



SPECIFICATION

FOR

PAUKERI HOUSE SECTION 42 KAWIRAU
FOR THE
TASMAN PULP & PAPER CO. LTD.

MEMORANDA

TENDERS CLOSE _____
AMOUNT OF DEPOSIT WITH TENDER _____
DATE FOR COMPLETION _____
DAMAGES FOR NON-COMPLETION _____
PERIOD OF MAINTENANCE 30 DAYS _____
CONTRACT No. _____
DATE _____

PASCOE, HALL & MACKENZIE
ARCHITECTS
CHRISTCHURCH

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

Of Work required to be done and Materials to be
supplied in the erection of the

PAUKERT House, Section No. 42 Edgecumbe Sub-Division
Plan H.D.A. 31560

KAWERAU

for

THE TASMAN PULP AND PAPER CO. LTD.

In accordance with the drawings herewith, and with any
further details which may be given from time to time for
the purpose of more fully explaining those already shown.

PRELIMINARIES

CONDITIONS OF CONTRACT: The Conditions of Contract of the New
Zealand Institute of Architects are to be read in conjunction
with and form part of this Specification.

INSPECTION OF SITE: The Contractor is to inspect the site
and make sure for himself the general location, conditions
etc.

FEES AND BY-LAWS: The Contractor shall obtain and pay
for all necessary permits from any local or other authorities
concerned, and shall arrange for such inspections as are
required. All work shall be in accordance with the
necessary By-Laws.

GROUND LEVELS: When making up his tender the Contractor
shall allow for foundation heights, excavations and steps
from a point 12" below ground level shown on the $\frac{1}{8}$ " scale
and detail drawings, and any variations shall be subject to
later cost adjustment.

CONTRACT DRAWING: Sheet No. 565/2 which accompanies this
specification and hereafter referred to as the "Contract
Drawing" also Sheet No. 542/2 the Site plan, and Sheet No.
542/1 Standard Detail Sheet.

SCAFFOLDING: All necessary scaffolding, boardings,
temporary lavatory accommodation, tool store, etc. shall

be provided for by the Contractor; these to be removed by him on completion of the Contract.

CARRIAGE:

The Contractor shall provide carriage to the site and the fixing of fittings included in this specification.

CLEARANCE OF DEBRIS:

All building debris must be cleared off the site by the Contractor. All services must be left in working order, all rubbish cleared from under the floor of the house.

Spoil from excavations as later specified.

DAMAGE:

Failure to exercise adequate precautions to protect property, or supply suitable crossings, and to ensure that they are properly used at all times, will render the Contractor liable for the payment of all costs and charges involved in the making good of all damage caused. All such costs will be deducted from monies due under the Contract.

FINISHED WORK:

In this Specification, and also on the drawings, although it may be not expressly mentioned or shown, each and every item, class, detail or particular of work indicated, described or implied, unless otherwise set forth, the providing and finishing of the same complete in every detail, and including all appurtenances, in order to leave the work in good order and complete. Any work which is not to the satisfaction of the Clerk of Works shall be removed and made good.

SETTING OUT WORK:

The Contractor will be held responsible for the setting out of all work, and he shall be required to make good at his own expense any errors which occur. Figured dimensions are to be taken in preference to scale. Any discrepancy within the drawings or specification, or between the drawings and specification shall be referred to the Clerk of Works (under the Architects' direction) and his ruling shall be final.

MAINTENANCE:

The period of Maintenance shall be ninety days after the completion of the last house of this first Contract.

TIME OF CONTRACT:

When submitting his tender, the Contractor must (a) State his starting date (within a week's margin)

(b) State his time of completion for the seven houses in this Contract.

EXTRAS:

Any variations to the Contract requested by the occupier, shall be agreed to in writing by the Company prior to such work proceeding.

NOT IN THIS CONTRACT:

The following items are NOT included in this Contract : paths, fences, clothes-lines or garden shed.

PRICE FLUCTUATION:

If, during the currency of the Contract, Contract costs are increased or reduced as a result of fluctuations in prices due to the provisions of Legislative Enactments, Court of Arbitration Awards, Governmental Regulations, or Price Tribunal Rulings, the increases or decreases to the contract price shall be adjusted accordingly.

EXCAVATOR

CLEAR SITE:

On that part of the site to be built upon, clear all vegetation, stones etc. In those portions only of the site which are to be excavated, remove the topsoil for a depth of 9" and deposit in a heap where it will not be buried under the subsoil.

SETTING OUT:

The Contractor is to set out the work on the site as indicated on the site plan, but before proceeding with the work it must be checked for position and levels by the Architects (or the Clerk of Works representing them).

FLOOR LEVEL:

The level of the tops of ground floor joists is to be determined (on these generally level sites) by the general rule that the minimum height above ground to the underside of sleeper plate shall be 12".

GENERAL EXCAVATIONS:

Excavate for all site levelling, foundations, posts, blocks, walls, pipes etc. In the various depths, levels and grades required for the erection of the building and its appurtenances, all subsoil from the foundations is to be deposited as directed by the Clerk of Works. The Clerk of Works is to be given the opportunity of inspecting the footing trenches before any concrete is poured.

FILLING-IN:

Fill in and thoroughly consolidate around all piles, footing and foundation walls, immediately after stripping the boxing.

CONCRETOR

GENERAL:

No concrete shall be poured until the excavations have been inspected and approved by the Clerk of Works.

MATERIALS: Metal

Metal shall be shingle or other approved hard metal free from earthy matter and of size to pass a 1" mesh.

Sand.

Sand shall be sharp and gritty and free from salt and other foreign matter.

