

SOIL EROSION & SEDIMENT CONTROL PLAN NARRATIVE

INTRODUCTION:
PURSUANT TO CONNECTICUT P.A. 83-388, A SOIL EROSION AND SEDIMENT CONTROL PLAN AND NARRATIVE IS REQUIRED FOR THIS PROJECT.
THIS NARRATIVE DESCRIBES MEASURES REQUIRED TO CONTROL SOIL EROSION DURING AND AFTER CONSTRUCTION OF THE PROPOSED SITE WORK SHOWN ON THIS PLAN. THE SOIL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THIS PLAN ARE DESIGNED IN ACCORDANCE WITH A DOCUMENT ENTITLED "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL," PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CT DEP.
THE GUIDELINES ARE OBTAINABLE FROM THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, STATE OFFICE BUILDING, HARTFORD, CONNECTICUT 06106 AND SHOULD BE USED AS A REFERENCE IN CONSTRUCTING THE EROSION AND SEDIMENT CONTROLS INDICATED ON THESE PLANS.
PROJECT DESCRIPTION:
THE APPLICANT PROPOSES TO CONSTRUCT A 3.94(±) SQUARE FOOT BUILDING WITH APPLICANT PARKING. THE BUILDING WILL BE SERVED BY PUBLIC SEWER AND WATER. THE SITE IS LOCATED AT 818 SULLIVAN AVENUE (CT RTE 194) IN SOUTH WINDSOR, CT. RUN OFF FROM THE DEVELOPED SITE WILL BE COLLECTED IN CATCH BASINS AND PIPED TO AN ON SITE SEWER TRENCH AND THEN TO AN EXISTING SEWER SYSTEM IN SULLIVAN AVENUE. RIPRAP WILL BE INSTALLED AT ALL PIPE OUTLETS TO MINIMIZE SOIL EROSION.
ANTICIPATED START OF CONSTRUCTION IS FALL OF 2020. SEDIMENT AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND WILL BE IN PROPER WORKING ORDER BEFORE CONSTRUCTION BEGINS. SEDIMENT AND EROSION MEASURES WILL BE MAINTAINED IN PROPER WORKING ORDER THROUGH COMPLETION OF CONSTRUCTION AND WILL REMAIN IN PLACE AND CONTINUE TO BE MAINTAINED AFTER CONSTRUCTION HAS BEEN COMPLETED. UNTIL ALL DISTURBED AREAS ARE STABILIZED.

- CONSTRUCTION SCHEDULE:
1. OBTAIN A COPY OF ALL PROJECT LAND-USE PERMITS. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL PERMIT REQUIREMENTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 2. INSTALL SILTATION CONTROL, HAY BALES AND FILTER FABRIC SILT BARRIERS AT EXISTING CATCH BASINS.
 3. INSTALL CONSTRUCTION ENTRANCE.
 4. REMOVE TREES, BRUSH, AND STUMPS IN AREAS TO BE CLEARED AS REQUIRED.
 5. STRIP TOP-SOIL FROM WORK AREAS, STOCKPILE AND INSTALL SILT FENCE AT TOE OF PILE.
 6. ROUGH GRADE DETENTION BASIN AND WATER QUALITY SWALE.
 7. ROUGH GRADE SILE, LEAVING GRADE LOW ALONG NORTH SIDE TO ALLOW FOR SEDIMENT COLLECTION. BEGIN CONSTRUCTION OF BUILDING.
 8. INSTALL UTILITIES AND FILTER FABRIC SILT BARRIERS AT NEW CATCH BASINS.
 9. BACKFILL FOUNDATION.
 10. ROUGH GRADE NEW PARKING AREAS, INSTALL AND GRADE PAVEMENT BASE AND CURBS.
 11. PAVE PARKING AREAS AND INSTALL WALKS.
 12. GRADE, STABILIZE AND SEED ALL DISTURBED AREAS.
 13. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL A DURABLE GRASS STAND IS ESTABLISHED IN ALL NON-PAVED AREAS.

- LAND DISTURBANCE:
- THE FOLLOWING PROCEDURES SHALL BE USED FOR ALL LAND DISTURBING ACTIVITIES:
1. PROPOSED AREAS SHALL REMAIN UNDISTURBED UNTIL IMMEDIATELY PRIOR TO CONSTRUCTION.
 2. LAND CLEARING SHALL PROCEED AT THE SAME RATE AS CONSTRUCTION.
 3. REMOVAL OF VEGETATION SHALL BE RESTRICTED TO THOSE AREAS NECESSARY FOR CURRENT CONSTRUCTION ACTIVITIES.
 4. DISTURBED AREAS SHALL BE LIMITED TO A MAXIMUM OF 20 FEET BEYOND THE PHYSICAL DIMENSIONS OF THE ROADS, DRIVEWAYS, UTILITY TRENCHES, SEPTIC SYSTEMS, AND AREAS TO BE GRADED.
 5. CONSTRUCTION OF FOUNDMENT AND MATERIALS SHALL BE CONFINED TO THE DISTURBED AREAS.
 6. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE CLEANING OF NEARBY STREETS, AS ORDERED BY THE TOWN OR STATE, OF ANY DEBRIS FROM HIS CONSTRUCTION ACTIVITIES.
 7. THE USE, STORAGE, OR DISPOSAL OF ANY MATERIAL NOT IN ACCORDANCE WITH WHAT IS SHOWN ON THE APPROVED PLAN OR REQUIRED BY THE REGULATORY AGENCY MAY RESULT IN THE IMMEDIATE REVOCATION OF ANY PERMIT/APPROVAL GRANTED BY THE COMMISSION.

