



COMPLIANT TIMBER JOINERY

JMF NEW ZEALAND LIMITED

Presented by
Ken Monk
Director, JMF New Zealand Limited



COMPLIANT TIMBER JOINERY

INTRODUCTION TO THE MANUAL



COMPLIANT TIMBER JOINERY

SCOPE OF TECH MANUAL

- Covers off basic configurations of timber joinery
- Reflects the NZS:4211 tested product
- Allows complex configurations to be interpreted and built
- Allows style variations to profiles within certain guidelines
- The user has an understanding of good timber joinery trade practise – A certain level of skill is implied



- Compliance
and
Engineering



COMPLIANT TIMBER JOINERY

NZS 4211 compliance.

NZS 4211; 2008 is a performance code for windows and doors made from any material type.

A series of tests are conducted using prototype product in a certified lab to determine compliance with the standard. A unit may gain a rating, and subsequent manufactured units to the same design may claim performance up to this rating provided they are manufactured to the same set of specifications as the test unit. A manufactured unit cannot claim performance beyond the tested rating.*

A joinery unit that has been manufactured to the tested specification will be able to have a compliance label attached. This label certifies that the unit complies with the requirements of NZS 4211; 2008 and therefore is deemed an acceptable solution to the relevant clauses of the NZ building code. A BCA (Building Consent Authority) will accept this statement of compliance.

If a unit is not manufactured to the tested specification, the joinery unit cannot claim compliance to NZS 4211; 2008 and cannot legally be labeled as so. The unit is then classified as an alternative solution. A BCA should rightfully reject the units until evidence is produced that satisfies them that the manufactured units comply with the NZBC by means other than a NZS 4211 test. This argument is best avoided.

*A unit can claim performance levels up to the tested rating for air leakage and water leakage. Structural performance may be extrapolated upwards or downwards by calculation, so that bigger units may be made than were able to be tested.

- Testing was carried out over 2011 and 2012 to the WANZ test configurations



Independently Certified

SMITH & HENRY
CONSULTING ENGINEERS

Ref No 5952
04 December 2012

JMF New Zealand Limited

2012 JMF MEMBER SELECTION CHARTS FOR WIND ZONES L, M, H, VH & EH FOR VARIOUS “E” VALUES

This is to confirm I have examined the methodology of the design selection process of the charts over a fully representative range of mullions and transoms through the various Modulus of Elasticity options.

The selection of “E” value shall be either the specific Modulus of Elasticity of each stick of timber, established by approved test, or the “lower-bound” (lower 5 percentile) value for timber **graded** to the categories stated in amendment 4 of NZS 3603. Imported timbers should have their Modulus of Elasticity verified.

I am satisfied that the charts give accurate results.

The tests;

Air leakage - determines how much air can pass through the unit, both ways (positive direction and negative direction). The rating gained enables the product to be used in specifically factories, houses, or air conditioned buildings or some or all applications. The best result is "Air Conditioned" rating.

Water leakage - determines if the unit can resist water and air pressure at the same time, and how it manages that water. A good result is an Extra high windzone pass, which will cover most of NZ.

Opening and closing forces - determines if the panels or sashes are too difficult to operate, or have no integrity to hold themselves open (sashes for example). A good result is that doors are easy to slide and sash stays have the right amount of stiffness to prevent blowing shut.

Deflection - determines if any structural member (mullions, transoms, stile pairings etc) are strong enough to prevent excessive visual deformation of profiles and glass so that the occupants do not become unduly concerned. A good result is compliance, but structural members can be upsized to go taller and wider with the unit.

Proof load - determines if the unit can resist an ultimate wind event and remain in one piece to protect the occupants and the building. A good result is compliance to the extra high wind zone.

There will be building sites that exceed the extra high windzone. Joinery units supplied into these areas will need to be specifically designed.

Tested Product Ratings

<i>Product Series</i>	<i>Wind Zone L,M,H,VH,EH</i>	<i>Air leakage rating AC, Non AC</i>
<i>3000 Double Hung Window</i>	<i>EH</i>	<i>AC</i>
<i>4000 Sliding Window</i>	<i>EH</i>	<i>AC</i>
<i>5000 Awning and Casement</i>	<i>EH</i>	<i>AC</i>
<i>6000 Sliding Door</i>	<i>EH</i>	<i>AC</i>
<i>7000 Hinged Door</i>	<i>EH</i>	<i>AC</i>
<i>7000 Bifold Door</i>	<i>EH</i>	<i>AC</i>

Labeling:

Each unit must be labeled in a sensible position that is easily located and read. Sash cavities and door rebates are suitable locations. The compliance label will state the wind zone that the unit has been designed and built to, the air leakage rating and the manufacturer or their I.D number. Before the unit is made, the manufacturer will have determined if structural member sizing is correct (from windload charts) and that the specified windload for the site does not exceed the capability of the joinery.

	SERIAL NUMBER XXXXXXXXXXXX	NZS 4211:2008	WIND ZONE - L
			AIR LEAKAGE RATING - AC
	SERIAL NUMBER XXXXXXXXXXXX	NZS 4211:2008	WIND ZONE - M
			AIR LEAKAGE RATING - AC
	SERIAL NUMBER XXXXXXXXXXXX	NZS 4211:2008	WIND ZONE - H
			AIR LEAKAGE RATING - AC
	SERIAL NUMBER XXXXXXXXXXXX	NZS 4211:2008	WIND ZONE - VH
			AIR LEAKAGE RATING - AC
	SERIAL NUMBER XXXXXXXXXXXX	NZS 4211:2008	WIND ZONE - EH
			AIR LEAKAGE RATING - AC

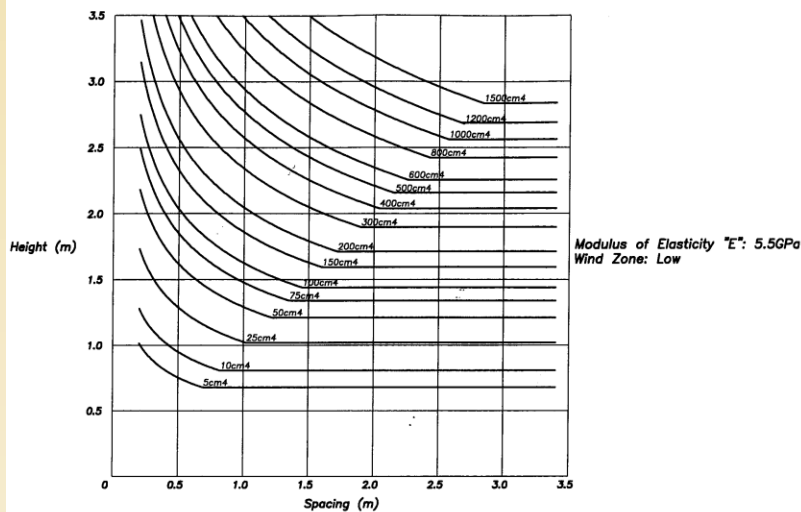
Wind Zone & GPa Span Charts(Timber strength)

Extrapolating between GPa charts;

The *I* value selection charts in this manual have been created to take in the range of timber *E* values from 5.5 GPa to 15 GPa.

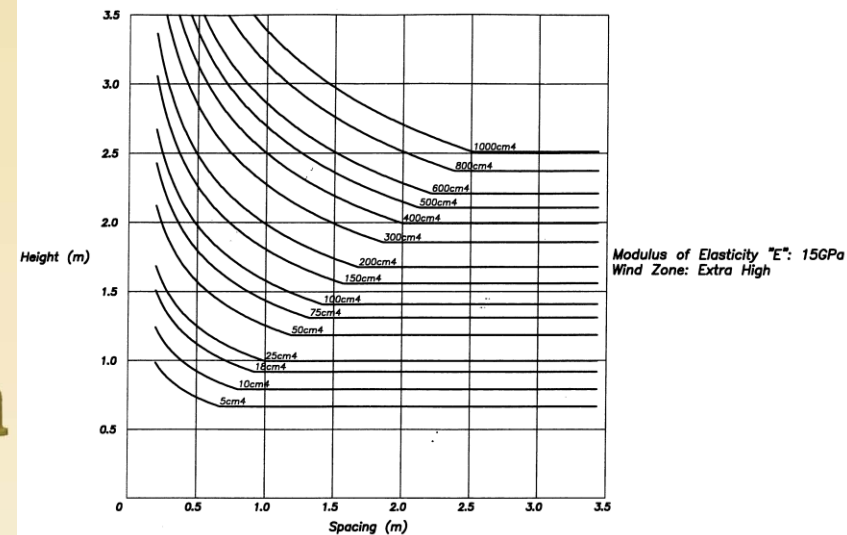
Span Chart 5.5 GPa - Low

Wind Zone



5.5 GPa
7.5 GPa
10 GPa
12.5 GPa
15 GPa

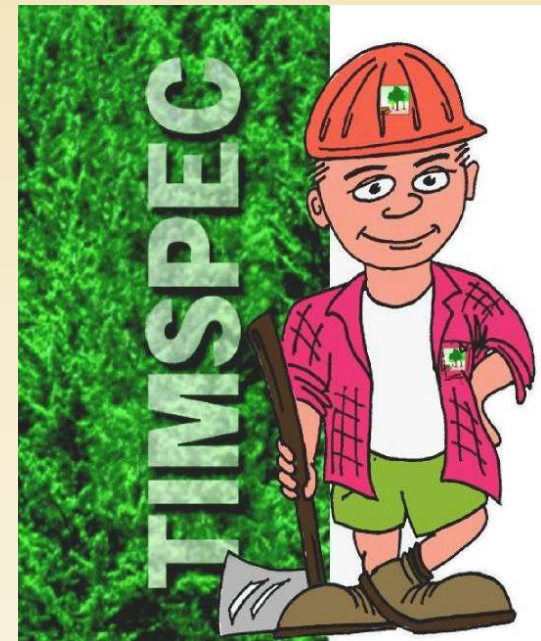
Span Chart 15 GPa - Extra High Wind Zone



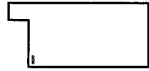
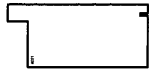
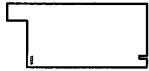
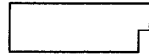
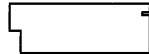
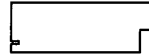
All GPa charts cover low, medium, high, very high & Extra high Wind Zones.

Useful information on timber

	GPa (Modulus Elasticity)	Strength
▣		
▣ WR Cedar (Can)	8.3	
▣ Radiata Pine (NZ)	9.0	
▣ Iroko	9.4	
▣ American Oak	12	
▣ Rosewood	12	
▣ Red Beech (NZ)	13	
▣ Taun (PNG)	14	
▣ Kwila (PNG)	18	



I - Values - 6000 Sliding Door

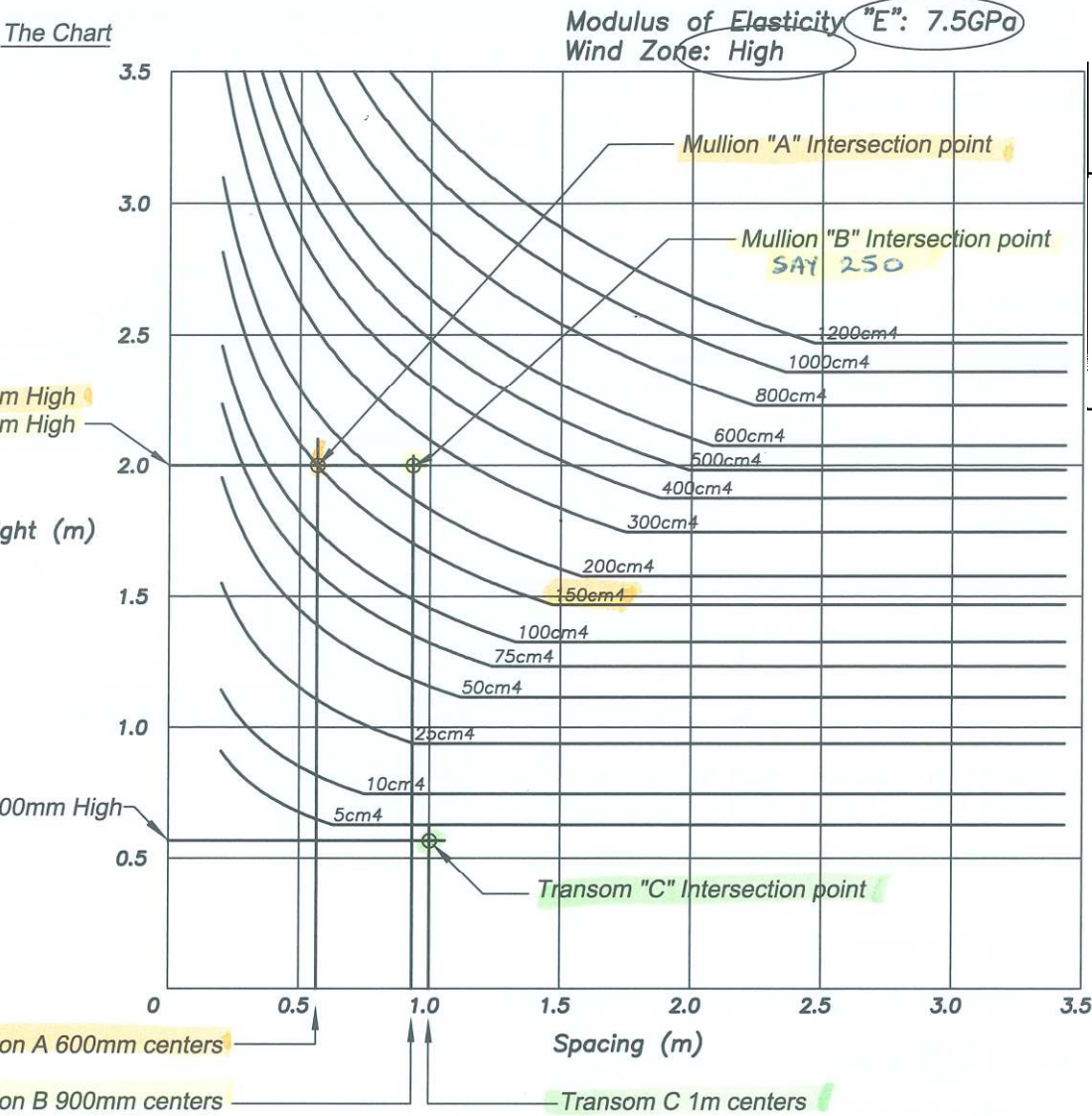
Profile	Part No.	Description	Moment of Inertia	
			"I" value cm ⁴	notes
	6020	DG 56mm door stile	168	2 x 6020 Used as the interlocker pairing = 336cm ⁴
		DG 65mm door stile	264	
		DG 85mm door stile	591	
	6021	DG 56mm 4 panel door stile LH	167	
		DG 65mm 4 panel door stile LH	263	
		DG 85mm 4 panel door stile LH	589	
	6022	DG 56mm 4 panel door stile RH	167	
		DG 65mm 4 panel door stile RH	263	
		DG 85mm 4 panel door stile RH	589	
DG 56mm 4 panel door stiles as a pair = 334cm ⁴				
	6040	SG 44mm Door Stile	85	2 x 6040 Used as the interlocker pairing = 170cm ⁴
		SG 65mm Door Stile	275	
		SG 85mm Door Stile	617	
	6041	SG 44mm 4 panel Door stile LH	85	
		SG 65mm 4 panel Door stile LH	274	
		SG 85mm 4 panel Door stile LH	615	
	6042	SG 44mm 4 panel Door stile RH	85	
		SG 65mm 4 panel Door stile RH	274	
		SG 85mm 4 panel Door stile RH	615	
SG 44mm 4 panel door stiles as a pair = 170cm ⁴				
<div><div>Note; Using panels thicker than 56mm requires careful thought. A mullion rebate cannot simply be made deeper to accommodate thicker panels as this takes away a large portion of the mullion mass and hence "I" value. Also, hardware will not automatically work with such thick panels.</div><div>Note; "I" values shown are for shapes as drawn throughout this manual unless extra size options are noted above</div></div>				



No	Revision	Date	Detail No:
Scale: NTS			Date: 1/6/2012
Drawing No:			S1-C-06

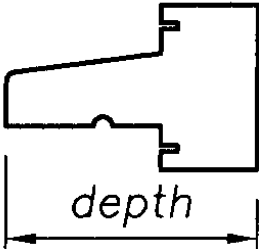
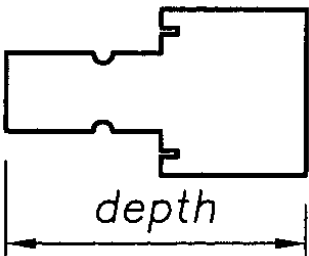
■ Engineering ; "I" Values for profiles & Wind load selection charts

If the 7.5 GPa chart is selected, the piece of timber must achieve at least 7.5 GPa (MSG 10)
If the piece of timber is below 7.5 GPa, default to the next GPa chart downwards from its actual E value or follow the method on the following page to interpret between MSG ratings.

