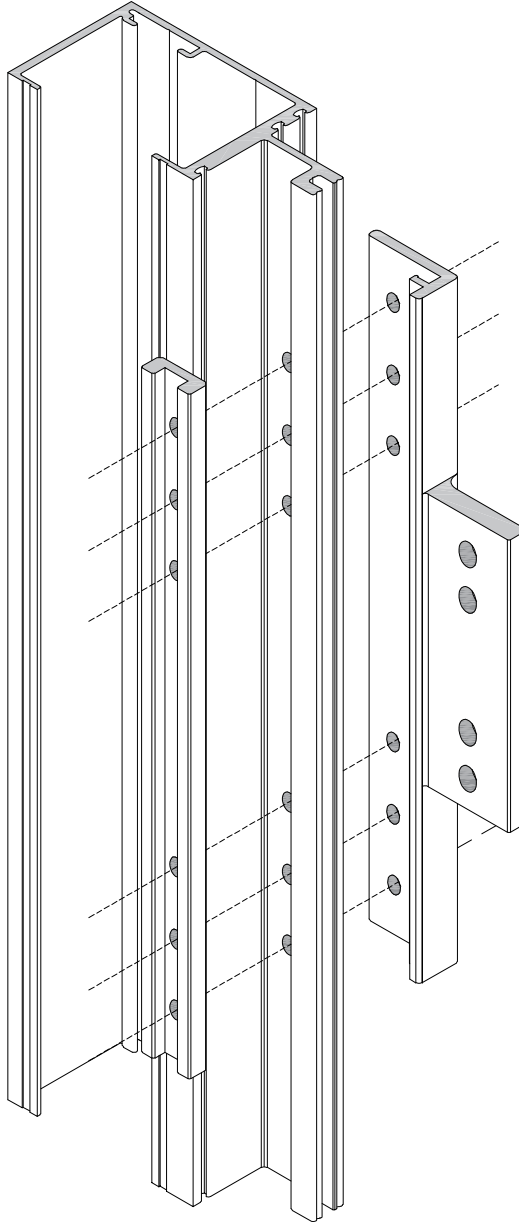


TUBELITE®

DEPENDABLE

**LEADERS IN ECO-EFFICIENT STOREFRONT,
CURTAINWALL AND ENTRANCE SYSTEMS**



SUNSHADE BRACKET for 400SS

INSTALLATION INSTRUCTIONS

3056 Walker Ridge Dr. NW, Suite G • Walker, MI 49544 • 800-866-2227

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GENERAL CONSTRUCTION NOTES

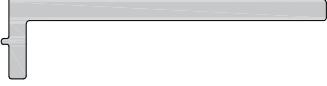
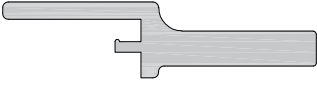

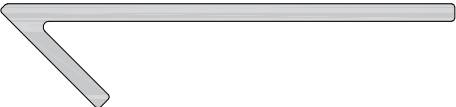
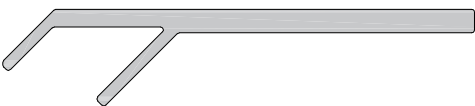

1. These instructions cover typical product application, fabrication, installation and standard conditions and are general in nature. They provide useful guidelines, but the final shop drawings may include additional details specific to the project. Any conflict or discrepancies must be clarified prior to execution.
2. Materials stored at the job site must be kept in a safe place protected from possible damage by other trades. Stack with adequate separation so materials will not rub together and store off the ground. Cardboard or paper wrapped materials must be kept dry. Check arriving materials for quantity and keep a record of where various materials are stored.
3. All field welding must be done in accordance with AISC guidelines. All aluminum and glass should be shielded from field welding to avoid damage from weld splatter. Results will be unsightly and may be structurally unsound. Advise general contractor and other trades accordingly.
4. Coordinate protection of installed work with general contractor and/or other trades.
5. Coordinate sequence of other trades which affect framing installation with the general contractor (e.g. fire proofing, back up walls, partitions, ceilings, mechanical ducts, HVAC, etc.).
6. General contractor should furnish and guarantee bench marks, offset lines and opening dimensions. These items should be checked for accuracy before proceeding with erection. Make certain that all adjacent substrate construction is in accordance with the contract documents and/or approved shop drawings. If not, notify the general contractor in writing before proceeding with installation because this could constitute acceptance of adjacent substrate construction by others.
7. Isolate all aluminum to be placed directly in contact with masonry or other incompatible materials with a heavy coat of zinc chromate or bituminous paint. Fasteners attaching framing to building structure are typically not provided by Tubelite.
8. Sealant selection is the responsibility of the erector, installer and/or glazing contractor and must be approved by the sealant manufacturer with regard to application and compatibility for its intended use. All sealants must be used in strict accordance with the manufacturer's instructions and applied only by trained personnel to surfaces that have been properly prepared.
9. Sealant must be compatible with all materials with which they have contact, including other sealant surfaces. Consult the sealant manufacturer for recommendations relative to shelf life, compatibility, cleaning of substrate, priming, tooling adhesion, environment, temperature and humidity. Recommend sealant manufacturer perform adhesion "pull test" at "wet" glazing for quality assurance.
10. Drainage gutters and weep holes must be kept clean at all times. Tubelite will not accept responsibility for improper drainage as a result of clogged gutters and weep holes.
11. This product requires clearances at the head, sill and jambs to allow for thermal expansion and contraction as well as construction tolerances. Refer to final distribution drawings for joint sizes. Joints smaller than 1/2" may be subject to failure. Consult the sealant manufacturer for proper sizing of joints.
12. All framing members, entrances and other materials are to be installed plumb, level and true with regard to established bench marks, column center lines or other working points established by the general contractor and checked by the erector, installer and/or glazing contractor.
13. After sealant is set and a representative amount of the wall has been glazed (500 square feet or more), run a water hose test to check installation. On large projects, a hose test should be repeated during glazing operation. This testing should be conducted in accordance with AAMA 501.2 specifications.
14. Cleaning of exposed aluminum surfaces should be done per AAMA recommendations.
15. Care must be taken when assembling aluminum framing components. Over tightening any fastener may cause stripping or fastener failure. Tubelite recommends the use of drill motors with clutches engaged to provide satisfactory tightening of the screw while preventing over torque. The use of impact drill motors is not recommended due to the absence of a clutch device.

