



# SmartSlope

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## **Living Retaining Walls Basic Installation Guide**

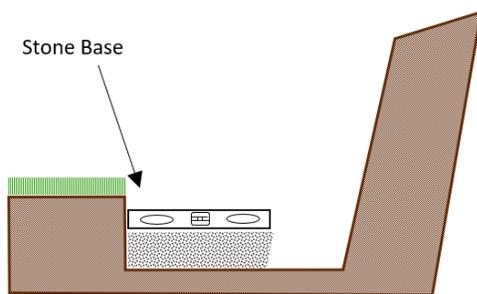
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## Introduction

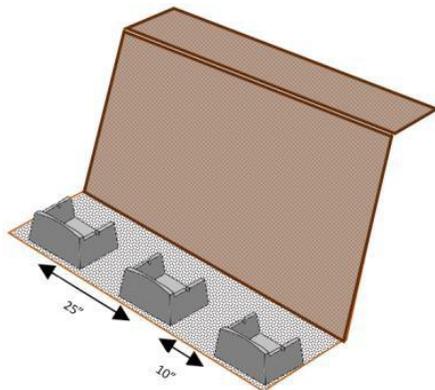
SmartSlope is a “living retaining wall” that is comprised of open-celled modules, that, when stacked in a checkerboard pattern create large planting pockets. The installation of SmartSlope is similar to the installation of non-vegetated segmental retaining walls. SmartSlope is incredible easy to stack, level, backfill and plant.

## Installation – Gravity Wall



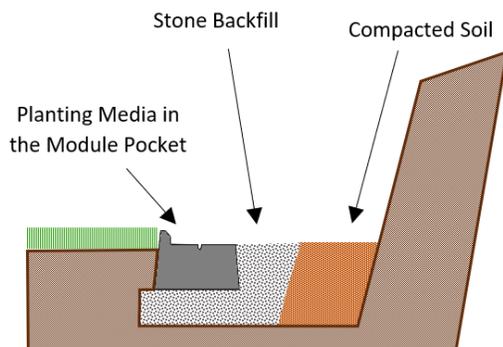
### 1. Preparing the Leveling Pad

Remove surface vegetation. Excavate soil for the backfill zone and stone leveling pad to the design depth (typically minimum 6"x27" suggested) Depending on the height of the wall, we suggest excavating enough so you can place at least one course (6") below grade. Construct the stone leveling pad to the lines and grades on the plans. Compact to at least 95% proctor.



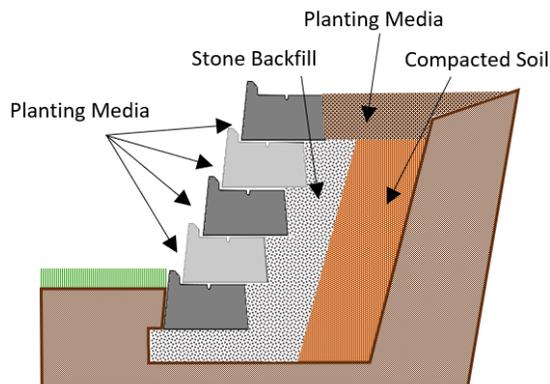
### 2. Installing the Base Course

Install the first course of modules on the leveling pad. Be sure to level front-to-back and side-to-side. On straight runs place modules at 25-inches on center (10-inch space between modules). To ensure proper spacing, we suggest using pre-cut dowels between modules. On convex radii sections, start the modules at 10 inches apart and allow the spacing to decrease with each lift. On concave radii sections, start the spacing at less than 10 inches and allow the spacing to increase.



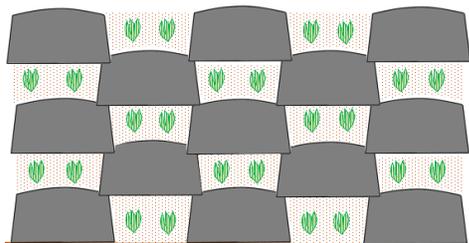
### 3. Backfill & Compaction

As each course is laid, fill the modules and the space between modules with planting media. Do this as each course is laid to ensure the maximum amount of planting media ends up in and between the modules. Behind the modules, place the specified backfill in maximum 6-inch compacted lifts. We suggest using stone backfill directly behind the modules and specified soil beyond that. Compact to achieve at least 95% standard proctor density. (Note: use only a vibratory plate compactor within 4 feet of the module. Do not use jumping jack type equipment)



#### **4. Installing Additional Courses**

Screed off the rail tops so the next course can sit evenly. Place modules for additional courses on the rails of the two modules below it, creating a checkerboard pattern. After each additional course is installed, fill modules with planting media and backfill. If you are installing irrigation, place standard tubing in the slots provided on the side rails; place next course on top to hold the tubing in place. Be sure to review the level and appearance of the wall every 2<sup>nd</sup> or 3<sup>rd</sup> course.

