concept housing ltd

SPECIFICATION ADDENDUM

THE FOLLOWING SCHEDULE IS A SPECIFIC VARIATION TO THE ATTACHED GENERAL SPECIFICATION FOR A PROPOSED DWELLING FOR:

Client ..... Date ..... Lot ..... D.P. .....

..... Street .....

..... House Type ..... Town .....

Site Access
Site Level
Piles
Base
Exterior Sheathing
Roofing
Exterior Joinery
Chimney
Hearth and Surround
Space Heater
Electric Heating
Insulation
Interior Linings
- Walls
- Ceilings
- Shower

Interior Doors
Electrical
- Lights
- Points
- Stove

Interior Hardware
- Joinery
- Doors

Sink Top
H.W.C.
Vanity Unit
Drainage
Painter
Wallpaper
Paths

SUMMARY OF AMENDMENTS

To be read in conjunction with but take precedence over general specifications and attached drawings.

SPECIFICATION

OWNER .....

LOT No. ..... D.P. .....

STREET .....

CONTRACTOR .....

1.0 PRELIMINARY AND GENERAL

1.1 **SCOPE:** This contract comprises in general the erection of a dwelling in accordance with this specification and the plans herewith based on State Advances' requirements or any other lending authority and should comply with same in all respects.

1.2 **INSURANCE:** The contractor shall insure the works in and approved Fire Office and such insurance shall cover the full value of the premises when completed. The Contractor shall be held responsible for any damage or loss by fire to the works until the completion of the Contract.

1.3 **VARIATIONS:** Any variations in materials or finish from that specified or quoted for shall be listed and such a list shall be read as part of the signed contract or as an addition to the contract.

1.4 **NOTICES, FEES, ETC:** The Contractor shall give all usual notices to the local Authority, arrange for foundation inspection etc. and the testing of drainage works apply for and pay for Building Permits and comply with the requirements of all Local Body By-Laws.

1.5 **INTERPRETATION:** Materials shown but not specified must be of a kind commonly employed for the services it is intended to perform. The Contractor will be responsible for the setting out of the works and all figure dimensions will take precedence over scaled dimensions. The drawings and these specifications together with any addenda will be considered sufficient for the description of the works and shall be read in conjunction with each other.

1.6 **EXTRAS:** No additional work will be undertaken without written agreement between employer and contractor.

1.7 **MATERIALS:** Materials must be the best of their respective kinds and where a specified material is not procurable at the time it is required, a substitute or similar quality may be used in order to avoid any delay. Any such substitute must comply with the local and lending authority.

1.8 **SITE:** This contract is based upon the building site being within 300 mm of level and having solid foundation bearing to a maximum dept of 600 mm below existing ground level. The owner will be responsible for costs of foundation work aditional to this. The site shall have suitable access and shall be well drained with good soakage.

1.9 **ADJUSTMENTS TO CONTRACT PRICE:** This clause shall be as laid down in the building agreement between the owner and the contractor.

1.10 **MAINTENANCE:** This house shall be maintained for a period of 31 (thirty-one) days after the owner has taken possession. During this period maintenance items shall be listed by the owner and given to the contractor for rectification.

1.11 **DESIGN:** The structural design is based on N.Z.S.S. 1900 with relevant chapters. Subsequent approved changes to such chapters will be read as superseding corresponding items within this specification.

2.0 EXCAVATOR

2.1 **SITE WORK:** Remove all vegetation, including trees, stumps etc from the area to be built on and bulldoze the site to the required levels. Excavate for all wall footings, pile footings, steps etc., as shown on the drawings. Footings shall have a solid bearing of not less than 300 mm deep.
Excavations are to be stepped to suit the slope of the ground and kept level at the bottom, maintained free from water or fallen material and shall be firm before placing reinforcing or concrete.
Backfill and ram the earth around footings after concrete has set
Deposit surplus spoil on the site as directed by owners.

3.0 CONCRETOR

3.1 **MATERIALS:** Concrete to be premixed with a test of 17.5 MPa after 28 days. Reinforcing shall be round mild steel rods and reinforcing as detailed. Formwork shall be erected and braced so that the concrete shall finish to the dimensions shown.

3.2 **PILES:** Shall be 200 × 200 mm precast to comply with local By-Laws set into 300 × 300 × 200 mm concrete pad. Piles to have wire holes or wire cast into for the fixing of sleeper plates. Place piles at 1350 mm crs for 100 × 50 joists or 1350 crs in rows of 1950 for 125 × 50 joists.

3.3 **FOOTINGS AND WALLS:** (Pile Foundations) footing shall be minimum of 300 × 150 mm placed on solid bearing and reinforced with 2 dia. 12 mm rods with 125 mm foundation wall with 1 dia. 12 mm rod at top. Alternative footing and wall shall be 600 × 225 mm reniforced with 3 dia. 12 mm rods and 6 or 9 mm starters at specified centres if required by ground conditions or local authority. Base walls over 1800 mm in height shall be 150 mm thick the same shall apply for 2 storey houses. All base walls over 900 mm in height shall be reinforced with 10 dia. rods at 375 mm centres vertically and horizontally wired at crossings with vertical rods hooked to top and bottom horizontals. All reinforcing rods shall be hooked, lapped 40 dia. and wired. Deformed rods need not be hooked.
Details for veneered construction are as shown on the working drawing addenda sheet. Holding down ties of 10 mm dia. hooked rods shall be built into foundation walls at 1350 mm centres maximum. The minimum height from ground to underside of floor shall not be less than 525 mm.

3.4 **VENTILATION:** Fix approved vents 750 mm from all angles and at 1800 crs.

CONCRETE SLAB FLOORS: Slab floors shall be a minimum of 100 mm thick and reinforced with 665 mesh as drawn. Pour slab over 150 mm compacted hardfill covered with a topping slab of 50 mm site concrete and a bitument vapour barrier. Alternative method of slab construction may be used if approved by local authority and lending institution. Slab footings shall be 125 × 500 mm minimum as drawn and reinforced with 2 dia. 15 rods with 6 mm stirrups placed at 600 crs. Increase footing width to 150 mm for 2 storey construction. All floors to be float finished to an approved standard.

3.0 **DAMPCOURSE:** All timber framing coming in contact with concrete shall be protected with a layer of Bituminised Dampcourse.

4.0 CARPENTER AND JOINER

4.1 **GENERAL:** All materials shall be the best of their respective kinds and grades, laid true to their various levels and constructed in a proper tradesmanlike manner, to make the whole of the works a sound construction complying with all local by-laws. Subfloors and framing timbers may be used in an approved grade of treated Radiata in compliance with lending institution and local body requirements. Any alternative timber may be used only with the approval of above.

