Rules of thumb

- For walls over 4' a geo-grid fabric should be installed.
- For fieldstone boulder walls, a woven fabric is commonly used as a filter to prevent the soil from washing out the face of the wall. This wall does not use drainage rock.
- An architect's drawing is required for large walls, and a professional retaining wall installer should be hired.
- Product manufacturers will have installation manuals with their products. Please read the manufacturer's instructions on installing the wall before attempting the project.

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INSTALL A RETAINING WALL

Design: Retaining walls are used for elevation changes in the landscape. By choosing a retaining wall material that compliments the landscape, the house or your personal style you can add texture, aesthetic value, and a practical solution for increasing living space or correcting drainage problems in the landscape. Choose a line that will compliment the landscape and the architecture of the house while serving the intended purpose.

Plan: For straight walls, use a string line pulled taut and paint a line on the ground. For curved walls use a hose to lay out the area and paint alongside of the hose. The line will serve as guide when you start to excavate the area. At this point envision the wall installed and decide if the location will serve the original purpose. Does it look proportionate to the surrounding hardscaping features in the landscape and the house? Measure the length of the wall and multiply it by the height of the wall, taking into consideration any elevation changes. This will give you the square facial feet of wall material you will need. After choosing the materials, follow these directions for a successful installation.

Excavation: Base preparation is the most important step in this whole process. Start by excavating an area at least 12" deep and 24" wide on the line that was painted in the previous step. For block units that are 6" or larger, use the ratio of 1" deeper than the recommended 12" for every 8' height of wall.

Base Material: Fill the excavated area with 6" of a crushed material: crushed concrete, ¾" crushed rock, angular material, nothing round. Round rock will act like ball bearings and roll when under pressure, causing the wall to bow or collapse.

Compaction: Use a sheep's-foot compactor, plate compactor, or, for smaller walls, use a hand-operated plate compactor. Level the base material and compact again. Pay close attention to this step. The material should be compacted to the point you could step on it and not make an impression. Use a transit or a long level to level the gravel material. Use crushed sand for any adjustments. Crushed sand is a small granular material that will make leveling the area easier but should be compacted as firmly as the previous layer.

Setting the first course: Start by placing the block or stone at the lowest elevation in the wall. This will simplify the stepping-up process for walls that are on a slope. Lay the first course flat on the base material. Level the block or stone side to side, front to back and corner to corner. This step may take some time but is

extremely important for the wall building project to be successful. Place the next unit beside the first and level that unit according to the level of the first. For straight walls use a string line on the straightest part of the block or stone to keep the wall straight. Continue this process until the first layer of wall is installed. For block follow the manufacturer's specifications for stepping up the wall, corners, and curves.

Backfill: Use a ¾" crushed rock to backfill this course of block for drainage purposes. Sweep the block or stone clean to prevent any spaces when installing the next course. Continue installing the levels of block or stone and backfill with rock at each course. Compact each level of backfill before starting on the consecutive course. The top 6" of backfill can be black dirt. This layer is for the sod or plant material that will be planted there.

Caps: Finish the wall with the manufactured cap or for stone walls use a larger thinner piece of stone. This layer is commonly attached with an adhesive to prevent it being removed or tipping when walked on.