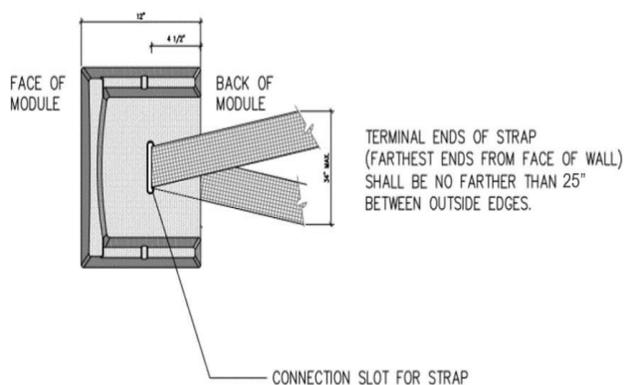


#### **5. Planting the Wall**

Once the wall is built, brush off the face of the system. Insert the desired plant or plug into each pocket - one to three plugs depending on plug size and desired coverage. Be sure to center the plants in the "sun receiving" area. Exercise care to minimize the spillage of media out of the wall face. One planting is completed, either water the wall or turn on irrigation to help them settle.

### **Installation – Reinforced Wall**

For reinforced SmartSlope walls, please follow the steps above for preparing the leveling pad, installing the base course, stacking additional courses, and planting. If a specific material for the leveling pad and backfill is specified by a wall design expert, use that material.



#### **For a Reinforced SmartSlope Wall**

Install SmartStrap on courses as required by the wall design engineer. Before adding backfill behind these specified courses, cut the SmartStrap to twice the design length plus 1 foot for the wrap-around of the modules bottom (e.g. for a 5' design length, cut 11' strap). As the modules of a reinforced course are placed, thread the strap through the slot in the bottom of the module, pull it through until the tails are even lengths. Pull the strap back to design depth and spread the tail ends to be 25 inches on center (+/-4 inches). Start placing backfill, to ensure the straps do not shift, hold the straps in place and set the first scoops of backfill on the ends of the strap. Once all the backfill for that course is placed, compact, and continue normally.

