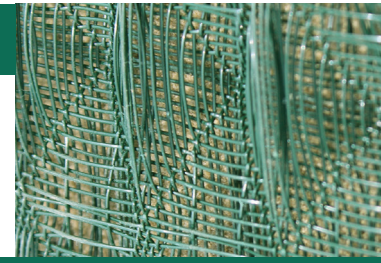




## High Performance Turf Reinforcement Mat (HP-TRM)



### General Procedure

Prepare a stable and firm soil surface according to the design grade and profile that is free of rocks, debris, and other obstructions. Typically, HP-TRMs are unrolled down the slope parallel to the primary direction of runoff (See Figure A). Ensure the HP-TRM maintains intimate contact with the soil surface over the entirety of the installation (See Figure G). Do not stretch or allow material to bridge over surface inconsistencies. Staple/anchor HP-TRMs to soil ensuring that each staple/anchor is flush with underlying soil. Staple/anchor length and type for securing HP-TRMs to the soil should be based on site-specific conditions as specified by the engineer or designer (See Figure D).

### Seeding

If seeding is required for the project, follow the project design requirements and any state, local or other regulatory agency requirements that are applicable.

Install HP-TRMs after application of seed, fertilizer, mulches (if necessary) and other necessary soil amendments, unless soil in-filling of the HP-TRM is required. For HP-TRMs if soil in-filling, install HP-TRMs, apply seed, and other soil amendments lightly brush or rake 0.3 inches (8 mm) of topsoil into HP-TRM matrix to fill the HP-TRM's thickness.

If in-filling with a hydraulically-applied matrix or medium is required; install HP-TRM, then install hydraulically-applied matrix or medium at the manufacturer's suggested application rate and follow all manufacturer's instructions for hydraulically-applied matrix installation.

### Anchor Trench

Just beyond the crest of the slope on the shoreline excavate a 6 in. by 6 in. (150 mm by 150 mm) anchor trench. Extend the upslope terminal end of the HP-TRMs 3 ft. (900 mm) past the anchor trench (See Figure F). Use staples/anchors to fasten the HP-TRM into the bottom of the anchor trench on 1 ft. (300 mm) centers. Backfill the trench and compact the soil into the anchor trench. Apply seed and any necessary soil amendments to the compacted soil and cover with remaining 1 ft. (300 mm) terminal end of the HP-TRMs. Fold the HP-TRM over compacted soil in anchor trench to overlap downslope material. Secure terminal end of HP-TRMs with a single row of staples/anchors on 1 ft. (300 mm) centers. Secure the downstream HP-TRM with the staple/anchor pattern shown below (See Figure E).

When required, lower the waterline as necessary. Unroll the HP-TRM down the slope and install staples/anchors as detailed below (See Figure E). Construct an anchor trench just below the mean water line at the terminal end of the shoreline. Significantly higher anchor rates and longer staples/anchors may be necessary in sandy, loose, or wet soils, below the waterline and in severe applications.

### Seams – utilize one of the methods detailed below for seaming of the HP-TRMs

**(1) Adjacent seams.** Overlap edges of adjacent HP-TRMs by a minimum 3 in. (75 mm). Use a sufficient number of staples/anchors to prevent seam from separating (See Figures B and C).

**(2) Consecutive rolls.** Shingle and overlap consecutive rolls a minimum 6 in. (150 mm) in the direction of runoff. Secure staples/anchors through seam at 1 ft. (300 mm) intervals (See Figures B and C). Factory seams should be secured in the same manner as consecutive rolls.

### Terminal Ends

Install the HP-TRMs 3 ft. (900 mm) beyond the end of the channel. Excavate a 6 in. by 12 in. (150 mm by 300 mm) anchor trench. Anchor HP-TRM with a minimum 6 in. (150mm) staple/anchor or larger per engineer's recommendation and secure end with a single row of staples/anchors on 1 ft. (300 mm) centers (See Figure "I"). Note that based on the specific requirements for the project and the conditions of the job site, the project engineer may redirect the specifications for anchoring the terminal end of the HP-TRM.

