



## Attachment #7

# Shade Structure Proposal



Fabric Covered Shade Structure to stand over the top of the existing play structure. Footings to be embedded in the concrete surrounding the play safety surfacing. Concrete to be cut and removed, and replaced with embedded columns in rebar and footing concrete.



# Shade Structure Proposal



## MESA FABRIC MODEL

35' X 35'

## SPECIFICATIONS

### Dimensions:

Column Dimensions	35'-0"x35'-0"
Minimum Clearance	13'-0"
Roof Height @ Peak	±19'-2"
Roof Pitch	4:12
Square Feet Under Fabric Roof	±1,000
Date of drawing	September 28, 2022

Columns shall be 7"x7" steel tube, minimum .188" 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.

Tensioning devices shall be ASTM Specification F1145-92 Type 1, Grade 1.

Sails shall be Knitted Shade Cloth.

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

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35' x 35' Specifications



# Shade Structure Proposal



## STANDARD FABRIC SPECIFICATIONS

w/ ZINC RICH PRIMER & TGIC 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 90 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 5 years experience in the fabrication of tubular steel shade structures. Shade structure and kiosk fabrication shall be the manufacturer's primary business. 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.



# Shade Structure Proposal



*"I" beams, Angle iron, "C", "Z" or "S" purlins or beams, open or closed, shall not be allowed.*

## FABRIC ROOFING:

1. The Coolaroo Commercial 95 fabric (or equal) is backed by a 10 year limited manufacturers warranty from the date of installation, against failure from significant fading, deterioration, breakdown, mildew, outdoor heat, cold, or discoloration with the exception of red. Base material shall be high density polyethylene (HDPE), UV stabilized. Construction shall be monofilament and tape knitted lock stitch construction producing a fabric that will not fray or tear if cut. Fabric is not warranted where it is installed on a structure that is not engineered and built by Classic Recreation Systems, Inc. All fabric tops are warranted for winds and gusts up to 90 mph prior to snow or ice accumulation. Fabric shall be flame resistant, NFPA 701, Test 2 (2004) and E-84, 118" wide 10.5 oz. per sq. yd.  
Tear resistance: Warp 134N. AS2001.2.10 Weft 226N.  
Breaking force: Warp 699N, AS2001.2.3, Weft 1789N.  
Bursting pressure: Mean 3200 kPa, AS2001.2.4.  
Bursting force: Mean 1758N, AS2001.2.19.  
Breaking Extension: AS 2001.2.3.1-2001. % Warp 92.2%, Weft 49.2%  
Average Weight: 10 oz. / 1 sq. yard.

## 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 (10) ten 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.

## 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 work-man-ship 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. Powder coat paint shall be warranted for (10) ten year 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,





# Shade Structure Proposal



overspray from lawn sprinklers or vandalism.

2. Should the Commercial 95 fabric need to be replaced under the warranty, Classic Recreation Systems, Inc. will manufacture and ship a new fabric at no charge for the first 6 years, thereafter pro-rated at 18% per annum over the last 4 years. This warranty shall be void if damage to or failure to the shade fabric is caused by contact with chemicals, misuse, vandalism, any act of God, including but not limited to ice, snow or wind in excess of the applicable building code parameters. The structures have been designed to eliminate any friction between the rafters and the fabric. The warranty will, therefore, be voided if any modification (temporary or permanent) or any attachment (temporary or permanent) is made to the rafter, compression ring, cross pieces, or ridge beams. Classic Recreation Systems, Inc. reserves the right, in cases where certain fabric colors have been discontinued, to offer the customer a choice of available colors to replace the warranted fabric of the discontinued color. The company does not warranty that any particular color will be available for any period of time and reserves the right to discontinue any color for any reason it may determine, without recourse by the owner of the discontinued fabric color.

