

Vinyl Aspen Pergola Installation Instructions

Congratulations on purchasing your new vinyl pergola. You can expect a long, low maintenance life for this product. Feel free to give us a call if you need help installing this product.

REQUIRED TOOLS

- Measuring Tape
- 4' Level
- String Line
- Pencil
- Ladder
- Screw Gun

If Privacy Fence sections are to be installed, please read over the Aspen Privacy Fence Installation Instructions before beginning installation.

PRE-ASSEMBLY

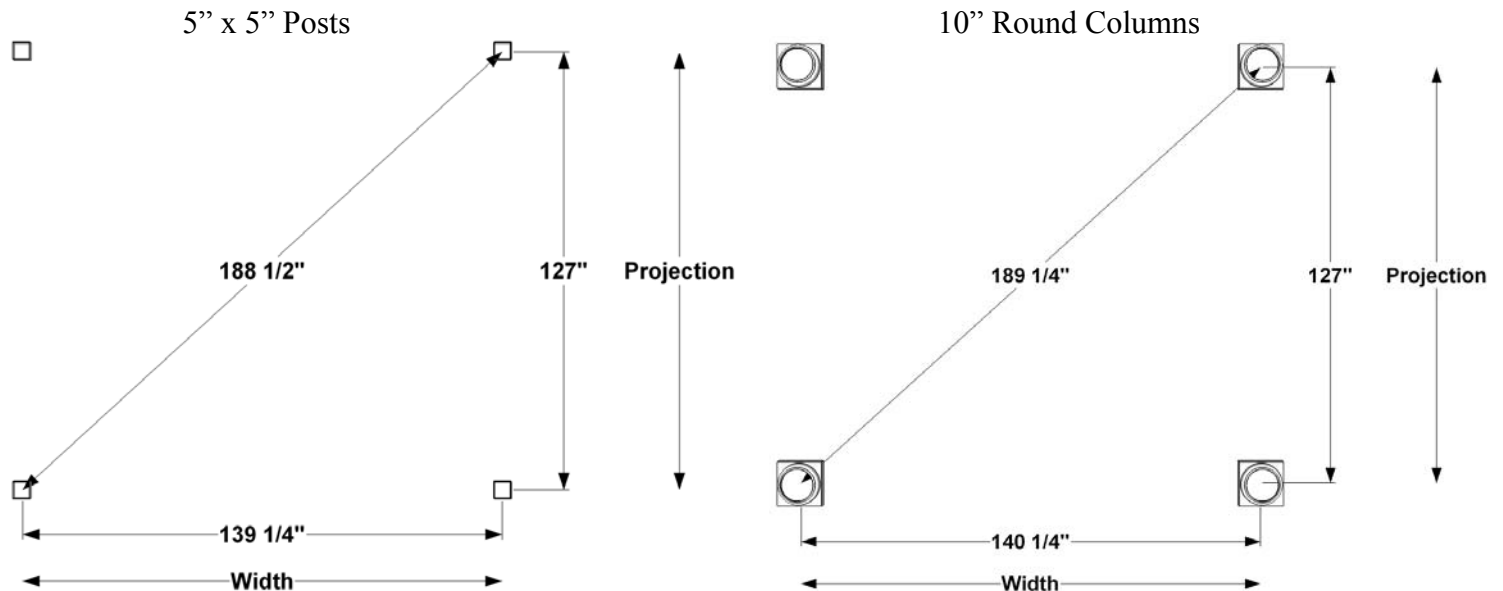
It is recommended to read through the instructions completely before getting started. All of the materials needed to assemble the pergola are included in the kit. The only exception is the concrete needed to set the posts if ground post mounts are to be used (depending on your installation). Open the package and sort like parts into separate piles. Count the parts and compare the totals to the packing list. Refer to the Component Index for help identifying parts. **Please call 877.489.8064 if you are missing any components.**

FREESTANDING MODEL

If posts are to be installed in the ground, ensure there are no buried utility lines.

Step 1: Installing the Support Posts

The diagrams below show the measurements of the posts on center. If extensions are to be installed, check the extension installation instructions for post diagrams. If the pergola is to be installed over an object such as a spa, patio, or garden, use these measurements to center the posts around the object. Use the diagonal measurements to ensure the posts are square to each other.



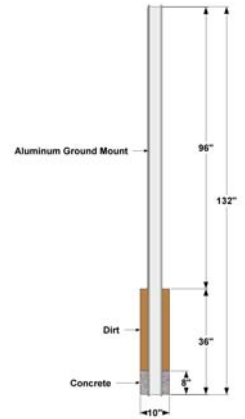
All measurements are from center of post to center post.

Width = direction the curved 2" x 6" rafters are running.

Projection = direction the 2" x 8" beams are running.

It is very important to make sure the posts are securely attached. If the pergola is to be installed on a patio or on top of concrete footers, or if columns are to be used, please refer to the Vinyl TensionRod™ Post & Column Installation Instructions.

You may attach the posts to the surface of a patio, deck, or to the ground. If installing the posts into the ground, you will need to install the posts using 5" x 5" aluminum ground mounts. The aluminum must be set 30" or more into the ground, with at least 8" in concrete. If the post is to be attached to a solid surface or if columns are to be used, please refer to the Vinyl TensionRod™ Post & Column Installation Instructions. Do not install any of the caps on the posts.