GENERAL NOTES:
WHENEVER CONSTRUCTION SHALL TAKE PLACE IN AREAS DESIGNATED AS WETLANDS OR AS AREAS TO BE ECOLOGICALLY PROTECTED, THE CONTRACTOR SHALL TAKE SPECIAL CARE WITH HIS CONSTRUCTION METHODS AND SHALL COMPLY WITH THE DIVERSIFIED ECOSYSTEM REQUIREMENTS. CONSTRUCTION SHALL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT INJURY TO PERSONS OR PUBLIC HEALTH AND TO PREVENT FLOODING OF PUBLIC OR PRIVATE PROPERTY.
ALL EXISTING VEGETATION SHALL BE PROTECTED, AND ONLY THAT CLEAVING AND CUTTING WHICH IS ABSOLUTELY NECESSARY FOR THE PROPOSED CONSTRUCTION OR TO CLEAR THE PERMANENT RIGHT-OF-WAY SHALL BE ALLOWED. CARE SHALL BE TAKEN TO PROTECT REMAINING TREES AND OTHER PLANTS. ALL PLANTS AND TREES SHALL BE PROTECTED FROM DAMAGE BY CONSTRUCTION EQUIPMENT BY SUITABLE MEANS. ALL REGULATED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND CONTOURS.
EXCESS EXCAVATED MATERIAL, INCLUDING THAT RESULTING FROM CLEAVING AND GRUBBING, SHALL NOT BE DEPOSITED WITHIN THE REGULATED AREA.

IF WORK IS REQUIRED WITHIN A REGULATED WETLAND, WATER COURSE, OR ADJACENT AREA, SITE DISTURBANCE SHALL BE LIMITED TO THE AREA ABSOLUTELY NECESSARY FOR CONSTRUCTION. DISTURBED AREAS SHALL BE RESTORED AS NEARLY AS POSSIBLE TO ORIGINAL CONDITIONS. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FROM THE TOWN, WETLANDS COMMISSION, BY THE TOWN INDICATING THE LIMITS OF INLAND WETLANDS, AND CONDITIONS FOR CONSTRUCTION WITHIN THESE REGULATED AREAS. THE CONTRACTOR SHALL BE REQUIRED TO STRICTLY ADHERE TO ALL REQUIREMENTS AND RESTRICTIONS IMPOSED BY THE WETLANDS PERMIT.
SOIL EROSION AND SEDIMENT CONTROL MEASURES:
ALL WATERCOURSES SHALL BE PROTECTED FROM SEDIMENTATION BOTH DURING AND AFTER CONSTRUCTION. CONSTRUCTION OF EROSION PROTECTIVE FACILITIES, A DRAINAGE SYSTEM, OR TRENCH OR DITCH EXCAVATION, OR STOCKPILED MATERIAL, HAYBALES OR SYNTHETIC FILTER BARRIER FENCE, AS SPECIFIED, IS TO BE INSTALLED AT ALL LOCATIONS AS INDICATED ON THE PLANS TO INTERCEPT SILT AND SEDIMENT BEFORE IT REACHES THE DRAINAGE SYSTEM, WETLANDS, OR WATERCOURSES. THE DRAINAGE SYSTEM SHALL BE RESTORED AS NEARLY AS POSSIBLE TO ORIGINAL CONDITIONS. THE CONTRACTOR SHALL TAKE NECESSARY ACTION, DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE HAYBALES OR SILT FENCE. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR TO BE USED AS FILL IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT UPON. TO BE USED AS FILL IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT UPON, INSURE EROSION PROTECTIVE FACILITIES REMAIN IN PLACE AND BE MAINTAINED TO PREVENT CONSTRUCTION, EXPOSE AS SMALL AN AREA AS POSSIBLE FOR AS SHORT A TIME AS POSSIBLE.
DURING CONSTRUCTION, ANY ADDITIONAL SEDIMENT/EROSION CONTROL MEASURES SHALL BE INSTALLED AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION. IN ADDITION, THE DEVELOPER SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT, AND MAINTENANCE OF ALL SEDIMENT/EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE TOWN.

STRIPPING AND STOCKPILING:

STOCKPILES THAT CONSIST OF EROSION MATERIAL, SUCH AS STRIPPED TOPSOIL, ROAD FILL, SOLS EXCAVATED FROM ROAD CUTS AND FOUNDATION HOLES, ETC., SHALL CONFORM TO THE FOLLOWING CRITERIA:
1. LOCATION-ALL STOCKPILES SHALL BE LOCATED WITHIN THE AREA OF THE PROPOSED DISTURBANCE, AND AWAY FROM THE FOLLOWING:
- WETLANDS
- DISTURBED AREAS
- STORM DRAINAGE SYSTEM INLETS
- TOE OF STEEP SLOPES

2. SEDIMENT CONTROL-ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT BARRIERS, EITHER GEOTEXTILE SILT FENCE OR HAY BALE BARRIERS, PLACED APPROXIMATELY 10 FEET OUT FROM THE STOCKPILE. THE STOCKPILE SHALL NOT BE EXPOSED TO EROSION FROM THE STEEP SLOPE. THE STOCKPILE SHALL NOT BE USED WITHIN THIRTY DAYS SHALL BE SEEDDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE.
THE CONTRACTOR SHALL CAREFULLY STRIP ALL TOPSOIL, LOAM, OR ORGANIC MATERIAL PRIOR TO TRENCHING OPERATIONS, AND SHALL STORE THEM SEPARATELY INLAND WETLANDS, AND SHALL MAINTAIN A MINIMUM OF 2 FEET OF TOPSOIL AND STORED SEPARATELY. DURING BACKFILLING, THESE MATERIALS SHALL BE REPLACED AND FINISHED AS THEY EXISTED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOT INTRODUCE ANY FILL MATERIALS INTO ANY AREAS DESIGNATED AS WETLANDS WITHOUT FIRST OBTAINING A PERMITS FROM THE TOWN, WETLANDS COMMISSION.

