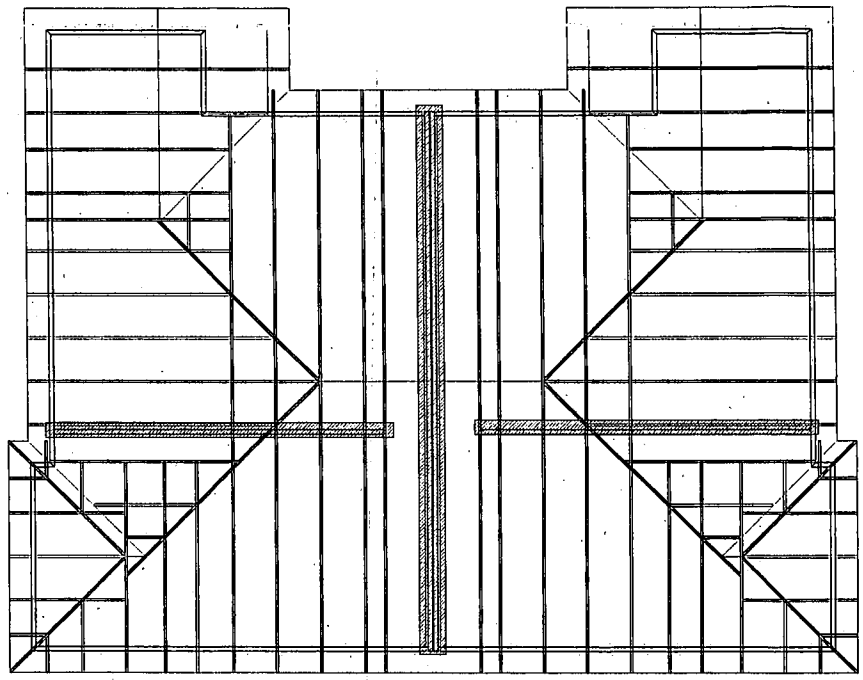




TYPE FS2 - 450mm Strip footing

NOTES:

The numbers found within the hatched area is the number of studs required below each truss.
Refer to:
GANG-NAIL Internal Load Bearing on Concrete Floor Slabs brochure 12/2006



THOMSONS BUILDING CENTRE
Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 5 & 6)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Slab Thickening

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	: 22.0 Deg	Truss Centres	: 900 mm
Roof Material	: Monier Concrete Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Standard	Floor Live Load	: kPa
Wind Zone	: Medium	Wind Speed	: 37 m/s
Roof Snow Load	: 0.000 kPa		

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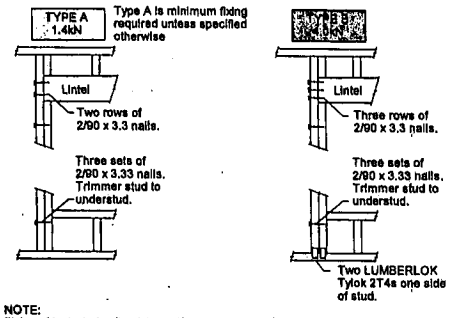
MiTek

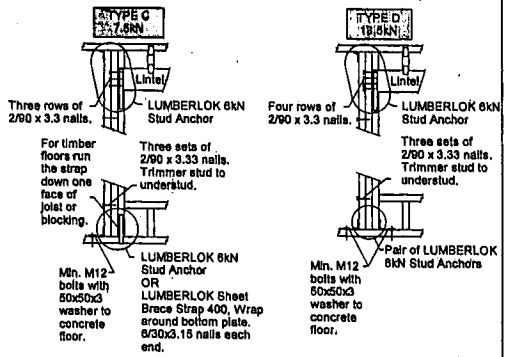
Job Title : 8271
Sheet : 2
Revision Number :

Lintel Fixing Details



NOTE:
Fixing of jack stud to lintel & top plate is as per the top plate schedule. All other nailing as per NZS 3604:1999 Table 8.19.

NOTE:
For lintel Type C and D LUMBERLOK 6kN Stud Anchor to top plate fixing may be replaced with a LUMBERLOK Tylok Stud Tie or a LUMBERLOK Sheet Brace Strap 400 on one face of stud and lintel, 6/30x3.15 nails each end as alternative fixings.

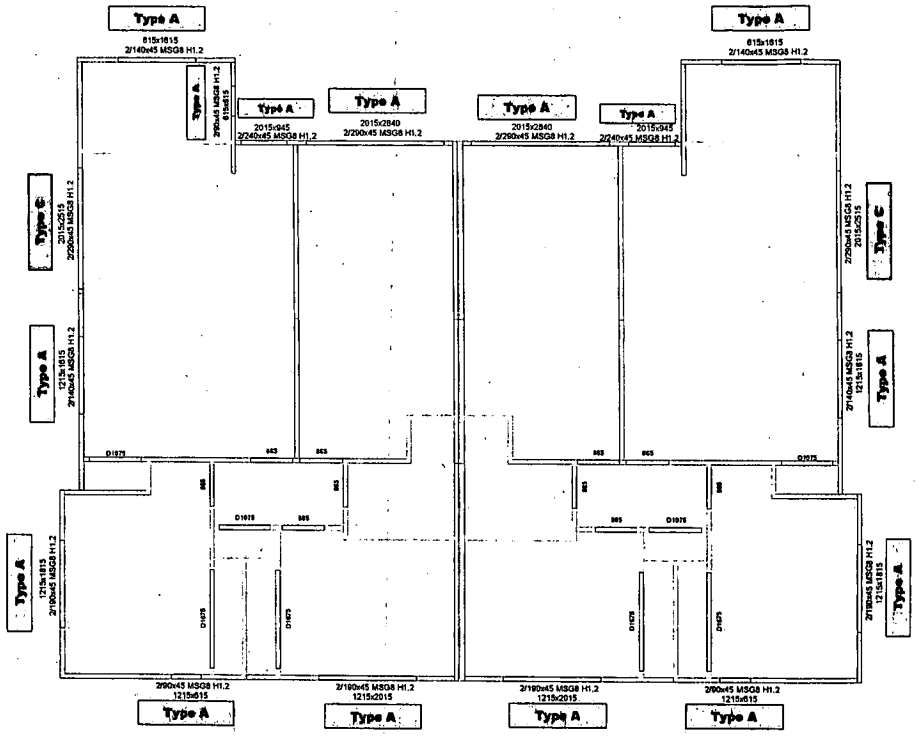


NOTE:
Fixing of jack stud to lintel & top plate is as per the top plate schedule. All other nailing as per NZS 3604:1999 Table 8.19.

NOTES:

Refer to:
LUMBERLOK Wall Fixing Chart - Lintel Fixing Schedule 01/10

(Alternative to NZS 3604:1999 Table 8.14 & Figure 8.12)



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Site Address :
CKC HOLDING (UNITS 5 & 6)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Lintel Fixing

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:
Roof Pitch : 22.0 Deg
Roof Material : Monier Concrete Tiles
Ceiling Material : Standard
Wind Zone : Medium
Roof Snow Load: 0.000 kPa
Truss Centres : 900 mm
Roof Live Load : 0.250kPa
Floor Live Load : kPa
Wind Speed : 37 m/s

PrimeCad v4.4.1597.52
MiTek
Job Title : 8271
Sheet : 3
Revision Number :

Stud to top plate fixing details

Type A is minimum fixing required unless specified otherwise

FIXING TYPE A
0.7kN

2/90x3.33 plain steel wire nails driven vertically into stud.

FIXING TYPE B
1.4kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus single LUMBERLOK Tylok 2T4 plate.

FIXING TYPE C
2.7kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus pair LUMBERLOK Tylok 2T4 plates.

FIXING TYPE D
6.0kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus LUMBERLOK 6kN Stud Anchor.

OR

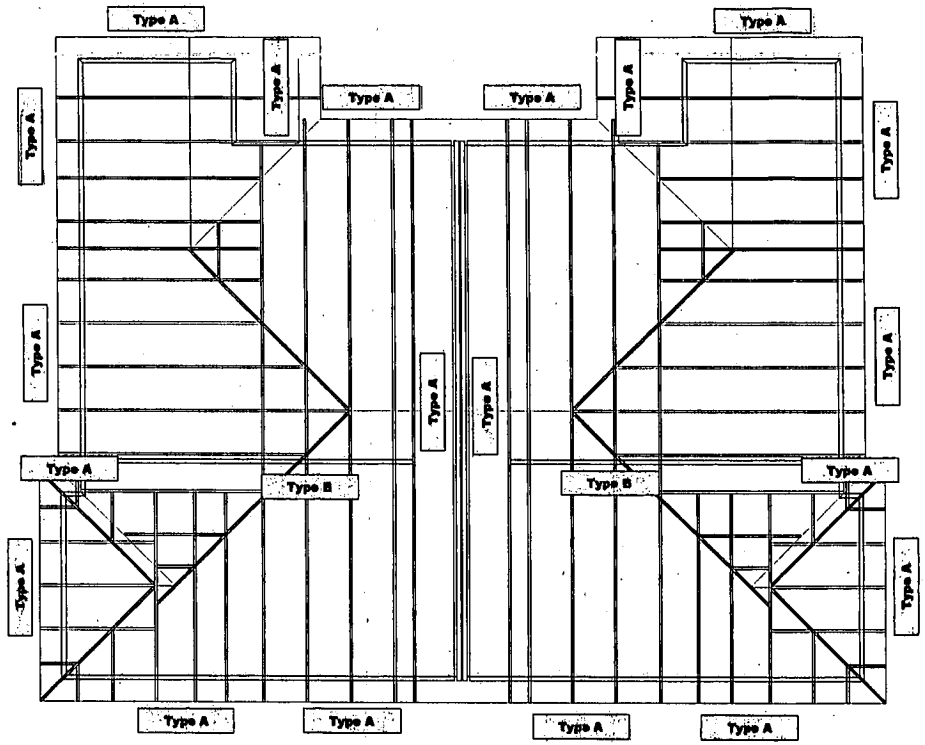
2/90x3.33 plain steel wire nails driven vertically into stud, plus LUMBERLOK Tylok Stud Tie

OR

LUMBERLOK Sheet Brace Strap 400 with 6/30x3.15 nails each stud face

OR

LUMBERLOK Stud Strap



NOTES:

Refer to:
LUMBERLOK Wall Fixing Chart - Stud to Top Plate Fixing Schedule 01/10

(Alternative to NZS3604:1999 Table 8.18)

THOMSONS BUILDING CENTRE
Mason Road Whatawhata
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Site Address :
CKC HOLDING (UNITS 5 & 6)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Stud To Top Plate Fixing

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	: 22.0 Deg	Truss Centres	: 800 mm
Roof Material	: Monier Concrete Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Standard	Floor Live Load	: kPa
Wind Zone	: Medium	Wind Speed	: 37 m/s
Roof Snow Load	: 0.000 kPa		

PrimeCad v4.4.1597.52

MiTek

Job Title : 8271
Sheet : 4
Revision Number :

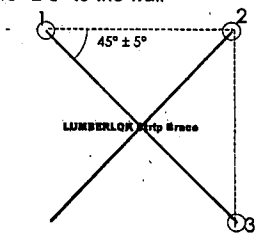
Truss Fixings

		Qty
D	Pair of LUMBERLOK Wire Dogs	50
X	LUMBERLOK JH47x90 Joist Hanger	30
Z	LUMBERLOK JH47x120 Joist Hanger	6
P	LUMBERLOK JH47x190 Joist Hanger	
E	LUMBERLOK JH95x165 Joist Hanger	
O	Pair of LUMBERLOK CT200 Ceiling Ties	
H	LUMBERLOK CT400 Cyclone Tie	24
B	LUMBERLOK CT600 Cyclone Tie	
M	Pair of LUMBERLOK Multi Grips	
NP	LUMBERLOK Nailon Plate	
N	LUMBERLOK N21 Diagonal Cleat	
W	Pair of LUMBERLOK CPC40 Cleats	18
K	LUMBERLOK 16kN Truss to Top Plate set	
S/S	300mm Sheet Brace Strap @1200mm crs	
	LUMBERLOK product nails required	6

Roof Bracing

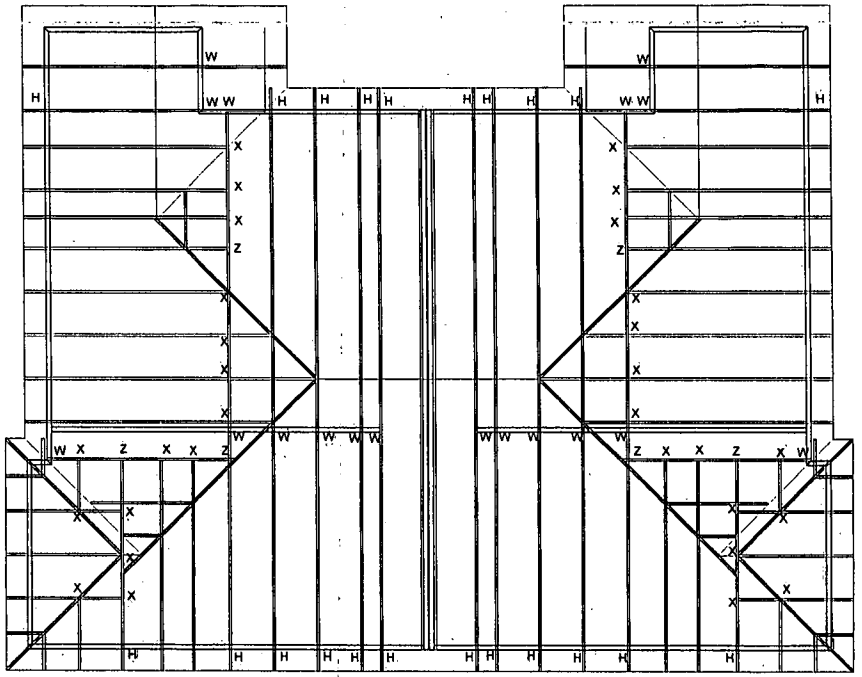
Refer to:
LUMBERLOK Roof Bracing Specifications brochure 08/2006 for end fixing details.

The brace must be located such that it forms an angle of 45° ± 5° to the wall



NOTES:

All other areas must have a minimum of a pair of 90mm skew nails for truss to top plate connections.
Refer to:
LUMBERLOK Timber Connectors Characteristic Loadings Data brochure 03/4



THOMSONS BUILDING CENTRE
Mason Road Whatawhata
Ph - 07 8298518 Fax - 07 8298489

Site Address :
CKC HOLDING (UNITS 5 & 6)
28 ENDERLEY AVENUE
HAMILTON

Sheet Title :
For Building Consent
Truss Fixings & Roof Bracing

Date : 1 Jul,2008 | Drawn : Administrator
Scale : 1: 100 | System : MiTek 20/20

Job Details:

Roof Pitch	: 22.0 Deg	Truss Centres	: 900 mm
Roof Material	: Monier Concrete Tiles	Roof Live Load	: 0.250kPa
Ceiling Material	: Standard	Floor Live Load	: kPa
Wind Zone	: Medium	Wind Speed	: 37 m/s
Roof Snow Load: 0.000 kPa			

PrimeCad v4.4.1597.62

MiTek

Job Title : 8271
Sheet : 5
Revision Number :

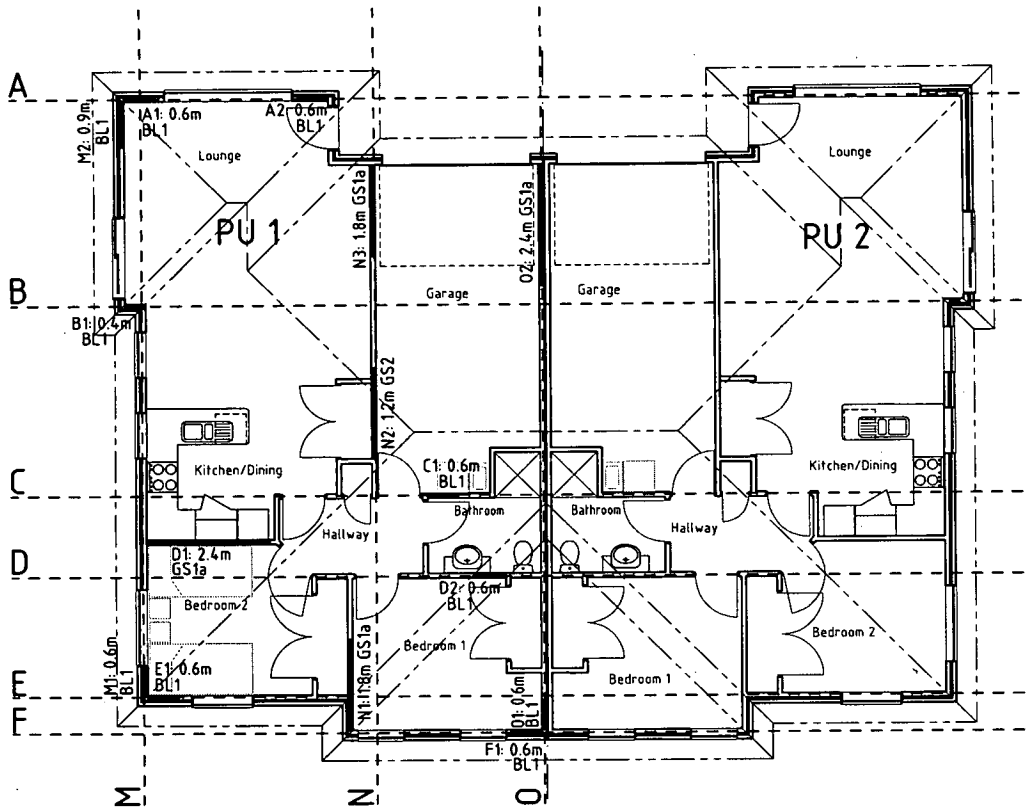


TABLE 1: **Bracing Unit Ratings for 10mm GIB® Standard Plasterboard and any other 10mm and 13mm GIB® plasterboard.**

TYPE	LENGTH (m) MINIMUM	LINING REQUIREMENT	OTHER REQUIREMENTS: DIAGONAL BRACE	BU PER METRE: WIND	BU PER METRE: EARTHQUAKE
GS1a	1.8	10mm GIB® Standard Plasterboard one face fixed horizontal or vertical	yes	65	55
	2.4			75	65
GS2	1.2	10mm GIB® Standard Plasterboard both sides fixed horizontal or vertical[1]	no	70	60
	1.8			80	70
	2.4			90	80

TABLE 2: **Bracing Unit Ratings for 10mm GIB Braceline®, 10mm and 13mm[4] GIB Noiseline® and 13mm[4] GIB Toughline® (fixed with GIB Braceline® screws or GIB Braceline® nails)**

TYPE	LENGTH (m) MINIMUM	LINING REQUIREMENT	OTHER REQUIREMENTS: DIAGONAL BRACE	OTHER REQUIREMENTS: HOLD-DOWNS	BU PER METRE: WIND	BU PER METRE: EARTHQUAKE
BL1	0.4	GIB Braceline® one face fixed horizontal or vertical[2]	no	yes	120	115
	0.6		no	yes	125	115
BL1a	1.8	GIB Braceline® one face fixed horizontal or vertical[2]	yes	yes	130	115
BLP	0.6	GIB Braceline® one face fixed horizontal or vertical, 7mm D-D plywood on the other[1,2]	no	yes	145	135
	0.9				145	145
BLG	0.6	GIB Braceline® one face, 10mm GIB® Standard on the other face, linings fixed horizontal or vertical[1,2]	no	yes	145	130
	1.2				150[3]	130

NOTES:
For more information on bracing calculation see Gib Wall bracing calculation sheets.
All works to be done in accordance with GIB BRACING SYSTEMS MANUAL CBI5113, March 2006 Edition.

BRACING CALCULATION LAYOUT FOR UNITS 1 & 2

Amendment: 15/08/2008 | Description: All bracing substituted with Gib plasterboard

NOTES:
1. Areas and distances are subject to survey.
2. Total CT area: 1271m².
3. Site coverage: 580m² = 46%
4. IF IN ANY DOUBT - ASK!

PROPOSED UNIT DEVELOPMENT ON LOT 2 DPS 28854

Comprised in C.T. SA26C/1158

Prepared for: CKC Holdings Ltd.