GENERAL CONSTRUCTION NOTES (con't)

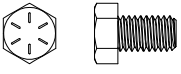
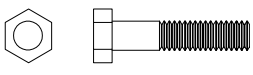
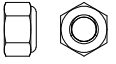
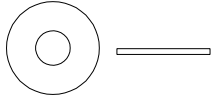
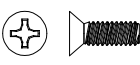
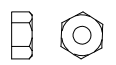
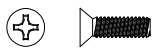
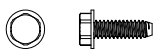
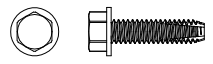
16. For cold weather installation, glazing materials (including but not limited to glazing gaskets, isolators and gaskets for air seals and expansion mullions) can become more rigid and thus more difficult to install. These materials should be installed at temperatures above 40 degrees Fahrenheit for proper system performance and ease of installation. A hot box may be required to warm the glazing materials prior to installation. Allow glazing materials to lay flat at 50 degrees Fahrenheit minimum temperature prior to installing.

17. Check www.tubeliteinc.com for any installation instruction updates.

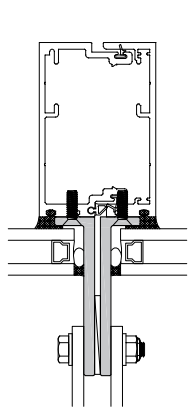
PARTS LIST

SHAPE	DESCRIPTION	PART No.
	SSG VERTICAL MULLION SUN SHADE BRACKET	P6901
	TYPICAL CAPTURED MULLION SINGLE BLADE SUN SHADE BRACKET	P6902
	OUTSIDE CORNER SSG MULLION SUN SHADE BRACKET	P6903
	INSIDE CORNER SSG MULLION SUN SHADE BRACKET	P6904
	OUTSIDE CORNER CAPTURED DOUBLE BLADE SUN SHADE BRACKET	P6905
	CAPTURED MULLION BACKER BAR	P6912

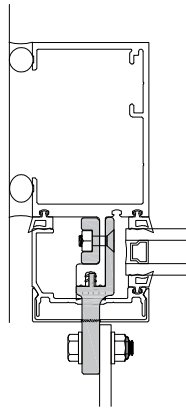
ACCESSORIES LIST

SHAPE	DESCRIPTION	PART No.
	3/8-16 x 5/8" Stainless Steel 18-8	S365
	5/16-18 x 1-1/2" Stainless Steel 18-8	S367
	5/16-18 Hex Nylon Insert Lock Nut Stainless Steel 18-8	S368
	1" OD x 3/8" ID x .0625" Flat Washer Stainless Steel 18-8	S302
	1/4-20 x 3/4" Zinc Electroplate	S047
	1/4-20 Top Lock Nut Zinc Electroplate	S006
	#12-24 x 3/4" F Stainless Steel 18-8	S149
	#10 x 5/8" B Stainless Steel 18-8	S357
	1/4-20 x 1" 23 Steel, Zinc Plated	S403

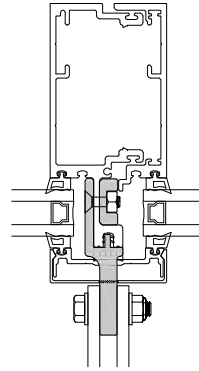
SUN SHADE BRACKETS / VERTICAL MULLIONS



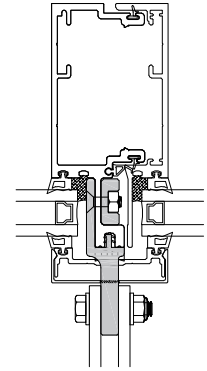
P6901 Vertical SSG Mullion



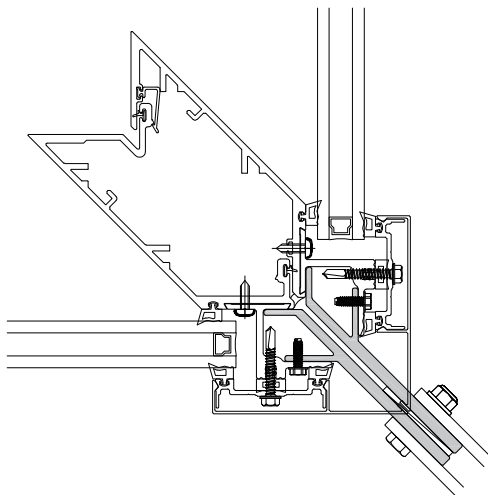
P6902 / P6912 Vertical
End Jamb - Captured Mullion



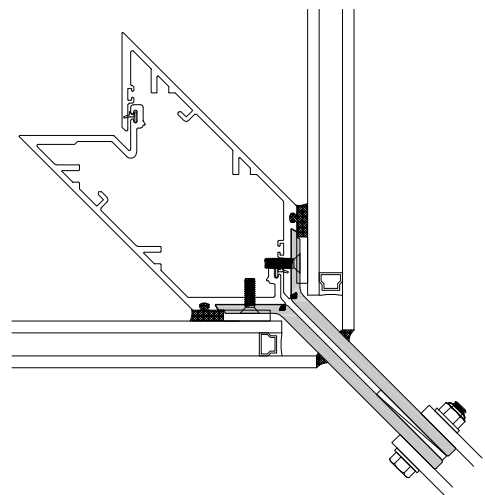
P6902 / P6912 Vertical
End Jamb - Captured Mullion
Field Glazed Installation



