DATE RECEIVED 21-8-86

RANGIORA DISTRICT COUNCIL

APPLICATION FOR BUILDING PERMIT

PERM

Approved

BUILDING INSPECTOR

NAME Whyte

OFFICE USE ONLY

Item	Fee	Receipt No.
BUILDING PERMIT	$28	PAID
BUILDING LEVY		
PLUMBING AND DRAINAGE		
WATER CONNECTION		
SEWER CONNECTION		

6433

FOR SCALE OF FEES SEE BACK PAGE

29.8.86
Site inspection - location & concrete pad 'OK'

RANGIORA DISTRICT COUNCIL

BUILDING APPLICATION FORM

Fees must be paid with Application.
For Scale of Fees see back page.

The County Building Inspector,
P.O. Box 9,
RANGIORA.

Date 21. 8. 86

Dear Sir,

I hereby apply for permission to Erect conservatory.
at 274 Kingsbury St. Rangiora
for Mr + Mrs R Whyte. of Same address according to locality plan and detailed plans, elevations, cross sections, and specifications of building deposited herewith, in duplicate.

Particulars of land: Lot No. 21. on R.S.
D.P. 44633

Length of Boundaries Area 789 m²

Particulars of Building—Foundations: concrete

Walls: Glass / Aluminium. Roof: poly / Gal / Alum.

Area of Floor space: 13.8 square metres

Area of Outbuildings: 49. square metres

Estimated Value of Building $ 5.000

Estimated Value of Drainage and Plumbing $

TOTAL $ 5000

Proposed purposes for which every part of building is to be used or occupied (describing separately each part intended for use or occupation for a separate purpose): Recreation and Plants.

Proposed use or occupancy of other part of building:

Nature of ground on which building is to be placed and of adjacent strata: Existing conc. Floor.

Yours faithfully,

Owner.

STYLE-LITE ALUM. Builder.
(MR JERARD)

Postal Address: 572 WAIRAKIE Rd.
CH CH

IMPORTANT

Builder must check Electrical Supply Authority's Requirements. Sewer Connection — it is essential builder check location and level of sewer main to verify drainage installation can be connected to the county sewer.

Owner R. Whyte Builder R.R. Jerard Val. Roll No. 21594-441 Permit No. 6433

BUILDING INSPECTOR'S FIELD SHEET

AUTHORITY

Stats. No. D 035798

RANGIORA DISTRICT No. 6433

Inspector: M

File No.

Receipt No. 6433

Date Permit Issued 2/9/86

OWNER

Name: Mr & Mrs R. Whyte

Mailing Address: 274 Kingsbury St, Rangiora

BUILDER

Name: R. R. Jerard

Mailing Address: 572 Wairakie Rd, Christchurch.

PROPERTY ON WHICH BUILDING IS TO BE ERECTED/DEMOLISHED

SITE

Street No.: 274

Street Name: Kingsbury St

Town/District: Rangiora

Riding:

LEGAL DESCRIPTION

Valuation Roll No.: 21594-441

Lot: 21 D.P.: 44633

Section: Block:

Survey District:

DESCRIPTION OF PROPOSED WORK AND MAIN PURPOSE OF USE

Erect Conservatory.

FLOOR AREA

Whole Sq. Metres: 13

DWELLING UNITS

Number Erected:

ESTIMATED VALUES $

Building	5,000.00
Plumbing	
Drainage	
TOTAL	5,000.00

NATURE OF PERMIT (TICK BOX)

- [ ] NEW BUILDING – exclude domestic garages and domestic outbuildings
- [ ] FOUNDATIONS ONLY
- [ ] ALTERED, REPAIRED, EXTENDED – include conversions and resited buildings
- [ ] NEW CONSTRUCTION OTHER THAN BUILDINGS – include demolitions
- [x] DOMESTIC GARAGES AND DOMESTIC OUTBUILDINGS

FEES APPLICABLE

Building Permit	$ 28.00	Water Connection	$
Street Damage Deposit	$	Vehicle Crossing Levy	$
Building Research Levy	$	M.S. Plumbing	$
Plumbing	$		$
Drainage	$		$
Sewer Connection	$	TOTAL:	$ 28.00

Receipt No. 6433

Date of Payment 21/8/86

Authorised Officer

Special Conditions:

(1) Notify office 24 hrs prior to any concrete being poured.

(2) Final inspection required.

Date Inspected	REMARKS (e.g. stage reached with work)

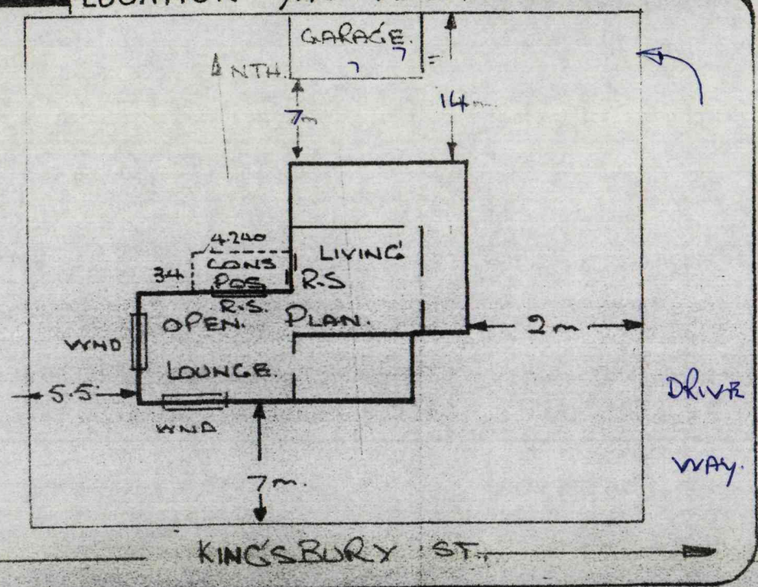
(CONTINUED OVER)

Date Inspected	

COMPLETED (Signature)________________________ Date ______/______/______

BC/MP/01A

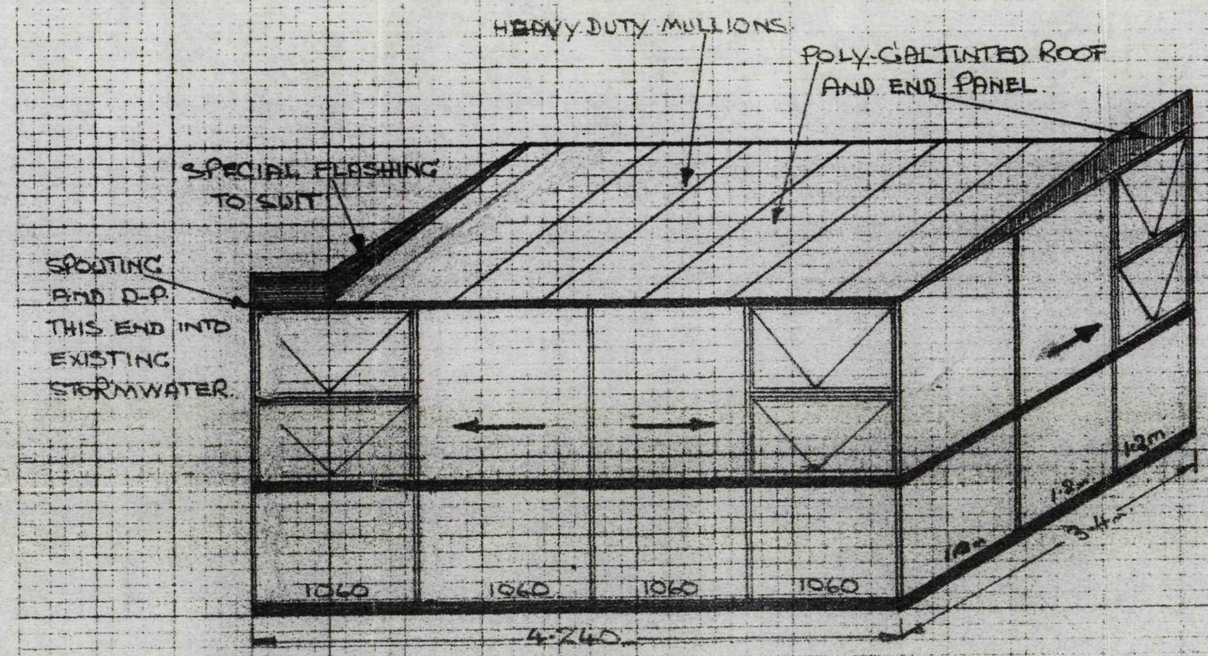
LOCATION SITE PLAN



SPECIFICATIONS

EXIST. WALLS	RED BRICK	EXTRUSION COLOUR	B.A
EXIST. FLOOR	CONC	GLASS ABOVE V RAIL	BRONZE
		GLASS BELOW V RAIL	BRONZE
NEW FLOOR REQ.		HINGE DOOR LOCK	SLIDING DOORS LATCH
BASE FLASHING		GUTTER	YES
OTHER FLASHING		DOWNPIPE	YES
FASCIA TYPE	TAYLOR	PERMIT REQ.	YES

LOT Nº 21
D.P. 44633
789 m² LAND
132.5 m² HOUSE



EXISTING CONCRETE FLOOR LEVEL
ENSURE TAYLOR FASCIA IS CHECKED

Approved
BUILDING INSPECTOR

JOB NO: #370

APPROX DELIVERY TIME : 4-6 wks

INSTALLATION DATE :

the Conservatory Specialists

STYLE-LITE ALUMINIUM.

572 WAIRAKEI RD CHCH ☎ 584-419

CLIENT : Mr + Mrs R. WHYTE

ADDRESS : 274 KINGSBURY ST.

(BUS) 0502 5752 (HOME)

PLAN OF ALLOTMENT

Showing position of proposed buildings on such allotment

Note—Distances of each building from boundary lines must beclearly indicated.

Indicate position of any sewer lines.

All foundations must be inspected before pouring.

RANGIORA DISTRICT COUNCIL

FEES PAYABLE ON ANY BUILDING PERMIT ACCORDING TO ESTIMATED VALUE OF THE BUILDING WORK

ESTIMATED VALUE OF BUILDING WORK	FEES $ c
Not Exceeding $1,000	**8.00**
Not Exceeding $1,500	**12.00**
Not Exceeding $2,000	**15.00**
Not Exceeding $3,000	**20.00**
Not Exceeding $4,000	**24.00**
Not Exceeding $5,000	**28.00**
Not Exceeding $6,000	**32.00**
Not Exceeding $8,000	**38.00**
Not Exceeding $10,000	**44.00**
Not Exceeding $12,000	**48.00**
Not Exceeding $14,000	**52.00**
Not Exceeding $16,000	**55.00**
Not Exceeding $18,000	**60.00**
Not Exceeding $20,000	**64.00**
Not Exceeding $25,000	**74.00**
Not Exceeding $30,000	**80.00**
Not Exceeding $35,000	**90.00**
Not Exceeding $40,000	**100.00**
Not Exceeding $45,000	**110.00**
Not Exceeding $50,000	**120.00**
Not Exceeding $55,000	**130.00**
Not Exceeding $60,000	**140.00**
Not Exceeding $70,000	**155.00**
Not Exceeding $80,000	**170.00**
Not Exceeding $90,000	**185.00**
Not Exceeding $100,000	**200.00**

For every $2,500 or part thereof in excess of $100,000 an additional fee of $15.00.

SPACE HEATER—All installations—minimum fee—$15.00.

Wilson Bros. Print

4.2
3.4
168
122
13.8

DATE RECEIVED 29 - 11 - 84

RANGIORA DISTRICT COUNCIL

APPLICATION
FOR BUILDING PERMIT

BUILDINGS VALUED $10,000 OR OVER
Building Levy - $1 Per $1000

Approved 18-1-85
BUILDING INSPECTOR

NAME R. J Whyte

OFFICE USE ONLY

Item	Fee	5769 No.
BUILDING PERMIT	28-00	paid
BUILDING LEVY		
PLUMBING AND DRAINAGE	15.00	pd
WATER CONNECTION		
SEWER CONNECTION		

FOR SCALE OF FEES SEE BACK PAGE

RANGIORA DISTRICT COUNCIL

BUILDING APPLICATION FORM

Fees must be paid with Application.
For Scale of Fees see back page.

Permit No. .....

Val. Roll No. .....

Builder .....

Owner .....

The County Building Inspector,
P.O. Box 9,
RANGIORA.

Date Mar 29th 1984

Dear Sir,

I hereby apply for permission to Build New Workshop - Caravan port - WC

at 274 Kingbury Av Rangiora

for Mr & Mrs RJ Whyte of 274 Kingbury Av Rangiora according to locality plan and detailed plans, elevations, cross sections, and specifications of building deposited herewith, in duplicate.

Particulars of land: Lot No. 21 on R.S. .....

D.P. 44633

Length of Boundaries 118 metres. Area 798 m²

Particulars of Building—Foundations: reinforced concrete

Walls: Filled block & Hardiplank Roof: Plumb Deck galv iron

Area of Floor space: 51-84 m² square metres

Area of Outbuildings: None square metres

Estimated Value of Building $ 3,800

Estimated Value of Drainage and Plumbing $ 600

TOTAL $ 4-400

Proposed purposes for which every part of building is to be used or occupied (describing separately each part intended for use or occupation for a separate purpose): Workshop & Toilet.

Proposed use or occupancy of other part of building: N.A

Nature of ground on which building is to be placed and of adjacent strata: Firm soil-clay

274 Kingsbury Ave
Rgo.

Yours faithfully,

R J Whyte Owner.

Martin Whyte Builder.

Postal Address: RD Pahiatua Matuaka

Ph 5752 Rgo
Mr Whyte

IMPORTANT

Builder must check Electrical Supply Authority's Requirements. Sewer Connection — it is essential builder check location and level of sewer main to verify drainage installation can be connected to the county sewer.

BUILDING INSPECTOR'S FIELD SHEET

AUTHORITY

Stats. No. B 109565

Rangiora District Council

No. 5769

Inspector: M

File No.

Receipt No. 5769

Date Permit Issued 23 / 11 / 85

OWNER

Name: R J Whyte

Mailing Address: 274 Kingsbury Avenue, Rangiora

BUILDER

Name: As Owner

Mailing Address:

PROPERTY ON WHICH BUILDING IS TO BE ERECTED/DEMOLISHED

SITE

Street No.: As Owner

Street Name:

Town/District:

Riding:

LEGAL DESCRIPTION

Valuation Roll No.: 21594 / 441

Lot: 21 D.P.: 44633

Section: Block:

Survey District:

DESCRIPTION OF PROPOSED WORK AND MAIN PURPOSE OF USE

Build workshop/caravan port - add W.C in work.

FLOOR AREA

Whole Sq. Metres: 52

DWELLING UNITS

Number Erected:

ESTIMATED VALUES $

Building	3,800
Plumbing	
Drainage	600
TOTAL	4,400

NATURE OF PERMIT (TICK BOX)

- [ ] NEW BUILDING – include dwelling added, exclude domestic garages
- [ ] FOUNDATIONS ONLY
- [ ] ALTERED, REPAIRED, EXTENDED – include conversions and resited buildings
- [ ] NEW CONSTRUCTION OTHER THAN BUILDINGS – include demolitions
- [x] DOMESTIC GARAGES AND DOMESTIC OUTBUILDINGS

FEES APPLICABLE

Building Permit	$ 28.00	Water Connection	$
Street Damage Deposit	$	Vehicle Crossing Levy	$
Building Research Levy	$	M.S. Plumbing	$
Plumbing	$ 15.00		$
Drainage	$		$
Sewer Connection	$	TOTAL:	$ 43.00

Receipt No. 5769

Date of Payment 29 / 11 / 84

Authorised Officer J A Busch

Special Conditions:

① 24 hours notice prior to any concrete being poured

Date Inspected	REMARKS (e.g. stage reached with work)
11.2.85	Foundation inspected steel & excavation O.K. post holes on boundary. JS.

(CONTINUED OVER)

Date Inspected	

COMPLETED (Signature) ______________________ Date ____/____/____

BC/MP/01A

iii. Maximum floor area 60 sq. metres (645 sq. ft.)

iv. Their location shall comply with the policy on the siting of buildings set out in the General Ordinance on Buildings.

v. No detached accessory buildings shall be erected closer than 1.8 metres (6 ft) to any residential building on the same site.

vi. No accessory building shall be built closer than 3 metres (10 ft) to any neighbouring residential building.

vii. No accessory building shall be sited closer than 1 metre (3 ft) from the site boundary, except that where the exterior walls have a fire resistance rating of 1 hour they may be sited up to the boundary.

viii. Maximum height 3.5 metres (11'6") provided that no accessory building shall exceed 2.5 metres (8 ft) in height within 1 metre (3 ft) of the boundary.

ix. An open car port may be erected adjoining a house or within 1.8 metres therefrom provided it is not more than 4 metres (13 ft) in width.

APPLIES TO GARAGES
T OF BLOCK WITH A METAL
IA ON BOUNDARY SIDE
R 150 MM FROM
UNDARY WITH WRITTEN
SENT OF THE NEIGHBOUR.
A BETWEEN GARAGE
BOUNDARY TO BE
RETED TO PREVENT
ETATION GROWTH.

b. **Special Applications:**

Where the standards specified in Clause (b) (i) of this ordinance are considered to be inappropriate to any particular permitted use then special application may be made for a variation of those standards as set out in Clause 13.10 of the General Ordinance on the Control of Land Use.

(c) **Requirements for Conditional Uses:**

The standards for conditional uses shall be set by the Council, having regard to the circumstances of any application, but shall generally be not less than those set for predominant uses and shall satisfy the requirements of the above policy.

7.4 Subdivisions:

All subdivisions shall comply with the General Ordinance on Subdivisions.

7.5 Parking and Loading:

All development shall comply with the General Ordinance on Parking and Loading.

7.6 Access:

All development shall comply with the General Ordinance on Access to Property.

7.7 Amenities:

All development shall comply with the General Ordinance on Amenities.

E. J. CORCORAN, SON, THWAITES & BROWN

BARRISTERS & SOLICITORS

"Ngaitahu Court" 190 Williams Street, Kaiapoi, New Zealand

P.O. Box 15

TELEPHONE **KAIAPOI 8159**

Anthony Robin Thomas Corcoran
Keith Hodgson Thwaites, M.A., LL.B.
Robert Theodore Brown, LL.B.
Michael John French, LL.B. (Hons)
Christopher Lane McPhail, LL.B. (Hons)

Christchurch Office
4th Floor
National Insurance House
217 Gloucester Street
(Latimer Square)

P.O. Box 13001 Armagh
Telephone 794-660

PLEASE ASK FOR

MR McPhail

18 December 1984

Messrs. C.V. Quigley & Son
Solicitors
CHRISTCHURCH

ATTENTION: Mr. H.J.B. Quigley

Dear Sirs

re: WHYTE - QUINTON

We refer to your letter of 12 December 1984 which we have discussed with Mr. & Mrs. Quinton.

Our clients are prepared to grant the easement referred to in your letter provided your clients meet all costs (including legal) involved and agree to make good any damage caused to our clients' property as a result of your clients' use of the right of way.

Yours faithfully,
E. J. CORCORAN, SON, THWAITES & BROWN

per: [signature]

CLMcP:VEH

0077b

FRASER, VENNING & CRERAR
BARRISTERS & SOLICITORS

PARTNERS:
DAVID OSBORNE CRERAR, LL.B.
RONALD DAVID WILLIAMS,, LL.B.
WILLIAM LESLIE BROWN, LL.B. (Hons.)

CONSULTANT:
ALAN CHARLTON FRASER, M.B.E., LL.M.

