

# Bracing Calculation

GIB Ezy Brace Systems 2011

for

RJ Ker Contractors Ltd

Motueka

Villa Type 2\_BA-52

**AMENDED**

prepared by

**R J KER CONTRACTORS LTD**

Tasman District Council	
<b>BUILDING CONSENT AUTHORITY</b>	
APPROVED DRAWINGS	
Consent Number BC	121096 A
Signed	<i>[Signature]</i>
Date	19 12 2022
ALL WORK IS TO COMPLY WITH THE NZ BUILDING CODE	
DO NOT MAKE CHANGES WITHOUT PRIOR APPROVAL	



GIB Ezybrace® 2011 Software

SINGLE OR UPPER STOREY WALLS ALONG

V06/11

Lines		Bracing Elements						
Line Total	Line Label	Bracing Element No.	Available Wall Length L (m)	Angle to Bracing line (degrees)	Element Height H (m)	Bracing Type	Supplier	Bracing Units Achieved
1		3	4	5	6	7	8	9
10								10

371	A	1	0.5	2.4	GS1-N	GIB®		28	29
		2	0.6	2.4	GS1-N	GIB®		34	35
		3	0.6	2.4	EP1	CHH		75	78
		4	0.8	2.4	GS1-N	GIB®		49	47
		5	0.8	2.4	GS1-N	GIB®		49	47
		6	0.6	2.4	EP1	CHH		75	78
		7	0.6	2.4	GS1-N	GIB®		34	35
		8	0.5	2.4	GS1-N	GIB®		28	29
834	B	1	3.4	2.4	GS1-N	GIB®		235	204
		2	1.95	2.4	GS1-N	GIB®		135	117
		3	1.6	2.4	GS1-N	GIB®		110	96
		4	1.6	2.4	GS1-N	GIB®		110	96
		5	1.95	2.4	GS1-N	GIB®		135	117
		6	3.4	2.4	GS1-N	GIB®		235	204
405	C	1	0.8	2.4	GS1-N	GIB®		49	47
		2	1.5	2.4	GS1-N	GIB®		104	90
		3	0.45	2.4	GS1-N	GIB®		24	26
		4	0.6	2.4	EP1	CHH		75	78
		5	0.45	2.4	GS1-N	GIB®		24	26
		6	1.5	2.4	GS1-N	GIB®		104	90
		7	0.8	2.4	GS1-N	GIB®		49	47

TISMAN DISTRICT COUNCIL  
 BUILDING CONSENT AUTHORITY  
 APPROVED  
 19 DEC 2011  
 BUILDING CONSENT

Totals Achieved	W	325%	EQ	118%	1758	1618
Concrete Slab	OK	OK	OK	OK	541	1365
Totals Required (from Demand)						

