



## MESA MODEL

12' X 12'

## SPECIFICATIONS

### Dimensions:

Roof Dimensions	12'-0" x 12'-0"
Column Dimensions center to center	8'-9" x 8'-9"
Minimum Clearance	7'-2"
Roof Height @ Peak	±9'-5 ½"
Hip Roof	4:12 pitch
Square Feet Under Roof	±144

Columns shall be 6"x 6" steel tube, minimum .120" wall thickness.

All beams shall be structural steel tube sized according to engineering.

All bolts shall be A-307 or A-325 and hidden at all connections.

Roofing shall be 24 gauge Corrugated steel pre-cut and pre-finished with ribs running with the slope of the roof.

All trim shall be 24 gauge pre-finished to match roofing.

Fascia trim shall be 24 gauge and pre-finished to match roofing.

Open or welded "C" channels, "S" or "Z" purlins, "I" beams or angle iron shall not be allowed.

CRS shall provide (1) Solar Panel packages.



## STANDARD SPECIFICATIONS

w/ TRUZINC RICH PRIMER & SUPER DURABLE POWDER COAT PAINT

### **GENERAL:**

1. All structures shall be designed and fabricated to the IBC (Latest Edition) or current local building code with standard load designs of the greater value of 20# per S.F. minimum live load and 100 mph sustained wind load or site specific conditions and the applicable zone for seismic loads.
2. All members shall be designed according to the "American Institute of Steel Construction (AISC) specifications and the American Iron and Steel Institute (AISI) specifications for cold-formed members.
3. All fabrication welds shall be in strict accordance with the structural welding code of the American Welding Society (AWS) specifications. All structural welds shall be in compliance with the requirements of "Pre-qualified" welded joints. All welding shall conform to ASTM A-233 series E-70XX electrodes - low hydrogen.  
*Field welding shall not be required.*
4. When required, after award of bid, the shade structure manufacturer shall submit structural calculations, sealed by a registered engineer in the state in which the structure is to be erected for review and approval by the approving agency.
5. Manufacturer qualifications: All manufacturers shall have a minimum of (20) twenty years experience in the fabrication of tubular steel shade structures. Shade structure and kiosk fabrication shall be the manufacturer's primary business. Manufacturer shall have fabricated similar structures to that which is specified. All non-specified manufacturers shall submit complete shop drawings indicating type, size & gauge of material used, with detailed connections to the specifying agency or design firm at least 10 days prior to bid opening for review and written pre-approval. All bids submitted without prior approval will be rejected.

### **FOOTINGS & COLUMNS:**

1. Footings shall be structurally engineered by the structure manufacturer to meet local codes and site conditions. (Sample footing drawings shall be made available to the contractor or owner from the manufacturer). When required for structure installation, anchor bolts shall be supplied by the owner / contractor. Columns shall be ASTM 500 grade B. Concrete footing rebar (if required) shall be ASTM A-615 grade 40 #4 bars & smaller, grade 60 #5 bars & larger. Concrete shall be 5 sack mix "Portland" cement. Maximum slump shall not exceed 4". Concrete compressive strength shall be a minimum of 2500 psi @ 28 days.



### FRAME MEMBERS AND COMPRESSION RING:

1. 90% of all steel shall be American (domestic) made. Mill certification shall be made available upon request. All frame members shall be one piece structural steel tube with a minimum .120 (1/8") wall thickness, sized according to engineering. All frame members shall be bolted together with bolts totally concealed. All tubing for frame members shall be ASTM 500 grade B. Beam end plates shall be ASTM A36 fy=36,000 psi UNO. Bolts shall be A 307's, or 325's unless noted otherwise.  
*"I" beams, Angle iron, "C", "Z" or "S" purlins or beams, open or closed, shall not be allowed.*

### ROOFING AND TRIM:

1. All roofing shall be 24 gauge Zinalume / Galvalume coated corrugated steel panels. Panels shall be 34 2/3" wide with 7/8" high ribs @ 2 2/3". All roofing shall be pre-finished with PVF2 (Polyvinylidene Fluoride) Kynar 500. All roof panels shall be pre-cut with ribs running with the curvature of the roof. Roof fascia trim shall be 3 1/2" square fascia trim 24 gauge Zinalume / Galvalume coated pre-finished matching the roof color. Screws shall match roof color.

