

**Interdisciplinary Science Building
Webster University
Cannon Design Project No. 004561.01**

Project: Webster ISB Substitution Request Number: 22
From: Joe Voypick
To: Kelvin Patel Date: 06/08/16
Re: _____ Contract For: _____

Specification Title: Acoustical Panel Ceilings Description: _____
Section: 095113 Page: A0701.B Article/Paragraph: Ceiling Legend

Proposed Substitution: CERTAINEED IN LIEU OF ARMSTRONG reference substitution request 19

Trade Name: _____

Model No.: Reference substitution request 19

Manufacturer: CERTAINEED

Address: _____

Phone: 800-233-8990 Manufacturer Web Page: http://www.certainteed.com/ceilings

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

Savings to Owner for accepting substitution: _____ (\$ _____)

Proposed substitution changes Contract Time: ☒ No ☐ Yes [Add] [Deduct] _____ days.

The Undersigned Bidding General Contractor/Construction Manager Certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified products.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

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- The following supporting data is attached to this request and verifies the above statements:

- ☐ Drawings
- ☐ Product Data
- ☒ Samples
- ☐ Tests
- ☐ Reports
- ☐ Other (explain) _____

Submitted by: Doug Mayhew

Signed by: _____

Contractor: Paric

Address: 77 Westport Plaza, Suite 250

DDMayhew@paric.com

Phone: 636-561-9586 : Email

Review and Action

- ☒ Substitution approved – Make submittals in accordance with the Specifications.
- ☐ Substitution approved as noted – Make submittals in accordance with the Specifications.
- ☐ Substitution rejected – Use specified materials.
- ☐ Substitution received too late – Use specified materials.

Comments: NOTE: FOR APC-9: TILE USED WITH QUIET TILE BACKER TO BE APC-7.

Signed by: Lynn Grossman. Date: 06.20.16



Chicago Metallic 4600 Ultraline™ 9/16" Exposed with 1/8" Reveal

Primary Applications:

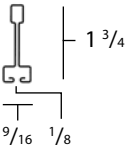
Lobbies, Airports, conference rooms and other High End Applications.

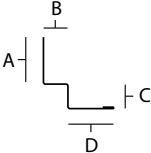
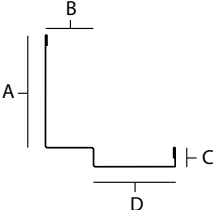
Features and Benefits:

- ICC-ES report 2631
- 9/16" face with 1/8" reveal.
- All Intersections are pre mitered during production.
- The industry standard of compatibility: acoustical tile, light fixtures and air diffusers.

- Chicago Metallic suspension systems meet a Class-A flame spread rating in accordance with ASTM standard E1264-08.
- Cost and visual control.
- Sound and seismic performance.
- Sustainable: Minimum 25% recycled content, 100% locally recyclable, global/regional manufacture.

PRODUCTS

Main Tees	
	Double web construction, 9/16" width with 1/8" center reveal. For Modules Sized (24 x 24, 24 x 48, 20 x 30, 20 x 60, 30 x 30, 30 x 60) □ 4600.01 (144", slots/notches 24" OC, ID) □ 4640.01 (144", slots 12" OC, no notches HD) □ 4660.01 (144", slots/notches 24" OC, ID) □ 4630.01 (144", slots/notches 24" OC, HD) □ 4601.01 (120", slots/notches 30" OC, ID) □ 4602.01 (120", slots/notches 20" OC, ID)
Cross Tees	
Double web construction, 9/16" width with 1/8" center reveal. Stab-in end detail.	For Modules Sized (24 x 24, 24 x 48) □ 4611.01 (12", no slots/notches) □ 4612.01 (24", no slots/notches) □ 4624.01 (48", no slots/notches) □ 4614.01 (48", slot/notch at midpoint) □ 4618.01 (48", slot at 24", notch 1 side at midpoint) For Modules Sized (20 x 30, 20 x 60, 30 x 30, 30 x 60, 60 x 60) □ 4620.01 (20", no slots/notches) □ 4613.01 (30", no slots/notches) □ 4621.01 (60", no slots/notches) □ 4615.01 (60", slots/notches 30" OC) For Modules Sized (24 x 72, 48 x 72) □ 4616.01 (72", no slots/notches) For Modules Sized (24 x 96, 48 x 96) □ 4628.01 (96", slots 24" OC/no notches)