THE CONTRACTOR SHALL MAINTAIN ALL BACKFILLED EXCAVATION IN PROPER CONDITION UNTIL EXPIRATION OF THE MAINTENANCE PERIOD. ALL DEPRESSIONS RESEDED IF NECESSARY.
DURING CONSTRUCTION, IF SPECIFIED, IT IS TO BE INSTALLED FOR ENERGY DISSIPATION AND TO CONTROL EROSION. THE RIPRAP IS TO BE INSTALLED BEFORE THE OUTLET STRUCTURES ARE WORKING, AND ALL ADJACENT AREAS ARE TO BE IMMEDIATELY SEEDDED. IF IN SEASON, OR THE SOIL IS TO BE STABILIZED BY OTHER METHODS, THIS MAY REQUIRE SOODING, MULCHING, OR OTHER METHODS AS DEFINED IN THE "GUIDELINES".
RIPRAP SHALL BE INSPECTED PERIODICALLY TO DETERMINE IF HIGH FLOWS HAVE CAUSED EROSION BEHIND THE RIPRAP OR UNDER THE RIPRAP. IF OBSERVED, THE RIPRAP OR FLIER BARRIER MATERIALS, REPAIR IMMEDIATELY UPON OBSERVED FAILURE.

AL REVEALATION REQUIRING REMOVAL FOR CONSTRUCTION OF THE PROJECT SHALL BE DISPOSED OF ON-SITE.
ALL EXISTING TREES AND BRUSH:
1. SCARIFY SURFACE OF ALL AREAS TO BE TOP-SOILED; PLACE A MINIMUM OF 2 INCHES OF TOP-SOIL OVER ALL AREAS TO BE SEEDDED.
2. FERTILIZE AT THE FOLLOWING RATES:
a) FOR SPRING SEEDING: APPLY 18-19-19 FERTILIZER AT A RATE OF 10 LB.s/1000 SF. AND WORK INTO SOIL SIX TO EIGHT WEEKS LATER AN ADDITIONAL 10 LB.s/1000 SF IS TO BE APPLIED.
b) FOR FALL SEEDING: APPLY 19-19-19 FERTILIZER AT A RATE OF 10 LB.s/1000 SF. AND WORK INTO SOIL.
3. SMOOTH AND FIRM SEEDBED: APPLY SEED AT THE RATE(S) SPECIFIED BELOW. APPLY APPROPRIATE SEED MIXTURE PER THE FOLLOWING:
PERMANENT SEEDING FESCUE
35% SHAMROCK KENTUCKY BLUEGRASS
35% ALL-SPORT PERENNIAL RYE
APPLICATION RATE: 5 LB.s/1000 SF
ANNUAL RYE OR PERENNIAL RYE APPLICATION RATE: 2 LB.s/1000 SF
WILCH IMMEDIATELY WITH HAY FREE FROM WEED SEEDS AT A RATE OF 3 BALES/1000 SF.

1. ESTABLISH VEGETATION COVER ON DISTURBED AREAS.
1. SCARIFY SURFACE OF ALL AREAS TO BE TOP-SOILED; PLACE A MINIMUM OF 2 INCHES OF TOP-SOIL OVER ALL AREAS TO BE SEEDDED.
2. FERTILIZE AT THE FOLLOWING RATES:
a) FOR SPRING SEEDING: APPLY 18-19-19 FERTILIZER AT A RATE OF 10 LB.s/1000 SF. AND WORK INTO SOIL SIX TO EIGHT WEEKS LATER AN ADDITIONAL 10 LB.s/1000 SF IS TO BE APPLIED.
b) FOR FALL SEEDING: APPLY 19-19-19 FERTILIZER AT A RATE OF 10 LB.s/1000 SF. AND WORK INTO SOIL.
3. SMOOTH AND FIRM SEEDBED: APPLY SEED AT THE RATE(S) SPECIFIED BELOW. APPLY APPROPRIATE SEED MIXTURE PER THE FOLLOWING:
PERMANENT SEEDING FESCUE
35% SHAMROCK KENTUCKY BLUEGRASS
35% ALL-SPORT PERENNIAL RYE
APPLICATION RATE: 5 LB.s/1000 SF
ANNUAL RYE OR PERENNIAL RYE APPLICATION RATE: 2 LB.s/1000 SF
WILCH IMMEDIATELY WITH HAY FREE FROM WEED SEEDS AT A RATE OF 3 BALES/1000 SF.

1. ESTABLISH VEGETATION COVER ON DISTURBED AREAS.
1. SCARIFY SURFACE OF ALL AREAS TO BE TOP-SOILED; PLACE A MINIMUM OF 2 INCHES OF TOP-SOIL OVER ALL AREAS TO BE SEEDDED.
2. FERTILIZE AT THE FOLLOWING RATES:
a) FOR SPRING SEEDING: APPLY 18-19-19 FERTILIZER AT A RATE OF 10 LB.s/1000 SF. AND WORK INTO SOIL SIX TO EIGHT WEEKS LATER AN ADDITIONAL 10 LB.s/1000 SF IS TO BE APPLIED.
b) FOR FALL SEEDING: APPLY 19-19-19 FERTILIZER AT A RATE OF 10 LB.s/1000 SF. AND WORK INTO SOIL.
3. SMOOTH AND FIRM SEEDBED: APPLY SEED AT THE RATE(S) SPECIFIED BELOW. APPLY APPROPRIATE SEED MIXTURE PER THE FOLLOWING:
PERMANENT SEEDING FESCUE
35% SHAMROCK KENTUCKY BLUEGRASS
35% ALL-SPORT PERENNIAL RYE
APPLICATION RATE: 5 LB.s/1000 SF
ANNUAL RYE OR PERENNIAL RYE APPLICATION RATE: 2 LB.s/1000 SF
WILCH IMMEDIATELY WITH HAY FREE FROM WEED SEEDS AT A RATE OF 3 BALES/1000 SF.