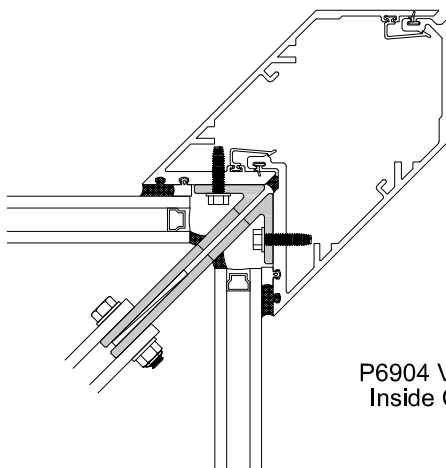
P6902 / P6912 Vertical
End Jamb - Captured Mullion
Shop Glazed Installation



P6905 Vertical Mullion
Outside Corner - Captured



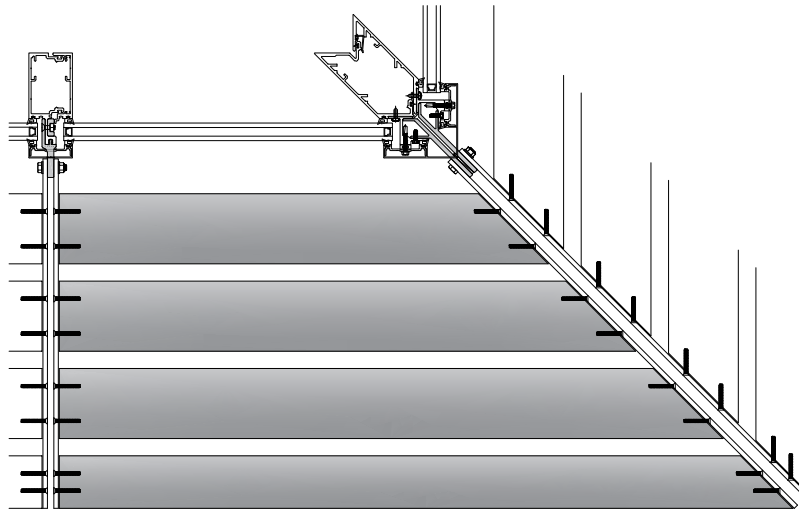
P6903 Vertical Mullion
Outside Corner - SSG



P6904 Vertical Mullion
Inside Corner - SSG

SUN SHADE BLADE / FASCIA CUT LENGTH FORMULA

400SS Curtain Wall	
Sun Shade Bracket P-Part Number	Blade / Fascia Size Formula
P6901 - Vertical SSG Mullion	DLO Plus 1-3/8"
P6902 - Captured Vertical Mullion	DLO Plus 1-5/8"
P6903 - Outside Corner SSG Vertical Mullion	Layout vertical corner mullions and blade spacing for cut lengths
P6904 - Inside Corner SSG Vertical Mullion	Layout vertical corner mullions and blade spacing for cut lengths
P6905 - Outside Corner Captured Vertical Mullion	Layout vertical corner mullions and blade spacing for cut lengths



Varying Blade / Fascia Cut Length at Corners

SUN SHADE BRACKET INSTALLATION - P6901

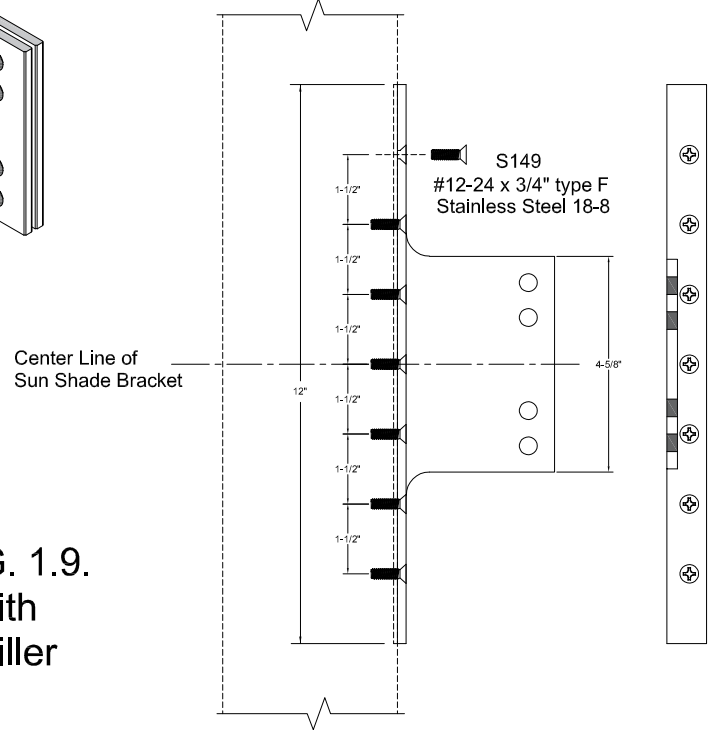
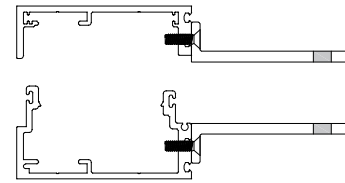
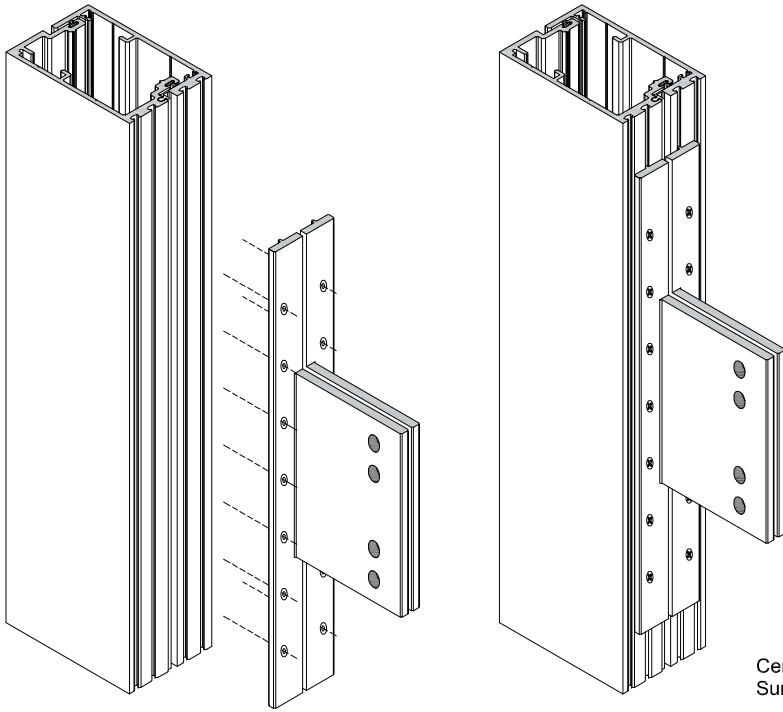


