

CONCRETORGENERAL.

Refer to the Preliminary and General clauses of this specification which shall be equally binding on all trades.

MATERIALS AND WORKMANSHIP.

Are to be of the standard laid down in the following standard specifications.

N.Z.S. 1844:1964 Portland cement. (Ordinary and Rapid hardening)
1900:Division 9. 3A:1970 concrete - General requirements and Materials and Workmanship.

N.Z.S. 3421:1972. Rolled steel bars and hard drawn mild steel wire for concrete reinforcement.

N.Z.S. 3423 P: 1972. Hot rolled plain round steel bars of structural grade for reinforced concrete.

N.Z.S. 1051:1953. Concrete materials and methods of test.

(a) Cement.

Shall be normal Portland cement so stored and handled as to be protected from moisture or any other contamination.

(b) Aggregates.

An approved pre-mixed builder's mix shall be used.

(c) Water.

Shall be clean, fresh, and free from all deleterious material.

(d) Additives.

No additives shall be permitted.

(e) SLUMP.

The water content shall be adjusted below the scheduled water/cement ratios to give the maximum slumps given in the standard details.

(f) Making of Concrete.

Concrete mixing shall be carried out in a power driven batch mixer of approved type.

(g) Pre-mixed Concrete.

Pre-mixed concrete may be used from an approved source. Water shall not be used to assist in removal of over stiff concrete from the agitator truck. Any variation to the concrete mix must be carried out at the Pre-mixed concrete depot before that mix is placed in the agitator truck.

FORMWORK

Formwork shall be erected true to line, and plane. Thoroughly wet formwork immediately before placing concrete. Concrete placing shall be carefully controlled to give a uniform dense surface.

REINFORCEMENT

Immediately before placing concrete, reinforcement shall be clean and free from all loose scale.

VIBRATION

All concrete shall be vibrated to give consistant work. Screed off to give a suitable surface for mechanical float finish.

CONCRETING

Immediately before placing, clean out and prepare existing vertical faces by damping the surfaces against which concrete is to be placed.

CONSTRUCTION JOINTS

Immediately before placing fresh concrete, the surfaces shall be coated with grout or mortar, and such coating shall be applied only a short distance in advance of concreting work.

PROTECTION

Protect all new concrete work and ensure that no heavy loads are placed on or moved over finished concrete until at least 28 days old.

CURING

All concrete shall be water cured for 14 days.

FLOOR FINISHES

Floors shall be power compacted and floated with "Kelly" machines to a hard, durable, even surface. Slabs shall not vary more than $\frac{1}{8}$ " in any 10'-0", and such maximum variations shall not extend over a minimum distance of 3'-0".

CHASES, HOLES & BUILDING IN

Form all chases and holes as the work proceeds, and as previously specified or shown on the drawings. Form to the neat sizes required. Do not cut any reinforcing.

Set concrete shall not be hacked or cut unless specific approval has been obtained from the architect.

Build in all necessary bolts, fixings, battans, plugs, sleeves etc., as shown or indicated on the drawings or otherwise necessary to the proper completion of the work.

Check with all relevant trades, including plumber, drainlayer, and electrician, to ensure that the above are correctly positioned before pouring concrete.

Ramset or similar fastenings shall not be used.

GENERAL.

Refer to the Preliminary and General clauses of this Specification which shall be equally binding on all trades.

(a) Workmanship. All timber shall be fixed, framed, trussed, braced, nailed, screwed, bolted and/or fixed together in a workmanlike manner in accordance with the best trade practice. All work shall be accurately set out, neatly executed and finished.

(b) Protection. Any work requiring a natural finish shall be free of water stain. Protect all materials supplied to the site. Protect all finished surfaces.

(c) Making good and completion. Attend upon and make good in and after all trades. On completion, leave all in good condition. Make good any shrinkages at the end of the contract, and/or maintenance period as directed. Rub clean down and leave all fit for finishing and use.

Any work developing defects shall be made good or replaced. Saw and machining marks must not show on finished work.

(d) Timber General. Timber shall be the best of its kind, free from large or loose knots, shakes, bark etc. All framing timber shall be structurally sound. All timber for exposed wood work and joinery shall be free from defects which would prevent a good dressed surface. All timber shall be well seasoned. All machined stuff shall be dry run.

All framing timber shall be not lower grade than Building A (natives) or framing No. 1 grade (radiata pine). Timber fixed in concrete shall be Heart Totara.

ALL timbers other than heart shall be treated by a process approved by the Timber Preservation Authority.

Framing Timbers to be lined both sides shall be thickened to produce regular plain faces.

(e) Seasonings. Timber shall be dried out to the following moisture contents:

Internal: Sawn Timber	20% average	23% maximum
Dressed Timber	12% average	15% maximum
External: Sawn Timber	22% average	25% maximum
Dressed Timber	19% average	22% maximum

Timber shall be protected from absorbing moisture from the weather or other sources after delivery to the site.

DAMP PROOF.

Place damp-proofing between all timber and concrete. Damp-proof fabric shall consist of bituminous felt fabric weighing at least 6 lbs. per square yard.

WORK FOR OTHER TRADES.

Cut for, attend on, and make good after all trades and provide and fix all necessary blocks for securing work of other trades. Keep to a minimum the cutting or checking of framing timbers for the accommodation of pipes etc.

GROUNDS

Provide grounds and furring wherever required for the attachment of finishings, fixtures, fittings etc., fasten securely to the concrete and space at 18" centres maximum.

WALL FRAMING

Frame up using 100 mm x 50 mm plates with studs at 400 mm centres or closer to suit linings. Cut in noggings at not more than 400 mm centres and as required for fixtures etc.

Brace as required by N.Z.S. 1900 chapter 6, Division 6.1: 1964. Timber (not requiring specific design).

WALL LININGS (INTERNAL)

Gibraltar Board. Line all timber framed walls not covered above with first quality gibraltar board, free of all defects to all timber framed walls.

Fix in accordance with the best trade practice using 30 mm by 14 guage galvanised countersunk thin flat head nails. Fix at 150 mm centres at all edges of sheets. On interior surface of sheets fix with double nailing 25 mm to 15 mm apart, each pair of nails spaced at 300 mm centres maximum. Nails shall not be punched but heads shall be driven slightly below the board without damaging the surface.

Form external corners with 10 mm dressing A Heart Rimu with one edge lightly rounded.

Punch nails, point up all joints, nail holes and other imperfections with plaster of paris or other suitable gypsum plaster, trowel and sandpaper to a true plane surface which shall finish perfectly smooth.

FINISHING TIMBERS

These shall be Dressing A Rimu. Cover all joints between dissimilar materials unless particularly detailed otherwise.

