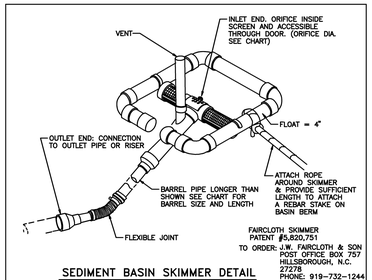
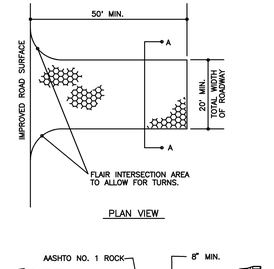


SEDIMENT BASIN SKIMMER DETAIL

NOT TO SCALE

SKIMMER SPECIFICATIONS

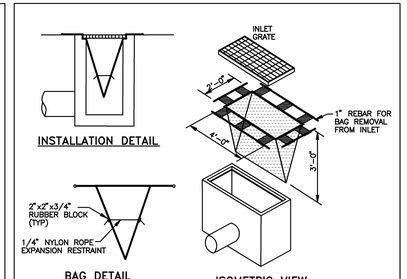
SEDIMENT BASIN #	SKIMMER SIZE INCHES	ORIFICE DIA. INCHES	BARREL DIA. INCHES	BARREL SIZE LENGTH
1	4.0	3.6	3.0	8.0'
2	5.0	4.1	4.0	11.0'
3	6.0	5.0	5.0	12.0'
4	5.0	4.7	4.0	8.0'



ROCK CONSTRUCTION ENTRANCE DETAILS

NOT TO SCALE

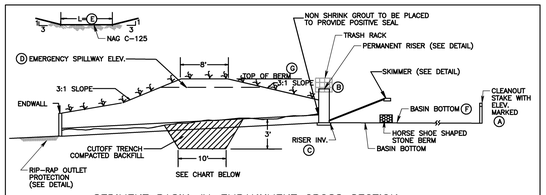
ROCK CONSTRUCTION ENTRANCE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.



Maximum Drainage Area = 1/2 acre.
Inlet protection is not required for inlet tributary to sediment basin or trap.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

FILTER BAG INLET PROTECTION



SEDIMENT BASIN #1 EMBANKMENT CROSS SECTION

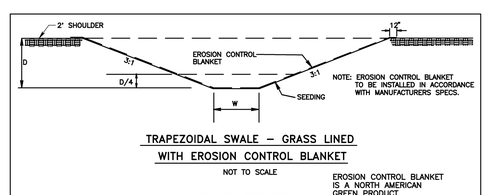
NOT TO SCALE

SEDIMENT STRUCTURE TABULATION

BASIN INDENTIFIER	DRAINAGE AREA (AC.)	REQUIRED STORAGE VOLUME (C.F.)	CLEANOUT ELEV.	RISER & STORAGE VOL. ELEV.	RISER INV.	OUTFALL PIPE SIZE	EMERGENCY SPILLWAY ELEV.	SPILLWAY LENGTH	SKIMMER DIA.	BASIN BOTTOM ELEV.	TOP OF BERM ELEV.
1	10.85	65,100	104.2	108.28	102.00	24"	109.25	74.0'	4.0'	102.00	110.75
2	14.52	87,120	144.75	149.52	142.25	24"	150.15	51.0'	5.0'	142.25	152.00
3	23.50	141,000	155.65	161.27	153.00	36"	160.45	107.0'	6.0'	153.00	163.00
4	18.85	113,100	166.20	169.77	165.00	12"	174.35	90.0'	5.0'	165.00	174.50
			Ⓐ	Ⓑ	Ⓒ		Ⓓ	Ⓔ		Ⓕ	Ⓖ

NOTE:
TOP OF HORSE SHOE SHAPED STONE BERM ELEVATION SHALL BE SET TO THE CLEAN OUT ELEVATION.

