

V5344

Wanganui District Council

101 Guyton Street



APPLICATION FOR PROJECT INFORMATION MEMORANDUM

Section 30, Building Act 1991

APPLICATION FOR BUILDING CONSENT

Section 33, Building Act 1991

(Insert a cross in each applicable box. Attach relevant documents in duplicate.)

<p>APPLICANT *</p> <p>Name: <u>Treadwell</u></p> <p>Mailing Address: <u>84 Mt North Rd</u> <u>Wanganui</u></p> <p>Contact Name: <u>B K Drake</u></p> <p>Position: <u>Catray AK</u></p> <p>Phone: <u>3436772</u> Fax:</p>	<p>PROJECT</p> <p>New or Relocated Building <input type="checkbox"/></p> <p>Alteration <input type="checkbox"/></p> <p>Intended Use(s) (in detail): <u>New wash house + bedroom extension</u></p>
<p>PROJECT LOCATION</p> <p>Street Address: <u>AS ABOVE</u></p>	<p>Intended Life:</p> <p>Indefinite, but not less than 50 years <input type="checkbox"/></p> <p>Specified as years <input type="checkbox"/></p> <p>Demolition <input type="checkbox"/></p>
<p>LEGAL DESCRIPTION</p> <p>Property Number:</p> <p>Valuation Roll Number:</p> <p>Lot: DP:</p> <p>Section: Block:</p> <p>Survey District:</p>	<p>Attach additional information if necessary to describe the project.</p>
<p>COUNCIL CHARGES</p> <p>The Council's charges payable on the making of this application are:</p> <p>\$.....</p>	<p>VALUE \$ <u>31,500-00</u></p>

* Under Section 30 of the Building Act 1991, the applicant must be the owner of the land on which building work is contemplated or a person who or which 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, while the agreement remains in force.

This application is for:

- Building consent only, in accordance with project information memorandum no:
- Both building consent and a project information memorandum.

PART B: PROJECT DETAILS

(Complete Part B only if you have not applied separately for a project information memorandum.)

The project involves the following matters *(cross each applicable box, if any, and attach relevant information in duplicate).*

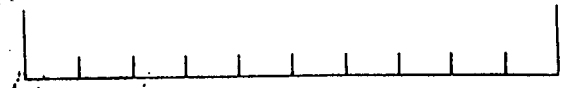
- Location, in relation to legal boundaries, and external dimensions of new, relocated, or altered buildings.
- New provisions to be made for vehicular access, including parking.
- Provisions to be made in building over or adjacent to any road or public place.
- New provisions to be made for disposing of stormwater and wastewater.
- Precautions to be taken where building work is to take place over existing drains or sewers or in close proximity to wells or watermains.
- New connections to public utilities.
- Provisions to be made in any demolition work for the protection of the public, suppression of dust, disposal of debris, disconnection from public utilities, and suppression of noise.
- Any cultural heritage significance of the building or building site, including whether it is on a marae.

PART C: BUILDING DETAILS

(Complete Part C in all cases)

This application is accompanied by *(cross each applicable box, attach relevant documents in duplicate):*

- The drawings, specifications, and other documents according to which the building is proposed to be constructed to comply with the provisions of the building code, with supporting documents, if any, including:
 - Building certificates.
 - Producer statements.
 - References to accreditation certificates issued by the Building Industry Authority.
 - References to determinations issued by the Building Industry Authority.
- Proposed procedures, if any, for inspection during construction.



(Complete Part D as far as possible in all cases. Give names, addresses, and telephone numbers. Give relevant registration numbers if possible.)

Builder(s): TS K Joyce

Registered Drainlayer:

Registered Plumber: Bristol + Sons

Registered Gasfitter:

Registered Electrician: B Knipe

Designer(s):

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Building Certifier(s): WDC

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Other:

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PART E: COMPLIANCE SCHEDULE DETAILS

E1: SYSTEMS NECESSITATING A COMPLIANCE SCHEDULE

(Complete Part E1 for all new buildings and alterations, except single residential dwellings.)

The building will contain the following *(cross each applicable box and attach proposed inspection, maintenance, and reporting procedures.)*

- Automatic sprinkler systems or other systems of automatic fire protection.
- Automatic doors which form part of any fire wall and which are designed to close shut and remain shut on an alarm of fire.
- Emergency warning systems for fire or other dangers.
- Emergency lighting systems.
- Escape route pressurisation systems.
- Riser mains for fire service use.
- Any automatic back-flow preventer connected to a potable water supply.
- Lifts, escalators, or travelators or other similar systems.
- Mechanical ventilation or air conditioning system serving all or a major part of the building
- Any other mechanical, electrical, hydraulic, or electronic system whose proper operation is necessary for compliance with the building code.
- Building maintenance units for providing access to the exterior and interior walls of buildings.
- Such signs as are required by the building code in respect of the above-mentioned systems.
- None of the above.

E2: OTHER SYSTEMS AND FEATURES TO BE INCLUDED IN THE COMPLIANCE SCHEDULE

(Complete Part E2 only if the building contains one more more of the systems listed in Part E1.)

The building will contain the following *(cross each applicable box and attach proposed inspection, maintenance, and reporting procedures).*

- Means of escape fromm fire.
- Safety barriers.
- Means of access and facilities for use by persons with disabilities which meet the requirements of Section 25 of the Disabled Persons Community Welfare Act 1975.
- Hand-held hoses for fire fighting.
- Such signs as are required by the Building Code or Section 25 of the Disabled Persons Community Welfare Act 1975.

Signed by or for and on behalf of the applicant:

Name: B. J. Jones Position: Builder Date: 16-10-93

ALTERATIONS AND ADDITIONS

TO

84 GREAT NORTH ROAD
WANGANUI

December

1992

S P E C I F I C A T I O N

of works required to be done and the materials to be used in
connection with the erection and completion of:

A L T E R A T I O N S A N D A D D I T I O N S

A T

8 4 G R E A T N O R T H R O A D

according to drawings and specification.

December 1992

ALTERATIONS AND ADDITIONS

84 GREAT NORTH ROAD

I N D E X

Tender Form

Conditions of Contract

1. Preliminary & General
2. Concrete
3. Carpenter
4. Joiner
5. Windows
6. Plumber
7. Electrical
8. Painter

T E N D E R F O R M

ALTERATIONS AND ADDITIONS
84 GREAT NORTH ROAD
WANGANUI

TENDER

1.

I/WE.....

HEREBY tender for execution of the works described in the drawings and specifications for the above mentioned contract for the lump sum of:

\$.....(.....)

2.

I/WE tender a completion date for the contract of:

.....

The lowest or any tender will not necessarily be accepted.

Tenders subject to conditions other than those in the Conditions of Contract or the Specification may be regarded as informal.

DATED this day of.....1992

CONTRACTOR:

SIGNATURE:

ADDRESS:

.....

C O N D I T I O N S O F C O N T R A C T

1. Builder is to price for all work shown on the drawings and specification.
2. Contact the client, Judge Treadwell, for instructions on nominated electrical and plumbing subcontractors, before proceeding with pricing.

3. **KITCHEN:**

Allow for following works items in kitchen, including window unit, new wall, power points, rangehood and wall removal. Allow for stopping and sealing wall and ceiling linings where necessary.

Do not include kitchen joinery.
(Separate contract)

4. Allow flooring in bathroom only. All other areas organised by client.

PRELIMINARY AND GENERAL

1.1 BUILDING PERMIT:

The Contractor shall obtain all necessary permits.

1.2 SCOPE AND QUALITY OF WORK:

The contract is for works shown on the drawings and described in these specifications complete in all respects whether or not any particular portion is herein shown or described, provided that such portion may be reasonably inferred to be necessary to the completion of the Contract Works to the full meaning and intent of the contract.

All workmanship and materials shall be of the highest quality.

The Architect reserves the right to reject any work or materials which do not meet with his approval and the Contractor shall be liable to rectify such items to the Architect's satisfaction at no extra cost to the Employer.

The contract shall be performed with all due and reasonable speed without avoidable delays and the buildings and site shall be handed over to the Employer complete in every detail, weatherproof with all mechanical, and moving parts in proper working order, all plumbing and drainage systems operating properly and the whole of the building and site quite clean and fit for immediate occupation.

1.3 MATERIALS AND LABOUR:

All materials of every kind shall comply with all relevant New Zealand Standard specifications. All materials shall be first quality. The Contractor shall provide all materials and labour of every description except where otherwise specified, and other requisites whatsoever necessary for the proper and effectual carrying out, execution and completion of the whole of the Contract Works.

He shall finish the work to the true intent and meaning of the drawings and specifications taken together whether a portion of same may or may not be particularly shown on the drawings or described in this specification provided the same is to be reasonably inferred therefrom.

Figured dimensions are to be followed in preference to scaled dimensions and all dimensions and particulars are to be checked from the actual work. Conflicting dimensions on the drawings or in the works shall be referred to the Architect for a ruling.

1.4 SETTING OUT ETC:

The Contractor shall do the setting out of all works and shall be responsible for its accuracy and must amend any errors. The Contractor shall verify all dimensions on the site before commencing work.

PRELIMINARY AND GENERAL

1.4 SETTING OUT ETC: Continued

The Contractor shall do all on-site measuring and calculation of dimensions which may derive from information supplied or from existing conditions or from other parts of the works built or to be built.

1.5 PROTECTION OF PROPERTY AND REPAIR OF DAMAGE:

The Contractor shall be solely responsible for protecting the Employer's property, and adjoining roadways and footpaths from damage due to the building operations, and he shall make good any damage at no extra cost to the Employer.

1.6 CLEANING AND PROTECTION OF WORK:

The Contractor shall at completion, remove from the building and site all rubbish, litter and surplus materials which may accumulate and shall take all reasonable precautions to protect finished surfaces from damage or disfigurement or distortion of finished work of other trades and will be responsible for the cost of restoring any surface harmfully affected.

1.7 CONTINGENCY:

The contractor shall allow the sum of \$1,000 (one thousand dollars) for contingencies. This sum shall be expended only as the client may direct and any portion remaining unexpended will be deducted from the amount due to the contractor at the time of settling the final account.

CONCRETE AND DAMP PROOF WORK

2.1 PRELIMINARY:

Refer to the Preliminary and General Clauses of this specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

2.2 SCOPE:

This section of the contract consists of the formation of foundation walls and paving slabs.

2.3 WORKMANSHIP:

The work shall be carried out in accordance with best trade practice.

No substitute materials shall be used without prior written consent.

CARPENTER

3.1 PRELIMINARY:

Refer to the Preliminary and General Clauses of this specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

3.2 SCOPE:

This section of the contract in general consists of the supply of materials and labour for all carpentry work including timber framing and linings, and the fitting and fixing of all joinery.

3.3 STANDARDS:

The following standards apply to this contract except where specifically modified by this specification.

- NZS 3601 : 1973 Metric Dimensions of Timber.
- NZS 3602 : 1975 Code of practice for Specifying timber and Wood Based products for Use in Building.
- NZS 3603 : 1981 Code of Practice for Timber Design.
- NZS 3604 : 1990 Code of Practice for Light Timber Frame Buildings not requiring Specific Design.
- NZS 3631 : 1988 Classification and Grading of N.Z. Timbers (National Timber Grading Rules).

3.4 STACKING:

Fillet stack all timber as soon as it arrives on the site. Adequately protect from the weather treated timber, seasoned timber, dressed timber and all joinery.

3.5 THICKNESSING:

All studs, plates joists, and dwangs shall be green gauged to produce regular planed faces in accordance with NZS 3601.

3.6 FABRICATION AND ERECTION:

The works shall be carried out in accordance with best trade practice of sound repute by competent craftsmen using equipment, materials and processes that are best suited for the purpose.

At all points of attachment and contact, all timber shall be secured generally with not less than two nails driven well home to ensure secure attachment and rigidity in accordance with NZS 3604. Nails and brads will be neatly punched below the surface in the following cases:-

- Packing for sheet lining
- All joinery
- All finishing work, etc. and
- All painted work.

Screw holes in the attached members shall ensure a sliding fit and shall be countersunk where required. The fixing holes shall be small enough to ensure a secure hold without splitting.

CARPENTER

3.6 FABRICATION AND ERECTION: Continued

Nuts shall be tightened to the full reasonable extent and shall be retightened as required during the course of the contract.

3.7 FIXINGS:

Nails, brads, screws, bolts and the like shall be of steel; screws used for the attachment of hardware shall be of appropriate material and pattern to match such hardware.

Nails shall penetrate the second or holding timber at least half their length.

Brads used to attach boarding, linings and finishings shall be in length three times the thickness of the attached material with a minimum length of 20mm.

All nails in laps, scarfs, halving etc. of framing timber shall be not less than 25mm longer than the total thickness of timbers through which they are driven and shall have the ends well clinched.

3.8 TIMBER QUALITY:

Unless otherwise stated in this specification all framing timber shall be TREATED RADIATA PINUS No. 1 FRAMING GRADE, and shall be carefully selected for dryness, straightness, and quality.

3.9 TIMBER - MOISTURE CONTENT:

The Equilibrium Moisture Content (EMC) of timber used in this contract shall be as follows:-

Interior joinery and finishing timbers	10%
All framing timbers	16%

3.10 TIMBER - TREATMENT:

The timber treatment methods, preservatives, retentions and commodity requirement for timber specified for this contract shall be as follows:-

All framing timber - shall be treated by an approved pressure or vacuum pressure process using Tanalith N.C.A. preservatives to T.P.A. Commodity specification C8 or preservative retention of 3.2 kg/m³.

3.11 FINISH:

All timber surfaces exposed to view or to contact by hand shall be dressed to a smooth surface consistent with the situation. In addition all doors, interior finishing timbers, interior joinery fittings and the like shall be sandpapered with fine sandpaper to a smooth even surface and shall be scraped if required beforehand.

Remove all arrisses, all rough or uneven patches, hammer marks and other surface defects before varnishing and painting and the like is begun.

CARPENTER

3.12 MALTHOID DPC:

Provide and lay 100mm wide strip of Duroid Malthoid DPC beneath all bottom plates, strapping and studs against concrete walls.

3.13 BUILDING PAPER:

Provide and fix Standard Bitumac B850 black building paper under the whole outside face of all exterior Harditex-lined walls. Run building paper horizontally, weather-lap not less than 50mm, stretch tight, and very neatly and carefully fix by close stapling sufficient to keep building paper taut and secure.

Repair any puncturing immediately prior to fixing over lining.

3.14 FIBREGLASS INSULATION:

Provide and fit 75mm thickness AHI R2.2 fibreglass insulation batts to all spaces between framing members of all exterior walls, floor and the roof as shown on the drawings and in such a way as to produce a continuous complete and voidless insulation cocoon for the exterior timber framed parts of the building.

3.15 ROOFING

Supply and fix to new roof area 0.40 BMT corrugated galvanised iron long run roofing.

Trim and cut back existing roofing as necessary to fit new valley gutter construction and galvanised steel valley gutter. Allow clean down, prime and paint all new roof areas.

3.16 GIBRALTAR BOARD LININGS:

Gibraltar board shall be first quality board in sheets full height of stud to be fixed and stopped in the very best manner according to sound trade practice and so as to produce a first class job in every respect with finished wall and ceiling surfaces quite smooth and true to plane, free from any imperfections.

Gibraltar board shall be 12.5mm tapered edge for ceilings and 9.5 for walls.

Fix Gibraltar board linings to walls and ceilings employing the fixing methods recommended by the manufacturers.

Bathrooms and laundry walls shall be lined with 9.5mm WP Gibraltar board all thoroughly sealed and glue fixed in complete accordance with manufacturers recommendations.

The stopping of Gibraltar board linings shall be in strict accordance with the manufacturer's recommendations and instructions using the gib jointing system, gib bedding compound, perf-a-tape and gib finishing compound sanded back to produce a first class smooth and flush surface. This finished surface of the stopped gibraltar board shall be capable of producing a first class finish suitable for painting and papering, or tiling where shown on drawings.

CARPENTER

3.16 GIBRALTAR BOARD LININGS: Continued

Provide and fix galvanised slim angle corners at all external corner junctions.

3.17 ~~HARDITEX~~ EXTERIOR CLADDING SYSTEM:

*Plaster to match existing house
on Blath over Building Paper*

Wherever indicated on the drawings, provide and fix entirely in accordance with manufacturers recommendations HARDITEX linings as manufactured by James Hardie & Co Ltd.

All fixings shall be 50mm galvanised self tapping countersunk drive screws at 300mm centres. Finish just below surface of sheet.

Finish all joints with reinforcing tape and joint filling compound in readiness for finishing coat application by Hardies approved Applicator.

3.18 STAIRS:

Pour new concrete stairs with 665 reinforcing and 2 x D12 x 300 long starter bars epoxyed into every second existing step below to form completely new stair run, finished to a wood trowel float with angled risers, 20mm at bottom of rise inset. Fit new 50mm galvanised pipe handrail set into concrete at base and flange at wall, set 900mm from step edge to top of rail, vertically.

3.19 FENCES:

Make good existing fence, re-hang gate in new position, to finish hard against exterior house wall. Re-pour steps onto drive-way from gate position to suit. Repair all garden walls affected within the area of work.

3.20 WALL TILING:

Contractor shall contract a reputable tiling subcontractor experienced in the field of wall tiling. Tiler shall supply, fix and grout tiles as noted.

Tiles to all walls shall be 150 x 150 glazed to be selected by client. Allow the sum of \$65 per m² for supply of tiles.

Allow to fix with a recommended adhesive over the water resistant gibraltar board backing to bathroom and kitchen.

Grout up all tiles on completion, strike off neatly and leave in a first class condition.

3.21 WARDROBES:

Take delivery from joiner and fix joinery unit and sliding louvre doors to cupboard on Henderson 'Husky' overhead door track, complete with all accessories.

Provide and fix 25mm diameter chrome pipe rails to cupboards fixed each end in white Pryda PVC rail support brackets.

CARPENTER

3.21 WARDROBES: Continued

Provide flush recessed pull handles, lacquored brass type, client to select. Set handle height to match typical door handle.

3.22 HARDWARE

Client to select all Hardware for contractor to install. Allow to fit only.

3.23 SKYLIGHTS

Provide and install in accordance with manufacturers instructions and recommendations VELUX fixed ventilated skylight to hallway as positioned on drawing - 1 off.

Nominal overall size 1200 x 900 - double glazed.

Cut back existing roofing, trim new opening into roof framing, fit skylight, complete with all flashings and trim.

Line internal attic space with 9.5mm gib-board, on ex 100 x 50 framing as shown on drawings.

3.24 GLASS BLOCK

Where shown on the drawings use 'STECK-FIX' glass block fixing system, utilising aluminium frame all round opening, transoms and mullions where shown, together with siliconed joints over reinforcing strip, vertical runs, all to manufacturers recommendations. Seal completely all joints to form waterproof sealed window unit.

Aluminium frame to be 'white' powder coat finish, fixed over a sealant bead against 'Harditex' exterior linings.

System available by Smith & Smith Glass. Client to select patterned glass block type, contractor to arrange sample range for client inspection and approval.

JOINER

4.1 PRELIMINARY:

Refer to the Preliminary and General Clauses of this specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

4.2 SCOPE:

The work of this section comprises all joinery work and related items necessary to complete the work indicated on the contract drawings and as further specified.

4.3 MATERIALS:

All relevant clauses in CARPENTER section shall apply to this section of the Specification.

All timbers shall conform to the standard grading requirements for strength, classification, tolerances, cutting and mill dressing as specified in the relevant SANZ standards.

All timber dimensions stated are finished dressed sizes.

4.4 WORKMANSHIP:

All joinery shall be made in accordance with best trade practice.

Make provision for re-assembly on the job of items too large to be delivered in one piece.

Work when assembled shall have all joints as close as practicable and methods shall be adopted to allow for shrinkage and to prevent undue working and twisting. All joinery timbers shall be machine dressed on four faces and all exposed faces shall be sandpapered or hand finished to a fine finish.