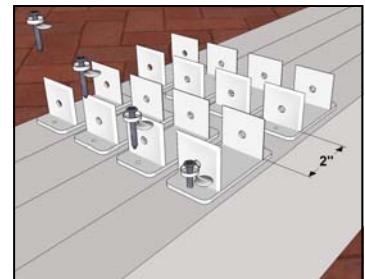
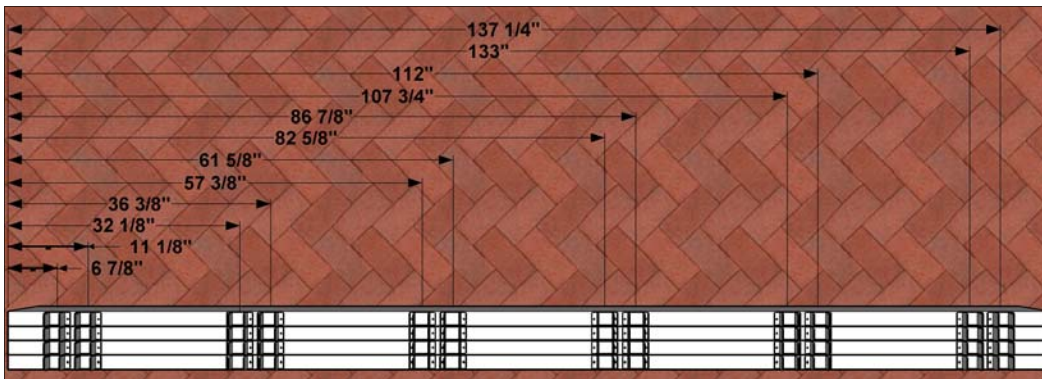


Ensure that the mounting surface is level. If not, the posts will end up at different heights, making the beams not level. It is also possible to adjust uneven post heights by cutting down the taller posts to match the height of the shortest post.

Step 4: Install the Rafter Beam Brackets

Curved rafters are laid out approximately 24" on center. Two 15" long rafters are will be installed on each side of the curved rafter, across both beams on each side. The 15" rafters will be attached to the top of both beams on each side of the pergola with rafter beam brackets. In order to keep the spacing even, use the table below to mark the center of where each rafter beam bracket is to be screwed to the beams. The beam measurement is taken from the end of the 2 x 8; do not install the decorative pergola end yet. Rafter brackets are attached to the beams with two of the 1" screws provided and covered with screw caps.

There should be 2" spacing between each set of rafter beam brackets for the curved rafters.

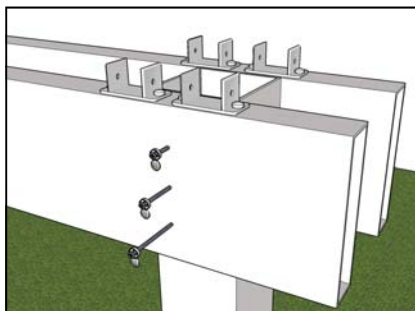


Rafter	1	2	3	4	5	6	7	8	9	10	11	12
Distance	6 7/8"	11 1/8"	32 1/8"	36 3/8"	57 3/8"	61 5/8"	82 5/8"	86 7/8"	107 3/4"	112"	133"	137 1/4"

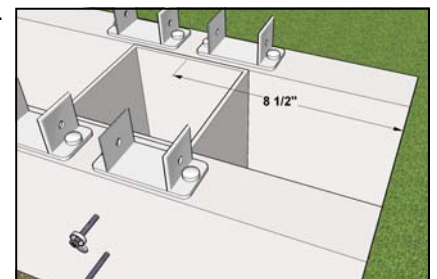
The measurements are taken from the end of the beam to the center of each rafter beam bracket.

Step 5: Attach the Beams

The 2 x 8's are fastened to the front and back of the support posts, with the rafter beam brackets on top. Before installing the beams, slide the cornices down from the top of the post at least 8" to allow room to install the beams. Rafter #1 (see table above) should be installed on the same side of the pergola on all four beams. The beams should extend beyond the center of the post by 8 1/2". The easiest way to accomplish this is to make a mark 8 1/2" in from the end of the beam. Make a similar mark on the center of the post on both sides where the beams will be



installed. Make sure these marks are lined up accurately before attaching the beam in order to line up all the rafter beam brackets correctly. Use your level to ensure the beam is level. Use three 3" screws with screw caps to attach each beam to each post, for a total of six screws per post. Attach the beams.



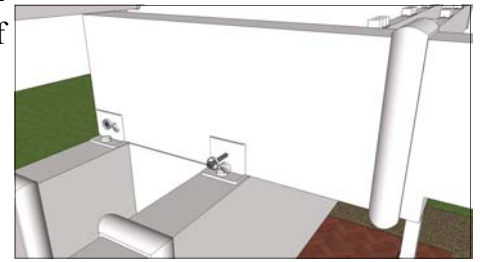
If post-to-post distance varies from the diagram on page 1, adjust 8 1/2" mark on the beams accordingly.

Step 6: Install 15" Rafters



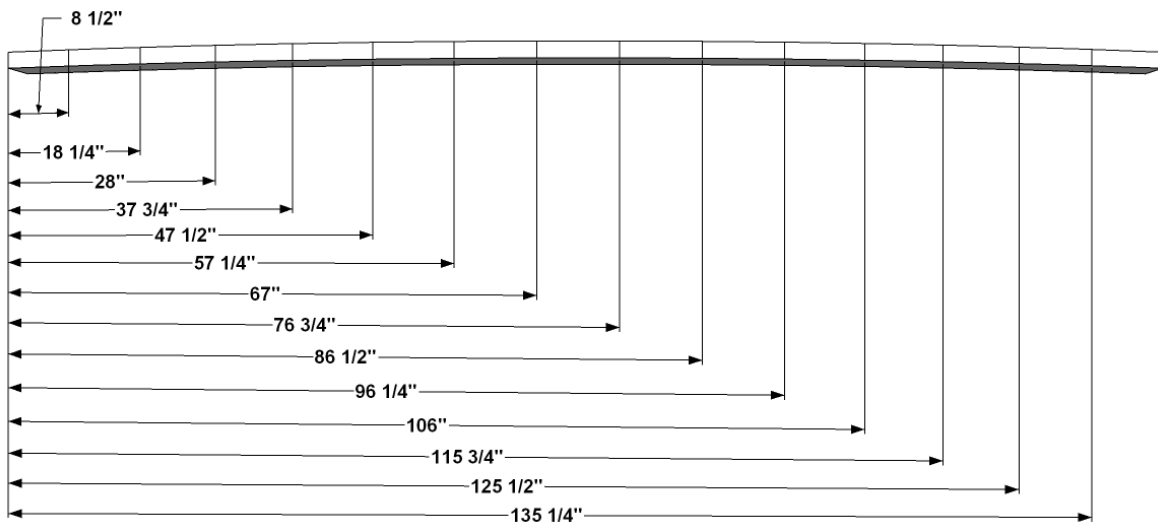
Using PVC cement, glue a decorative pergola end on one side of the 15" rafter, and a 2 x 6 internal flat cap on the opposite side. Complete this procedure for all

15" rafters. Lay the 15" rafters into the rafter beam brackets, so that the end with the internal flat cap is flush with the inside of the inner beam. 15" rafters are attached with a 1" screw and screw cap into each side of both beam brackets.