4.2 **SCHEDULE OF TIMBERS:** (all measurments in millimetres)

Designation	Size	Quality (Contractor to advise)
Jack Studs	100 × 75 & 100 × 50	B.A.H. Rimu or T/Rad
Stringers (sleepers)	100 × 75	" "
Foundation bracing	100 × 50	" "
Plates on concrete	100 × 50	" "
Ground Floor joists	100 × 50 or 125 × 50	" "
Plates	100 × 50 & 75 × 50	B.A.O. Rimu D/Fir T/Rad
Studs Single Storey	100 × 50 & 75 × 50	" "
Studs 2 Storey	100 × 75, 100 × 50, 75 × 50	" "
Dwangs	100 × 50 & 75 × 50	" "
Bracing	150 × 25 & 100 × 25	" "
Ceiling Joists	100 × 50 or as drawn	" "
Beams	as drawn	Sawn Douglas fir or Structural Rad.
Rafters	100 × 50 or trusses	B.A.O. Rimu D/Fir T/Rad
Ridges and Hips	200 × 25 & 150 × 25	" "
Purlins	75 × 50	" "
Underpurlins	100 × 75	" "
Roof Struts	100 × 50	" "
Collar ties	150 × 25 & 100 × 25	" "
Valley	150 × 37 or 200 × 25	" "
Valley Boards	150 × 25	" "
Eave Bearers	75 × 37	" "
Fascia and Barge	200 × 25 or 150 × 25	D.A.H. or T/Rad
Weatherboards	150 × 25 or 200 × 25	Treated Native or Native
Deck Posts and Supports	ex 100 × 100 & 75 × 50	Tan Pine
Balustrade handrail	ex 100 × 50	Tan Pine
Balustrade cross rails	ex 75 × 50	Tan Pine
Flooring	20 mm Plyco	
Architrave	40 × 10	Treated Native or Fin Grade Rad
Skirting	60 × 10	Treated Native or Fin Grade Rad
Scotia	40 × 15	

4.3 **Window Lintels:**

	Native	Exotic		Native	Exotic
Spans to 1000	100 × 50	100 × 50	Spans to 2400	150 × 100	200 × 100
Spans to 1200	100 × 75	100 × 75	Spans to 3300	200 × 100	250 × 100
Spans to 2000	125 × 100	150 × 100	Spans over 3300	250 × 100	300 × 100

Beams from 125 × 100 upwards may be formed with 50 mm members spiked together.
Beams up to and including 2400 may be checked 12 mm into shoulder studs.
Beams exceeding 2400 in width must be supported on 100 x 50 studs securely nailed to shoulder studs.

4.4 **TREATED TIMBERS:** Treated timbers will comply in all respects with the requirements of the Local Body By-Laws, Housing Corporation or other financial institution.

4.5 **DAMPCOURSE:** Fix 3 ply damp courses between concrete and all timber work.

4.6 **FRAMING:** All the materials to be the best of their respective kinds and grades, laid true to their various lines and levels, and constructed in a proper tradesmanlike manner to make the whole of the works a sound construction in accordance with the Local By-Laws, and N.Z.S.S. 1900 Chapter 6.

All sub floor bracing to be diagonal, in both directions, as required or directed by the Local Authority.

Floor joists to be on edge, set out to suit flooring sheets nailed at every crossing and trimmed as required for stairwell openings. Double the joints at each end of the building and under all bearing partitions. Floor joists spanning more than 2.4m shall be stiffened with herringbone strutting or solid bridging in rows at 2.4 crs maximum.

Plates to be in long lengths. Bottom plates and wall plates to be butt jointed over continuous support, top plates half jointed.

Studs are to be set out to accommodate wall lining sheets. Bowed studs are to be straightened with saw cuts, wedges and 100 × 25 or 75 × 25 strapping.

Dwangs shall be wall thickness ex 50 mm spaced at 800 centres or as required for wall linings.

Wall bracing shall be set in flush with wall and be either timber or "Pryde" angle, as close as possible to 45°.

Walls up to 4.5m — 1 brace.

Walls 4.5m to 10.5m — 2 braces in opposite directions.

The wall frames are to be assembled, squared, braced and erected. The bottom plates are to be fastened down with the corners plumbed both ways using a plumb bob and line and the top plates are to be held straight with temporary brace until the ceiling and roof framing and bracing has been completed.

Ceiling joists to be on edge and where practicable spiked alongside rafters.

Ceiling joists spanning more than 2.4m are to be stiffened with runners well spiked at every crossing

150 × 50 runners span 3.6m

200 × 50 runners span 4.8m

Ceiling bracing is required at all gable ends. 1.8m each way from each corner, diagonally fixed.

Supply and fix the necessary timber framing to erect the roof as shown on the detailed drawings.

4.7 **ALTERNATIVE ROOF:** Fix ex 150 × 40 ribbon plate over top plate to exterior walls and ex 200 × 40 plate over top plates to interior walls. Place approved "Pryde" or Gang-nail trusses fixed to ribbon plates complete with stiffening runners and braced at each end of the building. To the underside of trusses and placed at right angles fix ex 75 × 40 timber ceiling battens at centres to suit ceiling linings.

Over rafters fix ex 75 × 50 timber purlins at 760 centres maximum for 0.045 mm iron roofing.

4.8 **EXTERIOR LININGS:** Over building paper fix one of the following linings:—

(a) **Weatherboards:** Fix ex 200 × 25 treated white Pine or similar approved. Rusticated profile with band sawn face. Alternatively fix ex 150 × 25 treated B.A. Rimu. Rusticated profile with band sawn face. All corners to have mitred edges.

(b) **Woodgrain Hardiplank:** Fix 310 mm wide Hardiplank with staggered joints from course to course. Plank overlap to be minimum of 20 mm. Use Hardies P.V.C. jointing strips to all end joints, and Hardies P.V.C. interior and exterior jointing moulds to corners. Nails used shall be 2.5 × 55 mm counter sunk flat heads finished flush with face of board.

(c) **Vertical Boarding:** Fix ex 200 × 25 tanalized finger jointed Pine boards taken full height. Provide 50 × 25 tanalized pine battens. All boards and battens shall be weather grooved.

(d) **Flat Sheet Hardiflex:** Fix 7.5m Hardiflex flat sheet to exterior walls where required butt jointed on studs and covered with ex 75 × 25 Tanalized Pine battens weather grooved.

(e) **Stucco:** Over 4.5 mm Hardiflex (Metal lath if approved by lending and local authority) apply wire mesh held with flat head galvanized clouts and stucco plaster finish.

(f) **Textured Weatherside:** Fix 240 mm wide Weatherside planks with textured face to studs with 2.5 mm gauge 55 mm countersunk galvanized nails. Mitre cut all external and internal corners and running joints. Fix pre-primed approved galvanized corner soakers to all exterior corners. Fix timber wedges as specified by the manufacturer.

4.9 **EXTERIOR FINISH:** Prime all butts and laps of exterior finishing timbers where painted. Use galvanized fastenings for all external finishing work exposed to weather.

4.10 **ACCESS DOOR:** Where pile foundations are used construct an access door minimum 450 × 300 mm.

4.11 **BALUSTRADE:** ex 100 × 50 bevelled edged handrail to be supported by 75 × 75 tanalized pine posts between main posts as drawn. The handrail and 75 × 50 cross rails shall be fixed with galvanized nails.

