

# Adhesives for the Installation of Pieces

Piazza Stone is a lightweight, limestone product that is cast around an expanded polystyrene (EPS) foam core shape that can be applied over an approved substrate. Any adhesive designed for use with EPS Foam is acceptable, provided that Piazza Stone's recommendations are followed.

## Application Procedure

**Job Conditions:** Air and surface temperatures for application of Adhesive mixture must be at 40 °F (4 °C) or higher and must remain so for a minimum of 24 hours.

**Temporary Protection:** Temporary protection should be provided at all times until adhesive and permanent flashings, sealants, etc. are completed to protect the wall from weather and other damage.

**Substrate Surface Preparation:** Application is to Piazza Stone's recommended substrates(See specifications Section 2.5-3). Substrate Surface must be flat within 1/4" of a 4'-0" radius. Surface must not be below 40°F, must be clean and dry, structurally sound, and free of efflorescence, grease, oil, form release agents and curing compounds. **Note: It may be necessary to fog surface with clean water to create adhesive suction if surface is hot and/or dry during application of element.**

**Mixing:** Follow the adhesive manufacturer's recommendations.

### Application:

- Sealing backside of element:
  1. Using a trowel, install a continuous 1/8" to 1/4" thick coat of adhesive mixture on entire back surface of cast stone unit to obtain 100% coverage. Let set for 6 to 8 hours.
- Adhering to substrate:
  1. Notched Trowel Method: Apply mixed adhesive to entire surface using a stainless steel trowel with 1/2" x 1/2" notches spaced 1/2" apart.
  2. Ribbon & Dab Method: Apply a ribbon of mixed adhesive approximately 2" wide by 3/8" thick to entire perimeter of stone unit using a trowel. Apply dabs of 3/8"- 5/8" thickness by 4" in diameter, approximately 8" on center over entire piece of stone.

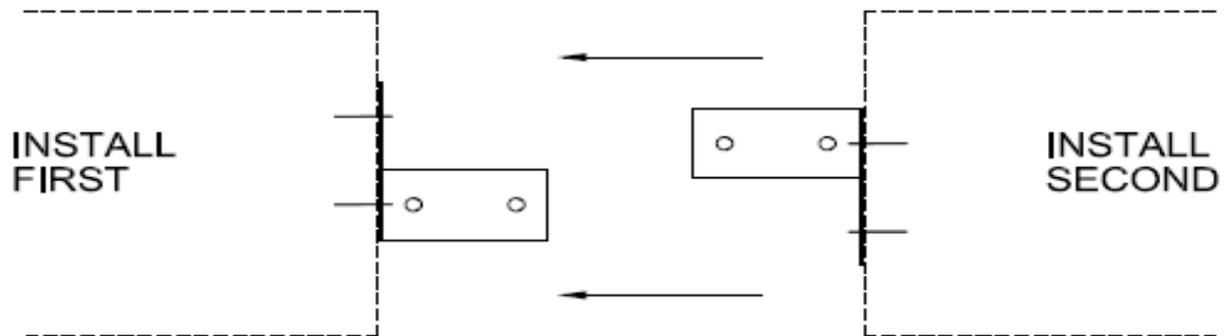
**\*Note:** Do not allow adhesive to form skin before positioning cast stone unit on substrate. Do not apply adhesive to substrate.
- Immediately place cast stone component on substrate and slide into position and fasten according to Piazza Stone recommendations.

**Drying Time** - When bonding Piazza Stone to an approved substrate, a period of 24 hours must elapse to allow the Adhesive to form a positive bond. The Piazza Stone should not be worked on while the Adhesive is curing. Drying of the Adhesive is dependent on the air temperature and relative humidity. Under average drying conditions [70 °F (21 °C), 55% R.H.] protect work from rain for at least 24 hours.

