

SOUND GUARD

THE SILENT STEEL FRAMING SYSTEM

Riverbank Acoustical
LABORATORIES™

An A L I O N Technical Center



SCAFCO
Steel Stud Company

www.SCAFCO.com
www.SoundGuardWall.com

» The SoundGuard™ Silent Steel Framing System

NEW Interior Sound Rated Framing System

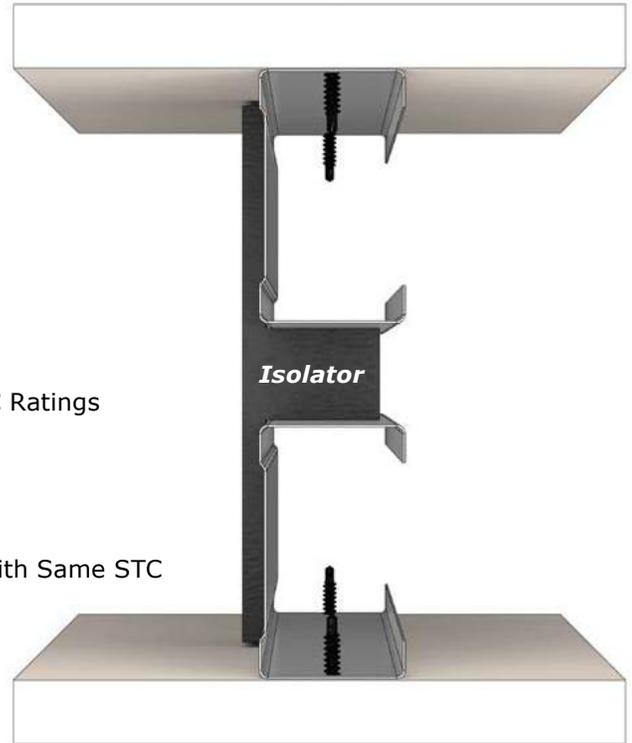
Patent #9,523,197 B2 U.S.A.

Features and Benefits

- **Narrower Walls** - Which Means More Usable Square Feet
- **Lower Material Costs** - No CRC, Thinner Steel, Smaller Web
- **Faster Build-out** - Single Wall Installation
- **STC-Equal or Better**
- **1 and 2 HOUR Fire Rating UL V463 & UL W475**
- **Available in 3½", 4", and 6" Wall Assemblies**

Architect/Owner

- **Narrower Allowable Wall Thicknesses** with Better or Equal STC Ratings
 - Increased Room Dimensions
 - Greater Saleable Square Footage
 - Revenue Gains for Owner
- **Equivalent** to Many GA WP Partition and Chase Wall Assemblies with Same STC
 - Eliminates Drywall and/or Resilient Sound Channel
 - Increases Rentable Square Footage
 - Half as Many Studs and Track to Install
 - No Cross Bracing and CRC Lateral Bracing



Contractor

Replaces GA WP Partition and Chase Wall Assemblies with equal or lesser wall thicknesses

- **Lower Material Costs – Superior STC Ratings**
 - Eliminates Layers of Drywall
 - Reduces the Amount of Studs and Track to Install
 - No Resilient Sound Channel Required
 - No Cross Bracing and CRC Lateral Bracing
- **Faster Build-Out**, Saves Labor, Field Tested, Contractor Approved, Pre-Assembled With Built-in Air Space
- **Installs Just Like a Typical Single Stud**
- **Substitution Requests** SCAFCO Engineering Will Assist With This Process.
Call: 509-789-8669
Email: Technical@SCAFCO.com
- **Risk Reduction** Quoting, Planning, Stocking, Waste, Labor Over Runs, Durations
- **UL Rated (V463 & W475)**, Achieves 1 and 2 Hour Fire Rating (ASTM E119)
- **Can Be Used With Slotted Track** in 3½", 4", and 6" Widths
- **SCAFCO Engineering Design / Build Solutions**



Cost Benefit Example

| | |
|----------------|-------------------------------------|
| 26 | Floors Containing Condo Units |
| 10 | Average Number of Units per Floor |
| 260 | Total Number of Units |
| 284,815 | Total Square Footage of Condo Space |
| 18,200 | Total Lineal Footage of Sound Wall |

Traditional Double Stud Sound Wall

(See Height Comparisons on Page 8)

Two each 2½" studs with 1" air gap

6" total wall width x 18,200 lineal footage of wall = 9,100 sq.ft.

SoundGuard™ Sound Wall

One each 3⅝" SoundGuard™ stud

3⅝" total wall width x 18,200 lineal footage of wall = 5,498 sq.ft.

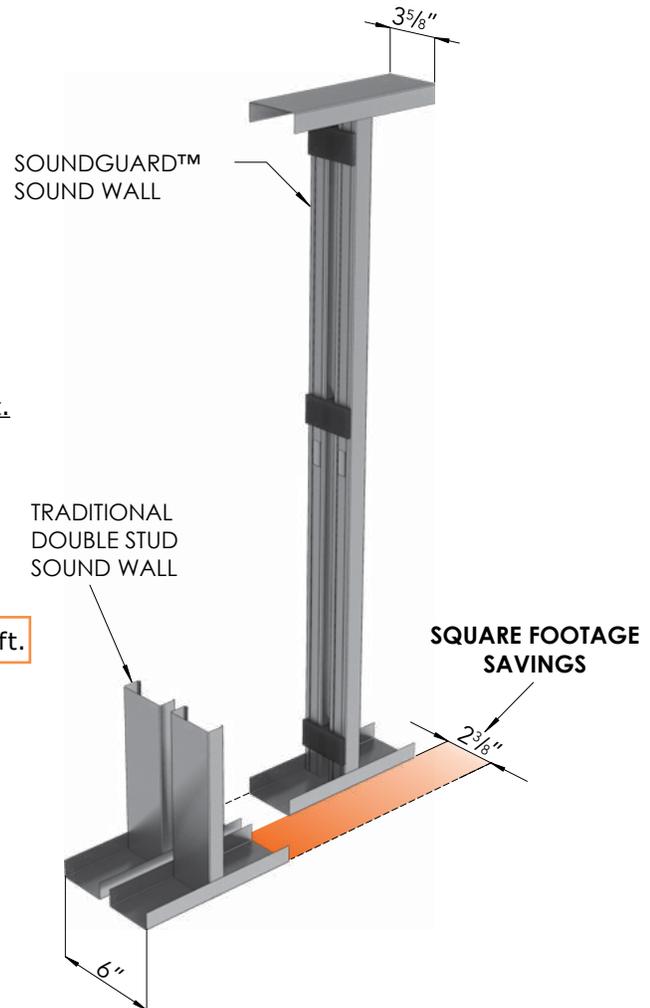
Savings of Square Footage

Traditional 9,100 sq.ft. - 5,498 sq.ft. SoundGuard™ = **3,602 sq.ft.**

Total Dollar Savings to Owner

3,602 sq.ft. x \$1,065* = \$3,836,130

*Data based on average condo price of \$1,065.00/sq.ft. in Seattle, WA from www.highrises.com as of March 2017.



Testing

Riverbank Acoustical Laboratories

Sound assemblies were constructed, thoroughly inspected, and tested by Riverbank Acoustical Laboratories. NVLAP accredited for ASTM E90-09 & E413-10, ISO Certified.

Riverbank Acoustical Laboratories is accredited by the US Department of Commerce, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 100227-0) to ISO 17025:2005 laboratory quality management and specific acoustical test standards.

Salter

Salter's team of acoustical consultants tested SoundGuard at the Hyatt Place San Francisco. The project scope included a 230-room, 120,000 square-foot hotel. The SoundGuard partition walls were found to have met the project's designed acoustical specifications. The testing report for this project is available upon request from SCAFCO.