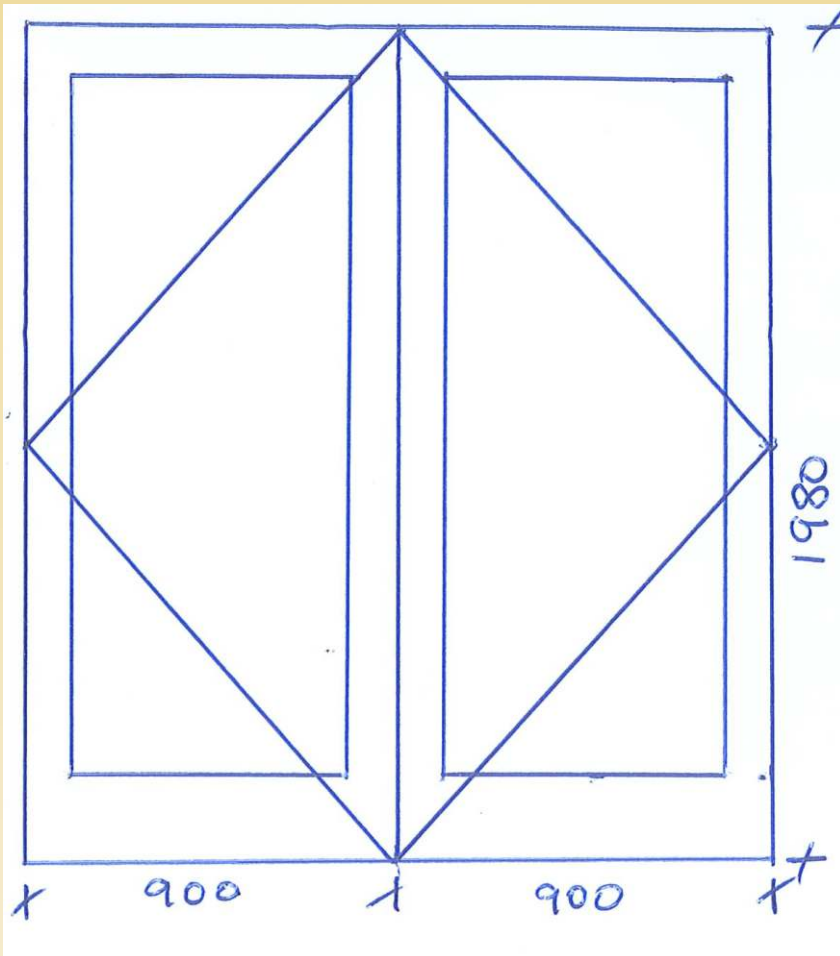


Description	'I' value cm ⁴
Mullion DG @ 90mm deep	270
Mullion DG @ 110mm deep	496
Mullion DG @ 130mm deep	819
DG Transom @ 90 deep	226
DG Transom @ 110 deep	418

Profile

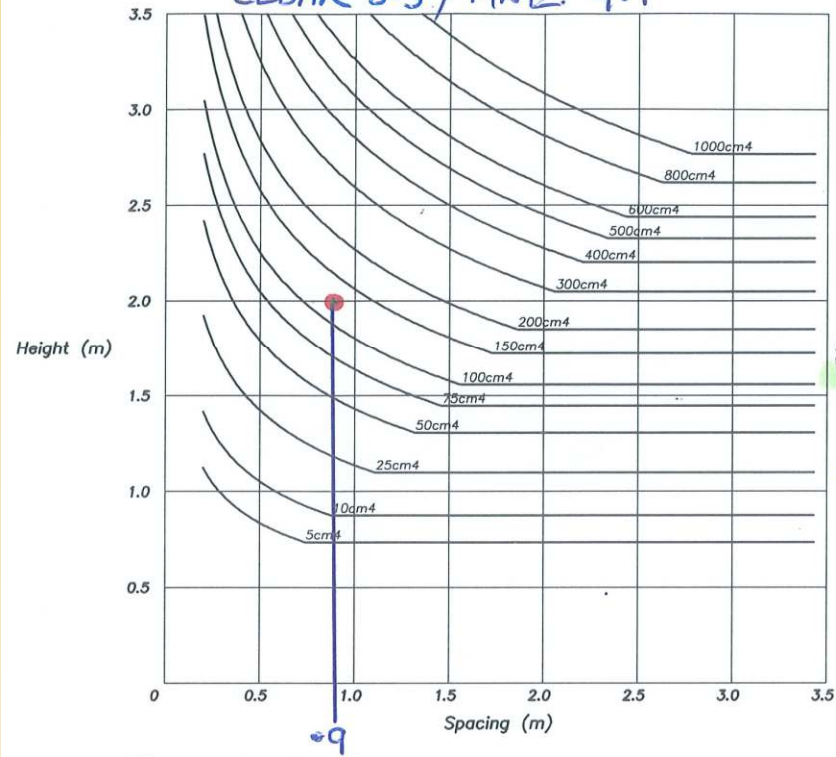


"I" value required for the structural members	"I" value achieved by selected structural member
Mullion A needs a mullion "I" value of 150m4	Mullion profile 5001 @110mm has an "I" value of 495cm4 - OK 5006 @ 90 " " " " " 270 OK
Mullion B needs a mullion "I" value of about 250cm4	Mullion profile 5001 @110mm has an "I" value of 495cm4 - OK 5006 @ 90 " " " " " 270 OK
Transom C needs a transom "I" value of less than 5cm4	Transom profile 5004 @ 90 has an "I" value of 234cm4 - OK



Span Chart 7.5 GPa - Low & Medium Wind Zone

CEAR 8-3 / PINE 9-1



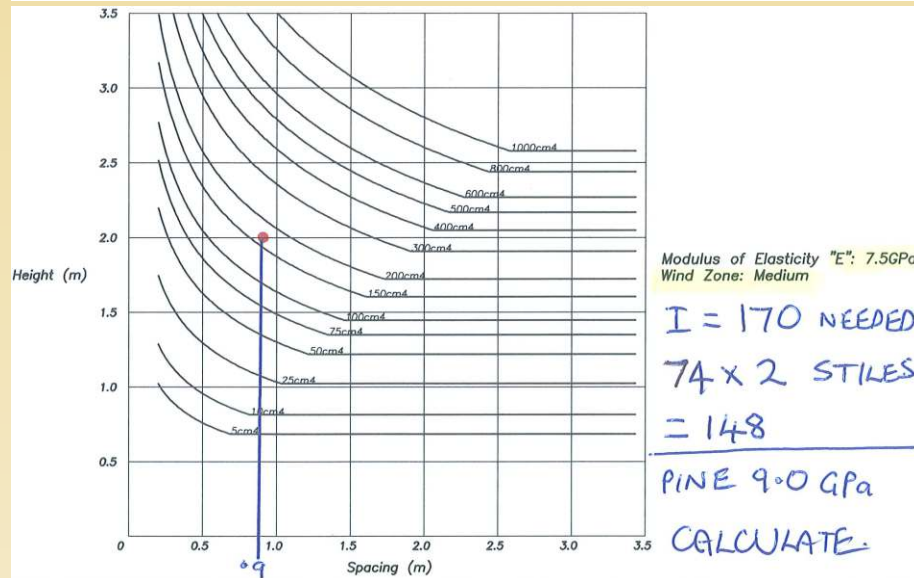
Modulus of Elasticity "E": 7.5GPa
Wind Zone: Low

$I = 125$ NEEDED
 74×2 STILES
 $= 148 \checkmark$ OK

Profile	Part No.	Description	'I' value cm ⁴
	7040	SG 44mm x 110mm Door Stile	74

Extrapolating between GPa charts;

The *I* value selection charts in this manual have been created to take in the range of timber *E* values from 5.5 GPa to 15 GPa.



Profile	Part No.	Description	'I' value cm ⁴
	7040	SG 44mm x 110mm Door Stile	74

It is possible to extrapolate a required *I* value for a structural member if the available *E* value charts don't fairly match the stated *E* value of the chosen stick of structural timber.

Example:

A stick of timber is identified as MSG 12 - (or 9 Gpa).

the closest charts are for 7.5 Gpa and 10 Gpa

An extrapolation can be arranged, using *door style* from the example (MID WINDZONE)

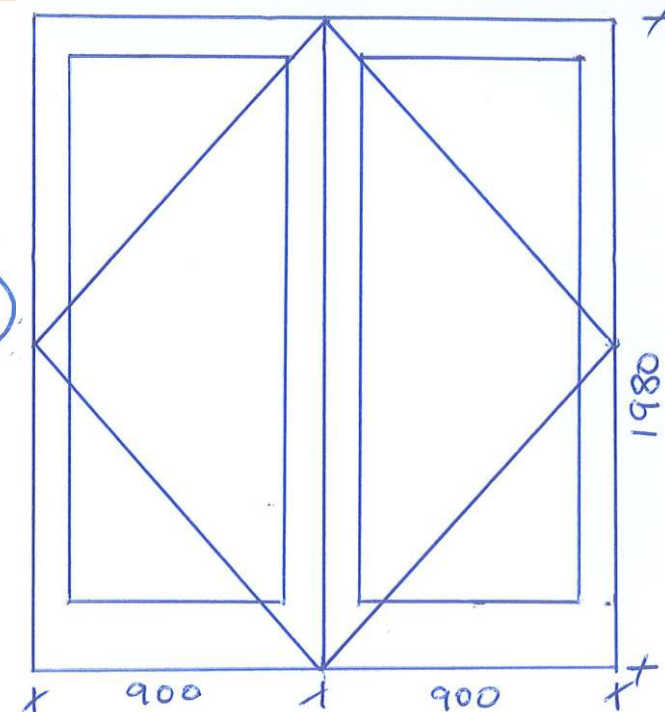
Selecting from 10 GPa chart, "I" value required = 130
Selecting from 7.5 GPa chart, "I" value required = 170

Difference 2.5 Difference 40

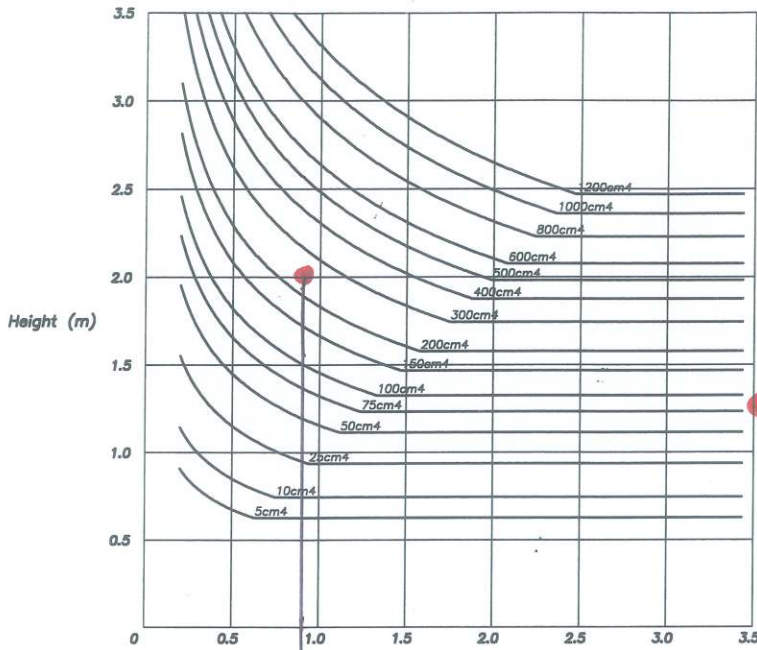
So, for 9 GPa timber: (PINE)

Add proportion of "I" value difference to 10 Gpa chart

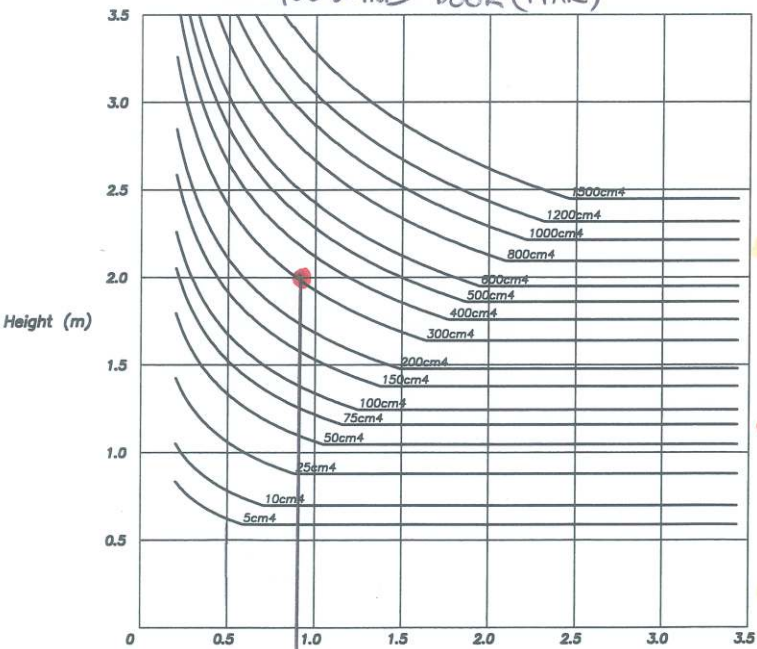
$$130 + \left(\frac{9 - 7.5}{2.5} \times 40 \right) = 130 + (0.6 \times 40 = 24) \text{ TOTAL } 154$$



