



EROSION CONTROL PLAN LEGEND:  TURF REINFORCEMENT MAT

#### TURF REINFORCEMENT MAT FOR CHANNEL INSTALLATION GENERAL NOTES

- (A) TURF REINFORCEMENT MATS ARE USED TO PERMANENTLY STABILIZE DITCHES AND SWALES.
- (B) EROSION CONTROL BLANKETS MAY BE USED TO TEMPORARILY STABILIZE DITCHES AND SWALES.
- (C) TURF REINFORCEMENT MATS SHALL BE INSTALLED ACCORDING TO MANUFACTURES SPECIFICATIONS. WHEN NOT AVAILABLE INSTALL ACCORDING TO NOTES D THRU J.
- (D) STEP ONE: SITE PREPARATION  
THE CHANNEL SHOULD BE FINE GRADED TO A SMOOTH PROFILE AND RELATIVELY FREE FROM ALL WEEDS, CLODS, STONES, ROOTS, STICKS, RIVULETS, GULLIES, CRUSTING AND CAKING. FILL ANY VOIDS AND MAKE SURE THE CHANNEL IS COMPACTED PROPERLY.
- (E) STEP TWO: SEEDING  
SEEDING WITHOUT MULCH SHOULD BE APPLIED TO THE AREA TO BE VEGETATED.
- (F) STEP THREE: ANCHORING THE TURF REINFORCEMENT  
TURF REINFORCEMENT MATS SHALL BE ANCHORED AT THE BEGINNING OF THE CHANNEL. A 6-INCH WIDE BY 6-INCH DEEP TRENCH SHOULD BE EXCAVATED PERPENDICULAR TO THE DIRECTION OF WATER FLOW ACROSS THE ENTIRE WIDTH OF THE CHANNEL. THE TURF REINFORCEMENT MAT SHOULD BE LAID IN THE CHECK SLOT WITH 30 INCHES OF THE TURF REINFORCEMENT MAT EXTENDING UPSTREAM OF THE ANCHORING TRENCH. STAKE OR STAPLE THE TURF REINFORCEMENT MAT IN THE CHECK SLOT ON 12-INCH CENTERS. BACKFILL THE ANCHOR TRENCH AND COMPACT THE SOIL. PLACE SEED OVER THE COMPACTED SOIL. COVER THE COMPACTED SOIL WITH THE REMAINING 12 INCHES OF THE TERMINAL END OF THE TURF REINFORCEMENT MAT. STAPLE OR STAKE TERMINAL END DOWN SLOPE OF THE ANCHOR TRENCH ON 12-INCH CENTERS.
- (G) STEP FOUR: TURF REINFORCEMENT MAT DEPLOYMENT IN THE CHANNEL BOTTOM  
THE TURF REINFORCEMENT MATS SHOULD BE UNROLLED IN THE DIRECTION OF WATER FLOW. FIRST THE TURF REINFORCEMENT MAT IS DEPLOYED IN THE CHANNEL BOTTOM. IT IS ALSO NECESSARY TO PREVENT A SEAM FROM GOING DOWN THE CENTER OF THE CHANNEL BOTTOM OR IN AREAS OF CONCENTRATED WATER FLOW. WHEN INSTALLING TWO TURF REINFORCEMENT MATS SIDE BY SIDE IN A WATERWAY THE CENTER OF THE TURF REINFORCEMENT MAT SHOULD BE CENTERED IN THE AREA OF CONCENTRATED WATER FLOW. INSTALL ADJOINING TURF REINFORCEMENT MATS AWAY FROM THE CENTER OF THE CHANNEL BOTTOM. ADJOINING TURF REINFORCEMENT MATS SHOULD BE OVERLAPED 2 TO 4 INCHES. CONTINUE TO INSTALL A COMMON ROW OF STAPLES AT TWO-FOOT CENTERS ALONG THE LENGTH OF THE OVERLAP.
- (H) STEP FIVE: CHECK SLOTS  
CHECK SLOTS SHOULD BE PLACED PERPENDICULAR TO THE FLOW DIRECTION ACROSS THE ENTIRE WIDTH OF THE CHANNEL AT 25-FOOT INTERVALS AND AT THE TERMINAL END OF THE CHANNEL. THE CHECK SLOTS SHOULD BE PLACED IN A 6-INCH WIDE X 6-INCH DEEP TRENCH AS SHOWN. SECURE TURF REINFORCEMENT MAT IN THE UP STREAM SIDE OF THE CHECK SLOT WITH STAPLES OR STAKES ON 12-INCH CENTERS. FLIP THE TURF REINFORCEMENT MAT ROLL ON THE UPSTREAM EDGE. BACK FILL THE CHECK SLOT AS SHOWN AND COMPACT THE SOIL. CONTINUE ROLLING THE TURF REINFORCEMENT MAT DOWN STREAM OVER THE COMPLETED CHECK SLOT.
- (I) STEP SIX: TURF REINFORCEMENT MAT DEPLOYMENT ON THE SIDE SLOPES  
CONTINUE TO ROLL THE TURF REINFORCEMENT MAT ALONG THE CHANNEL BOTTOM AND SIDE SLOPES IN THE DIRECTION OF THE WATER FLOW. AS THE TURF REINFORCEMENT MAT IS INSTALLED FROM THE CHANNEL BOTTOM UP THE SLOPE A SHINGLE TYPE INSTALLATION IS RECOMMENDED WITH THE UP-SLOPE TURF REINFORCEMENT MAT OVERLAPPING THE LOWER TURF REINFORCEMENT MAT APPROXIMATELY 2-4 INCHES. ANCHOR THE TURF REINFORCEMENT MATS WITH A MINIMUM ONE STAPLE EVERY 24 INCHES ACROSS THE WIDTH AND ONE STAPLE EVERY 36 INCHES DOWN ITS LENGTH. IF THE TURF REINFORCEMENT MAT NEEDS TO BE SPICED, BE SURE THE TURF REINFORCEMENT MAT IS "SHINGLED" WITH THE UP-STREAM TURF REINFORCEMENT MAT OVERLAPPING THE DOWN-STREAM TURF REINFORCEMENT MAT. THERE SHOULD BE MINMUM OF 4 INCHES OF OVERLAP IN A SPLICE. USE A STAPLE CHECK SLOT TO SECURE THE OVERLAP. ANCHOR THE TURF REINFORCEMENT MAT PLACED AT THE TOP OF THE CHANNEL SLOPE IN THE SAME MANNER AS SHOWN.
- (J) STEP SEVEN: TERMINAL END  
SECURE THE TURF REINFORCEMENT MAT AT THE TERMINAL END OF THE CHANNEL WITH A CHECK SLOT SIMILAR TO THE ONE MADE AT THE BEGINNING OF THE CHANNEL.
- (K) ONLY TURF REINFORCEMENT MATS LISTED ON THE QUALIFIED PRODUCTS LIST MAY BE USED.
- (L) TURF REINFORCEMENT MATS FOR CHANNEL INSTALLATION SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