Step 7a: Mark Stringer Locations on Curved Rafters

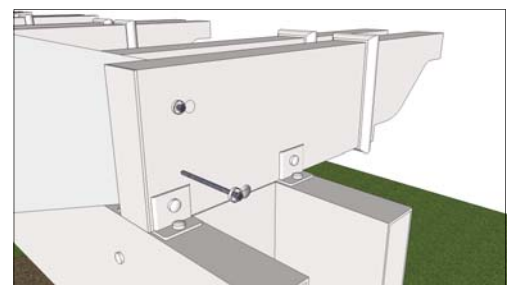
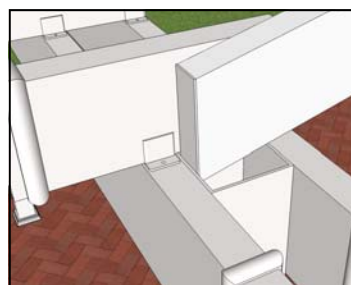
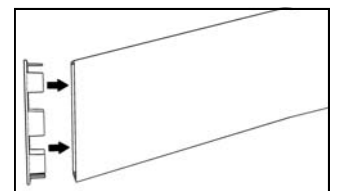
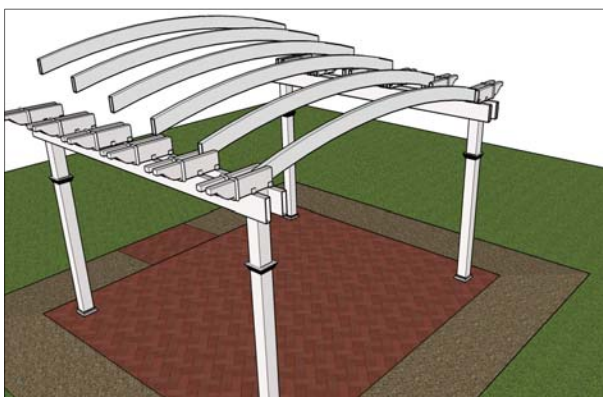
Before installing the curved rafters, the locations of the stringers need to be marked, to allow for easier installation. Stringers are spaced approximately 8 1/4". Use the table below to measure and mark the stringer locations. All measurements are from one end of the rafter and measured along the curve. All measurements are made to the first edge of the stringer.



Stringer	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Distance	8 1/2"	18 1/4"	28"	37 3/4"	47 1/2"	57 1/4"	67"	76 3/4"	86 1/2"	96 1/4"	106"	115 3/4"	125 1/2"	135 1/4"

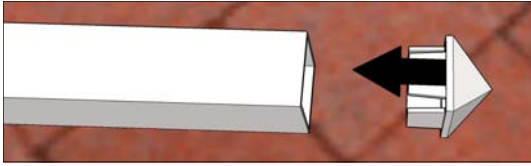
Step 7b: Install Curved Rafters

Attach a 2" x 6" flat cap into each end of the curved rafter before installing by applying adhesive to the inside of the rafter. Set the curved rafters on top of the beams, into the 2" space between the 15" rafters. The end of the curved rafter that was measured from in step 7a should be on the same side of the pergola for all rafters. The curved rafter should be flush in between the beams, against the outer beam on each side. If not, center the curved rafters on the two inner beams on each side of the pergola. Secure the curved rafters with two 3" screws and screw caps through the side of both 15" rafters.



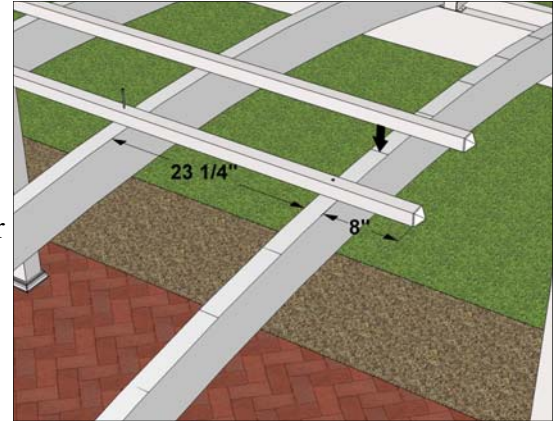
Step 8: Stringer Installation

Stringers are attached to the top of the curved rafters. Standard spacing between stringers is approximately 8". The first step is to install the end caps into the ends of the stringers. Apply a small amount of adhesive inside the stringer; then push the end cap into the stringer end. Line a stringer on top of the rafters so that it cantilevers past



one of the outside rafters by 8", and lines up with the mark made in Step 7a. Screw the stringer into the outside rafter with a 2" screw. If the distance between the outside rafter and the next rafter in is not 23 1/4", adjust the inside rafter so that it is. Follow this procedure with this stringer for all the rafters. Screw caps are not included to cover the 2" stringer screws. Repeat this method for all remaining stringers, although it may not be necessary to check the rafter spacing for all of them. A screw should be used at the intersection of all stringers and rafters.