## Adhesive Data for Installation of Pieces

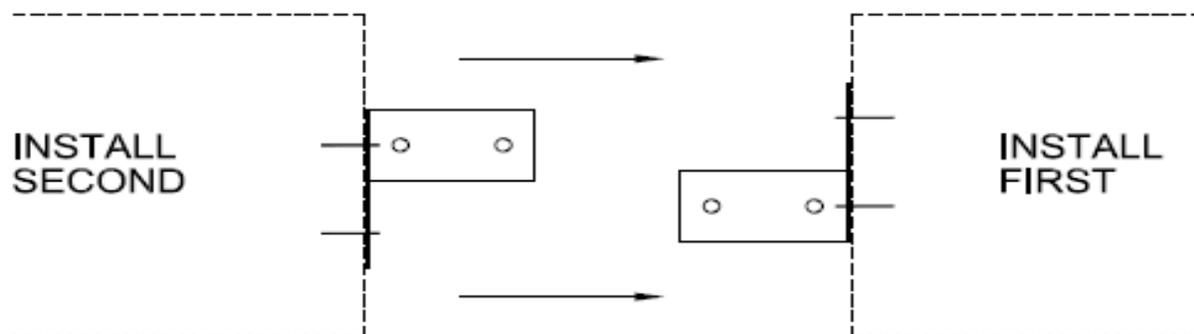
Test	Method	Results
Bonding Strength	ASTM C 297	Adhesive on EPS: 53.0 psi* Adhesive on Concrete: 169.7 psi* Adhesive on Gypsum: 15.6 psi* *Failure of Substrate

WHEN INSTALLING RIGHT TO LEFT, USE **PZ-12R** CLIPS



- 1) ATTACH CLIP ON TRAILING SIDE OF FIRST PIECE TO PLYWOOD, BLOCKING, ETC.
- 2) CLIP ON LEADING SIDE OF SECOND PIECE TO BE SLID BEHIND FIRST PIECE FOR A FRICTION FIT.
- 3) CLIPS TO BE POSITIONED SO THAT CLIP ON LEADING PIECE SUPPORTS THE DEAD LOAD OF CLIP ON TRAILING PIECE.

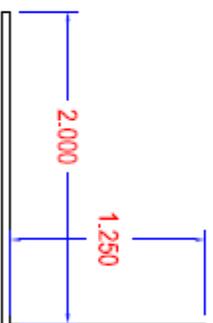
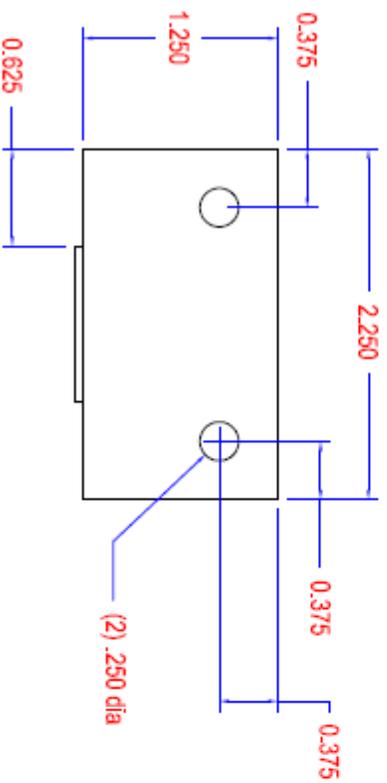
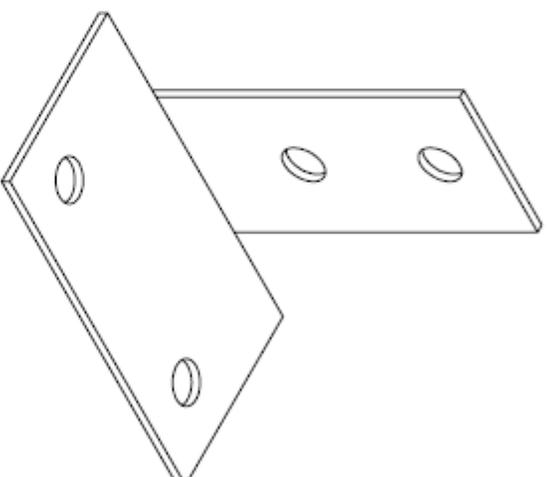
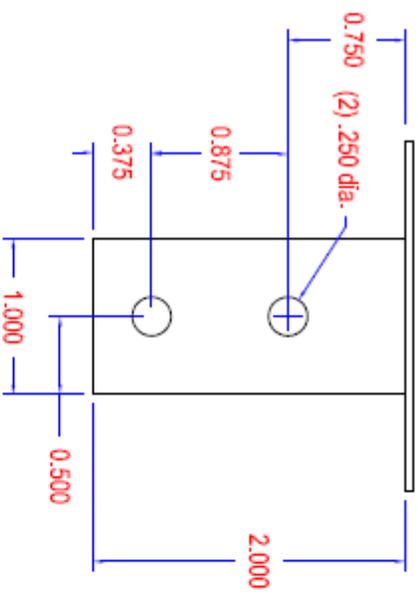
WHEN INSTALLING RIGHT TO LEFT, USE **PZ-12L** CLIPS