Span Chart 7.5 GPa - High & Very High Wind Zone



900 WIDE DOOR (PAIR)



900 WIDE DOOR (PAIR)

PINE/CEDAR

Modulus of Elasticity "E": 7.5GPa
Wind Zone: High

SAY 240 I
REQUIRED

~~NO GO~~
44mm THICK

74 x 2 STILES
= 148


56mm THICK
144 x 2 STILES
= 292

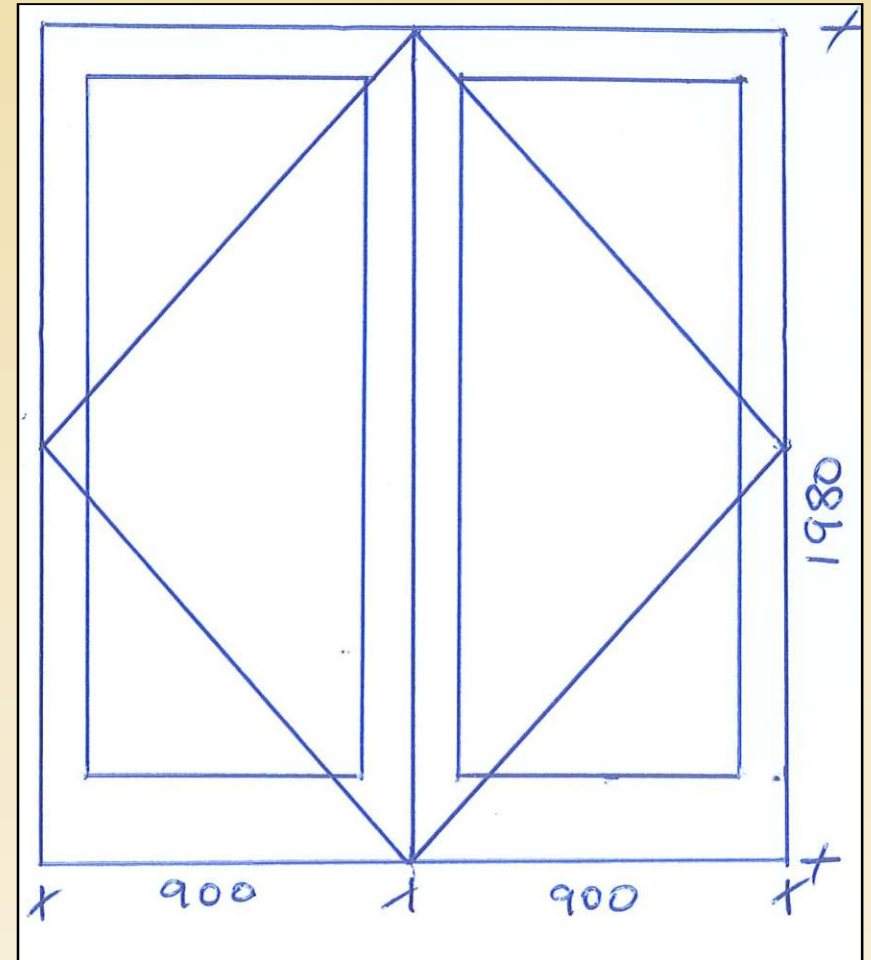
PINE/CEDAR

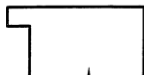
Modulus of Elasticity "E": 7.5GPa
Wind Zone: Very High

SAY 300 I
REQUIRED

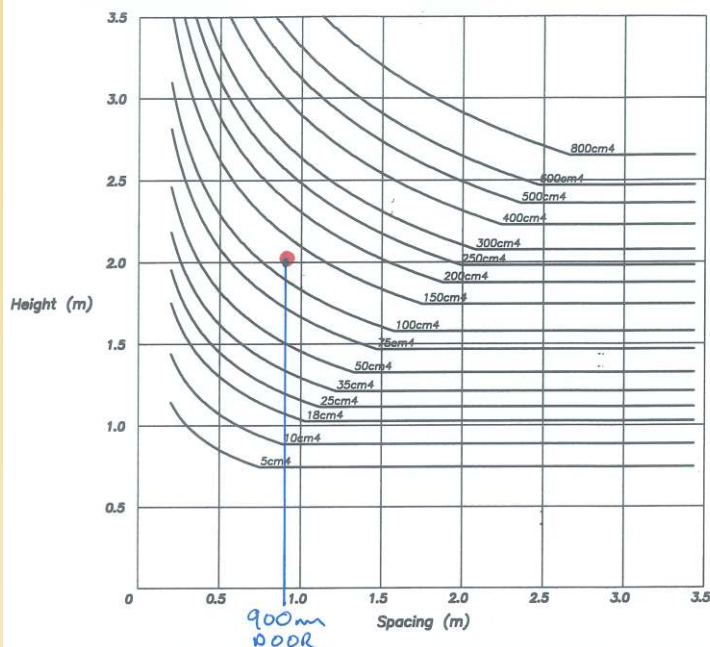
THIS MAY BE
OK AS PINE/CEDAR
HAVE HIGHER GPA

Profile	Part No.	Description	'I' value cm ⁴
	7040	SG 44mm x 110mm Door Stile	74



Profile	Part No.	Description	'I' value cm ⁴
	7020	DG 56mm x 110mm Door Stile	146

Span Chart 15 GPa - High & Very High Wind Zone

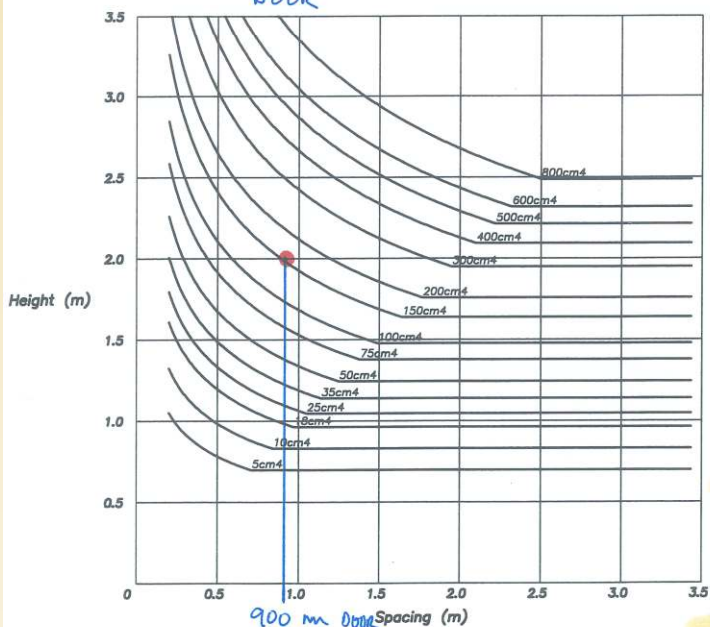


KWILA

Modulus of Elasticity "E": 15GPa
Wind Zone: High

SAY 125 I
REQUIRED

44mm THICK.
74 x 2 STILES
= 148 ✓
OK




KWILA

Modulus of Elasticity "E": 15GPa
Wind Zone: Very High

SAY 150 I
REQUIRED

44mm THICK.
74 x 2 STILES
= 148 OK ✓
AS KWILA GPa 18

Using a higher Gpa timber like Kwila will allow you to engineer the meeting styles to comply. If paint quality it would only need to be the meeting styles in Kwila or you could put a stiffener on outside of style to gain a higher I value.

Profile	Part No.	Description	'I' value cm ⁴
	7040	SG 44mm x 110mm Door Stile	74

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No	Revision	Date

Detail No:	
Scale: NTS	Date: 18/10/2012
Drawing No:	S1-B-14

Very large, different or difficult configurations;

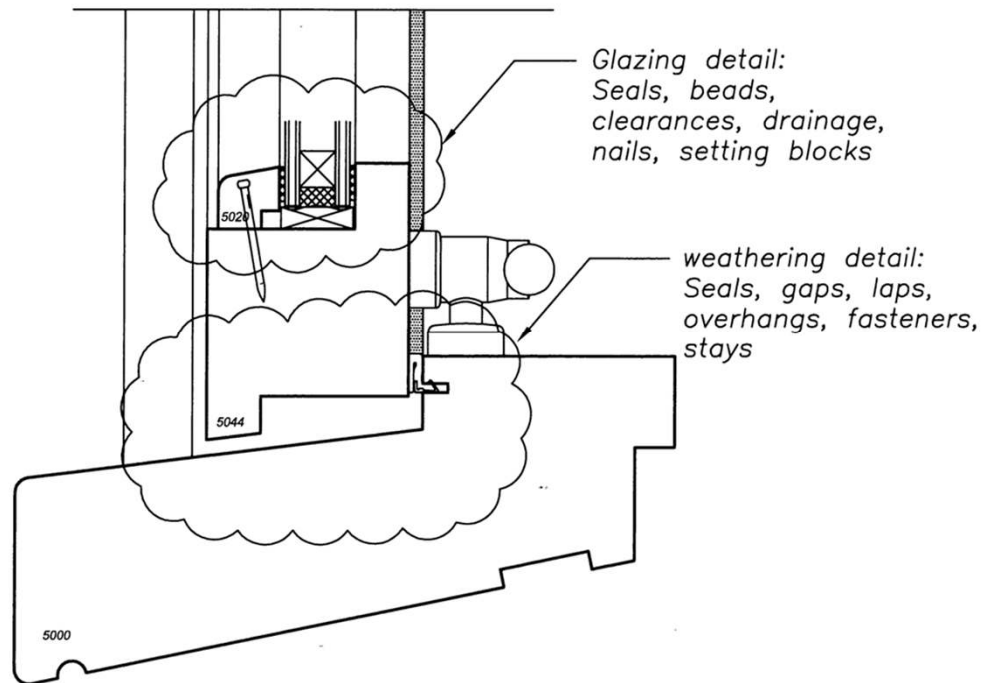
It is not practical to test every possible configuration of window and door. The tested units fairly represent most of those that will be made. There will be units made that don't resemble the configurations tested, for eg, multi track doors. Provided the unit has at each critical weathering or structural detail a reference back to the ones tested, it may claim compliance.

An example of non automatic compliance would be a sliding door into a wall pocket or over a wall. This will be an alternative solution as no similar detail has been tested in the test schedule. This does not mean that the unit cannot be made, but it cannot claim compliance with NZS 4211 by default. The manufacturer may be asked to prove compliance with the NZBC by other means to the satisfaction of the BCA.

Guidance for alternative solutions:

An alternative solution is a joinery unit that doesn't fairly follow the common details of the range of tested product. This is likely to be an unusual configuration, or a unit that has challenging details. A BCA will be interested in information or mitigating factors that proves that the unit will meet the requirements of the building code. Information could include a specific NZS 4211 window test, professional opinion, similar units in service that have proven themselves to perform in a similar environment, or a demonstration otherwise that the collective details will comply. Mitigating factors could be that the unit is protected by large eaves or the unit has another form of permanent protection in front of it such as screens or storm shutters.

Engineering and Compliance - Variations from Tested Units



Variation from the tested profiles and details.

The testing verified that the system complies with NZS 4211; 2008.

It is possible to vary the profiles away from those detailed provided it is in an area that does not affect the structural or weathering performing parts of the system.

The clouded areas above denote areas that are critical to the performance of the weathering of the product (example shown is 5000 Awning / casement window).

Examples;

A door rail or stile can be made larger than that tested as it will be stronger and exceed the tested value.

A structural member can be made smaller, provided it still meets the required strength value for the application - to be checked on the "I" value wind load charts.

A sill profile can vary slightly from that tested as long as the critical details remain as shown.

A sash or panel can have decorative features added to the inner shoulder provided it doesn't affect the integrity of the shape.

Hardware that contributes to the safety, performance and action of a unit cannot be changed out for non tested alternatives.

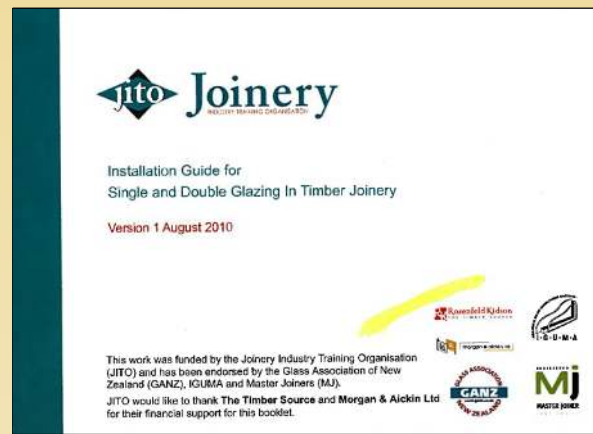
The weatherseals must be used as tested.

Clearances; The deductions and clearances in this manual are based on the units tested. It is generally preferable to have gap tolerances on the larger rather than tighter side to allow the units to perform as intended. Smaller tolerance gaps can promote the retention of water and reduce pressure equalization and drying opportunities.

Sash Construction; Tested sashes were manufactured using a mortise and tenon joint, either full width of the stile or a stub tenon. The minimum length of the stub tenon was 35mm. Haunch tenons can also be used.

Door Construction; Tested doors were manufactured using mortise and tenon joints with a measurement on the rail of 60mm from the rebate line. The top rail had a tenon width of 60mm wide and the bottom rail had a width of 140mm wide. The remainder of both rail widths was a haunch.

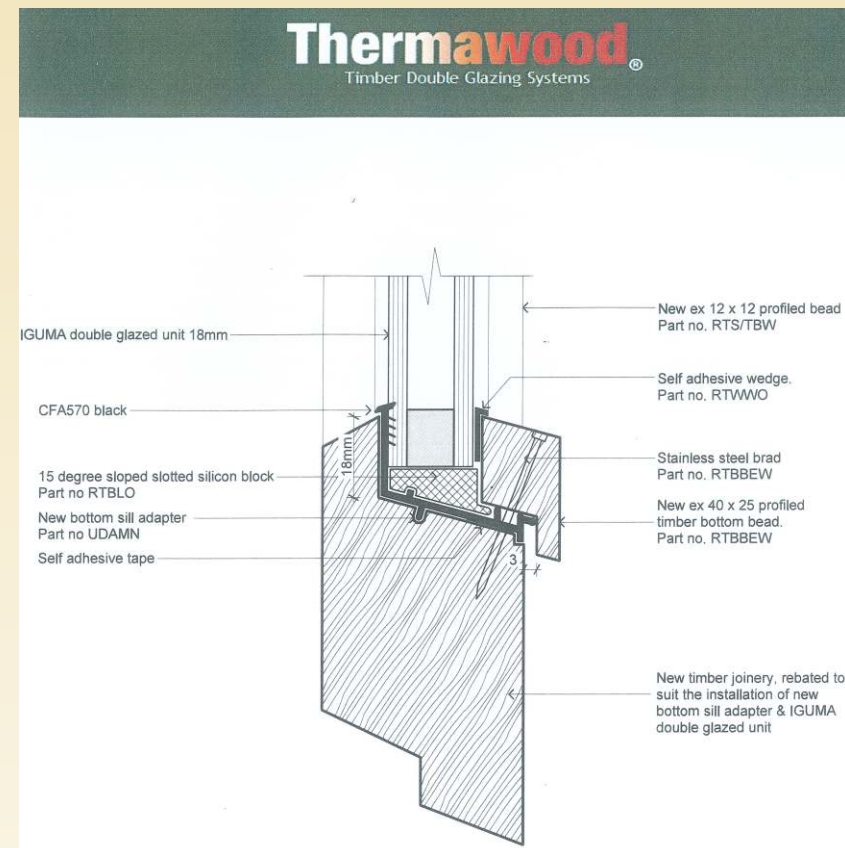
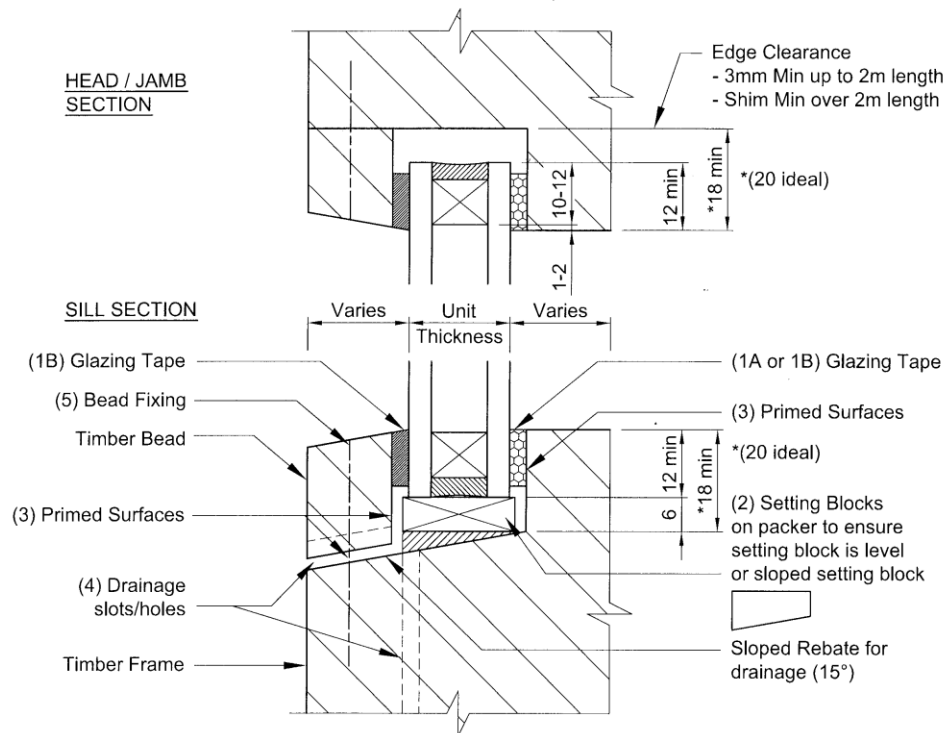
GLAZING



- From the JITO book
- Compliant glazing details; from other tested systems IE: Thermawood
- Other players are developing glazing systems for timber joinery and testing to NZS:4211, these will be added as they evolve.