SEDIMENT BASIN #1 DETAIL



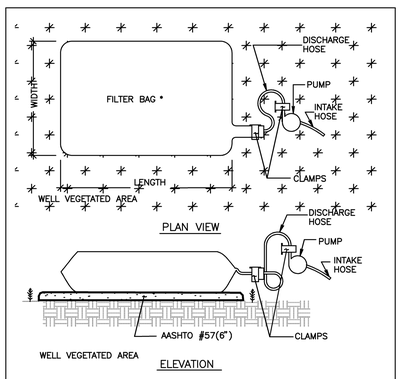
TRAPEZOIDAL SWALE – GRASS LINED WITH EROSION CONTROL BLANKET

NOT TO SCALE

EROSION CONTROL BLANKET IS A NORTH AMERICAN GREEN PRODUCT

CHANNEL TABULATION

CHANNEL NUMBER	V (FPS)	Q (CFS)	SLOPE (FT/FT)	W	D	CHANNEL LININGS	COMMENTS
1	9.35	13.44	0.0240–0.1333	4.25'	1.00'	C125BN	TEMPORARY SWALE
2	7.04	20.02	0.0105–0.0330	3.0'	1.50'	C125BN	TEMPORARY SWALE
3	6.20	10.80	0.0150–0.0400	3.0'	1.25'	C125BN	TEMPORARY SWALE
4	9.16'	10.24	0.0220–0.1333	3.0'	1.00'	C125BN	TEMPORARY SWALE
5	4.67'	5.70	0.0200–0.0310	3.0'	1.00'	C125BN	TEMPORARY SWALE



SEDIMENT FILTER BAG FOR PUMPED WATER

N.T.S.

* NON WOVEN GEOTEXTILE FILTER BAG WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS.

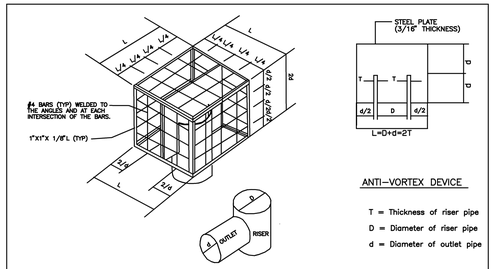
PLACE FILTER BAGS ON STABLE OR WELL VEGETATED AREAS WHICH ARE FLATTER THAN 5% AND WHICH WILL NOT ERODE WHEN SUBJECTED TO BAG DISCHARGES.

CLAMP PUMP DISCHARGE HOSES SECURELY INTO FILTER BAGS.

LIMIT PUMPING RATE TO 1/2 THE MANUFACTURE'S MAXIMUM PUMPING RATE.

WHEN SEDIMENTS FILL 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE. PROPERLY DISPOSE OF SPEND BAGS WITH THEIR SEDIMENTS.

THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE.



ANTI-VORTEX DEVICE

T = Thickness of riser pipe
D = Diameter of riser pipe
d = Diameter of outlet pipe

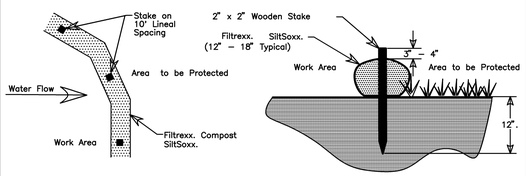
TRASH RACK AND ANTI-VORTEX DEVICE

NOT TO SCALE

SEDIMENTATION BASIN MAINTENANCE NOTES

1. Sediment must be removed from basins when storage capacities are reduced to 5000 cubic feet per tributary acre.
2. Sedimentation basins must be protected from unauthorized acts of third parties.

Filtrexx. SiltSoxx. Details

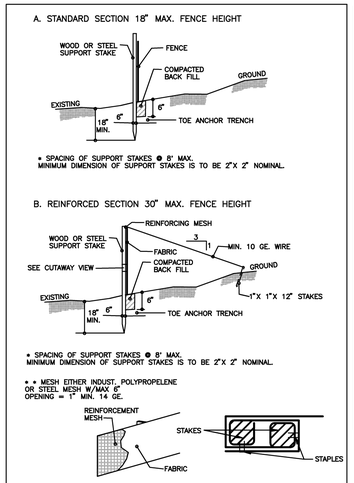


Filtrexx SiltSoxx. Plan View

Filtrexx SiltSoxx. Section

Notes:

1. All material to meet Filtrexx. specifications.
2. SiltSoxx. compost/ jsoil /rock/seed fill to meet application requirements.
3. SiltSoxx. depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site, as determined by Engineer.