Steel Thickness and Stiffening Lip Length

Steel Thickness Table

| Designation Thickness | Minimum Thickness ¹ (in) | Design Thickness ¹ (in) | Design Inside Corner Radii (in) | Galvanized Thickness |
|-----------------------|-------------------------------------|------------------------------------|---------------------------------|----------------------|
| 30EQD* | 0.0223 | 0.0235 | 0.0820 | G40 |
| 30EQDG60 | 0.0223 | 0.0235 | 0.0820 | G60 |
| 33EQS | 0.0280 | 0.0295 | 0.0790 | G60 |
| 43EQS | 0.0380 | 0.0400 | 0.0712 | G60 |

¹Minimum thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on AISI S100-16 Section B7.1
 *30EQD not available in Hawaii, use 30EQDG60 for heavier coating.

Wall Height Tables

Table Notes

1. Allowable composite limiting heights are calculated in accordance using ICC-ES AC 86-2019.
2. The gypsum board must be applied full height to each stud flange and installed using minimum No. 6 Type S Drywall screws spaced a maximum of 12 inch on-center for studs at 24 inch spacing, and 16 inch on-center for studs at 16 inch and 12 inch spacing.
3. A fastener is to be attached through the stud to the track in each flange. Stud end bearing must be a minimum of 1 inch.
4. "f" adjacent to the height value indicates that flexural stress controls the allowable height.
5. 3 5/8" wall height tables conservatively use 4" composite testing.

Composite - 3 5/8", 4", and 6" Wall Height Tables

| Part No. | Fy (ksi) | Design Thickness | Minimum Thickness | Spacing (in) oc | 5 psf | | | 7.5 psf | | | 10 psf | | | |
|----------------|----------|------------------|-------------------|-----------------|----------|-----------|----------|----------|-----------|----------|-----------|-----------|-----------|----------|
| | | | | | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | |
| 362SG-30EQD | 57 | 0.0235 | 0.0223 | 12 | 17' - 8" | 14' - 0" | 12' - 0" | 15' - 5" | 12' - 0" | 10' - 0" | 14' - 0" | 10' - 7" | 8' - 8" | |
| | | | | | 16 | 16' - 0" | 12' - 8" | 10' - 7" | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 8" | 9' - 2" | - |
| | | | | | 24 | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 0" | 8' - 8" | - | 10' - 7" | - | - |
| 362SG-30EQDG60 | 57 | 0.0235 | 0.0223 | 12 | 17' - 8" | 14' - 0" | 12' - 0" | 15' - 5" | 12' - 0" | 10' - 0" | 14' - 0" | 10' - 7" | 8' - 8" | |
| | | | | | 16 | 16' - 0" | 12' - 8" | 10' - 7" | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 8" | 9' - 2" | - |
| | | | | | 24 | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 0" | 8' - 8" | - | 10' - 7" | - | - |
| 362SG162-33EQS | 57 | 0.0295 | 0.0280 | 12 | 18' - 7" | 14' - 9" | 12' - 9" | 16' - 3" | 12' - 9" | 10' - 9" | 14' - 9" | 11' - 4" | 9' - 3" | |
| | | | | | 16 | 16' - 11" | 13' - 5" | 11' - 4" | 14' - 9" | 11' - 4" | 9' - 3" | 13' - 5" | 9' - 11" | 8' - 1" |
| | | | | | 24 | 14' - 9" | 11' - 4" | 9' - 3" | 12' - 9" | 9' - 3" | - | 11' - 4" | 8' - 1" | - |
| 362SG162-43EQS | 57 | 0.0400 | 0.0380 | 12 | 20' - 3" | 16' - 1" | 14' - 1" | 17' - 9" | 14' - 1" | 12' - 0" | 16' - 1" | 12' - 9" | 10' - 3" | |
| | | | | | 16 | 18' - 5" | 14' - 8" | 12' - 9" | 16' - 1" | 12' - 9" | 10' - 3" | 14' - 8" | 10' - 11" | 8' - 11" |
| | | | | | 24 | 16' - 1" | 12' - 9" | 10' - 3" | 14' - 1" | 10' - 3" | 8' - 5" | 12' - 9" | 8' - 11" | - |
| 400SG-30EQD | 57 | 0.0235 | 0.0223 | 12 | 17' - 8" | 14' - 0" | 12' - 0" | 15' - 5" | 12' - 0" | 10' - 0" | 14' - 0" | 10' - 7" | 8' - 8" | |
| | | | | | 16 | 16' - 0" | 12' - 8" | 10' - 7" | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 8" | 9' - 2" | - |
| | | | | | 24 | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 0" | 8' - 8" | - | 10' - 7" | - | - |
| 400SG-30EQDG60 | 57 | 0.0235 | 0.0223 | 12 | 17' - 8" | 14' - 0" | 12' - 0" | 15' - 5" | 12' - 0" | 10' - 0" | 14' - 0" | 10' - 7" | 8' - 8" | |
| | | | | | 16 | 16' - 0" | 12' - 8" | 10' - 7" | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 8" | 9' - 2" | - |
| | | | | | 24 | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 0" | 8' - 8" | - | 10' - 7" | - | - |
| 400SG162-33EQS | 57 | 0.0295 | 0.0280 | 12 | 18' - 7" | 14' - 9" | 12' - 9" | 16' - 3" | 12' - 9" | 10' - 9" | 14' - 9" | 11' - 4" | 9' - 3" | |
| | | | | | 16 | 16' - 11" | 13' - 5" | 11' - 4" | 14' - 9" | 11' - 4" | 9' - 3" | 13' - 5" | 9' - 11" | 8' - 1" |
| | | | | | 24 | 14' - 9" | 11' - 4" | 9' - 3" | 12' - 9" | 9' - 3" | - | 11' - 4" | 8' - 1" | - |
| 400SG162-43EQS | 57 | 0.0400 | 0.0380 | 12 | 20' - 3" | 16' - 1" | 14' - 1" | 17' - 9" | 14' - 1" | 12' - 0" | 16' - 1" | 12' - 9" | 10' - 3" | |
| | | | | | 16 | 18' - 5" | 14' - 8" | 12' - 9" | 16' - 1" | 12' - 9" | 10' - 3" | 14' - 8" | 10' - 11" | 8' - 11" |
| | | | | | 24 | 16' - 1" | 12' - 9" | 10' - 3" | 14' - 1" | 10' - 3" | 8' - 5" | 12' - 9" | 8' - 11" | - |
| 600SG-30EQD | 57 | 0.0235 | 0.0223 | 12 | 19' - 7" | 16' - 0" | 14' - 0" | 17' - 2" | 13' - 11" | 12' - 3" | 15' - 7" | 12' - 8" | 11' - 1" | |
| | | | | | 16 | 17' - 10" | 14' - 6" | 12' - 9" | 15' - 7" | 12' - 8" | 11' - 1" | 14' - 2" | 11' - 6" | 10' - 1" |
| | | | | | 24 | 15' - 7" | 12' - 8" | 11' - 1" | 13' - 7" | 11' - 1" | 9' - 8" | 12' - 4" | 10' - 1" | 8' - 4" |
| 600SG-30EQDG60 | 57 | 0.0235 | 0.0223 | 12 | 19' - 7" | 16' - 0" | 14' - 0" | 17' - 2" | 13' - 11" | 12' - 3" | 15' - 7" | 12' - 8" | 11' - 1" | |
| | | | | | 16 | 17' - 10" | 14' - 6" | 12' - 9" | 15' - 7" | 12' - 8" | 11' - 1" | 14' - 2" | 11' - 6" | 10' - 1" |
| | | | | | 24 | 15' - 7" | 12' - 8" | 11' - 1" | 13' - 7" | 11' - 1" | 9' - 8" | 12' - 4" | 10' - 1" | 8' - 4" |
| 600SG162-33EQS | 57 | 0.0295 | 0.0280 | 12 | 20' - 8" | 16' - 8" | 14' - 7" | 18' - 1" | 14' - 7" | 12' - 9" | 16' - 5" | 13' - 3" | 11' - 7" | |
| | | | | | 16 | 18' - 9" | 15' - 2" | 13' - 3" | 16' - 5" | 13' - 3" | 11' - 7" | 14' - 11" | 12' - 0" | 10' - 6" |
| | | | | | 24 | 16' - 5" | 13' - 3" | 11' - 7" | 14' - 4" | 11' - 7" | 10' - 1" | 13' - 0" | 10' - 6" | 8' - 11" |
| 600SG162-43EQS | 57 | 0.0400 | 0.0380 | 12 | 22' - 6" | 17' - 10" | 15' - 7" | 19' - 8" | 15' - 7" | 13' - 7" | 17' - 10" | 14' - 2" | 12' - 5" | |
| | | | | | 16 | 20' - 5" | 16' - 3" | 14' - 2" | 17' - 10" | 14' - 2" | 12' - 5" | 16' - 3" | 12' - 10" | 11' - 3" |
| | | | | | 24 | 17' - 10" | 14' - 2" | 12' - 5" | 15' - 7" | 12' - 5" | 10' - 10" | 14' - 2" | 11' - 3" | 9' - 10" |