Address: 28 Enderley Avenue, Hamilton

Surveyors—Land Engineers
—Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET—HAMILTON—NEW ZEALAND P.O. BOX 9379
E-mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

Surveyor: | Checked: G.I. Ruffell | Scale: 1:100 @ A3 | Sheet 18 of 20
Design/ Drawn: M.Spasovska | Date: JUNE/ 2008 | Ref.: 14966

GIB® Wall Bracing Calculation Sheet A — single storey — V85A

GIB® EzyBrace™
GIB® Bracing Systems, 2006

Job Details

Name	CKC Holdings Ltd	note
Street and Number	28 Enderley Avenue	Hamilton
Lot and DP Number	Lot 2 DPS 28854	Typical Calculations for UNITS 1 - 2
City/Town/District	Hamilton	
Designer and date	M. Spasovska	2-Jul-08
Company Name	McPherson Goodwin Surveyors Ltd	

Building Specification

Location of Storey	single	
Floor Loading	2 kPa	
Foundation Type	slab	
Building Height to Apex (m)	6	
Roof Height above Eaves (m)	3	
Stud Height (m)	2.4	
Cladding Weight (top or single)	heavy	
Cladding Weight (lower)	light	*not applicable (single storey building)*
Cladding Weight (subfloor)	light	*not applicable (slab)*
Roof Weight	heavy	
Roof Pitch (degrees)	0-25	
Room in Roof Space	no	
Building Length (m)	12.7	
Building Width (m)	8.6	
Gross Building Plan Area (m2)	96	

Building Location

Wind Zone	***Medium***
Region	R1
Terrain	Inland
Exposure	Sheltered
Topography	Moderate

Earthquake Zone: B

Bracing Units required for Wind

per m	subfloor	walls
W along	n/a	54 BUs/m
W across	n/a	54 BUs/m

Totals	subfloor	walls
W along	n/a	464 BUs
W across	n/a	686 BUs

Bracing Units required for Earthquake

per m2	subfloor	walls
E	n/a	5.9 BUs/m2

Totals	subfloor	walls
E along	n/a	566 BUs
E across	n/a	566 BUs

GIB® Wall Bracing Calculation Sheet B — single storey — V85A

GIB® EzyBrace ™ — *GIB® Bracing Systems, 2006*

Along									
Wall or Bracing Line		*Bracing Elements provided*						*Wind*	*Earthq.*
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
A	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	BL1	0.6	2.4		75	69
line totals		3							
W	150	4							
EQ	138	5							
B	enter	1	GIB®	BL1	0.4	2.4		48	46
		2							
line totals		3							
W	48	4							
EQ	46	5							
C	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
D	enter	1	GIB®	GS1a	2.4	2.4		180	156
		2	GIB®	BL1	0.6			100	92
line totals		3							
W	280	4							
EQ	248	5							
E	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
F	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
G	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
H	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

							Wind	Earthq.
Totals Achieved							703	639
							OK	*OK*
Totals Required (from Sheet A)							464	566

GIB® Wall Bracing Calculation Sheet B — single storey — V85A

GIB® EzyBrace ™ — *GIB® Bracing Systems, 2006*

Across								Wind	Earthq.
Wall or Bracing Line		*Bracing Elements provided*							
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
M	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	BL1	0.9	2.4		113	104
line totals		3							
W	188	4							
EQ	173	5							
N	enter	1	GIB®	GS1a	1.8	2.4		117	99
		2	GIB®	GS2	1.2	2.4		84	72
line totals		3	GIB®	GS1a	1.8	2.4		117	99
W	318	4							
EQ	270	5							
O	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	GS1a	2.4	2.4		180	156
line totals		3							
W	255	4							
EQ	225	5							
P	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
Q	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
R	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
S	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
T	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

							Wind	Earthq.
Totals Achieved							761	668
							OK	*OK*
Totals Required (from Sheet A)							686	566

For full construction details see literature
GIB® Bracing Systems, 2006

Supplier	System	Minimum Length (m)	BUs W/m	BUs EQ/m
	none			
GIB®	GS1a	1.8	65	55
		2.4	75	65
GIB®	GS2	1.2	70	60
		1.8	80	70
		2.4	90	80
GIB®	BL1	0.4	120	115
		0.6	125	115
GIB®	BL1a	1.8	130	115
GIB®	BLP	0.6	145	135
		0.9	145	145
GIB®	BLG	0.6	145	130
		1.2	150	130
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			

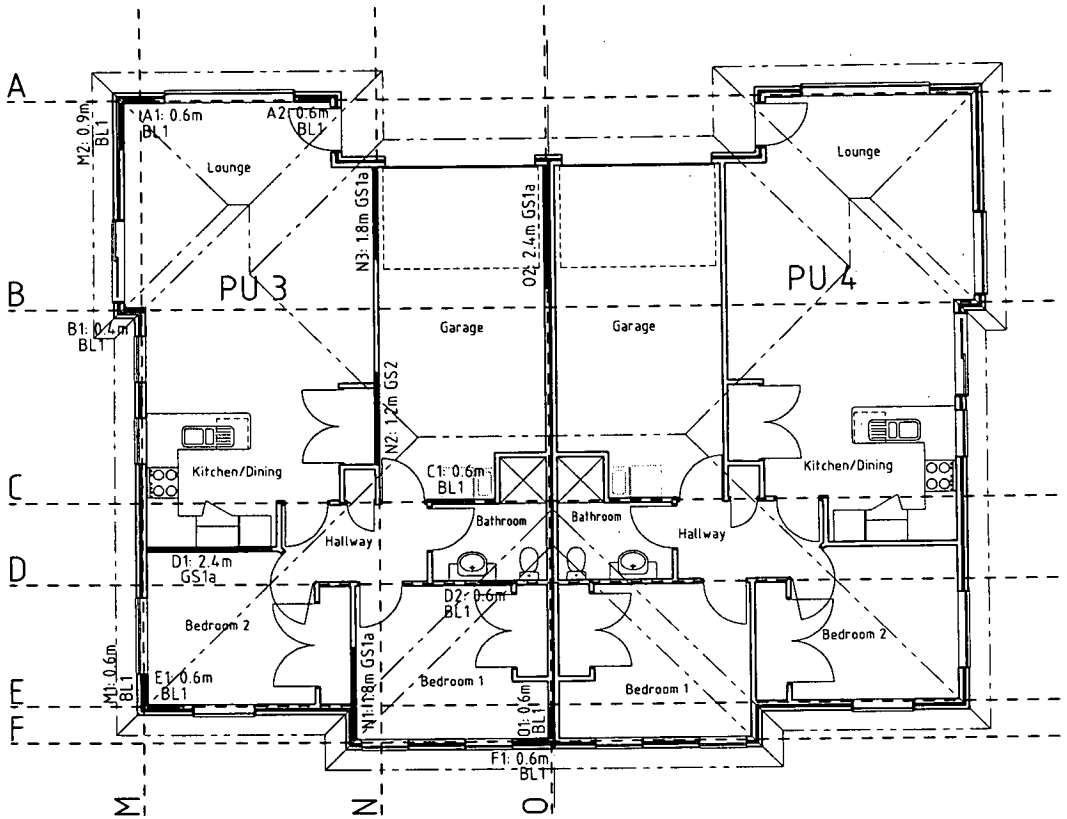


TABLE 1: Bracing Unit Ratings for 10mm GIB® Standard Plasterboard and any other 10mm and 13mm GIB® plasterboard.

TYPE	LENGTH (m) MINIMUM	LINING REQUIREMENT	OTHER REQUIREMENTS DIAGONAL BRACE	BU PER METRE WIND	BU PER METRE EARTHQUAKE
GS1a	1.8	10mm GIB® Standard Plasterboard one face fixed horizontal or vertical	yes	65	55
	2.4			75	65
GS2	1.2	10mm GIB® Standard Plasterboard both sides fixed horizontal or vertical[1]	no	70	60
	1.8			80	70
	2.4			90	80

TABLE 2: Bracing Unit Ratings for 10mm GIB Braceline®, 10mm and 13mm[4] GIB Noiseline® and 13mm[4] GIB Toughline® (fixed with GIB Braceline® screws or GIB Braceline® nails)

TYPE	LENGTH (m) MINIMUM	LINING REQUIREMENT	OTHER REQUIREMENTS DIAGONAL BRACE	OTHER REQUIREMENTS HOLD-DOWNS	BU PER METRE WIND	BU PER METRE EARTHQUAKE
BL1	0.4	GIB Braceline® one face fixed horizontal or vertical[2]	no	yes	120	115
	0.6		no	yes	125	115
BL1a	1.8	GIB Braceline® one face fixed horizontal or vertical[2]	yes	yes	130	115
BLP	0.6	GIB Braceline® one face fixed horizontal or vertical, 7mm D-D plywood on the other[2,3]	no	yes	145	135
	0.9				145	145
BLG	0.6	GIB Braceline® one face, 10mm GIB® Standard on the other face, linings fixed horizontal or vertical[2,4]	no	yes	145	130
	1.2				150[3]	130

NOTES:
For more information on bracing calculation see Gib Wall bracing calculation sheets.
All works to be done in accordance with GIB BRACING SYSTEMS MANUAL CBI5113, March 2006 Edition.

BRACING CALCULATION LAYOUT FOR UNITS 3 & 4

Amendment: 15/08/2008 | Description: All bracing substituted with Gib plasterboard

NOTES:
1. Areas and distances are subject to survey.
2. Total CT area: 1271m².
3. Site coverage: 580m² = 46%
4. IF IN ANY DOUBT - ASK!

PROPOSED UNIT DEVELOPMENT ON LOT 2 DPS 28854

Comprised in C.T. SA26C/1158

Prepared for: CKC Holdings Ltd.

Address: 28 Enderley Avenue, Hamilton

McPherson Goodwin

Surveyors–Land Engineers
–Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET–HAMILTON–NEW ZEALAND P.O. BOX 9379
E–mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

Surveyor: | Checked: G.I. Ruffell | Scale: 1:100 @ A3 | Sheet 19 of 20

Design/ Drawn: M.Spasovska | Date: JUNE/ 2008 | Ref.: 14966

McPherson Goodwin Surveyors Ltd_MS__ 15/08/2008 8:10 a.m. _14966_ARCH.dwg

Original sheet size A3 [420/297]

GIB® Wall Bracing Calculation Sheet A — single storey — V85A

GIB® EzyBrace™
GIB® Bracing Systems, 2006

Job Details

Name	CKC Holdings Ltd	note
Street and Number	28 Enderley Avenue	Hamilton
Lot and DP Number	Lot 2 DPS 28854	Typical Calculations for UNITS 3 - 4
City/Town/District	Hamilton	
Designer and date	M. Spasovska	2-Jul-08
Company Name	McPherson Goodwin Surveyors Ltd	

Building Specification

Location of Storey	single	
Floor Loading	2 kPa	
Foundation Type	slab	
Building Height to Apex (m)	6	
Roof Height above Eaves (m)	3	
Stud Height (m)	2.4	
Cladding Weight (top or single)	heavy	
Cladding Weight (lower)	light	*not applicable (single storey building)*
Cladding Weight (subfloor)	light	*not applicable (slab)*
Roof Weight	heavy	
Roof Pitch (degrees)	0-25	
Room in Roof Space	no	
Building Length (m)	12.7	
Building Width (m)	8.6	
Gross Building Plan Area (m2)	96	

Building Location

Wind Zone	***Medium***
Region	R1
Terrain	Inland
Exposure	Sheltered
Topography	Moderate

Earthquake Zone: B

Bracing Units required for Wind

per m	subfloor	walls
W along	n/a	54 BUs/m
W across	n/a	54 BUs/m
Totals	subfloor	walls
W along	n/a	464 BUs
W across	n/a	686 BUs

Bracing Units required for Earthquake

per m2	subfloor	walls
E	n/a	5.9 BUs/m2
Totals	subfloor	walls
E along	n/a	566 BUs
E across	n/a	566 BUs

GIB® Wall Bracing Calculation Sheet B — single storey — V85A

GIB® EzyBrace™ — *GIB® Bracing Systems, 2006*

Along									
Wall or Bracing Line		*Bracing Elements provided*						*Wind*	*Earthq.*
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
A	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	BLP	0.6	2.4		87	81
line totals		3							
W	162	4							
EQ	150	5							
B	enter	1	GIB®	BL1	0.4	2.4		48	46
		2							
line totals		3							
W	48	4							
EQ	46	5							
C	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
D	enter	1	GIB®	GS1a	2.4	2.4		180	156
		2	GIB®	BL1	0.6			100	92
line totals		3							
W	280	4							
EQ	248	5							
E	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
F	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
G	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
H	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

							Wind	Earthq.
Totals Achieved							715	651
							OK	*OK*
Totals Required (from Sheet A)							464	566

GIB® Wall Bracing Calculation Sheet B — single storey — V85A

GIB® EzyBrace™ — *GIB® Bracing Systems, 2006*

Across								Wind	Earthq.
Wall or Bracing Line		*Bracing Elements provided*							
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
M	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	BL1	0.9	2.4		113	104
line totals		3							
W	188	4							
EQ	173	5							
N	enter	1	GIB®	GS1a	1.8	2.4		117	99
		2	GIB®	GS2	1.2	2.4		84	72
line totals		3	GIB®	GS1a	1.8	2.4		117	99
W	318	4							
EQ	270	5							
O	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	GS1a	2.4	2.4		180	156
line totals		3							
W	255	4							
EQ	225	5							
P	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
Q	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
R	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
S	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
T	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

							Wind	Earthq.
Totals Achieved							761	668
							OK	*OK*
Totals Required (from Sheet A)							686	566

For full construction details see literature
GIB® Bracing Systems, 2006

Supplier	System	Minimum Length (m)	BUs W/m	BUs EQ/m
	none			
GIB®	GS1a	1.8	65	55
		2.4	75	65
GIB®	GS2	1.2	70	60
		1.8	80	70
		2.4	90	80
GIB®	BL1	0.4	120	115
		0.6	125	115
GIB®	BL1a	1.8	130	115
GIB®	BLP	0.6	145	135
		0.9	145	145
GIB®	BLG	0.6	145	130
		1.2	150	130
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
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Custom	Custom			
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Custom	Custom			
Custom	Custom			

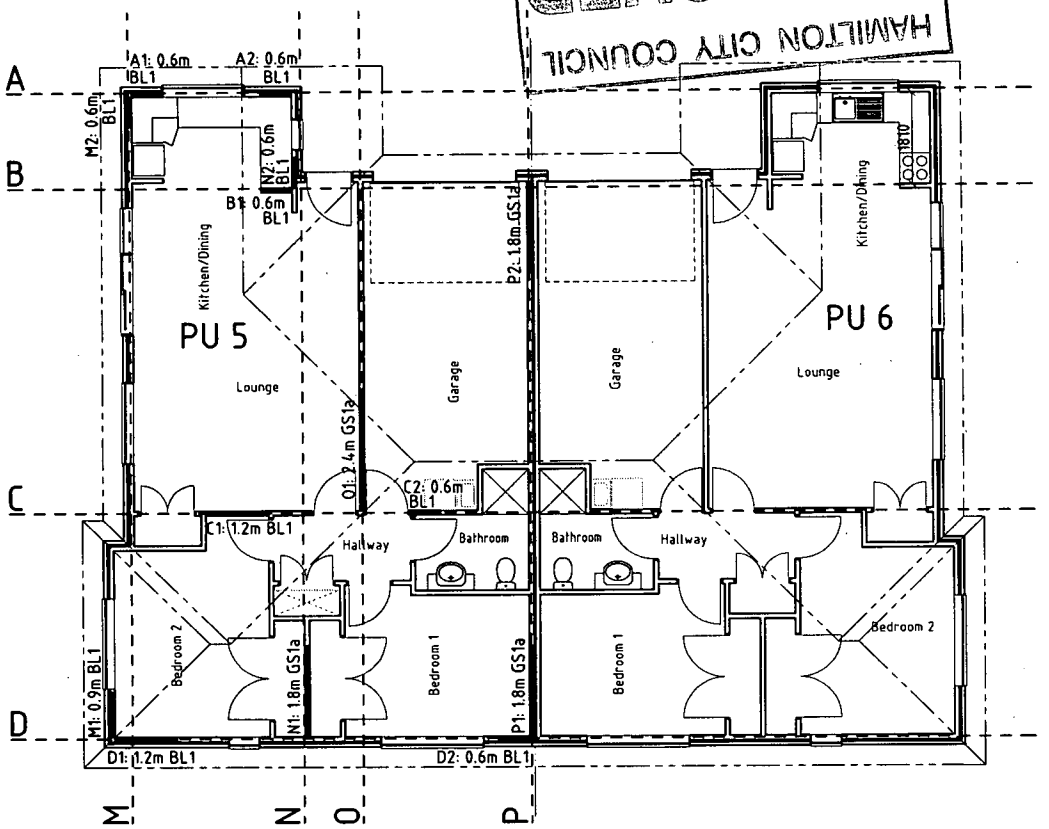


TABLE 1: Bracing Unit Ratings for 10mm GIB® Standard Plasterboard and any other 10mm and 13mm GIB® plasterboard.

TYPE	LENGTH (m) MINIMUM	LINING REQUIREMENT	OTHER REQUIREMENTS DIAGONAL BRACE	BU PER METRE WIND	BU PER METRE EARTHQUAKE
GS1a	1.8	10mm GIB® Standard Plasterboard one face fixed horizontal or vertical	yes	65	55
	2.4			75	65
GS2	1.2	10mm GIB® Standard Plasterboard both sides fixed horizontal or vertical[1]	no	70	60
	1.8			80	70
	2.4			90	80

TABLE 2: Bracing Unit Ratings for 10mm GIB Braceline®, 10mm and 13mm[4] GIB Noiseline® and 13mm[4] GIB Toughline® (fixed with GIB Braceline® screws or GIB Braceline® nails)

TYPE	LENGTH (m) MINIMUM	LINING REQUIREMENT	OTHER REQUIREMENTS DIAGONAL BRACE	OTHER REQUIREMENTS HOLD-DOWNS	BU PER METRE WIND	BU PER METRE EARTHQUAKE
BL1	0.4	GIB Braceline® one face fixed horizontal or vertical[2]	no	yes	120	115
	0.6		no	yes	125	115
BL1a	1.8	GIB Braceline® one face fixed horizontal or vertical[2]	yes	yes	130	115
BLP	0.6	GIB Braceline® one face fixed horizontal or vertical, 7mm D-D plywood on the other[1,2]	no	yes	145	135
	0.9				145	145
BLG	0.6	GIB Braceline® one face, 10mm GIB® Standard on the other face, linings fixed horizontal or vertical[1,2]	no	yes	145	130
	1.2				150[3]	130

NOTES:
For more information on bracing calculation see Gib Wall bracing calculation sheets.
All works to be done in accordance with GIB BRACING SYSTEMS MANUAL CBI5113, March 2006 Edition.

BRACING CALCULATION LAYOUT FOR UNITS 5 & 6

Amendment: 15/08/2008 Description: All bracing substituted with Gib plasterboard

NOTES:
1. Areas and distances are subject to survey.
2. Total CT area: 1271m².
3. Site coverage: 580m² = 46%
4. IF IN ANY DOUBT - ASK!

PROPOSED UNIT DEVELOPMENT ON LOT 2 DPS 28854

Comprised in C.T. SA26C/1158

Prepared for: CKC Holdings Ltd.

