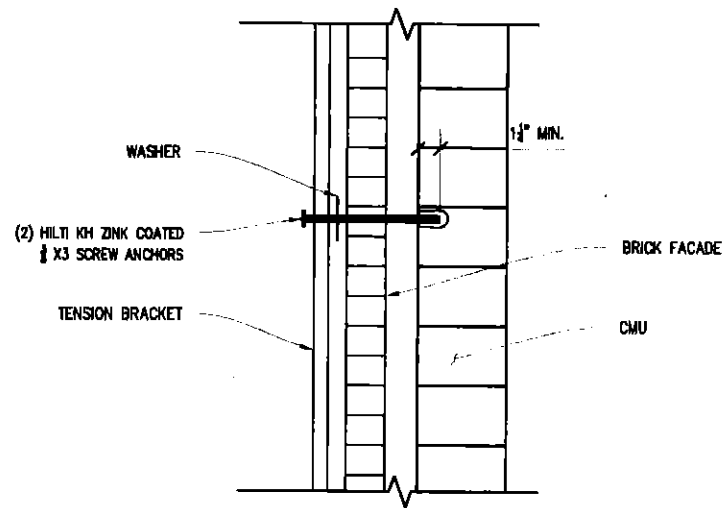


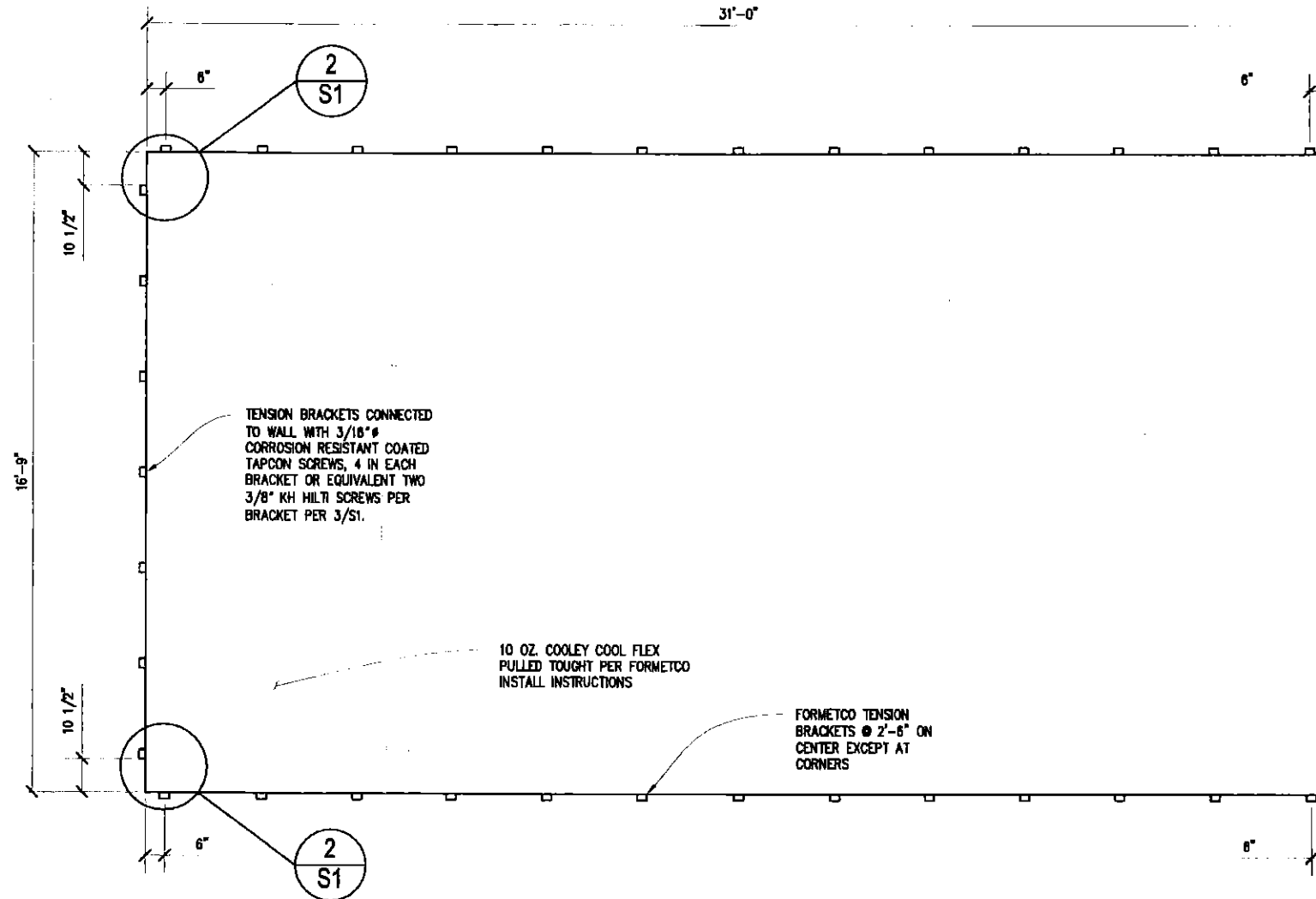
2
S1
CORNER DETAIL
SCALE: 1" = 1'-0"



3
S1
TENSION BRACKET SCREW CONNECTION DETAIL
SCALE: 1/4" = 1'-0"

1714 Washington Street,
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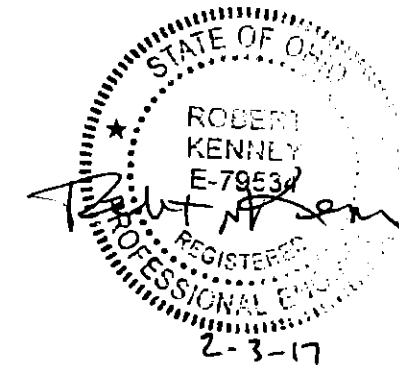
Dated: July 11, 2017