Cement.

Cement shall be portland to conform to N.Z. standard specification No. 43, and shall be stored upon the site in an approved manner adequately protected from dampness.

BOXING:

To be formed of 1" boarding securely braced and strutted. By means of a wood fillet, form splay, neatly mitred around all vent openings to these main footing walls. The boxing is to be thoroughly wetted before placing of concrete and is to be left intact until concrete is thoroughly set. All boxing and timbers to be removed later.

CONCRETE FOUNDATIONS - HOUSE & GARAGE: Concrete to be formed of five parts of shingle, three parts of clean wash sand, and one part of Portland Cement.

MIX:

No more water is to be used than is necessary to produce a stiff mix capable of being properly placed in the formwork.

CHIMNEY FOOTINGS ETC:

Put in entrance porches, dwarf walls for terraces, heater and chimney blocks, low wall for flower-box, steps etc. in solid with the main concrete as the work proceeds, and spread chimney footings 12" beyond stacks all way.

PILES:

Piles to be depths and sizes as shown on sections, and placed as shown. Allow for 12" x 12" x 4" rough concrete pads under piles.

PROTECTION:

After concrete is placed it shall be protected from damage and frost, and shall be kept damp for three days by frequent hosing or other approved means.

REINFORCING:

All outside concrete foundation walls to be reinforced with two $\frac{1}{2}$ " rods, placed with at least 2" cover inside concrete.

Bend round corners, lap 40 diameters and hook at junctions.

All laps and intersections to be bound with No. 16 gauge black iron wire terrace slab with light wire mesh.

LINTELS:

Form concrete lintel to chimney arch reinforced with two $\frac{1}{2}$ " rods as detailed.

D.P.C.:

On top of all concrete foundations and piles, lay a damp-proof course of 3-ply malthoid immediately under wall and sleeper plates and posts, and the full width of bearing; also D.P.C. to Lounge and Dining sills.

RUBBLE:

No rubble filling whatsoever will be permitted in any of the concrete work except in porch blocks, terraces and steps.

CASING TO OPEN SUMPS:

Form concrete casings to gully traps of drains as required.

CHASES:

Contractor to form all openings and chases necessary for vents, conduits, wastes etc. Blocks to be left in boxing for these so that foundations are not damaged later.

VENTS:

Build into concrete foundations where shown 9" x 6" precast concrete air vents. For ventilation under the Terrace allow for 6" diameter field tiles laid under the slab up to the pre-cast vents in the terrace wall.

GARAGE FLOOR:

Garage floor to be floated off (with fall to Entrance) after pouring.

BOLTS ETC:

Build in No. 8 wire in 24" lengths to piles to take sleeper plates; to be cast into piles. Build in $\frac{1}{2}$ " bolts 12" long at 5' centres where timber wall rests

on concrete footing. Build in No. 8 wire to chimney work to tie to studs either side where necessary. Build 3" metal dowels, 6" long into Terrace slab for fixing for feet of posts. Build 3" bolts into Terrace slab to secure metal strap fixing to balustrade posts.

BRICKLAYER

BRICKS:

All bricks shall be of approved manufacture and conform to N.Z.S.S. No. 366. Samples to be provided by Contractor for selection of colour by Architects. All exposed brickwork shall be Grade 'A' selected 1st class red commons.

MORTAR:

Mortar shall be 1 of cement lime mixture, 3 sand, in which the lime shall not exceed 10% of the cement.

FIREPLACE:

Form sides, back, hobs and bed etc. in fire bricks laid in fireclay cement, and back up with weak mortar filling. Fireplace to have hobs and 18" L grate. Allow the sum of £30 for a stone surround as detailed. Hearth (and hearth to siesta space-heater) to be 4" x 4" red unglazed tiles.

Timber mantel surround and hearth kerb as hereinafter specified in "Joiner".

Provide ash-pan and grate to fireplace.

Supply and fix H.S. angle to support stonework over fireplace opening.

SIESTA HEATER:

Form 4½" brick back, in 1st grade selected red bricks, behind Siesta heater in Dining, as detailed.

PRECAST CONCRETE CHIMNEY:

Precast pumice concrete chimney shall be of approved manufacture and to sizes detailed. Construct with precast units with ¾" minimum rebated joints. Reinforce shaft from gathering to top of flue with four ½" diameter rods.

The fireplace opening is to be of size shown and fitted with approved firebrick lining.

CARPENTER

WORKMANSHIP:

The whole of the work shown on the drawings and described in the specification shall be done in the best and most approved trade manner.

All joinery is to be constructed according to the best methods of joinery woodwork. No joinery is to be fixed until inspected by the Clerk of Works, and any not in full accordance with the details and specification shall be replaced at the expense of the Contractor.

All nails in exposed work to be punched.

QUALITY AND KIND OF TIMBERS: Grade all timbers according to N.Z.S.S. 160 and amendments. Timber is to be straight and in long lengths.

(a) Indigenous Timber: All external timbers shall be D.A. Ht. Rimu, D.A. Ht. Matai or D.A. Ht. Totara. All ground floor framing timbers including bottom plates to external walls and bearing partitions shall be B.A. Ht. Rimu or B.A. Ht. Matai.

All framing above ground floor level to be B.A. Rimu
All internal finishing timbers shall be D.A. Rimu
Plywood shall be Rimu complying with N.Z.S.S. E.160.

(b) Radiata Pine: Alternatively, No. 1 Dimension Radiata pine may be used in place of B.A. Rimu. The Radiata pine must be either kiln dried or sap-stain dipped and air dried.