Address: 28 Enderley Avenue, Hamilton

McPherson Goodwin Surveyors Ltd_RS_
Surveyors–Land Engineers
–Land Development,
Resource Management and
Town Planning Consultants
7 HARDLEY STREET–HAMILTON–NEW ZEALAND P.O. BOX 9379
E–mail: mgltd@mgsl.co.nz Fax.: (07) 8391292 Tel.: (07) 8391335

McPherson Goodwin

Surveyor: Checked: G.I. Ruffell
Design/ Drawn: M.Spasovska Date: JUNE/ 2008
15/08/2008 810 a.m. _14966_ARCH.dwg

Scale: 1:100 @ A3

Sheet 20 of 20
Ref.: 14966

Original sheet size A3 (420/297)

GIB® Wall Bracing Calculation Sheet A — single storey — V85A

GIB® EzyBrace™
GIB® Bracing Systems, 2006

Job Details

Name	CKC Holdings Ltd	note
Street and Number	28 Enderley Avenue	Hamilton
Lot and DP Number	Lot 2 DPS 28854	Typical Calculations for Units 5 - 6
City/Town/District	Hamilton	
Designer and date	M. Spasovska	2-Jul-08
Company Name	McPherson Goodwin Surveyors Ltd	

Building Specification

Location of Storey	single
Floor Loading	2 kPa
Foundation Type	slab
Building Height to Apex (m)	6
Roof Height above Eaves (m)	3
Stud Height (m)	2.4
Cladding Weight (top or single)	heavy
Cladding Weight (lower)	light
Cladding Weight (subfloor)	light
Roof Weight	heavy
Roof Pitch (degrees)	0-25
Room in Roof Space	no
Building Length (m)	12.9
Building Width (m)	8.3
Gross Building Plan Area (m2)	98

HAMILTON CITY COUNCIL
APPROVED
SUBJECT TO CONDITIONS
TO BE KEPT ON SITE

not applicable (single storey building)
not applicable (slab)

Building Location

Wind Zone	*Medium*
Region	R1
Terrain	Inland
Exposure	Sheltered
Topography	Moderate

Earthquake Zone: B

Bracing Units required for Wind

per m	subfloor	walls
W along	n/a	54 BUs/m
W across	n/a	54 BUs/m

Totals	subfloor	walls
W along	n/a	448 BUs
W across	n/a	697 BUs

Bracing Units required for Earthquake

per m2	subfloor	walls
E	n/a	5.9 BUs/m2

Totals	subfloor	walls
E along	n/a	578 BUs
E across	n/a	578 BUs

GIB® Wall Bracing Calculation Sheet B — single storey — V85A

GIB® EzyBrace™ — *GIB® Bracing Systems, 2006*

Along								Wind	Earthq.
Wall or Bracing Line		Bracing Elements provided							
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
A	enter	1	GIB®	BL1	0.6	2.4		75	69
		2	GIB®	BL1	0.6	2.4		75	69
line totals		3							
W	150	4							
EQ	138	5							
B	enter	1	GIB®	BL1	0.6	2.4		75	69
		2							
line totals		3							
W	75	4							
EQ	69	5							
C	enter	1	GIB®	BL1	1.2	2.4		150	138
		2	GIB®	BL1	0.6	2.4		75	69
line totals		3							
W	225	4							
EQ	207	5							
D	enter	1	GIB®	BL1	1.2	2.4		150	138
		2	GIB®	BL1	0.6	2.4		75	69
line totals		3							
W	225	4							
EQ	207	5							
E	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
F	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
G	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
H	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
								Wind	Earthq.
Totals Achieved								675	621
								OK	OK
Totals Required (from Sheet A)								448	578

GIB® Wall Bracing Calculation Sheet B — single storey — V85A

GIB® EzyBrace™ — *GIB® Bracing Systems, 2006*

Across								Wind	Earthq.
Wall or Bracing Line		*Bracing Elements provided*							
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
M	enter	1	GIB®	BL1	0.9	2.4		113	104
		2	GIB®	BL1	0.6	2.4		75	69
line totals		3							
W	188	4							
EQ	173	5							
N	enter	1	GIB®	GS1a	1.8	2.4		117	99
		2	GIB®	BL1	0.6	2.4		75	69
line totals		3							
W	192	4							
EQ	168	5							
O	enter	1	GIB®	GS1a	2.4	2.4		180	156
		2							
line totals		3							
W	180	4							
EQ	156	5							
P	enter	1	GIB®	GS1a	1.8	2.4		117	99
		2	GIB®	GS1a	1.8	2.4		117	99
line totals		3							
W	234	4							
EQ	198	5							
Q	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
R	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
S	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
T	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
								Wind	Earthq.
Totals Achieved								794	695
								OK	*OK*
Totals Required (from Sheet A)								697	578

For full construction details see literature
GIB® Bracing Systems, 2006

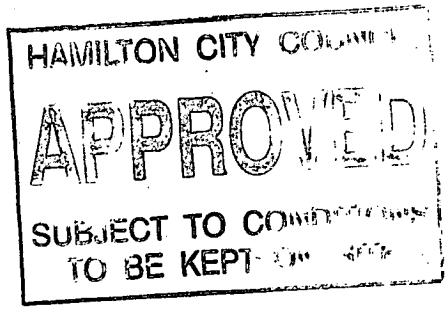
Supplier	System	Minimum Length (m)	BUs W/m	BUs EQ/m
	none			
GIB®	GS1a	1.8	65	55
		2.4	75	65
GIB®	GS2	1.2	70	60
		1.8	80	70
		2.4	90	80
GIB®	BL1	0.4	120	115
		0.6	125	115
GIB®	BL1a	1.8	130	115
GIB®	BLP	0.6	145	135
		0.9	145	145
GIB®	BLG	0.6	145	130
		1.2	150	130
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			

6 UNIT DEVELOPMENT

@ 28 ENDERLEY AVENUE, HAMILTON

Lot 2 DPS 28854

Comprised in C.T. SA26C/1158



Prepared for: CKC HOLDINGS LTD

Prepared by: McPherson Goodwin Surveyors Ltd (MGSL)

CONTENTS:

1. Drawing sheets marked 1-20 (by MGSL)
2. Copy of Certificate of Title.
3. Copy of HCC logging data sheets.
4. Specification & details as per Masterspec HNZC SELECTOR (by MGSL)
5. Copy of Geotechnical investigation (by Maunsell).
6. Wall bracing calculation (by MGSL)
7. Roof truss design (by Thomsons Timber)

Housing New Zealand
Housing New Zealand Corporation

Masterspec SELECTOR

of materials to be used
in carrying out the works

FOR 6 UNIT DEVELOPMENT AT 28 ENDERLEY AVENUE, HAMILTON

Issue: HNZC SELECTOR OCT 2007

10 CONTENTS

The following list of selections is provided for incorporation in the project specification. The selections are required where applicable; they are neither optional nor indicative.

Ensure that the version of HNZC SELECTOR you are using is current. Do not use older versions of the HNZC SELECTOR or project specification prepared for other projects.

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22 PREPARATION AND GROUNDWORK

3. EXECUTION

ROCK EXCAVATION
If rock is found at any level above the underside of the structural foundations, or above required base levels for site service trenches, immediately notify the engineer. Obtain written instructions from the engineer on the proposed approach to rock excavation, or consequent alterations to sub grade construction. Confirm any changes with the territorial authority.

GRANULAR BASE FOR SLABS
Conform to NZS 3604, section 7.5.3. Consolidate with a vibrating roller. Blind the surface with coarse sand or sand/cement and roll ready to receive a damp-proof membrane. Compact for concrete floor slabs to a minimum thickness 100 mm. Compact for concrete driveways to a minimum thickness 75 mm.

4. SELECTIONS

None

31 CONCRETE

3. EXECUTION

SETTLEMENT
Where undue settlement of the foundations are observed notify the engineer before carrying out further work.

SURFACE FINISHES
To NZS 3114: 105 Specification of finishes:
- Table 1: Classes of surface finish, (for off-the-form surface finishes).
- Table 2: Classes of floor, exterior pavement, and invert finishes; and as scheduled or as denoted on the drawings.

4. SELECTIONS

EXPANDED POLYSTYRENE INSULATION

Grade:	S grade or M grade for applications with greater loads and thickness more than 50 mm

REINFORCEMENT LAPS
Where reinforcement laps are not shown on the drawings, lap as follows:

Bar Diameter	Grade 300E deformed
10 mm	400 mm
12 mm	500 mm
16 mm	650 mm

REINFORCING

Residential floor slabs:	Welded reinforcing mesh
Driveways:	Welded reinforcing mesh

CONCRETE

Prescribed concrete:	10 MPa for site concrete, bedding concrete and for setting posts 17.5 MPa as required by NZS 3604 25 MPa as required by NZS 3604 and for exposed concrete in sea spray zone
Concrete for driveways:	100 mm minimum thickness
Finish:	U5 broom to NZS 3114
Concrete for paths and mowing strips:	75 mm minimum thickness
Finish:	U5 broom to NZS 3114

38 TIMBER - FRAMING

2. PRODUCTS

HNZC DIRECTION
Delete any reference in specification to any chemical free timber.

TIMBER STRIP FLOORING
H1.2 treated to NZS 3640.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

FLOOR FRAMING

Member	Timber species and grade	Treatment
Mid floor joists:	Radiata pine structural grades	H1.2
	Radiata pine kiln dried and gauged	H1.2
	Douglas fir structural grades	H1.2
Boundary joists:	Radiata pine structural grades	H1.2
	Douglas fir structural grades	H1.2

EXTERIOR AND INTERIOR WALL FRAMING

Member	Timber species and grade	Treatment
Walls:	Radiata pine structural grades	H1.2
	all bottom plates	H3.2
	Douglas fir structural grades	H1.2

ROOF FRAMING

Member	Timber species and grade	Treatment
Rafters:	Radiata pine structural grades	H1.2
	Douglas fir structural grades	None
	Radiata pine kiln dried and gauged	H1.2
Trusses:	Radiata pine structural grades	H1.2
	Douglas fir structural grades	None
	Radiata pine kiln dried and gauged	H1.2
Purlins:	Radiata pine structural grades	H1.2
	Douglas fir structural grades	H1.2
	Radiata pine kiln dried and gauged	H1.2
Ceiling joists:	Radiata pine structural grades	H1.2
	Douglas fir structural grades	None
	Radiata pine kiln dried and gauged	H1.2
Valley boards:	Radiata pine merchantable grade	H3.2
Sarking:	Radiata pine merchantable grade	H3.2
Skillion roof framing:	Radiata pine structural grades	H3.1
Enclosed flat roof framing:	Radiata pine structural grades	H3.2
Exposed rafters:	Radiata pine structural grades	H3.2

EXTERIOR EXPOSED TIMBERS (NOT IN GROUND CONTACT)

Member	Timber species and grade	Treatment
Posts:	Radiata pine structural grades	H3.2
Joists:	Radiata pine structural grades	H3.2
Softwood decking:	Radiata pine structural grades	H3.2
Exterior stairs and steps:	Radiata pine structural grades	H3.2
Pergola:	Radiata pine structural grades	H3.2

EXTERIOR FINISHING TIMBERS

Member	Timber species and grade	Treatment
Weatherboards:	Radiata pine dressing grade	H3.2
Fascia/barge/cover boards:	Radiata pine dressing grade	H3.2
Exterior trim:	Radiata pine dressing grade	H3.2

INTERIOR FINISHING TIMBERS

Member	Timber species and grade
Architraves:	Radiata pine dressing grade
Skirtings:	Radiata pine dressing grade
Cornices:	Radiata pine dressing grade

42 BRICK VENEER CLADDING

3. EXECUTION

FLAUNCHING
Provide flaunching to base of cavities.
Apply continuous damp-proof membrane to flaunching and under lower course of brickwork
Remove excess mortar from cavity behind brick veneer

4. SELECTIONS

43 CONCRETE TILE ROOFING

1. GENERAL

WARRANTY
Warrant this work against failure.

Structurally sound and fit for purpose:	50 years
Execution:	5 years

2. PRODUCTS

BATTENS

Type:	Radiata pine, No 1 framing
Treatment:	H3.2
Up to 430 mm:	50 mm x 25 mm
430 mm - 600 mm:	50 mm x 37 mm
600 mm - 900 mm:	50 mm x 50 mm

PIPE FLASHINGS
Dektite pipe flashing systems including Retrofit soakers by Dominion Lead Mills Ltd or equal approved.

SEALANT
A neutral curing silicone or synthetic rubber based paintable sealant recommended by the roofing manufacturer and used as they direct. Fosroc Silaflex N or equal approved.

4. SELECTIONS

None.

43 RAINWATER SYSTEMS

2. PRODUCTS

CONCEALED FASCIA/BARGE SPOUTING SYSTEM
HNZC DIRECTION
Concealed fascia/barge spouting systems are not permitted.

45 ALUMINIUM WINDOWS AND DOORS

2. PRODUCTS

RESTRICTOR STAYS
Install fixed stainless steel stays using 4 mm stainless steel pop rivets where the window has a fall height greater than 2 metres when installed, except where the window is designated for fire egress. In this later case, the stay must be able to be disconnected without a key or a tool at a threshold height of 1.2 metres.

WEATHERING SEALANT
Building sealant to manufacturer's instructions for weather sealing glass to glass joints complying with US Federal Specification TT-S-0011543A, or a one-part polyurethane medium modulus (± 25% movement) to US Federal Specification TT-S-00230C.

All joinery to have condensation channels
All external joinery thresholds to be recessed into concrete slab and project maximum 20mm above finished floor

3. EXECUTION

MANIFESTATIONS (MAKING GLASS VISIBLE)
To NZS 4223, part 3, 303.1

CONDENSATION CHANNEL
To be included in all new build projects

4. SELECTIONS

HNZC DIRECTION
Exterior Doors to have a clear opening of 810 mm minimium.

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

Standard Detail: Sheet 111 Replacement windows for louvres.

FINISH, ANODISED
Thickness grade: 20 microns

FINISH, POWDER COATING

Film integrity:	10 years
Colour:	7 years integrity
Gloss level:	60%
Thickness:	50 to 90 microns with a minimum of 50 microns

PASSIVE VENTILATION
All aluminium joinery to include operable (able to open and close) passive ventilation integrated to the suite.

46 GLAZING

2. PRODUCTS

MIRROR DE-MISTER
HNZC DIRECTION
Do not use mirror demisters.

POLYCARBONATE, CLEAR OR OBSCURE SHEET
3 mm, 4.5 mm and 6 mm thick weight for size

3 mm thick:	750 mm x 750 mm (maximum sheet size)
4.5 mm thick:	900 mm x 900 mm (maximum sheet size)
6 mm thick:	1000 mm x 1000 mm (maximum sheet size)

GLAZING COMPOUND, TIMBER FRAME
Red Devil or Woodsash XHP glazing compound.
HNZC DIRECTION
Do not use linseed oil-based, knife grade putty.

3. EXECUTION

POLYCARBONATE TO WINDOWS, DOORS AND PORCHES

Exterior:	Clear sheet
Bathrooms and toilets:	PAG obscure

Supply and fit in timber/aluminium frame. Bed in using silicon sealant with glazing beads or equal to manufacturer's recommendations.

VISION RAIL
Where required by NZS 4223, Part 3, provide 50 mm wide vision rail on inside of glass.

Proprietary aluminium bead to match remainder of joinery fixed with 3M Scotch VHB type 4950 double-sided tape to complete width of glazing, at a level between 800 mm and 1500 mm above floor level.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

Standard Detail:	Sheet 112	Safety glazing to doors and side panels.
	Sheet 113	Safety glazing – protection of occupants from falling > 1000 mm.

47 INSULATION – THERMAL, FIRE RATED COATINGS AND ACOUSTIC

2. PRODUCTS

HNZC DIRECTION
Do not use loose fill insulation material. We allow natural wool provided it is installed to a predetermined density and the density calculations are permanently affixed to the entry point to the ceiling.

R RATING FOR WALL AND CEILING INSULATION
Ref. NZS 4218 for Climate Zones. Insulation shall have a minimum construction R value

	Climate Zones 1 & 2	Climate Zone 3
Walls:	R2.0	R2.0
Ceilings:	R2.6	R3.2

Zone 3 includes Taupo District, Ruapehu District, northern Rangiteki District and all of the South Island.
Expanded polystyrene to be used:
- Under suspended timber floor in new and energy efficient retro fit
- Under concrete slab

Installed insulation product shall be that approved by the engineer. All insulation material to NZS 4222.

Fibreglass is required to be taken into the roof cavity in sealed plastic bags to avoid spreading fibres throughout an occupied dwelling.

4. SELECTIONS

INSULATION
Thermakraft or Tasman. Refer to building wrap and window /door joinery weather proofing requirements of E2 AS1 NZBC.

51 FIBRE CEMENT SHEET LININGS

2. PRODUCTS

Materials

PRE-FINISHED FIBRE CEMENT SHEET LININGS
Hardies fibre cement pre-finished 4.5 mm Hardiglaze sheet lining with plain finish. Treated cellulose fibre in a matrix of cement and sand autoclaved sheet, polyurethane coated on one side. Colour : white; finish : gloss/plain.

BATTENS, TIMBER
Minimum ex 45 mm wide x 40 mm gauged timber H3.2 treated to NZS 3602.
Battens for walls surrounding baths with showers over: ex 50 mm x 25 mm dressed H3.2 treated to NZS 3602.

Components

FIXINGS
HNZC DIRECTION
Fix using compatible adhesive. Do not use Fastfix fasteners.
Avoid use of bath mould wherever possible use a drained joint detail with anti-capillary gap

PVC ACCESSORIES
Extruded PVC supplied by the sheet manufacturer. Colour : white; finish : gloss.
Proprietary 4.5 mm PVC internal and external jointers, capping moulds, sheet jointers and dado moulds.

BATH EDGE STRIP
Sylon or equal single piece bath PVC mould with flexible edges for a standard bath. For HNZC bath with high upstand use drain joint detail. Refer to standard drawing detail.

Accessories

WALL BOARD ADHESIVE
Refer to sheet manufacturer's technical literature.

SEALANT
Silicone sealant. Fosroc Silaflex RTV with mould inhibitor. Refer to sheet manufacturer's technical literature.

STRIP FLASHING
Bituthene 50 mm x 1.5 mm strip.

3. EXECUTION

Application

PLACING SHEETS
Sheets must not be forced or sprung into position. Follow manufacturer's placement sequence.

EDGES
Exposed edges shall be factory edges.

SEALANT
Apply sealant to jointers to manufacturer recommendations to achieve a completely watertight installation. Seal all penetrating fittings to surface.

FLASHING DETAILS TO BATH
Form and seal to HNZC standard details and sheet manufacturer's requirements.

New work: do not use gib for a substrate in lieu of battens to provide a drip edge.

UPSTANDS BEHIND LAUNDRY TUBS
To be prefinished fibre cement sheet.

SEALING SHEET EDGES
In wet area applications, including around all baths and showers, the bottom edge of all sheets must be sealed with one full coat of primer. Seal 100 mm of the bottom edge regardless of whether a factory edge drip is used. Refer to sheet manufacturer's specification.

CEILING LINING
New prefinished fibre cement sheet ceiling linings to be glue fixed to ex 40 mm x 20 mm kiln dried battens H3.2 treated. Do not use friction fit fasteners.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

Standard Detail:	Sheet 101	New bath/shower and wet wall linings.
	Sheet 102	Bath/shower and wet wall linings.
	Sheet 102A	Bath/shower and wet wall linings – details.
	Sheet 103	Bath/shower wall lining details.

HARDIGLAZE finish and thickness to suit installation requirements and batten spacing. Use all PVC jointing and cornice system.
HNZC DIRECTION
Select HARDIGLAZE in smooth and gloss finish Only.

51 PLASTERBOARD LININGS

2. PRODUCTS

Finishes

NEW WALL FINISH
New plaster boardwall finish to level 4

EXISTING WALL FINISH SKIMCOAT PLASTER
Proprietary trowelled or spray-on surface finish. Used to achieve a finish similar to Level 4 finish over a plasterboard surface prepared to AS/NZS 2589.1 for new work.

CEILINGS
New work to level 5 finish. Existing work to a finish acceptable to the engineer.

4. SELECTIONS

STANDARD PLASTERBOARD

Location:	wall and ceiling
Brand:	~
Type:	standard, fire resistant and bracing
Thickness:	10 mm
Finish:	Level 4 or level 5
Thickness option:	*13 mm.*

WATER RESISTANT PLASTERBOARD

Location:	wall or ceiling
Brand:	~
Type:	standard, fire resistant and bracing
Thickness:	10 mm
Finish:	Level 4 or level 5
Thickness option:	*13 mm.*

51 INTERNAL TRIM

2. PRODUCTS

Materials

TIMBER TRIM
Add to clause
Finger jointed radiata pine treated H3.2 to NZS 3602 to all exterior and interior window sills and all timber in wet areas – laundries, bathrooms and kitchens under sink units; paint finish quality.

4. SELECTIONS

TIMBER TRIM
To NZS 3602, radiata pine, dressing grade.

Member	Profile	Size
Skirting	Paynter 20	60 mm x 10 mm
Wet Area	Paynter 20	60 mm x 10 mm
Cornice	Paynter 8	40 mm x 18 mm
Jamb	Rebated	25 mm
Bead	Paynter	25 mm x 10 mm

Trim to wet areas treated H3.2.
Bead finger jointed radiata pine when required.
Architrave: Rebated jamb for window and door liners, H3.2.treated finger jointed radiata pine.

EXISTING - TIMBER TRIM
Profile to match existing. If required use Cabots' varnish stain 'Rimu' to match existing polyurethaned rimu.

55 JOINERY FIXTURES

2. PRODUCTS

Components

CONCEALED HINGES
All-metal with automatic spring and screw-fixed. Door stops of plastic foam with self adhesive backs, or plastic buttons. Opening 115 degrees – 170 degrees to suit application.

DRAWER RUNNERS
Heavy duty extruded aluminium with nylon rollers/ball bearings, refer to HARDWARE.

Accessories

SEALANTS
To be mould inhibiting, paintable, neutral cure silicon sealant, colour to match as appropriate.