Rangiora Office:
207 HIGH STREET
P.O. BOX 46
TELEPHONES: RANGIORA 7086, 7282
KAIAPOI 7593

Christchurch Office:
1ST FLOOR T. & G. BUILDING
190-192 HEREFORD STREET
P.O. BOX 2194
TELEPHONES: 66-923, 66-950

20th December 1984

Messrs C V Quigley & Sons
Solicitors
PO Box 1127
CHRISTCHURCH

Attention: Mr HJB Quigley

Dear Sirs

Re Whyte - Pateman

Your letter of 12 December 1984 was received by us on 18 December 1984. We confirm that we act for Mr and Mrs Pateman. We have taken instructions from our clients and advise that they agree in principal to the proposal solely on the basis that access over the driveway is reserved for purposes of locating a caravan only and that the easement is not for general driveway purposes, routine car and other access etc. In light of the fact that the easement is to be personal to Mr and Mrs Whyte, we do not think that a registered easement is necessary or appropriate if the arrangement for use of the drive is merely contractural between your clients and ours. This should suffice for both purposes. Our clients' other instructions are that all correspondence and attendances in relation to the driveway be at the cost of Mr and Mrs Whyte.

If these matters are acceptable please let us have a draft agreement for consideration.

Yours faithfully,
FRASER, VENNING & CRERAR

per:

D O CRERAR

We, the undersigned, agree to the use of our common driveway onto Lots No. 20 and No. 19 Kingsbury Ave, as an entry to Lot No. 21 by Mr Ray White.

This agreement is subject to his ownership of Lot No. 21 and may be terminated upon change of ownership.

We also agree to the placement of a proposed garage 2·65 m from the east boundry bordering this driveway.

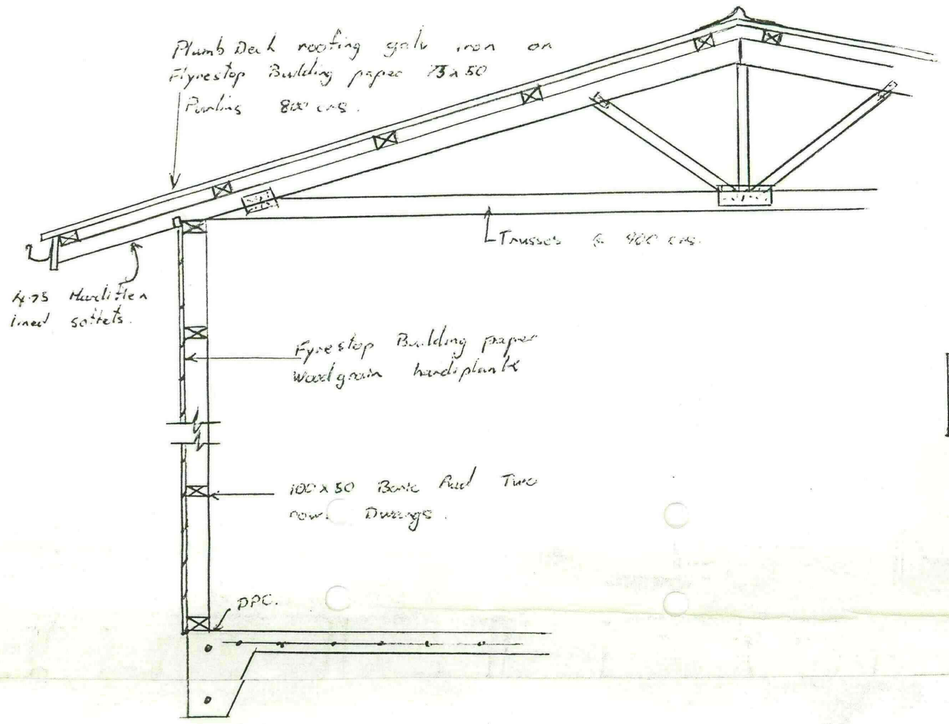
signed dated 18/12/84.

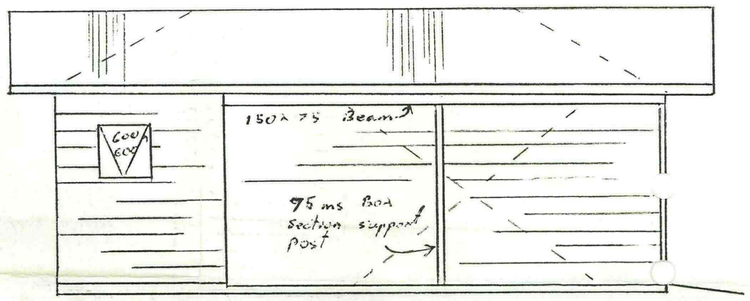
B D Pateman

Mr. B. Pateman
Lot No. 20

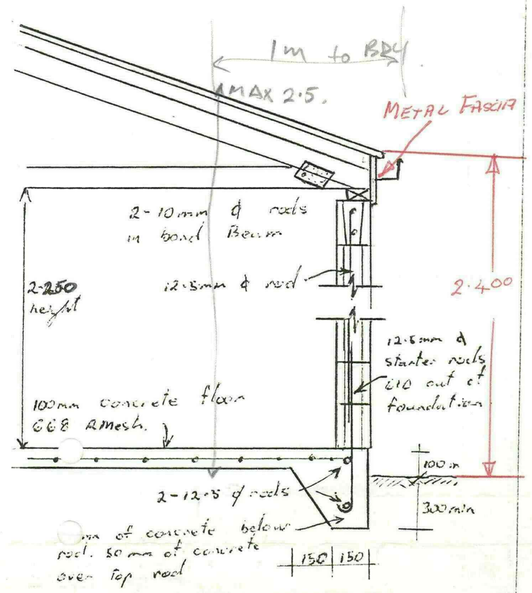
L Quinton

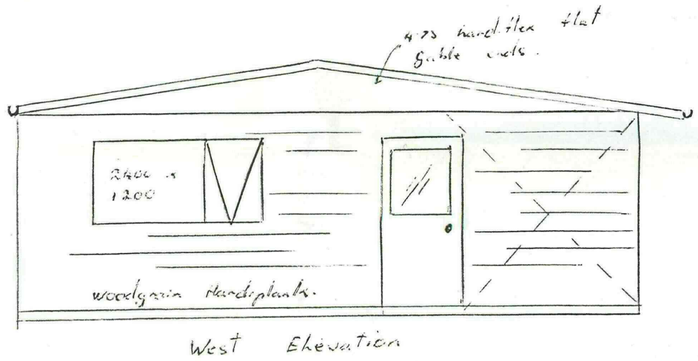
Mr L. Quinton
Lot No. 19



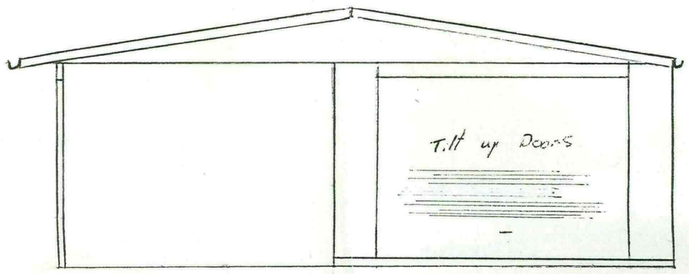


South Elevation

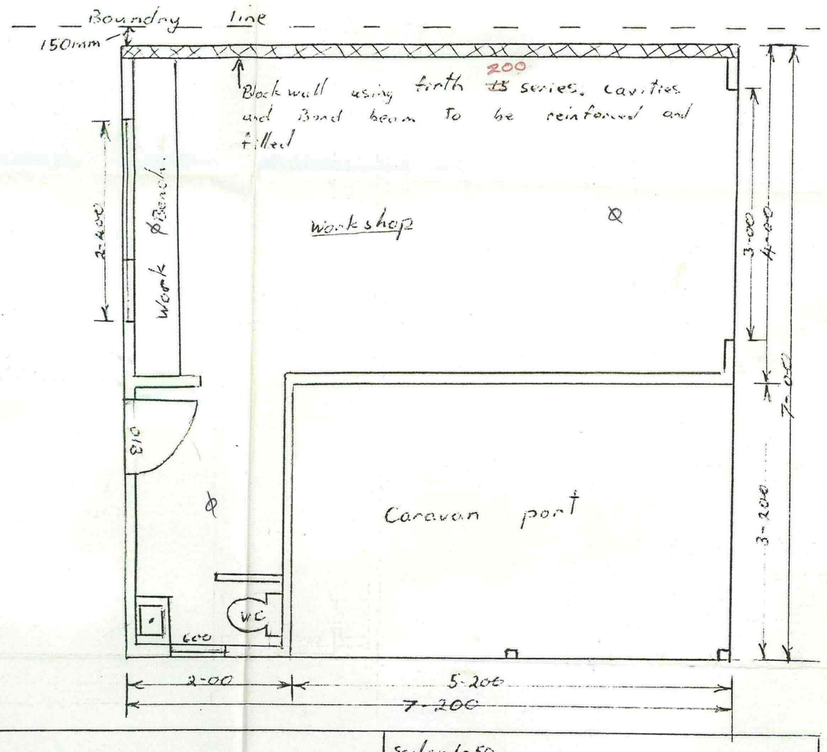


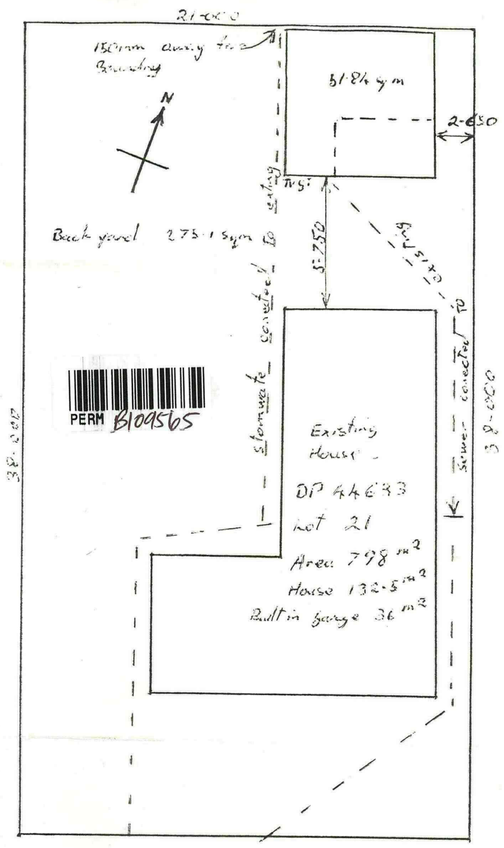


West Elevation



North Elevation





Proposed workshop - caravan port For Mr & Mrs RJ Whyte 274 Kingsbury Av Rangiora.

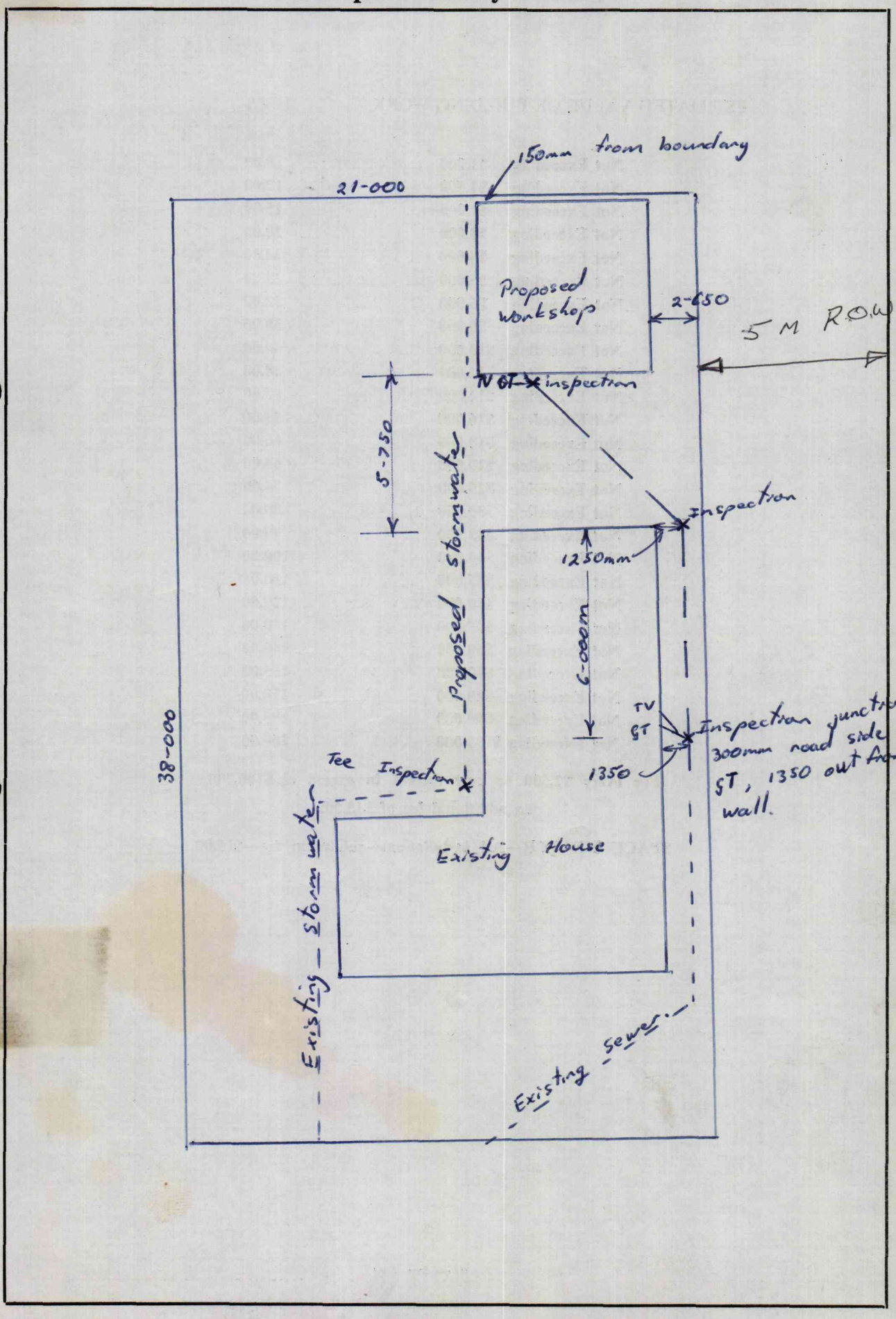
Scale: 1:50
1:200

PLAN OF ALLOTMENT

Showing position of proposed buildings on such allotment

Note—Distances of each building from boundary lines must beclearly indicated.

Indicate position of any sewer lines.



All foundations must be inspected before pouring.

RANGIORA DISTRICT COUNCIL

FEES PAYABLE ON ANY BUILDING PERMIT ACCORDING TO ESTIMATED VALUE OF THE BUILDING WORK

ESTIMATED VALUE OF BUILDING WORK	FEES $ c
Not Exceeding $1,000	**8.00**
Not Exceeding $1,500	**12.00**
Not Exceeding $2,000	**15.00**
Not Exceeding $3,000	**20.00**
Not Exceeding $4,000	**24.00**
Not Exceeding $5,000	**28.00**
Not Exceeding $6,000	**32.00**
Not Exceeding $8,000	**38.00**
Not Exceeding $10,000	**44.00**
Not Exceeding $12,000	**48.00**
Not Exceeding $14,000	**52.00**
Not Exceeding $16,000	**55.00**
Not Exceeding $18,000	**60.00**
Not Exceeding $20,000	**64.00**
Not Exceeding $25,000	**74.00**
Not Exceeding $30,000	**80.00**
Not Exceeding $35,000	**90.00**
Not Exceeding $40,000	**100.00**
Not Exceeding $45,000	**110.00**
Not Exceeding $50,000	**120.00**
Not Exceeding $55,000	**130.00**
Not Exceeding $60,000	**140.00**
Not Exceeding $70,000	**155.00**
Not Exceeding $80,000	**170.00**
Not Exceeding $90,000	**185.00**
Not Exceeding $100,000	**200.00**

For every $2,500 or part thereof in excess of $100,000 an additional fee of $15.00.

SPACE HEATER—All installations—minimum fee—$15.00.

Wilson Bros. Print

DATE RECEIVED 22.8.83

RANGIORA DISTRICT COUNCIL

APPLICATION FOR BUILDING PERMIT

BUILDINGS VALUED $10,000 OR OVER

Building Levy - $1 per $1000

Approved

BUILDING INSPECTOR

NAME B.D. ARMIT & SON LTD.

OFFICE USE ONLY

Item	Fee	Receipt No.
BUILDING PERMIT	130-00	5228 paid
BUILDING LEVY	54-00	
PLUMBING AND DRAINAGE	35-00	
Channel Crossing WATER CONNECTION	117-60	
SEWER CONNECTION	336.60	

FOR SCALE OF FEES SEE BACK PAGE

21594-441

T/P Residential Zone

Found. insp. 13.9.83
Floor insp 19.9.83
Pre-lining insp 1.12.83

RANGIORA DISTRICT COUNCIL

BUILDING APPLICATION FORM

Final inspection 20.8.84

Fees must be paid with Application.
For Scale of Fees see back page.

The County Building Inspector,
P.O. Box 9,
RANGIORA.

Date 19-8-83.

Dear Sir,

I hereby apply for permission to ERECT DWELLING

at LOT 21 KINGSBURY AVE. (274)

for B.D. ARMIT & SON LTD. of 25 SCOTSWOOD PL

according to locality plan and detailed plans, elevations, cross sections, and specifications of building deposited herewith, in duplicate.

Particulars of land: Lot No. 21 on R.S.

D.P. 44633

Length of Boundaries 38, 21, 38, 21, Area 798 m^2

Particulars of Building—Foundations: CONCRETE.

Walls: CLAY BRICK Roof: GALV CORR IRON

Area of Floor space: INCLUDING GARAGE. 168.5 square metres

Area of Outbuildings: square metres

Estimated Value of Completed Building $ 54,000

Drainage and Plumbing $ 4,000

Proposed purposes for which every part of building is to be used or occupied (describing separately each part intended for use or occupation for a separate purpose): PRIVATE DWELLING & (ATTACHED GARAGE (CAR)

Proposed use or occupancy of other part of building:

Nature of ground on which building is to be placed and of adjacent strata: SANDY LOAM LIGHT.

Yours faithfully,

B.D. ARMIT & SON LTD. Owner.

AS ABOVE. Builder.

Postal Address: 25 SCOTSWOOD PLACE RGA.

IMPORTANT

Builder must check Electrical Supply Authority's Requirements. Sewer Connection — it is essential builder check location and level of sewer main to verify drainage installation can be connected to the county sewer.

RANGIORA DISTRICT COUNCIL

Drainage or Plumbing Application Form

Val. Roll No. 21594

Permit No. 2005-6

Receipt No. .....

The Engineer,
RANGIORA DISTRICT COUNCIL.

I hereby apply for a permit to carry out the following work as per plan attached hereto.

TYPE OF WORK NEW DWELLING

SITUATION OF WORK LOT 21 KINGSBURY AVE

OWNER B.D. ARMIT & SON LTD

ADDRESS 25 SCOTSWOOD PL

BUILDER AS ABOVE.

ADDRESS " "

LICENCED DRAINLAYER S. BROWN, Signature .....

ADDRESS No. 4 RD CHCH, Licence No .....

CRAFTSMAN PLUMBER D. WELLS, Signature .....

ADDRESS 29 HARKNESS PL CHCH, Licence No 03674

Drainage applications MUST be accompanied by two site plans drawn to scale of 1 to 100 metric showing building outline, sewer and stormwater lines with grades and sizes. THESE ARE TO BE SEPARATE FROM BUILDING PLANS.

Plumbing applications two plans showing layout of sanitary and soil fittings and use of adjoining rooms, wastes, soil pipes ducts etc. Elevations showing soil and waste stacks, vents and windows, roof lines etc. THESE MAY BE INCORPORATED IN BUILDING PLANS.