### POWDER COATING:

1. All frame members shall be media blasted to a white finish removing all rust, scale, oil and grease. Powder coating for all frame members shall be provisionally warranted for (5) five years with **TRUZINC** 7520-70138 primer with a Dry Film Thickness of (2.0 - 6.0 mils) & hardness of 2H-3H with a Salt Spray Resistance of **6000 hours** and **Super Durable Gloss Polyester 9000** series finish paint (2.5-3.5 mils) with a hardness of H-H2 & has **1000 hour** salt spray resistance. Total of primer & finish paint shall be 4.5-9.5 mils of paint. Finish shall be a smooth uniform surface with no pits, runs or sags. For additional information, please visit <http://www.tcipowder.com/> for a complete list of specifications.

### SOLAR PACKAGE:

1. The combination solar and photo cell panel shall be manufactured by "First Light Technologies" and shall consist of Monocrystalline Polycarbonate which shall be used to power a battery that will provide an LED fixture capable of illuminating with adequate light for a 16'x16' foot print is designed to meet or exceed 12 foot candles. Panels shall be 16.5" long x 12.6" wide. The gel battery shall be approximately 8" long x 7" high x 3" wide and shall be sealed lead, absorbed glass mat (AGM). All wiring shall be concealed where possible within the shelter frame work or roofing trim. The battery, controller, fuses, etc. shall be housed within the frame with an access panel that is secured with tamper resistant screws.

### ERECTION:

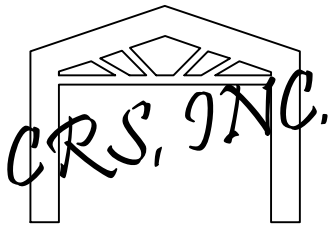
1. Manufacturer shall supply complete layout and detail plans with installation instructions for the structure. The structure shall be erected in a work-man-like manner with framing, roofing and trim installed according to the manufacturer's installation instructions. Care shall be taken to avoid damaging the structure during installation. Touch up powder coat paint with paint provided to prevent rusting. Components of the structure shall be covered and kept dry prior to erection.