(c) Douglas Fir: Alternatively, N.Z. grown Douglas Fir equivalent in grading to D.A. Rimu may be substituted for B.A. Rimu.

SIZES OF TIMBERS: (House and Garage)

Sleepers and Wall Plates	:	4" x 3" Rimu 100% Bldg-Heart
Bottom Plates	:	4" x 2" " " "
Top Plates	:	4" x 2" B.A. Rimu
Studding throughout	:	4" x 2" " "
Opening studs	:	4" x 3" " "
Ground Floor Joists	:	4" x 2" B.A. Ht. Rimu
Trimming Joists	:	3" thick B.A. Rimu
Dwangs	:	4" x 2" B.A. Rimu
Braces : External Walls	:	6" x 1" B.A. Rimu (cut in flush with studs)
Braces : Internal Walls	:	4" x 1" B.A. Rimu
Posts on Terrace	:	4" x 4" Rimu D.A. Heart dressed

ROOF:

Rafters (joists)	:	5" x 2" B.A. Rimu at 20" ers.
Ridge	:	8" x 1" " "
Fascia to eaves	:	8" x 1" B.A. Ht. Rimu
Soffits to eaves, porches etc.	:	3/16" hardboard
Braces	:	3" x 2" B.A. Rimu
Corner Braces	:	6" x 1" B.A. Rimu (cut in flush across corners at 45°)
Beam over Terrace	:	6" x 3" dressed B.A. Ht. Rimu
Garage roof joists (packed to falls)	:	6" x 2" B.A. Rimu at 20" ers.
Open rafters over Terrace	:	5" x 2" B.A. Rimu (dressed)

NOTE: Roof to be covered with building paper.

HOUSE:

Flooring boards	:	4" x 3" (full) D.A. Ht. Rimu T. & G.
Vertical Boards (also)	:	8" x 1" D.A. Ht. Rimu (dressed)
Battens (garage)	:	2" x 1" " " " (")
External Plywood	:	1st Grade selected resin-bonded Ht. Rimu.

BEAM SCHEDULE

Openings up to 3'1" wide	-	4" x 2" - B.A. Rimu
Openings over 3'1" up to 4'6" wide	-	4" x 3" - " "
" over 4'6" " "	-	2/5"x 2" - " "
" over 6'3" " "	-	2/6"x 2" - " "
" over 8'10" " "	-	2/8"x 2" - " "
" over 11'0" wide	-	2/8"x 2" - " "

BUILDERS' IRONMONGERY:

Provide all nails, brads, screws, metal clips, bolts and other sundry ironmongery. All screws used externally or where exposed to the weather to be either galvanised or of solid brass. See "Hardware" for locksets, window furniture, etc.

FRAMING:

Bed all plates and sleepers where resting in concrete on a damp-proof course as previously specified. No studs to be at more than 18" centres. All studs to be housed into plates 1/2". Stiffen with 6" x 1"

diagonal bracing cut into studs, where possible in all framing. Braces shall be cut in flush with faces of studs at an angle of approximately 45° , each bay having not less than one brace. To all external corners of the house allow for 4" x 1" continuous bracing to go diagonally underneath roof joists cut in, and on bottom of floor joists. Braces approximately 6 ft. long. Allow for 4" x 2" dwangs, three (3) rows in walls and between ceiling rafters at 2'6" centres.

CEILING RUNNERS:

When ceiling joists span over 7'0" and up to 12' put in runner. When ceiling joists span over 12'0" put in one runner for every 6'0" of span evenly spaced.

Runner Sizes:

4" x 2" up to 8' span
5" x 2" up to 12' span
6" x 2" thereafter

SPLASH BACKS:

Fix around three sides of Bath and behind Basin, 18" high, enamelled hardboard splash-backs of "Emmalux" or similar material. Finish neatly with beads.

Allow for double joists under all cross partitions as bearing for roof load.

Where possible all floor joists are to be laid in one length. If the run is broken, joists are to be placed together, lapped 12" in passing and well spiked. Gauge floor joists over stringers and sleeper plates to a uniform level. No packing will be allowed. All floor joists to be at 18" centres. Block up bottom shelves of all cupboards.

Form stud partitions, and return for wardrobes and cupboards where shown on plans. Block up bottom shelves for toe-room for all cupboards and bath-framing. Provide $\frac{1}{2}$ " bolts etc. through bottom plates set as previously specified in "Carpenter".

Allow for chasing studs in Bathroom, Shower and Laundry to take necessary pipes inside wall where necessary. Allow for forming recesses for soap-dish over Bath, west wall; shower, east wall; Trim for hearths and all openings.

All trimmers to be housed at least $\frac{1}{4}$ " into studs, and those exceeding 9 ft. in lengths shall have extra seating at each end by 4" x 1" members planted and well spiked to general framing where possible.

Trim for manhole in floor of Bedroom passage. Allow for necessary trap-door, margin etc.

Beams over windows and easement door openings and other openings to average 1" in depth for every 12" of span.

NOTE: Over all usual door openings put 4" x 3" wood lintels.

Provide framing under Bath to take front hereafter specified. Block for toe-room under Bath.

Cut for, attend on and make good after all trades. Cutting or checking for pipes etc. to be reduced to a minimum. Where possible framing is to be bored for such pipes.

Provide double joists under all bearing partitions. All plates shall be halved together at joints and angles. Form recesses in studs for Medicine Cabinet (north wall) and Toilet Cabinet (west wall) in Bathroom. Size of cabinets 3'0" x 1'0". Provide framing above H.W. cylinder and flooring to take 15 gallon water supply tank. Frame up stand and front for tub in Laundry.