FIG. 1.9

- 1) Locate center line of sun shade bracket on vertical mullion, mark and drill 0.18 diameter mounting hole and secure sun shade bracket in place. FIG. 1.9.
- 2) Sun shade bracket profile interferes with P4606 glazing gasket. Install silicone filler bead at sun shade location. FIG. 2.9.
- 3) Install non-compressible spacer between sun shade brackets. FIG. 3.9.
- 4) Install sun shade outriggers using S367 bolt, (2) S302 washers and S368 nut. FIG. 3.9.

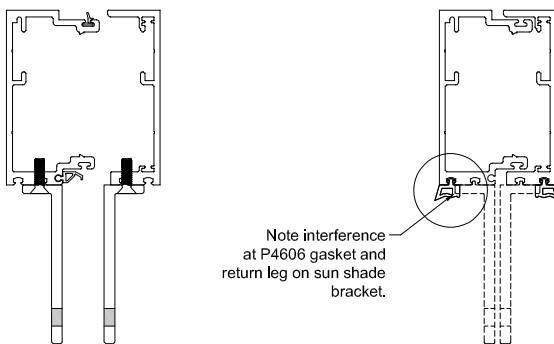


FIG. 2.9

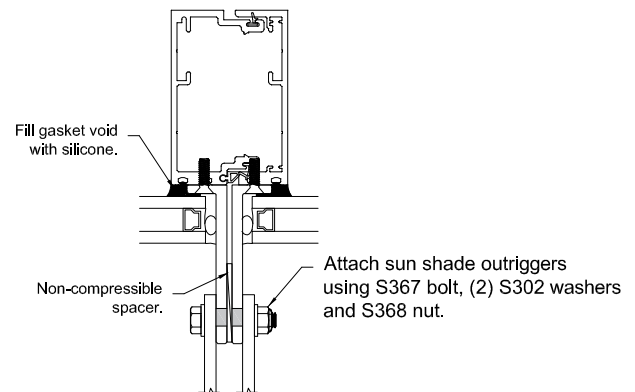


FIG. 2.9

SUN SHADE BRACKET INSTALLATION - P6902 / P6912

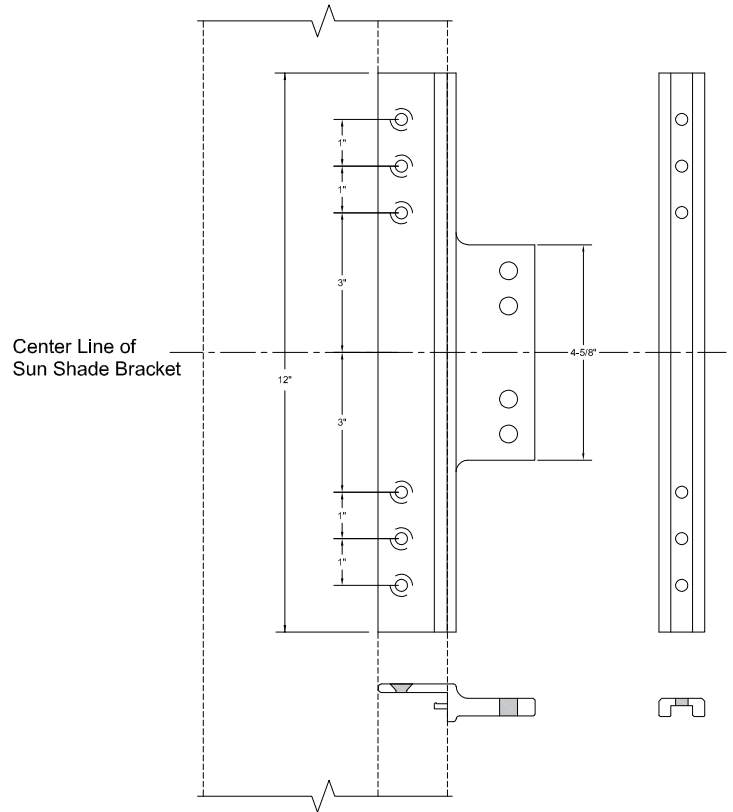
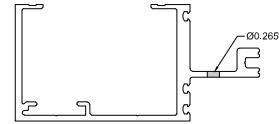
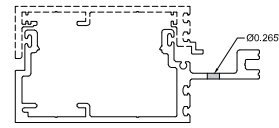
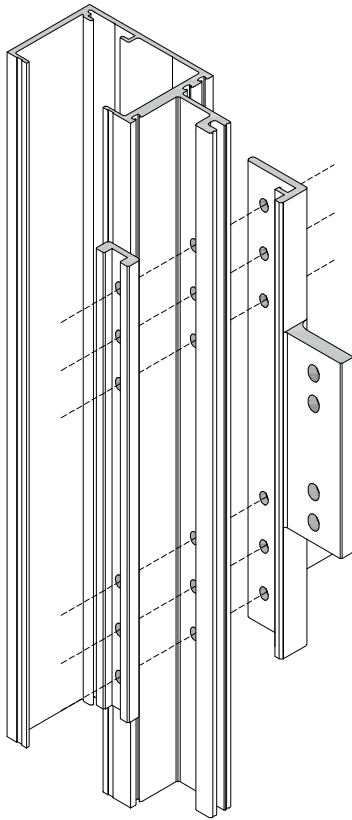