NOTES:

1. ALL MASONRY SCREWS MUST BE ATTACHED TO STRUCTURE. PREDRILL THROUGH BRICK FACADE. MASONRY SCREW MUST EMBED INTO CMU MORE THAN 1".
2. CONTRACTOR/ OWNER RESPONSIBLE FOR CONFIRMING CMU STRUCTURE. IF OTHER STRUCTURE IS IDENTIFIED, CONTACT ENGINEER FOR APPROPRIATE DESIGN/LAYOUT OF CONNECTIONS.
3. EDGE OF SIGN TO BE AT LEAST 10" FROM EDGE OF VERTICAL WALL.
4. TAPCON MINIMUM EMBEDMENT TO BE 1 3/4" IN MORTAR OR WALL OR CONCRETE FILLED CELL OF WALL IF CMU WALL AND 1 1/2" IN BRICK OR MORTAR IF BRICK WALL. HILTI MINIMUM EMBEDMENT TO BE 1 1/2" IN MORTAR OR WALL OF CONCRETE FILLED CELL OF WALL IF CMU WALL AND 2" IN BRICK OR MORTAR IF BRICK WALL.

1
S1
TENSION BRACKET DESIGN
SCALE: 1/4" = 1'-0"



ENGINEERING SYSTEMS, INC.
Structural Engineering Group
6230 Regency Parkway
Norcross, GA 30071
(678) 980-3280 phone