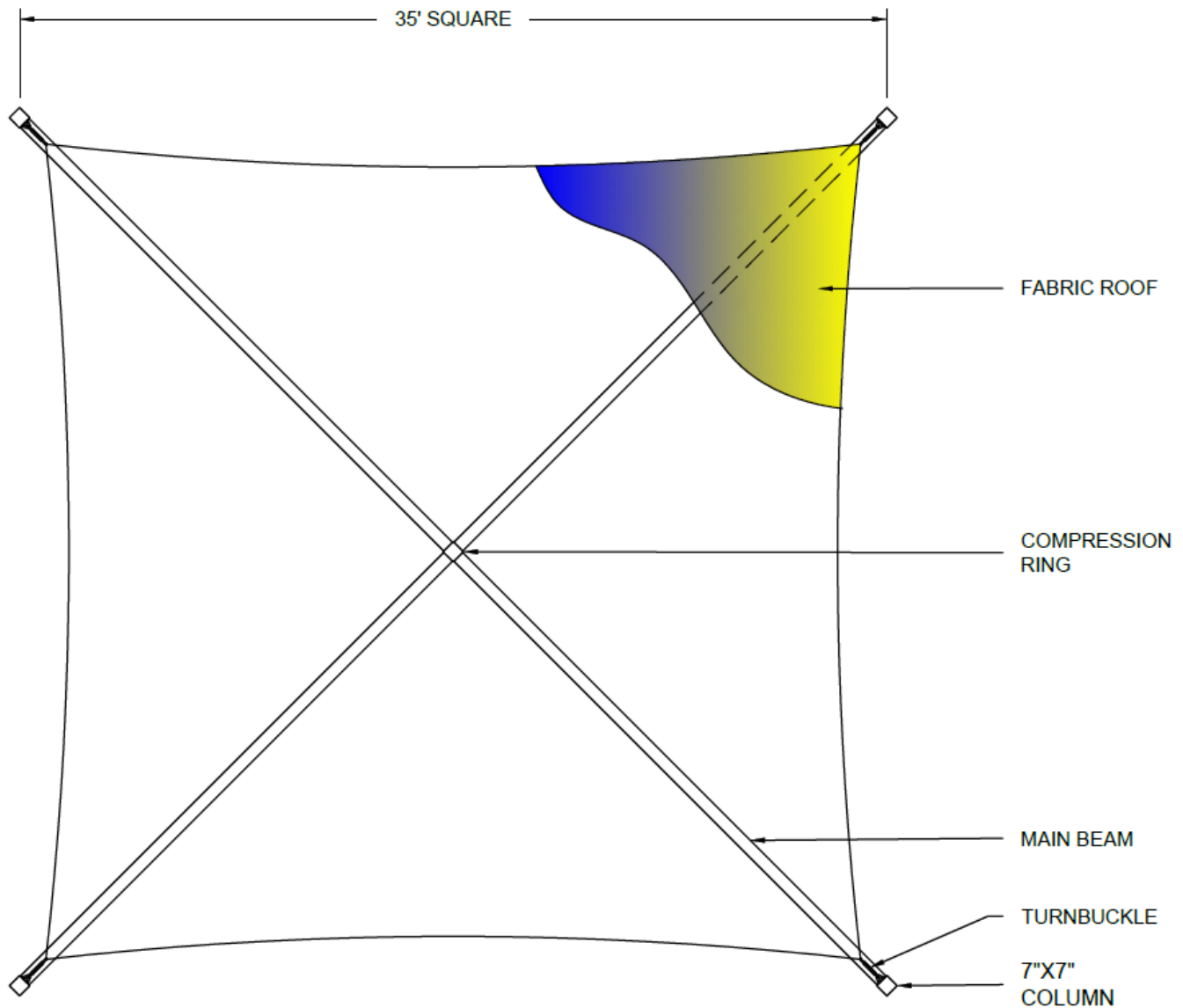
*NOTE: Engineering specifications take precedence over drawings if differences occur.*