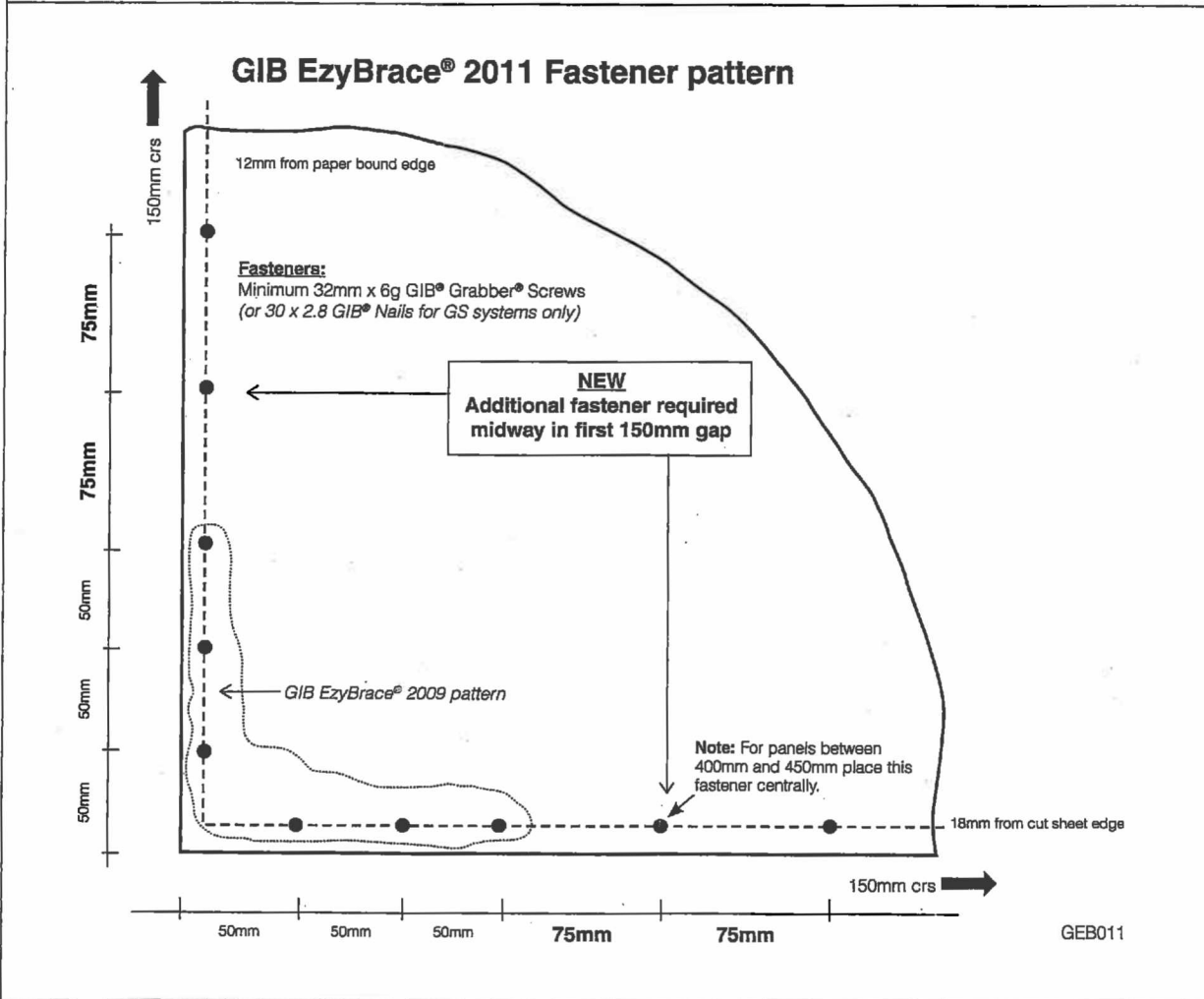
AMENDED



**Revised Fastener Pattern for all four corners of GIB EzyBrace® Elements**

As GIB Braceline® screws are no longer required for BL bracing elements, two additional fasteners must be installed in **all four corners** of GIB EzyBrace® GS and BL elements, as shown.

Fasteners must be placed no closer than 12mm from the paper bound sheet edge and no closer than 18mm from sheet ends or cut edges.



Refer to [gib.co.nz/cad](http://gib.co.nz/cad) for CAD details.

**PERMITTED GIB® PLASTERBOARD SUBSTITUTIONS IN GIB EZYBRACE® SYSTEMS**

GIB Ezybrace® Systems have been designed and tested using only the products specified. Occasionally additional properties may be required to be provided by a different GIB® Plasterboard product. The following table provides acceptable substitution options.

Specified	Permitted alternative GIB® Plasterboard products					GIB Fyrelline®			
	GIB® Standard	GIB Ultraline®	GIB Braceline/Noiseline®	GIB Aqualine®	GIB Toughline®	10mm	13mm	16mm	19mm
GIB® Standard		OK	OK	OK	OK	OK	NOTE 2		
GIB Braceline®	X	X		NOTE 1	OK	X	NOTES 1 and 2		

**NOTE 1** The element must be 900mm or longer. Use 32mm x 6g GIB® Grabber® drywall screws at **100mm** centres to the perimeter of the bracing element. The bracing corner fastening pattern, as illustrated above, applies to all four corners of the element. Panel hold-down fixings are required.

**NOTE 2** The fastener type and length must be as required for the relevant FRR system but the fixing pattern must be as shown above.

# FIRE RATED WALL SYSTEMS – SECTION 2.1

Timber Frame  
60/60/60  
LB



## Two Way FRR – Timber Frame

JANUARY 2006

SPECIFICATION NUMBER	LOADBEARING CAPACITY	FIRE RESISTANCE RATING	LINING REQUIREMENTS	SOUND TRANSMISSION CLASS	SYSTEM WEIGHT APPROX
GBTL 60b	LB	60/60/60	2 x 10mm GIB Fyreline® each side	STC 42	39kg/m <sup>2</sup>

### FRAMING

Framing to comply with,

- NZBC B1 – Structure: AS1 Clause 3 – Timber (NZS 3604) or VM1 Clause 6 – Timber (NZS 3603)
- NZBC B2 – Durability: AS1 Clause 3.2 – Timber (NZS 3602).
- Studs at 600mm centres maximum.
- Nogs at 800mm centres maximum for Vertical fixing.
- Nogs at 1200mm centres for Horizontal fixing.

