# SUNSTOPPER shade structure system



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#### SAFETY GUIDELINES

## PLEASE READ THE INSTALLATION INSTRUCTIONS CAREFULLY BEFORE BEGINNING TO ASSEMBLE THE STRUCTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

#### **WARNING**

This structure is intended to be self-supporting, provided it is constructed with all frames, hardware, sheathing, sheeting, bracing, cables, and membrane in place, and secured to the foundation as shown in the manual. Stability during construction, from winds and loads imposed during erection, is the sole responsibility of the installer. Observe safety codes required by the local jurisdiction, and relevant safety practices for working at heights. Avoid the risk of electrical shock from overhead lines or electrical storms. Poly-Tex recommends contracting a licensed electrician to perform electrical work. Eye protection is recommended under all circumstances and hearing protection is recommended when cutting components with power tools.

#### Foundations

These instructions include minimum guidance for foundations based on the International Building Code. These minimums are suitable for some areas of the country but not all. Obtain a building permit if required in the local jurisdiction. Engineered and Certified foundation plans may be required by a building official before issuing a permit. Even if not required, seeking guidance from a qualified structural or civil engineer for the foundation design may improve the life of the structure.

#### **A**DANGER

No part of this structure is engineered to function as an anchorage point for a fall arrest system. Use a safety net or work from a safe work platform (i.e. scaffolding). Select a calm day for work. Wind can be sufficient enough to knock materials or workers off a work platform or ladder, resulting in a potentially deadly fall.

#### **Overview of assembly procedure**

While each structure and site is unique, and may require special considerations, these instructions are for a tilt-up method (where frames are assembled on the ground and tilted onto ground stakes or anchor rods using ropes or lifts). If installer is not confident to erect the structure, Poly-Tex suggests hiring a general contractor, carpenter, or similar licensed business familiar with construction, to assemble and erect the structure.

### **A DANGER**

**Do not overload structure.** Consult with a Poly-Tex representative prior to adding any amount of weight over the specified capacity of this structure. Basket purlins, shelving or any objects of significant weight shall not be hung, attached, or secured to roof or truss members in a manner that will overload the structure.