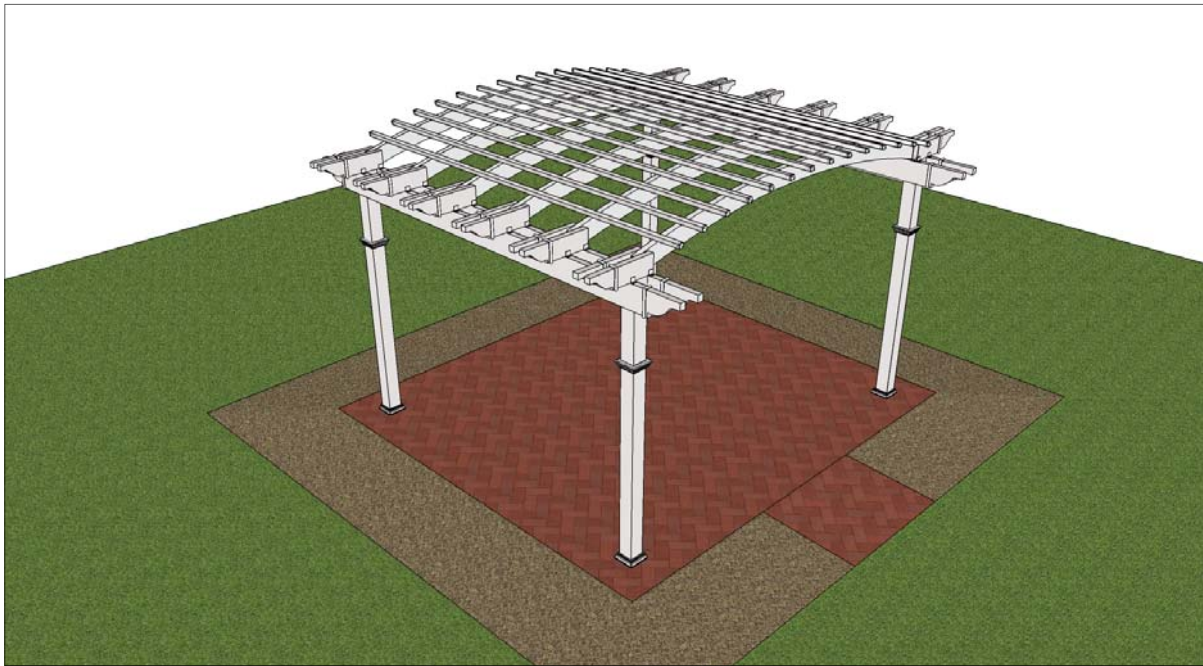
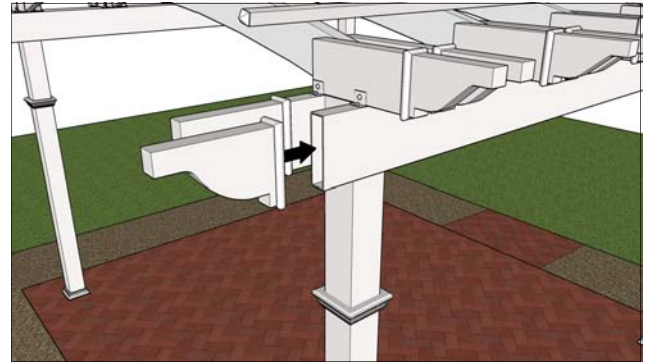
one of the outside rafters by 8", and lines up with the mark made in Step 7a. Screw the stringer into the outside rafter with a 2" screw. If the distance between the outside rafter and the next rafter in is not 23 1/4", adjust the inside rafter so that it is. Follow this procedure with this stringer for all the rafters. Screw caps are not included to cover the 2" stringer screws. Repeat this method for all remaining stringers, although it may not be necessary to check the rafter spacing for all of them. A screw should be used at the intersection of all stringers and rafters.



Step 9: Completion

Now all of the beams, rafters, and stringers have been installed. Install the beam decorative pergola ends by applying adhesive to the inside of the cap; then slide it over the vinyl beam and apply pressure for ten seconds. The cornices may also be permanently installed by applying adhesive to the post and quickly sliding the cornice over the adhesive. Be careful not to use too much adhesive, as it may run down the post.

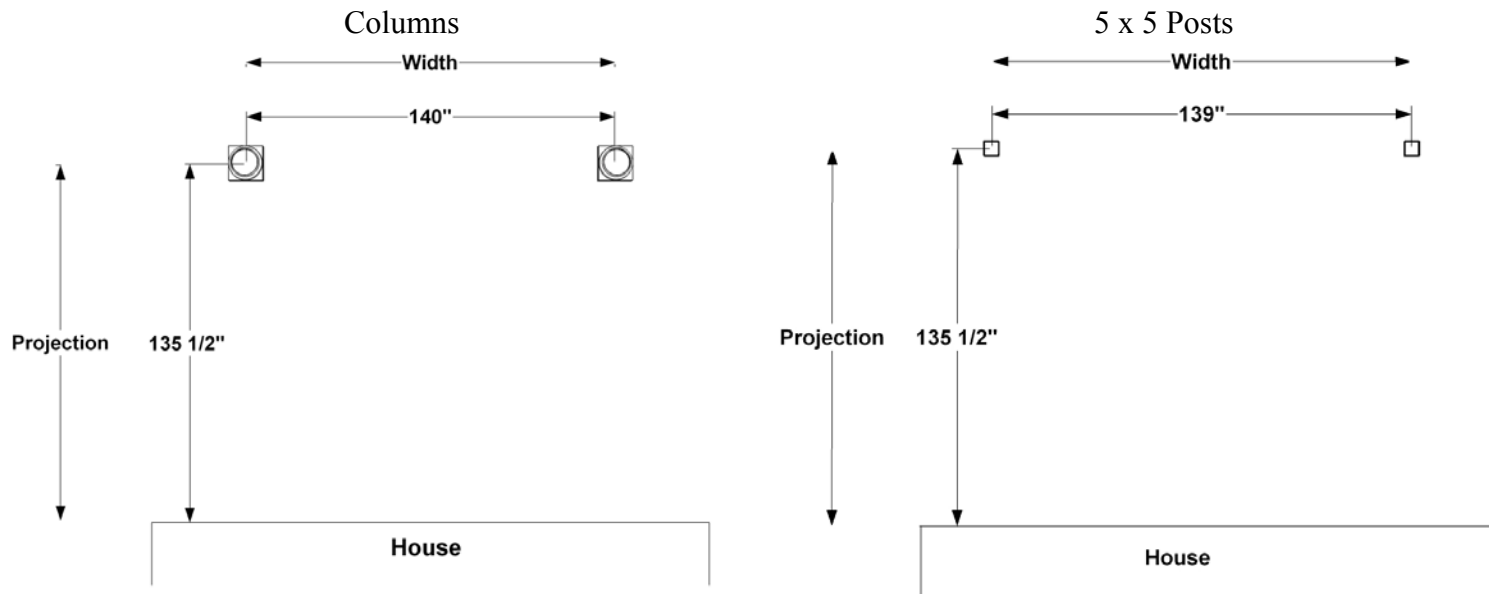
You may need to clean the vinyl after assembly; please refer to the cleaning instructions included on this CD.