## Additional Figures

Figure 1: Module Configuration

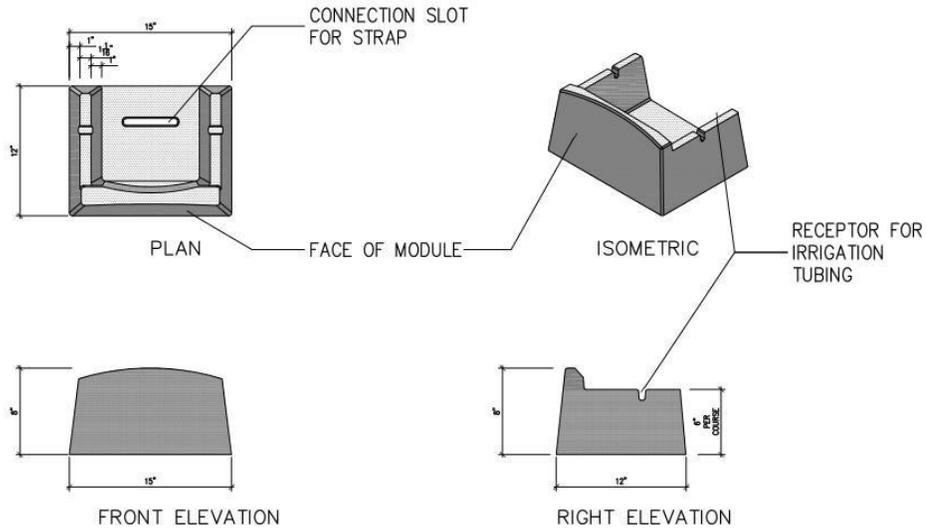
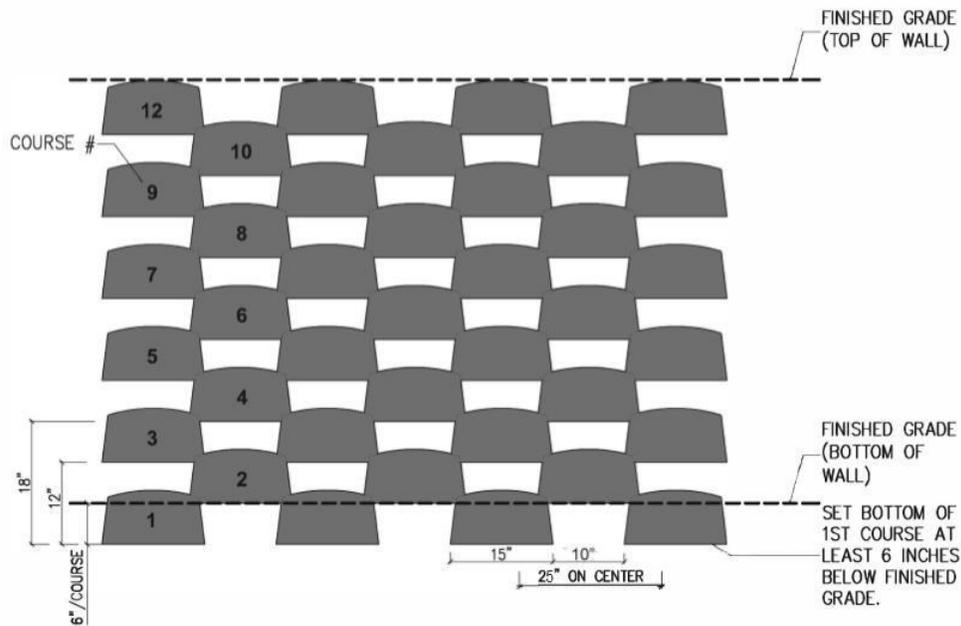
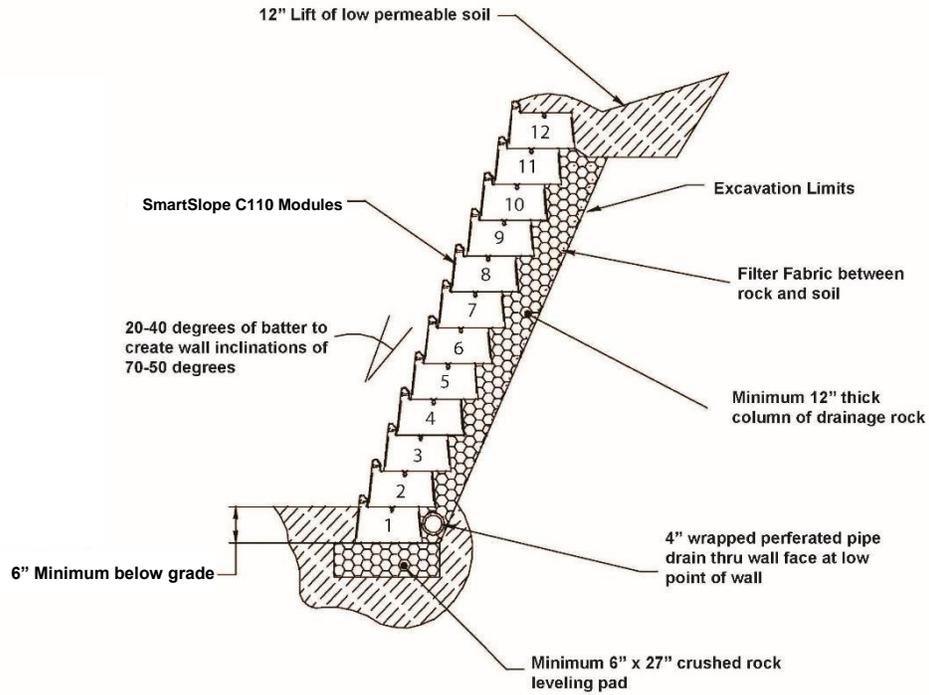


Figure 2: Elevation Profile



**Figure 3: Gravity Wall**



**Figure 4: Reinforced Wall**