3. EXECUTION

Application

BENCH TOPS
Bench tops, excluding sink benches, to be finished with high pressure laminate and have rolled edges. Wet area benches shall be high pressure laminate, incorporating a radiused upstand and an anti-spill edge with 30mm overhang.

SINK BENCH TOPS – STAINLESS STEEL
Supply and fit stainless steel sink bench with anti-spill edge. Scribe fit on site square, plumb, level and true to line and face. All sink benches to be stainless steel with 30mm overhang and anti spill edge.

VANITY UNIT
Construct in a joinery shop with carcase and doors of 18 mm melamine laminated board, with 2 mm PVC edges. Hang doors with Blum Snap-on Hinges or equivalent. 140 mm plinth to be of 0.55 BA304 stainless steel. Refer to standard drawings.

TUB CABINET
Construct in a joinery shop with carcase of 17 mm thick, H3 CCA treated, B-B grade plywood and with base of radiata pine H3.2 treated. Paint finish. Refer to PAINTING. Provide and fix hinges, catch and handle. Refer to HARDWARE. Refer to SANITARY PLUMBING for alternative option.

WARDROBES
Fit out with 18 mm medium density fibreboard (MDF) shelf with 40 mm x 20 mm pine stiffener under front edge where shelf exceeds 900 mm in length. Screw fix shelf to 25 mm rail along back and both ends. Fit selected coat-rail. Refer to HARDWARE.

LINEN CUPBOARD
Fit out with full depth 18 mm medium density fibreboard (MDF) shelves, screw fix shelves to 25 mm rails along back and ends at 360 mm maximum centres vertically.

GAS HOT WATER CUPBOARD
Fit out over HWC with full depth shelf of 4.75 mm pegboard on 70 mm x 20 mm frame on 25 mm rails along back and ends. Provide 70 mm x 20 mm timber slat shelves over at 360 mm maximum centres vertically.

Finishing

COATING SYSTEM, PREPARATION
Refer to PAINTING

COATING SYSTEM, APPLICATION
Refer to PAINTING

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

Standard Detail: Sheet 106 New vanity cabinet.

55 BATHROOM AND TOILET FIXTURES

4. SELECTIONS

HARDWARE SCHEDULE
Refer to HARDWARE for bathroom and toilet fixtures.

PASSIVE VENTILATION
Passive vent to be installed over all showers (if possible) Hometech 2002 model static vent.

55 HARDWARE

3. EXECUTION

KEY RINGS AND TAGS
Hand tagged keys to the engineer.

KEYS
Where more than one external door lock exists, all shall be keyed alike.

WINDOW OPENING RESTRICTORS (SECURITY/SAFETY STAYS)
Window opening restrictors (security/safety stays) to be Interlock Securistay or Interlock stainless steel sash restrictors. Window opening restrictors are only fitted to opening sashes for reasons of:
- Ventilation
- Security
- Child safety from falling
- Fix all restrictors with 4 mm monel pop rivets where possible

The window opening restrictor must be releasable without a key or tool where the sash is a means of emergency egress. Restrictors must be placed so that the window opening does not exceed 100 mm. Where fall height is greater than 2 metres, restrictors to be 1.2 metres above the floor.

4. SELECTIONS

HARDWARE SCHEDULE
Refer to BATHROOM AND TOILET FIXTURES for fitting of fixtures

	Function	**Description**
Fire upgraded door	Weather seal	Raven RP3 or RP60 Automatic Bottom Seal
	Door furniture/latches	Lockwood KL311SC Passage Set
	Smoke seal (door frame)	Lorient LE 1212 (Fire Pro Safety Ltd)
Exterior Aluminium Doors	Fire & smoke seals	Lorient BP 1003 with integral brush pile on 4 sides (FirePro Safety Ltd)
	Lock	Lockwood KL301SC Exterior Deadlatch SPET70 Extension Tube
	Sliding door lock	**Securicraft Albany MC182010DB Aluminium Door Sliding Door Lock**
Internal doors (to rooms)	Cylinder lock	**Whitco Tasman Security Pin Cylinder Lock or similar. Keyed externally, snibbed internally. LW801117**
	Door stop (where door opens against wall)	**Lockwood A350SC Door Stop**
	Privacy lock - New (WC/bathroom)	**Lockwood KL321SC Privacy Latch**

	Function	Description
Wardrobe, HWC cupboard, Linen cupboard, Understair (hollow core doors)	Privacy lock - Existing (WC/bathroom)	**Lockwood** **811SC Indicator Bolt**
Hinges – exterior doors	Latch	Lockwood **KL35 Dummy Trim** Magnetic Cupboard Catch
Hinges – interior doors		Ajax No 333 100 mm x 75 mm, fixed brass pin ZP finish butts or stainless steel equivalent
Sliding door (Interior timber)		Ajax No 1840 standard type 90 mm x 40 mm, loose pin FB finish butts or stainless steel equivalent
Sliding door (Exterior)	Track (including floor guide)	Henderson SP3 Sprint Track Lockwood 611SC Flush Pulls
	Existing track, rollers and handle	To match existing
Kitchen	Latch and lock	Jaeco No 25 Set CP on brass
		Cupboard Catch "Junior" Magnetic Catch-Handee or Nippy Catches CP on brass to match existing
	Drawer runners	Proprietary slides refer JOINERY FIXTURES section
	Existing drawer runners	To match existing refer JOINERY FIXTURES section
	Cupboard door hinges	Refer joinery details Hettich type hinges for overlay doors or cranked hinge or special cranked hinge as required
Bathroom	Shelf bracket	Powder coated stell shelf bracket to suit shelf width and weight.
	Towel rail and brackets	- Miles Nelson hardware 24 towel rail bracket 19 mm CP or SS screws - 19 mm dia 20g 304 SS tube
	Shower curtain rail (over bath)	- Miles Nelson flanges 19mm CP on brass fittings - 19 mm dia 20g 304 SS tube
	Shower curtain	White synthetic fabric all edges sewn seams and eyelet hung on plastic rings. Standard double 1800 mm x 1950 mm
	Shelf bracket	Powder coated steel shelf bracket to suit shelf width and height.

	Function	Description
	Vanity cabinet and medicine cabinet door/drawer	Sylvan Furniture CX4 convex knob pine Miles Nelson Hardware 65 concave knob 38 mm Miles Nelson Hardware 261/10 Draw HDL 96 mm
WC	Door catch	Child safety catch
Wardrobe	Toilet paper holder	Jaeco Hardware 93 toilet roll holder CP
	Hanging rail	25 mm galvanized wardrobe pipe
Coat cupboard	End brackets	M & N 107 25 mm rail end flanges CP
Windows (aluminium)	STET stay	Miles Nelson Hardware 264 windlock stay CP or SCP
	Friction stay	P1561 Friction Stay P1530 Friction Stay
	Security stay	Interlock Securistay for timber sash, white P348 Securicraft lock alloy, Securistay black where required for fire access and other S.S scissor stay
Handrail	Catches	AJC W640 or W604 Styline RH, AJC W641 or W605 Styline LH or similar
Ventilation grilles into vertical service shafts	Galvanized steel grill	300 mm x 150 mm x 1 mm thick galvanized pressed steel grill, stainless steel fixings
Garage doors	Intumescent ventilation grille	FirePro LV 40 series grille
Garden shed door	Roller or tilting-door	AHI "Roll-a-door" or "Sectional" or equal. Supply and fit door hardware including lock.
	Padbolt	100 mm galvanized padbolt
Ranchslider (where requested by HNZC)	Hinges	225 mm galvanized T hinges (3)
	Patio bolt	Securicraft MC 82NL series (colour to match frame) Motel function, non locking

55 INTERIOR TIMBER DOORS AND WINDOWS

2. PRODUCTS

Materials - general

INTERIOR TIMBER
Paint quality radiata pine, to NZS 3602. Moisture content 10-14%.
Refer to the design guides for sizing

DOOR FRAMES, TIMBER
HNZC DIRECTION
Do not use MDF or fibreboard door frames.

HOLLOW CORE DOORS POLYSTYRENE INFILL
Clashing strips two sides and paint finish.

HOLLOW CORE DOORS VENEERED
Clashing strips two sides and finished with OB Pine Veneer for clear finish.

ACCESS HATCHES AND DOORS TO SERVICE SHAFTS
Doors and hatches to have fire and smoke seal. Doors and hatches to comply and be installed to AS/NZS 1905.1 to rating as directed by the engineer. Refer to HARDWARE.

Components

DOOR HINGES
Size and gauge to carry door size and weight. 3 hinges per door. Refer HARDWARE.

HARDWARE

Type:	Loose pin
Size:	89 mm
Material:	Satin chrome plate/Florentine bronze/stainless steel
Pin:	Loose pin zinc-plated steel

INTERIOR SLIDING DOOR GEAR AND SLIDING-FOLDING DOOR GEAR
To suit door form (sliding or bi-fold), size and weight and as detailed. Refer to HARDWARE.

OVERLAY DOOR HINGES
Refer to HARDWARE.

WEDGE FASTENER
A minimum of one stay per fanlight window is required. In addition, where a sash is accessible from the outside, the sash must be fitted either with security stays or a single window catch.

3. EXECUTION

EASING OF DOORS
Check operation. Reseat or replace hinges where required and, if needed, plane binding edges to provide even gap all round, sufficient for finishing without binding.

CEILING ACCESS MANHOLE
Panels to size required and 600 mm x 600 mm x 18 mm MDF, with all surfaces painted and dried before placing in position.

FLOOR ACCESS MANHOLE
Refer to PARTICLEBOARD FLOORS.
Refer to PLYWOOD FLOORS DECKING AND ROOFING.

4. SELECTIONS

HNZC DIRECTION
Interior Doors to have a clear opening of 760 mm minimium.

64 VINYL SURFACING

HNZC DIRECTION
Do not use particleboard as a new substrate, use timber or ply.
Vinyl Tiles are permitted to be used on concrete slabs to ground floors only.
HNZC note vinyl sheet is to be specified in all other locations.

Need to refer to HNZC Policy & COC for Asbestos

2. PRODUCTS

THRESHOLD STRIPS
PVC bevel strip as supplied by sheet manufacturer to complete the work, profile and colour to be selected or aluminium vinyl edge as supplied by C & F Distributors Limited or similar.

NOSINGS
Where required nosings to be Tredsafe UP117 square nosed vinyl or equal.

SEALER & POLISH
Add to clause
Do not strip new vinyl before polishing. PVC sheet flooring to be sealed and polished to manufacturer's instructions.

SKIRTING
Timber skirtings - refer to standard drawings.

3. EXECUTION

Preparing substrate

TECHNIQUE
Note that vinyl shall be continuous beneath WC pans, laundry tub cabinets and WHB vanities.

ACCESSORIES
Allow for supply and fixing of proprietary collar firmly glued and fixed to every pipe or other floor penetration.

LEVEL ENTRY SHOWERS
Non-slip vinyl to level entry showers.

FIT VINYL SKIRTINGS
Generally, fit skirtings to the skirting manufacturer's requirements.
In wet areas, i.e. bathrooms, WC's and laundries, apply purpose designed 75 mm minimum high, H3.2 treated timber backing strip, to wall to top edge true to line. Pencil cove floor vinyl up wall over strip, hot forming to manufacturer's recommendations and using a corner roller to press the material firmly into the junction between the floor and wall. Install skirting. Refer to standard drawing detail. Form internal and external corners by folding vinyl into or around corners respectively and forming a welded joint at 45° from corner.

In other than wet areas, i.e. kitchens, flooring shall finish tight butted to skirtings and built in fixtures. Refer to manufacturer's instructions for the particular method of hot rod welding to coved areas.

SEALING AND POLISHING
When floor is dry apply 1 coat of metallised polish, then machine off. Do not strip new vinyl before polishing.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

Standard Detail:	Sheet 105	Waste pipe through floor.
	Sheet 109	Resilient flooring – coving details.

HARDBOARD/MASONITE UNDERLAY

Hardboard/masonite:	Supply
Manufacturer:	Nuplex Industries Ltd
Brand/type:	Hardboard/masonite
Thickness:	4.75 mm/5.5 mm

VINYL SHEET

Vinyl sheet:	Supply
Manufacturer:	Nuplex Industries Ltd
Brand/type:	MarleyFlor Plus
Thickness:	2 mm
Colour/number:	To HNZC detail

NON-SLIP VINYL SHEET

Vinyl sheet:	Supply
Manufacturer:	Nuplex Industries Ltd
Brand/type:	Altro VM20 slip resistant
Thickness:	2 mm
Colour/number:	To HNZC detail

MATCHING VINYL WELD ROD

Matching vinyl weld rod:	Supply
Manufacturer:	Nuplex Industries Ltd

65 CARPETING

2. PRODUCTS

CARPET GRIPPERS, FIXING AND BINDER BARS AND TRIMS
To AS/NZS 2455.1. All fixing bars and threshold strips to be bullnose type, in aluminium, Naplock Bars or similar. Binder bars in anodised aluminium mill finish section with a smooth face. Trims of type recommended by manufacturer of material being fixed or similar approved.

TAPE
Waxing seaming tape to be used where appropriate.

3. EXECUTION

LAYOUT
Plan the carpet layout so that:
- pattern or texture must match over whole surface of continuous spaces
- seams run lengthways in as long lengths as possible, straight and parallel with the main access of the room.
- traffic runs along the seam
- light from windows is not across the seam
- pile faces away from the main natural light source.
  all wardrobes, excluding the hot water cupboard to be carpeted.

SEAMS - UNDERLAY
Seams of underlay are not to coincide with those of the carpet when laid in the same direction and are not to shadow through the carpet. Join seams of underlay with tapes at least 50 mm wide, with non-staining adhesive. Prevent seams sticking to surface on which carpet is laid.

SEAMS - CARPET
Seams of carpet to be reinforced with waxing seaming tape. Prevent seams sticking to surface on which carpet is laid.

Installation

SEAMING AND JOINING
Carry out to ensure:
- joints will not break down when under traffic use.
- pattern matching and a consistent pile lay.
- pile in seam lined up straight and flat and not caught down.
- seams as flat as possible.
- straight seams with diagonals and designs correctly aligned.

STRETCHING
Install carpet flat and taut so that people/furniture movement over it does not cause rucking. Use a power stretcher to ensure maximum tension between walls with knee-kickers only used to assist. Apply force by correct pin adjustment to carpet base only to avoid damage to pile and underlay. Stretch tufted carpet at least 1% in each direction.

STAIR NOSINGS have not seen this in a HNZC property
Provide and fit Tredsafe PVC or similar approved stair nosings to manufacturer's instructions.

Completion

INITIAL CLEAN
On completion of the flooring installation cut away all loose nap ends, remove scrap, thoroughly vacuum the finished carpet.

ACCEPTANCE
Arrange for a final inspection of the completed work with the contractor. On agreement that the flooring is in accordance with the contract, the contractor takes responsibility for

protecting and maintaining it until completion of the contract and for the cost of making good any subsequent damage.

4. SELECTIONS

UNDERLAY

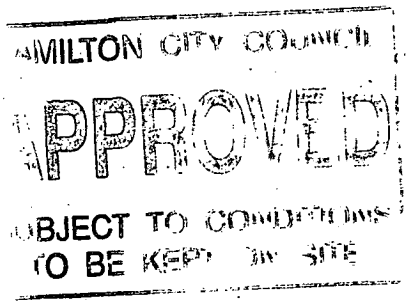
Underlay:	Supply
Manufacturer:	Nuplex Industries Ltd
Type:	Government Foamchip 1.8 metre wide
Thickness/weight:	8 mm

CARPET

Carpet:	Supply
Manufacturer:	Godfrey Hirst NZ
Location:	As detailed on drawings
Type/weight/finish:	100% wool/loop pile/28 oz/smooth edge
Product/colour:	Scotchtwill II/to HNZC detail

THRESHOLD STRIPS

Threshold strips:	Supply
Manufacturer:	Godfrey Hirst NZ
Brand/type:	Naplock bars/aluminium



67 PAINTING

1. GENERAL

Warranties

WARRANTY
Warrant this work under normal environmental and use conditions against failure.
Warranty period:

Exterior	10 years
Interior	5 years

Refer to the PRELIMINARIES AND GENERAL section for the required form of warranty agreement and details of when completed warranty must be submitted.
Check PRELIMINARIES AND GENERAL for the date of commencement of warranties; which is normally practical completion of the contract. Refer to the chosen conditions of contract as it may also contain information on guarantees. Some situations may warrant a longer warranty period.

3. EXECUTION

Application – before applying final coatings

GLAZING COMPOUND
Allow to set for 2 days. Ensure that the glazing compound is fully protected by the coating system as soon as it is sufficiently hard.

Application - generally

BROADWALL AREAS IN ALL EXITWAYS
Paints to have 0 rating spread of flame and no greater than 3 rating for smoke development index to AS/ NZS 1530.3.

Application – exterior spray painting

PREPARATION
Prepare surfaces to HNZC standard for exterior painting.

COATINGS
Use only HNZC standard paints and colours.

PROTECTION
Manage overspray ensuring no spray drift to other property. Use only airless spray equipment. Erect an HNZC tenting system around the dwelling. Mask glass with Trimex Window Mask. Do not use masking tape/paper on glass.

FILM THICKNESS
Spray paint exterior to achieve a minimum top coat wet film thickness of 120 microns and 50 microns when dry.

BROADWALL AREAS IN ALL EXITWAYS
Paints to have 0 rating spread of flame and no greater than 3 rating for smoke development index to NZS/AS 1530.3.

Completion

DISPOSAL OF WASH WATER
Septic tank system
Tip wash water on to absorbent material such as sawdust and allow to dry before removing from site or place in sealed container and remove to a chemical disposal area or remove to an area with a mains sewage system.

Mains sewer system
Dispose of wash water down the gully trap into the sanitary sewer. Remove grate from trap immediately before tipping rinse water in and replace immediately afterwards. Rinse

all paint splashes off gulley trap. Under no circumstances allow any wash water into the stormwater system or tip onto lawns or gardens. If uncertain of best method of disposal, refer to Engineer for advice.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section.

Standard Detail: Sheet 110 Paint demarcation at window head/jamb/sill.
Sheet 110A Paint demarcation at window.

Paint systems

Schedule of interior paint systems

Dulux is to be used exclusively for interior paint coatings.

PAINT/CLEAR FINISHING

Area	Substrate	Undercoat	Finishing coats
Ceilings & scotia (White only)	Plasterboard	Acrylic sealer undercoat 1 coat	Acrylic anti-mould semi-gloss 2 coats
	Fibrous	Solvent based sealer 1 coat	Water based anti-mould semi gloss 2 coats
Walls except kitchen, dining, laundry, bathroom, WC	Plasterboard	Water based sealer undercoat 1 coat	Water based low sheen 2 coats
	Fibrous	Solvent based sealer 1 coat	Water based low sheen 2 coats
Walls kitchen, dining, laundry bathroom, WC	Plasterboard	Water based sealer undercoat 1 coat	Acrylic enamel gloss 2 coats
	Fibrous	Solvent based sealer 1 coat	Acrylic enamel gloss 2 coats
Interior joinery (except windows) Also Doors & trim (except scotia) (All trim to be white or polyurethane only)	Paint	High opacity acrylic primer I coat	Acrylic enamel gloss 2 coats
	Polyurethane	Cabot's varnish stain "Rimu" 1 coat	STET clear gloss 2 coats
Windows	Paint	High opacity acrylic primer 1 coat	Acrylic enamel gloss 2 coats
Wardrobes	plasterboard unpainted	Acrylic sealer undercoat 1 coat	Water based low sheen 2 coats
Timber benches	Sanded benches	Nil	Water based clear gloss 2 coats

Area	Substrate	Undercoat	Finishing coats
Concrete floors	Paint	Acrylic paving paint (thinned) 1 coat + grit	Acrylic paving paint 1 coat + grit for anti slip texture
Steel	Paint	Solvent based metal primer 1 coat	Acrylic enamel gloss 2 coats
	Existing - paint	Solvent based metal primer spot prime	Acrylic enamel gloss 2 coats

Notes:
- All products to be used strictly in accordance with manufacturer's recommendations.
- All water based anti-mould to be semigloss white.
- Wet area cove backing to be primed 4 sides before fixing.
- Bare Totara and Matai shall be primed with a water based primer to prevent staining through later coats.
- Kitchen shelves and cupboard shelves shall be painted on top surface and visible edges of shelf only or where previously painted.
- If kitchen cupboard doors are already a dark colour, either choose a colour with good opacity or use 1 coat of water based primer over the primer.
- Windows: All top edges of sash rails shall have one coat of water based primer immediately below water based gloss coat. This shall impinge on the glass by 2 mm.
- All glazing compound to be Red Devil or Woodsash XHP glazing compound.
- 10% Floetrol must be added to water based gloss coat and water based primer used on windows and doors including cupboards.
- Skirtings to be polyurethane or acrylic enamel

Existing surfaces:
- All existing painted surfaces must be thoroughly cleaned then deglossed, sanded, and then have one coat of primer as specified.
- All enamelled softboard ceilings must be thoroughly cleaned and deglossed have one coat of primer applied before the application of any further coats.
- Where cleaning has not removed the risk of a stain bleeding through the first coat, a coat of solvent based stain sealer may be applied in place of the undercoat. Use only if required.

