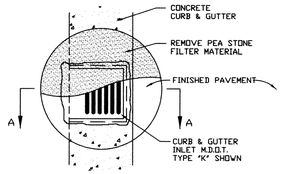
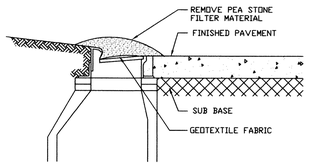
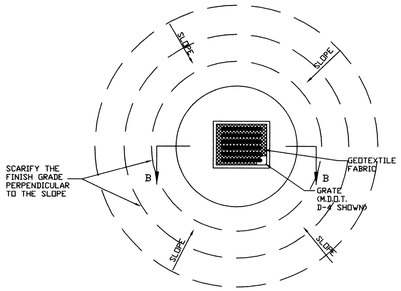


PLAN VIEW

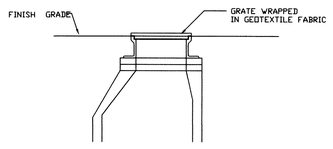


SECTION A-A

CURB AND GUTTER INLET FILTER AFTER PAVING



PLAN VIEW



SECTION B-B

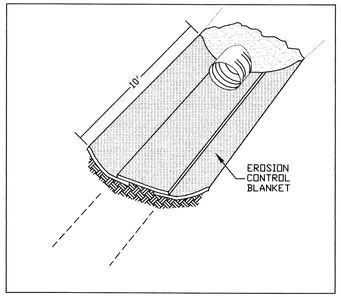
LOW POINT INLET FILTER

EXCELSIOR EROSION CONTROL BLANKETS

SOIL STABILIZATION - SURFACE REINFORCEMENT
- LAND RECLAMATION

DESCRIPTION:

THE EXCELSIOR EROSION CONTROL BLANKETS ARE DESIGNED TO PROTECT DENUDED SURFACES AGAINST WIND AND WATER EROSION, AND TO STABILIZE SOIL SURFACES WHILE VEGETATION IS BEING ESTABLISHED. THE EXCELSIOR EROSION CONTROL BLANKETS SHALL CONSIST OF MACHINE PRODUCED MAT OF CURLED WOOD EXCELSIOR OF 80% SIX INCH OR LONGER FIBER LENGTH WITH A CONSISTENT WIDTH OF FIBER EVENLY DISTRIBUTED THROUGHOUT THE MAT. A PHOTODEGRADABLE NETTING MANUFACTURED FROM EXTRUDED PLASTIC MESH SHALL BE USED ON THE TOP SIDE OF THE EXCELSIOR EROSION CONTROL BLANKETS. THE BLANKETS SHALL BE SMOLDER RESISTANT WITH NO CHEMICAL ADDITIVES.



TYPICAL DITCH LINING

GENERAL NOTES

SOIL EROSION AND SEDIMENTATION CONTROL SHALL PROTECT AGAINST LOSS OF SOIL BY THE ACTION OF WATER, ICE, GRAVITY AND WIND.

SUMMARY OF BASIC PRINCIPLES

1. KEEP DISTURBED AREA AS SMALL AS POSSIBLE.
2. STABILIZE AND/OR PROTECT DISTURBED AREAS AS SOON AS POSSIBLE.
3. KEEP STORM WATER RUNOFF VELOCITIES LOW.
4. RETAIN SEDIMENT WITHIN IMMEDIATE CONSTRUCTION AREA.

THE PURPOSE OF THIS PLAN IS TO SPECIFY METHODS FOR TEMPORARY EROSION CONTROL DURING CONSTRUCTION. IT IS INTENDED THAT MEASURES CALLED FOR IN THE SPECIFICATIONS AND SHOWN ON THESE PLANS BE STRICTLY ADHERED TO. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT CONSTRUCTION PROCEDURES UNDERTAKEN BE IN CONFORMANCE WITH PART 91 OF ACT 451 OF 1994 THE STATE OF MICHIGAN'S SOIL EROSION AND SEDIMENTATION CONTROL ACT.

ALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE REGULARLY MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COLLECTED SILT AND SEDIMENTATION SHALL BE REMOVED PERIODICALLY TO MAINTAIN THE EFFECTIVENESS OF THE SILT TRAPS OR SEDIMENTATION CONTROL DEVICES. WHERE REQUIRED THE CONTRACTOR SHALL REPLACE FILTER MATERIALS WHICH HAVE BECOME INEFFECTIVE DUE TO CONTAMINATION OR PHYSICAL DETERIORATION.

IF POSSIBLE, NO GRUBBING SHOULD BE DONE WITHIN 30' OF AN ACTIVE WATERCOURSE.

AGGREGATES PLACED IN STREAMS SHOULD CONTAIN A MINIMUM OF FINES. AS A GENERAL RULE FOR DAMS IN SMALL STREAMS, AT LEAST 50% OF STONE SHOULD BE 6" DIAMETER OR LARGER. 3" OR LARGER STONE SHALL BE USED FOR LINING STREAM BOTTOMS WHERE LINING IS REQUIRED.

ALL TEMPORARY EROSION CONTROL FACILITIES SHOULD BE REMOVED BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION UNLESS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE. CARE SHALL BE TAKEN DURING REMOVAL TO MINIMIZE SILTATION IN NEARBY DRAINAGE COURSES.

SURFACE DISRUPTION IN ADVANCE OF CONSTRUCTION INCLUDING CLEARING, GRADING OR SIGNIFICANT SOD REMOVAL SHALL BE LIMITED AS FOLLOWS, UNLESS PERMISSION IS OTHERWISE OBTAINED FROM THE GOVERNING AGENCY.

A. WET WEATHER SEASON (MARCH, APRIL, MAY) - 5 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

B. DRY WEATHER SEASON (JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER) - 10 DAYS PRIOR TO BEGINNING ANY EARTHWORK.

C. COLD WEATHER SEASON (DECEMBER, JANUARY, FEBRUARY) - 15 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

SOIL EROSION AND SEDIMENTATION CONTROL (TEMPORARY FACILITIES)

THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH PART 91 OF ACT NO. 451 OF 1994, OF THE MICHIGAN COMPILED LAWS ENTITLED "SOIL EROSION AND SEDIMENTATION CONTROL" UNDER THE CONTROL OF THE LOCAL PERMIT AGENCY CHARGED WITH ADMINISTERING THE PROVISIONS OF THIS ACT. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES DELINEATED BELOW AND CONSTRUCT AND MAINTAIN THE FACILITIES SHOWN ON THE DRAWINGS TO CONTROL WATER AND WIND EROSION DURING CONSTRUCTION OF THIS PROJECT.

ALL DISTURBED SURFACE AREA (INCLUDING UTILITY TRENCHES) SHALL BE TEMPORARILY GRADED AND/OR DITCHED TO DIRECT ALL WATER RUNOFF FROM SUCH AREAS TO SEDIMENTATION CONTROL DEVICES WHICH WILL PREVENT DISTURBING ERODED WATER CARRYING SOIL FROM ENTERING A WATERCOURSE, SEWER, OR ADJACENT LANDS. SUCH SEDIMENTATION CONTROL DEVICES SHALL INCLUDE BUT NOT BE LIMITED TO PROTECTIVE DITCHES, SEDIMENT TRAPS, SEDIMENT FILTERS, DITCH TRAPS, PIPE BARRIERS, STRAW BALE BERMS, AND FILTERS AS DETAILED AND REQUIRED AND LOCATED ON THE DRAWINGS. AFTER THE PROJECT WORK HAS BEEN COMPLETED, INSPECTED, AND APPROVED THE CONTRACTOR SHALL REMOVE ALL SEDIMENTATION CONTROL DEVICES, MATERIAL, AND THEIR COLLECTED SILT AND DEBRIS AND COMPLETE THE PROJECT WORK IN ACCORDANCE WITH THE DRAWINGS.

IN ROADWAY AREAS TEMPORARY AGGREGATE SURFACING SHALL BE PLACED IMMEDIATELY AFTER THE BACKFILLING OPERATION HAS BEEN COMPLETED. POSITIVE DUST CONTROL MEASURES SHALL BE TAKEN AT ALL TIMES.