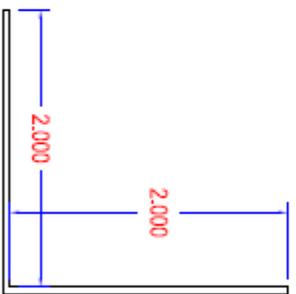
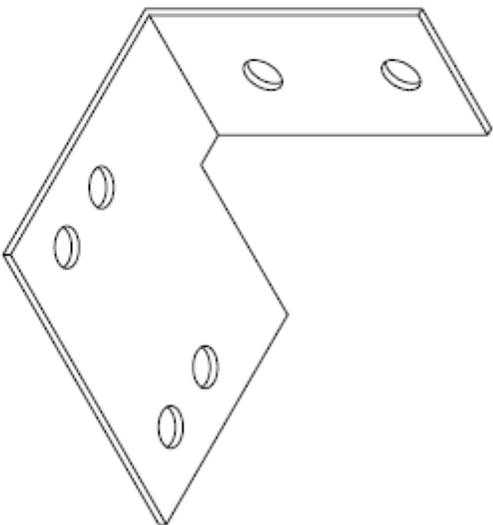
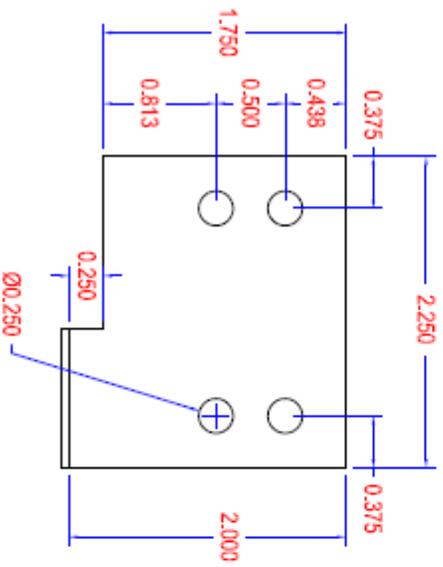
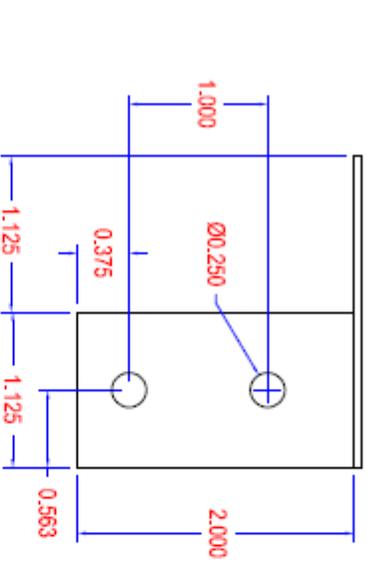
- 1) ATTACH CLIP ON TRAILING SIDE OF FIRST PIECE TO PLYWOOD, BLOCKING, ETC.
- 2) CLIP ON LEADING SIDE OF SECOND PIECE TO BE SLID BEHIND FIRST PIECE FOR A FRICTION FIT.
- 3) CLIPS TO BE POSITIONED SO THAT CLIP ON LEADING PIECE SUPPORTS THE DEAD LOAD OF CLIP ON TRAILING PIECE.