One copy will be retained for Council records and one copy will be returned as working drawing and no deviation will be allowed without the prior approval of the Engineer.

NOTE: Permits are NOT transferable unless a new application is forwarded.

SIGNATURE OWNER/~~AGENT~~ B.D. Armit

Dated this 19 day of AUGUST 1983

ESTIMATED VALUE OF LABOUR CONTENT

PLUMBING 600-00 FEE 20-00

DRAINAGE 400-00 FEE 15-00

TOTAL FEE $35-00

FEES are calculated on the cost of the labour - see scale on reverse side of this form.

SCALE OF FEES:

IF VALUE OF LABOUR IS LESS THAN $100	5.00
IF VALUE OF LABOUR IS $100 OR LESS THAN $200	10.00
IF VALUE OF LABOUR IS $200 OR LESS THAN $400	15.00
IF VALUE OF LABOUR IS $400 OR LESS THAN $600	20.00
IF VALUE OF LABOUR IS $600 OR LESS THAN $1000	25.00

PLUS $2 FOR EVERY $100 OR PART THEREOF IN EXCESS OF $1,000

FOR OFFICE USE:

DRAINAGE OR PLUMBING FEE $ ..... REC NO ..... DATE .....

SEWER CONNECTION FEE $ ..... REC NO ..... DATE .....

WATER CONNECTION FEE $ ..... REC NO ..... DATE .....

ROAD OPENING FEE $ ..... REC NO ..... DATE .....

APPROVED ..... INSPECTOR ..... DATE

CONDITIONS: .....

.....

.....

.....

.....

.....

SPECIFICATION

FOR

STANDARD HOUSE CONSTRUCTION

OWNER

B.D. ARMIT & SON LTD.

BUILDER

B.D. ARMIT & SON LTD.

NOTE: This Specification is issued as a guide to standard construction of a timber or brick veneer house.

Any Standard Specifications referred to are available at the Auckland Building Centre, Downtown Square.

Issued by:

branz

SHEET A

(CIRCLE whichever is applicable)

NAME: B.D. ARMITAGON LTD

ADDRESS: LOT 21 KINGSBURY AVE

STOREY: Single or Uppermost
Lower of two or middle of three
Lower of three

ROOF TYPE: Light / Heavy

ROOF PITCH: 0° – 25° / 26° – 45°

WIND AREA: High / Medium / Low

W = B.U.'s/m

EARTHQUAKE ZONE: A / B / C

E = B.U.'s/m²

ROOF OR BUILDING LENGTH BL = 23 m

ROOF OR BUILDING WIDTH BW = 8 m

GROSS ROOF OR BUILDING PLAN AREA GPA = 172 m²

EARTHQUAKE: B.U.'s ALONG AND ACROSS E x GPA = 3x172 = 516 B.U.'s

WIND: B.U.'s ALONG W x BW = 23x8 = 184 B.U.'s

WIND: B.U.'s ACROSS W x BL = 23x23 = 529 B.U.'s

SKETCH PLAN (external and internal walls) :

SHEET B

1	2	3	4	5	6	7	8
Total B.U.'s Required	Wall Line		Wall Bracing Elements Provided				
	Label	Minimum B.U.'s Required	Label No.	Type	Rating B.U.'s/m	Length (m)	B.U.'s Provided
ALONG	A		A	1	42	2·4	100·8
						x5 off	
						Sub-total	504·
	B		B	1	42	2·4	100·8
						x2 OFF	
						Sub-total	201·6
	C						
						Sub-total	
	D						
						Sub-total	
	TOTAL					TOTAL	705·6
ACROSS	L		L	1	42	2·4	100·8
						x4 OFF	
						Sub-total	403·2
	M		M	1	42	2·4	
						x3 OFF	
						Sub-total	302·4
	N						
						Sub-total	
	O						
						Sub-total	
	P						
						Sub-total	
	TOTAL					TOTAL	705·6

Installation Instructions

INSTALLATION INSTRUCTIONS

GENERAL

The heater must be installed in accordance with NZS 7421:1972 or as directed by the local Building Inspector. The By-laws usually require that a Building Permit is obtained before installation and we recommend that you advise your Insurance Company that you are having the heater installed.

The minimum clearances shown are necessary to prevent overheating of nearby combustibles and the drying out of timber in the house structure. Tests have been carried out to verify that the heater complies with all requirements when properly installed.

The four M12 x 25 mm bolts supplied as feet for the plinth must be used in all cases. The heat shields in the plinth must be used in all cases.

Both of the above are necessary to prevent overheating under the hearth.

N.B. For installations outside New Zealand please check local authority requirements.

THE HEARTH

This must be made from an insulating and incombustible material, such as concrete or brick at least 50 mm thick.

The heater should be set on the hearth so that the hearth protrudes at least 330 mm in front of the heater plinth. The hearth must also protrude at least 258 mm on each side of the heater plinth. A suitable minimum hearth size is 920 mm deep x 941 mm wide x 50 mm thick.

Fig 2

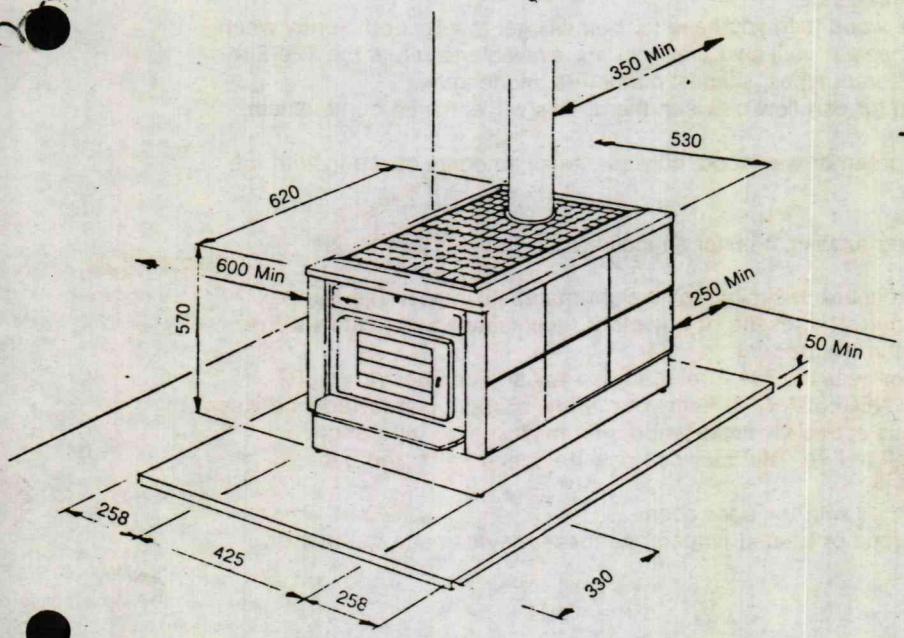
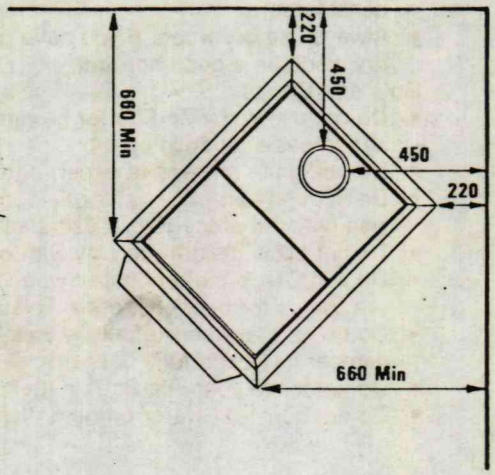


Fig 3



CLEARANCES (see Fig.2)

The minimum clearance from the back of the heater to combustible materials is 250 mm. The minimum clearance from the sides of the heater to combustible materials is 600 mm. (Gibraltar Board and the like on timber studs are classed as combustible materials).

The minimum clearance from the bare flue to combustibles is 350 mm.

The minimum clearance from the top of the heater to the ceiling above is 1600 mm.

The minimum clearance for a corner installation are:—

Flue 450 mm from combustibles

Rear heater corners 220 mm from combustibles

For these clearances to apply, the centre line of the heater must bisect a 90° corner, as in Fig.3.

Should it be necessary, methods of reducing the above clearances by means of heat shields can be found in NZ Standard 7421:1972, refer to Clause 304 "Protective Screens". In using these methods, care must be taken to comply exactly with the requirements and conditions of this Standard.

THE FLUE

It is important that the flue should be vertical and without any bends. Any restrictions, or leaks, can cause smoking under certain conditions due to poor draught. Joints between sections should be securely fixed using self tapping screws. All joints must be airtight, use flue seal if necessary. The flue cowl should be at least 600 mm above the highest ridge of the roof to ensure the draught is not affected by pressure zones caused by wind currents on the house. When the flue is installed through a flat roof, the cowl should be at least 1500 mm above the ridge. Note that any roof with a pitch angle of less than 30° is treated as a flat roof for the purposes of pressure zones. At joints the smaller diameter of each flue section should be at the bottom to mate with the normal diameter section below. Suitable materials for the flue are 1.2 mm panel steel or 0.6 mm stainless steel.

STARTING A FIRE

1. Pull the bypass damper handle forward and open the door. Move the air slide knob to the left so that it is in the "full open" position. Place several pieces of crumpled newspaper in the centre of the Tile Fire. Criss-cross 8 or 10 pieces of dry kindling wood on top of the paper. Then stack several small dry pieces of wood over the kindling.
2. Ignite the paper and close the door. Leave the damper out. This will allow the hot gases to vent directly into the flue and quickly create necessary draught for combustion.
3. It will take a few minutes for the fire to establish itself. When it has, add a couple or three logs, depending on size. After you close the door, push in the bypass damper handle for normal operation. At this stage leave the air slide knob fully open and when the flames have started to char the logs this slide can be adjusted to suit burning conditions and heat requirements.
4. To restart a fire from overnight simply rake hot embers towards the front of the Tile Fire and add a couple of logs so that they rest on the hot embers. Close the door and the bypass damper and fully open the air slide knob. The logs should begin burning in just a few minutes.
   NOTE: On the very first light up, you may notice a small amount of smoke in the room. This is quite normal and should last only 30 minutes or so.

LOADING THE TILE FIRE

One of the great features of your Tile Fire is that it can be fully loaded and left to burn efficiently for many hours. There are, however, ways in which you should load your Tile Fire to give you maximum efficiency and reduced maintenance.

- It doesn't make sense to add more wood than you have to. You will get the best efficiency when you add only the amount of wood needed until next time you are available to refuel the Tile Fire.
- Don't be afraid to use woods of different types, shapes, diameters and lengths.
- Always try to place the logs so that air can flow between them. This will enhance combustion considerably.
- Always use dry wood. If you have green or wet wood, only use small amounts mixed in with the dry wood on a good hot fire.

Do's and Don'ts

- Do not use your Tile Fire for burning rubbish, it is not an incinerator. Rubbish can cause dangerous soot build up.
- Do not ignite masses of paper, cardboard or similar lightweight materials in your Tile Fire.
- Do not use barbeque lighter fluid, petrol, kerosene or any other flammable liquid to start a fire. Use only the procedures described in this booklet.
- Do not allow children to play with or near the Tile Fire. It's not a toy and can get very hot!!
- Do add ONLY the amount of wood NECESSARY to heat your house or room comfortably between refuellings for best efficiency. This is especially important during mild weather operation.
- Do be careful when refuelling your Tile Fire. The door can only be opened after the bypass damper has been fully opened.
- Do not leave your Tile Fire unattended with the door open.
- Do not burn salt water borne driftwood or treated timbers, as these may damage the heater.

MAINTENANCE

The flue should be cleaned regularly to remove tarry deposits which are left in the flue when burning wood.

The ceramic door glass will require cleaning from time to time. It can be cleaned by using a razor blade scraper or steel wool. Do not use water when the glass is hot.

Cabinet. This should only be cleaned when cold and use a weak detergent solution and a soft cloth.

TILE REPLACEMENT

Please refer to "Installation Instructions", paragraph "(8)" under "Installation Procedure".

Take care not to scratch the flue when lifting the top panels and surround. It is suggested two people be used, one to hold the panel and surround while the other changes the tiles.

DOOR CATCH ADJUSTMENT

The door must close tightly. Should adjustment be necessary tighten as follows:—

A. Open door.
B. Remove lock nut on back of door handle latch.
C. Remove latch.
D. Remove **one** of the spacing washers from the spindle.
E. Replace latch.
F. Place the washer just removed on the spindle.
G. Replace and tighten locknut.
H. Close door.

The minimum length of flue on which the heater will operate satisfactorily is 3600 mm. This is the length supplied in the standard flue kit, though extension lengths are available.

FLUE SHIELDING

A shield must be fitted to prevent the hot flue from contacting any timber or other combustibles in the roof space. A free air passage of 50 mm must be left between the flue and shielding as shown in Fig.4. In addition the ceiling plate should have a 190 mm hole for the flue to pass through. This allows enough clearance for the cooling air to enter and circulate freely.

The portion of the flue extending above the roof line must be shielded all the way. Failure to do this will cause chilling of the hot gases and can cause the flue to become blocked. Fig.4. shows how the shielding extends from the ceiling plate up to the cowl. If the flue length is increased, the shielding length must be increased to match it. The shielding is 0.6 mm galvanised steel. A flue kit meeting the above specifications is available from Kent Heating Limited. Ask for the Tile Fire flue kit.

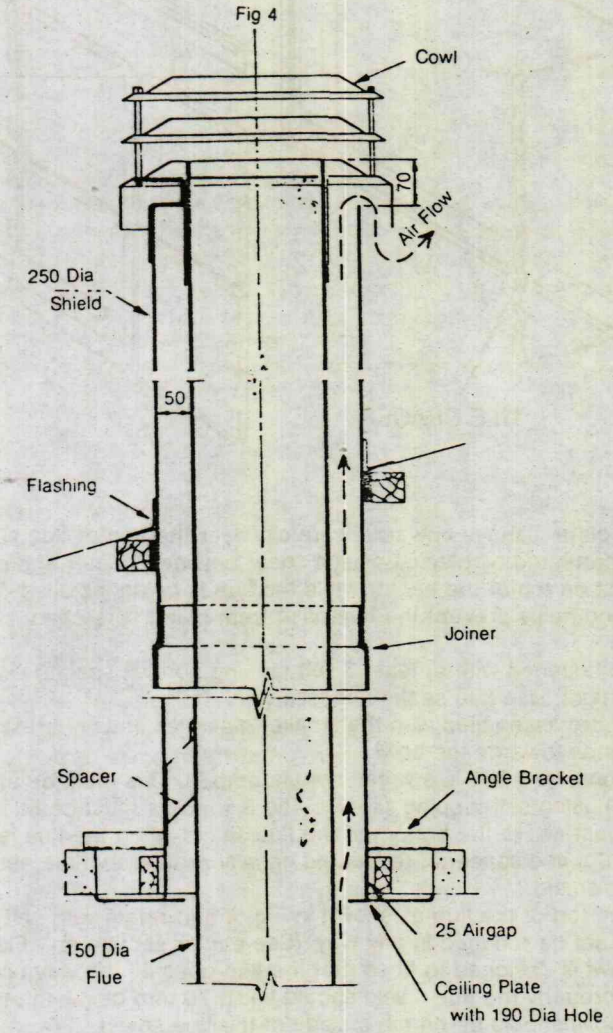
INSTALLATION PROCEDURE

1. Select the location of the heater bearing in mind the wall to heater clearance distances required.
2. Check the route for the flue which should be clear of roof timbers.
3. Mark the flue centre on the ceiling and plumb to position the hearth. Install the hearth.
4. Cut the holes in the ceiling and roof for the flue shield. Fit timber nogs round the holes allowing for 25 mm air gap between the flue shield and timber.
5. The 250 mm flue shield should extend from the ceiling plate upwards to terminate 70 mm below the top of the flue. Either calculate the correct length of flue shield and cut it to size, or temporarily position the heater and flue so that the correct length can be measured.

   The flue shield is supplied in two separate lengths together with a joiner.

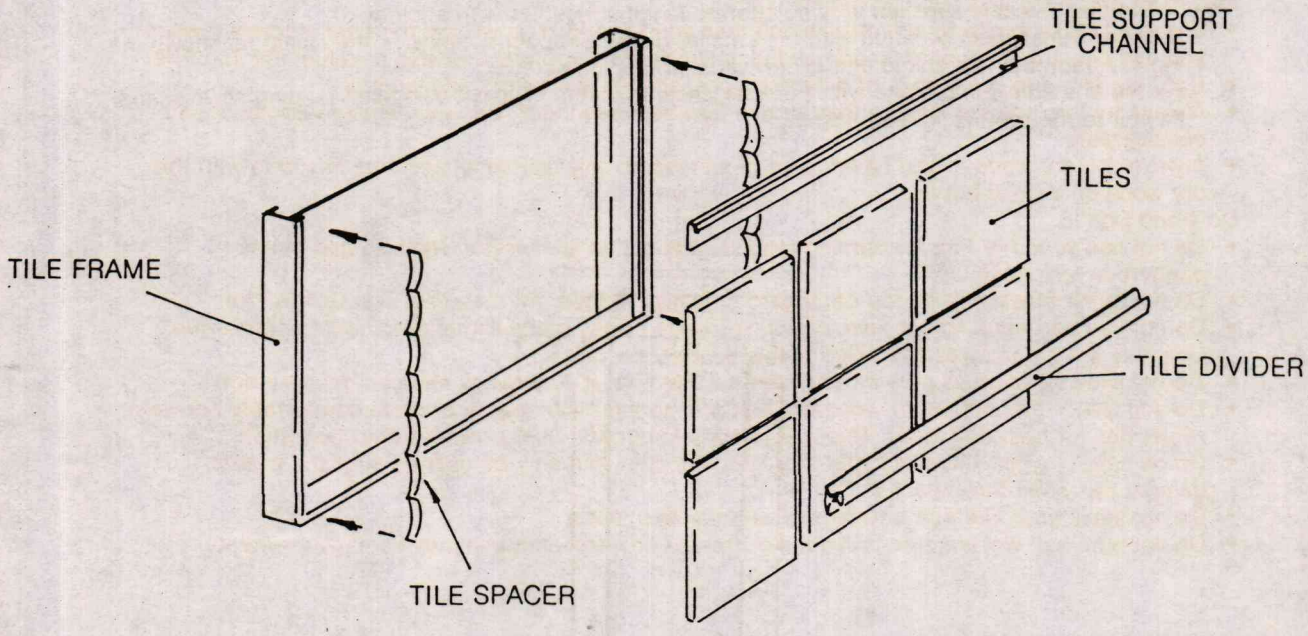
   N.B. The joiner must be fitted with the smaller diameter uppermost inside the shield as shown in Fig.4. Attach the flue shield and joiner with self tapping screws.
6. Fix the flue shield into place with the long angle brackets supplied using self tapping screws and flash it to the roof using lead flashing.

Fig 4



7. Make sure the three heat deflector baffles are in position. Two are under the heater on the inside of the plinth and one is between the heat exchanger and the rear of the cabinet. Make sure the four mounting and levelling feet are in place, one under each corner of the plinth. (See Fig.1).
8. Before fitting the flue to the heater, fit the 12 ceramic tiles as follows:—
   A. Ensure the heater is now in its final position.
   B. Remove the two top decorative metal panels. They lift straight up.
   C. Remove the top metal surround by carefully lifting it straight up.
   D. Carefully place 3 ceramic tiles in a row along the bottom groove in each side. Fit the end tiles first, placing the tile tensioning springs in position while doing so. The springs fit vertically at each end of the tile rows. Two springs on each side of the heater.
   E. Slide the aluminium tile divider down on top of these tiles so that the narrow edge faces outwards. The groove on the tile divider should fit over the top of the tiles.
   F. Carefully slide the remaining 3 tiles for each side down on top of the tile divider.
   G. Fit the tile support channels onto the top row of tiles. See Fig.5.
   H. Fit the top surround in place making sure it is properly located at each corner.
   I. Place the two top decorative metal panels back in position.