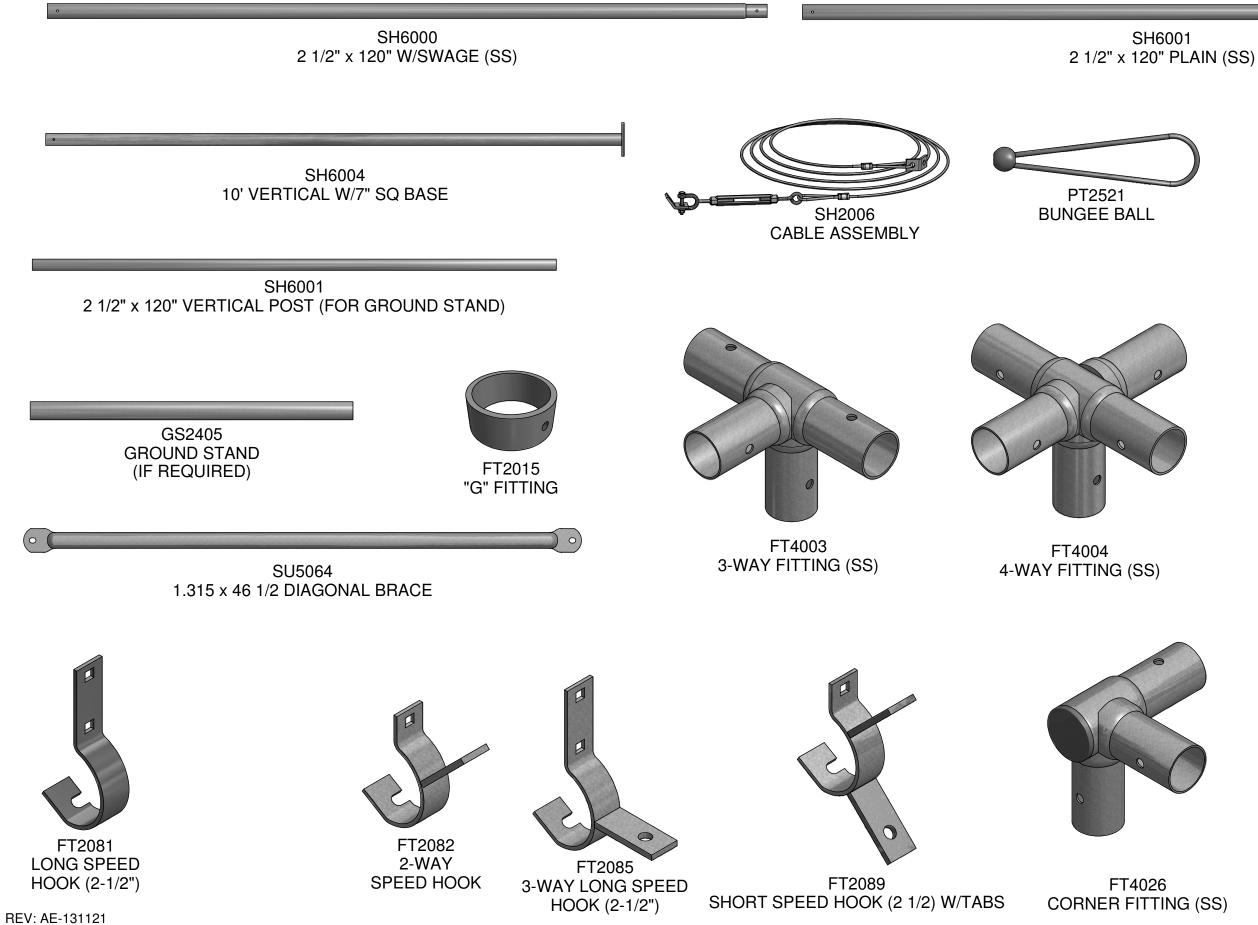
#### **WARNING**

**Do not walk on polycarbonate sheets**. If structure is to be covered with polycarbonate sheets, always use scaffolding for the erection process to avoid damage to sheeting and to ensure safety. Polycarbonate sheeting has UV coating protected with vinyl film on the exterior surface. Install sheets with the film intact and toward the exterior. Remove film once the sheet has been fastened in place.

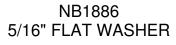
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# PARTS IDENTIFICATION









NB1862 LOCK WASHER 5/16" ZP



NB1887 BOLT HEX 5/16" x 3-1/2" ZP

NB1806 SELF-DRILL SCREW 1/4-14x3/4"

NB1842 Ø5/16" x 3/4" HEX BOLT



NB1832 Ø5/16" x 1-1/4" CARRIAGE BOLT



NB1929 EXPANSION ANCHOR 3/8 x 3 3/4"



## SITE PREPARATION

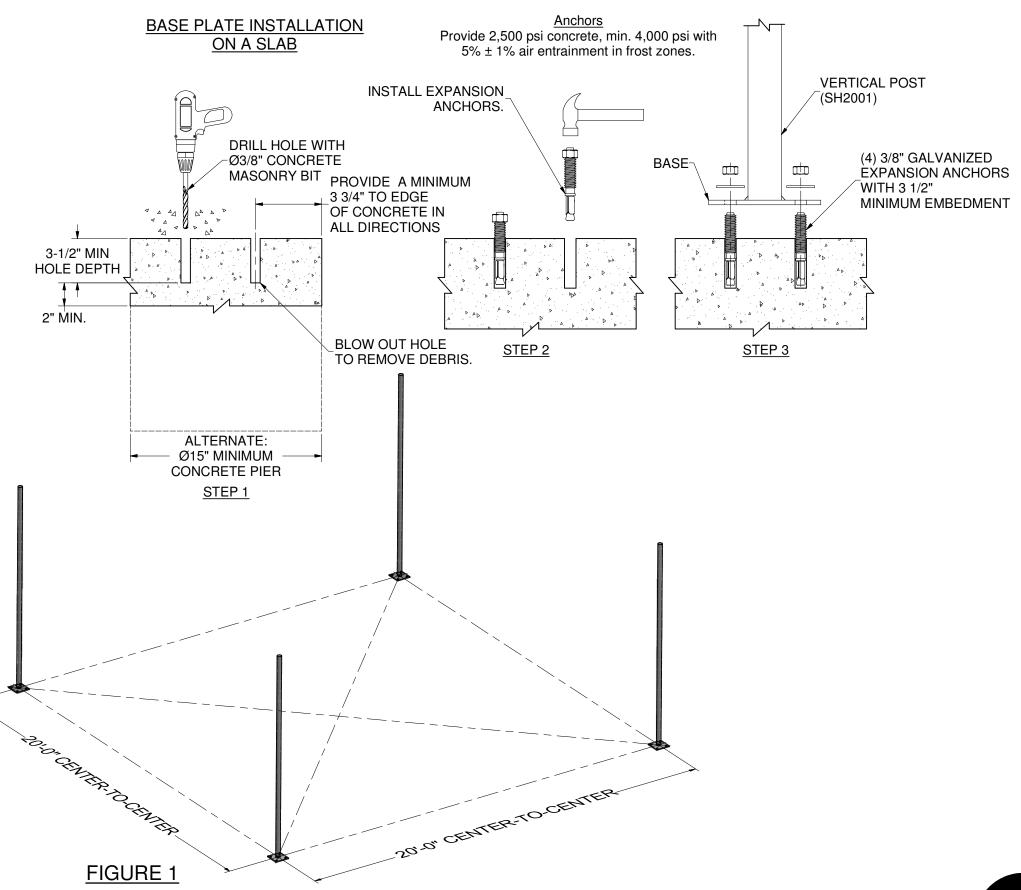


BEFORE STARTING INSTALLATION OF VERTICAL POSTS PLEASE REFER TO CUSTOM LAYOUT SHEET THAT WAS SENT WITH MANUAL. FAILURE TO FOLLOW CUSTOM LAYOUT COULD RESULT IN HAVING A SHORTAGE OF PARTS NEEDED TO COMPLETE THE SUNSTOPPER.

