Experience, Above All™

AcoustiBuilt®

Seamless Acoustical Ceiling & Wall System

Design Guide

Armstrong®
World Industries

Smooth and Clean Monolithic Visual

The AcoustiBuilt® seamless acoustical ceiling and wall system provides the clean monolithic visual of drywall with Total Acoustics® and Sustain® performance. AcoustiBuilt combines excellent acoustical performance and sustainability attributes with efficient installation for a wide variety of spaces.

- Excellent acoustical performance of up to NRC 0.80 and CAC 46
- Use AcoustiBuilt on ceilings for wall-to-wall, cloud, curved, sloped, or soffit applications, and in wall applications above 7 feet
- Smooth non-directional, monolithic, drywall-like visual (Level 4 equivalent finish)
- Custom colors available to meet your design palette
- Quick, easy panel installation using FrameAll™ Drywall Grid
- Faster and easier to install and repair than acoustical plaster at a lower cost

AcoustiBuilt Ceiling System
Parker Poe Corporate Office
Charlotte, NC

View AcoustiBuilt Project Gallery >

Seamless and Monolithic

AcoustiBuilt Ceiling System; REGENXBIO Regional Office; Rockville, MD

Seamless Aesthetics

The AcoustiBuilt® seamless acoustical ceiling and wall system combines the monolithic look of traditional drywall with Total Acoustics® performance – the ideal combination of sound absorption and sound blocking. Sound absorption reduces noise while sound blocking keeps it from traveling into adjacent spaces. Together, these attributes help you create quiet spaces.

View AcoustiBuilt Project Gallery

AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Total Acoustics® Performance

Whether you're creating a space for quiet concentration, collaboration, or confidentiality, one ceiling system meets the needs for today's flexible spaces.

TOTAL ACOUSTICS®
Sound Absorption (NRC) + Sound Blocking (CAC)

The AcoustiBuilt® seamless acoustical ceiling and wall system provides high sound absorption (NRC up to 0.80) and high sound blocking up to CAC 46 to achieve Total Acoustics® performance.

AcoustiBuilt cloud installations can enhance the design and acoustical performance of a space and will absorb sound from both the front and back surfaces.

In wall applications, AcoustiBuilt panels improve the STC of interior stud/drywall partition systems by up to 6 points for added sound blocking.

STC Rating**
1 Side: 42
2 Sides: 43

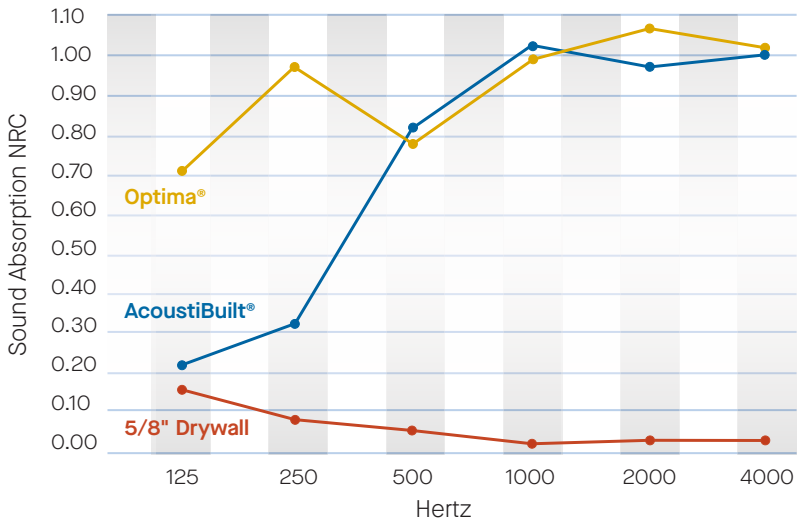
**3-5/8" metal studs with one layer of 5/8" drywall on both sides and AcoustiBuilt panels on one or both sides of the wall.

AcoustiBuilt® vs. Drywall Acoustical Comparison

5,000 SF Exposed Structure (50' × 100'), 15' to deck, drywall with windows on two sides, commercial carpet	5/8" Drywall Ceiling	AcoustiBuilt Seamless Acoustical Ceiling System	AcoustiBuilt Clouds 50% coverage – (equivalent to 2,500 SF of clouds)	
Sound Absorption	0.05	0.80 NRC	0.80 NRC	1.33* NRC
CAC	50	46	N/A	N/A
Total Acoustics®	N/A	BEST	N/A	N/A
Reverberation Time	1.7 sec	0.5 sec	1.1 sec	0.7 sec
RT Improvement	–	71%	35%	59%
SPL Reduction	–	-3.7 dB	-2.7 dB	-3.7 dB

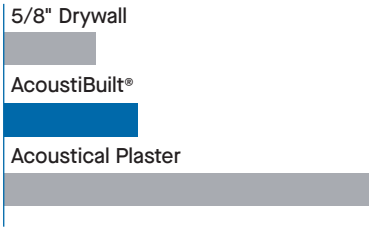
* 1.33 NRC achieved using infill panel Item 8200T10

Sound Absorption Comparison



0.90 NRC Optima® 2' x 2' acoustical ceiling
0.80 NRC AcoustiBuilt® system
0.05 NRC 1 layer 5/8" Drywall on drywall grid

Installed Cost Comparison



AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Total Acoustics® Performance

AcoustiBuilt® panels are part of the Sustain® portfolio which contributes to healthy spaces. Here's how:

- Are free of Red List chemicals per Living Building Challenge® 4.0
- Have Health Product Declarations (HPDs) which tell you what's in the product
- Have Environmental Product Declarations (EPDs) which tell you the impact of the products
- Have Declare® labels – easy reference "nutrition labels"
- Meets California Department of Public Health (CDPH) low emissions standards
- Contribute to - LEED® v4 and v4.1
  - Living Building Challenge®
  - WELL Building Standard®
  - Fitwel® Building Standard
- Are listed in mindful MATERIALS and the Embodied Carbon in Construction Calculator (EC3) tool

SUSTAIN®
High Performance Sustainable Ceiling Systems

Declare.

