

## SCOURSTOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

1. INTENDED AS AN BIOTECHNICAL REPLACEMENT FOR RIP-RAP OR HARD ARMOR.
2. PRIMARY USE TO PROVIDE TRANSITION FROM SMOOTH CONCRETE OR OTHER HARD SURFACE TO TURF REINFORCEMENT MATS (TRMs), SOD, REINFORCED SOD, OR BARE GROUND.
3. ELIMINATES NEED TO INSTALL TRENCH CHECK ON UPSTREAM END OF ADJOINING TRM.
4. SCOURSTOP STANDARD SIZE IS 4' X 4' X ½" SHEET WITH MULTIPLE VOIDS FOR VEGETATION GROWTH, PROVIDING SOIL PROTECTION FOR: 1) THE SUSCEPTIBLE, EROSIIVE AREA DIRECTLY BELOW OUTLETS UNTIL SHEAR FORCE HAS DISSIPATED THROUGH DOWNSTREAM AREA EXPANSION; 2) ANY HIGHLY EROSIIVE AREA; 3) SHORELINE AND STREAMBANK PROTECTION.
5. PRIMARY BENEFITS OVER RIP-RAP ARE: UTILIZATION OF VEGETATION, LOWER INSTALLATION COSTS, LOWER LONG TERM MAINTENANCE, AESTHETICALLY PLEASING MOWABLE GRASS SURFACE, AND IMPROVED SAFETY THROUGH ABSENCE OF JAGGED ROCKS AND TRAPPED DEBRIS.

## PREFERRED INSTALLATION SPECIFICATIONS

1. READ AND UNDERSTAND INSTALLATION GUIDE.
2. FOR EACH INSTALLATION, COMPLETE INSTALLER'S CHECKLIST AND PROVIDE TO GENERAL CONTRACTOR FOR PAYMENT.
3. SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS MAY NEED TO EXTEND DOWNSTREAM OF SCOURSTOP INSTALLATION IN AREAS OF HIGHER VELOCITY OR SHEAR (CHECK WITH DESIGNER PRIOR TO INSTALLATION).
4. REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRICKLE FLOWS COULD BE CAPTURED WITH A SUB-SURFACE DRAIN.
5. CAN BE INSTALLED AS A BUTT JOINT, OR PERMANENTLY ATTACHED TO THE HARD SURFACE.
6. AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL SLOPES. GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
7. INSURE LOCATION HAS ADEQUATE SUNLIGHT FOR HEALTHY VEGETATION, OTHERWISE CONSIDER UTILIZING THE HIGH PERFORMANCE TRM INSTALLATION. INSTALL APPROPRIATE SOIL UNDER THESE INSTALLATIONS TO IMPROVE THE GROWING ENVIRONMENT.
8. FOR INSTALLATIONS ON SLOPES > 10%, SEE DETAILS ON PAGE 2 OF THIS SPECIFICATION. ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
9. PRIOR TO INSTALLATION SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (>2.5"Ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL. FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE ADEQUATE IN MOST CASES.
10. TYPE "A" INSTALLATION INSTRUCTIONS  
(DESIGN OUTLET VELOCITY < 21 FPS AND SLOPES < 4%)  
INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION.
  - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSIIVE VELOCITIES HAVE DISSIPATED. SEE DETAILS ON PAGE 2.
  - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM'S MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
  - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
  - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
11. TYPE "B" INSTALLATION INSTRUCTIONS  
(DESIGN OUTLET VELOCITY < 21 FPS AND SLOPES > 4%)  
INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD.
  - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA.
  - TRIM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
  - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
12. TYPE "D" INSTALLATION INSTRUCTIONS  
(CONSTRUCTION PHASE, STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID REGIONS):  
TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMANCE TRM.
  - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR. LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED. FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48" IN DIAMETER OR LARGER, PROVIDING AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET) SHOWN TO IMPROVE FLOW CAPACITIES OF TRANSITION MAT INSTALLATIONS.