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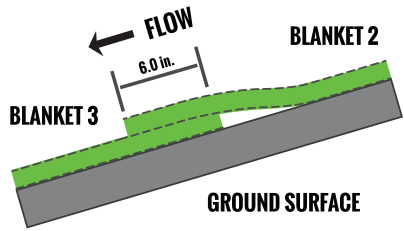


Figure B - Profile View

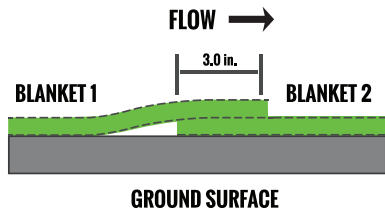


Figure C - Cross Section View

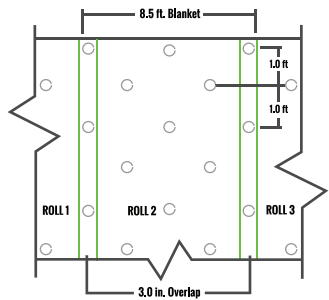


Figure D - Plan View

\* Drawings Not to Scale

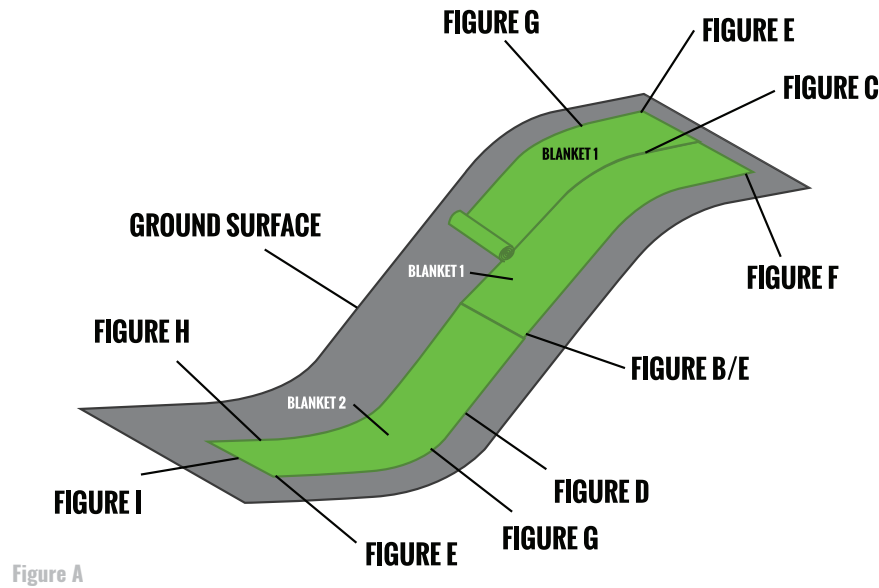


Figure A

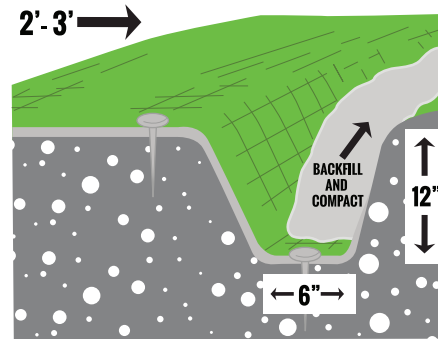


Figure I

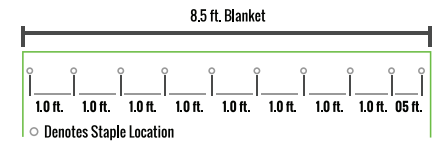


Figure E - Plan View

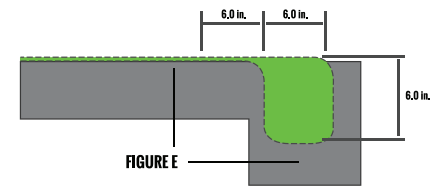


Figure F - Profile View

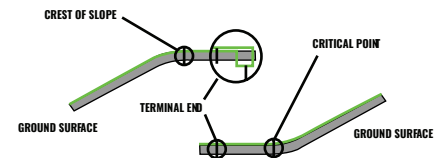


Figure G - Critical Point Securing

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