

CONSTRUCTION SITE EROSION CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. FURNISHING, INSTALLING, MAINTAINING, AND AND MEASURES. REMOVING EROSION AND SEDIMENT CONTROL FACILITIES

B. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EROSION CONTROL FACILITIES AND MEASURES NECESSARY TO CONTROL EROSION AND SEDIMENTATION AT THE WORK SITE. THESE FACILITIES AND MEASURES MAY OR MAY NOT BE SHOWN ON THE DRAWINGS AND THEIR ABSENCE ON THE DRAWINGS DOES NOT ALLEVIATE THE CONTRACTOR FROM PROVIDING THEM. ANY MEASURES AND FACILITIES SHOWN ON THE DRAWINGS ARE THE MINIMUM ACTIONS REQUIRED.

1.02 REFERENCES

A. WDNR TECHNICAL STANDARDS: http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm

WISCONSIN DEPARTMENT OF TRANSPORTATION, EROSION CONTROL, PRODUCT ACCEPTABILITY LISTS FOR MULTI-MODAL APPLICATIONS (PAL).

1.03 GENERAL

A. USE SURFACE WATER AND EROSION CONTROL THE CONSTRUCTION ACTIVITY TO CONTROL TH POTENTIAL FOR EROSION. MAINTAIN THE FACI ESTABLISHED. . FACILITIES AND MEASURES THROUGHOUT THE DURATION OF HE MOVEMENT OF SURFACE WATER AND TO REDUCE THE INTERNATION IS

B. ERODED SOIL MATERIAL SHALL NOT BE ALLOWED TO LEAVE THE CONSTRUCTION SITE OR TO ENTER A WATERWAY, LAKE, OR WETLAND.

D. ERODED MATERIAL THAT HAS LEFT THE CONSTRUCTION SITE SHALL BE COLLECTED AND RETURNED TO THE SITE BY THE CONTRACTOR. C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL FACILITIES, AND IN GENERAL, SHALL FURNISHING, INSTALLING, AND MAINTAINING THE EROSION USE CONSTRUCTION PRACTICES THAT MINIMIZE EROSION.

PREVENT CONSTRUCTION SITE TRACKING WITH GRAVELED ROADS, ACCESS DRIVES, AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC AND PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING (NOT FLUSHING) BEFORE THE END OF EACH WORKDAY.

1.04 SEQUENCING AND SCHEDULING

A. CONSTRUCT AND STABILIZE EROSION CONTROL MEASURES FOR DIVERSIONS OR OUTLETS PRIOR TO ANY GRADING OR DISTURBANCE OF THE CONSTRUCTION SITE.

B. INSTALL FILTER FABRIC AND STRAW BALE FENCES AND BARRIERS PRIOR TO DISTURBING THE AREA

C. Turf areas that have been completed to finish grade shall be stabilized with Permanent Seeding within seven days. Turf areas where activity has ceased and that will remain exposed for more than 20 days before activity resumes and soil stockpiles shall be stabilized with temporary seeding or soil stabilizer.

D. OTHER EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DISTURBANCE OF THE CONSTRUCTION SITE, AS APPLICABLE.

PART 2 - PRODUCTS

2.01 SILT FENCE

A. FABRIC SHALL BE SHALL A WOVEN OR NONWOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, OR POLYETHYLENE GEOTEXTILE WITH THE FOLLOWING MINIMUM PROPERTIES:

PROPERTY	TEST METHOD	REQUIREMENT*	
GRAB TENSILE STRENGTH, LBS MIN.	ASTM D4632		
MACHINE DIRECTION		120	
CROSS DIRECTION		100	
MAX. APPARENT OPENING SIZE, US SIEVE	ASTM D 4751	NO. 30	
PERMITTIVITY, SEC-2, MIN.	ASTM D4491	0.05	
MIN. UV STABILITY AT 500 HRS, %	ASTM D4355	70%	

2.02 TEMPORARY SEEDING

A. ANNUAL OATS, AGRICULTURAL RYE OR WINTER WHEAT.

B. PROVIDE RYE OR WINTER WHEAT FOR PLANTINGS AFTER SEPTEMBER 1.

2.03 EROSION MAT

A. ALL EROSION MAT PRODUCTS SHALL BE OF THE CLASS AND TYPE INDICATED AND SHALL BE CHOSEN FROM THE EROSION CONTROL PRODUCT ACCEPTABILITY LISTS.