Hammer bruises and other dents or chips shall be raised or filled by suitable methods, holes stopped and all lumps smoothed off. Stopping shall be coloured where not obscured by paint.

Joinery work shall be assembled with concealed nails and screws, morticed and tenoned joints, doweled and glued with waterproof glue throughout. All scribing, mitring, scarfing and joining shall be accurately done and close fitting.

No joinery shall be fitted until walls and floors are thoroughly dried out.

Fillets, moulds, skirtings and the like shall be planted on unless otherwise described and shall include for all mitring, scribing and fitted ends.

4.5 DOORS AND FRAMES:

Re-use existing doors and frames. Where new internal doors are required, use hollow core door and frame section to match existing, adjacent doors, paint quality.

JOINER

4.5 DOORS AND FRAMES: Continued

To basements provide 2 x new doors to match size of existing door, (and frame with planted stop to new openings), constructed in cedar T&G, ex 100 x 25 nominally, run horizontally over ledged and braced sub frame. Clash vertical edges with ex 25 cedar strip.

Hang on 1.5 pair galvanised 100mm butt hinges and provide new dead latch and turn knob lock and key to both doors. Brass screw fix T&G door slats to frame.

To HWC cupboard door fit exterior quality door and frame, leaving 25mm gap top and bottom for ventilation, paint quality. Fit pad bolt and 1.5 pair galvanised butt hinges.

4.6 SKIRTINGS AND ARCHITRAVES:

Provide and deliver to CARPENTER for installation all skirtings. Skirtings shall be 60 x 12 Customwood to match existing profile. Cornices shall be scotia mould to match existing.

4.7 CUPBOARDS, SHELVES, WARDROBE & DRAWERS:

Provide, construct and deliver to CARPENTER for installation all of the cupboards, shelves, wardrobe fronts, customwood doors and panels and Bathroom cabinets, as shown and detailed on the drawings and all to the very highest standards of workmanship and finish, entirely to the Architect's approval.

Hang doors on 2 Furnco 795 or approved equal wide opening, spring loaded flush overlay hinges. Carefully adjust all doors for equal tolerances and margins.

To vanity unit in bathroom use 'Grass' self closing, overlay hinges.

To wardrobe drawers use appropriate roller type drawer guides, rebated into drawer side.

Provide drawer pull as shown on drawings.

Fit 'while meltica', 18mm MDF substrate, adjustable shelves to cupboards in laundry. Use 'while' finished aluminium recessed strip set over finished wall or carcass lining.

WINDOWS

5.1 PRELIMINARY:

Refer to the Preliminary and General clauses of this specification and to the General Conditions Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

5.2 SCOPE:

This section of the contract consists of the manufacture, supply and installation of all windows for the building as shown on the drawings and as specified herein.

5.3 FINISHES:

All aluminium window frames and sashes shall be supplied in full gloss 'white' colour powder coated finish.

5.4 HARDWARE:

All hardware shall be of the best quality generally of the same colour and finish as for the window frames. Samples of the hardware to be used shall first be submitted to the client for approval before being incorporated in the work. Handles shall be locking type with double catch opening, security stay.

5.5 GLASS BLOCK FRAMES shall all have aluminium frames, including opening sash windows to bay window and two windows beside bed in the main bedroom.

5.6 LAUNDRY OPENING WINDOW to be top hung timber unit with head and cill to match line of kitchen window, on friction stays.

5.7 KITCHEN WINDOW

Move existing window out to line with eaves, on new framing and 2/ex 150 x 50 lintol. Cill height to remain constant.

Provide new smaller timber side window to match existing adjacent window.

5.8 OPENING SASH

To one selected opening sash in kitchen, refer client, fit new Wormalds winding gear complete with handle, mounting box containing gear drive, aluminium conduit and push rod, all fixed to ensure smooth opening and complete closing of window. Finish all gear in 'white' powder coat. Mount winder to clients instructions.

5.9 SHOWER GLASS DOOR AND FIXED PANELS:

Provide 10mm thick fixed glass panels each side of door. Fixed panels secured on stainless steel patch fittings and top rail if required for stability.

Provide 10mm thick glass, hinged door on hinged patch fittings, together with catch and pull handle on inside.

PLUMBER

6.1 PRELIMINARY:

Refer to the Preliminary and General Clauses of this Specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

6.2 SCOPE:

This section of the contract in general consists of the complete plumbing work for the building as shown on the drawings and as specified herein.

6.3 WORKMANSHIP:

The works shall be carried out in accordance with best trade practice of sound repute by competent craftsmen using equipment, materials and processes that are best suited for the purpose and shall be of the very highest standard. Check all dimensions on the job.

6.4 REGULATIONS:

Plumbing + Drainage to comply with S 12. + S 13 of NZBC.
All sanitary plumbing work shall be strictly in accordance with the New Zealand Standard Code of Sanitary Plumbing and Drainage Regulations and to the approval of the Wanganui City Council's Inspectors and the Architect. *TSZ*

6.5 MATERIALS:

All materials shall be as specified and only of the best quality of their respective kinds.

All P.V.C. pipework and fittings for the soil waste system shall be best quality Garnite S'lon or similar and approved unplasticised P.V.C. pipes and fittings of soil/waste/vent grade complying with N.Z.S.S. 7641 and 7642.

All Polybutylene pipe and Quicktite plumbing system components shall be best quality complying to Canadian Standard C.S.A. B137 8M-1977 Polybutylene piping for hot and cold water distribution systems.

6.6 LAYOUT AND FIXING OF PIPEWORK:

All pipes shall all be installed with even gradients and all other necessary precautions to avoid air locks. Easy bends shall be used throughout and unless unavoidable elbow fittings shall not be used.

All pipework shall be properly and adequately fixed in position with proper flanged fittings, saddles, straps, or two piece pipe rings as appropriate to the situation and to the Architect's approval, with fixing spaced in accordance with regulation requirements and Codes of Practice recommendations.

PLUMBER

6.6 LAYOUT AND FIXING OF PIPEWORK: continued

Proper and adequate provisions shall be made in the installation of all pipework to allow for thermal movement. Where recommended by the Codes of Practice this shall be by means of properly and adequately located specially constructed expansion joints.

This also applies to polybutylene pipework. All joints in polybutylene pipework shall be readily accessible and not buried in or under concrete. Polybutylene pipework shall be supported on purpose made clips approved by the manufacturer.

6.7 WASTE, SOIL AND VENT PIPE SYSTEMS:

Provide and install complete all the soil pipes, waste pipes, traps and vent pipes for all the sanitary and waste fixtures shown on the drawings and specified herein.

Generally all traps, vent pipes w.c. flush pipes and parts of waste pipes between traps and wall shall be white polypropylene.

All waste and soil pipes shall be fitted with all necessary cleaning eyes and/or inspection saddles. All wastes and vents shall be flanged at the wall line. When vents carry through the roof, finish with the least allowable protection after allowing for 100mm of flashing from the roofing material.

Provide and fix P.V.C. flashing cones and a bird proof cage to each vent pipe.

6.8 BATH:

Provide install and connect up existing bath unit. Stand bath firmly on shaped cradles of ex 50 timber at 300 centres.

Form toe recess detail 150mm high x 90mm deep to match vanity.

6.9 BASIN:

Provide install and connect up complete in Bathroom, one Fowlerware REEF 550 semi recessed vanity basin in white.

Confirm with client for approval before purchase and fixing into new vanity unit.

6.10 WC PAN:

Provide, install and connect up complete one 'Kensington' Fowler wall hung pan and cavity cistern with access panel (screw-fixed - 12mm customwood) from cupboard behind. Fit flush button and surround flange.

PLUMBER

6.11 TYPICAL WC PAN INSTALLATION:

RKS injection moulded PVC pan connector with EPDM flexible seal for 80mm soil pipe.

FLEX-O-SEAL or similar approved pan inlet connector for 50mm flush pipe.

Toilet seat Pressalite TIVOLI rigid plastic seat and flap complete with c.p. fixings. Colour - white.

20mm piped cistern overflow discharging through wall to external face, approximately 1100mm run from cistern, with PVC flange at wall face.

6.12 WASTE CONNECTIONS:

Supplied and installed by plumber. Unless otherwise specified shall be brass fitting with chrome finish supplied complete with solid plastic plug and fitted c.p. chain.

Connect all fittings by providing and fixing new drain or waste extensions into existing drainage or waste system.

6.13 TRAPS:

Supply and install DUX "FAST-FIX" White polypropylene "P" and "S" traps suited to the particular installation, size to match required waste connection.

6.14 TAPS ETC:

Provide, install and connect up complete, taps and valves for the whole plumbing installation.

Client is to select bath, basin and shower taps, mixer and rose units.

Plumber to provide and fit METHVEN 3052 x 15mm concealed stopcock isolator valve with chrome cover, for w.c. cistern.

Provide and fit also 'Methven' laundry taps with washing machine take-off. Chrome plate finished.

6.15 LAUNDRY APPLIANCES:

Provide, install and connect up complete in laundry where shown, one 'BURNS & FARRELL' LP2 stainless steel tub 560 x 455 wide x 240 deep unit into white melteca carcass with one cupboard door in 18mm MDF for paint finish.

6.16 BATHROOMS FLOOR OVERFLOWS:

In Bathroom where shown, provide, install and connect up a floor overflow with an HMC No 89 x 40 floor waste with removable threaded grate, in chrome finish. Connect to 40mm dia PVC pipe to run to discharge into gully trap.

PLUMBER

6.16 BATHROOMS FLOOR OVERFLOWS: Continued

Fit floor waste beside toilet pan and shower. Confirm with client, position.

6.17 COLD WATER SUPPLY:

Extend existing supplies to suit new locations in matching pipe diameters with polybutylene pipe.

6.18 HOT WATER CYLINDER:

Provide, install and connect up strictly in accordance with the manufacturer's recommendations and instructions the hot water cylinder onto a raised timber frame inside cupboard below laundry floor, over concrete slab.

The hot water cylinder shall be RHEEM DELTA mains pressure 135 litre capacity. Install as detailed on Rheem pamphlet "INSTRUCTIONS FOR INSTALLATION, USE AND SERVICE" including all valves and fittings.

Confirm type, capacity and element size with client.

6.19 SPOUTING:

Provide new galvanised steel spouting to match existing, to new laundry only. Solder new 90 deg. connections into trimmed existing spouting, retaining all existing falls and providing new falls to ensure 1 in 60 fall. to side of laundry without down pipe, run new 75mm uPVC down pipe on brackets, down wall and under laundry, or to closest down pipe connection to discharge into existing system.

6.20 HOSE TAP:

Provide new brass hose tap fitting, mounted inside new fence screen on west side of laundry, 800mm above ground level and 800mm in from end of screen. Run supply pipe concealed inside framing.

6.21 SHOWER TRAY:

Provide purpose made stainless steel shower tray by specialist manufacturer, to suit shape and upstand details as drawn. All set with falls to chrome plated brass waste outlet.

ELECTRICAL

7.1 PRELIMINARY:

The electrical subcontractor (hereafter referred to as the Electrician) is to refer to the Preliminary and General clauses of the specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification is to read in conjunction with all other sections.

7.2 SCOPE:

This subcontract comprises the complete electrical installation as described in this specification and shown on the accompanying drawings. The supply of all materials and equipment as detailed and all other material necessary to complete the work even if not specifically mentioned herein.

7.3 DRAWINGS AND SPECIFICATIONS:

These should be read in conjunction with each other as they mutually explain the intent. Should any doubtful item exist this should be clarified.

7.4 SUB-CONTRACTORS CO-OPERATION:

This subcontractor shall co-operate in every way with the main contractor and all other subcontractors affected, to ensure the correct finished relationship both as to dimensions, details and finishes between his work and all other surrounding work.

He shall provide for and/or obtain all necessary information as to setting out, sizes, levels, positions of all holes, bolts, chases etc. which may affect the performance of his or others work sufficiently in advance of the time when it will be needed so as not to delay any part of the work.

7.5 REGULATIONS:

All electrical work carried out in this section of the contract is to comply with the New Zealand Electrical Wiring Regulations 1976, and subsequent amendments and all other regulations governing the work involved. Nothing in this specification or associated drawings is to be interpreted to permit sub-standard materials or allow workmanship of a standard inferior to that required by these regulations.

7.6 PERMITS:

All permits required by local or other authorities in connection with this subcontract shall be taken out and paid for by the Electrical subcontractor before each particular work is carried out.

ELECTRICAL

7.7 MATERIALS AND LABOUR:

This subcontractor shall provide all materials and labour of every description, unless otherwise specified, necessary for the proper and effectual execution and completion of the whole work as shown and specified. All materials used shall be of the best quality of their kind and the installation is to include all work and materials necessary for the completion of the installation in thorough working order, although such work and material may not be specifically mentioned in the specification or on the drawings.

Should it be found necessary to substitute any item in lieu of that specifically mentioned herein, consent of the client must be obtained before any change is made and the material substituted must be equal in every respect to that originally specified.

7.8 WORKMANSHIP:

The whole of the work shall be carried out by skilled tradesmen using adequate and proper equipment and methods in accordance with best trade practice, and shall be of the best description, entirely to the Architects satisfaction.

7.9 METER BOX:

Provide and install a small top-hinged type meter box for flush mounting in the porch wall where shown.

Run from the existing DB position. Install new enclosure, white P.C. metal box over existing DB, 'Slimline type'.

7.10 SUB-CIRCUITS:

All sub-circuit cables shall include earth continuity conductors and all cable shall have stranded copper conductors and be insulated for the required duty.

All sub-circuit wiring is to be concealed within the wall linings and ceiling structure of the building, unless specified otherwise. Sub-circuit wiring should be run in the roof space where possible not horizontally inside walls.

Particular care is to be taken with the layout and installation of all sub-main and sub-circuit cabling as nothing but a neat and workmanlike finish will be accepted.

Conductor sizes and MCB ratings shall be as follows:-

Load

Lighting	2E x 1.0mm ²	TPS generally	10A
Socket Outlets	2E x 2.5mm ²	TPS	15A
Fans	2E x 1.5mm ²	TPS	10A

7.11 CIRCUIT TERMINATIONS:

All wall switches and socket outlets shall be provided with NZ standard pattern metal flush boxes securely fixed in timber framed or strapped walls.

ELECTRICAL

7.11 CIRCUIT TERMINATIONS: Continued

All light switches and sockets shall be PDL 500 series single or multiple gang, as required on the drawings.

Light switches generally are to be installed 1m above floor level and socket outlets at 300mm. In specific areas such as the kitchen, laundry etc. outlet positions are to be confirmed with the client.

7.12 SHAVER OUTLETS:

Shaver outlets shall be supplied from adjacent lighting circuits. Provide and install PDL Cat. 63T shaver unit, mounted in PDL Cat. 31 flush boxes.

7.13 RANGEHOOD:

Provide and install one white Classique ^{SLIM} Euroline front ~~recirculation~~ rangehood, complete with duct and external wall grille in stainless steel finish, all to suit future kitchen fit out.

7.14 TELEPHONE ACCESS:

Provide new telephone jack point near bed-head in bedroom.

7.15 LIGHT FITTINGS:

Refer electrical plan for location of the following items:

1. Downlight: To bulkheads only, fit 'Freelite' white colour EXN(M58) & Halogen Dichroic lamp (flood) complete with 12 volt transformant (Arnold & wright). Transformer in ceiling space.
2. Downlight: To other areas noted on plan fit CR8P 138mm dia. edison screw 'white' colour downlighter, recessed flush into ceiling. 75w bulb & anti-glare, black side baffel.
3. Exterior Light: Fit 'goccia' 2410 75w 180mm dia. soffit light by Arnold & Wright, to underside soffit & floor underside floor of laundry.
4. Fan Heater: Scope, wired into switch, fixed above mirror in bathroom, colour white.
5. Extract Fan: Fit ceiling mounted white PVC grille together wil insulated flexible duct, 100mm dia. nominal, to fan unit in roof space and out to grille (stainless steel) on underside of eaves soffit. Wire into push-button type, time delay switch 2-3 min.

Painter

8.1 PRELIMINARY:

Refer to the Preliminary and General clauses of this specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

8.2 SCOPE:

This section of the contract is for all exterior painting and ceilings for completion of the building and its fences etc. The client will complete all internal walls and trim to interior of house only.

8.3 MATERIALS:

All materials shall be of New Zealand manufacture of approved premium name brands delivered in unbroken packages bearing brand and maker's name complete.

All paints, enamels, varnishes, primer, and turpentine etc shall be of the best quality of their respective kinds.

8.4 PROTECTION:

All metal fittings and fixings shall be removed before preparatory processes are commenced and shall be refixed on completion of the painting. All finished work, including glass, shall be adequately protected from paint splashes.

No paint or other material shall be stored in direct contact with finished floor surfaces and no mixing shall be carried out on finished floor surfaces. Provide all necessary pans, trays on which to store and prepare materials.

8.5 CLEANING UP:

On completion leave the job free from paint splashes and clean and tidy.

8.6 STOPPING:

After priming neatly fill in and stop all cracks, shrinkages, nail holes etc. with best linseed oil putty.

Where transparent finishes are used, tint putty to match finished colour of the surrounding woodwork.

8.7 PAINTING GENERALLY:

Any surface which will be inaccessible after installation shall receive full number of coats before erection. Unless otherwise specified the inside faces and edges of doors, top and return of drawer fronts and the like shall be finished to match the face work.

PAINTER

8.8 EXTERIOR PAINT FINISHES AND SYSTEMS:

Exterior Cladding - New Work

Approved Hardies Applicator to apply high build paint system to colour of clients choice and applied to fully abide with Harditex recommendations, to match as close as possible the existing finish.

Prime, undercoat and 2 x gloss coats, all exterior facings, trim, architraves, timber doors and windows affected by the new work, colour to be advised by client.

Galvanised Steel:

Clean thoroughly by washing with detergent and water. Take care to remove all dirt or other surface contaminations. Flush off with fresh water and allow to dry.

Prime with one coat of first quality grey calcium plumbate primer.

Paint two coats of Steelite roof and paving enamel. Colour to match existing roof. Paint all roof areas affected by new work. Include gutters.

8.9 INTERIOR PAINT FINISHES:

Gibraltar Board Walls:

Remove all efflorescence and plaster splashes. Stop all holes, cracks, etc with filler as above. Allow to dry.

Lightly sand and dust off.

Paint one coat of first quality acrylic sealer, 'white' of approved brand.

Client to provide finishes.