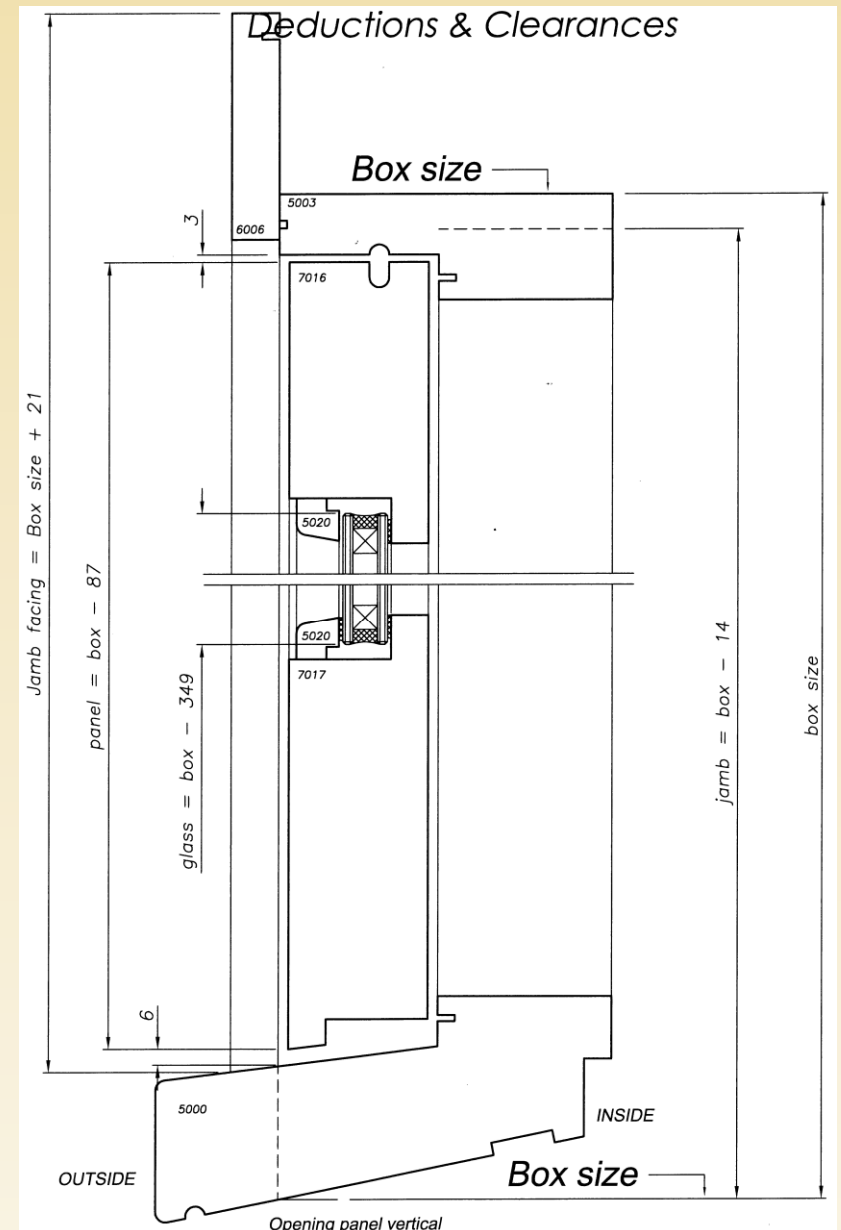
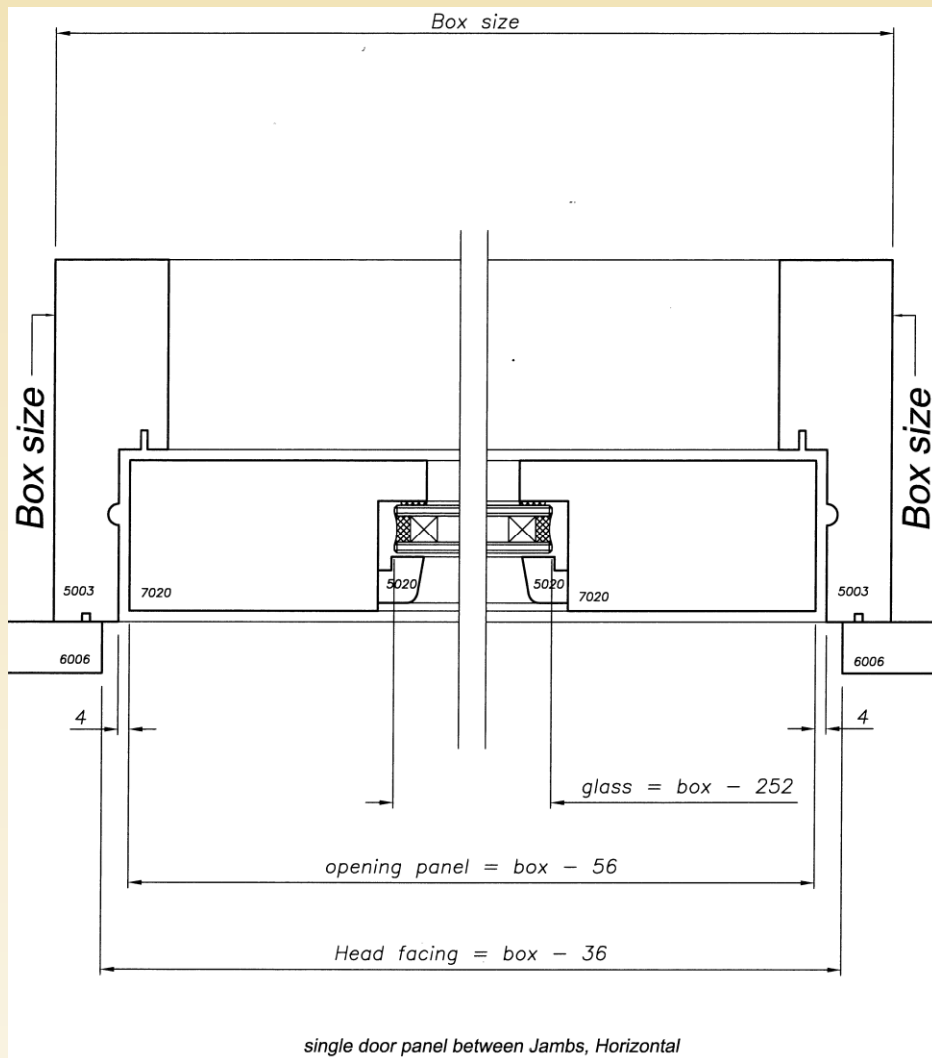
Drained Glazing with Glazing Tape
(Recommended by IGUMA)

D1



OTHER GOOD STUFF

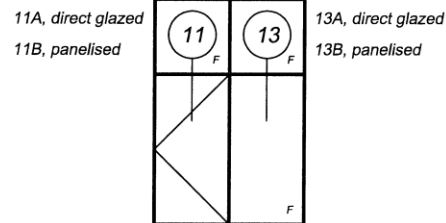
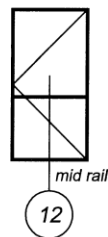
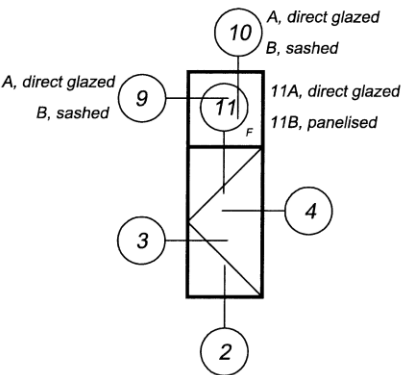
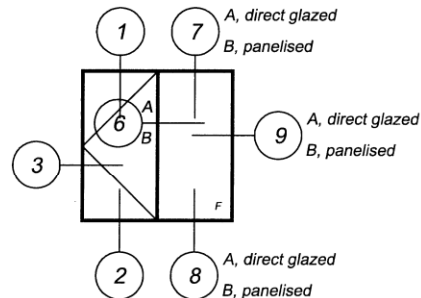
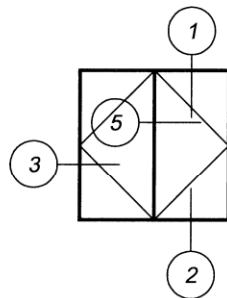
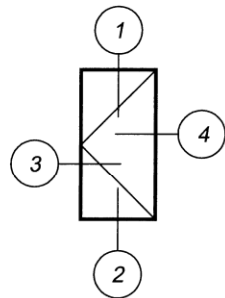
- Deductions and Clearances;
- Good for reference, job sheets, setting out odd units, design build
- Useful info for costing programs



Cross Sections

3 — See detail on relevant page

For Awning or casement sash details
in side or overlights, see 5000
window section of technical manual



Cross Section Details

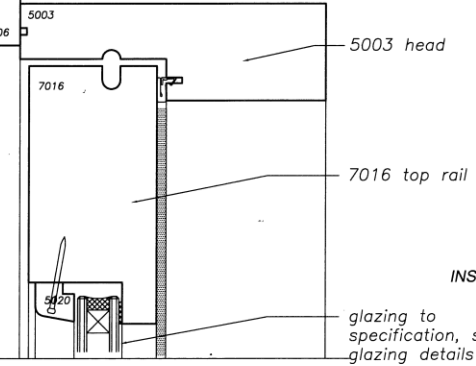
6006 head facing

Detail 1 Head

6006 jamb facing
beyond

OUTSIDE

30 x 12g SS nails @
200 ctrs



INSIDE

glazing to
specification, see
glazing details

7017 bottom rail

5003 Jamb

16011 seal 4 sides

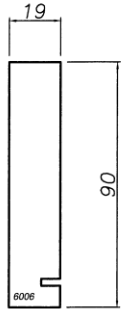
5000 sill

5000

Detail 2 Sill

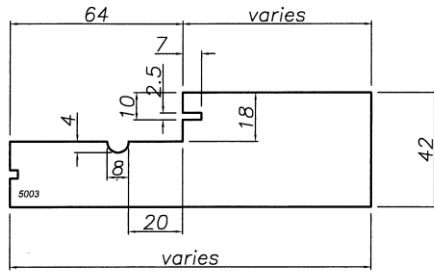
Profiles and Sill Options

Profiles - Double Glazed

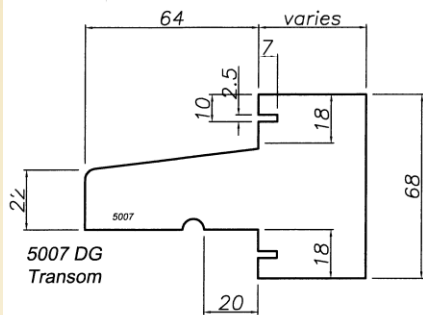


6006 Facing board

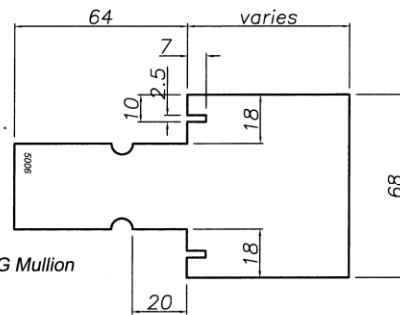
Kerf not needed in window product facing boards.



