

*INSTALLATION MANUAL*

***TREMCO***<sup>®</sup>

**VR LITE**

**EXTENSIVE  
THIN LIGHTWEIGHT BUILT-UP SYSTEM**

**1- VR RootBloc 10 or VR RootBloc 40**

(NOTE: For both conventional & inverted roof assemblies.)

- a. Install VR RootBloc 10 or VR RootBloc 40 over the roofing membrane. Lap all joints by a minimum 4" (100 mm).

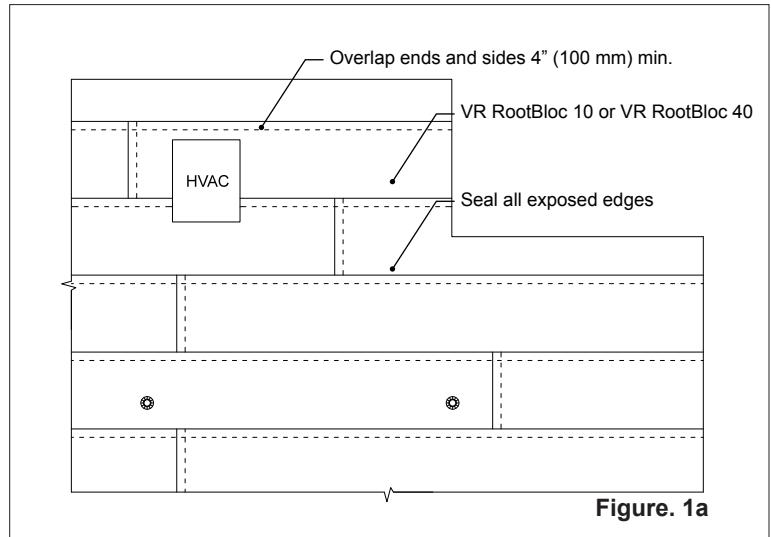
For VR RootBloc 10, seal all seams continuously with VR TecTape 2.  
 For VR RootBloc 40, seal all seams continuously with VR TecTape 4 or with heat welding.

- b. Bring the VR RootBloc 10 or VR RootBloc 40 up all projections and parapets within the designated green roof area, at least 1" (25 mm) above the finished soil level. Secure with VR TecTape 2 or VR TecTape 4 respectively, creating an uninterrupted seal between the root barrier and the projections or parapets within the designated green roof area.

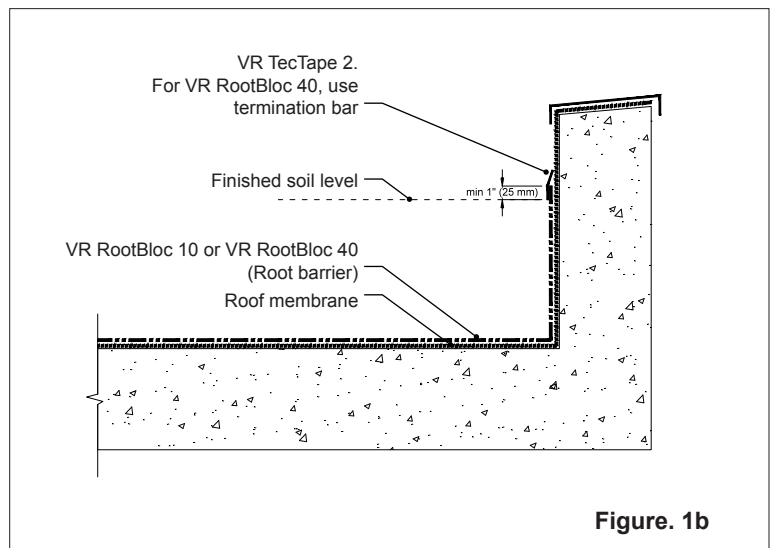
When installing VR RootBloc 40, DO NOT pull too tightly at corners, to allow the material room to expand and contract with temperature.

VR RootBloc 40 must be secured to parapets with VR TecTape 4 or termination bars.

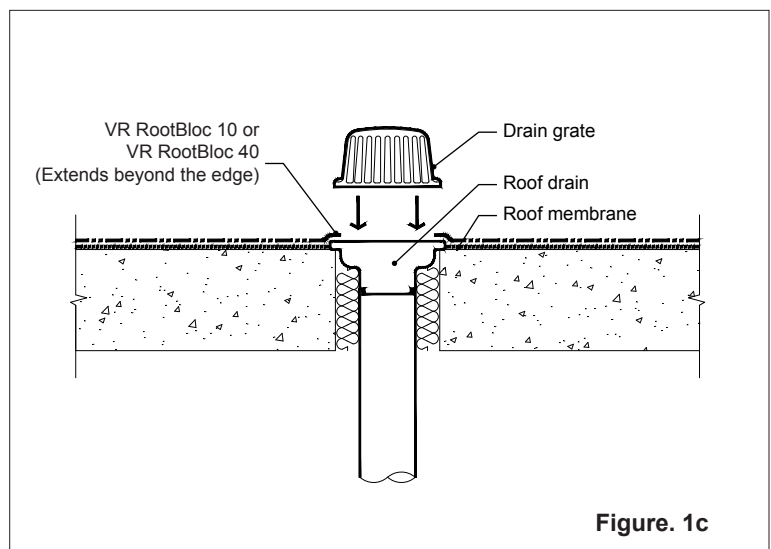
- c. In the case of roof drains, remove the drain grate and ensure the VR RootBloc 10 or VR RootBloc 40 extends beyond the edge of the clamping flange. Cut a hole in the VR RootBloc 10 or VR RootBloc 40 sufficient in size to allow for uninterrupted drainage. Clamp the grate back onto the clamping flange.