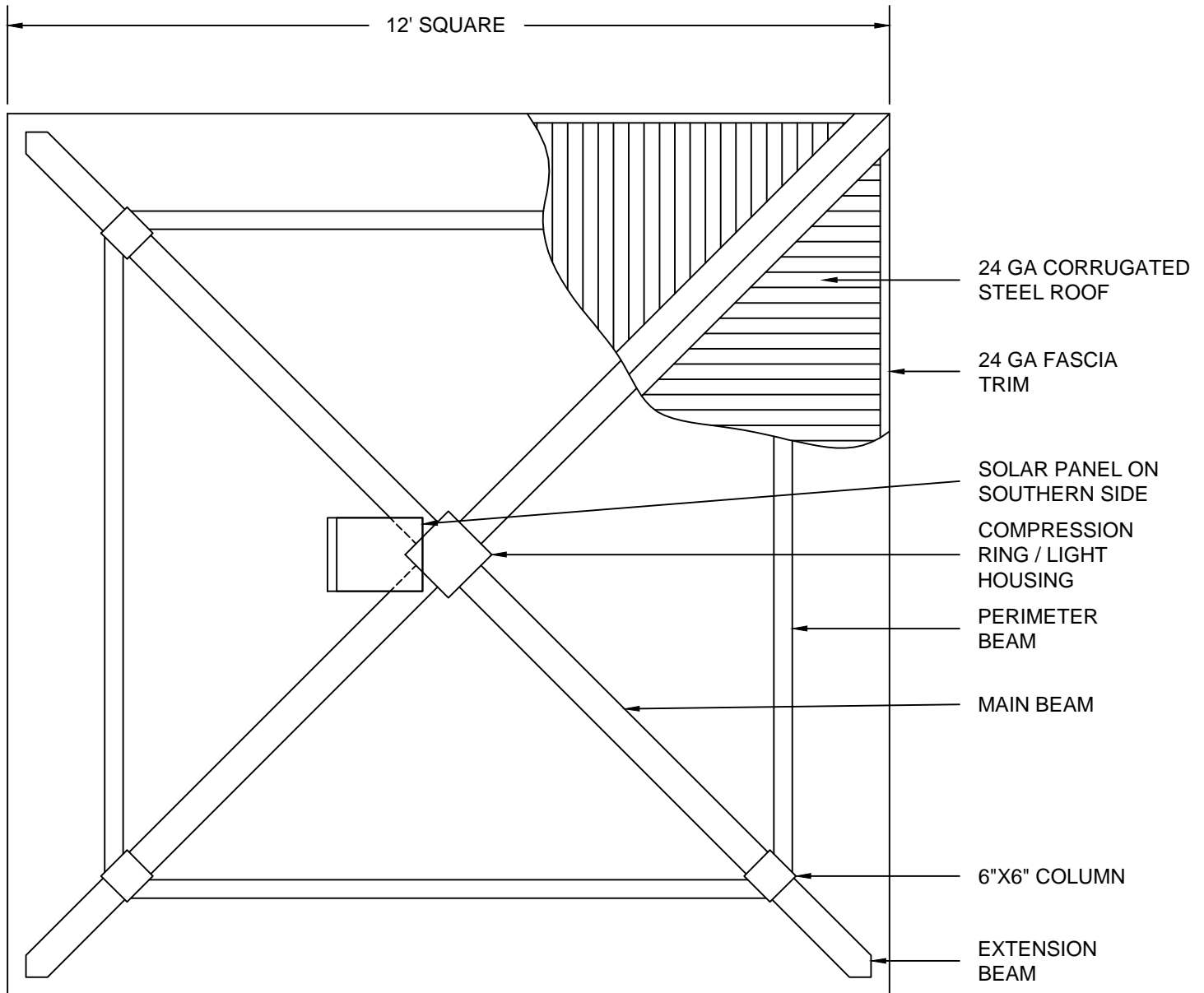
## **WARRANTEE:**

1. Manufacturer shall warranty the structure to be free from defects in material and workmanship for a period of (10) ten years from date of acceptance by owner. Warranty does not include damage from theft, fire, vandalism or acts of God. Manufacturer shall repair or replace structure components of like kind at his option, to match existing material and workmanship. Steel roof finish shall be warranted for (30) thirty years under a separate roof manufacturer's warranty. Powder coat paint shall be warranted for (5) five years after acceptance from owner against peeling, flaking and rusting. Warranty does not cover damage caused from shipping, erection of structure, lack of touchup and maintenance, overspray from lawn sprinklers or vandalism. Bolt threads are not powder coated and therefore are not covered under the powder coat warranty.

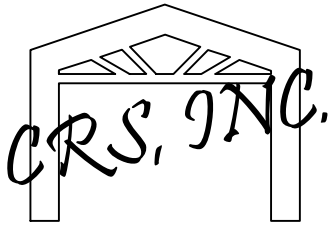
*NOTE: Engineering specifications take precedence over drawings if differences occur.*



