

**USG DONN® ADVANCESPAN,
DXAS™ AND DXTAS™**

CORRIDOR ACOUSTICAL SUSPENSION SYSTEM

INSTALLATION GUIDE

USG DONN[®] ADVANCESPAN, DXAS[™] AND DXTAS[™] CORRIDOR ACOUSTICAL SUSPENSION SYSTEM

UNDERSTAND YOUR SYSTEM

Page

Overview	1
Components	1
Non-Seismic Installation	3
Seismic Installation	7

FOR MORE INFORMATION

Technical Service 800 USG.4YOU (874-4968)

WEB SITE

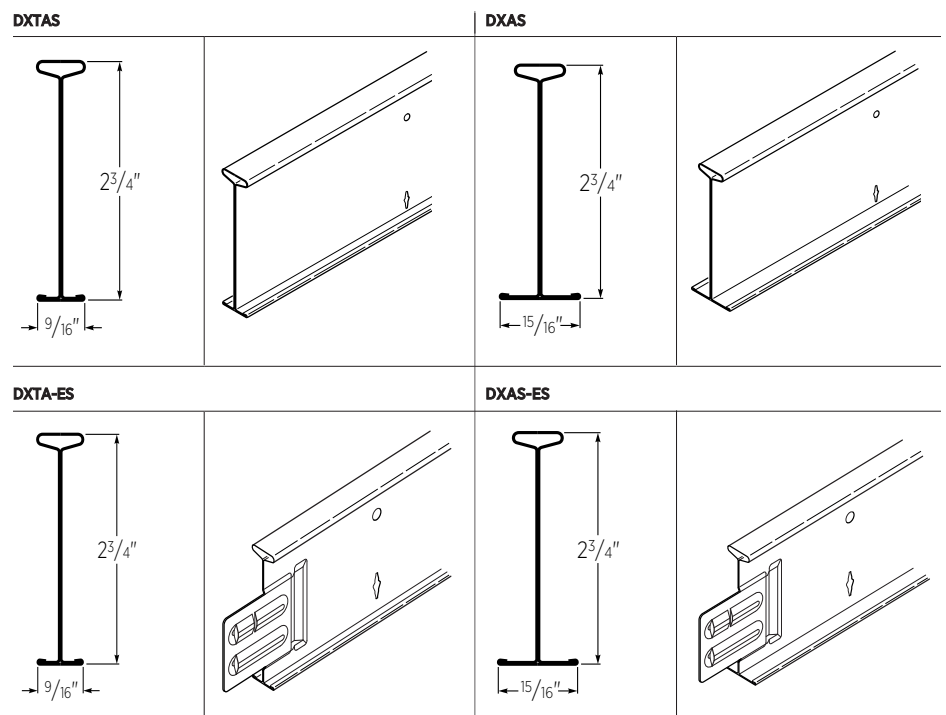
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OVERVIEW

USG Donn AdvanceSpan acoustical suspension systems are designed for use in corridors and other areas with crowded plenum spaces that make installing hanger wires difficult. The system is available in DXAS 15/16" and DXTAS 9/16" profiles. Main Tee profile DXTAS and DXAS come with a flush end, while DXTAS-ES and DXAS-ES have an integral splice for faster connection. The main tees are compatible with all Donn DX/DXL and DXT/DXLT cross tees. The main tees are used in conjunction with the US44 reversible structural wall channel to span distances up to 8' with no hanger wires.