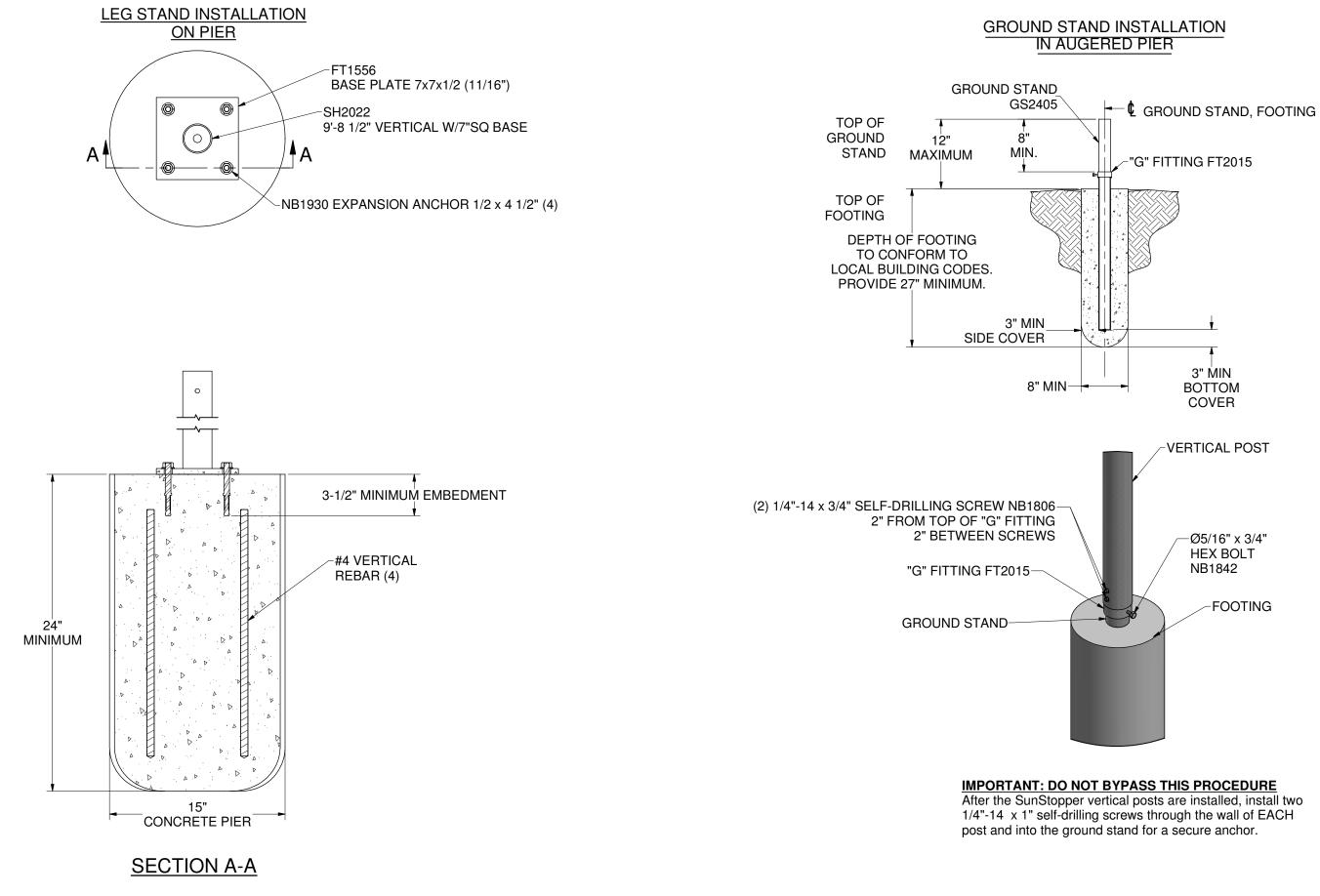
AS ACCURACY IN THIS PART OF THE WORK IS VERY CRITICAL, PLEASE MAKE SURE THAT THIS PAGE IS THOROUGHLY UNDERSTOOD BEFORE PROCEEDING.