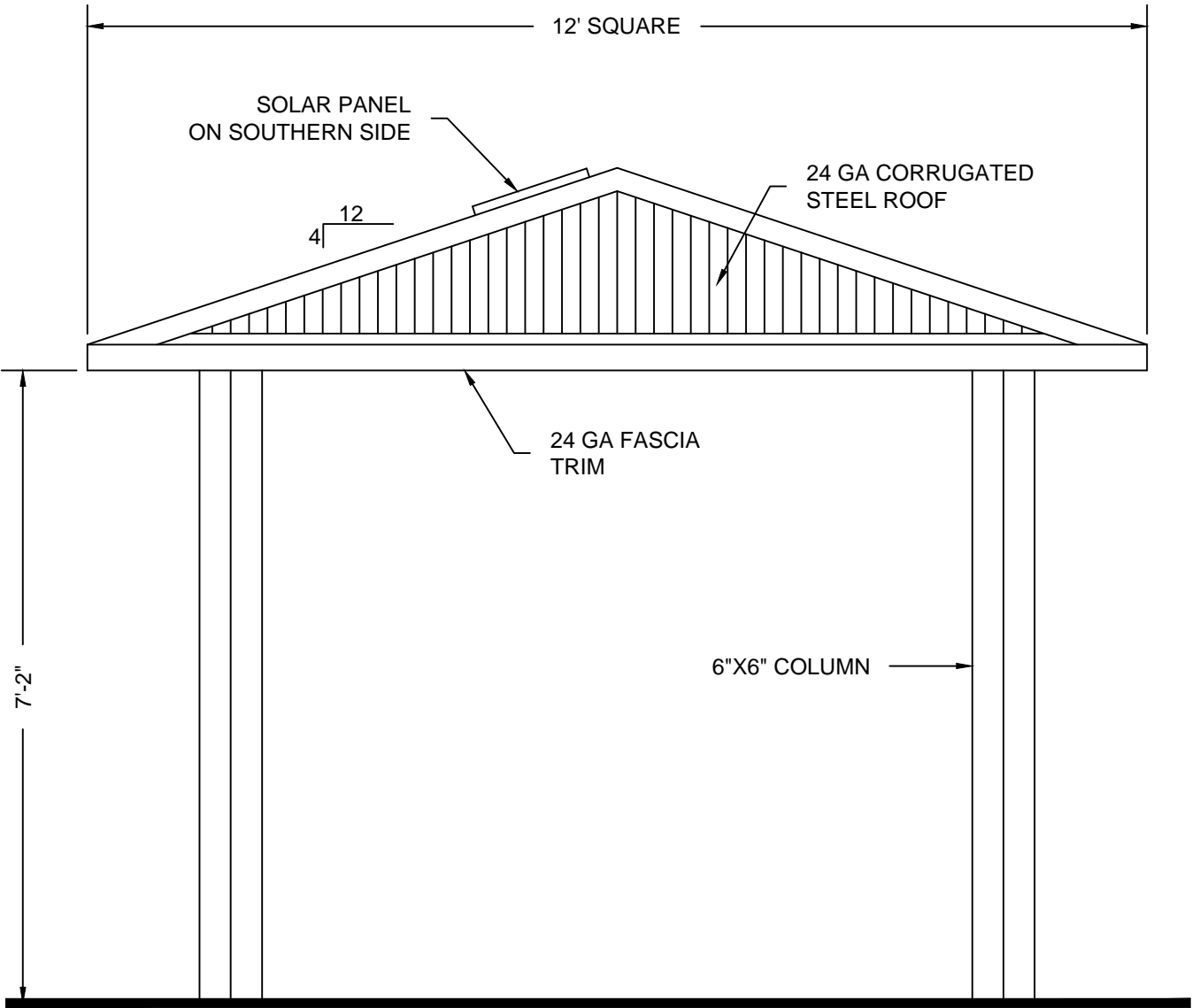
NOT FOR CONSTRUCTION



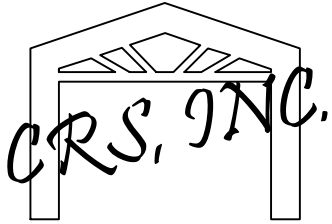
PLAN VIEW 12'X12' MESA MODEL  
NTS