Provide and fix, or provide and arrange for other trades to fix all full length packers and standard packers or wedges spaced at 450 mm centres required to stabilise finished work.

Exposed packers are to be dressed and of the same grade of material as the surrounding work.

Skirtings. Skirtings at timber framed walls shall be 50 mm x 15 mm with a 12° splay at the top edge.

Architraves. 40 mm x 15 mm with one edge splayed 12° or as detailed.

FRAMES

Supply and fix frames to the above doors. Rebate 50 mm material, or as described. Hang doors on 100 mm galvanised chrome plated butts.

JOINERY

Take delivery of and fix in place all work listed under 'Joiner'.

SCREWS GENERALLY

All exposed screws shall be rust proof, generally of the type specified. All exposed screws in wood requiring periodic removal shall be round headed in cup washers.

MODERNFOLD DOOR

~~Provide and fix a "Modernfold" door or approved alternative between lounge and dining room. Provide all fittings and lock.~~

ROOF FRAMING

Roof beams shall be preassembled gangnail roof trusses as detailed, at 900 mm centres.

CEILINGS

All other ceilings shall be firred down from the trusses by way of 50 mm x 40 mm strapping. Kitchen, Laundry, Bathroom and toilet ceilings shall be leatherboard. All other ceilings shall be 'Pinex Tiles'.

WALL CLADDING (External)

Shall be weatherside as approved by the financing authority. Fasten using galvanised nails. Flash and weatherproof as necessary to ensure a watertight finish.

GENERAL

(a) Scope of work. This specification includes the supply, delivery and installation of the whole of the materials required, and the work necessary for the complete installation as set out in the specification and the accompanying drawings.

(b) Regulations, By-Laws and Permits. The electrical installations shall be carried out by registered electricians in accordance with the New Zealand Electrical Wiring Regulations (1961) and all amendments, and in no case shall the plans or specification be read to permit work that does not comply with the regulations or the By-Laws or the Local Supply Authority.

All permits required shall be obtained by the electrical contractor, before work is commenced on the installation. Any charges in connection with permits and completion notices shall be paid by the electrical contractor.

(c) Materials. All materials shall be of best quality and unless modified below shall be in accordance with the latest New Zealand or British Standard Specifications.

MAIN SUPPLY

Allow for connection to the electrical supply authorities mains.

DISTRIBUTION BOARD

Provide on the rear porch a distribution board in a weatherproof cabinet to comply with the Hutt Valley Electric Power and Gas Board's requirements.

WIRING

Conceal all cables.

The wiring shall be carried out with types of cable specified and in no case shall the size of cable be less than regulations allow, particularly with regard to voltage drop.

Wiring shall be in P.T.S. cable of the following sizes:

Lighting circuits	1/.044 and earth
Socket outlets	7/.029
Storage water heater	3/.036
Range	7/.044

Wire meter in accordance with the Hutt Valley Electric Power & Gas Board's requirements.

LIGHT FITTINGS

Refer to drawings. Supply and fix the fittings where shown. Allow for all lamps, and tubes, ballasts etc., required to complete the work. Actual fittings shall be chosen by owner.

Finish all remaining outlets with either ceiling roses or batten holders as determined on the job. Allow for cord pendants to each ceiling mounted ceiling rose.

LIGHTING SWITCHES

Provide switches flush type P.D.L. No. 22/u/1 or 22/u/2 with ivory flush plates. Mount where shown 3'-4" above floor and on lock side of doors. Use multi-gang switch plates where more than one switch is mounted in the same position.

SOCKET OUTLETS

Socket outlets shall be of the 10 amp 3 pin flat pin type mounted 300 mm above floors or 200 mm above benches unless otherwise directed and be of P.D.L. type 60 with ivory flush plates to match lighting switch flush plates.

STORAGE WATER HEATER

Connect up a 180 litre water heater complete with heater elements and thermostats to the water heater controlled circuit. Supplied by plumber.

Connect up a 13 litre push through undersink heater in the kitchen. Supplied by plumber.

ELECTRIC RANGE

Wire circuit to range in 7/.044 cable terminating in flush mounted white isolating switch in position convenient to user, and as directed on site. Connect range to fixed wiring by flexible conduit 2'-6" minimum length. Allow a P.C. Sum of \$350.00.

INTERFERENCE SUPPRESSION

In order to minimise radio and television interference, the complete electrical installation of the building must comply with the N.Z. Radio Interference Regulations 1958 and the N.Z. Television Interference Regulations 1961.

EARTHING

Carry out the earthing of the installation to the nearest metallic cold water pipe or other approved efficient earth, using an approved type of clamp connection. The size of the earthing lead shall comply with Regulation 153 of the N.Z. Wiring Regulations 1961. Earth all equipment necessary to comply with Regulation 150.

INSPECTIONS AND TESTS

The installation will not be deemed complete until passed by the Hutt Valley Electric Power and Gas Board.

DOOR BELL

Provide and fix an illuminated bell push on main entrance door frame (right hand side of door) and an approved bell or buzzer in a position to be agreed.

HOLES IN TIMBER

Holes in framing shall be kept to a minimum. Do not bore or cut holes in structural members, purlins, beams or floor joists. Run coiling wiring between battens.

GENERAL

Refer to the Preliminary and General clauses of this specification which shall be equally binding on all trades. All work shall be carried out by tradesmen who have had experience in laying the roofings specified.

Provide all plant, tools and/or work necessary to ensure a first class job.

DECRAMASTIC ROOFING

All tiles shall be fastened to the manufacturer's instructions. 150 mm x 130 mm purlins shall be placed at centres to suit.

Leave the entire roof securely fastened to prevent damage from heavy winds or gales, and leave in a watertight condition. Provide for expansion. Fasten spoutings and downpipes along the edges shown on the drawing.

GENERAL

Refer to the Preliminary and General Clauses of this specification which shall be equally binding on all trades.

Carry out all work in accordance with the drawings and specification and comply with the Local Body By-Laws. Give all necessary notices, obtain all permits and pay all charges for connections or alterations to Local Body services and for all costs tests.

In the event of the Local Authority Plumbing and Drainage Inspector making a ruling contrary to that specified or shown on the drawings, refer the matter to the owner before taking action.

(a) Sheet metal products. Sheet metals shall be neatly cut, shaped and fitted and shall be firmly attached by the best trade methods, using nails, screws, bolts and the like, preferably of the same metal.

Nails shall not penetrate any exposed surfaces. Well punch down all nail heads in boarding etc., and avoid contact between copper and dissimilar metals or all other metallic contact which would allow electrolytic corrosion. Where such contact is otherwise unavoidable, adjoining faces of both metals shall be painted with bitumen.