TO SQUARE UP THE STRUCTURE, INSURE DIAGONAL MEASUREMENTS ARE EQUAL. CHECK THE LAYOUT MEASUREMENTS TO MAKE SURE THEY ARE CORRECT. (CENTER-TO-CENTER OF BASE PLATES.) SEE FIGURE 1

FOR EXPANSIVE CLAYS OR SOILS IN EARTHQUAKE ZONES, POLY-TEX RECOMMENDS CONTACTING A GEOTECHNICAL OR STRUCTURAL ENGINEER FOR FOUNDATION ENGINEERING.



# PIER FOUNDATION INSTALLATION



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# FRAME SETUP

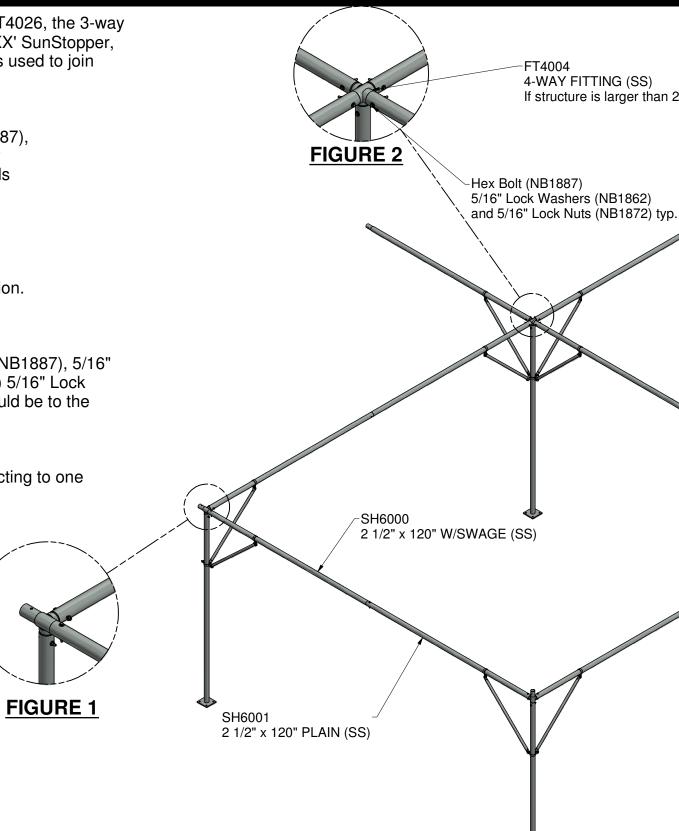
Set up the frame using the fittings included with the parts, the Corner Fitting FT4026, the 3-way Fitting FT4003, and the 4-way Fitting FT4004 if applicable. If installing a 40' x XX' SunStopper, there will be (a) 4-way fitting(s) included in the bag of parts. The 4-way fitting is used to join larger structures together and is not required on a 20' x XX' structure.

For a Ground Stake application, connect the proper fitting on top of each ST2059 Vertical and bolt fitting in place with a Ø5/16" X 3 1/2" Hex Bolt (NB1887), 5/16" Lock Washer (NB1862), and 5/16" Hex Nuts (NB1872). Tighten securely and set the assembly on the stake. See Page 3 for attachment after Horizontals have been connected\*.

For the Base Plate option, place proper fitting on the top of each SH6004 and position per drawing. Bolt fitting in place with a Ø5/16" X 3 1/2" Hex Bolt (NB1887), 5/16" Lock Washer (NB1862), and 5/16" Hex Nuts (NB1872). See Page 2 for Base Plate installation information.

\*Connect two Horizontals, SH6000 & SH6001, with Ø5/16" X 3 1/2" Hex Bolt (NB1887), 5/16" Flat Washer (NB1886) on one side of connection, 5/16" Flat Washer (NB1886) 5/16" Lock Washer (NB1862), and 5/16" Hex Nuts (NB1872) in this order. Bolt heads should be to the outside. Tighten securely (FIGURE 1). Install assembly by inserting into adjacent fittings and bolt as above.

For structures 40' X 40' and larger, install (a) 4-way fitting(s) at *interiors* connecting to one vertical post, using Ø5/16" X 3 1/2" Hex Bolts (NB1887), 5/16" Lock Washers (NB1862), and 5/16" Hex Nuts (NB1872). Tighten securely (FIGURE 2).