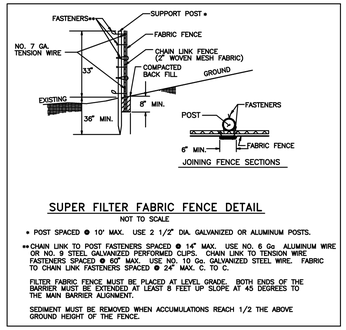
EITHER INDUSTRIAL POLYPROPOLENE OR STEEL MESH WITH 6" MAX. OPENING.
STEEL MESH SHALL BE 14 GAGE MIN.

FILTER FABRIC FENCE INSTALLATION DETAILS

NOT TO SCALE

SILT FENCING MAINTENANCE NOTES

1. Silt fencing must be installed parallel to existing contours or constructed level alignments. Ends of fencing must be extended 10 feet, travelling upslope at 45 degrees to the alignment of the main fencing section.
2. Sediment must be removed where accumulations reach 1/2 the above ground height of silt fence.
3. Any silt fencing which has been undermined or topped must be replaced with rock filter outlets immediately.



SUPER FILTER FABRIC FENCE DETAIL

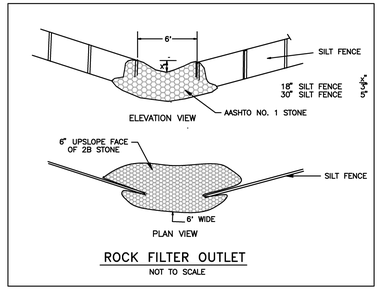
NOT TO SCALE

* POST SPACED @ 10' MAX. USE 2 1/2" DIA. GALVANIZED OR ALUMINUM POSTS.

** CHAIN LINK TO POST FASTENERS SPACED @ 14" MAX. USE NO. 6 Ga ALUMINUM WIRE OR NO. 9 STEEL GALVANIZED PERFORMED CLIPS. CHAIN LINK TO TENSION WIRE FASTENERS SPACED @ 60" MAX. USE NO. 10 Ga. GALVANIZED STEEL WIRE. FABRIC TO CHAIN LINK FASTENERS SPACED @ 24" MAX. C. TO C.

FILTER FABRIC FENCE MUST BE PLACED AT LEVEL GRADE. BOTH ENDS OF THE BARRIER MUST BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT.

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.



ROCK FILTER OUTLET

NOT TO SCALE

GENERAL NOTES

1. Should any measures contained within this plan prove incapable of adequately removing sediment from on-site flows prior to discharge or of stabilizing the surfaces involved, additional measures must be immediately implemented by the developer to eliminate all such problems.
2. Only limited upslope disturbance will be permitted to provide access to sediment traps and interceptor channels for grading and acquiring borrow to construct these controls.
3. Erosion and sedimentation controls must be constructed, stabilized, and functional before general site disturbance within the tributary areas of those controls.
4. After final site stabilization has been achieved, temporary erosion and sedimentation controls must be removed. Areas disturbed during removal of the controls must be stabilized.
5. Until the site is stabilized, all erosion and sedimentation controls must be maintained properly. Maintenance must include inspections of all erosion and sedimentation controls after each storm event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, remulching, and renetting must be performed immediately.
6. The developer is advised to become thoroughly familiar with the provisions of Appendix 64, Erosion Control Rules and Regulations, Title 25, Part I, Department of Environmental Resources, Sub-Apart C, Protection of Natural Resources, Article 11, Water Resources, Chapter 102, Erosion Control.
7. A copy of this plan must be posted at the construction site implemented in accordance with state law.
8. Limits of disturbance must be clearly marked in the field prior to disturbance. Any change or encroachment into these areas without Conservation District review and approval may require the developer to cease disturbance.
9. The developer must develop and have approved by the County Conservation District, a separate erosion and sedimentation control plan for each spoil, borrow, or other work area not detailed in the approved plan, whether located within or outside the construction limits.
10. Sediment must be removed when accumulations reach 1/2 above ground heights of silt fencing.
11. If any significant changes are to be made to the limits of disturbance or to the Erosion and Sediment Control Plan, the builder or landowner will contact the Montgomery County Conservation District at (610)489-4506. for adequacy of these changes.
12. All areas requiring interim or final stabilization must be addressed immediately upon completion of disturbance. Areas utilizing vegetative stabilization must be seeded/planted and mulched in sufficient time to germinate by October 15 of each year. Seeding will be accomplished through the use of hydro-seeding techniques or conventional seeding and mulching at a rate of 3.0 tons per acre as recommended in the Penn State Agronomy Guide.