Sound Rating Data

Single Layer 5/8" Type X GWB 1x1 Application

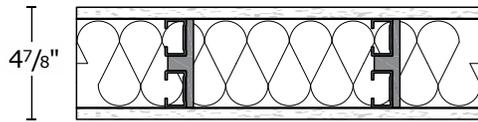
| Wall Size | Application | STC Rating | GA-WP Range |
|-------------|---|------------|-------------|
| 3 5/8" Wall | 2 - 1 5/8" Studs, Single GWB each side, R-13 Insulation | 52* | 50-54 |
| 4" Wall | 2 - 1 5/8" Studs, Single GWB each side, R-13 Insulation | | |
| 6" Wall | 2 - 2 1/2" Studs, Single GWB each side, R-19 Insulation | | |

*Based on 4" Wall Testing

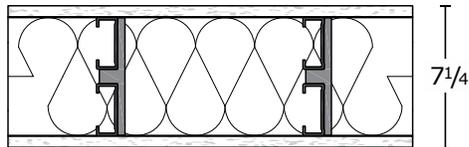
STC Rating: 52*



3 5/8" Wall with 1x1 Application



6" Wall with 1x1 Application



Unbalanced 5/8" Type X GWB 2x1 Application

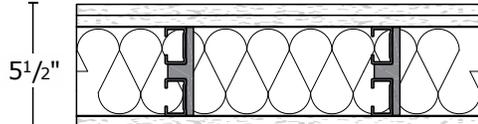
| Wall Size | Application | STC Rating | GA-WP Range |
|-------------|---|------------|-------------|
| 3 5/8" Wall | 2 - 1 5/8" Studs, Single GWB one side, Double GWB other side, R-13 Insulation | 57* | 55-59 |
| 4" Wall | 2 - 1 5/8" Studs, Single GWB one side, Double GWB other side, R-13 Insulation | | |
| 6" Wall | 2 - 2 1/2" Studs, Single GWB one side, Double GWB other side, R-19 Insulation | | |

*Based on 4" Wall Testing

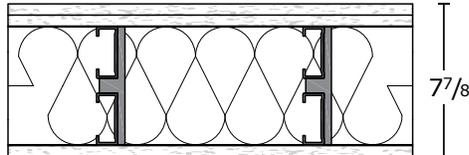
STC Rating: 57*



3 5/8" Wall with 2x1 Application



6" Wall with 2x1 Application



Double Layer 5/8" Type X GWB 2x2 Application

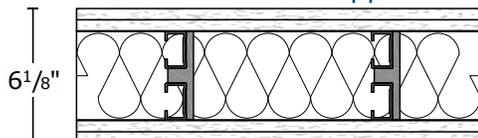
| Wall Size | Application | STC Rating | GA-WP Range |
|-------------|---|------------|-------------|
| 3 5/8" Wall | 2 - 1 5/8" Studs, Double GWB each side, R-13 Insulation | 60* | 60-64 |
| 4" Wall | 2 - 1 5/8" Studs, Double GWB each side, R-13 Insulation | | |
| 6" Wall | 2 - 2 1/2" Studs, Double GWB each side, R-19 Insulation | | |

*Based on 4" Wall Testing

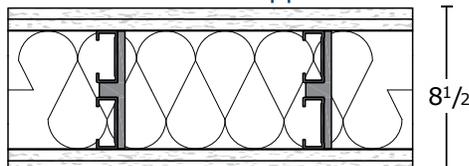
STC Rating: 60*



3 5/8" Wall with 2x2 Application



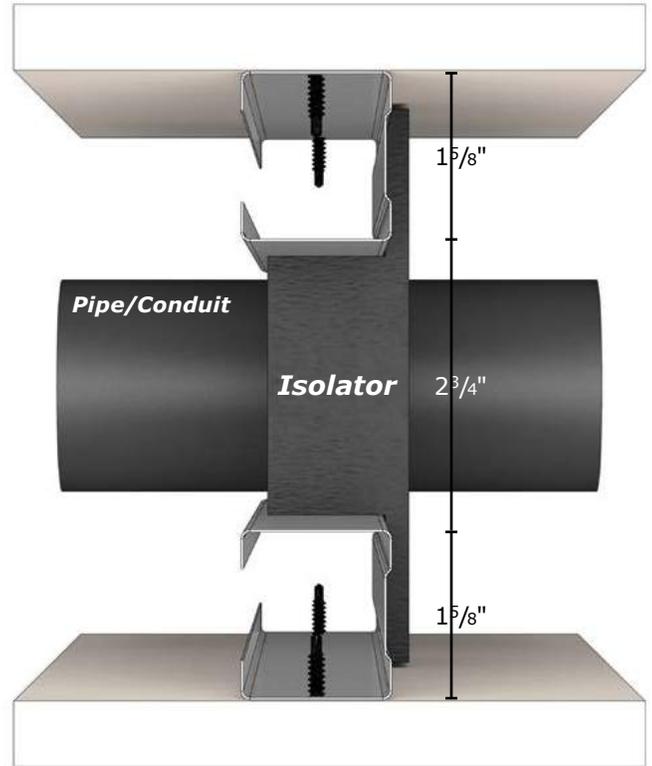
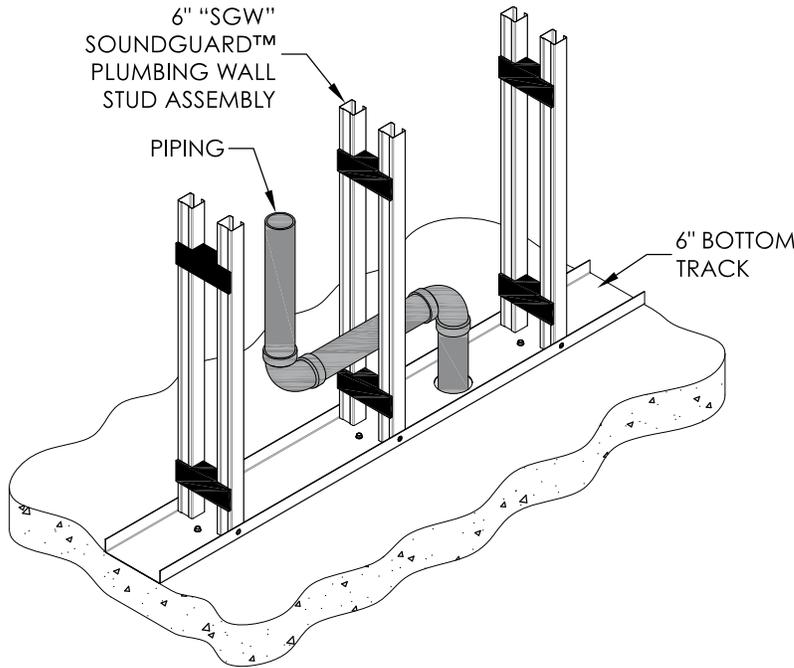
6" Wall with 2x2 Application



SoundGuard™ Plumbing Wall Design

Features and Benefits

- 2¾" Gap to Allow for Pipes and Electrical Conduit Lines
- Only Available in 6" "SGW" SoundGuard Studs
- UL Certified - UL V463, W475
- STC Tested
- Solves Framing Issues with Conduits and Pipes



