

3820 CARPENTRY

1. GENERAL

This section relates to the supply and erection of light timber framing.

1.1 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B2/AS1	Durability
AS/NZS 1328.1	Glued laminated structural timber - Performance requirements and minimum production requirements
AS/NZS 1860.1	Particleboard flooring - Specifications
AS/NZS 2269.0	Plywood - Structural - Specification
AS/NZS 2904	Damp-proof courses and flashings
AS/NZS 2918	Domestic solid fuel burning appliances - Installation
NZS 3602	Timber and wood-based products for use in building
NZS 3603	Timber structures standard
NZS 3604	Timber-framed buildings
NZS 3622	Verification of timber properties
NZS 3640	Chemical preservation of round and sawn timber
AS/NZS 4347	Damp-proof courses and flashings - Methods of test
FTMA	Frame and Truss Manufacturers Association of New Zealand Inc - Code of Practice

A copy of NZS 3604 Timber-framed buildings, must be held on site.

1.2 DIMENSIONS

All timber sizes except for battens are actual minimum dried sizes.

2. PRODUCTS

2.1 TIMBER FRAMING, TREATED

Species, grade and in service moisture content to NZS 3602, NZBC B2/AS1 and treatment to NZS 3640, NZBC B2/AS1. Structural grade (SG) to NZS 3604, NZS 3622 with properties to NZS 3603.

2.2 TIMBER FRAMING, CHEMICAL FREE

Species, grade and moisture content in service as set out in NZS 3602, NZBC B2/AS1.

2.3 NAILS

Type to NZS 3604, section 4, Durability, and of the size and number for each particular types of joint as laid down in the nailing schedules of NZS 3604, sections 6-10.

2.4 BOLTS AND SCREWS

Bolts and screws of engineering and/or coach type complete with washers, to the requirements of NZS 3604, section 4, Durability, and of the number and form required for each particular junction to NZS 3604, sections 6-10.

2.5 NAIL PLATES

Comply with the requirements of NZS 3604, section 4, Durability, and of the number and form required for each particular junction to NZS 3604, sections 6-10. Plates to the plate manufacturer's design for the particular locations as shown on the drawings.

2.6 CONNECTORS

Comply with the requirements of NZS 3604, section 4, Durability, and of the number and form required for each particular junction to NZS 3604, sections 6-10. Connectors and structural brackets to the connector manufacturer's design for particular locations shown on drawings.

2.7 CORROSION RISKS

Use stainless steel fixings, connectors, etc in all zones, with the timber treatments CuAz (Preservative code 58) and ACQ (Preservative code 90).

2.8 DPC

Refer to 4161 UNDERLAYS, FOIL AND DPC section

3. EXECUTION

3.1 EXECUTION GENERALLY

To NZS 3603 and NZS 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.2 SEPARATION

Separate all timber framing timbers from concrete, masonry and brick by: -

- a full length bituminous damp-proof membrane overlapping timber by at least 6mm; or
- a 12mm minimum free draining air space

3.3 ATTENDANCE

Provide and fix blocks, nogs, openings and other items as required by other trades.

3.4 MOISTURE CONTENT

Maximum allowable equilibrium moisture content (EMC) for non air-conditioned or centrally heated buildings for framing to which linings are attached.

Framing at lining: 16% maximum

3.5 SET-OUT

Set out framing in accordance with the requirements of NZS 3604 and as required to support sheet linings and claddings.

3.6 FRAMING WALLS

Frame to required loading and bracing complete with lintels, sills and nogs, all fabricated and fastened to NZS 3604, section 8, Walls.

3.7 DPC TO LOSP TREATED TIMBER

Refer to 4161 UNDERLAYS, FOIL AND DPC section.

3.8 DPC TO TIMBER

Refer to 4161 UNDERLAYS, FOIL AND DPC section.

5113G GIB® PLASTERBOARD LININGS

1. GENERAL

This section relates to the supply, fixing and jointing of GIB® plasterboard linings and accessories to timber and steel framed walls and ceilings to form:

- standard systems
- bracing systems
- wet area systems

1.1 ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:
AWCINZ Association of Wall and Ceiling Industries New Zealand

Documents

1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC E2/AS1	External moisture
AS 1397	Steel sheet and strip - hot-dipped, zinc-coated, or aluminium/zinc-coated
AS/NZS 2588	Gypsum plasterboard
AS/NZS 2589	Gypsum linings - Application and finishing
NZS 3604	Timber-framed buildings
BRANZ technical paper P21: A wall bracing test and evaluation procedure	

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents which refer to work in this section are:

GIB® Site Guide (Jan 2010)
GIB Aqualine® Wet Area Systems (March 2007)
GIB® Ezybrace® Systems (June 2011)
GIB® Ezybrace® Software (2011)
GIB® Ezybrace® for Steel Frame Housing (NASH) Software (2011)
BRANZ Appraisal 294 - GIB® Ezybrace® Systems
BRANZ Appraisal 427 - GIB Aqualine® Wet Area Systems

Copies of the above literature are available at

Web: www.gib.co.nz
Telephone: 0800 100 442

Requirements

1.4 NO SUBSTITUTIONS

Substitutions are not permitted to any specified GIB® systems, GIB® system components, GIB® plasterboard, associated GIB® products or GIB® accessories.

1.5 INSTALLER WORK SKILLS AND QUALIFICATIONS

GIB® plasterboard fixers and plasterers to be experienced competent workers, familiar with GIB® plasterboard lining systems installation and finishing techniques. Submit evidence of experience on request. For example:

- National Certificate of Interior Systems; or
- Certified Business member of AWCINZ.

Performance

1.6 INSPECTIONS AND ACCEPTANCE

Allow for inspection of the finished plasterboard surface:

- before applying sealer and
 - before applying finish coatings or decorative papers,
- so that after assessment of the type and/or angle of illumination and its effect on the completed decorative treatment, group approval and acceptance of the surface can be given.

1.7 BRACING REQUIREMENTS

Provide braced wall systems using GIB® Ezybrace® Systems (June 2011) or GIB® Ezybrace® Software (2011) to meet the requirements of NZS 3604 when tested to BRANZ Technical paper P21. Alternatively use GIB® Ezybrace® for Steel Frame Housing (NASH) Software 2011 to meet the requirements of NASH Residential and Low-Rise Steel Framing Part 1 2010 Design Criteria. Refer to drawings for location and type.

2. PRODUCTS

Materials**2.1 GIB® PLASTERBOARD**

Gypsum plaster core encased in a face and backing paper formed for standard and water resistance use to AS/NZS 2588. Refer to drawings for location, type, thickness and finish.

GIB® Standard plasterboard

GIB Braceline® & GIB® Noiseline dual purpose wall bracing & noise control plasterboard

GIB Aqualine® wet area plasterboard

Components**2.2 SCREWS**

GIB® Grabber® drywall screws.

2.3 NAILS

GIB® Nails (gold passivated).

Size: 30mm, 40mm

2.4 TAPE ON TRIMS AND EDGES

GIB® Goldline® tape-on trims

GIB® UltraFlex high impact corner mould

2.5 METAL ANGLE TRIMS

GIB® galvanized steel slim angle trims.

2.6 CONTROL JOINTS

GIB® Rondo® P35 control joints.

GIB® Goldline® tape-on trims

Accessories**2.7 ADHESIVE**

Timber frame and/or steel frame:

GIBFix® One ultra low VOC water based wallboard adhesive

GIBFix® All-Bond solvent based wallboard adhesive

2.8 JOINTING COMPOUND

Bedding compound: GIB Tradeset®, GIB Lite Blue®, GIB MaxSet®, GIB ProMix® All Purpose, GIB Plus 4®

Finishing compound: GIB ProMix® All Purpose, GIB® Trade Finish®, GIB® Trade Finish® Lite, GIB ProMix® Lite, GIB® U-Mix, GIB Plus 4®

2.9 JOINTING TAPE

GIB® paper jointing tape.

2.10 GAP FILLER

GIB® Gap Filler ultra low VOC multi-purpose acrylic flexible filler

3. EXECUTION**Conditions****3.1 STORAGE**

Store GIB® plasterboard sheets and accessories in dry conditions stored indoors out of direct sunlight in neat flat stacks on either an impervious plastic sheet or clear of the floor with no sagging and avoiding damage to ends, edges and surfaces. Reject damaged material. Refer to GIB® Site Guide (Jan 2010).

3.2 LEVELS OF PLASTERBOARD FINISH

Provide the selected plasterboard surfaces to the pre decorative levels of finish specified in AS/NZS 2589.

3.3 CONFIRM LEVELS OF PLASTERBOARD FINISH ACCEPTANCE

Before commencing work, agree in writing upon the surface finish assessment procedure towards ensuring that the quality of finish expectations are reasonable and are subsequently obtained and acceptable.

Do not apply decorative treatment until it is agreed in writing by the contractor, subcontractors and decorator that the specified plasterboard Level of Finish has been achieved.

"Levels of plasterboard finish" is a tool for specifying the required quality of finish when installing and flush stopping GIB® plasterboard prior to the application of a range of decorative finishes under various lighting conditions. Refer to AS/NZS 2589.

3.4 SUBSTRATE

Do not commence work until the substrate is plumb, level and to the standard required by the sheet manufacturer's requirements. Refer to GIB® Site Guide (Jan 2010).

3.5 TIMBER FRAME MOISTURE CONTENT

Maximum allowable moisture content to AS/NZS 2589 for timber framing at lining: 18% or less for plasterboard linings. Refer to NZBC E2/AS1 and GIB® Site Guide (Jan 2010).

3.6 PROTECTION

Protect surfaces; cabinetwork, fittings, equipment and finishes already in place from the possibility of water staining and stopping damage. Refer to GIB® Site Guide.

Application**3.7 INSTALL CEILING BATTENS**

Install to GIB® Rondo® Ceiling Batten Systems.

3.8 LINING WALLS AND CEILINGS GENERALLY

Form to GIB® Site Guide (Jan 2010). Ensure bulk insulation thickness shall not exceed that of the wall framing.

3.9 BOARD ORIENTATION

Minimise joints by careful sheet layout using the largest sheet sizes possible, and generally fixing horizontally. Where part sheets are required for various stud heights they should be positioned so the cut sheet is as low as possible to keep joints below eye level.

