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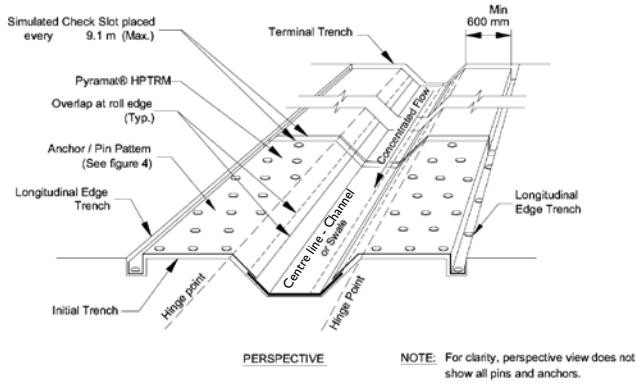


FIGURE 1: OVERVIEW OF ARMORMAX® SYSTEM IN CHANNEL

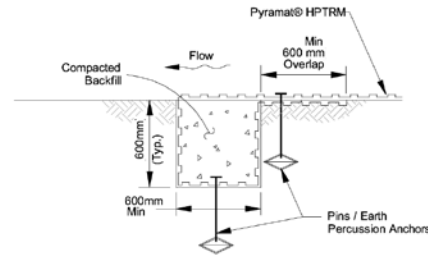


FIGURE 2: INITIAL TRENCH (DOWNSTREAM) DETAIL

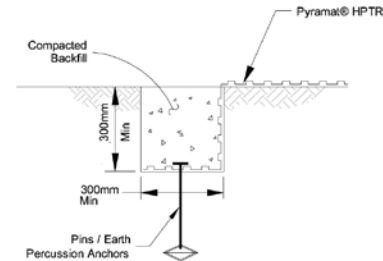


FIGURE 3: LONGITUDINAL EDGE TRENCH DETAIL

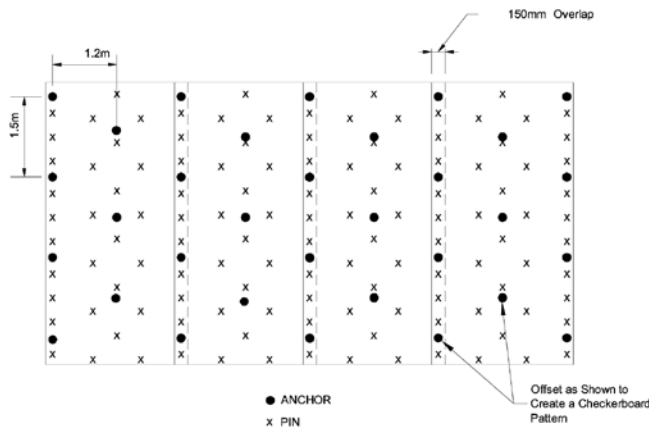


FIGURE 4: ANCHOR / PIN PATTERN DETAIL

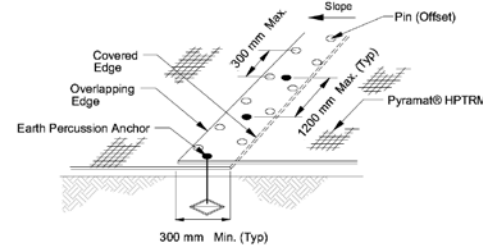


FIGURE 5: OVERLAP AT ROLL END DETAIL

*Note: Pyramat® HPTRM Edge Shingle/Overlap placement depends on down slope direction (i.e. Shingle in the direction of the down slope)

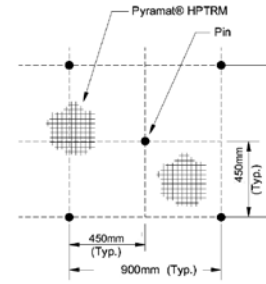


FIGURE 6: PIN PATTERN DETAIL

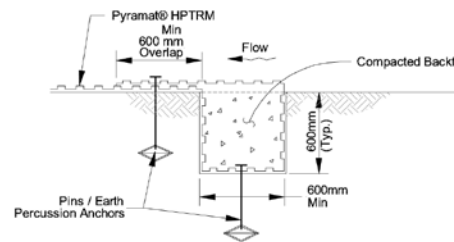


FIGURE 8: TERMINAL TRENCH (UPSTREAM) DETAIL

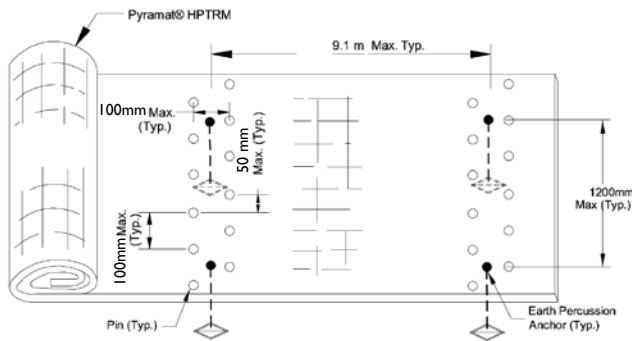


FIGURE 7: SIMULATED CHECK SLOT DETAIL

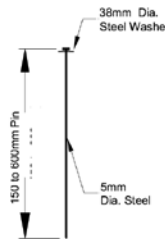


FIGURE 9: PIN DETAIL

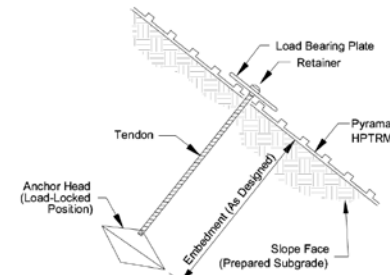


FIGURE 10: EARTH PERCUSSION ANCHOR DETAIL

ARMORMAX™ SYSTEM IN CHANNEL (NON-STRUCTURAL APPLICATION)

PRE CONSTRUCTION

- A pre-construction meeting should be held with the construction team and a representative from Geosynthetic Limited. This meeting shall be scheduled by the contractor with at least two weeks notice. Also, Geosynthetic Limited suggests that installation monitoring of the Armormax™ System be performed by a qualified independent third party.