ROOF: Frame roof as shown on contract drawing.

Strut off partitions with 4" x 2"s and runners.

Timber sizes as previously specified. Fix 4" x 2" nailing dwangs, intermediately, to provide fixing for ends of roofing sheets. The roof is to be covered with wire netting, building paper and then with 24 gauge galvanised corrugated iron sheet.

Flashings to roof as hereafter specified in "Plumber".

(NOTE: Gutters and downpipes to be in galvanised iron)

GARAGE ROOF: To be covered in 3 layers of asbestos-saturated malthoid laid in hot Trinidad bitumen. The last layer to mineralized capped sheet. Malthoid to be turned up over top of fascia under 3" x 2" rebated capping, and down into copper spouting.

ROOF VENTS: Allow for continuous $\frac{1}{2}$ " air-space behind eaves fascia as shown on $\frac{1}{2}$ " detail.

VERTICAL BOARDS: External walls to House and Garage are to be sheathed with D.A. Ht. Rimu 8" x 1" board and 2" x 1" battens. All boards to receive one coat of best quality linseed oil both sides, before fixing.

Behind vertical boards fix H.Z. Building paper on all external walls concerned. Paper to be fixed horizontally and lapped not less than 2" at all joints.

OTHER PRIMING: See note concerning 'Contractor' in "Joiner". Contractor is to get painter to prime or oil joinery early, to save it from weather.

EAVES: Main eaves to project from stud line as shown. Fix 6" x 1" Ht. Rimu fascia with 3/16" hardboard lining

soffitts under. See drawing for $\frac{1}{2}$ " scale detail of eaves.

LINING: Provide similar hardboard ceiling to Laundry and Porch (Note: Ceiling to Garage to be un-lined)

EXTERNAL PLYWOOD: Plywood on external walls to be $\frac{3}{10}$ " resin-bonded Ht. Rimu or Ht. Matai and to have one coat of linseed oil before fixing.

FLOORING: The whole of the wooden flooring throughout to be 4" x $\frac{7}{8}$ " T. & G. perfectly dry D.H. Rimu, tightly cramped up and double nailed. Form mitred boarders to hearths. Punch all nails well below the surface and place the whole on an even surface. Floor under cupboards, bath and fittings throughout. Other cupboard flooring as specified in "Joiner".

Allow for machine-sanding of all floors, using fine sandpaper to finish sanding.

Before flooring is laid, all shavings and debris of trades to be removed from under floor joists. As soon as floors are laid they are to be protected from damage by weather and damage by other trades.

HARDBOARD SHEETS: Provide and fix this for the lining of shower, Bath-front, Laundry and Porch. Bath-front to have toe-room and small 10" x 10" access door for cleaning rags.

LAUNDRY SHELVES: Provide and fix 10" x 1" dressed shelving in Laundry, two rows 5' long on west wall.

COAT SPACE: Provide and fix 10" x 1" shelf and 6" x 1" rail, in coat space by Entry and fix coat hooks and pegs.

GLAZED SCREEN EAST END OF TERRACE: Frame up for glass screen by Terrace as detailed on $\frac{1}{8}$ " section A-A and $\frac{1}{8}$ " F.S. detail. Framing to be of dressed 4" x 2" D.A. Ht. rimu and fixed sheets beaded into frame. 3" x 2" M.S. angle to be checked into frame and bolted to concrete upstand. Plate to be on Malthoid D.P.C. Bottom panel of screen to be $\frac{1}{4}$ " asbestos-cement sheet (flat) beaded in.

GLAZED SCREEN IN LOUNGE: As detailed in $\frac{1}{8}$ " detail.

COAT CUPBOARD: As detail in $\frac{1}{2}$ " detail.

BROOM CUPBOARD: Allow for building broom cupboard in passage with rail for brooms etc. where shown.

INTERNAL PLYWOOD: On all walls of Dining and Entry provide and fix $\frac{3}{10}$ " 1st quality selected Rimu plywood, Joints to be vee-butt. This plywood is to receive one coat of clear spirit as soon as fixed to walls.

MANHOLES: Trim for and provide 18" square manholes with margin lifting ring, door etc. to floor in W.C. passage and ceiling in W.C. passage .

TERRACE BALUSTRADE: Provide and fix timber balustrade to Terrace as follows - posts ex 3" x 2", balusters $1\frac{1}{2}$ " diam. dowels, top and bottom rails ex 3" x 2" - all dressed heart Rimu. Posts to be secured by $\frac{1}{4}$ " M.S. angle straps bolted to Terrace slab. Fix malthoid pads under feet of posts.

FUEL BINS: Provide and fix fuel bins in car-port as shown on $\frac{1}{2}$ " detail.

METAL WORK

SHOWER RAIL: ~~Allow for supplying and fixing chromium rod across shower front as curtain rod.~~

GIBRALTAR BOARDS: Line all walls with Gibraltar Board - except where specified otherwise. (Plasterer to stop all joints etc.) Standard thickness of $\frac{1}{2}$ " of approved manufacture. Sheets shall be securely fixed with galvanised large headed nails not less than 1" in length, spaced at not more than 5" at edges and not more than 18" at intermediate points.

JOINERY

All finishing throughout to be fixed with proper finishing nails carefully punched in and such parts as doors, architraves, skirtings etc. and all exposed work to be carefully dressed. All arrisses to be well rounded. Where Rimu is specified internally, it must be Dressing A quality.

PRIMING: All joinery is to be well protected from the sun in transport from factory to job, where it must be well stacked, primed and oiled.