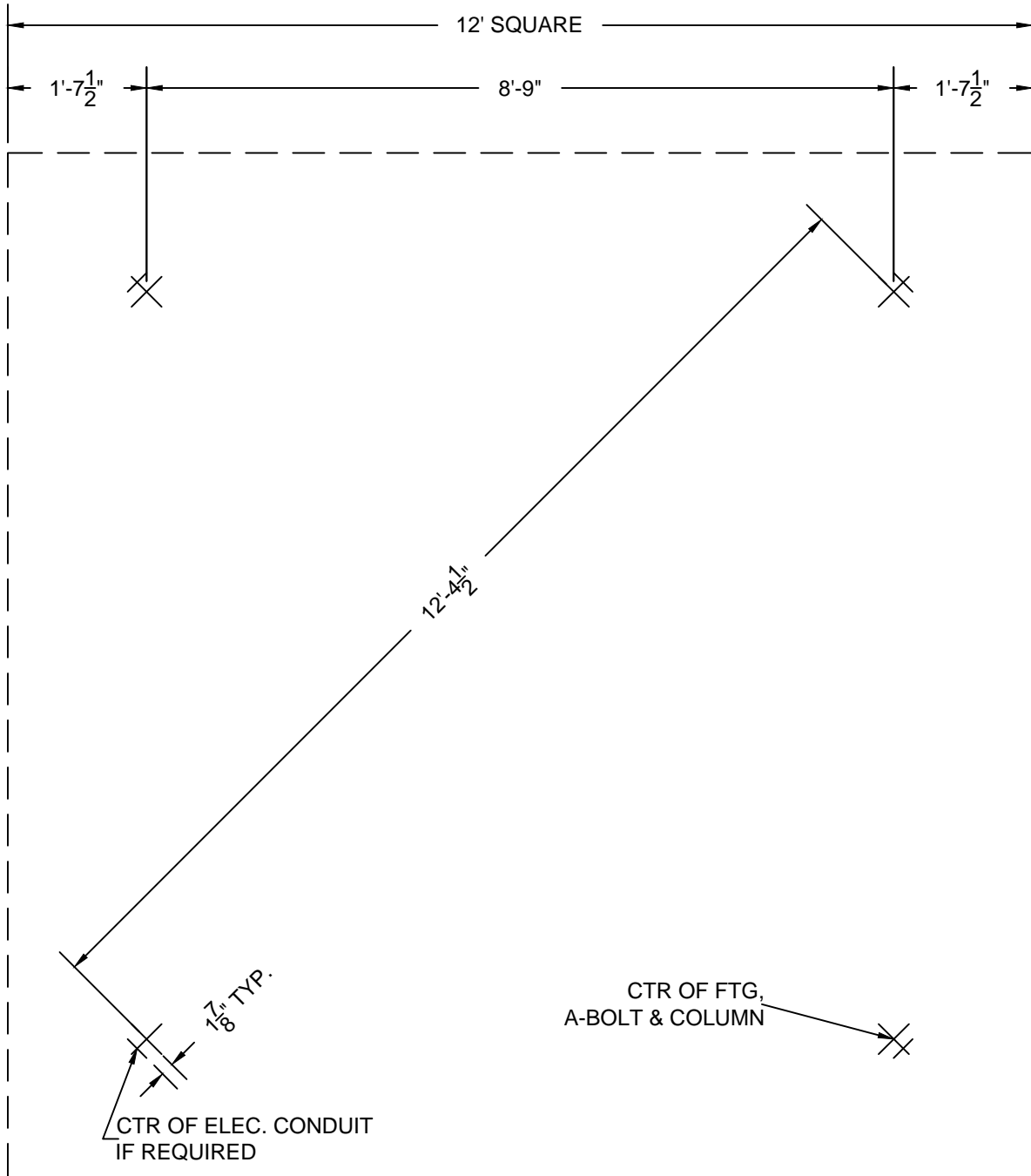
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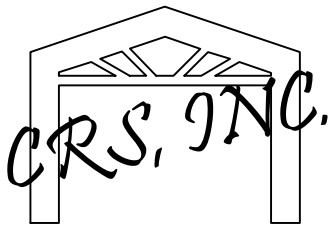
ELEVATION 12'X12' MESA MODEL  
NTS



