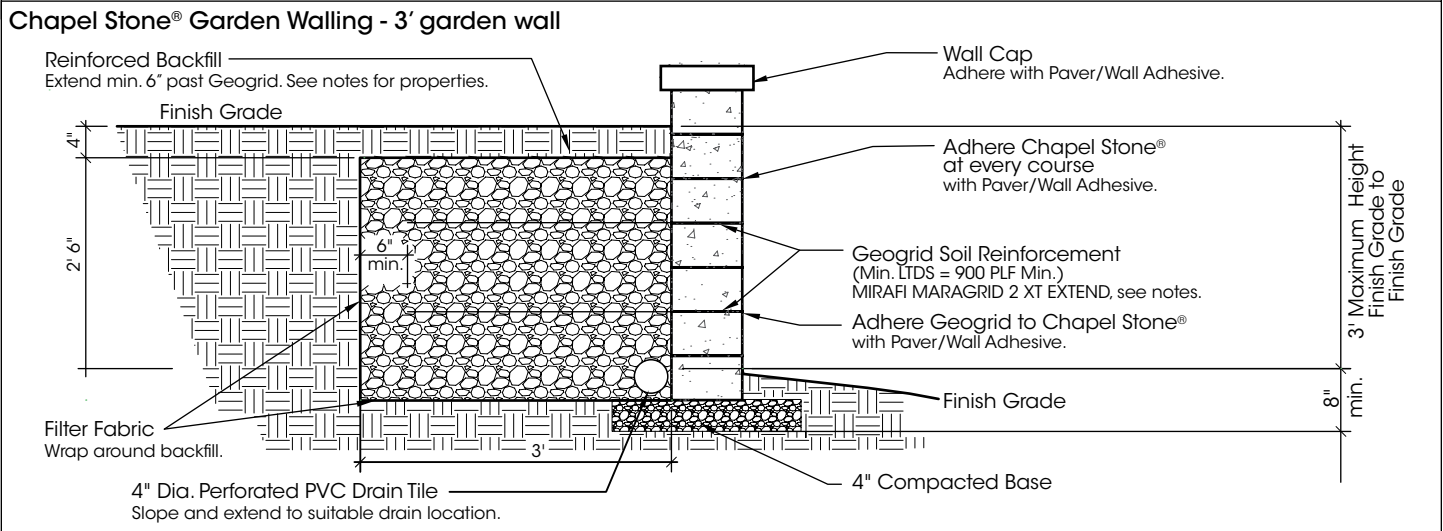
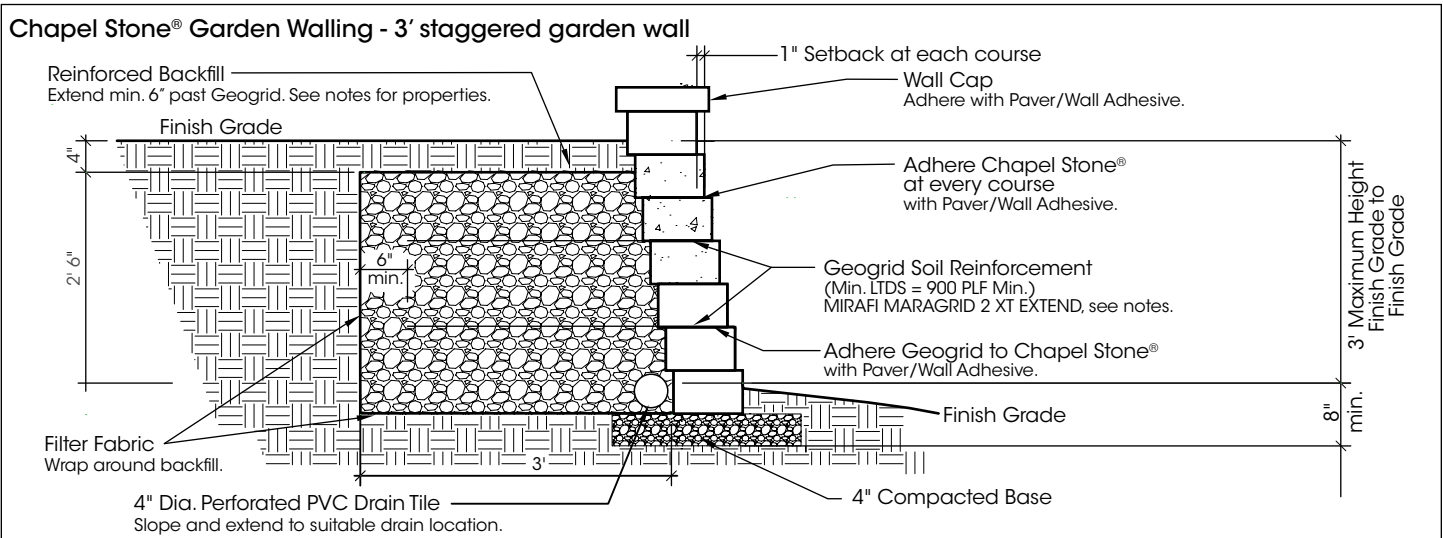


# Installation Guidelines for Residential Applications

## Chapel Stone® Garden Walling

1. Calculate wall materials needed. Determine the square footage of the wall by multiplying length by the height.
2. Prepare the footing. Dig a trench 16" wide and 3 - 6" below grade. The height of the wall will determine the number of units to bury. As a rule of thumb, you will bury 1" of block for every 8" of exposed wall height. Add 8" for the depth of the base material. Make sure the soil is well compacted to prevent settling. Add a level, compacted layer of crusher run (compactible material which ranges in size from 3/4" to fines) as a footing.
3. Install the base course. Position the units side by side on prepared base. Along the back of the block, level the units with a carpenter's level from front to back and side to side. Use a string line to verify straightness.
4. Install additional courses. Place the next course and additional courses of Chapel Stone® Garden Walling in such a fashion that each block bridges two units below (Running Bond Pattern). Follow installation guidelines as found below.