3.10 FORM WET AREA SYSTEMS

Form to GIB Aqualine® Wet Area Systems.

3.11 FORM BRACING SYSTEMS

Form to GIB® Ezybrace® Systems (June 2011).

3.12 FORM CONTROL JOINTS

Form control joints to GIB® Site Guide.

3.13 INSTALL TAPE-ON TRIMS

Install to GIB® Goldline® Tape-on trims literature and/or GIB® Ultraflex high impact corner mould literature.

Finishing**3.14 FINISHING GENERALLY**

To GIB® Site Guide (Jan 2010) and AS/NZS 2589.

Completion**3.15 REPLACE**

Replace damaged sheets or elements.

3.16 CLEAN DOWN

Clean down completed surfaces to remove irregularities and finally sand down with fine paper to the sheet manufacturer's requirements, to leave completely smooth and clean.

3.17 REMOVE

Remove debris, unused materials and elements from the site.

3.18 LEAVE

Leave work to the standard required by following procedures.

6700 PAINTING GENERAL

1. GENERAL

This section relates to the general matters related to painting work

1.1 RELATED WORK

Refer to 6711 PAINTING EXTERIOR for exterior paint systems.

Refer to 6721 PAINTING INTERIOR for interior paint systems.

1.2 ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:

APAS	Australian Paint Approval Scheme
MPNZA	Master Painters New Zealand Association Inc.
VOC	Volatile organic compound

Documents

1.3 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

AS/NZS 2311	Guide to the painting of buildings
AS/NZS 2312	Guide to the protection of structural steel against exterior atmospheric corrosion by the use of protective coatings
OSH	Guidelines for the provision of facilities and general safety in the construction industry
OSH	Guidelines for the management of lead-based paint
MPNZA	Specification manual
MPNZA	Painters hazard handbook
Health and Safety in Employment Act 1992	

Requirements

1.4 NO SUBSTITUTIONS

Substitutions are not permitted to any specified manufacturer's system, or associated components and products.

1.5 QUALIFICATIONS

Painters to be a member of MPNZA and experienced competent workers, familiar with the materials and the techniques specified.

1.6 CONTROL SAMPLES

Prepare samples of the finished work as scheduled, including preparation and colour as specified. Obtain written approval of the appearance before proceeding.

1.7 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act and OSH: Guidelines for the provision of facilities and general safety in the construction industry. If the elimination or isolation of potential hazards is not possible then minimise hazards in this work on site by using the proper equipment and techniques as required in the MPNZA Painters hazard handbook. Supply protective clothing and equipment. Inform employees and others on site of the hazards and put in place procedures for dealing with emergencies.

Refer to OSH: Guidelines for the management of lead-based paint for the required procedures and precautions when:

- treating/removing lead-based paint
- burning off paint
- sanding off paint
- using solvent based paint removers.

1.8 MATERIAL SAFETY DATA SHEET

Obtain from each paint manufacturer the material safety sheet for each product used. Keep sheets on site and comply with the required safety procedures.

Warranties

1.9 WARRANTY

Warrant this work under normal environmental and use conditions against failure.

2 years: Warranty period

Refer to the general section 1237WA WARRANTY AGREEMENT for the required format and details of when completed warranty must be submitted.

Performance**1.10 MANUFACTURER'S INSPECTION**

Allow the paint manufacturers to inspect the work in progress and to take samples of their products from site if requested.

1.11 INSPECTION OF WORK

Inspection of the whole of the work at each of the stages scheduled may be made. Agree a programme that will facilitate such inspection, including notification when each part and stage of the work is ready for inspection.

2. PRODUCTS**Materials****2.1 PAINT TYPES**

Use the manufacturer's complete system and only the products specified.

2.2 MATERIALS GENERALLY

Use only the Manufacturer's products which are guaranteed for their consistency and performance under ISO 9001 and APAS approval, prepared, mixed and applied as directed in the Manufacturer's specification sheets, specification manuals and product data sheets.

2.3 THINNERS AND ADDITIVES

Only use thinners or additives within the stated limits for the particular situations specified.

Accessories**2.4 FILLERS**

For recommendations on; fillers, stopping, paint strippers, cleaning agents, etching solutions, mould inhibitors, rust inhibitors, knotting and other commodities used for the surface preparation, refer to the manufacturer of the specified coating.

3. EXECUTION**Conditions****3.1 EXECUTION**

To conform to manufacturer's requirements and those methods, practices and techniques contained in AS/NZS 2311, the MPNZA Specification manual, and OSH Guidelines for the provision of facilities and general safety in the construction industry.

3.2 PREPARE

Prepare surfaces to the coating manufacturer's requirements.

3.3 COATED SURFACES

Ensure that substrate surfaces are able to achieve the specified finish.

3.4 PRE-PRIMED SURFACES

Sand down any breakdown or damage of the primer to a sound surface and immediately re-prime.

3.5 BRUSH DOWN

Brush down surfaces immediately before application, to remove dust, dirt and loose material.

3.6 COMPATIBILITY

Check that materials are as required by the paint manufacturers for the particular surface and conditions of exposure, and that they are compatible with each other. Use paint from the same manufacturer for each paint system. If not compatible, obtain instructions before proceeding.

3.7 TREATED SURFACES

Where surfaces have been treated with preservatives or fire retardants, check with the treatment manufacturer that coating materials are compatible with the treatment and do not inhibit its performance. If they are not compatible, obtain instructions before proceeding.

3.8 ANCILLARY SURFACES

The coatings listed in schedules and elsewhere are of necessity simplified. Coat ancillary exposed surfaces to match similar or adjacent materials or areas, except where a fair-faced natural finish is required or items are completely prefinished. In cases of doubt obtain instructions before proceeding.

3.9 HARDWARE

Do not paint hinges or hardware that cannot be removed. If items can be removed, carefully remove hardware, fixtures and fittings before commencing work. Set aside where they cannot be damaged or misplaced and replace on completion.

3.10 PROTECTION

Use dropsheets, coverings and masking necessary to protect adjoining fixtures, fittings and spaces from paint drops, spots, spray and damage.

Preparation - unpainted and pre-primed timber and wood based products**3.11 MOISTURE CONTENT**

Ensure moisture content at the time of application is near to the equilibrium moisture content pertaining to the particular locality in which the timber is used, without any excessive moisture content gradient between core and surface.

3.12 PREPARING DRESSED TIMBER

Ensure dressed timber is smooth, free from raised or woolly grain, planing burrs or other machining defects. Slightly round or ease sharp edges to ensure they can be properly coated. Sand timber to bring up to a smooth finish along the direction of the grain. Sand timber back to new condition timber that has been weathered.

3.13 PREPARING ROUGH SAWN TIMBER

Thoroughly brush along the direction of the grain to remove dust and dirt.

3.14 PREPARING PRE-PRIMED TIMBER

Check pre-prime coat for damage, powdering, weathering or loss of adhesion. Where primer is sound, thoroughly brush along the direction of the grain to remove dust and dirt. If there is doubt, sand back and re-prime.

3.15 TIMBER SPECIES

Check that the preparation and paint system is suitable for the timber species.

3.16 PREPARING DAMAGE AND DEFECTS

Scrape clean loose or soft material holes, depressions, resin or gum pockets, knot holes, surface splits, checks, or any localised decay. Apply primer and/or sealer specified and fill these areas with linseed oil putty or other appropriate filler.

3.17 FIXINGS

Take timber fixings below the painted or clear finished surface. Leave corrosion resistant timber fixings flush with clear finished surfaces.

3.18 CLEANING

Remove grease and oil by wiping down with solvent or water-based degreasing agent. Remove resin by wiping down with solvent or water-based degreasing agent or heating and scraping. Remove sanding dust. Bad staining may be untreatable and require replacement of timber, discuss with paint manufacturer and main contractor.

Preparation - unpainted metal**3.19 PREPARING STEEL**

Remove loose rust and mill scale by hand-tool or power-tool cleaning. Remove more adherent rust and scale by abrasive blast cleaning or pickling. Use chemical pre-treatment to remove the last traces of rust and to inhibit rust formation.

In wet/damp areas follow the requirements of AS/NZS 2312 for surface preparation treatments.

3.20 PREPARING ZINC AND ALUMINIUM-ZINC ALLOY COATED STEEL

Remove grease, oil and other solvent soluble contaminants by wiping and/or brushing with mineral turpentine or white spirit. Wipe with a clean solvent. Allow to dry and proceed immediately with the next operation.

3.21 PREPARING ALUMINIUM

Remove grease, oil and dust by wiping and/or brushing with mineral turpentine or white spirit. Wash thoroughly using water with a few drops of detergent, then wash with clean water. Allow to dry and proceed immediately with the next operation.

Preparation - unpainted masonry**3.22 PREPARING BRICKS**

Remove loose dirt, sand, aggregate and mortar by brushing down or blocking-off surface with a flat stone, hose with clean water. Fill holes with mortar/acrylic based filler. Remove efflorescence by dry brushing with a stiff bristle brush. Brickwork that has been acid cleaned shall have the pH tested to ensure it is neutralized before painting.

3.23 PREPARING CONCRETE

Remove grease and formwork oil with solvent or water and household detergent. Wash with clean water and allow to dry. Fill unwanted holes with cement grouting and allow to cure. Remove loose surface material and surface projections with a flat stone. Roughen slightly dense or glazed surfaces with light (30 mesh) sandblasting, rubbing with coarse abrasive stones, or by wetting the surface and treating with 10% commercial hydrochloric acid solution. Allow to react for 5 minutes, scour surface with a stiff bristle brush, wash off with clean water and allow to dry. Remove efflorescence by dry brushing or by wetting the surface and treating with 10% commercial hydrochloric acid solution as above.

Remove dust and dirt by brushing, air blast, hosing, or scrubbing as may be necessary.

3.24 PREPARING CEMENT PLASTER

Ensure surface is adequately cured and dry. Treat mould with one part sodium hypochlorite household bleach to three parts clean water solution or a proprietary anti-mould solution, and allow to dry. Remove efflorescence by brushing only.

3.25 PREPARING CONCRETE MASONRY

Remove loose dirt, sand, aggregate and mortar by brushing down or blocking-off the surface with a flat stone or hardwood block. Fill holes with mortar or acrylic based filler. Treat mould with one part sodium hypochlorite household bleach to three parts clean water solution, or a proprietary anti-mould solution, and allow to dry.