Stormwater Operations & Maintenance Plan

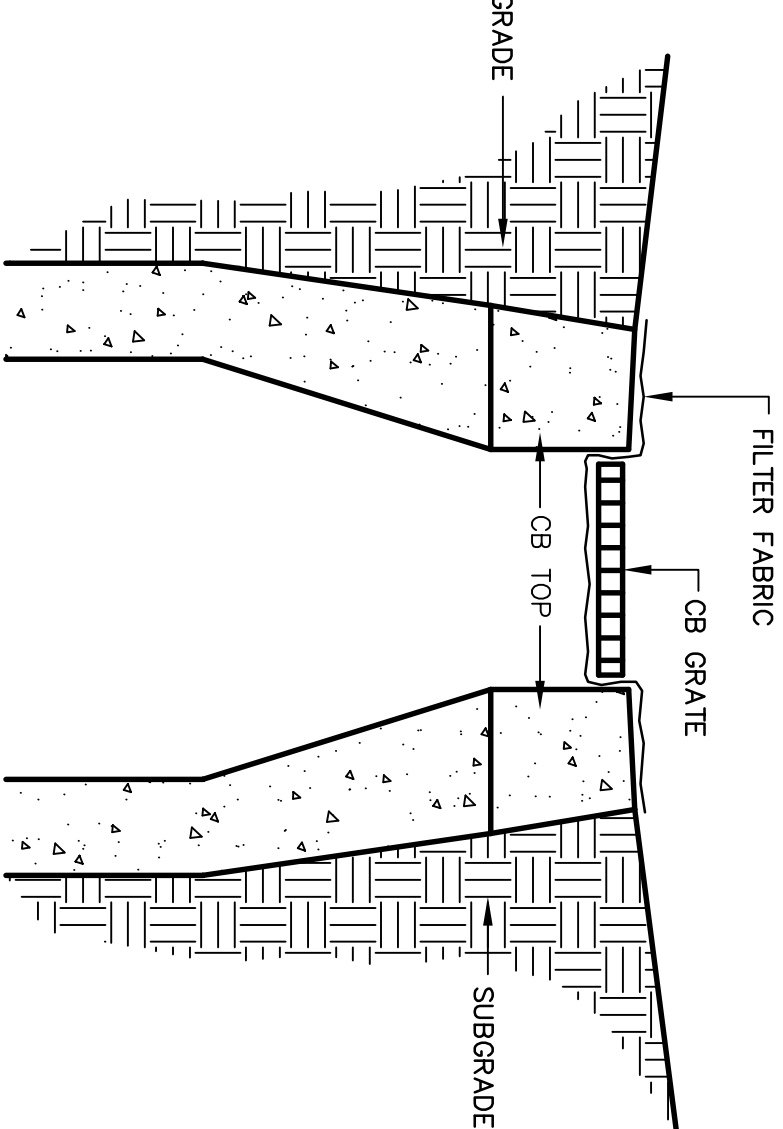
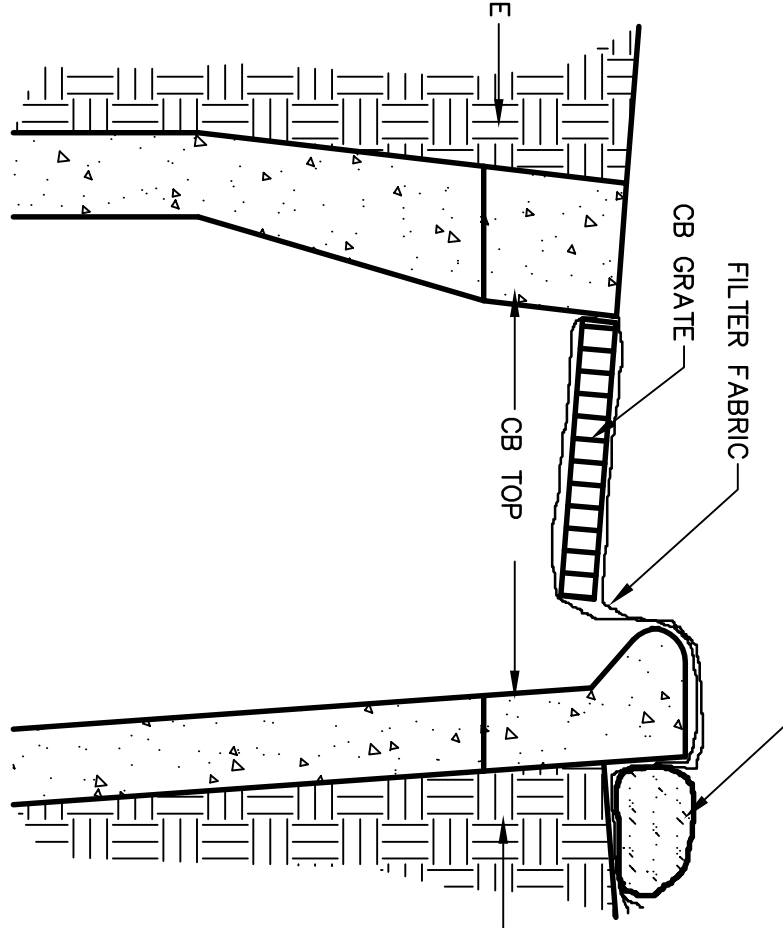
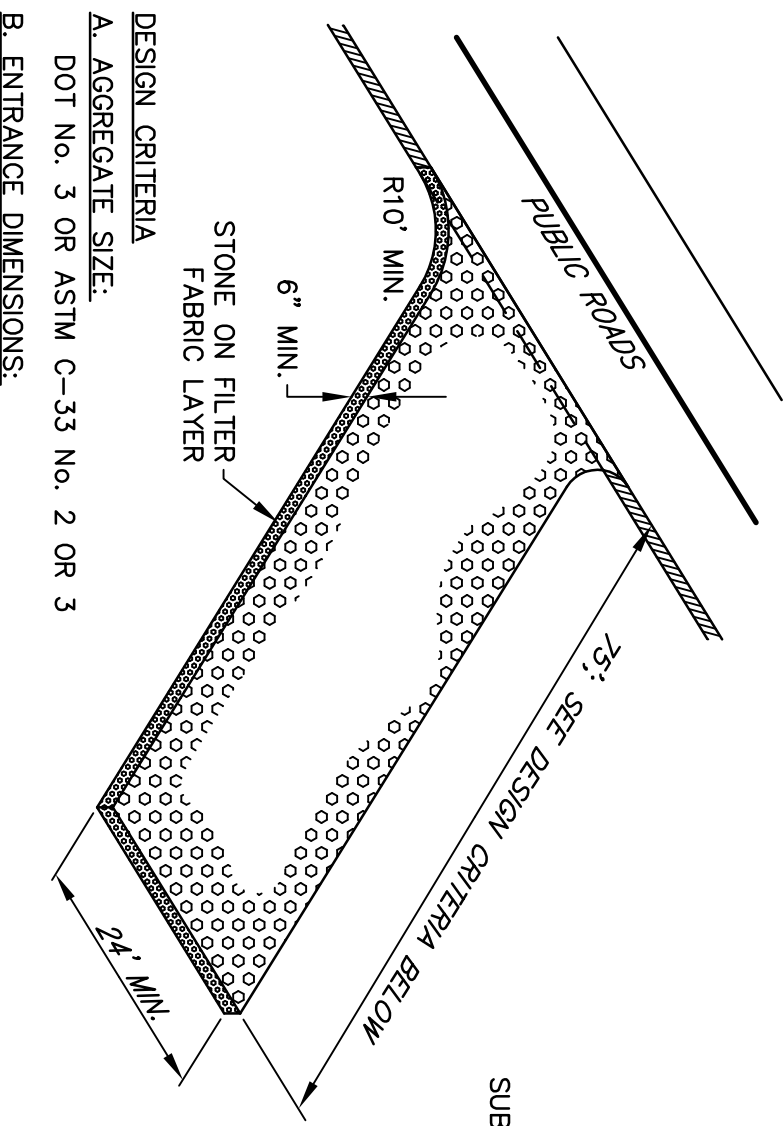
The Applicant proposes to construct a 3.937 sf Valvoline Oil change center and add 777 sf to an existing car wash at near 818 Sullivan Avenue South Windsor property. Minor grading and limited land clearing is required for construction. The proposed site is designed with a detention basin to reduce post-construction runoff to pre-development levels for the 2-y/1, 10-y/1, 25-y/1, and 100-year storms.