**FORMETCO -
TENSION
BRACKET
DESIGN**

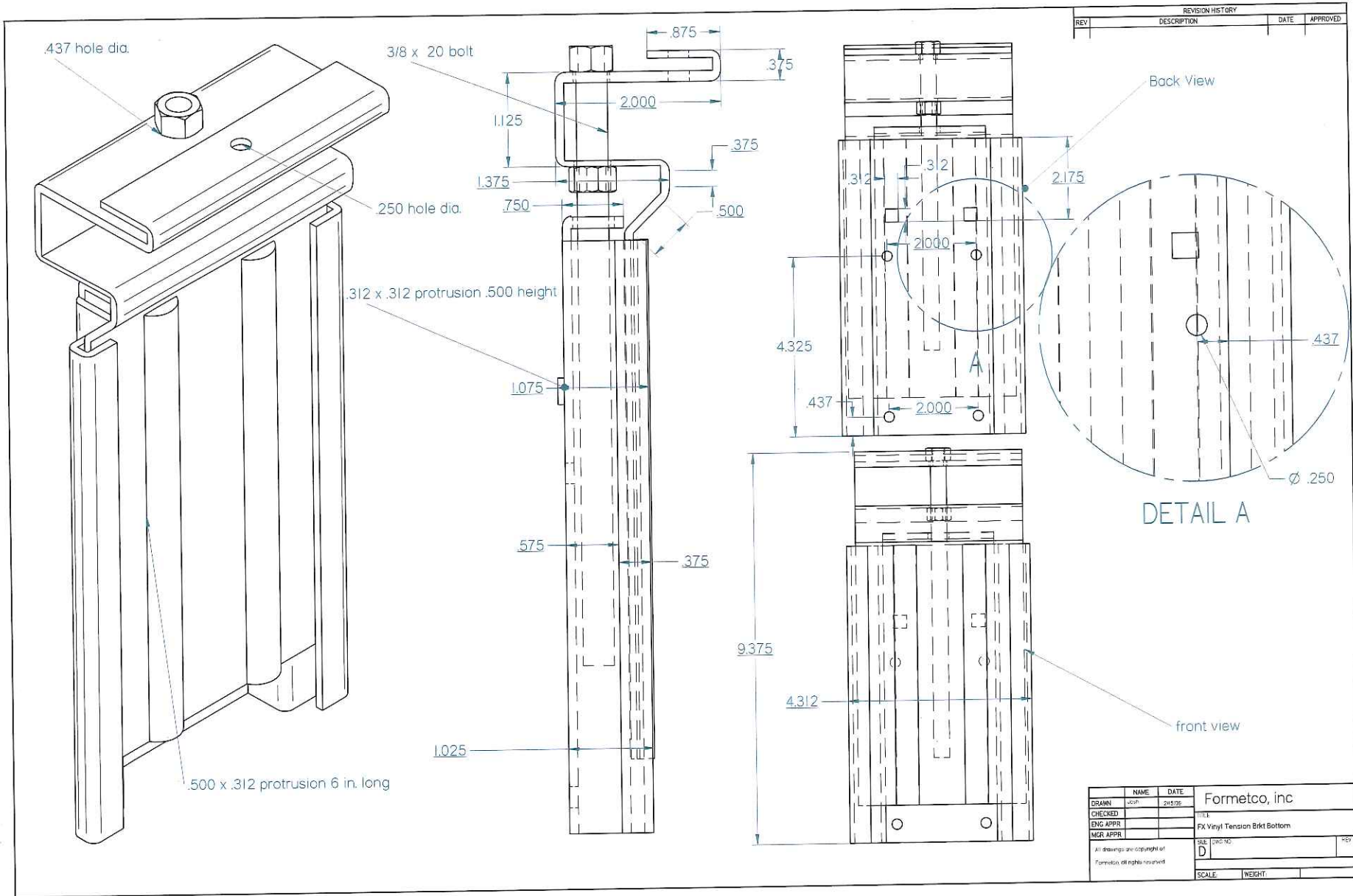
NO.	DATE	DESCRIPTION

JOB NO. 558166 ENG: RINK DRAWN BY: TLB

NOT ISSUED FOR CONSTRUCTION

**TENSION
BRACKET DESIGN**

S1



1714 Washington Street,
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Dated: July 11, 2017

FRONT VIEW OF BILLBOARD



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

TOP LEFT STRUCTURAL DEFORMITY



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

BOTTOM RIGHT STRUCTURAL DEFORMITY



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

PLATFORM BRACES



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

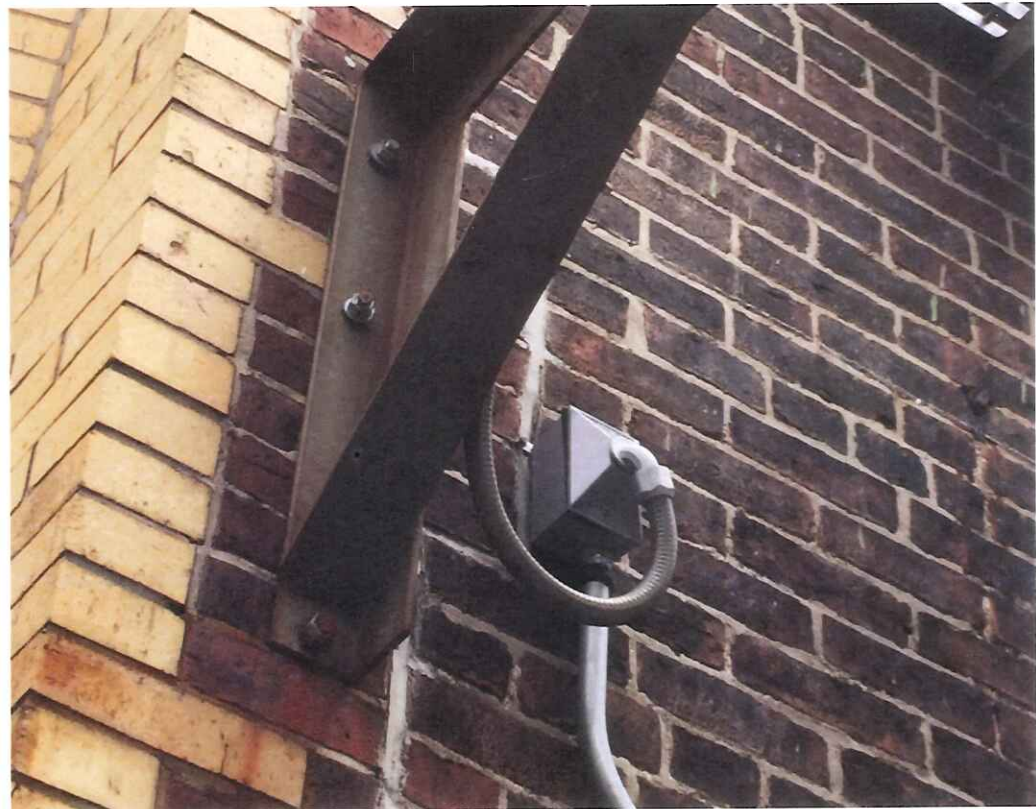
PLATFORM BRACES



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

PLATFORM BRACES



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

BOTTOM LEFT SIDE VIEW



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

TOP LEFT SIDE VIEW-STRUCTURAL
DEFORMITY



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

TOP LEFT VIEW-STRUCTURAL
IRREGULARITIES



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

BOTTOM LEFT CATWALK