Joints shall be adequately lapped, welted, rivetted, soldered, brazed, or otherwise connected so as to resist weather or contain fluids according to function and to allow for adjustment due to movements consequent upon changes of temperature or other influences. Laps on to or under other materials shall be the maximum consistent with good practice. Provide and fix the caps and supports to ridge vents.

(b) Trim. Where pipes, other than soil pipes pass through walls, cover holes with chromium plate on brass floor plates.

(c) Tests. Before any water pipes are covered, subject the system to the full pressure of the Council's mains for 24 hours, and make good any defects. Arrange with the Council for the inspection and testing of all sanitary plumbing work.

(d) Completion. On completion, ensure that all services are in proper working order before handing over; leave all sanitary fixtures and appliances in a clean and usable condition.

FLASHINGS

Flash and over flash as detailed or required to make watertight. Use not less than 24 gauge material

DOWNPIPES

Supply and fix PVC downpipes in the positions shown.

WATER SUPPLY

Mains water supply through pressure hot/cold system.

Unless shown otherwise, support horizontal pipes at not more than 1.5 M centres and vertical pipes at not more than 2.25 M also at each change of direction.

All pipes shall be in straight lines and changes of direction shall be made with easy bends. All pipes showing a reduction in diameter shall be cut out.

Where pipes are set in concrete they shall be wrapped with denso tape and a layer of building paper, wired on if necessary.

Provide stop-cocks in easily accessible positions to isolate each group of fittings.

FITTINGS

Fix the following fittings complete, as supplied by owner.

- a. Shower tray
- b. Bath
- c. Basin or vanity unit in Bathroom
- d. Small wash basin 550mm x 400mm in W.C.
- e. W.C.
- f. Flushing Cisterns
- g. Sink bench. Stainless Steel.
- h. Tub: stainless steel
- i. Fix taps and shower rose as supplied by owner. Fix all valves necessary to these.
- j. Hot water cylinder. 1. Provide and fix 130 litre pressure electric water cylinder of approved type and manufacture, complete with lagging and g.i. casing. Connect lagged copper expansion pipe 15mm diameter copper sludge pipe with screwed brass cap through external walls. Provide 22mm copper branch to bath, tub, washing machine, shower and kitchen sink.
2. Provide and fix 13 litre under sink heater in kitchen.

WASTE PIPES AND TAPS

All wastes shall be of solid drawn copper. Provide screwed cleaning eyes at all changes of direction and at junctions. Arrange for access to each cleaning eye.

Do not expose waste pipes on the outside face of the building. Arrange to discharge all wastes into gulley traps below the level of the gratings.

SOIL STACK AND VENTS

Extend from drains at ground level in 4" C.I. and finish with copper support from walls with halved cast brass supports. Terminate above roof with plastic cowls.

All back vents, if required, shall be of solid drawn copper.

TESTS ON PLUMBING WORK

Before any hot or cold water pipework is covered, subject all systems to the full pressure of the full head of water from supply tanks for 24 hours, and make good any defects.

Arrange with the Council for the inspection and testing of all sanitary plumbing work.

COMPLETION

Allow for leaving the whole of the work, including hot and cold water supply and all sanitary fixtures in perfect working condition ready for occupation.

NOTE: The plumbing contractor will be allowed to alter any part of the plumbing layout, providing that

- a) It meets with the approval of the Hutt County Council.
- b) The final scheme is as good or better than shown.
- c) No alteration to the placing of the fixtures is entailed.

GENERAL

Refer to the Preliminary and General Clauses of this specification which shall be equally binding on all trades.

Carry out work in accordance with the drawings and specification and comply with the Local by-laws.

Give all notices, obtain all permits and pay all charges for connections to Local Body services and for all tests and inspections.

SANITARY DRAINAGE

All pipes shall be 100mm glazed E.W. or "Iron stone" as supplied by Winstones. All pipes shall be first quality.

Set all pipes to take W.C.'s, vents etc., so that the tops of flanges are flush with the concrete floor slab. Where the pipes pass under the house, surround with 100mm of concrete. All pipes shall rest with their barrels on solid ground.

Provide gulley traps where required with precast upstands. Connect the wastes below the level of the C.I. gratings. Provide Buchan trap inspection outlets etc. as required by the drawings, and the local body. Connect to Septic Tank sited as directed by the Council.

SEPTIC TANK

Provide and install an approved septic tank in a position and level as directed by the Council.

GENERAL

Refer to the Preliminary and General Clauses of this specification which shall be equally binding on all trades.

- a) Relation to other trades. Inspect the work of other trades upon which material is to be applied and report any defects to the general contractor. Work shall not proceed until a satisfactory surface has been obtained.
- b) Workmanship. All work shall be done by competent tradesmen and finished to the architect's satisfaction. All surfaces for paint shall be suitably prepared. All permanently covered surfaces shall be primed before erection. All work shall be free from brush marks.
- c) Materials. Materials shall be the best of their several kinds and of approved brands. All prepared paint shall be taken on to the job in the original sealed containers and applied in strict accordance with manufacturers instructions.
- d) Protection of work. Take adequate precautions during and after painting operations to protect work against disfigurement. Keep ample supply of clean dust sheets on hand during progress of work. Touch up at end of contract if and as necessary.
- e) Weather. No painting on exterior work shall be done during wet or foggy weather, or upon surfaces not thoroughly dry.
- f) Dust. Before painting, varnishing or enamelling, precautions shall be taken to keep down dust.

FINISHING

All coats of paint shall be thoroughly dry before subsequent coats are applied and rubbed down with fine waterproof sandpaper where necessary.

All colours shall be selected by the owner. The tints of undercoats are required to approximate those of the finishing colour. In order to indicate the number of coats applied, a difference is to be made in the tint of each succeeding coat. All timber to be varnished shall be free from stains, spots, drops of water, grease etc.

PRIMING, SEALING & STOPPING

Prime any wrought external timber and putty which is to be painted. Prime all faces, edges, backs, joints, glazing rebates abutting surfaces before erection. Stop all nail holes and defects with linseed oil putty. Seal all previous materials specified to be interior gloss finish.

PAINTED EXTERIOR WOOD

One coat of approved sealer or priming. Two undercoats and finish with one coat of approved high gloss exterior paint.

PAINTED EXTERIOR METAL

Metal surfaces - degrease; brush on copper sulphate solution, wash off with water after ten minutes; apply anti-corrosive primer, two undercoats and one finishing coat as for wood.

INTERIOR HIGH GLOSS ENAMEL.

Seal linings with 'Cemseal' or equal, cover with two undercoats and a finishing coat of approved high gloss interior enamel.

INTERIOR SEMI-GLOSS PAINT.

Seal linings with 'Cemseal' or equal, prime timber and apply two undercoats and a finishing coat of approved semi-gloss paint.