It is the responsibility of the installer to meet or exceed all code and safety requirements, and to obtain all required building permits. These instructions are only a guide, and may not address every circumstance. The installer should determine and implement appropriate installation techniques for each situation. Backyard America shall not be held liable for improper or unsafe installations.

ATTACHED MODEL

If posts are to be installed in the ground, ensure there are no buried utility lines. If extensions are to be installed, please check the diagrams on the Extension Installation Instructions



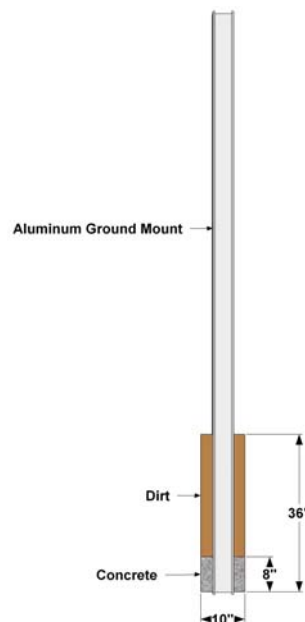
All measurements are made from center of post to center of post

Width = Direction the curved 2 x 6 Rafters are running

Projection = Direction the 2 x 8 Beams are running

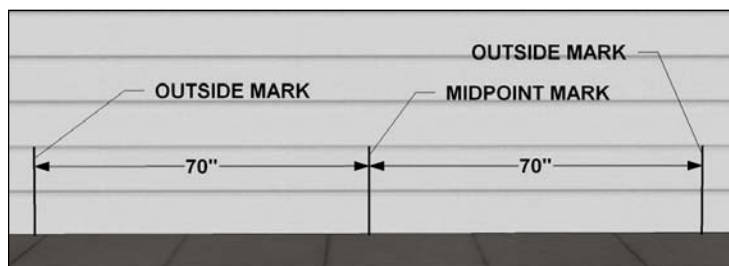
Step 1: Install Support Posts

The diagrams above display the post measurements for both the width and projection of the pergola on center. If the pergola is to be installed over an object such as a spa or patio, use these measurements to center the posts around the object. It is very important to make sure that all of the posts are securely attached. If installing the posts into the ground, a 5" x 5" aluminum ground mount is needed. The aluminum must be set at least 30" into the ground, with at least 8" in concrete. If the post is to be attached to a solid surface or if columns are to be used, please refer to the Vinyl TensionRod™ Post & Column Installation Instructions. Do not install the caps for any of the columns.

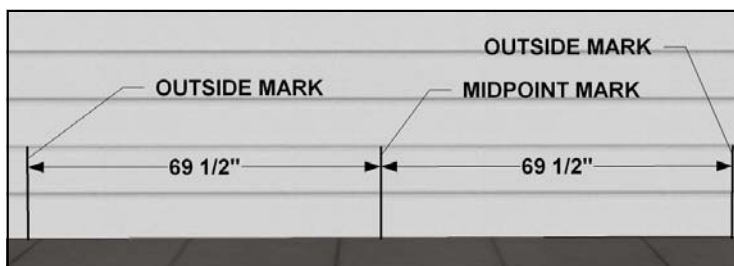


Step 2: Midpoint and Outside Marks

Find the center over where the pergola will be installed. Transfer this mark to the house wall. This will be called the Midpoint mark. If installing columns, measure out 70" on each side of the Midpoint mark to find the Outside marks. If installing 5 x 5 posts, measure out 69 1/2" on each side to find the Outside marks. Check to make sure the Outside marks line up with the center of the posts or columns.