Remove efflorescence by dry brushing or by wetting the surface and treating with 10% commercial hydrochloric acid solution. Allow to react for 5 minutes, scour the surface with a stiff bristle brush, wash off with clean water and allow to dry.

Remove dust and dirt by brushing, air blast, hosing or scrubbing.

Preparation - gypsum plaster**3.26 PREPARING GYPSUM PLASTER**

Fill and sand small crevices and cracks. Surface moisture content not to exceed 12% at time of coating.

Preparation - unpainted linings**3.27 PREPARING FIBROUS PLASTER**

Check for and remove release agents and other contaminants by washing with clean water or solvent and allow to dry. Fill cracks and surface imperfections with patching plaster and lightly sand smooth. Remove dust.

3.28 PREPARING PLASTERBOARD

Check that joints are prepared to a smooth level surface finish. Fill cracks and surface imperfections with the sheet manufacturer's required stopping compound and lightly sand smooth. Remove dust.

Preparation - unpainted plastics**3.29 PREPARING POLYESTERS (GRP) AND PHENOL FORMALDEHYDES**

Wipe surfaces with methyl ethyl ketone or other suitable solvent. Lightly abrade with sandpaper and dust off. Proceed immediately with priming.

3.30 PREPARING UNPLASTICISED POLYVINYL CHLORIDE (UPVC)

Wipe surfaces with mineral turpentine, methylated spirits or white spirit. Lightly abrade with sandpaper and dust off. Proceed immediately with topcoats applicable for walls or timber finishes.

Preparation - painted surfaces generally**3.31 SURFACE PREPARATION**

Refer to the Manufacturer's specification sheets and product data sheets. Carry out the preparatory work required by them for each of the substrates.

For interior surfaces such as paper faced plasterboard use the Manufacturer's recommended finishing compound as an aid to achieving a Level 5 finish.

3.32 MOULD

Sterilise surface mould by washing or sponging the whole surface with a one part sodium hypochlorite household bleach to three parts clean water solution. Allow bleach to act for 30 minutes and wash off with clean water. Wash cloths and sponges regularly in clean water. Reapplication may be necessary. Treat with anti-mould solution to the treatment manufacturer's requirements.

3.33 GAP FILLING

Fill cracks, holes, indented and damaged surfaces with putty, plaster filler, wood filler, or plastic wood, as appropriate and in accordance with the paint manufacturer's requirements. Allow to dry or set before sanding back level with the surface. Prime coat or seal the timber before using putty. Wet cement or gypsum base plasters before applying filler. Use only Portland cement base types, or water-insoluble organic-based gap fillers in exterior or wet areas.

Preparation - painted surfaces in good condition**3.34 PREPARING SURFACES**

Wash down surfaces with either:

- a chlorine based solution; or
- 5-10 millilitres of ordinary household detergent to 1 litre of warm water; or
- a solution of 30 grams of trisodium phosphate to 1 litre of water

Replace solutions frequently and finally wipe over a second time with a clean absorbent cloth.

For surfaces containing heavy smoke and grease deposits, wash down as necessary to remove the deposits with either:

- mineral turpentine; or
- a 5% solution of ammonia; or
- a 1:40 solution of sugar soap and water

Wipe over with a clean absorbent cloth.

Prepare coatings which have chalked by sanding, brushing, waterblasting or other methods as appropriate.

Lightly sand glossy surfaces to ensure good adhesion of the coatings.

Preparation - painted surfaces in poor condition**3.35 PREPARING PAINTED TIMBER**

Completely remove blistered, flaked, excessively chalked and cracked (due to exposed end grain and knots) paint to give a sound base for repainting. Scrape out damaged or decayed timber and where the area is extensive, arrange to cut out and replace with treated timber, primed (including end grain) before fixing.

Scrape clean loose or soft material, holes and depressions in timber due to damage or defects such as resin or gum pockets, knot holes and surface splits. Remove and replace sprung or loose corroded nails.

Where necessary strip paint back to the original timber surface, using the most appropriate of the following methods:

- burning off using a blowtorch to soften paint without charring, before scraping off with a broad knife
- using an electrically heated hot air stream to soften paint, before scraping off with a broad knife
- sanding using orbital and/or belt sanders
- paint removers used to the manufacturer's requirements
- hand scraping.

Follow OSH guidelines for minimising the hazards of stripping.

3.36 PREPARING PAINTED GYPSUM PLASTER

Remove flaked paint completely from powdery, loose and other unsatisfactory plaster surfaces. Treat powdery surfaces with a solution of 150 millilitres of concentrated phosphoric acid and clean water to make 1 litre. Apply the solution, allow to stand 10 minutes and wash down with clean water. Remove loose, weak and drummy plaster and replaster. Allow to cure before proceeding with coatings as for unpainted work.

Confirm that the cause of any efflorescence has been eliminated before wiping it away with a dry rag and making good the damaged surface.

Fill small cracks and damaged surfaces with gypsum plaster or cellulose gypsum compound to just proud of the surface and lightly sand smooth and flush when dry.

3.37 PREPARING PAINTED PLASTERBOARD AND FIBROUS PLASTER

Fill cracks, pores, irregularities and damaged surfaces with the appropriate filler to the paint manufacturer's requirements, trowelled smooth, allowed to dry and lightly sanded to a smooth flush surface. Treat any staining of paint films on plaster as required by the coating manufacturer.

3.38 PREPARING PAINTED CEMENT PLASTER, CONCRETE AND MASONRY

Remove the fine white powder of efflorescence by brushing and then wiping with a clean cloth. Remove faulty mortar by wire-brushing. Make good with fresh mortar to match.

Confirm that the cause of any dampness has been eliminated and that the substrate is dry before applying any coating.

Wire brush moss or lichen affected areas to remove loose, powdery growth. Treat the affected areas with a solution of 200 millilitres of formalin (40% solution) to 800 millilitres of water. Apply the solution and leave for 3 days, or until the moss and lichen turns brown. Scrub off with a hard bristle brush and hose down liberally with water. Swab the affected area using a solution of 1 volume of household bleach to 2 volumes of water. After 30 minutes wash down with clean water.

Remove grease by continued washing with a 1:40 solution of sugar soap and water until completely removed, wash with clean water and allow to dry.

Where necessary strip paint back to the original surface by water or abrasive blasting. Remove chalk dust and dirt when dry by stiff bristle brushing.

3.39 PREPARING PAINTED METALWORK

Remove corrosion in whatever form. Sand edges to form a smooth surface with surrounding areas unaffected by corrosion. Use a chemical pre-treatment to remove the last traces of and to inhibit future, corrosion. Clean down completely before spot priming to suit the coating system specified.

Application - before applying final coatings**3.40 OFF-SITE WORK**

Carry out off-site preparation and coating under cover, in a suitable environment and with adequate lighting. Store items both before and after coating in a clean, dry area, protected from the weather and mechanical damage, properly stacked and spaced to permit air circulation and to prevent sticking of surfaces.

3.41 PRIMING JOINERY

Before priming preservative treated timber ensure that any cut surfaces have been retreated. Liberally coat end grain, allow to soak in and then recoat. Ensure LOSP. treated joinery has dried sufficiently to lose odour.

3.42 CONCEALED JOINERY SURFACES

Apply off-site coatings to all surfaces including those which will be concealed when incorporated into the building.

3.43 CONCEALED METAL SURFACES

Apply primer to suit the coating system to all metal surfaces which will be concealed when incorporated into the building.

3.44 DOORS

Prime or seal and paint all six faces of doors before hanging.

3.45 BEAD GLAZING

Before glazing apply the first two coats, or the primer and one undercoat, to rebates of stained, varnished or painted joinery and beads.

3.46 PUTTY GLAZING

Follow putty manufacturers recommendations for application, drying, and painting. Ensure that the putty is fully protected by the coating system as soon as it is sufficiently hard.

Application - generally**3.47 PAINTING GENERALLY**

Comply with the paint manufacturer's requirements and any additional requirements in this specification.

3.48 MIXING

Thoroughly mix paints. Lift any settled pigment and ensure the paint is homogenous.

3.49 ENVIRONMENT

Paint exterior surfaces only in favourable weather conditions:

- warm dry days without frost or heavy dews
- avoid painting in direct sunlight any surfaces that absorb heat excessively
- as far as possible apply paint in the temperature range 15°C to 25°C
- do not paint if temperatures fall outside the range of 10°C and 35°C unless paints with the necessary temperature tolerance have been specified

- do not apply solvent borne paint if moisture is present on the surface

3.50 SEQUENCE OF OPERATIONS

Painting work to generally follow the following sequences:

- complete surface preparation before commencing painting
- apply paint in the specified sequence using the specified paint
- allow full drying time between coats to the paint manufacturer's requirements
- do not expose primers, undercoats and intermediate coats beyond manufacturers stated instructions before applying the next coat
- finish broad areas before painting trim
- ensure batch numbers of tins are matched for whole areas
- internally, paint ceilings before walls and walls before joinery, trim and other items

3.51 PAINT APPLICATIONS

Select brush, roller, or pad and apply paint to the requirements of the paint manufacturer and to obtain a smooth even coating of correct thickness, uniform gloss and colour.

3.52 DRYING TIME

Before handling or applying the next coat of paint, give each coat the full drying time as required by the paint manufacturer. Ensure that surfaces are dry and that condensation does not occur before the paint reaches surface-dry condition.

3.53 LIGHTLY SAND

Lightly sand primers, sealers, undercoats and intermediate coats to remove dust pick-up, protruding fibres and coarse particles. Remove dust immediately before applying the next coat.

3.54 DEFECTIVE WORK

Correct defective work immediately and re-coat as required, following precisely the paint system specified.

3.55 EACH COAT

Each coat of paint and the completed paint system to have the following qualities and properties:

- uniform finish, colour, texture, sheen and hiding power
- the specified number of coats applied
- no blemishes such as runs, sags, crinkling, fat edges, entrained paint skins, hairs, dust, bare or starved patches, cracks, brush marks, ladder marks and blistering
- proper covering of corners, crannies, thin edges, cracks, end grain and other difficult places of application

Completion

3.56 CLEAN

Clean adjoining surfaces, glass and fittings of any paint contamination. Clean off glass indicators at completion of the building works. Clean glass inside and out to a shining finish.