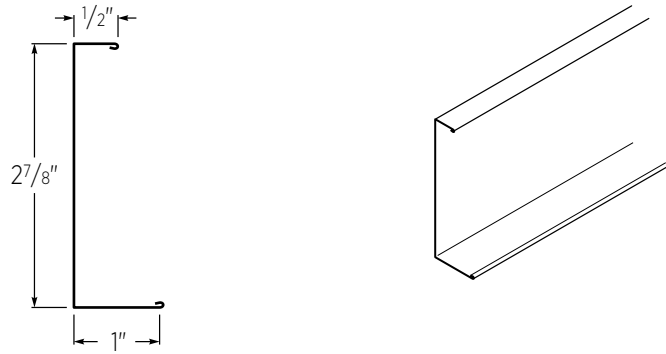
COMPONENTS

ADVANCESPAN MAIN TEES

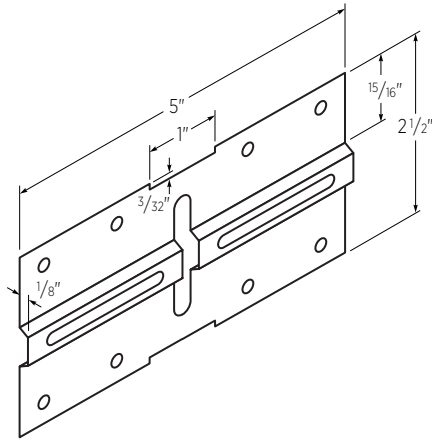


ATTACHMENT CLIPS

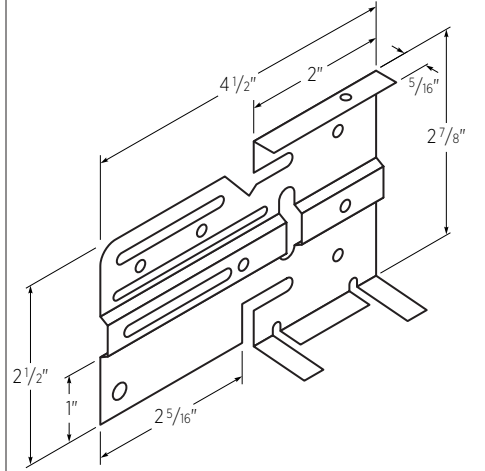
US44 AdvanceSpan Reversible Structural Wall Channel Molding



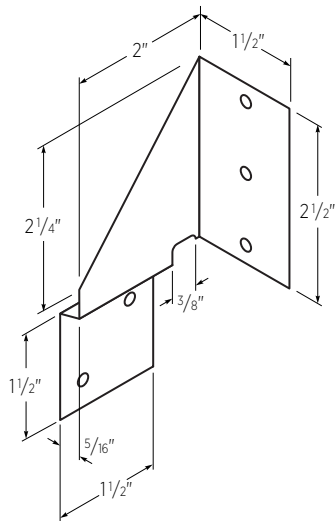
ASMTTP: AdvanceSpan Main Tee Splice Plate



US44CC: AdvanceSpan Channel Clip



ASCBC: AdvanceSpan Cross Brace Clip



**NON-SEISMIC INSTALLATION
INSTRUCTIONS**

A1: Install the structural wall channel.

- The wall channel is reversible and can be installed with either the 1/2" leg or 1" leg on the bottom.
- Using drywall screws, attach the structural wall channel through the upper half of the body to each stud typically 16" or 24" max OC. Powder actuated fasteners or similar can be used for masonry or concrete walls.

A2: Install the main tees

- Measure from the center cross tee punch and trim the necessary amounts from each end of the main tee according to the corridor width. Adjust as needed to ensure the main tee center remains aligned with the ceiling panel layout (Figure 1).
- Bend the US44CC as shown in Figure 2 to form a right angle.
- Snap the US44CC into the wall channel with the two longer tabs down. If the 1/2" leg is on the lower side, bend the two long tabs up so that the clip snaps in securely (Figure 3). Use a framing screw to attach the US44CC to the US44 Channel Molding in the upper screw hole. For masonry walls, attach the US44CC clip to the US44 channel molding through the top leg into the pilot hole on the top of the clip (Figure 3).
- Install the main tees by screw attaching the US44 channel clip to the web of the main tees through the hole on the upper tab (Figure 4).

Important: All main tees must be attached with US44 channel clips on each end.

- For distances exceeding maximum unsupported spans, install hanger wires on main tees, or use the AdvanceSpan cross brace clip method to provide intermediate support (Figure 9, 10).
- Connecting Main Tees will depend on the selected product DXAS/DXTAS or DXAS-ES/DXTAS-ES:
 - DXAS/DXTAS main tees have a flush end and will use the ASMTSP splice plate as shown in Figure 7. When splicing main tees together, ensure that the center to center cross tee punch spacing is maintained between tees. Trim main tee ends if necessary to maintain module spacing.
 - DXAS-ES/DXTAS-ES has an end splice detail on the product, as shown in Figure 7A, much like traditional main tees. Each main tee with integral splice has a n insert and receiver, that once connected, will lock into place. See Figure 7B for details.
- For corridor intersections, use the ASMTSP splice plate as shown in Figures 5, 6, 11, and 12. Figures 11 and 12 show typical three way and four way intersection framing layouts.

Note: The splice plate requires two screws on each main tee as shown.

A3: Install the infill cross tees using the appropriate DX/DXL or DXT/DXLT cross tees.

- The US44CC and be trimmed to provide additional clearance for tile installation if desired (Figure 15). The US44CC is compatible with 1-1/2" tall cross tees only.

