



INNOVATIONS FOR LIVING™



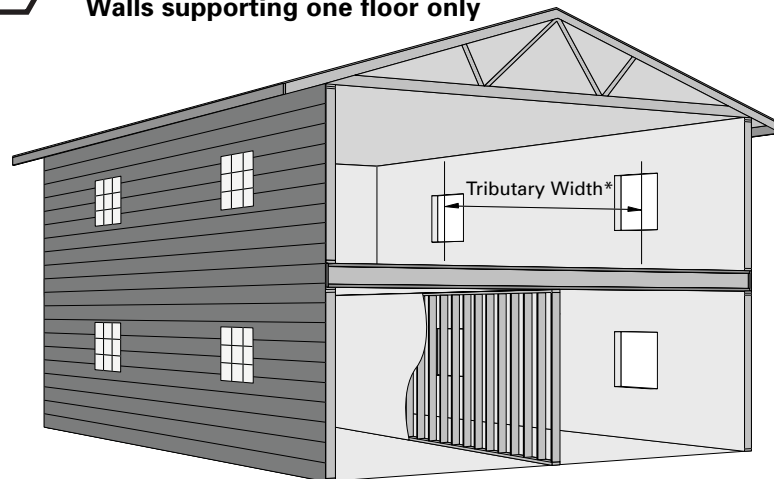
FOREST PRODUCTS GROUP

QuietZone® Acoustic Wall Framing

Design and Installation Guide - Canada

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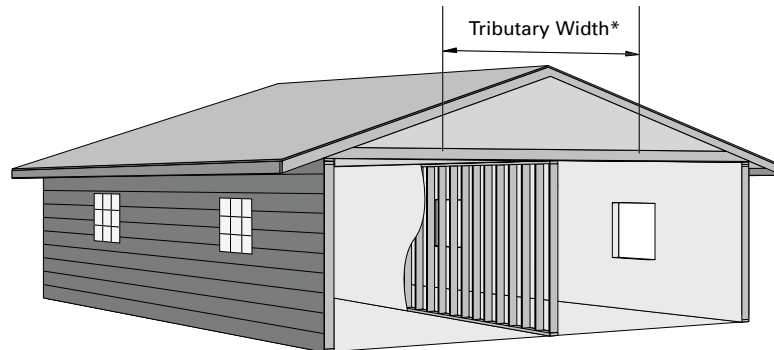
Walls supporting one floor only



Maximum Tributary Width* (ft) One Floor Only

Member Nominal Size	Wall Height	Member Spacing	Floor Load (psf unfactored)	
			40LL + 12DL	40LL + 25DL
2x4	8'	16" o.c.	13	10
		24" o.c.	11	9
	9'	16" o.c.	9	7
		24" o.c.	---	---
2x6	8'	16" o.c.	30	30
		24" o.c.	30	30
	9'	16" o.c.	30	30
		24" o.c.	30	28
10'	16" o.c.	30	24	
	24" o.c.	26	21	
12'	16" o.c.	16" o.c.	16	13
		24" o.c.	13	10
	14'	16" o.c.	9	7
		24" o.c.	---	---

Walls supporting attic framing only



*Tributary width is calculated as a percentage of the sum of the joist spans on either side of the wall:
 simple span: 0.5 ft x (left span + right span)
 continuous span: 0.625 ft x (left span + right span)

Maximum Tributary Width* (ft) Attic Framing Only

Member Nominal Size	Wall Height	Member Spacing	Attic Load (psf unfactored) 20LL + 10DL
2x4	8'	16" o.c.	22
		24" o.c.	19
	9'	16" o.c.	15
		24" o.c.	12
2x6	8'	16" o.c.	30
		24" o.c.	30
	9'	16" o.c.	30
		24" o.c.	30
10'	16" o.c.	16" o.c.	30
		24" o.c.	30
	12'	16" o.c.	28
		24" o.c.	23
14'	16" o.c.	16	
	24" o.c.	12	