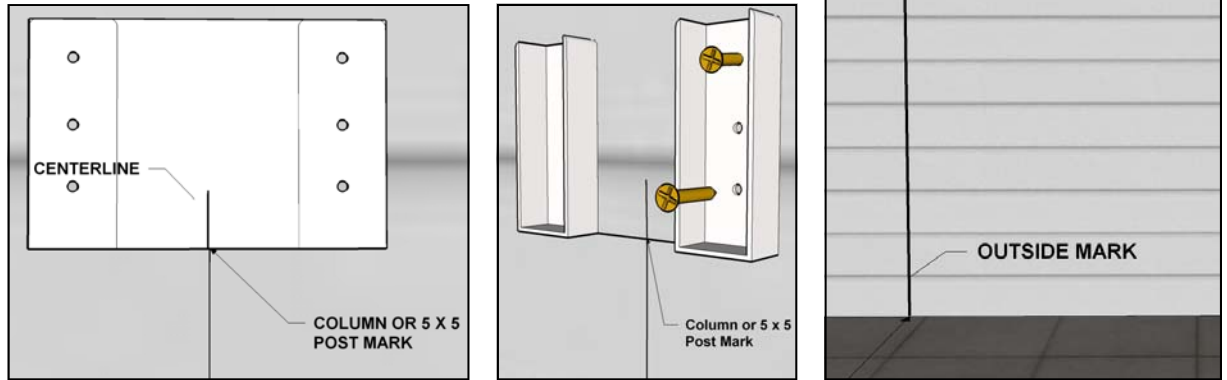
With Columns



With 5 x 5 Posts

Step 3: Locate and Install Beam Wall Brackets

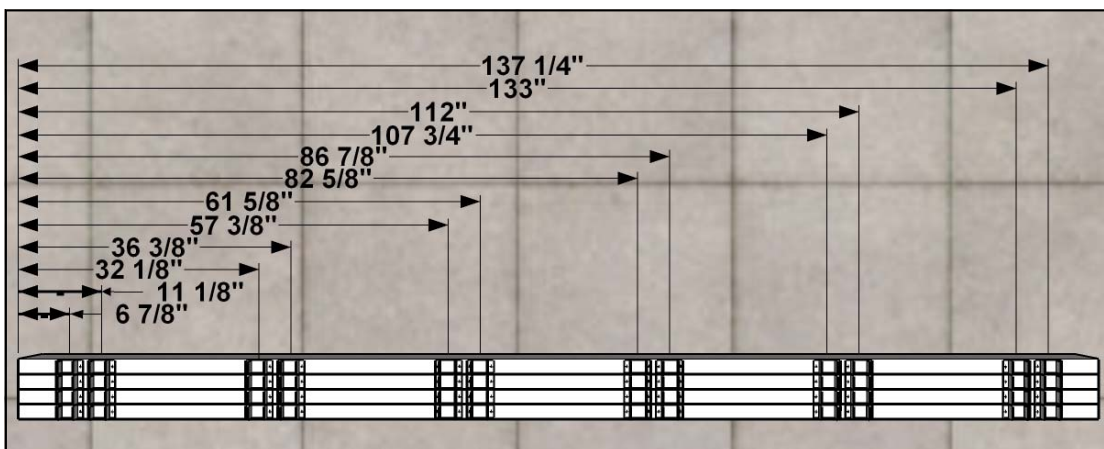
If using vinyl columns: The outside marks made on the wall will need to be transferred 108" up the wall. If using 5" x 5" posts: The outside marks made on the wall will need to be transferred 88" up the wall. The easiest way to accomplish this is with a level or a plumb bob. Ensure that this mark lines up vertically with the bottom mark exactly. If the posts or columns were cut down, adjust these height marks accordingly.



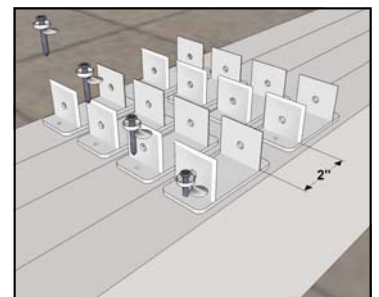
Using the 5" x 5" or column template provided at the end of this instruction packet, line up the outside mark with the center line on the template. Ensure the template is level, as well as the post mounting surface. If the post mounting surface slopes away from the house, adjust the height of the beam wall bracket template accordingly. Mark the screw holes on the wall. This will give the location of the beam wall brackets. Wood screws are provided to attach the beam wall brackets; separate hardware will need to be purchased if attaching to a masonry wall.

Step 4: Attach Rafter Beam Brackets

Rafter beam brackets are attached to the 2" side of the 2" x 8" beams. Use the table below to find the distances at which the brackets will be located. Be sure to make the measurements from the same end of all the beams, and line those ends up on the same side of the pergola when installing. Rafter beam brackets are attached with two 1" screws and screw caps.



There should be 2" spacing between each set of rafter beam brackets for the curved rafters.

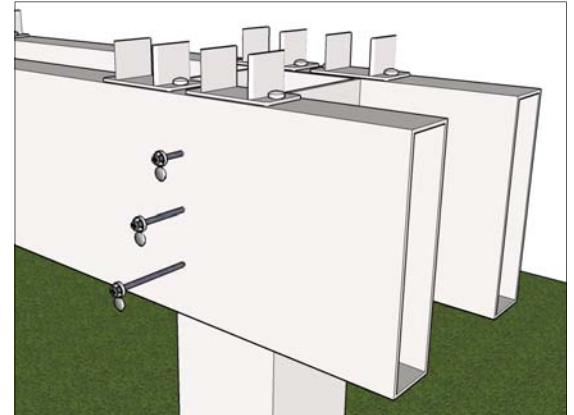


Rafter	1	2	3	4	5	6	7	8	9	10	11	12
Distance	6 7/8"	11 1/8"	32 1/8"	36 3/8"	57 3/8"	61 5/8"	82 5/8"	86 7/8"	107 3/4"	112"	133"	137 1/4"

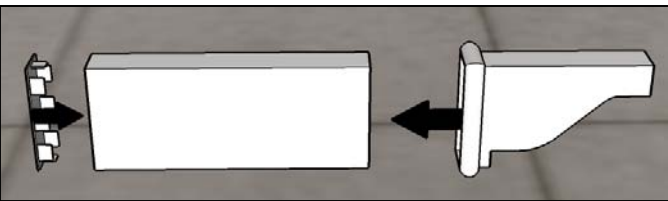
The measurements are taken from the end of the beam to the center of each rafter beam bracket.

Step 5: Attach the Beams

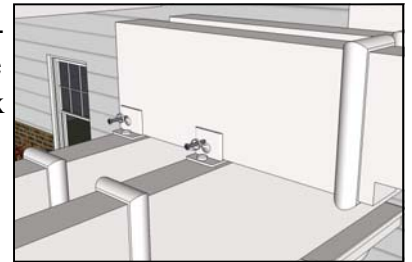
The 2" x 8" beams are fastened to the top of the support posts and to the beam wall brackets, with the rafter beam brackets on top. Before installing the beams, slide the post cornices down from the top of the post at least 8" to allow room to install the beams. The rafter beam bracket for rafter #1 (see table on page 2) should be installed on the same side of the pergola on all four beams. Lay the beam into the beam wall bracket. For columns, the beam should rest on top of the column cap, and attach to the 4" x 4" sleeve. Do not install with the 4" Internal Cap. Make sure the beam is flush against the back of the beam wall bracket. Use three 3" screws and screw caps to attach the beam to the post. Use two 1" screws and screw caps on the outside of the beam wall bracket to attach the beam to the bracket. Repeat this process for all four beams.