### WALL HEIGHTS AND FRAMING DIMENSIONS

Framing dimensions and height as determined by NZS 3604 stud and top plate tables for loadbearing walls.

### LINING

2 layers of 10mm GIB Fyreline® each side of the frame.

Vertical or Horizontal fixing permitted.

Sheets shall be touch fitted.

When fixing vertically, full height sheets shall be used where possible.

Vertical joints of the second layer are staggered from joints in the first layer on the same side of the frame.

When sheet end butts joints are unavoidable, they must be formed over solid framing and staggered.

All sheet joints must be formed over solid timber framing.

### FASTENING THE LINING

#### Fasteners

INNER LAYER: 41mm x 6g GIB® Grabber® High Thread Drywall Screws or 40mm x 2.8mm GIB® Nails.

OUTER LAYER: 51mm x 7g screws as above.

#### Fastener Centres

INNER LAYER: 600mm centres horizontally.

800mm centres vertically.

OUTER LAYER: 300mm centres around the sheet perimeter.

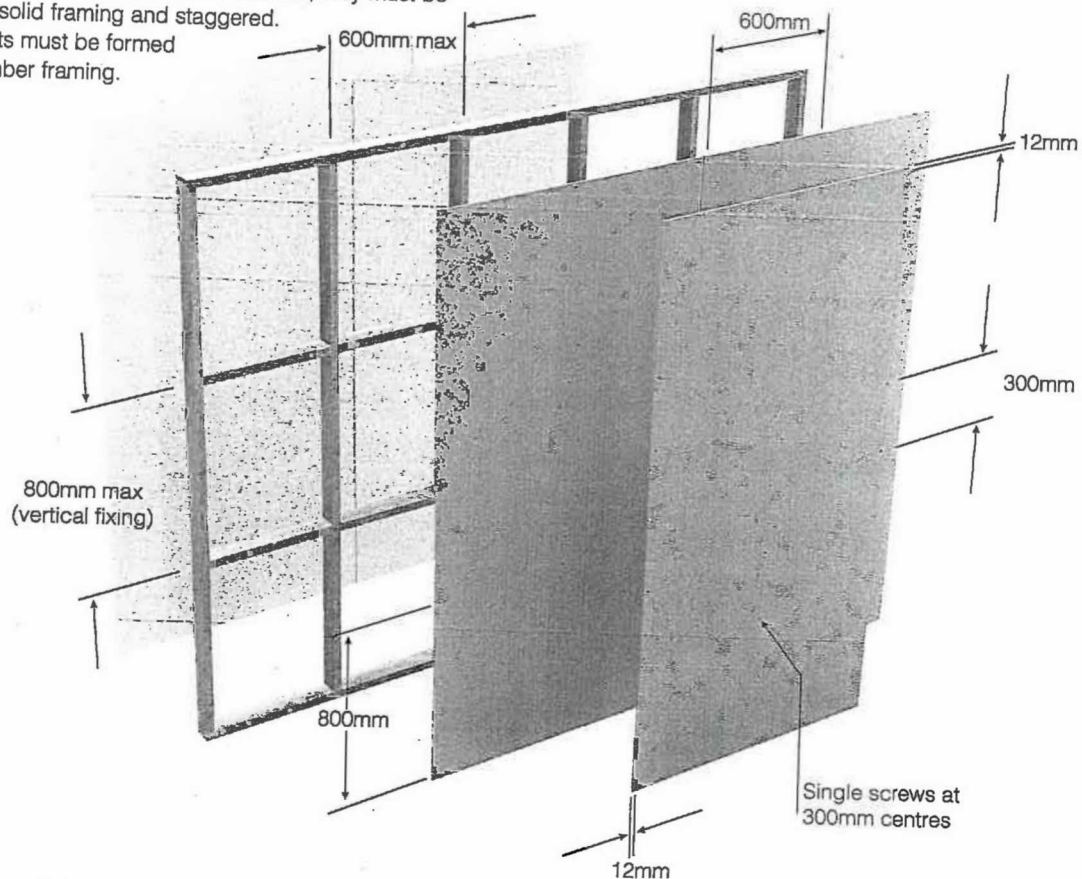
Place fasteners 12mm from sheet edges.

Single screws at 300mm centres to intermediate studs.

### JOINTING

INNER LAYER: Unstopped.

OUTER LAYER: All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide".



In order for GIB® systems to perform as tested, all components must be installed exactly as prescribed. Substituting components produces an entirely different system and may seriously compromise performance. Follow system specifications.