Maximum Vertical Load (plf factored) Interior Walls Only

Wall Height	Stud Length	2x4 Wall			2x6 Wall		
		On-Center Spacing 12"	16"	24"	On-Center Spacing 12"	16"	24"
8'	92 5/8"	1055	965	810	3715	3715	3470
9'	104 5/8"	735	655	520	3030	2875	2590
10'	116 5/8"	515	450	330	2335	2190	1925
12'	144"				1315	1195	980
14'	168"				815	715	535

Table is based upon:

- Type X gypsum wallboard applied to each side of the wall
- Interior lateral wall pressure of 5 psf

Tembec www.tembec.com.
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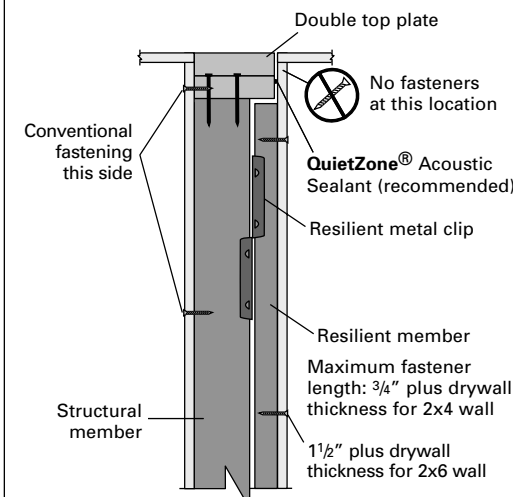
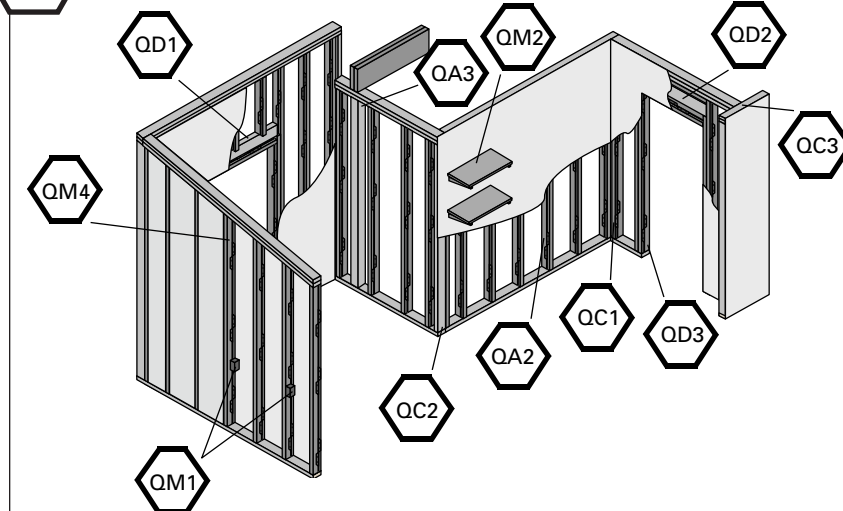


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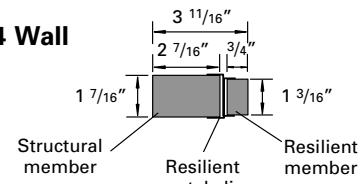
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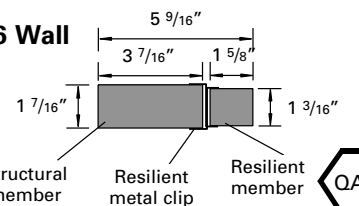