FIG 5



9. Place the ceiling plate, flanges upwards, carefully over the heater flue stub. It is suggested that both finishes be protected by placing plastic sheet between heater and ceiling plate. The ceiling plate can now rest on top of the heater while the flue is being installed. This makes the flue easier to install and helps prevent the flue paint from being scratched.
10. Install the flue.
    All joints must be fastened with at least 3 self tapping screws spaced evenly around. All flue joints must be airtight. Use flue seal if necessary.
    The flue sections are assembled with the smaller diameter ends nearest the heater and the larger diameter ends towards the cowl.
    The bottom section of the flue is swaged but uncrimped. This must be attached to the heater (swaged end first) using self tapping screws. The 3 spacers must be fitted to the flue so that they are located just above the bottom of the flue shield when the flue is installed — see Fig. 4. It is important that these spacers are located equally around the flue, thus keeping the flue central in the flue shield.
11. Fix the cowl to the top of the flue as shown in Fig. 4 and retain with self tapping screws. The air flow shown must not be reduced in any way. (See earlier section on "Flue Shielding").
    Note: The flue cowl is designed to fit so that the flue goes all the way up inside the spigot. To enable this to fit properly the flue shield should finish 70 mm below the top of the flue. The three brackets on the cowl should be on the outside of the flue shield.
12. Raise the ceiling plate and fix it to the ceiling so that the flue is central in the hole. The paint on the flue can be scratched if care is not taken when raising the ceiling plate into position.

INDEX

IT IS IMPORTANT TO READ "LIMITATIONS" AND "GUIDANCE" ON THE NEXT PAGE. CURRENT COPIES OF THE NEW ZEALAND STANDARDS MENTIONED, PARTICULARLY IN CLAUSE 1 OF "PRELIMINARY & GENERAL" (PAGE 2), CAN BE PURCHASED FROM THE AUCKLAND BUILDING CENTRE AND SHOULD BE KEPT ON SITE.

LIMITATIONS

The full title of the current Light Timber Frame Code (NZS 3604:1981) is given on the cover but otherwise referred to simply as NZS 3604.

NZS 3604 provides for so many variables, via new techniques and materials and its greater engineering approach, that a short standard specification of this type has to be limited to a "Guidance Only Format."

To use THIS specification for building permit application purposes, and for accurate pricing, it becomes more important than before to DELETE non-applicable clauses and to ADD new or more appropriate clauses - according to the owner's, designer's and builder's greater freedom of choice.

The necessity to delete and to add will increase the more the proposed new house is to differ from the normal 2.4m stud, single story type.

GUIDANCE

Please do not neglect to make the necessary deletions and additions to this specification. Do so by using the blank (reverse) side of each page. Also ensure that your drawings for the house are corrected according to the deletions and additions made.

Remember we (the Auckland Building Centre) and indeed other Building Centres, contain many products and features you might wish in the new house. Should you want assistance enquire from exhibitors and hostesses.

Our Technical Advisers are very helpful and many manufacturers may be in your locality. If you do not wish to approach a manufacturer or exhibitor direct, or by phone, use an "Information Request Form" and receive the answer by mail.

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

For the erection of DWELLING

at LOT 21 KINGSBURY AVE

for B.D. ARMIT + SON LTD

This is the specification referred to in an "Agreement" (1) between

_____ as Owner, and

_____ as Builder,

dated _____ and if not mentioned the Agreement (1) takes notice of the following completion and penalty clauses.

Time for completion _____ weeks from acceptance of tender.

Liquidated damages for delayed completion shall be $_____ per week.

Extensions to the contract period for extra work or for contingencies beyond the control of the contractor to be as agreed between the parties at the time and added to the time for completion. (2)

PAYMENTS & RETENTIONS:

Payment in the form of progress payments at not less than one month intervals will be made on value of work carried out less 10% retention as required by the Wages Protection and Contractors' Liens Act, 1939. Retentions to be held until 31 days after completion of the contract after which a sum of 5% is to be held if maintenance has not been carried out as under clause P. & G. No. 10 Maintenance.

ARBITRATION:

If dispute or difference should arise between the Owner and Contractor the Contract shall be subject to arbitration under the Arbitration Act 1908.

Foot Notes:

(1) The Agreement referred to and a suitable form of contract (Conditions of Contract) shall be provided by the Owner _____ or Contractor _____ and is to be completed by all parties before site work is commenced.

(2) All additions and deletions made in this Specification before signing of the Agreement shall be dated not later than the date of Agreement. Any subsequent additions, omissions or variations to the contract shall be authorised in writing and an agreed price stated.

PROVISION FOR VARIATION NO. 1

Cost of Variation order No. 1 $_____ Signatures: _____

DATE _____

PROVISION FOR VARIATION NO. 2

Cost of Variation Order No. 2 $_____ Signatures: _____

DATE _____

PROVISION FOR VARIATION NO. 3

Cost of Variation Order No. 3 $_____ Signatures: _____

DATE _____

PROVISION FOR VARIATION NO. 4

Cost of Variation Order No. 4 $_____ Signatures: _____

DATE _____

PROVISION FOR VARIATION NO. 5

Cost of Variation Order No. 5 $_____ Signatures: _____

DATE _____

PROVISION FOR VARIATION NO. 6

Cost of Variation Order No. 6 $_____ Signatures: _____

DATE _____

PROVISION FOR VARIATION NO. 7

Cost of Variation No. 7 $_____ Signatures: _____

DATE _____

PRELIMINARY AND GENERAL

1. SCOPE:

This specification conforming with the attached Agreement and Conditions of Contract describes the work to be done and the materials to be used in the construction of the house shown on the attached drawings. The Contractor is expected to be familiar with the site and the Local Building Bylaws, especially where relevant clauses of NZS 3604 and NZSS]900 Chapters 6.2 and 9.3 apply to the contract. The above numbered N.Z. Standards shall be included in the contract documents and kept on site and made available as necessary for purposes of supervision by the owner or his agent to ensure compliance of work during and on completion of the contract.

2. PERMITS:

Contractor to comply with the Labour and Building bylaws of the district, to apply for and obtain all the necessary permits and to pay all fees for same, unless otherwise mentioned.

3. CONSTRUCTION ACT:

The provision of the Construction Act 1959 and regulations are deemed to be part of this contract.

4. PROVIDE & FIX:

The words "provide" and "fix" shall be construed to mean "provide" and "fix" where mentioned separately unless otherwise mentioned.

5. INSURANCE/INDEMNITIES:

The Contractor to have all of his employees covered against accident by an Employers' Liability Policy and to take out insurance against fire and theft of materials off-site for a sum sufficient to cover the full amount of the Contract Sum, both policies to remain in force until the building is taken over by the Owner; the fire insurance to be in the joint names of the Owner and Contractor.

The Conditions of Contract shall be approved, or include "Special Conditions of Contract" issued by the Building Performance Gurantee Corporation as necessary to effect a formal indemnity agreement.

6. INTERPRETATION:

Work or materials shown on the drawings or specified and not shown, must be supplied as though both shown and specified. Materials shown but not specified must be of the kinds commonly employed for the service they are intended to perform. All figured dimensions shall be taken in preference to scale. The

continued.....

Contractor shall be held responsible for the setting out of all work and he shall make good at his own expense any errors that occur through his lack of checking or faulty workmanship.

7. STABILITY:

The Contractor shall carefully brace and support all parts of his work against damage by wind and protect work from the elements as necessary during construction.

8. PROTECTION OF PROPERTY:

The Contractor shall protect adjoining properties during the contract and shall make good all damage at his own expense.

9. DAMAGE:

The Contractor shall make good at his own expense and to the satisfaction of controlling authorities, any damage done to footpaths, kerbs, drainage etc. or other property under control of such authorities.
Each trade shall take care to prevent damage or disfigurement of the work of other trades and will be responsible for cost of restoring same.

10. MAINTENANCE:

Period to be a minimum of thirty days or to a time agreed on by both parties and entered into the Agreement after the Owner has taken possession. Any defects in materials, workmanship or any part or parts that require replacing or adjusting, which have been included in the Contract, shall be adjusted or replaced at the Contractor's expense.

11. MATERIALS:

Any materials herein specified that are not procurable at the time they are required, thus tending to retard the progress of the Contract, may be substituted with other similar materials, providing that the substituted materials conform to the Local Bylaws and with permission of the Owner. The Contractor is first to notify the Owner of any change proposed and at the completion of the Contract will adjust any difference in cost.

12. CONTINGENCIES:

Provision is to be made by the Builder and Owner to meet any contingencies that may arise due to the fluctuations in the price of various materials or labour. Should there be either a rise or fall in the price of labour or materials, from the date that the tender is submitted until final payment, an adjustment to the Contract Price, is to be made accordingly provided that the Contract Price has been affected by such rise or fall in prices. The sum of $_____ is allowed in the Contract Price as a

continued....

Contingency Fund. The Owner will expect the Builder to submit proof of any increases claimed for by way of invoices or labour costs.

13. VISIT SITE:

Tenderers shall visit the site and ascertain the nature and extent of the work and the rights and interests that may be interefered with and any other matter that may influence the making up of a tender or the carrying our of the Contract in its entirety. The levels shown on the drawings are approximately correct but tenderers shall verify these as no claims for extra will be allowed on the basis of incorrect levels shown.

14. WORKMANSHIP:

All work shall be carried out in accordance with the best trade practice, in strict conformity with the drawings and specification and to the satisfaction of the Owner. All defective or damaged work shall be removed and made good to the satisfaction of the Owner.

15. CLEANING:

The Contractor, at the conclusion of the Contract, shall have all ceilings, walls and woodwork carefully dusted and wiped down, windows washed and glass free from scratches, floors brushed and wiped down and the entire building left in a perfectly clean condition for occupation.

E X C A V A T O R

1. PRELIMINARY & GENERAL

Note where Preliminary and General clauses apply to this trade.

2. ALLOWANCE IN TENDERING:

Allow for foundation depths as shown on drawings (450mm below cleared ground level as if in expansive clay). Any variations from dimensions shown to be adjusted in terms of Clause of the General Conditions of Contract. (Insert Clause No.)

3. SETTING OUT:

Set out the work as shown or implied on the drawings. Check accuracy in terms of position, levels and square.

4. CLEAR SITE:

Remove vegetation, trees, roots and 150mm top soil* within area to be covered by the building, driveway, paths, terraces and steps. Do not remove any other trees without Owner's consent.

continued.....

EXCAVATOR Cont'd

*NOTE: Alternatively with consent of Owner and Local Building Authority, leave topsoil in place where excavation would otherwise cause ponding under timber ground floors (See Clause 3.4.1 of N.Z.S. 3604).
Deposit top soil in heap as directed and avoid covering with subsoil subsequently excavated.

5. LEVELLING AND BULK EXCAVATION:

Excavate for all site levelling, foundation walls and/or piles, underground services and subsoil drains etc. to correct levels, to firm bearing or to obtain sufficient frictional resistance* to satisfy Local Building Authority.

*NOTE: Item 5 allows for driven timber piles to NZS 3605.

6. FOUNDATION TRENCHES:

Take out trenches straight, level and to proper width and keep free of water and loose material. Concrete shall not be placed until excavations approved. If, other than under item 2 of this section, trenches are dug too deeply then such excess depth shall be filled with concrete, as specified for foundations, at the Contractor's expense.

7. HARDFILL:

Use only approved fill not less than 100mm thick and well compacted under concrete ground floors and where otherwise specified. Blind surface of fill with not less than 5mm of sand.

8. SITE DRAINAGE:

Take out land drainage trenches to adequate depth and falls to prevent dampness under the building. Provide for field tile drains (or perforated plastic drainage pipe) bedded on scoria. Back fill with clean graded scoria from 50mm to fine.

9. HOUSEHOLD DRAINAGE:

See Drainlayer Section.

10. BACKFILL AND TOPSOIL:

Backfill and well consolidate in 100mm layers to foundation walls, pile footings and service trenches. Spread previously excavated top soil as directed. Do not damage any waterproof coatings or polythene protecting foundation walls from ground water entry.

CONCRETE & REINFORCING

1. PRELIMINARY & GENERAL

Note all clauses under Preliminary and General of this specification which shall apply to this section of the work.

2. EXTENT OF WORK:

Comprises the setting out, boxing and placing of concrete in the foundations, floor slabs, walls, beams and bands, and any other concrete work shown on the drawings.

3. MATERIALS:

Concrete which shall be ordinary grade and comply with requirements of NZSS 1900 Chapter 9.3. Builders mix maybe used if agreed by Owner, providing the minimum crushing strength is 17.5 MPa at 28 days standard cure is unaffected.

4. FORMWORK:

Formwork shall be so constructed that the concrete thickness and shapes required are obtained as detailed without removal causing damage. Times of removal of formwork, methods of construction and pouring and curing of concrete shall be as set down in NZSS 1900 Chapter 9.3.

5. CONCRETE FOUNDATION WALLS:

Foundation footings, walls and reinforcing shall be to the sizes shown on drawings in accordance with Table 4 and relevant clauses of NZS 3604, supporting single storey, 2 or 3 storey as appropriate. Such walls shall finish not less than 225mm above finished ground level but not measure more than 2m above the bottom of footings.

NOTE: A full (2.4m) storey concrete (or concrete masonry) foundation wall is outside the scope of NZS 3604 but is permissible either by:-

a) Construction to NZS 1900 Chapter 6.2 (1964) "Masonry" for example using concrete block masonry or reinforced brickwork:

or b) Specific Design using concrete or masonry.

It is then permissible to erect one or more storeys to NZS 3604 on top of such foundation walls.

Reinforcing steel shall be lapped at least 40 rod diameters for plain rods and not less than 30 diameters for deformed bars in concrete. (See Concrete Blocklayer for other laps.)

6. ~~CONCRETE PILES:~~

Ordinary concrete piles to NZS 3604 shall for this project be precast piles embedded into insitu footings. All other concrete

Continued.....

~~CONCRETE PILES Cont'd~~

piles, i.e. anchor piles, braced piles and cantilever piles shall be formed insitu where indicated on drawings, reinforced and to depths in accord with NZS 3604.

7. ~~CONCRETE FOOTINGS FOR EMBEDDED TIMBER PILES:~~

The minimum plan dimensions of square or circular footings, thickness of pile footings and embedment of the respective timber piles into such footings shall all accord with NZS 3604 for ordinary, anchor, braced and cantilever piles with any ends cut on site uppermost and brush treated according to Timber Preservation Authority requirements.

8. CONCRETE SLAB-ON-GROUND FLOORS:

Floors having foundation walls that support only one storey need not be reinforced providing that shrinkage control joints are provided at 3m spacings for 75mm thick slabs or 4m spacings for 100mm thick slabs. In all other cases concrete slab-on-ground floors and porches shall be not less than 100mm thick on well compacted granular fill and reinforced with a layer of 668 welded reinforcing mesh lapped 225mm at joins (or 665 mesh if cast in more than 15mm maximum dimension in one operation. Reinforced slab-on-ground porches may be cast separately from foundation walls but shall be securely anchored to them with R 6 bars at 600mm c/cs lapped not less than 300mm with the slab reinforcing.

Where floor slabs occur in rooms for habitation they shall have 0.25mm thick polythene sheet under either welded into one continuous sheet or with joints lapped not less than 150mm and sealed with a self adhesive tape to manufacturers' specification. The Contractor shall not use any other vapour barrier without approval in writing and shall protect from punctures and tears before and during placement of concrete. Any damage done to the vapour barrier during provision of underslab or in the slab services shall also be made good before placing concrete.

9. ~~SUSPENDED CONCRETE FLOORS:~~

Precast, prestressed suspended concrete floor deckings shall be those manufactured by _____. All junctions with external walls shall include adequate tying in as

Continued.....

~~SUSPENDED CONCRETE FLOORS Cont'd~~

per manufacturer's detail; and where there is brick veneer above provide for a solid minimum 50mm deep step detail treated with a bitumen water proofing compound to ensure freedom from rainwater entry. All insitu concrete placed over units and at ends to be of strength at standard 28 days cure prescribed by the manufacturer.

Where metal trough sections supporting concrete floors are shown erect sections and place concrete all as details and instructions provided by _____.

10. BUILD-IN BOLTS ETC:

Provide in concrete for openings for vents or as required by other trades and for holding down bolts in accordance with NZS 3604. Timber grounds where required for fixing door frames etc. shall be heart totara dovetailed and where required water bars shall be of brass or galvanised iron. Powder powered tool fixings can be used where appropriate.

11. PATHS:

Where shown on drawings paths shall be laid not less than 75mm thick reinforced with 668 mesh. The surface shall be graded evenly to provide suitable drainage and left with a uniform finish using a wooden float.

12. COMPLETION:

Leave all clean and tidy at finish and make good any defective work.

~~CONCRETE BLOCKLAYER~~

1. PRELIMINARY & GENERAL:

Read and note all clauses under Preliminary and General of this specification where they apply to this trade.

2. EXTENT OF WORK:

Refer to drawings for layout and extent of work. Build the whole of the reinforced and unreinforced 200mm concrete blockwork. Build in as the work proceeds all reinforcing steel, bolts and all other lugs, conduits, sleeves and openings for vents etc., required for the work of other trades. Keep surface clean and free from mortar, perpends true and faces true to line and vertical. Blocks are to be kept dry before laying.

Reject all blocks not complying with NZS 3102P. Reinforced masonry foundation walls not exceeding 2m in height from the underside of the footings shall be to NZS 3604 or to NZS 1900 Chapter 6.2 "Masonry" (specify preference). Where exceeding 2m in height construct in accord with Chapter 6.2

3. BOND:

Blocks shall be laid in stretcher or stack bond as shown. All joints shall be full and struck to provide a fair faced finish to both faces. Complete bond shall be secured between the blocks and mortar. Ensure that bond is not broken by making adjustments to blocks after mortar has taken a set.

4. MORTAR:

The mortar for all blockwork shall be composed and mixed according to the relevant NZS clauses; water shall be of drinking quality; sand shall comply to NZSS 1900 Chap.6.2 for grout filling of masonry cavities and NZSS 3103 "Sands for Mortar, Plaster & External Renderings" for mortars.
All cement shall comply with NZSS 3122 and shall be properly stored at the site and adequately protected from dampness.

5. MINIMUM REINFORCING STEEL REQUIREMENTS:

Minimum reinforcing steel requirements in concrete masonry on this contract shall relative to the height of the masonry, accord with the following:-

a) Where shown less than 2m in height from underside of footing to top of foundation wall _____ to NZS 3604.
b) Where exceeding (a) above, where a full 2.4m or higher storey height is shown, be:-
(i) to NZSS 900 Chapter 6.2
or (ii) to Specific Design; and work in this category shall only be erected by a "Registered Mason."

6. JOINTS TO BLOCKWORK:

All blockwork joints shall be neatly stuck with a 10mm rod jointer to form a neat concave recess to a good line, level and of consistant depth of approximately 6mm.

7. WATERPROOFING:

The Contractor shall ensure all blockwork above and below ground prevents the entry of water into the inside of the building.
The Contractor shall provide warranties and prices for waterproofing from a number of manufacturers or their approved applicators and the type and price for the work shall be agreed. Internal strapping and lining as necessary to comply with insulation standards shall not proceed until evidence that the blockwork is free from leakage is demonstrated.