# Shade Structure Proposal



NOT FOR CONSTRUCTION



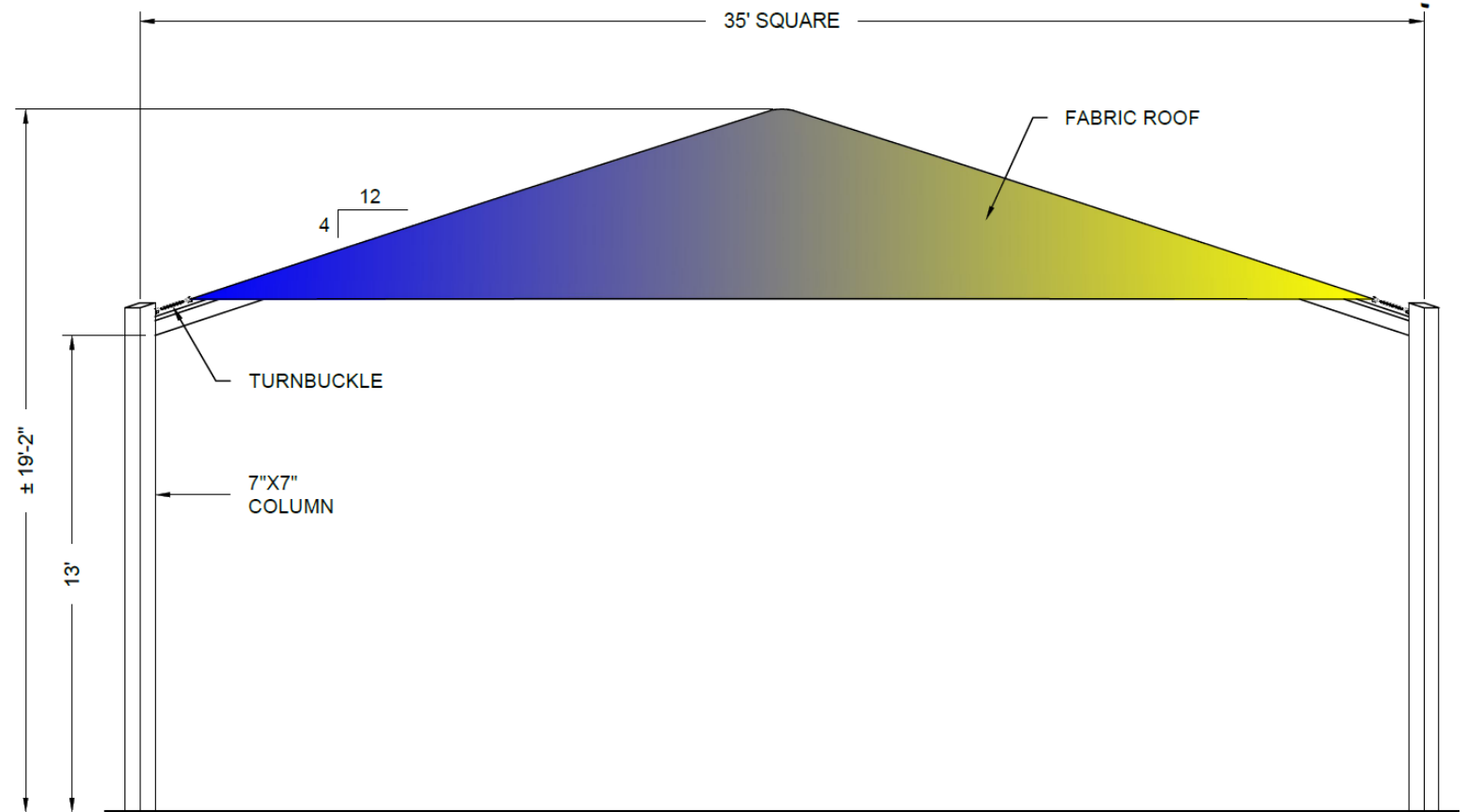
PLAN VIEW 35'X35' FABRIC MESA MODEL  
NTS



# Shade Structure Proposal

NOT FOR CONSTRUCTION  
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CRS, INC.



