

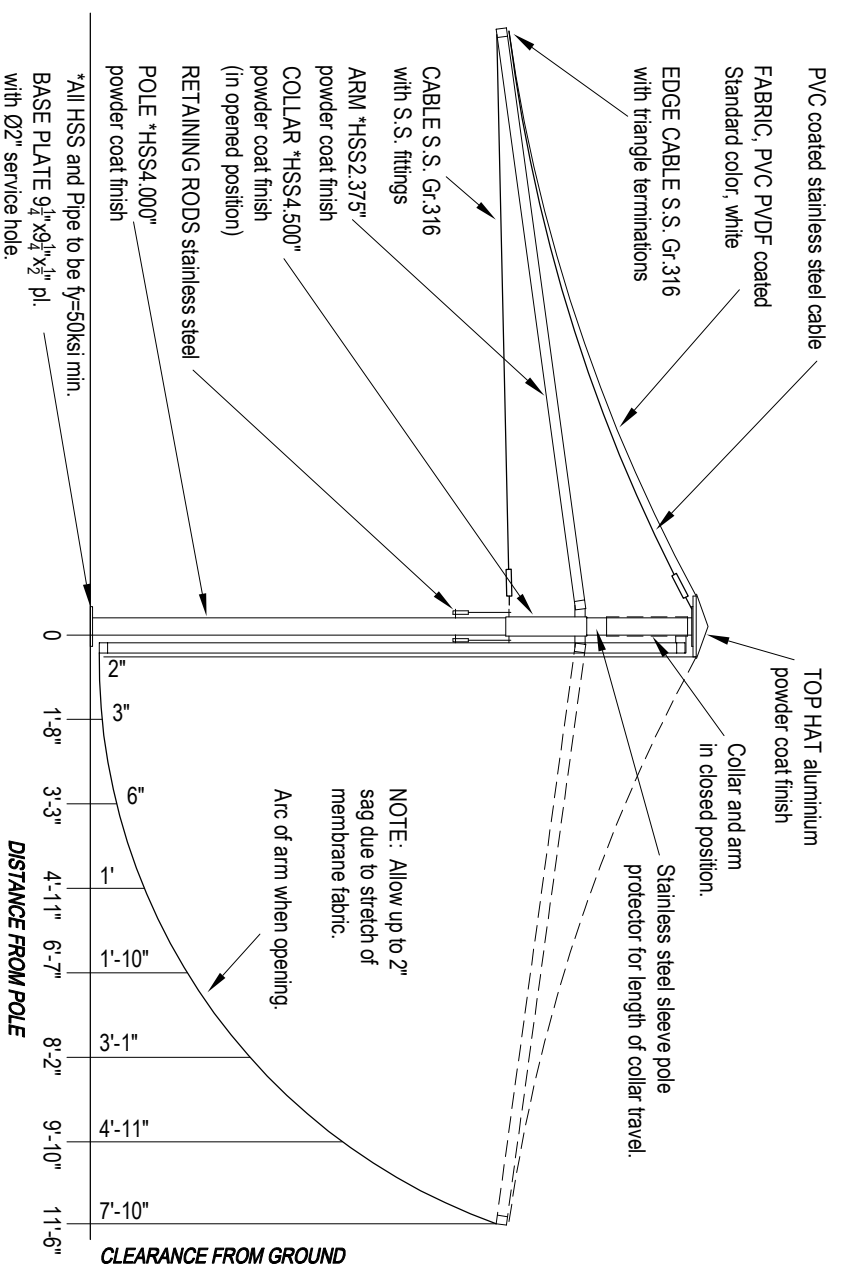
**Elevation**

**CENTRA SQUARE 16'-7" - CS50**  
 Designed to 90mph, Exp B  
 Rated when umbrella is fully erected.  
 Umbrella weight: 320 lb.

Overall dimensions represent clearance dimensions for the complete umbrella. Membrane dimensions differ, depending on variations in tensioning and fabrication. All dimensions are nominal and have a tolerance of +/- 2".

Note : The umbrellas must be closed and tied before wind speeds reach gusts of 60mph (100km/h) Refer note on Specification - Umbrella Design.

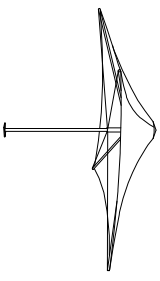
Figured dimensions take precedence. Do not scale.  
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**OPENED POSITION**

**CLOSED POSITION**

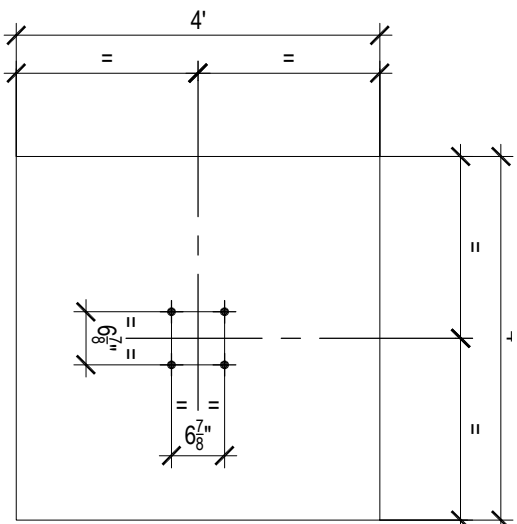
**16'-7" Center Support Square Umbrella**  
**Centra - Model CS50**



