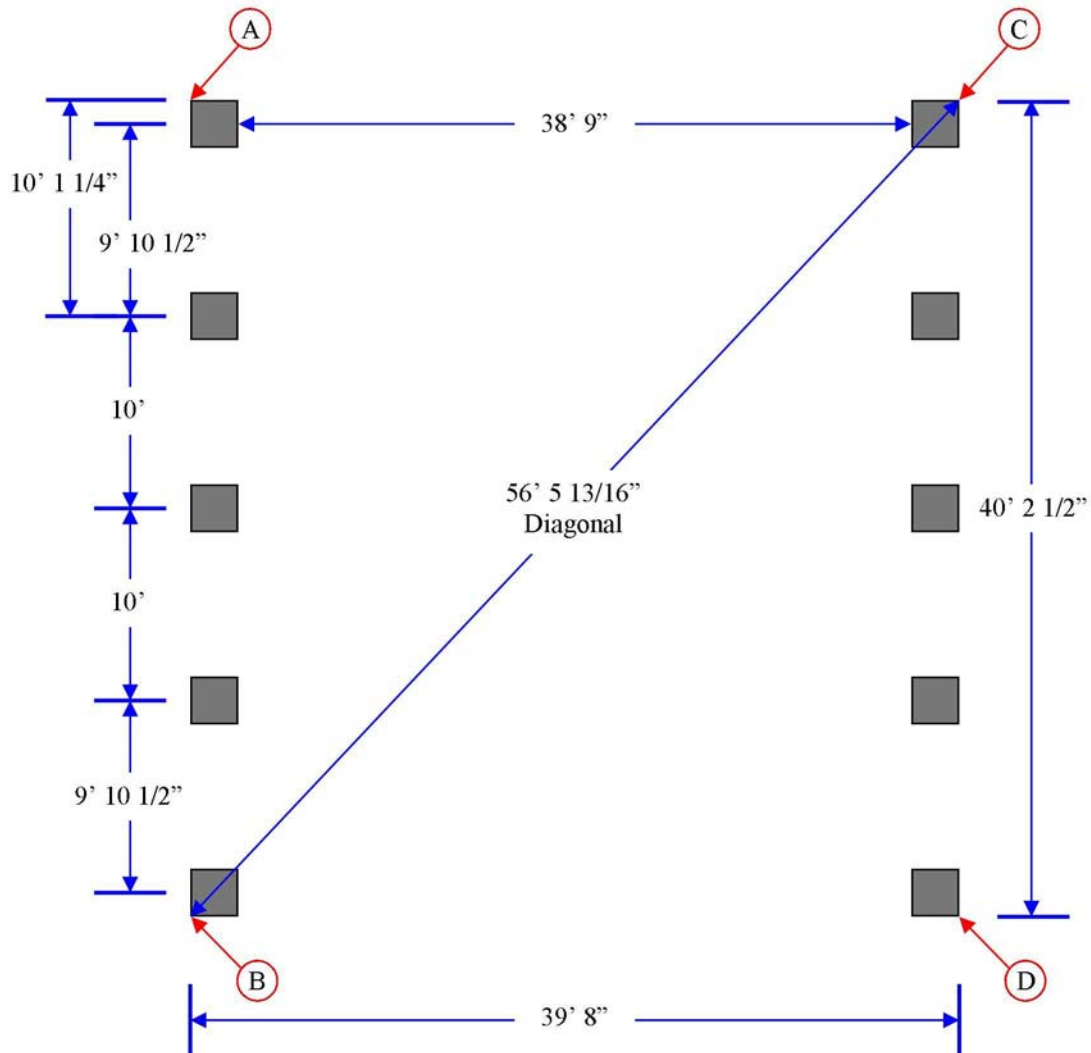




## Installation Guide

This installation guide is for a 40' x 40' Advantage Structure. The very same steps can be applied for the installation of 30', 40' high profile, 50', 50' high profile, 60', 60' high profile, 70', and 80' structures as well.



1. Layout line establishing one side of building.
2. Mark points A and B (see circles above) which are the buildings overall length.
3. Determine diagonal using the following formula:  $\text{Diagonal} = \sqrt{A^2 + B^2}$ . A = Width, B = Length.
4. Using two tape measures establish point C by measuring width from point A and diagonal from point B.
5. Establish point D by measuring width from point B and length from point C.

6. Check diagonal measurement from point A to point D.



The first step in installing the Advantage Structure is the post setting. While many installers prefer to drive their posts the posts may also be handset using wedges attached to the bottom of the posts and then concreted for at least the bottom 3 feet. All posts must be set at least 4 feet deep in solid undisturbed ground. (Local codes may require deeper settings). Be sure to set the posts square, plumb and on the same plane.

