



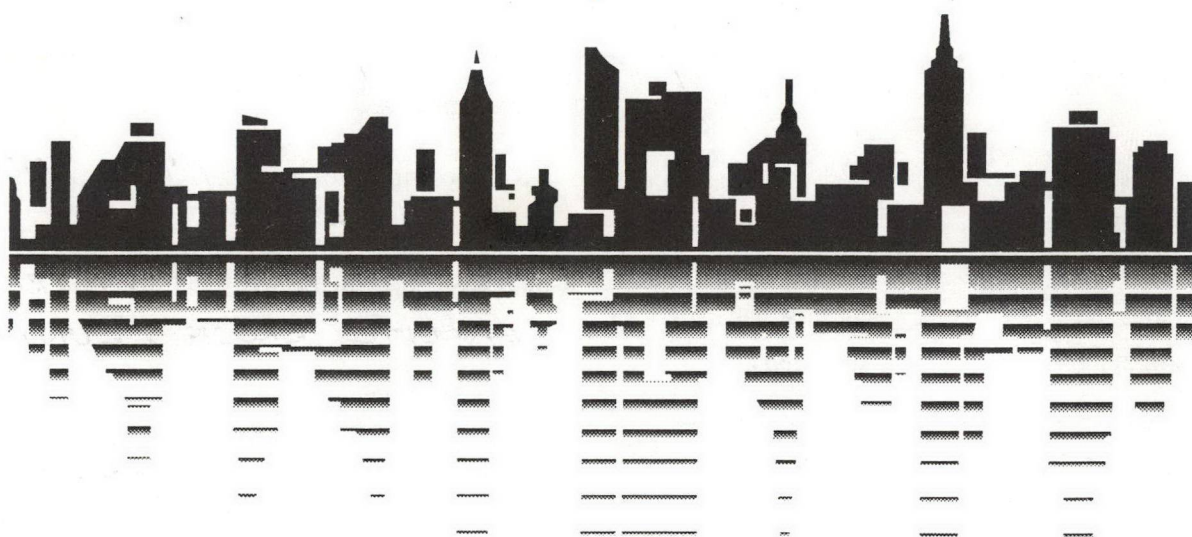
Napier City Council

Application for a Building Consent

Direct Inspection Line: 835 1545 (fax answerphone)



BCAPP



The information which you have provided in this application is placed on the building register which is available for public inspection at Council offices. As a useful service for the building community the Council provides monthly lists of this information.

Tradespeople and manufacturers often use the lists to offer products or services available at the time of construction, they also provide important analysis of market trends and indicators to industry. The information from the building register is required to be supplied by the Council under the Building Act and Local Government Official Information and Meetings Act.

A GENERAL

Check
Yours Office

(Complete part A in all cases)

1. OWNER

Name BRUCE & JAN BERRY
Postal Address 74 CHURCHILL DRIVE
Phone Number 844 6938
Fax Number

2. CONTACT (if not owner)

Contact name ALAN GASSON
Postal Address 74 KING ST
Phone Number 844 5305 AH
Fax Number 845 9626 (Alexander Court)

3. PROJECT LOCATION

Address 74 CHURCHILL DRIVE TARAPOLE

4. LEGAL DESCRIPTION

Lot(s) 41 DP(s) 17.313 Lot area: 114.7 Square metres/hectares
(Section) (Block)

- One copy of Certificate of Title. The Certificate of Title is to be current within three months of application. (Not required for internal alterations.) ☐ ☒

office use only

Valuation Number Property I.D.

5. PROJECT

(Being stage.....1.....of an intended.....1.....stages)

5.1

New Building ☐ Intended Life:
Alteration ☒ Indefinite ☒ but
Relocation ☐ not less than 50 yrs or
Demolition ☐ Specified as yrs

5.3

Description of work: ROOM, ENSUITE
& DECK

Intended Use(s) (in detail): STUDY / BEDROOM
ENSUITE BLOCK, SUN DECK

5.5

Estimated value:

Building \$ 9000
Plumbing & Drainage \$ 500
Total (GST incl.) \$ 9500

5.4 Total floor area of Project: 33.5 m²

Do you intend to Cross Lease ☐
Subdivide ☐
Rental Flats ☐

- Application for building consent only, in accordance with Project Memorandum No. ☐ ☐

- Application for Building Consent and Project Information Memorandum ☐ ☐

Signed by or on behalf of the owner:

Signature Bruce Berry

Name Bruce Berry

(Please print)

Date 9-2-96

continued next page

PART A CONTINUED

Designer(s): ALAN GASSON

Building Certifier: NCC

Builder(s): ALAN GASSON

Registered Drainlayer: RISBY PLUMBING

Craftsman Plumber: RISBY PLUMBING

Registered Electrician (I.Q.P.): KEVIN BURGESS

Registered Engineer:

Office use only	
Yes ☐	No ☐

B PROJECT DETAILS

Check	
Yours ☐	Office ☐

(Complete Part B only if you have NOT applied separately for a Project Information Memorandum).

The project includes the following matters. (TICK EACH APPLICABLE BOX, IF ANY, AND ATTACH RELEVANT INFORMATION IN DUPLICATE.)

- Location, in relation to legal boundaries and easements. External dimensions of new, relocated, or altered buildings. (Site Plan with elevations, topography, drawn to scale.) Sufficient levels, to NCC Datum, on the top of the kerb and in the channell, over the site (and access if R-O-W involved) to clearly indicate topography etc. ☒ ☐
- Details of any known or potential erosion, avulsion, falling debris, filled ground, subsidence, slippage, alluvion, inundation, hazardous contaminants on or near the site. ~~☐ ☐~~
- Existing vehicle crossings are to be shown. (From site boundary to carriageway.) ☒ ☐
- Provisions to be made when building over or adjacent to any road or public place. Full details of hoardings, gantries etc., are required. ~~☐ ☐~~
- Provisions (include details and levels) to be made for disposing of stormwater and wastewater and supplying water. ☐ ☒
 - (i) Existing connections to be shown on site plan. ☐ ☐
 - (ii) New connections to public utilities i.e. water supply, stormwater system, wastewater system show position required. ☐ ☐
- Precautions to be taken where building work is to take place over existing drains or sewers or in close proximity to wells or watermains. ☒ ☐
- Provisions to be made in any demolition work for the protection of the public, suppression of dust, suppression of noise, disposal of debris and disconnection from public utilities. ~~☐ ☐~~

continued next page

PART B CONTINUED

Check	
Yours	Office

- Details of any cultural or heritage significance of the building or building site, including whether it is on a marae, or waahi tapu. ☒ ☒
- Copy of or reference to, any resource consent or planning approval for this project. ☒ ☒
- Details of volume of Proposed Excavations: Include volumes for Site Preparation, Basement, and Driveway. ☒ ☒

C BUILDING DETAILS

Check	
Yours	Office

Complete Part C in all cases

This application is accompanied by (TICK EACH APPLICABLE BOX, ATTACH RELEVANT DOCUMENTS IN DUPLICATE).

- The drawings specifications and other documents to which the proposed building is to be constructed comply with the provisions of the New Zealand Building Code Supporting documents, if any, including: ☒ ☐
- Building certificates ☐ ☐
- Producer statements ☐ ☐
- References to accreditation certificates issued by the Building Industry Authority ☐ ☐
- References to determinations issued by the Building Industry Authority ☐ ☐
- Proposed procedures, (if any), for inspection during construction. ☐ ☐

E COMPLIANCE SCHEDULE DETAILS

SECTION 1

Check	
Yours	Office

E1: SYSTEMS NECESSITATING A COMPLIANCE SCHEDULE

(Complete Part E1 for ALL new buildings and alterations, EXCEPT single residential dwellings)

- The building will contain the following (TICK EACH APPLICABLE BOX AND ATTACH PROPOSED INSPECTION, MAINTENANCE, AND REPORTING PROCEDURES):
- Automatic sprinkler systems or other systems of automatic fire protection. ☐ ☐
- Automatic doors which form part of any fire wall and which are designed to close shut and remain shut on an alarm of fire. ☐ ☐

Part E1 continued over.....