The proposed site grading will direct runoff from the building and pavement to a leak-off along the northside of the pavement. The building addition will not increase the impervious area since it will be built over existing paved areas. However, to improve stormwater quality a grass-lined water quality swale is proposed from the leak-off to the existing wetlands.

A sediment and erosion plan is included on the project construction drawings which details measures necessary during construction. This Stormwater Operations & Maintenance Plan is prepared to address long term maintenance of the site facilities to enhance stormwater quality.

The following annual inspections and maintenance shall be performed. The inspection and maintenance shall be performed in the spring of each year (late March or more within a 24 hour period). The Owner of the property shall be responsible for the implementation of this plan.

1. Clean parking lot. Sweep parking lot of any accumulated sand from the winter maintenance operations.
 2. Clean the catch basins. The catch basins shall be vacuumed to remove all debris and sediment. If the accumulated sediment exceeds half the depth of the distance between the bottom of the structure and the flow line of the outlet pipe, then a mid-winter cleaning program shall be implemented the following winter.
 3. Clean any accumulated sand or debris collected in the water quality swale.
 4. Inspect riprap. Inspect the riprap at the outlets, remove any debris and accumulated sediment. Any displaced or missing riprap shall be replaced.
 5. Inspect the pipe. If damaged, repair or replace as necessary.
 6. Inspect the detention basin. Remove any accumulated debris, inspect for any bare soil areas and any dead or dying vegetation; replace with the plantings shown on the plans. Sediment shall be removed from the basin.
- Routine site maintenance shall be performed as follows to limit pollutant loads into the stormwater system.
1. Daily debris and litter removal from the site will eliminate entry into the stormwater system.
 2. During winter snow removal and deicing operations the use of salts shall be minimized, and used only in icy locations.