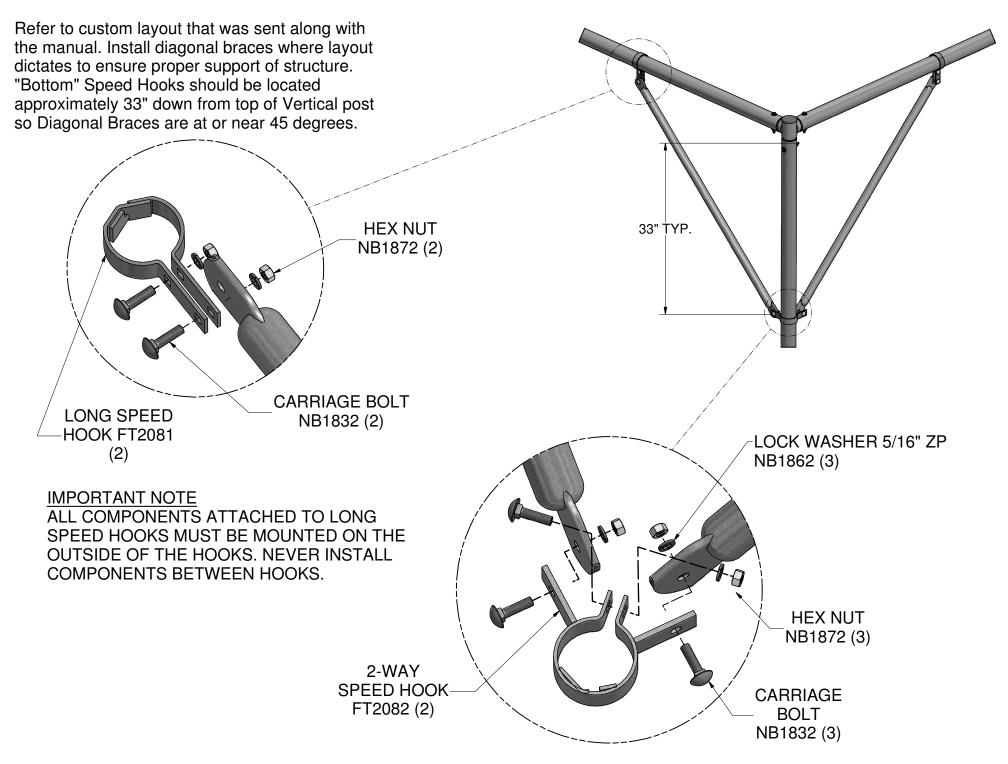


If structure is larger than 20' x 20'

-Ø5/16" X 3 1/2" Hex Bolt (NB1887) 5/16" Flat Washer (NB1886) on one side of connection 5/16" Flat Washer (NB1886) 5/16" Lock Washer (NB1862) and 5/16" Hex Nut (NB1872) 4 Places