## **Piazza Stone General Notes**

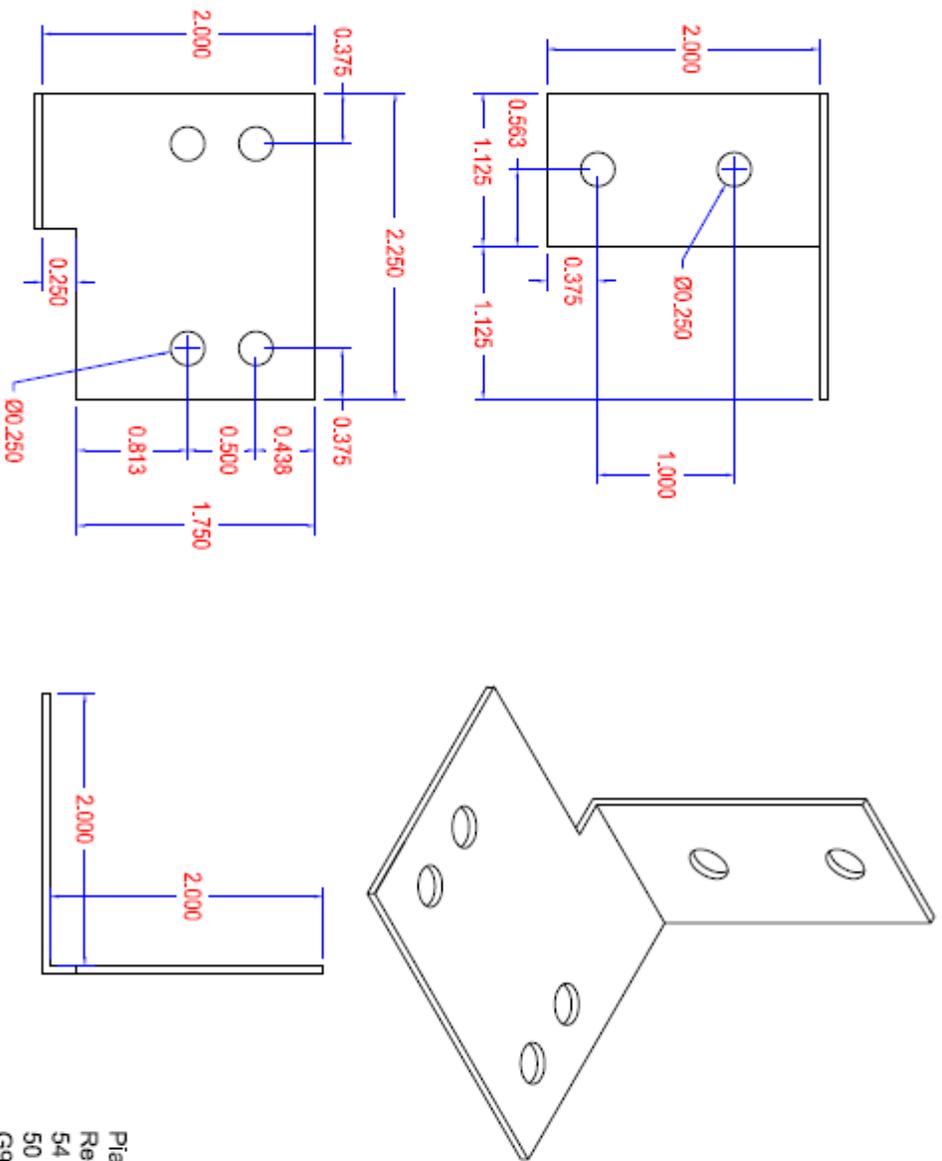
- 1) Piazza Stone is a light weight cast stone. It is a reinforced cement based material and should be handled with care. Avoid inducing flexural stresses into the material. Transport and handle material with equipment to protect from strain, warping, cracking, chipping or staining. Do not place units in contact with earth. Store units on firm, level and smooth surfaces. Store units in same position as transported with non-staining resilient supports located in same positions as when transported.
- 2) Piazza Stone units consist of a cast stone shell surrounding an expanded polystyrene(EPS) core. The cast stone shell includes the front, top, bottom, and both ends of all pieces. The cast stone shell shall wrap at least 1" onto the back of all pieces. The exposed EPS must be completely covered by a minimum of 1/4" of approved adhesive before installation.
- 3) Piazza Stone is designed to be attached with a combination of galvanized steel clips and adhesive. Clips shall be used to secure units until adhesive sets. Clips also provide secondary support should there be an adhesive failure.
- 4) Piazza Stone pieces should be adhered to the substrate with the specified adhesive. Once the unit is properly oriented and located, attach the clip on the leading end of the piece to the substrate. Only after the clip is attached to the substrate should the clip be attached to the Piazza Stone piece.
- 5) Attachment clips shall be 54 mil minimum thickness, 50ksi galvanized steel with a minimum G90 galvanized coating. Available clips are PZ-10, PZ-12L, PZ-12R, PZ-14, PZ-16, PZ-18, PZ-20, & PZ-22.
- 6) Adhesive shall be Senergy Alpha Dry Base Coat or approved equal by Piazza Stone, LLC. Dry Base Coat requires mixing with only water. Follow mixing instructions on container. Air and surface temperature for application of adhesive mixture shall be 40 degrees F or higher and shall remain so for a minimum of 24 hours after application.
- 7) Acceptable substrates for Piazza Stone are DensGlas Gold or new and untreated Exposure 1 or exterior grade plywood (grade C-D or better). If DensGlas gold is used, blocking or metal strapping will be required to receive all screws. If plywood is used, Senersshield-R air/water-resistive barrier membrane must be applied to the plywood before it gets wet. Follow manufacturer's installation instruction.
- 8) Galvanized clips shall be attached to the end flanges of the Piazza Stone parts using Hilti Kwik Con II+3/16"x1-1/4" THH, Item No. 00433029. Two(2) screws required per clip except PZ-16 (1 screw required).
- 8a) If Stone thickness exceeds 3/4"- 1- 1/4" then use Kwik Con II+3/16"x1-3/4" THH, Item No. 00433030.
- 9) Galvanized clips shall be attached to plywood sheathing and wood blocking using Hilti 6 x 1-1/4" PBHS COARSE, Item No. 00010196. Two (2) screws required per clip.
- 10) Galvanized clips shall be attached to metal studs and strapping (minimum 18 gauge) using Hilti #6 1-1/4" PBH SD ZINC, Item No. 86215. Two screws required per clip.
- 11) Use non-staining resilient spacers between Piazza Stone units.
- 12) Mechanically attach every Piazza Stone piece with a minimum of two (2) approved clips. Use additional clips if shown on shop drawings.
- 13) Sealing Backside of Stone- Using a trowel, install a continuous 1/8" to 1/4" thick coat of adhesive mixture on entire back surface of Piazza Stone to obtain 100% coverage. Let set for 6 to 8 hours.
- 14) Adhering Stone to Substrate
  - A) Notched Trowel Method- Apply mixed adhesive to entire rear surface of units using stainless steel trowel with 1/2" x 1/2" notches spaced 1/2" apart.
  - B) Ribbon & Dab Method- Apply a ribbon of adhesive approximately 2" wide x 3/8" thick to entire rear perimeter of stone unit using a trowel. Apply dabs of 3/8" to 5/8" thickness by 4" in diameter, approximately 8" o.c. over entire rear of stone unit.
- 15) CAUTION: DoNOT install adhesive on substrate.
- 16) All joints between Piazza Stone pieces shall receive Pecora 890FTS-TXTR Sealent- Type one-part, non-sag, field tintable, textured silicone. Use suggested Pecora color chart to match Piazza Stone color used.
- 17) **Installer must successfully complete a 2-day training course to become a certified Piazza Stone installer.**