NOT FOR CONSTRUCTION

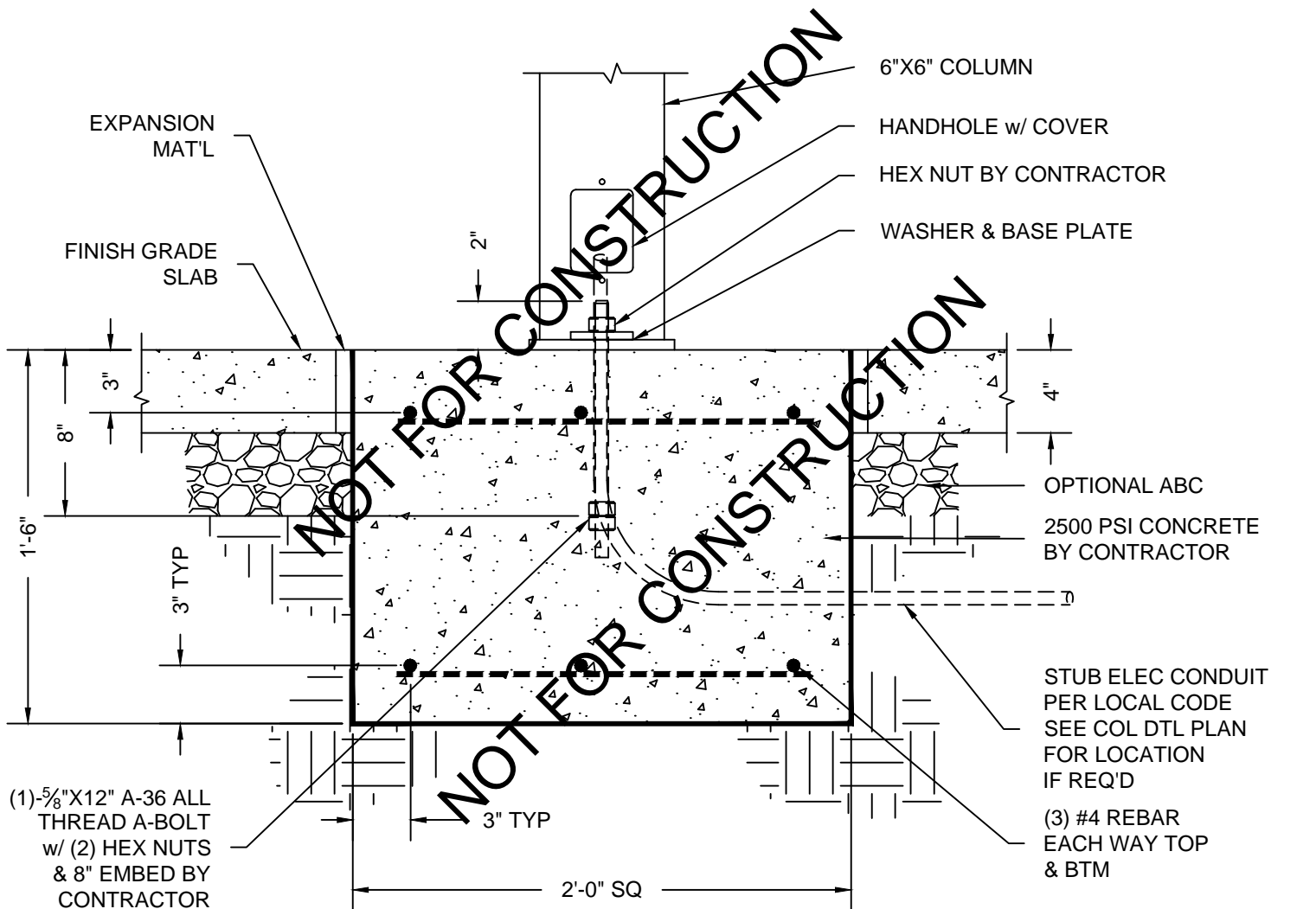
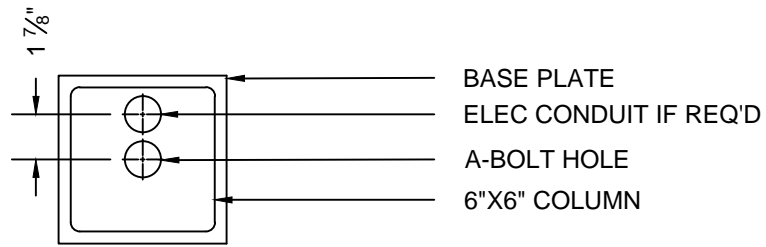