Check	
Yours	Office

- Emergency warning systems for fire or other dangers. ☐ ☐
- Emergency lighting systems. ☐ ☐
- Escape route pressurisation systems. ☐ ☐
- Riser mains for fire service use. ☐ ☐
- Any automatic back-flow preventer connected to a potable water supply. ☐ ☐
- Lifts, escalators, or travelators or other similar systems. ☐ ☐
- Mechanical ventilation or air conditioning system serving all or a major part of the building. ☐ ☐
- Any other mechanical, electrical, hydraulic, or electronic system whose proper operation is necessary for compliance with the building code. ☐ ☐
- Building maintenance units for providing access to the exterior and interior walls of buildings. ☐ ☐
- Such signs as are required by the building code in respect of the above mentioned systems. ☐ ☐

E COMPLIANCE SCHEDULE DETAILS

SECTION 2

Check	
Yours	Office

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

Complete Part E2 ONLY if the building contains one or more of the systems listed in Part E1.

- The building will contain the following (TICK EACH APPLICABLE BOX AND ATTACH PROPOSED INSPECTION, MAINTENANCE, AND REPORTING PROCEDURES.) ☐ ☐
- Means of escape from fire. ☐ ☐
- Safety barriers. ☐ ☐
- Means of access and facilities for use by persons with disabilities which meet the requirements of Section 25 of the Disabled Persons Community Welfare Act 1975. ☐ ☐
- Hand-held hoses for fire fighting. ☐ ☐
- Such signs as are required by the New Zealand Building Code or Section 25 of the Disabled Persons Community Welfare Act 1975. ☐ ☐



PLANS

Check	
Yours	Office

* As required by other parts of this document:

- Two copies of building plans and specifications, drawn to standard metric scales, showing all necessary plans, elevations, cross sections and details. Plans are to be drawn to a standard that can readily be understood and of such clarity that they can be reproduced on micro film. ☒ ☒
- Two copies of the site plan showing dimensions of the proposed building from boundaries of the site and easements within the site. The preferred scale is 1:200 (metric) and must show the following for existing and proposed buildings where applicable:- ☒ ☒

GENERAL

Landscaping

☐
☐

Loading

☐
☐

Access (from carriageway to boundary)

☐
☐

Eaves Outline

NOT ON SITE PLAN. x

☐
☒

SINGLE DWELLING

Open space

☐
☐

Car parking and manoeuvring

☐
☐

MULTI UNITS:

Outlook Courtyard (60m²)

☐
☐

Landscape Courtyard (20m²)

☐
☐

Carparking and manoeuvring

☐
☐

Storage areas

☐
☐

OPEN WATERCOURSE:

☐
☐

- For rural sites, two copies of a locality plan, sufficiently clear to enable the Inspector to locate the property. ☐ ☐
- Sufficient ground levels and the finished floor level should be shown in relation to the building elevation in terms of the NCC datum ☐ ☒

★ **NOTES OR COMMENTS TO PLANS:-**

.....

.....

.....

.....

.....

.....

.....

.....



CONSTRUCTION

Check	
Yours	Office

- Two copies of subfloor bracing design and calculations. Detail all pile types and fixings. ☒ ☒
- Two copies of wall bracing design and calculations. Detail fixing of wall bracing elements. ☒ ☒
- Two copies of truss layout and one copy of the design certificate. ☒ ☒
- Two copies of all fire and egress details, full specification of fire wall construction, fire doors and windows etc. ☐ ☐



SPECIFIC DESIGN

Check	
Yours	Office

- Two copies of engineering calculations and drawings. A design certificate could reduce processing time. ☐ ☐
- One copy of any supervision advice, where supervision is necessary. A report will be required after the engineer has finished his supervision. ☐ ☐
- Two copies of ground test details and reports. ☐ ☐
- One copy of the report of the ground nature and any steps to be taken to prevent a danger to the building from such things as falling debris. ☐ ☐

NOTE Ground that does not have a ground bearing capacity of 100 kPa will require to have the foundations specifically designed.



SERVICES

Check	
Yours	Office

- One copy of a drainage block plan. Show boundary lines and outline of the building at 1:200 scale. ☒ ☐
- Two copies of all plumbing, drainage and stormwater details. ☒ ☒
- Two copies of electrical details where required by the Building Act. ☒ ☐
- Two copies of all mechanical services details ie. sprinkler systems, lifts, air conditioning systems, etc. ☐ ☐
- Levels to be shown to establish site drainage. ☐ ☐
- Details of backflow prevention. ☐ ☐
- One copy of all test results ie. percolation tests. ☐ ☐

LOCATION OF CONNECTIONS

(If new service connections are required.)

office use

No.

Date

- ★ The location of the connections **MUST** be **INDICATED** in the space below, showing site boundaries, street frontages, building outline and distances if necessary. "IF NO LOCATION IS SPECIFIED"
- Council **WILL** position connections at its discretion.

SKETCH AND MEASUREMENTS

SITE ADDRESS:

Contact Name

Contact Telephone No.

A/C to be sent to

Address

Signed

Development Engineer:

CONNECTIONS

	Domestic size	Industrial/Commercial size
Stormwater	100mm	_____
Sewerage	110mm	_____
Water	15mm	_____
Well sealing	Yes ☐ No ☐	_____
* Water meter		_____
Backflow		_____
Prevention Device		_____

* For meters and backflow prevention devices the maximum continuous flow rate must be stated litres/sec.

Office use only

Fees	Deposits
\$ _____ : _____	\$ _____ : _____
\$ _____ : _____	\$ _____ : _____
\$ _____ : _____	\$ _____ : _____
\$ _____ : _____	\$ _____ : _____
\$ _____ : _____	\$ _____ : _____
\$ _____ : _____	\$ _____ : _____
\$ _____ : _____	\$ _____ : _____

Receipt No.



POOLS

(Including Spa Pools)

Check	
Yours	Office

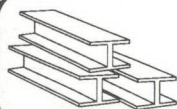
- Two copies of construction details or manufacturer's design. ☐ ☐
- Details of pool filling, backflow prevention, and backwash facilities (Backwash to go to sewer via a gully trap). ☐ ☐
- Two copies of pool fencing details. It is now a requirement of the Building Act that a pool fence has a building consent. ☐ ☐



HEATER

Check	
Yours	Office

- Two copies of manufacturer's design details and fitting instructions. ☐ ☐
- Details of wetback and name of tradesman doing the job. ☐ ☐
- Two copies of all construction details, ie. details of floor strengthening or rafter replacement ☐ ☐



MATERIALS

* Answer the following questions if they apply.