Step 6: Install 15" Rafters



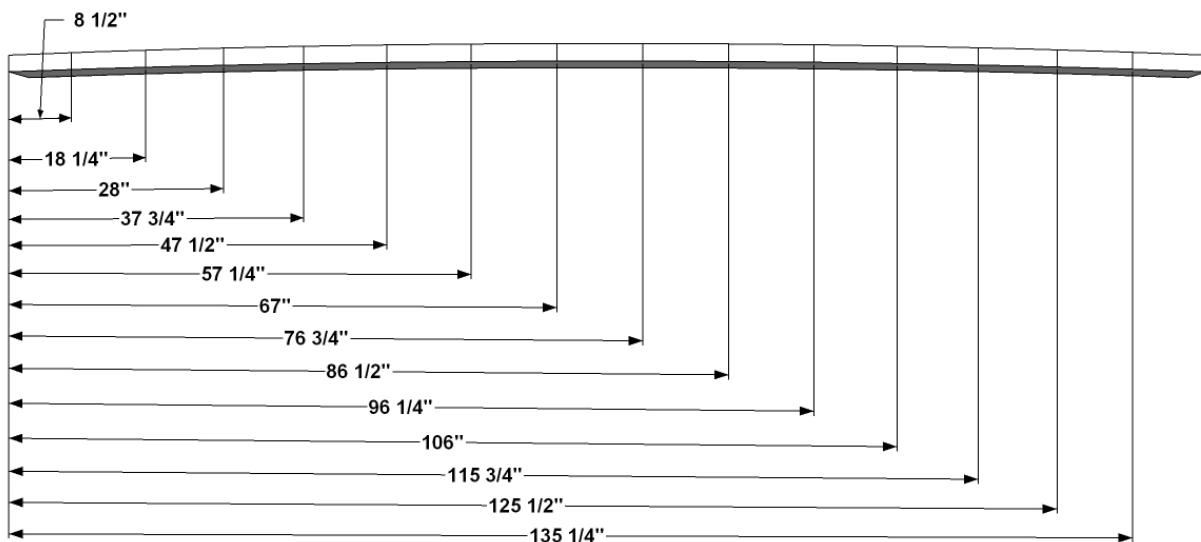
Using PVC cement, glue a decorative pergola end on one side of all the 15" rafters, and a 2" x 6" internal flat cap on the opposite side. Complete this procedure for all twenty-four 15"



rafters. Lay the 15" rafters into the rafter beam brackets so that the end with the internal flat cap is flush with the inside of the inner beam. In a set of two 15" rafters, one rafter is attached with a 1" screw and screw cap into each side of both rafter beam brackets, while the second 15" rafter is attached on only one side of the rafter beam brackets with a 1" screw and screw cap.

Step 7a: Mark Stringer Locations on Curved Rafters

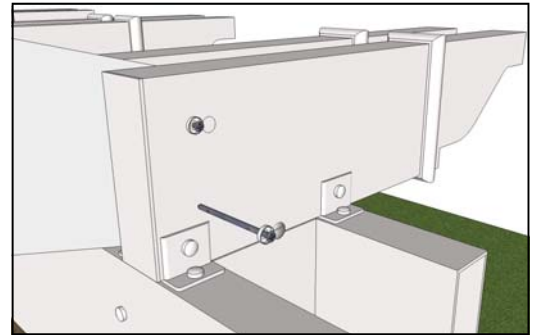
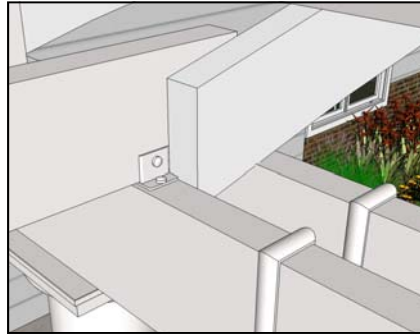
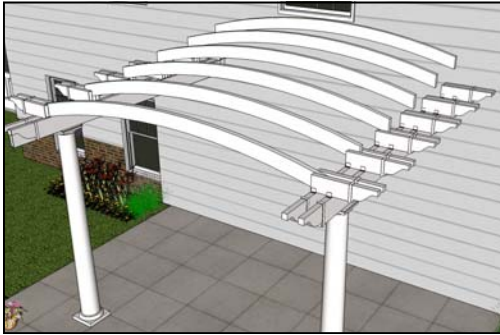
Before installing the curved rafters, the locations of the stringers need to be marked to allow for easier installation of the stringers. Use the table below to measure and mark the stringer locations. All measurements are from one end of the rafter and measured along the curve. All measurements are made to the first edge of each individual stringer.



Stringer	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Distance	8 1/2"	18 1/4"	28"	37 3/4"	47 1/2"	57 1/4"	67"	76 3/4"	86 1/2"	96 1/4"	106"	115 3/4"	125 1/2"	135 1/4"

Step 7b: Install Curved Rafters

Set the curved rafters on top of the beams, into the 2" space between the 15" rafters. The mark for Stringer #1 (see table on page 7) should be on the same side of the pergola for all rafters. The curved rafter should be flush in between the beams, against the outer beam on each side. If not, center the curved rafters on the two inner beams on each side of the pergola. Secure with two 3" screws and screw caps into the side of both 15" rafters.

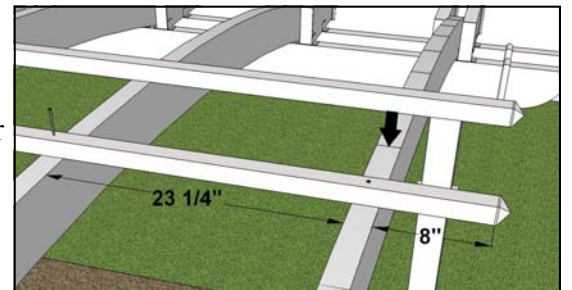


Step 9: Stringer Installation



Stringers are attached to the top of the curved rafters. Standard spacing between stringers is approximately 10". The first step is to install the end caps into the ends of the stringers. Apply a small amount of adhesive

inside the stringer; then push the end cap into the stringer end. Line up the stringer so that it is flush against the house wall, and so that it lines up with the mark made in Step 7a. This will set the stringer's cantilever past the outside rafter at 8". This distance may be adjusted. Screw the stringer into the outside rafter with a 2" screw. If the distance between the outside rafter and the next rafter in is not 23 1/4", adjust the inside rafter so that it is. Follow this procedure with all of the stringers for all of the rafters. Screw caps are not included to cover the 2" stringer screws. Repeat this method for all remaining stringers, although it may not be necessary to check the rafter spacing for all of them. A screw should be used at the intersection of all stringers and rafters.