Figure 1

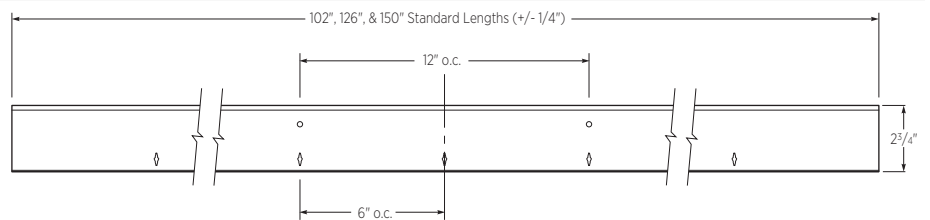


Figure 2

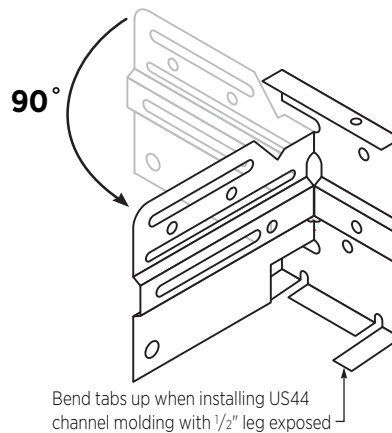
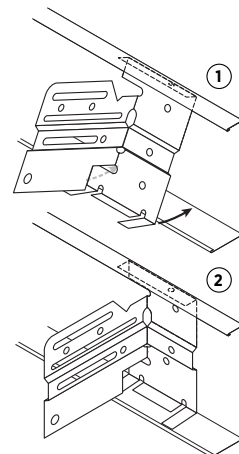
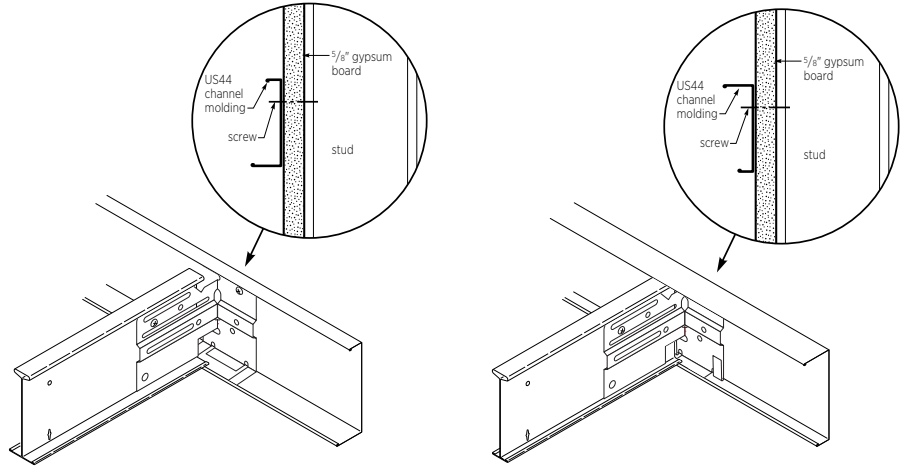


Figure 3



**NON-SEISMIC INSTALLATION
INSTRUCTIONS CONT.**

Figure 4



**DXAS Main Tee with US44CC Channel Clip to
US44 Wall Channel Attachment,
Drywall Partition - Fixed**

**DXTAS Main Tee with US44CC Channel Clip to
US44 Wall Channel Attachment,
Drywall Partition - Fixed**

Figure 5

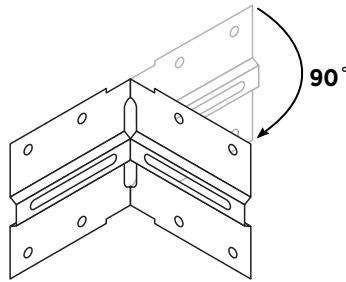
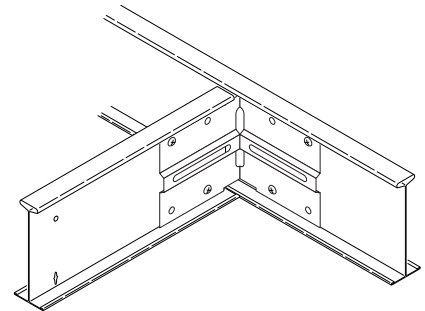
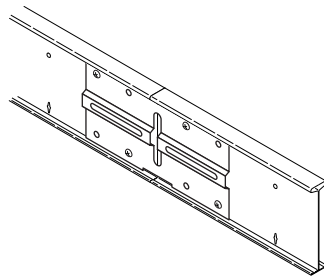


Figure 6



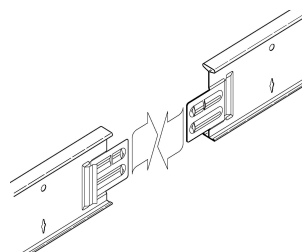
**AdvanceSpan DXAS Main Tee Intersection
with ASMTSP Splice Plate**

Figure 7



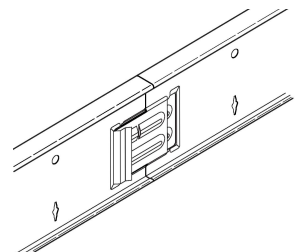
**AdvanceSpan DXTAS Main Tee End
Splice with ASMTSP Splice Plate**