Gibraltar Board Ceilings:

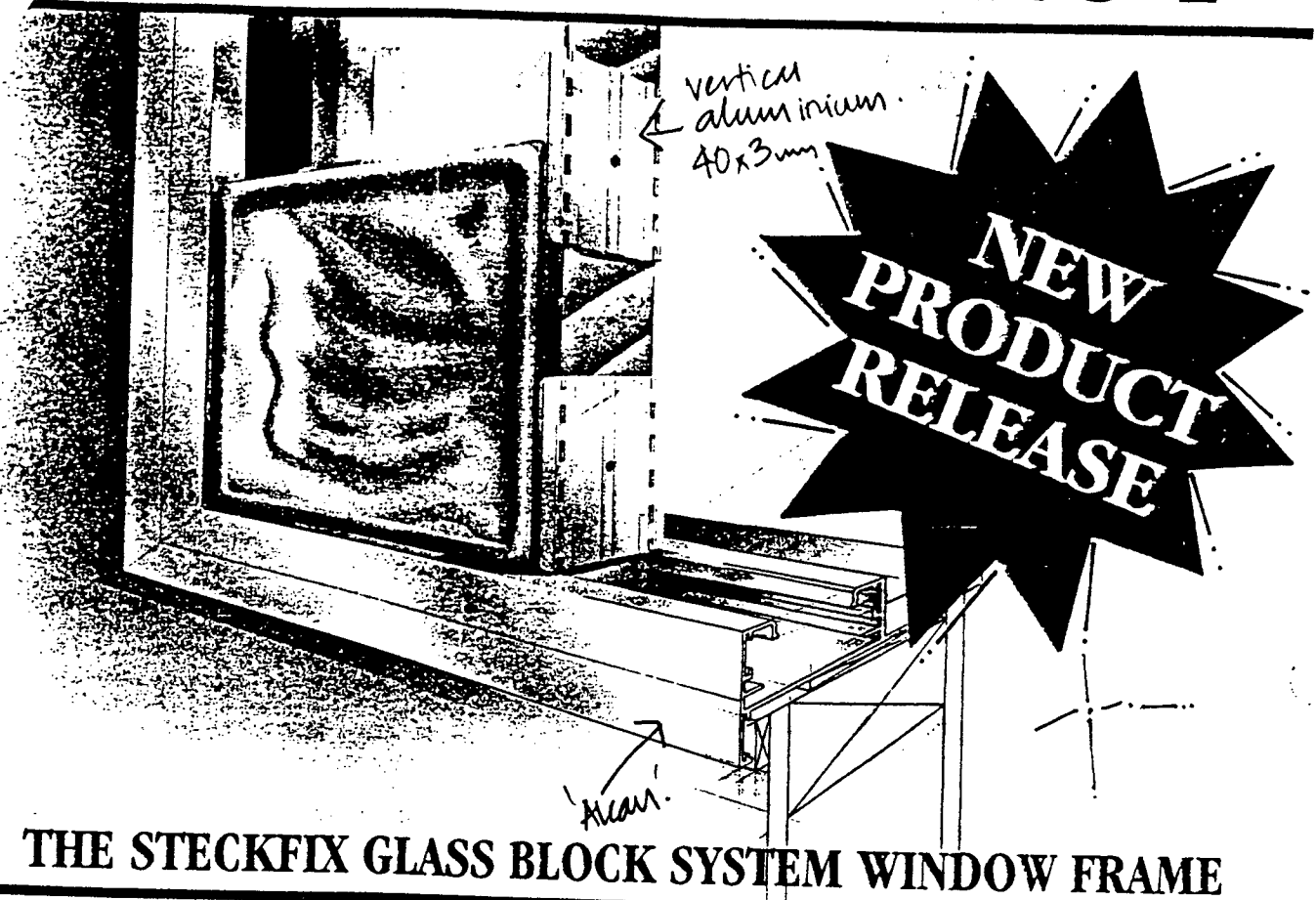
Remove all efflorescence and plaster splashes.

Stop all holes, cracks, etc with filler as above. Allow to dry.

Apply one coat acrylic sealer, colour white.

Paint two coats of first quality PVA Latex Flat paint of approved brand, white.

...S THIS EASY



THE STECKFIX GLASS BLOCK SYSTEM WINDOW FRAME

- New product specifically designed for the aluminium fabricator industry.
- Can be used as a window due to its external cover flange detail and reveal nailing fin.
- Can be used as a door sidelite as it couples to door frames using an RHS or typical coupling bar.
- Designed for a sidelite to a standard 2.0 metre high door (i.e. 10 blocks high).
- Can be stepped and reverse mitred to suit most glass block configurations.
- Can be fabricated to suit Solaris Glass Blocks and thus provide right angle corners or bay windows.
- Can be powder coated or anodised to match or contrast with the other joinery.
- Easy to fabricate using a corner angle and corner cleats for extra rigidity.
- Accepts Solaris 80mm wide glass block range.
- Easy to glaze after installation using the unique Steckfix system of combination clips and reinforcing bars.
- The only Glass Block System tested and appraised in New Zealand by BRANZ.

PLUS: All the advantages of the standard Steckfix system.

- Fast & simple installation
- High flexibility in earthquakes
- Great resilience under impact
- Better weather resistance
- High visual appeal
- Improved light transmission
- Simplicity for alterations
- Tested and proven

Call your local Smith & Smith Glass Branch or phone our toll-free nationwide technical information line ...

0800-80-90-10

Your local Smith & Smith Branch

3458 6210
 Addside rd 3809224
 Kaitiaki. #110942 Branch Pat Kethley.

STECKfix
 GLASS BLOCK SYSTEM

Smith & Smith glass

STECKfix®

GLASS BLOCK SYSTEM

INSTALLATION INSTRUCTIONS

These instructions are for straight walls. For curved walls or corner walls, consult Smith & Smith Glass.

1. FRAME ASSEMBLY & INSTALLATION

The corner connection pieces are inserted into the mitred frame profiles, fixed with rivets and sealed with small joint sealants, if used externally. The ready made frame is then fixed to the structure with the appropriate fixing technique as detailed below. When marking out screw holes, it is important to position them so they do not coincide with the ends of the reinforcing bars. It is also important to ensure that the frame is installed square.

The remaining gaps between the frame and structure can be filled with foam backing rods and sealants or commercially available joint connection profiles or flashings.

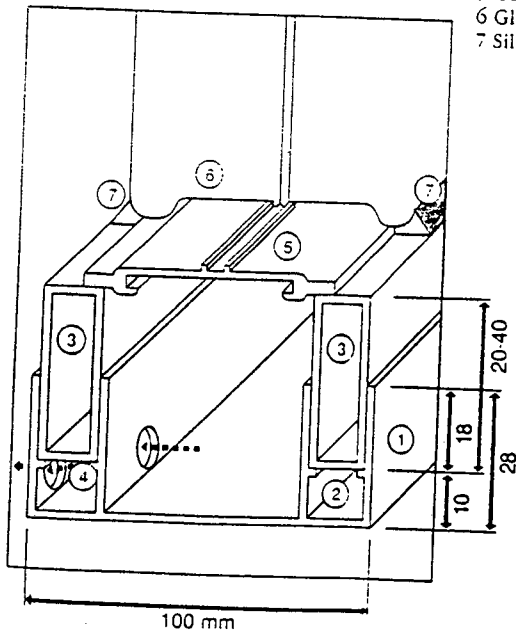
For exterior applications, drill 5mm holes to form a 20mm slot close to the corners and at every 800mm on the horizontal bottom exterior frame profiles for drainage. Ensure the holes are drilled right through to the central drainage channel. The frames can be provided with pre-drilled drainage slots.

For those situations exposed to driving rain, the drainage slots must be covered by a rain shield. Refer to Smith & Smith Glass for details.

For walls over 4 metres long expansion joints are required. The frame should be joined with aluminium cleats, similar to the corner connectors, and sealed with expansion joint sealant.

Frame System

- 1 Frame profile, aluminium, non-insulated
- 2 Corner connection locations
- 3 Compensation profiles 20, 30, 40 mm wide
- 4 Drainage and Ventilation holes
- 5 Combination clip
- 6 Glass Block
- 7 Silicone Sealant



Fixing Requirement

a) Internal Walls & Partitions

The Steck-fix support frame shall be fixed using 12 guage x 40mm long stainless steel pan head screws at no more than 300mm centres around the perimeter of the wall, or on a minimum of two parallel edges which locate the reinforcing bars.

b) External Walls

For low rise construction, the Steck-fix support frame can be installed using 12 guage x 40mm long stainless steel pan head screws at the following spacings.

- i. Frames locating the reinforcing bars. Double screws 100mm from each end and single screw at spacings not exceeding 400mm.
- ii. Frames parallel to the reinforcing bars. Single screws 100mm from each end and at spacings not exceeding 800mm.

The fasteners may be fixed either directly into timber or may be installed in proprietary insert plugs drilled into the concrete or masonry surfaces as appropriate.

For external applications, these screws should have neoprene washers or be sealed against water penetration around the screw holes.

For external walls in high rise applications and designs outside the scope of this information, Smith & Smith Glass should be consulted for specific design details.

2. LOCATING COMPENSATION PROFILES

The compensation profiles are located into the slot of the frame profile. In contrast to the frame profile, the compensation profiles are butt jointed not mitred. When constructing the wall, the final compensation dimension (due to the dimensional tolerances in the glass blocks) can be achieved by laying metal, plastic or hardwood blocks under the compensation profiles. Since dimensional tolerances in the width are not too noticeable, it is not really necessary to chock the vertical profiles. Experience has shown however that dimensional compensation is certainly required with the upper profile. Therefore the vertical profiles should preferably be in one piece where as the horizontal profiles may be in sections and butt joint sealed.

3. CHECKING BLOCK TOLERANCES

In order to balance out tolerance variations in the glass blocks, every block row should be put into an aluminium U Channel or onto a flat surface before it is laid to determine whether the block row is level and the faces flush. By turning or replacing individual blocks, the block row can be aligned exactly before assembly.

POSITIONING THE COMBINATION CLIPS

The first row of combination clips should be positioned on the compensation profiles at the base of the wall, centrally under the blocks. Avoid laying the combination clips flush to the corner of the glass block. The ribbed side of the combination clip should face the block.

The remaining combination clips should be located on the reinforcing bar at the joint junctions and at least 20mm from the corner of the end block. The other combination clips should be inserted centrally between the glass blocks either vertically or horizontally depending on the direction of the reinforcing bar.

5. LAY BOTTOM BLOCKS

Completely lay the bottom row of glass blocks onto the combination clips on the frame and insert combination clips centrally between each block to ensure it fits tightly into the inside frame opening. If reinforcing bars are vertical, insert them as each block is positioned.

For external walls, the vertical reinforcing bars must allow for free drainage of water in the frame profile. This is achieved by pre-notched reinforcing bars or by sitting the square end bars on 3mm setting blocks.

6. LOCATING REINFORCING BARS

Insert the reinforcing bar either horizontally or vertically, depending on the design requirements. Normally the reinforcing spans the shorter dimension of the wall. The reinforcing bar slots into the groove in the frame extrusion for location. Once the reinforcing bar has been installed, or prior to its installation, the combination clips can be clipped on to the bar at glass block junction joints.

For exterior walls the cut ends of the reinforcing bars must be galvanised or painted with zinc rich metal primer. Before installation, ensure that the painted ends are in sound condition.

If the reinforcing bars are vertical they should be positioned on 3mm setting blocks to allow water drainage.

COMPLETE LAYING PROCEDURE

Repeat the previous procedures until all the glass blocks are positioned into the opening. The last block can be pushed into the row and the top combination clip can be forced afterwards.

8. SEALING

Prior to sealing, remove paint splashes from the joint edges with steel wool to guarantee maximum adhesion.

The silicone sealant used for the joints shall be as specified and supplied by Smith & Smith Glass for the Steck-fix Glass Block System.

It is recommended to start by injecting each junction point with a drop of silicone first, so that the hole made up by the round corners of the glass blocks is pre-filled. The joints themselves should then be filled with silicone to a depth of approximately 5-8mm under normal pressure.

Start the sealing in the lower corner and proceed diagonally upwards. The individual sections to be sealed should be no larger than one square metre since the tooling time of the material is short and smoothing is made difficult by surface skinning of the sealant.

For exterior walls the bottom perimeter seal should be a fillet shape, covering the top of the compensation profile to shed water. Inspect all joints for a water tight seal.

When smoothing the silicone joint, useful aids such as a radiused tool and Smith & Smith Glass "Glass & Mirror Cleaner" are helpful.

The cleaner can be sprayed onto the blocks after the joints are sealed to prevent silicone sticking to the blocks when tooling the joints.

9. REPAIR WORK

If repair work should be necessary, the joint should be cut out with a knife so that the remains of the glass block can be removed. The protruding rims of the combination clips have to be removed so that it is possible to push a new glass block into the hole with little effort. The joint should then be resealed on both sides of the glass block wall.

SPECIAL NOTE

This brochure supercedes all previous brochures. Smith & Smith Glass retain the right to change products and specifications without prior notification. If a specification is critical to the end use please consult Smith & Smith Glass first.

This information is provided without prejudice to Smith & Smith Glass standard terms and conditions of sale.

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STECKfix[®]
GLASS BLOCK SYSTEM

Smith & Smith glass

A division of the Carter Holt Harvey Group of Companies.

HOW TO SPECIFY

ALL SIZE AND FRAME DIMENSIONS

- The frame dimensions are determined by:
- The number and size of Glass Blocks
 - The joint widths
 - The frame and compensator size

Glass Block Size

The Steck-fix system is designed for 80mm thick Solaris Glass blocks which are available in a standard size of 190 x 190mm. Other sizes are available on request or refer to the Solaris Glass Block Brochure.

Joint Width

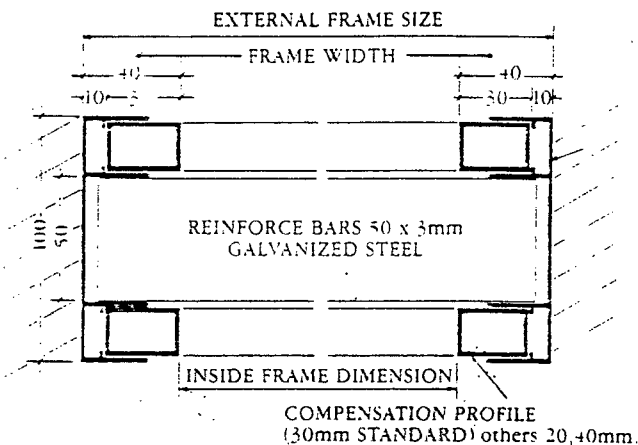
Joint widths average 3.7mm from experience, which includes glass block tolerances.

Frame Width

The Aluminium frame can be altered in size to suit the wall opening. This is achieved with compensation profiles which are available in a range of sizes. The total frame widths for each compensation profile size are as follows.

Fig 1.

Compensation Profile Size	Frame Width	Total Opening Frame Width
20mm	30mm	60mm
30mm (Standard)	40mm	80mm
40mm	50mm	100mm



PROCEDURE TO DETERMINE THE WALL SIZE & FRAME DIMENSIONS

Step 1

Select the appropriate "Inside Frame Dimension" from Fig 2. that corresponds to the approximate number of blocks and opening size of the wall.

Inside Frame Dimension

(Glass Block size 190 x 190 x 80mm)

Fig 2.

1	2	3	4	5	6
197	391	585	779	972	1166
7	8	9	10	11	12
1360	1553	1747	1941	2134	2328
13	14	15	16	17	18
2522	2716	2909	3103	3297	3490
19	20	21	22	23	24
3684	3878	4071	4265	4459	4653
25	26	27	28	29	30
4846	5040	5234	5427	5621	5814

No. of Blocks Inside frame Dimension (mm)

For other block sizes and/or dimensions not shown in the table use the following formula to calculate the Inside Frame Dimension.

Number of Glass Blocks x Block Size - Number of Joints (blocks + 1) x 3.7mm.

Step 2

Select the "Total Opening Frame Width" from Fig. 1. that corresponds to the required compensation profile (80mm Standard).

Step 3

Add the values of Step 1 + Step 2 for both height and width to get the External Frame Size.

Example

External Frame Size = Inside Frame Dimension + Total Opening Frame Width.
e.g. For 4 Blocks (779 + 80) = 859mm.

SPECIAL NOTE

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STECKfix

GLASS BLOCK SYSTEM

Smith & Smith glass

A division of the Carter Holt Harvey Group of Companies.



Steck-fix is a new European designed glass block installation system that offers many advantages when compared with conventional glass block masonry construction.

Steck-fix combines high performance and visual appeal with simplicity in installation. It is a modular system designed for flat or curved interior and exterior glass block walls.



ADVANTAGES

FAST & SIMPLE INSTALLATION

The system can be installed by Smith & Smith Glass tradesmen, builders or home handymen. There's no messy mortar work to worry about, and the system is fitted together and sealed in a shorter time.

HIGH FLEXIBILITY IN EARTHQUAKES

The inherent flexibility of the system allows it to accommodate large building movement without damage.

GREATER RESILIENCE UNDER IMPACT

The system can withstand high impact loads without damage.

BETTER WEATHER RESISTANCE

The silicone sealant joints provide a high resistance to water penetration.

BETTER JOINT THERMAL INSULATION

The silicone sealant joints reduce condensation and mould growth due to their better insulation properties.

HIGH VISUAL APPEAL

The silicone sealant joints and perimeter frame provide clean lines for greater aesthetic appeal.

IMPROVED LIGHT TRANSMISSION

The concealed joint spacers that interlock the system provide smaller joint sizes and higher light transmission.

VARIABLE FRAME DESIGN OPTIONS

Adjustable frame compensators allow for variance in block size and wall openings. The aluminium frame can be anodised or powder-coated in a variety of colour finishes.

SIMPLICITY FOR ALTERATIONS

Being a Modular System, Steck-fix constructed walls can be repaired or altered.

TESTED & PROVEN

Steck-fix has been tested and proven in both Germany and New Zealand.

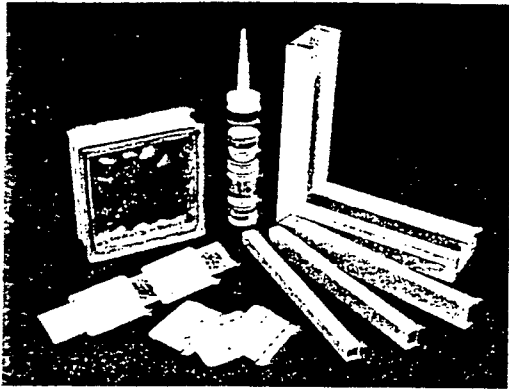
THE STECK-FIX SYSTEM

The construction of the Steck-fix Glass Block System is novel, efficient and comparatively simple.

A special aluminium frame surrounds and supports the glass blocks. A galvanised metal reinforcing bar is inserted into the joints of the glass blocks. This reinforcing bar slots into the frame profile establishing lateral support for the wall. The glass blocks are separated and supported by special plastic combination clips that locate on the frame profile and clip onto the reinforcing bar.

ALUMINIUM FRAME

The support frame is made of three components, a base extrusion and two compensation profiles that support the glass blocks and allow for dimensional adjustments. The frame is required on all four sides of the wall and is assembled by means of corner connections. The ready made frame is then fastened with anchors or screws into the structure like a conventional window frame. The frame extrusion can be anodised or powder coated to meet the designers requirements. A special heat insulated frame with a thermal break is available on request.



REINFORCING BAR

A 50 x 5mm hot dipped galvanised steel flat bar is used for reinforcing the glass block wall. Reinforcement is in one direction only, either vertical or horizontal. Standard practice is to span the short dimension of the wall with the reinforcing bar. Normally the reinforcing bars are at every joint however it is possible to use them at every second joint for internal walls.

COMBINATION CLIPS

Specially developed plastic combination clips are used to support the glass blocks and space them apart. They are either located on the compensation profiles, clipped onto the reinforcing bars at the joints, or located between the blocks.

SILICONE SEALANT

Silicone Sealant has excellent structural properties and is highly weather resistant. In contrast to conventional mortar joints, a better thermal insulation of the joint is achieved so that condensation and mould growth is reduced.

The small joint width of 3mm increases the light transparency of the wall as only 3% of the incidental light is absorbed by the joint compared to 12% with conventional 10mm mortar jointed walls.

WALL DESIGN DATA

The Steck-fix Glass Block System has been designed and tested to be supported on a minimum of two parallel sides. The Steck-fix System has both face-loading resistance and in-plane flexibility which enable its use as either an internal partition system, or as an external wall system in buildings which fall within the scope of NZS3604. In either case it should be considered as providing no lateral bracing resistance.

Straight wall designs are suitable up to a maximum reinforcement span of 3.5 metres in height or length. If the wall is 3.5 metres or less in height it can be of endless length. If the wall is 3.5 metres in length, it can be up to a maximum height of 10 metres.

Curved walls can also be constructed to a 3 metre minimum radius using vertical reinforcing bars. The external joint sizes are always larger with curved walls.

Right angle corner walls can also be constructed using corner glass blocks or by connecting the frames at the corners.