**Figure. 1a**



**Figure. 1b**

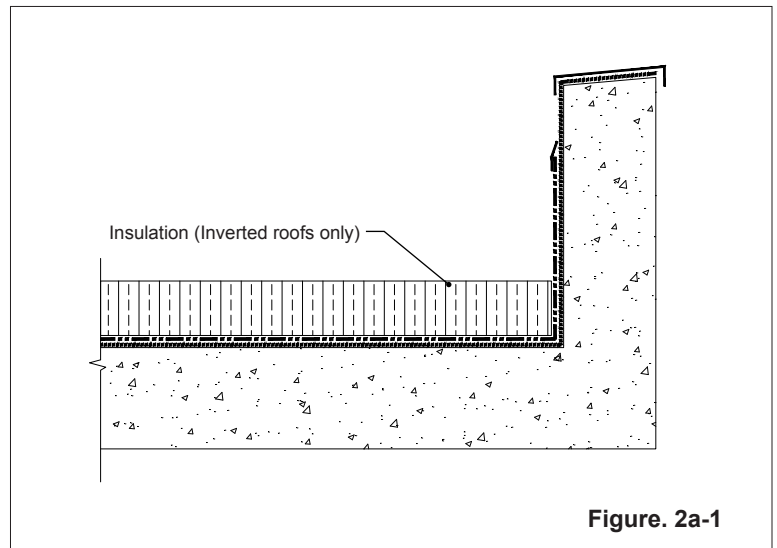


**Figure. 1c**

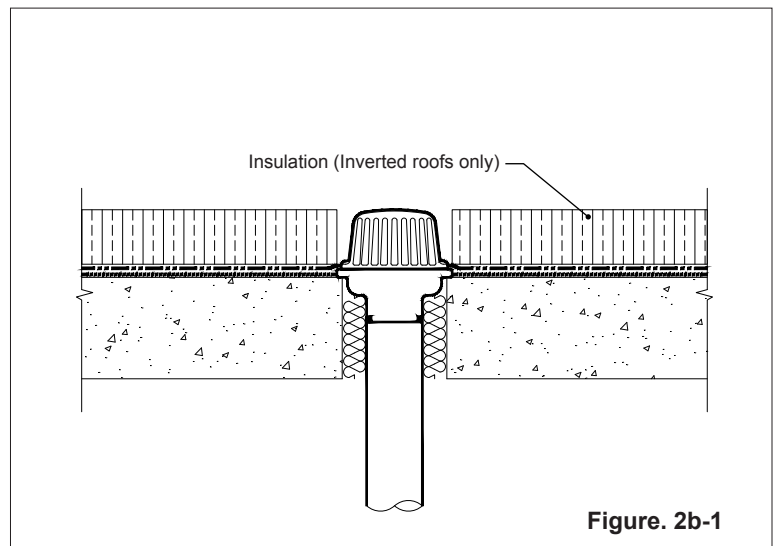
## 2- Insulation (Option 1)

(NOTE: This step is required if an inverted roof system is used. Otherwise proceed to Option 2.)

- a. Lay insulation in parallel courses, staggering end laps and side laps. Do not force into place.



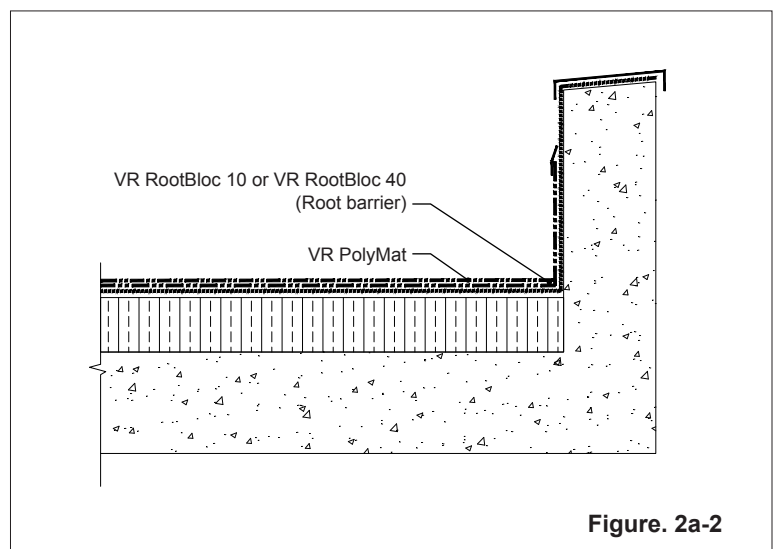
- b. Cut insulation to fit neatly at projections and terminations with less than 1" (25 mm) tolerance.



## 2- VR PolyMat (Option 2)

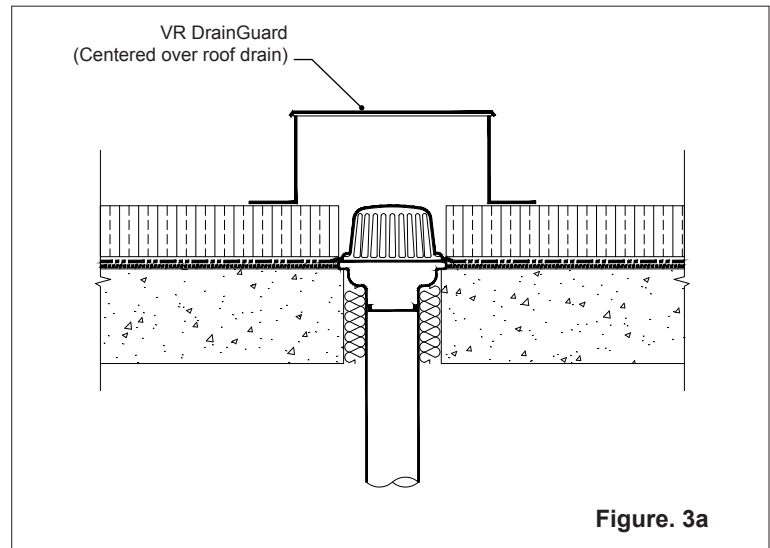
(NOTE: This step is required if a conventional roof system is used.)

- a. Lay VR PolyMat over the VR RootBloc 10 or VR RootBloc 40 and cut it to fit neatly at projections and terminations with less than 1" (25 mm) tolerance.