B. CLASS 1: A SHORT-TERM DURATION (SIX MONTHS OR GREATER), LIGHT DUTY, ORGANIC MAT. NETTING SHALL BE NON-ORGANIC, PHOTODEGRADABLE OR BIODEGRADABLE NETTING. THE WEIGHT OF THE NETTING SHALL NOT EXCEED 15% OF THE TOTAL BLANKET WEIGHT. THE NETTING SHALL BE SUFFICIENTLY BONDED TO THE PARENT MATERIAL TO PREVENT SEPARATION FOR THE LIFE OF THE PRODUCT.

2. Type B: A Double netted product for use on slopes 2 to 1 or flatter or in channels with a minimum product permissible shear stress of 70 pa (1.5 lbs/ft2).

TYPE URBAN: A PRODUCT MEETING THE REQUIREMENTS FOR EROSION MATS WITH THE FOLLOWING EXCEPTIONS:

NETTED PRODUCTS NOT ALLOWED.
MINIMUM MAT THICKNESS OF 9MM (3/8 INCH).
MANUFACTURE SHALL INCLUDE LINES OF BIODEGRADABLE YARN OR GLUE ON 300 MM (12 INCH)
MAXIMUM CENTERS IN THE LONGITUDINAL DIRECTION.
CAPABLE OF WITHSTANDING MODERATE FOOT TRAFFIC WITHOUT TEARING OR PUNCTURING.

THIS PRODUCT SHALL NOT BE USED IN CHANNELS.

ANCHORS: FOR URBAN MAT, ANCHORS SHALL BE BIODEGRADABLE ANCHORS THAT WILL NOT SPLINTER OR SPEAR. THEY SHALL MAINTAIN THEIR ANCHORING ABILITY FOR AT LEAST TWO MONTHS. . STAPLES: U-SHAPED NO. 11 GAUGE OR GREATER WIRE WITH A SPAN WIDTH OF ONE TO TWO INCHES AND A LENGTH OF NOT LESS THAN 6 INCHES FOR FIRM SOIL AND 12 INCHES FOR LOOSE SOIL.

2.04 SOIL STABILIZER

SOIL STABILIZER SHALL BE A POLYACRYLAMIDE (PAM) AND CALCIUM SOLUTION INTENDED TO REDUCE THE ERODIBILITY OF BARE SOILS. THE PRODUCT SHALL ACHIEVE AN 80% REDUCTION IN SOIL LOSS INDUCED BY A TWO INCH PER HOUR RAINFALL SIMULATOR.

. PAM MIXTURES SHALL BE ENVIRONMENTALLY BENIGN, HARMLESS TO FISH, AQUATIC ORGANISMS WILDLIFE, AND PLANTS. ONLY ANIONIC PAM WILL BE PERMITTED.

ANIONIC PAM, IN PURE FORM SHALL HAVE NO MORE THAN 0.05% ACRYLIC MONOMER BY WEIGHT, AS ESTABLISHED BY THE FOOD AND DRUG ADMINISTRATION AND THE ENVIRONMENTAL PROTECTION AGENCY. THE ANIONIC PAM IN PURE FORM SHALL NOT EXCEED 200 POUNDS PER BATCH.

. SOIL STABILIZER SHALL BE CFM 2000, CONSTRUCTION FABRICS MATERIALS CORP. (CFM), COTTAGE GROVE, WI OR EQUAL. THE PRODUCT PROVIDED SHALL BE LISTED IN THE WISDOT PAL.

2.05 INLET PROTECTION

A. TYPE D INLET PROTECTION SHALL BE EQUAL TO THE WISCONSIN DOT TYPE D INLET PROTECTION AS SHOWN ON THE FACILITIES DEVELOPMENT MANUAL DRAWINGS. THE GEOTEXTILE FABRIC SHALL BE TYPE FF MEETING THE REQUIREMENTS OF THE LATEST EDITION OF PAL.

