

VERSA-Grid 1.5 Soil Reinforcement Installation Instructions

Before proceeding, please obtain a copy of the *VERSA-LOK Standard or Mosaic Design & Installation Guidelines* and, if installing curves or corners, a copy of *VERSA-LOK Technical Bulletin #3 – Curves and Corners*. Thoroughly review all design and construction fundamentals and begin wall construction according to the guidelines illustrated in these documents. Use the following instructions when it is time for placement of soil reinforcement.

Prepare to install VERSA-Grid 1.5 by placing VERSA-LOK units, backfilling and compacting up to the height of the first (lowest) soil-reinforcement layer specified on final, professionally engineered construction drawings (Figure 1).

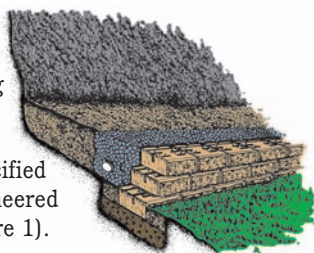


Figure 1

Lay VERSA-Grid 1.5 on top of the compacted backfill and VERSA-LOK units. For lengths up to 4 feet, VERSA-Grid 1.5 may be installed either perpendicular or parallel to the wall. For lengths over 4 feet, VERSA-Grid 1.5 must be cut to specified length and installed perpendicular to the wall. Keep the grid 1 inch behind the front face of the wall so that it completely covers the holes and slots in the VERSA-LOK units (Figure 2).

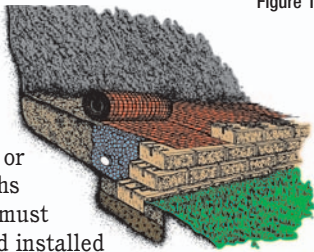


Figure 2

Note: Placing soil reinforcement behind curves and corners requires special layout and overlapping procedures. Never overlap soil-reinforcement layers directly on top of each other. Slick surfaces of the grid will not hold in place properly when placed directly next to each other. Always provide at least 3 inches of soil fill between overlapping grid layers. See illustrations in *VERSA-LOK Technical Bulletin #3* for correct placement of VERSA-Grid 1.5 in curves or corners.

Correctly position the next course of VERSA-LOK units on top of the grid. Insert VERSA-TUFF Pins and drive them through the grid into the receiving slots of the adjacent lower-course units. Use an extra pin and a mallet to make sure the pins are firmly seated in the lower-course units.

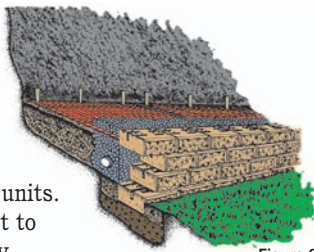


Figure 3

Place drainage aggregate against back of units and on top of VERSA-Grid 1.5. Remove slack by pulling the grid backward from the wall face and anchoring at back edge (Figure 3). Beginning at the drainage aggregate, place and compact soil backfill. Keep grid taut and avoid wrinkles (Figure 4).

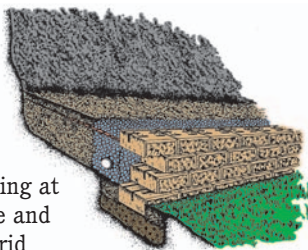


Figure 4

Place a minimum 6-inch layer of soil backfill before using any rubber-tired or tracked equipment on top of the VERSA-Grid 1.5 area. Prevent fill movement and grid damage by driving equipment slowly and turning gradually. Use only hand-operated compaction equipment within 3 feet of the wall face to avoid excessive equipment loads and possible movement of wall units.

Continue placing additional courses, drainage material, compacted soil backfill and VERSA-Grid 1.5 according to final construction drawings. Do not stack more than 1.5 feet without backfilling. At wall top, place and compact a 12-inch layer of impervious fill over the drainage aggregate, install cap units and complete final grading.