**3- VR DrainGuard 4**

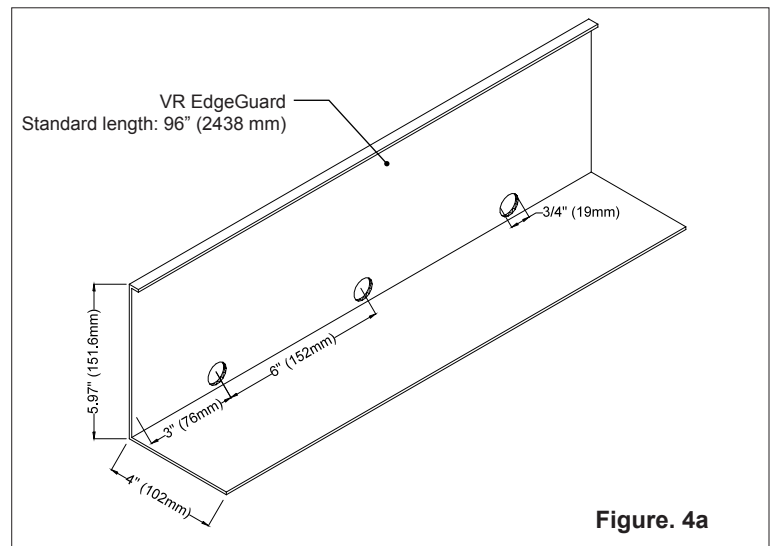
- a. Install VR DrainGuard 4 centred over roof drains either on top of the insulation (inverted roof system) or the VR PolyMat (conventional roof system).
- b. Place lid over tabs, apply lock-out tags, ensuring they show the current date.



**Figure. 3a**

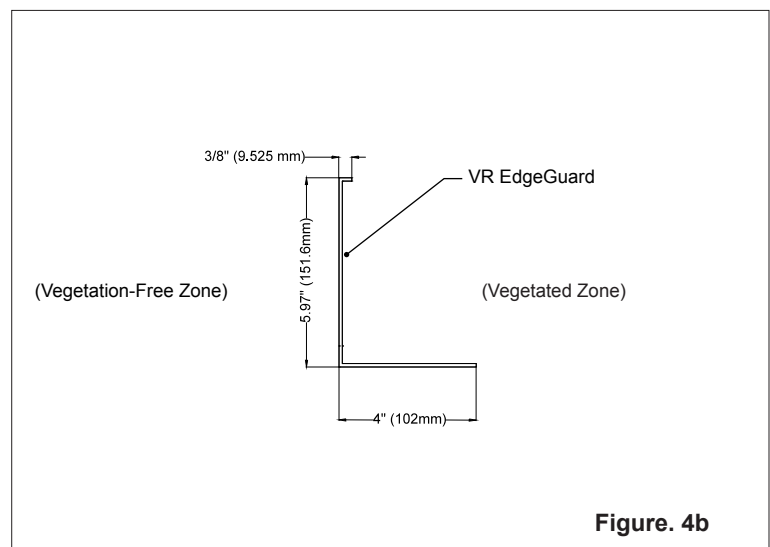
**4- VR EdgeGuard 4**

- a. Install VR EdgeGuard along perimeter border between vegetation-free area and vegetated area as per plans and drawings.



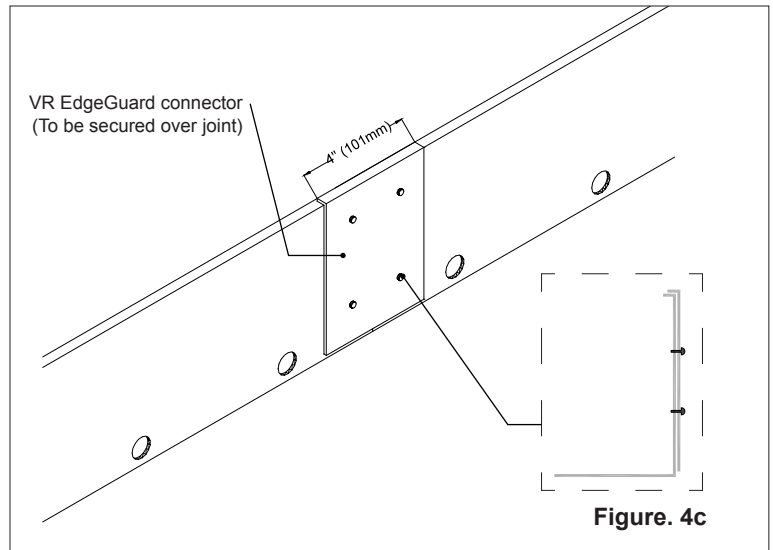
**Figure. 4a**

- b. Ensure flange of edging restraint is facing the vegetation.

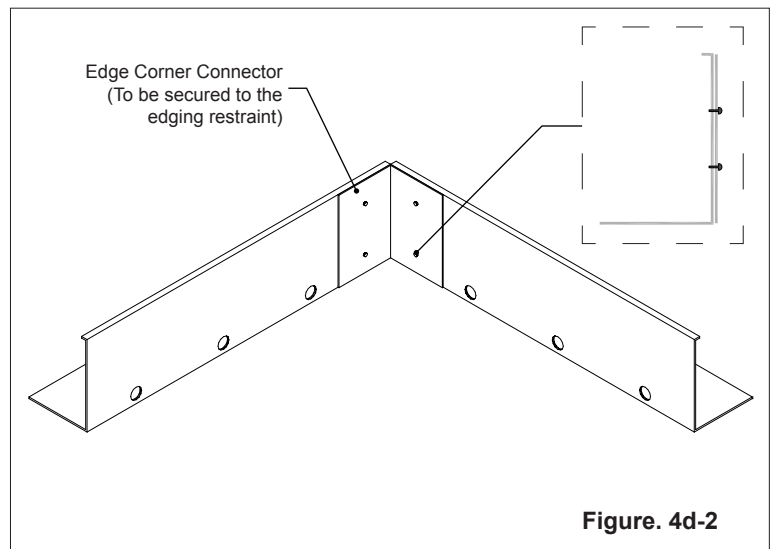
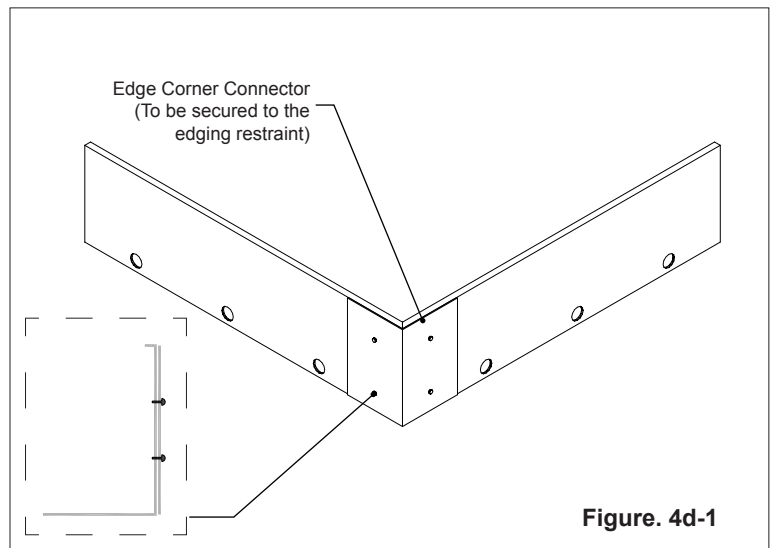