SITE PREPARATION

- Grade and compact area of Armormax™ installation as directed and approved by Engineer. Subgrade shall be uniform and smooth. Remove all rocks, loose soil and clay vegetation or other objects so the installed mat will have direct contact with the soil surface.
- Prepare seeded by loosening the soil.
- Incorporate amendments such as lime and fertilizer and/or wet the soil, if needed.
- Do not much areas where mat is to be placed.

SEEDING

- Apply seed to soil surface before installing mat. Disturbed areas shall be reseeded.
- Consult project plans and/or specifications for seed types and application rates.

INSTALLATION IN STORM WATER CHANNELS

- Figure 1 shows general installation layout and details for Armormax™ System in storm water channels.
- Excavate an initial anchor trench 600mm x 600mm minimum wide across the channel at downstream end of project (see Figure 2). Deeper initial trench and/or hard armoring may be required in channels that have the potential for scour.
- Excavate a longitudinal edge trenches 300mm wide x 300mm deep minimum wide along both sides of the installation to bury edges of mat (see Figure 3). The longitudinal edge trench shall be located 600mm minimum over crest of slope.
- Beginning at the centerline of the channel, place roll end into the initial trench (with a 600mm minimum lap) and secure with pinning devices on 300mm centers and with earth percussion anchors on 1.2m centers (see Figure 2). Position adjacent rolls and secure in trench in same manner. Backfill and compact soil into trench as directed and approved by Engineer.
- Unroll mat in the upstream direction over the compacted initial trench.
- Secure initial trench lap with pinning devices on 300mm centers and with earth percussion anchors on 1.2m centers (see Figure 2).
- Secure longitudinal edge trench with pinning devices on 300mm centers and with earth percussion anchors on 1.2m centers (see Figure 3).
- Continue installation as described above, overlapping adjacent rolls as follows:
 - a: Roll edge overlap - 150mm minimum overlap with upstream mat on top. Secure with one row of ground pinning devices on 300mm centers and with one row of earth percussion anchors on 1.2m centers (see Figure 4)
 - b: Roll end overlap: 300mm minimum overlap with upstream mat on top. Secure with two rows of ground pinning devices staggered 300mm apart on 300mm centers and with one row of earth percussion anchors on 1.2m centers (see Figure 5)
- Secure mat using suggested ground pinning devices and earth percussion anchors for appropriate frequency and pattern shown on the Anchor/Pin Pattern Detail (see Figure 4) and the Pin/Pattern Detail (see Figure 6)
- For channel reaches longer than 13.7m, install simulated check slots per Figure 7. This method included placing two staggered rows of pins 100mm apart on 100mm centers and one row of earth percussion anchors on 1.2m centers at 9.1m intervals (see Figure 7) or across the midpoint of the channel for channel lengths less than 18.2m.
- Excavate terminal trench 600mm wide x 600mm deep, minimum across the channel at the upstream end of the project (see Figure 8). Deeper terminal trench and/or hard armoring may be required in channels that have the potential for scour.
- Pin, anchor, backfill and compact upstream end of mat in terminal trench (see Figure 8). Terminal trench pinning devices should be spaced on 300mm centers and earth percussion anchors should be spaced on 1.2m centers (see Figure 8). Unroll mat in downstream direction over compacted trench with a minimum 600mm lap. Secure lap with pinning devices on 300mm centers and earth percussion anchors on 1.2m centers.

GROUND PINNING DEVICES

- Metal pins should be at least 5mm diameter steel with a 38mm steel washer at the head of the pin (see Figure 9). Metal pins should be driven flush to the soil surface. Pins should be between 150-600mm long and have sufficient ground penetration to resist pullout. Longer pins may be required for looser soils. Heavier metal stakes may be required in rocky soils. Depending on soil pH and design life of the pin, galvanised or stainless steel pins may be required. Consult project plans and/or specifications for tie down device details.
- Earth Percussion anchors are made of corrosion resistant aluminium alloy, gravity die cast and heat treated to give considerable increase in mechanical strength and durability both during installation and in service, connected to a stainless steel tendon to fully enhance corrosion resistance particularly at the soil/air interface. Non-structural applications are typically designed using Type 2 earth percussion anchors. Earth percussion anchor length, anchor size, and washer width shall be determined and approved by Engineer (see Figure 10).

SPECIAL TRANSITIONS

- For applications that require special transitions (i.e. connections to riprap, concrete, head-walls, etc), refer to Page 6 of the Installation Guidelines for Landlok® TRMs and Pyramat® HPTRMs.

SOIL FILLING

- Installed Pyramat® HPTRM shall be re-seeded and soil-filled.
- After seeding, spread and lightly rake 12-19mm of fine site soil or topsoil into the mat and completely fill and voids using backside of rake or other flat tool.
- If equipment must operate on the mat, make sure it is of the rubber-tired type. No tracked equipment or sharp turns are allowed on the mat.
- Avoid any traffic over the mat if loose or wet soil conditions exist.
- Smooth soil-fill in order to just expose the top of Pyramat® HPTRM. Do not place excessive soil above the mat.
- Broadcast additional seed and install a Landlok® ECB above the soil-filled mat (if desired).
- Irrigate as necessary to establish/maintain vegetation. Do not over irrigate.