Wall Angles	
 two hemmed edges	Wall Angle, two hemmed edges (A x B): □ 1480.01 (144", 15/16" x 9/16") □ 1420.01 (144", 15/16" x 15/16") □ 21420.01 (144", 15/16" x 15/16") □ 1467.01* (144", 1-3/16" x 15/16")
Shadow Moldings	
 1460, 1461, 1468/1469 one/two hemmed edge	Shadow Moldings, one hemmed edge (A x B x C x D) □ 1460.01 (120", 3/4" x 3/8" x 3/8" x 3/4") □ 1461.01 (120", 3/4" x 3/4" x 3/4" x 3/4") □ 1468.01 (120", 3/4" x 3/8" x 3/8" x 15/16")
	Shadow Molding, two hemmed edges (A x B x C x D) □ 1469.01 (120", 9/16" x 3/8" x 3/8" x 15/16")
 1466 two hemmed edges	Shadow Molding, two hemmed edges (A x B x C x D) □ 1466.01 (144", 1-3/4" x 3/4" x 1/4" x 1-1/4")
Notch Cover	
 7/8	□ 3699.01 (7/8" length)

* To allow for use of Bolt Slot Grid with 1496 Clip.

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Chicago Metallic 4600 Ultraline™ 9/16" Exposed with 1/8" Reveal

MATERIAL

A. General

ASTM C 635 Heavy Duty (HD) and Intermediate Duty (ID) main tee classifications; commercial quality hot dipped galvanized steel, 9/16" wide with 1/8" center reveal, 1-3/4" height.

Note: A metallurgist should be consulted regarding the suitability of this product for the environmental conditions in which it is being installed.

COMPONENT LOAD TEST DATA (based on 1/360 span deflection)

ALLOWABLE LOAD per ASTM C635 [■]					
Main Tee	Length	Hanger Spacing			
		4'	5'	6'	
4600	12'	ID	7.7	4.6	
4640	12'	ID	7.7	4.6	
4660	12'	ID	9.3	5.6	
4630	12'	HD	9.3	5.6	
4601	10'	ID	7.7	4.6	
4602	10'	ID	7.7	4.6	
Cross Tee	Length	2'	4'	5'	6'
4612	2"	55.0 [▲]			
4624	4'		13.1		
4614	4'		14.6		
4618	4'		14.6		
4621	5'			7.7	
4615	5'			7.7	
4616	6'				4.6
4628	8'				13.1

[■]To convert data into lb/ft², divide on center spacing of component into lb/ft.

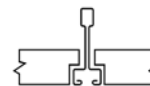
[▲]Limited by safety factor of 2.

LIGHT FIXTURE LOAD TEST DATA (based on 1/360 span deflection)

LIGHT FIXTURES	MAIN & CROSS TEES - ALLOWABLE FIXTURE WT. - LBS.	
	4600	4630
Dimensions	4614	4614
2' x 2'	42.4	42.4
2' x 4'	58.4	58.4

DETAILS

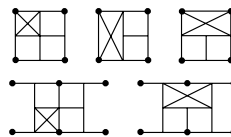
flush reveal



NON-FIRE RATED ASSEMBLIES

Hanger Positions for Non-Fire Rated Situations

This illustrates hanger positions for single fixtures in a field. Provide extra hangers for tandem fixtures.



ROXUL
Rockfon®



ROCKFON, LLC 4849 SOUTH AUSTIN AVE., CHICAGO, IL 60638 / USA and Canada: 800-323-7164 / Fax: 800-222-3744 / rockfon.com

KINETICS™

Isolation Hangers Model AF



Description

Model AF fiberglass hangers are specifically designed as a noise stop isolator for use in wire-supported, suspended ceiling systems. These hangers are a combination of uniquely permanent, inorganic Kinetix fiberglass and a zinc-plated metal assembly. This creates a combination that is essentially non-corrosive in all typical building environments. The incorporation of galvanized No. 12 gauge wire adapts the Model AF hanger directly into the standard tie wire system used by ceiling installation trades.

Model AF hangers are available in two (2) load ranges:

- Model AF-100 load range, 20-100 pounds (9-46 kg), used for lightweight acoustical tile ceilings.
- Model AF-200 load range, 50-200 pounds (23-91 kg), used for heavy gypsum board and plaster ceilings.

Both Model AF hangers will carry a 500% overload without failure.

Features

- Permanently resilient fiberglass isolator pad
- Constant natural frequency in wide load range
- Load capacities 20 lbs. to 200 lbs. (9 kg to 91 kg)
- 500% overload fail-safe assembly

Application

Kinetix Model AF hangers are recommended for use in acoustically isolated ceiling systems.