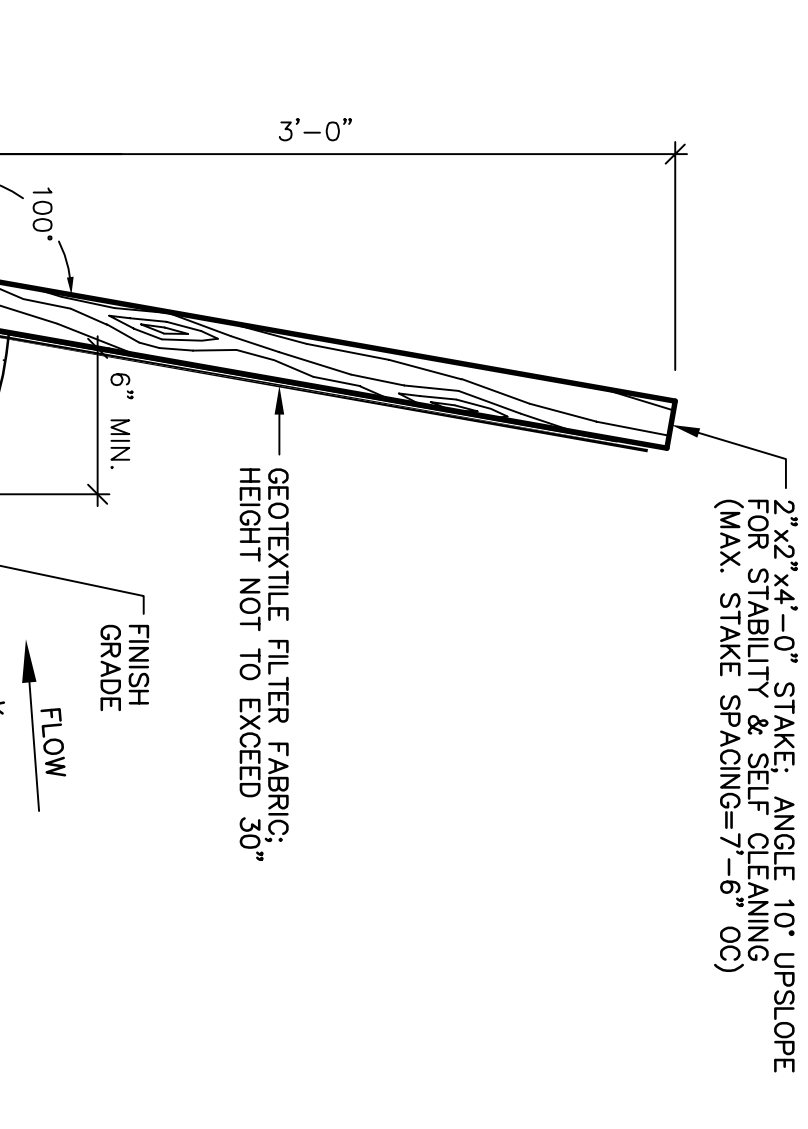
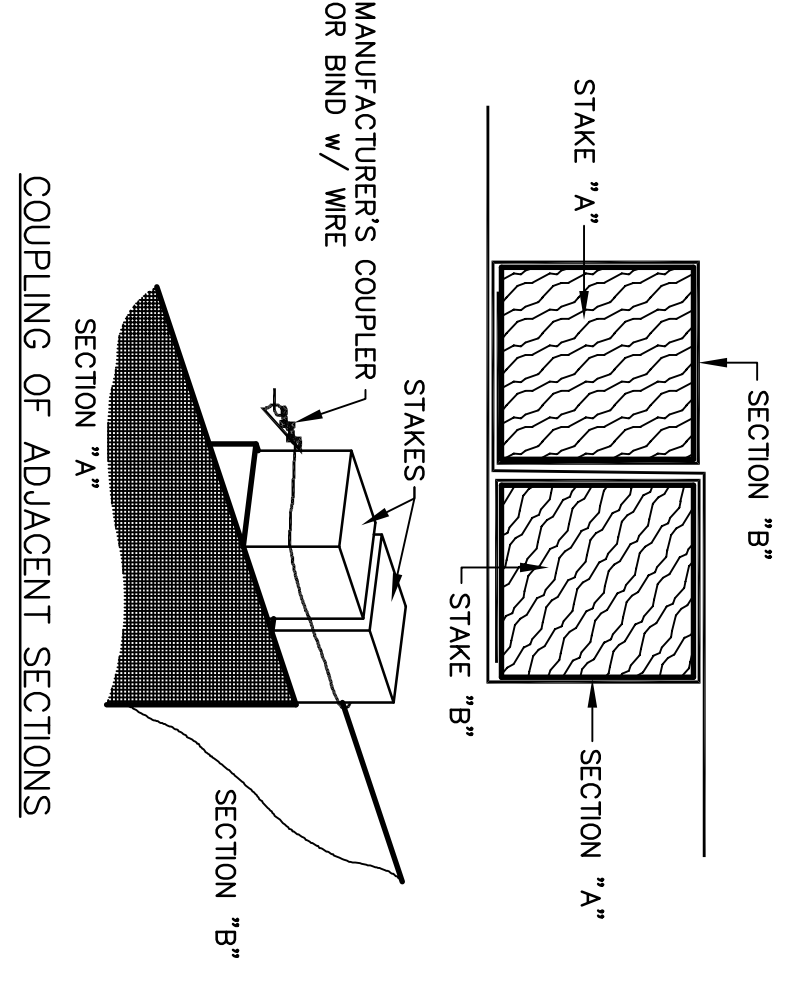


DESIGN CRITERIA
A. AGGREGATE SIZE:
DOT No. 3 OR ASTM C-33 No. 2 OR 3
B. ENTRANCE DIMENSIONS:
THICKNESS-NOT LESS THAN SIX (6) INCHES OF STONE ON FILTER FABRIC.
WIDTH-TWENTY-FOUR (24) INCH. W/ POINTS OF INGRESS/EGRESS FLARED SUFFICIENTLY TO ACCOMMODATE CONSTRUCTION VEHICLES USED ON SITE
LENGTH-50 FEET MINIMUM WHERE THE SOILS ARE SANDS OR GRAVELS, OR 100 FEET MINIMUM WHERE SOILS ARE CLAYS OR SILTS, EXCEPT WHERE THE TRAVELED LENGTH IS LESS THAN 50 OR 100 FEET RESPECTIVELY
AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE SHOULD BE INSTALLED BEFORE INSTALLING THE STABILIZED CONSTRUCTION ENTRANCE

NOTE:
REPLACE CB GRATE, PLACE FILTER FABRIC;
REPLACE GRATE, TAKING CARE NOT TO
DAMAGE FILTER FABRIC. ANCHOR W/
STONE OR EARTH PILE
TYPE "C"

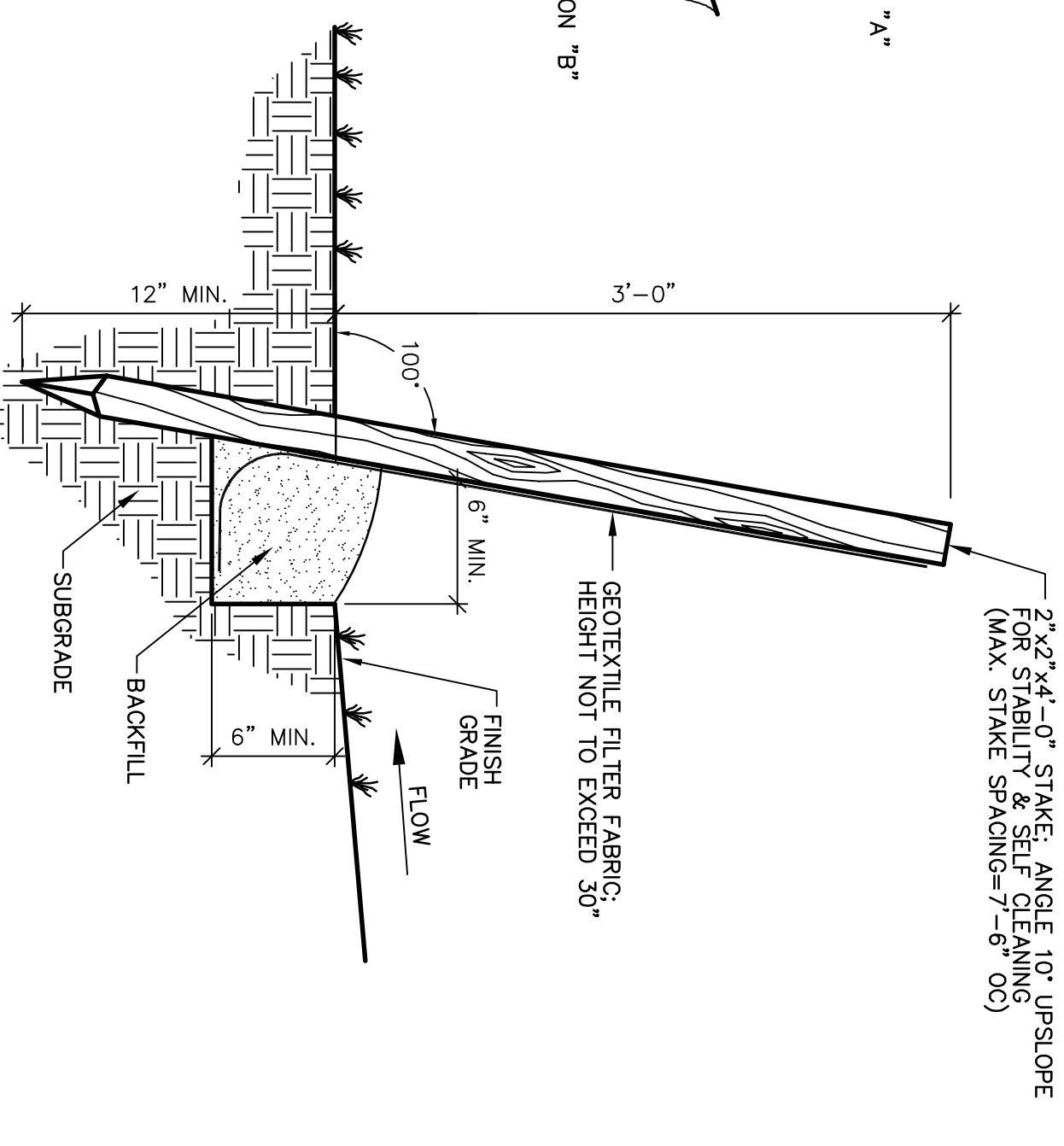
NOTE:
REPLACE CB GRATE, PLACE FILTER FABRIC;
REPLACE GRATE, TAKING CARE NOT TO
DAMAGE FILTER FABRIC.
TYPE "C"

CONSTRUCTION ENTRANCE
N.T.S.



CONSTRUCTION ENTRANCE
N.T.S.

SILTATION CONTROL FENCE
N.T.S.