Wall Height Tables

Table Notes

1. Allowable composite limiting heights are calculated in accordance using ICC-ES AC 86-2019.
2. The gypsum board must be applied full height to each stud flange and installed using minimum No. 6 Type S Drywall screws spaced a maximum of 12 inch on-center for studs at 24 inch spacing, and 16 inch on-center for studs at 16 inch and 12 inch spacing.
3. A fastener is to be attached through the stud to the track in each flange. Stud end bearing must be a minimum of 1 inch.
4. "f" adjacent to the height value indicates that flexural stress controls the allowable height.
5. Table utilizes 4" wall testing

Composite - 6" Plumbing Wall Height Tables

| Part No. | Fy (ksi) | Design Thickness | Minimum Thickness | Spacing (in) oc | 5 psf | | | 7.5 psf | | | 10 psf | | |
|-----------------|----------|------------------|-------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| | | | | | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 |
| 600SGW-30EQD | 57 | 0.0235 | 0.0223 | 12 | 17' - 8" | 14' - 0" | 12' - 0" | 15' - 5" | 12' - 0" | 10' - 0" | 14' - 0" | 10' - 7" | 8' - 8" |
| | | | | 16 | 16' - 0" | 12' - 8" | 10' - 7" | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 8" | 9' - 2" | - |
| | | | | 24 | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 0" | 8' - 8" | - | 10' - 7" | - | - |
| 600SGW-30EQDG60 | 57 | 0.0235 | 0.0223 | 12 | 17' - 8" | 14' - 0" | 12' - 0" | 15' - 5" | 12' - 0" | 10' - 0" | 14' - 0" | 10' - 7" | 8' - 8" |
| | | | | 16 | 16' - 0" | 12' - 8" | 10' - 7" | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 8" | 9' - 2" | - |
| | | | | 24 | 14' - 0" | 10' - 7" | 8' - 8" | 12' - 0" | 8' - 8" | - | 10' - 7" | - | - |
| 600SGW162-33EQS | 57 | 0.0295 | 0.0280 | 12 | 18' - 7" | 14' - 9" | 12' - 9" | 16' - 3" | 12' - 9" | 10' - 9" | 14' - 9" | 11' - 4" | 9' - 3" |
| | | | | 16 | 16' - 11" | 13' - 5" | 11' - 4" | 14' - 9" | 11' - 4" | 9' - 3" | 13' - 5" | 9' - 11" | 8' - 1" |
| | | | | 24 | 14' - 9" | 11' - 4" | 9' - 3" | 12' - 9" | 9' - 3" | - | 11' - 4" | 8' - 1" | - |
| 600SGW162-43EQS | 57 | 0.0400 | 0.0380 | 12 | 20' - 3" | 16' - 1" | 14' - 1" | 17' - 9" | 14' - 1" | 12' - 0" | 16' - 1" | 12' - 9" | 10' - 3" |
| | | | | 16 | 18' - 5" | 14' - 8" | 12' - 9" | 16' - 1" | 12' - 9" | 10' - 3" | 14' - 8" | 10' - 11" | 8' - 11" |
| | | | | 24 | 16' - 1" | 12' - 9" | 10' - 3" | 14' - 1" | 10' - 3" | 8' - 5" | 12' - 9" | 8' - 11" | - |

Sound Rating Data 6" Plumbing Wall

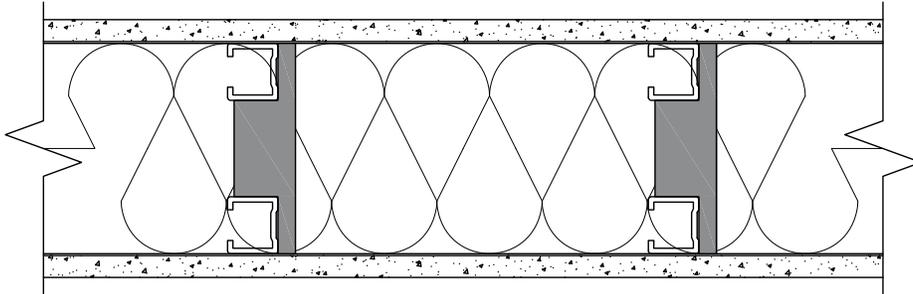


Single Layer 5/8" Type X GWB 1x1 Application

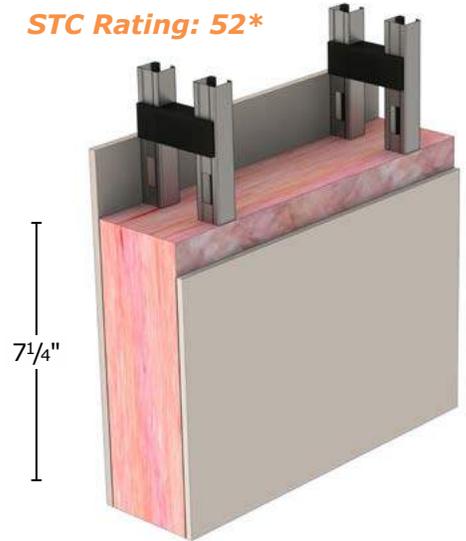
| Wall Size | Application | STC Rating | GA-WP Range |
|------------------|--|------------|-------------|
| 6" Plumbing Wall | 2 - 1 5/8" Studs, Single GWB each side, R-13 Insulation, 2 3/4" cavity | 52* | 50-54 |

*Based on 4" Wall Testing

6" Wall with 1x1 Application



STC Rating: 52*

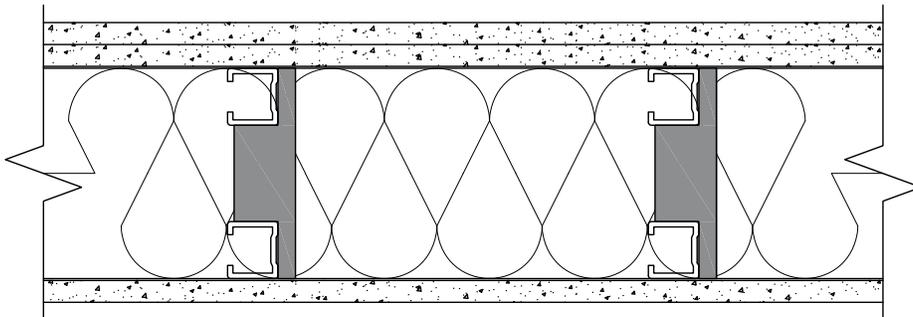


Unbalanced 5/8" Type X GWB 2x1 Application

| Wall Size | Application | STC Rating | GA-WP Range |
|------------------|--|------------|-------------|
| 6" Plumbing Wall | 2 - 1 5/8" Studs, Single GWB one side, Double GWB other side, R-13 Insulation, 2 3/4" cavity | 57* | 55-59 |

*Based on 4" Wall Testing

6" Wall with 2x1 Application



STC Rating: 57*

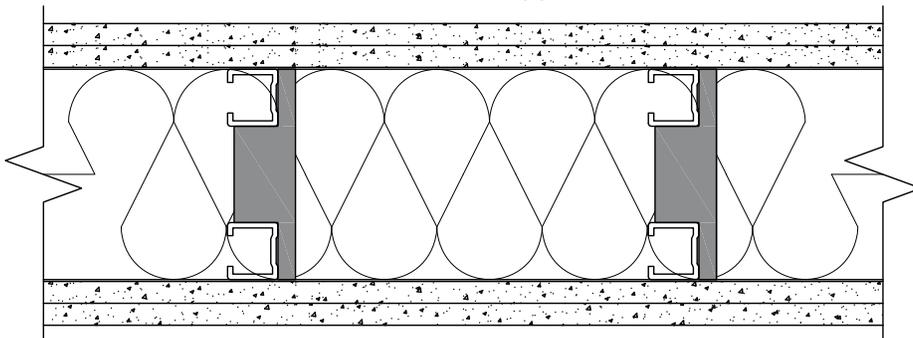


Double Layer 5/8" Type X GWB 2x2 Application

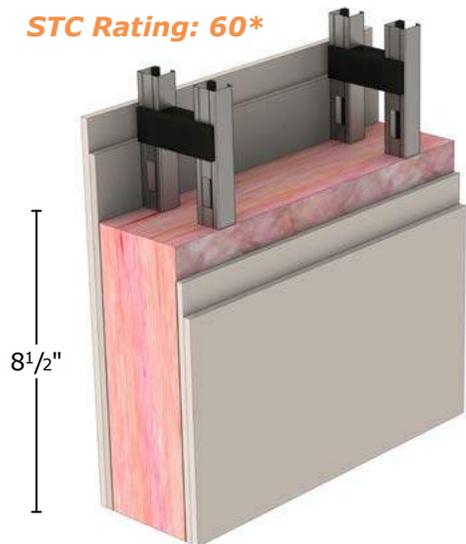
| Wall Size | Application | STC Rating | GA-WP Range |
|------------------|--|------------|-------------|
| 6" Plumbing Wall | 2 - 1 5/8" Studs, Double GWB each side, R-13 Insulation, 2 3/4" cavity | 60* | 60-64 |