FIG. 1.10

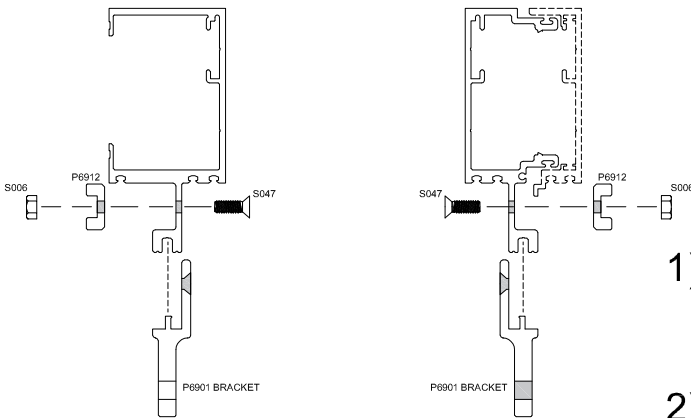


FIG. 2.10

- 1) Locate center line of sun shade bracket on vertical mullion, mark and drill 0.265 diameter clearance hole, FIG. 1.10.
- 2) Install bracket using P6901 sun shade bracket, P6912 backer bar and S047 bolt and S006 nut. FIG. 2.10.

SUN SHADE BRACKET INSTALLATION - P6902 / P6912 con't

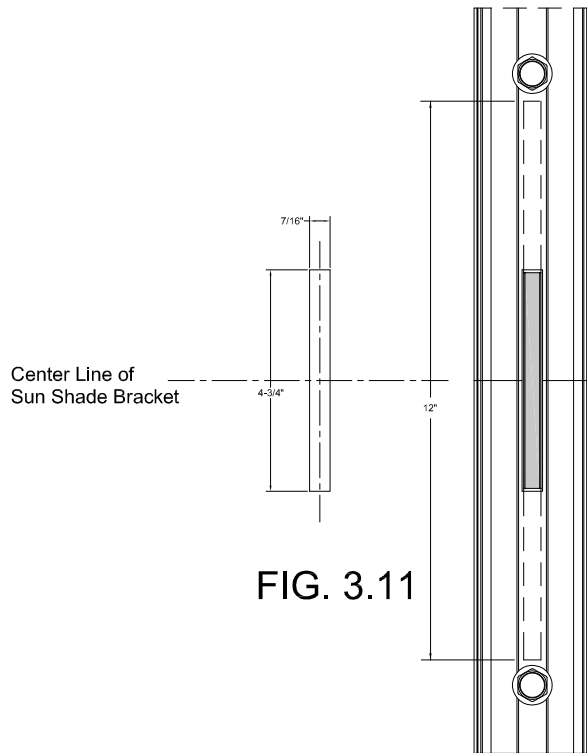


FIG. 3.11

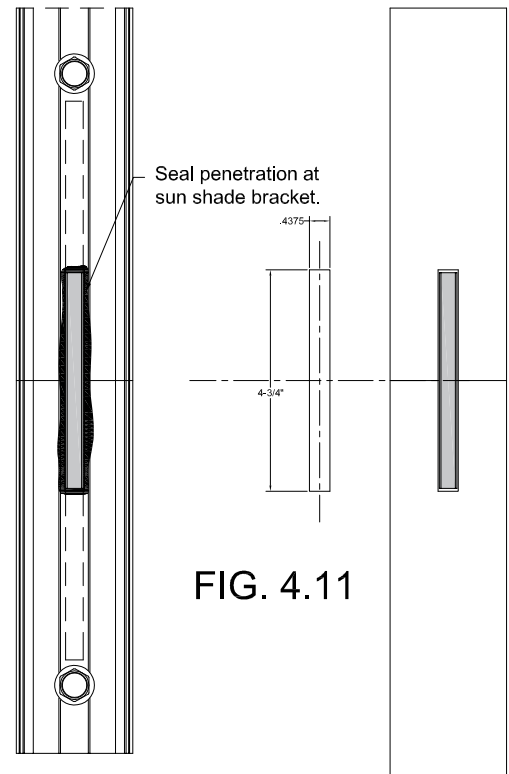


FIG. 4.11

- 3) A 7/16" wide x 4-3/4" tall clearance slot is required in the pressure plate at sun shade bracket location. (either slot in continuous pressure plate or or split pressure plate as shown FIG. 3.11)
- 4) Seal around sun shade bracket at sun shade penetration.
- 5) A 7/16" wide x 4-3/4" tall clearance slot is required in the vertical cover at sun shade bracket location. (either slot in continuous pressure plate or or split pressure plate as shown FIG. 4.11)
- 6) Install sun shade outriggers using S367 bolt, (2) S302 washers and S368 nut. FIG. 5.11.