Schedule of exterior paint systems

Dulux paint coatings system with warrantee as certified by approved Dulux certifier

PAINT FINISHING

Area	Substrate	Undercoat	Finishing coats
Windows, doors	Steel	Solvent based white primer and undercoat	Solvent based gloss
	Timber	Water based primer with TU3 tint	Water based gloss, 2 coats
Fascia, barge, soffit, gable ends, weatherboards, concrete block, plaster, concrete chimney, base cladding, subfloor doors, letter boxes, cladding, out buildings	Fibre cement	Solvent based primer	Water based gloss, 2 coats
	Timber - painted	Water based primer	Water based gloss, 2 coats
	Timber - stained	Water based clear sealer	Water based semi transparent stain, 2 coats
Decks, landings	Timber - painted	None required	Water based low sheen, 2 coats
	Timber - stained	None required	Water based low sheen, 2 coats

Area	Substrate	Undercoat	Finishing coats
Steel/galvanized hardware, hinges	Steel - painted	None required	Solvent based, 2 coats
Fences, gates	Timber - painted	None required	Water based low sheen, 2 coats
	Timber - stained	None required	Water based low sheen, 2 coats

Notes:
- Use only Red Devil or Woodsash XHP glazing compound.
- None required: Assumes previous paint is in sound condition, if it is not, then a primer may be required, i.e. to cover bare timber if the old primer has partially delaminated.
- Follow all manufacturers' instructions and use best trade practice.
- Do not use clear finishes on exteriors.
- All roof coating products listed above are suitable for the collection of drinking water.

71 LIQUID - HOT AND COLD WATER SYSTEM AND TAPWARE SUPPLY

1. GENERAL

DOCUMENTS
Add to clause
NZS 3602 Timber and wood-based products for use in building

PROVIDE WARRANTIES
Warranty period: 2 years
Refer to PRELIMINARIES AND GENERAL and HOT AND COLD WATER SYSTEM

2. PRODUCTS

COPPER PIPE
HNZC DIRECTION
Do not use light gauge copper tube with 0.70 mm wall thickness.
Copper pipe wall thickness 1.02 mm.

WATER PIPE
HNZC DIRECTION
Use only copper or polybutylene waterpipe.
Polybutylene waterpipe to be used only where environmental conditions are unsuitable for copper pipe.

EXPOSED PIPES
Chrome plated copper pipe with chrome plated brass nuts and fittings.
Faucet hoses covered with stainless steel braid and fitted with stainless steel nuts.
Selected pipework finish to include escutcheon plates and bends and elbows protruding from walls or fittings.

BRASSWARE
De-zincified brass.

STORAGE TANK
Water storage tank proprietary precast concrete or high density polyethylene of nominal 18,000 litres. Fittings to include all inlets, gate valves, pipework and overflows etc, run to suit. Install to manufacturer's recommendations.

SUPPLY TANK (135 litre)
135 litre high density polythene supply tank complete with lid, overflow tray, ball valve and discharge pipe to exterior and all necessary connections. Tank to be installed in accordance with manufacturer's recommendations including seismic restraints and to NZBC requirements.

GATE VALVES
De-zincified brass b.s.p. screwed ends.

FELT LAGGING
Do not use.

HOT WATER PIPE INSULATION
Minimum 13 mm wall thickness, synthetic rubber or foam tube only.

SEALANTS
Sealants to be mould inhibiting silicone sealants Fosroc Silaflex or equal.

3. EXECUTION

THERMOSTAT SEALS
Install HNZC supplied thermostat seals to indicate date of installation to all hot water heating appliances.

JOINTING uPVC PIPE
Delete clause.

JOINTING POLYETHYLENE PIPE
Delete clause.

POLYPROPYLENE WATER SUPPLY
Delete clause.

SHOWERS
Ensure minimum head of 1000 mm above the shower rose is achieved.

Completion

WATER CARTAGE
Re-fill empty water supply tank using fresh clean drinking water supplied by a Local Authority certified water carrier.

DELIVERY WATER TEMPERATURE
When any work is done that could alter the hot water temperature, test that delivery temperature is set to 55°C maximum, at any hot water outlet.

4. SELECTIONS

COPPER PIPE
Add to clause

Type:	half hard
Wall thickness:	1.02 mm

HNZC DIRECTION
Do not use light gauge copper tube with 0.70 mm wall thickness.

ALKATHENE PIPE
Internal diameter: 20 mm minimum

FLEXIHOSE
No jointing. Supply approval through Plumbing World or Mico manufacture by Spartan Engineering Ltd, Wellington.

STORAGE TANK

Material:	Precast concrete/high density polyethylene
Capacity:	18,000 litres minimum

SUPPLY TANK

Material:	High density polyethylene
Capacity:	135 litres
Size:	~ mm diameter x ~ mm high
Accessories:	Lid and overflow tray

PIPE INSULATION

Brand:	~
Material:	Synthetic rubber or foam
Wall thickness:	13 mm minimum
Finish:	~

SOLAR WATER HEATING
To specific design

GAS HOT WATER HEATER, CONTINUOUS FLOW TYPE
As per procurement schedule

TAPS AND FAUCETS

Fitting location	Tap type	Brand	Catalogue number
Basins:	Basin Mixer	Methven Promix Basin Mixer	Code: PRSLBCP
Shower:	Fixed Shower Rose	Methven Bella fit 1800mm above shower base	Code: SRBLCP
	Shower Mixer	Methven Promix	Code: PRSHCP
	Sliding Shower	Methven Bella slide shower-outlet 1800mm above shower base	Code: SHBLCP
Bath:	Bath mixer	Methven Futura bath mix with single handle	Code: FU2080CP
Sink:	Swivel Sink Mixer	Methven Promix Swivel Sink Mixer	Code: PRSLSCP
Tub:	Swivel sink mixer	Methven Promix swivel	Code: PRSLSCP
	Washing machine tap	Methven Kowhai Laundry Tap	Code: 41FWM
Cistern:	Cistern Tap	Methven Kowhai Cistern Tap	Code: 22C
Exterior wall:	Exterior Hose Tap	Methven 3515 exterior hosetap	

72 GAS – SYSTEM AND APPLIANCES

2. PRODUCTS

Materials

STEEL PIPE
To BS 1387, black steel or galvanized and wrapped or coated and complete with fittings, to NZS 5261.

GAS APPLIANCES
Refer to SELECTIONS.

3. EXECUTION

Application

PIPING

Underground steel pipe entering the building shall be galvanized pipe and shall be wrapped with 2 layers of Denso tape, 50% overlap and with tough PVC sheath.

HEATSHIELDS
Glazed ceramic tiled heatshields to be installed to walls; refer to TILING – WALL AND FLOOR.

RANGE ANTI TIPPING BRACKETS
Anti tipping brackets must be fitted to all free standing range installations to manufacturer's requirements.

SEISMIC RESTRAINTS
Comply with the requirement of NZBC G12 for seismic restraints for gas hot water cylinders.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section.

Standard Detail: Sheet 240 Gas meter cover.

GAS APPLIANCES

Appliance	Make and code
Room heater flued type:	Rinnai Slimline
Room heater balanced flue type:	Marker gas Valour Tropic Trend or Style
Hot water cylinder:	Rheem 135 litres or Rheem170 litres
Instantaneous gas showers:	Rinnai instantaneous gas water heater - Infinity
Range:	Simpson gas free standing range, 540 mm wide GUJ512HWNG, colour: white

74 PLUMBING - SANITARY AND SANITARY FIXTURES

2. PRODUCTS

WC PAN CONNECTOR
Plastic or flexible rubber connector as required.
Ideal Standard 623 or Nucon Flexible Rubber Closet Bowl Connector.

LAUNDRY TUB AND CABINET
Proprietary manufactured combined unit with seamless stainless steel tub, powder coated galvanized steel cabinet, separate waste pipe for washing machine, tub overflow outlet, safety latch for door, but excluding taps. Fix tub cabinet to wall.

SEALANT, SANITARY FIXTURES
For between sanitary fixtures and accessories and adjacent floor or wall surfaces.
1-part, silicone, containing mildew resistant agents. Fosroc Silaflex or equal.
Colour: White

3. EXECUTION

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 Part 2/NZBC G13/AS1. Discharge wastes into the drainage system stack, soil pipe, or gully trap as shown. Fit waste collars at all junctions with walls, for junctions with floors refer to VINYL SURFACING. Where side connection required to WC pans use plastic pan connector to P trap.
Bird-proof mesh to all roof vents and vermin-proof mesh to all untrapped waste pipes.

INSTALLATION REQUIREMENTS
Add to clause
Allow to fit and install associated screens, elements and hardware, plumb, true to line and rigid, to the fixture manufacturer's requirements.

INSTALLING BASINS
Add to clause
Supply and install standard chrome plated brass wastes and plastic plugs on chrome plated chains with all basins. Overflows are required to all basins. Seal behind basins with mould resistant silicone sealant.

INSTALLING BATHS
Add to clause
Supply standard chrome plated brass wastes and plastic plugs on chrome plated chains with all baths. Overflows are required to all baths.

INSTALLING CLEANERS SINKS AND TUB UNITS
Add to clause.
Add any requirements for connecting up a washing machine.
Supply standard chrome plated brass wastes and plastic plugs on chrome plated chains to sinks and tubs. Overflows are required to all laundry tubs. Refer to standard drawing details.

PENETRATIONS
At penetrations through constructions provide and fit collars or escutcheon plates to match pipework.

TEST
Test soil and waste disposal systems to ensure no leakage exists and leave in proper working order.

4. SELECTIONS

HNZC STANDARD DETAILS
Refer to the following standard details for items relating to this work section

Standard Detail: Sheet 105 Waste pipe through floor.

Sheet 106 New vanity cabinet.
Sheet 107 Tub cabinet.
Sheet 108 Laundry tub.

SANITARY FIXTURES
Refer to GLAZING for frameless shower and bath screens.
Refer to BATHROOM AND TOILET FIXTURES for bathroom and toilet accessories.

Fixture	Model	Colour
WC pans	Vitreous china pan	White
WC cisterns	Dual flush	White
WC seats	Heavy duty	White
Wash hand basins and vanity unit	Wall hung unit with integrated 300 deep water resistant vanity unit where applicable.	
Showers	Acrylic stall or pressed stainless steel with extra frame support to waste outlet – easy clean waste	
Baths	Special HNZC – Clearlite with overflow	White
Sink/bench	Burns & Ferrell fluteline stainless steel with anti-spill edge Mercer F3 bowl with over flow	polished finish
Tub Square hole to be plugged, left or right autodrain connected.	Burns & Ferrell auto drain stainless steel or preformed steel cabinet and s.s. tub with overflow and with washing machine drain	
Floor drain	Easiclean trap	

74 DRAINAGE – GENERAL, GROUNDWATER, STORMWATER AND WASTEWATER

3. EXECUTION

Conditions

EXISTING - ASBESTOS CEMENT PIPES
Should asbestos cement pipes be replaced then the removal and disposal of the asbestos cement pipes shall be in accordance with HNZC ASBESTOS POLICY AND CODE OF CONDUCT.

EXISTING - LAY STORMWATER DRAINS
Confirm the required location of downpipes and finished ground levels before commencing pipework. Set downpipe bends in concrete with the concrete brought up to protect the top of the bend from damage. Trowel off and fit CI grating. Lay replacement drains from high point in PVC drains in straight runs to correct gradients to discharge into the network utility operator's stormwater system.

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.

CESSPITS/SUMPS
To G13/AS2 standard of 150 mm thick 20 MPa concrete 455 mm square and 1000 mm deep complete with 225 mm dia ceramic half-syphon pipe and cast iron frame with lift out grating.

4. SELECTIONS

GULLY TRAPS
Manufacturer: ~
Material: Galvanized steel grate most gully trap grates are cast aluminium
Type: ~

METAL FASICIA AND CONCEALED GUTTER SYSTEMS
HNZC prohibit use of metal fascia and concealed gutter systems

77 ELECTRICAL POWER AND LIGHTING

1. GENERAL

Documents

DOCUMENTS REFERRED TO
Add to clause
Documents referred to in this section:

New Zealand Electrical Codes of Practice
ECP 11 Inspecting and testing low-voltage installations for certification

Requirements

CERTIFICATE OF COMPLIANCE
Add to clause
On completion supply the certificate of compliance to the engineer.

OTHER BURIED SERVICES
Prior to commencing trenching ascertain from the supply authority, gas authority, telephone company, local authority and any other relevant body the location of all buried services in the contract area. Arrange for the relevant organisation to clearly mark the position of their service. Pay all charges in respect of this work.

2. PRODUCTS

Materials

METER BOX
Proprietary manufactured, zinc plated powder coated metal case, or ABS plastic, with glazed panel door, weatherproof if mounted outdoors, and complete with meter mounting, main switch and fuse.
Confirm acceptability of remote meter reading devices to project

DISTRIBUTION BOARD
Proprietary manufactured, zinc plated powder coated, or heavy duty plastic, fire resistant enclosed construction, complete with neutral and earth busbars, MCBs, 30 mA RCDs and 60 amp main switch, complete with 20% spare capacity to AS/NZS 3000. Include 2 spare MCBs labelled as "spare". All protective devices: 6kA MCBs of the appropriate rating.

SMOKE ALARMS
To AS 3786 as per procurement

BELL SYSTEM
Complete with transformer for mounting on distribution board.

TV AERIAL
Antenna, co-axial cable and outlets, suitable for both VHF and UHF reception of all local free-to-air broadcast channels.

3. EXECUTION

Conditions

METER BOX
Fit to meter box manufacturer's and network utility operator's requirements where detailed. Recess into external wall and flash to weatherproof. Arrange for meter installation and connection.

EARTH LEAKAGE PROTECTION
RCD protection to AS/NZS 3000.

Domestic:
Install RCD protection at the switchboard of final sub circuits controlling socket outlets except for: Fixed cooking equipment and lighting

SWITCH AND SOCKET UNITS
Fit all single and double switch and socket units at the following heights (to the top of the unit) unless shown otherwise on the drawings.

Switch Units:	1000 mm
Socket Units:	300 mm above work benches
	500 mm above FFL elsewhere

Label all switch units that control electrical equipment by colour filled engraving on the switch plate.

LIGHT FITTINGS
Install light fittings in locations and at heights detailed, and to the fitting manufacturer's requirements.
HNZC DIRECTION
Do not use halogen or recessed ceiling fittings.

RANGE ISOLATOR AND WALL SOCKET
Stove isolator switch and wall socket to be installed above the stove, ideally just to one side.

RANGE ANTI-TIPPING BRACKETS
Anti-tipping brackets must be fitted to all free standing range installations to the manufacturer's specification.

TELEPHONE WIRING
Refer to COMMUNICATION SYSTEMS – CABLE COMMUNICATION.

TV AERIAL
Fit antenna, run cabling concealed below the roof and fit outlet with adjacent double power point in living room 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.

SMOKE ALARMS
Install smoke alarms to NZBC F7/AS1 and to the alarm manufacturer's requirements, fitted neatly and without damage to the surrounding finish.
Install one fitting in each of the following areas: bedrooms, lounge, separate dining, hall and garage if attached to house.

4. SELECTIONS

MATERIALS CABLES AND CIRCUITS - MINIMUM CABLE SIZES

Lighting circuits:	1.0 mm^2 fed by 40A 30 ma 4 kA RCBO
Power socket circuits:	2.5 mm^2 fed by 40A 30 ma 4kA RCBO
Fixed outlets water heating:	2.5 mm^2 fed by 20A MCB
Range circuit:	6.0 mm^2 fed by 32A MCB circuit
Bonding wires:	4.0 mm^2
Earthleads:	6.0 mm^2
Service main:	16.0 mm^2
Smoke alarms	First Alert 86RACQAUS
Pendant fittings:	0.75 mm^2 circular flexible

FITTINGS
All fittings white polycarbonate.

Light switches:	Clipsal 31VA16T
Socket outlets:	Clipsal 25VS (double)
Fixed outlets:	Clipsal standard series
Hot water system switches:	Clipsal standard series single switched fixed wire outlet or PDL 574 series
Range switches:	Clipsal 31VH plate + 30M35 switch, or SF35

Range socket outlets:	Clipsal 31VCS
Range plugs:	800CL
Batten holders:	Clipsal 530
Ceiling roses:	Clipsal 93
Cord grip lampholders:	Clipsal 501
Light shades:	Special HNZC vented PDL 49
Shaver power outlets:	Clipsal 727V only if existing is defective
Exterior lights:	PDL 90/91 c/w 75w lamp
Earth electrodes:	Min 13 mm diameter copperclad HT steel.

SWITCH UNITS

Type:	10 amp/240v flush polycarbonate units complete.
Make/series:	~
Colour/finish:	White polycarbonate with PDL 538 2 gang conversion plates if required.
Exterior:	Polycarbonate, grey

HOT WATER SYSTEM SWITCH

Type:	One way 20 amp switch complete with clamp for flexible PVC tubing.
Make/series:	~
Colour/finish:	Polycarbonate, white

HOT WATER CYLINDER ELEMENT

Make/series:	2kW up to 135 litre, 3kW over 135 litre

HOT WATER THERMOSTATS

Make/series:	Complying with NZS 6214.

DOUBLE SWITCHED SOCKET UNITS

Type:	10 amp/240v flush polycarbonate 3 pin combined switch units complete.
Make/series:	~
Colour/finish:	Polycarbonate, white with PDL 538 2 gang conversion plates if required.

FIXED OUTLETS

Type:	10 amp/240v flush polycarbonate complete with switch.
Make/series:	Single switched fixed wired outlet
Colour/finish:	Polycarbonate, white

CEILING ROSES

Type:	Standard white plastic with flex and cord grip lampholder.
Make/series:	~
Colour/finish:	White

BATTEN HOLDERS

Type:	Standard white plastic complete with light shade
Make/series:	~
Colour/finish:	White

BATTEN HOLDERS SKIRTS/RINGS

Type:	Standard plastic.
Make/series:	~
Colour/finish:	White

SPACE HEATERS

Type:	Wall mounted via a fixed outlet
Make/series:	Surface mounted wall fan heater 2.2kW for 1 and 2 bedrooms or 3.0kW for 3 or more bedrooms. Ensure control thermostats are fitted to appliance or connected to a remote thermostat
Colour/finish:	White

EXTERIOR LIGHTS

Type:	Standard white with polycarbonate globe rated to a minimum IP 44 installed to manufacturers recommendations with 75W lamp

EMERGENCY LIGHTS
Type: Menvier Weatherlite WLNM/2, SANTON 144 E1 or equal

RANGE
Model/type: free standing
Make/series: Simpson 62H622W
1136 mm x 596 mm x 619 mm (H x W x D)
Colour: White

RANGEHOOD
Make/series: Fisher and Paykel
Model: RH601 white

RANGE SWITCH
Type: Standard flush mounted minimum 35A rating.
Make/series: ~
Colour/finish: Polycarbonate, white

RANGE WALL SOCKET
Type: Standard 32A plastic flush mounted. (Replace existing only)
Make/series: ~
Colour/finish: White polycarbonate

RANGE PLUG
Type: Standard 32A with 1.8m flex. (Repair existing only)
Make/series: ~
Colour/finish: White

LIGHT SHADE
Type: Vented plastic conical shade
Make & Series: ~
Colour/Finish: White

OUTDOOR LIGHT SWITCH
Type: Surface mounted weatherproof
Make/series: Polycarbonated IP56 series rated
Colour/finish: Grey polycarbonate

FLUORESCENT TUBES
Type: Standard 26 mm diameter, 1200 mm, 1500 mm
1800 mm or 2d or 2l as applicable
Colour: 3500K

FLUORESCENT STARTERS
Make: Thorn or equal approved
Series: PS 155/500

INCANDESCENT LAMPS
Type: Standard BC pearl max 100w

SINGLE FLUORESCENT LIGHT FITTING
Type: Surface mounted c/w prismatic diffuser
Make/series: 36 watt or 58 watt

TWIN FLUORESCENT LIGHT FITTING
Type: Surface mounted c/w prismatic diffuser
Make/series: 2/36 watt or 2/58 watt

CIRCUIT BREAKERS
Type: Single pole, 10A-32A
Capacity: 10A-32A

RESIDUAL CIRCUIT BREAKERS
Type: Single pole, 20 A, 30 ma, 4 kA, SE surface mounted series RCBO

Capacity: 20 A, 30 ma, 4 kA, SE surface mounted series RCBO for single circuits on existing distribution board

DISTRIBUTION SWITCHBOARD
Type: Flush mounted, with c/w isolator, SE Surface mounted RCBOs and MCB's of appropriate rating
Make: ~

MAIN ISOLATOR
Make: ~

SMOKE DETECTORS (240V)
Ionisation type, interconnectable, an inbuilt sounder (mini. 85dBA), surface mounted, tamper proof, guaranteed for life of battery, and minimum of British Standards approval.
Make: First Alert 86RACQAUS

SMOKE DETECTORS (BATTERY)
Ionisation type, 10 year lithium powered, hush and test facility, inbuilt sounder (mini. 85dBA), surface mounted, tamper proof, guaranteed for life of battery, and minimum UL listed.
Make: First Alert SA88LTH

Notes:
- Surface mounting of meter box is not permitted without the approval of the engineer.
- Refer to HNZC, AS/NZS 3000 Section 3 and AS/NZS 3008 for further information on underground cabling systems.