WHAT MATERIALS WILL BE USED FOR:

FLOOR (tick)

- ☒ Timber
- ☐ Concrete
- ☐ Wood Products ☐
- ☐ Other ☐

FRAMING (tick)

- ☒ Timber
- ☐ Concrete
- ☐ Steel
- ☐ Aluminium ☐
- ☐ Other ☐

INTERNAL LININGS (tick)

- ☒ Plaster Board
- ☐ Fibrous Plaster
- ☒ Wood Products ☐
- ☐ Other ☐

ROOF (tick)

- ☐ Steel sheeting
- ☒ Steel tiles
- ☐ Concrete tiles
- ☐ Shingles
- ☐ Aluminium ☐
- ☐ Other ☐

INSULATION (tick)

- ☒ Fibreglass
- ☐ Mineral Fibre
- ☐ Polystyrene ☐
- ☐ Other ☐

COOKING (tick)

- ☐ Electricity ☐
- ☐ Gas ☐
- ☐ Other ☐

EXTERNAL CLADDING (tick)

- ☐ Brick
- ☐ Concrete
- ☐ Concrete block
- ☒ Cement Board
- ☐ Plaster
- ☐ Timber
- ☐ Steel
- ☐ Aluminium ☐
- ☐ Other ☐

ENERGY (tick)

- ☒ Electricity ☐
- ☐ Gas ☐
- ☐ Other ☐

FEES, CHARGES, DEPOSITS

OFFICE USE ONLY

Consent Administration Fee	\$	<u>148</u>	:	<u>00</u>
Building Consent	\$	<u>339</u>	:	<u>00</u>
Project Information Memoranda	\$	<u>22</u>	:	<u>00</u>
Code Compliance Certificate	\$	<u>67</u>	:	<u>00</u>
Code Compliance Schedule	\$		:	
BRANZ Levy	\$	<u>44</u>	:	
BIA Levy	\$	<u>44</u>	:	
Inspections	\$		:	
Water Connection/Disconnection	\$	<u>—</u>	:	
Bay View water Connection & Meter	\$	<u>—</u>	:	
Bay View Water Contribution	\$	<u>—</u>	:	
Sewer Connection / Disconnection	\$	<u>—</u>	:	
Stormwater Connection/Disconnection ..	\$	<u>—</u>	:	
Well sealing	\$	<u>—</u>	:	
Backflow preventer	\$	<u>—</u>	:	
Structural check	\$		:	
Utilities Engineer	\$	<u>—</u>	:	
Services engineer	\$	<u>35</u>	:	<u>—</u>
Street Crossing deposit	\$	<u>—</u>	:	
Street Damage deposit	\$	<u>—</u>	:	
Planning Check	\$	<u>20</u>	:	<u>—</u>
Planning Application	\$	<u>45</u>	:	<u>—</u>
Reserves Contribution residential	\$	<u>—</u>	:	
Reserves Contribution Com/Ind.	\$	<u>—</u>	:	
Valuation Fee	\$	<u>—</u>	:	
Other (see notes)	\$		:	
SUB TOTAL	\$	<u>676</u>	:	<u>00</u>
LESS PREVIOUSLY PAID	\$	<u>145</u>	:	<u>00</u>
TOTAL	\$	<u>531</u>	:	<u>00</u>

CONSENT NUMBER

96/178

APPLICATION RECEIPT NUMBER

325808

DATE

28-02-96

Q BR + JLBERRY.

FINAL RECEIPT NUMBER

336626

DATE

20/5/96

Q BR + JLBERRY

ADMIN	CONSENT
<u>20.00</u>	<u>117.00</u>
<u>58.00</u>	<u>240.00</u>
<u>78.00</u>	<u>357.00</u>
<u>+70.00</u>	<u>-48.00</u>
<u>148.00</u>	<u>309.00</u>
	<u>+30.00</u>
	<u>339.00</u>

References

Prior C/T J4/904(part).

Transfer No.

N/C. Order No. 416592.10



REGISTERED



No.

KI/381

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 4th day of February one thousand nine hundred and eighty-three under the seal of the District Land Registrar of the Land Registration District of HAWKE'S BAY

WITNESSETH that CARTER HOLT CENTRAL LIMITED at Napier —

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 1147 square metres more or less situate in the City of Napier being Lot 41 on Deposited Plan 17313

416592.11 Transfer Grant of a Right to Drain Sewage and Stormwater Easement in Gross over part in favour of The Napier City Council -4.2.1983 at 11.30a.m.(Subject to Section 309 (1)(a) Local Government Act 1974).



455668.2 Mortgage to The Trustees of the M.U.I.O. Friendly Society - 18.11.1985 at 11.40a.m.

455668.1 Transfer to Bruce Robert Berry of Napier, Mechanic and Janice Lorraine Berry his wife 18.11.1985 at 12.25p.m.

A.L.R.

501537.1 Change of Name of Mortgagee in Mortgage 455668.2 to Manchester Unity Friendly Society produced 21.11.1988 at 1.56p.m. and entered 22.9.1992

D.L.R.

D.L.R.

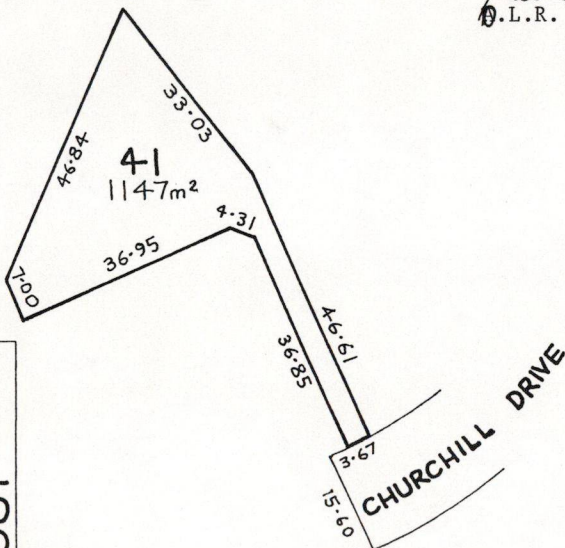
Fencing Covenant in Transfer 455668.1

D.L.R.

A.L.R.

602038.1 Mortgage to Bank of New Zealand - 4.2.1994 at 10.40a.m.

A.L.R.



Measurements are Metric

KI/381

No.

CARTERS

Napier Branch
Dunlop Road
Napier
P O Box 146
Napier
NEW ZEALAND
A division of Carter Holt Harvey Ltd

Telephone
06-8435-877

Facsimile
06-8435-781

COMPANY: <u>Building Inspectors</u>	
CITY/COUNTRY: <u>Napier</u>	FAX NO:
T ●	FROM: <u>DENNIS GONINON</u>
DATE: <u>13/5/96</u>	PAGES TO FOLLOW: <u>Two</u>

MESSAGE:

Re Council Docks as Lay out
For A G-9900
74 Churchill Drive Tairāwhiti

A DIVISION OF CARTER HOLT HARVEY LTD.

Job: 96106

Client: A D GASSON

Site:

Description: GASSON

Phone:

Phone:

MiTek 2000 2.027 g6 (115)

Gang Nail NZ Ltd.

Mon May 13 15:55:35 1996

PRODUCER STATEMENT
MiTek 2000(tm) ROOF TRUSS DESIGN

Certification of MiTek 2000(tm) Design Program

The MiTek 2000(tm) roof truss design program has been developed by Gang-Nail NZ Ltd for the design of Gang-Nail timber roof trusses in New Zealand. The truss designs computed by this program are prepared using sound and widely accepted engineering principles, and in accordance with NZS 4203, NZS 3603 and NZS 3604 as verification methods and acceptable solutions of the approved documents issued by the Building Industry Authority to satisfy the requirements of Clause B1:Structure of the Building Regulations 1992. This computer design for the proposed building complies with the relevant provisions of the NZ Building Code. This is subject to all proprietary products meeting their performance specification requirements, the provision of adequate bracing, fixings and the correct input of design data carried out by suitably trained personnel.