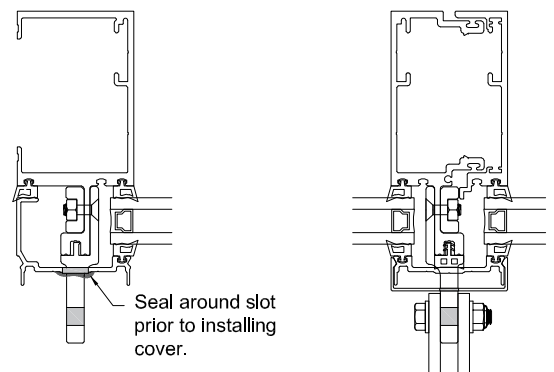


FIG. 5.11

SUN SHADE BRACKET INSTALLATION - P6903

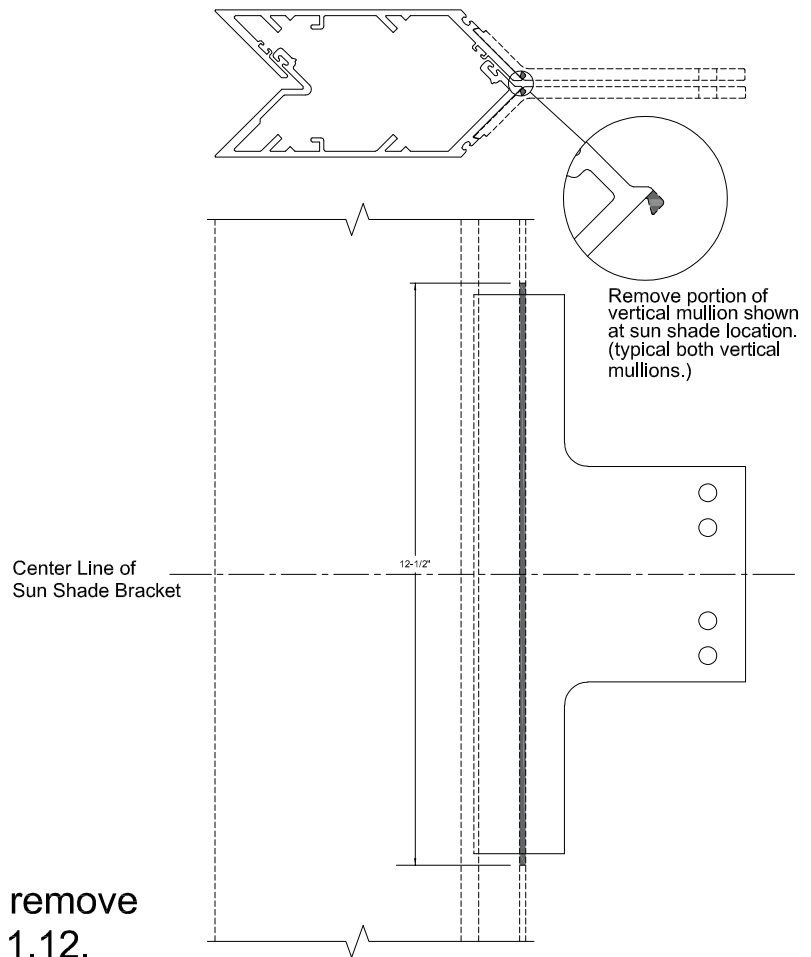
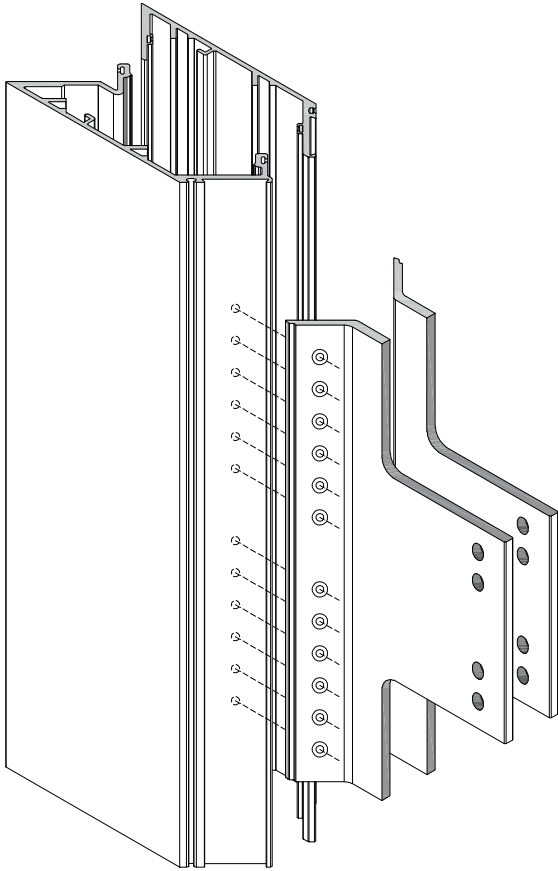


FIG. 1.12

- 1) Locate center of sun shade bracket and remove portion of vertical mullion shown in FIG. 1.12.
- 2) Place sun shade bracket, mark hole locations and drill 0.18" holes.
- 3) Install sun shade bracket using S149 fastener.
- 4) NOTE: CORNER GLASS IS OFFSET TO EXTERIOR. FIG. 2.12.
- 5) Install spacer tape and silicone prior to glass installation. FIG 2.12.
- 6) Run continuous exterior seal at exterior corner. FIG. 3.12.
- 7) Install non-compressible spacer between sun shade brackets. FIG. 3.12.
- 8) Install sun shade outriggers using S367 bolt, (2) S302 washers S368 nut. FIG. 3.12.