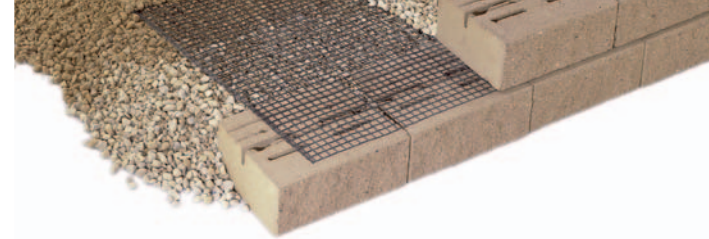
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VERSA-Grid® 1.5

Soil reinforcement for segmental retaining walls
up to 6 feet in height

Features

- No memory, lays flat
- Bi-directional strength
- High-tenacity polyester fibers
- Convenient 4 ft. x 50 ft. roll

Benefits

- Quick and simple to install
- Installs perpendicular or parallel to wall face
(When specified grid lengths exceed 4 feet, VERSA-Grid 1.5 must be installed perpendicular to wall face.)
- Resists chemicals and is inert to biological degradation
- Efficient for segmental retaining walls up to 6 feet in height


VERSA-LOK®
Retaining Wall Systems
Solid Solutions™



When the weight of retaining wall units alone is not enough to retain soil loads, VERSA-Grid 1.5 provides soil reinforcement necessary to stabilize walls. Properly designed, walls reinforced with VERSA-Grid 1.5 may be economically constructed to heights up to 6 feet.

VERSA-Grid 1.5 is engineered for durability and long life. It's composed of high-molecular-weight, high-tenacity, multifilament polyester yarns. It's also inert to biological degradation and is resistant to naturally occurring chemicals, alkalis and acids.

VERSA-Grid 1.5 is lightweight and easy to install. It's flexible, with virtually no memory, so it lays flat after being unrolled. In addition, VERSA-Grid 1.5 comes in easy-to-handle 4' x 50' rolls.

IMPORTANT – PLEASE READ

Retaining wall designs vary significantly with different site, soil and loading characteristics. Therefore, VERSA-Grid 1.5 should not be used on any projects that do not exactly meet the assumptions of these drawings—including taller walls, walls with steeper slopes, walls with larger loads, shoreline applications, and tiered walls. If your project varies from these drawings in any way, contact your local VERSA-LOK Retaining Wall Systems representative for other soil-reinforcement options or call us at (800) 770-4525.

The drawings in this guide apply only to VERSA-Grid 1.5 geogrid used in conjunction with VERSA-LOK Standard or VERSA-LOK Mosaic Retaining Wall Systems and VERSA-TUFF or VERSA-TUFF Snap-Off Pins. Do not use these drawings as guides for any other soil-reinforcement material or any other retaining wall products.

These drawings assume the following conditions:

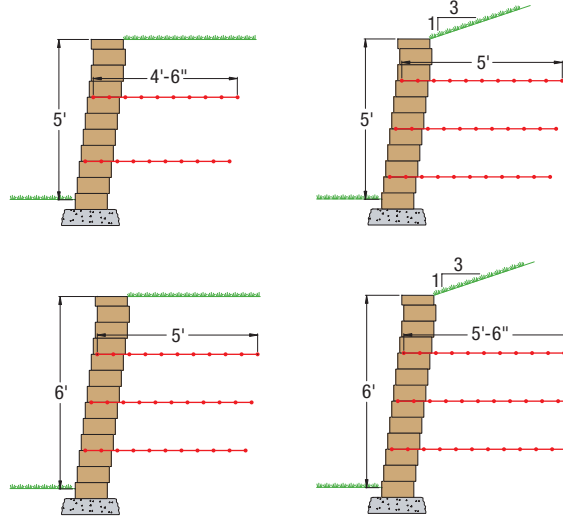
- Stable foundation soils
- Proper compaction
- No groundwater above the wall base
- Soils with minimum internal friction angle of 28 degrees
- Soil weight of 120 pcf
- No additional loading (including loading that may be caused by tiered retaining walls)

Slopes must not be steeper than 3:1 (horizontal:vertical). If light car traffic will be present (not to exceed a uniform 100 psf) AND the traffic will be at least 2 feet behind the back of the wall AND the backfill is level, VERSA-Grid 1.5 design guidelines will be similar to those shown in the SLOPING BACKFILL drawings.