WINDLOADING

The Steck-fix system can resist an ultimate wind pressure of 4kPa for reinforcing spans up to 2.86 metres. For spans between 2.86 metres and the maximum 3.5 metres, the ultimate wind pressure is 2kPa. These design wind pressures are based on the Glass Block size of 190 x 190 x 80mm with the reinforcing bars at every joint. For designs outside this scope, please consult Smith & Smith Glass.

EARTHQUAKE RACKING

Straight wall designs, with vertical reinforcing bars, are able to accommodate simulated earthquake racking displacements equivalent to 5% interstorey drifts without failure or damage to either the blocks or their support frame. Where the system is used between rigid parapet panels, the flexible Steck-fix system may be required to accommodate the full interstorey displacement over their limited height, and this should be considered during design.

FIXING REQUIREMENTS

a) Internal Walls & Partitions

The Steck-fix support frame shall be fixed using 12 gauge x 40mm long stainless steel pan head screws at no more than 800mm centres around the perimeter of the wall, or on a minimum of two parallel edges which locate the reinforcing bars.

b) External Walls

For low rise construction, the Steck-fix support frame can be installed using 12 gauge x 40mm long stainless steel pan head screws at the following spacings.

- i. Frames locating the reinforcing bars. Double screws 100mm from each end and single screw at spacing not exceeding 400mm.
- ii. Frames parallel to the reinforcing bars. Single screws 100mm from each end and at spacings not exceeding 800mm.

The fasteners may be fixed either directly into timber or may be installed in proprietary insert plugs drilled into the concrete or masonry surfaces as appropriate. For external applications, these screws should have neoprene washers or be sealed against water penetration around the screw holes. For external walls in high rise applications and designs outside the scope of this information, Smith & Smith Glass should be consulted for specific design details.

TESTING

The Steck-fix Glass Block System has been tested by Koin University in Germany to the German DIN Standards for static load, pendulum impact and wind face loads.

The Steck-fix Glass Block System has also been tested by the Building Research Association of New Zealand (BRANZ) for seismic racking, pendulum impact and wind face loads.

The Steck-fix Glass Block System is the subject of a BRANZ Appraisal certificate number 192 (1990). The appraisal certificate is available from BRANZ or Smith & Smith Glass Ltd.



COLOURS

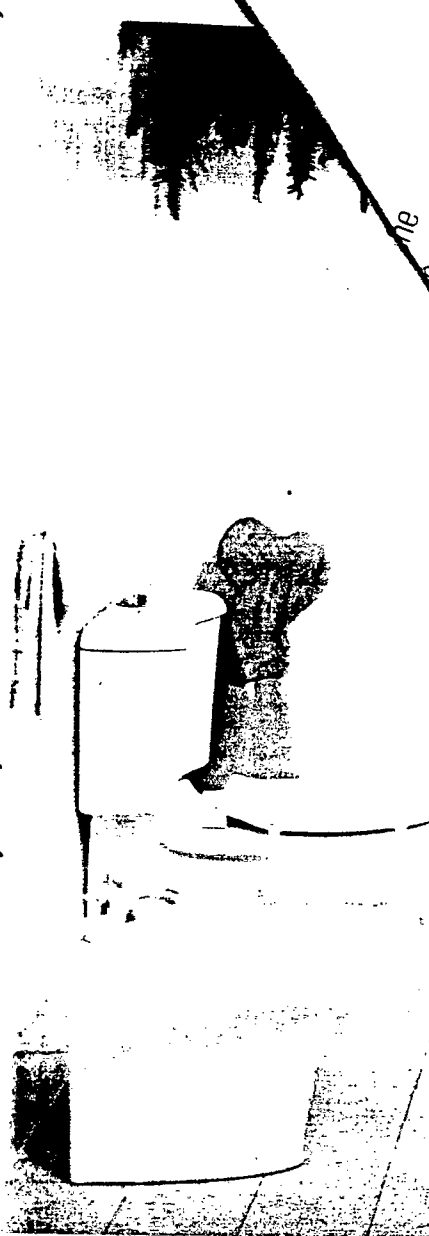
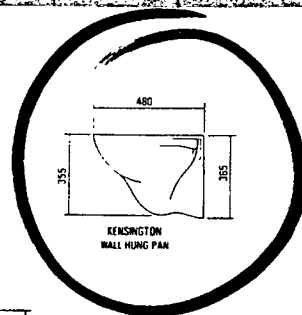
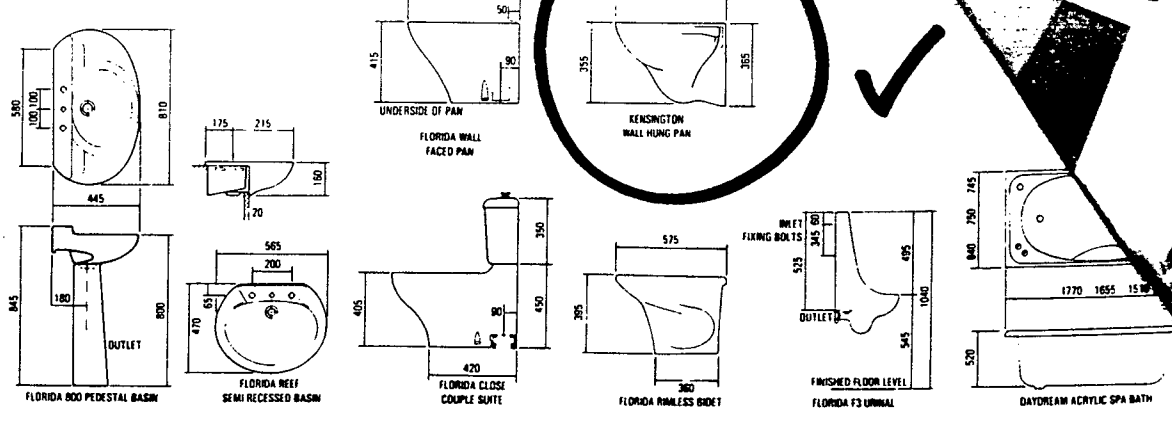
... from our range of
to enhance
... same.

...le
...e,
...ing

...ce of
... been
... it features
... cistern,
... uncluttered
... water hygiene and
... n to conserve water.
... d wall hung pans are

... Florida Collection features a
... two basins, a pedestal type
... semi-recessed, space-saving
... basin.
... Designed for comfort and
... convenience, the Florida bidet
... the ultimate in personal hygiene.

To give your bathroom the added luxury of
Florida Collection, try Fowler's
Florida bidet offers the classic touch,
approach is very often the best approach.
The Florida Collection is available in
White and Almond Ivory. Refer to back
page for colour samples.



CORBEL

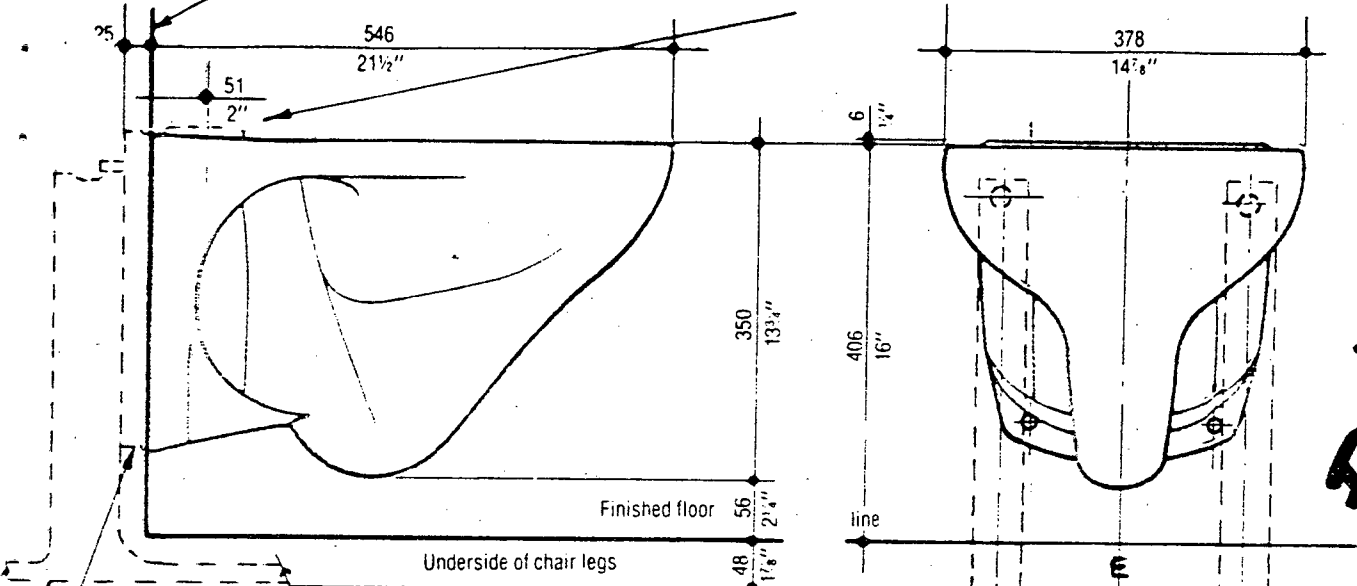
WALL HUNG TOILET PAN
CODE 0064

SfB (74)

UDC

Finished wall face

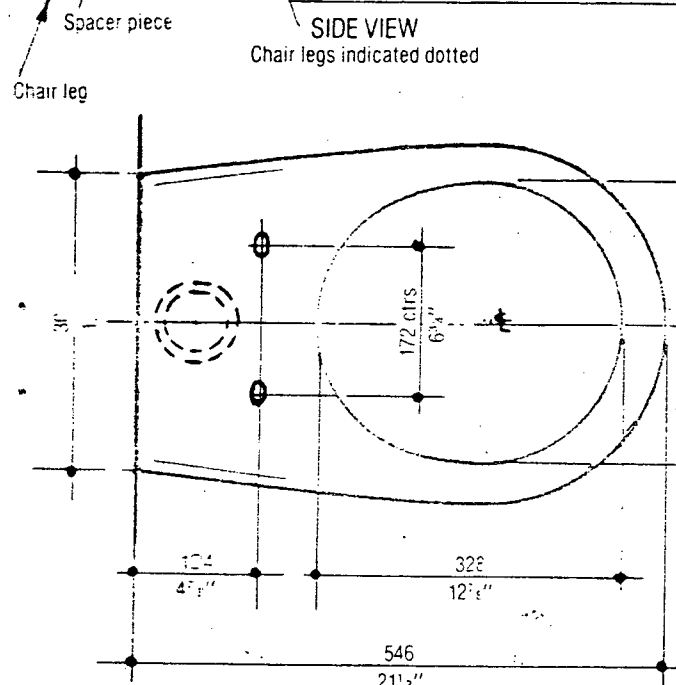
Top inlet position for
mid level cisterns and flushettes



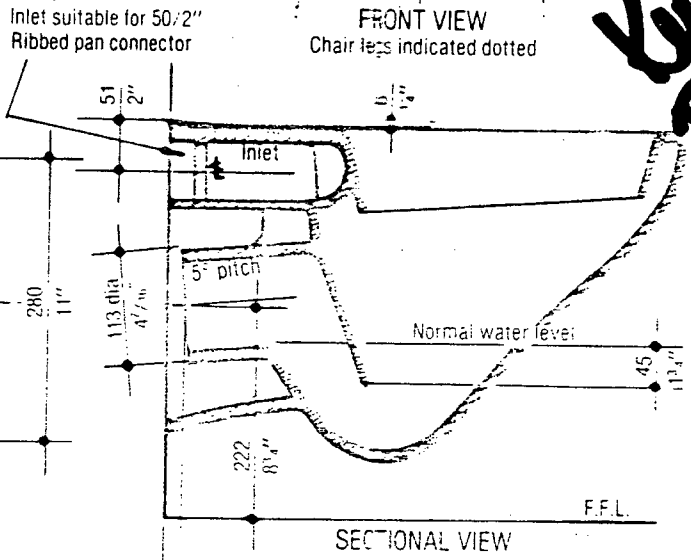
SIDE VIEW
Chair legs indicated dotted

FRONT VIEW
Chair legs indicated dotted

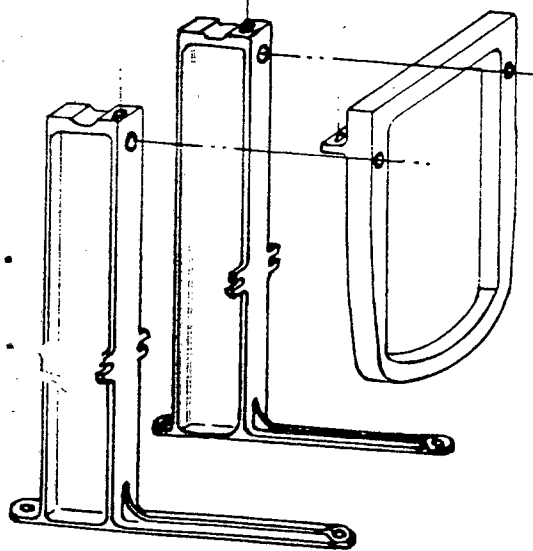
*Fowler
Kennington
Pan.*



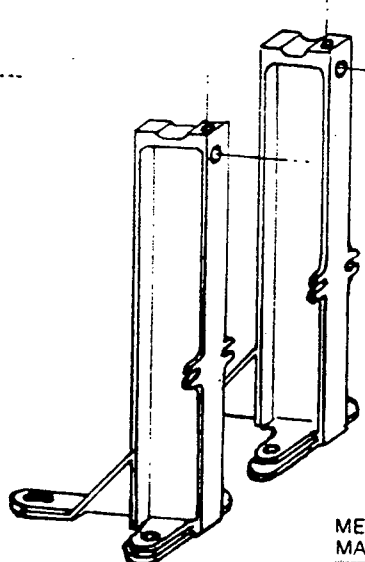
PLAN VIEW



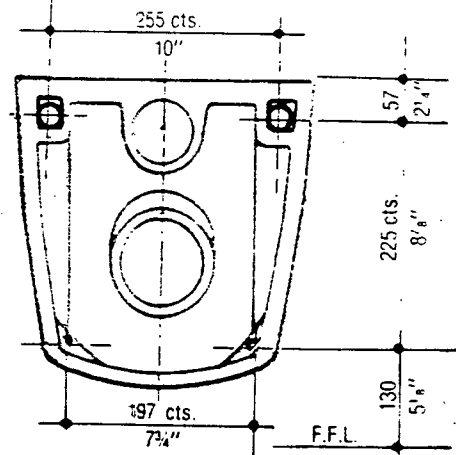
SECTIONAL VIEW



Corbell Chair Bracket Code 3323
complete with pan bolts, set screws, etc.



Corbel Reverse Leg
Chair Bracket Code 3333
complete with necessary bolts, etc.



Back of pan showing bolt holes.

The Fowler Ware policy, of continuing product design and performance improvement, can mean that designs and dimensions can alter without notice.

MEASUREMENTS ARE SUBJECT TO NORMAL
MANUFACTURING TOLERANCES

SERVICE SHEET No. C.136

SCALE 1/8

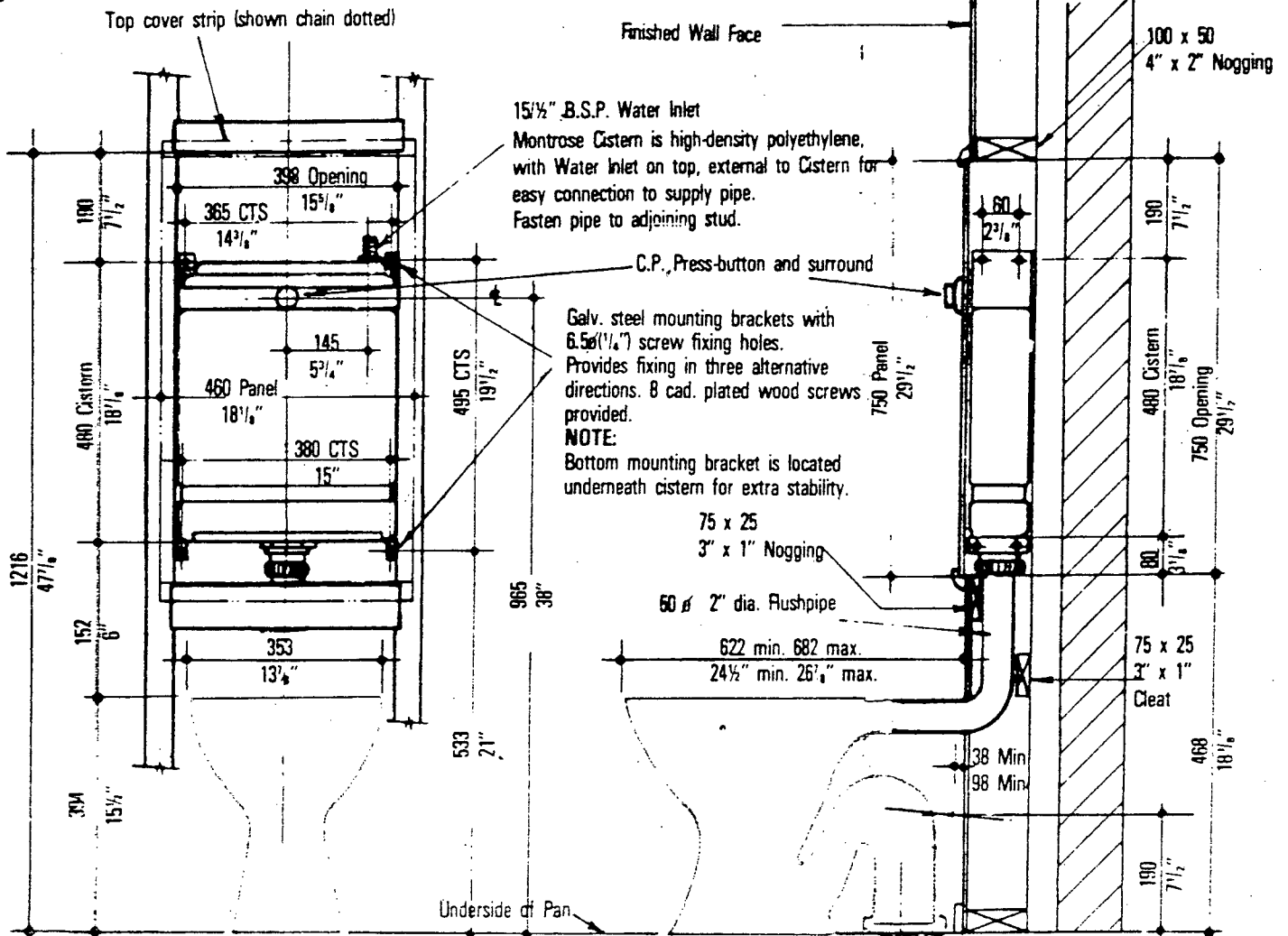
DATE April, 1980

MONTROSE CISTERN

TOP PRESS FULL FLUSH
CODE 2480

SfB (74)

UDC



FRONT VIEW
INTERNAL ACCESS

SIDE VIEW
INTERNAL ACCESS

NOTE: Cisterns are available as full-flush or 3.4-4.25 litres (6-7 1/2 pints), restricted flush available for use with REX PEDESTAL PAN. Cistern is suitable for fitment into any wall where 4" depth is available. Installation can be with either external or internal access and is suitable for both Wall-hung and Pedestal Pans. Cover Panels for internal access as required - e.g. white vinyl coated steel Marviplate & stainless steel.

Type of installation to be advised when ordering so that press-button assembly and flushpipe may be supplied to suit.

*Dimensions shown apply to the Fowlerware Pacific Pan.

*Alternative Pans may also be used but dimensions should be checked.

Also available with bottom press action - refer Service Sheet D14.

Drill 38ø (1 1/2") hole through wall for extended press button.

