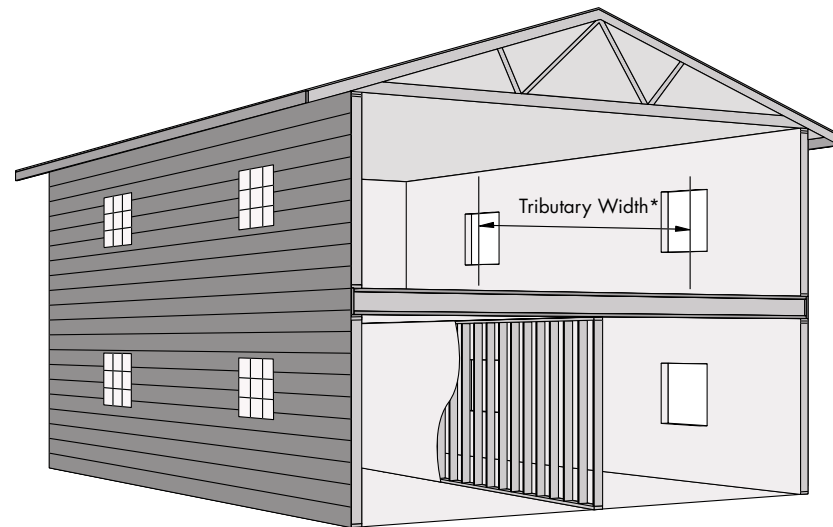
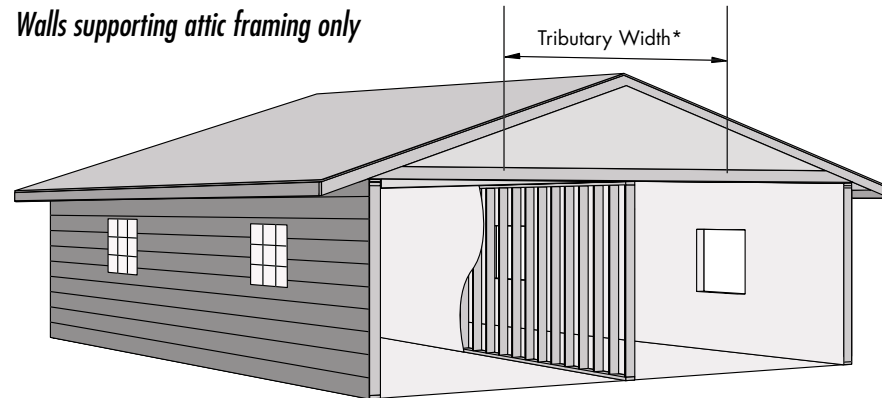


Design and Installation Instructions

Walls supporting one floor only



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)

For more information on the QuietZone Noise Control System call 1-800-GET-PINK or visit our Web site at www.owenscorning.com. For more information on TimberStrand® LSL or other engineered lumber products call Trus Joist at 1-800-628-3997 or visit their Web site at www.trusjoist.com.



OWENS CORNING WORLD HEADQUARTERS
 ONE OWENS CORNING PARKWAY
 TOLEDO, OHIO 43659

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QuietZone™ Acoustic Wall Framing

Featuring TimberStrand® LSL

Max. Tributary Width* (ft) One Floor Only

Member Size	Wall Height	Member Spacing	Floor Load 40LL + 12DL
2x4	8'	16" o.c.	16
		24" o.c.	9
	9'	16" o.c.	11
		24" o.c.	---
10'	16" o.c.	---	
	24" o.c.	---	
2x6	8'	16" o.c.	25
		24" o.c.	22
	9'	16" o.c.	25
		24" o.c.	22
	10'	16" o.c.	25
		24" o.c.	22
	12'	16" o.c.	23
		24" o.c.	13
14'	16" o.c.	15	
	24" o.c.	---	

Max. Tributary Width* (ft) Attic Framing Only

Member Size	Wall Height	Member Spacing	Attic Load 20LL + 10DL
2x4	8'	16" o.c.	25
		24" o.c.	15
	9'	16" o.c.	20
		24" o.c.	11
10'	16" o.c.	14	
	24" o.c.	---	
2x6	8'	16" o.c.	25
		24" o.c.	25
	9'	16" o.c.	25
		24" o.c.	25
	10'	16" o.c.	25
		24" o.c.	25
	12'	16" o.c.	25
		24" o.c.	22
14'	16" o.c.	25	
	24" o.c.	13	