Figure 7-A



**AdvanceSpan DXTAS-ES Main Tee
with End Splice Interaction**

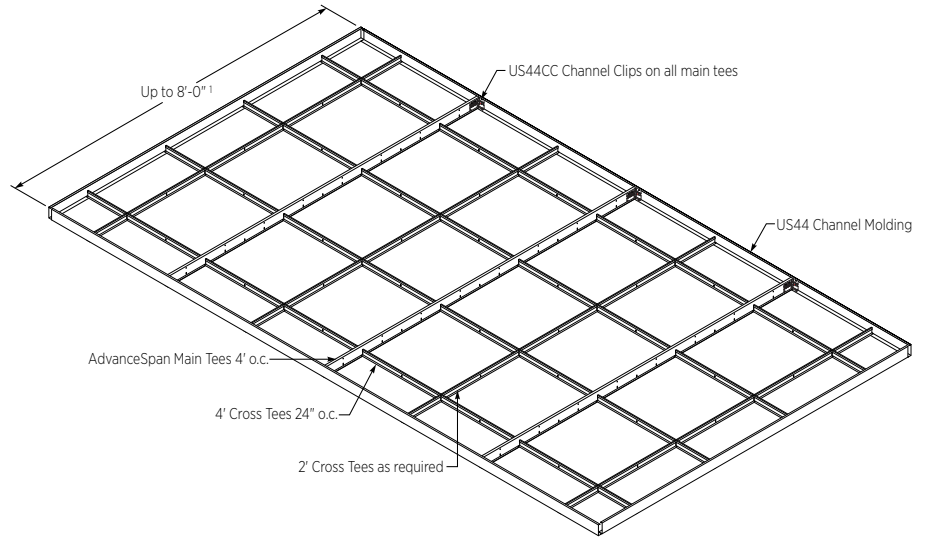
Figure 7-B



**AdvanceSpan DXTAS-ES Main Tee
with End Splice Connection**

**NON-SEISMIC INSTALLATION
INSTRUCTIONS CONT.**

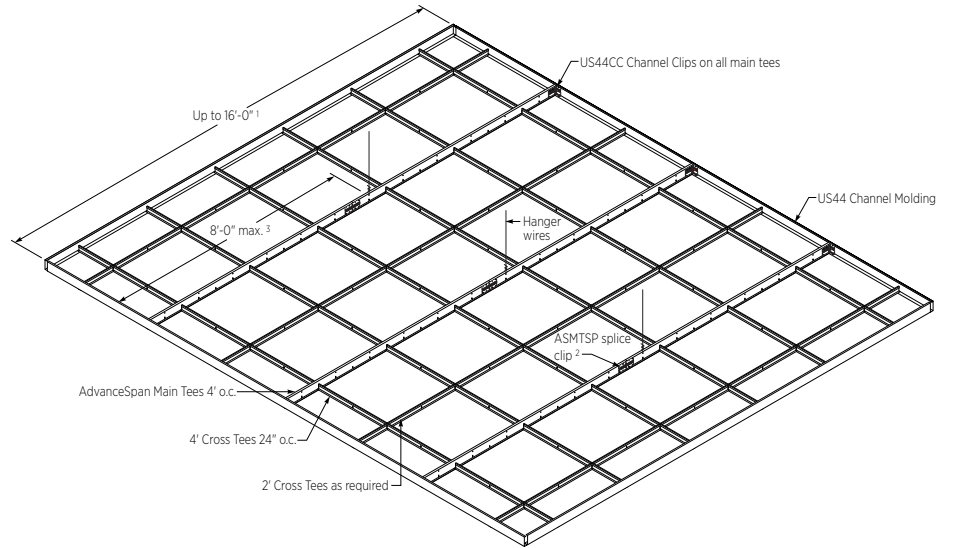
Figure 8



1. 8'-0" max. for intermediate duty performance,
7'-0" max. for heavy duty performance