Summary of MiTek 2000(tm) Design Data and Output

The MiTek 2000(tm) computer design output for this job titled and located at the site identified on the top of this page is based on the following parameters entered into the program. The owner must ensure that the following job details below are current and relevant to the project before fabrication and erection of the Gang-Nail trusses.

Job Details

Roof Material:	Light	Ceiling Material:	Standard	Building Wind Zone:	High
TC Dead Load:	0.250 kPa	BC Dead Load:	0.200 kPa	Design Wind Speed:	44.0 m/s
TC Restraints:	1200 mm centres	BC Restraints:	400 mm centres	Pressure Coefficient:	C _{pe} = -0.9
Roof Live Load:	Lu = 0.250 kPa	Truss Spacing:	900 mm		C _{pi} = 0.3
	L _c = 1.0 kN	Standard Overhang:	600 mm		

These trusses must be fabricated and erected in accordance with the Gang-Nail manual. Proper erection bracing must be installed to hold the components true and plumb and in a safe condition until permanent bracing is fixed. All permanent bracing and fixing must be installed before any loads are applied. The specifications for timber shall be as shown on the output. The timber shall be standard gauged and treated to the requirements of NZMP 3640.

Truss List

Legend: " " detail only, ? input only, ~~xxx~~ failed design, Unmarked trusses: designed successfully

Truss	Span (mm)	Pitch (deg)	Spacing (mm)
ET01	5469	15.00	900
T01	5500	15.00	900



The computer design input has been carried out by:

Signed:

Date:

Name of Computer Operator:

Qualifications and Title:

Company: Carter Holt - Napier

Verification / Acceptance of Input Data:

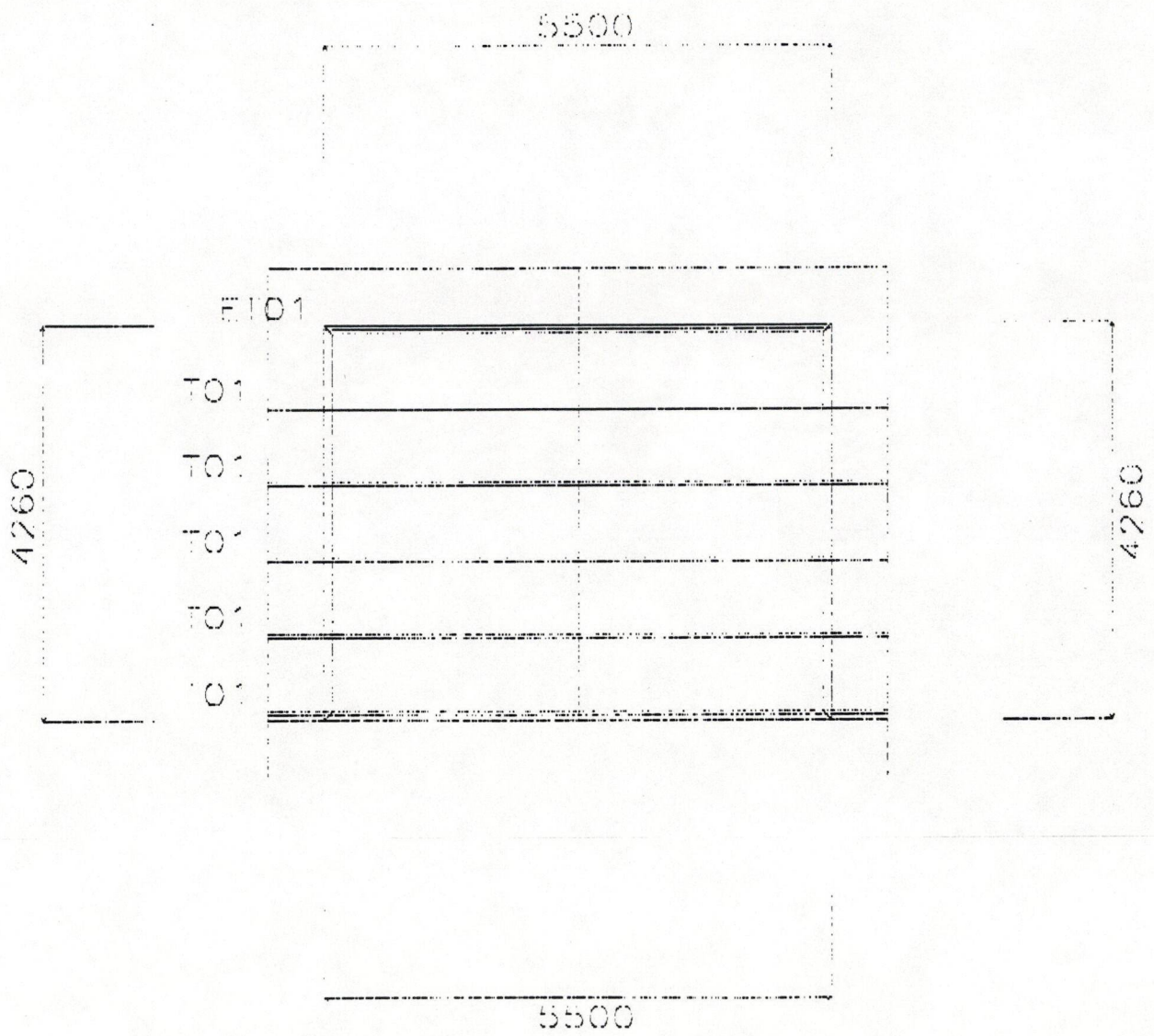
I have checked the input data against the construction drawings and specifications and verify that they are correct and suitable for this job.

Signed:

Date:

Name:

Company:



Carter Holt - Napier			
	Name: A D CASSON	Description: CASSON	
	Address:	Job: 96106	
	Telephone:	Scale:	Date: 16/02/96
		Drawn By:	

Reference 2994

City Inspectors -

- 1/ Foundations have all been updated by
Graeme Robinson to meet specific requirements
✓ which are all shown on the plans submitted
with this including the retaining wall.
The garage linted beam will be 3x, 300x50
beams.
- 2/ The stairs are existing and have not and will
✓ not be touched by the builder.
- 3/ Vapour barrier behind wall and under floor
with noracoil drainage behind wall with pea
metal
- 4/ R18 + R22 Battls for insulation
- 5/ 650 Flametop Building Paper + 'Permathene' PVC.
- 6/ Ceiling is to be 75x100 nailed to trusses, 9.5 gib
to ceiling.
- 7/ Truss design is ex Carters - quote 96106
span - 5.500
pitch - 15°
centres - 900
O/hang - 600



NAPIER CITY COUNCIL

2994

B & J BERRY

74 CHURCHILL DRIVE.

TARADALE.

INSPECTORS OFFICE
PLANNING DEPT
PRIVATE BAG
NAPIER

Phone: 8344175

Fax: 835-1545

Att:

Date

7/3/96

Dear Sir/Madam,

Your application in respect of: alterations to your dwelling

has been examined.

Please contact this Office at your earliest convenience for:- further information

✓ all foundations on this site require
specific engineering design, engineering
design is also required for the
retaining wall + garage lintel beams 2/What
height are the stair-tread risers 3/How will retaining wall
be sealed & drained 4/Show type grade of insulation to be
used (walls & ceiling) 5/TYPE GRADE of Bld/Paved - polythene is
required 6/How is ceiling constructed 7/Truss design cert reqd

PLEASE NOTE:-

- 1) Work must not commence prior to issue of consent.
- 2) Applications not finalised within 1 month from the above date will be cancelled.