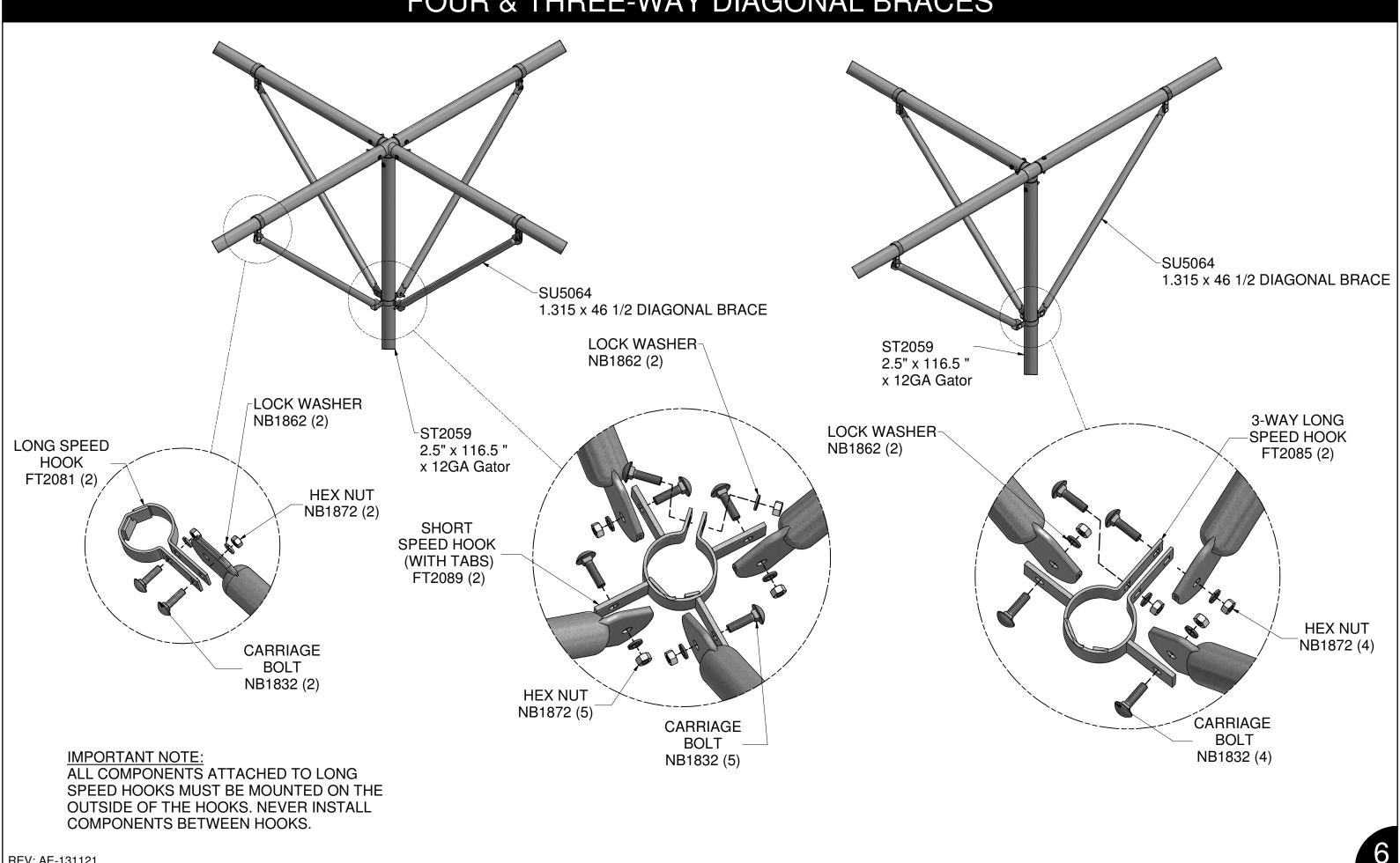
# CORNER DIAGONAL BRACES

The placement of the diagonal braces depends upon the size and shape of your structure.

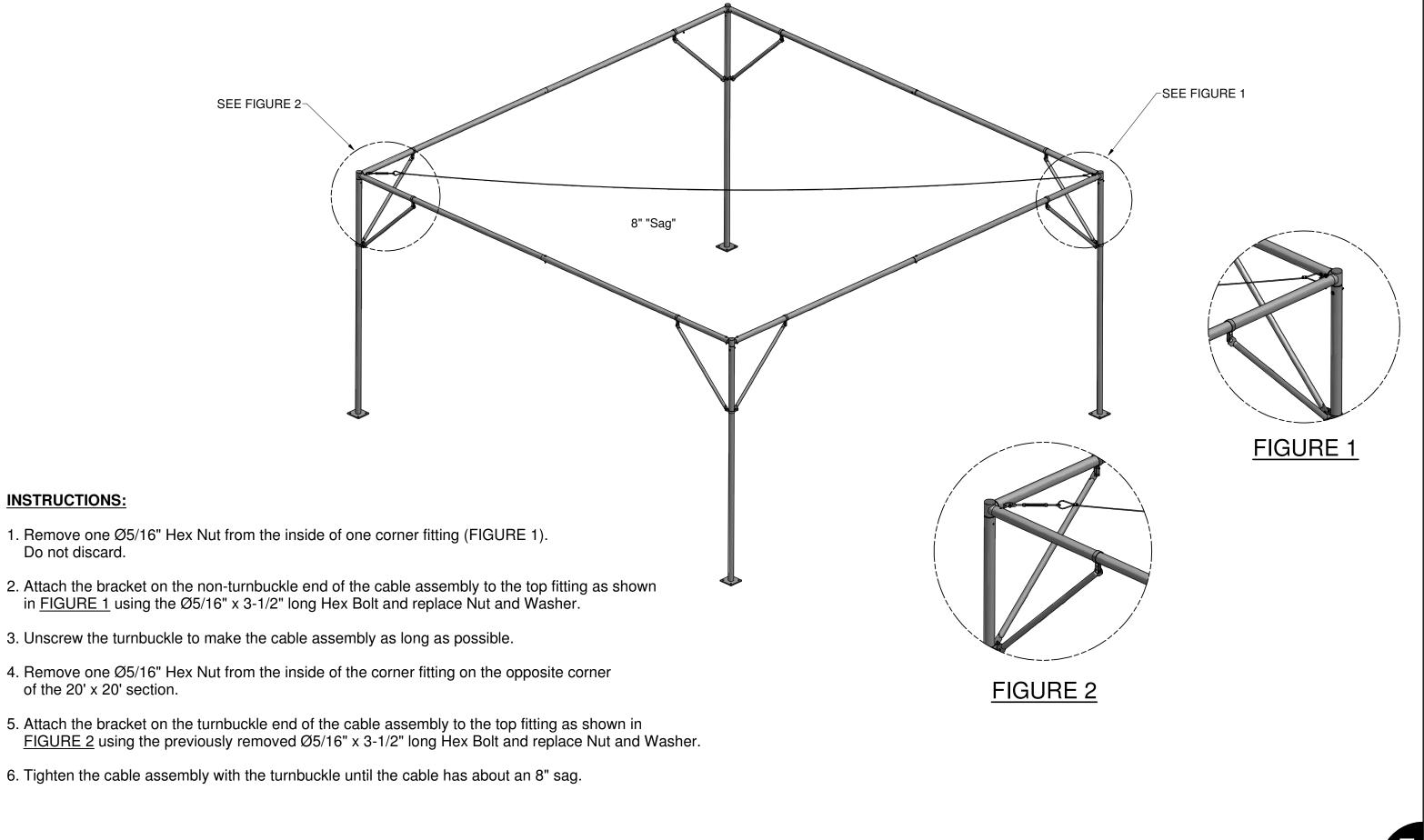


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# FOUR & THREE-WAY DIAGONAL BRACES