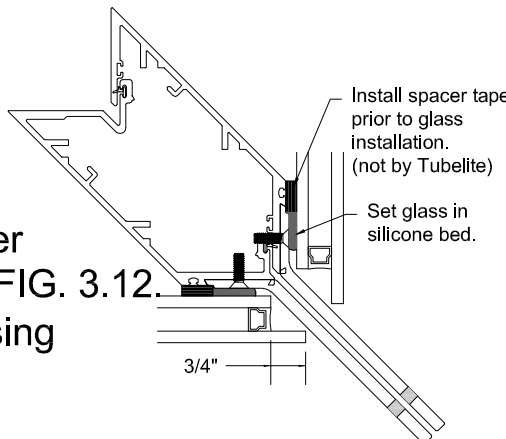


FIG. 2.12

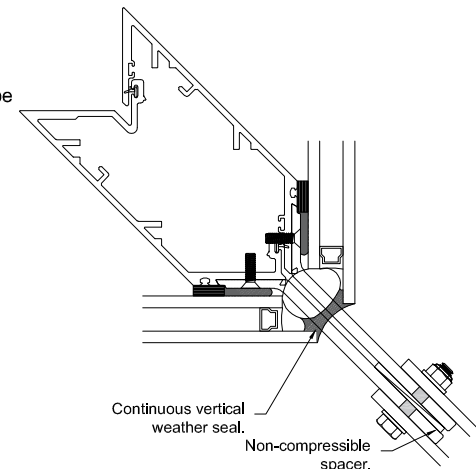
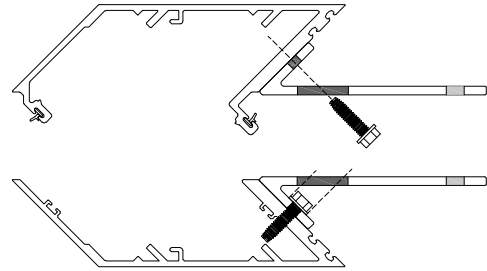
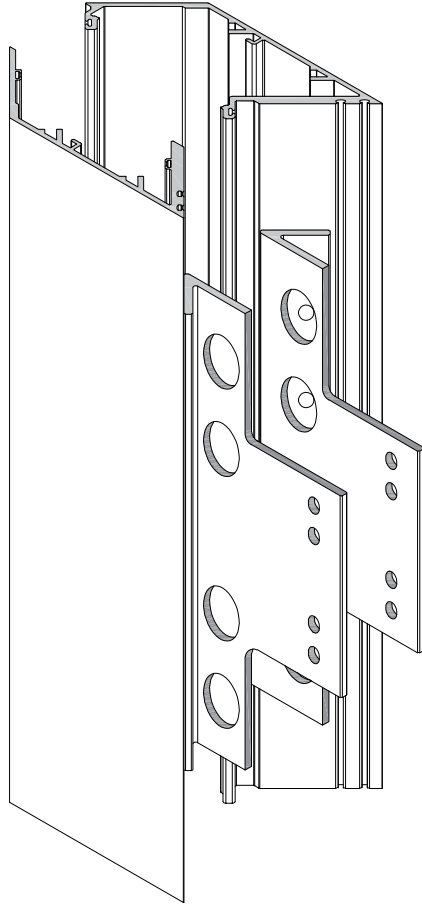
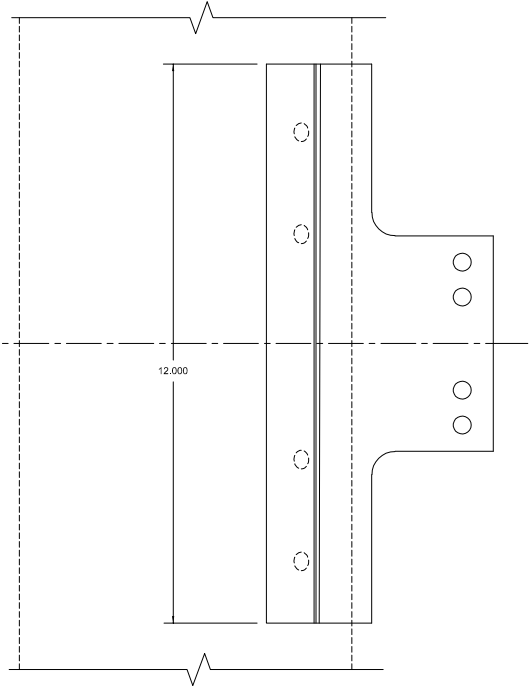


FIG. 3.12

SUN SHADE BRACKET INSTALLATION - P6904



Center Line of
Sun Shade Bracket



- 1) Locate center of sun shade bracket and and mark mounting holes to be drilled. FIG. 1.13
- 2) Drill 0.18" diameter holes at marked locations.
- 3) Install sun shade bracket using S403 fastener.
- 4) NOTE: REDUCED GLASS WIDTH (glass bite) AT CORNER. SEE DIMENSION FIG. 2.13.
- 5) Install spacer gasket P4631 in receiver shown. FIG. 2.13.
- 6) Run continuous vertical seal at exterior.
- 7) Install non-compressible spacer between sun shade brackets. FIG. 3.13.
- 8) Install sun shade outriggers using S367 bolt, (2) S302 washers S368 nut. FIG. 3.13.