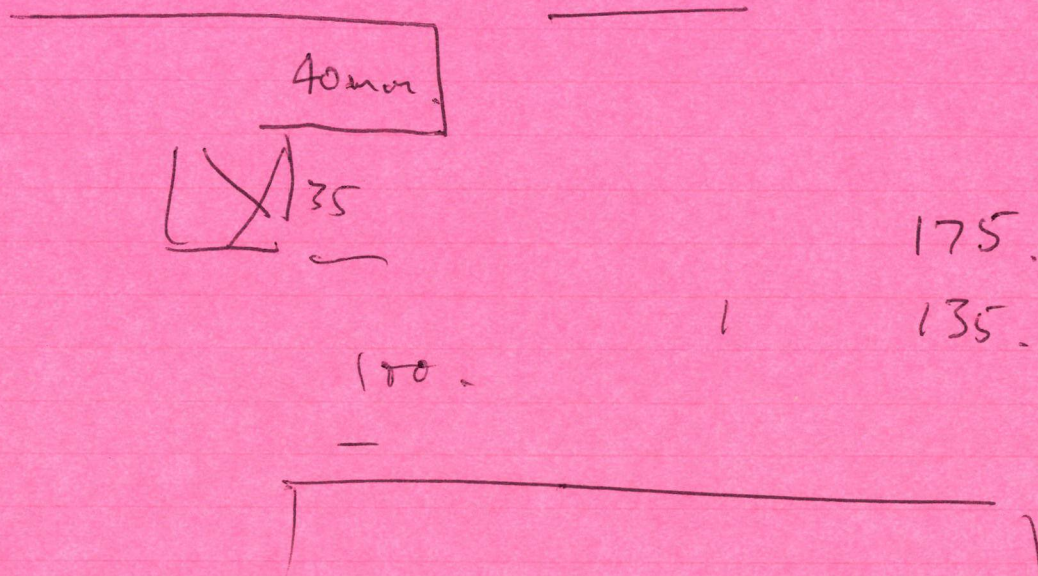
McMillin & Craig Limited, Napier

Yours faithfully, cal is required

[Signature]
CITY INSPECTOR

8/5/96
To come
&

DI 4.1.8.



ing Designer gorage lintel Beam (stay above) ✓

Provide stairway construction details showing
height of Rises. ✓

What height are the tread Rises ~~to be above~~ Deck.

Show on plan type grade of Building Pages ^{polythene}
~~type grade~~ of plus position of polythene under floor slabs
~~polythene to be used under floor slab.~~

How will retaining wall be doing proofed & drained. ✓

What type of insulation will be used on walls & in ceiling. ✓

How is ceiling constructed.

PROPOSED EXTENSION
MR & MRS BERRY
74 CHURCHILL DRIVE
TARADALE

PLUMBING SPECIFICATION

All plumbing and drainage work to be carried out to the NZ Building Act 1991.

COLD WATER SUPPLY Cold water will be 15mm Polybutelene connected to existing supply.

HOT WATER SUPPLY Hot water will be 15mm polybutelene connected after a tempering valve from new hot water cylinder in garage.

STORMWATER To be connected to existing.

SEWER Sewer drain to be connected to existing main in back lawn.

WASTES Basin and shower wastes to connect into 100mm soil stack in carport.

PROPOSED HOUSE EXTENSION FOR B + J BERRY

D12 RODS COLD BENT + 668 MESH

CONCRETE: 17.5 MPA. 19 MM AGG. 90 MM SLUMP

BLOCKS: 20 SERIES EX FIRTH

BLOCK GROUT 17.5 MPA

FLOOR FRAMING 300 X 50 H1 TPR PG

200 X 50 H3 TPR PG

150 X 50 H3 TPR PG

WALL FRAMING 100 X 50 H1 TPR P.G. STUDS @ 600¢ NOGS @ 800¢

TRUSSES EX HOLTS / SMITHS @ 900¢

9.5 FYRELINE GIB

9.5 STD GIB

310 W. WOODGRAIN HARDPLANK

FLOORS 760 MDF P.Q.

Fire Rated Wall Systems Two Way FRR — Timber Frame

Specification Number	Loadbearing Capability	Fire Resistance Rating	Lining Requirements	Sound Transmission Class	System Weight Approx
GBT 30a	NLB	-/30/30	1x9.5mm Gib® Fyreline each side	STC 36	22kg/m ²
GBTL 30	LB	30/30/30			

Framing

No.1 framing grade H1-treated radiata pine nominal dimensions 75x50mm minimum or, F5 stress grade H1-treated radiata pine nominal dimensions 75x40mm minimum. Studs at 600mm centres maximum. Nogs at 800mm centres maximum (vertical fixing). Nogs at 1200mm centres maximum (horizontal fixing).

Wall Height

GBT30a non-loadbearing

Framing dimensions and height as determined by NZS3604:1990 stud tables for non-loadbearing partitions.

GBTL30 loadbearing

Framing dimensions and height as determined by NZS3604:1990 stud and top plate tables for loadbearing walls.

For loads and/or wall heights outside the design scope of NZS3604:1990, use Winstone Wallboards Ltd's 'Design of Loadbearing Timber Framed Walls with Gib Board® Linings for Fire Resistance', or contact Winstone Wallboards technical staff.

Lining

1 layer of 9.5mm Gib® Fyreline each side of the frame.

Vertical or horizontal fixing permitted.

When fixing vertically use full height sheets where possible.

All sheet joints must be formed over solid timber framing.

Fixing

Fixing type

40x2.5mm galvanised Gib® Clouts or 40x6g bugle head gypsum drywall screws

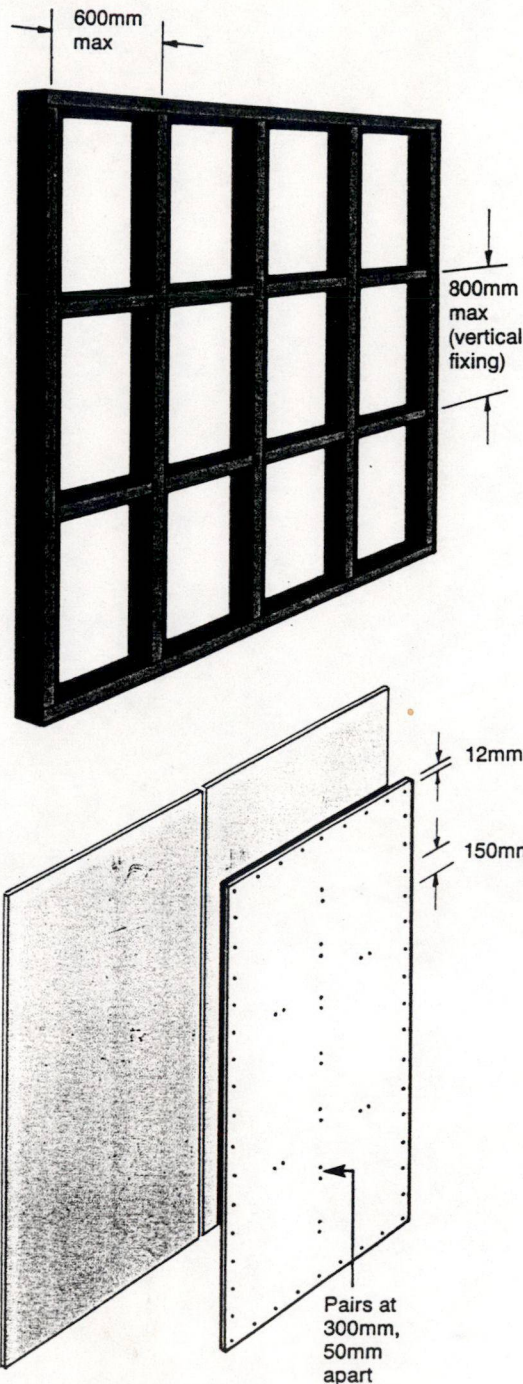
Fixing centres

150mm centres around the sheet perimeter, 12mm from the sheet edge.