4.12 **PORCHES:** Generally under all front verandahs line roof with 4.5 mm Hardiflex over exposed rafters at 600 centres. Prepaint and prestain Hardiflex and timber work prior to finishing unless otherwise directed line rear porches with 6 mm Hardiflex flat sheet.

4.13 **METER BOARD:** Standard factory made Meter Board to be installed where directed by Local Power Authority Engineer.

4.14 **INTERIOR LININGS:** All interior linings unless otherwise specified shall be 9.5 mm Gibraltar board fixed with 40 mm galv. nails with all joints flush. Joints shall be stopped with first quality plaster of paris to an even and approved surface. Allow to fix Lamiwall to shower.

Ceiling Linings (see addenda):

(a) Fix Pinex Pre-finished panels 600 × 300 × 12 mm throughout in an "Ashlar" pattern.

(b) If specified, fix 9.5 mm Fibrous plaster sheets with flush joints and securely wadded to joists and nogging. Plaster finish to a smooth surface with first quality plaster of paris.

(c) Fix 9.5 mm Gibraltar Board sheets. All joints stopped to an even approved finish ready for finishing by painter.

4.15 **WARDROBES:** Provide a 300 mm wide shelf 1650 mm from the floor 1"x 18 mm galv. pipe rail below shelf.

4.16 **LINEN CUPBOARD:** Provide five full width × depth shelves from ex 25 mm timber supported on 50 × 25 mm framework.

4.17 **MANHOLE:** Provide a 500 x 500 mm manhole in ceiling.

4.18 **EXTERIOR DOORS:** Back door shall be L. J. Fisher "Terra Tone" finished Aluminium glazed type or similar type complete with frame.

Front doors generally shall be exterior grade Rimu faced with two obscure openings hung on 1½ pairs of 100 mm galv. butts. Where drawn construct 300 mm wide full length side light complete with colonial glazing bars.

INTERIOR DOORS: Shall be Hollow core flush type No. 1 Rimu faced veneer with one clashing strip hung on 1½ pairs of 87 mm A.C. loose pin butts for doors over 660 mm in width.

Jambs shall be dressing grade Native ex 32 mm rebated to take 9.5 mm 619 linings. Provide 12 mm planted stops. Allow for louvred tops to Pantry doors.

Door Sizes:

Internal doors	2000 × 810
	2000 × 710 Service rooms
Sliding doors	2000 × 760
Wardrobe doors	2000 × width Hollow core
External doors	2000 × 860 front
	Fisher doors to rear

Door Locks and Furniture:

Front Entrance Door	Night latch and mortice latch with schlage Plymouth Combination
Rear door	Furniture supplied with door
Bathroom and W.C.	C.P. mortice snibsets or C.P. mortice latchsets with 75 mm socket bolts.
Other interior doors	Mortice latchsets
Wardrobe doors	Sylon wardrobe track and pull handles

Sliding doors shall have fitted timber pelmet over sliding gear.

4.19 **STAIRS:** Closed type to be constructed with strings ex 250 × 50, treads ex 40 mm and risers ex 25 mm. The treads and risers are to be housed 12 mm, glue wedged and glue blocked to the strings. Nosing to be 30 mm max.

Open type to be constructed with undercarriages ex 150 × 75 tread cleats and treads ex 50 mm thick — no risers.

Supply handrail ex 75 × 50 bevelled and rounded to one side of each flight of stairs.

HARDWARE: Provide drawer and door pulls, catches, sliding door gear, butts, weather strips, window hardware, bolts and locks and all other hardware necessary to complete the work.
Locate door knobs and handles 1.2m from floor.

4.21 **WINDOWS:** All windows shown on drawings are coded for L. J. Fisher "Terra Tone" finish aluminium awning type with colonial glazing bars to sashes.
Installation to be as per manufacturers specification.

4.22 **KITCHEN JOINERY:** Cupboard and draw units to be constructed as per drawings with Colonial door and draw fronts from Redwood veneer, face mounted to joinery framework with doors hung on one pair self closing hinges. Where possible H. W. Smith Ltd. i(Chrstchurch) modular "Colonialine" joinery shall be used.
Bench and sink tops to be selected colour laminex with standard stainless steel sink placed as drawn.

4.23 **BATHROOM VANITY:** Joiner to construct a Vanity Unit to fit openings, generally 900 mm wide with 200 mm skirt to front and one side with 150 coved upstand to back and side. Skirt to dark stained Maranti with top and upstand of selected colour. Laminex. Fit Plix or similar oval basin.

4.24 **BATHROOM CABINET:** Supply and install a standard plastic moulded cabinet within wall thickness complete with mirror door.

4.25 **INSULATION:** Provide and install R11 Fibreglass batts to ceiling space throughout as drawn. Insulation to walls if required shall be either (a) R9 batts (b) double sided durofoil (c) gib-foil wall linings. See addenda.

4.26 **HEATING:** See Specification addenda for home heating requirements.

5.0 ROOFER:

5.1 **GALVANIZED IRON ROOFING:** Over purlins, netting and building paper fix one of the following roofing materials, including for all roof flashings.

(a) Fix 0.45 mm (26g) galv. corrugated iron longrun roofing with the direction of laying being towards the prevailing weather. Protrude iron 37 mm into gutter. All flashing to be from .6 mm galvanized iron. Prime underridging and all side and end laps with an etch type primer. Fix lead edged galv. ridging and purpose made barge flashings.

(b) Fix 0.45 mm colour coated Brownbuilt 400 longrun tray roofing complete with lipped edges where sheet pans discharge into gutter and stop ends to lower section roofing over verandahs. Fix custom made "Arrowhead" ridging and hip-prickles as required. At barges fix fineline barge capping pot rivetted to brackets.

5.2 **COATED GALVANIZED TILES:** Over rafters lay 15 lb. Rag Felt lapped and securely fixed.
Place timber battens laid out for full tile at ridge. Lay selected tiles in strict accordance with manufacturers specifications complete with purpose-made accessories. Touch up all exposed nail heads with bitumastic.

5.2 **WORKMANSHIP:** Work to be carried out by experienced tradesmen to produce a weatherproof job in accordance with manufacturers specification. Standard guarantee for tile laying will apply.

6.0 PLUMBER:

6.1 **MATERIALS:** All materials shall be the best of their respective kinds and in all cases comply with N.Z.S.S. and Local Authority regulations.

6.2 **GUTTERING:** Fix standard 125 × 75 mm galvanized steel guttering in accordance with Housing Corporation specification.

6.3 **DOWNPIPES:** 75 mm galv. iron with swan necks and supported by stand off brackets fixed to wall or posts and disposed into stormwater drains.

6.4 **COLD WATER SUPPLY:** Allow to connect up to 9m from mains to house and include "Victor" or similar pressure reducing valve from cylinder on main line inlet. Allow for two brass exterior hope taps located by owner.

