

# CHADSWORTH COLUMNS



# PERGOLA BEAMS - INSTALLATION

In this document, Chadsworth is going to describe one method of installation for the Pergola beams to the columns and for flashing the columns. These methods have been used by different contractors to install these items across the country. Please understand that due to the literally hundreds of methods of attaching the Pergola Beams to the column shafts, Chadsworth does not recommend one method over another. However, these methods have been used successfully and are among the most common. Please feel free to contact me with any questions or concerns.

### \*\*\* This is just an example of an installation method. \*\*\*

#### Flashing the Columns:

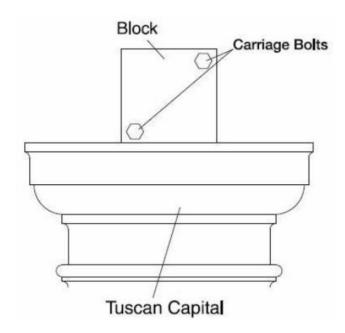
In this installation, it will be easier to install the capital and Pergola components if you just flash the shaft. Any number of materials may be used such as copper, tin, aluminum, PVC, plastic, fiberglass and vinyl. This material does not need to be thick. A 1/8" thickness of material in many cases will be plenty. Take a piece of one of the materials listed large enough to cover the top of the column shaft (approximately 10" in this case). Drill a hole in the center of the material large enough for the threaded rod to fit through. Then place the material over the shaft and trace the outline of the shaft onto the material. Remove the flashing material from the shaft and cut to this shape. Dry fit the cut out round flashing material to the top of the shaft and glue down with a waterproof construction adhesive.

#### Using a Block to attach the Pergola Beams:

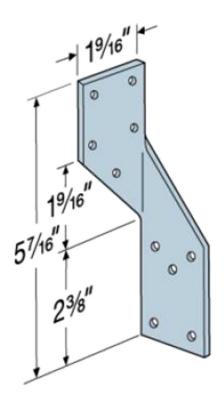
In this type of installation, you will fabricate a block to which the Pergola Beams will then attach. Decide upon the spacing desired between the two main Pergola beams. For instance, if you want approximately 3 ½" between the beams, a standard 4" x 4" treated wood post will suffice as it is approximately 3 ½" x 3 ½" square. If less is desired, you may need to trim this piece. If more is desired you may use a 6" x 6" wood post, and etc. You can also use a steel beam or any other material available that would be considered structural (however, it will be an easier installation to keep to square material).

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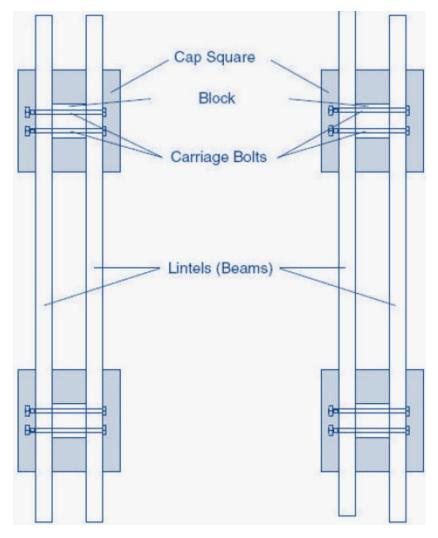
After you have determined the spacing of the beams and chosen the material to be used (and trimmed to size if necessary), the beam will need to be cut to size to become the block to attach the Pergola beams to. In other words this beam will need to be cut to a size at least larger than the diameter of the column shaft (10" approximately) and smaller than the size of the capital (14 ½" approximately). The smaller the size, the more of the block will be hidden. The larger the size, the more of the block will show. The block does not need to be as tall as the Pergola beams.



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Now that you have the block cut to size, drill a hole through the center to accept the threaded rod. Dry fit the block. Place the capital over the shaft and let it slide down to allow the shaft to rise above. Install the block by placing it on the shaft with the threaded rod thru the center and tighten down by hand. You will need to adjust the angle of the block to ensure the proper alignment of the Pergola beams when installed. You can attach the block to the column shaft with 90 degree brackets (example below). Pre-drill any holes in the column shaft.



\*\*\* Note: Depending on the type of bracket used, these can be installed prior to cap and block installation to give more room to make connections. These brackets only help to prevent twisting and are not designed to be the structural attachment. That is the purpose of the threaded rod. \*\*\* Once the block is attached to the column and aligned, finish tightening the threaded rod.

#### \*\*\* Do not over tighten this nut as it could cause problems. \*\*\*

Now the Pergola beams can be attached to the blocks with galvanized screws or brackets, the capital can be attached to the bottom of the Pergola beams by pre-drilling holes and using galvanized screws and all painted.

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