*Based on 4" Wall Testing

6" Wall with 2x2 Application

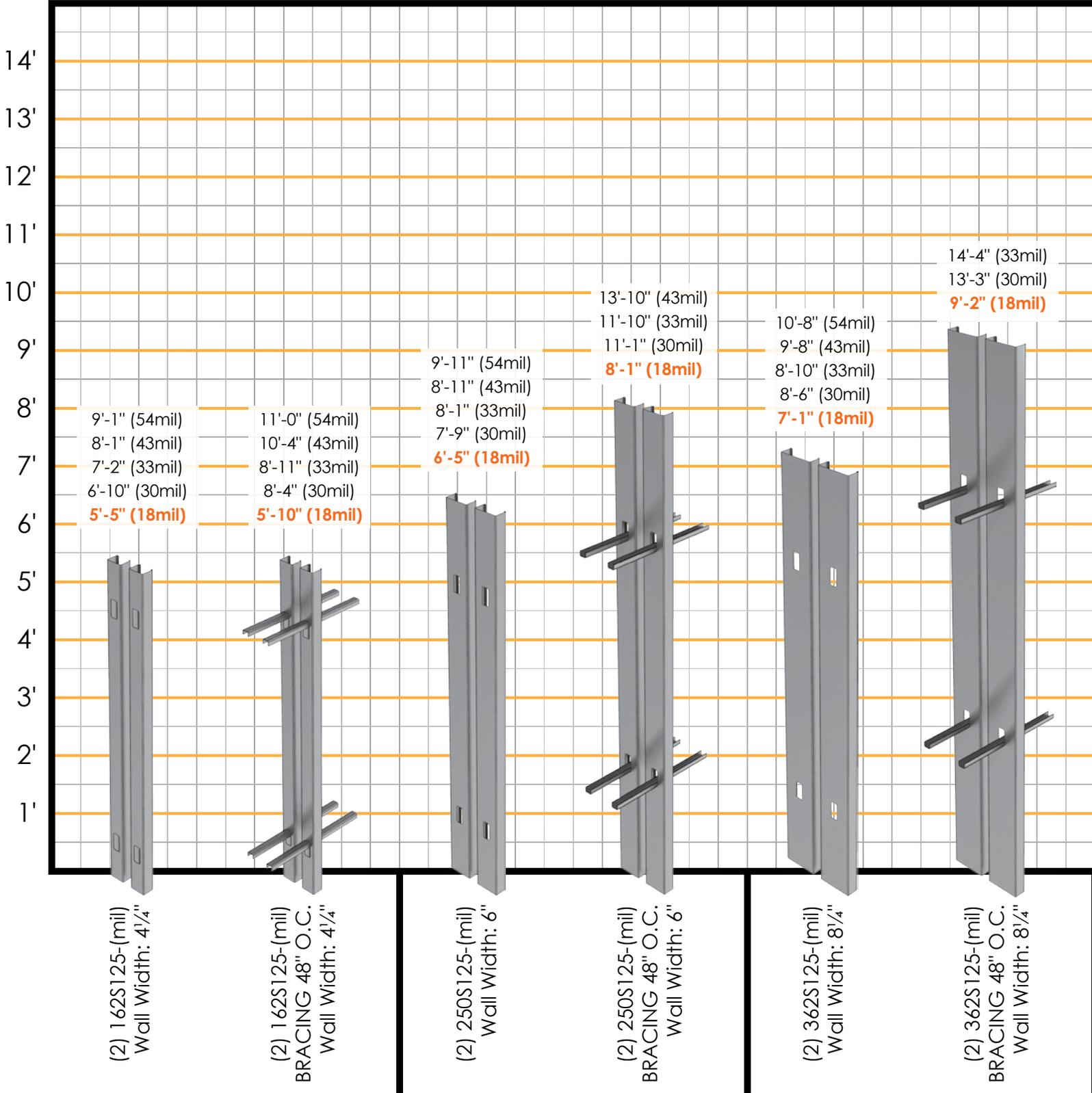


STC Rating: 60*



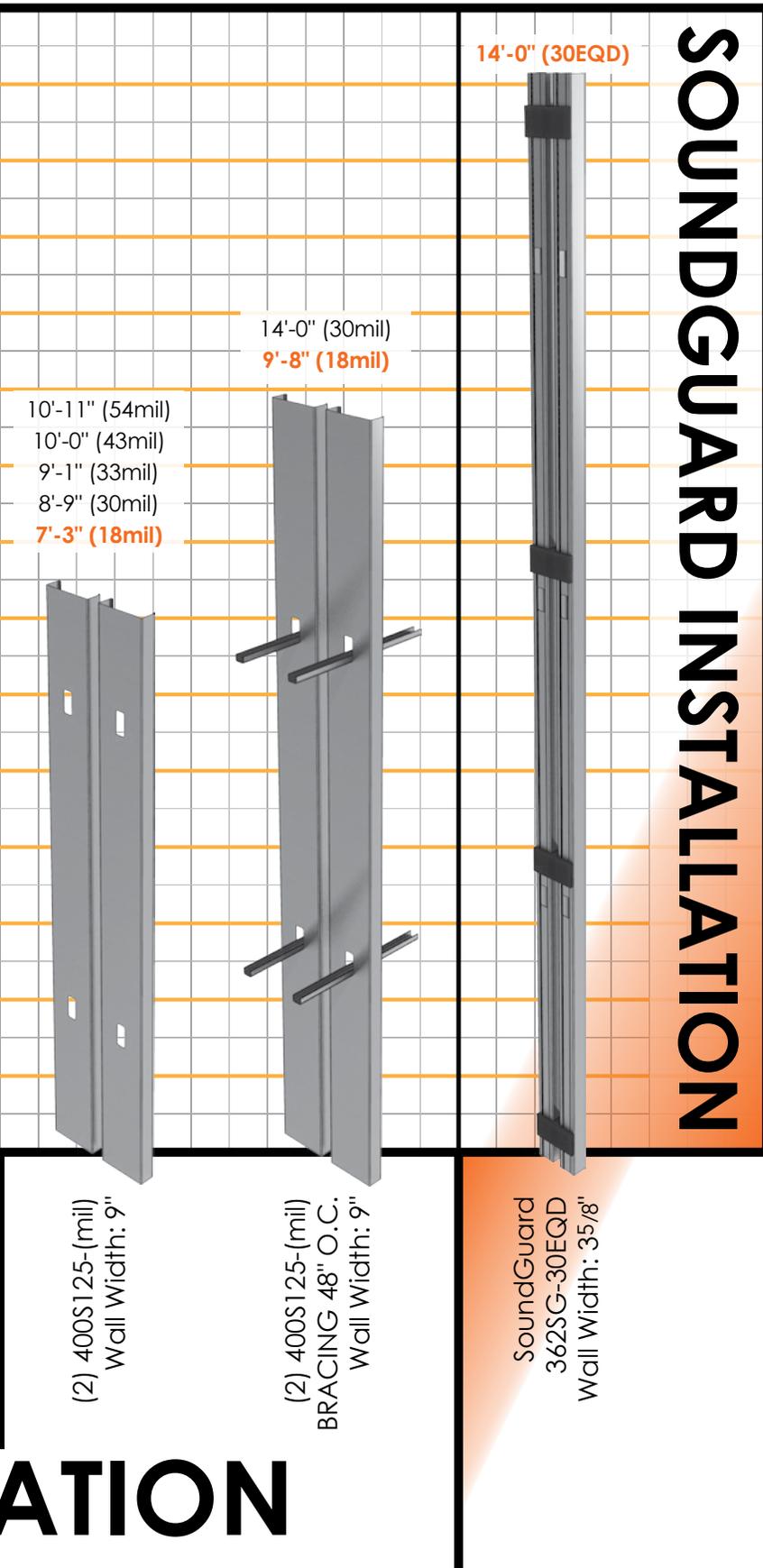
SoundGuard Wall Heights Comparison

*All heights represent interior loading conditions with a 5psf lateral pressure, and L/120 deflection criteria.