WITHIN 15 DAYS FROM THE DATE A PROJECT IMPROVEMENT IS INSTALLED THE CONTRACTOR SHALL PROCEED WITH FINAL CLEANUP AND RESTORATION OF THE PROJECT AREA DISTURBED INCLUDING SPILL AREAS, AND COMPLETE SUCH OPERATIONS WITHIN THE NEXT 15 DAYS. IF SEASONAL CONDITIONS PREVENT FINAL CLEANING AND RESTORATION, THE CONTRACTOR SHALL PROCEED WITH TEMPORARY STABILIZATION OF THE DISTURBED AREA. FINAL CLEANUP AND RESTORATION WILL CONSIST OF FINAL GRADING, TOPSOILING, SEEDING, AND MULCHING AND/OR SODDING OF ALL DISTURBED AREAS OF THE PROJECT. TEMPORARY STABILIZATION SHALL CONSIST OF ROUGH GRADING THE DISTURBED AREA IN ACCORDANCE WITH THESE SPECIFICATIONS. TEMPORARY STABILIZATION MATERIALS SHALL BE REMOVED AND DISPOSED OF AND FINAL CLEANUP AND RESTORATION SHALL BE COMPLETED NOT LATER THAN 60 DAYS AFTER SEASONAL CONDITIONS ALLOW PERFORMANCE OF THE REQUIRED WORK.

SEEDING AND MULCHING

THE AREA TO BE SEEDED SHALL BE GRADED TO A SMOOTH EVEN SUBGRADE TO AN ELEVATION THREE INCHES BELOW THE PREPARED FINISHED GRADE.

AFTER APPROVAL BY THE ENGINEER OF THE GRADING OF THE SUBGRADE AS ABOVE DESCRIBED, THREE INCHES OF TOPSOIL SHALL BE PLACED THEREON. AFTER SPREADING OF TOPSOIL TO THE PREPARED FINISHED GRADE, ANY LARGE CLODS OR LUMPS SHALL BE BROKEN WITH A PULVERIZER OR OTHER EFFECTIVE MEANS AND ALL FOREIGN MATTER SHALL BE REMOVED AND DISPOSED OF OFF THE SITE. IMMEDIATELY BEFORE FERTILIZING AND SEEDING, THE TOPSOIL SHALL BE BROUGHT TO A FRIABLE CONDITION BY DISKING AND HARROWING TO A DEPTH OF THREE INCHES.

A CHEMICAL FERTILIZER SHALL BE UNIFORMLY APPLIED ON THE PREPARED TOPSOIL SURFACE AT A RATE OF 800 POUNDS PER ACRE (18.6 POUNDS PER SQUARE YARD) OF 12-12-12 FERTILIZER.

IMMEDIATELY AFTER THE FERTILIZER HAS BEEN PLACED, THE GRASS SEED SHALL BE SOWN. SEED SHALL BE A MIXTURE OF 10% PERENNIAL RYE (HAVING A MINIMUM PURITY OF 98% AND MINIMUM GERMINATION OF 90%), 45% KENTUCKY BLUEGRASS (HAVING A MINIMUM PURITY OF 90% AND A MINIMUM GERMINATION OF 75%), AND 45% CREEPING RED FESCUE (HAVING A MINIMUM PURITY OF 98% AND A MINIMUM GERMINATION OF 48%).

SEEDS SHALL NOT BE SOWN THROUGH MULCH. THE SEED MIXTURE REQUIRED SHALL BE SOWN, OR RESOWN, AT A RATE OF 100 POUNDS PER ACRE WITH EITHER MECHANICAL DRILLS, BROADCAST, OR HYDRO-SEEDER TYPE EQUIPMENT. AREAS THAT ARE SOWN BY HYDRO-SEEDER OR THE BROADCAST METHOD WILL BE VISUALLY INSPECTED FOR UNIFORMITY OF APPLICATION. AREAS SOWN BY HYDRO-SEEDER OR THE BROADCAST METHOD SHALL BE FLOATED AND LIGHTLY COMPACTED TO INCORPORATE THE SEED INTO THE UPPERMOST 1/4 INCH OF THE SOIL.