Non-Seismic Installation, No Hanger Wires

Figure 9



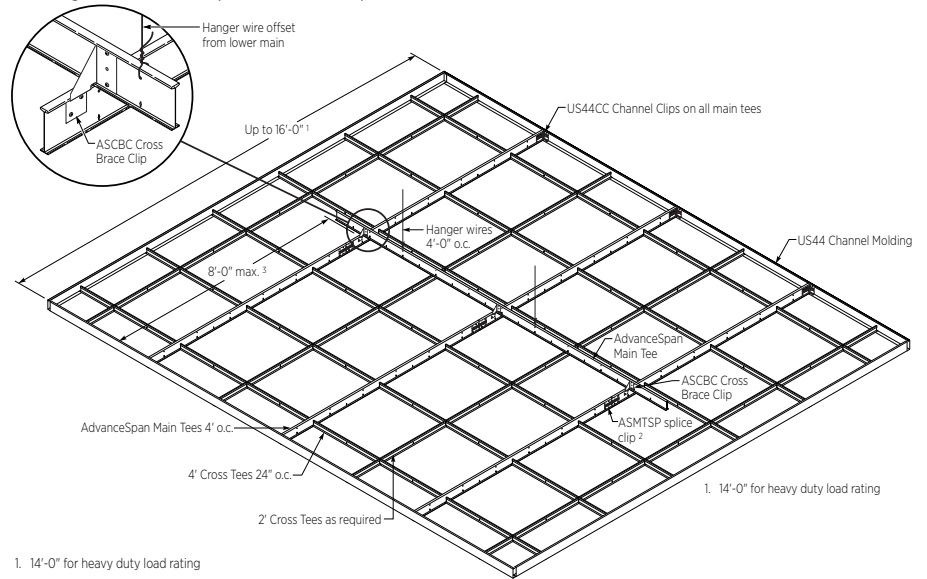
1. 14'-0" for heavy duty load rating
2. Requires splicing main tees with ASMTSP splice clip
3. 7'-0" for heavy duty load rating

Non-Seismic Installation, One Hanger Wire

**NON-SEISMIC INSTALLATION
INSTRUCTIONS CONT.**

Figure 10

Using additional AdvanceSpan main tee as a cross brace support for repositioning hanger wires. Attached to system main tees using ASCBC AdvanceSpan Cross Brace Clip.



1. 14'-0" for heavy duty load rating
2. Requires splicing main tees with ASMTSP splice clip
3. 7'-0" for heavy duty load rating

**Non-Seismic Installation,
One Hanger Wire Using ASCBC Cross Brace Clip**

Figure 11

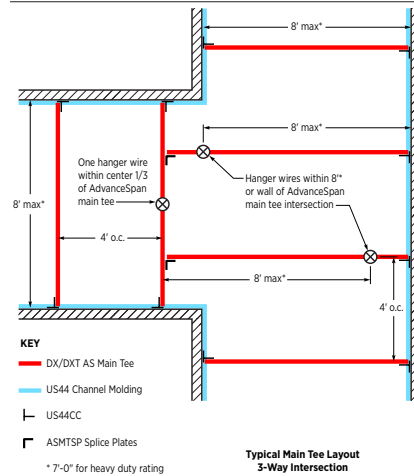
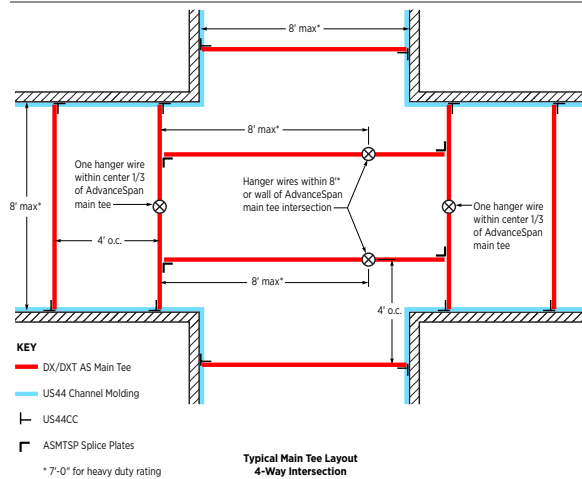


Figure 12



SEISMIC INSTALLATION INSTRUCTIONS

For installations in seismic zones C, D, E, & F, the system has been tested in accordance with AC156 by the University of California, Berkeley Seismology Laboratory. All tests were conducted without perimeter wires, lateral bracing splay wires, and compression posts.

B1: Install the structural wall channel

- For seismic installation, the structural wall channel must be installed with the 1" leg down.
 - Using Drywall screws, attach the structural wall channel through the upper half of the body to each stud, drywall 16" or 24" OC max. Powder actuated fasteners or similar can be used for masonry or concrete walls.
-

B2: Install the main tees

- The system is installed with two adjacent walls fixed to the channel molding, and on opposing adjacent walls floating to provide +/- 3/4" movement between the tees and the wall molding.
 - Trim the main tees leaving a 3/4" gap on one wall, keeping the center of the main tee aligned with ceiling panel layout (Figure 1).
 - Bend the US44CC as shown in Figure 2 to from a right angle.
 - Snap the US44CC into the wall channel with the two longer tabs down. Use a framing screw to attach the US44CC to the US44 Channel Molding in the upper pilot hole (Figure 3). For masonry walls, attached the US44CC clip to the US44 channel molding through the top leg into the pilot hole on the top of the clip.
 - **Fixed side:** Install the main tees by screw attaching the US44 channel clip to the web of the main tees with one framing screw through the pilot holes on the upper tab (Figure 13).
 - **Floating side:** Attach the main tees to the US44CC channel clips with one framing screw through at the center of the slot located at the top of the clip. Do not overtighten the screw (Figure 14).
 - For distances exceeding maximum unsupported spans, install hanger wires on main tees, or use the AdvanceSpan cross brace clip method to provide intermediate support (Figures 22-23).
-