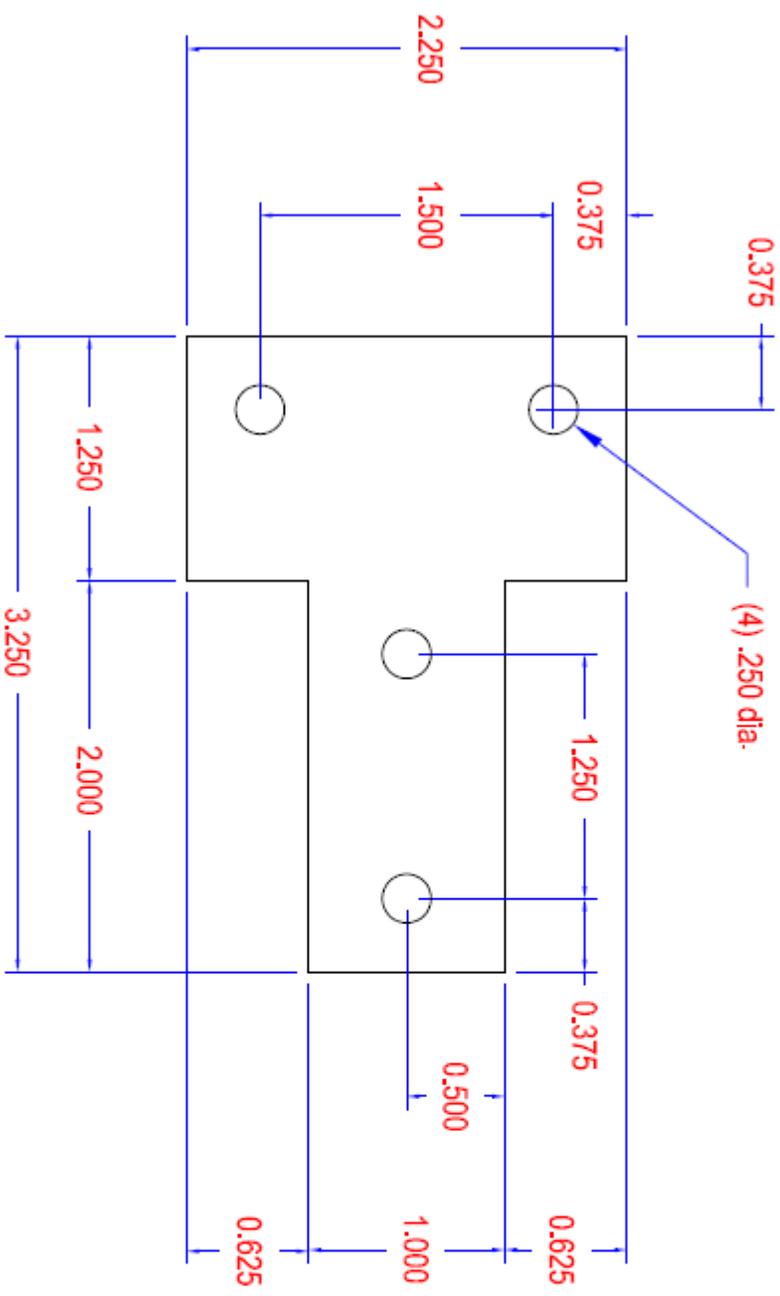
Piazza Clip PZ-10  
 Rev. 2, 11-13-12  
 54 mil min thickness  
 50 ksi min yield  
 G90 min coating