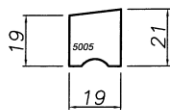
5003 Jamb / Head



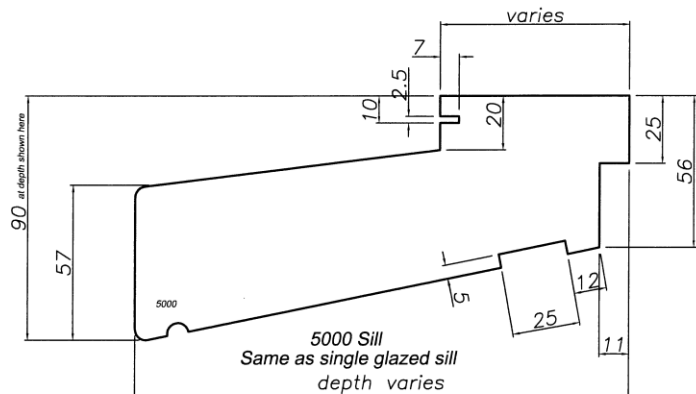
5007 DG Transom



5006 DG Mullion

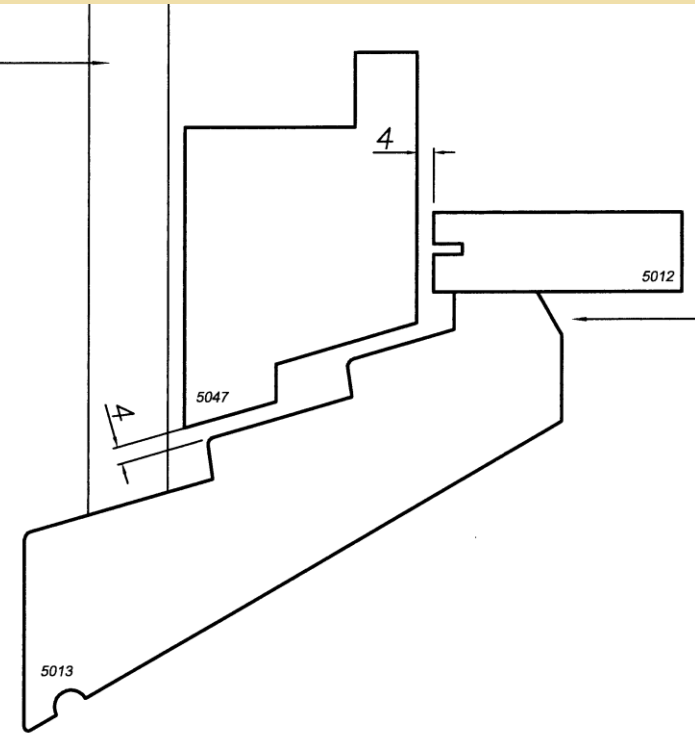


5005 Transom weather bead

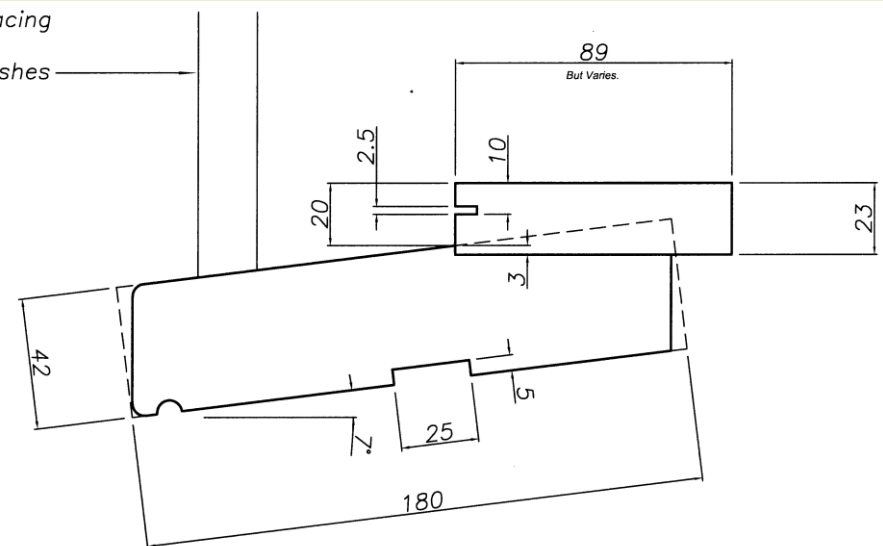


5000 Sill
Same as single glazed sill
depth varies

Line of facing board at jamb



Line of facing board for 56mm sashes

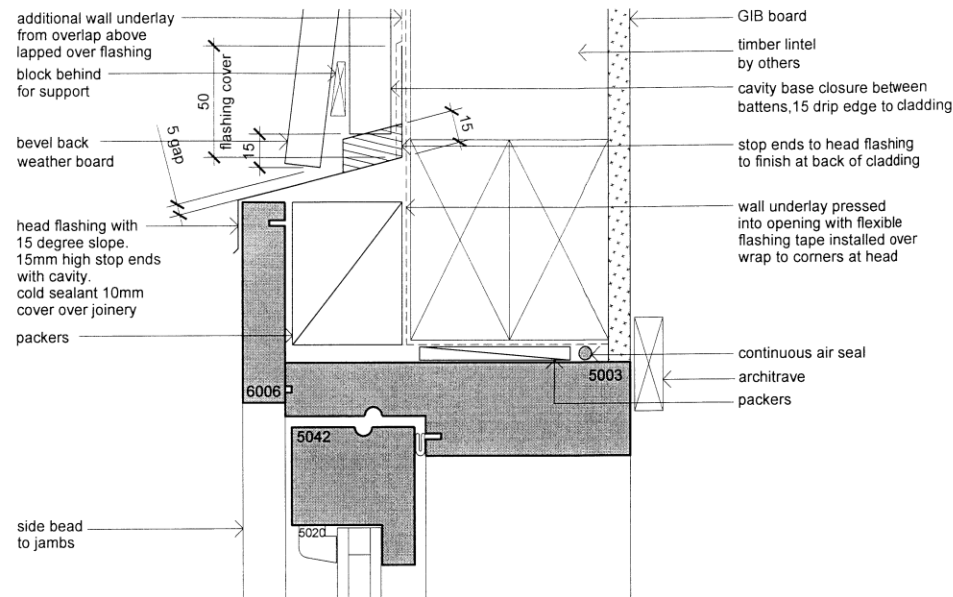


INSTALLATION

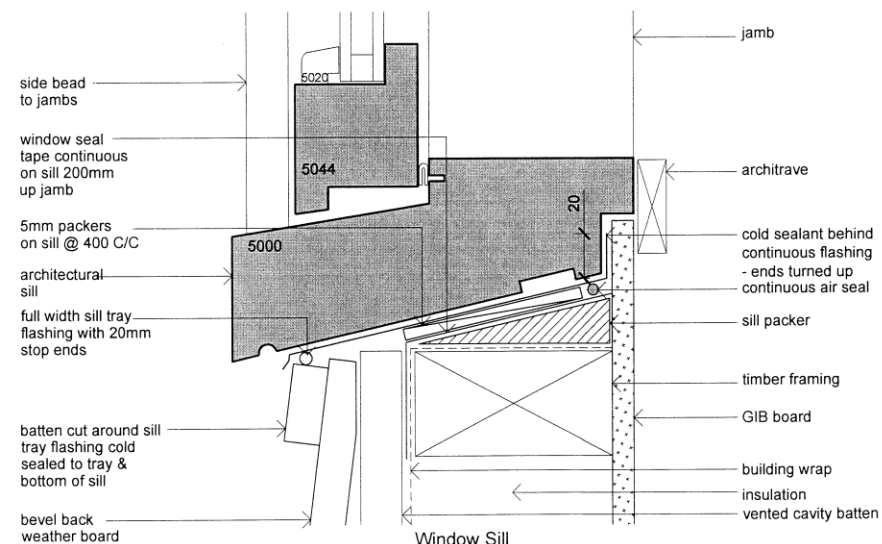
- JMF NZ Ltd is also testing installation of its products into various claddings and, when completed, this will enable Architects and Specifiers to access these to include in their details
- To date we have tested weatherboard with a cavity and weatherboard non cavity. We have also tested flat sheet, we are soon to test other claddings.
- Details will be backed by test reports in line with E2 Weather Tightness in the building code.



COMPLIANT TIMBER JOINERY



Window Head
Scale: 1:2.5



Window Sill
Scale: 1:2.5

Cladding Type:

Weather Board on Cavity

Window / Door Type:

Awning / Casement

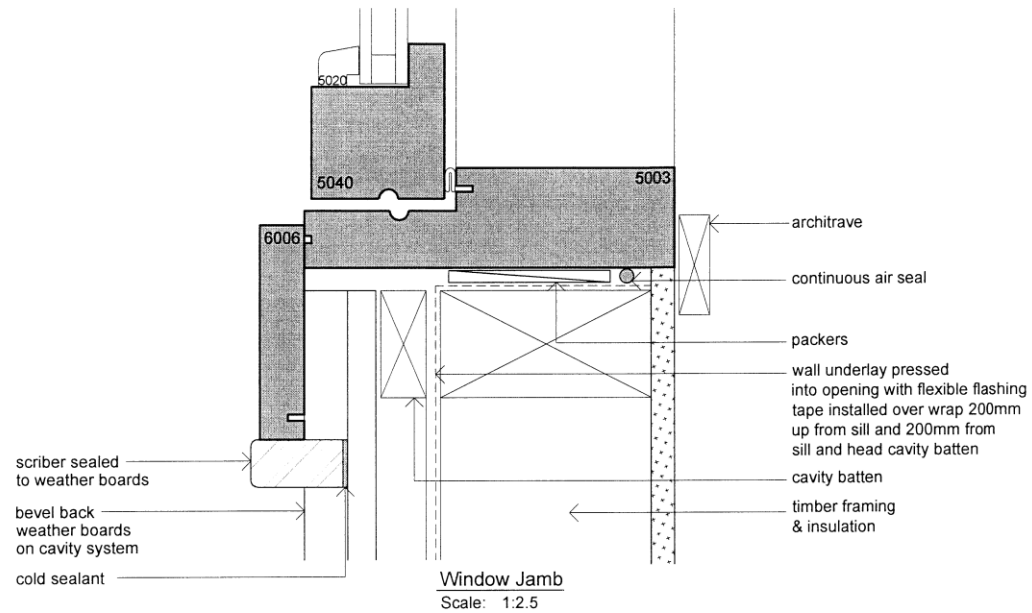
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Taradale, Napier 4112. NZ

Installation Drawings

Sheet: 1 of 2

Issue: A

A01-01



Cladding Type:

Weather Board on Cavity

Window / Door Type:

Awning / Casement



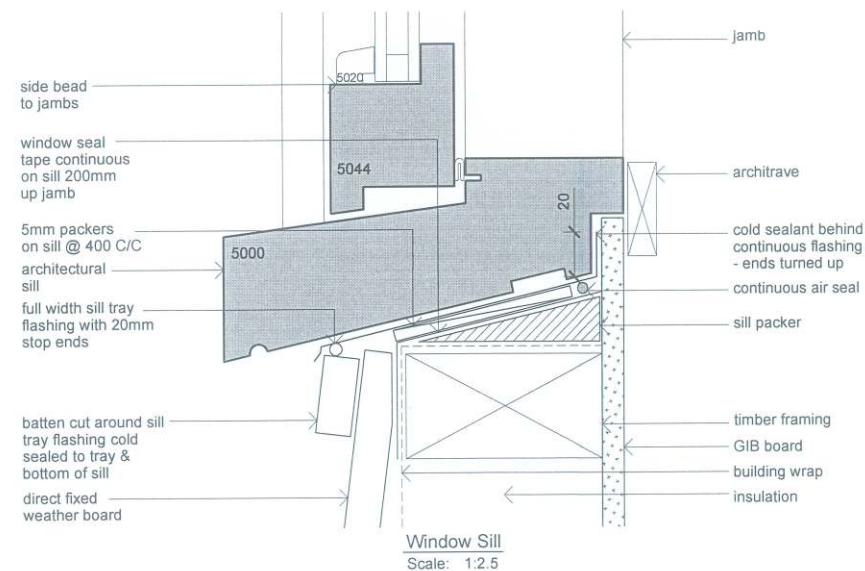
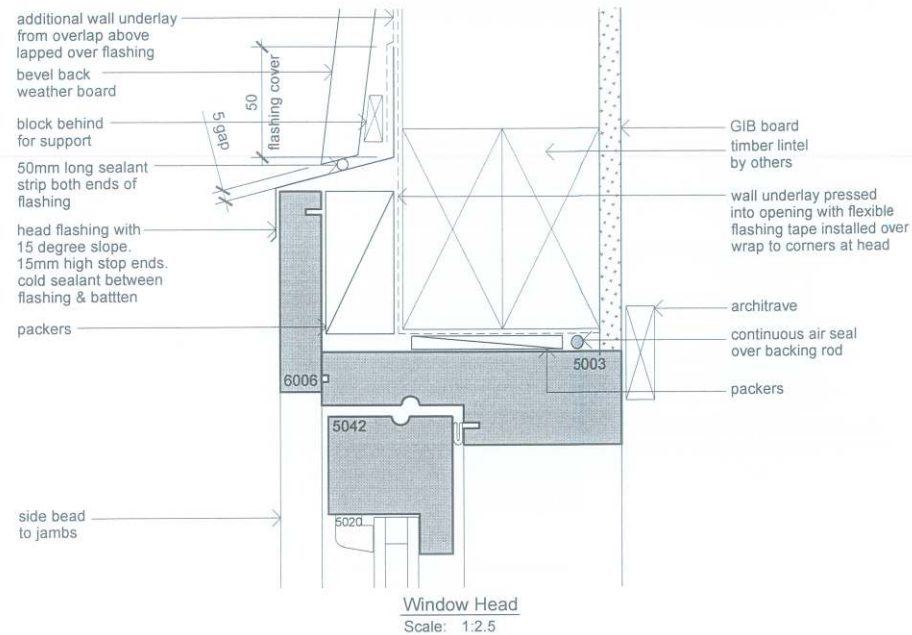
JMF New Zealand Limited
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Installation Drawings

Sheet: 2 of 2

Issue: A

A01-01



Cladding Type:

Weather Board Direct Fix (No Cavity)

Window / Door Type:

Awning / Casement

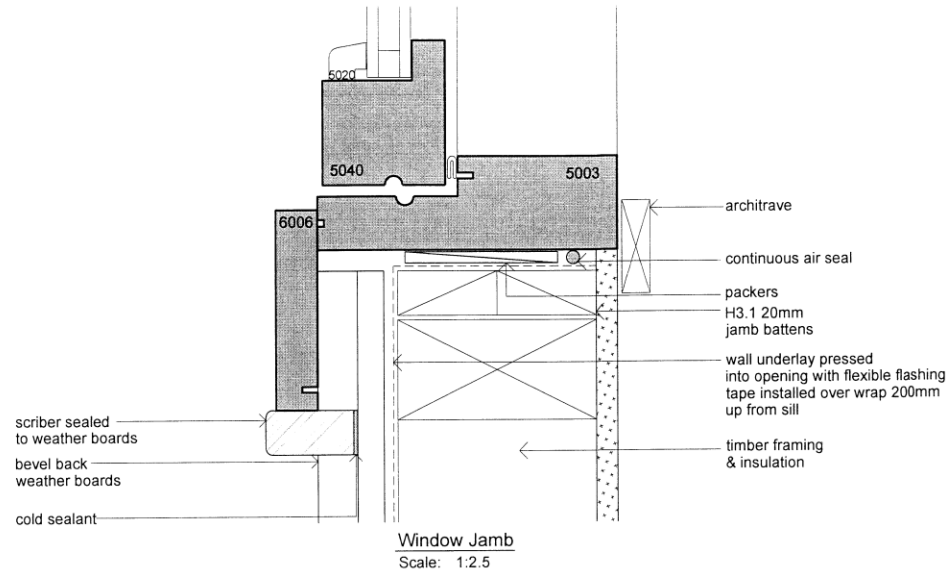


Installation Drawings

Sheet: 1 of 2

Issue: A

A02-01



Cladding Type:

Weather Board Direct Fix (No Cavity)

Window / Door Type:

Awning / Casement

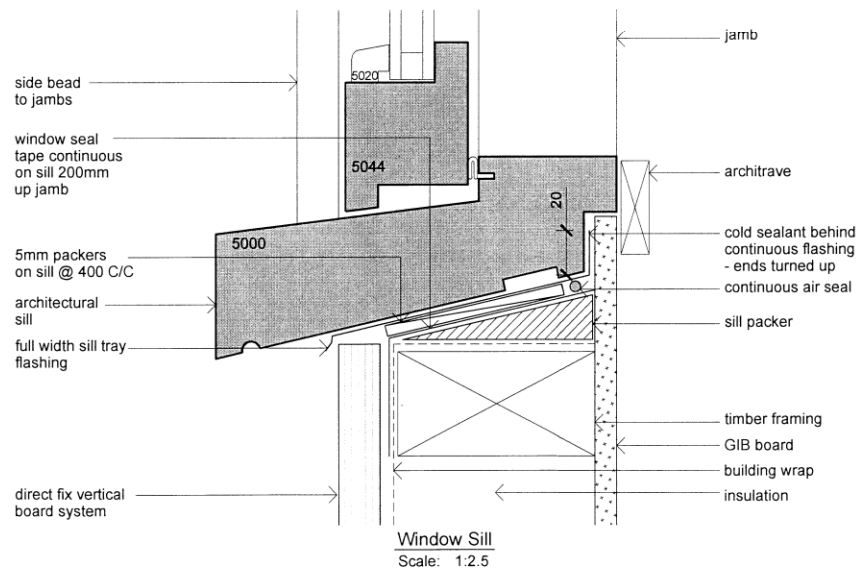
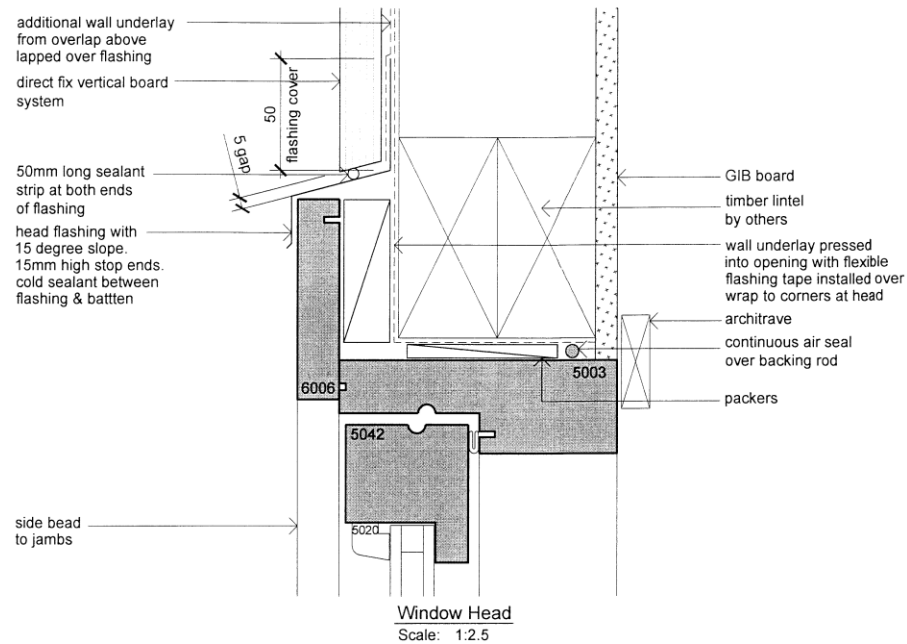
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Installation Drawings