EROSION AND SEDIMENTATION CONTROL NOTES

1. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E & S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT.
2. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON DISTURBED AREAS.
3. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPROVED E&S EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT ALL TIMES.
5. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
6. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OR EROSION.
7. PROTECTION TO EXISTING TREES AND SHRUBS SHALL BE TAKEN TO ELIMINATE UNNECESSARY DAMAGE.
8. UNTIL THE SITE IS STABILIZED ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

   ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PREFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED REPLACEMENT BMP'S OF MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:

   A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.

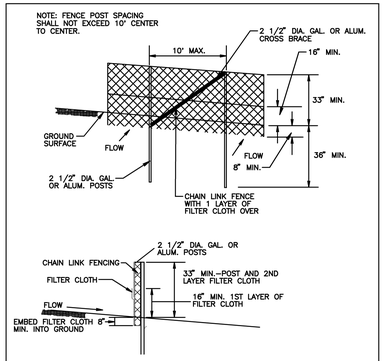
   B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.

   C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
9. 3:1 SLOPES TO BE STABILIZED W/ EROSION CONTROL BLANKET S-150 OR SODDED.

10. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL FACILITIES WEEKLY AND AFTER EACH RAINFALL EVENT. ANY DAMAGED OR BROKEN FACILITY MUST BE REPAIRED OR REPLACED IMMEDIATELY.

11. THE CONTRACTOR MUST PREVENT ANY SEDIMENT FROM ENTERING INTO THE UNDERGROUND INFILTRATION BED.

12. PRIOR TO THE REMOVAL OF E&S CONTROLS, THE MONTGOMERY COUNTY CONSERVATION DISTRICT MUST BE NOTIFIED AT (610) 489-4506.



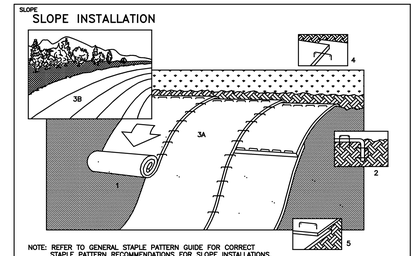
BASIN BAFFLE DETAIL

SHOULD FENCING FAIL THE PLYWOOD BAFFLE MUST BE INSTALLED.

CONTRUCTION SPECIFICATIONS

FENCING SHALL BE 6 FEET IN HEIGHT.

1. The poles do not need to set in concrete.
2. Chain link fence shall be fastened securely to the fence post with wire ties or staples.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 6" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47711
USA 1-800-772-2040 CANADA 1-800-448-2040

NAG S75

NORTH AMERICAN GREEN

SEED MIX SPECIFICATIONS

Grass Seed: All seed shall be fresh, and new crop seed shall be labeled in accordance with the U.S. Department of Agriculture's Rules and Regulations under the Federal Seed Act in effect on the date of invitation for bids. All seed shall be furnished in sealed standard containers, bearing the warranty of the supplier and certifying as to the kind, percent by weight, purity and germination. The grass seed shall contain the percentages of varieties and shall be of the quality indicated by the percentages of purity and germination indicated on the list furnished with the applicable plan. Seed mix shall be as specified. Spread at the rate of 4 lbs. per 1000 sq. ft. minimum for slopes 3:1 if greater, use 5 lbs. per 1000 sq. feet.

