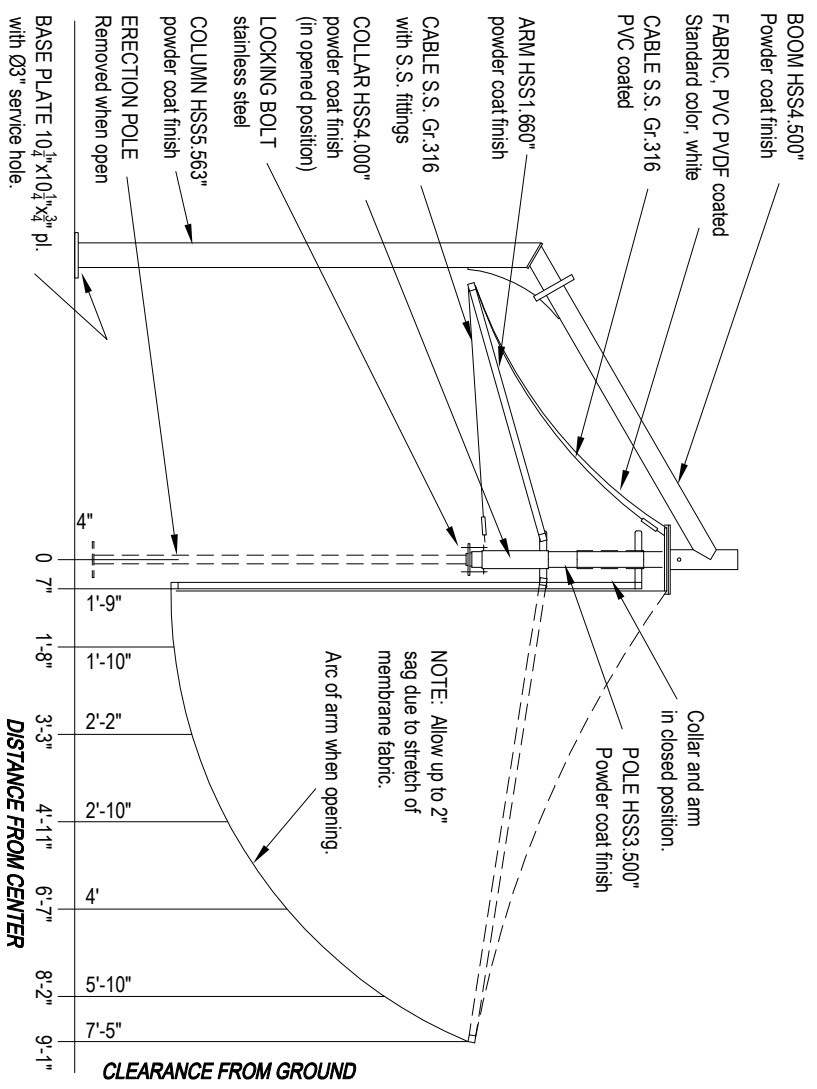
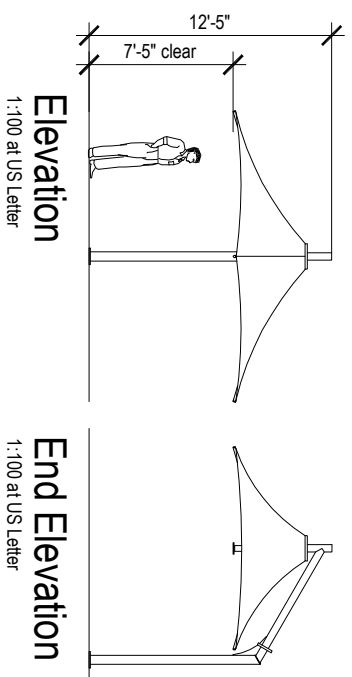
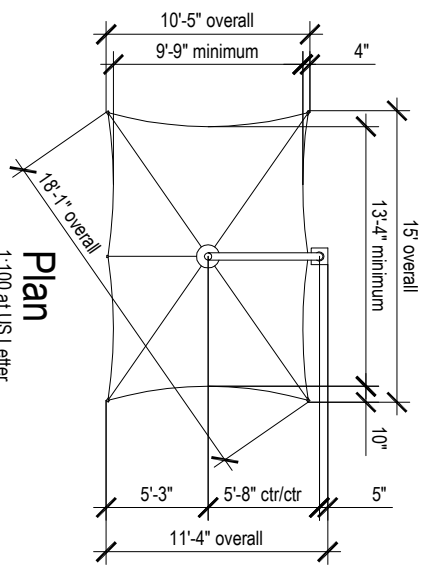


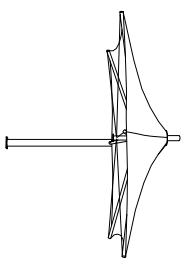
**LEVA RECTANGULAR 15' - LR45**  
 Designed to 90mph, Exp B  
 Rated when umbrella is fully erected.  
 Umbrella weight: 187 lb  
 Boom weight: 265 lb

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 Refer note on Specification - Umbrella Design.