INTERIOR FLAT PAINT.

Two coats of approved polyvinyl based or resin emulsion based or other synthetic flat paint to give adequate cover. Allow for an extra coat if this is considered necessary to give cover.

INTERIOR NATURAL WOOD.

Stop all nail holes with non-staining stopping tinted to match the surrounding timber. Rub down between coats.

First coat - Dulux satin clear.

Second Coat- Dulux clear.

Third coat - Dulux Satin Clear.

WALLPAPER.

Seal all walls to which paper is to be applied.

Apply all wallpapers and lining papers as supplied by owner.

Lay paper with true vertical butt joints. Horizontal joints will not be allowed. Small pieces must not be used. Do not use rollers on joints where the paper will be affected.

Use Niclear stainless paste.

PAINTING SCHEDULE.

(a) Exterior gloss paint. All timber doors, sashes, frames and external metal.

(b) Interior gloss paint. All timber work showing on the inside, which is specified painted on the outside. All timber work to kitchen cupboard units both inside and out. All exposed metal.

(c) Interior semi-gloss paint. All ceilings and walls to toilets, bathrooms and laundry.

(d) Interior flat paint. All ceilings, except timber, or ceilings noted above.

(e) Interior natural wood. All timber not specified to be painted, oiled or stained.

GENERAL

Refer to the Preliminary and General Clauses of this specification which shall be equally binding on all trades.

- a) Workmanship. Construct everything to detail in a workmanlike manner. Doors and other joinery which are subject to shock, are to be mortised, tenoned and wedged, with the tenons completely penetrating the stiles.
- b) Protection. Joinery shall be protected from weather in transit to the site and after delivery. Any work requiring a natural finish shall be free from water stain. Protect all joinery at all times from damage or disfigurement from any cause.
- c) Making good and completion. On completion, leave all in good condition. Make good any shrinkages at the end of the contract, and/or maintenance period as directed.
- d) Timber - General. All timber for exposed work and joinery shall be free from defects which would prevent a good dressed surface. All timber shall be well seasoned. All machined stuff shall be dry run. All timbers exposed on interior shall be hand dressed, sanded or scraped to remove all machining or other marks.
- e) Timber Grades. Timber used for joinery shall be of not lower grade than Dressing A heart, except that internal hidden timbers may be finishing grade kiln dried radiata pine, pressure treated by a process approved by the Timber Preservation Authority.
- f) Seasoning. Timber shall be dried out to the following moisture contents:

Internal	12% average	15% Maximum
External	19% average	22% Maximum

TIMBER SCHEDULE

Doors and door frames

D.A. Ht. Rimu or Matai

FLUSH DOORS

Interior flush doors shall be standard 'A' grade No. 1 Rimu ply, to the sizes shown on the drawings. Hang all doors on three 10mm loose pin bronze butts.

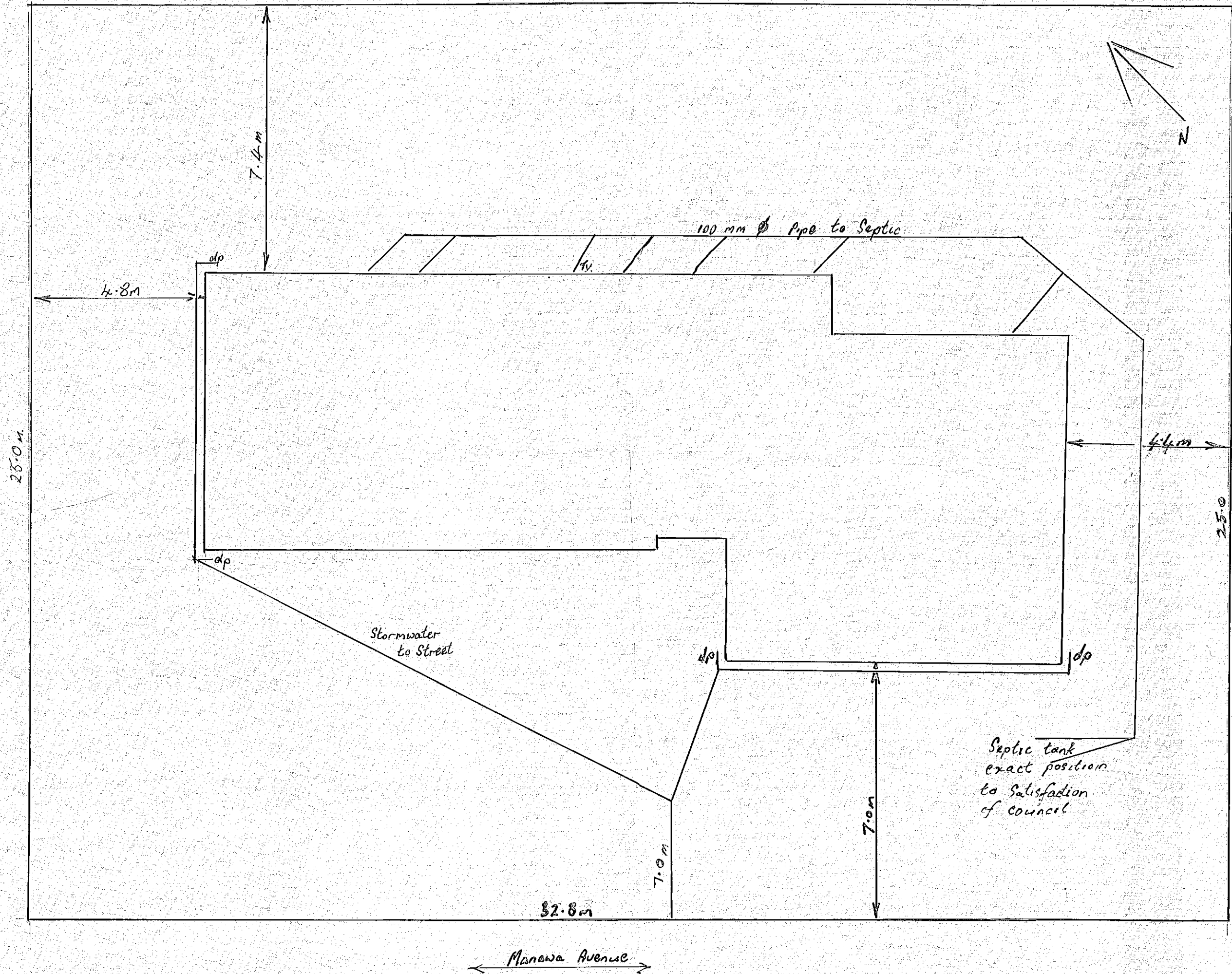
EXTERNAL DOORS

a) When fitting together, ensure that all necessary trays, flashings etc, are installed. The joiner shall supply and fix all metal work fixed to sashes and frames. The joiner shall supply and fix all sliding door GEAR, INCLUDING attached metal works shown on the drawings.

b) External Doors. D.A. Ht. Rimu, Matai or clear redwood. Provide and fix as detailed.