3.57 CLEAN EQUIPMENT

Use the Manufacturer's environmental wash system for the cleaning of water-based paint and plasters from brushes, rollers, plastering or spray equipment to separate the solids from the water component for safe disposal.

3.58 LEAVE

Leave the whole of this work uniform in gloss and colour, of correct thickness, free from painting defects, clean and unmarked and to the standard required by following procedures.

3.59 REMOVE

Remove dropsheets, coverings and masking to leave surrounding surfaces and areas clean, tidy and undamaged. Remove debris, unused materials and elements from the site.

3.60 REPLACE HARDWARE

Replace hardware without damage to it or the adjoining surface. Leave properly fitted and in working order.

7120 HOT AND COLD WATER SYSTEM

1. GENERAL

This section relates to piped potable water supply systems from the network utility supply authority water main to designated points and appliances, the installation of hot water heating appliances, distributing piped hot water to other appliances, and the installation of valves.

1.1 RELATED WORK

Refer to 7151 SANITARY FIXTURES, TAPWARE & ACCESSORIES for sanitary fixtures and tapware selections.

Documents

1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B2/AS1	Durability
NZBC G12/VM1	Water supplies
NZBC G12/AS1	Water supplies
NZBC H1/AS1	Energy Efficiency
AS/NZS 2642.1	Polybutylene pipe systems - Polybutylene (PB) pipe extrusion compounds
AS/NZS 2642.2	Polybutylene pipe systems - Polybutylene (PB) pipe for hot and cold water applications
AS/NZS 2642.3	Polybutylene pipe systems - Mechanical jointing fittings for use with polybutylene (PB) pipes for hot and cold water applications
AS/NZS 2845.1	Water supply - Backflow prevention devices - Materials, design and performance requirements
AS 2845.3	Water supply - Backflow prevention devices - Field testing and maintenance
AS/NZS 3500.1	Plumbing and drainage - Water services
AS/NZS 3500.5	National plumbing and drainage - Domestic installations
NZS 3501	Specification for copper tubes for water, gas and sanitation
AS 3688	Water supply - Metallic fittings and end connectors
NZS 4305	Energy efficiency domestic type hot water systems
NZS 4607	Installation of thermal storage electric water heaters: valve-vented systems
NZS 4617	Tempering (3-port mixing) valves
Plumbers, Gasfitters and Drainlayers Act 2006	
NZ Backflow Testing Standard: Master Plumbers, Gasfitters and Drainlayers NZ Inc, NZ Backflow Testing Standard 2011, Field testing of backflow prevention devices and verification of air gaps.	

Requirements

1.3 QUALIFICATIONS

Plumbers to be experienced competent workers, familiar with the materials and the techniques specified. Carry out all work under the direct supervision of a certifying plumber under the Plumbers, Gasfitters and Drainlayers Act 2006.

1.4 INFORMATION FOR OPERATION AND MAINTENANCE

Provide the relevant general operation and maintenance information prior to practical completion.

Warranties

1.5 WARRANTY

Provide warranty for 2 years for the supply and installation of the plumbing system and fixtures.

- Provide the warranty in the standard form in the general section 1237WA WARRANTY AGREEMENT.
- Commence the warranty from the date of practical completion of the contract works.

Performance

1.6 TESTING

Confirm the timing before carrying out any tests. Supply potable water and the apparatus needed.

Slowly fill service pipes with water to exclude air. Apply test pressure of a 90 metre head or a maximum working pressure plus 50%, whichever is the greater. Ensure there is no measurable loss of pressure for a minimum of 30 minutes. Slowly fill distribution pipes with water to exclude air. Ensure that with draw-off taps closed the system must remain water-tight. Ensure that mixers and other fittings that have pressure limits are protected during testing.

2. PRODUCTS

- 2.1 **POLYBUTYLENE PIPE**
Polybutylene tubing to AS/NZS 2642.1, AS/NZS 2642.2 and AS/NZS 2642.3 complete with fittings and accessories brand-matched with durability to NZBC B2/AS1 Durability, table 1 and NZBC G12/AS1, table 1.
- 2.2 **TEMPERING VALVE**
Tempering valve to NZS 4617 to NZBC G12/AS1.
- Materials - Hot water heating appliances**
- 2.3 **ELECTRIC HOT WATER CYLINDER, MAINS PRESSURE**
To NZS 4305, ceramic-coated steel thermal storage cylinder, insulated and complete with required fittings.
- Components**
- 2.4 **INSULATION**
Pre-formed pipe sections complete with bends and fittings, with fixing tape to the manufacturer's requirements and to NZBC H1/AS1.
- 2.5 **PROTECTIVE TAPE**
Plasticised PVC tape system with primer, mastic fixing and outer coating.

3. EXECUTION

- 3.1 **EXECUTION GENERALLY**
Generally carry out the whole of this work and tests to NZBC G12/VM1 or G12/AS1.
- 3.2 **HANDLE AND STORE**
Handle and store pipes, fittings and accessories to avoid damage. Store on site, under cover on a clean level area, stacked to eliminate movement and away from work in progress.

Store tapware in a shelved, dry and securely locked area. Retain tapware in the manufacturer's original packaging, complete with all fixings and installation instructions. Label each unit separately with its space/fixture number to match.
- 3.3 **CORE HOLES AND SLEEVES**
Review location and fit core holes and sleeves as needed throughout the structure in conjunction with the boxing, reinforcing and placing of concrete. Strip core holes and make good after installation of pipework.
- 3.4 **CONCEAL**
Conceal pipework within the fabric of the building unless detailed otherwise. Satin finish chrome plate exposed work, complete with matching ferrule at the surface penetration.
- 3.5 **CORROSION**
Separate all metals subject to electrolytic action from each other and from treated timber, concrete and other lime substances by space, painting of surfaces, taping, or separator strips.
- 3.6 **THERMAL MOVEMENT**
Accommodate movement in pipes resulting from temperature change by the layout of the pipe runs, by expansion joints and by sleeving through penetrations.
- 3.7 **PIPE SIZE**
Flow rates to each outlet to be no less than those given in NZBC G12/VM1 or NZBC G12/AS1, table 3, Acceptable flow rates to sanitary fixtures. Pipe size as determined in NZBC G12/AS1, table 4, Tempering valve and nominal pipe diameters.
- 3.8 **ELECTROLYTIC ACTION**
Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.
- 3.9 **EXCAVATE**
Excavate for the water main to a firm, even trench base in straight runs. Allow to backfill.

Application - Jointing

- 3.10 **JOINTING POLYBUTYLENE PIPE**
Aluminium clamped, seal ring compression or push fit "O" ring seal jointing to pipe system manufacturer's requirements.

Application - Pipework installation

3.11 POTABLE WATER SUPPLY PIPEWORK INSTALLATION

From connection point, run pipes complete with all fittings, support and fixing, joins and install to manufacturers specifications. Size the pipes and branches in straight runs to deliver the acceptable flow rate to NZBC G12/VM1 or NZBC G12/AS1, table 3, Acceptable flow rates to sanitary fixtures at each outlet. Allow for the expected concurrent use of adjoining fixtures and size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Pipework support spacing to be firmly fixed and buffered to eliminate noise and hammer, with preformed tee-connection take-offs and branches, with machine made 3 diameter bends, complete with necessary valves and fittings. Conceal pipework and pressure test before the wall linings are fixed.

3.12 HOT WATER PIPEWORK

Use a take-off spigot to give separate branches to each fitting, lay out pipes with support spacing to NZBC G12/VM1 or NZBC G12/AS1, table 7 Water supply pipework support spacing. Fix firmly and buffer to eliminate noise and hammer, with preformed tee-connection take-offs and branches, and preformed 3 diameter bends, complete with all necessary valves and fittings

Lag all pipes with rigid insulation to the manufacturer's requirements and G12/VM1 or G12/AS1.

3.13 EQUIPOTENTIAL BONDING

Earth metallic water supply pipe and metallic sanitary fixtures to NZBC G12/AS1, 9.0.

3.14 IN-LINE FILTER

Install an in-line filter immediately adjacent to the main isolating valve at the point of entry to the building, in an accessible position to allow for easy cleaning.

Application - Hot water systems**3.15 HOT WATER CYLINDER INSTALLATION GENERALLY**

Install hot water cylinders complete to the manufacturer's requirements and with seismic restraint as required to storage cylinders, to NZBC G12/AS1, 6. 11, Water heater installation. Valve-vented systems to NZS 4607.

3.16 INSTALLING HOT WATER PIPE INSULATION

Insulate all hot water pipes to NZBC H1/AS1, AS/NZS 3500.5, 3.11.7 Insulation of piping and to the insulation manufacturer's instructions. Cut insulation sections tight between timber framing and tight between the webs of steel studs.

3.17 INSTALL ELECTRIC HOT WATER CYLINDERS AND BOILING CYLINDERS

Install where shown complete with all the necessary fittings to the cylinder manufacturer's requirements and in accordance with NZBC G12/AS1: 6.11. Valve-vented systems to NZS 4607.

3.18 INSTALL HOT WATER CYLINDER OVERFLOW TRAY

Install drained overflow tray to hot water cylinder to NZBC G12/AS1.

3.19 INSTALL TEMPERING VALVE

Install 1 metre minimum from outlet of hot water cylinder and to manufacturer's instructions. Install copper pipework for 1 metre minimum downstream of tempering valve prior to connection of non-metallic pipework.

3.20 PENETRATIONS

Provide and fit collars and escutcheon plates to match the pipework at all penetrations through constructions.

Completion**3.21 LABEL**

Label all pipework with permanent adhesive markers at 3 metre minimum intervals.

3.22 REPLACE

Replace damaged or marked elements.

3.23 LEAVE

Leave work to the standard required by following procedures.

3.24 REMOVE

Remove debris, unused materials and elements from the site.

7151 SANITARY FIXTURES, TAPWARE & ACCESSORIES

1. GENERAL

This section relates to the supply and installation of sanitary fixtures, tapware and sanitary accessories.

1.1 RELATED WORK

Refer to the electrical section/s for electrical connection of accessories.

Refer to 7123 HOT AND COLD WATER SYSTEM.