DIMENSIONS

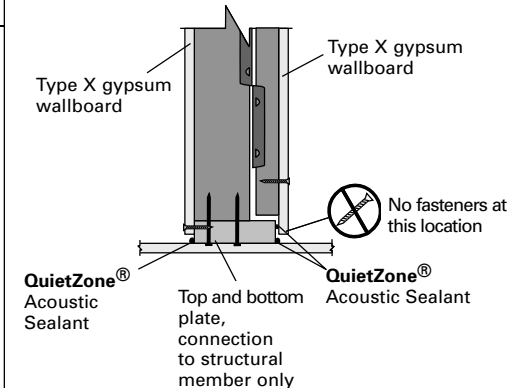
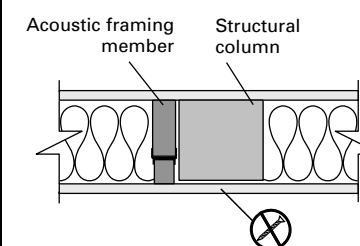
2x4 Wall



2x6 Wall



SUPPORT COLUMNS



LIMIT STATES DESIGN VALUES

Specified Strengths and Modules of Elasticity Structural Member (Kd = 1.0)
QuietZone® Acoustic Wall Framing featuring Tembec Select Engineered Lumber (Structural Member) and Selectem™ LVL (Resilient Member)

Modulus of elasticity	E = 1.379 x 10 ⁶ psi
Bending at extreme fibre	Fb = 1711 psi
Compression Parallel to grain	Fc = 1668 psi
Compression perpendicular to grain	Fcp = 769 psi
Longitudinal shear	Fv = 145 psi

Nail Design Values, Structural Member, Lateral and Withdrawal: Design as per CSA Standard O86-01, Engineering Design in Wood for Spruce-Pine-Fir species SG = 0.42

Nail Design Values, Resilient Member, Lateral and Withdrawal: Design as per CSA Standard O86-01, Engineering Design in Wood for Hem-Fir, SG = 0.43

Code Evaluation for Resilient Member: CCMC
Evaluation Report CCMC 12453-R

Values may be increased by a system factor (Ks) if applicable

Values may be increase by a load duration factor (Kd) if applicable

Values may be increased by a size factor (Kz)

QuietZone® Acoustic Wall Framing is to be used in "dry" service conditions only
QuietZone® Acoustic Wall Framing has no Preservative or Fire Retardant Treatment



INNOVATIONS FOR LIVING™



QuietZone® Acoustic Wall Framing

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2 INSIDE CORNER

Attach fasteners through structural member only into 2x stud

2x stud

4 1/2" for 2x4 wall

6 1/2" for 2x6 wall

QuietZone® Acoustic Sealant

Type X gypsum wallboard (typical both sides)

QuietZone® Acoustic Batts

Acoustic framing member

QC1

2 OUTSIDE CORNER

QuietZone® Acoustic Sealant

QuietZone® Acoustic Batts

2x stud

Attach fasteners through structural member only into 2x stud

Acoustic framing member

Type X gypsum wallboard (typical both sides)

QC2

2 STANDARD WALL CONNECTION

Acoustic framing member

Attach fasteners through structural members only

QuietZone® Acoustic Batts

Type X gypsum wallboard (typical both sides)

QuietZone® Acoustic Sealant

2x studs

QC3

LOW HEADER

(Install header flush to structural side of wall only)

Double top plate

Acoustic cripple

Header

Acoustic framing member

Acoustic trimmer and king stud*

Do not fasten gypsum wallboard to header

QD1

HIGH HEADER

(Install header flush to structural side of wall only)

Double top plate

Acoustic framing member tight between top plates and header

Header

Acoustic framing member

Acoustic trimmer and king stud*

Do not fasten gypsum wallboard to header

QD2

DOOR ATTACHMENT

QuietZone® Acoustic Batts

Acoustic framing member

QuietZone® Acoustic Sealant

Fasten door frame to structural member only

Type X gypsum wallboard (typical both sides)

QD3

ELECTRICAL BOXES

Resilient Side of Wall

Type X gypsum wallboard

Electrical box

Seal perimeter of electrical boxes and other penetrations with QuietZone® Acoustic Sealant

Electrical box should not touch structural member or be fastened to it

Electrical box with attachment bracket

Acoustic framing member

Fasten electrical boxes to resilient member only

2 - #6 x 3/4" screws

Structural Side of Wall

Use standard fastening to structural member

Use any code approved electrical box

Acoustic framing member

Electrical boxes should not be installed back to back on opposite sides of the wall. Plugs and switches should be spaced a minimum of 36" between each other and wall fixtures a minimum of 24" between each other.