Maximum Vertical Load (plf) Interior Walls Only

Wall Height	Member Length	2x4 Wall			2x6 Wall		
		On-Center Spacing 12"	16"	24"	On-Center Spacing 12"	16"	24"
8'	92 5/8"	1204	837	479	2365	1774	1183
9'	104 5/8"	892	607	331	2365	1774	1183
10'	116 5/8"	671	446	227	2365	1774	1183
12'	144"				1742	1203	680
14'	168"				1179	791	414

Table is based upon:

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

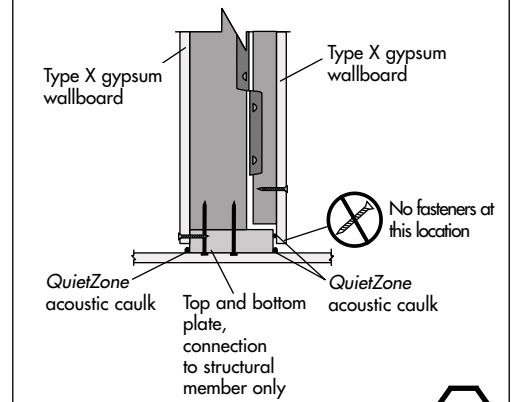
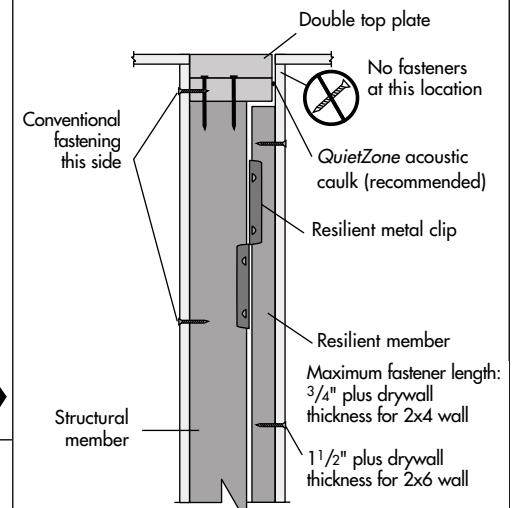
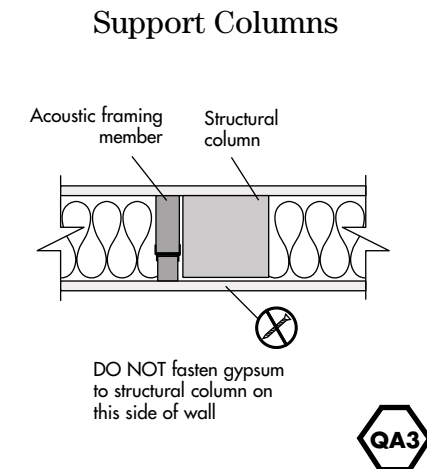
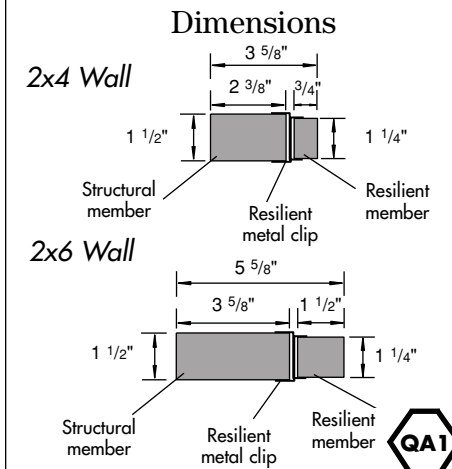
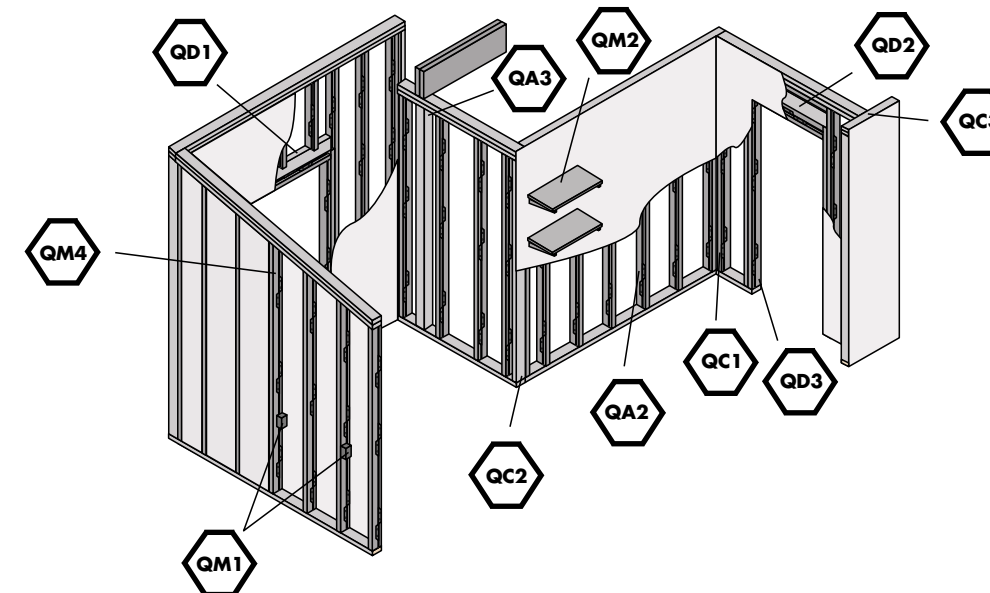