Refer to 7421 SANITARY SYSTEMS for the supply and fitting of waste disposal pipework

Documents

1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC E3/AS1	Internal moisture
NZBC F2/AS1	Hazardous building materials
NZBC G1/AS1	Personal hygiene
NZBC G12/VM1	Water supplies
NZBC G12/AS1	Water supplies
NZBC G13/AS1	Foul water
AS/NZS 1730	Washbasins
AS/NZS 3500.1	Plumbing and drainage - water services
AS/NZS 3500.2	Plumbing and drainage - sanitary plumbing and drainage
NZS 4223.3	Glazing in buildings - Human impact safety requirements
Plumbers, Gasfitters and Drainlayers Act 2006	

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

Requirements

1.3 QUALIFICATIONS

Plumbers to be experienced competent workers, familiar with the materials and the techniques specified. Carry out all work under the direct supervision of a Certifying Plumber under the Plumbers, Gasfitters and Drainlayers Act 2006.

1.4 SAMPLES

Submit samples on request of nominated tapware, along with the relevant manufacturers' technical literature for review.

1.5 SUPPLIER

A specialist in the supply of tapware, and employing experienced architectural representatives available to assist during the course of the installation.

2. PRODUCTS

2.1 SANITARY FIXTURES

Refer to owner for product selection.

2.2 TAPWARE

Refer to owner for product selection.

2.3 SANITARY APPLIANCES

Refer to owner for product selection.

2.4 SANITARY ACCESSORIES

Refer to owner for product selection.

3. EXECUTION

Conditions - sanitary fixtures

3.1 DELIVERY

Only deliver to the site fixtures or fittings that can be immediately unloaded into suitable storage or be placed for direct installation.

3.2 STORAGE AND HANDLING

Take delivery of and store components complete with protective casings and coverings in areas that are enclosed, clean and dry and where no work is being done. Remove protection only to the extent that will allow installation.

3.3 QUALITY STANDARDS

Installation work to comply with NZBC G1/AS1, NZBC G12/VM1, NZBC G12/AS1, NZBC G13/AS1 and the fixture manufacturer's requirements.

3.4 SUBSTRATE

Ensure substrate and fixings will allow work of the specified standard.

3.5 CO-ORDINATION

Do not proceed if the points of supply and drainage services do not match the points of the fixtures without force or distortion.

3.6 INSTALLATION REQUIREMENTS

Install to NZBC G1/AS1, NZBC G12/VM1, NZBC G12/AS1, NZBC G13/AS1, NZBC E3/AS1 and to the fixture manufacturer's installation requirements for each component.

3.7 PROVIDE SUPPORT

Confirm fixing points needed for each unit and provide solid blocking at each fixing bracket location.

Conditions - tapware**3.8 RETAIN**

Retain tapware in the manufacturer's original packaging and ensure that units are complete with fixings and installation instructions. Label each unit separately with its fitting name and space number.

3.9 STORE

Store tapware packages in a shelved, dry and securely locked area. Provide supervision when the secure area is unlocked and packages and cartons are being distributed; signing off each package from the schedule as released.

Conditions - sanitary accessories**3.10 RETAIN**

Retain fixtures, fittings and hardware in the manufacturer's original packaging and ensure that units are complete with associated fixings and installation instructions. Label each unit separately to match the submitted and approved schedule.

3.11 PACKAGE

Package fixtures, fittings and hardware units required in clear plastic and label each to match the drawings and the submitted schedule. Place packages in cartons selected for 'level', 'location', and/or 'sector' and label the packages and the cartons similarly.

3.12 STORE

Store items in a shelved, dry and securely locked area. Provide supervision when the secure area is unlocked and packages and cartons are being distributed; signing off each package from the schedule as released.

3.13 INSPECTION

Before starting the installation of proprietary items, check relevant spaces and wall and floor finishes for any condition that would not allow the proper installation of any unit. Do not proceed until such conditions have been remedied.

Installation - Basins**3.14 INSTALLING WASHBASINS**

Install to NZBC G1/AS1, AS/NZS 1730. Set basins firmly to walls or vanities as detailed and to comply with NZBC E3/AS1. Connect through trap to the drainage system.

Installation - Showers**3.15 INSTALLING SHOWER FITTINGS**

Shower waste, mixer and rose to be install to NZBC G1/AS1 and to AS/NZS 3662.

3.16 INSTALLING SHOWER ENCLOSURES AND WALL LININGS

Install in accordance with NZBC E3/AS1. Sit tray firmly in place as detailed, to levels shown and connect to drainage service, ready for following work. Fit screen and door unit to manufacturer's details. Lining materials and finishes to comply with NZBC E3/AS1.

Installation - Sinks**3.17 INSTALLING SINK BENCHES**

Install in accordance with manufacturer's/supplier's requirements. Connect to supply and drainage services.

Application - tapware**3.18 GENERAL**

To AS/NZS 3500.1 and in accordance with the manufacturer's requirements. Maintain safe water temperatures to comply with NZBC G12/AS1.

Application - sanitary accessories**3.19 INSTALLING ACCESSORIES**

Fit specified fittings firmly in place at required dimensions relative to floor and adjoining sanitaryware fittings, all plumb and level.

3.20 LOCATE

Locate units at heights and/or locations shown on the drawings, or as required to comply with NZBC G1/AS1. For any dimension not shown or known, request direction before proceeding.

3.21 CUTTING AND FITTING

Where cutting and fitting of the substrate is necessary for installing any unit, carry out this work before the painting or finishing of that surface. Remove any hardware when required for painting, placing it in the packaging or carton originally supplied and returning it to the secure store until ready for re-installation.

3.22 INSTALLING UNITS

Install each unit in accordance with the proprietary fixture manufacturer's requirements, using the templates and tools supplied or recommended by them. Set units level, plumb and true to line and required location, with moving parts and actions freely and easily operating. Do not make any modifications to supplied units.

Completion**3.23 REPLACE**

Replace damaged or marked elements.

3.24 PROTECTIVE COVERINGS

Leave fixtures, fittings and accessories clean and unblemished with stickers and protective coverings removed, with supply and drainage connections and all parts fully operating and working. Leave the whole of this work free of blemishes, undamaged and to the standard of finish required for following work.

3.25 REMOVE

Remove debris, unused materials and elements from the site.

7420 SANITARY SYSTEMS

1. GENERAL

This section relates to above ground gravity flow sanitary systems;

- for foul water
- from sanitary fixtures to first underground drain connection
- including system wastes, floor wastes, floor waste gullies, traps, vents and valves
- with associated components and accessories to make the system work

1.1 RELATED SECTIONS

Refer to 7151 SANITARY FIXTURES, TAPWARE & ACCESSORIES for sanitary fixtures tapware and accessories.

Refer to 7430 DRAINAGE for underground drains.

1.2 DOCUMENTS

Documents referred to in this section are:

NZBC G1/AS1	Personal hygiene
NZBC G13/AS1	Foul water
AS 2887	Plastic waste fittings
AS/NZS 1260	PVC-U pipes and fittings for drain, waste and vent applications
AS/NZS 2032	Installation of PVC pipe systems
AS/NZS 3500.2	Plumbing and drainage - Sanitary plumbing and drainage
Plumbers, Gasfitters and Drainlayers Act 2006	

1.3 QUALIFICATIONS

Carry out all work under the direct supervision of a certifying plumber under the Plumbers, Gasfitters and Drainlayers Act 2006.

2. PRODUCTS

2.1 PVC-U WASTE, DISCHARGE AND VENT PIPES

PVC-U pipe to AS/NZS 1260 complete with fittings brand-matched to the pipe manufacturer's requirements.

2.2 EXPOSED PIPES AND TRAPS

White polybutylene or PVC, including all associated fittings.

3. EXECUTION

3.1 EXECUTION GENERALLY

Carry out this work and complete all tests to AS/NZS 3500.2.

3.2 ELECTROLYTIC ACTION

Avoid electrolytic action by eliminating actual contact or continuity of water between dissimilar metals.

3.3 INSTALL TRAPS, WASTE AND VENT PIPES

Connect waste outlets to traps and run waste pipes and back vents concealed, sized and fixed to AS/NZS 3500.2 /NZBC G13/AS1 and AS/NZS 2032. Discharge wastes into the drainage system stack, soil pipe, or gully trap as shown. Bird proof mesh to all roof vents and vermin proof mesh to all untrapped waste pipes.

3.4 PENETRATIONS

At penetrations through constructions provide and fit collars and escutcheon plates to match pipework.

3.5 TEST

Test soil and waste disposal systems to ensure no leakage exists and leave in proper working order.

3.6 CLEAN UP

Remove labels and clean fittings. Remove unused materials from the site.

7701 ELECTRICAL BASIC

1. GENERAL

This section relates to the wiring for domestic and small scale commercial installations, including:

- power
- lighting

1.1 ABBREVIATIONS AND DEFINITIONS

Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

CFL	compact fluorescent lamp
ELV	extra low voltage
GLS	general lighting service
IP	international protection classification
LCD	liquid crystal display
LED	light emitting diode
MCB	miniature circuit breaker
NUO	Network Utility Operator
PCB	printed circuit board
PIR	passive infrared
RCBO	residual current-operated circuit breaker with over current protection
RCCB	residual current-operated circuit breakers
RCD	residual current device
SIA	security integration architecture
TPS	tough plastic sheathed

Documents

1.2 DOCUMENTS REFERRED TO

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC E2/AS1	External moisture
NZBC F6/AS1	Lighting for emergency
NZBC G4/AS1	Ventilation
NZBC G9/AS1	Electricity
AS/NZS 1125	Conductors in insulated electric cables and flexible cord
AS/NZS 1768	Lightning protection
AS/NZS 3000	Electrical installations (known as the Australian/New Zealand Wiring Rules)
AS/NZS 3008.1.2	Electrical installations - Selection of cables - Cables for alternating voltages up to and including 0.6/1 kV - Typical New Zealand installation conditions
AS/NZS 3100	Approval and test specification-general requirements for electrical equipment
AS/NZS 3112	Approval and test specification - Plugs and socket-outlets
AS/NZS 3113	Approval and test specification - Ceiling roses
AS/NZS 3190	Approval and test specification - Residual current devices (current-operated earth-leakage devices)
AS/NZS 3350.1	Safety of household and similar electrical appliances - General requirements
AS/NZS 3439.3	Low-voltage switchgear and controlgear assemblies - Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards
AS 3786	Smoke alarms
AS/NZS 5000.2	Electric cables - Polymeric insulated - for working voltages up to and including 450/750v
NZEC	NZ Electrical Codes of Practice
NZEC 54	NZ Electrical Codes of Practice for the installation of recessed luminaires and auxiliary equipment (available at www.energysafety.govt.nz)
IEC 61643	Components for low voltage surge protection devices
Electricity (Safety) Regulations 2010	

Warranties

1.3 WARRANTY

Warrant the complete electrical installation under normal environmental and use conditions against failure of materials and execution.