Sheet: 2 of 2

Issue: A

A02-01



Cladding Type:

Vertical Board (Direct Fix)

Window / Door Type:

Awning / Casement



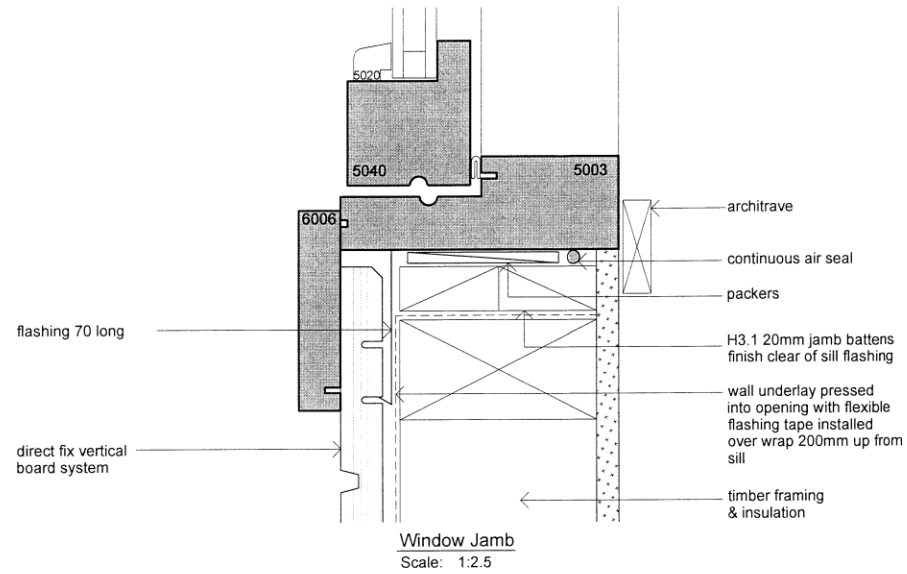
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Installation Drawings

Sheet: 1 of 2

Issue: A

A04-01



Cladding Type:

Vertical Board (Direct Fix)

Window / Door Type:

Awning / Casement

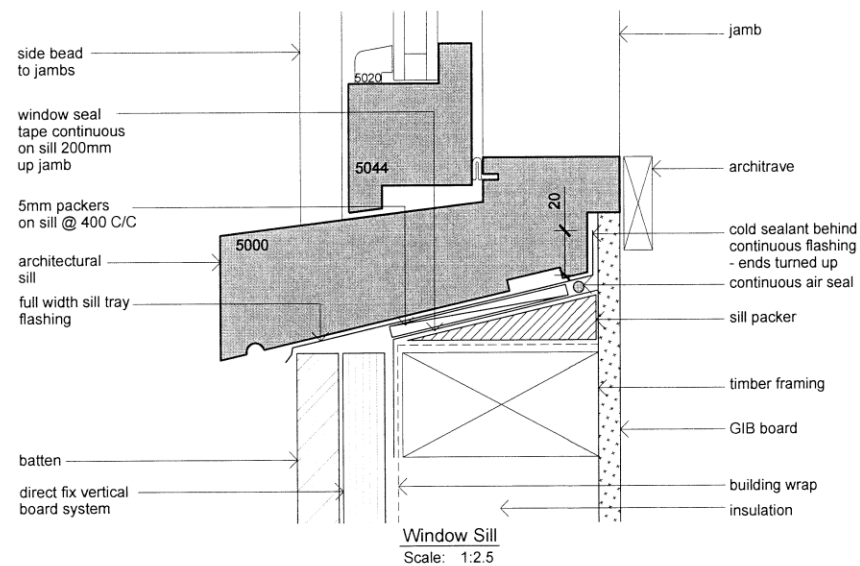
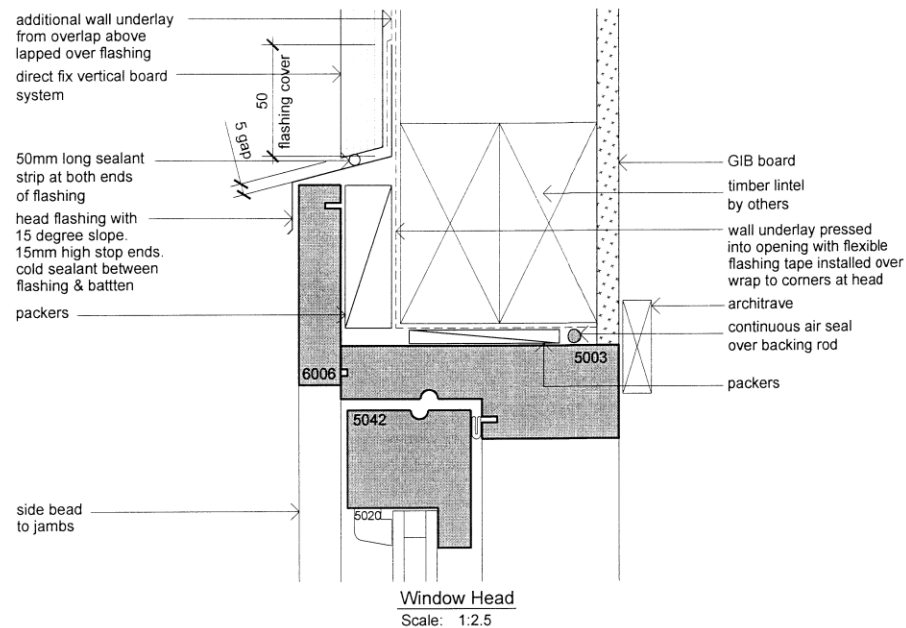
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Installation Drawings

Sheet: 2 of 2

Issue: A

A04-01



Cladding Type:

Board & Batten

Window / Door Type:

Awning / Casement

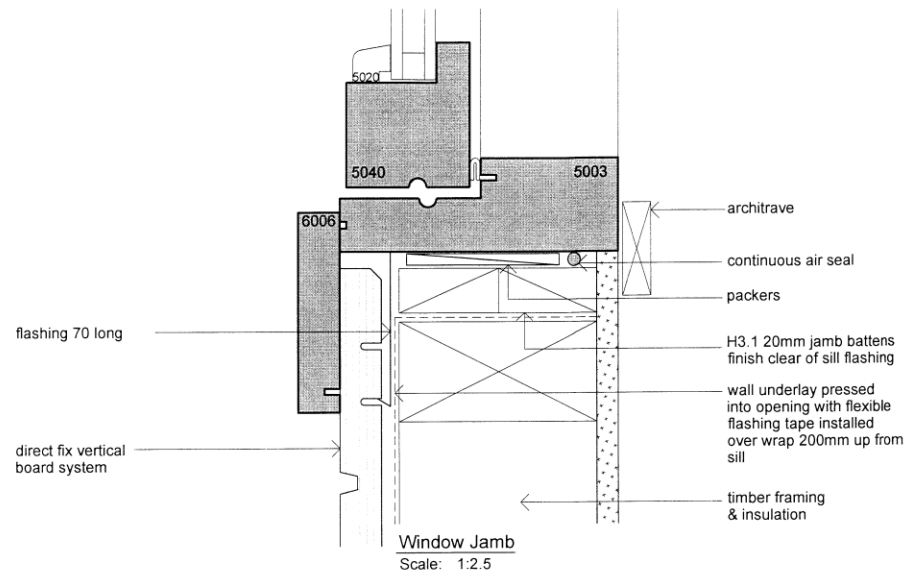
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Installation Drawings

Sheet: 1 of 2

Issue: A

A05-01



Cladding Type:

Board & Batten

Window / Door Type:

Awning / Casement

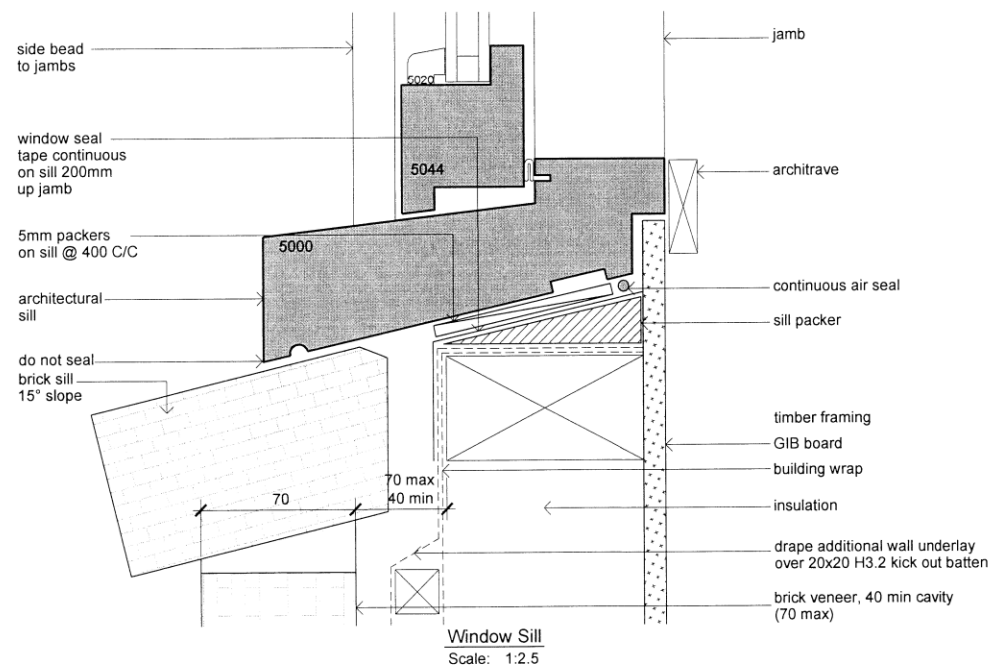
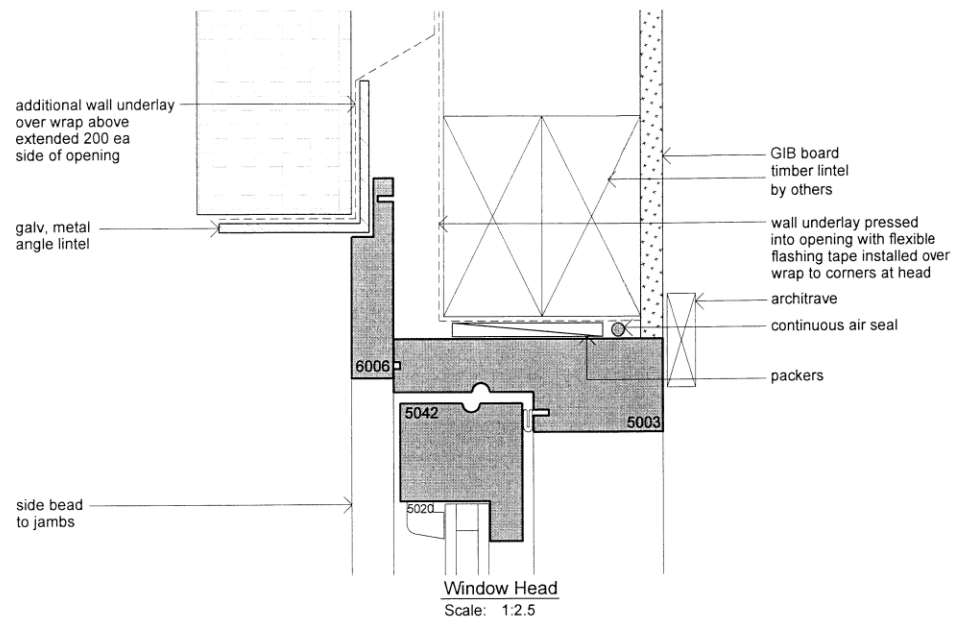


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Installation Drawings

Sheet: 2 of 2 Issue: A

A05-01



Cladding Type:

Brick Veneer

Window / Door Type:

Awning / Casement

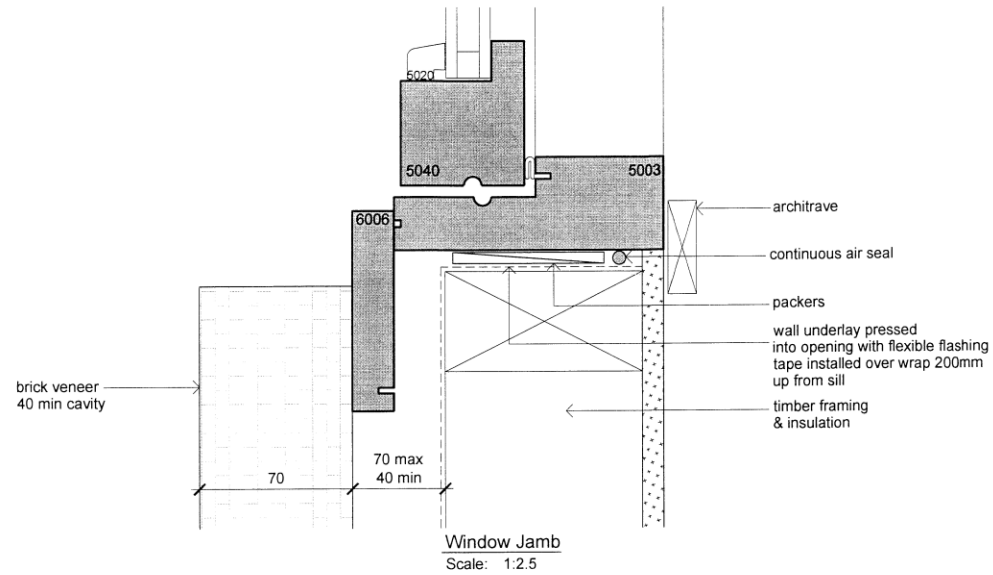


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Installation Drawings

Sheet: 1 of 2 Issue: A

A06-01



Cladding Type:

Brick Veneer

Window / Door Type:

Awning / Casement

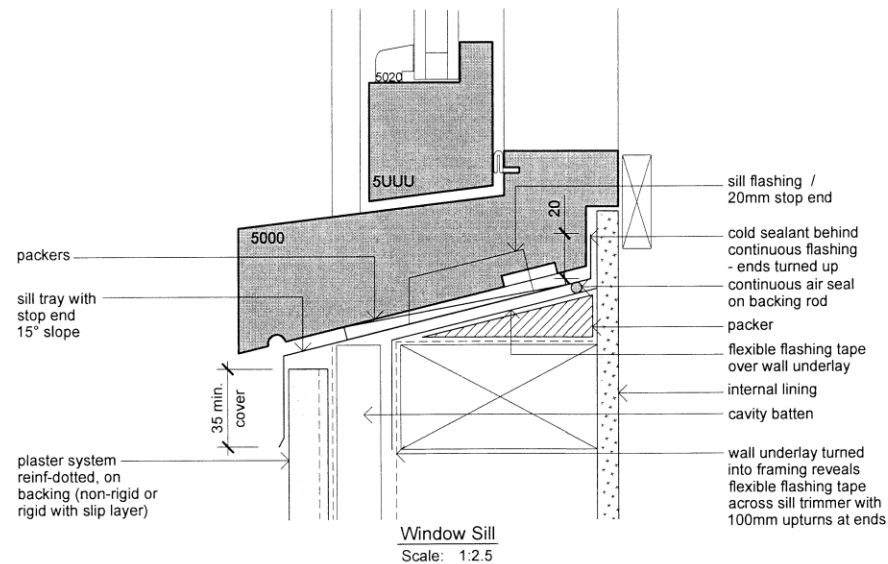
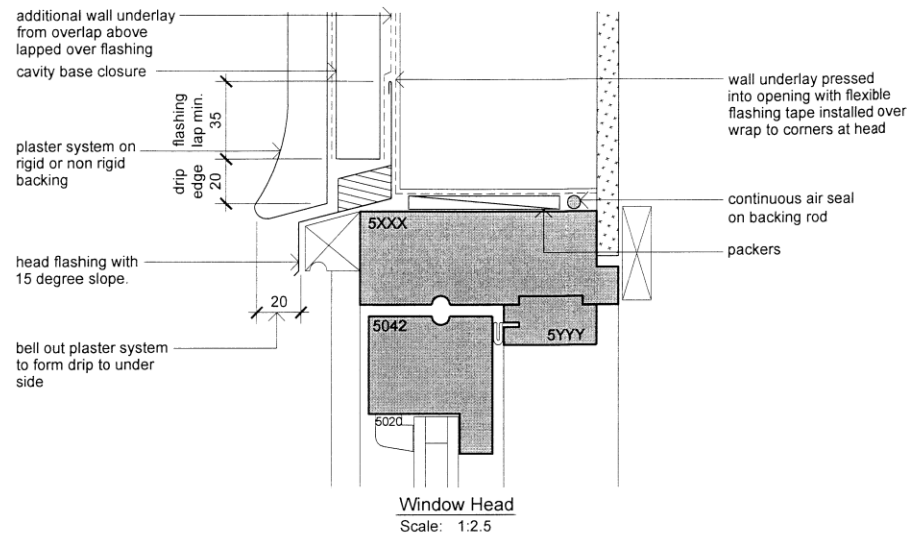
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Installation Drawings

Sheet: 2 of 2

Issue: A

A06-01



Cladding Type:

Plaster System on Cavity

Window / Door Type:

Awning / Casement



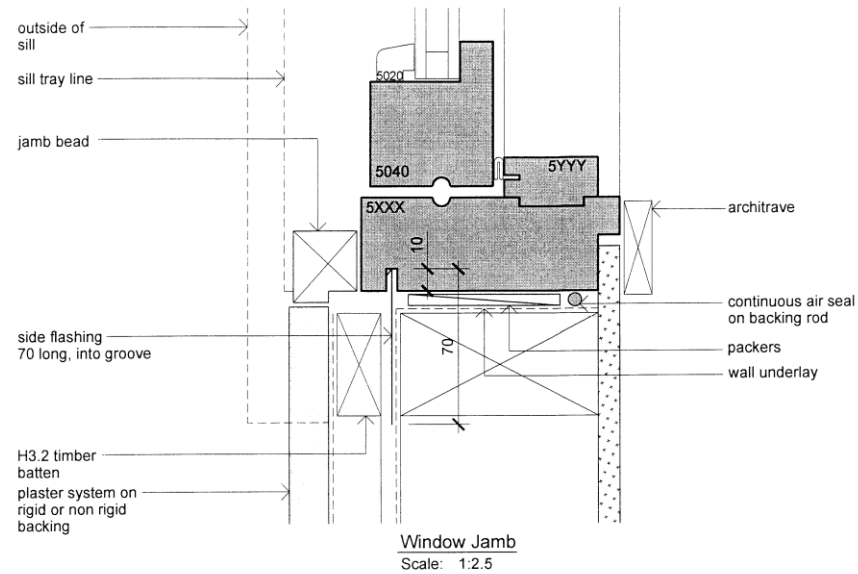
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Installation Drawings

Sheet: 1 of 2

Issue: B

A03-01



Cladding Type:

Plaster System on Cavity

Window / Door Type:

Awning / Casement

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Installation Drawings

Sheet: 2 of 2

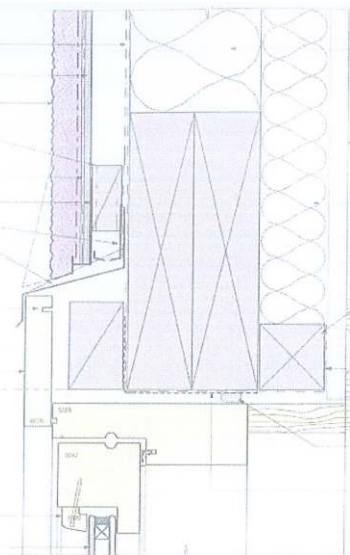
Issue: B

A03-01

Additional building underlay lapped over head flashing.
4.5mm Hardibacker.
Solid plaster system. Refer Spec.
Hatched H3.2 treated timber cavity battens.
Building wrap as slip layer.
Starter strip flashing.
Perforated cavity closer.
Maintain 5mm gap.
0.9bmi powdercoated aluminium head flashing with tapered stop end. Extend 15mm past flashing each end.
90x19 H3.2 treated facing.
Rough Opening.

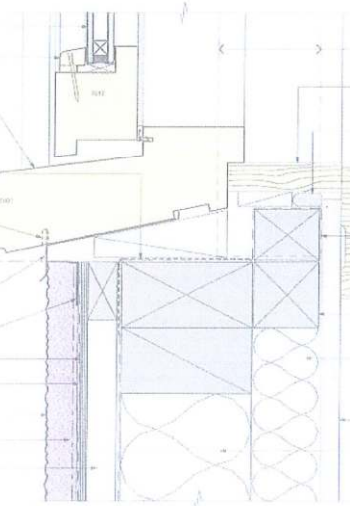
Note: Possible plastered head profile shown dotted.

Timber glazing bead. 30x12g S5 nails at 200cs.
Double glazing.



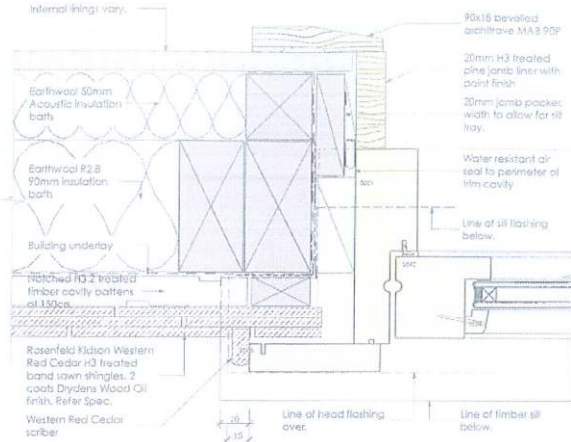
WD 01 Head Detail
Scale 1:2
Double glazed timber window. Solid plaster over cavity.

Double glazing.
Timber glazing bead. 30x12g S5 nails at 200cs.
Timber sill.
Flexible flashing tape over underlay full width of sill. Turn up 100mm at ends.
Alternative sill flashing sealed into sawcut. Dotted.
Rough Opening.
0.9bmi powdercoated aluminium sill flashing.
Metal or PVC starter strip.
4.5mm Hardibacker.
Building wrap as slip layer.
Solid plaster system. Refer Spec.
Plaster reinforcing.
45x20 H3.2 treated cavity battens.

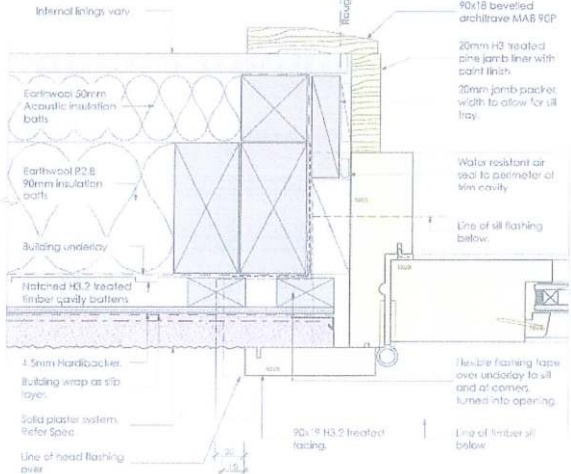


WD 02 Sill Detail
Scale 1:2
Double glazed timber window. Solid plaster over cavity.

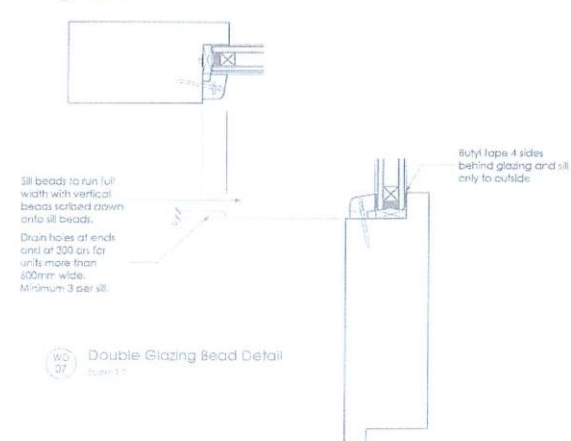
Earthwool R2.8 90mm insulation batts.
Internal linings vary.
Earthwool 50mm Acoustic insulation batts.
45x45 H1.2 treated battens, horizontal at 600cs.
Building underlay wrapped into opening.
Water resistant air seal to perimeter of trim cavity.
Flexible flashing tape over underlay, turned into opening.



WD 03 Jamb Detail
Scale 1:2
Double glazed timber window. Cedar shingles over cavity. Solid plaster.

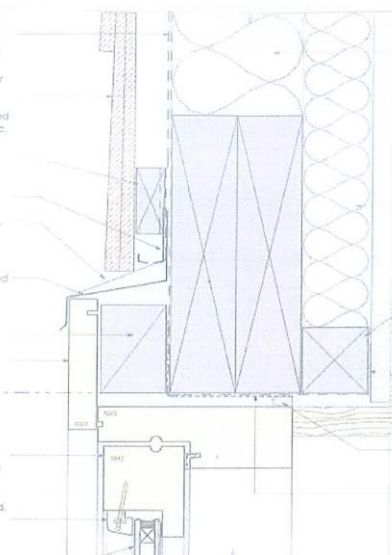


WD 04 Jamb Detail
Scale 1:2
Double glazed timber window. Solid plaster, rest cavity. Window sash.



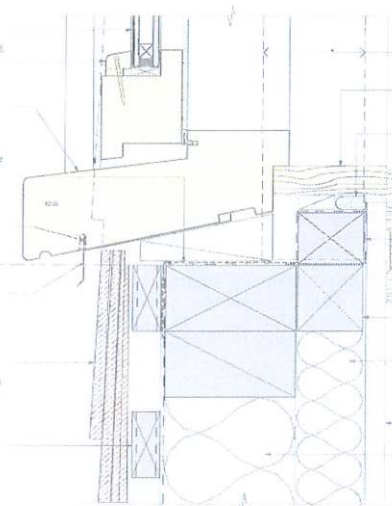
WD 07 Double Glazing Bead Detail
Scale 1:2

Additional building underlay lapped over head flashing.
Rosenfeld Klaxon Western Red Cedar H3 treated band town shingles. 2 coats Dydens Wood Oil finish. Refer Spec.
Hatched H3.2 treated timber cavity battens.
Perforated cavity closer.
Maintain 5mm gap.
0.9bmi powdercoated aluminium head flashing with tapered stop end. Extend 35mm past flashing each end.
Timber blocking.
90x19 H3.2 treated facing.
Rough Opening.
Double glazed timber window joinery. Profiles to JMF recommended details.
Timber glazing bead. 30x12g S5 nails at 200cs.
Double glazing.



WD 05 Head Detail
Scale 1:2
Double glazed timber window. Cedar shingles over cavity.

Double glazing.
Timber glazing bead. 30x12g S5 nails at 200cs.
Timber sill.
Flexible flashing tape over underlay full width of sill. Turn up 100mm at ends.
Alternative sill flashing sealed into sawcut. Dotted.
Rough Opening.
0.9bmi powdercoated aluminium sill flashing.
Rosenfeld Klaxon Western Red Cedar H3 treated band town shingles. 2 coats Dydens Wood Oil finish. Refer Spec.
45x20 H3.2 treated cavity battens of 100cs.



WD 06 Sill Detail
Scale 1:2
Double glazed timber window. Cedar shingles over cavity.

Earthwool R2.8 90mm insulation batts.
Internal linings vary.
Earthwool 50mm Acoustic insulation batts.
45x45 H1.2 treated battens, horizontal at 600cs.
Building underlay wrapped into opening.
Water resistant air seal to perimeter of trim cavity.
Flexible flashing tape over underlay, turned into opening.


20mm jamb packer shown dotted.
20mm H3 treated pine jamb liner with paint finish.
Water resistant air seal to perimeter of trim cavity.
90x18 bevelled architrave MAB 90P.
Building paper folded into opening and fixed to framing.
45x45 H1.2 treated battens, horizontal at 600cs.
Earthwool 50mm Acoustic insulation batts.
Internal linings vary.
Earthwool R2.8 90mm insulation batts.

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IME www.jmf.nz.co/home x

← → ↻ 🏠 📄 www.jmf.nz.co/home.php?id=

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COMPLIANT TIMBER JOINERY
NEW ZEALAND LIMITED



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Approved Manufacturers

Architects, Specifiers and Local Authorities


Features and Benefits

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NZS4211 Compliant Timber Joinery



JMFNZ Affiliates are manufacturers of timber joinery that have joined together in a programme to achieve the following:

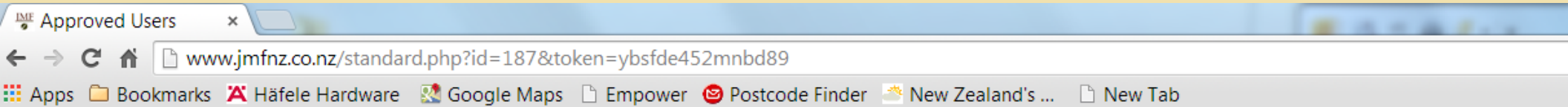
- Test all commonly used profiles of timber windows and timber doors that incorporate glass to comply with the specifications of New Zealand Standard NZS4211.
- Display evidence of compliance.
- Provide assistance to specifiers and tradespeople that use these products by providing drawings, specifications and installation instructions.