Design and Installation Instructions

Residential Applications Only

QuietZone™ Acoustic Wall Framing

Featuring TimberStrand® LSL



1.3E TimberStrand® LSL Allowable Design Stresses (100% Load Duration)

Shear modulus of elasticity	G = 81,250 psi
Modulus of elasticity	E = 1.3 x 10 ⁶ psi
Flexural stress	F _b = 1,700 psi ⁽¹⁾
Compression parallel to grain	F _{cl} = 1,400 psi
Compression perpendicular to grain parallel to wide face of strands	F _{cl} = 680 psi ⁽²⁾
Compression perpendicular to grain perpendicular to wide face of strands	F _{cl} = 435 psi ⁽²⁾
Horizontal shear perpendicular to wide face of strands	F _v = 400 psi

(1) For 12-inch depth. For others, multiply by (12/d)^{0.092} (2) F_{cl} shall not be increased for duration of load.
 Nail Design Values Lateral and Withdrawal: Design per National Design Specification® for Wood Construction using 0.50 specific gravity.
 Code Evaluation: NER-481 approval for TimberStrand® LSL only





QuietZone™ Acoustic Wall Framing

Featuring TimberStrand® LSL



<h3>Inside Corner</h3> <p>Attach fasteners through structural members into 2x stud</p> <p>2x stud</p> <p>4 1/2" for 2x4 wall</p> <p>6 1/2" for 2x6 wall</p> <p>QuietZone acoustic batts</p> <p>QuietZone acoustic caulk</p> <p>Type X gypsum wallboard (typical both sides)</p> <p>Acoustic framing member</p> <p>QC1</p>	<h3>Outside Corner</h3> <p>2x stud</p> <p>QuietZone acoustic batts</p> <p>Acoustic framing member</p> <p>Type X gypsum wallboard (typical both sides)</p> <p>QuietZone acoustic caulk</p> <p>Attach fasteners through structural members only</p> <p>QC2</p>	<h3>QuietZone to Standard Wall Connection</h3> <p>Acoustic framing member</p> <p>Attach fasteners through structural members only</p> <p>QuietZone acoustic batts</p> <p>2x studs</p> <p>Type X gypsum wallboard (typical both sides)</p> <p>QuietZone acoustic caulk</p> <p>Type X gypsum wallboard</p> <p>QC3</p>
<h3>Low Header</h3> <p>(Install header flush to structural side of wall only)</p> <p>Double top plate</p> <p>Acoustic cripple</p> <p>Header</p> <p>Acoustic framing member</p> <p>Acoustic trimmer and king stud*</p> <p>Do not fasten gypsum wallboard to header</p> <p>QD1</p> <p>*Additional trimmers and/or king studs may be required to support header reaction.</p>	<h3>High Header</h3> <p>(Install header flush to structural side of wall only)</p> <p>Double top plate</p> <p>Acoustic framing member tight between top plates and header</p> <p>Header</p> <p>Acoustic trimmer and king stud*</p> <p>Do not fasten gypsum wallboard to header</p> <p>QD2</p> <p>*Additional trimmers and/or king studs may be required to support header reaction.</p>	<h3>Door Attachment</h3> <p>QuietZone Acoustic batts</p> <p>Type X gypsum wallboard</p> <p>Acoustic framing member</p> <p>QuietZone acoustic caulk</p> <p>Fasten door frame to structural member only</p> <p>Type X gypsum wallboard (typical both sides)</p> <p>QuietZone acoustic caulk</p> <p>QD3</p>