Step 10: Completion

Now all of the beams, rafters, and stringers have been installed. Install the beam decorative pergola ends by applying adhesive to the inside of the cap; then slide it over the vinyl beam and apply pressure for ten seconds. The cornices may also be permanently installed by applying adhesive to the post and quickly sliding the cornice over the adhesive. Be careful not to apply too much adhesive as it may run down the post.



You may need to clean the vinyl after assembly; please refer to the cleaning instructions on this CD.

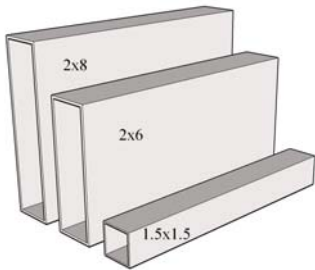


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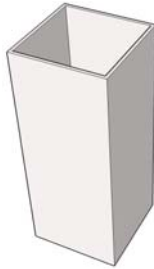
Component Index



Curved 2 x 6 Rafter



Vinyl Components



5 x 5 Post



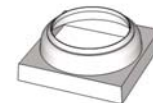
Tapered Column



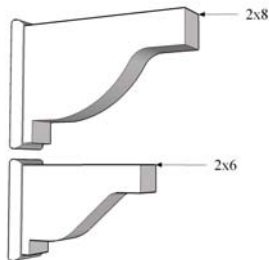
Capital



Mid-trim



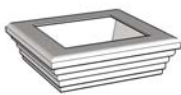
Base Trim



Pergola Ends



2 x 6 Flat Cap



Post Cornice



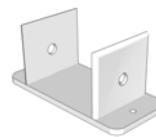
1 1/2 x 1 1/2 End



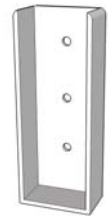
5 x 5 Post Trim



5 x 5 Internal Flat Cap



Rafter Beam Bracket

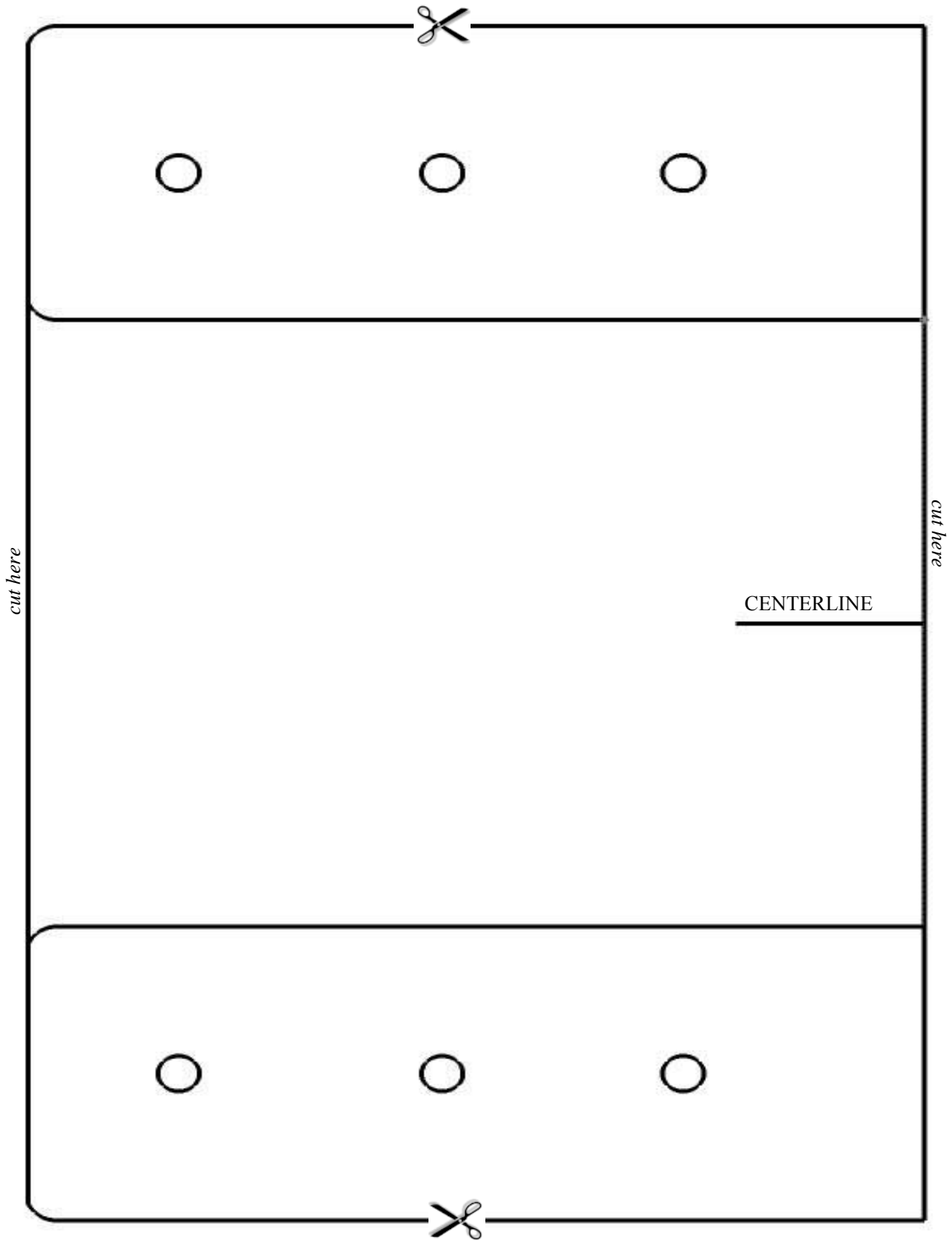


Beam Wall Bracket

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Column Beam Bracket Template

For use with Vinyl Tapered Columns



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5" x 5" Beam Bracket Template

For use with 5" x 5" x 8' Posts

