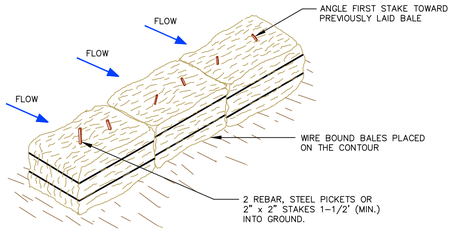
CONSTRUCTION NOTES

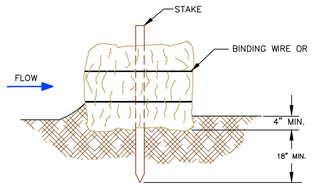
1. STAKED STRAW BALE SHOULD BE INSTALLED AS SHOWN AND AS NEEDED TO PROVIDE TEMPORARY EROSION PROTECTION.
2. STRAW BALES SHALL BE USED TO PROTECT BERM OUTSLOPES DURING STABILIZATION AND OTHER PROJECT AREAS NOT OTHERWISE DRAINING TO A SEDIMENT CONTROL FACILITY.
3. STRAW BALES SHALL NOT BE USED IN AREAS OF CONCENTRATED FLOW. ALL EFFORT SHALL BE MADE TO EVENLY AND UNIFORMLY GRADE UPSLOPE AREAS TO PROMOTE OVERLAND SHEET FLOW TO THE BALE LINE.
4. STRAW BALE BARRIERS SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT.
5. REPLACE STRAW BALES EVERY THREE (3) MONTHS, OR SOONER IF DETERIORATION PREVENTS PROPER OPERATION.
6. REMOVE SEDIMENT DEPOSITS WHEN SEDIMENT ACCUMULATES TO 1/3 THE ABOVE-GROUND HEIGHT OF THE BALE DIKE.
7. ANY STRAW BALES WHICH HAVE EITHER BEEN UNDERMINED OR OVERTOPPED MUST BE IMMEDIATELY REPLACED WITH ROCK-FILTER OUTLETS.
8. DIRT BAGS MAY BE USED IN PLACE OF HAYBALES.



MAXIMUM SLOPE LENGTHS FOR STRAW BALE BARRIERS

SLOPE-PERCENT	MAXIMUM SLOPE LENGTH (ft) ABOVE BARRIER
2 (OR LESS)	150
5	100
10	50
15	35
20	25
25	20
30	15
35	15
40	15
45	10
50	10

* ADAPTED FROM INFORMATION PROVIDED IN PaDEP BWQP "EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE (BMP) MANUAL"
* MAXIMUM SLOPE LENGTHS MAY BE EXCEEDED IF SILT FENCE IS USED IN AN AREA FURTHER CONTROLLED DOWNGRADIENT BY A SEDIMENTATION BASIN.



EMBEDDING DETAIL

1 10D STAKED STRAW BALE DETAIL
NOT TO SCALE

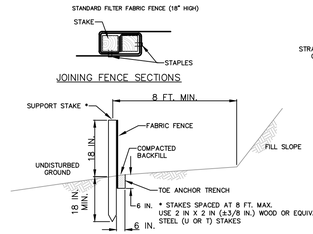
CONSTRUCTION NOTES

1. SILT FENCE SHALL BE INSTALLED AS SHOWN AND AS NEEDED TO PROVIDE TEMPORARY EROSION PROTECTION.
2. SILT FENCE SHALL BE USED TO PROTECT BERM OUTSLOPES DURING STABILIZATION AND OTHER PROJECT AREAS NOT OTHERWISE DRAINING TO A SEDIMENT CONTROL FACILITY.
3. SILT FENCE SHALL NOT BE USED IN AREAS OF CONCENTRATED FLOW. ALL EFFORT SHALL BE MADE TO EVENLY AND UNIFORMLY GRADE UP-SLOPE AREAS TO PROMOTE OVERLAND SHEET FLOW TO THE FENCE LINE.
4. FILTER FABRIC SHALL BE FASTENED SECURELY TO FENCE POST WITH METAL STAPLES, OR TIE-WIRE.

MAXIMUM SLOPE LENGTHS FOR FILTER FABRIC FENCES

SLOPE-PERCENT	MAXIMUM SLOPE LENGTH (ft) ABOVE FENCES 18" HIGH	30" HIGH REINFORCED FENCE	SUPER SILT FENCE
2 (OR LESS)	150	500	1000
5	100	250	550
10	50	150	325
15	35	100	215
20	25	70	175
25	20	55	135
30	15	45	100
35	15	40	85
40	15	35	75
45	10	30	60
50	10	25	50

* ADAPTED FROM INFORMATION PROVIDED IN PaDEP BWQP "EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE (BMP) MANUAL"
* MAXIMUM SLOPE LENGTHS MAY BE EXCEEDED IF SILT FENCE IS USED IN AN AREA FURTHER CONTROLLED DOWNGRADIENT BY A SEDIMENTATION BASIN.