GLAZED DOORS: The following doors are to be glazed as hereafter specified:-

Sunroom to Terrace	: one 6'6" x 2'6"	2 panes
Bedroom 1 to Terrace	: one 6'6" x 2'6"	2 panes
Dining to passage	: one 6'6" x 2'6"	3 panes
		(obscure)
Bedroom 3 to passage	: one 6'6" x 2'6"	3 panes
		(obscure)
Shower door	: one 6'0" x 2'2"	1 pane
		(obscure)
Sliding door to Lounge	: one 6'6" x 4'0"	4 panes

Exterior glass doors to be of Mt. Redwood and to have -

2" rebated frames D.A. Mt. Rimu
Top rails out of 4" x 2"
Stiles out of 4" x 2"
Bottom rails out of 6" x 2"
Glazing bars out of 1½"

Glazing as hereafter specified in "Glazier". Glazing to be fixed in a ½" rebate and securely held by ¼" wood fillets. The external french doors to have 8" x 2" Matai or Totara cills. French doors to have either a drain-sanded or equivalent finish. The number of panes to be as shown by elevations and sections or as previously specified.

INTERNAL DOORS: To be as N.Z.S.S. 1153. These shall be a uniform height of 6'6" and width of 2'6" and to be flush. All doors are to be made by an approved manufacturer, and the best quality only will be allowed. They may be solid core or hollow core.

EXTERNAL DOOR FRAMES: Sills shall be of D.A. Mt. Rimu or Matai, and stiles and heads shall be of D.A. Mt. Rimu, Totara or

Matai. Insert full-width, full-depth packings under sills to prevent entry of vermin.

Where entrance doors are shown with side lights, construct the whole frame as a single unit with double rebated, throated and grooved mullions out of 5" x 3".

INTERNAL DOOR FRAMES: To be D.A. Rimu out of 1½" thick solid rebated material.

DOORS GENERALLY: External entrance doors shall be of D.A.H. grade Rimu, Matai or Totara. All interior doors shall be D.A. Rimu or dressing grade Radiata pine hollow core, faced both sides with No. 1 grade Rimu, Matai or Kahikatea plywood. Flush doors to have a ½" clashing strip on lock stile.

LAUNDRY: To be framed, sheathed on the exterior in ½" T. & G. D.A. Ht. Rimu and lined on the interior with N.Z. hardboard. Allow for 2' x 2' glazed panel.

WARDROBES & TALL CUPBOARD DOORS: To be 6'0" high by 2'0" wide, flush.

WINDOWS: Construct all windows strictly in accordance with elevations and details on Sheet 542/1. Check stiles and mullions into sills.

Window frames will be constructed out of 2" x full depth timber.

Sills shall be D.A. Ht. Matai or Totara. Stiles, mullions and heads shall be of D.A. Ht. Rimu, Matai or Totara.

WINDOW SASHES: All to be as detailed. Construct all opening sashes of redwood. Sashes to be of sizes detailed. See Sheet 542/1.

ADJUSTABLE LOUVRES: Where shown provide and fix NACO type adjustable louvres as detailed in Kitchen and Shower, and Laundry (not shown on elevation).

W.C.: The frame to the W.C. to have regulation hopper with fixed sash below.

CURTAIN BOXES:

Form these to the heads of all windows in house, except Bath, W.C., Shower, and Laundry.

Sizes as detailed. Where possible all curtain boxes to run 9" beyond architraves to allow for gather of curtains.

Bottom edge of box fascia to be rounded on outer arrise.

ARCHITRAVES & SKIRTINGS:

Architraves to be 2" x 1" stock bull-nose, mitred at angles. Skirtings to be 3" x 1" stock bullnose. Scribe skirtings to floor and mitre angles.

CUPBOARDS:

All cupboards shall be carried out in accordance with details shown on the drawings. Main cupboard doors as previously specified. All smaller cupboard doors throughout shall be formed as follows:-

Cross rails 2" x 1" at 10" intervals

Top rails and stiles 2" x 1"

Bottom rails 2" x 1"

Outside Facings: 3/16" 1st grade N.Z. hardboard.

Widths as shown on plan. All cupboards throughout shall be floored underneath as previously specified, and where bottom shelf is raised it is to be blocked up off floor with $\frac{3}{4}$ " quarter round bead inside against plaster. Toe-room to be continuous. See details.

Provide 1" return and divisions where required.

Frames are to be 3" x 2" rebated. All shelving throughout shall be well dressed, and when necessary glued up and the sharp arrises of outer edges taken off. To be well supported on side battens upright and across. Drawers shall have dovetailed fronts out of 1" and sides and backs out of $\frac{1}{2}$ ". Bottoms shall be 3/16" plywood grooved into sides and shall have hardwood strips glued hard against bottom and sides. Sub-divide one drawer into three compartments with divisions of $\frac{1}{4}$ " finished thickness.

Cupboards to be built as follows:

WARDROBES: Doors as previously specified. Provide one top shelf supported on 6" x 1" wall rails and holed for hanging rod. Height of shelf to be as directed on job. Hanging rod to be of $\frac{3}{4}$ " drain steel piping. Provide half-shelf near bottom for shoes. Allow for fixing some hooks as provided in Locks P.C. sum.

Bottom of wardrobe doors not to be too tight a fit to avoid "Air lock" difficulty in opening doors when in use. Allow for side shelves where detailed in some wardrobes.

MEDICINE CUPBOARD: On North wall of Bathroom, form one Medicine cupboard. Provide flush door and three 5" shelves. Cupboard to project $1\frac{1}{4}$ " beyond face of plaster and to be recessed between stud with bead against joint of wall and frame. Size 3'0" high x 1'0" wide.