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

VIEW FROM BELOW CATWALK



1714 Washington Street,
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Dated: July 11, 2017

TOP RIGHT STRUCTURAL DEFORMITY



1714 Washington Street,
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Dated: July 11, 2017

BOTTOM RIGHT VIEW SHOWING
STRUCTURAL DEFORMITY



1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

BOTTOM RIGHT CATWALK

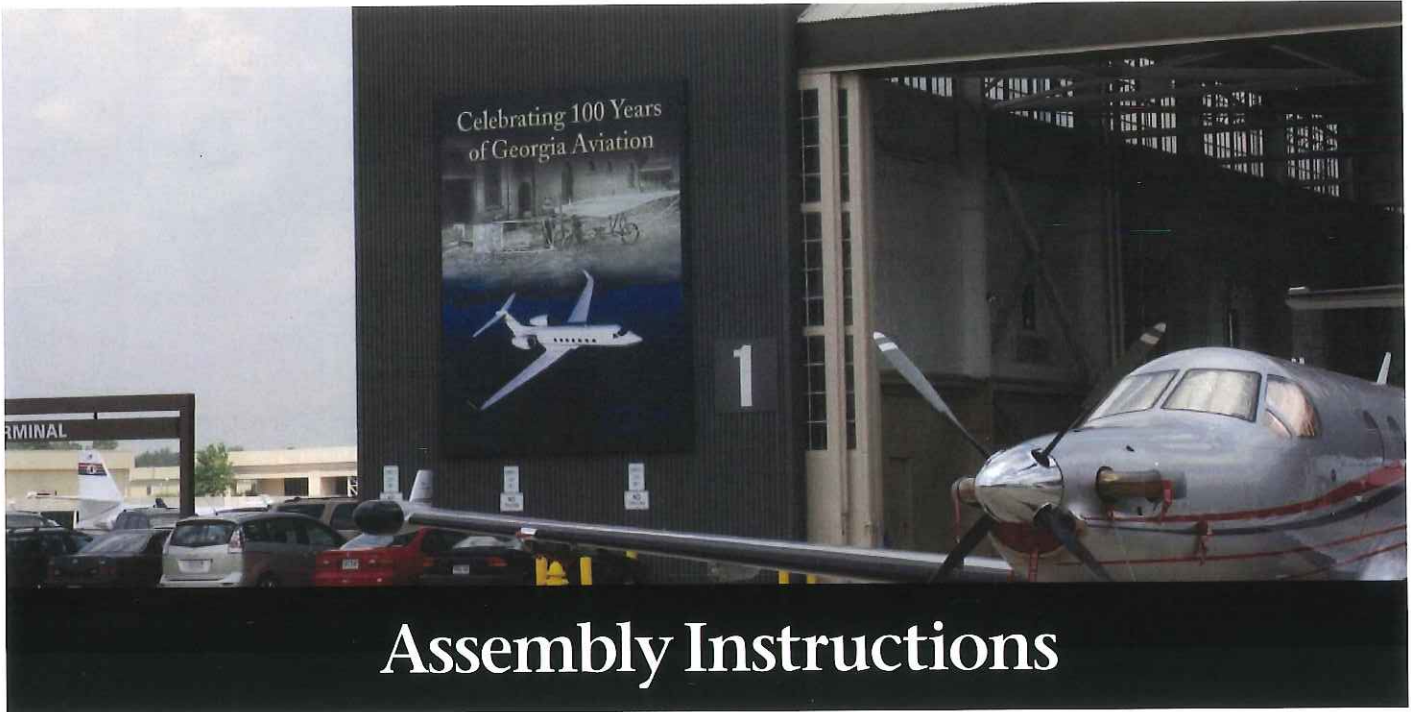


1714 Washington Street,
Boston, MA 02118

Dated: July 11, 2017

Wall Mounted Vinyls

Invisible Frame System & Wall Brackets

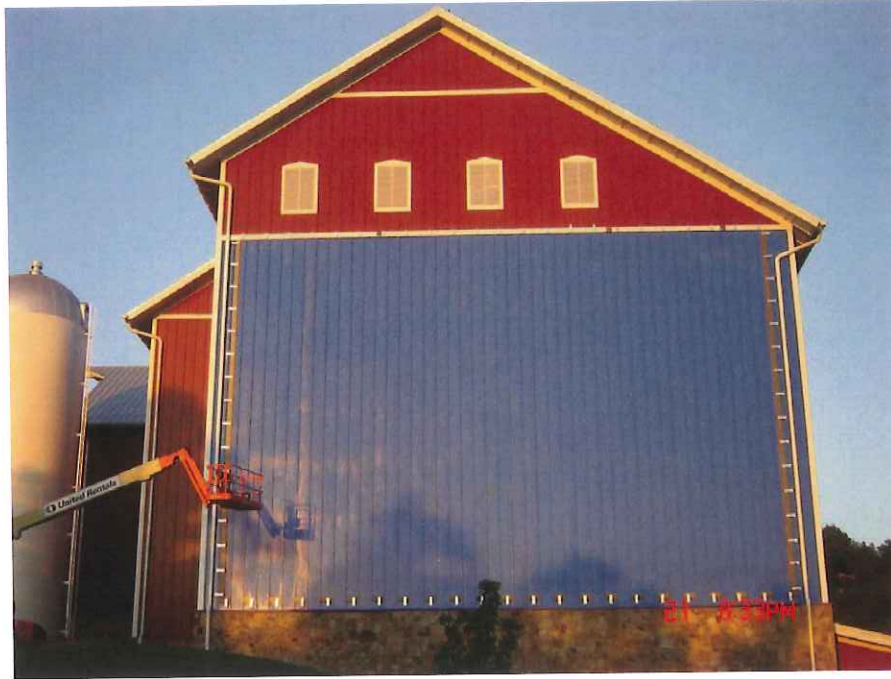


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FORMETCO®
PRINT & DISPLAY
Excellence is our standard.

Frameless Wall Mounted Vinyls Adjustable FX Vinyl Tensioning Bracket



This 47' x 68' is installed in Pigen Forge, TN for a Lamar client.
They were printed by Formetco for Lamar. See Page 24



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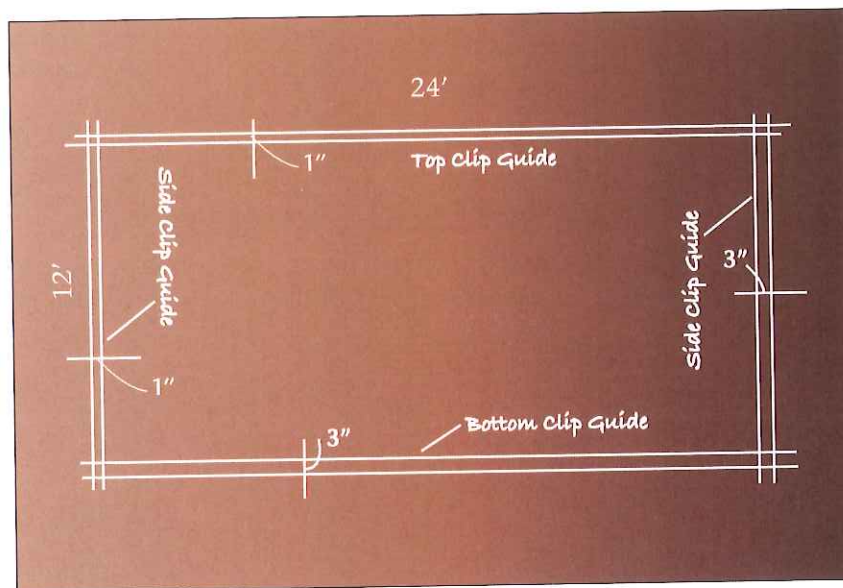
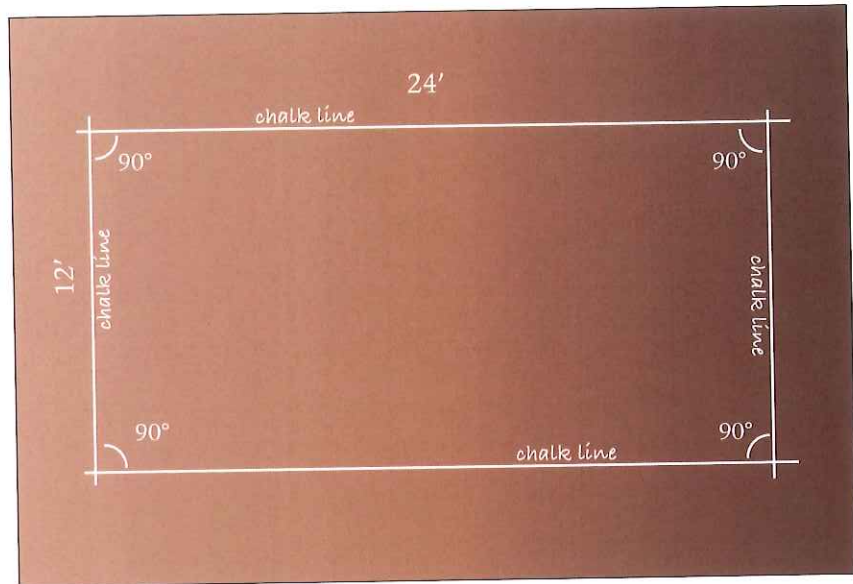
Frameless Wall Mounted Vinyls