**Figure. 4b**

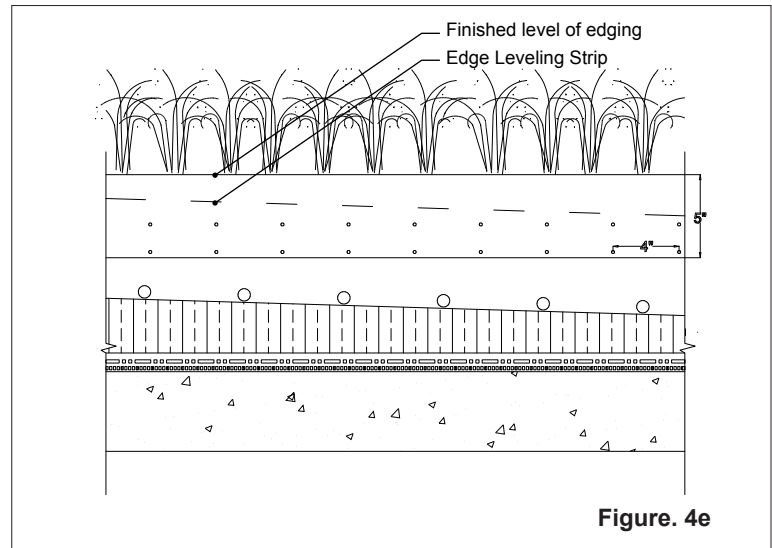
- c. When joining two sections together, ensure a tight fit at all joints. Place edge connector piece on vegetation-free side of edging restraint, making sure to overlap evenly with both ends of joints. Secure with self-tapping screws as per diagram. See Figure 4c.



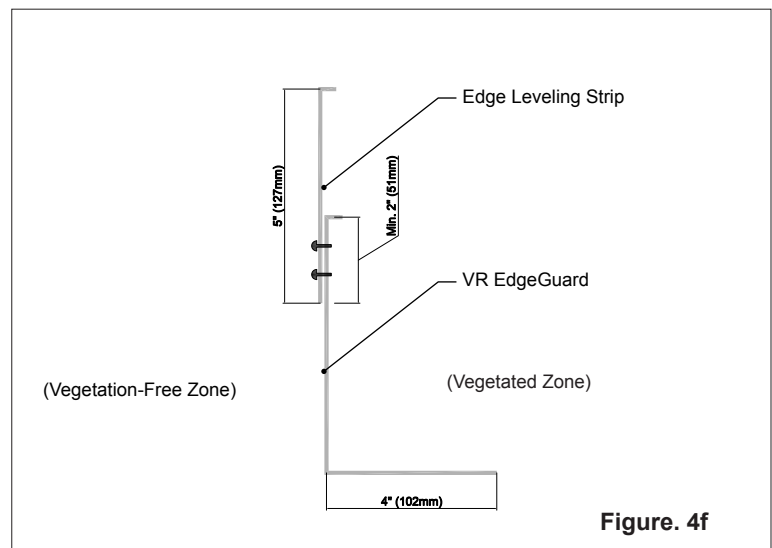
- d. Install corners after long sections. Miter flange and lip of edging restraints at corners. Place edge corner connector on vegetation-free side of edging restraint, at the corners. Secure corner piece with self-tapping screws as per diagrams. See Figure 4d-1 for outside corners and Figure 4d-2 for inside corners.



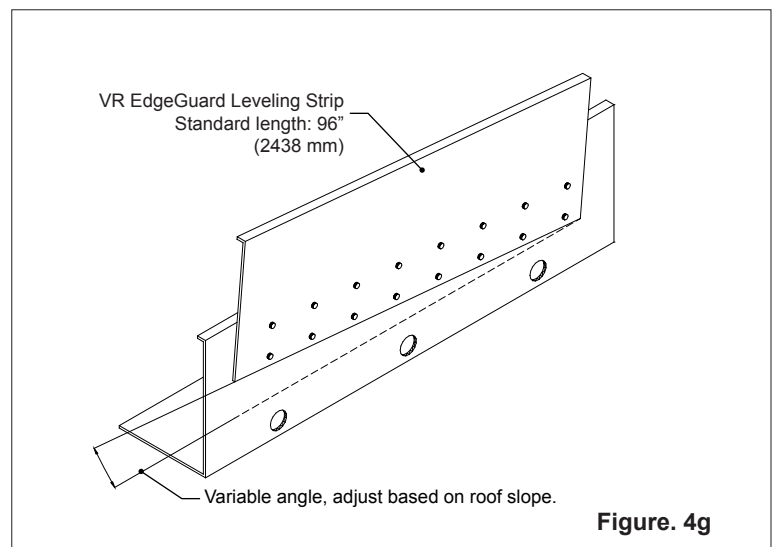
- e. A leveling strip is available if a level grade is desired. When using the leveling strip, lift and level top of leveling strip to desired height. See Figure 4e.



- f. Install edge leveling strip on outside of edging restraint, making sure to overlap the bottom of the leveling strip with the top of the edging restraint by a minimum of 2-inch (50 mm). See Figure 4f.

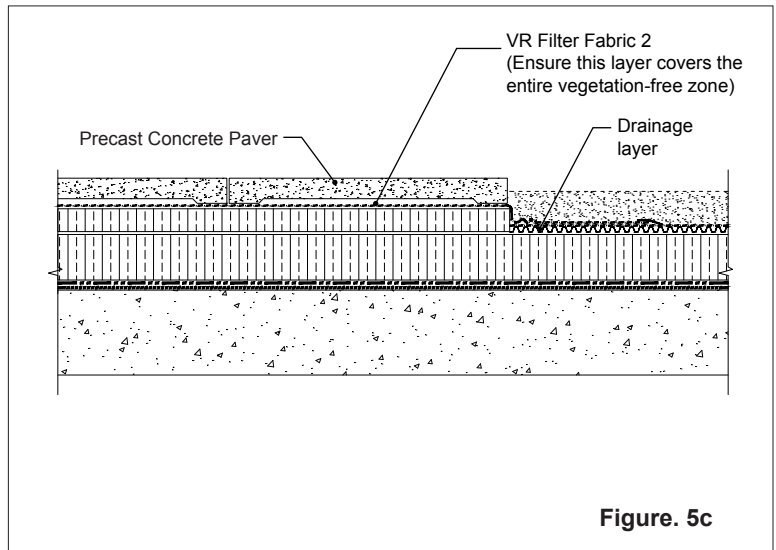


- g. Secure edge leveling strip to VR EdgeGuard with self-tapping screws using pre-drilled guide holes in leveling strip. See Figure 4g.