To attach extended P/Button, unscrew Press Button assembly on cistern and discard. Screw into place, new white plastic adaptor bush (hand tight). Cut extended Press Button tubes to required length. (Refer instruction sheet with P/Button.) Attach extended P/Button assembly by screwing (hand tight).

Flushpipe checked into Wall for app. 6" height if required.

SIDE VIEW
EXTERNAL ACCESS

The Fowler Ware policy, of continuing product design and performance improvement, can mean that designs and dimensions can alter without notice.

MEASUREMENTS ARE SUBJECT TO NORMAL MANUFACTURING TOLERANCES

SERVICE SHEET No. C85/5

SCALE 1:12

DATE April, 1983

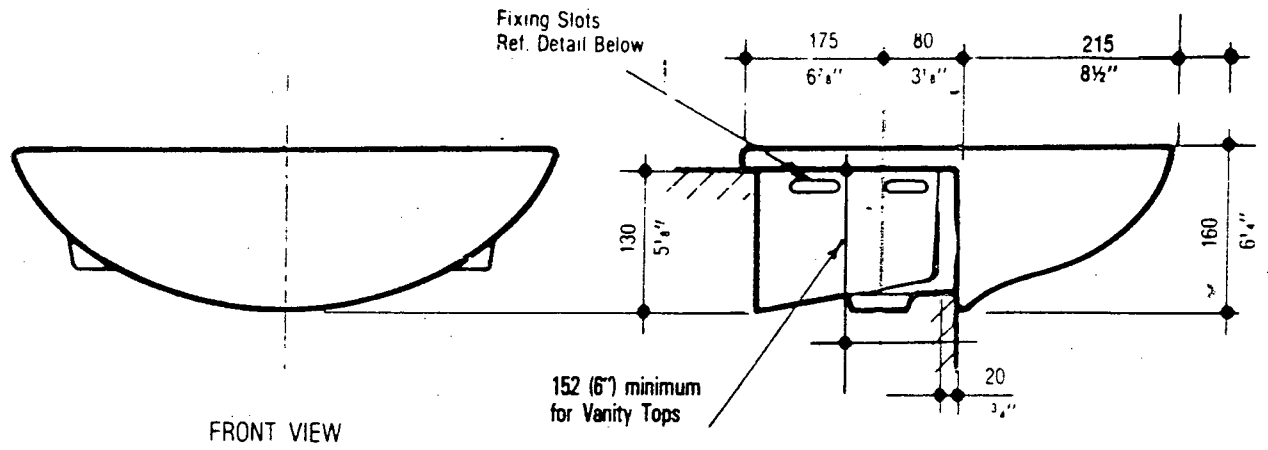
FOWLER WARE A UNIT OF JAMES HARDIE INDUSTRIES LTD

REEP 550

SEMI-RECESSED VANITY BASIN
CODE 01 68

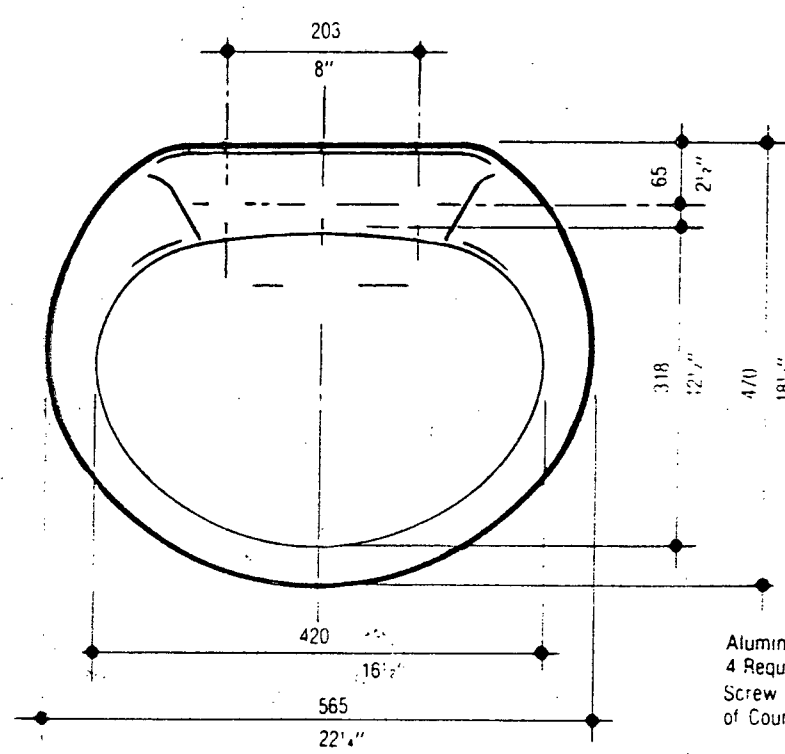
SIB(74)

UDC

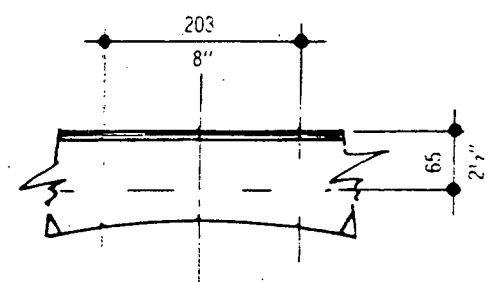


FRONT VIEW

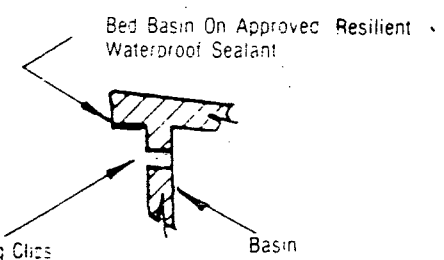
SIDE VIEW



PLAN VIEW



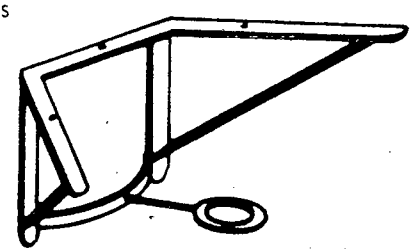
Hole Locations—
Two Tapholes



Aluminium Fixing Clips
4 Required Code 1710
Screw to Underside
of Counter Top

TYPICAL FIXING DETAIL

For Wall Hung Counter Tops
Code 1723 Support Cradle
Coated Steel



NOTE: Full Size Counter Top Cutout
Template Is Supplied With
Each Basin

Basin Is Available With 2 or 3 Tapholes
Outlet Is Suitable For 32 1/4" or
40 1/2" Waste Outlets

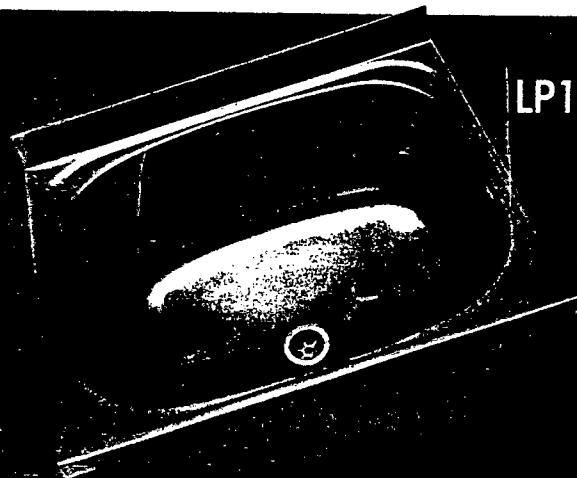
FIXING:
When Fixing Basin In Full Vanity Cabinet
Use 4 off Aluminium Fixing Clips Code 1710

When Fixing Basin In Countertop Unit Only
Additional Support Is Recommended By Using
Support Cradle Code 1723 Under Countertop

The Fowler Ware policy, of continuing product design and performance improvement, can mean that designs and dimensions can alter without notice.

MEASUREMENTS ARE SUBJECT TO
NORMAL MANUFACTURING TOLERANCES
SERVICE SHEET No. B 121
SCALE 1:8
DATE April, 1980
FOWLER WARE A UNIT OF JAMES HARDIE INDUSTRIES LTD

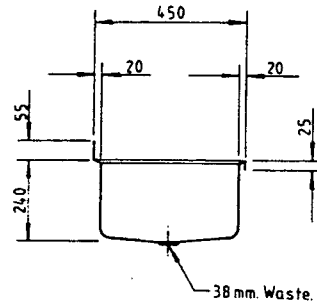
SINGLE PRESSED LAUNDRY TUBS



LP1

LP1

Pressed from one piece of stainless steel with radiused corners and high gloss finish.



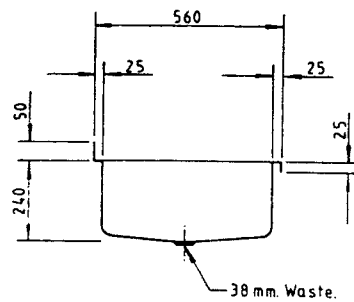
Length 555 mm Width 450 mm Depth 240 mm



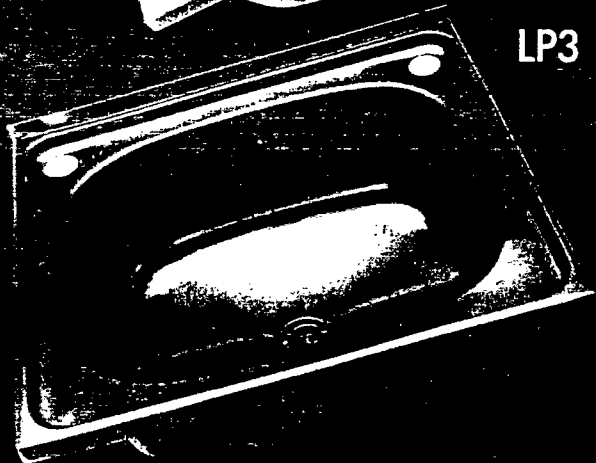
LP2

LP2

Pressed from one piece of stainless steel with radiused corners and high gloss finish.



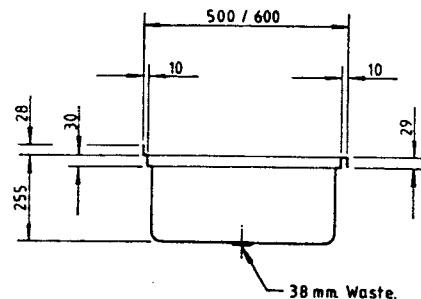
Length 455 mm Width 560 mm Depth 240 mm



LP3

LP3/LP4

Two further pressed laundry tub configurations incorporating deeply recessed anti spill tops. Supplied complete with bypass fittings.



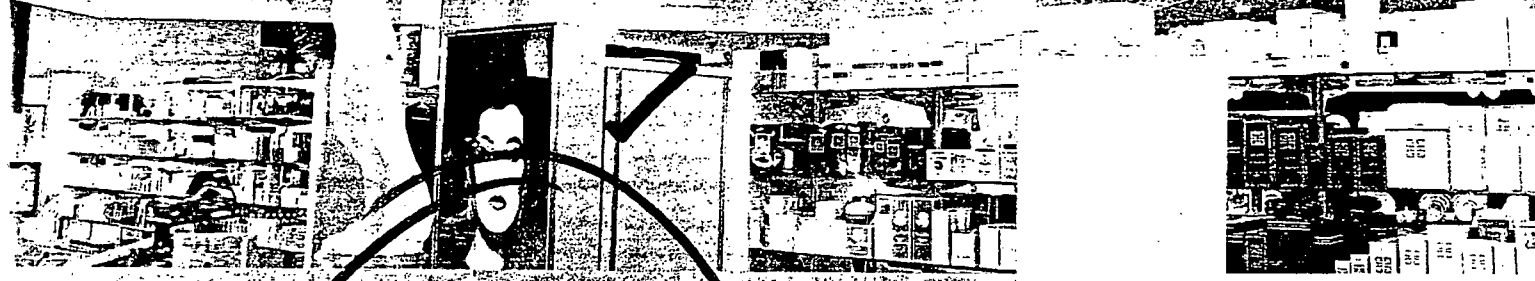
Code	Length	Width	Depth
LP3	600 mm	500 mm	240 mm
LP4	500 mm	600 mm	240 mm

Optional Extras • 38 mm plug and wastes
• mild steel tub brackets
• wooden tub cabinet



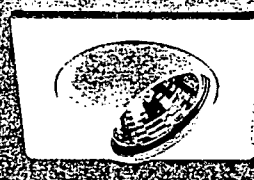
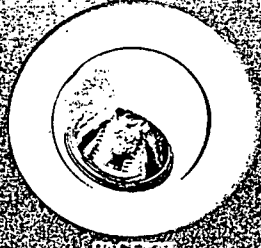
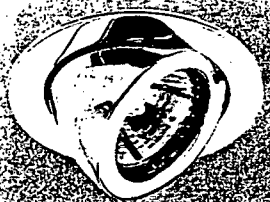
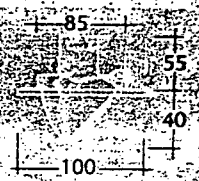
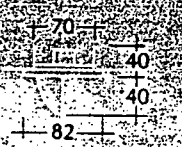
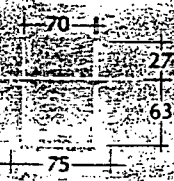
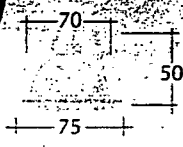
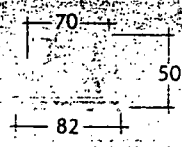
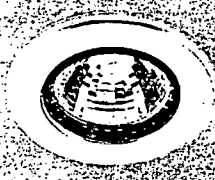
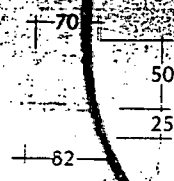
LP4

Burns + Farrell.



EXN (M98)
Halogen
Dichroic
Lamp.
(Flood.)

'Amulet + Weight'



DISTRIBUTED BY



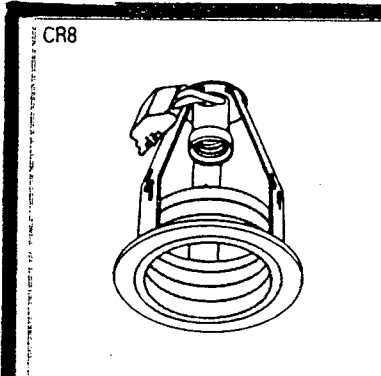
ARNOLD & WRIGHT

TRADING NAME OF AYNDUU HOLDINGS LTD

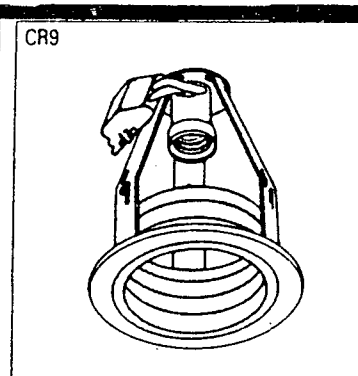
Arnrite House, 210 Willis Street, P.O. Box 1081, Wellington, New Zealand
 Telephone 850-209 Fax 850-202



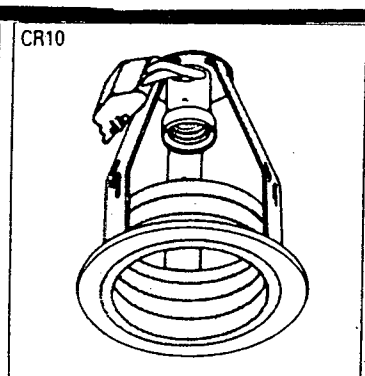
Please Reply To:



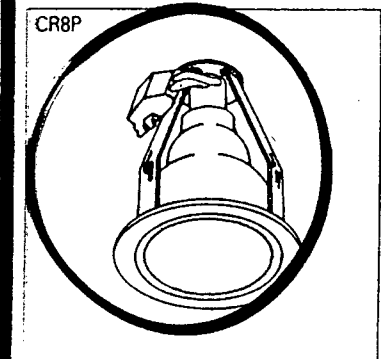
CR8



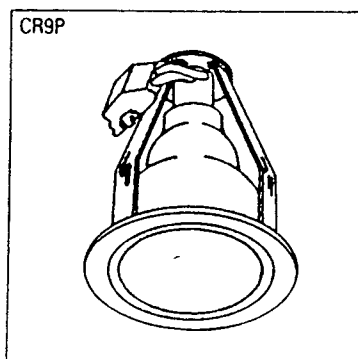
CR9



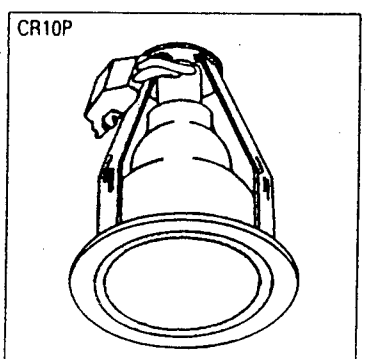
CR10



CR8P



CR9P

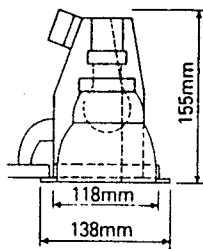


CR10P

CR8 CR8P ✓

A smaller downlight with removable ceiling ring for use in hallways, bay windows and bench tops with lamps of the following types: R80-75w with antiglare baffle, 75w GLS or 70w metal halide (compact) with reflector. Trim colours are in white, black, chrome or brass. The reflector in silver or gold. An extended ceiling ring is available as an optional extra.

If ordering for use with a Compact Metal Halide lamp please specify.



Fitting: CR8P

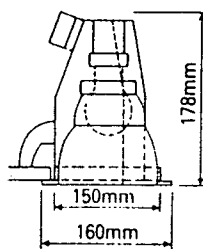
Lamp: 100w GLS Intensity: Lux

0	45°			
1m	240	180	20	8
2m	70	70	55	21
3m	43	40	45	30
	1m	2m	3m	

CR9 CR9P

Domestic areas and medium sized commercial areas are ideal for the use of this medium downlight. It has options of an antiglare baffle or reflector, and extended ceiling ring. Lamps used are: R80-100w (with antiglare baffle) and 100w GLS, 70w-100w metal halide (compact). It too has a removal ceiling ring coloured white, black, chrome or brass. The reflector is in silver or gold.

If ordering for use with a Compact Metal Halide lamp please specify.



Fitting: CR9P

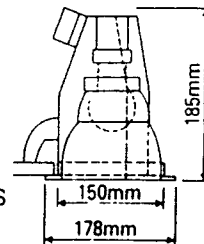
Lamp: 100w GLS Intensity: Lux

0	45°			
1m	410	90	12	5
2m	100	70	28	10
3m	52	44	28	15
	1m	2m	3m	

CR10 CR10P

A bigger version of the previous downlights to accommodate commercial applications. Increased ceiling heights combined with higher wattage lamps give a wider spread. Antiglare baffle, reflector, wall washer and extended ceiling ring are options. White, black, chrome and brass for the ceiling ring and silver or gold for the reflector. Lamps with reflector: 150w GLS, 50-80w mercury, 50-70w sodium, 125w S.B. mercury, 100w, 150w, 175w metal halide (compact) and osram 11w Dulux EC. Lamps with antiglare baffle: 150w Par 38, 150w R95, 160w S.B. Merc. Par 38.

Please specify if used with Compact Metal Halide, Osram 11w Dulux EC or 160w S.B. Merc. Par 38.