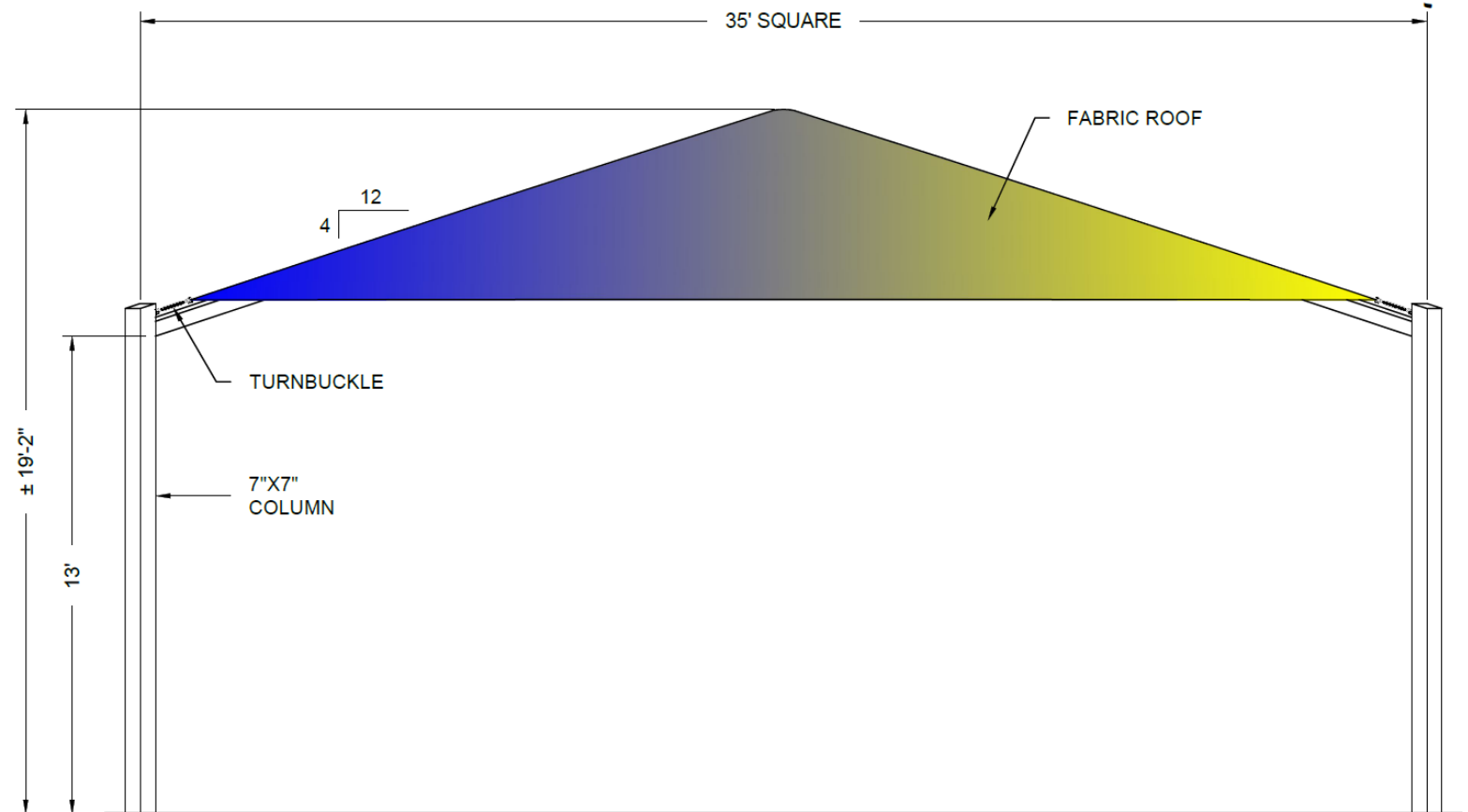
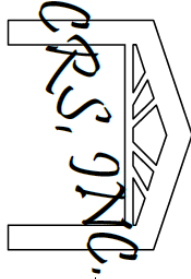
ELEVATION 35'X35' FABRIC MESA MODEL  
NTS



# Shade Structure Proposal

NOT FOR CONSTRUCTION

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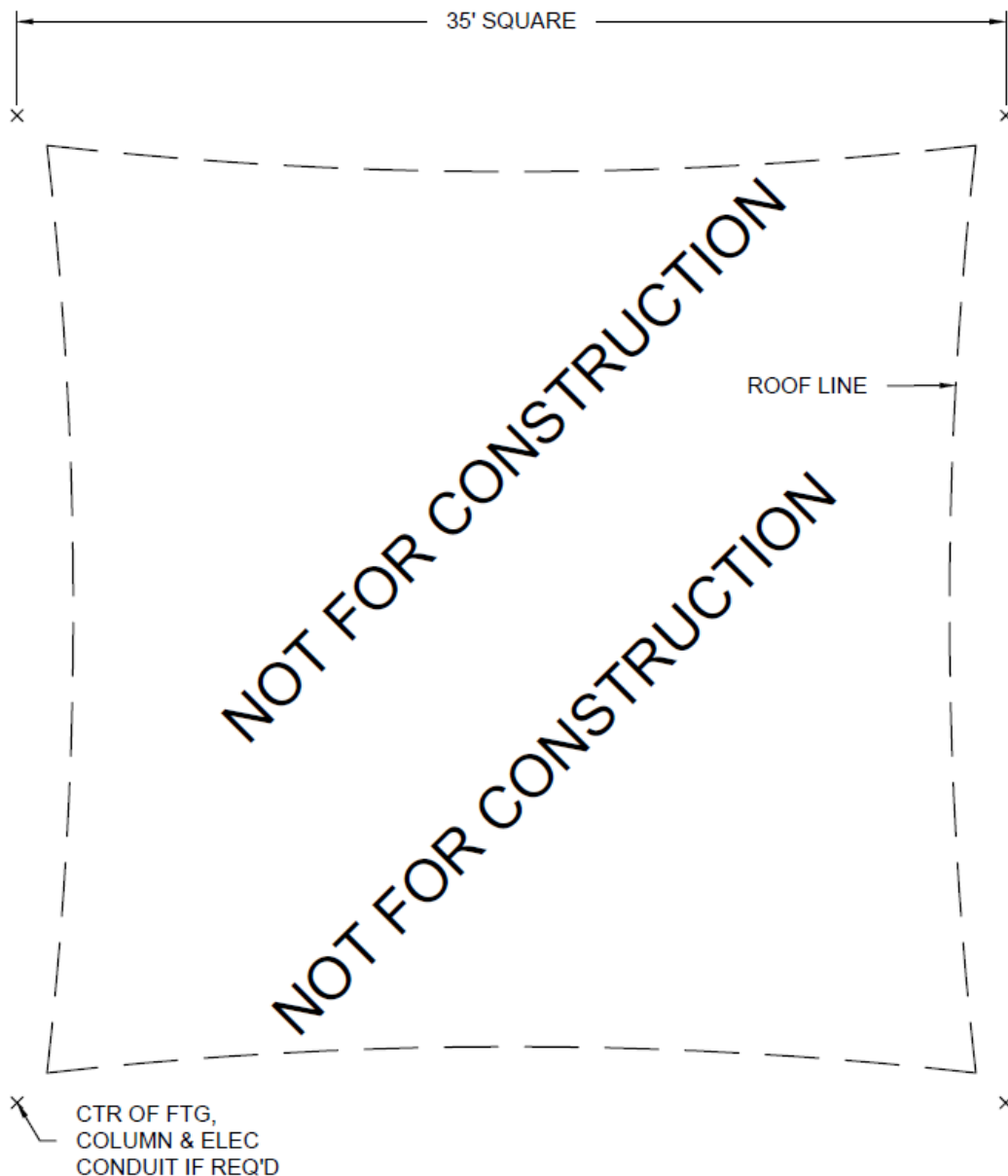