6.5 **HOT WATER CYLINDER:** Provide and install either 140 litre or 180 litre electric hot water cylinder as specified in adenda, cased and lagged complete with expansion pipes, 12 mm sludge pipe to exterior wall, and stopcock on hot water supply line that leaves expansion pipe. All piping shall be copper with felt lagging.

6.6 **LAGGING:** All pipes under floor or in ceiling space shall be lagged in districts where this is normal practice due to winter conditions.

6.7 **SANITARY FITTINGS:**
Taps and Cocks: Provide stopcock on supply line before first take-off point. All interior taps shall be "Methven" or similar C.P. streamlined type marked Hot and Cold. Bath taps shall be 18mm with 75mm extensions. Tub, Basin and Sink taps shall be 12mm. Install C.P. stopcock on supply to W.C. Cistern.
Bath: Provide and install 1650mm white enamelled pressed steel bath set on timber framework.
Shower: Install a stainless steel shower base as drawn complete with Dialmix or similar mixing valve with 75mm C.P. octagonal shower rose and recessed soap holder sealed at junction to wall linings. Fit one 19mm dia. C.P. curtain rail with C.P. sockets.
W.C.: Provide and install white earthenware W.C. pan with double flap seat and white Dux or similar flushing cistern.
TUB: Fit a stainless steel tub set on metal brackets complete with waste plug etc.

6.8 **SOIL STACKS, VENTS AND T.V.'s:** Soil stacks and back vents to wastes shall be approved rigid P.V.C. Terminal vents shall be rigid P.V.C. or Fibrolite of approved size and quality.
Allow for all back vents etc.

6.9 **TRAPS AND WASTES:** All traps shall be polypropylene with the remainder of wastes in rigid P.V.C. for all standard thermostatically controlled hot water systems. Provide a readily accessible union close to floor on all waste pipes.

6.10 **FLASHINGS:** Allow for all window and general flashing that may be required.

7.0 DRAINLAYER:

7.1 **GENERAL:** Excavate for and lay all necessary drains from gulley traps and W.C. to septic tank or sewer connection. All pipes and fittings shall be 100mm first quality earthernware with socket joints and shall be laid to a true and even fall. Seal all joints with rubber rings.
Trenches shall be filled after drains have been inspected. All Sanitary arrangements shall comply with local by-laws and shall be completed to the satisfaction of the local Authority.

7.2 **SEPTIC TANK:** All work shall comply with N.Z.S.S. 758 for septic tanks. Where sewerage is not available allow 5 metres of glazed earthernware drainage connecting to a 5 person septic tank complete with sump in compliance with Health regulations. Use 100m glazed earthernware piping from W.C. to sewer connection whether to septic tank or main sewer.

7.3 **STORMWATER:** Allow to take stormwater from downpipes to street outlet or soakpit as required by Local Authority in socketed earthernware pipes.

GULLEY TRAPS ETC: Provide and fix all gulley traps, cleaning eyes, inspection junctions and bends that may be necessary to comply with Local Authority regulations.

8.0 BRICKLAYER:

8.1 **MATERIALS:** Allow for selected bricks or split stone as described in the specification addenda delivered to site in packets free from chipped edges.

8.2 **LAYING:** Mortar to consist of sand, cement and a liquid lime based plasticiser. All corners are to be plumbed both ways with the courses level and straight.

Joints to be 10mm weatherstruck on exposed faces.

Maintain a 40mm cavity, drained at base and ventilated. Wire wall ties to comply with Local Authority regulations. On completion clean down exposed faces and leave free from defects, mortar stains etc.

9.0 ELECTRICIAN:

9.1 **GENERAL:** All installation shall comply with the N.Z.S.S. Electrical Wiring Regulations 1961 and such By-Laws of the Local Electrical Supply Authority as are applicable.

9.2 **LIGHTS AND POWER POINTS:** Install lights, switches, heating points etc., all as shown in the working drawings or detailed in the addenda. Install T.V. point to living room where directed. All switches and plates shall be flush P.D.L. type. All light points shall be filled with white plastic conical shades.

9.3 **ELECTRICAL SUPPLY:** Mains shall be run from point of entry to switch board when installed. Allow to connect to the supply from point of entry up to 20 metres of over-head lines. Allow to connect to the supply from meter box up to 6 metres of underground cable.

9.4 **ELECTRIC RANGE:** Builder shall supply Shacklock 24C or equivalent stove to value or as detailed in addenda.

9.5 **WATER HEATING:** Provide water heating circuit with control switch located in an approved position. Provide element and thermostat for fitting into cylinder by Plumber.

9.6 **BOARDS:** Provide and set up as required a meter board and case in approved position with all necessary equipment therein neatly labelled. Provide and set up a switchboard panel with all necessary fuses, switches etc., properly mounted and hinged on one side.

9.7 **EARTHING:** Provide main earth, earth continuity conductors and earth bonding, as required by the Electric Wiring Regulations.

9.8 **TESTS:** Carry out all Testing as required by regulations and obtain approval by the local supply authority Inspector.

10.0 PAINTING AND PAPERHANGING:

10.1 **GENERAL:** All work shall be in accordance with good trade practice applied during suitable weather and using only good quality ready mixed paints applied according to manufacturers specifications.

10.2 **EXTERIOR WORK:**

Posts, Beams, Weatherboards: Apply GOLD-X OLYMPIC timber stain of selected colour. First coat to be applied prior to fixing and thinned in accordance with manufacturers specifications. After fixing stop all nail holes with matching colour filler and allow several days before applying second coat.

Woodgrain Hardiflex: Wet surface thoroughly and allow excess water to drain. Apply one coat of selected colour GOLD-X OLYMPIC timber stain unthinned over damp surface. Allow minimum of two hours before applying second unthinned coat. Care to be taken to ensure a wet edge is maintained and an even finish is obtained. Use retarder if drying is too rapid.

Woodwork: Prime and stop all fascias, barges, louvres, timber deck balustrades and timber door frames. Rub down and apply an approved undercoat recommended by the manufacturer of the finishing coat. Apply one finishing coat of Gloss Acrylic.

Flat Hardiflex: Apply two coats of an exterior quality P.V.A. or latex paint to all Hardiflex surfaces. The first coat shall be matt finish and the second coat semi-gloss.

Textured Weatherside: Over pre-primed surface apply: Two coats of 4 Seasons Acrylic Gloss or similar. Selected paint to be applied in strict accordance with paint manufacturers specifications for weatherside.

Roofing: The painting of corrugated iron roofing is not included in this Contract.

Spouting and Downpipes: Prime with an approved calcium plumbate primer, apply an undercoat and finishing coat to match woodwork.

NOTE: Use Delux Timbacryl as alternative to Gold-X on Weatherboard etc, and P.V.A. on Hardiflex wall linings.

10.3 **INTERIOR WORK:**

Exposed Beams: Apply two coats of Charcoal colour GOLD-X fence stain or similar approved.

Skirtings, Scotia, Door Jambs and Doors: Apply two coats of selected timber stain, rub down between coats.

Kitchen Joinery: Selected stain as for doors if joinery is not factory finished.