Distribution switchboard
2 x 15 Din Rail DBS flush type distribution board.

Switch gear
Supply and install RCBOs and MCBs mounted in a 2 x 15 Din Rail DBS Merlin flush type Distribution Board arranged for example as follows:

Circuit 1	20A MCB Hot water cylinder
Circuit 2	63A Double mains isolator
Circuit 3	32A MCB Range
Circuit 4	40A 30 ma 4 kA RCBO
Circuit 5	20A MCB Power (kitchen)
Circuit 6	20A MCB Power (bedroom)
Circuit 7	10A MCB Lighting (bedroom)
Circuit 8	40A 30 ma 4kA Merlin Gerin RCBO
Circuit 9	20A MCB Power (lounge)
Circuit 10	20A MCB Power (bedroom)
Circuit 11	10A MCB Lighting (kitchen)
Circuit 12	Spare for (RCBO)
Circuit 13	Spare
Circuit 14	Spare
Circuit 15	Spare

Neutral and earthing bus bars to be designed to facilitate wiring and testing

78 COMMUNICATION SYSTEMS - CABLE COMMUNICATION

2. PRODUCTS

Components

COMMON COMPONENTS
All system components (frames, cabling and outlets) to be of a common manufacturer. All cable to be CAT 5.

3. EXECUTION

Application

TELEPHONE WIRING
Install Cat 5 telephone cable to telephone outlet positions shown on the drawings, preferably on internal walls. Install in conduit for outlets on masonry surface. Fix and connect BT jack point outlets to NZ Telecom requirements and terminate wiring at incoming terminal block. Install one jack point per floor with adjacent double socket outlet, with a maximum of two per dwelling.

TELEPHONE DRAW WIRES
Supply draw wires from accessible positions for the telephone outlets shown on the drawings. Install in conduit for outlets on masonry surface.

4. SELECTIONS

None.

82 ROADS AND PAVING - EDGING, KERBS AND GUTTERS, SUB BASES, ASPHALTIC AND INTERLOCKING PAVING

1. GENERAL

CONCRETE DRIVES, PATHS AND FOOTPATH CROSSINGS
Refer to CONCRETE.

WEAK SUB-GRADE
Where there is excessive settlement in the existing surface or there are soft ground conditions (CBR = 5 or less) advise the engineer and continue only as directed.

DEFINE BOUNDARIES
Ensure that the completed work lies within the defined boundaries of the particular property.

2. PRODUCTS

CHIP SEALING
Sealing chips to be grade 6 to TNZ specification M/6.

3. EXECUTION

General

RELATIVE LEVELS
Confirm that proposed finished paving levels conform to NZS 3604, clause 7.5.2.1, in relation to any adjoining habitable floor levels, and that proposed levels and falls comply with NZBC E1/AS1. Where any discrepancy exists, obtain the engineer's approval in writing before confirming adjustments to paving levels with the territorial authority.

INSPECTION
Prior to commencing paving, inspect the area to ensure that kerbing, edge restraints, drainage, surface water sumps, channels, basecourse and all other services are in place to correct falls and are of a standard to allow paving work of the required standard.

Application

ACCEPT AND PREPARE
Add to clause
Comply with NZS 3604, Clause 3.5, Site Preparation. Remove all turf, vegetation, trees, topsoil, stumps and rubbish from the area to be built on.

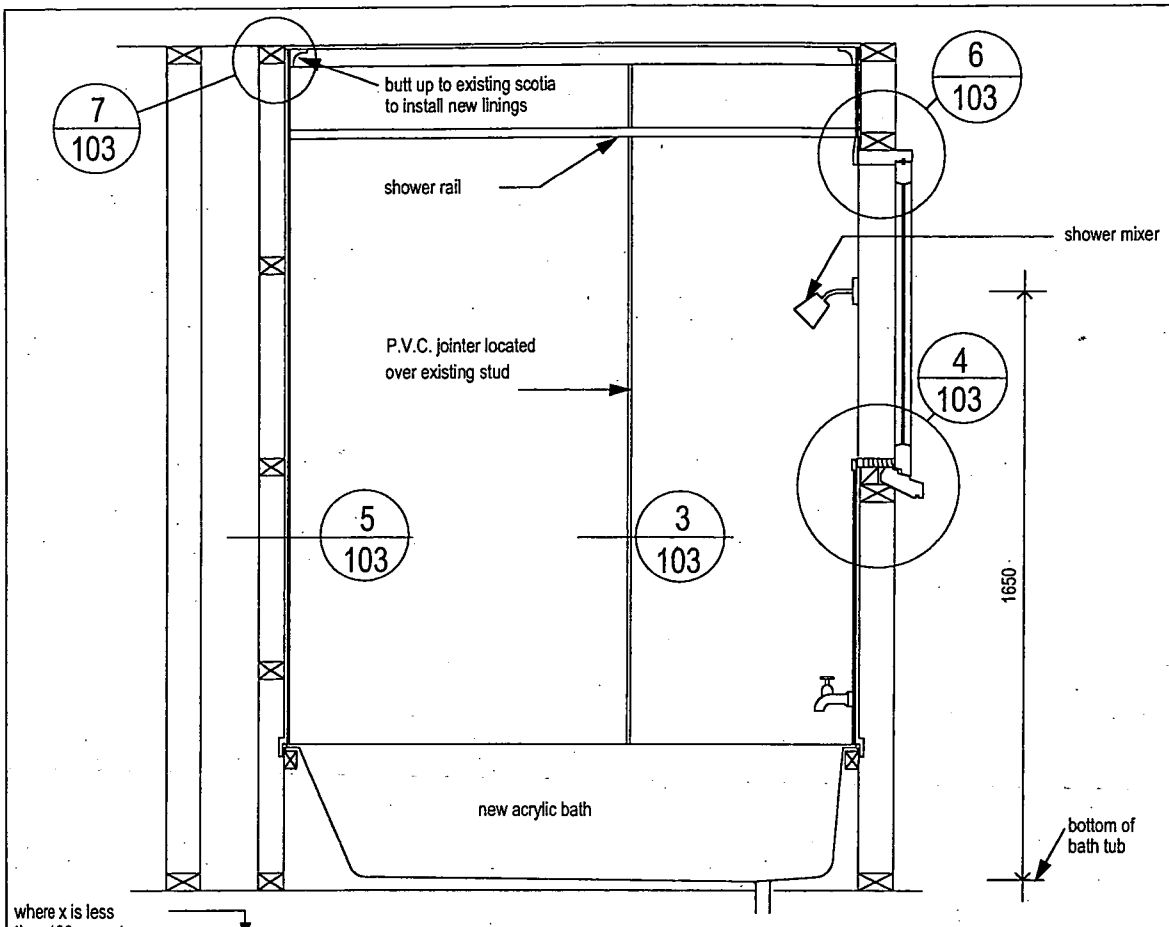
FORMING IN SITU KERBS AND GUTTER CHANNELS
Excavate, box for and pour cast in situ concrete channels as detailed from 17.5 MPa concrete, with construction joints every 4.0 metres maximum. Set the joint flush with the surface and to a minimum 25 mm deep. Construction joints to be consistent with the joints in precast kerb blocks. The top surface of channels to be finished smooth and even. Channels shall not pond water at any point. Allow haunching and channel concrete to cure before making good the adjoining basecourse.
Modify this clause to suit when laying extruded kerbing.

FOOTPATH CROSSINGS
Refer to CONCRETE.

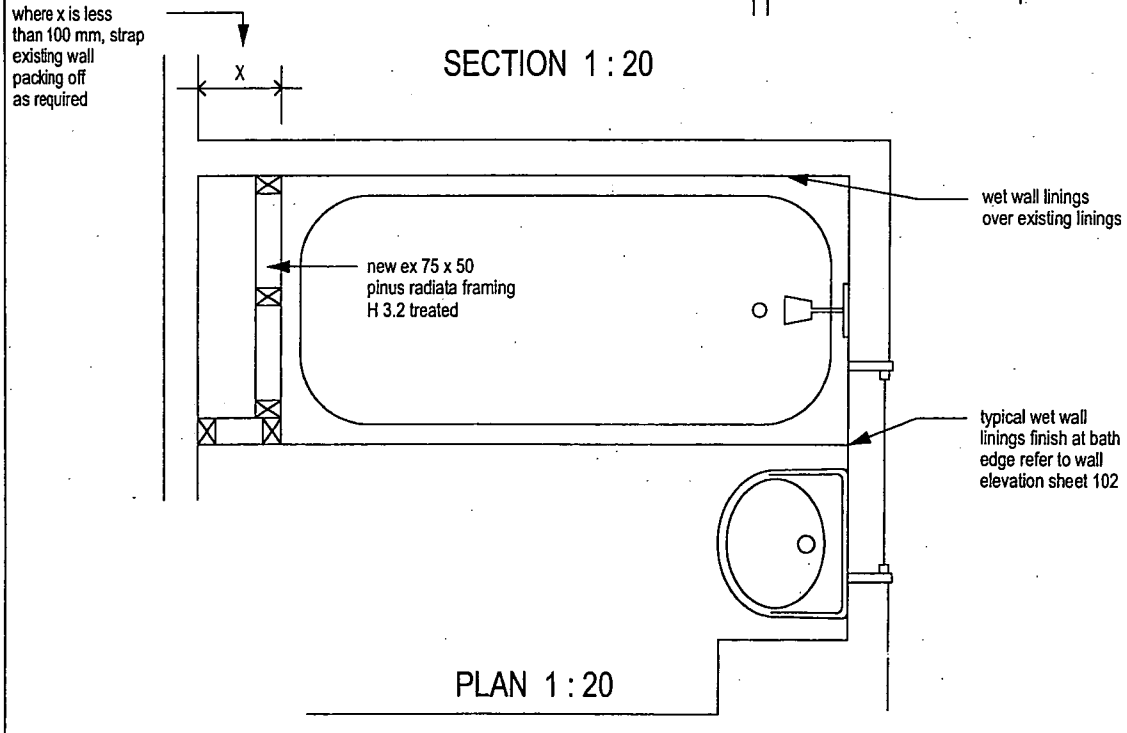
4. SELECTIONS

ASPHALT

Mix:	Mix 10
Thickness:	25 mm



SECTION 1 : 20

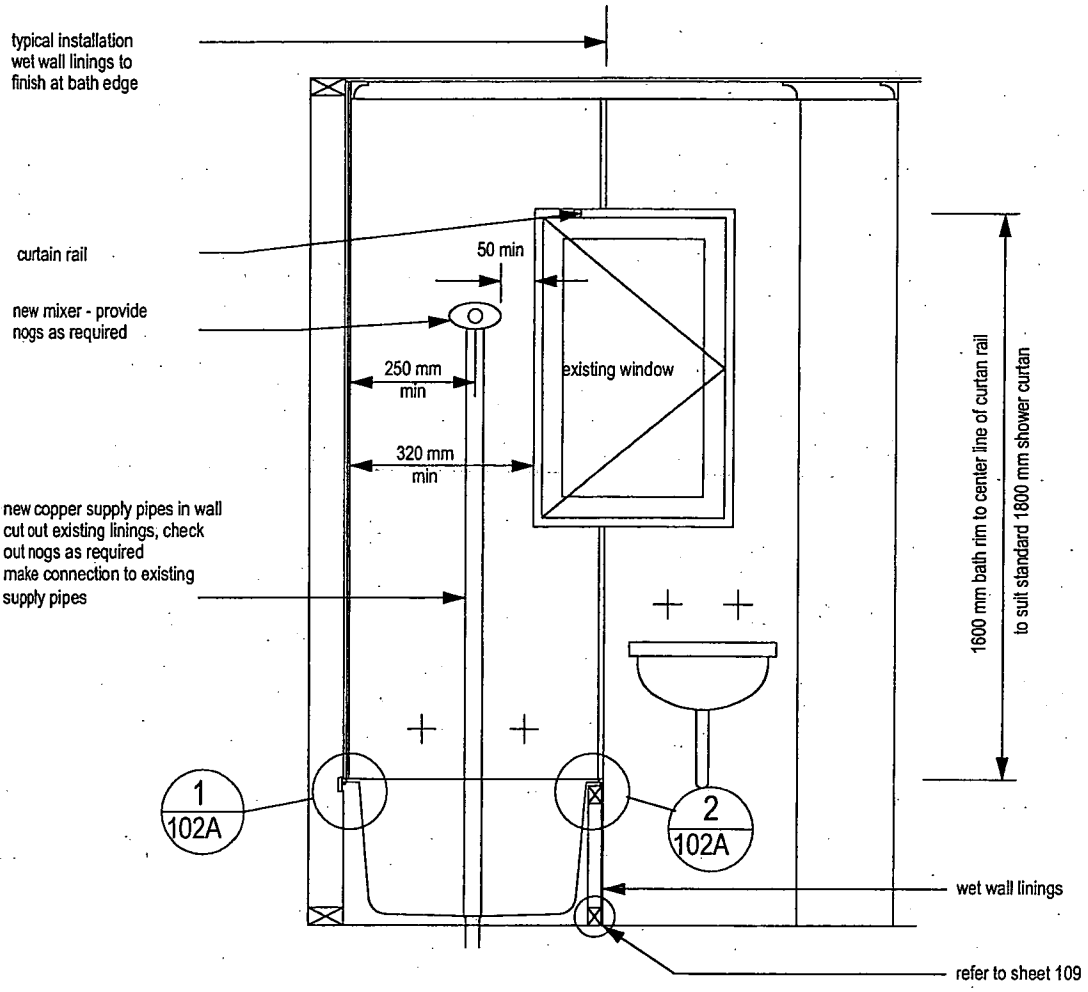


PLAN 1 : 20

NEW BATH/SHOWER AND WET WALL LININGS

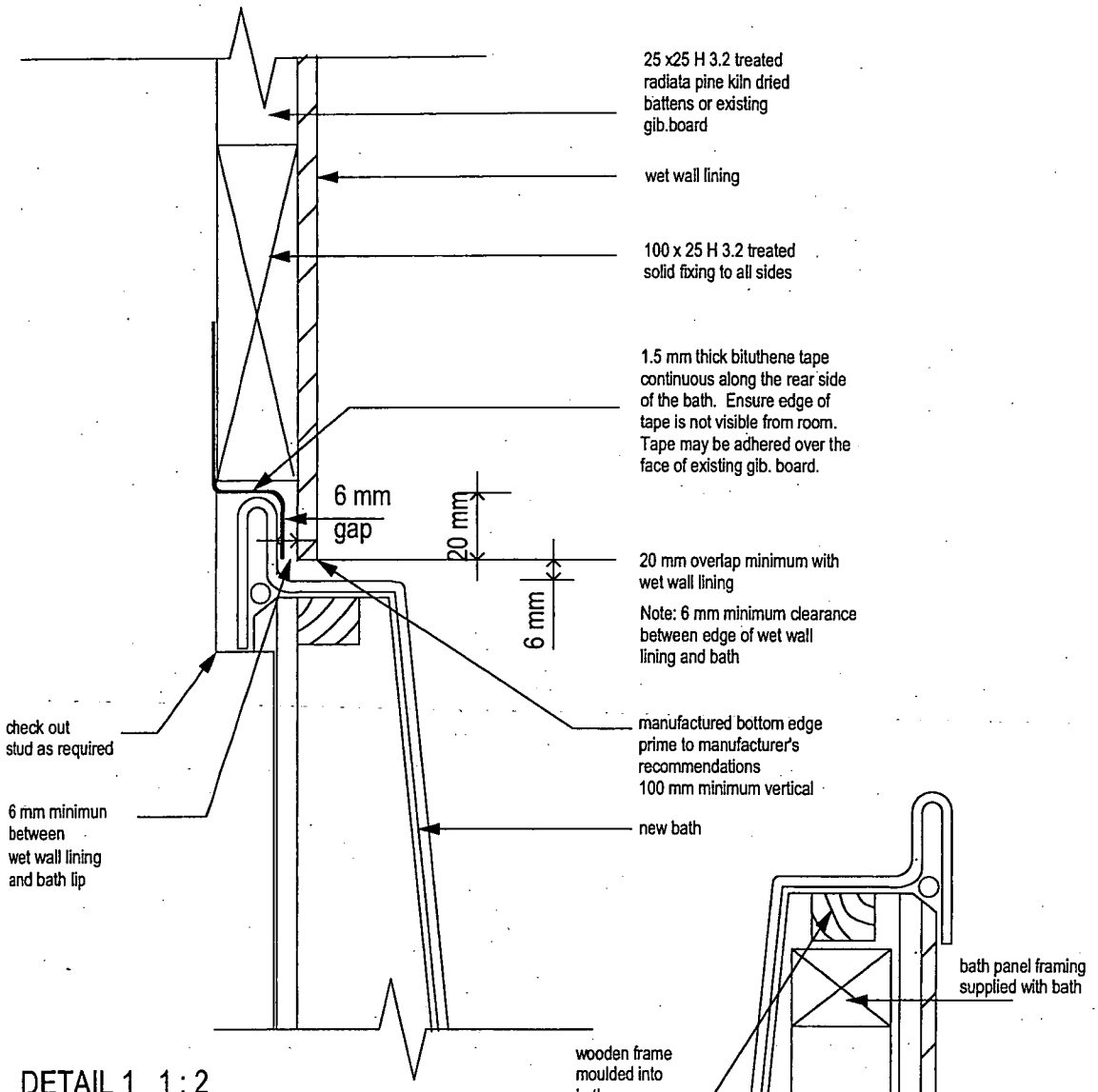
Housing New Zealand

Standard Detail
Sheet 101

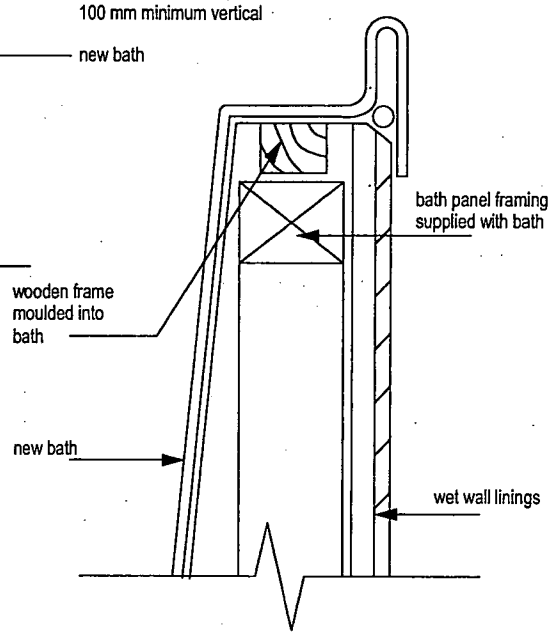


SECTION 1 : 20

BATH/SHOWER AND WET WALL LININGS



DETAIL 1 1 : 2
HIGH LIP BACK OF BATH
DRAINED JOINT BETWEEN
BATH / WET WALL



DETAIL 2 1 : 2
FRONT OF BATH

BATH/SHOWER AND WET WALL LININGS - DETAILS

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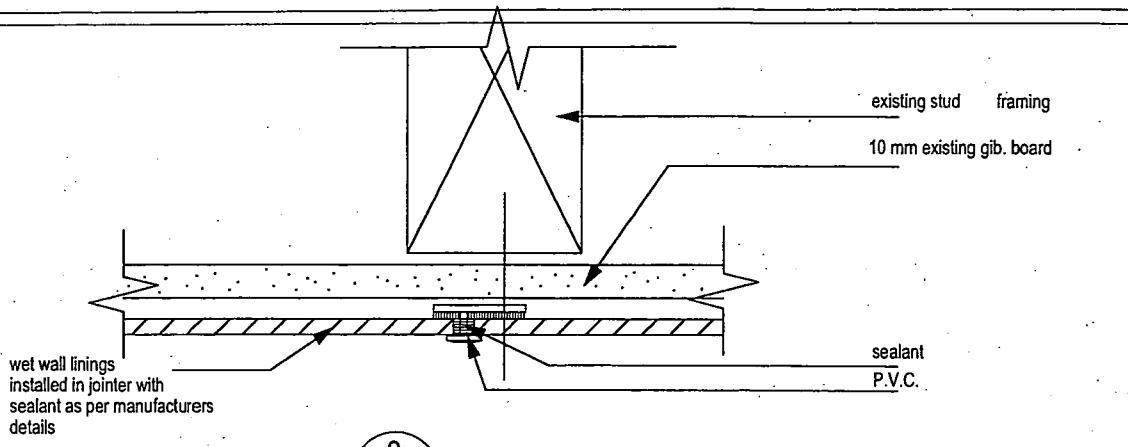
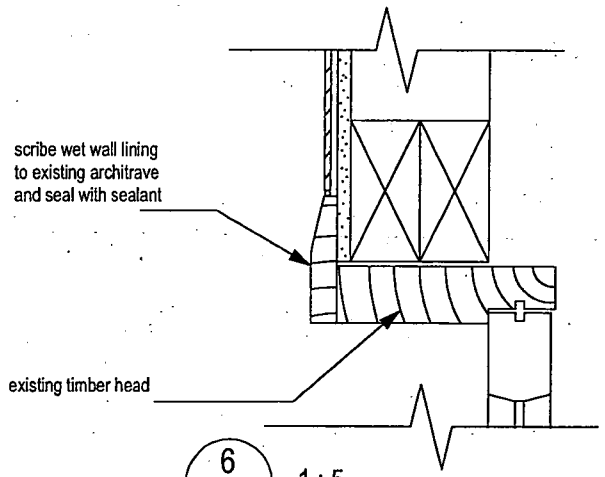
HNZC CONSTRUCTION SEPT 2005