Adjustable FX Vinyl Tensioning Bracket

Wall Layout

Using chalk, or other means, layout the copy area of the vinyl you intend to install.

Make sure that you keep it square and that you have each corner at a 90° angle.



Next, make a chalk line 1" below the top copy area chalk line and one 1" inside one of the side chalk lines.

Now make a chalk line 3" above the bottom chalk line and on the opposite side chalk line.

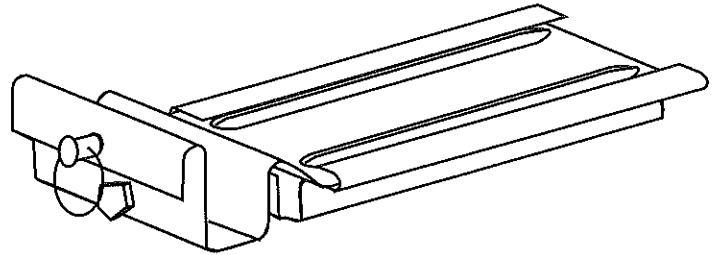
These will be the installation lines for the FX Vinyl Tensioning Bracket Base.

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Frameless Wall Mounted Vinyls

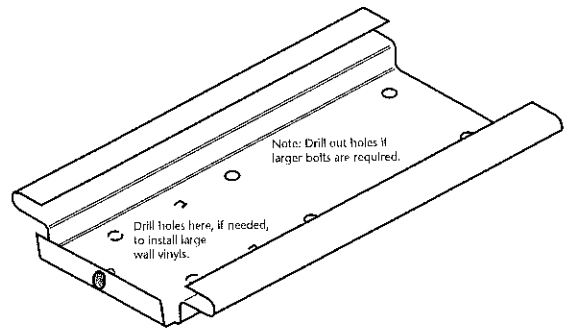
Adjustable FX Vinyl Tensioning Bracket

The FX Vinyl Tensioning Bracket comes assembled. To ease installation of the FX Bracket to the surface use a socket or adjustable wrench and remove the adjustable slide from the base.

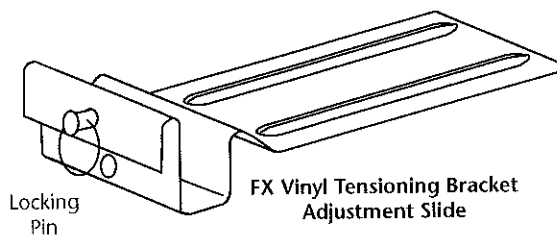


FX Vinyl Tensioning Bracket

The FX Bracket Base has 4 - 1/4" mounting holes (2 at top and 2 at the center). These can be drilled out to accept larger bolts, lags or screws. If needed, 2 holes can be drilled at the bottom.