The drawings presented here are for estimating purposes only. Users are responsible for verification of site conditions, obtaining necessary final designs from a qualified, licensed civil engineer, and complying with all local building codes.

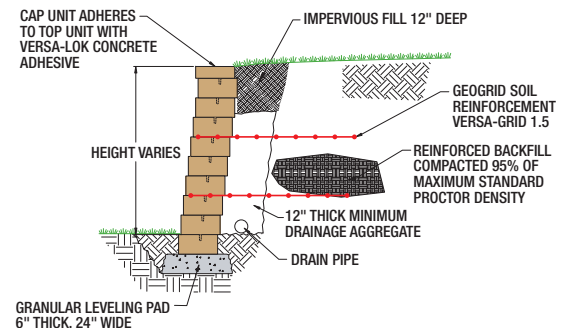
VERSA-Grid® 1.5 used with **VERSA-LOK® Standard** retaining wall units and **VERSA-TUFF®** Pins

These drawings illustrate proper location, spacing and length of VERSA-Grid 1.5 with VERSA-LOK Standard Retaining Wall Systems in several height and backfill conditions. The left column depicts walls with level backfill. The right column depicts walls with sloping backfill not exceeding a 3:1 (horizontal:vertical) slope. Complete *VERSA-LOK Standard Design & Installation Guidelines* are available free by calling (800) 770-4525 or online at www.versa-lok.com.



LEVEL BACKFILL

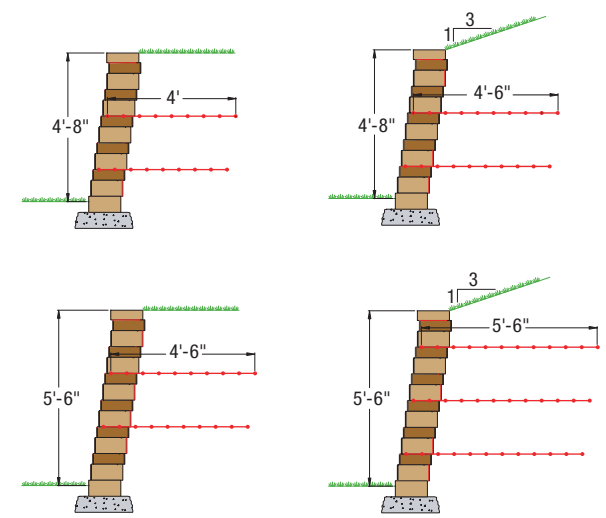
SLOPING BACKFILL



VERSA-LOK STANDARD WALL COMPONENTS

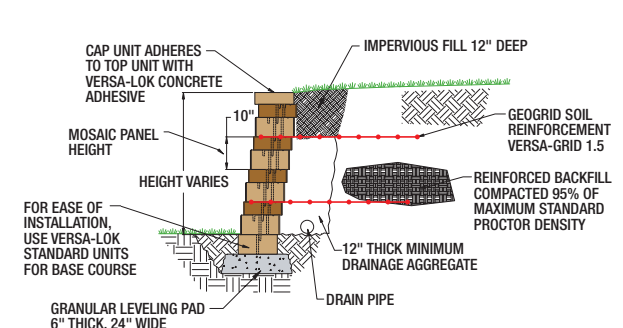
VERSA-Grid® 1.5 used with **VERSA-LOK® Mosaic** retaining wall units and **VERSA-TUFF®** Snap-Off Pins

These drawings illustrate proper location, spacing and length of VERSA-Grid 1.5 with VERSA-LOK Mosaic Retaining Wall Systems in several height and backfill conditions. The left column depicts walls with level backfill. The right column depicts walls with sloping backfill not exceeding a 3:1 (horizontal:vertical) slope. Complete *VERSA-LOK Mosaic Design & Installation Guidelines* are available free by calling (800) 770-4525 or online at www.versa-lok.com.



LEVEL BACKFILL

SLOPING BACKFILL



VERSA-LOK MOSAIC WALL COMPONENTS