mindful MATERIALS

USDA CERTIFIED BIOBASED PRODUCT
PRODUCT 95%

AcoustiBuilt Ceiling System: GWWO Architects Office, Baltimore, MD

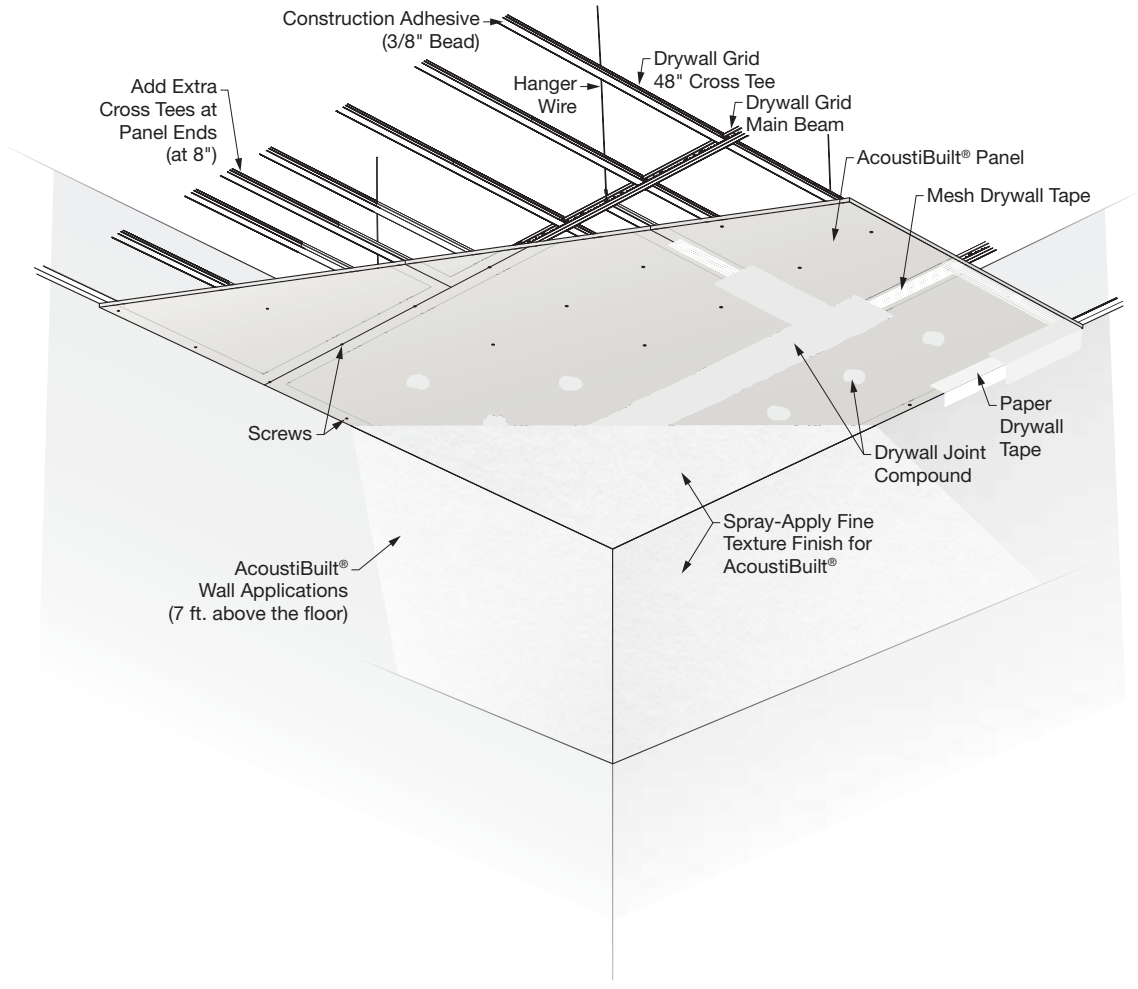
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Total Acoustics® Performance

The AcoustiBuilt® seamless acoustical ceiling system looks and installs like drywall but has been engineered to absorb and block sound. AcoustiBuilt uses an acoustically transparent fine-texture finish applied in layers to allow sound to pass through and be absorbed by the mineral fiber panels.

The AcoustiBuilt panels are attached to the FrameAll™ Drywall Grid with adhesive and screws, then the ceiling is finished just like drywall. Glue and screw panels to existing drywall on walls above 7 feet.