1 year: Warranty period

Refer to the general section for the required form of 1237WA WARRANTY AGREEMENT and details of when completed warranty must be submitted.

Requirements

- 1.4 **COMPLY**
Comply with the Electricity (Safety) Regulations 2010, AS/NZS 3000, AS/NZS 3008.1.2 and the New Zealand electrical codes of practice for listed and prescribed work and with the utility network operator's requirements. Apply for the service connection. Arrange for the required inspections of listed work. Pay all fees.
- 1.5 **QUALIFICATIONS**
Carry out work under the supervision of an electrical licensed supervisor.
- 1.6 **SAFETY OF INSTALLATION - DESIGN BY ELECTRICIAN**
Before installation work commences provide a declaration of conformity. The declaration of conformity is to comply with the Electrical (Safety) Regulations (2010), regulations 57 and 58. It must be signed by the designer of the installation.
- 1.7 **CERTIFICATE OF COMPLIANCE**
Supply a certificate of compliance to the owner, as required by the Electricity (Safety) Regulations (2010) regulation 67, within 20 days of completion as required by regulation 69.
- Arrange for the NUO to inspect before the meter installation, listed work inspection, polarity check and supply becoming live.
- Arrange for an inspector to inspect as required by regulation 70.
- 2. PRODUCTS**
- 2.1 **CABLES**
Tough plastic sheathed copper conductors to AS/NZS 5000.2, stranded above 1.0mm², and to AS/NZS 3008.1.2. Minimum sizes as below. Increase sizes if the method of installation, thermal insulation, cable length or load will reduce the cable rating below that of the MCB rating, or produce an excessive voltage drop.

Lighting circuits: Domestic: 1.5mm² on 10 amp MCBs

Power circuits:
2.5mm² on 16 amp MCBs for domestic and unenclosed or unfilled cavity construction
2.5mm² on 16 amp MCBs for domestic insulated construction, or filled cavity
2.5mm² on 20 amp MCBs for unenclosed or unfilled cavity construction
2.5mm² on 16 amp MCBs for insulated construction, or filled cavity, or lengths over 30 metres

Heat resistant cable for final connections to all heated appliances, and high temperature cable in ambient conditions that may be above 35°C.
- 2.2 **WALL BOXES**
Standard grid size or equivalent to be manufactured from plastic or metal, with 2 or more gang size to be metal with steel inserts for accessory securing screws. Screw fixed.
- 2.3 **SWITCH UNITS**
Single pole switches to be 16 amp minimum rated, double pole or intermediate to be 16 amp minimum rated. All switches to be 230 volt a.c. polycarbonate flushplate units. Refer to drawings/schedules for number of switches per unit, dimmer units, neon (indicator or toggle) units and 2 way units.
- 2.4 **SWITCHED SOCKET UNITS**
10 amp, 230 volt flat 3 pin socket outlets fitted with safety shutters and manufactured to AS/NZS 3100, AS/NZS 3112 and AS/NZS 3113, single or multi gang as detailed.
- 2.5 **SMOKE ALARMS**
Type 1 domestic smoke alarm to NZBC F7/AS1. 1.2 Descriptions of alarm systems. Alarm to AS 3786. A wired 230 volt ionised smoke detector type.
- 2.6 **SURGE PROTECTION**
Protection for the homes appliances with IEC 61643 Class II surge protection devices fitted to the switchboard. For variable electronic equipment fit IEC 61643 Class III surge protection to switched socket outlets.
- 2.7 **CEILING ROSES**
White plastic mounting base with screwed cover, manufactured to AS/NZS 3113. Terminal type. Cylindrical section TPS for suspended fittings.
- 2.8 **BATTEN HOLDERS**
Standard white plastic bayonet cap, with cap angled where wall mounted. Brass liners.

2.9 LIGHT FITTINGS

Fluorescent and High Intensity Discharge fittings with low loss control gear and power factor corrected to 0.95 minimum. Control gear suitable for dimming if this is required. All fittings complete with lamps; Incandescent GLS lamps pearl, coiled-coil 230v rated, bayonet cap; Fluorescent triphosphor 2700K; CFL; halogen ELV 12v dichroic reflector with cover glass unless detailed otherwise.

3. EXECUTION**3.1 SET-OUT**

The position of outlets and equipment shown on drawings is indicative of requirements. Confirm documents and site conditions are not in conflict with other services or features. Resolve conflicts and discrepancies before proceeding with work affected. Confirm on site the exact location, disposition and mounting heights of all outlets, fittings, equipment, penetrations, and use of exposed wiring. Fix outlet items level, plumb and in line.

3.2 CABLING

Install wiring systems to AS/NZS 3000. All cabling run concealed. No TPS cable laid directly in concrete. Locate holes in timber framing for the passage of cables at the centre line of the timber member. Install cable in conduits where required to pass through concrete or underground. In walls run cabling horizontally and vertically in straight lines. In ceilings either run cabling along ceiling framing or attached to catenary wires. Clip cabling to ceiling framing/catenary wires.

3.3 CABLING CIRCUITS

Install all circuits with the appropriately rated cable and circuit protection. Install with a maximum of 8 light switch units or 4 double or single switched socket units on any circuit. Minimum 2 lighting circuits per floor. Separate circuits for all electric heating appliances. Kitchen sockets to be on at least two different circuits.

3.4 WALL BOXES

Mount flush in cavity construction size to fit products selected. Fix vertically mounted wall boxes to studs. Screw fix horizontally mounted switched socket outlet wall boxes to solid blocking or nogs. Fix switch panel wall boxes to solid blocking.

3.5 SWITCH AND SOCKET UNITS

Fit all single and double switch units, all sockets to the following heights (to the centre of the unit) unless shown otherwise on the drawings.

Switch Units: 1000mm

Socket Units: 150mm above work benches, 400mm elsewhere

Mount light switches and switch socket outlets vertically and socket units horizontally. Label all switch units that control electrical equipment or special lighting circuits by colour filled engraving on the switch. Use proprietary engraved switch mechanisms where applicable.

3.6 LIGHT FITTINGS

Install light fittings in locations and at heights specified and confirmed by the owner, in accordance with the fitting manufacturer's requirements. Install recessed fittings to NZECP 54.

3.7 SMOKE ALARMS

Install Type 1 domestic smoke alarm system to NZBC F7/AS1 3.1 Domestic smoke alarms, AS 1670.6 and to the alarm manufacturer's requirements. Fit neatly and without damage to the surrounding finish.

3.8 LABELLING

Include label under each controller, switch and circuit breaker on distribution boards. Include a warning notice if light dimmers are used in the installation. List the rating of each circuit.

3.9 COMPLETION

Leave installation operating correctly, with equipment clean and operational.

ref: raymond/20901



23 August 2012

Hintz and Trotter Limited
204 Matai Road
Raumati

Attention Kevin Hintz

Dear Kevin

RESOURCE MANAGEMENT ISSUES FOR BUILDING WORK AT 84 AMOHIA STREET

I understand that you are planning to undertake certain alterations to the existing building at 84 Amohia Street, Paraparaumu with the view of using part of the building for residential purposes while a smaller area will continue to be used for commercial purposes. From a reading of your building plans it appears that the alterations consist of modifications to the kitchen and bathrooms, and installation of a fire-rated wall through the centre of the building.

I am writing to address two issues which have been raised through your discussions with Council officers, firstly that a water tank may be required for the property, and secondly that Development Contributions may be payable for your intended alterations to the building.

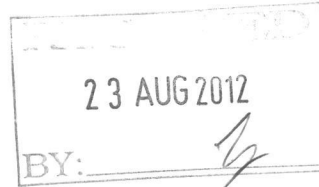
Requirement for a water tank

Plan Change 75 introduced the requirement for all new or relocated dwelling units to have either a rainwater storage tank of 10,000 litres or a 4,000 litres tank combined with a greywater system. It is pertinent to note that the District Plan clause refers to 'new dwelling units'.

The District Plan defines a dwelling [I have abbreviated the definition for clarity] as "a building, or part of a building, that is capable of, or is, being used for one household unit for the purposes of residential activities, and which includes kitchen and bathroom facilities". A household unit is further defined as a unit of residential activity which is self-contained and includes one kitchen and at least one bathroom.

The building at 84 Amohia Street is currently a dwelling as defined in the District Plan as it contains one kitchen and two bathrooms and is capable of being used for residential purposes. It is a dwelling notwithstanding its use for commercial activities. It is situated in the Residential Zone and can be used for residential purposes without the need for any planning or resource consent permission from Council.

Therefore the District Plan provisions relating to water tanks do not apply to the proposed alterations, as the proposal is not for a 'new dwelling' but is rather alterations to an existing dwelling.



10015

Development Contributions

I understand that you have discussions with Council staff relating to payment of Development Impact Fees. Development Contributions are payable for the second dwelling on a site where fees were not paid at the time of subdivision. Contributions are also payable for the first house on a lot where the property had a separate title prior to 30 July 1999.

As discussed above, the building already constitutes a 'dwelling' under the District Plan definition and no additional dwelling units, or units of demand, are proposed. The proposed alterations will not result in the creation of a dwelling unit (which already exists on the site). Also, Council records show that the first house on the site was built around 1961, therefore the provisions of the development Contributions Policy relating to the first house on a lot do not apply.

As there are no additional units of demand created no contributions are payable. The construction of a wall in the central part of the building does not create any additional demand on services and does not in itself lead to the creation of any additional units of demand. Furthermore the proposed alterations do not constitute a 'development' as defined in the Local Government Act 2002 [this legislation is the basis for Council's Development Contributions Policy] as no additional demand on infrastructure or services is generated by the proposed work.

It would also be unreasonable to change Development Contributions for the proposed alterations as the proposed use, which will be half residential and half commercial, would generate an equivalent demand on services and infrastructure as the existing established commercial use of the premises,. There will not necessarily be any increase in demand on water, sewage and community facilities from the proposed alterations.