Pairs of fasteners, 50mm apart, at 300mm centres to intermediate studs and nogs.

Jointing

All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with Winstone Wallboards Ltd's 'Gib Board® Stopping and Finishing Systems — 1992'.



ACCEPTABLE SOLUTION B1/AS2 TIMBER BARRIERS

1.0 SCOPE

1.0.1 This document applies to the construction of timber barriers for *Housing*. The solution described will have an expected life of 15 years.

Comment:

The 15 year life is based on the life expectancy of the nail plates and the circular tooth plate connectors described in this acceptable solution. These connectors can be fabricated from thicker steel, have different coatings or be made from other materials such as stainless steel, to give the barrier a greater life. If, however, a greater life is claimed it must be substantiated by supporting information.

1.0.2 Barriers complying with this document, satisfy NZBC F4 for the protection of children under the age of six years.

1.0.3 Timber used in the construction of the timber barriers shall be No. 1 framing grade Radiata Pine as specified in NZS 3631.

1.0.4 Cross-sectional dimensions of timber given in this document are call dimensions as specified in NZS 3601, unless otherwise noted.

Comment:

Actual timber dimensions will vary according to moisture content and level of finish e.g roughsawn, gauged or dressed.

1.0.5 Barriers exposed to the weather shall have:

- a) All timber treated to at least hazard class H3 in accordance with NZMP 3640.
- b) Mild steel fixings hot-dip galvanised as specified in NZS/AS 1650 for nails, and AS 1214 for bolts and coach screws.
- c) Circular toothed plate connectors and nail plates, where required by this document, that are formed from 1.0 mm thick sheet mild steel

with a zinc coating of at least 275 g/m² in accordance with NZS 3441.

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2.0 CONSTRUCTION

2.1 General

2.1.1 Barriers shall comprise *balusters*, top and bottom rails, and palings. The supporting floor shall have joists no less in size than 125 mm x 50 mm. Where a *boundary joist* or blocking is used it shall have the same cross section as the joists.

2.2 Top rails

2.2.1 Top rails shall be Type 1 or Type 2 as shown in Figure 1. The size of the top rail depends on its span between *balusters* and is given in Table 1.

2.2.2 Top rails shall be fixed to each *baluster* with nails having a shank diameter of no less than 3.75 mm and penetrating the *baluster* by no less than 50 mm. The number of nails for each fixing shall be:

- 2 for spans up to and including 1400 mm
- 3 for spans greater than 1400 mm

2.3 Balusters

2.3.1 *Baluster* size depends on the type and span of the top rail and shall be as given in Table 2.

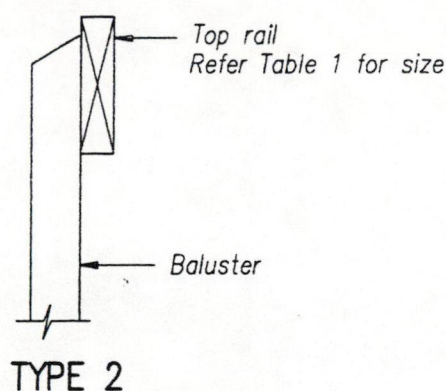
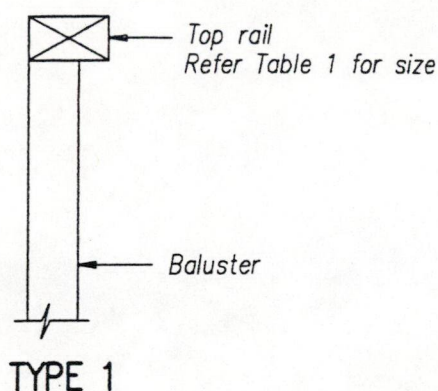
2.3.2 *Balusters* can be fixed to an intermediate joist, end joist or to a *boundary joist*. The three situations are shown in Figure 2, and the corresponding fixing details are shown in Figures 3 and 4.

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Figure 1: Top rail types
Paragraph 2.2.1



Section

Table 1: Top rail sizes - Type 1
and Type 2
Paragraph 2.2.1 and Figures 1
and 3

Maximum spacing (c-c) of balusters for top rail (mm)	Size of top rail (mm)
Type 1: 1000	75 x 50
1500	100 x 50
1800	125 x 50
2000	150 x 50
Type 2: 1000	75 x 50
1400	100 x 50
1500	125 x 50
1600	150 x 50
1700	200 x 50
1800	225 x 50

2.3.3 Where a *baluster* is fixed to an intermediate joist, its fixings depends on the *baluster* spacing and the depth of the joist, and shall comprise either of M12 bolts or M12 bolts with double sided circular toothed plate connectors, as determined from Table 3.

2.3.4 Where a *baluster* is fixed to an end joist or a *boundary joist*, it shall be fixed with two M12 bolts in all situations, and the *baluster* shall be no further than 85 mm from the required blocking or adjacent joist as shown in Figure 4.

2.3.5 *Boundary joists* shall be fixed to each joist adjacent to a *baluster* with two 12 mm diameter coach screws, and with two nail plates (one at the top and one at the bottom) as shown in Figure 4. Coach screws shall have a minimum penetration of 100 mm and shall have a 50 x 50 x 3 mm washer. Nail plates shall comply with Paragraph 1.0.5(c) and shall be capable of carrying a tension force of 4.0 kN (capacity load as defined in NZS 3604). The *boundary joist* shall be fixed to all other joists with three nails of 3.75 mm shank diameter, penetrating 50 mm into the joist.

Comment:

1. The nail plates may be of any type provided the above requirements are met. Acceptable types include plates with hammer-down claws or plates with pre-drilled holes for subsequent nailing.
2. The coach screws may be replaced with any fixing(s) of equal durability and capable of carrying a shear load of 4kN (capacity load as defined in NZS 3604).

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Table 2: Baluster sizes

Paragraph 2.3.1 and Figures 3 and 4

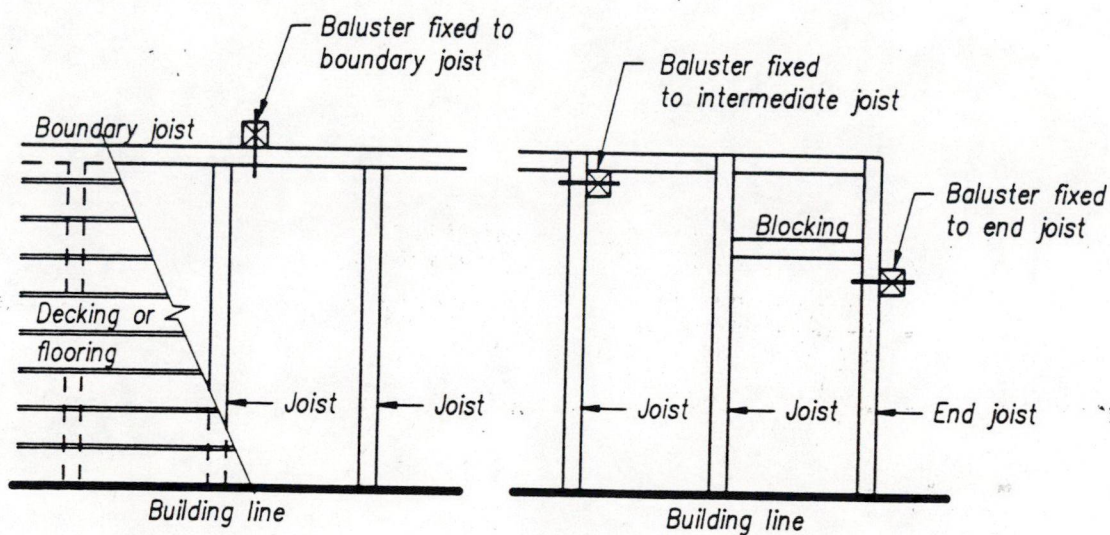
Baluster size (mm)	Maximum baluster spacing (c-c) for top rail (mm)	
	Type 1	Type 2
50 x 100	400	400
75 x 50	600	600
75 x 75	800	800
100 x 50	1200	1200
75 x 100	1200	1200
100 x 75	1800	1700
100 x 100	2000	1800

NOTE:

The first dimension given for the baluster is the depth measured perpendicular to the line of the top rail as shown in Figures 3 and 4.