8. WEEP HOLES:

Provide weep holes in concrete blockwork at least 50mm below all bottom plates and below finished ground floor level, and below intermediate floor level, at approximately 800mm intervals. Drill or rake out weep holes to base of mortar bedding so as not to entrap any rain that might enter the walls.

B R I C K L A Y E R

1. PRELIMINARY AND GENERAL:

Read and note all clauses under Preliminary and General of this specification where they apply to this trade.

2. RELEVANT SPECIFICATIONS:

All work shall be in accordance with the requirements of NZS 3604 and NZS 1900 Chapter 6.2 as appropriate.

3. MATERIALS:

(a) Bricks: Bricks for external veneers and foundation walls shall be STANDARD RED of the colour and type selected and shall comply with NZS 366 Clay Building Bricks grade A or B. All fair face brickwork shall be laid with their best face outwards.

(b) Cement: shall be ordinary Portland Cement and at the time of use shall comply with NZSS 3122 Portland Cement.

(c) Plasticizers: Plasticizers shall be used in accordance with the manufacturer's instructions and no other additives are to be used in conjunction with these materials. On no account will further additions be made at the time of retempering mortars.

(d) Water: Water shall be drinking quality.

(e) Sand for Mortars: Sand used shall be Mercer No. 1 sand and/or shall comply with the relevant clauses of NZSS 3103, Sands for Mortar, Plasters and External Renderings.

4. PREPARATION OF MORTAR:

Mortar shall be prepared by mixing in an approved mixer. Measurement of materials shall be by volume using suitable containers. Mortar shall be mixed until a homogenous mass is obtained but for not less than 5 minutes. All mortar whether on the boards or left in the mixer shall be used within 90 minutes. Mortar not used in this time shall be discarded.

5. BRICKLAYING:

Bricks shall be laid in stretcher bond true to line level and plumb and in accordance with the best trade practice. All work shall be laid from the lowest corner and no corner shall be raised more than 900 mm above wall line. Corners shall be racked back. On no account will toothing be permitted. All joints will be completely filled with mortar and the bricks shall be disturbed as little as possible after initial positioning. Joints shall, unless otherwise specified, be not more than 9.5 mm thick and shall be tooled as directed as work proceeds. Where tapestry bricks are used care shall be taken to use a tool slightly smaller than joint width to prevent pushing mortar into the brick striations.

6. BRICK FOUNDATION WALLS:

Note where the following are shown on drawings and construct accordingly:-

(a) Reinforced clay brick masonry foundation walls not exceeding 2 m in height, minimum width 130mm supporting single storey only; 190mm if supporting 2 storey or brick veneer and wall plate - all per NZS 3604.

(b) Reinforced clay brick masonry foundation walls exceeding 2m in height to NZS 1900 Chapter 6.2 or to be built by a "Registered Mason" to Specific Design.

(c) System A and System B continuous single - wythe clay masonry foundation walls, supporting single storey only - strictly in accord with Fig. 15 of NZS 3604 with extra width of concrete beam and step detail for masonry veneer.

Contractor to consult owner on size and position of access door.

7. MASONRY VENEER:

(a) Building Paper

Run ordinary black bituminous breather type building paper to NZS 2295 (or fire resistant breather type) horizontally and well secure to outside face of framing from bearer to top plate. Repair tears and holes before constructing veneer.

(b) Clay Brick Veneer

Construct brick veneer with approved face fixed ties at correct spacings in accordance with Appendix F of NZS 3604 and with materials and workmanship to NZS 1900 Chapter 6.2.

continued.....

MASONRY VENEER Continued

Clay Brick Veneer continued

A cavity of not less than 40 mm and not more than 75 mm shall be maintained between building paper and veneer. Where necessary weep holes shall be left every third joint for the discharge of water, as under Concrete Blocklayer. Keep the cavity and upstand clean, free from mortar protrusions and droppings. Keep pipes or electrical wire, junction boxes etc. out of the cavity. Build in the required number of subfloor vents to provide not less than 3500 mm^2 of ventilation per $1m^2$ of floor area. Keep top of vents below bottom of bearers. Thoroughly clean down the face of work on completion and leave free of mortar stains and efflorescence.

(c) ~~Vermin Proofing~~

Secure galvanized wire mesh to bottom plates, slope downwards and across cavity and embed each length of mesh at least 25 mm in mortar joints. Vermin proof dividing wall and wherever else necessary.

(d) Sills

Sills ~~to be brick on edge,~~ TILES brought to underside of wooden sills or aluminium joinery junction between to be filled with a suitable sealant as recommended by the Joinery Manufacturer and overpointed with cement mortar.

(e) ~~Split Stone or Concrete Block Veneer~~

Cement composite bricks for external veneer and foundation wall shall be _____ of the colour and type selected and shall be manufactured in accordance with NZS 3102 P "Specification for Concrete Masonry Units." Construction shall accord with all earlier relevant clauses of this section.

8. ~~CHIMNEY:~~

Chimney to be brick to Owner's preference. All reinforced to Local Authority requirements. Cast in C.I. tip grate to floor of hearth. Construct fireplace with jambs in 230 mm work. Line with firebrick, with slanting sides and a tilted back giving a 75 mm max. throat opening, finished 150 mm above soffit of fireplace opening. Fill behind tilted back with mortar, with concave finish to top. Gather brickwork into flue liner and parge brickwork. Cast concrete lintel with 100 mm bearing, reinforced with two 12 mm diameter rods tied with 4 mm wire at 150 mm centres. Slope back face of lintel into throat. Construct flue with internal dimensions of 300 x 300mm and build in 230 mm diameter earthenware flue liner for full height, wrapped with heavy quality building paper.

FIREFRONT AND HEARTH: FOR TILE FIRE

Allow the P.C. sum of $ 600-00 for selected firefront and hearth.

CARPENTER AND JOINER

1. PRELIMINARY AND GENERAL:

Read and note all clauses of the Preliminary and General which apply to all works of this section.

2. EXTENT OF WORK:

The work of this section shall include all labour, materials, equipment necessary to carry out and complete the carpentry as shown, or as further required by this specification. Together with any other items of work reasonably inferred as part of this section.

3. ATTENDANCE AND PROTECTION:

Attend upon all other trades providing all blockings, fixings, trims nogging as necessary for the full completion of their respective works and make good after all trades.

4. MATERIALS AND WORKMANSHIP:

All material used shall be the best of their respective class and type specified. Any materials which in the opinion of the Owner, Loan Body or Local Authority are not up to standard, to be removed immediately from the site. All work shall be carried out in a workmanlike manner in accordance with best trade practice and as or where especially specified. Any work that is intended or implied but not specifically shown, mentioned or specified as necessary for the proper completion of the building shall be included. All work shall comply with the relevant NZS requirements particularly NZS 3604.

5. TIMBER:

All timber used shall conform to NZS 3602 requirements, "Code of practice for specifying timber and wood - based products for use in building." Timbers shown in the Schedule of Timbers to be treated with an approved preservative process in plants licensed by the Timber Preservation Authority.

6. DAMP PROOFING:

All timber to be protected from dampness with 3-ply bituminous felt or other approved damp proofing material when in contact with concrete or brickwork, except as provided for under Clause 2.1.4 of NZS 3604.

CARPENTER & JOINER Continued

7. PRIMING:

All exterior finishing timber, all timbers in contact with concrete blockwork and all external faces, rebate,etc. of all doors, windows, frames and all woodwork of sashes, shall be primed before fixing unless otherwise specified in Painter.

8. CLEANING:

The Contractor at the conclusion of the contract shall have all ceilings, walls and woodwork carefully dusted and wiped down. Windows washed and glass free from scratches and paint. Floors brushed and the entire building and site left in a clean condition for occupation.

9. FASTENING AND FABRICATION:

(a) The Contractor should especially note that all aspects of fastening and fabrication of timber framing members and wood-based products on this contract shall accord with the following clauses of NZS 3604:-

Clause 2.5.1 - General

Clause 2.5.2 - Adhesives for timber & wood-based products.

Clause 2.5.3 - AND APPENDIX A - for nailing and use of wire dogs.

Clause 2.5.4 - for bolting and screwing.

(b) Reference shall also be made to Appendix A of NZS 3604 for the proper fixing of sheet lining and cladding materials for walls and ceilings that are not wood-based e.g. Gibraltar board, fibrous plaster or asbestos-cement sheeting; especially where such materials are used as disphragms and for wall bracing.

(c) Mild steel structural components used in sub-floor spaces, exposed to the weather or in position where condensation or dampness will occur shall be hot dipped galvanised after forming and shall provide the necessary "capacities" called for by NZS 3604 dependent on function and location.

(d) In all other cases, select and use connectors according to manufacturers' literature conforming to NZS 3604 requirements.

10. INSULATION:

All roofs, walls and floors are to be isulated in accordance with NZS 1900 Ch. 4, NZS 4214 and NZS 4218 P (See B.R.A.N.Z. Paper C1 - A construction guide to home insulation).* No insulation material shall be used that does not comply with NZS 1340. All insulation materials are to be installed in accordance with manufacturer's recommendations.

CARPENTER & JOINER Continued

11. MOISTURE CONTROL:

Where a vapour barrier is required in the form of foil or polythene film, this barrier shall be fixed according to B.R.A.N.Z.Bulletins Nos. 215 and 217.* Foil or polythene film shall not be used as a substitute for building paper. Building paper shall be properly fixed to bottom plates, especially in veneer construction, to prevent entry of subfloor air into stud cavities. Brick veneer cavities shall be closed off at and by means of soffits so as not to connect with roof cavities. There should be no unsealed openings for service pipes and wiring etc. There should be no discharge from cooking extractors or clothes driers into any wall, roof or floor cavity. Linings shall not be fixed until moisture content of framing has been tested and approved.

A proper solvent based paint or varnish finish must be used for plasterboard (Gibraltar board or fibrous plaster) linings to 'wet' rooms, such as kitchens, bathrooms and laundry.

Water based emulsion paints must not be used.

TIMBER SCHEDULE COMMENCES PAGE NO.16

* B.R.A.N.Z. Paper C1 and Information Bulletins on thermal insulation and on many other building topics can be purchased from the Building Centre.

SCHEDULE OF TIMBERS. (For Guidance only)

LOCATION	SIZE mm x mm	GRADE & TREATMENT For alternatives refer to NZS 3602 or BRANZ Bulletins 130 & 175.	REMARKS
~~Subfloor Framing~~		ALL subfloor framing No.1 Radiata Pine* Pressure Treated to Commodity Specification C7 of T.P.A. Specification e.g. Tanalith or similar	
Wall Plates	100 x 50 min 75 x 50		Bolted or dowelled For 75mm wide studs only.
Bearers supporting jackstuds on piles	100 x 100 min 100 x 75		Can be 2/100 x 50's .
Subfloor jackstuds	min 100 x 75		At 600 c/cs.
Stud in subfloor wall	min 100 x 50		
Ditto where doubled under bearer	2/100 x 50		
Top plate to jackstuds or subfloor wall	100 x 50		
Bearers on jackstuds or timber stud subfloor wall	100 x 100		
Stringer to side of foundation wall	125 x 50		Fixed with M12 bolts at 1M spacing.for single storey only.
Subfloor braces	min 100 x 75		Not exceeding 3M. Fixed with M12 bolts (or appropriate nail plates).
~~Ground Floor Framing~~			
Floor joists for max. 1.5KPa loading.	150 x 50)	Treated No.1 Radiata.Pine to C8 of T.P.A.Specification e.g. Tanalith or Boron type treatments.	600 c/cs. Up to 2.6m Max. span where continuous over 2 or more spans.See plan for other sizes & spans.
Herringbone strutting	40 x 40)		(Along subfloor bracing lines, at right angles to joists & mid point of any span exceeding 2.5M and under load bearing walls).
Solid Blocking	150 x 50)		At outer ends of floor joists.
Boundary joists	150 x 25		
~~Floor Decking~~ Refer to plans for type & location.			
a) T & G strip	100 x 22	Dressing A.Heart Rimu or Matai.	Dry dressed
b) Particle Board	2400 x 1200 x 20	High Density	Joins between sheets made over supports or on 50x50mm blocking between joists.
Wall Framing			
Bottom plates	100 x 50 min 75 x 50	No.1 treated Radiata Pine	Long lengths

continued...

LOCATION	SIZE mm x mm	GRADE & TREATMENT For alternatives refer to NZS 3602 or BPANZ Bulletins]30 to]75	REMARKS
Wall Framing Continued:			
Studs	100 x 50 75 x 50	No.1 or No.2 or Building Radiata Pine as appropriate Treated.	600 c/cs
Top Plates	100 x 50 100 x 50 75 x 50	PLUS 150 x 40 All No.1 Treated Radiata Pine	Where supporting upper floors, heavy roofs and where ceiling battens necessary.
Trimming Studs*	100 x 50	Treated No.1 Radiata Pine	Up to max.3m span of lintel in single storey, top storey or non load brg.wall only
*See Remarks column for greater spans or in other locations refer to Table]5 of NZS 3604 and use doubling studs as necessary.			
Lintels (generally) dependent on span	2/100 x 50 up to2/200 x 50	~~OREA DOUGLAS FIR~~ ~~Treated No.1 Radiata Pine~~ RIMU	Select built-up lintels from Table 16 NZS 3604.
Sill and Head		" " " "	
Trimmers	Same width as studs, thickness per span as follows: Span 2M..... 40mm 2.4M..... 50 3M ..... 75 3.6M .....100 or (2/50mm)		Head Trimmers shall be used instead of lintels only in non load bearing walls.
Dwangs (or Noggings)	50 x 50 75 x 40	Treated No.1 Radiata Pine.	Min. 2 rows for 2.4 high studs except where a greater or lesser number indicated by lining or cladding manufacturer.
Bracing (No dog legs permitted)	100 x 25 75 x 40	" " " " " " " "	(Continuous let-in brace) (Cut between braces in diagonally opposing pairs) (Delete both above if using continuous steel strip or steel angle.)

ROOF FRAMING: To pitch and style shown on plan Note : 1) Individual requirements and options permissible under NZS 3604 preclude meaningful scheduling here. Designer and Builder shall refer to NZS 3604 and dimensions drawings to satisfaction of Local Building Authority. 2) All timbers as relevant in (A) (B) or (C) below shall be treated No.1 Radiata Pine or shall be Douglas Fir. Exposed ends of Douglas Fir rafters in Type C roofs shall be capped.

(A) Trusses To approved size and dimensions as shown on plans & manufactured by PLACE MAKERS

or (B) Framed (couple-close) Roofs)

or (C) Monopitch, skillion & exposed rafter roofs) As fully detailed on drawings in accord with NZS 3604. NOTE: Purlins (roofing battens) on edge or on flat shall be sufficient to accommodate the thickness of thermal insulation material necessary to comply with by-laws, advise and agree with owner.

LOCATION	SIZE mm x mm	GRADE & TREATMENT For alternatives refer to NZS 3602 or BRANZ Bulletins 130 & 175	REMARKS
Roof Braces			
Roof space braces min.	100 x 50)	Treated No.1 Radiata Pine	(Alternative - specify opposing pairs of continuous steel strip braces instead of 100 x 25 roof plane braces.)
Roof plane braces	100 x 25)		
Ceiling plane braces	100 x 50)		
~~Roof Sarking~~			
Hit and Miss diagonal sarking	75 x 25	Treated No.1 Radiata Pine or Douglas Fir.	45° to ridge, if used delete roof plane braces above.
Sheet sarking (e.g.6mm plywood or 6mm particle board)			Again, omit roof plane braces.
Roof Tile Battens (or	75 x 50	Treated No.1 Radiata Pine or	Light roof, on flat at 900 c/cs.
Purlins)	75 x 50	Douglas Fir	Heavy roof, on edge at 900 c/cs.
Dragon Ties	100 x 40	Treated No. 1 Radiata Pine	As required.
Eaves Framing	75 x 40	" " " "	
Barge & Eaves Boards	150 x 25		
up to	225 x 25	" " " "	
Ceiling battens	75 x 40		or as required by manuf.of ceiling lining.

Weatherboard Dressing A Heart Rimu or Treated A Rimu or Matai or imported Cedar. Horizontal or Vertical Finishing grade. Weatherside or Hardiplanks. (Delete that which is not applicable).

Internal Doors		
Jambs	25 mm	(Dressing A Rimu
Architraves	75 x 12 mm	(
Skirtings	75 x 12 mm	(or by agreement
Sill Boards	25 mm	(
Aprons	25 mm	(

ALL OTHER INTERNAL FINISHING TIMBERS NOT SPECIFICALLY MENTIONED TO BE DRESSING A RIMU.

Window Jambs	150 x 40 mm	D.A.H. Rimu
Window Sills	150 x 65 mm	D.A.H. Rimu or Matai or Cedar
Mullions	75 x 65 mm	D.A.H. Rimu or Matai or Cedar
Cornices	40mm	" " " "
Facings ext.	75 x 25 mm	" " " "
Door Sills	150 or 200 x 65 with 12 mm Steel Weather Bar.	
Scribers	50 x 12 mm	Totara or Heart Rimu.

CARPENTER & JOINER Continued

12. ~~SUB-FLOOR FRAMING:~~

(a) Driven Timber Piles shall be included in this section of the work and all driving, testing, sizes and spacing of piles shall accord with Appendices C & D of NZS 3604 and drawings.

(b) Bearers shall be 100 x 100 mm, supported at 1.3m centres along length and spacing between bearers to be max. 2.5m except where spacing and size of joists and bearers are shown differently in plan. Jack studs to be securely fixed to foundation piles and wall plates or bearers as shown. Brace with 100 x 75mm as required. Floor joists shall be gauged over plates to uniform levels. Joists shall be 150 x 50 mm. Laps not less than 150 mm spiked. Nail plates may be used in place of lapping. Provide double joists under all load bearing walls.

(c) Plates shall be 100 x 50 mm dowelled or bolted to foundation walls.

13. GENERAL FRAMING:

All framing to be 100 x 50 mm stud or 75 x 50 mm stud with 50 mm wide studs to all openings not exceeding 3 m span where supporting only one storey. Top and bottom plates to be same sizes as studs in long lengths, halved or nail plated at wall junctions and jointed over studs. All studs at 600 mm c.c. Provide two (2) rows of dwangs to full height each wall unless otherwise stated on drawings.

14. WALL BRACING:

Provide all wall bracing as shown on drawings and wall bracing calculation sheets as is intended to satisfy the Local Building Authority. Keep strictly to the "Type", Lengths and Locations shown on plan and elevations except that Type 1 can be substituted for Type 3 and Type 2 can be substituted for Type 4.

15. WALL LININGS:

Generally shall be of 9.5 mm Gibraltar Board and shall be fixed to external walls only after placement of thermal insulation (bulk insulants). (Specify if different i.e. if using Winstone Ltd. Specific Thermal Design - with Gib-foil only in walls and higher levels of insulation on battened ceiling on trusses). All nailed or fixed as per Appendix A of NZS 3604 or manufacturers' instructions and stopped to manufacturers' instructions; in particular where contributing to wall bracing.

16. ROOF CONSTRUCTION: (See Drawings and Schedule of Timbers for types).

(a) Trussed Roofs: Drawings showing clearly the type, pitch, span, spacing and overhangs of roof trusses and details of roof cladding shall be provided to the truss manufacturer PLACEMAKERS to allow him to comply with Clause 10.2.3. of NZS 3604. Thereafter, the Contractor shall match construction with the drawings and details provided by the truss manufacturer throughout all stages of fixing and bracing. The Contractor shall especially accord with the manufacturer's instructions for tying down where overhangs

continued...

CARPENTER & JOINER Continued

Trussed Roofs continued

exceed 750 mm. In all cases anchorage of all trusses to plates shall be with not less than 2/100 mm skew nails plus 2/4.9 mm wire dogs.