Building Size	<i>Post Spacing</i>	
	Inside Post Spacing	Post Spacing
30'	28'7"	10' On Center*
40'	38'8"	10' On Center*
40' High Profile	38'8"	10' On Center*
50'	48'8"	10' On Center*
50' High Profile	48'8"	10' On Center*
60'	58'8"	10' On Center*
60' High Profile	58'8"	10' On Center*
70'	68'8"	10' On Center*
80'	78'8"	10' On Center*

\* Note the first and last post spacing is 9'10 1/2" on all structure widths. Shown post spacing is based on 10' rafter centers. Rafter centers may vary per building loading requirements.



After the posts have been set and you have marked the tops on the posts with a transit or level, it is time

to cut the post tops to the proper height (if not set at exact same level) to receive the trusses. Now it is time to attach the 2" x 10" plate. Be sure to align the edge of the 2" x 10" with the inside face of the post.



Next, the trusses can be assembled. Choose a flat location adjacent to the structure site to layout and build the trusses. Within each width building, all truss sections are the same; there is no need to separate a specific end or starter truss. Trusses are constructed with supplied inserts as shown. Round insert at top and square insert at bottom. During truss construction the trusses can be stacked if it is easier for your installation site. Picture at top right is a completed truss section connection. Please place duct tape over all top chord connecting sections to protect the cover. This can be placed on the framework on the ground or once installed on the foundation prior to the cover installation.



Installed bottom truss/post connection (center truss section pictures to left, end truss pictures to right). Note this truss is for a 40' wide structure. For the End Truss Section note inverted tab on truss plates and unique end truss post bracket.

As the plates are universal for all width buildings, each hole to the outside of the truss plate for the round, outer truss chord is specific to each width. Top hole – 50'; Top Middle hole – 40', 40' HP, 50' HP, 60'

HP; Bottom Middle hole – 30', 60' & 70'; Bottom hole – 80'.



Once the trusses are built, you are ready to lift them into place. You can use a grab pole on a skid steer, bucket truck, extended reach forklift, or crane to hoist them into place. We recommend a grab pole for 30', 40', and 50' structures. For 40' high profile, 50' high profile, 60', 60' high profile, 70', and 80' structures an extended reach forklift or crane will be required.



Once the truss is in place, pre drill, then lag the truss bracket into place. Next, drill and lag through the top of the truss plate into the 2" x 10" and post on each side of the truss.



While the trusses are being installed, install at least the center line of purlins. The additional side purlins can be installed once all trusses are installed. Note 50' and wider structures will require guy ropes to

secure the trusses until all purlins are installed.



Once all purlins are installed, it is time to install the diagonal end truss brace. These braces are installed adjacent to each purlin in both ends of the structures. Hook the prongs in the outside truss against the top chord, and then lift the brace into place along the bottom chord of the next truss.



Once trusses and purlins are installed the 2"x6" can be installed along the back side of the trusses to the backside of the truss plates and 2"x10" top plate with carriage bolts. At this time, also install wood screws through the bottom edge of the 2"x6" into the edge of the top plate (2"x10").



Once the framework is completely installed you are ready for the cover installation. When rolling the

cover out we recommend laying out tarps/plastic to protect the structure's cover from rocks, debris, etc.



Once the cover is rolled out you are ready to insert the side sleeve pipe. We recommend you take an old pop bottle, cut the top off, and tape it to the sleeve pipe as shown. This protects the cover when installing the pipe. Next, insert the sleeve pipe into the cover side pocket.



Each pipe section is swaged; use a self tapping screw to connect the pipes together, and then cover the joint in duck tape to protect the cover from the screw head.



With the sleeve pipe installed in both sides of the cover you are ready to pull the cover. Prior to pulling the cover, attach the stationary side of the cover to the top of the kneewall.



Next, throw ropes over the framework and tie to the side sleeve pipe. For the first and last rope you will be able to tie directly to the pipe. For all intermediate ropes you will need to make a small incision in the cover to tie off. Note you can also use an optional pipe bite tie off to the pipe without cutting the cover; see picture to right above.



With all the ropes in place you are now ready to pull the cover and secure it to the foundation. Do not attempt to pull cover in windy conditions.



Insert the pvc pipe into the pocket of the cover. At the joints join the pipe with a coupler and use duck tape as in the installation of the pvc pipe.



Once the pvc pipe is in place you can install the 1" end ratchets. Note the duck tape over the bolts of the end truss's top and bottom chords in order to protect the cover.



Now it is time to install the side ratchets. Measure down 20" from the underside of the 2"x10" on the outside center of the post and drill a pilot hole for a 1/2" x 5" lag screw. Install lag through bottom hole of ratchet. Make a small incision above each side ratchet and install the strapping which can be cut to 6' lengths. Tension to 65 pounds using a Torque wrench.



Cut off excess side sleeve pipe. Similar to side ratchets, install ratchet for end cable using lags. Attach end cable to ratchet and tighten.





Next, install interior support cables as shown above.



Congratulations! Your Advantage Structure is complete!