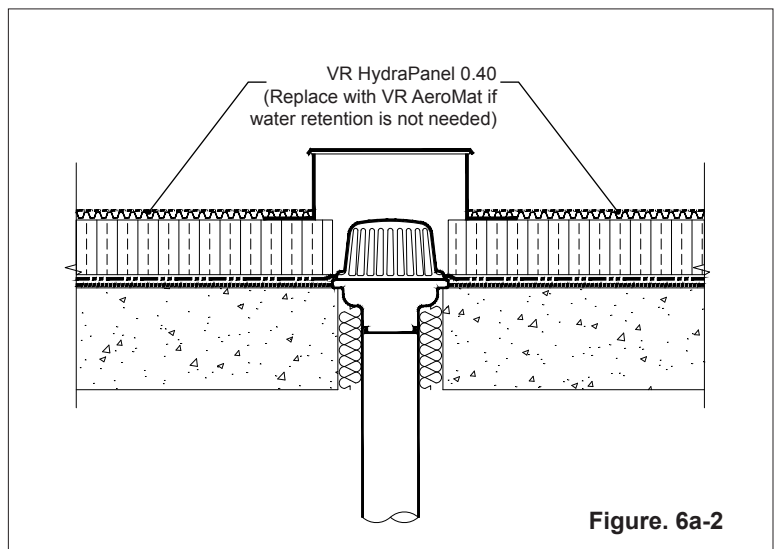
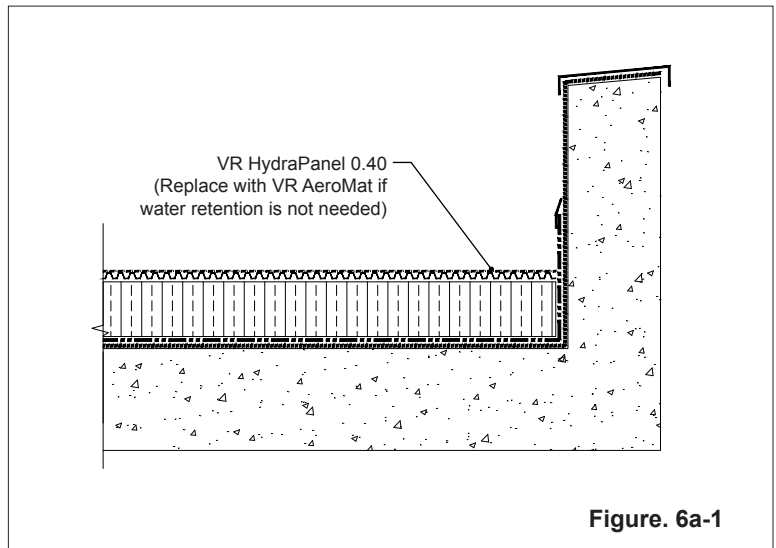
**5- Vegetation Free Zone Preparation (where no edging restraint is used)**

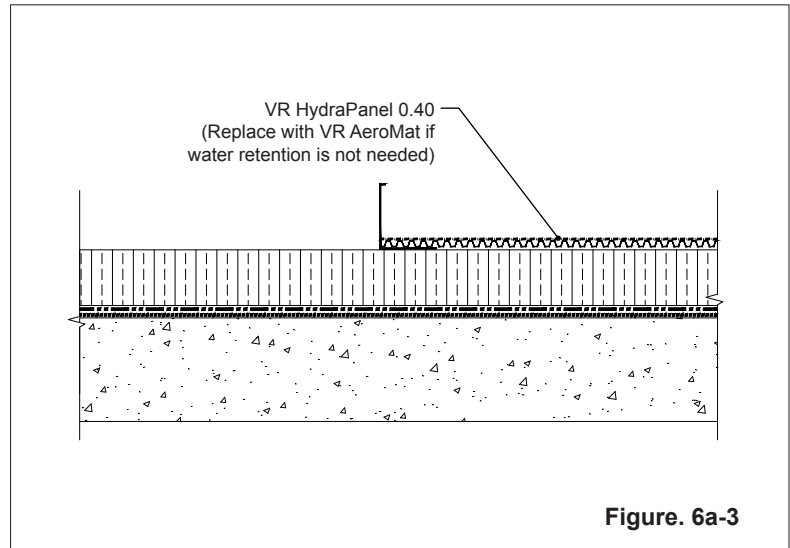
- a. Place an additional horizontal layer of 2" (50 mm) polystyrene insulation around the perimeter of the green roof area.
- b. Ensure the additional layer covers the entire vegetation free zone area.
- c. Bring filter fabric over polystyrene prior to paver installation.



**6- VR HydraPanel 0.40 or VR AeroMat**

- a. Lay VR HydraPanel 0.40 or VR AeroMat sheets, fabric side up, over the base layer of insulation up to the additional layer of insulation in the vegetation free zone, cutting around all projections and edging restraint for a tight fit.
- b. Bond fabric laps with VR TecTape 2.