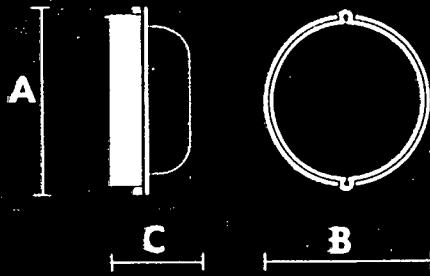
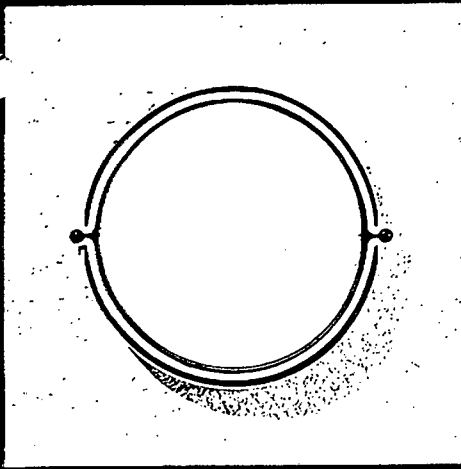
Fitting: CR10P

Lamp: 150w GLS

Intensity: Lux

0	45°			
1m	900	130	17	9
2m	210	140	48	17
3m	110	85	55	30
	1m	2m	3m	

NEW ZEALAND MADE



UL : Cod. 2420

IP44
Class I

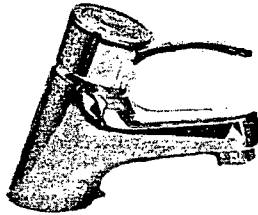
Bulb	Code No.	Power	A (mm)	B (mm)	C (mm)
	* 2410	75 W	180	180	110
	* 2417	7 W	180	180	110
	* 2415	10 W	180	180	110
	* 2420	100 W	240	240	140
	* 2429	9 W	240	240	140
	* 2449	2x9 W	240	240	140
	* 2916	16 W	240	240	140
	* 2920	20 W	240	240	140

* Code 2410 75W 180mm ϕ
 "goccia"
 'Armad + Wright'

Product Description & Finish

Atomix CR205

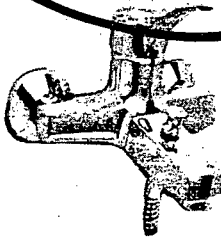
Chrome
Gold



Basin Mixer

Atomix CR105

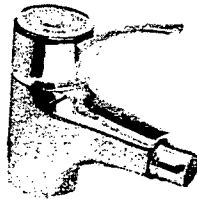
Chrome
Gold



Bath Mixer with Divertor

Atomix CR306

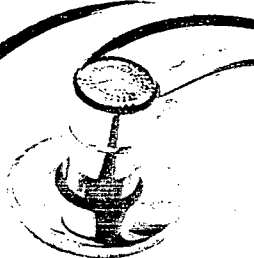
Chrome
Gold



Bidet Mixer with Pop-up Waste

Atomix CR690

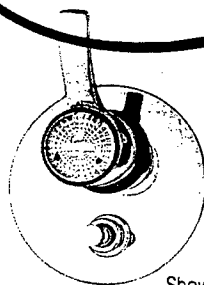
Chrome
Gold



Shower Mixer

Atomix CR691

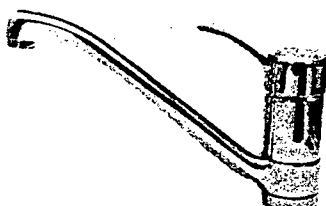
Chrome
Gold



Shower Bath Divertor

Atomix CR573

Chrome
Gold



Sink Mixer

Product Dimensions

- Basin Mixer, single lever, bench mount.
- Bench hole diameter — Maximum 51mm, Minimum 31mm.
- Perlator supplied.
- Projection — 116mm.
- Height — 128mm.
- Inlet — 15mm BSP.
- Headworks — single lever ceramic disc cartridge.
- Designed specifically for equal mains pressure systems above 16psi.
- Minimum operating maintained equal pressure 110kPa.
- Maximum operating maintained equal pressure 500 kPa.

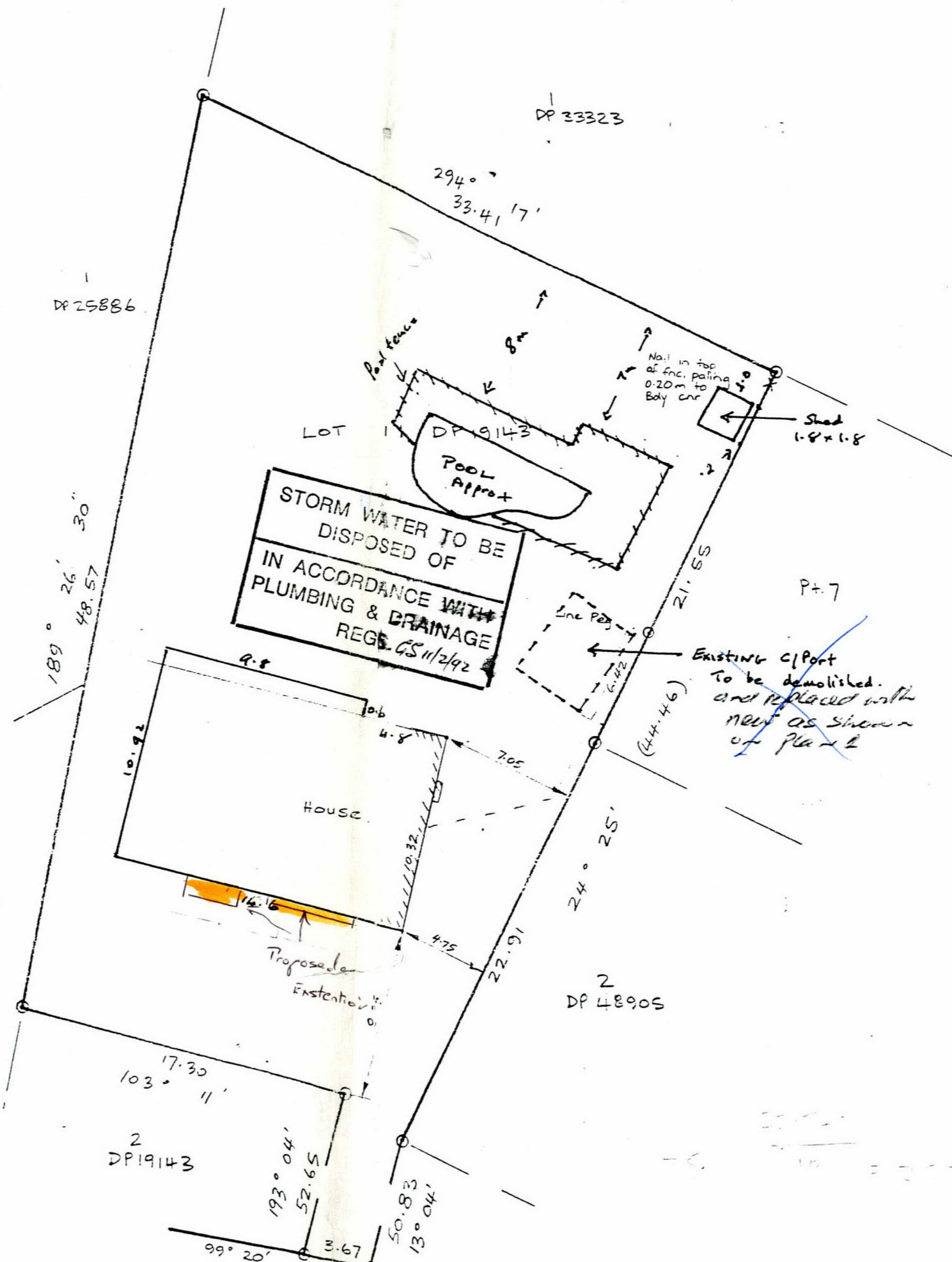
- Bath Mixer, single lever, wall mount.
- Incorporates shower divertor.
- Recommended hand shower for use with this mixer is the Methven 7433 — refer page 36.
- Projection — 142mm.
- Height — 101mm.
- Centres — 128mm to 171mm.
- Inlet — 15mm BSP.
- Headworks — single lever ceramic disc cartridge.
- Designed specifically for equal mains pressure systems above 16psi.
- Minimum operating maintained equal pressure 110kPa.
- Maximum operating maintained equal pressure 500 kPa.

- Bidet Mixer, single lever.
- Swivel aerator and pop-up waste.
- Bidet hole — Maximum 51mm, Minimum 31mm.
- Projection — 115mm.
- Height — 128mm.
- Inlet — 15mm BSP.
- Headworks — single lever ceramic disc cartridge.
- Designed specifically for equal mains pressure systems above 16psi.
- Minimum operating maintained equal pressure 110kPa.
- Maximum operating maintained equal pressure 500 kPa.

- Shower Mixer, single lever.
- Concealed wall fitting. Wall depth: 36mm.
- Faceplate diameter — 115mm.
- Inlet and outlet — 15mm BSP.
- Headworks — single lever ceramic disc cartridge.
- Designed specifically for equal mains pressure systems above 16psi.
- Minimum operating maintained equal pressure 110kPa.
- Maximum operating maintained equal pressure 500 kPa.

- Shower Mixer with Bath Divertor, single lever.
- Concealed wall fitting. Wall depth: 50mm.
- Faceplate diameter — 138mm.
- Inlet and outlet — 15mm BSP.
- Headworks — single lever ceramic disc cartridge.
- Designed specifically for equal mains pressure systems above 16psi.
- Minimum operating maintained equal pressure 110kPa.
- Maximum operating maintained equal pressure 500 kPa.

- Sink Mixer, single lever, bench mount.
- Bench hole diameter — Maximum 50mm, Minimum 30mm.
- Swivel spout with aerator fitted.
- Suitable for single or twin sinks.
- Height — 162mm.
- Projection — 231mm.
- Inlet — 15mm BSP.
- Headworks — single lever ceramic disc cartridge.
- Designed specifically for equal mains pressure systems above 16psi.
- Minimum operating maintained equal pressure 110kPa.
- Maximum operating maintained equal pressure 500 kPa.

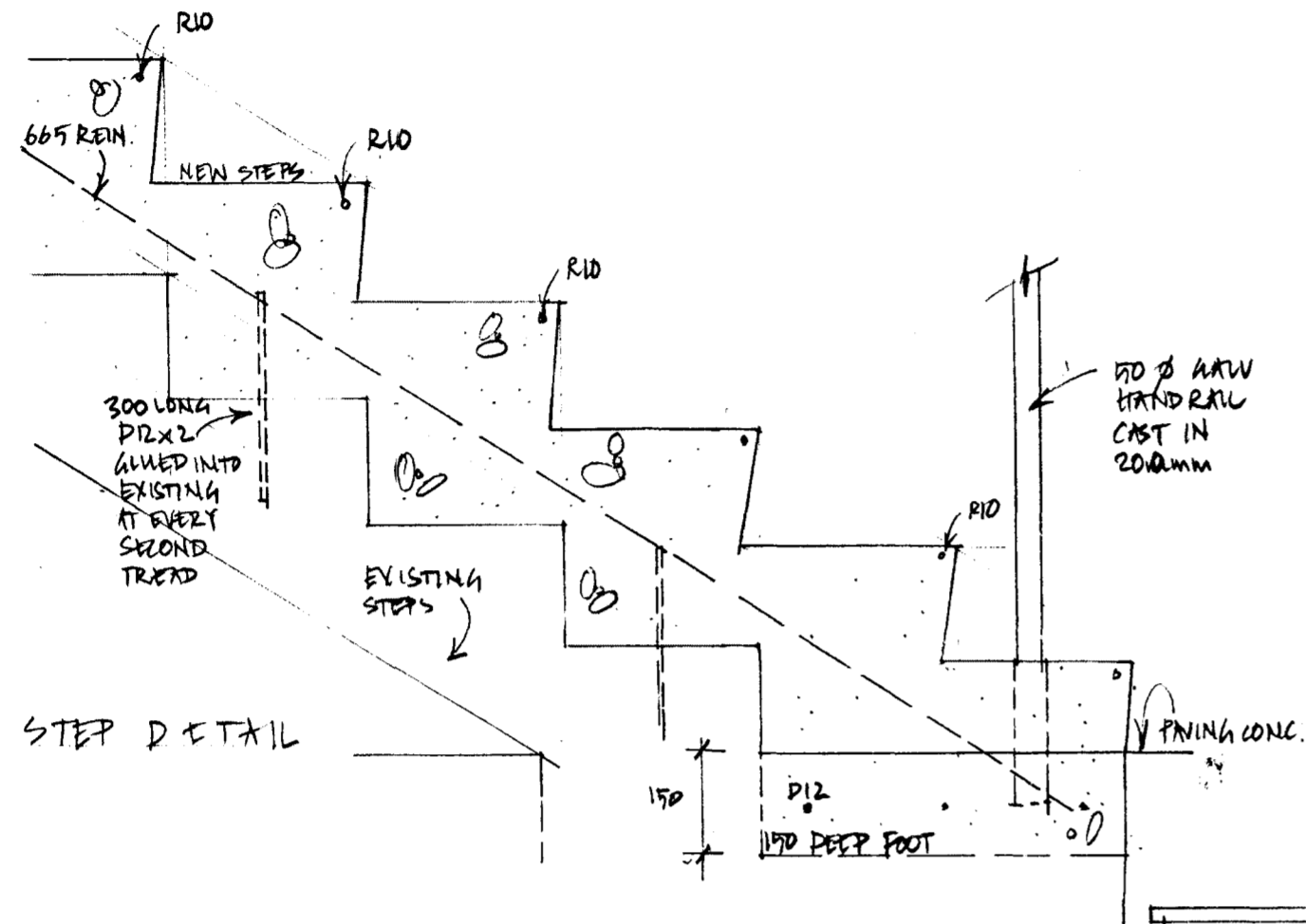


SCALE 1: 250

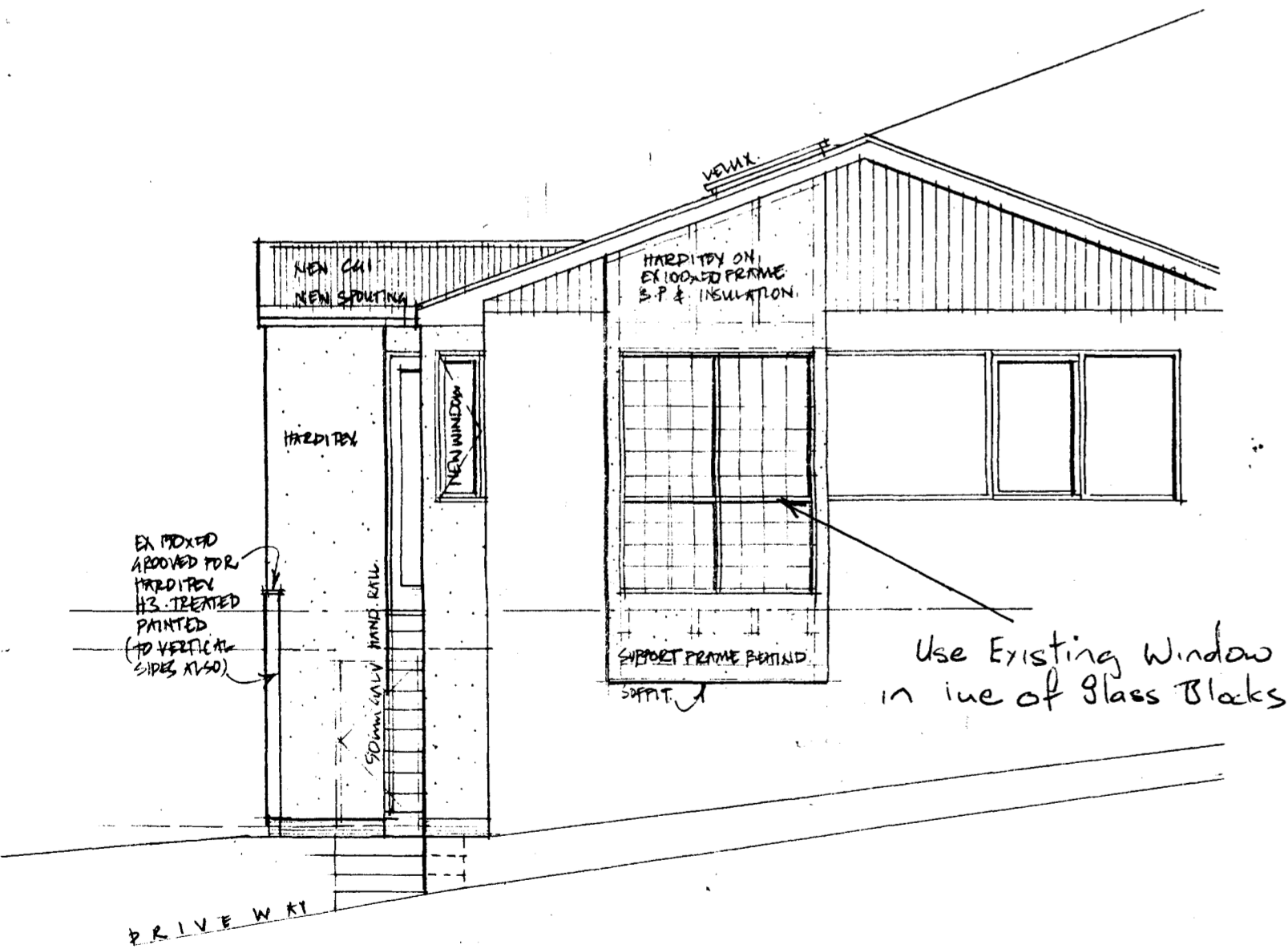
MR TREADWELL - 84 GREAT NORTH ROAD

03-02-92

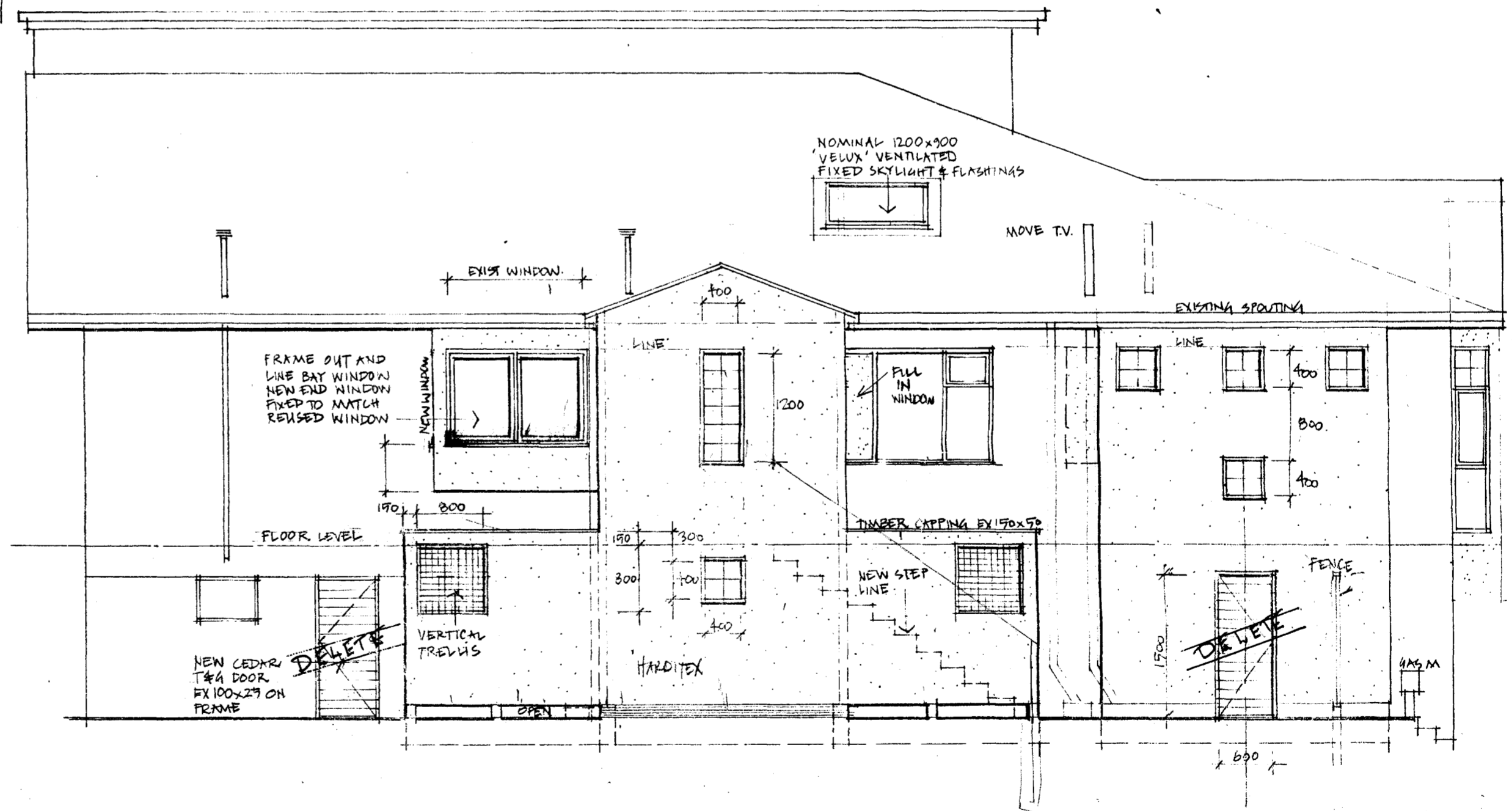
John Harrison
Registered Surveyor
P.O. Box 4136, Wanganui