(b) ~~Framed Roofs:~~ Roof to be framed up to pitch indicated on plans and to detail properly checked, birds mouthed and well fixed. Fix valley boards, ridge etc. Fix both underpurlins and collar ties where shown and where rafters exceed 10° pitch. Collar ties are to be at 1.8m centres or to every 3rd set of rafters whichever is the closer.
Ceiling Joists to be generally 100 x 50mm spaced as required (refer to Plan) and to be well spiked to all plates. Provide adequate ceiling runners to spans of 2400mm and over.

c) ~~Monopitch, skillion and exposed rafter roofs:~~ Construct as drawings in accord with NZS 3604.

17. PURLINS, EAVES, GABLE ENDS:

Size of framing, spacing, overhangs and sheathing type as shown on plan.

18. FASCIA BOARDS ETC. TAYLOR FASCIA

Fix fascia, barge, frieze etc. to suit roofing selected. (See ROOFING CONTRACTOR).

19. POST AND BEAMS:

Where within maximum permitted by NZS 3604 secure in equivalent manner and with equivalent materials as in Clauses 7.1, 7.2 and 7.3 thereof. Owner to provide "specific design" for all other posts and beams and contractor to fix as per details given.

20. ~~FLOORING:~~

Timber joisted ground floors shall be insulated with _____ (brand) _____, type perforated aluminium foil carefully laid, lapped and drooped 100 mm between joists and stapled on top side all per manufacturers instructions before laying flooring.

(a) ~~Particle Board Flooring:~~ Shall be 21 mm High Density to NZS 3608. All aspects of handling, storage, sheet layout and fixing shall be to manufacturers' recommendations.

Nailing or stapling of pre-laid particle board flooring shall be done in two (2) stages to reduce the risk of floors squeaking. First secure at perimeter of floor, along the bottom plate positions for internal walls and sufficient elsewhere to hold the sheets flat during construction. Complete remainder of

continued....

CARPENTER & JOINER Continued

Particle Board Flooring continued

fixing to manufacturer's specification after the house has been totally "closed-in" and just prior to sanding. The Contractor shall be responsible for any damage done and for cost of repair or replacement of the flooring if not closed-in sufficiently early (normally within 2 months of laying) or if the floor is not otherwise adequately protected up to completion of the house.

Heads of fixings shall be punched to allow a reasonable depth of stopping, unless otherwise stated. Ceilings below particle board (or any other flooring) shall not be secured until all nailing or stapling above has been done.

OWNER TO SPECIFY ANY ALTERNATIVES TO 20(a) e.g.:-

i) Particle board, laid only after closing in
ii) Tongue & Grooved (T & G) flooring, with or without secret nailing
iii) Glue laminated timber flooring
iv) As (ii) and (iii) above but also forming ceiling to a room or number of rooms below.

(b) ~~Finishing of Particle Board Flooring~~

Contractor to follow manufacturer's recommendations and sequence in sanding, sealing, stopping and application of coatings to provide a minimum 3 coat flat, smooth hard wearing polyurethane finish. Contractor should also follow manufacturer's recommendations for floor areas to be covered with vinyl flooring or carpeting as advised by owner and such finish of the particle board to be approved before either is laid.

OWNER TO AMEND 20 (b) if wishing to undertake all or part of finishing personally.

21. ~~TIMBER TERRACES:~~

If shown on plan construct to detail or best trade practice. All nail fixing with galvanised nails, all bolt fixing with galvanised bolts, and all timber to be treated to the correct preservative retention as specified by The Timber Preservation Authority."

22. EXTERIOR WALL COVERINGS:

(a) Breather type building paper and masonry veneer shown on drawings shall be as given under "BRICKLAYER."

NOTE 1. Other exterior wall covering shown on the drawings and mentioned in Section 8 of the NZS 3604 should be fixed in accordance with all requirements therefore. It is important to appreciate that reference is made to NZS 3602 wherein advice

continued.....

CARPENTER & JOINER Continued

EXTERIOR WALL COVERINGS - Note 1 continued

is given on width of timber weather board and finishing. Should the owner specify overwide boards and any finish other than paint and not adequately maintain, the responsibility for any resultant poor performance should not be apportioned to the "Contractor."

NOTE 2. Reference is made to asbestos-cement flat sheets in NZS 3604 and should be taken to include such sheets that can be purchased with various finishes already applied, e.g. aggregate finish or imitation stone work and brick work finishes, as well as where sheets are used as a base for in situ finishes.

(b) Other exterior wall coverings shown on the drawing shall be _____ fixed in accord with _____ and finished with _____

23. EXTERIOR JOINERY

All windows shall be to NZS 4211 to suit location.

(a) Aluminium Joinery BRONZE

Provide P.C. sum of $ _____ for windows and glazed doors to size, type and location shown on plan. Obtain joinery from _____, complete with glazing, frictional restraints and catches, and fix plumb both ways and in correct alignment and flash all in accord with manufacturer's instructions.

Sliding patio doors shall be safety glazed and fixed to timber sub frames as per Code.

NOTE: Owner should check with manufacturer regarding manner or type of safety glazing (also in shower screens). Also seek advice on satisfying the need for simple secure means of maintaining a little ventilation at night or when house is empty. Options can include substituting double spur catches for single, fixing security fasteners or provision of small sliding panes, or louvre or grill at high level.

(b) Timber Joinery

Unless otherwise specified sashes and frames shall be of finger-jointed radiata pine treated to the requirements of the Timber Preservation Authority, primed before leaving the factory, and to sizes and type shown on plan. Fix window frames plumb both ways to wall framing ~~at not more than~~ 750 mm ~~intervals with full width folding~~ wedges, or to heart Totara dovetailed grounds in masonry walls. Cut all facings and

continued.....

CARPENTER & JOINER Continued

Timber Joinery Continued

scribers to fit neatly and fix quadrant under external sills. Provide and fix standard galvanized steel flashings unless otherwise specified

Hang all sashes as required with suitable hinges or frictional restraints and fix stays and catches as supplied under P.C. sum (see Hardware).

24. DOORS & FRAMES (TIMBER):

External door frames shall be of 40 mm full width material rebated, and internal shall be 40 mm rebated or 25 mm material with 12 mm planted stops. Doors shall comply with NZSS 1158, where external shall be framed, ledged and braced or timber or glass panel as shown on drawings, all properly constructed with stiles and rails out of 50 mm material. Internal doors shall not be under 40 mm hollow-core faced with plywood or hardboard with clashing strips fixed to lock stiles. All timber core material shall be treated and doors shall be of approved manufacture. Doors over 1400 mm in height shall be hung on one and one half pairs of 100 x 70 mm antique butt hinges.

25. CEILINGS:

(a) Gibraltar Board: Fix painting quality 9.5 mm gibraltar board to joists and rafters with 30 mm flat head galvanised clouts, with nails punched and stopped and all joints flushed up to a true even smooth surface. In particular fix all ceilings serving as structural ceiling diaphragms under terms of NZS 3604. (See Winstone (Auck) Ltd. taped joint system). Check that each wall under or connected to has adequate bracing for a diaphragm.

(b) ~~Pinex:~~ First quality tiles or planks as directed by Owner to be fixed to manufacturers' specification. In particular note where dragon ties have been specified on drawings and refer to NZS 3604 for their proper fixing. Also check each wall relative to the dragon ties have the prescribed bracing values.

(c) ~~Fibrous Plaster~~: (See Fibrous Plasterer Section.)

26. WARDROBES:

To be lined full height. Provide inside each with 300 x 25 mm full width shelf at 1.7 m from floor and 20 mm galvanised pipe coat rail at 75 mm below shelf. Provide cupboards over wardrobe where required.

continued.....

CARPENTER & JOINER Continued

27. LINEN & COAT CUPBOARDS:

Lined full height inside and to have 25 mm shelving. Full depth for linen at approximately 400 mm c.c. Coat cupboard to have hat shelf at 1800 mm from floor and coat hooks to side and rear.

28. KITCHEN CUPBOARDS

Construct cupboards and dresser unit to sizes as shown on plans, with doors and shelves to Owner's approval. RIMU VENEER FACE HUNG

29. SINK TOP:

Provide for ~~standard~~ sink top. Unit to have standard 450 x300 mm stainless steel DRAINER sink. Fix on unit either indicated on plan or to Owner's final approval. Units to be generally 900 mm high and 500 mm in depth, 100 mm toe space. Provide ~~flush~~ FACE HUNG cupboard doors to front and shelving to approval. Timber used in doors to be approved by Owner. RIMU VENEER

30. HOT WATER CUPBOARD:

To be constructed where shown and fitted with slat shelving above cylinder spaced at 15 mm apart. Provide two flush doors with thermostat boxed in.

31. ARCHITRAVES, SKIRTINGS ETC:

Finish all windows internally, door openings and wherever required with 50 x 12 mm rounded or splayed architraves.

Finish at junction of floor and wall with 75 x 12 mm skirtings neatly mitred at angles and scribed to floor.

Supply and fix beads, half rounds and where required scotia mould at ceiling junction and all trim as required to complete the work.

32. BATHROOM:

~~Provide and fix in bathroom one toilet cabinet 550 x 400 mm recessed into wall with mirrored door.~~ Bath to be built in and supported with 75 x 50 mm framing on edge. Fix bath panels as agreed by Owner. Allow for toe space. All wall linings other than Gibraltar board to be fixed to manufacturers' specification. Provide for all sanitary fittings shown on plan and given under "Plumber".

33. METER RECESS:

Provide recess for Electric Meter Board where directed to the satisfaction of the Local Electric Supply Authority.

continued...

CARPENTER & JOINER Continued

34. MANHOLE:

Provide manhole in ceiling 500 x 500 mm where directed.

35. HARDWARE:

Allow the P.C. sum of $ 300-00 for the supply of all hardware required. Door handles, locks, window fittings, door and drawer pulls, stops, angles, vents, towel rails etc. Allow to take delivery and fix. The supply of hinges and butts for all doors and windows is not included in the P.C. sum.

36. ~~INTERNAL WOOD STAIRS~~:

Consult with owner on construction of internal wooden stairs.

ROOFING CONTRACTOR

1. PRELIMINARY & GENERAL:

Read and note all clauses under Preliminary and General of this specification where they apply to this trade. (Also see Plumber).

2. ROOF FRAMING AND WALLS:

Roof framing shall provide adequate support and fixings for purlins (roofing battens). No member shall be overloaded by landing heavy, localised, stacks of cladding on them prior to fixing, and temporary braces as might be necessary shall be provided in walls below to sustain such loading until roof cladding is complete and wall linings subsequently fixed.

In roof types (B) and (C) of timber schedule, the size of purlins if not shown or stated shall be such as to accommodate the required thickness of thermal insulation to comply with bylaws; advise and agree with owner.

3. ROOFING UNDERLAY:

Underlay shall be breather type building paper to NZS 2295. Run horizontally with upper sheets lapped 75 mm over lower sheets and with bottom edges turned over fascia into gutters. Such underlay shallbe provided under all metal and asbestos roofs and be adequately supported unless self-supporting type.

Where other roof claddings are specified and where at less than 12-1/2° pitch undertake all work in accord with a method approved in writing from the cladding manufacturer for the particular job.

continued....

ROOFING CONTRACTOR Continued

4. PREPARATORY WORK:

Provide all gutters, valleys and underflashings before cladding commences. Except where stated, valleys shall be of 0.6 mm galvanized steel at least 400 mm wide with folded edges and with lower end finishing well into spouting. Use 0.7 mm aluminium valley for aluminium roofing. For profiled metal roofing set out purlins to give reduced span at eaves and between top purlin and ridge as recommended. For tiled roofs provide anti-ponding boards at eaves as shown to support building paper. Allow tiles to adequately project into spouting and set out so that when laid there is a full height course of tiles both at eaves and ridge.

Ensure all edges of roof cladding are adequately supported around projections such as pipes, ducting and roof lights.

5. ~~SARKING TO ROOFS, DECKS AND GUTTERS:~~

Profiled metal roofing shall not be laid at less than 5° pitch except where shown and only when adequately supported by hit-and-miss type sarking or full sheet sarking so as to prevent ponding.

Sarking for roofs, decks and gutters that are to be covered by Nuralite or Butynol shall be of material and fixed in a manner approved by the manufacturer.

6. ROOF CLADDING MATERIALS AND COMPONENTS:

Roof cladding shall be ~~PLUMBDEK~~ 760 COLOURDEK (nominated colour and type), manufactured by PLUMBDEK (STEELPRO)

Materials selected shall be set out and fixed by approved FIXERS and all shall accord with the manufacturers' specification and in all cases with NZS Specifications or others where appropriate i.e.:-

NZS 3204:1979 Asbestos cement corrugated and flat sheets
3403:1978 Hot-dipped galvanized corrugated steel sheet for building purposes.
3441:1978 Hot-dipped zinc-coil steel coil and cut lengths.
4206:1973 Concrete interlocking roofing tiles
4217:1980 Pressed Metal Tile Roofs
BS 4300/6:1969 NS 31 Sheet and strip (Part 6 is one of a series covering wrought aluminium and aluminium alloys).

Thickness of materials unless otherwise specified shall not be less than the following:-

continued....

ROOFING CONTRACTOR Continued

Roof Cladding Materials and Components continued

Aluminium cladding, valleys and flashings	0.7 mm
Galvanized steel cladding, spouting, downpipes and overflows	0.6 mm
Copper flashings, gutters and sumps	0.6 mm
Lead flashings to small diameter vent pipe with PVC flashing cone	1.7 mm
Other lead flashings and soakers	2 mm

7. UNPAINTED GALVANIZED STEEL ROOFING:

Areas which are inaccessible for maintenance such as laps in the roofing cladding and between cladding and metal flashings and cappings shall be primed and top coated on both surfaces before fixing.

8. FACTORY PREFINISHED MATERIAL:

Treat all such material with great care and obtain matching colour for making good minor damage and covering fixings made through the face of the claddings.

9. CAPPINGS AND OVERFLASHINGS (ALSO SEE PLUMBER)

Adequately and neatly secure all ridgings,cappings and over-flashings wherever needed to make and keep roof watertight. As much as possible use only materials compatible with the roof cladding. If dissimilar metals are used keep from making contact.

Sealants shall not be used except where approved. Remove all traces of flux after welding, soldering or brazing. Do not leave swarf, broken rivets, screws, nails or waste metal on roof, nor in gutters or spouting.

10. BIRD PROOFING:

Where indicated bird proof eaves with purpose-made foam plastic impregnated with bitumen.

11. SPOUTING AND DOWNPIPES - SEE PLUMBER

12. GUARANTEES:

On completion of all roofing thoroughly clean down and furnish owner with written guarantees to watertightness and security of the roof cladding. Guarantees to be signed by the approved FIXER/FIXERS and run for a period of three (3) years from the date of completion of the building contract.

PLUMBER

1. PRELIMINARY AND GENERAL:

Read and note all clauses in the Preliminary and General of this specification which shall apply to all work in this section. (ALSO SEE ROOFING CONTRACTOR)

2. GENERAL:

Inclusion of roof flashings, provision of roof drainage and other general flashing requirements in this section shall mean that all shall be of the quality expected of work customarily done by plumbers. The foregoing shall apply whether or not the ROOFING CONTRACTOR employs a plumber to execute or supervise, or if the builder himself fixes flashings to windows and external doors. All other work shall conform to the requirements of the Local Authority under Model General Bylaw NZS 9201: Chapter 7: "Water Supply" and Drainage and Plumbing Regulations 1978. No connections to sanitary fittings or main shall be made except by a Registered Plumber. Plumber shall arrange all permit, connection and testing fees.

FLASHINGS:

Wherever possible use flashings that are readily available but purpose-made by the roof cladding manufacturer to suit the roofing material and profile selected. Otherwise provide flashings as recommended but not supplied by cladding manufacturer and adequately secure. Flash wherever needed to make and keep roof watertight. Prime and topcoat both surfaces at laps with galvanized steel.

Flashings to each window head and door shall be provided in one piece, each 150 mm long than the head it is to protect.

4. SPOUTING AND DOWNPIPES: TAYLOR FASCIA GUTTER

Spouting shall be that manufactured by the roof cladding manufacturer, or standard 125 mm quadrant type galvanized steel, or approved white P.V.C. Provide and fix as recommended with even fall to downpipes. Provide all necessary stopped ends, mitred returns and outlets and ensure all joints in metal spouting are adequately soldered or welded, or for P.V.C. are made with solvent cement except where joints provide for thermal movement. Connect outlets to 80 mm diameter downpipes fixed at not more than 1200 mm centres. Downpipes to discharge stormwater into soakaways or street channel, NOT into foul-water drainage system UNLESS permitted by Local Authority.

PLUMBER Continued

NOTES AND ASSUMPTIONS RELEVANT TO CLAUSES 5 - 10

Very careful consideration needs to be given to the design of household plumbing and selection from a wide range of materials nowadays available in supply pipe for both hot and cold water services; and from a similarly wide range of materials for sanitary fittings and waste pipes from them. Every effort should be made to consult with manufacturers and plumbers BEFORE completing this specification in order to attain plumbing to suit individual circumstances. Local Authority plumbing inspectors can advise on such matters as water pressure and volume obtainable from mains and materials approved. The following is offered for guidance to help in the completion of the plumbing specification similar to the clauses given but other clauses might also be necessary if choice differs from the assumptions made.

(a) Cold water can be obtained from a Local Authority mains normally providing adequate water pressure and volume; so avoiding the need for a cold water supply tank in or on the roof.

(b) Water heating is to be mainly by means of a low-pressure thermal storage electric water heater; with cold water feed into Hot Water Cylinder through a pressure-reducing valve and separate non-return valve. Alternatives include:-

B1. Use of a break-pressure tank installed above Hot Water cylinder.

or B2. A mains pressure water heater; with check valve (gate valve) between two (2) stop valves.

or B3. Provision for gas water heater or heaters.

or B4. Provision for wet-back, e.g. from free-standing fireplace or stove, or solar water heating; supplementary to main method of water heating.

or B5. Water heating for space (room) heating as well as serving sanitary fittings.

(c) Proximity of sanitary fittings to Hot Water Cylinder will normally be in order of most frequent use; e.g. kitchen sink, bath or lavatory basin, bath/shower, tub and washing machine.

(d) Cold and hot water supply to ALL fittings is assumed to be by 12 mm nominal bore pipes with temperature-compensating mixer valve to shower to reduce severe temperature changes when taps are turned on or off elsewhere in house. This practice is now common in many areas having reasonable water pressure. Check if permitted and satisfactory in your area and discuss

continued...

NOTES AND ASSUMPTIONS continued

(d) continued

alternative methods of reducing shower temperature fluctuations (by pipe sizing and positioning) with plumber.

5. COLD WATER SUPPLY:

Tap off from mains service pipe in ____ mm COPPER/POLYBUTYLENE/ U.P.V.C./or TYPE 3 or YPE 5 POLYETHYLENE (Polythene). Run pipe not less than 450 mm below finished ground level to house with entry through or under the wall foundation. Supply and fix a water meter, box and cover when required by Local Authority.

Provide ____ mm _____ pipe to hose taps at front and rear of building and to all fittings including hot water cylinder and washing machine. All branches to be as short, straight and at as even gradient as possible with easybends used throughout (NOT ELBOW FITTINGS). Use only approved connections throughout. All pipes are to be adequately supported, well secured and where possible concealed. When using any form of plastic piping, plumber to discuss, and provide, means of ELECTRICAL EARTHING with electrician.

6. HOT WATER SUPPLY:

Supply one (1) pressure electrical hot-water cylinder of 180 LITRES litre capacity of approved make and type and install and connect all pipes to the approval of the Local Authority. Provide _____ mm COPPER or POLYBUTYLENE hot water supply pipes and branches to all fittings including washing machine.