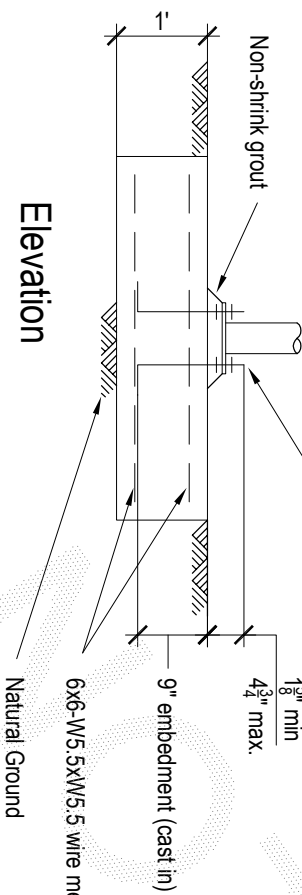
**Birdair Inc.**  
 Centra Model CS50  
 Architectural Umbrellas  
 Engineering Framing

EF-CS50-07.10

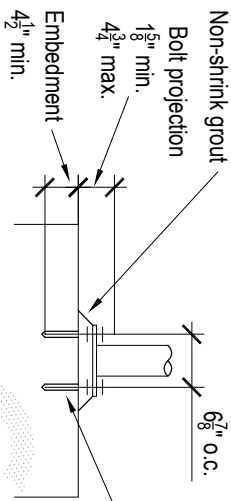




Plan



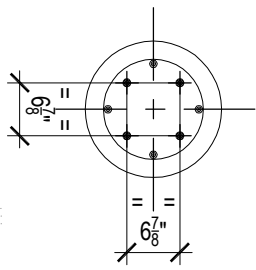
Elevation



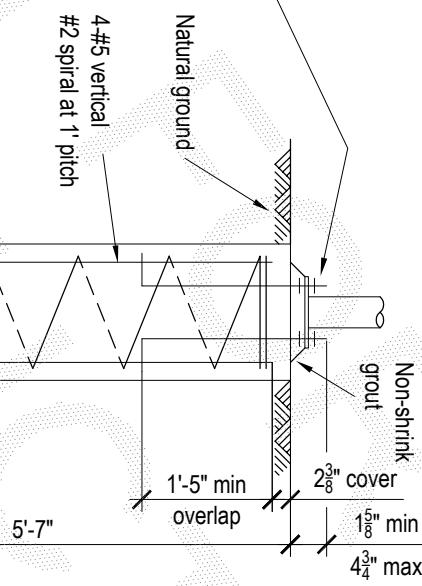
# Chemical Anchor Detail

## CS50 - Pad Footing

- 4- $\frac{1}{2}$ " H.D. bolts to be threaded rod grade F1554 Gr. 36 hot dipped galvanized, or stainless steel Gr. 316. Supplied with nuts, washers and leveling nuts. Chemical anchors, at  $6\frac{7}{8}$ " x  $6\frac{7}{8}$ " centers to be "Hilti HVU", or engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions. Hole to be clean and dry at time of installation.



Plan

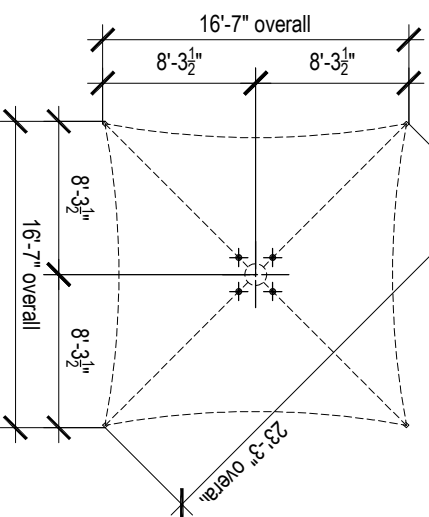


Elevation

## CS50 - Pier Footing

### H.D. Bolt Layout Plan

Not to scale



- Notes:**
- Designed to 90mph, Exp B
  - Assumed soil conditions:
  - Pad - bearing capacity 14.5 psf
  - Pier - cu=7.25 psf (stiff clay)
  - Minimum  $2\frac{3}{8}$ " cover to all reinforcement
  - Concrete strength - f'c 3600 psi
  - $\frac{3}{4}$ " aggregate size
  - Slump  $2\frac{1}{2}$ "
  - Anchor bolt location tolerances per Australian Standard AS 4800-1998**
  - 3mm for anchor bolt centers within an anchor bolt group.
  - 6mm for adjacent anchor bolt group centers.
  - Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
  - 6mm from anchor bolt group center to column line center.