Hang on three to each galvanised butts with loose brass pins. Fix "Duraflex" thresholds to each external door.

32.8m

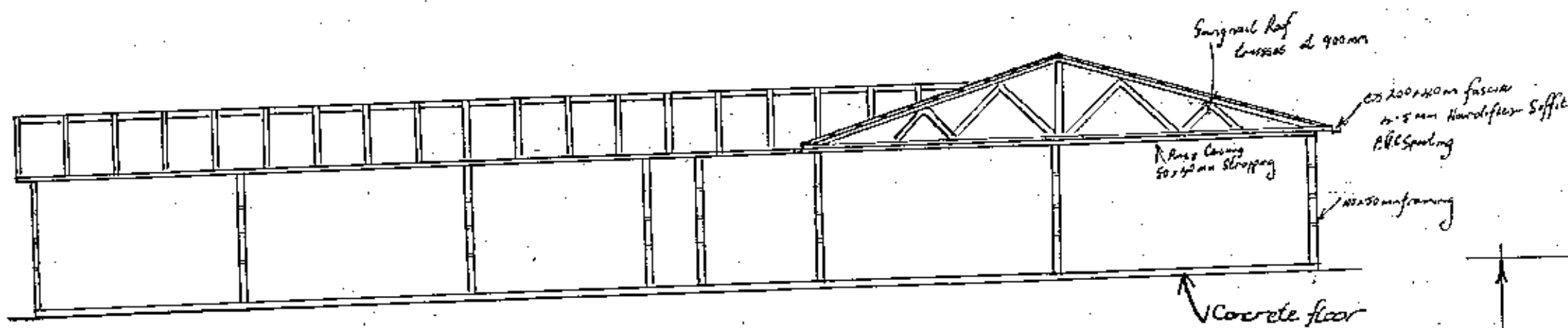


Drainage / Site Plan Scale 1:100

Lot 36 DP42949

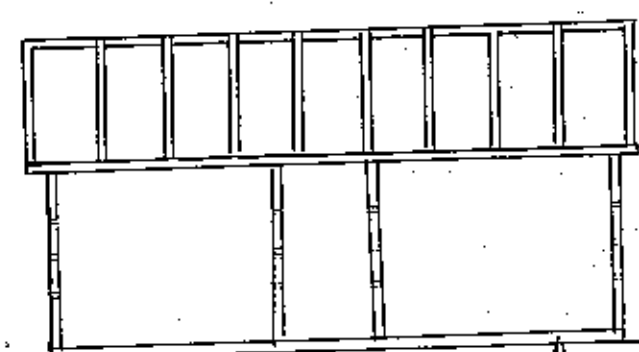
Manawa Ave Raumati

- Sutton Residence

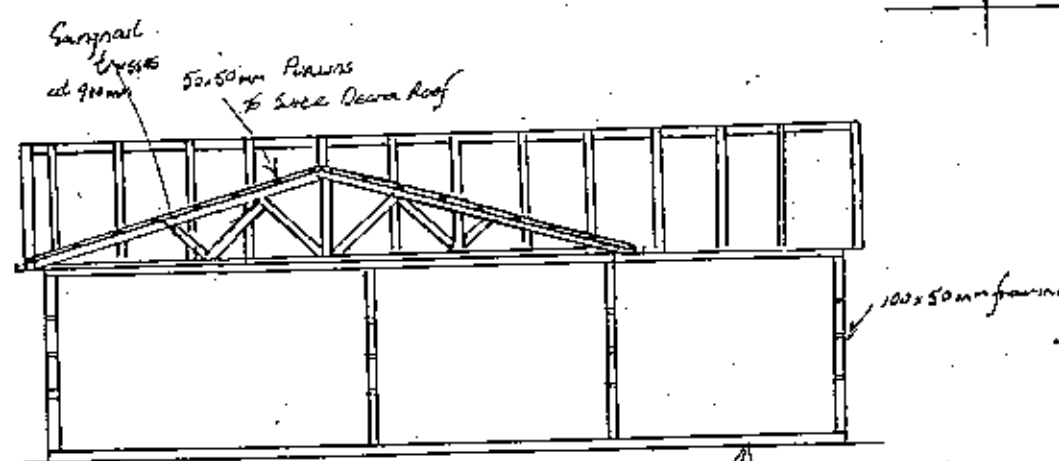


Section 1-1

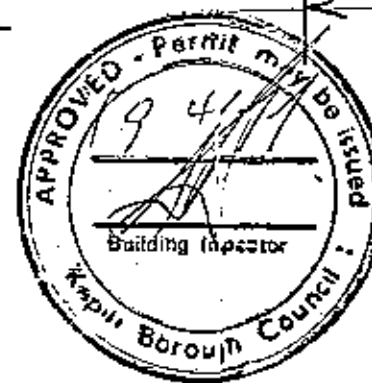
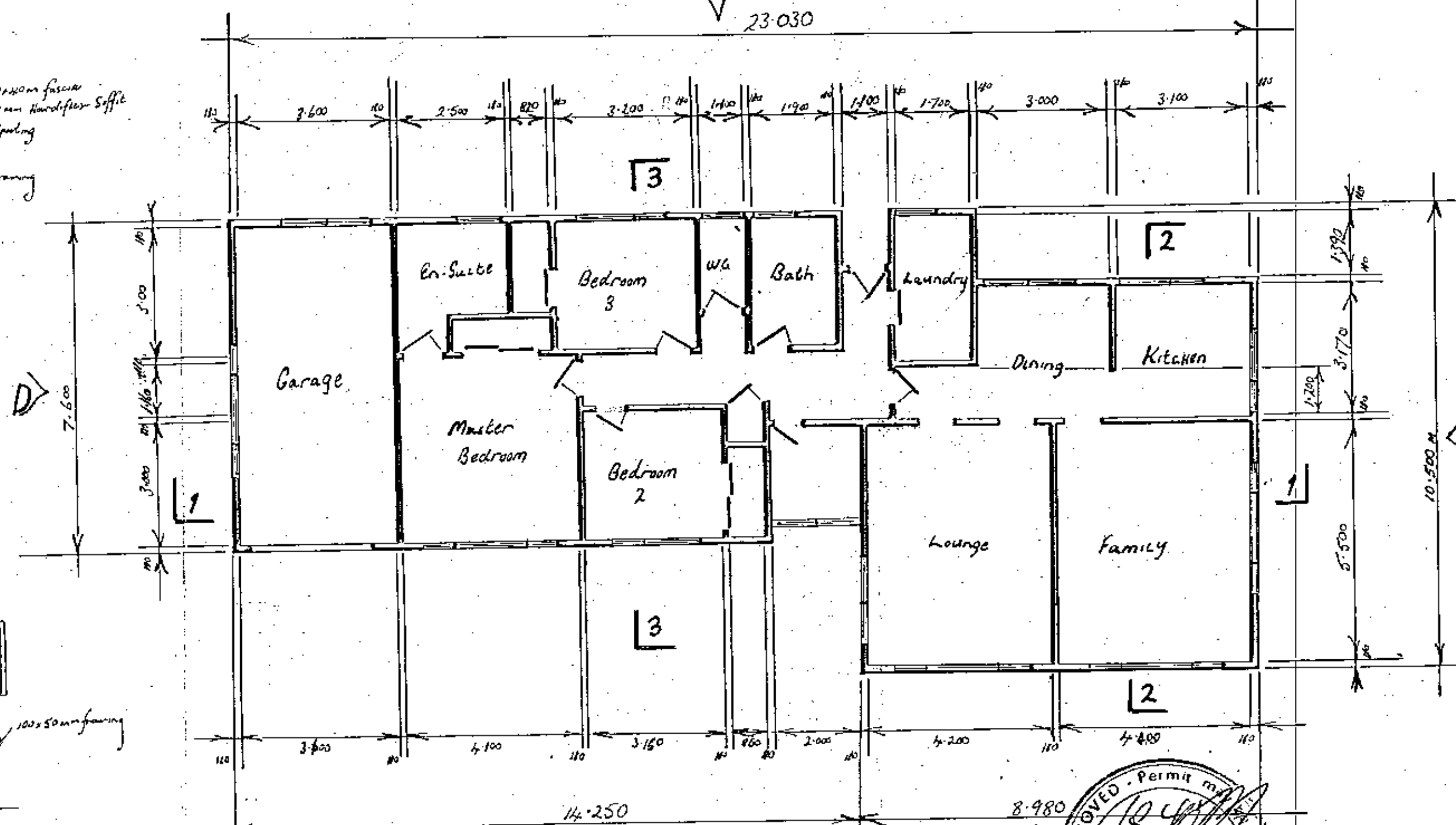
Note