CONVENTIONAL INSTALLATION

Tested and Certified Assemblies vs. Modified Assemblies

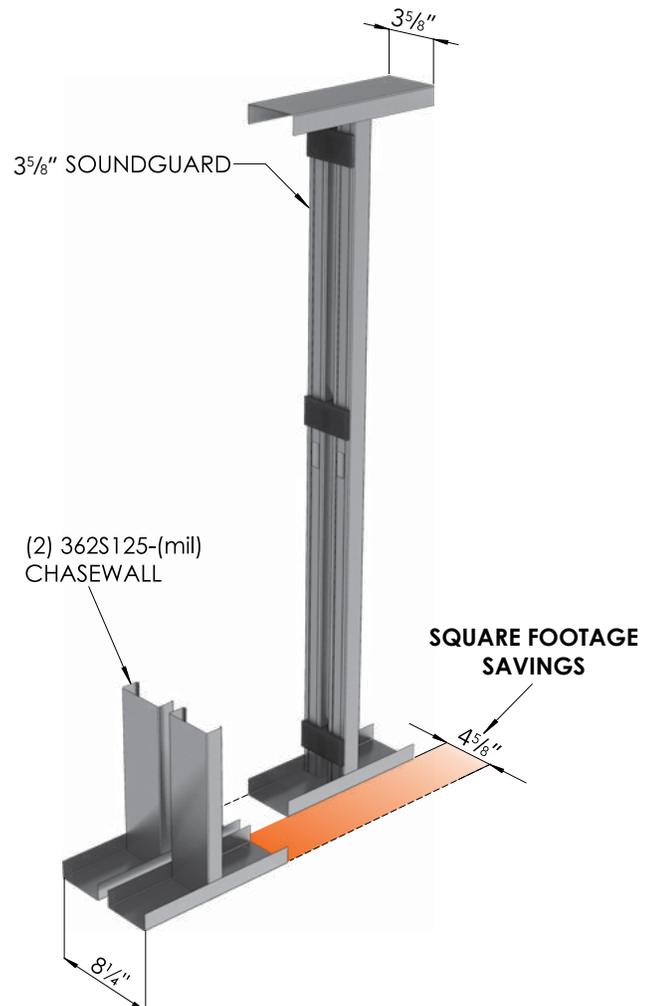


Steel stud walls will perform with superior sound transmission class (STC) ratings when they are constructed with thinner steel material. This will reduce the amount of paths that the soundwave vibrations can travel through the assembly. They are typically tested with 18mil (25 ga.) to maximize performance.

The allowable wall height of the members is often ignored while performing the sound tests. When constructing these walls in the field, the back flange is unsupported, resulting in low wall heights and limited design capabilities.

To reach specific wall heights, these sound rated assemblies are often altered by increasing the steel thickness or by installing lateral bracing (cold rolled channel), resulting in an assembly that is not equivalent to the tested sound wall design listed in the GA Fire Resistance Design Manual.

This chart depicts the maximum height for standard sound wall configurations that can be found in the GA Manual. **SoundGuard provides substantially increased wall heights that well exceed conventional wall assemblies with the assurance of a lab tested STC rating.**



LEED® Credit Contributions

LEED® certified buildings save money and resources and have a positive impact on the health of occupants, while promoting renewable clean energy.

Utilizing SoundGuard™ products on your project will assure the highest quality steel framing materials are used while helping your project attain LEED® Certification. The following information provides possible attainable credits based on the most current LEED® certification program.



» SCAFCO Steel Applicable Credit Contributions:

1. **MRc2 – Construction Waste Management:** SCAFCO uses only certified prime steel for all steel framing products and components. SCAFCO Steel Studs and accessories are 100% recyclable and can contribute to Construction Waste Management Credits (MRc2).
2. **MRc4 – Recycled Content:** SCAFCO's finished steel products contains a high average of a combined post and pre consumer recycled content that can contribute to Recycled Content Credits (MRc4).
3. **MRc5 – Regional Materials:** SCAFCO's numerous source locations and manufacturing plants in the western United States increase the possibility of qualifying for the Regional Materials Credits (MRc5). The number of attainable credits in this category is dependent on the distance of the project location to nearest SCAFCO manufacturing facility.

» SoundGuard™ Silent Framing System Applicable Credit Contributions:

1. **IEQc9 – Innovation:** Enhanced Acoustical Performance: Projects that fall in the Schools Category can qualify for an Indoor Environmental Quality Credit for Enhanced Acoustical Performance (IEQc9). Test results for the SoundGuard™ Silent Framing System using the Supreme Framing System products have confirmed high levels of sound transmission reduction, with STC ratings as high as 60.
2. **IDc1 – Innovation in Design:** Utilizing SoundGuard™ and the Supreme Framing System for your project can significantly reduce the quantifiable amount of material used, resulting in lower cost as well as contributing to the Innovation in Design Credit (IDc1).



Framing Solution for Wall-Hung-Items

Resilient Channel Sandwiching Major Acoustic Concerns:

Resilient Channel is often times used in conjunction with plywood shear panels or with backing boards and materials for the installation of cabinets or shelves. In this process the plywood or other materials are attached to the wall studs in parallel with the RC Channel, and then gypsum wall board (GWB) is attached to the face of the RC Channel and plywood. This type of construction is known as RC 'Sandwich' Installation, and is seen as a major construction error.

- Backing Creates an Acoustic Short Circuit
- RC Channel Is Ineffective
- Acousticians Agree that it Will Reduce the STC Rating
- Will Perform as a Regular Low Grade Acoustical Wall

Veneklasen Associates is one of the few Consultants in Acoustics that has performed tests on RC 'Sandwich' Installation, and in their 2009 Inter-Noise Article, "Quantitative Comparisons of Resilient Channel Designs and Installation Methods," they stated:

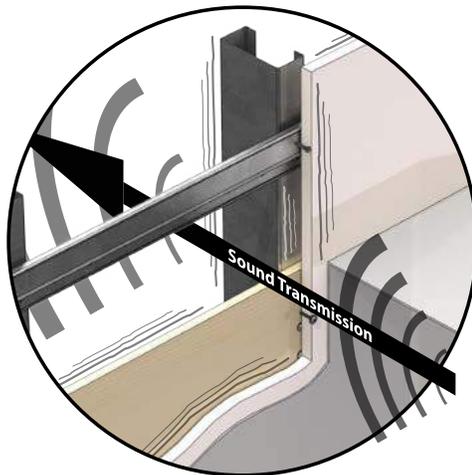
"This is a catastrophic construction technique from an acoustical perspective, virtually negating the value of the resilient channel over much of the frequency range.

...Of the common installation errors presented, installing the resilient channel over a solid surface ("sandwiched" resilient channel) is by far the most egregious, resulting in up to 20 dB reduction in performance."

Veneklasen Associates

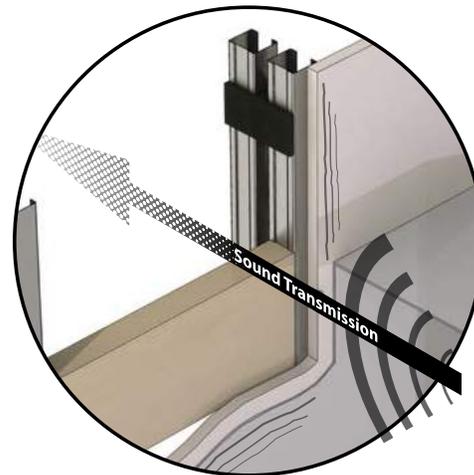


'Sandwiched' Resilient Channel



Backing board renders the RC Channel ineffective.