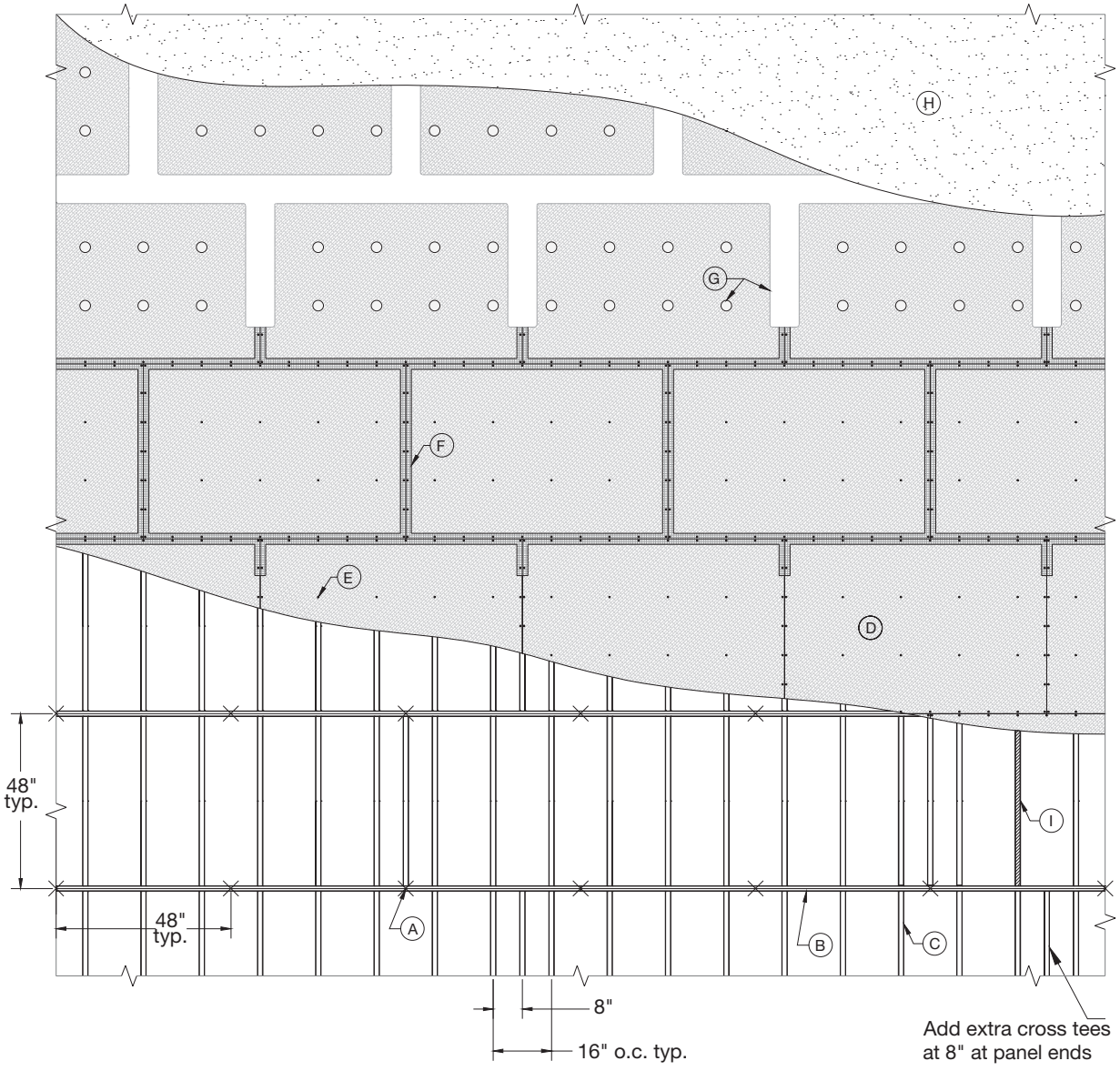
AcoustiBuilt Ceiling System – Cloud Installation; In8Bio, Birmingham, AL



AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Total Acoustics® Performance

The typical system layout below shows a standard wall-to-wall ceiling application of AcoustiBuilt®.



AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Total Acoustics® Performance

Applications – The AcoustiBuilt® ceiling and wall system can be used in almost any application where standard drywall is used, including wall applications (above 7 feet), flat, curved (50' or greater radius), sloped, soffit, or cloud ceiling applications. AcoustiBuilt is seismic D, E, F tested and approved.

Color – The AcoustiBuilt fine-texture finish is available standard in both White (LR of 0.87) and Black (LR of 0.08). Custom colors are available to meet your design palette. Custom colors will appear one or two shades darker than a standard paint color sample when applied due to the fine texture finish.

Lighting – AcoustiBuilt panels are intended for spaces desiring a Level 4 equivalent drywall finish. Like Level 4 drywall, critical or low-angle light grazing across the ceiling can show imperfections. Special attention to finishing and sanding may be required. Downlights can complement the appearance in severe grazing light.

Installation is similar to standard wallboard and drywall suspension systems. However, it requires more precision and a higher level of finish to achieve an acceptable appearance. Lighting conditions can magnify surface imperfections, especially natural light that shines from oblique angles. It is strongly recommended that a job site mockup be constructed with representative lighting so that expectations regarding the finished appearance are managed.

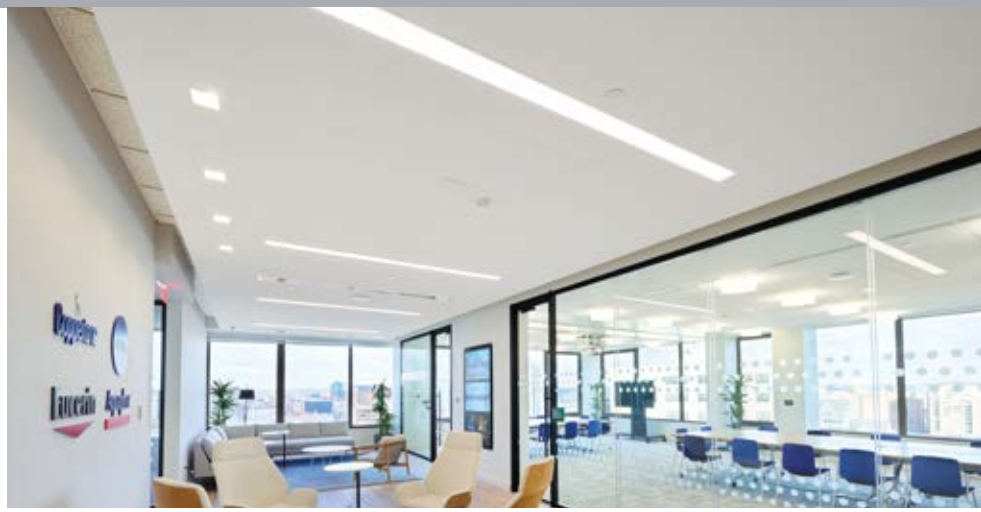
Acoustical Performance – Excessive ceiling integrations and/or small enclosed spaces, where the ceiling is more joint compound than open area, will result in degradation of sound absorption. Light tone colors may require an additional coat of fine-texture finish, resulting in a slight degradation of sound absorption.