Acoustical tile ceilings can be supported by Model AF-100 hangers to stop high frequency “buzzing” of the ceiling grid work, caused by equipment such as transformers, chillers, and other mechanical equipment sources in the audible frequency range.

Heavy ceilings of gypsum board and plaster can be supported by Model AF hangers to increase the sound transmission loss.

Standard Model AF hangers are shipped fully assembled and ready for use.

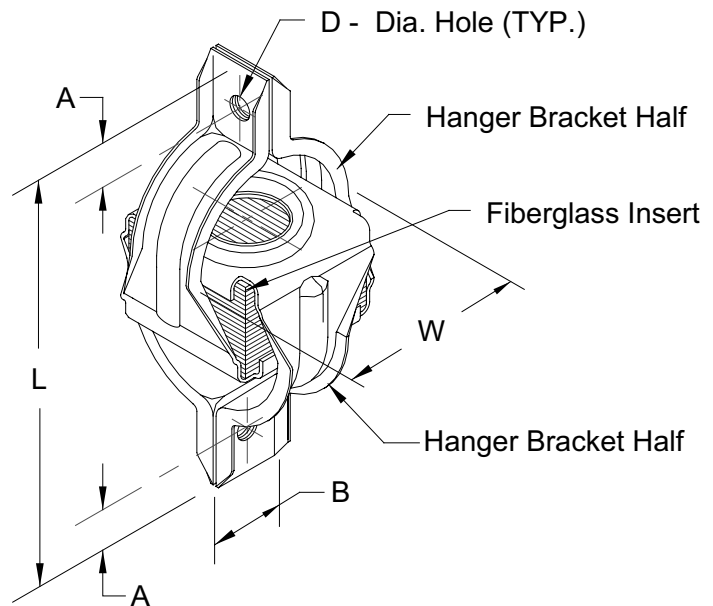
Hanger Type	Standard Ratings				Dimensions									
	Capacity		Deflection		L		W		A		B		D	
	lbs	kg	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
AF-100	100	45	0.28	7	4.75	121	2.19	56	0.50	13	0.88	22	0.27	7
AF-200	200	91	0.19	5	4.75	121	2.19	56	0.50	13	0.88	22	0.27	7

Specifications

Hangers shall consist of a fiberglass isolator encased in an antishort-circuit reinforced steel bracket which will accommodate up to #8 suspension wire or a 1/4" (6.35 mm) bolt or screw.

The fiberglass isolator shall be 1" (25 mm) thick, precompressed, molded fiberglass composed of glass fibers produced by a multiple flame attenuation process which generates nominal fiber diameters not to exceed 0.00022" (5.6 microns) and shall have been stabilized by precompression ten (10) times to three (3) times the maximum rated load of the material used.

The hanger assembly shall be zinc-plated reinforced steel and shall carry a five (5) times maximum rated load overload without failure. Hangers shall be Model AF as manufactured by Kinetics Noise Control, Inc.



kineticsnoise.com/arch/af.html
sales@kineticsnoise.com
 1-800-959-1229

Ohio, USA

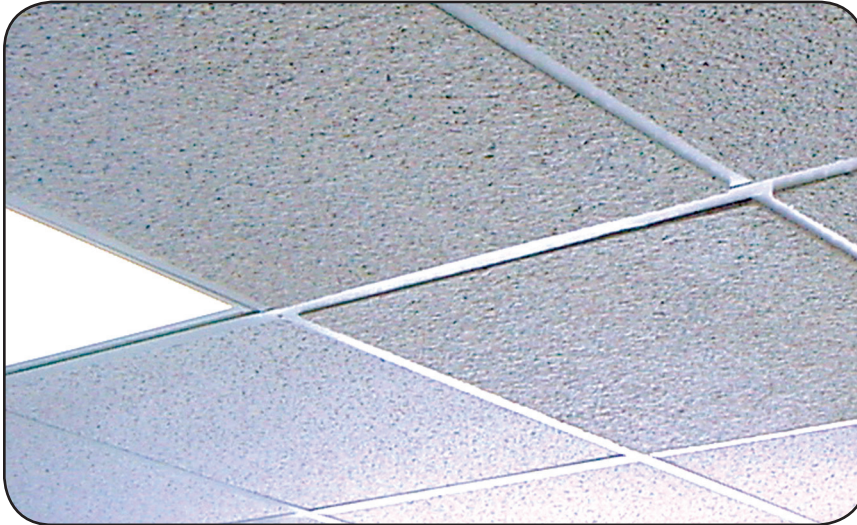
Nevada, USA

Ontario, Canada

Hong Kong, China

KINETICS NOISE CONTROL

QuietTile Acoustical Ceiling System



Searching for a ceiling tile product that improves speech privacy and reduces noise intrusion through a lay-in ceiling? Does your design require matching existing lay-in tiles?