SEED SHALL BE SOWN IN THE PERIOD FROM APRIL 20 TO OCTOBER 1. NO SEED SHALL BE SOWN OUTSIDE THIS PERIOD UNLESS APPROVED BY THE ENGINEER.

IMMEDIATELY AFTER COMPLETION OF THE SEEDING OPERATION, THE SEEDED AREAS SHALL BE MULCHED. MULCH SHALL CONSIST OF STRAW SPREAD OVER THE SURFACE TO A UNIFORM THICKNESS AT A RATE OR 2 TONS PER ACRE (0.83 POUNDS PER SQUARE YARD) OR AS APPROVED BY THE ENGINEER. UNLESS OTHERWISE SPECIFIED, THE MULCH SHALL BE HELD IN PLACE BY A SPRAY COATING OF ADHESIVE MATERIAL APPROVED BY THE ENGINEER OR BY USING A NOTCHED DISK THAT PUNCHES AND ANCHORS THE MULCH MATERIAL. THE CONTRACTOR SHALL PROTECT ALL TRAFFIC SIGNS, STRUCTURES, AND OTHER OBJECTS FROM BEING MARKED OR DISFIGURED BY THE ADHESIVE MATERIAL. THE MULCH SHALL BE LOOSE ENOUGH TO ALLOW SUNLIGHT TO PENETRATE AND AIR TO SLOWLY CIRCULATE, BUT THICK ENOUGH TO SHADE THE GROUND, REDUCE THE RATE OF WATER EVAPORATION, AND PREVENT OR REDUCE WATER AND WIND EROSION. MULCH THAT HAS BECOME DISPLACED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

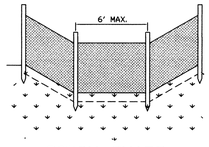
DURING THE PERIOD FROM JUNE 1 TO NOVEMBER 1, ALL AREAS SEEDED SHALL BE WATERED AS NECESSARY UNTIL THE GRASS HAS BEEN ESTABLISHED.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A FINAL RESULT THAT WILL PROVIDE A WELL ROOTED GROWTH, RESISTANT TO NORMAL WASHING AND DROUGHT. SHOULD THE FIRST ATTEMPT AT SEEDING FAIL TO PRODUCE THE REQUIRED RESULT, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPEATING THE NECESSARY OPERATIONS TO PRODUCE THE DESIGNED RESULTS, AT NO ADDITIONAL COST TO THE OWNER.

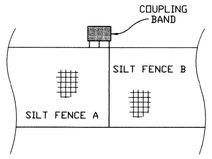
SPECIFICATIONS

PROPERTY	TEST METHOD	2125
GRAB TENSILE	ASTM-D-4632	WARP 110 FILL 90
MULLEN BURST	ASTM 3786	275
U.V. RESISTANCE (STRENGTH RETAINED)	ASTM 4355	70
PERMITTIVITY	ASTM 4491	15

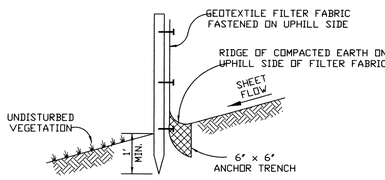
A STURDY, LIGHTWEIGHT, SUNLIGHT RESISTANT, WOVEN POLYPROPYLENE.