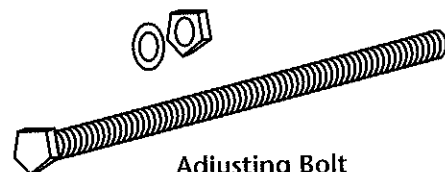


FX Vinyl Tensioning Bracket Base



Locking Pin

FX Vinyl Tensioning Bracket Adjustment Slide

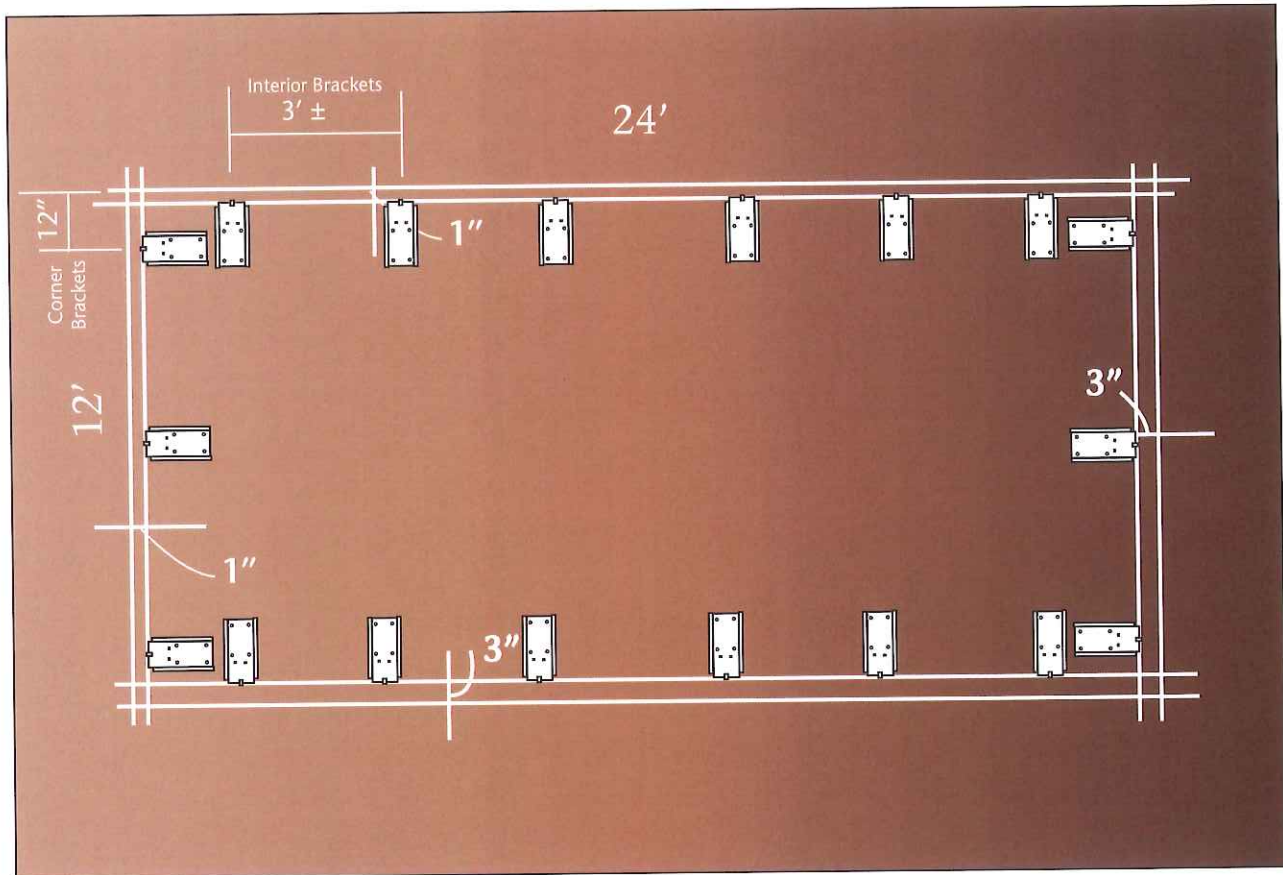


Adjusting Bolt with Nut and Washer

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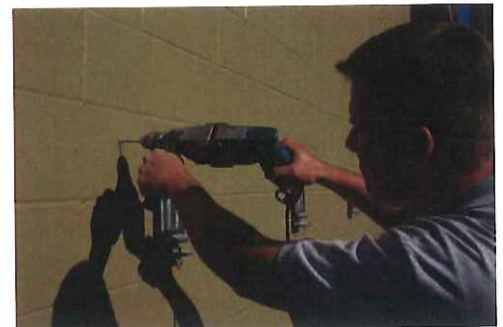
Frameless Wall Mounted Vinyls

Adjustable FX Vinyl Tensioning Bracket



Place the corner FX Brackets in 12" from each corner. Then, the rest of the FX Brackets should be placed at least every 3'. For best results, align the FX Brackets top to bottom and side to side. (See Page 22)

Note: Bolts, Lags or Screws to attach FX Brackets to wall are supplied by others.



1714 Washington Street,
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July 2007

Dated: July 11, 2017

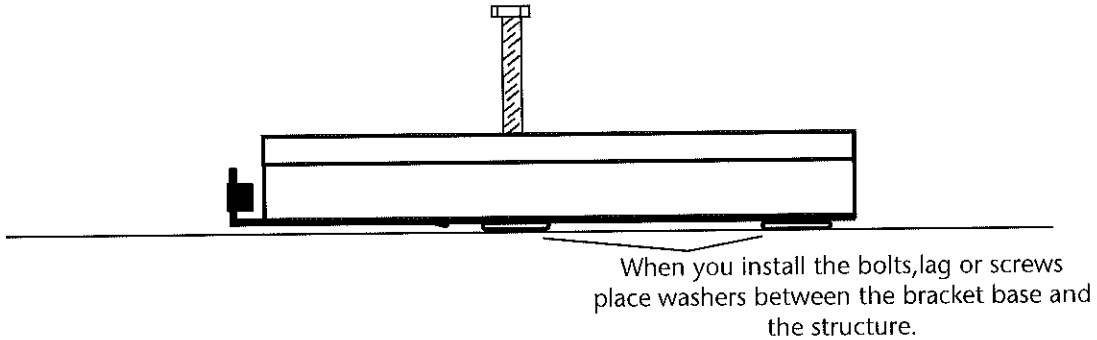
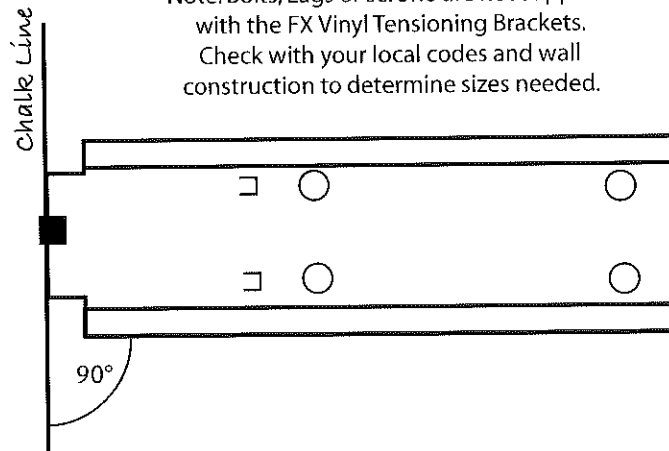
Wall Mounted Vinyls 21

Frameless Wall Mounted Vinyls

Adjustable FX Vinyl Tensioning Bracket

Use Base to mark hole locations on wall.
Make sure the FX Bracket is 90° to the chalk line.
If larger bolts, lags or screws are required, drill the holes out to fit.

Note: Bolts, Lags or screws are not supplied
with the FX Vinyl Tensioning Brackets.
Check with your local codes and wall
construction to determine sizes needed.