AcoustiBuilt® Ceiling System in Black Fine-Texture Finish

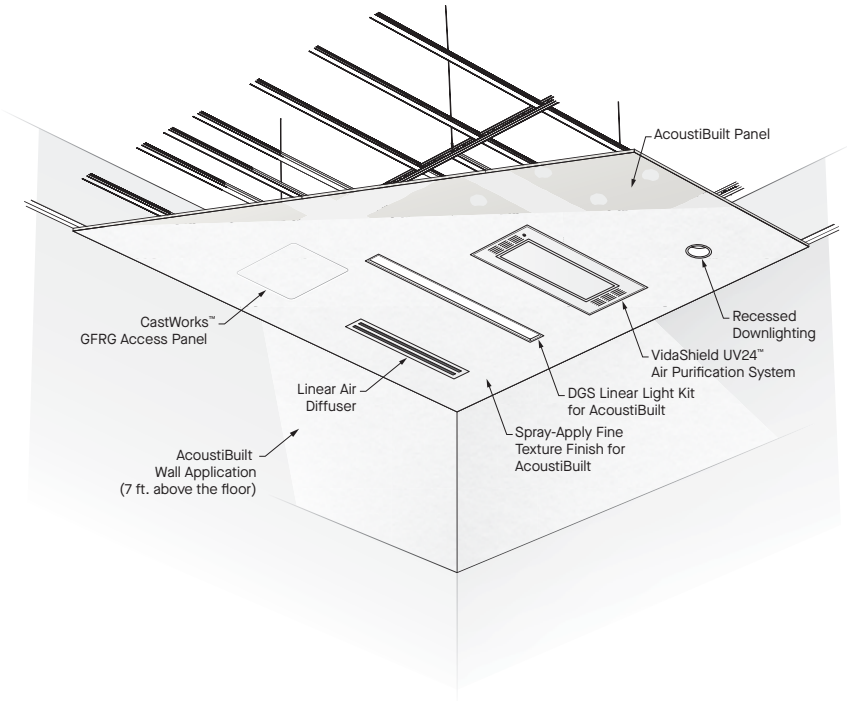
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Design Details and Integration

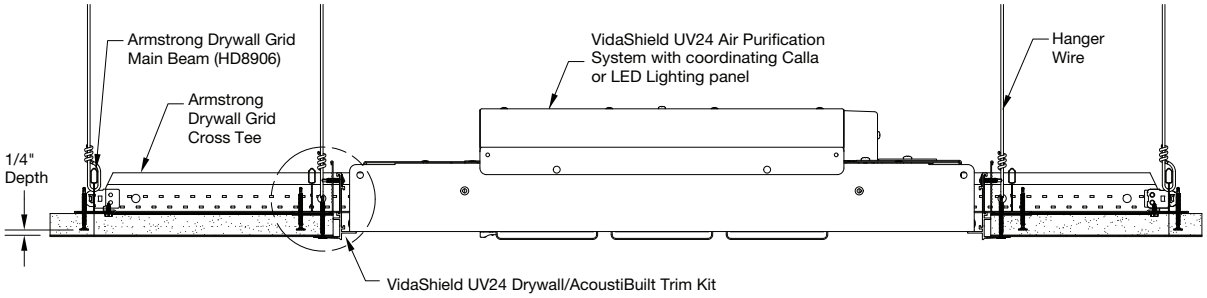
AcoustiBuilt® installed on FrameAll™ Drywall Grid in ceiling applications offers comparable compatibility to standard drywall and easily accommodates a wide variety of conventional and Armstrong partner light fixtures, HVAC diffusers, access doors, and transitions to standard acoustical ceiling systems. The AcoustiBuilt fine-texture finish can be used to coat most GFRG or metal access panels/doors in order to maintain a consistent finishedceiling visual.



AcoustiBuilt Ceiling System; Beiersdorf Office; Stamford, CT



VidaShield UV24™ with AcoustiBuilt Trim Kit



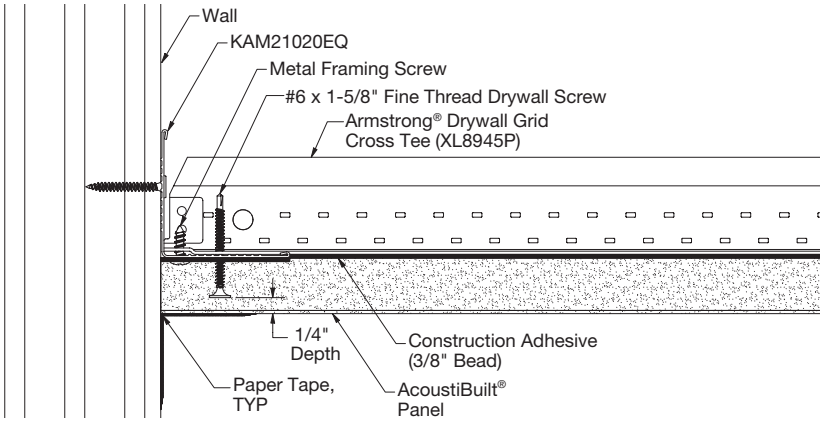
Download AcoustiBuilt Drawing Details Library >

AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Typical Details

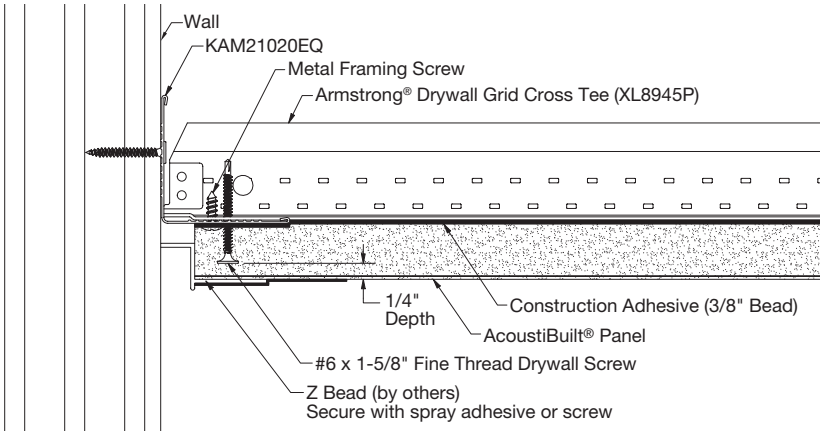
AcoustiBuilt® No Reveal at Wall

(Per ASTM C480, Section 20, ceilings without perimeter relief cannot exceed 30 LF and 900 SF between control joints)