FIG. 1.13

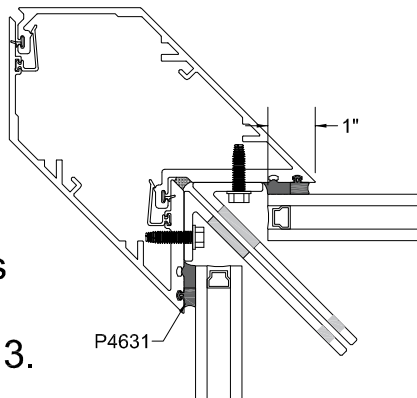


FIG. 2.13

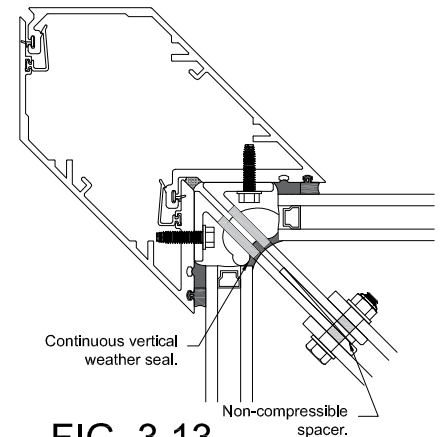
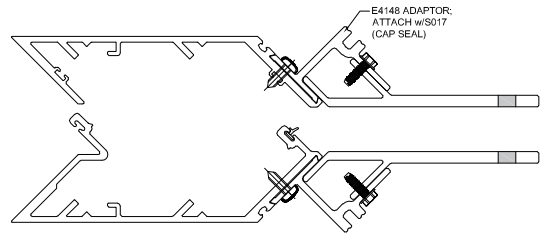
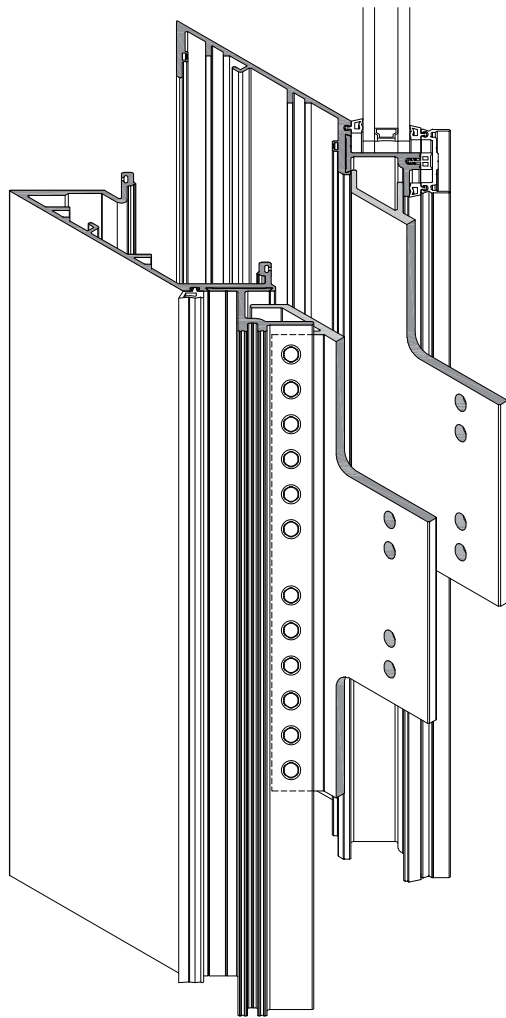


FIG. 3.13

SUN SHADE BRACKET INSTALLATION - P6905



Center Line of
Sun Shade Bracket

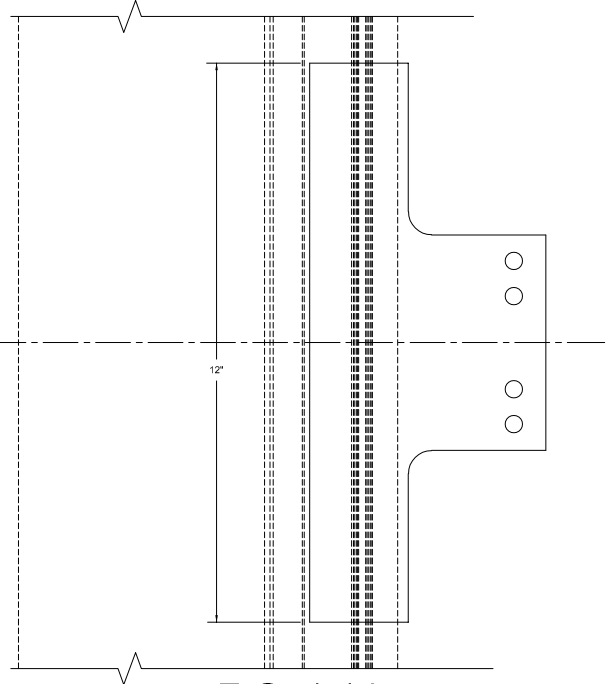


FIG. 1.14

Note: Start installation of P6905 after installation of E4148 adaptor is installed.

- 1) Find center line of sun shade bracket location. FIG 1.14.
- 2) Position sun shade bracket into E4148 and drill 0.16" hole at location of pre-drilled holes in P6905.
- 3) Continue by installing P4606 gasket, zone dams, thermal isolator, glass and pressure plate per glazing instructions. FIG 2.14.
- 4) Notch corner covers to allow for sun shade bracket exposure. FIG. 3.14.
- 5) Install non-compressible spacer between sun shade brackets. FIG. 3.14.
- 6) Install sun shade outriggers using S367 bolt, (2) S302 washers S368 nut. FIG. 3.14.

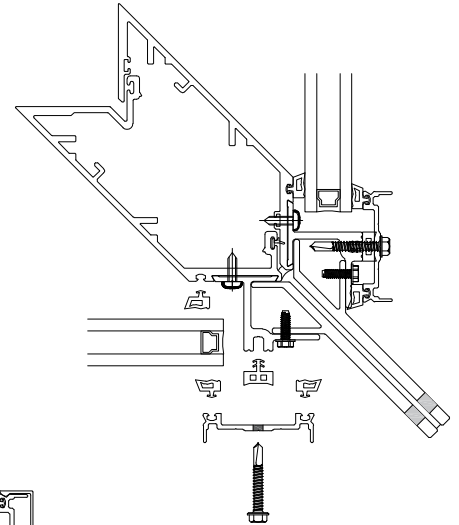
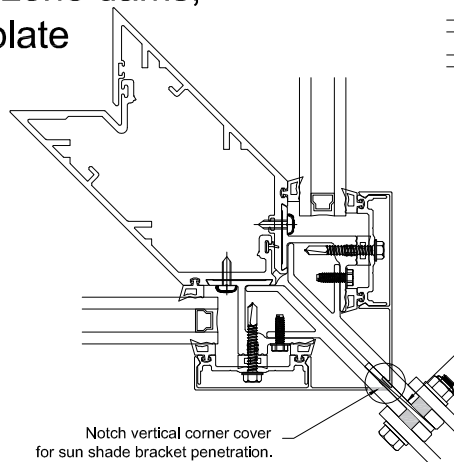


FIG. 2.14



Set glass in
silicone bed.

FIG. 3.14