Above all ceilings must be insulated



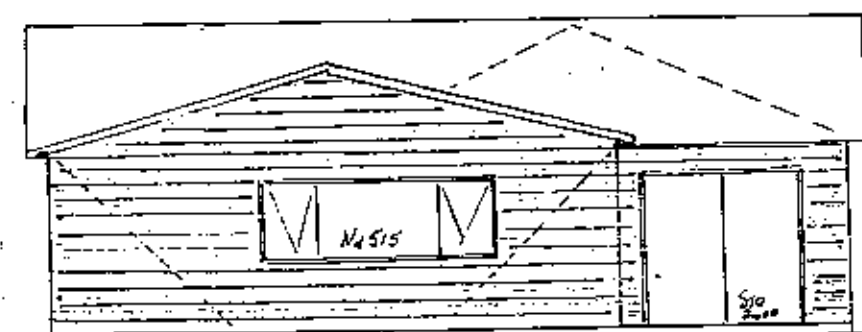
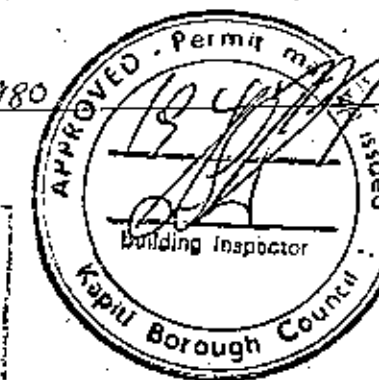
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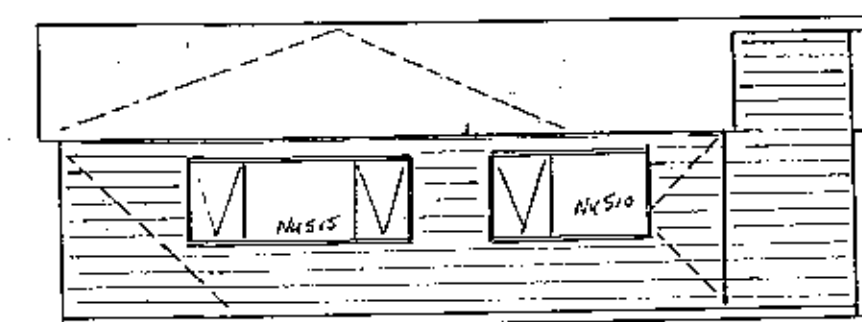
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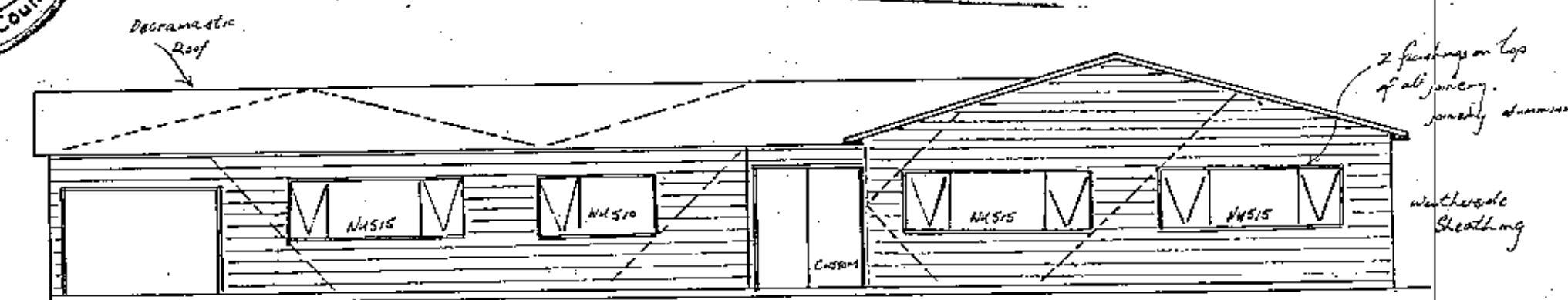
ANY BUILDING, SCAFFOLD OR CRANE MUST BE AT LEAST 12 FEET FROM ANY POWER LINE. IF IN DOUBT, RING POWER BOARD, PHONE 83-119 LEVIN, OR PHONE 6369 PARAPARAUMU.