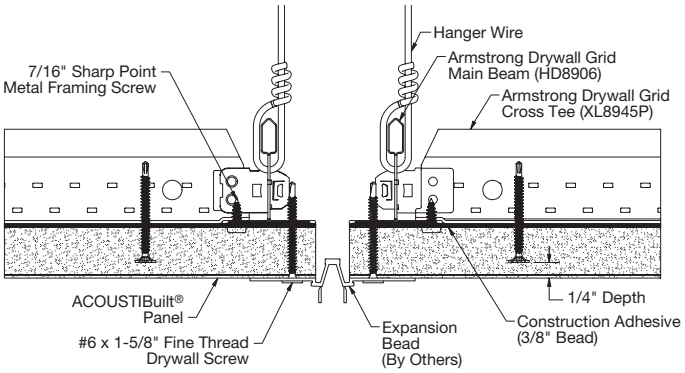


AcoustiBuilt Reveal at Wall

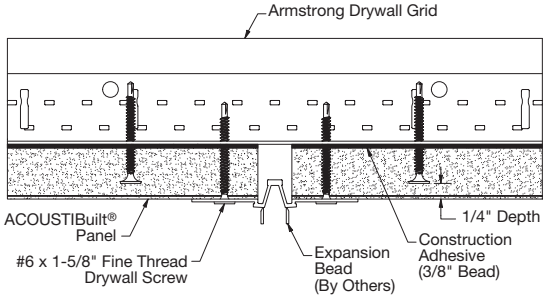
(Per ASTM C480, Section 20, ceilings with perimeter relief cannot exceed 50 LF and 2,500 SF between control joints)



Expansion Joint



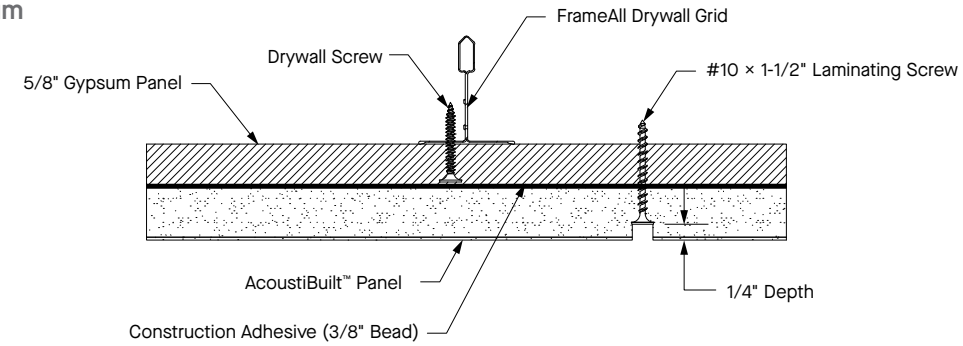
Control Joint



AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

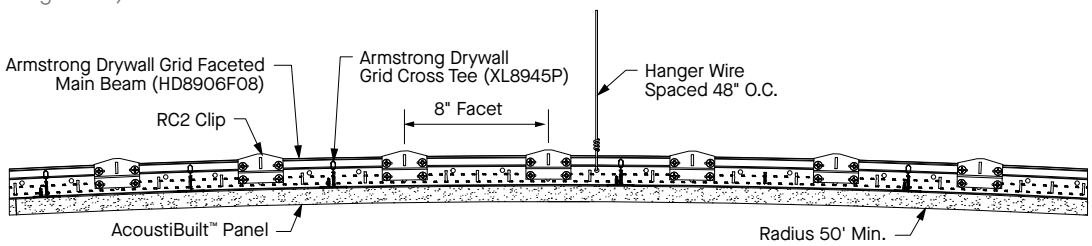
Typical Details

Open-Air Plenum

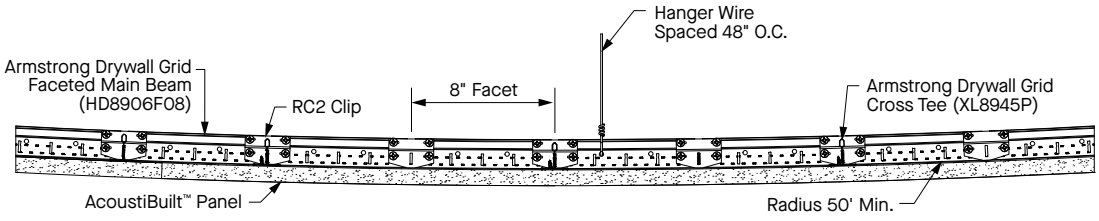


Curved Ceiling Applications

(radius of 50' or greater)



Concave Ceiling Details

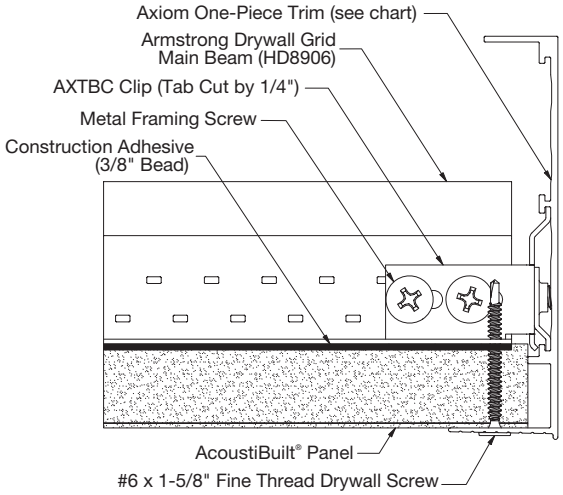


Convex Ceiling Details

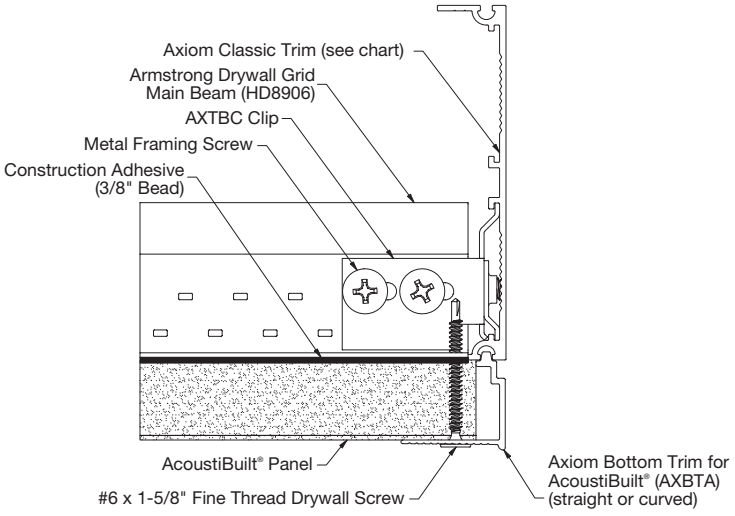
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Floating Edge Details

