Thank you for purchasing our PYRAMAT® High Performance Turf Reinforcement Mat (HPTRM) or Turf Reinforcement Mat (TRM) by Propex Operating Company, LLC (Propex). This document provides installation and maintenance guidelines for PYRAMAT used as slope armoring to increase earthen slope resiliency. PYRAMAT provides permanent erosion protection on either the flood side and/or protected side of an earthen slope.

Temporary securing pins (pins) are used during installation to hold PYRAMAT in place. Pins also promote vegetation establishment keeping PYRAMAT in intimate contact with the soil.

PYRAMAT is an Engineered Earth Armoring Solution™ with a unique design for each specific project. While Propex has made every effort to ensure general validity, this information should not be used for a specific application without independent professional examination and verification of its suitability, applicability, and accuracy. The information provided herein is for general information only, and is intended to present installation guidance. Project specific contract documents take precedence when pin placements are different than what is represented in this document. Depending upon the critical nature of the structure to be armored, work restrictions may be in place when pin placements are different from what is represented in this document. Depending upon the critical nature of the structure to be armored, work restrictions may be in place such as limiting work based on growing seasons, weather patterns, etc. Work should be performed under the provisions set forth for the specific project. Propex Engineering Services is available for support during installation to consult for solving constructability issues encountered in specific applications. Please feel free to call our technical support hotline at (800) 621-1273.

**PATCHING AND REPAIRS**

PYRAMAT may require localized repair at times. For emergency repairs, an adequate supply of PYRAMAT should be maintained in inventory with the necessary tools to install. This will allow for a timely, initial repair of the system.

1. In order to identify areas in need of repair, the site should be patrolled immediately after mowing and after rain events of 2 inches or more. When patrolling look for areas of sparse vegetation, exposed edges of PYRAMAT, and areas where direct contact between PYRAMAT and the slope surface is compromised. PYRAMAT should be rated as Acceptable, Minimally Acceptable, or Unacceptable during inspection.
   
   A. **Acceptable (A)** - The rated area is in satisfactory, acceptable condition, and will function as designed and intended during the rain event. PYRAMAT has no exposed edges, is installed tightly by maintaining direct contact to the slope surface with no rilling beneath, and has over 90% vegetation cover. There is no noticeable damage present.
   
   B. **Minimally Acceptable (M)** - The rated area has a minor deficiency that needs to be corrected. The minor deficiency will not seriously impair the functioning of the area during the next rain event; however, the overall reliability of the project will be lowered because of the minor deficiency. PYRAMAT has 75% vegetation cover with un-vegetated patches as large as one square yard. Edges of PYRAMAT are exposed with noticeable damage. Minimal erosion has occurred underneath PYRAMAT.
   
   C. **Unacceptable (U)** - The rated area is unsatisfactory. The deficiency is so serious that the area will not adequately function in the next rain event. PYRAMAT has been physically torn, ripped, or lifted from the slope surface. Less than 75% vegetation cover is present with un-vegetated patches being greater than 1 square yard, and there is evidence that erosion is occurring beneath PYRAMAT.

2. Repair any raised or exposed edges of PYRAMAT by driving existing and additional pins along the edges as necessary to securely fasten to the ground.Inspect areas where the vegetation is not growing on top of PYRAMAT. Many times this is an indicator that PYRAMAT has lost contact with the ground beneath. Check for voids beneath PYRAMAT and fill any holes, gullies, etc. with compacted fill material if possible. Replace PYRAMAT as described below.

3. To repair PYRAMAT, cut out and remove damaged areas in a square configuration a minimum size of 2 ft by 2 ft. Remove all vegetation and debris atop of PYRAMAT. Loosen the top 1 to 2 in of soil in the patch...
area then seed. The subgrade of area to be patched shall be prepared to be smooth and uniform and transition smoothly into the in-situ area. Cut a square PYRAMAT patch a minimum of 12 in greater than the damaged area for all four sides of the patch. Overlap the patch area in all directions a minimum of 12 in. The patch overlaps shall be tucked under the existing damaged PYRAMAT material (Figure and Figure)

![Figure 1: PYRAMAT Patch Cross Section](image)

4. Install pins on 6 in (150 mm) (max) centers. For larger areas of damage, pins should be installed to match existing pin pattern. Once PYRAMAT is in place, vegetate per project specifications.

![Figure 2: PYRAMAT Patch Plan View](image)