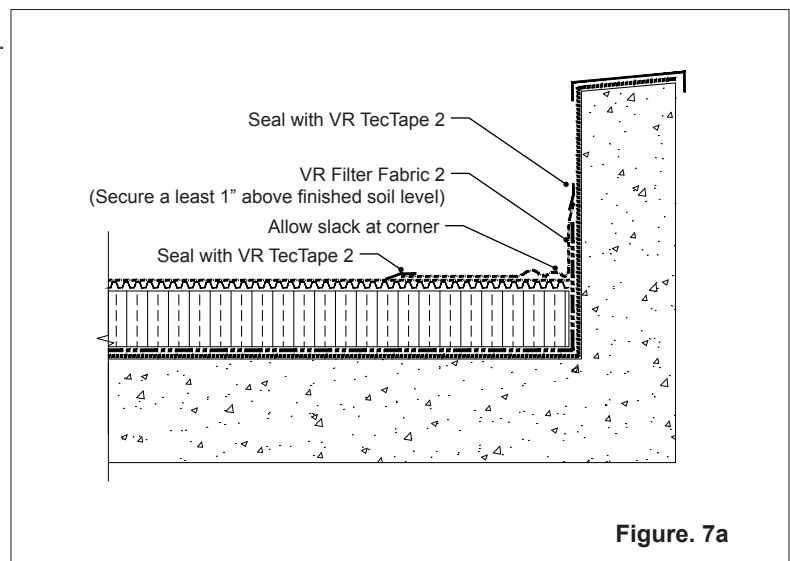


**Figure. 6a-3**

**7- VR Filter Fabric**

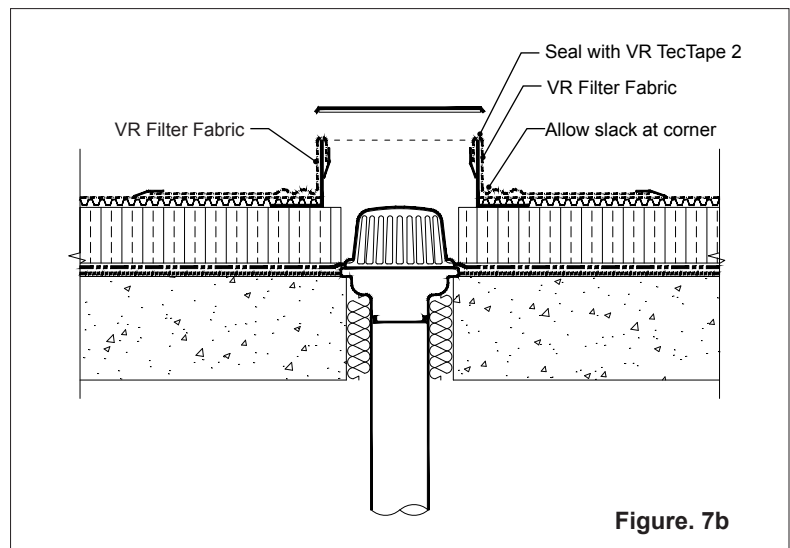
(NOTE: Use perimeter trim fabric for edging restraint. Edging restraint is an option with VR LITE, if not using edging continue to Item 8.)

- a. Install VR Filter Fabric along all perimeters, ensuring it overlaps the VR AeroMat and is sealed with VR TecTape 2. Allow for slack at the corner.



**Figure. 7a**

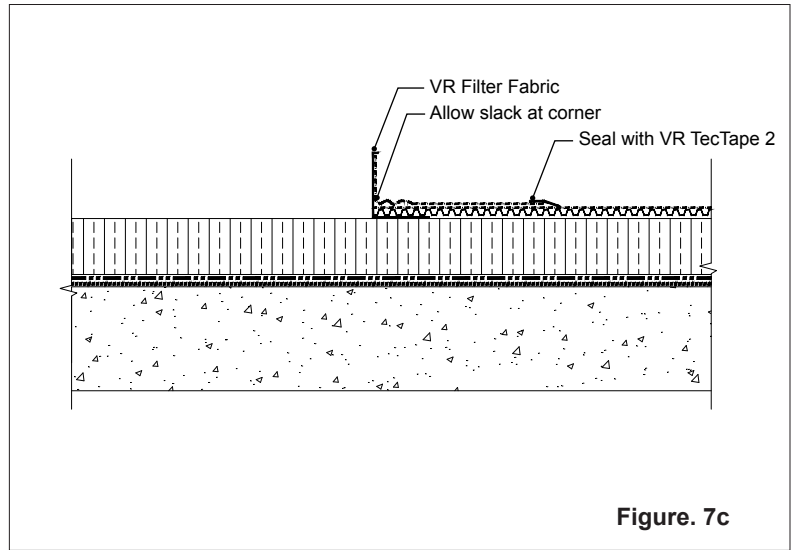
- b. Bring the VR Filter Fabric up all projections within the designated green roof area, at least 1" (25 mm) above the finished soil level. Bring VR Filter Fabric up and over the sidewalls of VR DrainGuard, seal to the inside wall of the VR DrainGuard with VR TecTape 2. Allow for slack at the corners.



**Figure. 7b**

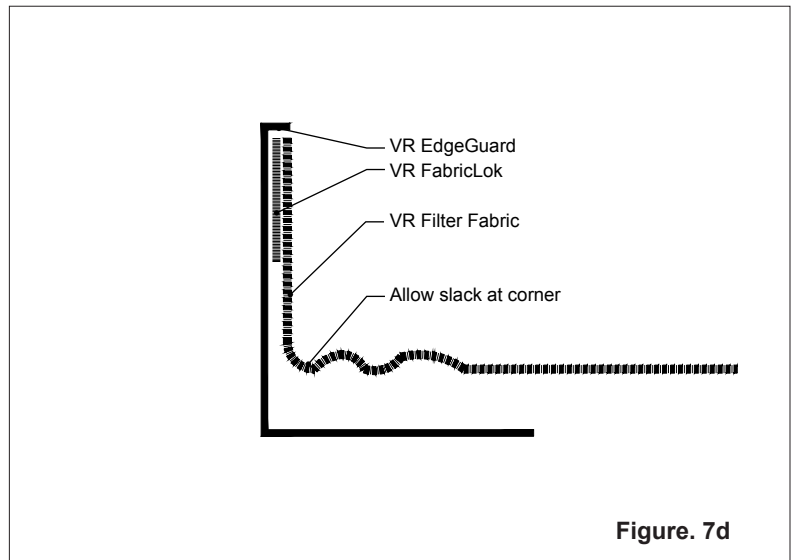


- c. Secure all laps and ends with VR TecTape 2 within the designated green roof area.



**Figure. 7c**

- d. Secure VR Filter Fabric to VR EdgeGuard with VR FabricLok. Allow for slack at the corner.