QM1

SHELVES AND FIXTURES

Acoustic framing member

Fasten bracket to resilient member with screws*

Type X gypsum wallboard

Wall mounted shelf or fixture

Maximum shelf dimension 12"

QM2

MAXIMUM WEIGHT OF FIXTURE ATTACHED TO RESILIENT MEMBER SHALL NOT EXCEED 40 LBS PER MEMBER FOR SHELF DIMENSIONS SHOWN ABOVE.
* Fasteners should not extend to the structural member. Maximum fastener length:
2x4 wall - 3/4" + drywall thickness + thickness of bracket
2x6 wall - 1 5/8" + drywall thickness + thickness of bracket



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3 ALLOWABLE HOLES AND NOTCHES

2x4 Walls

5/8" minimum edge distance

3/4" maximum diameter hole

3 11/16"

2x6 Walls

5/8" minimum edge distance

1 3/8" maximum diameter hole

5 9/16"

7/8" maximum notch

Holes shown may be cut anywhere along the length of the member, but no closer than 5/8" from the edge.

NO NOTCHES in the 2x4 wall assembly!

Notches shown may be cut in the 2x6 wall assembly anywhere except the middle 1/3 of the length of the member.

DO NOT run electrical wires or pipes through the gap between members for either 2x4 or 2x6 wall framing!

Notches and holes shall not occur in the same cross section!

QM3

CUTTING NON-STANDARD LENGTHS

Maximum extension beyond last clip:
2x4 wall - 8"
2x6 wall - 16"

24" maximum distance between pairs of clips

Install extra clips as required with 2- #6 x 1" self-tapping screws into each member

Where space permits, install extra clips in pairs

Field cut acoustic framing member as required

Cut resilient member 1/4" shorter than structural member

QM4

GENERAL NOTES

- QuietZone® Acoustic Wall Framing is intended for interior walls only. Contact Jager Building Systems at 1-866-864-5710 for information on other applications.
- 2x4 QuietZone® Acoustic Wall Framing has load-bearing capabilities similar to 2x3 wood framing; see design tables for details.
- 2x6 QuietZone® Acoustic Wall Framing has load-bearing capabilities similar to 2x4 wood framing; see design tables for details.
- Screws are recommended for fastening drywall, shelves, and fixtures to QuietZone® Acoustic Wall Framing. Use caution if fastening drywall to resilient member using a nailgun.
- QuietZone® Acoustic Batts (15" or 23" width) will be required in the cavity space between wall framing sections spaced either 16" or 24" o.c. when using 2 x 4 & 2 x 6 QuietZone® Acoustic Wall Framing.
- QuietZone® Acoustic Batts fit between wood framing members with the flanges stapled to the sides of the QuietZone® Acoustic Wall Framing structural members.

WARNING: LACK OF PROPER BRACING, INSUFFICIENT WALL SYSTEM DESIGN OR FAILURE TO FOLLOW THE INSTRUCTIONS SET FORTH HEREIN COULD LEAD TO PROPERTY DAMAGE AND/OR SERIOUS BODILY INJURY. NEITHER OWENS CORNING NOR TEMBEC SHALL BE RESPONSIBLE FOR ANY DAMAGE, LOSS, COSTS OR EXPENSES RELATING TO ANY MISUSE OF THE PRODUCTS DESCRIBED ABOVE, OR ANY FAILURE TO ADHERE TO THESE INSTRUCTIONS.

MULTIPLE LAYERS OF GYPSUM

Type X gypsum wallboard (typical both sides)

Second layer of Type X gypsum wallboard (stagger seams)

QuietZone® Acoustic Sealant

Apply QuietZone® Acoustic Sealant along corner of first layer of Type X gypsum wallboard before applying second layer of Type X gypsum wallboard.

QM5