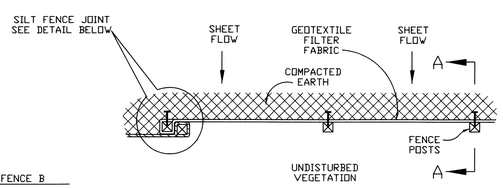
DITCH GUARD



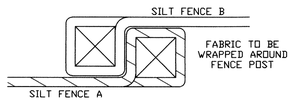
FENCE JOINT DETAIL

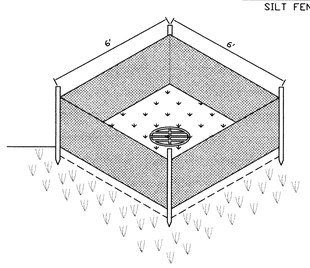


SECTION A-A

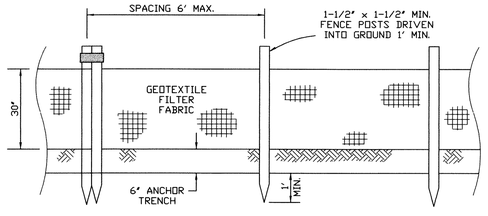


PLAN VIEW



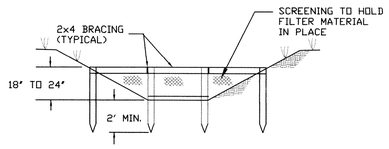


DRAIN GUARD

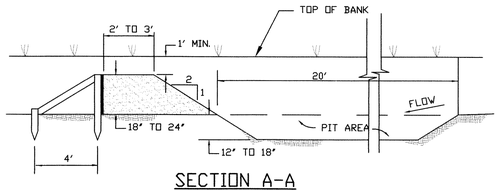


FRONT VIEW

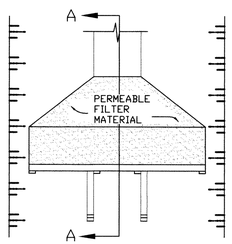
SILT FENCE



END VIEW



SECTION A-A



PLAN VIEW

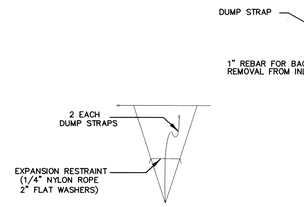
GENERAL NOTES

1. The ditch cross-section should only be partially blocked, in order to minimize the loss in ditch flow capacity.
2. The stone berm should be removed and the sediment pit filled as soon as the upstream areas contributing to it are stabilized. This will allow the ditch to function as designed.
3. Periodic inspection and required maintenance must be provided to insure that the Ditch Sediment Trap operates efficiently.
4. The permission of the governmental agency, responsible for the maintenance of the ditch, must be received before a Ditch Sediment Trap is installed.

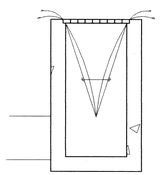
MATERIAL

Screening, 2x4 bracing and washed stone filter material (M.D.O.T. 6A or pea stone).

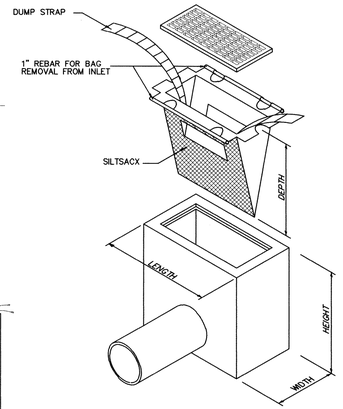
DITCH SEDIMENT TRAP

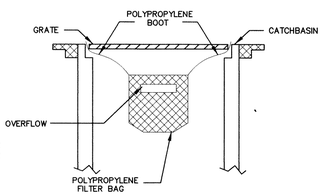


BAG DETAIL



INSTALLATION DETAIL





NOTE:
TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. INLET FILTER TO BE SIMILAR TO "STREAMGUARD" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION OR "SILTSACK" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC.. CLEAN FILTER AS NEEDED.

TEMPORARY INLET SEDIMENT FILTER

REVISIONS	DATE	BULLETIN

CITY OF TRENTON, WAYNE COUNTY, MI
ENGINEERING AND BUILDING DEPARTMENT
2800 THIRD ST., TRENTON, MI 48183 PH (734)675-8251 FAX (734)675-8504
CITY ENGINEER: BOYD W. ARTHURS, P.E.

SOIL EROSION AND SEDIMENT
CONTROL PLAN

DRAWN BY BSM	DATE 6-02-03	DWG FILE SE-1.DWG
DESIGNED BY	SCALE NONE	SHEET SE-1
APPROVED BY WRH		