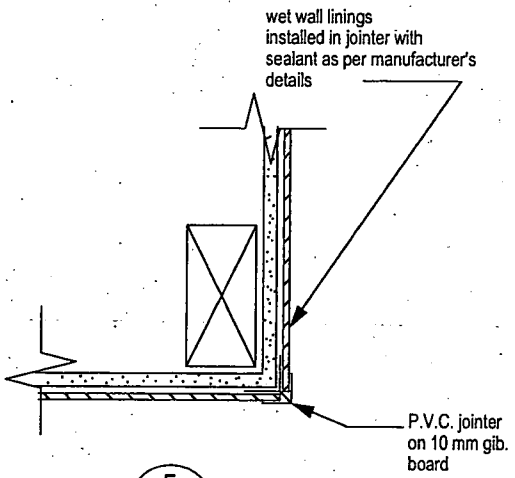
Standard Detail
Sheet 102A



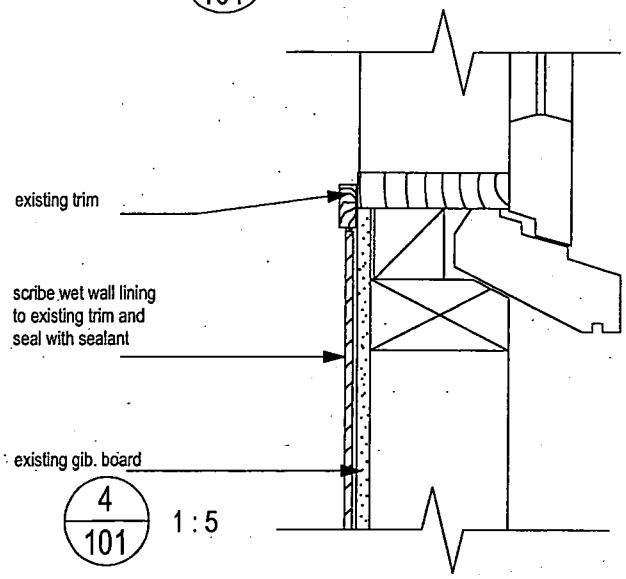
3/101 1:2



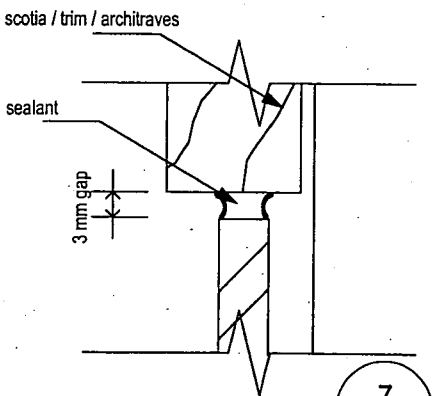
6/101 1:5



5/101 1:5



4/101 1:5



N.T.S. 7/101 & 104

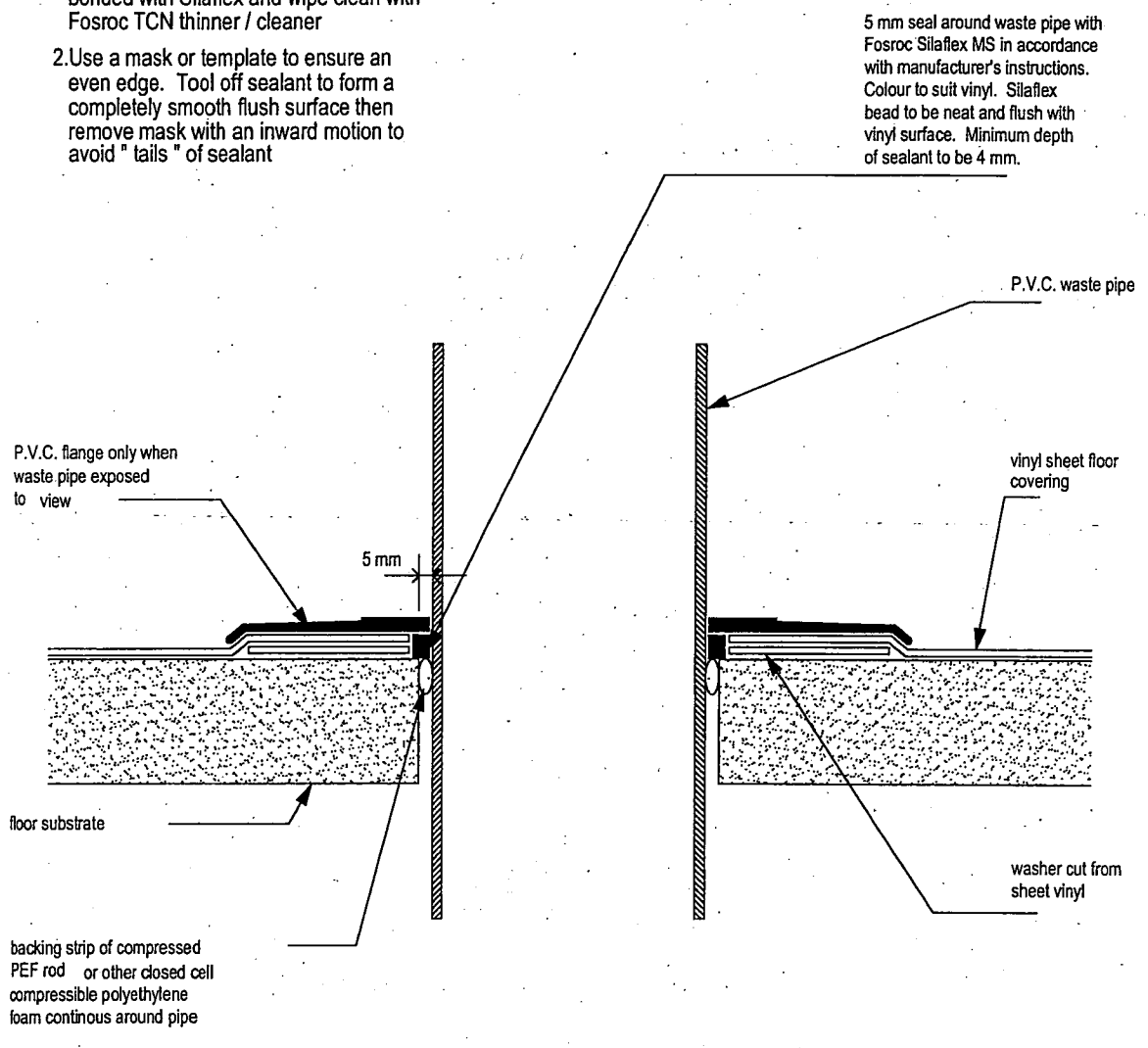
BATH / SHOWER WALL LINING DETAILS

Housing New Zealand

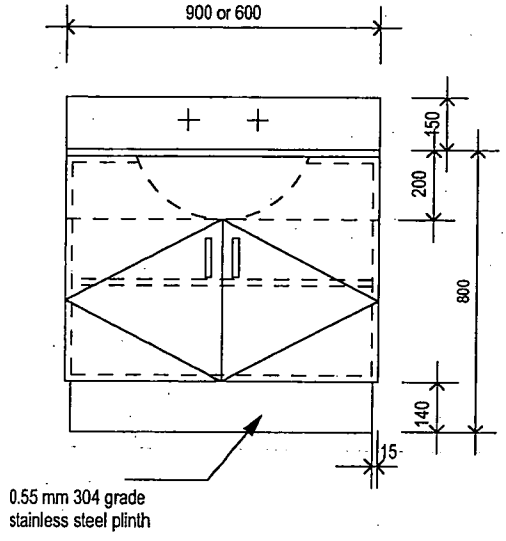
Standard Detail
Sheet 103

NOTES :

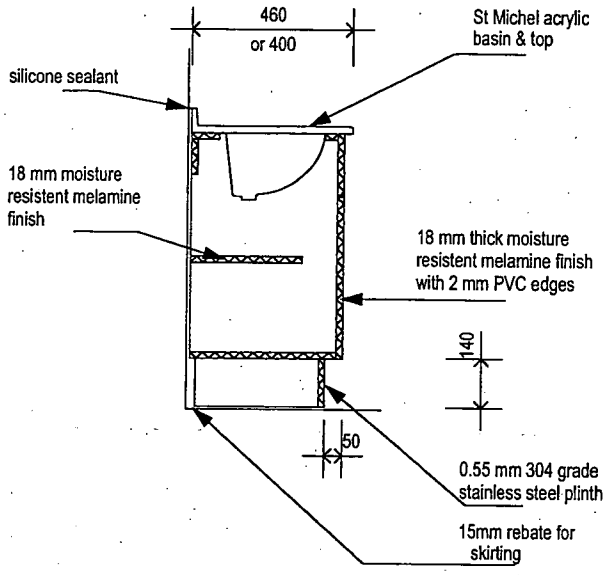
1. Roughen with sandpaper surfaces to be bonded with Silaflex and wipe clean with Fosroc TCN thinner / cleaner
2. Use a mask or template to ensure an even edge. Tool off sealant to form a completely smooth flush surface then remove mask with an inward motion to avoid " tails " of sealant



WASTE PIPE THROUGH FLOOR 1 : 1



ELEVATION 1:20

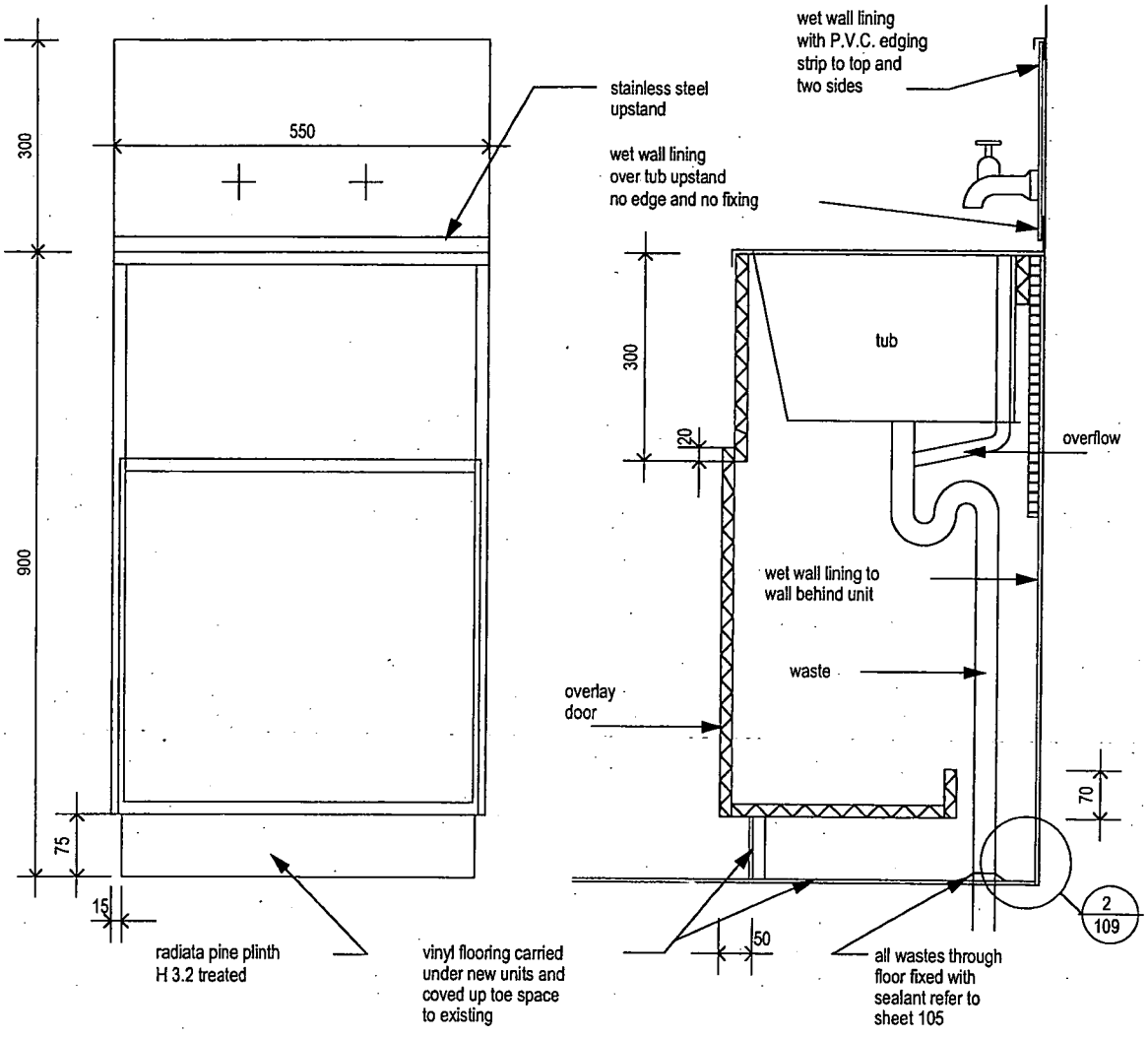


SECTION 1:20

NOTES:

1. Construct from 18 mm moisture resistent particle board with melamine finish
2. Hardware - Blum snap-on hinges
3. Flush off one end to suit corner installation
4. Fit 140 mm high 0.55 mm 304 grade stainless steel plinth
5. Base boards in H 3.2 treated radiata pine

NEW VANITY CABINET



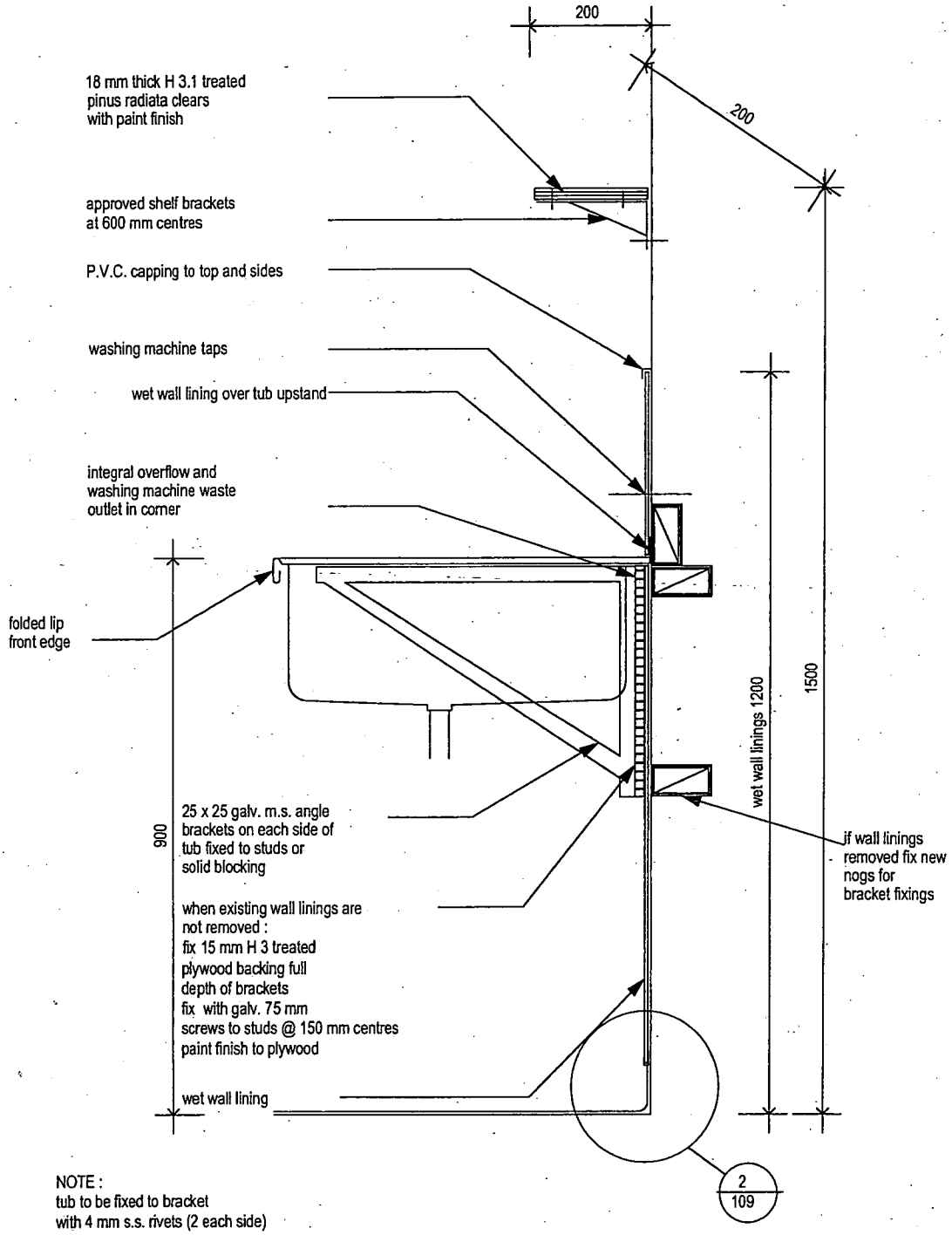
ELEVATION 1:10

SECTION 1:10

NOTE :

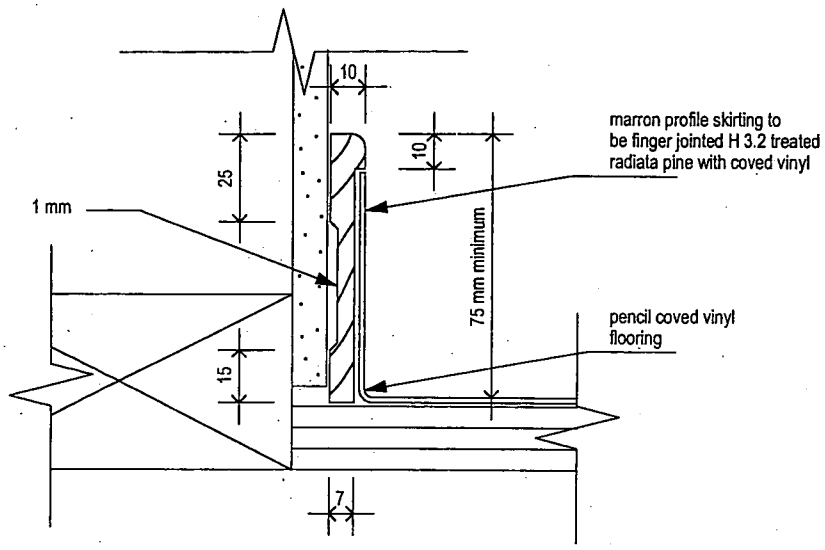
1. Construct cabinet from 17 mm thick, H 3 treated, B-B grade plywood
2. Paint finish - refer colour schedule
3. Fit hardware - refer hardware schedule
4. Tub with washing machine waste
5. Where existing cabinet replaced provide new H 3.2 radiata pine plinth