QuietTile provides a high CAC rating, 49-51.

The Kinetics' QuietTile uses additional mass and sound damping to produce a composite ceiling tile designed to reduce sound transmission through a lay-in ceiling. The QuietTile sound control ceiling is installed in a standard ceiling grid and can be selected to match most acoustical ceiling tiles. Kinetics bonds the composite viscoelastic damping layer and gypsum board to the back of a standard ceiling tile selected by the designer.

The QuietTile composite lay-in panel can be designed for a reveal 9/16" (narrow) grid or 15/16" standard grid. Tiles are available in nominal 24" x 24" and 24" x 48" sizes.

Achieve sound control and speech privacy in a lay-in ceiling system where conventional ceiling tiles fail.

Designer can select from any readily available lay-in ceiling tiles.

TILE TO BE APC-7



6300 Irelan Place
Dublin, OH 43017
1.800.959.1229 Toll-Free
www.kineticsnoise.com

Over 50 years of success solving acoustics and noise control problems!

QuietTile Acoustical Ceiling System

Description

Composite ceiling tile designed for improved sound transmission loss.

Composition

Gypsum board

Viscoelastic sound damping layer

Ceiling tile face - can be provided to match existing ceiling tile

Available in nominal 2 ft. x 2 ft. or 2 ft. x 4 ft. sizes.

Note: The Kinetics standard facing tile is Armstrong Cortega unless otherwise specified.

Acoustical Performance

Ceiling Attenuation Class (CAC), QuietTile tested with Armstrong Cortega mineral fiber facing tile - CAC 49.

QuietTile with optional 1-inch (25 mm), 3 pcf fiberglass backer with Armstrong Cortega mineral fiber facing tile - CAC 51.

QuietTile tested with Armstrong Cortega mineral fiber facing tile - NRC 0.60

Fire Test Data

Class A per ASTM E 84

Applications

Conference Rooms

Law Offices

Medical Exam Rooms

Classrooms

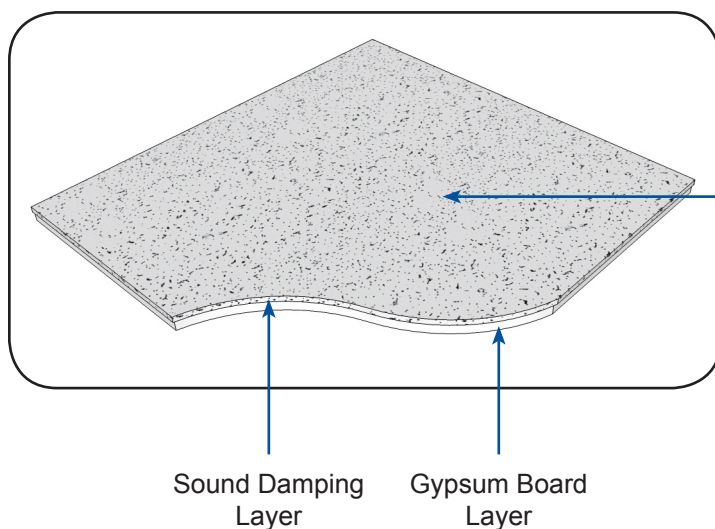
Rooms requiring improved speech privacy or noise reduction through the ceiling

Installation

Note: For achieving maximum noise reduction it is important that noise “leaks” through the ceiling; supply/return vents and open light fixtures be treated. Ask Kinetics for methods of treatment based on your ceiling design.

Select a suspension system for ceiling panel weights up to 3.5 lbs. per square foot.

Field notching of the backing layer may be required at tie wire locations depending on overall thickness of finish tile selected.