TOILET CABINET: On West wall of Bathroom (recessed) form Toilet Cabinet to same detail as Medicine cupboard. Fix plate glass mirror and $\frac{3}{16}$ " plywood back secured with beads. Mirror size approximately 30" x 10".

KITCHEN: The sink bench shall be 20" x $1\frac{1}{4}$ " D.A.H. Rimu. Allow for rails, supports, skirting and necessary fixing for bench. Top to be 6 ft. stainless steel sink unit as specified in "Plumber". Grade falls to sink. Other bench tops in kitchen will be covered with 'A' quality rublino, turned up against wall as detailed.

South Wall: Form cupboards, sink-bench, safe, shelves and drawers as detailed, three larger drawers to have removable tin-linings. Safe to have slatted shelves, timber louvres with fly-proof netting.

East Wall: Form stove-space, cupboards and tray-recess as shown.

North Wall: Form cupboard and drawers as shown.

FIREPLACE JOINERY: Provide 8" x 2" D.A.H. Rimu surround frame (mitred and bevelled) to Lounge fireplace, securely fixed to chimney breast and to project beyond surround as detailed. To return down to the floor at sides. Provide jarrah kerb ex 2" x 2", rebated as detailed, over hearth. Provide and fix cupboards and shelving, all as detailed.

DINING: On South wall form 2-way cupboards and glass slide etc., as detailed.

LINEN CUPBOARD: To be formed by W.C. as shown on plan with slatted shelves at 15" centres.

SWITCHBOARD: Allow for 1" linings to switchboard in passage.

BATH FRONT: To have small door 10" x 10", for access for storage of cleaning rags.

SHELVES: Allow for in small cupboards and wardrobes etc. as detailed on drawings.

RUBLINO: Kitchen benches (other than 6ft. stainless steel sink unit) are to be covered in rublino (see "Miscellaneous").

P.C. SIMS/

MISCELLANEOUS AND P.C. SIMS

The prime cost sums refer to current prices

(retail) inclusive of Builder's discounts. The cartage and labour necessary for fixing shall be provided by the contractor.

All articles under this classification shall be selected by the Architects (or their representative).

LOCKS AND FASTENERS: Allow the p.c. sum of £25 for the purchase of all door and window locks and furniture; cupboard fasteners, wardrobe hooks, drawer pulls, towel-rails, soap-holders etc., to be selected by the Architects (or their representative) and to be fixed by the Contractor in a workmanlike manner. All hinges throughout to be provided by the Contractor, and not included in this sum.

RUBLINO: Allow for supplying and fixing with waterproof cement on felt, "A" gauge rublino on Bench tops (except 6 ft. long sink unit) and wall upstands where shown in kitchen.

Also, for "C" gauge rublino on floors of kitchen, bath, drying-space of shower and W.C.

Architects to approve the laying firm.

"SIESTA" HEATER: Allow for and install a No. 2A "Siesta" Heater where shown in Dining. Allow for supplying and fixing the necessary 4½" internal diam. steel cased pumice flue.

RECESSO SOAP CONTAINERS ETC: Allow for supplying and bedding in 6" x 6" porcelain Recesso soap-holders above bath on East wall and shower, east wall.

SHOWER BASE: Allow for supplying and installing a 3'0" x 3'0" cream terrazzo shower-base.

ELECTRICIAN

GENERAL: The electrical work shall be carried out in accordance with the N.Z. Electrical Wiring regulations, the local Electrical Supply Authority's By-Laws and to the complete satisfaction of the Architects (or their representative).

SUPPLY: Unless otherwise required by the local Electrical Supply Authority the installation shall be wired single phase for connection to a standard 50 cycle alternating current 230/400 volt 3-phase multiple earthed neutral supply system.

WIRING METHODS: (a) For Service Mains: V.I.R. or P.V.C. insulated cables in conduit.
(b) For Circuit Wires: A S.C.M. or other approved steel conduit. All conduits shall be concealed.

SERVICE MAINS: Shall be of capacity to suit loading and installed in accordance with the supply authority's requirements. Service mains shall terminate in an approved mains entry box installed at the point of entry.

POINT OF ENTRY: Shall be determined by the Local Authority's Engineer in conjunction with the Clerk of Works.

SWITCHBOARD: The switchboard will be fixed on the South wall of the Passage near Bathroom with surround frame as specified in "Joiner".

EARTHING: Provide and install main earth connection.

SWITCHES: All switches and plug sockets shall be 10 amp. - to comply with N.Z.S.S. 931 for switches and N.Z.S.S. 198 for plug sockets. Lighting switches to be mounted 4'6" above floor level. Plug sockets to be mounted 12" above floor level, except in Laundry and Kitchen where they will be 4'6" above floor level. Provide two-way control switches in passage.

FLUSH PLATES: Provide smooth flush white plastic plates - same pattern throughout.

ELECTRICAL NOTATION: Electrical notation on plan shows the position of each pendant light, bracket light, plug point, radio outlet and switch.

ELECTRIC COOKER: Provide and install a "Shacklock 109" 3-plate electric cooker.

WATER HEATING: Provide "plumber" with element and thermostat of approved manufacture for fitting into hot water cylinder. Wire water-heating circuit from switchboard in accordance with the Supply Authority's requirements.

WIRELESS AERIAL: Provide 7/.029 V.I.R. or P.V.C. insulated stranded copper cable approximately 50 ft. total length installed in roof space. Connect aerial to radio outlet plate in Lounge and install 7/.029 earth lead under floor and couple with an earthing clip to nearest convenient water pipe.