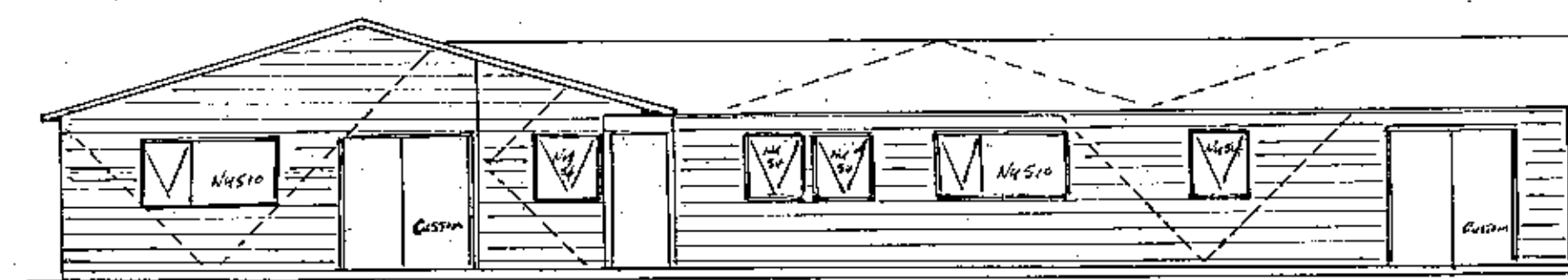
ELEVATION D



ELEVATION C



ELEVATION A

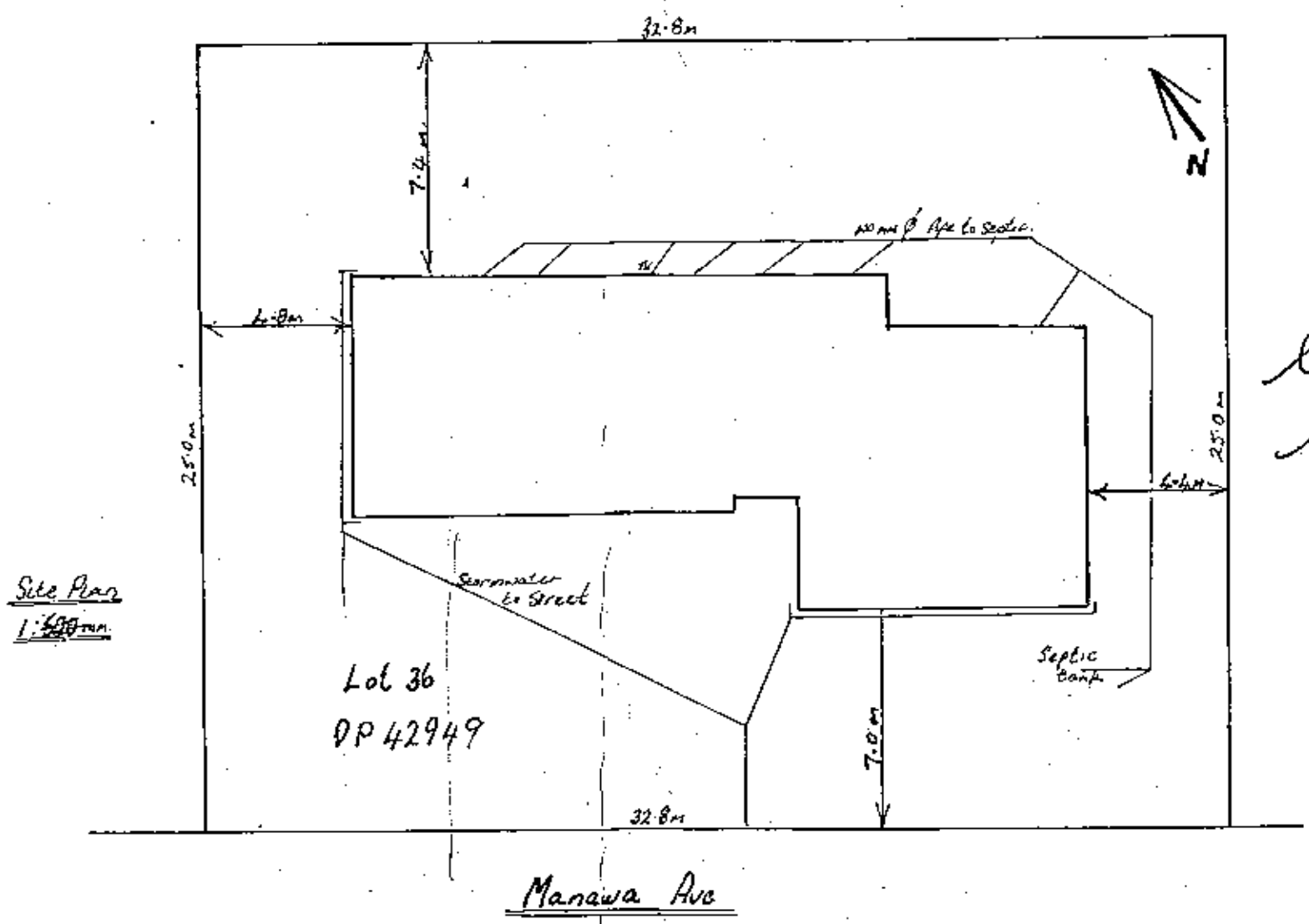
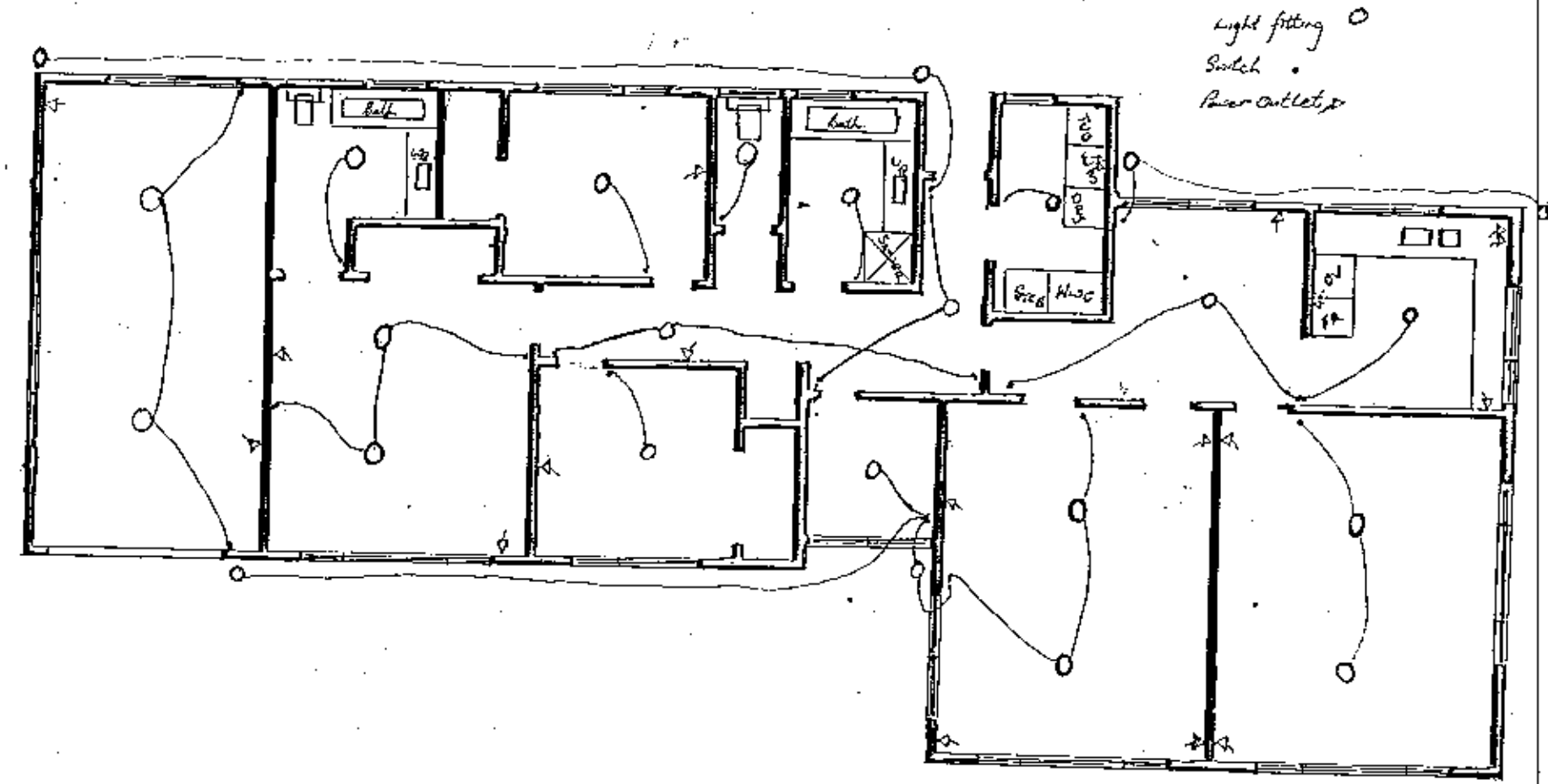