Install Bracket slide into bracket base
and tighten all the way before
installing the vinyl.



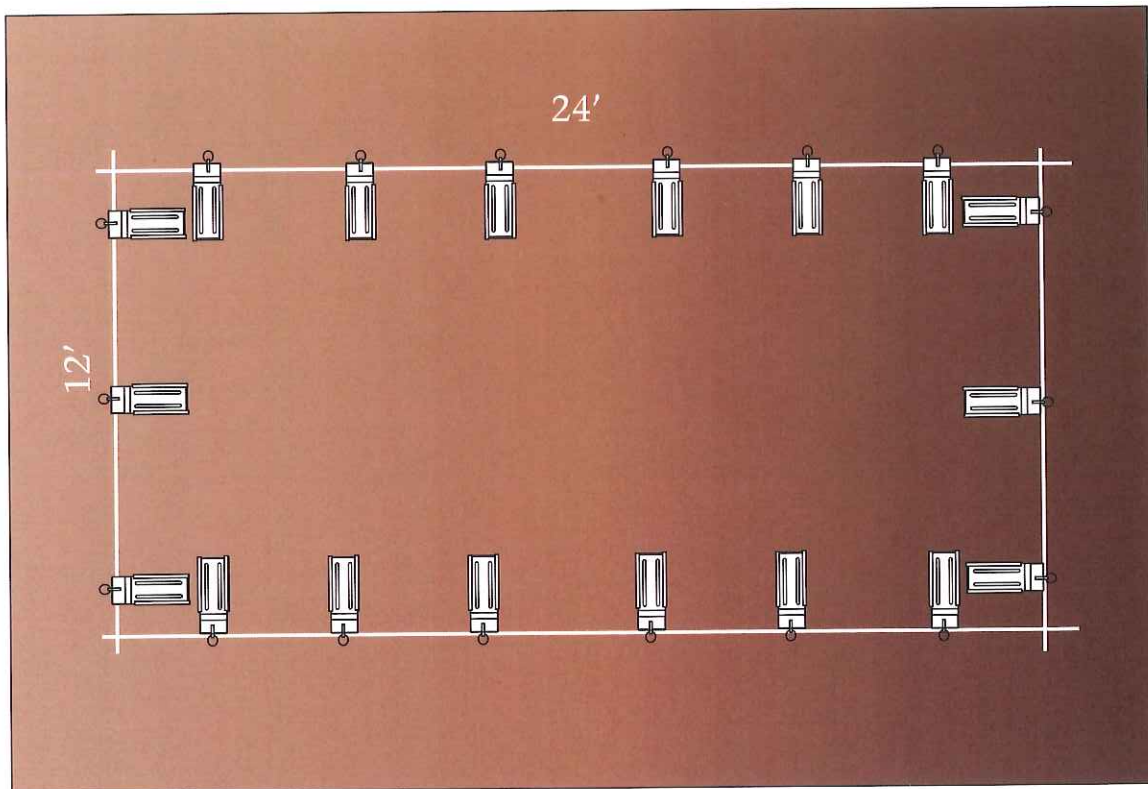
1714 Washington Street,
Boston, MA 02118

Frameless Wall Mounted Vinyls

Adjustable FX Vinyl Tensioning Bracket

Now that the FX Vinyl Tensioning Brackets have been installed and the brackets are re-assembled you are ready to install the vinyl.

The FX Vinyl Tensioning Brackets give you the flexibility of installing vinyls up to 3" smaller than the copy size and up to 6" larger than copy size.



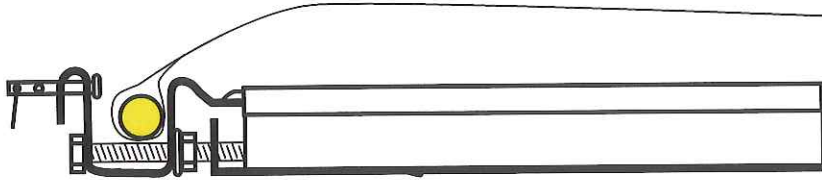
1714 Washington Street,
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Frameless Wall Mounted Vinyls

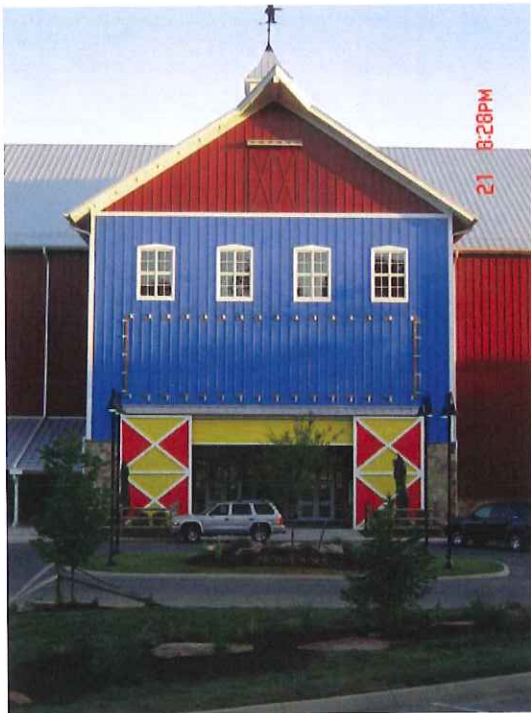
Adjustable FX Vinyl Tensioning Bracket

Place the gripper bars in the top pocket. Place the vinyl and gripper bars in the FX Brackets and snap the Locking Pin closed. You need to weld or seal the bottom of the side pockets to keep the gripper bars from dropping out. Place the side vinyl and gripper bars in the side FX Brackets and snap the Locking Pin closed. Now do the same across the bottom.

Tension the vinyl on the bottom and one side until tight.