TUB CABINET



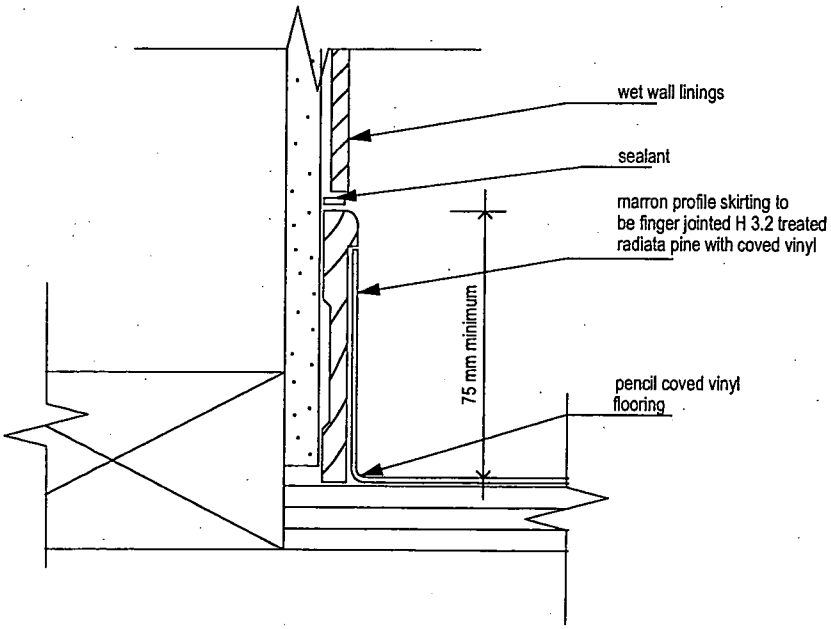
NOTE :
tub to be fixed to bracket
with 4 mm s.s. rivets (2 each side)

LAUNDRY TUB 1 :10



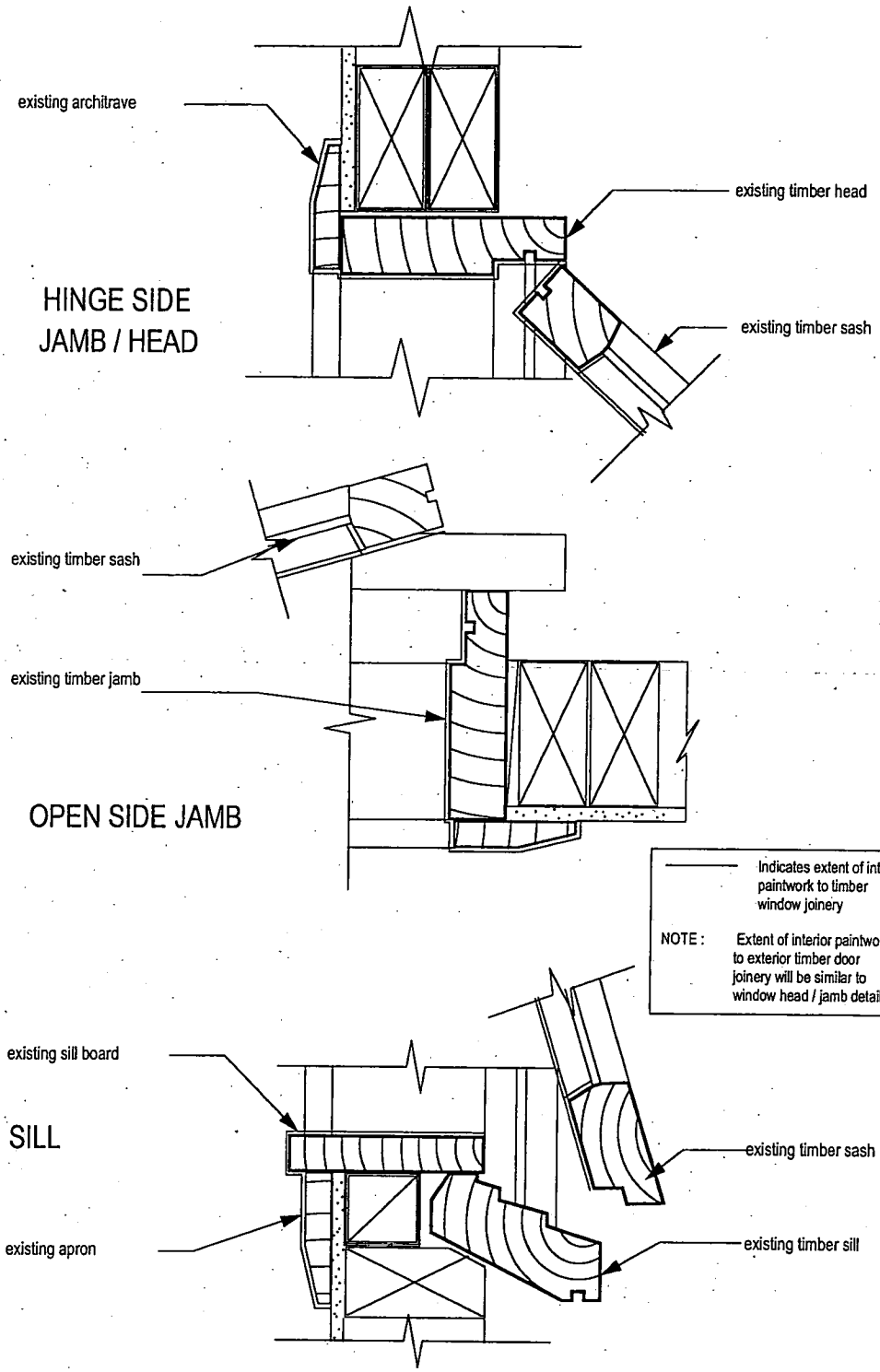
1. TYPICAL SKIRTING scale 1 : 2

(existing skirting removed)



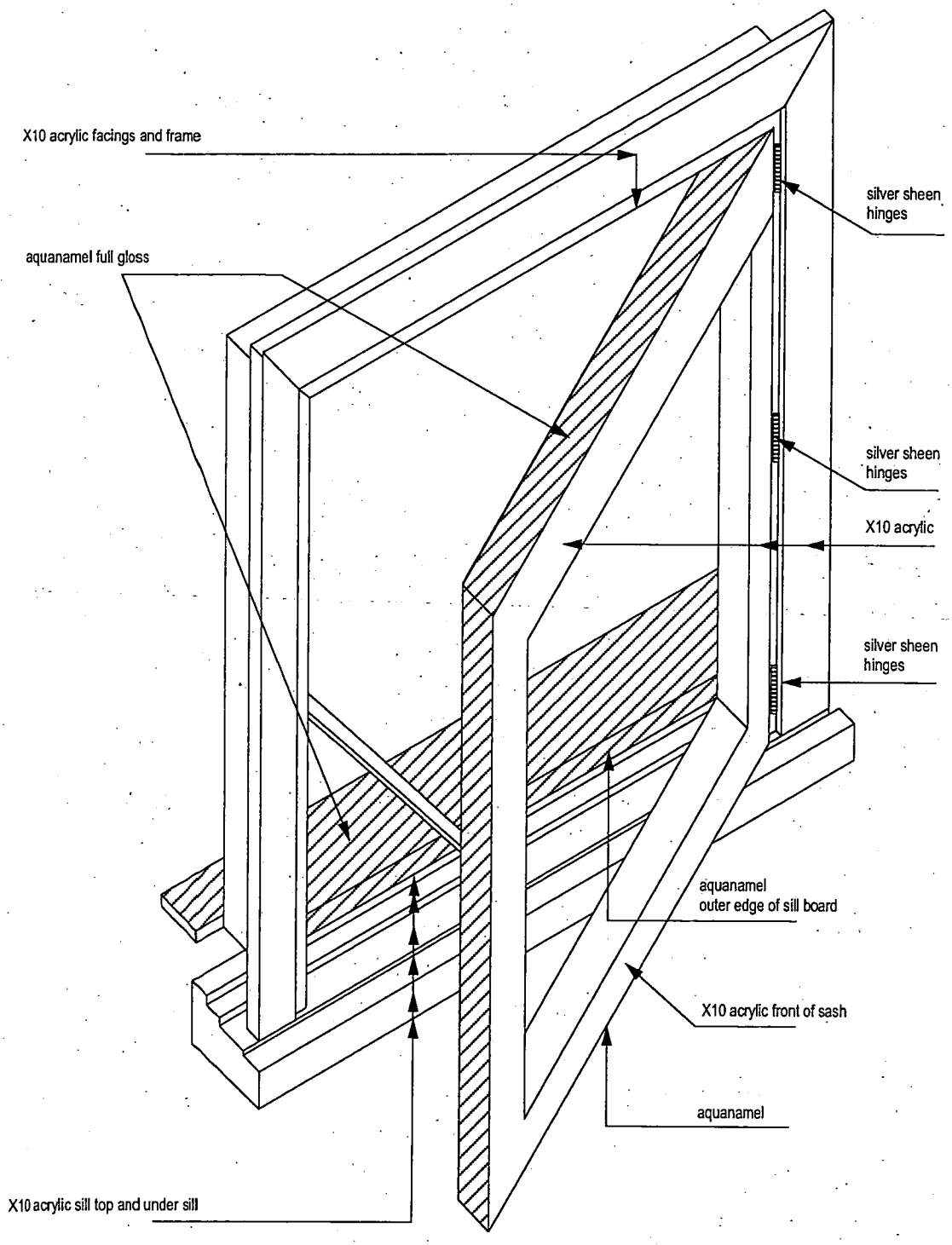
2. TYPICAL SKIRTING AT HARDIGLAZE scale 1 : 2

RESILIENT FLOORING - COVING DETAILS



PAINT DEMARCATION AT WINDOW HEAD / JAMB / SILL

Not to scale



PAINT DEMARCATION AT WINDOW

DIAGRAMATIC SKETCH - NOT TO SCALE

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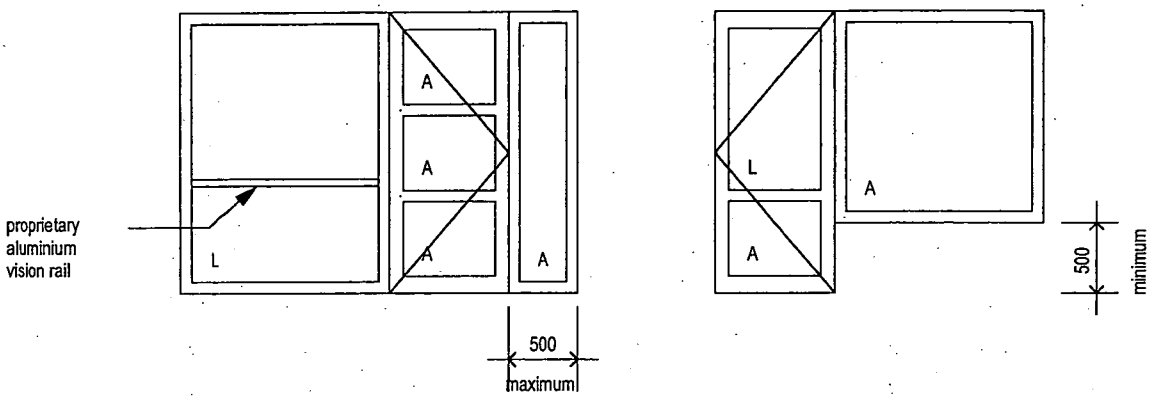
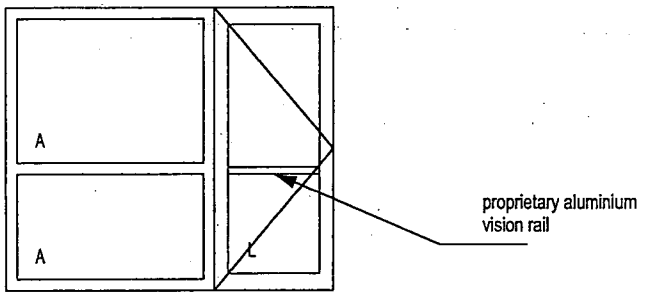
Standard Detail
Sheet 110A



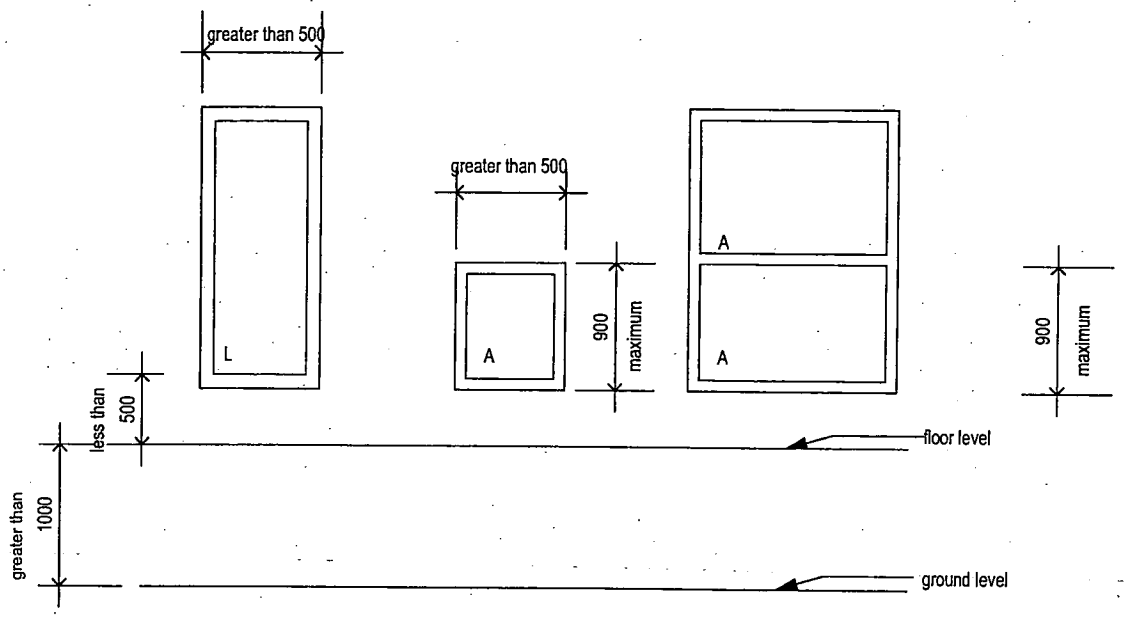


WHERE EXISTING GLASS REQUIRES REPLACEMENT GLAZE AS FOLLOWS :

L Laminated glass.
Only panes greater than 0.5 sq.m., thickness as per table 3.1 NZS 4223 Part 3. Note all laminated glass panes to be permanently marked in accordance with NZS 4223 Part 3.

A Annealed glass.
Thickness as per table 3.2 NZS 4223 Part 3, minimum 5 mm thick.

SAFETY GLAZING TO DOORS AND SIDE PANELS 1 : 50

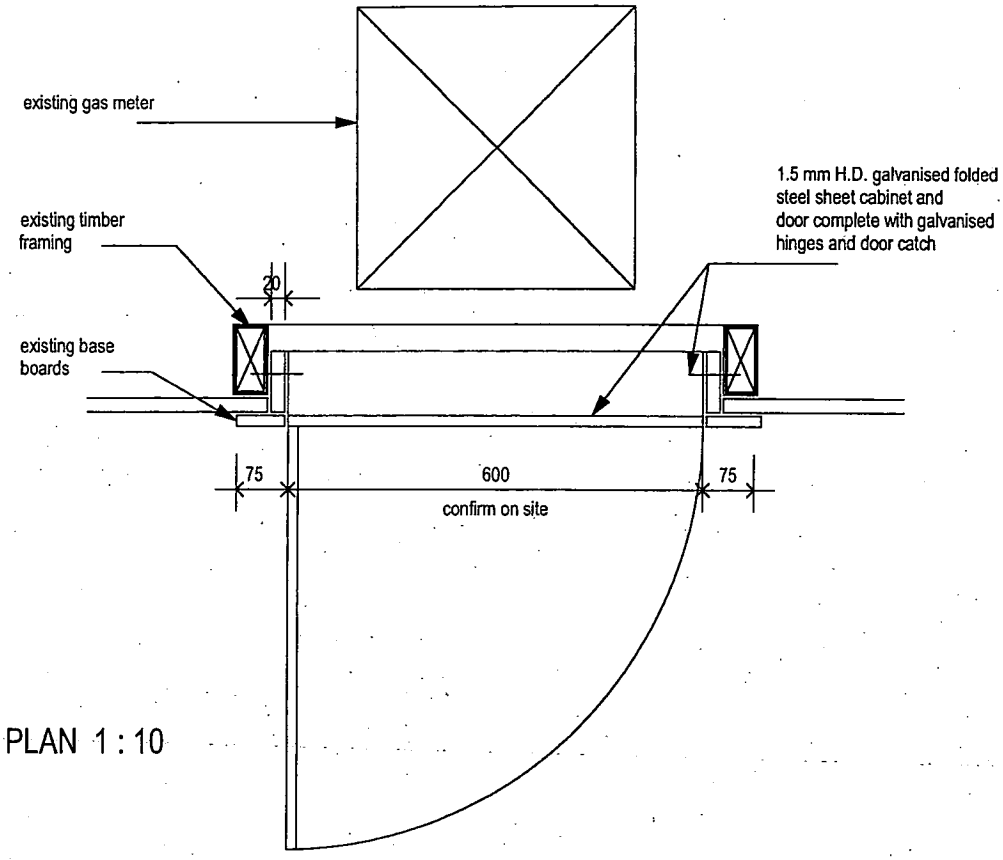


WHERE EXISTING GLASS REQUIRES REPLACEMENT GLAZE AS FOLLOWS :

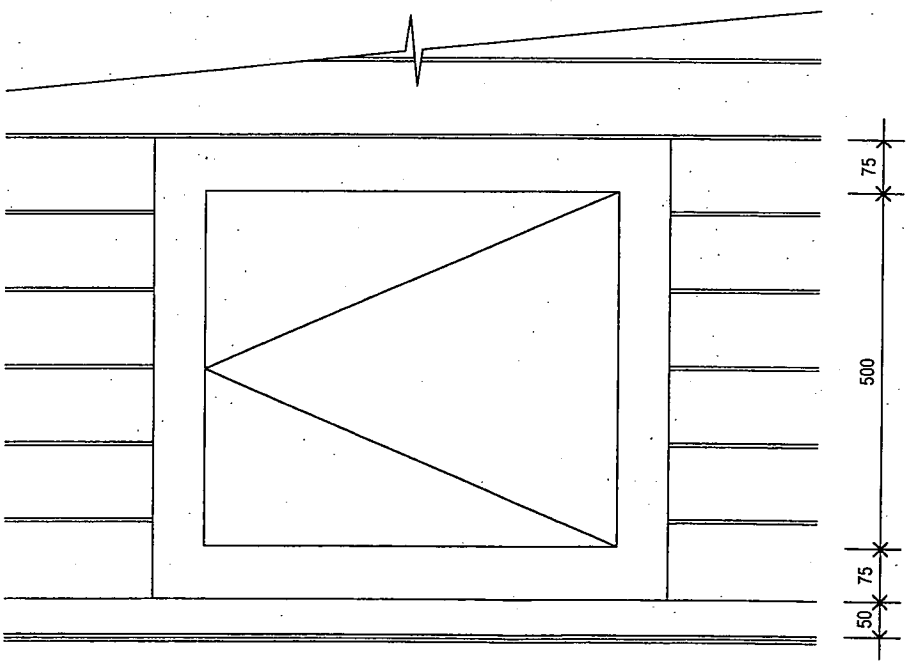
L Laminated glass.
Only panes greater than 0.5 sq.m., thickness as per table 3.1 NZS 4223 Part 3. Note all laminated glass panes to be permanently marked in accordance with NZS 4223 Part 3.

A Annealed glass.
Thickness as per table 3.2 NZS 4223 Part 3, minimum 5 mm thick.

SAFETY GLAZING
PROTECTION OF OCCUPANTS
FROM FALLING > 1000 mm 1 : 50



PLAN 1 : 10



PART ELEVATION 1 : 10

GAS METER COVER

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Standard Detail
Sheet 240