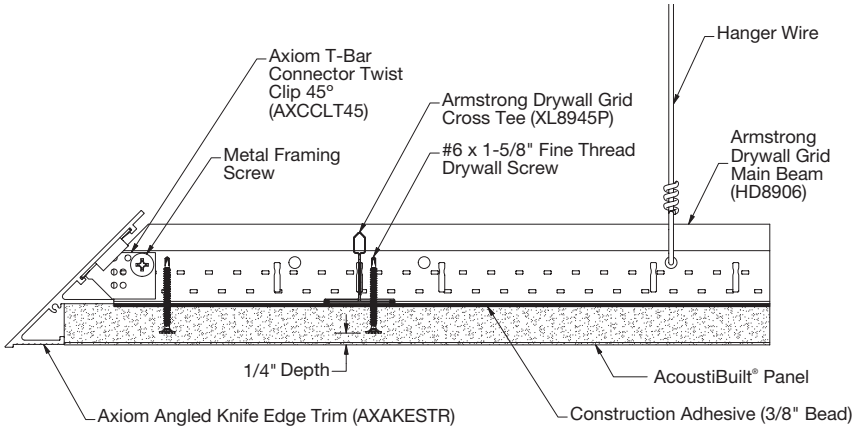
Axiom® One-Piece Trim



Axiom Classic with Axiom Bottom Trim for AcoustiBuilt®



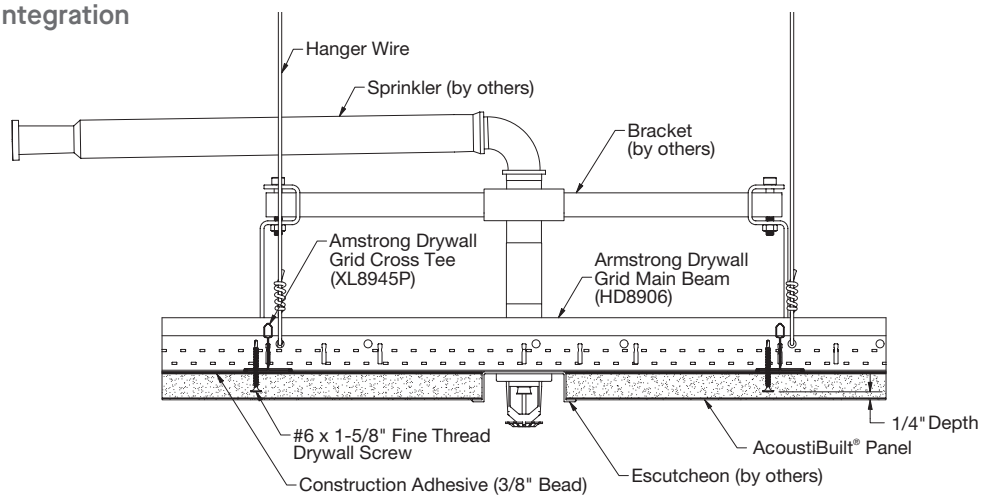
Axiom Angled Knife Edge® Trim



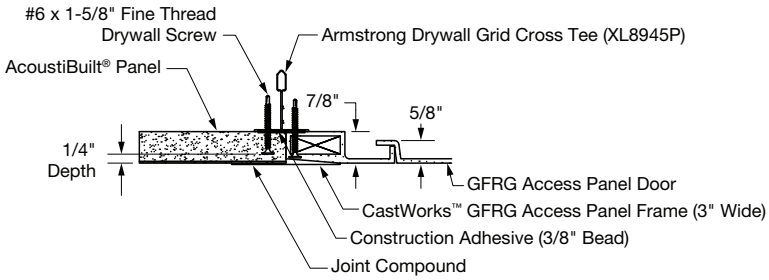
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Common Integration Details