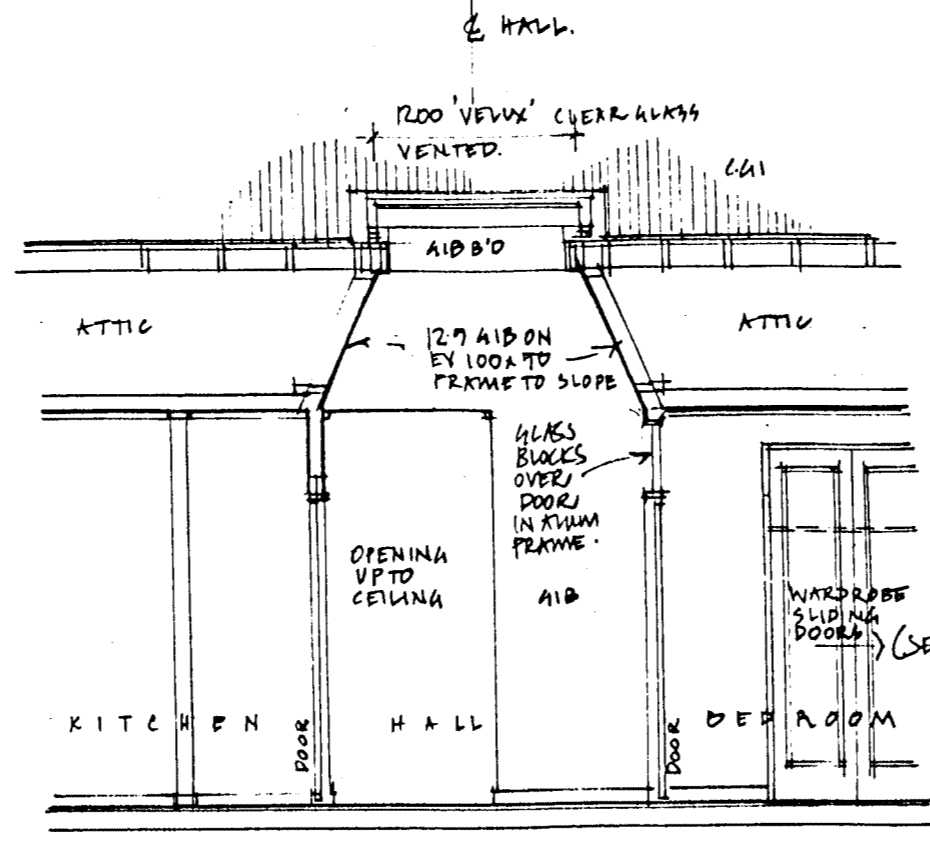
STEP DETAIL



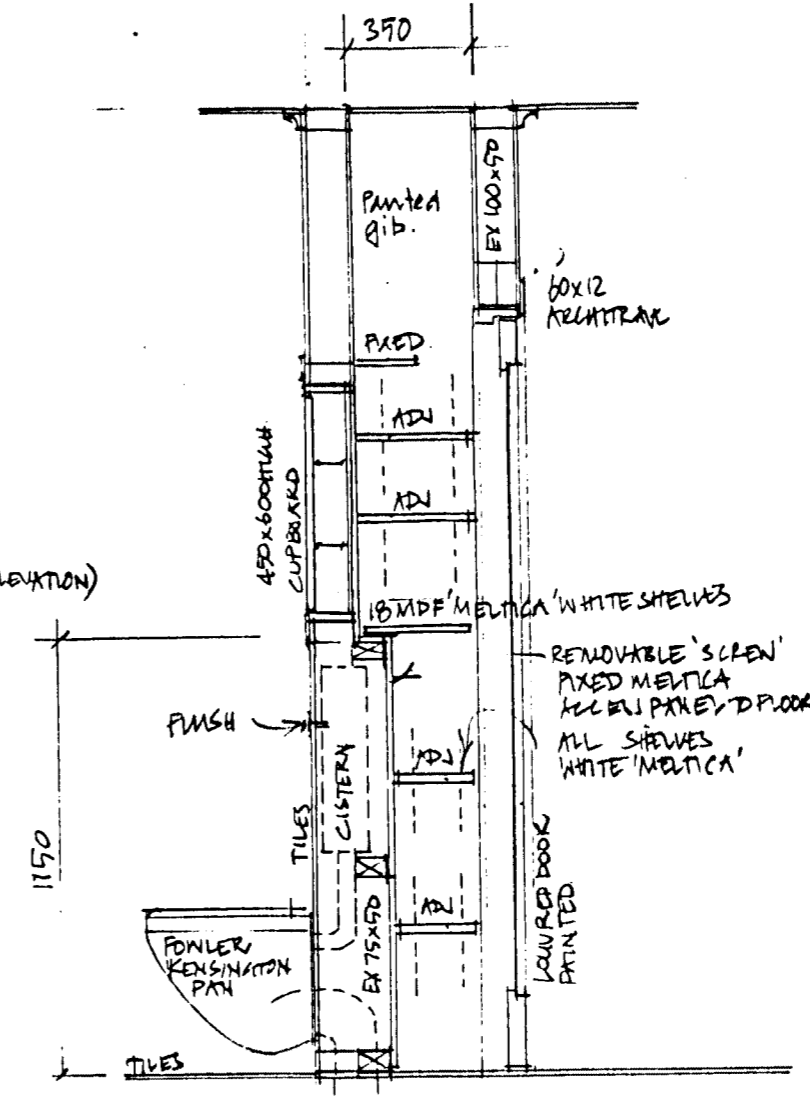
PROPOSED EAST ELEVATION 1:50



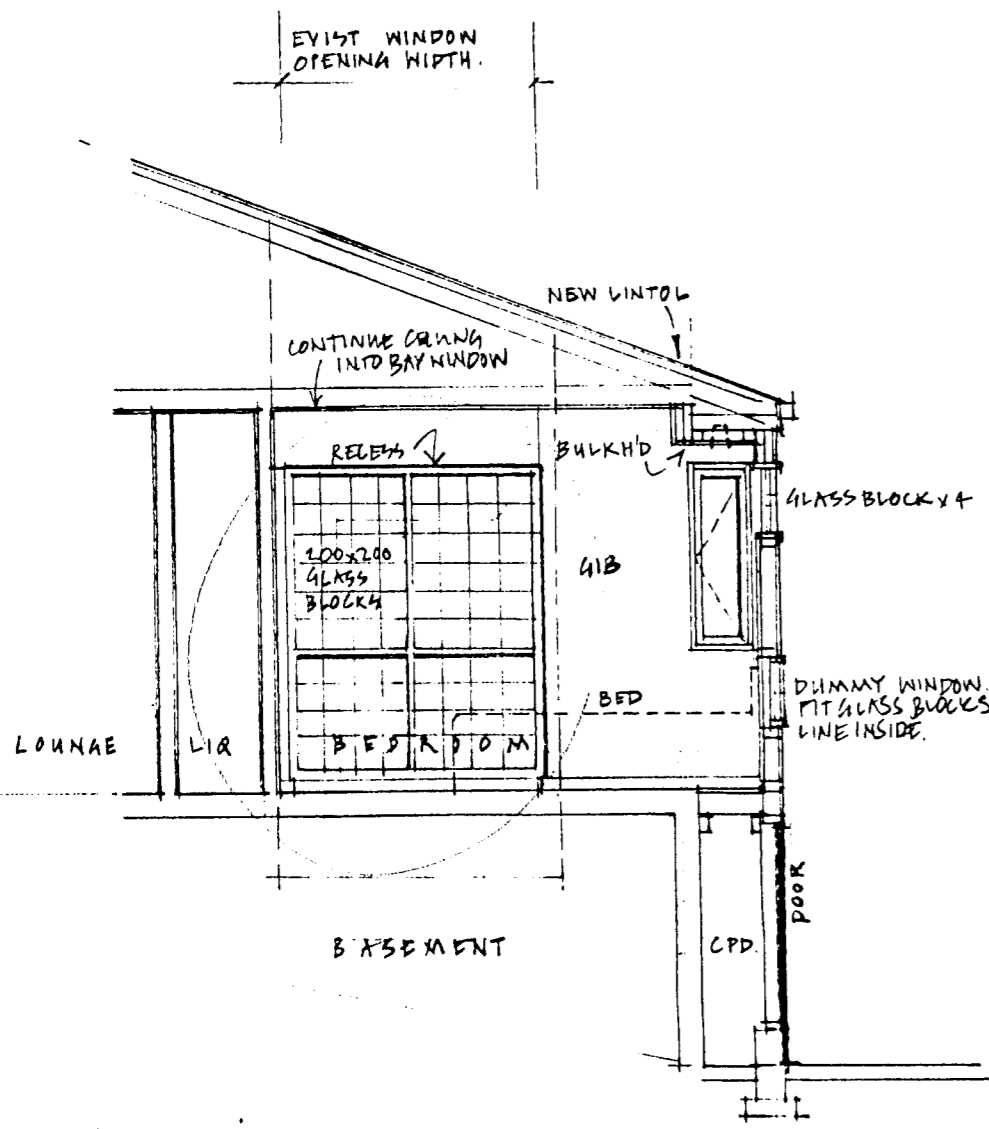
PROPOSED SOUTH ELEVATION 1:50



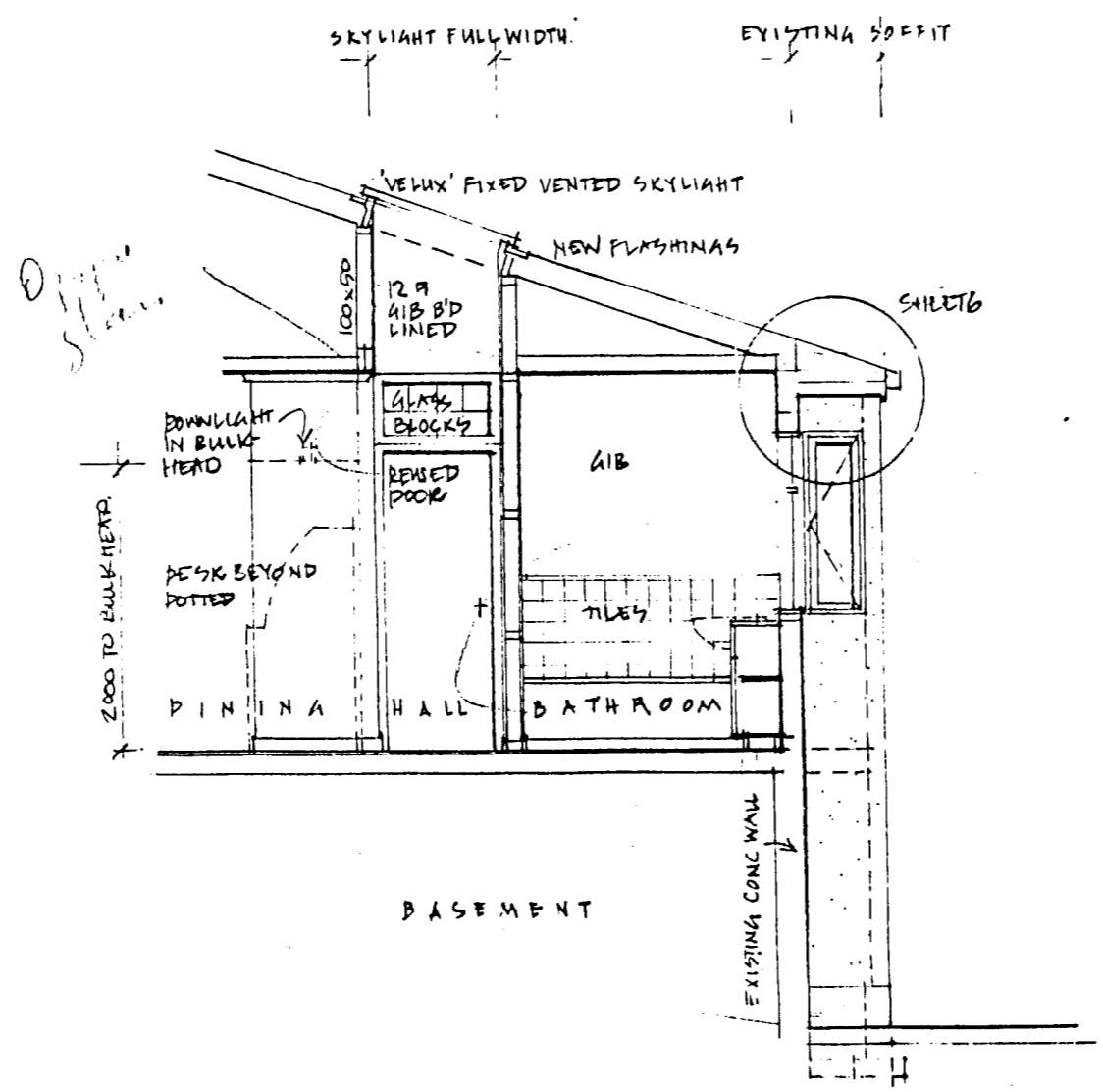
SECTION NORTH THRU. HALL / SKYLIHT. 1:50



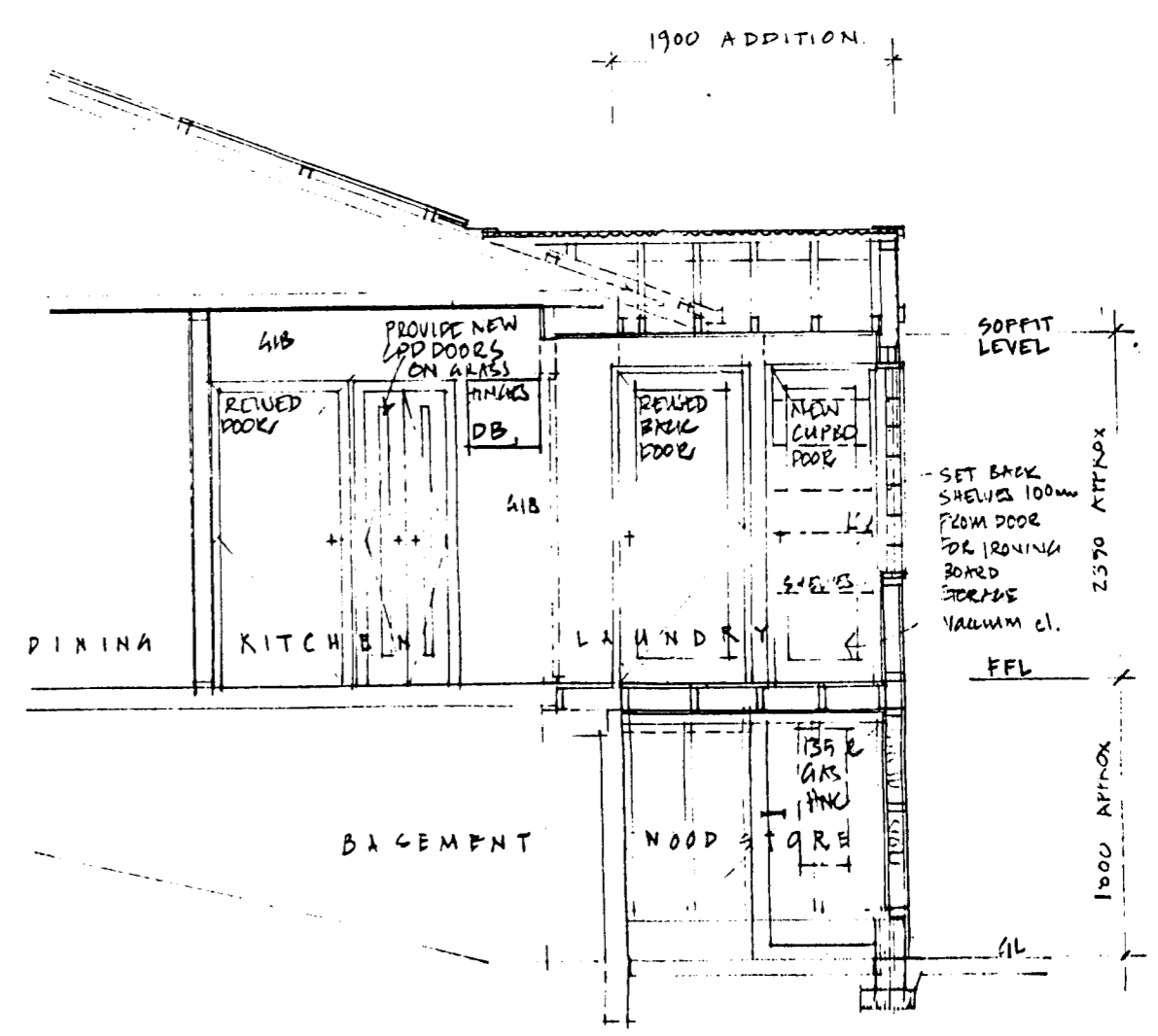
WC PAN & SMALL KITCHEN CUPB'D 1:20
 (LAUNDRY CUPBDS SIMILAR) - 700mm & 300mm WIDE SHELVES