7. SANITARY FITTINGS ETC:

Provide P.C. sum of $ _____ for the following. Carefully note dimensions and install where shown on plan and to owners approval (Specification should preferably include the number of each required size, brand, colour, material and where necessary height).

____Bath/s _____ mm x _____ mm _____ _____
~~Vitreous China~~/Porcelain enamelled pressed steel

____W.C./s _____ _____ _____ _____
Vitreous china complete with _____ double flap plastic seat

____W.C. Cistern/s _____ _____ _____ _____
P.V.C. complete with _____ P.V.C. flush pipe ~~or chrome plated flush pipe~~

____Basin/s (~~on wall brackets~~) ~~(on pedestal)~~ (or in vanity)
_____ mm x _____ mm _____ _____
~~Vitreous China~~/Porcelain enamel/~~Acrylic~~

continued...

SANITARY FITTINGS Continued

____Shower tray/s (or Shub Tub) _____ _____ _____
Stainless Steel/~~Porcelain enamel/Acrylic/G.R.P.~~

____Bidet _____ _____ _____
Vitreous China

____Sink/s and top ____ with ~~single~~ DRAINER ~~or double drainer~~.
As per plan with laminated top/~~stainless steel~~/or tiled or mosaic top. Height _____ mm.

____Laundry tub _____mm x _____mm single or twin tub DRAINER TYPE AUTODRAIN combination. Stainless steel/~~Porcelain enamelled~~, on stand, with cupboard below. Height _____ mm.

8. TAPS, FAUCETS AND VALVES:

Consult with owner on choice of brands and fixing of all taps, faucets, and mixing valves. Provide and fix all other water supply fittings as necessary.

9. WASTES AND VENTS:

Provide all necessary traps, waste pipes, soil stacks, back vents and terminal vents. Provide cleaning eyes to all waste pipes at junctions and all necessary overflow pipes.

10. OTHER MEANS OF HEATING WATER:

Consult with owner on choice and fitting of free standing fireplace with wet-back/or stove with wet-back/or solar water heating panels to supplement hot water heating system.

DRAINLAYER

1. PRELIMINARY AND GENERAL:

Read and note all clauses under Preliminary and General of this contract where they apply to this trade.

2. EXTENT OF WORK:

Work in this section of the contract comprises all surface and foul water drainage up to above ground level to connect to Plumber's work. Include all pipes and specials, fittings, construction of manholes, all gully traps and connections for terminal vents, soil and waste pipes. The Drainlayer shall confer with the Plumber and shall arrange with the Contractor before the foundations are laid to fix the exact position of all connections of wastes and drains.

continued...

DRAINLAYER continued

3. STANDARD OF WORK:

The whole of this work shall be carried out by experienced tradesmen to the satisfaction of the Owner and the Local Council's Drainage Inspector. It shall conform to requirements of the Drainage and Plumbing Regulations of 1978 and the Local Council Specification, the Contractor shall allow accordingly should conflict exist. Obtain all permits, service all notices and pay all fees required and arrange for all tests.

4. MATERIALS:

All materials shall be the best of their respective kinds. All cast iron pipes shall be free from rust and be of first quality and of even wall thickness and shall be hot dipped. Those for the use in foul drains shall have a wall thickness of not less than 4.7 mm. Cast iron fittings shall be of similar quality and have inspection plates as required. General drains shall be 100 mm diameter first class glazed earthenware with rubber ring joints.

5. CONNECTION TO EXISTING DRAINAGE:

The Drainlayer is responsible for verifying the position and depth of the connection and commence laying his drains from this point.

6. DRAIN TRENCHES:

The excavation of trenches for drains shall be accurately made with base clean and true to grade so that no unnecessary filling is required. Adequate width shall be allowed in accordance with depth of drain to enable laying and jointing to be properly carried out. Trenches shall be kept firm and dry and shall be opened up only in lengths that can be protected, utilised and refilled within a reasonable time.

7. LAYING OF DRAINS:

All drains are to be laid on and surrounded to mid-point with 100 mm concrete composed of 6 parts shingle to 1 part Portland Cement. Any cast-iron drains that have been laid on any type of filling are to be set on a continuous bed of concrete 225 mm wide x 150 mm deep reinforced with three continuous 10 mm rods. The pipes are to be laid to straight lines and even grades with socket against fall in all cases.

8. FITTINGS:

The plan shows the layout of the system. Additional fittings that are normally required such as inspection points and inspection bends, etc. that may be required but are not specifically shown must be allowed for by the Drainlayer to comply with normal practice under the regulations or special requirements of Local Council.

continued...

DRAINLAYER continued

9. JOINTING AND BEDDING OF PIPES:

The pipes are to be jointed or caulked with lead in a proper manner and each and every junction or change of direction is to have removable cover plates for inspection.

10. FALL IN DRAINS:

The whole of the soil and stormwater drains are to be laid to a regular and even fall.

11. GULLY TRAPS:

Supply all gully traps and securely bed and build up with 5:1 concrete surround, 150 mm above finished ground levels. Form large and deep dishings and finish the surface with blue metal, dust and cement, one to one and steel trowel smooth. All gully traps are to be fitted with large cast iron gratings and also a grating or perforated plate above the wastes discharging into it.

12. SEWER AND STORMWATER CONNECTIONS:

Arrange for the Council to connect drain to sewer and stormwater where provided and pay all charges in connection therewith.

13. COMPLETION:

Properly backfill all trenches, consolidate as filling proceeds and leave area in a tidy state.

SOLID PLASTERER

1. PRELIMINARY AND GENERAL:

Read and note all clauses under Preliminary and General of this Specification where they apply to this trade.

2. WORK INCLUDED:

The solid plastering of all interior floors, if on plan, and the front and back porches, slabs and steps, also terrace if shown.

3. MATERIALS:

Cement - shall be as specified under "Concretor."

Sand - shall be to NZS 3103 Sands for Mortars, Plaster and External Renderings.

Hydrated Lime - shall be mill hydrated of an approved brand.

Bonding Agents -if used shall be in accordance with maker's instructions.

continued....

SOLID PASTERER continued

4. WORKMANSHIP:

All to be best trade practice and generally where plastering is required by drawings it shall mean finishing to 12 mm thickness with a mix of one part cement to three parts sand with 10% of hydrated lime added and finished to a straight and even surface with a wood float.

5. FOUNDATIONS:

Concrete foundation walls shall be prepared by removing projections making good any defects and finishing with a dash coat of 1 to 3 cement and sand applied to give a regular and satisfactory coverage.

6. CONCRETE FLOORS (MAIN - See Plan).

Co-operate with Concretor and allow for plastering of main floor. Float up to true level and steel float finish to remove pattern. Do not over-trowel. A hard dense finish is required.

7. PORCH AND STEPS AND TERRACE (if shown)

Plaster up in one operation. One coat 12 mm thick to terraces and porch slabs, 12 mm thick to verticals and sides etc. Wood float up then given light sweeps with steel float to remove blemishes.

8. COMPLETION AND CURING:

Leave all work complete and clear away all plaster droppings. Keep work damp and maintain all finished to completion.

9. EXTERIOR PLASTER ON METAL LATH OR WIRE MESH:

Such back grounds and plaster shall be erected according to Appendix G of NZS 3604, either rigid or non-rigid backings, and plastered according to NZS 4251.

~~FIBROUS PLASTERER~~

1. PRELIMINARY AND GENERAL:

Read and note all clauses under Preliminary and General of this specification where they apply to this trade.

2. WORK INCLUDED:

The manufacture and application of fibrous plaster or plasterglass sheet to wall or ceiling surfaces as specified. The manufacture and application of cornices or other decorative fibrous plaster items as specified.

continued...

FIBROUS PLASTERER continued

3. MATERIALS AND WORKMANSHIP:

All fibrous plaster or plasterglass sheets and other products shall be manufactured and fixed, strictly in accordance to NZS 4221 or with the Code of Practice of the New Zealand Fibrous Plaster Manufacturers' Assn. The whole of the labour required for the erection, fixing, wadding and stopping shall be that of competent fibrous plaster tradesmen. Admixtures, release agents and stopping materials shall not be of a deleterious nature nor used in quantities sufficient to impair the properties of the sheet when used with or without decoration.

4. FRAMING:

All noggings, trimmings, straightening and packing of studs or joists, necessary for the fixing of fibrous plaster products shall be provided and completed by the Builder before the commencement of such work. Timber framing shall comply with NZSS 3631 (framing grades) and shall be pre-dried to and equilibrium moisture content not exceeding 15-16%. The surface to which fibrousplaster is fixed must be clean, straight and dry.

5. CEILING DIAPHRAGMS:

Fix all ceilings serving as structural ceiling diaphragms under terms of NZS 3604 (obtain methods of fixing and size limitations from manufacturer.) Check that each wall under or connected to has bracing for a diaphragm.

6. PAINTING:

All fibrous plaster or plasterglass sheets and other products shall be painted strictly in accordance with the specifications outlined below:

SYSTEM	FIRST COAT	SECOND COAT	THIRD COAT
No.1	Varnish based Pigmented Sealer	Primer undercoat	Full Gloss
No.2	" " " "	Semi Gloss	Semi Gloss
No.3	" " " "	Alkyd Flat	Alkyd Flat
No.4	" " " "	P.V.A.Plastic	P.V.A. Plastic

Allow overnight drying between coats except for system No.4 where one or two hours drying time, according to manufacturers' instructions may be allowed between second and third coats.

N.B. The fibrous plasterer will not accept responsibility for the effect of glancing light on fibrous plaster with a gloss paint finish.

ELECTRICIAN

1. PRELIMINARY AND GENERAL:

Read and note all clauses under Preliminary and General of this specification where they apply to this trade.

2. FEES:

Pay all fees and charges and obtain all necessary permits for this trade.

3. SCOPE OF WORK:

Carry out the whole of the electrical installations in strict accordance with the latest Electrical Wiring Regulations and Local Authority's by-laws, and meter wiring diagrams.

4. MATERIALS AND WORKMANSHIP:

All materials used under this contract shall be of approved British or New Zealand Standard Specification. Allow for all materials necessary to complete the contract whether specified or not. Al work shall be carried out by a Registered Electrician in accordance with regulations and best trade practice and in a manner which will cause minimum inconvenience to other workmen and the work as a whole. Do all cutting away, drilling etc. and with timber cut the minimum only away for the entry of cables.

5. CO-OPERATION:

Cooperate with the Building Contractor and other sub-contractors in all phases of work. Give ample notice to enable the Contractor to arrange the necessary void, chase data etc.

6. COMPLETION AND CONNECTION OF POWER:

Leave work complete, pay all charges and arrange for all inspections and tests and for the connection of power to the works. It is the responsibility of the Electrical Contractor to ensure that no delay is occasioned to the job once the contract is complete.

7. POWER BOARD SUPPLY:

Arrange with the Power Board, allow for and pay all fees for the connection of an underground, or overhead, supply to the residence.

8. METER BOX:

Provide and install recessed meter box where shown on plan. Confer with Carpenter for trimming same.

ELECTRICIAN continued

9. MAIN SWITCHBOARD:

Provide and install in recess main switchboard complete with all necessary control and auxiliary equipment.

10. ELECTRIC STOVE:

Allow the P.C. sum of $ 800-00 for the supply only of the stove. Provide and fix a 30-amp flush switch for stove and sufficient cable for connection and allow for installation.

11. WATER HEATER:

Allow for the permanent connection of the water heater to the electrical system. Provide and install 3 K/W element and thermostat to 180 litres hot water cylinder provided by the Plumber. Refer clause 3 of this section.

12. POWER POINTS:

All wall plugs shall be 230v. 10-amp. 3-pin flush type. Generally install plugs 300mm above floor or 225 mm above bench top. Points to washer/dryer space and refrigerator 1200 mm from floor. The exact position of all power points shall be determined on the job by the Owner.

13. LIGHTS:

All lights to be first quality, plastic batten holder shall be reinforced. All roses and holders not covered by fittings shall be white.

14. LIGHT SWITCHES:

Light switches generally shall be 10-amp. all insulated P.D.L. micro-gap type or equivalent. Where indicated fit flush type with plain bakelite flush plate. Fix switches generally 1200 mm above floor.

15. SPECIAL FITTINGS:

Allow the sum of $_____ for fittings to be selected by Owner.

16. LIGHT POINTS:

Allow for installing a total of 20 outlets in building.

17. POWER POINTS:

Allow for installing a total of 17 power points in the building.

1 3KW HEATER POINT
1 SHAVER UNIT

PAINTER AND GLAZIER

1. PRELIMINARY AND GENERAL:

Note all clauses under Preliminary and General of this specification which shall apply to this section of the work.

2. MATERIALS:

Generally all materials shall be of N.Z. manufacture of approved brands and of the paint selected respective coats shall be of the same brand.

3. WORKMANSHIP:

All work shall be carried out in accordance with good trade practice. Surfaces shall be clean and properly prepared before coating and work shall be in accordance with Code of Practice NZS 2239 "Painting of Building."

4. COLOUR SCHEME:

The Owner will select from standard colour charts, colours he will require and Contractor is to allow for picking out sashes, doors, porches or any other reasonable colour change required.

5. STOPPING:

After priming all nail holes or joints are to be stopped and cleaned off before undercoating for painted work and for varnished work, holes etc. are to be stopped with matching putty after first coat of sealer.

6. PAINTING OF EXTERNAL WOODWORK:

After priming all external woodwork and adjacent metal work such as flashings, spouting and downpipes is to be given one good coat of undercoat followed by finishing coat of high gloss paint. Priming coat before painting shall be well brushed in and all faces shall be covered, ends of laps and tops and sides of sashes, doors etc.

7. PAINTING OF INTERIOR SURFACES:

Refer to plan or separate instructions to accompany this specification. Wallboard and ceilings as required to be given one coat of sealer and finished with two coats of approved paint finishing flat or semi-gloss as required. Where full gloss is required such as kitchen and bathroom finishing coat shall be full gloss enamel.

8. VARNISHING:

Where varnishing is required such as doors, architraves and skirtings give one coat of approved P.V.A. sealer followed by two coats of clear varnish finishing egg-shell gloss and lightly sanding between coats.

continued...

PAINTER AND GLAZIER continued

9. CONCRETE:

To concrete base walls or concrete block work apply two coats of exterior quality P.V.A. paint of an approved type finishing semi-gloss.

10. ~~ROOF:~~

Roof - if corrugated iron prime all laps before fixing. For corrugated iron or galvanised trough section ~~roofing after~~ fixing prime roof with ~~calcium plumbate~~ galv. iron primer and ~~then apply~~ one good coat of approved roof paint.

11. PAPERHANGING:

All rooms to be papered shall have paper hung to a value of $ 12-00 per roll.

Walls shall be properly prepared by sizing, paper hung straight and true with butt joints, and paste used shall have a fungicide incorporated.

12. GLAZIER:

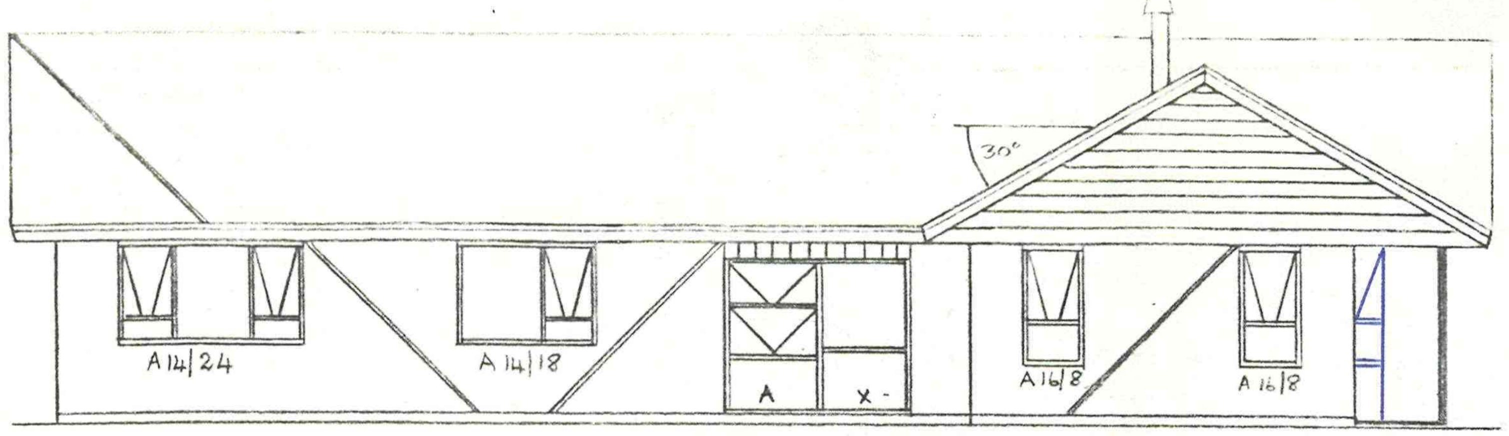
Glaze all sashes, glass doors or screens with appropriate weight glass properly fixed and puttied or headed into rebates. Where required glazing shall be selected obscure patterned glass.

13. MIRROR:

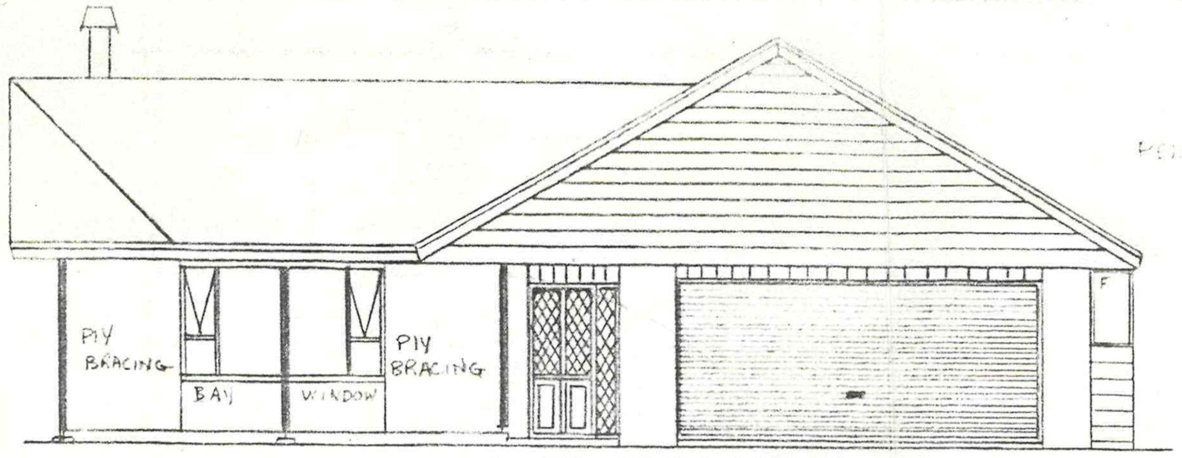
Provide a 6 mm plate glass mirror and mount on bathroom cabinet door with mirror clips.