Ceilings: Seal and apply undercoat and one finishing coat of Fullgloss enamel to all service rooms. Halls, Bedrooms, Living and Dining Rooms to be sealed and finished with two coats matt oil based paint.

Cupboards: Seal and apply two coats matt finished P.V.A. or similar to walls and ceilings.

Walls: All walls shall be wallpapered unless specified in addenda. See P.C. sum for Wallpaper allowance.

Floors: Unless otherwise specified timber floors will receive only one sanding in preparation for carpet or vinyl. No allowance made for polyurethane finish. Floors to be swept clean on completion.

11.0 PLASTERER:

11.1 **GENERAL:** The exterior faces of steps, porch slabs, upstands and base walls shall be plastered in accordance with standard trade practice.

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Exterior Joinery
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1.3 **VARIATIONS:** Any variations in materials or finish from that specified or quoted for shall be listed and such a list shall be read as part of the signed contract or as an addition to the contract.

1.4 **NOTICES, FEES, ETC:** The Contractor shall give all usual notices to the local Authority, arrange for foundation inspection etc. and the testing of drainage works apply for and pay for Building Permits and comply with the requirements of all Local Body By-Laws.

1.5 **INTERPRETATION:** Materials shown but not specified must be of a kind commonly employed for the services it is intended to perform. The Contractor will be responsible for the setting out of the works and all figure dimensions will take precedence over scaled dimensions. The drawings and these specifications together with any addenda will be considered sufficient for the description of the works and shall be read in conjunction with each other.

1.6 **EXTRAS:** No additional work will be undertaken without written agreement between employer and contractor.

1.7 **MATERIALS:** Materials must be the best of their respective kinds and where a specified material is not procurable at the time it is required, a substitute or similar quality may be used in order to avoid any delay. Any such substitute must comply with the local and lending authority.

1.8 **SITE:** This contract is based upon the building site being within 300 mm of level and having solid foundation bearing to a maximum dept of 600 mm below existing ground level. The owner will be responsible for costs of foundation work aditional to this. The site shall have suitable access and shall be well drained with good soakage.

1.9 **ADJUSTMENTS TO CONTRACT PRICE:** This clause shall be as laid down in the building agreement between the owner and the contractor.

1.10 **MAINTENANCE:** This house shall be maintained for a period of 31 (thirty-one) days after the owner has taken possession. During this period maintenance items shall be listed by the owner and given to the contractor for rectification.

1.11 **DESIGN:** The structural design is based on N.Z.S.S. 1900 with relevant chapters. Subsequent approved changes to such chapters will be read as superseding corresponding items within this specification.

2.0 EXCAVATOR

2.1 **SITE WORK:** Remove all vegetation, including trees, stumps etc from the area to be built on and bulldoze the site to the required levels. Excavate for all wall footings, pile footings, steps etc., as shown on the drawings. Footings shall have a solid bearing of not less than 300 mm deep.
Excavations are to be stepped to suit the slope of the ground and kept level at the bottom, maintained free from water or fallen material and shall be firm before placing reinforcing or concrete.
Backfill and ram the earth around footings after concrete has set
Deposit surplus spoil on the site as directed by owners.

3.0 CONCRETOR

3.1 **MATERIALS:** Concrete to be premixed with a test of 17.5 MPa after 28 days. Reinforcing shall be round mild steel rods and reinforcing as detailed. Formwork shall be erected and braced so that the concrete shall finish to the dimensions shown.

3.2 **PILES:** Shall be 200 × 200 mm precast to comply with local By-Laws set into 300 × 300 × 200 mm concrete pad. Piles to have wire holes or wire cast into for the fixing of sleeper plates. Place piles at 1350 mm crs for 100 × 50 joists or 1350 crs in rows of 1950 for 125 × 50 joists.

3.3 **FOOTINGS AND WALLS:** (Pile Foundations) footing shall be minimum of 300 × 150 mm placed on solid bearing and reinforced with 2 dia. 12 mm rods with 125 mm foundation wall with 1 dia. 12 mm rod at top. Alternative footing and wall shall be 600 × 225 mm reniforced with 3 dia. 12 mm rods and 6 or 9 mm starters at specified centres if required by ground conditions or local authority. Base walls over 1800 mm in height shall be 150 mm thick the same shall apply for 2 storey houses. All base walls over 900 mm in height shall be reinforced with 10 dia. rods at 375 mm centres vertically and horizontally wired at crossings with vertical rods hooked to top and bottom horizontals. All reinforcing rods shall be hooked, lapped 40 dia. and wired. Deformed rods need not be hooked.
Details for veneered construction are as shown on the working drawing addenda sheet. Holding down ties of 10 mm dia. hooked rods shall be built into foundation walls at 1350 mm centres maximum. The minimum height from ground to underside of floor shall not be less than 525 mm.

3.4 **VENTILATION:** Fix approved vents 750 mm from all angles and at 1800 crs.

CONCRETE SLAB FLOORS: Slab floors shall be a minimum of 100 mm thick and reinforced with 665 mesh as drawn. Pour slab over 150 mm compacted hardfill covered with a topping slab of 50 mm site concrete and a bitument vapour barrier. Alternative method of slab construction may be used if approved by local authority and lending institution. Slab footings shall be 125 × 500 mm minimum as drawn and reinforced with 2 dia. 15 rods with 6 mm stirrups placed at 600 crs. Increase footing width to 150 mm for 2 storey construction. All floors to be float finished to an approved standard.

3.0 **DAMPCOURSE:** All timber framing coming in contact with concrete shall be protected with a layer of Bituminised Dampcourse.

4.0 CARPENTER AND JOINER

4.1 **GENERAL:** All materials shall be the best of their respective kinds and grades, laid true to their various levels and constructed in a proper tradesmanlike manner, to make the whole of the works a sound construction complying with all local by-laws. Subfloors and framing timbers may be used in an approved grade of treated Radiata in compliance with lending institution and local body requirements. Any alternative timber may be used only with the approval of above.

4.2 **SCHEDULE OF TIMBERS:** (all measurments in millimetres)

Designation	Size	Quality (Contractor to advise)
Jack Studs	100 × 75 & 100 × 50	B.A.H. Rimu or T/Rad
Stringers (sleepers)	100 × 75	" "
Foundation bracing	100 × 50	" "
Plates on concrete	100 × 50	" "
Ground Floor joists	100 × 50 or 125 × 50	" "
Plates	100 × 50 & 75 × 50	B.A.O. Rimu D/Fir T/Rad
Studs Single Storey	100 × 50 & 75 × 50	" "
Studs 2 Storey	100 × 75, 100 × 50, 75 × 50	" "
Dwangs	100 × 50 & 75 × 50	" "
Bracing	150 × 25 & 100 × 25	" "
Ceiling Joists	100 × 50 or as drawn	" "
Beams	as drawn	Sawn Douglas fir or Structural Rad.
Rafters	100 × 50 or trusses	B.A.O. Rimu D/Fir T/Rad
Ridges and Hips	200 × 25 & 150 × 25	" "
Purlins	75 × 50	" "
Underpurlins	100 × 75	" "
Roof Struts	100 × 50	" "
Collar ties	150 × 25 & 100 × 25	" "
Valley	150 × 37 or 200 × 25	" "
Valley Boards	150 × 25	" "
Eave Bearers	75 × 37	" "
Fascia and Barge	200 × 25 or 150 × 25	D.A.H. or T/Rad
Weatherboards	150 × 25 or 200 × 25	Treated Native or Native
Deck Posts and Supports	ex 100 × 100 & 75 × 50	Tan Pine
Balustrade handrail	ex 100 × 50	Tan Pine
cross rails	ex 75 × 50	Tan Pine
Flooring	20 mm Plyco	
Architrave	40 × 10	Treated Native or Fin Grade Rad
Skirting	60 × 10	Treated Native or Fin Grade Rad
Scotia	40 × 15	

4.3 **Window Lintels:**

	Native	Exotic		Native	Exotic
Spans to 1000	100 × 50	100 × 50	Spans to 2400	150 × 100	200 × 100
Spans to 1200	100 × 75	100 × 75	Spans to 3300	200 × 100	250 × 100
Spans to 2000	125 × 100	150 × 100	Spans over 3300	250 × 100	300 × 100

Beams from 125 × 100 upwards may be formed with 50 mm members spiked together.
Beams up to and including 2400 may be checked 12 mm into shoulder studs.
Beams exceeding 2400 in width must be supported on 100 x 50 studs securely nailed to shoulder studs.

4.4 **TREATED TIMBERS:** Treated timbers will comply in all respects with the requirements of the Local Body By-Laws, Housing Corporation or other financial institution.

4.5 **DAMPCOURSE:** Fix 3 ply damp courses between concrete and all timber work.

4.6 **FRAMING:** All the materials to be the best of their respective kinds and grades, laid true to their various lines and levels, and constructed in a proper tradesmanlike manner to make the whole of the works a sound construction in accordance with the Local By-Laws, and N.Z.S.S. 1900 Chapter 6.
All sub floor bracing to be diagonal, in both directions, as required or directed by the Local Authority.
Floor joists to be on edge, set out to suit flooring sheets nailed at every crossing and trimmed as required for stairwell openings. Double the joints at each end of the building and under all bearing partitions. Floor joists spanning more than 2.4m shall be stiffened with herringbone strutting or solid bridging in rows at 2.4 crs maximum.
Plates to be in long lengths. Bottom plates and wall plates to be butt jointed over continuous support, top plates half jointed.
Studs are to be set out to accommodate wall lining sheets. Bowed studs are to be straightened with saw cuts, wedges and 100 × 25 or 75 × 25 strapping.
Dwangs shall be wall thickness ex 50 mm spaced at 800 centres or as required for wall linings.
Wall bracing shall be set in flush with wall and be either timber or "Pryde" angle, as close as possible to 45°.
Walls up to 4.5m — 1 brace.
Walls 4.5m to 10.5m — 2 braces in opposite directions.

The wall frames are to be assembled, squared, braced and erected. The bottom plates are to be fastened down with the corners plumbed both ways using a plumb bob and line and the top plates are to be held straight with temporary brace until the ceiling and roof framing and bracing has been completed.

Ceiling joists to be on edge and where practicable spiked alongside rafters.

Ceiling joists spanning more than 2.4m are to be stiffened with runners well spiked at every crossing

150 × 50 runners span 3.6m

200 × 50 runners span 4.8m

Ceiling bracing is required at all gable ends. 1.8m each way from each corner, diagonally fixed.

Supply and fix the necessary timber framing to erect the roof as shown on the detailed drawings.

4.7 **ALTERNATIVE ROOF:** Fix ex 150 × 40 ribbon plate over top plate to exterior walls and ex 200 × 40 plate over top plates to interior walls. Place approved "Pryde" or Gang-nail trusses fixed to ribbon plates complete with stiffening runners and braced at each end of the building. To the underside of trusses and placed at right angles fix ex 75 × 40 timber ceiling battens at centres to suit ceiling linings.

Over rafters fix ex 75 × 50 timber purlins at 760 centres maximum for 0.045 mm iron roofing.

4.8 **EXTERIOR LININGS:** Over building paper fix one of the following linings:—

(a) **Weatherboards:** Fix ex 200 × 25 treated white Pine or similar approved. Rusticated profile with band sawn face. Alternatively fix ex 150 × 25 treated B.A. Rimu. Rusticated profile with band sawn face. All corners to have mitred edges.

(b) **Woodgrain Hardiplank:** Fix 310 mm wide Hardiplank with staggered joints from course to course. Plank overlap to be minimum of 20 mm. Use Hardies P.V.C. jointing strips to all end joints, and Hardies P.V.C. interior and exterior jointing moulds to corners. Nails used shall be 2.5 × 55 mm counter sunk flat heads finished flush with face of board.

(c) **Vertical Boarding:** Fix ex 200 × 25 tanalized finger jointed Pine boards taken full height. Provide 50 × 25 tanalized pine battens. All boards and battens shall be weather grooved.

(d) **Flat Sheet Hardiflex:** Fix 7.5m Hardiflex flat sheet to exterior walls where required butt jointed on studs and covered with ex 75 × 25 Tanalized Pine battens weather grooved.

(e) **Stucco:** Over 4.5 mm Hardiflex (Metal lath if approved by lending and local authority) apply wire mesh held with flat head galvanized clouts and stucco plaster finish.

(f) **Textured Weatherside:** Fix 240 mm wide Weathers ide planks with textured face to studs with 2.5 mm gauge 55 mm countersunk galvanized nails. Mitre cut all external and internal corners and running joints. Fix pre-primed approved galvanized corner soakers to all exterior corners. Fix timber wedges as specified by the manufacturer.

4.9 **EXTERIOR FINISH:** Prime all butts and laps of exterior finishing timbers where painted. Use galvanized fastenings for all external finishing work exposed to weather.

4.10 **ACCESS DOOR:** Where pile foundations are used construct an access door minimum 450 × 300 mm.

4.11 **BALUSTRADE:** ex 100 × 50 bevelled edged handrail to be suppored by 75 × 75 tanalized pine posts between main posts as drawn. The handrail and 75 × 50 cross rails shall be fixed with galvanized nails.

4.12 **PORCHES:** Generally under all front verandahs line roof with 4.5 mm Hardiflex over exposed rafters at 600 centres. Prepaint and prestain Hardiflex and timber work prior to finishing unless otherwise directed line rear porches with 6 mm Hardiflex flat sheet.

4.13 **METER BOARD:** Standard factory made Meter Board to be installed where directed by Local Power Authority Engineer.

4.14 **INTERIOR LININGS:** All interior linings unless otherwise specified shall be 9.5 mm Gibraltar board fixed with 40 mm galv. nails with all joints flush. Joints shall be stopped with first quality plaster of paris to an even and approved surface. Allow to fix Lamiwall to shower.

Ceiling Linings (see addenda):

(a) Fix Pinex Pre-finished panels 600 × 300 × 12 mm throughout in an "Ashlar" pattern.

(b) If specified, fix 9.5 mm Fibrous plaster sheets with flush joints and securely wadded to joists and nogging. Plaster finish to a smooth surface with first quality plaster of paris.

(c) Fix 9.5 mm Gibraltar Board sheets. All joints stopped to an even approved finish ready for finishing by painter.

4.15 **WARDROBES:** Provide a 300 mm wide shelf 1650 mm from the floor 1½ 18 mm galv. pipe rail below shelf.

4.16 **LINEN CUPBOARD:** Provide five full width × depth shelves from ex 25 mm timber supported on 50 × 25 mm framework.

4.17 **MANHOLE:** Provide a 500 x 500 mm manhole in ceiling.

4.18 **EXTERIOR DOORS:** Back door shall be L. J. Fisher "Terra Tone" finished Aluminium glazed type or similar type complete with frame.

Front doors generally shall be exterior grade Rimu faced with two obscure openings hung on 1½ pairs of 100 mm galv. butts. Where drawn construct 300 mm wide full length side light complete with colonial glazing bars.

INTERIOR DOORS: Shall be Hollow core flush type No. 1 Rimu faced veneer with one clashing strip hung on 1½ pairs of 87 mm A.C. loose pin butts for doors over 660 mm in width.

Jambs shall be dressing grade Native ex 32 mm rebated to take 9.5 mm 619 linings. Provide 12 mm planted stops. Allow for louvred tops to Pantry doors.

Door Sizes:

Internal doors	2000 × 810
	2000 × 710 Service rooms
Sliding doors	2000 × 760
Wardrobe doors	2000 × width Hollow core
External doors	2000 × 860 front
	Fisher doors to rear

Door Locks and Furniture:

Front Entrance Door	Night latch and mortice latch with schlage Plymouth Combination
Rear door	Furniture supplied with door
Bathroom and W.C.	C.P. mortice snibsets or C.P. mortice latchsets with 75 mm socket bolts.
Other interior doors	Mortice latchsets
Wardrobe doors	Sylon wardrobe track and pull handles

Sliding doors shall have fitted timber pelmet over sliding gear.

4.19 **STAIRS:** Closed type to be constructed with strings ex 250 × 50, treads ex 40 mm and risers ex 25 mm. The treads and risers are to be housed 12 mm, glue wedged and glue blocked to the strings. Nosing to be 30 mm max.

Open type to be constructed with undercarriages ex 150 × 75 tread cleats and treads ex 50 mm thick — no risers.

Supply handrail ex 75 × 50 bevelled and rounded to one side of each flight of stairs.

HARDWARE: Provide drawer and door pulls, catches, sliding door gear, butts, weather strips, window hardware, bolts and locks and all other hardware necessary to complete the work.
Locate door knobs and handles 1.2m from floor.

4.21 **WINDOWS:** All windows shown on drawings are coded for L. J. Fisher "Terra Tone" finish aluminium awning type with colonial glazing bars to sashes.
Installation to be as per manufacturers specification.

4.22 **KITCHEN JOINERY:** Cupboard and draw units to be constructed as per drawings with Colonial door and draw fronts from Redwood veneer, face mounted to joinery framework with doors hung on one pair self closing hinges. Where possible H. W. Smith Ltd. i(Chrstchurch) modular "Colonialine" joinery shall be used.
Bench and sink tops to be selected colour laminex with standard stainless steel sink placed as drawn.

4.23 **BATHROOM VANITY:** Joiner to construct a Vanity Unit to fit openings, generally 900 mm wide with 200 mm skirt to front and one side with 150 coved upstand to back and side. Skirt to dark stained Maranti with top and upstand of selected colour. Laminex. Fit Plix or similar oval basin.

4.24 **BATHROOM CABINET:** Supply and install a standard plastic moulded cabinet within wall thickness complete with mirror door.

4.25 **INSULATION:** Provide and install R11 Fibreglass batts to ceiling space throughout as drawn. Insulation to walls if required shall be either (a) R9 batts (b) double sided durofoil (c) gib-foil wall linings. See addenda.

4.26 **HEATING:** See Specification addenda for home heating requirements.

5.0 ROOFER:

5.1 **GALVANIZED IRON ROOFING:** Over purlins, netting and building paper fix one of the following roofing materials, including for all roof flashings.

(a) Fix 0.45 mm (26g) galv. corrugated iron longrun roofing with the direction of laying being towards the prevailing weather. Protrude iron 37 mm into gutter. All flashing to be from .6 mm galvanized iron. Prime underridging and all side and end laps with an etch type primer. Fix lead edged galv. ridging and purpose made barge flashings.

(b) Fix 0.45 mm colour coated Brownbuilt 400 longrun tray roofing complete with lipped edges where sheet pans discharge into gutter and stop ends to lower section roofing over verandahs. Fix custom made "Arrowhead" ridging and hip-prickles as required. At barges fix fineline barge capping pot rivetted to brackets.

5.2 **COATED GALVANIZED TILES:** Over rafters lay 15 lb. Rag Felt lapped and securely fixed.
Place timber battens laid out for full tile at ridge. Lay selected tiles in strict accordance with manufacturers specifications complete with purpose-made accessories. Touch up all exposed nail heads with bitumastic.

5.2 **WORKMANSHIP:** Work to be carried out by experienced tradesmen to produce a weatherproof job in accordance with manufacturers specification. Standard guarantee for tile laying will apply.

6.0 PLUMBER:

6.1 **MATERIALS:** All materials shall be the best of their respective kinds and in all cases comply with N.Z.S.S. and Local Authority regulations.

6.2 **GUTTERING:** Fix standard 125 × 75 mm galvanized steel guttering in accordance with Housing Corporation specification.

6.3 **DOWNPIPES:** 75 mm galv. iron with swan necks and supported by stand off brackets fixed to wall or posts and disposed into stormwater drains.

6.4 **COLD WATER SUPPLY:** Allow to connect up to 9m from mains to house and include "Victor" or similar pressure reducing valve from cylinder on main line inlet. Allow for two brass exterior hope taps located by owner.

6.5 **HOT WATER CYLINDER:** Provide and install either 140 litre or 180 litre electric hot water cylinder as specified in adenda, cased and lagged complete with expansion pipes, 12 mm sludge pipe to exterior wall, and stopcock on hot water supply line that leaves expansion pipe. All piping shall be copper with felt lagging.

6.6 **LAGGING:** All pipes under floor or in ceiling space shall be lagged in districts where this is normal practice due to winter conditions.

6.7 **SANITARY FITTINGS:**
Taps and Cocks: Provide stopcock on supply line before first take-off point. All interior taps shall be "Methven" or similar C.P. streamlined type marked Hot and Cold. Bath taps shall be 18mm with 75mm extensions. Tub, Basin and Sink taps shall be 12mm. Install C.P. stopcock on supply to W.C. Cistern.
Bath: Provide and install 1650mm white enamelled pressed steel bath set on timber framework.
Shower: Install a stainless steel shower base as drawn complete with Dialmix or similar mixing valve with 75mm C.P. octagonal shower rose and recessed soap holder sealed at junction to wall linings. Fit one 19mm dia. C.P. curtain rail with C.P. sockets.
W.C.: Provide and install white earthenware W.C. pan with double flap seat and white Dux or similar flushing cistern
TUB: Fit a stainless steel tub set on metal brackets complete with waste plug etc.

6.8 **SOIL STACKS, VENTS AND T.V.'s:** Soil stacks and back vents to wastes shall be approved rigid P.V.C. Terminal vents shall be rigid P.V.C. or Fibrolite of approved size and quality.
Allow for all back vents etc.

6.9 **TRAPS AND WASTES:** All traps shall be polypropylene with the remainder of wastes in rigid P.V.C. for all standard thermostatically controlled hot water systems. Provide a readily accessible union close to floor on all waste pipes.

6.10 **FLASHINGS:** Allow for all window and general flashing that may be required.

7.0 DRAINLAYER:

7.1 **GENERAL:** Excavate for and lay all necessary drains from gulley traps and W.C. to septic tank or sewer connection. All pipes and fittings shall be 100mm first quality earthernware with socket joints and shall be laid to a true and even fall. Seal all joints with rubber rings.
Trenches shall be filled after drains have been inspected. All Sanitary arrangements shall comply with local by-laws and shall be completed to the satisfaction of the local Authority.

7.2 **SEPTIC TANK:** All work shall comply with N.Z.S.S. 758 for septic tanks. Where sewerage is not available allow 5 metres of glazed earthernware drainage connecting to a 5 person septic tank complete with sump in compliance with Health regulations. Use 100m glazed earthernware piping from W.C. to sewer connection whether to septic tank or main sewer.

7.3 **STORMWATER:** Allow to take stormwater from downpipes to street outlet or soakpit as required by Local Authority in socketed earthernware pipes.

GULLEY TRAPS ETC: Provide and fix all gulley traps, cleaning eyes, inspection junctions and bends that may be necessary to comply with Local Authority regulations.

8.0 BRICKLAYER:

8.1 **MATERIALS:** Allow for selected bricks or split stone as described in the specification addenda delivered to site in packets free from chipped edges.

8.2 **LAYING:** Mortar to consist of sand, cement and a liquid lime based plasticiser. All corners are to be plumbed both ways with the courses level and straight.

Joints to be 10mm weatherstruck on exposed faces.

Maintain a 40mm cavity, drained at base and ventilated. Wire wall ties to comply with Local Authority regulations. On completion clean down exposed faces and leave free from defects, mortar stains etc.

9.0 ELECTRICIAN:

9.1 **GENERAL:** All installation shall comply with the N.Z.S.S. Electrical Wiring Regulations 1961 and such By-Laws of the Local Electrical Supply Authority as are applicable.

9.2 **LIGHTS AND POWER POINTS:** Install lights, switches, heating points etc., all as shown in the working drawings or detailed in the addenda. Install T.V. point to living room where directed. All switches and plates shall be flush P.D.L. type. All light points shall be filled with white plastic conical shades.

9.3 **ELECTRICAL SUPPLY:** Mains shall be run from point of entry to switch board when installed. Allow to connect to the supply from point of entry up to 20 metres of over-head lines. Allow to connect to the supply from meter box up to 6 metres of underground cable.

9.4 **ELECTRIC RANGE:** Builder shall supply Shacklock 24C or equivalent stove to value or as detailed in addenda.

9.5 **WATER HEATING:** Provide water heating circuit with control switch located in an approved position. Provide element and thermostat for fitting into cylinder by Plumber.

9.6 **BOARDS:** Provide and set up as required a meter board and case in approved position with all necessary equipment therein neatly labelled. Provide and set up a switchboard panel with all necessary fuses, switches etc., properly mounted and hinged on one side.

9.7 **EARTHING:** Provide main earth, earth continuity conductors and earth bonding, as required by the Electric Wiring Regulations.

9.8 **TESTS:** Carry out all Testing as required by regulations and obtain approval by the local supply authority Inspector.

10.0 PAINTING AND PAPERHANGING:

10.1 **GENERAL:** All work shall be in accordance with good trade practice applied during suitable weather and using only good quality ready mixed paints applied according to manufacturers specifications.

10.2 **EXTERIOR WORK:**

Posts, Beams, Weatherboards: Apply GOLD-X OLYMPIC timber stain of selected colour. First coat to be applied prior to fixing and thinned in accordance with manufacturers specifications. After fixing stop all nail holes with matching colour filler and allow several days before applying second coat.

Woodgrain Hardiflex: Wet surface thoroughly and allow excess water to drain. Apply one coat of selected colour GOLD-X OLYMPIC timber stain unthinned over damp surface. Allow minimum of two hours before applying second unthinned coat. Care to be taken to ensure a wet edge is maintained and an even finish is obtained. Use retarder if drying is too rapid.

Woodwork: Prime and stop all fascias, barges, louvres, timber deck balustrades and timber door frames. Rub down and apply an approved undercoat recommended by the manufacturer of the finishing coat. Apply one finishing coat of Gloss Acrylic.

Flat Hardiflex: Apply two coats of an exterior quality P.V.A. or latex paint to all Hardiflex surfaces. The first coat shall be matt finish and the second coat semi-gloss.

Textured Weatherside: Over pre-primed surface apply: Two coats of 4 Seasons Acrylic Gloss or similar. Selected paint to be applied in strict accordance with paint manufacturers specifications for weatherside.

Roofing: The painting of corrugated iron roofing is not included in this Contract.

Spouting and Downpipes: Prime with an approved calcium plumbate primer, apply an undercoat and finishing coat to match woodwork.

NOTE: Use Delux Timbacryl as alternative to Gold-X on Weatherboard etc, and P.V.A. on Hardiflex wall linings.

10.3 **INTERIOR WORK:**

Exposed Beams: Apply two coats of Charcoal colour GOLD-X fence stain or similar approved.

Skirtings, Scotia, Door Jambs and Doors: Apply two coats of selected timber stain, rub down between coats.

Kitchen Joinery: Selected stain as for doors if joinery is not factory finished.

Ceilings: Seal and apply undercoat and one finishing coat of Fullgloss enamel to all service rooms. Halls, Bedrooms, Living and Dining Rooms to be sealed and finished with two coats matt oil based paint.

Cupboards: Seal and apply two coats matt finished P.V.A. or similar to walls and ceilings.

Walls: All walls shall be wallpapered unless specified in addenda. See P.C. sum for Wallpaper allowance.

Floors: Unless otherwise specified timber floors will receive only one sanding in preparation for carpet or vinyl. No allowance made for polyurethane finish. Floors to be swept clean on completion.

11.0 PLASTERER:

11.1 **GENERAL:** The exterior faces of steps, porch slabs, upstands and base walls shall be plastered in accordance with standard trade practice.