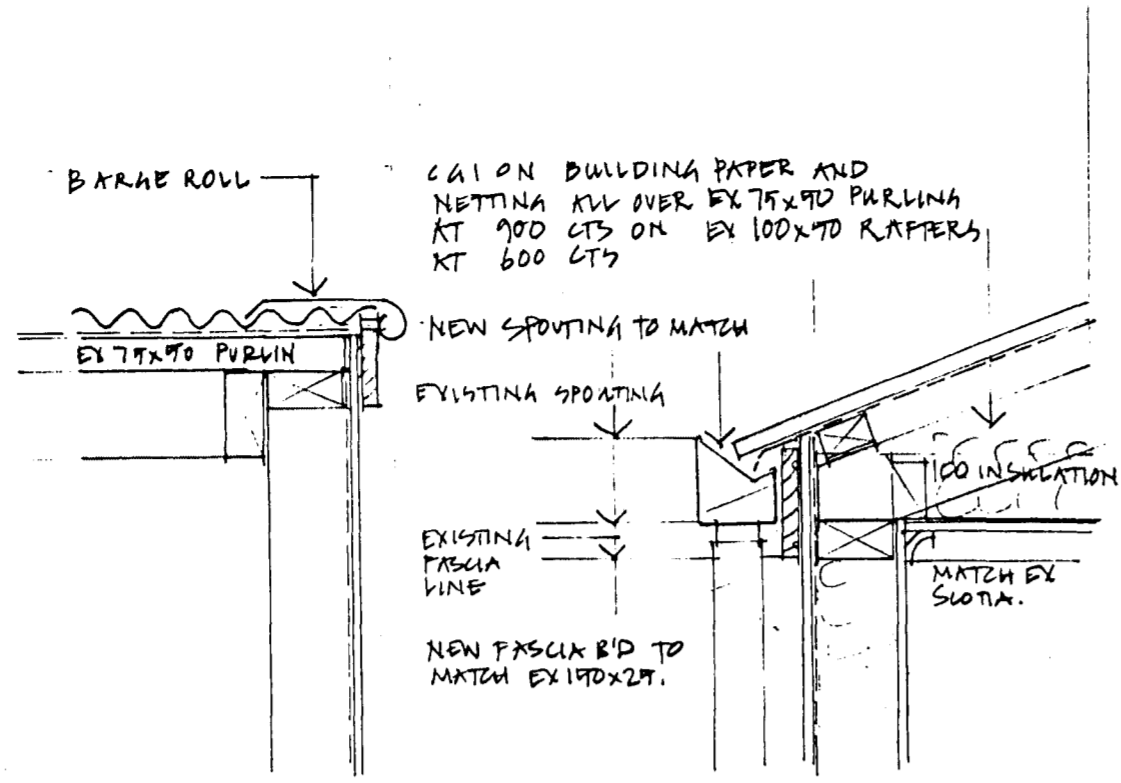
SECTION EAST AT BED ROOM 1:50



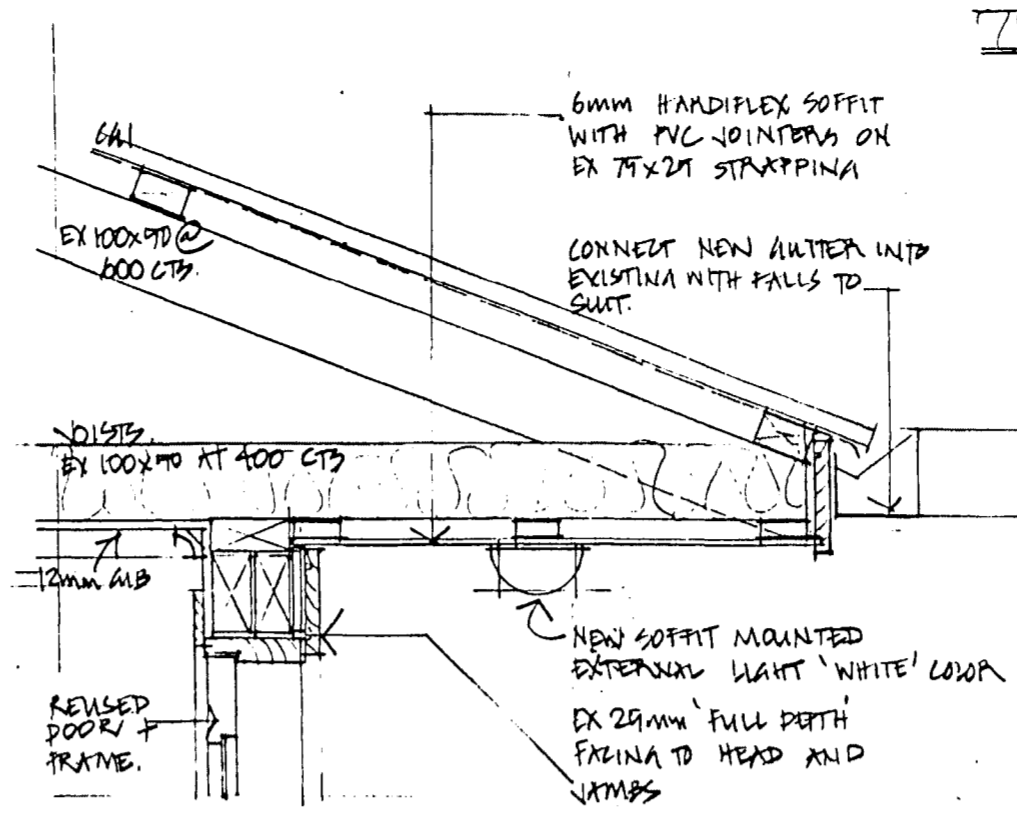
SECTION EAST AT BATHROOM 1:50



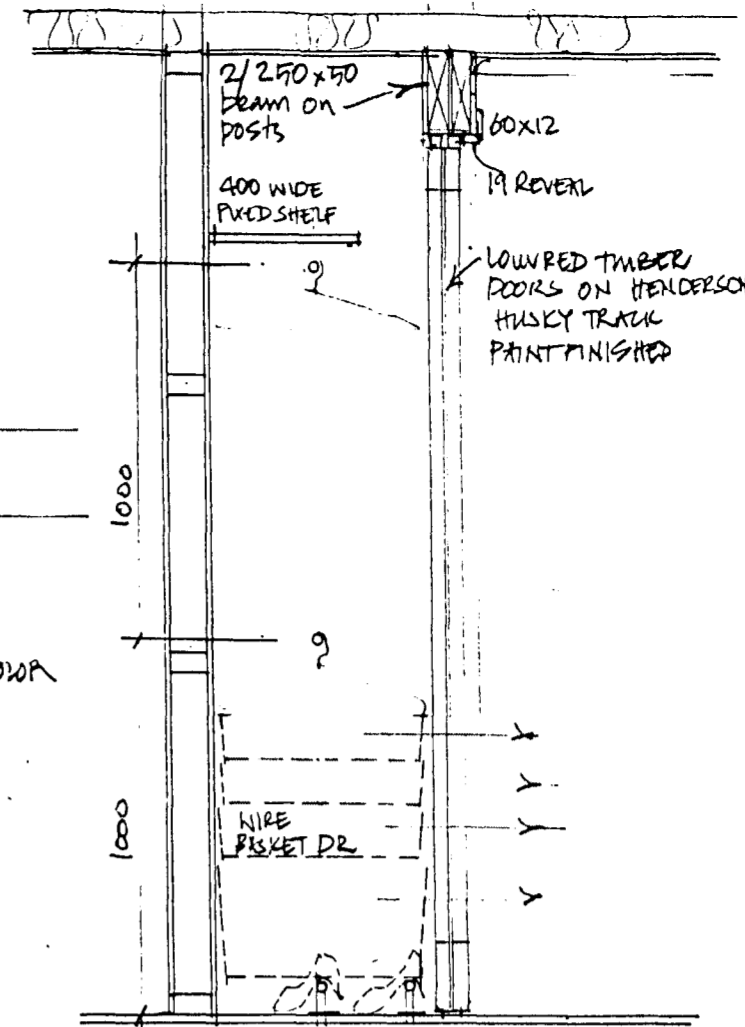
SECTION EAST AT OLD ENTRY DOOR / PORCH 1:50



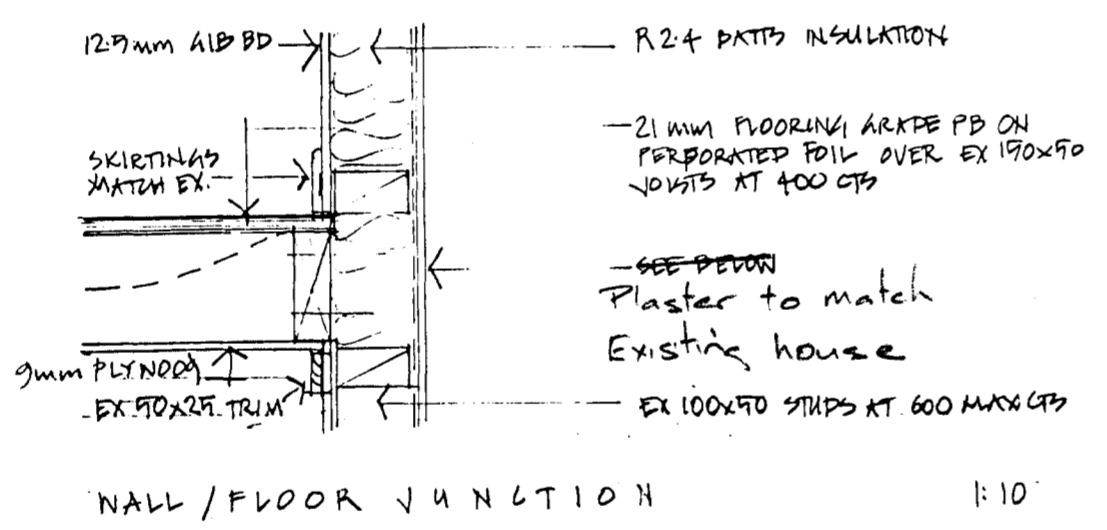
NEW BARGE V JUNCTION 1:10



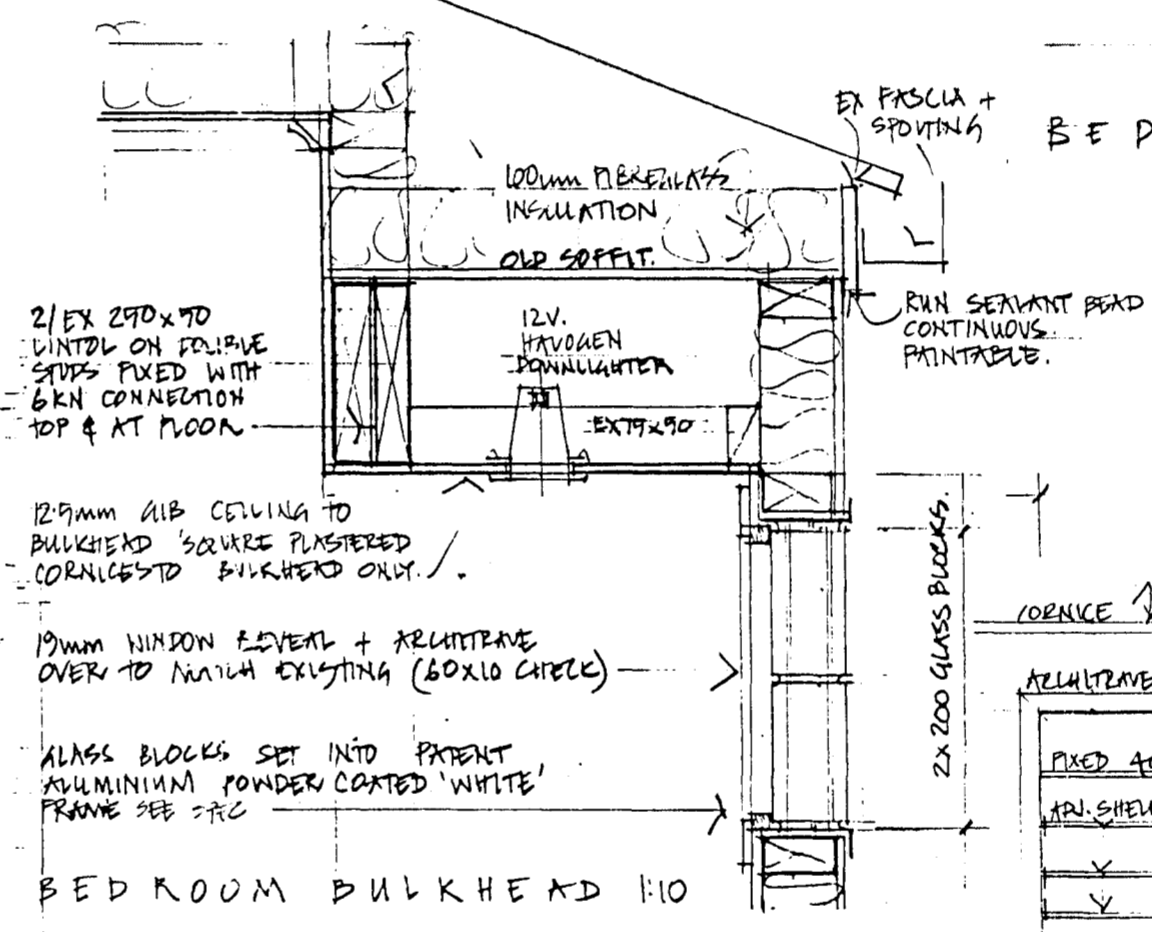
LAUNDRY SOFFIT / HEAD 1:10



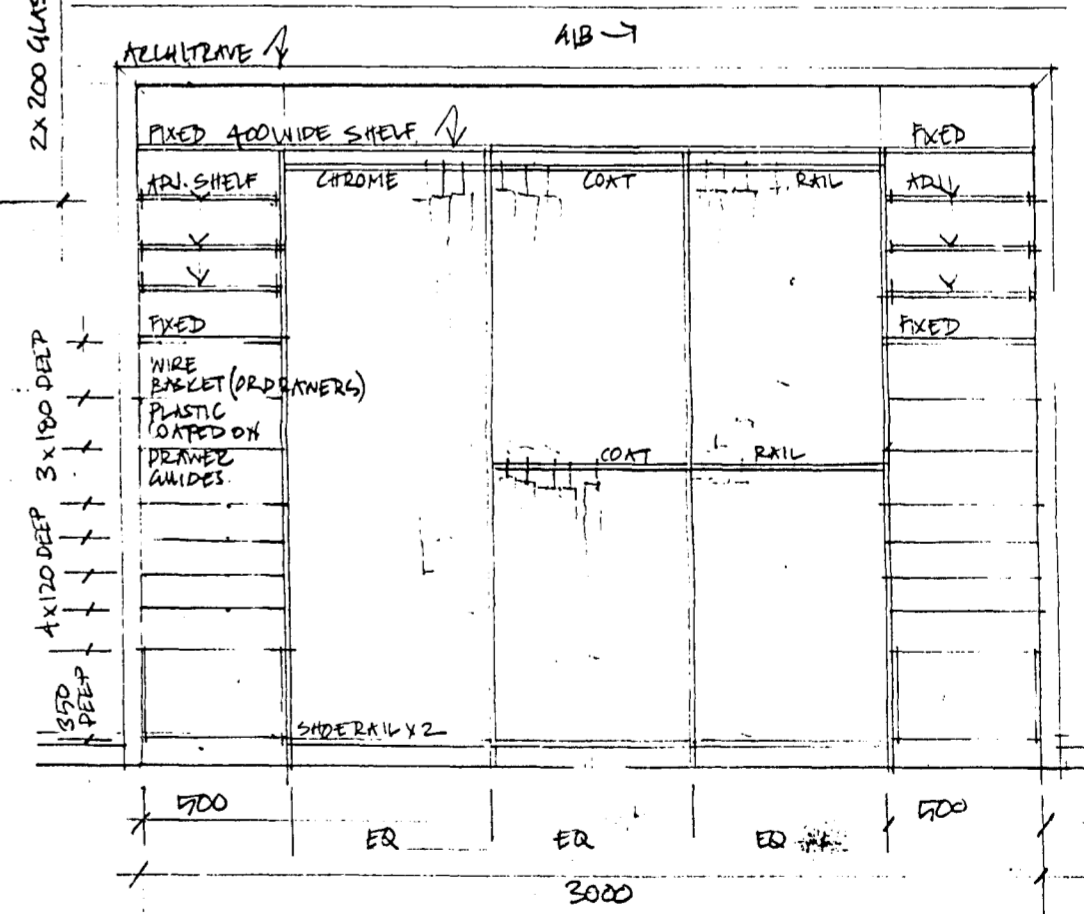
BED ROOM WARDROBE SECT 10.N 1:20



WALL / FLOOR JUNCTION 1:10

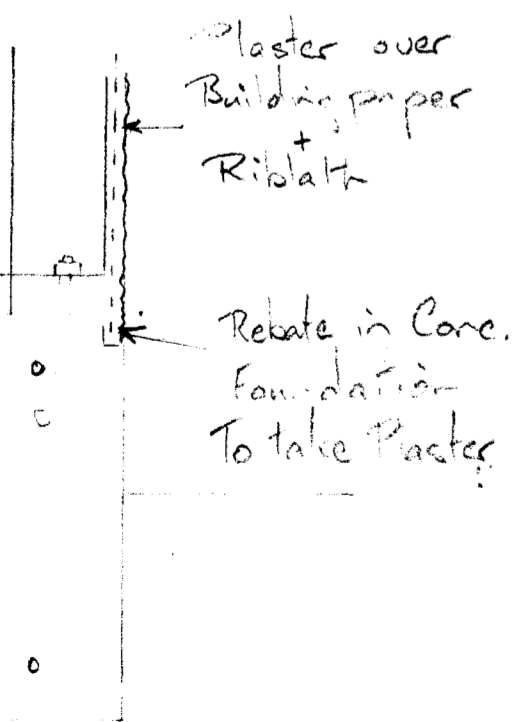


BED ROOM BULKHEAD 1:10

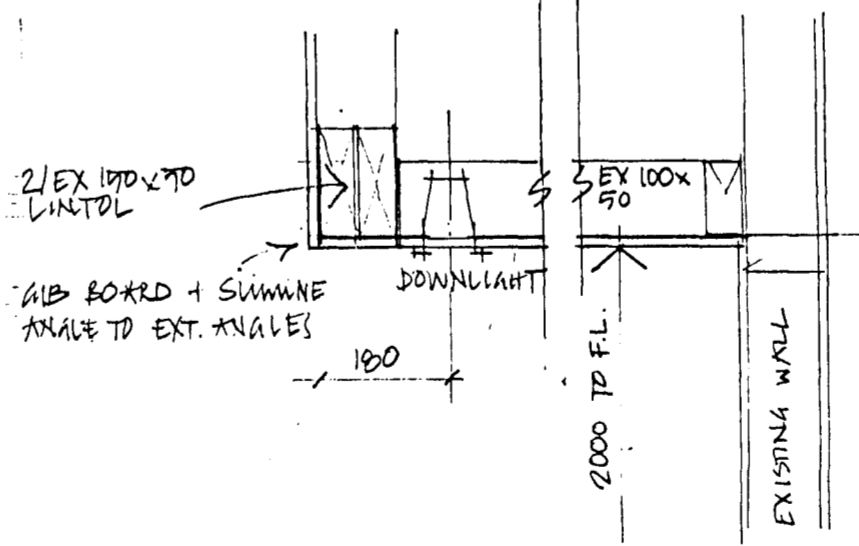


BED ROOM WARDROBE (DOORS NOT SHOWN)

NOTE THAT WARDROBE LAYOUT IS AN INDICATION ONLY. (SEE COLLEEN - ARCHITECT)



TYPICAL FOUNDATION 1:10



DESK BULKHEAD 1:10

VALUATION ROLL No.

LEGAL DESCRIPTION

8730

1318/261/1

LOT 1 D.P. 19143

94

40A GREAT NORTH ROAD

DRAINAGE & PLUMBING PERMITS

BUILDING PERMITS

Existing Use

Dwelling

Permit No.

Date

Permit No.

Date

Nature of Work

Designation

22738 30.11.60

DWELLING

A027408 19.11.62

CARPORT

Zoning

Residential A.

C000305 5.6.70

ADD. DWG

Undersize Section

F38446 21.11.73

SWIM POOL

Building Line Restriction

BP 1899 26-2-92

Exec. carport + Shop

Proposed Street

5344 10-5-93

Add to DW1

Proposed Service Lane

Proposed Access Way

Dangerous
Goods Licence

Fill Points

Housing File No.

Underground Tank

Type

Capacity
gals

Water Connection

Reg. No.

Amt. Paid.

£6-10-0

Conditional Use

File:

Water Meter

Water Bore

Drainage Connection

Reg. No.

Amt. Pd.

£25-0-0

Specified Departure

File:

Pool

Filtered

Unfiltered

Back Flow
PreventerStormwater
Connection

Reg. No.

Amt. Pd.

Dispensations

Reference

Date

Heating

Gas

Oil-fired

Coal-
Wood

Electric

Other

Kerb Crossing

Reg. No.

Amt. Pd.

31013

£6-10-0

S. 1518/~~not~~ insufficient detail.

Processed 24/2/92

Subdivision Conditions	Yes		Easements	See above	
	No			None	

SCALE: