

WTRBA Erosion Prevention and Sediment Control (EPSC)

DECEMBER 2015

## **1.0 SCOPE:**

THIS CONTRACT IS FOR SUPPLY AND INSTALLATION OF MATERIALS TO PROVIDE EROSION PROTECTION AND SEDIMENT CONTROL FOR PROJECTS COMPLETED THROUGH THE WEST TENNESSEE RIVER BASIN AUTHORITY (WTRBA). THE CONTRACTOR WILL COMPLETE WORK AS OUTLINED IN WORK ORDERS FROM THE WTRBA CIVIL ENGINEER MANAGER AND IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS.

## **2.0 WORK ITEMS:**

1) **TEMPORARY SILT FENCING W/O BACKING:** GEOSYNTHETIC SILT FENCING INSTALLED BY TRENCHING OR PLOWING; SUPPORT WITH 2"X2" WOODEN STAKES AT MAXIMUM 60" SPACING; MINIMUM FENCE HEIGHT OF 24"; TRENCHED MATERIALS TO BE RECOMPACTED AS NECESSARY TO PREVENT BYPASS OF FENCING.

2) **TEMPORARY SEED (TM):** SEED MIX OF 60% ANNUAL RYE GRASS AND 40% BROWN TOP MILLET; APPLICATION RATE OF 100 LBS/ACRE; MINIMUM AREA OF 1.0 ACRE PER MOBILIZATION, CONTRACTOR SHALL PREPARE SURFACE TO ACCEPT SEED AS NECESSARY

3) **PERMANENT SEED MIX (P1):** SEED MIX OF 20% ANNUAL RYE GRASS AND 80% BERMUDAGRASS (HULLED); APPLICATION RATE OF 100 LBS/ACRE; MINIMUM OF 1.0 ACRE PER MOBILIZATION: CONTRACTOR SHALL PREPARE SURFACE TO ACCEPT SEED AS NECESSARY

4) **PERMANENT SEED MIX (P2):** SEED MIX OF 50 LBS/ACRE ANNUAL RYE GRASS AND WTRBA SUPPLIED CUSTOM MIX; SEED RATE OF CUSTOM MIX TO BE DESIGNATED BY WTRBA ENGINEER; MINIMUM OF 1.0 ACRE PER MOBILIZATION; CONTRACTOR SHALL PREPARE SURFACE TO ACCEPT SEED AS NECESSARY

5) **FERTILIZER AND AG LIME:** 500 LBS/ACRE OF 10-20-10 FERTILIZER AND 2 TONS/ACRE OF AGRICULTURAL LIME; ONLY USE WHEN SPECIFIED BY WTRBA ENGINEER;

6) **STRAW MULCH:** WHEAT STRAW OR GRASS HAY APPLIED AS MULCH AT RATE OF 2 TONS/ACRE; CONTRACTOR TO ROLL AND CRIMP AFTER APPLICATION

7) **EROSION CONTROL MATTING (ECM) – JUTE NETTING:** 48" WIDE NETTING OF WOVEN JUTE FIBERS; ANCHOR WITH WOODEN STAKES ALONG TOP AND BOTTOM EDGES AND ALONG THE CENTERLINE WITH ROUNDTOP STEEL PINS AT MAXIMUM 3' SPACING

8) **EROSION CONTROL MATTING (ECM) – SINGLE NET STRAW:** STRAW MATTING CONFORMING TO TDOT TYPE I ROLLED EROSION PRODUCT SPECIFICATIONS; ANCHOR W/ ROUNDTOP STEEL PINS AT 1/SY

9) **EROSION CONTROL MATTING (ECM) – EXCELSIOR FIBER:** WOOD EXCELSIOR FIBER MATTING CONFORMING TO TDOT TYPE II ROLLED EROSION PRODUCT SPECIFICATIONS; ANCHOR W/ ROUNDTOP STEEL PINS AT 1/SY

10) **EROSION CONTROL MATTING (ECM) – TURF REINFORCEMENT MATTING:** CONFORMING TO TDOT ROLLED EROSION PRODUCTS WITH MINIMUM SHEAR STRESS OF 6.0 LBS/SF; ANCHOR ACCORDING TO MANUFACTURERS SPECIFICATIONS AND ENGINEERING DESIGN

11) **12" DIAMETER SEDIMENT WATTLE:** STRAW OR EXCELSIOR FIBER EROSION WATTLE; TYPICALLY INSTALLED ALONG THE TOE OF SLOPE IN STREAM RESTORATION PROJECTS AND ANCHORED WITH 2"X2" WOODEN STAKES; MAXIMUM STAKE SPACING OF 48" HORIZONTAL

12) **BARE ROOT SEEDLING:** MANUALLY PLANTED SEEDLINGS; SEEDLINGS TO BE PROVIDED BY WTRBA TO CONTRACTOR; PLANT SPACING 10' X 10'

13) **LIVE STAKES:** MANUALLY PLANTED LIVE STAKES FOR STREAM RESTORATION AND EROSION CONTROL; STAKES TO BE PROVIDED BY THE WTRBA TO THE CONTRACTOR; PLANT SPACING 3'X3' ALONG OUTER MEANDER BENDS OF STREAM RESTORATION; STAKES TO BE INSERTED WITHIN 4" OF THE GROUND AND ORIENTED CORRECTLY FOR ROOTING AND NEW GROWTH

### **3.0 INSTALLATION:**

WTRBA ENGINEER OR ASSIGNED REPRESENTATIVE WILL COORDINATE WORK REQUIREMENTS WITH CONTRACTOR. WORK WILL BE REQUESTED THROUGH WORK ORDERS THAT WILL DEFINE THE ESTIMATED QUANTITIES, WORK LOCATIONS, AND SPECIAL INSTRUCTIONS FOR THE WORK. THE CONTRACTOR WILL HAVE (14) DAYS TO INITIATE THE REQUESTED WORK. WORK AREA MINIMUMS HAVE BEEN INCLUDED ON SOME BID ITEMS AS AN ASSURANCE TO THE CONTRACTOR FOR BIDDING PURPOSES.

ANY DEFICIENCIES NOTED BY THE WTRBA DURING INSPECTIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT PRIOR TO PAYMENT. INSPECTION ITEMS INCLUDE PROPER SURFACE PREPARATION, BROADCAST RATES, SILT FENCE ENTRENCHMENT, ANCHORING FOR EROSION CONTROL PRODUCTS, AND CLEAN-UP OF WASTE MATERIALS ASSOCIATED WITH WORK (BAGS, WRAPPERS, ETC.)

#### **4.0 ESTIMATED CONTRACT QUANTITIES**

NO.	DESCRIPTION	QTY	UNIT
1	TEMPORARY SILT FENCING W/O BACKING	25,000	LINEAR FEET
2	TEMPORARY SEED (TM)	30	ACRES
3	PERMANENT SEED MIX (P1)	20	ACRES
4	PERMANENT SEED MIX (P2)	10	ACRES
5	FERTILIZER AND AG LIME	40	ACRES
6	STRAW MULCH	30	ACRES
7	ECM - JUTE NETTING	2,000	SQUARE YARDS
8	ECM - SINGLE NET STRAW	50,000	SQUARE YARDS
9	ECM - EXCELSIOR FIBER	10,000	SQUARE YARDS
10	ECM - TURF REINFORCEMENT MATTING	1,000	SQUARE YARDS
11	12" DIAMETER SEDIMENT WATTLES	1,200	LINEAR FEET
12	BARE ROOT SEEDLINGS	12,000	EACH
13	LIVE STAKES	8,000	EACH

#### **5.0 PAYMENT:**

PAYMENT WILL BE MADE ON COMPLETED AND INSTALLED QUANTITIES AS APPROVED BY WTRBA ENGINEER. CONTRACTOR SHALL SUBMIT INVOICE WITH DETAILS INCLUDING WORK LOCATIONS, QUANTITIES, DATE OF COMPLETED WORK ITEMS, AND A SUMMARY OF CONTRACTOR STATUS THROUGH THE BILLING PERIOD (AMOUNT USED VS AMOUNT REMAINING SUMMARY).