I trust the information contained in this letter is beneficial for you in your application for Building Consent. Please do not hesitate to contact me if you have any further questions regarding these matters.

Yours faithfully

Dean Raymond
Senior Resource Management Planner
CUTTRISS CONSULTANTS LTD



Kāpiti Coast District Council

Private Bag 60 601
Paraparaumu 5254
New Zealand



for sustainable initiatives
in local government

Copy

26 September 2012

Hintz & Trotter Ltd - Kevin Hintz
PO Box 1580
Paraparaumu Beach 5252

Building Consent: 120488

Dear Sir/Madam

Request for further information

Description: *Conversion of rear of office building into a residential unit*
Location: 84 Amohia St, Paraparaumu
Legal Description: LOT 17 BLK V DP 462 CT 283/119

Following checking of your Building Consent application it is apparent that further information is required.

Information needed:

- 1) A suitably sized disabled person's parking space for the offices should be marked and indicated on the architectural drawings.
- 2) An additional smoke alarm should be indicated on drawings 3 and 4 adjacent to the end bedroom.
- 3) Details of the foundation or support to the concrete nib forming the fire separation under the floor.
- 4) Full details of the accessible route into the office building, particularly as the floor level appears to be significantly higher than ground level.
- 5) Details of either a washing machine or a suitable laundry room in the dwelling.

We have suspended your application and will not proceed any further with its processing until the above information is received. Please send it to us by 24th October 2012. If we do not receive it by this date, we may not be able to issue your Building Consent.

Author/generator ID data

delivering on the community's plan


KĀPITI COAST
DISTRICT COUNCIL
me huri whakamuri, ka titiro whakamua
(04) 296 4700 or 0800 486 486
kapiti.council@kapiticoast.govt.nz
www.kapiticoast.govt.nz

Please contact me if you would like to discuss this matter.

Yours faithfully

A handwritten signature in dark ink, appearing to be 'G. Mason', written in a cursive style.

George Mason
Direct line tel. no. (04) 296 4742

George Mason

From: George Mason
Sent: Wednesday, 26 September 2012 2:03 p.m.
To: 'kevin.i.hintz@gmail.com'
Cc: Leon Smith
Subject: FW: Building Consent BC120488

Attachments: 20120926134832443.tif



2012092613483244
3.tif (91 KB)

Hello Kevin,

Attached is the letter we discussed this morning; the original has been posted.
Regards,

George Mason
Building Control Officer
Te Āpiha Tautuku Whare

Kāpiti Coast District Council
Tel 04 296 4742
www.kapiticoast.govt.nz

-----Original Message-----

From: whiti3@kcdc.govt.nz [mailto:whiti3@kcdc.govt.nz]
Sent: Wednesday, 26 September 2012 1:49 p.m.
To: George Mason
Subject: Message from "prn-whiti-mpc2551-1"

This E-mail was sent from "prn-whiti-mpc2551-1" (Aficio MP C2551).

Scan Date: 26.09.2012 13:48:32 (+1200)
Queries to: whiti3@kcdc.govt.nz

0030



CHECKSHEET (Effective from 31 March 2005)

Multi Residential, Industrial or Commercial Buildings

For use with applications for building consent

Address 84 Amohia St, Paraparaumu.

This checksheet shows you the information that has to be supplied with your building consent application. Please attach **2 copies** of the following information (unless otherwise specified) with your completed Building Consent Application form.

Where the project falls within the prescribed parameters for referral to the NZ Fire Service for comment, a third copy of the plans and the fire report may be required.

Please tick each relevant box in the Customer Use column as you attach the information. If the box is not relevant to your application, write **NA** across the box. Please check each section carefully and complete those sections that are relevant to your project.

A guidance document is available to help complete the section in the application form on 'means of compliance' for each building code clause

Once you have attached all the required information, please check for completeness as an incomplete application or lack of any supporting information will mean that your application cannot be accepted for processing.

Customer
use

For office use
only

1. GENERAL

COMPLETE FOR ALL APPLICATIONS

- | | | |
|--------------------------|---|---|
| ☐ | a Building Consent Application Form (1 copy)
Completed and signed by the owner or by an agent on behalf of the owner. | ✓ |
| ☐ | b Proof of ownership (1 copy)
Recent copy of <u>current</u> certificate/s of title (i.e. not older than 3 months) or copy of purchase agreement (if recently purchased) or copy of relevant portions of current lease | ✓ |
| ☐ | c Locality plan (1:500) showing:
Physical location of the subject building in relation to streets or landmarks, north point, name of building and lot and DP number | ✗ |
| ☐ | d Inspections and monitoring

Details of proposed inspection regime including monitoring by council officers and other professionals eg architects, engineers, surveyors and certification to be supplied on completion. | ✓ |
| ☐ | e Application fee

Applications will not be accepted without payment of the appropriate fees. Fees payable are set out in the published fee schedule of the council that has jurisdiction over the project site. | ✓ |

Sufficient information to warrant acceptance of application.

23/8/12

2. EXISTING BUILDING

COMPLETE FOR ALL EXISTING BUILDINGS

- ☐ a **Existing floor plan (1:100/1:50) showing:**
- dimensions of internal floor plate
 - location exits
 - location and dimension of lift and lift car
 - location and dimensions of exit stairs
 - exit door sizes
 - location and dimension of toilets and cleaners sink
- ☐ b **Existing fire protection plan (1:100/1:50) showing:**
All specified systems
- ☐ c **Means of Escape From Fire**
- Assessment of means of escape for the whole building including floor plans showing egress routes to safe place. The assessment must incorporate a statement that the assessor is suitably experienced/qualified and has carried out a site inspection as part of the assessment.
- ☐ d **Accessibility**
(for buildings/uses listed in Schedule 2 of the Building Act 2004)
- Assessment of access and facilities for people with disabilities for the whole building. The assessment must incorporate a statement that the assessor is suitably experienced/qualified and has carried out a site visit inspection as part of the assessment.
- ☐ e **Application for Discretion re Upgrades**
(pursuant to section 112(2) of the Building Act 2004) including
- Supporting information as to why the project would not proceed if the building was required to comply
 - Description of improvements proposed related to means of escape from fire and access and facilities for people with disabilities

3. CHANGE OF USE

COMPLETE FOR EXISTING BUILDINGS WHERE THE PROPOSAL WILL CHANGE THE ESTABLISHED USE OF ALL OR PART OF THE BUILDING

- ☐ a **Fire assessment**
- In addition to the assessment of means of escape documentation must also include assessment of the whole building for structural stability in fire and protection afforded to other sleeping areas and other property
- ☐ b **Structural assessment**
- Assessment against non-specific codes (nz3604 and NZS 4229) or engineering assessment included as part of the structural specific design
- ☐ c **Sanitary facilities**
- Assessment of existing facilities within the building comparative to current code and levels of amenity provided by the Acceptable Solutions.
- ☐ d **Additional household units**
- An assessment of the building is required with respect to all building code clauses. If the proposal is for the project to meet anything less than full compliance with any clauses of the building code, your application must clearly state your reasoning, with supporting documentation, and show how you will meet the highest level of compliance that can be considered reasonably practicable.

4. ACCESSIBILITY

0032



COMPLETE FOR ALL BUILDING WITH USES LISTED IN SCHEDULE 2 OF THE BUILDING ACT 2004

- ☐ a **Access and facilities for the disabled (1:100/1:50) for the whole building showing:**
- access routes
 - accessible toilet compartment
 - location and height of fittings (toilet pan, basin, urinal, shower) handrails on both sides
 - width of access routes
 - dimensions of toilet compartment
 - lift car controls
 - accessible stairs
 - accessible low height counters (including reception)
 - accessible car parks (for new buildings)

- ☐ b **Reasonably practicable**

Your proposal is required to fully comply with the building code. Where upgrading to fully comply with the building code for the above is not proposed you are required to supply supporting documentation making the case as to why it is not reasonably practicable to do so.

5. FOUNDATIONS / FLOOR

COMPLETE FOR ALL NEW BUILDINGS OR EXISTING BUILDINGS WITH NEW FOUNDATIONS OR ALTERED FOOTPRINT

- ☐ a **Site Plan (1:100) showing**
- Dimensions of all boundaries, north point, finished floor levels, ground contours (extended to boundaries) and/or levels, site area, street name and number, lot and DP number, outline of building and distances to boundaries. Include on the site plan the designated wind zone of the site (e.g. specific design, very high, high, medium or low)
- ☐ b **Foundation plan (1:100/1:50) showing:**
- dimensions of all new foundations
 - sub-floor, including bracing
 - footing details including reinforcing and connections
 - if a concrete slab, show basic details including reinforcing and contraction joints
 - piles and footings including reinforcing and connections
 - indicate ventilation to sub floor spaces
 - if the addition is an upper storey, show detail on upgrading existing foundations, piles, etc
- ☐ c **Subfloor bracing**
- Provide subfloor bracing plan and calculations for all piled structures. Where the structure is specifically engineered, this should be included with the structural calculations
- ☐ d **Foundation details**
- Sections and details including reinforcing and connections

6. CONSTRUCTION

23 AUG 2012

COMPLETE FOR NEW BUILDINGS AND FOR PROJECTS WITH EXISTING WALLS REMOVED OR NEW WALLS ADDED

0133

☐

a Proposed floor plans (1:100/1:50) showing:

- location of partitions
- room dimensions
- all designated spaces
- plan of complete floor showing where work is to take place

☐

b Bracing plan (1:100/1:50) showing:

- bracing details and calculations for wall bracing
- location, type and number of bracing elements
- if the bracing was specifically designed by a structural engineer, provide calculations (required for specific design wind zones and lateral distribution of upper floor loads where lower storey bracing is provided in walls beyond the upper storey footprint).

☐

c Sections and details (1:50/1:20/1:10) showing:

- stairs, handrails, decks and decking
- insulation systems and materials to floors, walls and roof
- barriers providing safety from falling. Specific design required where detail does not comply with NZBC B1/AS2
- details of fire rated partitions from floor to underside of floor above (if more than one fire cell)
- details of sound rated partitions and floor/ceiling construction
- framing sizes, beams, lintels, trusses including fixing and other structural items. Lintels carrying point loads require specific design
- roof cladding, eaves, fascias, gutters, flashings to openings
- fire rated systems on all walls in relation to boundary distance (calculations required)
- stud heights of rooms and total height from lowest ground floor level to top of ridge
- truss layout supported by design certificate and design of fixing details and load path to ground
- retaining wall details e.g. type, height of retained ground, relationship to boundary, waterproof membrane and proposed drainage.
- membrane and proposed drainage.