Place Gripper Bars in vinyl pockets and insert into the FX Vinyl Tensioning Bracket. Lock the Locking Pin. When the vinyl and Gripper Bars have been installed in all of the brackets start tensioning the FX Vinyl Tensioning Brackets across the bottom and up the side.

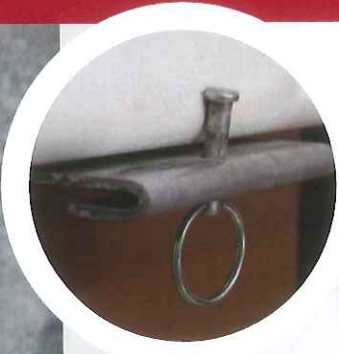
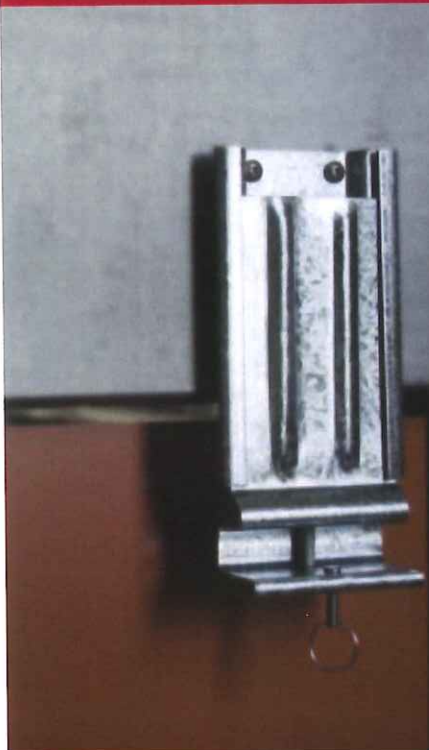


This 14' x 48' is installed in Pigen Forge, TN
for a Lamar client.

They were printed by Formetco for Lamar.

See Page 18

1714 Washington Street,
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FORMETCO'S TENSIONING BRACKET

For use on billboards and as a wall system. Fabricated from 12 gauge steel from two pieces the tensioning bracket has ridges for extra strength and has two punched out notches on the back for square alignment.

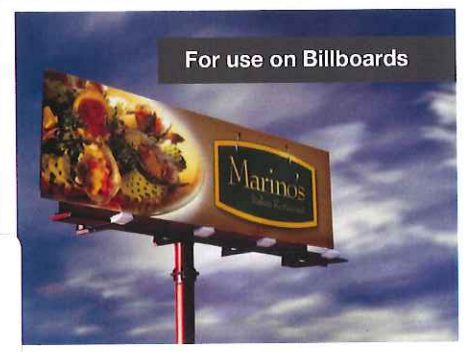
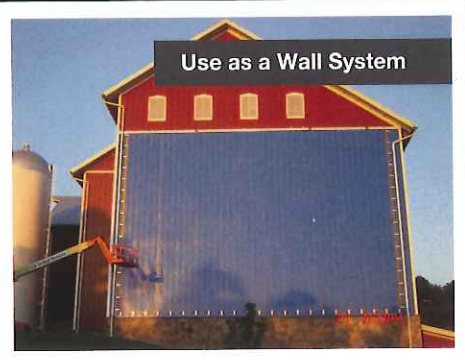
KEY FEATURES AND BENEFITS:

- Fully adjustable with the vinyl attached
- Eliminates the use of ratchets on the bottom of your billboards
- Copy is easily installed and released with a push or pull of a pin
- Copy is pulled straight down instead of wrapping around the bottom of the boards
- Eliminates nesting animals and pooling water, thus extending the life of your panels
- Includes all mounting hardware
- Install 3 brackets per 10' to 12' gripper bar or 4 brackets per 14' gripper bar

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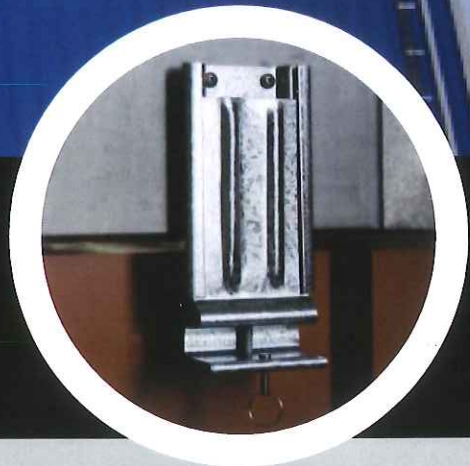


* Anchoring bolts not included



Quick access pins hold the vinyl securely in place

The bracket adjusts quickly with a single tensioning bolt (Shown here without the vinyl installed)



THE FRAMELESS WALLSCAPE SYSTEM

The Formetco Frameless WallScape system is the most economical and ideal system available for interior and exterior wall mounted banner applications. And with Formetco's exclusive, FX Vinyl Tensioning Clips, small & large-format copy can be installed easily, safely and quickly. Copy as large as a 14'x48' can be stretched & secured; wrinkle free, over tensioning clips that are virtually out sight. The FX Vinyl Tensioning Clips are made of heavy-duty galvanized metal for superior weather durability. Our Frameless system can be ordered to accommodate any standard or custom sized wall mounted banner.

- Flexible, easy to install, wall mount system that can be installed onto a variety surfaces
- Extreme low profile at only 1" when mounted
- Fully adjustable for under or oversized small and large-format copy
- Copy is easily tensioned from the sides and stretched tight using our exclusive FX Vinyl Tensioning Clips
- Copy is finished with pole pockets and can be quickly and easily changed out with just a push or pull of a pin and a cordless drill
- Made of high quality galvanized steel for years of outdoor longevity
- Eliminates the use of ratchet straps, grommets, cables, and bungee cords

1714 Washington Street,
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Dated: July 11, 2017

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