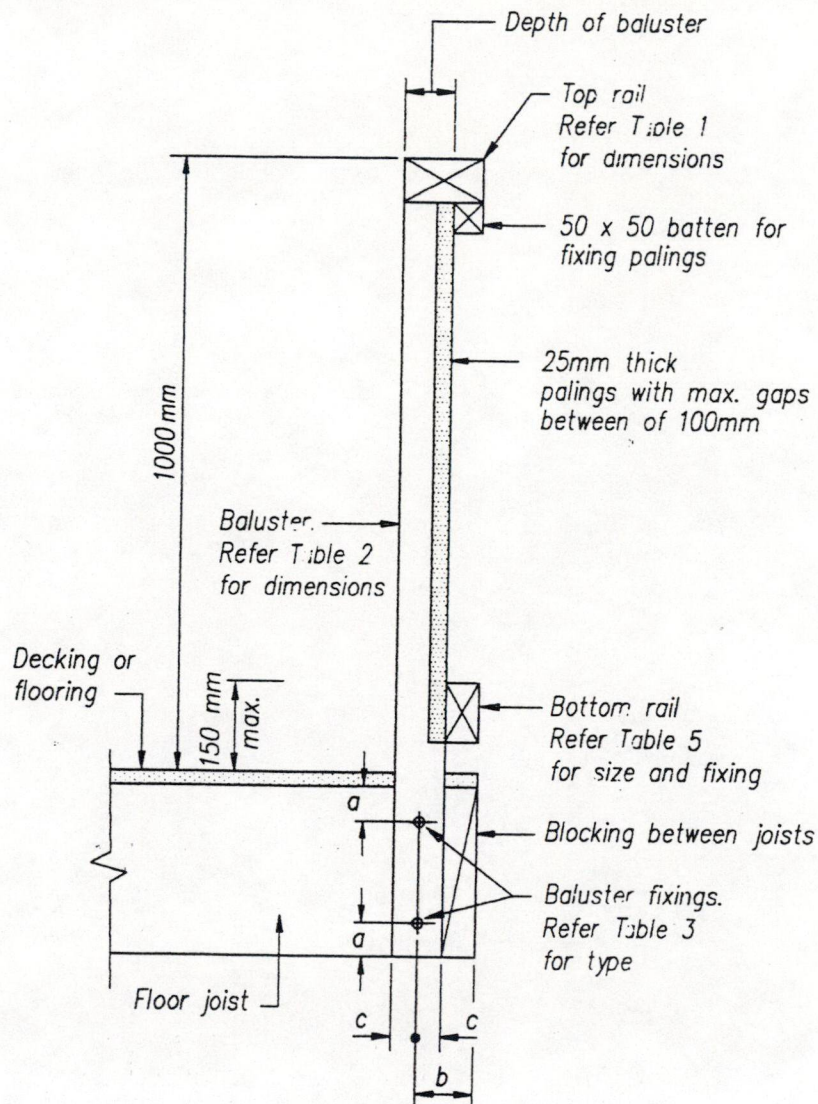
Figure 2: Fixing positions for balusters

Paragraph 2.3.2



Plan

Figure 3: Baluster fixed to intermediate joist
Paragraphs 2.3.2, 2.4.1 and 2.5.3



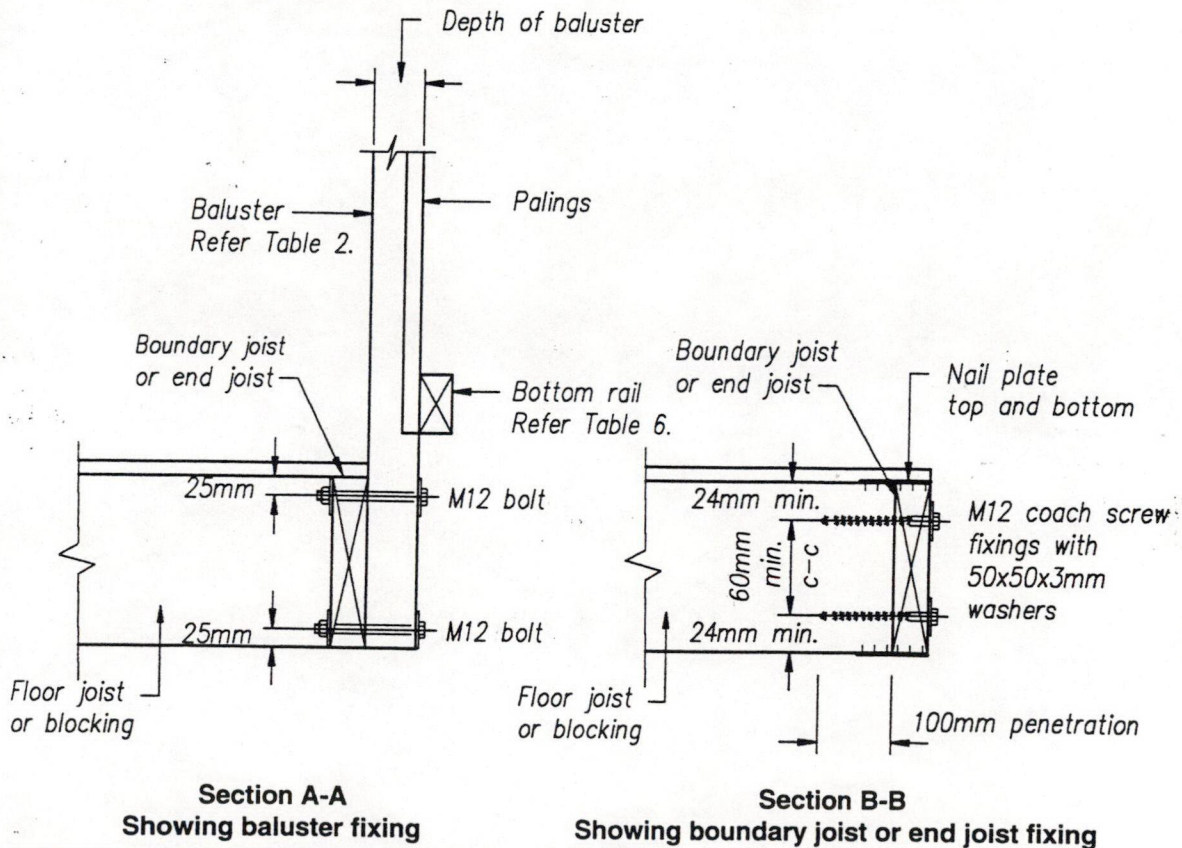
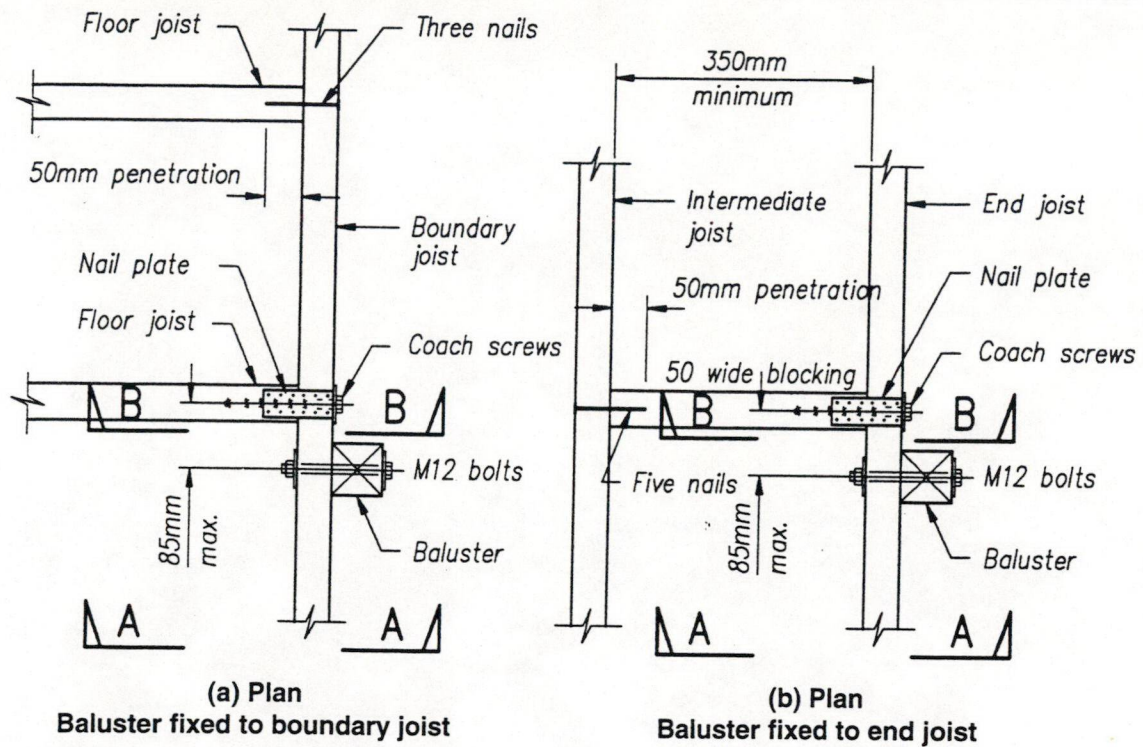
Sectional elevation