Radio outlet plates to match switch plates and terminals to be marked "Aerial" and "Earth" respectively.

WASHING MACHINE & REFRIGERATOR: (Occupier will supply) Allow plug sockets for these in Laundry and Kitchen respectively.

LAMPS: Supply and fix lamps to all lights as under:

Lounge, Dining and Kitchen	100 watts
All other lamps	60 watts

DRAINLAYER

MATERIALS: Soil drain pipes and fittings: Soil drain pipes and fittings are to be generally 4" internal diameter, first class salt glazed earthenware with socketed joints.

Stormwater pipes and fittings: Stormwater pipes and fittings are to be 4" diameter second class salt glazed earthenware with socketed joints.

Field tiles: First class unglazed earthenware.

DRAINLAYING: Excavate for and lay soil and stormwater drains to a depth of not less than 18" below ground level at the highest point. Drainlayer is to tender for drains going to site boundaries only, in each case, as shown on site plan Sheet 542/2. Further work will be subject to later adjustments.

All pipes and fittings shall be properly bored in so that their invert level is of true and even gradient. All joints shall be fully set in 2 to 1 sand and cement mortar and flaunching out at approx. 45° around sockets. Drains which pass beneath the building are to be entirely embedded in concrete to a minimum of 4" all round. Provide grease traps in waster where required. All to be laid in accordance with the local By-Laws, the Health Department's requirements and to the satisfaction of the Inspectors concerned.

All fees to the local authorities to be paid by the Contractor who shall obtain all necessary permits.

PLUMBER

GENERAL: All work shall be carried out in accordance with the drawings and specification and to the complete satisfaction of the Local Body Authority, Inspector and Clerk of Works.

DOWNPIPES: Downpipes to be in 24 gauge galv. iron of 3" diameter. Walls strap to be in 24 gauge galv. iron.

GUTTERS: Gutters to be in 24 gauge galv. iron - 4" section, fixed to drain to outlets. Provide all necessary stop-ends, mitred returns and outlets. Support gutters on galv. iron brackets.

FLASHINGS: Cover projections, and box tops with 26 gauge steel flashing, and turn up under lintels. Flash jambs, sills and joints of all windows. Flash around all vents, pipes, cylinder exhaust that pass through roof, with 4 lbs. lead. Flash with 4 lbs. lead, to chimney, heater flue and shower-base. All to be neatly dressed and painted.

VENT PIPES & SOIL STACKS: The Contractor shall allow in his price for external terminal vent pipe to be in 4" cast iron. Soil stack is to be in $\frac{1}{2}$ " thick cast iron.

Back vents shall be 2" G.W.I. with lead bend from vent horn.

COLD WATER SERVICE: This will be laid on to the street boundary by the Tasman Pulp & Paper Company. Contractor will be responsible for laying the cold water supply from the section boundary, in $\frac{3}{4}$ " copper piping, to a point inside the foundation. Provide all necessary equipment. Plumber is to provide 15 gallon precast reinforced concrete tank and tray of approved manufacture, on stand in roof above H.W. cylinder in Kitchen. Provide overflow. All cold water shall be conveyed in $\frac{1}{2}$ " diameter copper tube. Run leads to supply-tank, Bath, Shower, W.C. Basin, Sink, tub, washing machine and Siesta heater-boiler. Take branches to two exterior hose taps. Branches to hose taps are to extend through wall, one at front and one at back of house, at a height of 2'0" above ground level.

HOT WATER SUPPLY: All piping conveying hot water, including vent-pipe from H.W. cylinder shall be in copper.

Hot Water Cylinder: Provide and install hot-water cylinder of 40 gallons capacity. To comply with H.2.S.S.720. Fix elements and thermostat provided by electrician. Connect to "Siesta".

PIPE RUNNING: From supply tank take $\frac{3}{4}$ " diameter copper cold feed pipe to base of H.W. cylinder from the lowest point of the cold feed pipe take a $\frac{1}{2}$ " copper drain pipe through outside wall.

Take $\frac{3}{4}$ " branch to bath and shower, and $\frac{1}{2}$ " branches to sink, basin, tub and washing machine.

LAGGING/ All pipes carrying hot-water shall be completely covered by spirally winding with "Plumbers Felt" tightly wrapped and secured by 20 gauge copper binding. Similarly lag 3'0" of cold feed pipe immediately adjoining cylinder.

BASIN: Basin shall be 22" x 16" porcelain fixed to C.I. cantilevered brackets with $\frac{1}{4}$ " galvanised bolts. Allow for plug, chain, wastes, trap etc.

BATH: Bath shall be 5'6" first quality C.I. porcelain enamelled standard square type.

SINK: Allow for a standard 6'0" stainless steel sink unit with 9" upstand.

W.C.: The W.C. pan shall be white glazed earthenware fitted a double-flat plastic seat, complete with C.P. hinges and rubber buffers.

TAPS: Provide and fix C.P. streamlined taps to the following sizes :-

<u>Bath:</u>	$\frac{3}{4}$ " with 3" extensions
<u>Basin:</u>	$\frac{1}{2}$ " pillar cocks
<u>Tubs & Washing Machine:</u>	$\frac{1}{2}$ " polished brass bibcocks
<u>Shower:</u>	$\frac{3}{4}$ " C.P.
<u>W.C. Cistern:</u>	$\frac{1}{2}$ " C.P.

Hose Taps:

$\frac{1}{2}$ " polished brass.

All to be marked "Hot and Cold" (except hose taps).