Acoustical Ceiling Tile:
Model selected by designer

Download the
Specification in
CSI Masterformat at
www.kineticsnoise.com



**Interdisciplinary Science Building
Webster University
Cannon Design Project No. 004561.01**

Project: Webster ISB Substitution Request Number: 19
From: DOUG MAYHEW
To: KELVIN PATEL Date: 05/13/16
Re: _____ Contract For: _____

Specification Title: Acoustical Panel Ceilings Description: _____
Section: 095113 Page: A0701.B Article/Paragraph: CEILING LEGEND

Proposed Substitution: CERTAINEED IN LIEU OF ARMSTRONG (SEE ATTACHED SPREADSHEET)

Trade Name: _____

Model No.: SEE ATTACHED SPREADSHEET, SAMPLES TO BE MAILED

Manufacturer: CERTAINEED

Address: _____

Phone: 800-233-8990 Manufacturer Web Page: http://www.certainteed.com/ceilings

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

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- ☐ Drawings
- ☐ Product Data
- ☒ Samples
- ☐ Tests
- ☐ Reports
- ☐ Other (explain) _____

Submitted by: DOUG MAYHEW

Signed by: _____

Contractor: PARIC

Address: 77 WESTPORT PLAZA, SUITE 250

DDMayhew@paric.com

Phone: 636-561-9586 : Email

Review and Action

- ☐ Substitution approved – Make submittals in accordance with the Specifications.
- ☐ Substitution approved as noted – Make submittals in accordance with the Specifications.
- ☒ Substitution rejected – Use specified materials.
- ☐ Substitution received too late – Use specified materials.

Comments: Most of the ceiling tiles are acceptable, provided some additional verification
& information.

Main difference is with the grid for APC-2,7,8,9 - 1/8" Bolt slot required.

See table markups for more detailed comments.

Signed by: Lynn Grossman & Kelvin Patel

Date: 05/20/2016

Appearance
OK.

2x2 Required

Reference	Manufacturer	Style Name	Style Number	Size	Edge	Suspension	NRC	CAC	LR
APC-1	Armstrong	Optima	3251	2x2	Tegular	9/16"	95	0	0.90
Quoted Equal	CertainTeed	Symphony F	1342F-IOF-1	2x4	Tegular	9/16"	95	24	0.90
APC-2	Armstrong	Ultima	1915	2x4	Tegular	9/16"	70	35	0.90
Quoted Equal	CertainTeed	Symphony M	1220BF-IOF-1	2x4	Tegular	9/16"	70	35	0.90
APC-3A	Armstrong	Ultima Health Zone	1935	2x2	Tegular	9/16"	70	35	0.86
Quoted Equal	CertainTeed	RX Symphony M	1222F-RXS-1	2x2	Tegular	9/16"	70	35	0.90
APC-3B	Armstrong	Ultima Health Zone	1936	2x2	Square	9/16"	70	35	0.86
Quoted Equal	CertainTeed	RX Symphony M	1222-RXS-1	2x2	Square	9/16"	70	35	0.90
APC-5	Armstrong	Fine Fissured	1728	2x2	Square	15/16"	55	33	0.85
Quoted Equal	CertainTeed	Fine Fissured	HHF157	2x2	Square	15/16"	60	33	0.84
APC-7	Armstrong	Ultima	1915	2x4	Tegular	9/16"	70	35	0.90
Quoted Equal	CertainTeed	Symphony M	1220F-IOF-1	2x4	Tegular	9/16"	70	35	0.90
APC-8	Armstrong	Optima	3261	2x6	Tegular	9/16"	95	0	0.90
Quoted Equal	CertainTeed	Ecophon Gedina E	3540 4353	2x6	Tegular	9/16"	90	21	0.84
APC-9	Armstrong	Ultima	1915	2x4	Tegular	9/16"	70	35	0.90
Quoted Equal	CertainTeed	Symphony M	1220F-IOF-1	2x4	Tegular	9/16"	70	35	0.90

APC-1: Ceiling Tile appearance acceptable, but 2'x2' size required. Grid acceptable.

APC-2: Ceiling Tile acceptable. Grid rejected - 1/8" Bolt slot required.

APC-3A: Ceiling Tile acceptable. Grid acceptable.

APC-3B: Ceiling Tile acceptable. Grid acceptable.

APC-5: Ceiling Tile acceptable. Grid acceptable.

APC-7: Ceiling Tile acceptable. Grid rejected - 1/8" Bolt slot required.

APC-8: Ceiling Tile appearance, size, & NRC acceptable; Thickness is 9/16" vs. 1" specified - provide data confirming equivalent sag resistance. Grid rejected - 1/8" Bolt slot required.

APC-9: Ceiling Tile appearance acceptable; Verify that acoustical backing & hangers per specification will be provided. Grid rejected - 1/8" Bolt slot required.

APC-2,7,8,9 :
Grid rejected.
1/8" Bolt slot required.

APC-9:
Verify that acoustical
backing & hangers per
specification will be
provided.