# **DIAGONAL CABLE INSTALLATION**

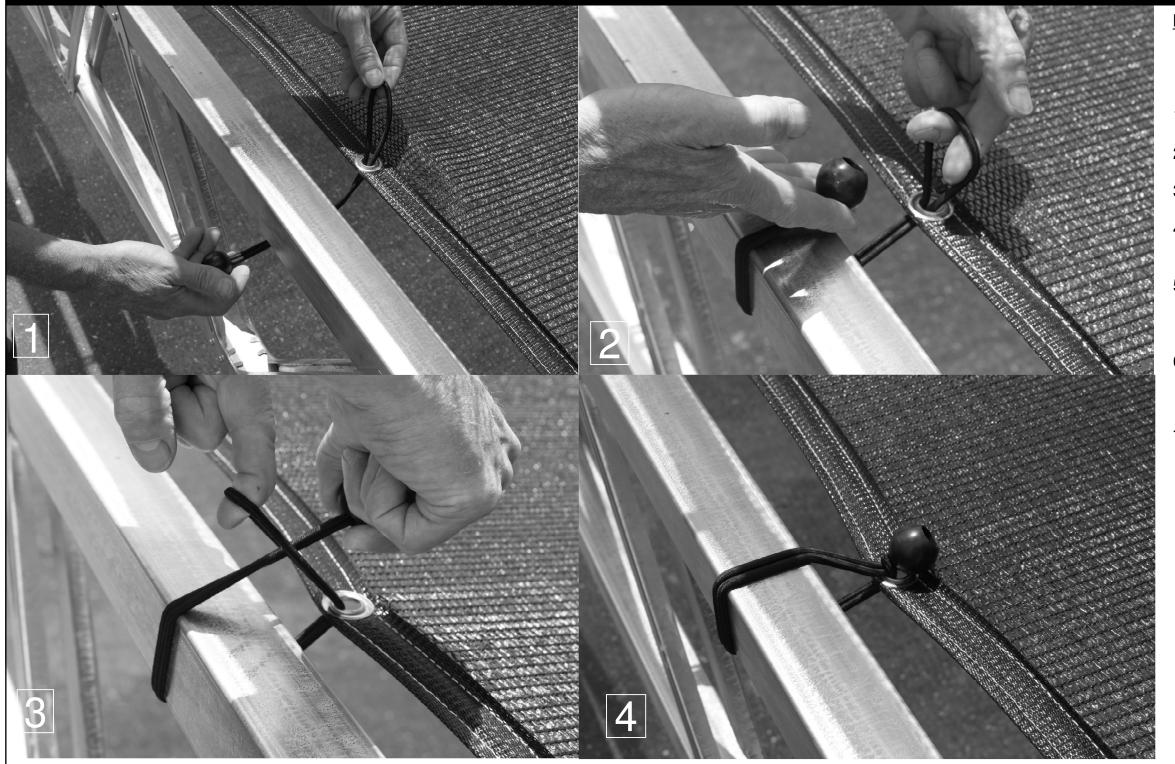


- 2. Attach the bracket on the non-turnbuckle end of the cable assembly to the top fitting as shown in <u>FIGURE 1</u> using the Ø5/16" x 3-1/2" long Hex Bolt and replace Nut and Washer.
- 3. Unscrew the turnbuckle to make the cable assembly as long as possible.
- 4. Remove one Ø5/16" Hex Nut from the inside of the corner fitting on the opposite corner of the 20' x 20' section.
- 5. Attach the bracket on the turnbuckle end of the cable assembly to the top fitting as shown in FIGURE 2 using the previously removed Ø5/16" x 3-1/2" long Hex Bolt and replace Nut and Washer.
- 6. Tighten the cable assembly with the turnbuckle until the cable has about an 8" sag.

**INSTRUCTIONS:** 

Do not discard.