SoundGuard Solution



SoundGuard's Foam Isolators efficiently retain high STC ratings.

All of this leads us to the question that has remained for quite some time:

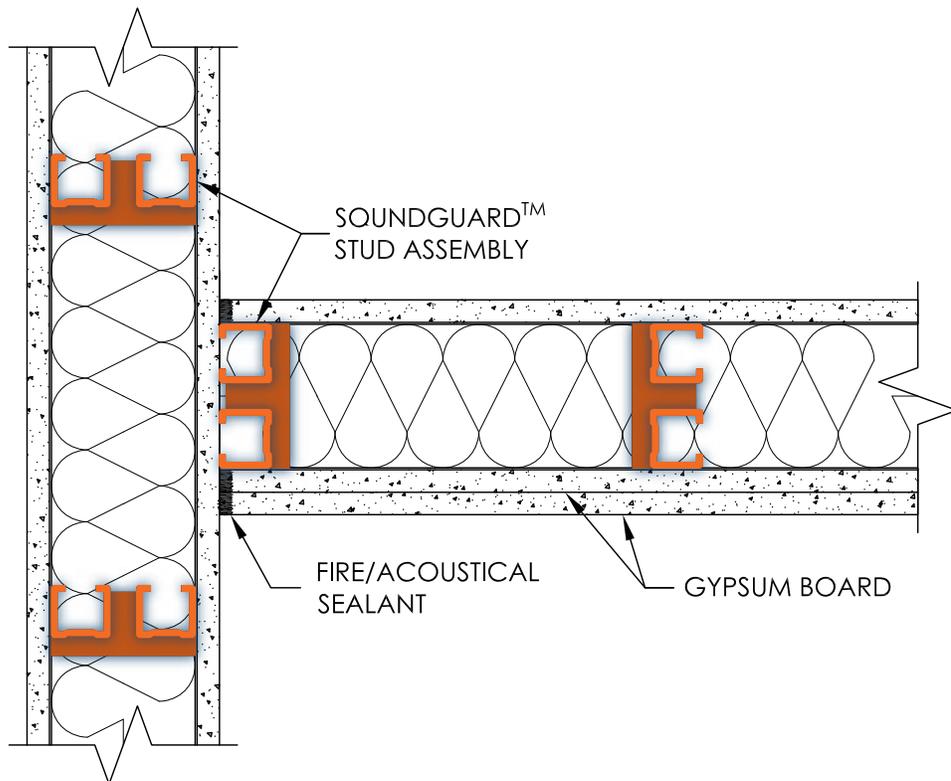
"How do we construct a wall that can allow for the attachments of cabinets and shelving with backing panels, which will not degrade the acoustical performance of the wall assembly?"

The answer to that question is the **SoundGuard™** Silent Framing System. SoundGuard has been acoustically tested and performs with similar acoustical STC ranges as Resilient Channel. The standard framing components of the design allow for plywood or other panel products to be attached just as they would in a standard steel framed wall configuration without degrading the sound quality of the wall.

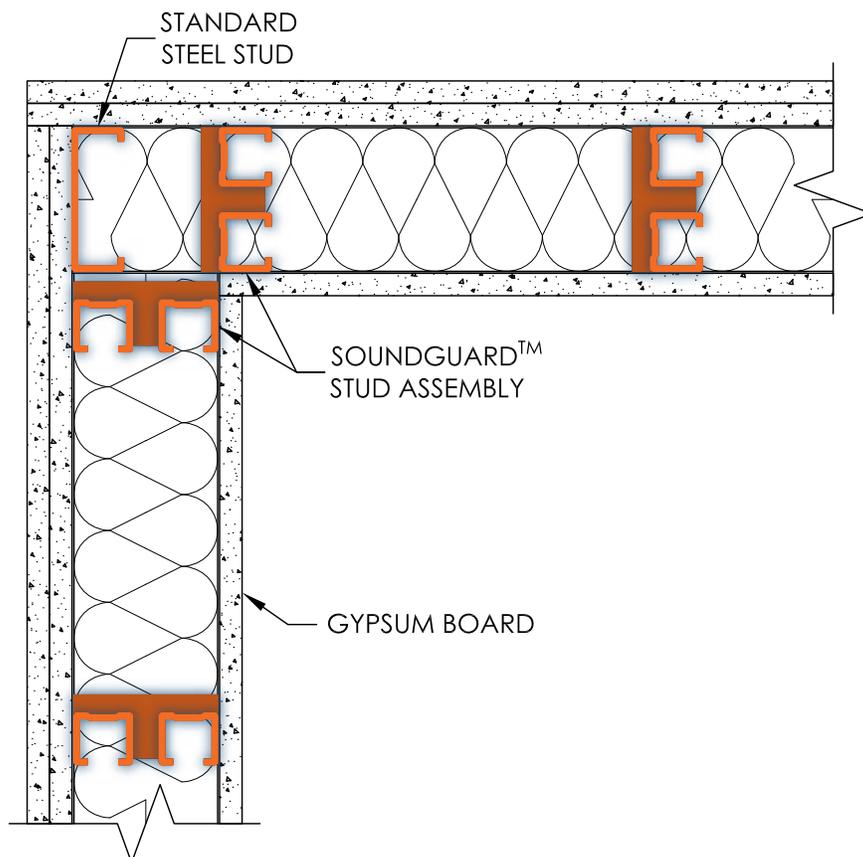
SoundGuard, The Silent Framing Solution, is an efficient solution incorporating chase wall configurations, high STC performance, and standard framing techniques.

SoundGuard

Wall Junction Detail

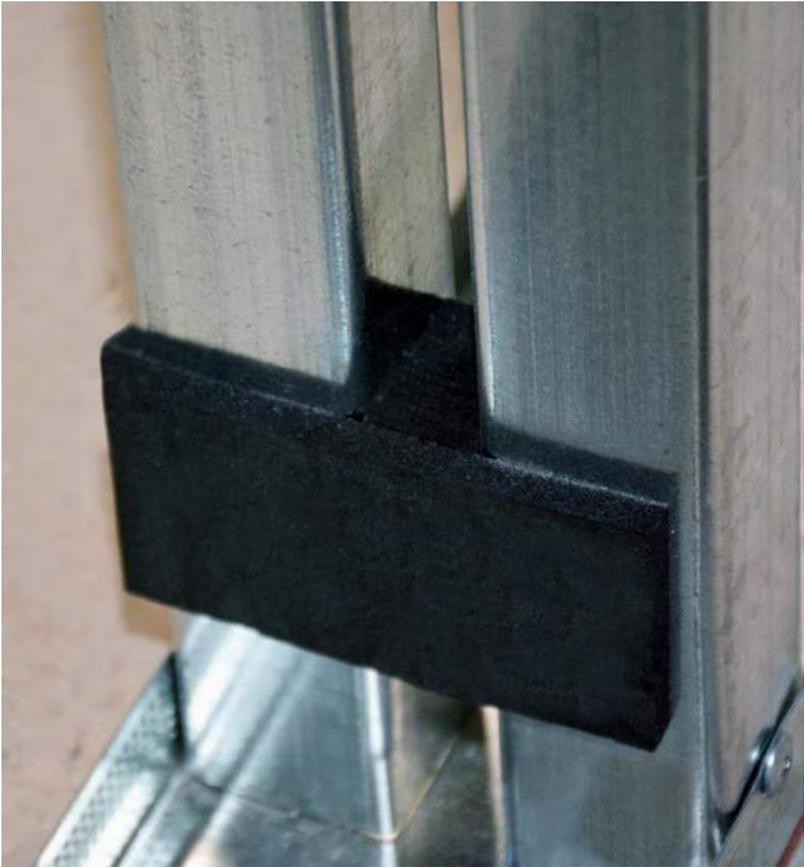
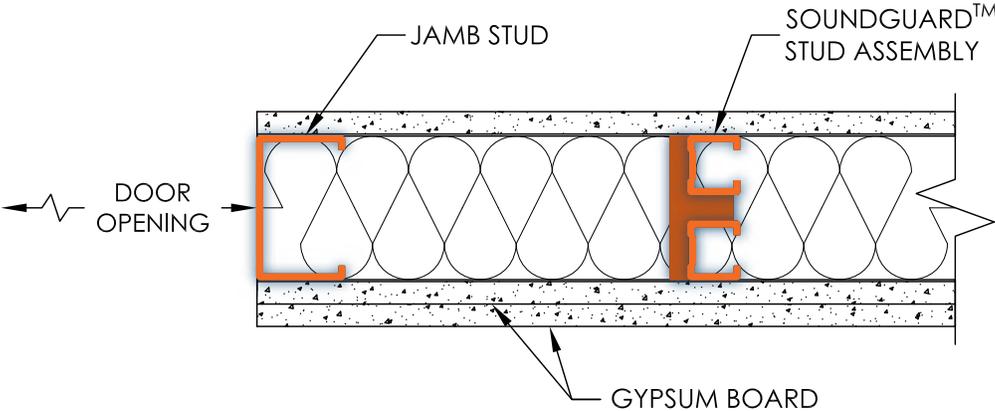