LAYOUT PLAN 12'X12' MESA MODEL  
NTS



NOTE: FOR ILLUSTRATION ONLY!  
FOOTING SIZE MAY CHANGE w/  
STRUCTURAL ENGINEERING

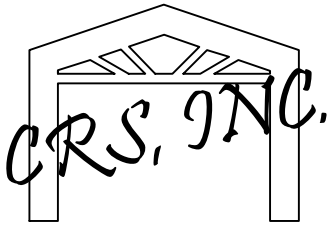
ADJUST FTG DEPTH FOR  
LOCAL FROST CONDITIONS



**NON-EXPANSIVE,  
UNDISTURBED OR 95%  
COMPACTED SUBGRADE**

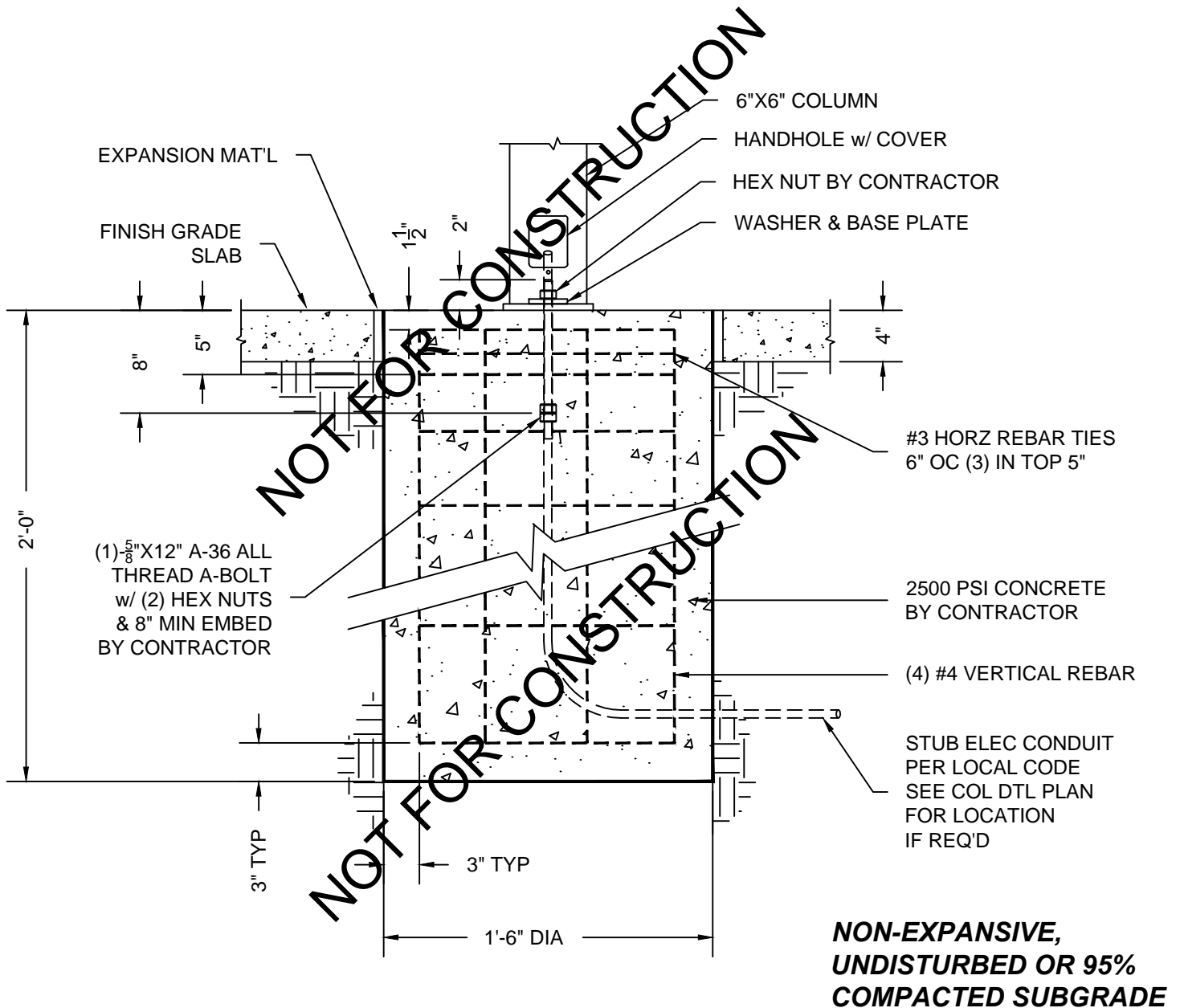
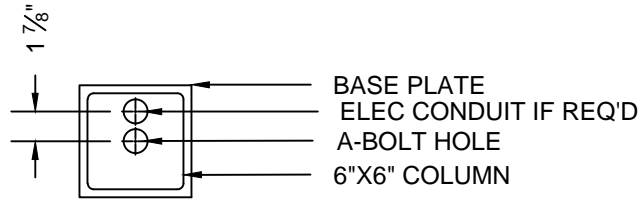
1-BOLT SURFACE MOUNT FOOTING DETAIL  
12'X12' MESA MODEL  
NTS





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