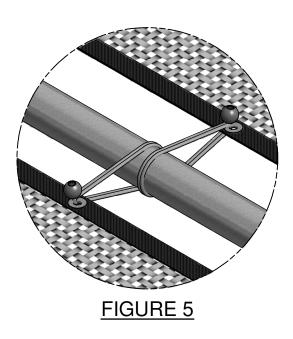
# **BUNGEE INSTALLATION**



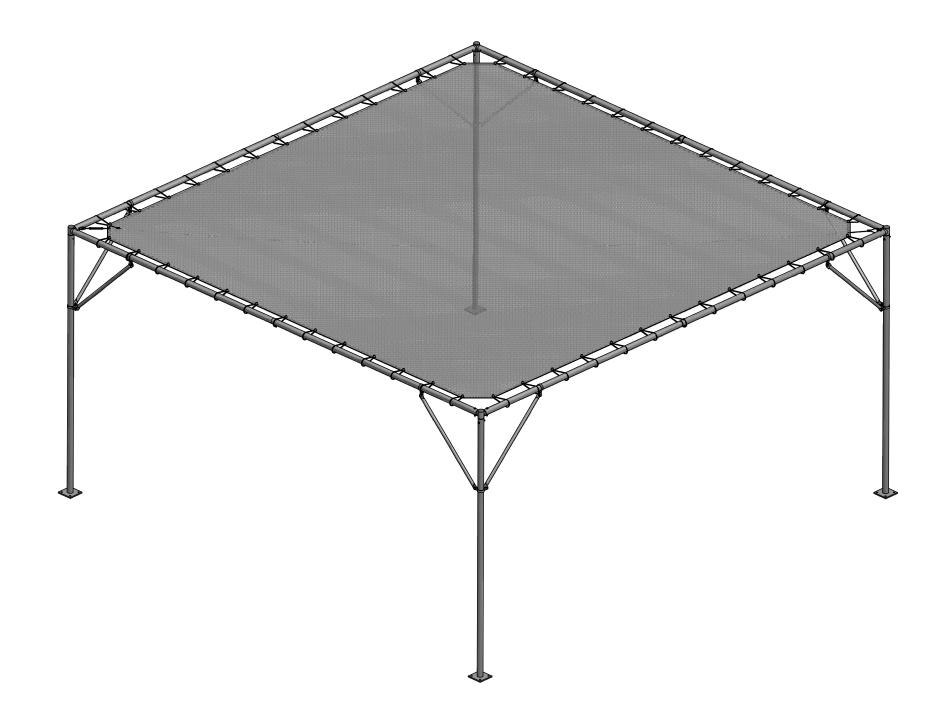
#### **INSTRUCTIONS:**

**<u>CAUTION</u>**: WEAR EYE PROTECTION WHEN INSTALLING BUNGEE CORDS.

- 1. Insert Bungee Cord through Grommet in fabric.
- 2. Wrap cord around support. 2
- 3. Insert ball through loop. 3
- 4. Once in place, move Bungee so that ball is over the Grommet as shown. 4
- 5. A Bungee may slip off if not installed properly. Occasionally check installation to insure that all Bungee Cords remain attached.
- 6. When re-installing, inspect Bungee balls for wear or damage.Do not use damaged Bungee Balls!
- 7. For adjacent shade panels, use <u>only</u> one Bungee Ball per Grommet as shown in FIGURE 5.
  <u>DO NOT USE ONE BUNGEE BALL FOR TWO</u> <u>GROMMET HOLES.</u>



# SHADE CLOTH INSTALLATION



**WARNING:** This product was not designed to support **ANY** amount of snow. Be sure all chances of snow accumulation have passed before installing the shade cloth. If, by chance, snow does accumulate on top of the shade cloth, **IMMEDIATELY** remove the bungee balls securing the shade cloth to allow snow to fall to the ground.

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### SAFETY GUIDELINES

Do not climb, sit on, or use this product as a ladder. Injuries may occur.

Do not place or install electrical items on this product. Electric shock may occur.

**Do not** place this product on a slope that exceeds 1/4" per foot.

Do not overload structure with hanging plants that weaken the structure's resistance to wind.

### CARE & MAINTENANCE

Periodically (at least every two years) inspect items subject to wear for signs of deterioration, weakening, or significant corrosion.

#### **Limited Warranty**

Poly-Tex, Inc. warrants its products to be free from defects in material and workmanship for a period of (1) year from date of invoice. This warranty is provided to the original purchaser of the product and is not transferable. Poly-Tex does not warrant parts not manufactured by Poly-Tex, but does assign any transferable manufacturer or supplier warranties. Should any defect be found, full repair or replacement will be rendered to the customer at no cost following inspection by a Poly-Tex representative and the return of the defective product to our Castle Rock, MN factory. Expenses for removal or reinstallation of defective products will not be covered by the warranty.

#### POLY-TEX SHALL NOT BE HELD RESPONSIBLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY DELAY IN PERFORMANCE OF THIS WARRANTY BEYOND OUR CONTROL. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER IMPLIED, WRITTEN OR ORAL INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not cover damage from customer abuse, misuse, improper installation, customer modifications, customer negligence in performing normal maintenance, damage resulting from acts of nature.

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