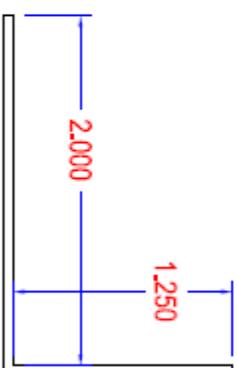
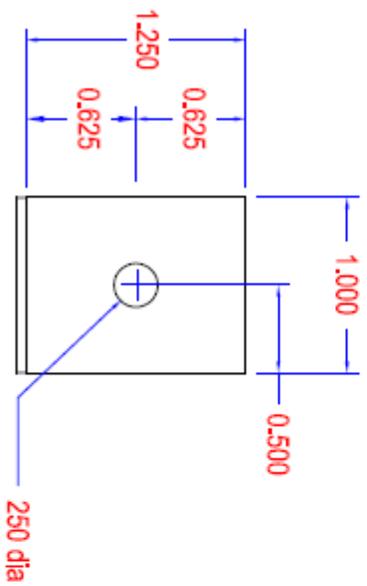
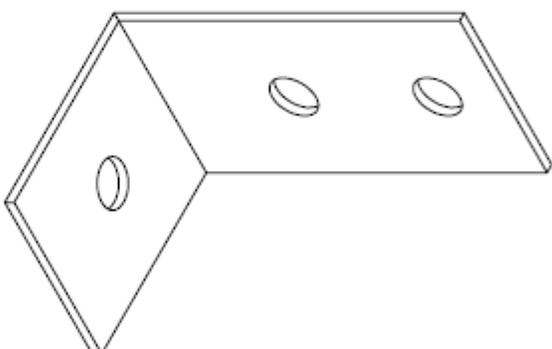
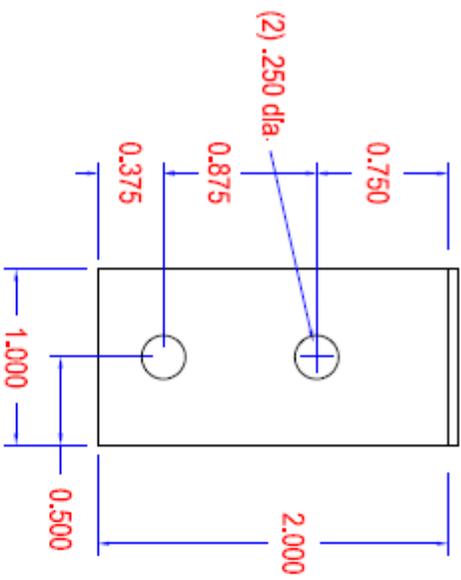
Plazza Clip PZ-12-L  
 Rev. 5-10-19-12  
 54 mil min thickness  
 50 ksi min yield  
 G90 min coating