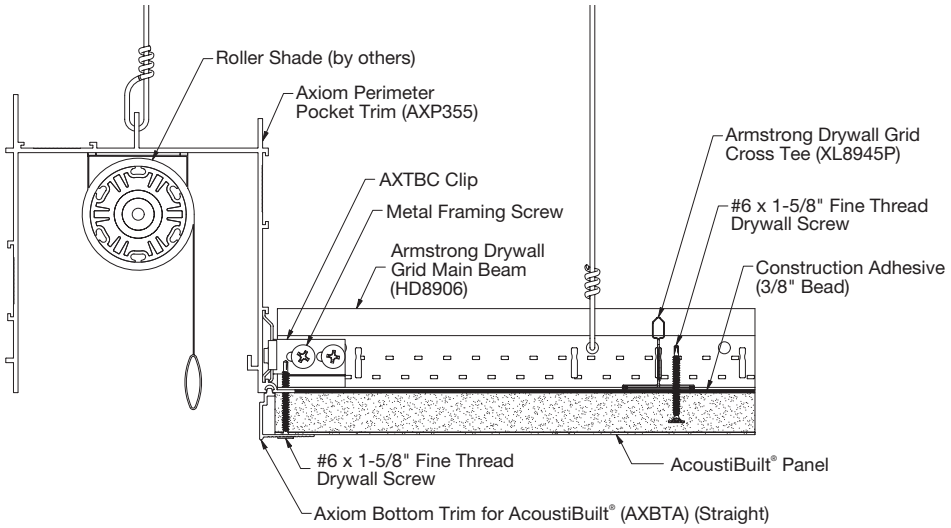
AcoustiBuilt® Sprinkler Integration



AcoustiBuilt with CastWorks™ GFRG Access Panel



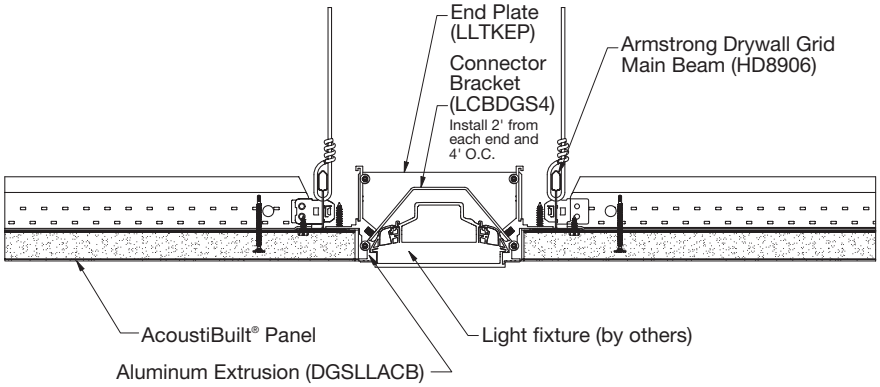
AcoustiBuilt with Axiom® Shade Pocket



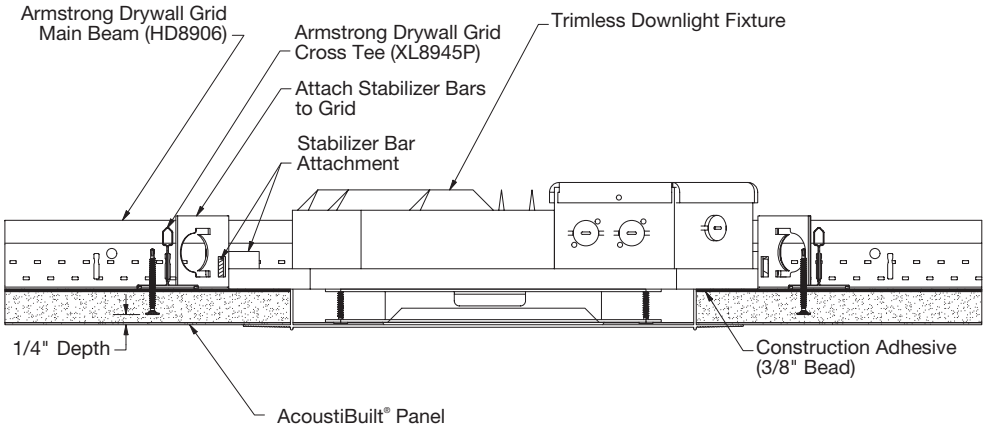
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Lighting Integration Details

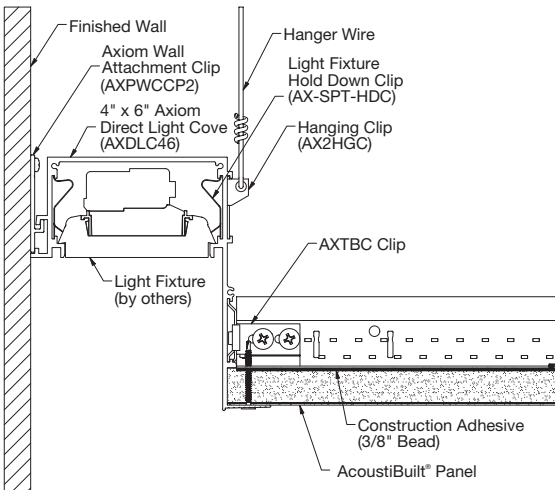
Axiom® Linear Lighting Kit for AcoustiBuilt® (Trimless)



Downlighting Integration



Axiom Direct Light Cove

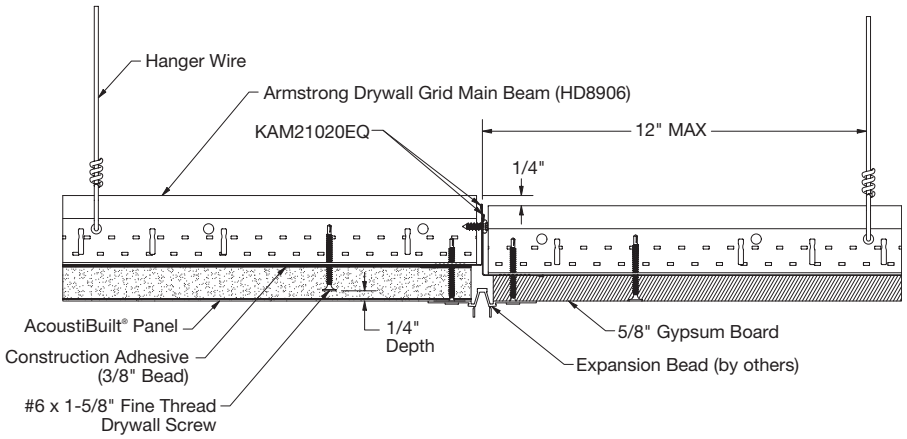


(Available Cove heights: 4" and 6")