Please Note: Maximum height for Chapel Stone® Garden Wall is 3' or 36". Heights above 3' require engineering design.

### Geogrid Soil Reinforcement Notes:

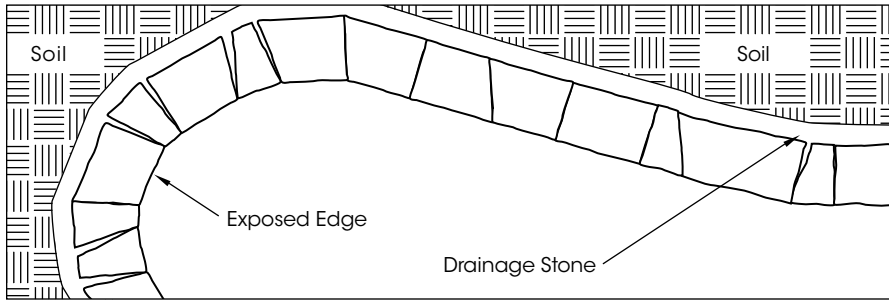
1. Pull Geogrid taut and anchor prior to backfill placement over Geogrid.
2. Geogrid reinforcement shall be continuous throughout the embedment length. 100% coverage shall be provided at each level.
3. Geogrid extends min. 8" over the Chapel Stone® and shall be bonded to the stone.
4. Apply adhesive to both sides of Geogrid to insure proper bond to both courses.

### Reinforced Backfill Notes:

1. Use #57 stone for backfill, or larger as per the geotechnical report prepared by specialized engineering, file no. 063503, dated Oct. 18, 2006.
2. Place reinforced backfill in 6" lifts.
3. Compact reinforced backfill to 95% of maximum dry density as determined by modified proctor tests, ASTM D-1557.
4. Tracked compaction equipment shall not be used directly on Geogrid reinforcement. A min. thickness of 6" of reinforced backfill is required above Geogrid to utilize tracked compaction equipment.
5. Only small vibratory hand operated rollers or walk behind rollers or equipment shall be allowed within 5' of the wall.

## Installing Chapel Stone® Radius:

Chapel Stone® Radius pieces enable the installer to more easily include arcs and curves within the design. Each stone has been faced — with half the pieces faced on both sides. Radius pieces can be used in several ways

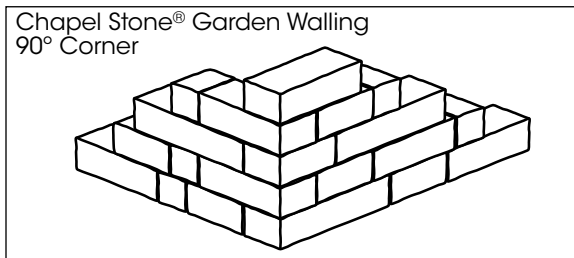


by turning them over. It is possible to use Chapel Stone® pieces which have not been faced, if the effect is acceptable to the owner/installer. The unfaced pieces are smoother, but somewhat textured and can accent the wall.

Please Note: See page 1 for installation guidelines.

## Building 90° Corners:

Building a corner from Chapel Stone® Garden Walling is particularly easy, as three of the four sizes are provided with ends already faced for corners. Overlap the corners to create a bond. Using the corner pieces provided, overlap the units to build your corner. Make sure that seams between block on adjacent courses do not line up and that each block spans two blocks below.



seams between block on adjacent courses do not line up and that each block spans two blocks below.

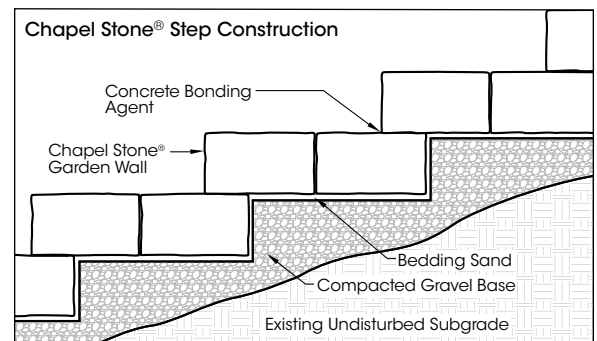
Please Note: Chapel Stone® Garden Walling requires a stable footing, compacted base and proper drainage with filter fabric.

Please see Hanover® Installation Guidelines or contact a Hanover® representative for more information.

## Chapel Stone® Step Construction

1. Stair width, length and rise should be determined prior to beginning. Compact existing subgrade if area has been excavated. Be sure disturbed soils are stabilized. Place compacted gravel over compacted subgrade. Screed bedding sand (maximum  $\frac{3}{4}$ " ).
2. Work from the bottom step to the top step. Install first course or step. Install the next layer of compacted gravel base behind the first course. Install the second course of Garden Wall or second step. Use a concrete bonding agent to adhere the second course to the first. Keep in mind when settling this course that you need to allow for the proper tread depth dimension. Continue this procedure for the desired number of courses or steps.
3. After all courses of Garden Walling are in place, your steps are complete.

Please Note: A variety of Hanover® products such as Chapel Stone® Wall Caps, Appian® 6" x 6" and 6" x 9" brick, as well as other sizes and styles can be incorporated into the step construction for added detail. If these are used, they should be bonded to the Garden Walling units which are beneath them using a concrete bonding agent. It is important to allow a cure time for the bonding agent and to stabilize the units while curing.



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