Website www.jmf.nz.co.nz

Morrinsville	Morrinsville Industries Limited	07 889 5199	murray.foster@miljoinery.co.nz
Mosgiel.	Mearns & Leckie 2006 Ltd	03 4892024	joiners@mearnsandleckie.co.nz
Napier	Administration	06 844 9954	admin@jmf.nz.co.nz
Napier	Christie Builders & Joiners	06 834 0727	christiebuild@xtra.co.nz
Napier	Kevin Molloy Joinery Ltd	06 843 5037	simon@molloyjoinery.co.nz
Napier	Peter Norris Joinery Limited	06 843 8086	peternorrisjoinery2@xtra.co.nz
Nelson	Bays Joinery Limited	03 544 0087	george@baysjoinery.co.nz
Nelson	Matai Joinery Ltd	03 547 7990	matatj@xtra.co.nz
Nelson	Ruby Bay Joinery Limited	03 540 2123	info@rubybayjoinery.co.nz
Nelson	Waimea West Joinery	03 544 0177	wwj@paradise.net.nz
New Plymouth	Glen Valley Joinery 1993 Limited	06 751 4631	gvj@xtra.co.nz
New Plymouth	Macleod Joinery	06 757 8172	macleodjoinery@xtra.co.nz
New Plymouth	New Plymouth Joinery Limited	06 758 8580	roger@newplymouthjoinery.co.nz
New Plymouth	Newton Gordge Joinery	06 751 5065	newton@newtongordge.co.nz
New Plymouth	Rhys Powell Joinery Ltd	06 753 3822	rdpowell@xtra.co.nz
Oamaru	Firman Joinery Ltd	03 437 1498	gary@firmanjoinery.co.nz
Oamaru	Millennium Joinery Ltd	03 437 0227	millennium.joinery@xtra.co.nz
Oamaru	Rycole Joinery	03 434 5012	d.a.whitburn@xtra.co.nz
Palmerston North	Townshends (1994) Limited	06 354 6699	tjoinery@xtra.co.nz
Palmerston North	Unique Timber Joinery	06 355 2654	uniquejoinery@slingshot.co.nz
Paraparaumu	Orchard Joinery Limited	04 298 3380	ojoinery@kapiti.co.nz
Paraparaumu	Paraparaumu Doors & Mouldings	04 297 2233	pramdoors@clear.net.nz
Pukekohe	Counties Joinery	09 238 7264	roy.countiesjoinery@gmail.com
Putaruru	Hopkins Joinery	07 883 7951	ron@hopkinsjoinery.co.nz
Queenstown	Coronet Woodware	03 442 3700	coronetwoodware@paradise.net.nz
Queenstown	Formatt Kitchens Ltd	03-441-4944	guy@formatt.co.nz
Raglan	Waikato Joinery Specialists	07 825 7485	waikatojoinery@xtra.co.nz
Rangiora	Brent Johnson Joinery	03 313 6256	brent.christine@xtra.co.nz
Rangiora	Grant Kearney Joinery	03 313 7125	grantkearneyjoiners@hotmail.com
RODNEY	Matakana Kitchens & Joinery Ltd	09 422 7804	matakanakitchens@xtra.co.nz
Rotorua	Lee Brothers Joinery Limited	07 348 0620	paul@leebrothers.co.nz
Southland	Riversdale Joinery Limited	03 202 5527	riverjoin@clear.net.nz
Stratford	In 2 Kitchens Ltd	06 765 4058	in2kitchens@xtra.co.nz
Taupo	Cromptons Joinery & Laminates Ltd	07 378 7968	crompton.joinery@xtra.co.nz
Tauranga	Autocrat Joinery Ltd	07 574 8162	cath@autocratjoinery.co.nz
Tauranga	Classical Doors Limited	07 578 4908	info@classicaldoors.co.nz
Tauranga	W Gartshore Ltd	07 578 4529	bill@gartshore.co.nz
Te Awamutu	Native Timber Joinery Ltd	07 871 6188	office@ntjoinery.co.nz
Te Kuiti	Fine Woodworking Ltd	07 878 6194	david@finewoodworking.co.nz
Te Kuiti	King Country Kitchens Limited	07 878 8820	richard@kck.co.nz
Thames	Thames Joinery 1995 Ltd	07 868 6951	thamesjoinery@paradise.net.nz
Timaru	Barrett's Joinery Ltd	03 688 4738	mark@barrettjoinery.co.nz
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Timaru	JMAC Joinery Limited	03 688 2725	jmacjoinery@xtra.co.nz
Timaru	Joinery Zone 2012 Ltd	03 688 8223	joineryzone@xtra.co.nz
Timaru	Lunds Joinery Ltd	03 688 9149	joinery@lund.co.nz
Timaru	Tony Boyce Builders Ltd	03 688 2181	info@tonyboyce.co.nz
Upper Hutt	Amalgamated Joiners 1997 Ltd	04 526 8091	ni.pepper@xtra.co.nz



Website www.jmfnz.co.nz



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Contact	<input type="text" value="Ken Monk"/>
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Email	<input type="text" value="kmonk@montagekitchens.co.nz"/>
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	<input type="button" value="Update Data"/>

[Click here](#) to access the member information website

[Click here](#) to place a tag order

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Use the form below to order tags

Job reference	<input type="text" value="Williams"/>	(your reference for this job)
Number of EH wind zone tags	<input type="text" value="0"/>	
Number of VH wind zone tags	<input type="text" value="30"/>	
Number of H wind zone tags	<input type="text" value="0"/>	
Number of M wind zone tags	<input type="text" value="0"/>	
Number of L wind zone tags	<input type="text" value="0"/>	
Postal Address	<input type="text" value="28 Normal St, Manakau, Auckland"/>	(for small deliveries)
Address for courier delivery	<input type="text" value="28 Normal St, Manakau, Auckland"/>	
Phone number	<input type="text" value="09 445 3371"/>	(for courier to make contact)
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- 3000 Series Double Hung Window (PDF file, 1.0 MB)
- 4000 Series Sliding Window (PDF file, 2.3 MB)
- 5000 Series Awning/Casement Window (PDF file, 3.6 MB)
- 6000 Series Sliding Door (PDF file, 4.1 MB)
- 7000 Series Hinged and French Door (PDF file, 2.9 MB)
- 7000 Series Bifold Window and Door, 50 Series Bifold Gear (PDF file, 4.0 MB)
- 7000 Series Bifold Window and Door, 80 Series Gear (PDF file, 4.4 MB)
- Installation of Glazing (PDF file, 2.6 MB)
- Care and Maintenance (PDF file, 0.1 MB)
- AutoCad files* (24.5 MB)

***Note:** Download and right click AutoCad.zip to extract the AutoCad files.

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Forum Questions

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Forum Questions

Ask a question and we will send you an answer by email. Frequently asked questions may also be listed below with their answers.
[Click here](#) to ask a question

Frequently asked Forum questions

Question: What methods and procedures were used for product testing?

Answer: [Click here](#) to read the detailed answer in a PDF document

Question: Hi, Can you help please with a sill detail for a timber door in a situation where I have timber weatherboards on a cavity system. Will the 5000 sill work or do I need a larger profile. I don't believe a sill flashing is required with a cavity system. Regards, Kieran.

Answer: Yes it does work, we have tested timber weatherboards with and without a cavity. There is a sill flashing. In the drawings it shows the reveals of the Head, Jamb and Sill Varying to suit the various wall thickness, we are currently having our Install drawings completed but I will email you the detail.

Question: Installation of a boxed window (wide jamb) into timber framing with bevel backed weather board with either option of direct or cavity fixing as this will fitted into new framing.

Answer: We have not tested any special conditions yet. The only possible way is to use the drawings of our Installation tests done to date for Weatherboard with and without a cavity and change to suite. These may have to be approved by all parties involved. We are having our Install drawings done now, some will be shown at the conference this week.

Question: Hi, we make our bifold doors with rebates and seals between doors. Are we able to continue to make them this way, or do we need to make to your drawings without rebates.

Answer: Probably can do because we did test a rebate on the French Doors Detail S7A-03-05. It is an extra process though.

Question: The sill shown in the Manual has a groove in the underside, is this necessary ??

Answer: The groove was put in to help reduce cupping, and may be needed if using solid timber, however most of the sills are manufactured out of laminated material therefore cupping is greatly reduced. It is not necessary to machine in the groove as it will not effect the performance of the Window or Doors. If using the groove the position is not critical and may well need to be moved as we have a Flashing detail that can now fitted into a saw cut in the sill this allows fixing behind the Sill Flashing.

Question: Hello, just inquiring on progress of joinery flashing details, Do you have a time frame for their publication or any draft details for timber weatherboards with which to seek document compliance. cheers, kieron bryant

Answer: I can email you the drawings we have had done for the test for Weatherboard with and without a cavity and flat sheet. As far as the rest of the drawings go we are waiting to here back from a company that is going to do these for us. There are about 100 details to do, it will probably take about 4 6 weeks to get them done if the price is ok.

Question: I suspect that there is a error in the formula for calculating leaf widths in the sliding door (6 panel) Drawing S6-04-06 indicates that calculation for panels 3 and 4 as 2ndC to 3rdC +60 Should this be C to 2ndC +60? regards Paul Ingram

Answer: Thanks for that Paul, yes you are correct. NOTE TO ALL. PAGE S6-04-06 THE CALULATION FOR OUTER SLIDING PANELS 3&4 SHOULD READ = C TO 2NDC +60

Question: Have hopper-opening[bottom-hinged]windows been tested?

Answer: No they haven't, and I am not sure how they would perform. When testing we did not have any trouble at the top of any of the Doors or Windows we tested. As long as there is a good cap over as the transom has to from a drip it should be OK. The weather groove in the exterior transom mould is important, when the test is being done the water drops off a this point very well.



COMPLIANT TIMBER JOINERY



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Forum Questions

Data Downloads

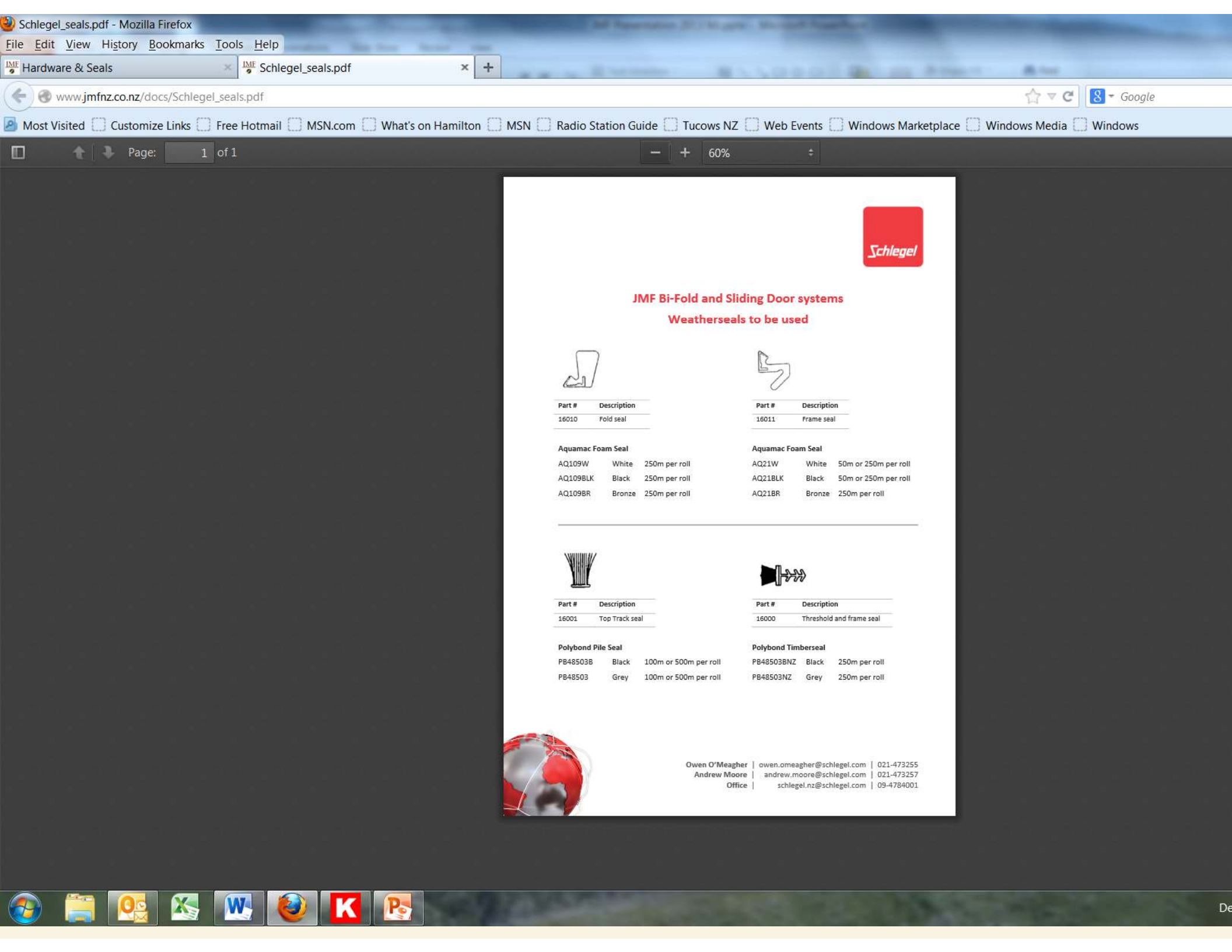
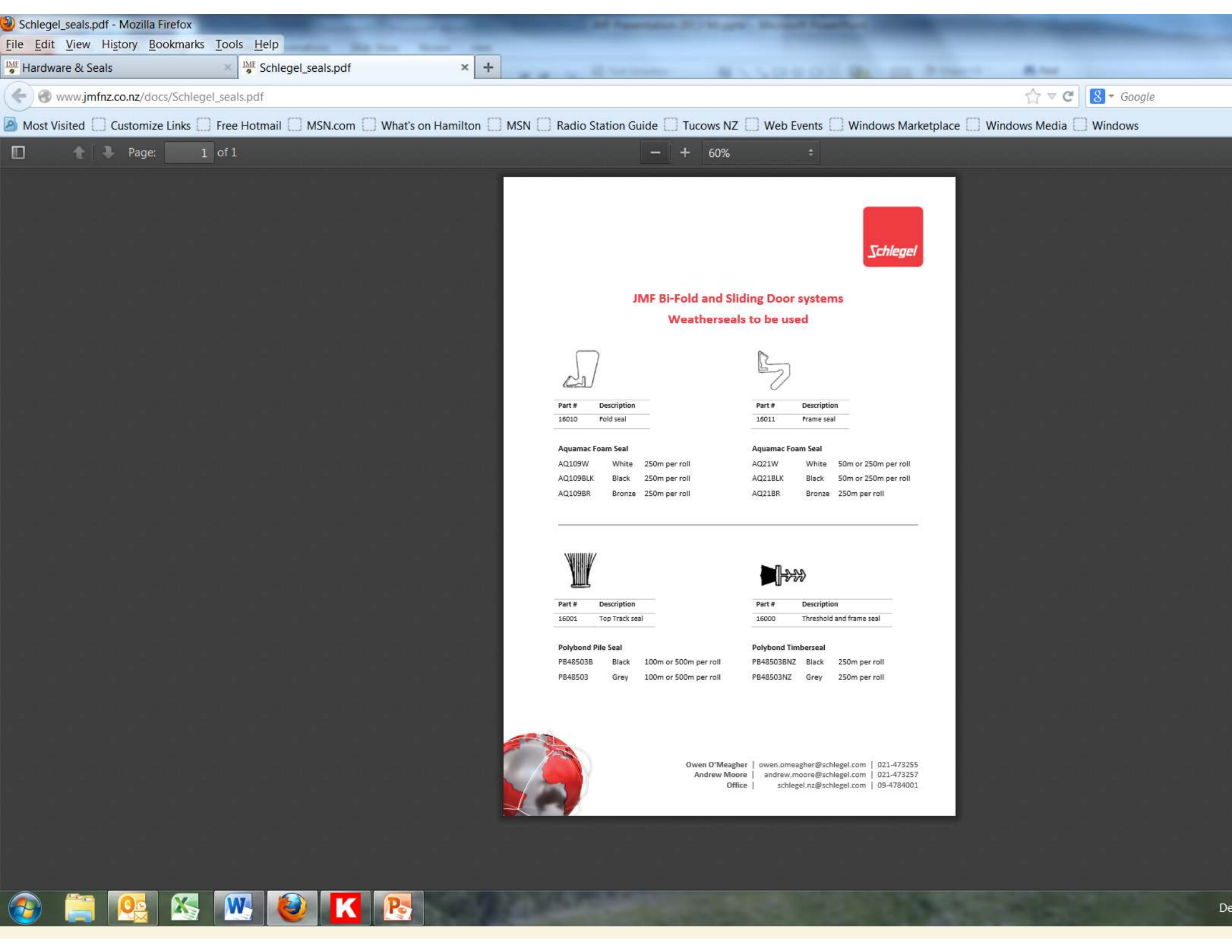
Slideshow

Hardware & Seals

Public website

Calculate Door Weights[Click here](#) to calculate door weights for solid wooden doors.[Click here](#) to calculate door weights for glazed wooden doors.[Click here](#) to download an Excel file to calculate door weights for glazed and solid doors.**Modulus of Elasticity (E values)**[Click here](#) to download E values for timber species.**Timber Durability**[Click here](#) to download information about timber durability.







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