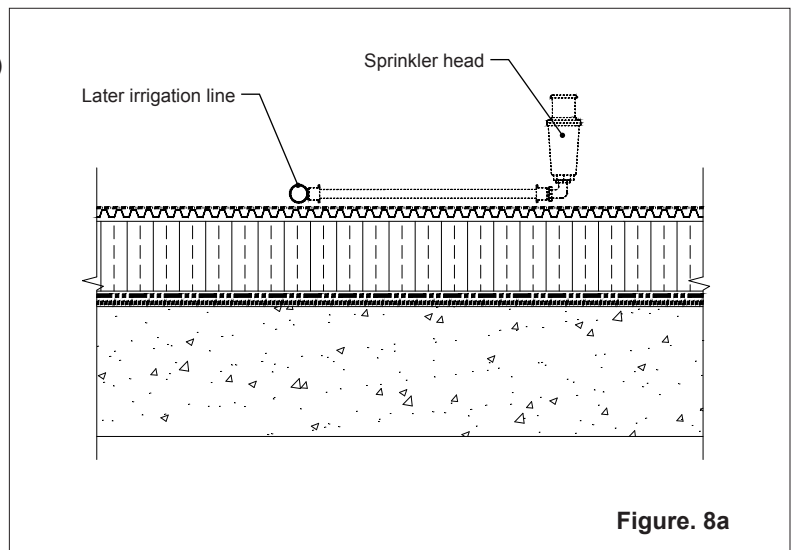


**Figure. 7d**

**8- Irrigation**

(NOTE: If irrigation is not required proceed to Item 9)

- a. Run lateral irrigation lines over drainage layer as per plans and drawings and connect sprinkler heads.
- b. Ensure ingress and egress between the vegetation free zones by piping is fully sealed with VR Filter Fabric and VR TecTape 2 so no VR AeroMix can erode into the drainage area.
- c. Place valves, valve boxes, controller(s), etc... as per plans and drawings.



**Figure. 8a**

**9- VR AeroMix (Growing Media Bulk Bag Option)**

(NOTE: If blower truck is used proceed to Item 10.)

- a. Prior to placement of VR AeroMix, place pavers over VR Filter Fabric in vegetation free zones (See Item 12).
- b. Crane bulk bags to rooftop, taking care to prevent overloading of the structure.
- c. The bulk bag is fitted with a chute at the base for convenient unloading once over the roof.

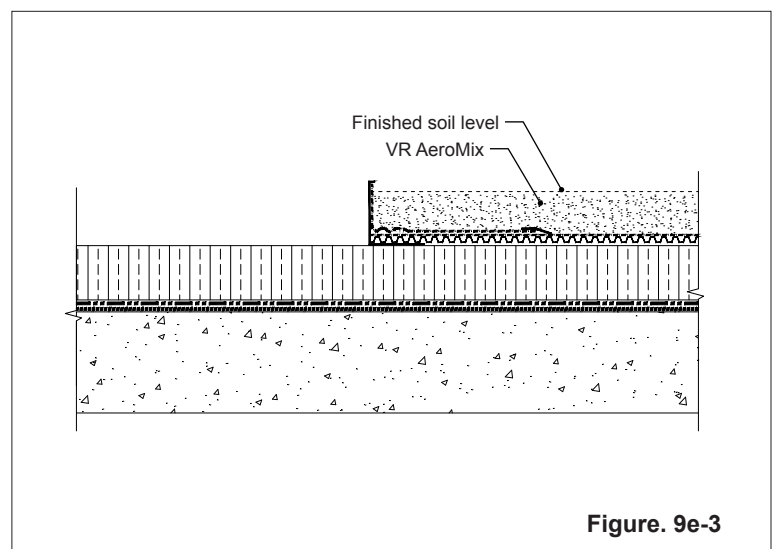
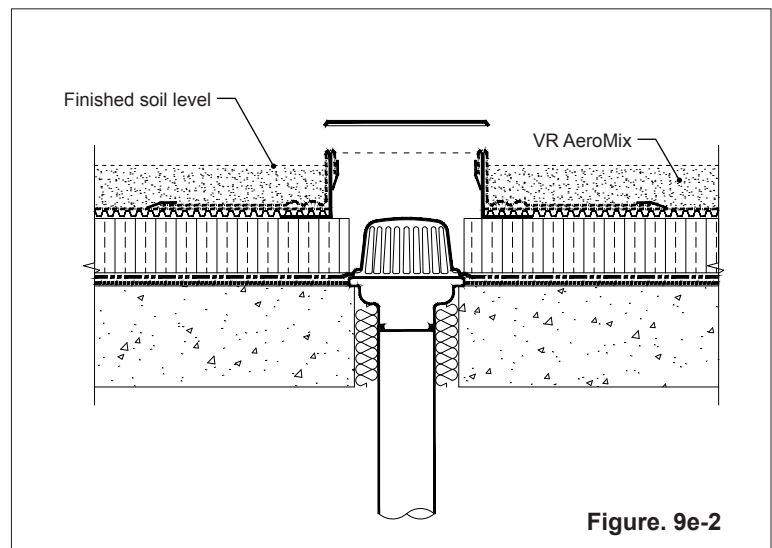
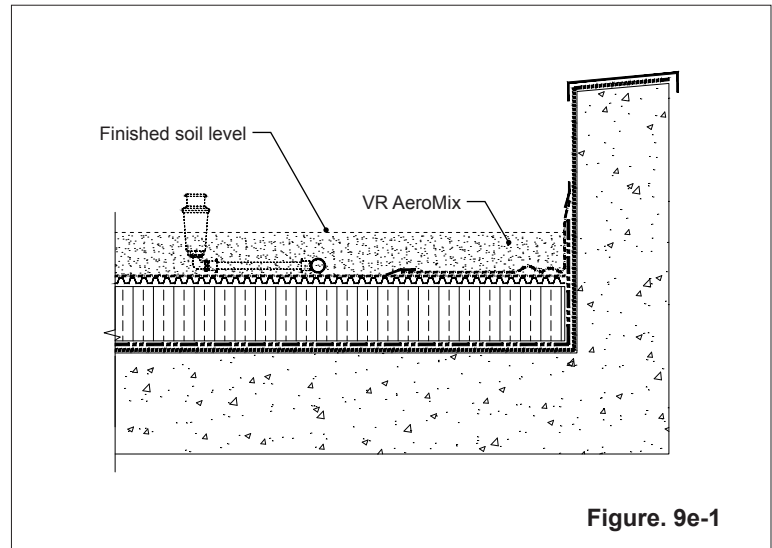
NOTE: The bulk bag provided by Tremco is a single use item.  
(DO NOT RE-USE BULK BAG FOR OTHER PURPOSES.)

- d. Remove the VR AeroMix and spread evenly over the designated areas of the green roof ensuring sufficient depth will be attained after compaction.