B-3: Install the infill cross tees using the appropriate DX/DXL or DXT/DXLT cross tees

- Perimeter cross tees are installed either fixed or floating on the adjacent walls corresponding with the main tees. The cross tees are attached to the US44 structural channel molding using the US44CC channel clip.
- **Fixed side:** attach the cross tee to the US44CC with a framing screw through the pilot hole into the bulb of the tee (Figure 15).
- **Floating side:** cut the perimeter cross tees to length leaving a 3/4" gap between the cross tee and channel molding. Attach the cross tee to the US44CC with a framing screw in the center of the slot to the cross tee bulb (Figure 16).

Important: The US44CC is compatible only with 1-1/2" tall cross tees.

B-4: Floating main tee splices and expansion joints are constructed using the ASTMP splice plate and appropriate tee face sleeve, TFS -1 for DX and TFS-2 for DXT

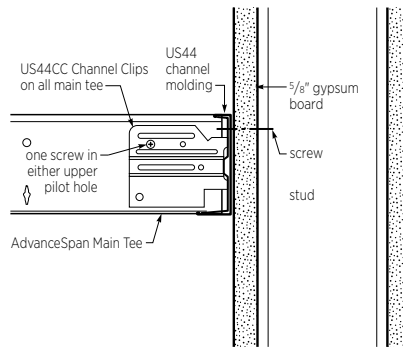
- For expansion joints between longitudinal mains, leave the prescribed gap between the main tees and attach the ASTMP splice clip to each main through the center of the slot using a framing screw (Figure 18).
 - The ASMTMP splice plate can be used to attach cross tees to main tees at off module locations. The cross tees can be installed either fixed or floating, see Figures 19-20.
-

B-5: Framing intersections and corners

- For seismic category three way and four way corridor intersection framing layouts, see Figures 24 and 25.
- For expansion joints at corners, bend the ASTMP splice plate to form a 90° angle. Attach the ASTMP to the longitudinal main tee using two screws. Install the face sleeve over the intersecting main tee and attach to the ASTMP through the center of the slot leaving the prescribed gap between the tees (Figure 17).

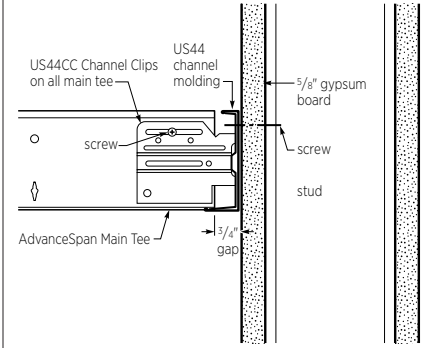
**SEISMIC INSTALLATION INSTRUCTIONS
CONT.**

Figure 13



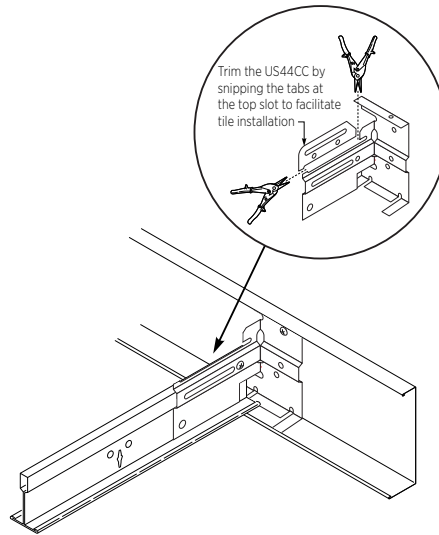
**Fixed DX/DXT AS Main Tee
to US44 Channel Molding Attachment**

Figure 14



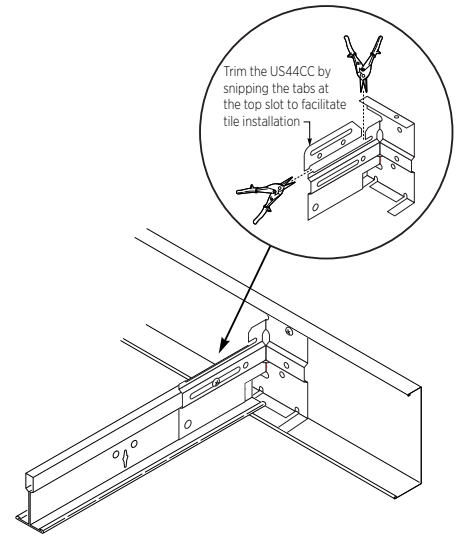
**Floating DX/DXT AS Main Tee
to US44 Channel Molding Attachment**