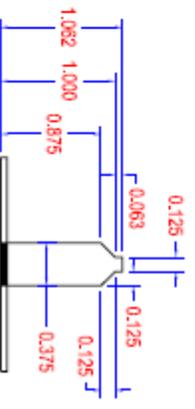
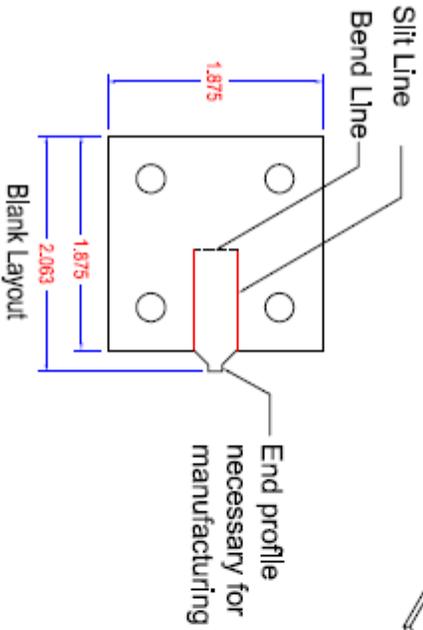
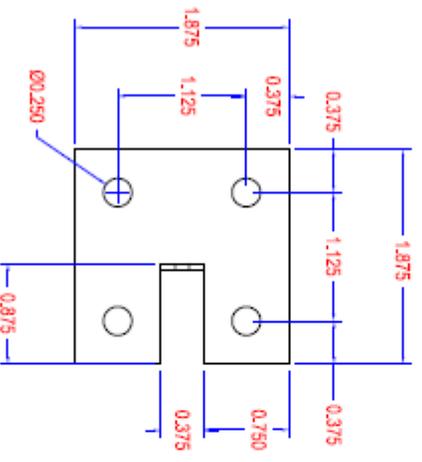
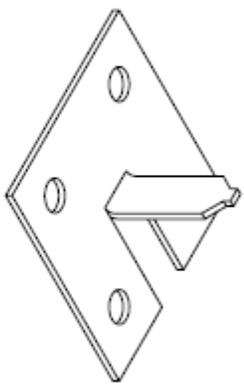
Piazza Clip PZ-12-R  
 Rev. 3: 10-19-12  
 54 mil min thickness  
 50 ksi min yield  
 G90 min coating



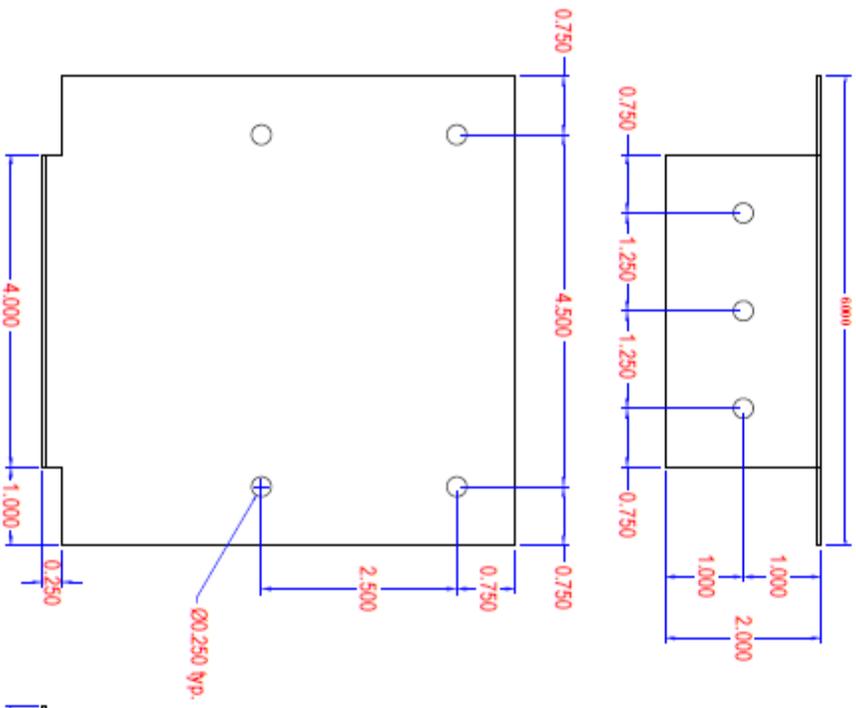
Piazza Clip PZ-14  
 Rev 1, 11-13-12  
 54 mil min thickness  
 50 ksi min yield  
 G90 min coating