(NOTE: VR AEROMIX HAS AN APPROXIMATE COMPACTION FACTOR OF 15%.)

(NOTE: PREVENT DIRT POLLUTION IN VEGETATED FREE ZONE.)

- e. Lightly wet and then compact the VR AeroMix with a 55 pound (25 kilogram) hand roller. See Figure 9e-1, Figure 9e-2 and Figure 9e-3.



## 10- VR AeroMix (Growing Media Blower Truck Option)

- a. Prior to placement of VR AeroMix, place pavers over VR Filter Fabric in vegetation free zones (See Item 12).
- b. Blower Truck Minimum Requirements:
  - Must be a truck-mounted, integrated, pneumatic blower unit.
  - In order to ensure accuracy, the unit should be powered by its own separate diesel power unit, not PTO driven, and equipped with at least one computer-controlled supplemental granular injection system.
  - Injection system must calculate according to RPMs of the internal airlock feeder and not percentages, in order to ensure accuracy of injection rates.
  - The unit must be capable of uniformly applying materials and injected products at a rate greater than 15 yd<sup>3</sup>/hour (11 m<sup>3</sup>/hour) at least to a vertical limit 150 feet (45 m) and must also be equipped with an application hose capable of extending 300 feet (91 m) from the blower truck.
- c. Ensure VR AeroMix is spread evenly over the designated areas of the green roof ensuring sufficient depth will be attained after compaction.  
(NOTE: VR AeroMix HAS AN APPROXIMATE COMPACTION FACTOR OF 15%.)  
(NOTE: PREVENT DIRT POLLUTION IN VEGETATION FREE ZONE.)
- d. Lightly wet and then compact the VR AeroMix with a 55 pound (25 kilogram) hand roller.

## 11- Vegetation and Erosion Control

- a. Where cuttings are used, spread cuttings over growth media at the prescribed rate. Water thoroughly and install VR TerraHold Erosion Control Netting (See Item 11a).

Where potted or plug plants are used, install VR TerraHold Erosion Control Netting first (See Item 11b). Cut holes in netting sufficient in size to plant through. Dig a hole in excess of the size of the root ball after extracting it from the pot. Lightly cover root ball, ensure plants are planted to their full root depth and gently tamp in place.

Where pre-grown sedum succulents are used in mat form, lay pre-vegetated mats over the growing media, ensuring edges are firmly butted together. Trim to fit neatly around projections and edges.

- b. VR TerraHold Erosion Control Netting (Only required where pre-vegetated mats are not used.)
  - VR TerraHold Erosion Control Netting to be installed as indicated on drawings and details.

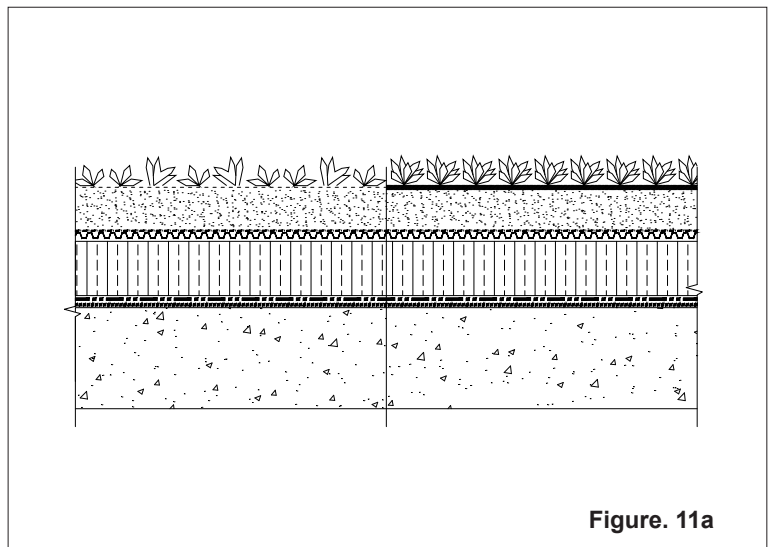
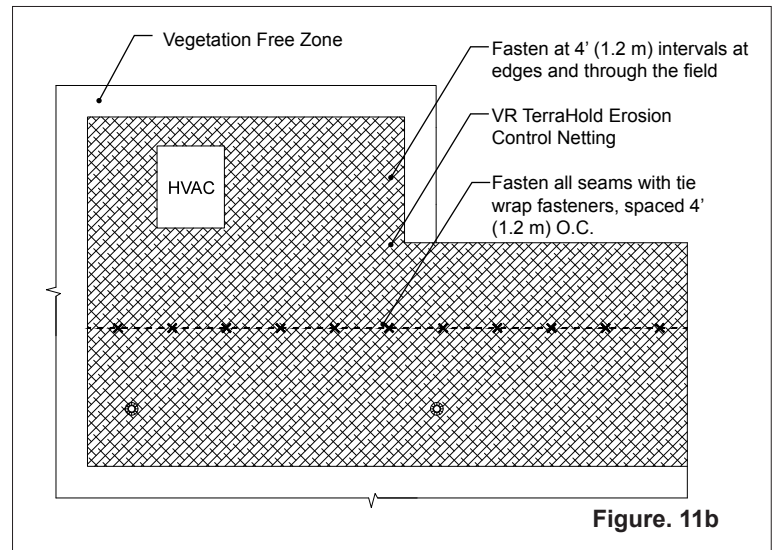


Figure. 11a

- After growing media is installed, stretch VR TerraHold Erosion Control Netting over growing media and fasten at edging restraint with sod staples, in 4 foot (1.2 m) intervals.
- Secure with sod staples in 4-foot intervals in all directions within field.
- Fasten all seams with tie wrap fasteners at 4 foot (1.2 m) intervals.
- Where potted or plug plants are used, cut holes sufficient in size to plant through.
- Immediately following installation, apply an initial watering to the point of saturation to all the vegetation. Follow the prescribed maintenance protocol thereafter.



**12- Vegetation Free Zone Pavers**  
(OPTION 1: With built-in pedestal.)

- Place pavers tight against the VR EdgeGuard 4 on top of the Insulation/Roofing System.
- Cut to fit as per plans and drawings.

(OPTION 2: With separate pedestal.)

- Place pavers on pedestals directly on top of Insulation/Roofing System. Ensure tight fit against the VR EdgeGuard.
- Level pedestals as required to make sure top of paver is flush with top of edging restraint.
- Cut to fit as per plans and drawings.