Outside Corner Detail



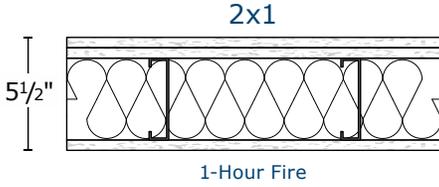
SoundGuard

Jamb Stud Detail



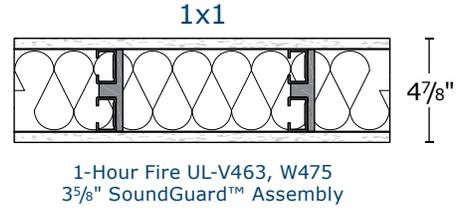
» Wall Partition & Assembly

- WP-1052 STC 50-54



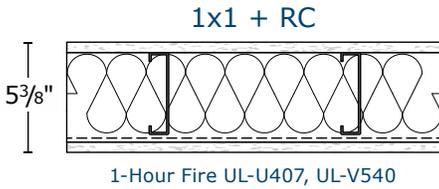
» SoundGuard™

- STC 52
- Less Drywall - 1 Layer GWB



» Wall Partition & Assembly

- WP-1049 STC 50-54



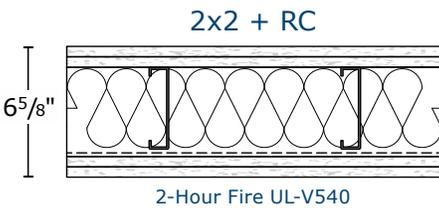
» SoundGuard™

- STC 52
- No Resilient Sound Channel Required



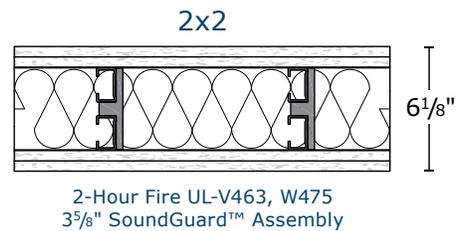
» Wall Partition & Assembly

- WP-1450 STC 60-64



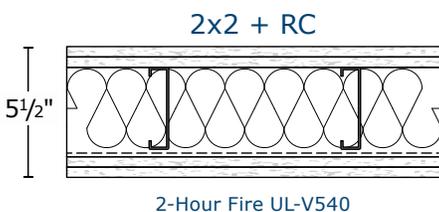
» SoundGuard™

- STC 60
- No Resilient Sound Channel Required



» Wall Partition & Assembly

- WP-1451 STC 60-64



» SoundGuard™

- STC 60
- No Resilient Sound Channel Required

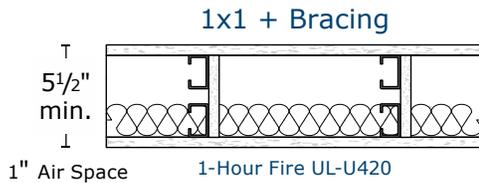


Suitable GA-WP/SoundGuard™ Substitutions

Non Load Bearing / 24" O.C. / 5/8" Type X

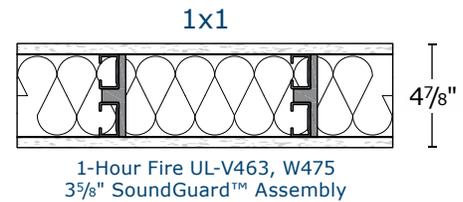
Chase Wall Assembly

- WP-5015 STC 50-54



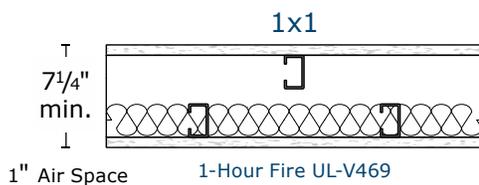
SoundGuard™

- STC 52
- Eliminate One Wall (Stud + Track)
- No Cross Bracing, No CRC



Chase Wall Assembly

- WP-5017 STC 50-54



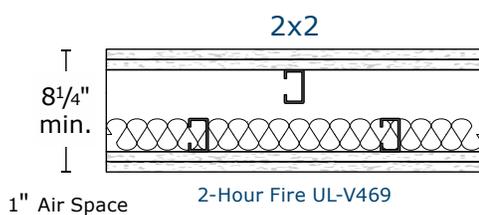
SoundGuard™

- STC 52
- Eliminate One Wall (Stud + Track)
- Narrower Wall* 1x1



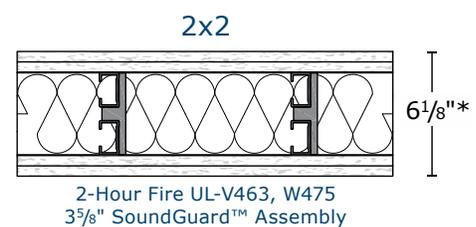
Chase Wall Assembly

- WP-5071 STC 60-64



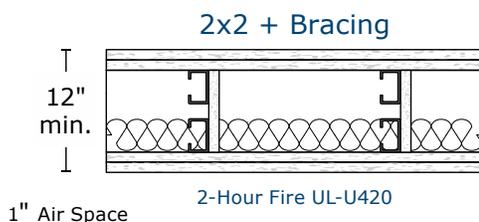
SoundGuard™

- STC 60
- Eliminate One Wall (Stud + Track)
- Narrower Wall*



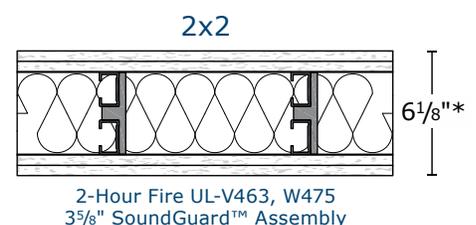
Chase Wall Assembly

- WP-5105 STC 55-59



SoundGuard™

- STC 60
- Eliminate One Wall (Stud + Track)
- No Cross Bracing, No CRC
- Narrower Wall*



*SoundGuard™ Narrower Wall = More Saleable Square Footage

SCAFCO Steel Framing

With 60 years of manufacturing experience, SCAFCO has gained a worldwide reputation for high-quality products, great customer service, and strong corporate ethics. Our comprehensive team of engineers, administrative and office staff, and craftsmen, focus on providing customer driven products. We currently have manufacturing facilities in Spokane, WA and Stockton, CA. We also feature press brakes and shears capable of making on demand, custom parts up to 24' in length.

Engineering Services

For assistance with ordering or questions on your project, utilize SCAFCO Engineering Services:

Call: 509-789-8669

Email: Technical@SCAFCO.com

MANUFACTURING LOCATIONS



22-1 Sound Guard Brochure

www.SCAFCO.com



SGLIT-1000-0421