Figure 15



**Cross Tee Attached to US44 Channel Molding
with Trimmed US44CC Channel Clip**

Figure 16



**Cross Tee Attached to US44 Channel Molding
with Trimmed US44CC Channel Clip**

Figure 17

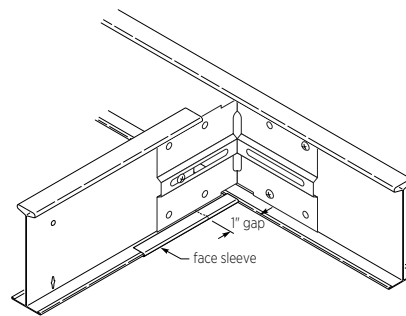
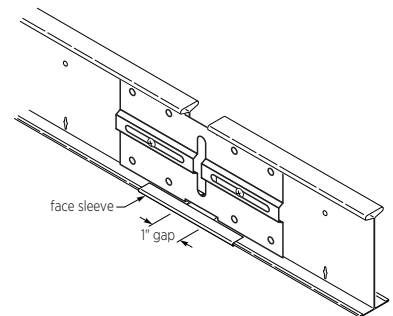
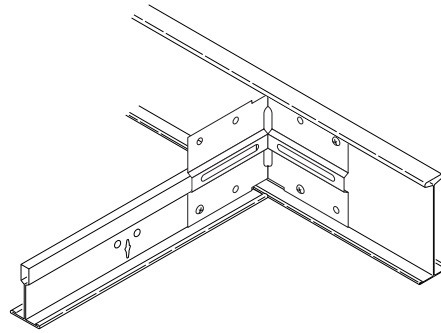


Figure 18



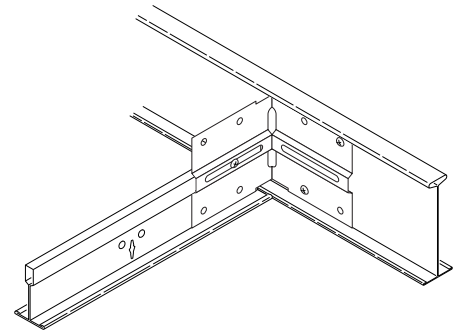
**SEISMIC INSTALLATION INSTRUCTIONS
CONT.**

Figure 19



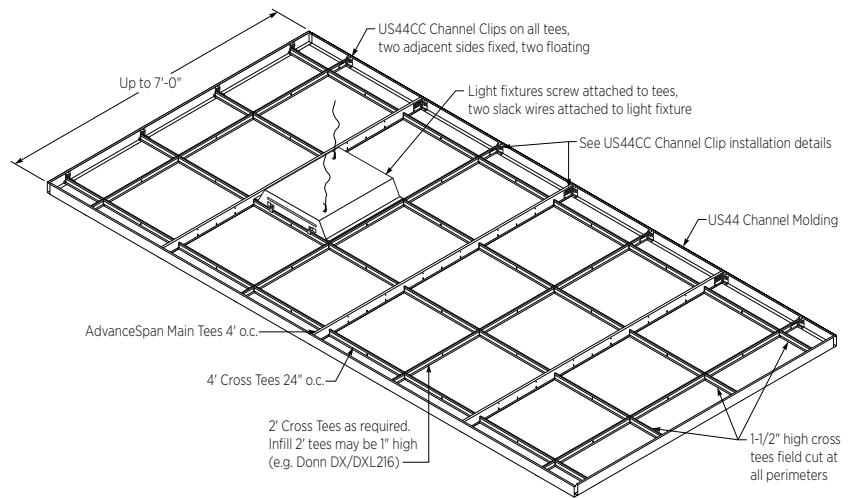
**AdvanceSpan DXAS Main Tee to Cross Tee Intersection
with ASMTSP Splice Plate - Fixed**

Figure 20



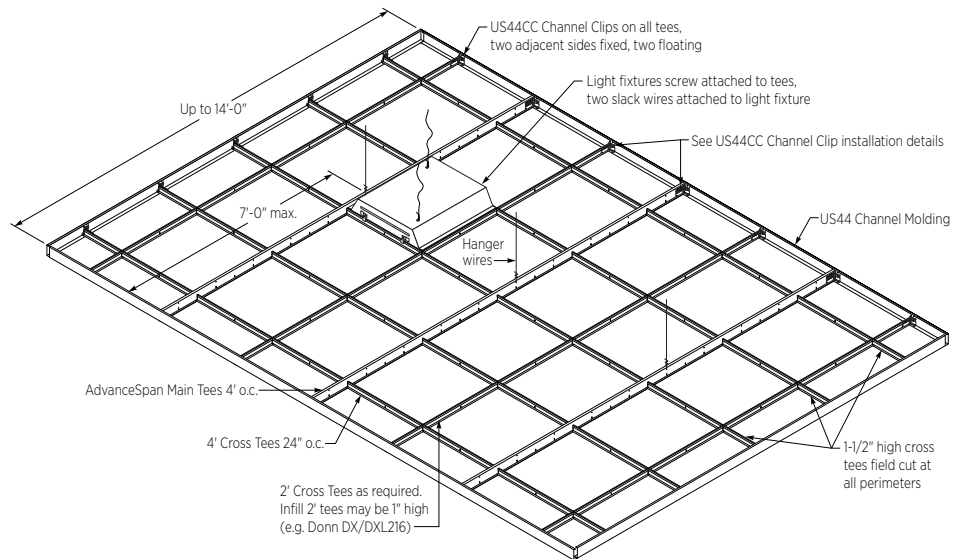
**AdvanceSpan DXAS Main Tee to Cross Tee Intersection
with ASMTSP Splice Plate - Floating**