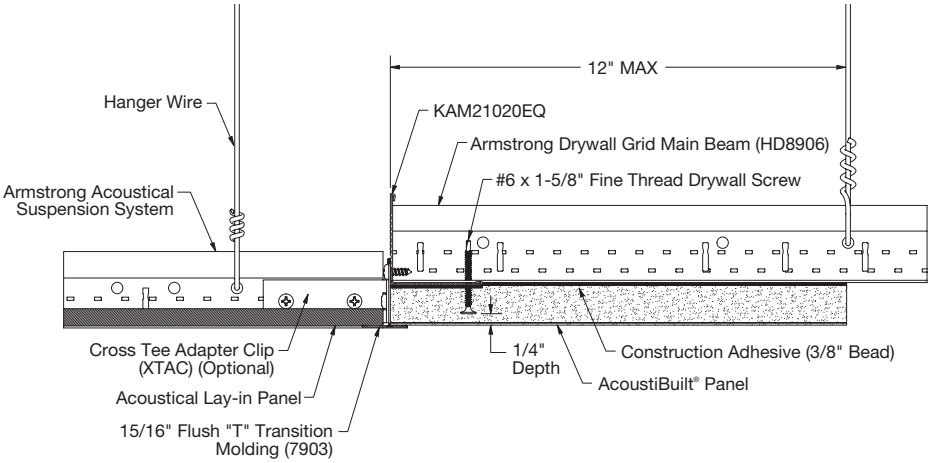
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Typical Details

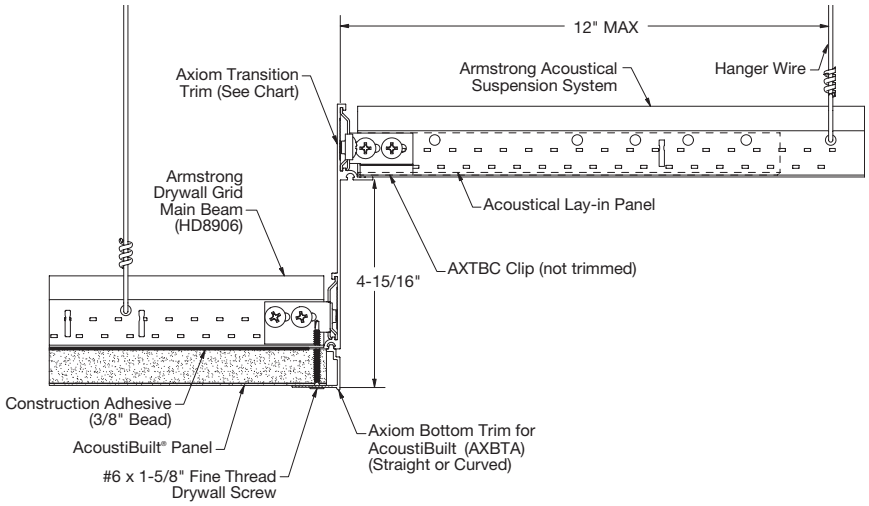
Flush Transition – AcoustiBuilt® to 5/8" Drywall



Flush Transition – AcoustiBuilt to 15/16" Acoustical Ceiling



Axiom® Transition – AcoustiBuilt to Acoustical Ceiling

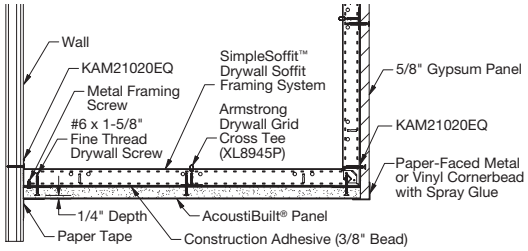


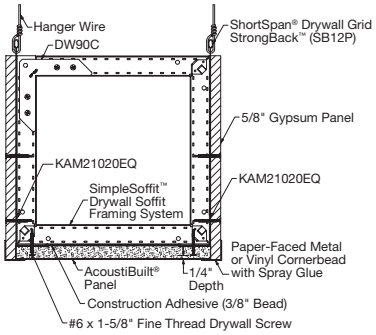
AcoustiBuilt® Seamless Acoustical Ceiling & Wall System

Wall and Soffit Details

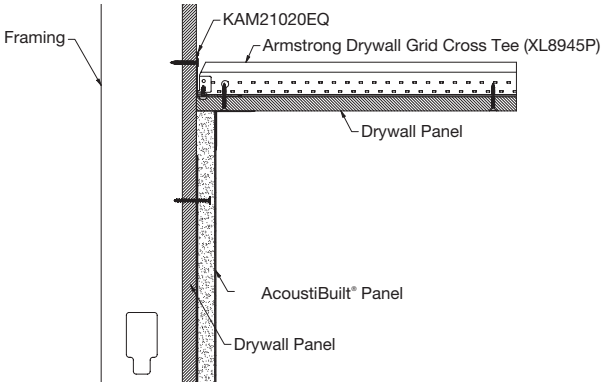
AcoustiBuilt® with SimpleSoffit™ Drywall Framing System

Use SimpleSoffit drywall framing system with AcoustiBuilt on soffits greater than 36" for improved acoustical performance.

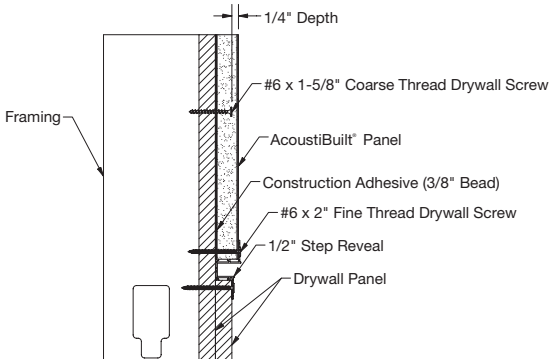




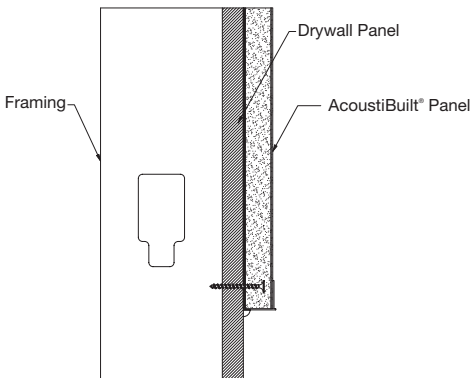
AcoustiBuilt Wall Finished to Drywall Ceiling



Wall Reveal for AcoustiBuilt



AcoustiBuilt Wall – Step-to-Drywall with 7/8" L-Bead



AcoustiBuilt® Ceiling System: Children's Research Hospital; Memphis, TN

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