3.01 INSTALLATION OF DIVERSIONS PART 3 - EXECUTION

TEMPORARY DIVERSIONS SHALL BE DESIGNED AND INSTALLED IN ACCORDANC WITH WDNR TECHNICAL STANDARDS.

3.02 INSTALLATION OF SILT FENCE AND STRAW BALES

A. INSTALL FILTER FABRIC AND STRAW BALE FENCES IN ACCORDANCE WITH THE DRAWINGS.

B. FILTER FABRIC AND STRAW BALE FENCES SHALL BE PLACED ON THE CONTOUR TO THE EXTENT PRACTICABLE. PLACE FENCES PARALLEL TO THE SLOPE WITH THE ENDS OF THE FENCE TURNED UPSLOPE A DISTANCE OF ONE TO TWO FEET. WHERE THE MAXIMUM SIZE OF THE DRAINAGE AREA IS 0.25 ACRES PER 100 FEET OF FENCE LENGTH, THE MAXIMUM SLOPE LENGTH BEHIND THE FENCE SHALL BE AS FOLLOWS:



3.03 TEMPORARY SEEDING

APPLY SEED EVENLY AT THE RATE OF ONE POUND PER 1,000 SQUARE FEET. RAKE OR DRAG TO COVER THE SEED TO A DEPTH OF 1/4 INCH. SEED ONLY THE AREA THAT CAN BE MULCHED IN THE SAME DAY. DO NOT SEED IMMEDIATELY AFTER A HEAVY RAIN.

3.04 EROSION MAT INSTALLATION

REMOVE STONES, CLODS, STICKS, OR OTHER FOREIGN MATERIAL THAT WOULD DAMAGE THE MAT OR INTERFERE WITH THE MAT BEARING COMPLETELY ON THE SURFACE.

B. INSTALL EROSION MAT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS

C. AFTER SEEDING HAS BEEN COMPLETED, ROLL BLANKETS OUT PARALLEL TO THE DIRECTION OF WATER FLOW, WITH THE NETTING ON TOP. SPREAD THE BLANKETS WITHOUT STRETCHING, MAKING SURE THE FIBERS ARE IN CONTACT WITH THE SOIL. OVERLAP ADJACENT STRIPS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. OVERLAP STRIP ENDS A MINIMUM OF 10 INCHES WITH THE UPGRADE STRIP ON TOP. BURY THE UPGRADE END OF EACH STRIP IN A VERTICAL TRENCH AT LEAST 6 INCHES DEEP.

STAPLE THE MAT STRIPS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. STAPLE LONGITUDINAL OVERLAPS AND OUTER EDGES AT MAXIMUM INTERVALS OF 3 FEET. STAPLE STRIP ENDS AT MAXIMUM INTERVALS OF 16 INCHES. PLACE STAPLES THROUGHOUT THE MAT AT MAXIMUM 3-FOOT INTERVALS. INSERT STAPLES FLUSH WITH THE GROUND SURFACE.

3.05 SOIL STABILIZER

A. THE MANUFACTURER SHALL PROVIDE DETAILED WRITTEN INSTRUCTIONS ON THE STORAGE, MIXING, AND APPLICATION PROCEDURES.

B. THE SOIL STABILIZER MAY BE APPLIED BY MIXING WITH WATER AND SPRAYING OR BY DRY SPREADING. APPLICATION RATES: RATES ARE FOR WET APPLICATION. RATES FOR DRY APPLICATION MAY NEED TO BE ADJUSTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.

3.06 DITCH EROSION CONTROL E. DO NOT APPLY WITHIN 30 FEET OF BODY OF WATER (I.E. LAKE, RIVER, STORMWATER POND). D. THE MAXIMUM APPLICATION RATE SHALL NOT EXCEED 2000 POUNDS PER ACRE PER YEAR.

A. THE FOLLOWING EROSION CONTROL MEASURES ARE MINIMUM REQUIREMENTS FOR ALL DITCHES. THE DRAWINGS MAY INCLUDE MORE SPECIFIC MEASURES.

DITCH EROSION CONTROL

>6% SPEC	4% - 6% STAKED SOD	1% - 4% SEEI	0 - 1% SEEC	RANGE
SPECIFIED BY ENGINEER ON DRAWINGS EVERY 75' FOR SOD	(ED SOD	1% - 4% SEED AND MULCH WITH EROSION MAT	0 - 1% SEED AND MULCH	METHOD
EVERY 75' FOR SOD	EVERY 75'	1% - 2%; EVERY 200' 2% - 4%; EVERY 100'	NONE	BALE CHECKS

3.07 INSTALLATION OF SOD IN DITCHES

A. LAY SOD SO THAT JOINTS OF ABUTTING ENDS OF STRIPS ARE NOT CONTINUOUS. AGAINST PREVIOUSLY LAID STRIPS. LAY EACH STRIP SNUGLY

B. ROLL OR FIRMLY TAMP SOD TO PRESS THE SOD INTO THE UNDERLYING SOIL

C. TURN THE UPPER EDGES OF THE STRIPS INTO THE SOIL

D. STAKE STRIPS ALONG THE LONGITUDINAL AXIS AT 18-INCH INTERVALS AND NEAR THE TOP EDGE OF THE STRIP. PROVIDE WOOD LATH OR SIMILAR STAKES, 12 INCHES LONG. LEAVE TOP OF STAKE APPROXIMATELY 1/2 INCH ABOVE SOD SURFACE.

3.08 INSTALLATION OF OTHER FACILITIES

INLET PROTECTION BARRIERS, CHANNEL STABILIZATION, GRASSED WATERWAYS, ROCK LINED WATERWAYS, SEDIMENTS TRAPS, SEDIMENT BASINS, AND OTHER FORMS OF EROSION CONTROL MEASURES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH **WDNR TECHNICAL STANDARDS**.

3.09 MAINTENANCE

Inspect diversions within 24 hours after each rainfall or daily during periods of prolonged rainfall, until the vegetative cover is stabilized. Make necessary repairs immediately.

INSPECT FILTER FABRIC FENCES AND BARRIERS WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING PERIODS OF PROLONGED RAINFALL. NECESSARY REPAIRS OR REPLACEMENT SHALL BE MADE IMMEDIATELY. REMOVE SEDIMENT DEPOSITS WHEN DEPOSITS REACH ONE-HALF THE HEIGHT OF THE FENCE. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FABRIC DUE TO WEATHERING.

INSPECT STRAW BALE FENCES AND BARRIERS WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING PERIODS OF PROLONGED RAINFALL. NECESSARY REPAIRS OR REPLACEMENT SHALL BE MADE IMMEDIATELY. REMOVE SEDIMENT DEPOSITS WHEN DEPOSITS REACH ONE-THIRD THE HEIGHT OF THE BALES. REPLACE BALES AFTER THREE MONTHS.

D. INSPECT ALL SEEDING, SOD, MULCHES, MATS AND NETS WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING PERIODS OF PROLONGED RAINFALL. ADDITIONAL MULCH, NETTING OR MATTING SHALL BE APPLIED IMMEDIATELY WHEN NECESSARY TO MAINTAIN SUITABLE COVERAGE. MAKE INSPECTIONS UNTIL VEGETATIVE COVER IS ESTABLISHED. WATER SEEDING AND SOD WHEN NECESSARY TO PROMOTE ESTABLISHMENT.

3.10 REMOVAL ALL OTHER SOIL EROSION CONTROL MEASURES SHOULD BE INSPECTED AND REPAIRED IMMEDIATELY, IF REQUIRED, WITHIN 24 HOURS AFTER STORM EVENT OR DAILY DURING PERIODS OF PROLONGED RAINFALL

A. AFTER FINAL VEGETATION IS ESTABLISHED, REMOVE BALES, SILT FENCES, AND OTHER EROSION CONTROL FACILITIES. RESTORE AREAS DISTURBED BY THE REMOVALS.

1507 Burningwood Way SPECIFICATIONS Cherokee Park, Inc. City of Madison Dane County, WI



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