NOTE:
See Table 4 for edge and end distances a, b and c.

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Figure 4: Baluster fixed to boundary joist or end joist
Paragraphs 2.3.2, 2.3.4, 2.3.5, 2.3.6 and 2.4.1



NOTE:
Circular toothed plate connectors (CTP) are not required.

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and 2

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Table 3: Bolted connection of baluster to intermediate joist
Paragraph 2.3.3 and Figure 3

Baluster spacing (c-c) mm	Type of bolted connection						
	Joist size (mm)						
	125x50	150x50	200x50	225x50	250x50	300x50	350x50
400	B	A	A	A	A	A	A
450	B	A	A	A	A	A	A
600		B	B	A	A	A	A
800			B	B	A	A	A
900			B	B	B	A	A
1000			B	B	B	A	A
1200				C	B	B	B
1350					B	B	B
1400					C	B	B
1500					C	B	B
1600						C	B
1700						C	B
1800						C	C
2000							C

Connection types:

A - Two M12 bolts

B - Two M12 bolts with 50 mm double sided circular toothed plate connectors

C - Two M12 bolts with 63 mm double sided circular toothed plate connectors

NOTE: All bolts shall have 50 x 50 x 3 mm washers each end.

2.3.6 The end joist blocking required in Paragraph 2.3.4 shall be fixed with two 12 mm diameter coach screws, and with two nail plates (one at the top and one at the bottom) as shown in Figure 4. Coach screws shall have a minimum penetration of 100 mm and shall have a 50 x 50 x 3 mm washer. Nail plates shall comply with Paragraph 1.0.5(c) and shall be capable of carrying a tension force of 4.0 kN (capacity load defined in NZS 3604).

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Comment:

1. The nail plates may be of any type provided the above requirements are met. Acceptable types include plates with hammer-down claws or plates with pre-drilled holes for subsequent nailing.
2. The coach screws may be replaced with any fixing(s) of equal durability and capable of carrying a shear load of 4 kN (capacity load as defined in NZS 3604).

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2.3.7 End and edge distances for bolts and for bolts with circular toothed plate connectors are given in Table 4.

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Table 4: Edge and end distances for bolts
Paragraph 2.3.7 and Figure 3

Fixing	Dimension as shown in Figure 3		
	a (mm)	b (mm)	c (mm)
M12 bolt	25	96	48
M12 bolt with 50 mm C.T.P	31	89	32
M12 bolt with 63 mm C.T.P	36	95	37

NOTE:
C.T.P.- double sided circular toothed plate connector

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2.3.8 Coach screws shall be fixed in predrilled holes located centrally in the width of the floor joist or blocking. The diameter of the predrilled holes shall be:

- Over the shank length, no less than the shank diameter and no more than the shank diameter plus 1.5 mm, and
- Over the threaded length, no more than the root diameter of the screw.

2.3.9 The depth of the hole drilled to the diameter for the threaded length shall be at least two diameters greater than the intended depth of the screw. Coach screws shall not be hammered into place but shall be turned with a wrench.

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2.4 Bottom rails

2.4.1 Bottom rails (see Figures 3 and 4) shall span between *balusters* and be sized and fixed in accordance with Table 5.

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Table 5: Bottom rail sizes and fixings to baluster
Paragraph 2.4.1 and Figure 3

Baluster spacing (c-c) mm	Bottom rail	
	Size (mm)	Nail fixing (No)
Up to 1600	75 x 50	2
Up to 1700	100 x 50	2
Up to 1800	150 x 50	3
Up to 2000	100 x 75	3

NOTE:
All nails shall be 3.75 mm shank diameter and penetrate no less than 50 mm into the baluster.

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2.5 Palings

2.5.1 Palings shall comprise 25 mm thick timber spanning between the top and bottom rails. Palings shall have a minimum width of 65 mm and be installed with a gap between palings of no more than 100 mm.

Comment:

Lightweight infills other than timber palings may be acceptable. The infill would require specific design.

2.5.2 Palings shall be fixed to the top and bottom rails with:

- a) Two 60 mm x 2.8 mm shank diameter nails if the paling is 200 mm wide or less.
- b) 60 mm x 2.8 mm shank diameter nails at 150 mm centres if the palings are wider than 200 mm.

2.5.3 With a Type 1 top rail the palings shall be fixed to the top rail using a 50 mm x 50 mm batten as shown in Figure 3. The batten shall be fixed to the top rail with 75 mm x 3.15 mm shank diameter nails at 300 mm centres.

2.6 Timber moisture content

2.6.1 Timber in *balusters* and elements to which they are connected should be installed at similar moisture contents. The moisture content shall not exceed 20 %.

2.7 Alternative details

2.7.1 Where Figures in this acceptable solution show rails and top battens fixed to the outer face of *balusters*, it is also acceptable for them to be fixed to the inner face. It is also acceptable for the bottom rail and top batten to be cut between *balusters*.

2.7.2 Palings may be nailed to either side of the rails and top battens.