PERMANENT SEEDING DATES MARCH 1 TO JUNE 1, AUGUST 1 TO OCTOBER 1

GRASS SEED NAME	PARTS BY WEIGHT	%PURITY	GERMINATION
Kentucky Blue Grass Varieties	35%	95%	85%
Pennstar or Pennfine Perennial Ryegrass	35%	95%	90%
Pennlawn Fescue	15%	95%	85%
Annual Ryegrass	15%	90%	80%

Mulch: Shall be hay which is free of weeds and seeds, not moldy or rotten, and shall be applied at all disturbed areas at a rate of 3 tons per acre.

Kentucky Bluegrass Sod (if called for)
Sod shall be grown under supervision of the Bureau of Plant Industry Pennsylvania Department of Agriculture or shall be composed of only Blue Tag Certified Seed.

Temporary Seeding Dates: Anytime

Temporary Seeding: Shall be annual ryegrass at 40 lbs. per acre. Site preparation – apply 1 ton of agricultural grade limestone per acre plus 50–50–50 fertilizer applied at a rate of 25 lbs/1000 sq. ft. and work in where possible. After seeding, mulch with hay or straw at a rate of 3 tons per acre.

Hydroseeding: Shall be lime, fertilizer, grass seeds, legume seeds and inculant mixed with water and applied as slurry, at a rate of 1,000 gallons per acre.
Fertilizer: mix at a rate of 50–100–100 per acre.
Inoculant: use 5 times rate recommended on the package when seeding with a hydroseeder.

PERMANENT SEEDING:
For permanent seeding, soil supplements shall be applied to areas to be seeded as follows: 10–20–20 fertilizer shall be applied to 25 LBS/1000 Sq. Ft. pulverized dolomite limestone at 90 LBS/1000 Sq. Ft.

SEEDING AND MULCH NOTES

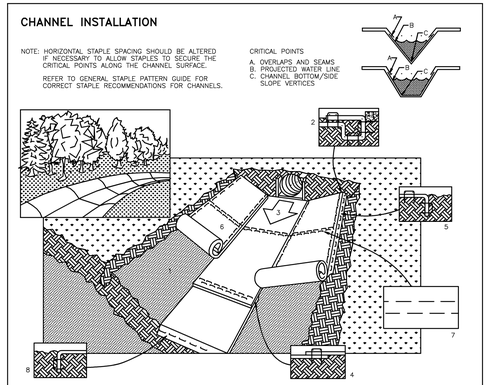
1. Any undisturbed area on which activity has ceased must be seeded and mulched immediately. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year may be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are either at finished grade or will not be redisturbed within 1 year must be seeded and mulched with a permanent seed mixture and mulch.
2. Diversions, channels, sedimentation basins, sediment trap must be stabilized immediately with erosion control blanket. Stockpiles must be seeded and mulched immediately.
3. Hay or straw mulch must be applied at rates of at least 3.0 tons per acre.
4. Graded areas are to be temporarily seeded and mulched immediately following earth moving procedures. Seed shall be annual rye grass applied at the rate of 3 lbs. per 1000 sq. ft.
5. Establish permanent seeding as soon as possible after final grading is complete. Permanent seeding shall be 15% Pennlawn Red Fescue, 35% Pennfine Perennial Ryegrass, 35% Kentucky Bluegrass and 15% annual Ryegrass applied at the rate of 4 lbs. per 1000 sq. ft.
6. Soils testing should be performed with recommendations provided for appropriate seed mixes and rates based on the soils at the site.

CHANNEL INSTALLATION

NOTE: HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE RECOMMENDATIONS FOR CHANNELS.

CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
4. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING).
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

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PRELIMINARY PLAN DETAIL SHEET

1	9-28-15	REVISED PER TOWNSHIP CONSULTANT REVIEW COMMENTS

LAND DEVELOPMENT PLAN FOR

WESTOVER SPORTING COMPLEX

WEST NORRITON TOWNSHIP — MONTGOMERY COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
LIONVILLE PROFESSIONAL CENTER
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

Project–	2769
Date–	12-23-14
Scale–	N/A
Drawn–	SLM
Checked–	A.J.B.
Sheet–	64 OF 65
Ver.–	000

Plotted: 9/25/2015 File: F:\JB\2769\FPS\2769-SPORTS-4.pro