801-02	SEEDING (WITHOUT MULCH) PER UNIT
801-02.01	CROWN VETCH MIXTURE (WITHOUT MULCH) PER UNIT
801-02.08	TEMPORARY SEEDING (WITHOUT MULCH) PER UNIT
805-01.01	TURF REINFORCEMENT MAT (TYPE I) PER SQUARE YARD
805-01.02	TURF REINFORCEMENT MAT (TYPE II) PER SQUARE YARD
805-01.03	TURF REINFORCEMENT MAT (TYPE III) PER SQUARE YARD

EROSION CONTROL BLANKETS SHALL BE PAID FOR ACCORDING TO THEIR RESPECTIVE ITEM NUMBERS.

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF TURF REINFORCEMENT MATS.

REV. 1-22-03: CORRECTED LONGITUDINAL SEAM IN ISOMETRIC VIEW.

REV. 12-18-95: CHANGED DRAWING NO. FROM ESC-STR-35 TO EC-STR-36.

REV. 5-27-01: CHANGED REFERENCE IN GENERAL NOTES FOR ALL EROSION CONTROL BLANKETS TO FLEXIBLE CHANNEL LINERS.

REV. 4-1-08: REDREW REVISED GENERAL NOTES, ADDED STANDARD SYMBOL, REVISED INSTALLATION DETAILS.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TURF REINFORCEMENT  
MAT FOR CHANNEL  
INSTALLATION

10-26-92 EC-STR-36