ELEVATION B

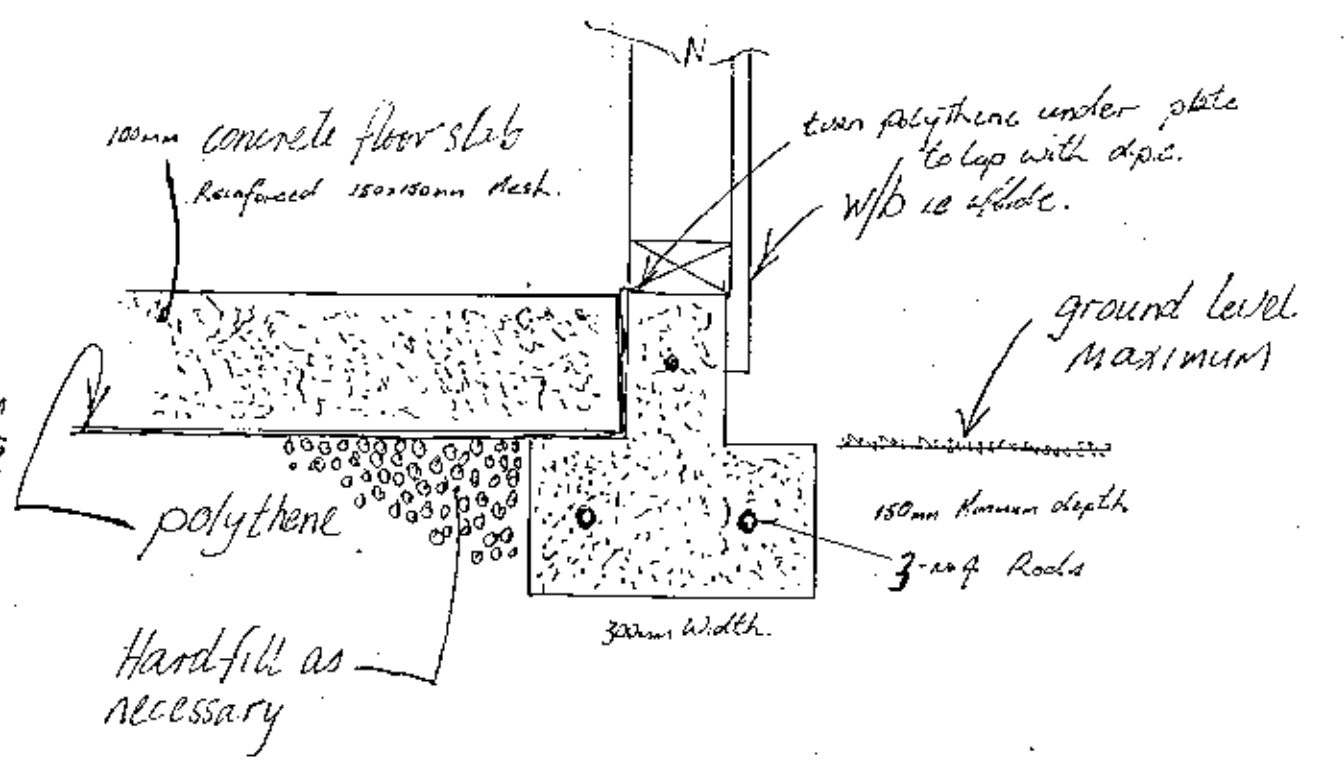
Residence for Mr & Mrs Sutton
Lot 36 Manawa Ave
Raumati

February 1976

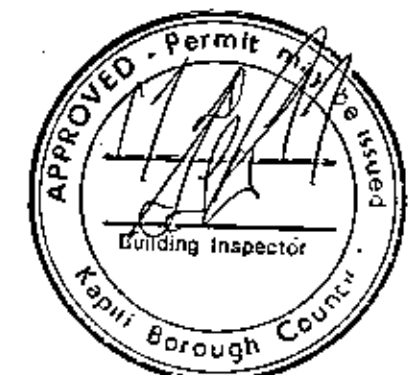
Drawn by [Signature]



Plumber & Drainlayer to discuss drainage area on site with Drainage Inspectors.



Exterior foundation Detail



ANY BUILDING, SCAFFOLD OR SHED MUST BE AT LEAST 12 FEET FROM ANY POWER LINE.
 IN CONDT, RING POWER LINES
 PHONE 83-110 LEVIN, OR
 THE LEO PAPAARAU.