ELEVATION 35'X35' FABRIC MESA MODEL  
NTS

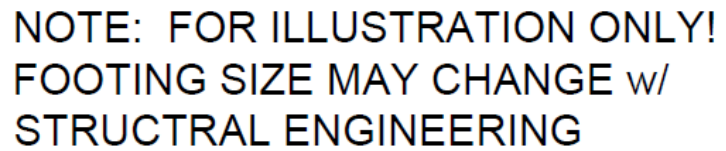




# Shade Structure Proposal



LAYOUT PLAN 35'X35' FABRIC MESA MODEL  
NTS



EXPANSION MAT'L

FINISH GRADE CONCRETE SLAB

5"

1 1/2"

7"X7" COLUMN

HANDHOLE w/ COVER

4"

(3)-#3 REBAR HOOPS IN TOP 5"

2500 PSI CONCRETE BY CONTRACTOR

STUB ELEC CONDUIT PER LOCAL CODE SEE COL DTL PLAN FOR LOCATION IF REQ'D.

#3 REBAR HOOPS 6" OC

(6) # 5 VERTICAL REBAR

3" DOBIE BRICK BY CONTRACTOR

1" PLATE

3" TYP

3" TYP

2'-0" DIA

5'-0"

DRILLED HOLE !! DO NOT FORM !!

NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

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

## Direct Bury Caisson Footing



# Shade Structure Proposal



## WARRANTY

Classic Recreation Systems, Inc. (CRS), warrants its structures to be free from defects in material and workmanship for a period of ten (10) years from the date of acceptance by owner. All claims must be submitted during the warranty period with the following provisions:

1. Structures shall be installed in accordance with the written installation instructions provided with each structure. Footings shall be installed in strict accordance with the structural calculations, (if provided by CRS). Alterations in design or installation shall void this warranty.
2. CRS reserves the right to inspect any defective material within sixty (60) days of written notification from purchaser that material is defective. CRS' liability shall be limited to the cost of material and has the option to repair or replace the defective material as deemed necessary by CRS.
3. CRS is not responsible for damage caused by others, including acts of God, vandalism, fire, theft, or corrosion caused by moisture, chemicals, salt spray, pollution or rodent infestation. *CRS will repair or replace any frame members that fail due to people hanging from the frame or roofing.*
4. Pre-finished steel roofing is warranted by the roofing manufacturer as a separate job specific warranty and is warranted for 30 years. (A written warranty is available upon request after the job is complete.) CRS warrants that the roof structure shall be weather and water resistant for a period of 2 years from date of final acceptance, providing roofing was installed according to the written instructions. Warranty excludes storm conditions such as horizontal rain, hail, sleet and snow caused by winds.
5. Columns and frames shall have a factory applied powder coat finish which shall be protected against damage during shipping and installation. Touch up paint is provided to be applied by the installer for minor blemishes only. Powder coat paint shall be provisionally warranted for ten (10) 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.

NOTE: Exclusions and limitations may not apply to all states or provinces. Owner may have specific legal rights which may vary from state to state or province to province.

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