7. STRUCTURAL

COMPLETE FOR ALL PROJECTS INCORPORATING SPECIFIC STRUCTURAL DESIGN

☐

a Structural calculations

If any design work required the services of a structural engineer, attach 2 copies of the calculations with this application along with structural drawings
The calculations must be prefaced with information explaining the design philosophy and justification of assumptions and methodologies used in analysis

☐

b Producer statements

If this application for consent relies on any producer statements certifying compliance with the New Zealand Building Code, a copy must be attached with this application. (Note all structural producer statements are required to have accompanying calculations)



8. EXTERNAL

**COMPLETE FOR ALL NEW BUILDINGS AND FOR EXISTING BUILDINGS
WHERE THERE ARE ALTERATIONS TO THE EXTERNAL SHELL**

- ☐ a **Elevations (1:100/1:50) showing:**
Accurate lines from boundary to boundary on each elevation, relevant District Plan daylight control lines, the maximum height on each elevation, location of door and window openings, fixed and opening sashes, sill heights, floor levels in relation to ground levels, exterior cladding nominated to all elevations, down pipes and spouting, ventilators to sub-floor area (suspended floors only)
- ☐ b **Risk assessment**
(Risk matrix in E2/AS1 may be used)
Consider exposure, design and detailing to support appropriate selection of cladding
- ☐ c **Cladding details**
Provide details around all penetrations/joinery and other junctions at a level appropriate to the level of risk
- ☐ d **Product certification**
Supply copies of product certificates relied on as compliance documents
- ☐ e **Alternative solutions**
If the proposal uses products or systems that are not covered in the Acceptable Solutions of clause E2 of the building code provide supporting current information including independent test results (full signed reports), case studies, expert opinion (including evidence of experience/qualification, basis for forming opinion, and statement of independence) etc to demonstrate compliance

9. SERVICES

**COMPLETE FOR ALL PROJECTS WITH NEW INSTALLATION OR ALTERATION OF
PLUMBING OR DRAINAGE SERVICES**

- ☐ a **Plumbing and Drainage plan (1:100) showing:**
(note: if you have supplied drainage details for surface water disposal on the site plan, no drainage plan is required)
- fixtures and fittings, hotwater system(s)
 - nominate plumbing/drainage design to be installed
 - if the building is more than one storey with sanitary fittings on upper floors, provide an isometric layout showing wastes, pipes and falls
 - drainage layout with inspection bends and junctions indicated for both sewer and stormwater
 - any other drainage on site including council mains and retaining wall field drains
 - ventilation of sanitary rooms
 - HVAC drawings
 - trade waste pre-treatment system
 - location and details of back flow prevention devices

23 AUG 2012

BY:

0135

10. FIRE

TO BE COMPLETED FOR ALL APPLICATIONS

☐

a Proposed fire protection plan (1:100/1:50) showing: (if applicable)

- smoke alarm
- sprinkler system
- emergency lights
- fire alarm sounders
- any 'protected' path
- thermal (heat) detectors
- fire hose reels
- fire alarms call points
- 'open path' travel to exits
- method or systems for fire rating penetrations through or between fire cells

☐

b Fire report

Discussing the philosophy behind the proposal and demonstrating compliance with the building code

☐

c Alternative solutions

Where the proposal is to meet the requirements of the building code by any means other than those covered in the Compliance Documents provide a supporting, current, signed design report including independent test results, calculations and/or computer modelling (indicating the validity of assumptions and applicability to project) consideration of various scenarios (indicating that they cover worst case scenarios) and comparison with the levels of safety offered by compliance with acceptable solutions. The designer must have established experience/qualifications. For alternative solutions that deviate significantly from acceptable solutions, independent peer review may be required.

☐

e Reasonably practicable

The proposal is required to meet full compliance with the building code. Where upgrading to fully comply with the fire clauses of the building code is not proposed you are required to supply supporting documentation, making the case as to why full compliance is not reasonably practicable

11. SPECIFICATIONS

COMPLETE FOR ALL APPLICATIONS

☐

a Specification

Note: the specifications must be specific to the project and cover all aspects of the proposed work.

- elements of structure (size, spacing, timber treatment)
- plumbing and drainage materials and design that installation is to comply with
- wet area surfaces
- HVAC systems
- flooring slip resistance
- glazing
- Quality Assurance programmes

☐

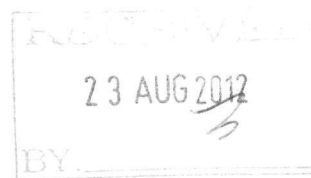
b External claddings

For each of the following claddings provide details of the product name, manufacturer, maintenance requirements and warranties offered

- building wraps
- wall claddings
- roof claddings
- membranes (roofs and decks)
- tanking
- joinery

12. COMPLIANCE SCHEDULE

0036



COMPLETE FOR ALL BUILDINGS THAT CONTAIN SYSTEMS OR FEATURES THAT ARE REQUIRED TO BE LISTED ON A COMPLIANCE SCHEDULE

- ☐ a **Existing compliance schedule**
Provide a copy of the existing compliance schedule and details of proposed changes. Confirmation that the building has a current warrant of fitness (1 copy of the current BWOF or confirmation from Council records).
- ☐ b **Specified systems**
For each specified system to be installed or altered provide details of the system and the proposed maintenance and testing regime for inclusion in the compliance schedule.



13. SITE MANAGEMENT AND PROTECTION OF PUBLIC

COMPLETE FOR ALL BUILDINGS

- ☐ a **Gantries and hoardings**
Provide details of barriers for the protection of public and for restricting public access to site, details of gantries, scaffolding and hoardings
- ☐ b **Site management plan covering**
delivery and storage of materials, management to control silt run off, noise and dust, traffic management and parking
- ☐ c **Hazardous building materials**
Provide safety plan detailing the safe handling and disposal of hazardous materials



14. HAZARDOUS SUBSTANCES AND PROCESSES

COMPLETE FOR ALL PROJECTS WHERE THE BUILDING USE INVOLVES THE STORAGE, OR USE OF OR PROCESSING WITH HAZARDOUS SUBSTANCES

Hazardous substances include explosive, radioactive, toxic or flammable materials and compressed gases.

- ☐ a **Details**
Provide details of the materials used or stored, their hazardous substance classification (HSNO), individual container size and aggregate volume.
- ☐ b **Plans and specifications describing**
- spaces where hazardous substances are stored and used and the method of disposal of waste.
 - consideration of containment, pressure relief, electrical hazardous area zoning and ventilation.
- ☐ c **Fire report**
Include specific consideration of these activities



23 AUG 2012
M 0137

15. FOOD PREMISES

**COMPLETE FOR ALL PROJECTS WITH AN INTENDED USE INCLUDING THE
MANUFACTURE, STORAGE, PREPARATION OR SALE OF FOOD PRODUCTS**

☐

a Details

- indication of type of business, including general food types to be prepared and beverages to be served
- water supply and sewage disposal connecting to town supply. Full details will be required if private system proposed
- number of staff
- number of patrons (seated and standing)
- full details of surface finishes in food preparation, cooking, servery, storage and dishwash areas
- full details of location of all appliances and fixtures in food preparation, cooking, servery, storage and dishwash areas including fridges, freezers, joinery, plumbing fittings and extract hood
- designation of proposed use for each area



NOTES

The issue of a building consent does not relieve the owner of any duty or responsibility under any other act

Please check with your local territorial authority regarding the requirement for other approvals required and fees payable. These may include:

- Consents under the Resource Management Act
- Vehicle Access
- Road openings
- Health licensing
- Liquor licensing
- Trade Waste licensing

A guidance document is available to help complete the section in the application form on 'means of compliance' for each building code clause

Planning Processing Check Sheet

Building Consent Number : BC 120488.

RECEIVED
23 AUG 2012
BY: _____

Property Information				
Property Address	84 Ansonia Street, Paparuaum			
Legal Description				
Planning Zone				
Building Project	Alterations & change of use to form dwelling			
	Yes	No	Action reqd	Action
Certificate of Title	✓			
Easements		✓		
Section 221		✓	Include copy	
District Plan Items to Check				
	Yes	No	Action Reqd	Actioned
Designations	✓		Airport Horizontal Surface Noise corridor.	
Heritage Register		✓		
Flood Hazards	✓		2011 Flood extents.	
Min Floor Level	✓		RBL 10.3m amsl.	
Other Hazards		✓		
EQ Faults		✓		
Services	✓			
Eco-site/Native Veg		✓		
	Complies?		Action Reqd	Actioned
Yards (+water bodies)	✓		Neighbours Approval??	
HIRB	✓			
Max Height	✓			
Site Coverage	✓		N/A Internal refit.	
Permeable Surface	✓			
Earthworks	✓			
Water Tank / Siting	N/A			
Parking	✓			

Building Consent Number: BC 120488

Fences/Retaining Wall	N/A			
Airport Noise 45dbI				
Other Provisions				
	Yes	No	Action reqd	Actioned
Does the building straddle Title/crosslease boundary		✓		
Existing Resource Consent?		✓		
Resource Consent Required?		✓	Apply Section 37 and advise Plan Vetting Team.	
Section 72 or 77 Required?	✓	✗	Advise Plan Vetting Team and send letters out. <i>internal alterations.</i>	\$118.00
Section 221 Consent Notice		✓	Advise Plan Vetting Team	
DIF Required?		✓	Advise Plan Vetting Team and send letter out.	
Calculate DIF Fees				Amount
			2 nd Comm / Ind Floor area X \$12.65	
			Non-residential 0.002 X area	
Invoice codes	RM		Water Supply	
	RM		Sewage	
	RM	79	Community Facilities	
	RM		Roads	
	RM		Flood Mitigation	
	RM		Reserves	
Send DIF letter out			TOTAL	

Additional Comments

* SEC 72 *

Decision: (delete item that does not apply)

- Application complies with District Plan requirements
- ~~Application does not comply with District Plan - BC to be issued subject to s37~~

Officer's Name & Signature: J. Burt Date: 11-9-12