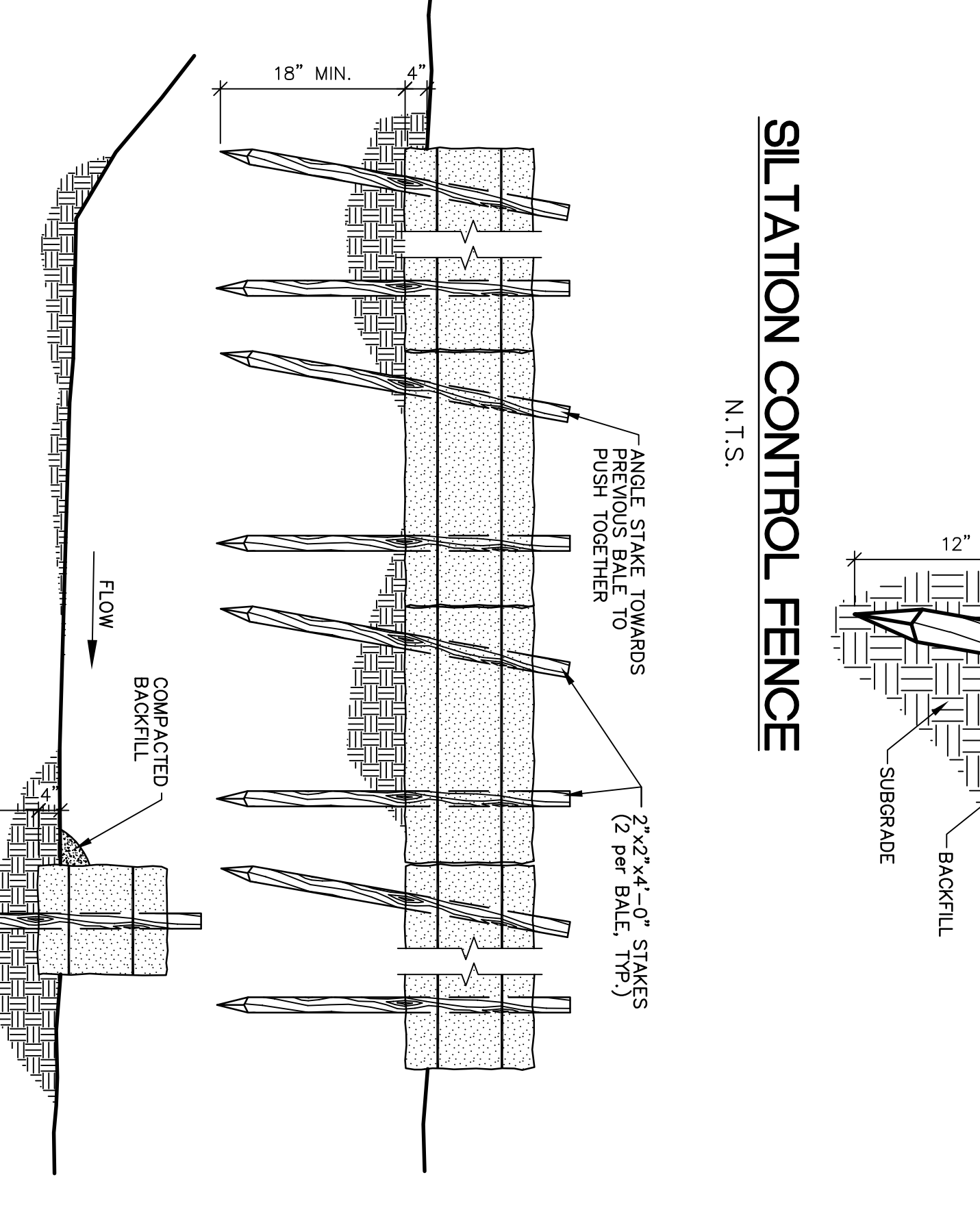


Specifications:

1. Any alternate equal must be submitted to the 2002 Water Laboratory Separate Process. Separator must be used based on this data.
2. Alternative equal must be HET Certified, AASTM Verified, Massachusetts Plumbing Code approved and AASTM approved.
3. Any testing performed by the manufacturer and/or field testing is required to be submitted to the Water Laboratory for review and approval.
4. Any testing shall be done in accordance with the following independent agencies. Only mass balance testing will be accepted to verify an alternative equal.
5. The separator must be designed based on the following criteria:

Flow Criteria	Hydroguard Components
Water Quality (low flow 1.5 GPM)	A. New Chamber
Peak Flow (low flow 1.5 GPM)	B. New Chamber
Water Quality (low flow 1.5 GPM)	C. New Chamber
Peak Flow (low flow 1.5 GPM)	D. New Chamber
Water Quality (low flow 1.5 GPM)	E. New Chamber
Peak Flow (low flow 1.5 GPM)	F. New Chamber
Water Quality (low flow 1.5 GPM)	G. New Chamber
Peak Flow (low flow 1.5 GPM)	H. New Chamber
Water Quality (low flow 1.5 GPM)	I. New Chamber
Peak Flow (low flow 1.5 GPM)	J. New Chamber
Water Quality (low flow 1.5 GPM)	K. New Chamber
Peak Flow (low flow 1.5 GPM)	L. New Chamber
Water Quality (low flow 1.5 GPM)	M. New Chamber
Peak Flow (low flow 1.5 GPM)	N. New Chamber
Water Quality (low flow 1.5 GPM)	O. New Chamber
Peak Flow (low flow 1.5 GPM)	P. New Chamber
Water Quality (low flow 1.5 GPM)	Q. New Chamber
Peak Flow (low flow 1.5 GPM)	R. New Chamber
Water Quality (low flow 1.5 GPM)	S. New Chamber
Peak Flow (low flow 1.5 GPM)	T. New Chamber
Water Quality (low flow 1.5 GPM)	U. New Chamber
Peak Flow (low flow 1.5 GPM)	V. New Chamber
Water Quality (low flow 1.5 GPM)	W. New Chamber
Peak Flow (low flow 1.5 GPM)	X. New Chamber
Water Quality (low flow 1.5 GPM)	Y. New Chamber
Peak Flow (low flow 1.5 GPM)	Z. New Chamber

Hydroguard by Hydroworks, LLC
U.S. Patent No. 6,551,513
www.hydroworks.com



HAY BALE BARRIER
N.T.S.