<h3>Electrical Boxes</h3> <p><i>Resilient Side of Wall</i></p> <p>Type X gypsum wallboard</p> <p>Electrical box</p> <p>Seal perimeter of electrical boxes and other penetrations with QuietZone acoustic caulk</p> <p>Electrical box should not touch structural member or be fastened to it</p> <p>Fasten electrical boxes to resilient member only</p> <p>2 - #6 x 3/4" screws</p> <p>Acoustic framing member</p> <p><i>Structural Side of Wall</i></p> <p>Use standard fastening to structural member</p> <p>Use any code approved electrical box</p> <p>Acoustic framing member</p> <p>QM1</p> <p>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.</p>		<h3>Shelves and Fixtures</h3> <p>Acoustic framing member</p> <p>Fasten bracket to resilient member with screws*</p> <p>Type X gypsum wallboard</p> <p>Wall mounted shelf or fixture</p> <p>MAXIMUM WEIGHT OF FIXTURE ATTACHED TO RESILIENT MEMBER SHALL NOT EXCEED 50 LBS PER MEMBER.</p> <p>* Fasteners should not extend to the structural member. Maximum fastener length: 2x4 wall - 3/4" + drywall thickness + thickness of bracket 2x6 wall - 1 1/2" + drywall thickness + thickness of bracket</p> <p>QM2</p>

Allowable Holes and Notches

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

2x4 Walls

5/8" minimum edge distance

3 5/8"

3/4" maximum diameter hole

NO NOTCHES in the 2x4 wall assembly!

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

2x6 Walls

5/8" minimum edge distance

1 3/8" maximum diameter hole

5 5/8"

7/8" maximum notch

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

Notches and holes shall not occur in the same cross section

QM3

Cutting Non-Standard Lengths

Max. extension beyond last clip: 2x4 wall - 8" / 2x6 wall - 16"

24" max. 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

Cut resilient member 1/4" shorter than structural member

Field cut acoustic framing member as required

QM4

General Notes

- QuietZone acoustic wall framing members are currently limited to constructing walls in traditional single family homes. Contact Owens Corning for information on other applications.
- 2x4 QuietZone acoustic wall framing has limited load-bearing capabilities; see design tables for details.
- 2x6 QuietZone acoustic wall framing has load-bearing capabilities similar to 2x4 wood framing; see design tables for details.
- Values shown in this brochure are applicable to TimberStrand® LSL used in dry service conditions only.
- 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 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.
- Owens Corning acoustic batts will be required to fill the cavity space between wall framing sections spaced either 16" or 24" o.c. when using 2 x 6 QuietZone acoustic wall framing.

WARNING: LACK OF PROPER BRACING OR INSUFFICIENT WALL SYSTEM DESIGN AND FAILURE TO FOLLOW THE INSTRUCTIONS SET FORTH HEREIN COULD LEAD TO PROPERTY DAMAGE AND/OR SERIOUS BODILY INJURY. OWENS CORNING SHALL NOT 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 (stagger seams)

QuietZone acoustic caulk

Apply QuietZone acoustic caulk along corner of first layer of Type X gypsum before applying added sheets

QM5