All sanitary fittings shall be free from blemishes.

W.C. CISTERN:

W.C. shall be fitted with approved

"low down" copper lined flushing cistern complete.

Provide and fix wood case with removable lid.

PLASTERER

RENDERING: All concrete slabs, hearths and steps are to be rendered with 1 to 3 cement and sand plaster laid not less than $\frac{3}{4}$ " thick and finished with wood float to a straight even surface. Steps to be finished with a steel float. Concrete slab to garage to be plastered to falls. Terrace to be finished in 24" squares, in deep grooves formed by a vee-tool with falls to outside edge. Foundations, sumps, open channels, etc. are to be rendered on a $\frac{1}{2}$ " thick coat of 1 part of cement to 3 parts of sand with 10% hydrated lime added. Finish with wood float to a straight even surface.

GIBRALTER BOARD: (Fixed by Carpenter)

STOPPING: (By Plasterer). Stop all joints, nail holes, and imperfections with pure plaster of paris pressed and trowelled to a smooth even surface. The plaster shall be left clean and free from irregularities that would be visible when it is papered or painted. All interior walls (except walls of Dining and Entry, and walls of Laundry), are to be lined with gibraltar board.

HEARTHES: Hearths to "Siesta" heater and Lounge Fireplace are to be 4" x 4" red unglazed tiles; hearths flush with floor. All tiles to be laid straight and evenly. Joints shall be an even width with a maximum of $\frac{1}{16}$ " in colour of mortar to blend with shade of tiles.

PAINTER AND PAPERHANGER

MATERIALS: The paint or enamel for all coats shall be the product of the same manufacturer.

All materials shall be of New Zealand manufacture of approved brand. Materials shall be applied strictly in accordance with the manufacturer's printed instructions.

WORKMANSHIP: All work shall be of the highest standard and finished to the satisfaction of the Architects (or their representative). No paint containing oil is to be applied to damp surfaces, and not external painting is to be done during unsuitable weather.

The contractor will be supplied with a colour chart by the Architects; and this must be strictly adhered to. Each coat of the paint system shall be of a different shade from that preceding.

The painter is to take adequate precautions to protect his work and the work of other trades, during painting operations. Any damage caused will be made good.

PRIMING: Priming to comply with N.Z.S.S. 1086 type L.R. prime all exterior timbers (except Vertical boards and battens and external plywood panels) window frames and sashes, doors, posts, fascias, eaves etc. Vertical boards and battens to receive second coat of linseed oil (with driers). Timber steps and porch decking to be oiled.
Note: Vertical boards and battens in outside North wall of Dining and Bedroom 2 are to be primed.

As soon as priming has set, stop all nail holes and defects with best linseed oil putty.

EXTERNAL WORK: Second Coat: After priming and stopping apply a coat complying with N.Z.S.S. 521 type LZ, LZT, ZT or ZL.
Third and Final Coat: To all external exposed woodwork, metal work etc. apply a final coat of paint manufactured in accordance with N.Z.S.S. 521 type LZ, LZT, ZL or ZT for finishing coats.

Entrance and Store Doors: Apply a priming coat, second and third coat as above and finish with one coat of approved exterior enamel.

External Metalwork: All metalwork above roof level to have two coats of anti-corrosive paint.

Roof: To be primed and to receive one coat of roof paint.

INTERNAL WORK: For the interior finish to be used in the different rooms, the Contractor is to refer to the "Schedule of Finishes" at the end of this specification.

Glossy Enamel Finish: Prime and stop all woodwork with linseed oil putty. Seal all fibrous plaster with approved sealer.

Then give an undercoat and finish with approved glossy enamel, making three coats in all.

Semi-gloss Enamel: As above using semi-gloss enamel to finish making three coats in all.

Matt Finish: As above, using matt paint to finish, three coats in all.

Varnish Finish: Give one coat of clear spirit as soon as fixed. Then stop with plastic wood. Allow to harden then sand flush. Remove all dust. Then apply one coat of clear varnish. Allow 24 hours to dry and apply a further coat of clear varnish.

Paperhanging: Hang papers as selected and allow the sum per roll as shown in "Schedule of Finishes". Fresh flour paste shall be used, having an approved fungicide mixed with it. All papers to be trimmed, cut straight and true, butt-jointed and hung true and plumb.

At completion, papers are to be left free from all defects and disfigurements.

GLAZIER

GENERAL:

All glass shall be of approved British manufacture. Cut glass to fit rebates, with due allowance for expansion; secure with metal sprigs, and properly bed and back putty and neatly finish with quick setting putty.

SASHES:

Glaze all sashes as follows:

Panes up to 7 sq. ft.	- 24 oz. clear sheet glass
Panes over 7 sq. ft.	- 32 " " " " "
Larger panes over 10 sq.ft. (indicated on dwg)-	$\frac{1}{4}$ " polish plate
Screen in Lounge	- "Spotlyte" obscure
Bathroom, W.C. and Shower	- "Festival" obscure
Dining room slide etc.	- "Spotlyte" obscure

MIRROR:

In Bathroom Cabinet door, provide a $\frac{1}{4}$ " plate glass mirror of best silvering quality. Edges of mirror to be spirit blackened, and back varnished before fixing.

PASCOE, HALL and MACKENZIE
AA. R.I.B.A. AA. N.Z.I.A.
ARCHITECTS,
63 CATHEDRAL SQUARE,
CHRISTCHURCH.

SCHEDULE OF MATERIALS & FINISHES TO WALLS, CEILLINGS, FLOORS & FITTINGS

[illegible]