**15' Side Support Rectangular Umbrella**  
**Leva - Model LR45**



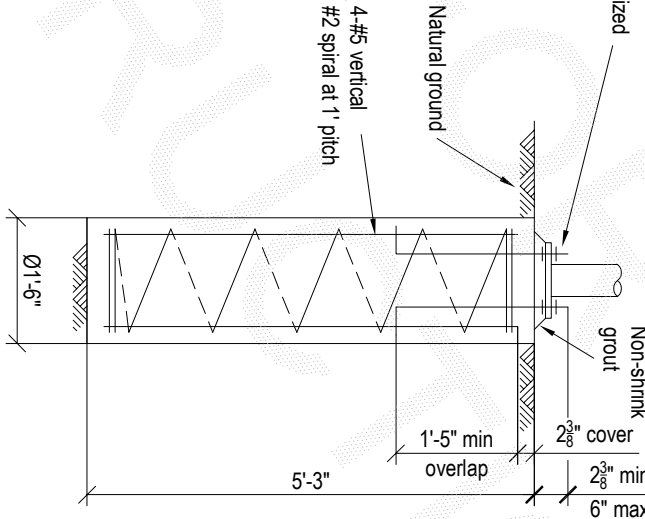
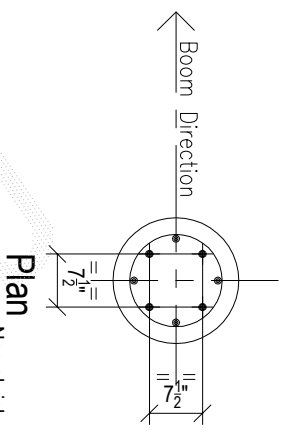
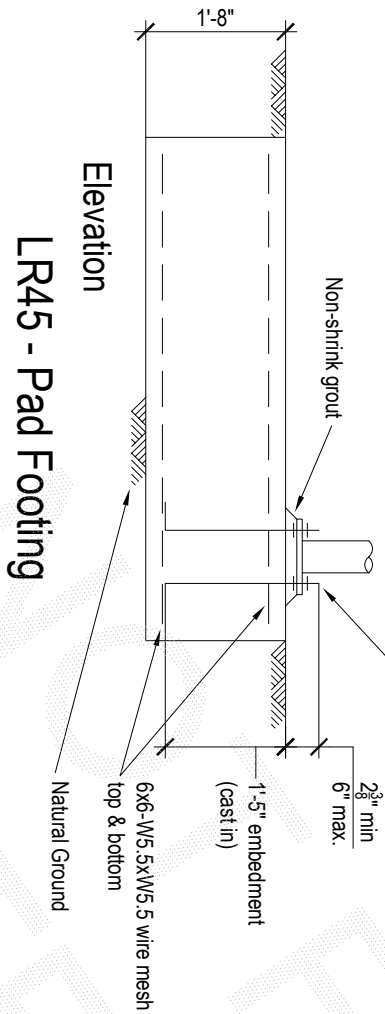
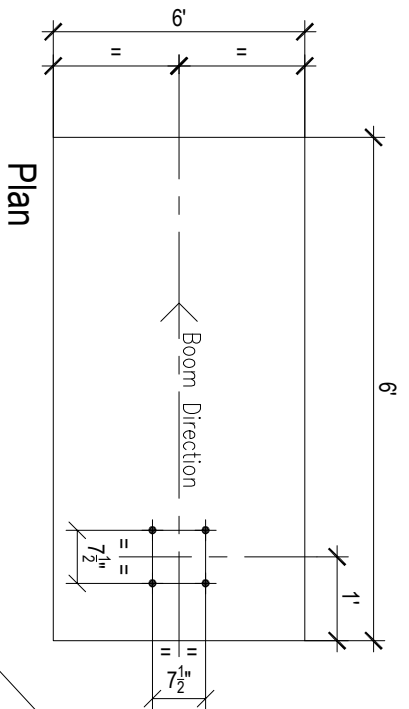
Figured dimensions take precedence. Do not scale.  
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Birdair Inc.

Leva Model LR45  
 Architectural Umbrellas  
 Engineering Framing

EF-LR45-07.10  
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 sales@birdairumbrellas.com





Non-shrink grout

Bolt projection  
2 3/8" min.  
6" max.

Embedment  
6" min.

7 1/2" o.c.

4-3/4" H.D. bolts to be threaded rod F1554 Gr. 36 hot dipped galvanized, or stainless steel Gr.316. Supplied with nuts, washers and leveling nuts. Chemical anchors, at 7 1/2" x 7 1/2" centers to be **Ramset Reo 502 (or 'Hilti HIT-RE 500')**, or engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions.

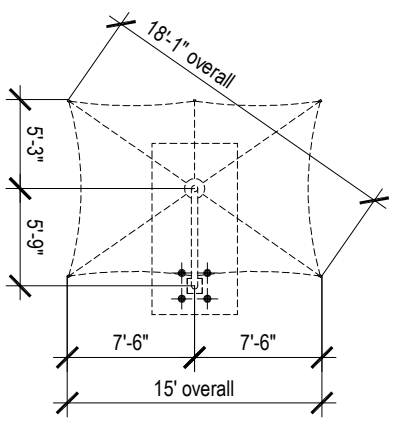
### Chemical Anchor Detail

**Notes:**

- Designed to 90mph, Exp B
- Assumed soil conditions:  
Pad - bearing capacity 14.5 psi  
Pier - cu=7.25 psi (stiff clay)
- Minimum 2 3/8" cover to all reinforcement  
Concrete strength 3600 psi
- 2" aggregate size  
Slump 2 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.



### H.D. Bolt Layout Plan

Not to scale

Figured dimensions take precedence. Do not scale.  
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Leva Model LR45  
Architectural Umbrellas  
Footing Detail

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