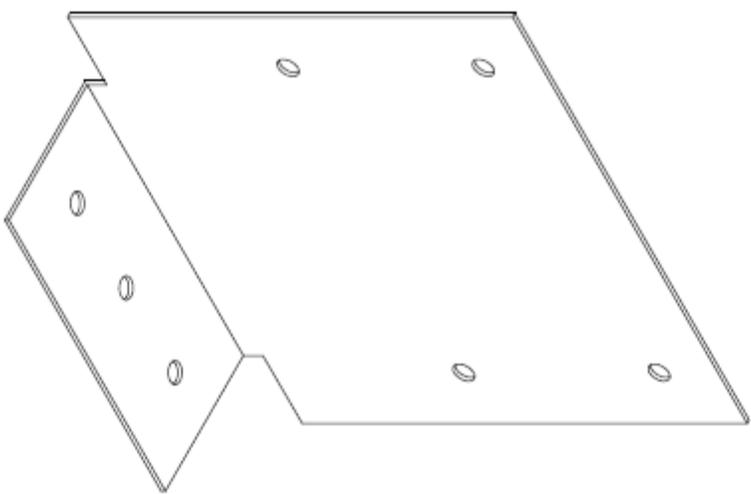
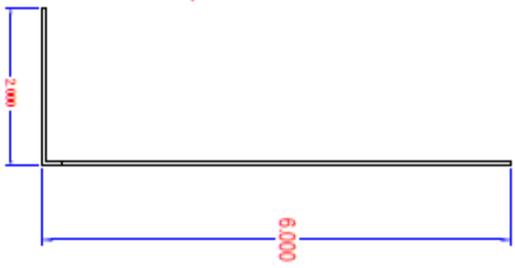
Piazza Clip PZ-16  
 Rev. 2; 11-13-12  
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 50 ksi min yield  
 G90 min coating

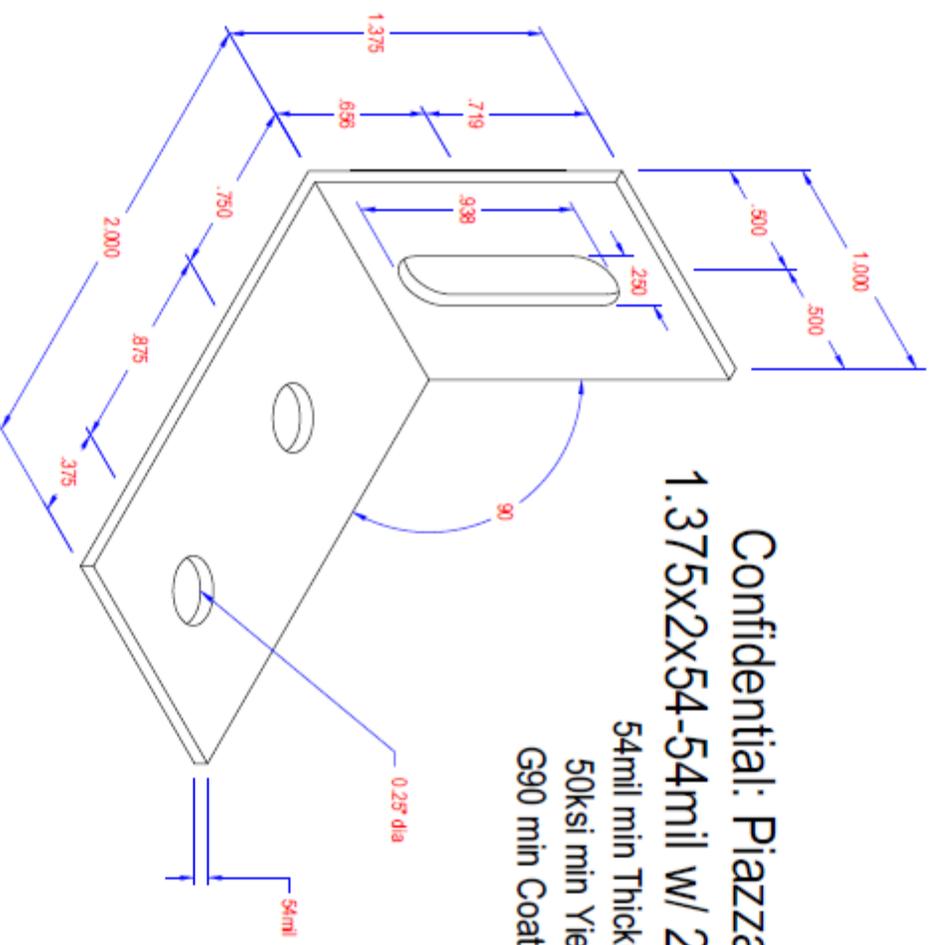


Piazza Clip PZ-18  
 Rev. 1; 11-29-12  
 54 mil min thickness  
 50 ksi min yield  
 G90 min coating



Piazza Clip PZ-20  
 Rev. 1: 12-14-12  
 S4 min thickness  
 50 ksi min yield  
 G90 min coating





**Confidential: Piazza Clip PZ-22**  
**1.375x2x54-54mil w/ 2 holes & 1 slot**

54mil min Thickness  
 50ksi min Yield  
 G90 min Coating