Figure 21



Seismic Installation, No Hanger Wires

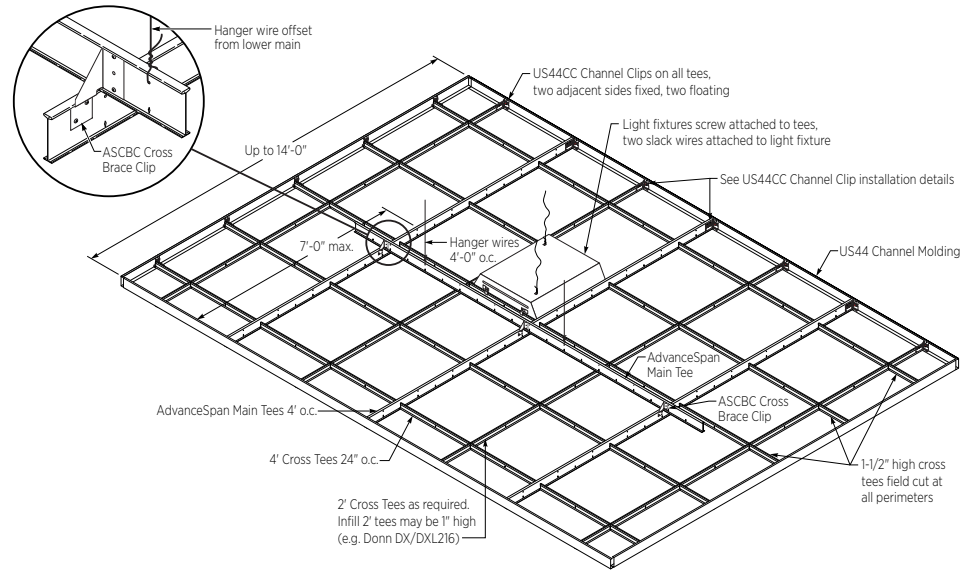
Figure 22



Seismic Installation, One Hanger Wire

**SEISMIC INSTALLATION INSTRUCTIONS
CONT.**

Figure 23



Seismic Installation, One Hanger Wire Using ASCBC Cross Brace Clip

Figure 24

3-Way Seismic Intersection Typical Main Tee Layout

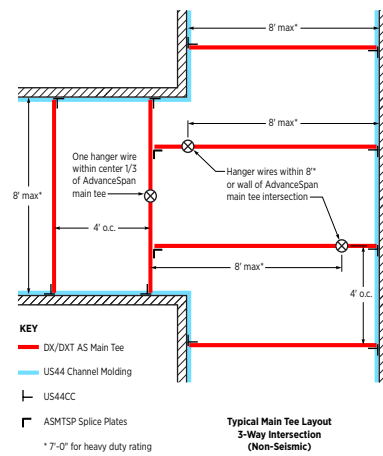
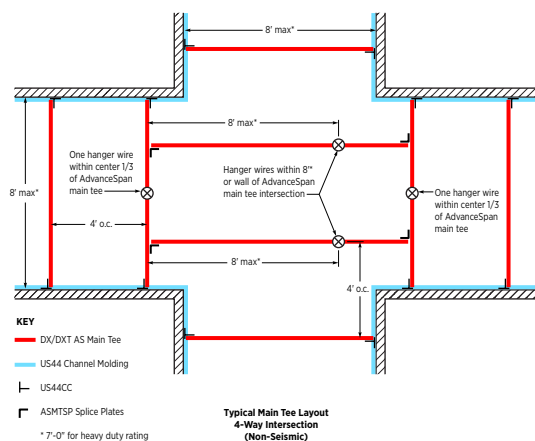


Figure 25

4-Way Seismic Intersection Typical Main Tee Layout



PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

CUSTOMER SERVICE

800 950-3839

TECHNICAL SERVICE

800 USG.4YOU (874-4968)

WEBSITES

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PRODUCT LITERATURE

Data Sheet AC3325

LIMITATIONS

Interior applications only

NOTICE

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SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.