14. COMPLETION:

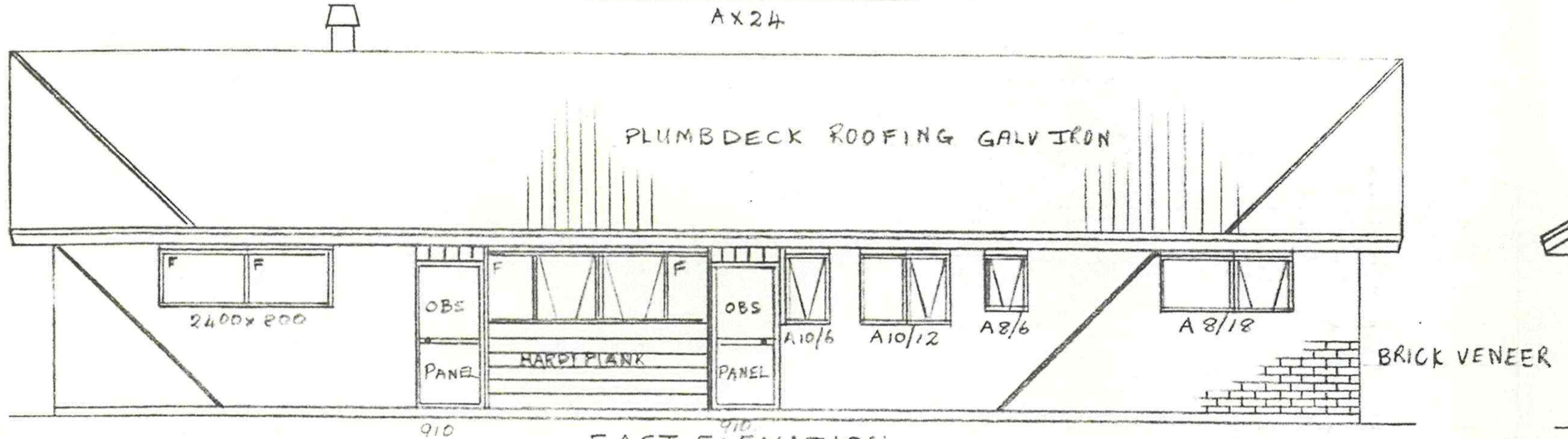
The Painter and Glazier is to do all that is required of their trades to leave the work complete and all must be left clean including all glass at completion.



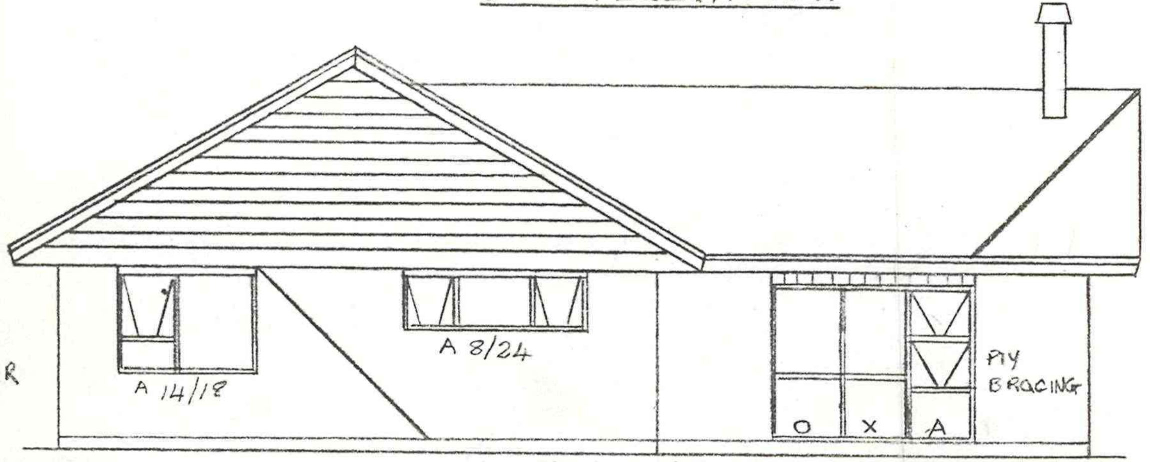
WEST ELEVATION
AX24



SOUTH ELEVATION

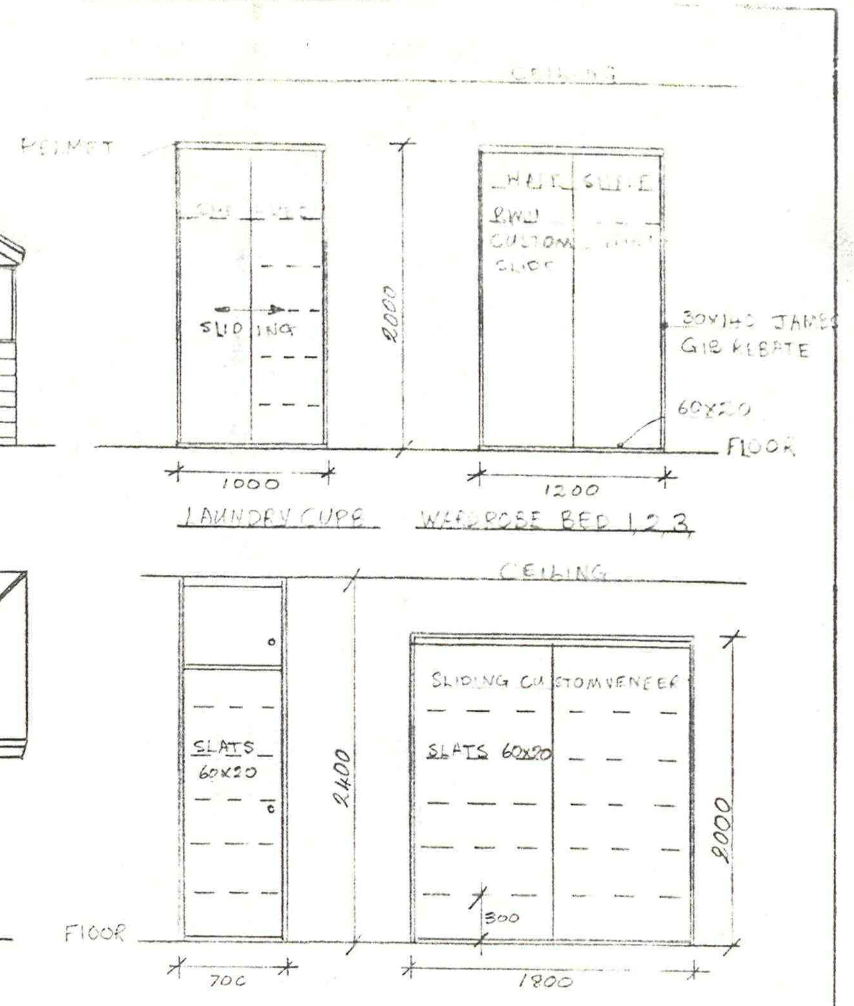


EAST ELEVATION



SCALE 1:100

NORTH ELEVATION OXA27

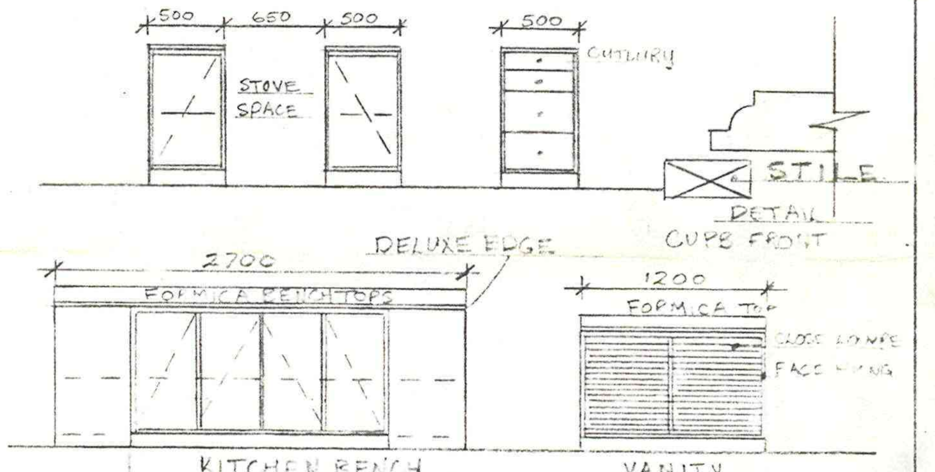


LAUNDRY CUPB

WARDROBE BED 1,2,3

CYL CUPBOARD

LINEN CUPBOARD

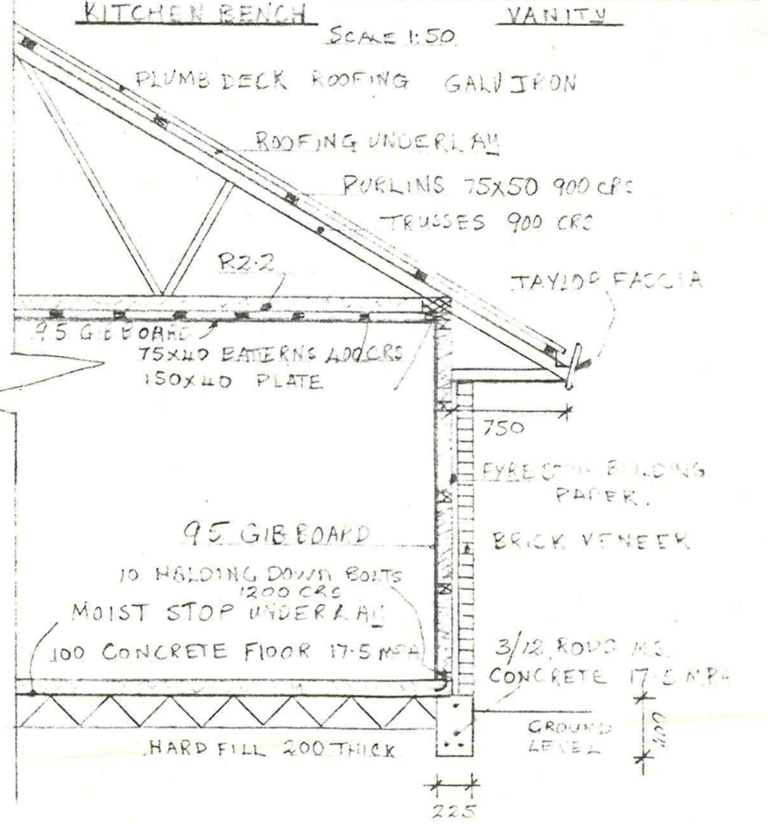


DETAIL CUPB FRONT

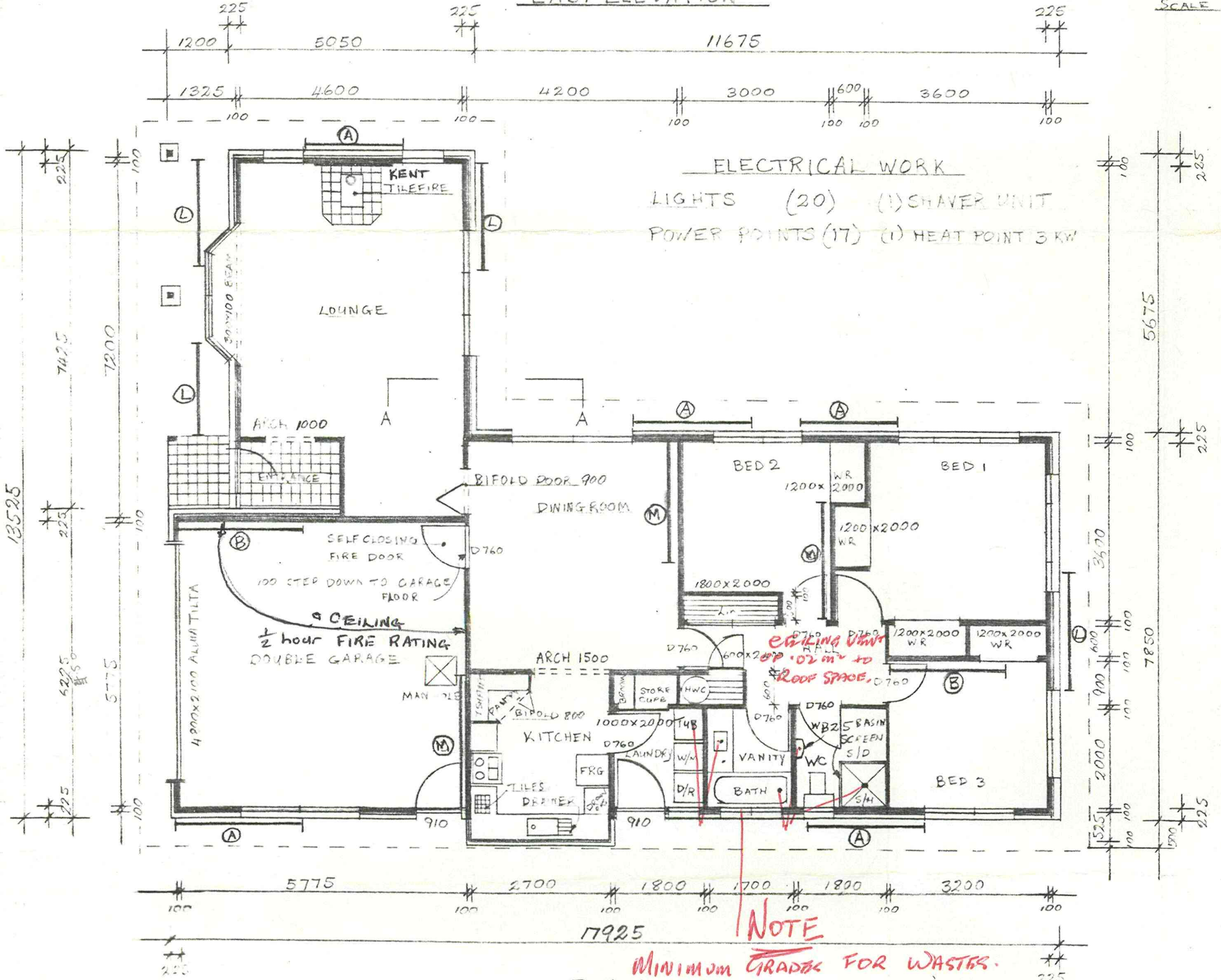
KITCHEN BENCH

VANITY

SCALE 1:50



DETAIL
CROSS SECTION A-A
Scale 1:50



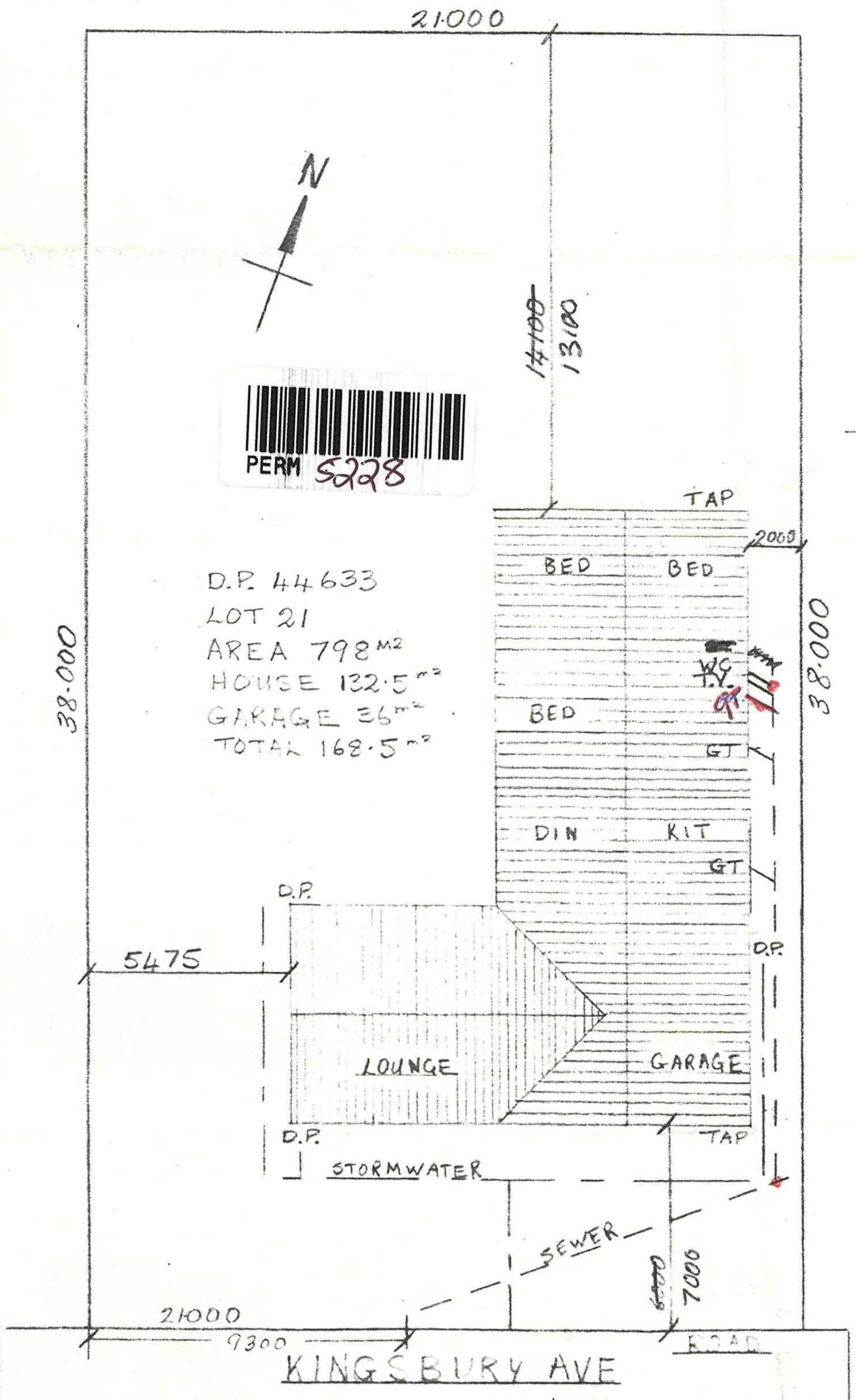
ELECTRICAL WORK

LIGHTS (20) (1) SHAVER UNIT
POWER POINTS (17) (1) HEAT POINT 3 KW

SCALE 1:100

PLAN

NOTE
Minimum Grades for Wastes.
Tub & Shower 1 in 20
Vanity & HB 1 in 15.



D.P. 44633
LOT 21
AREA 798 m²
HOUSE 132.5 m²
GARAGE 36 m²
TOTAL 168.5 m²

KINGSBURY AVE
SITE PLAN

PERM 5228

RANGIORA
PROPOSED RESIDENCE FOR B.D ARMIT, SON LTD AT LOT 21 KINGSBURY AVE

PLAN OF ALLOTMENT

Showing position of proposed buildings on such allotment

Note—Distances of each building from boundary lines must be clearly indicated.

Indicate position of any sewer lines.

All foundations must be inspected before pouring.

Owner ..... **Builder** ..... **Val. Roll No.** 21594/441 **Permit No.** 52228

RANGIORA DISTRICT COUNCIL

FEES PAYABLE ON ANY BUILDING PERMIT ACCORDING TO ESTIMATED VALUE OF THE BUILDING WORK

ESTIMATED VALUE OF BUILDING WORK	FEES $ c
Not Exceeding $1,000	8.00
Not Exceeding $1,500	12.00
Not Exceeding $2,000	15.00
Not Exceeding $3,000	20.00
Not Exceeding $4,000	24.00
Not Exceeding $5,000	28.00
Not Exceeding $6,000	32.00
Not Exceeding $8,000	38.00
Not Exceeding $10,000	44.00
Not Exceeding $12,000	48.00
Not Exceeding $14,000	52.00
Not Exceeding $16,000	55.00
Not Exceeding $18,000	60.00
Not Exceeding $20,000	64.00
Not Exceeding $25,000	74.00
Not Exceeding $30,000	80.00
Not Exceeding $35,000	90.00
Not Exceeding $40,000	100.00
Not Exceeding $45,000	110.00
Not Exceeding $50,000	120.00
Not Exceeding $55,000	130.00
Not Exceeding $60,000	140.00
Not Exceeding $70,000	155.00
Not Exceeding $80,000	170.00
Not Exceeding $90,000	185.00
Not Exceeding $100,000	200.00

For every $2,500 or part thereof in excess of $100,000 an additional fee of $15.00.

SPACE HEATER—All installations—minimum fee—$15.00.

Wilson Bros., Rangiora