SECTION VIEW

NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

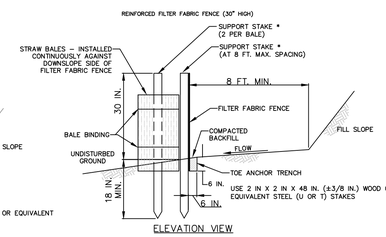
FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE, BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.



ELEVATION VIEW

NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

THIS BMP IS NOT SUITABLE FOR PROJECTS LASTING LONGER THAN 3 MONTHS UNLESS BALES ARE REPLACED QUARTERLY.

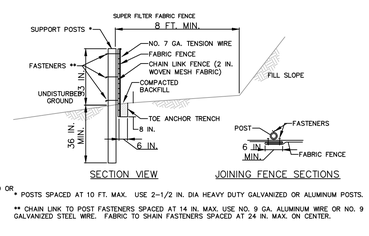
FABRIC WIDTH SHALL BE 42 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE, BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.



SECTION VIEW — JOINING FENCE SECTIONS

* POSTS SPACED AT 10 FT. MAX. USE 2-1/2 IN. DIA HEAVY DUTY GALVANIZED OR ALUMINUM POSTS.

** CHAIN LINK TO POST FASTENERS SPACED AT 14 IN. MAX. USE NO. 9 GA. ALUMINUM WIRE OR NO. 9 GALVANIZED STEEL WIRE. FABRIC TO CHAIN FASTENERS SPACED AT 24 IN. MAX. ON CENTER.

NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

FABRIC WIDTH SHALL BE 42 IN. MINIMUM.

POSTS SHALL BE INSTALLED USING A POSTHOLE DRILL.

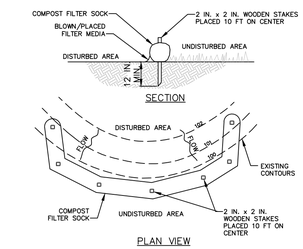
CHAIN LINK SHALL BE GALVANIZED NO. 11.5 GA. STEEL WIRE WITH 2-1/4 IN. OPENING, NO. 11 GA. ALUMINUM COATED STEEL WIRE IN ACCORDANCE WITH ASTM-A-491, OR GALVANIZED NO. 9 GA. STEEL WIRE TOP AND BOTTOM WITH GALVANIZED NO. 11 GA. STEEL INTERMEDIATE WIRES. NO. 7 GAGE TENSION WIRE TO BE INSTALLED HORIZONTALLY THROUGH HOLES AT TOP AND BOTTOM OF CHAIN-LINK FENCE OR ATTACHED WITH HOG RINGS AT 5 FT MAX. CENTERS.

SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE, BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

2 10D SILT FENCE DETAILS
NOT TO SCALE



PLAN VIEW

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

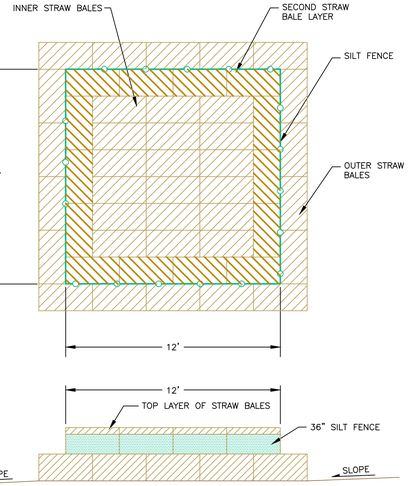
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

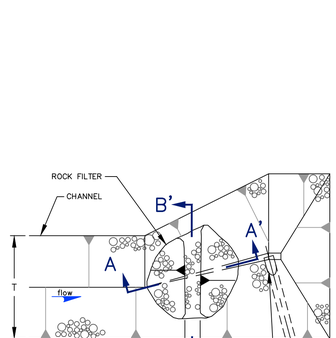
3 10D COMPOST FILTER SOCK
NOT TO SCALE



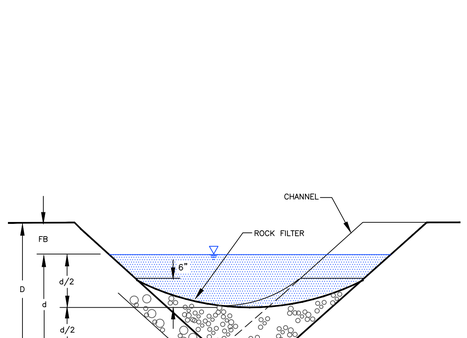
CONSTRUCTION NOTES

1. CONSTRUCT FILTER TRAP ON A VEGETATED AREA AND PROVIDE POSITIVE DRAINAGE SO THAT FILTERED WATER RUNS TO THE EXISTING DRAINAGE SYSTEM.
2. ARRANGE STRAW BALES AS SHOWN IN PLAN VIEW. PACK TIGHTLY AND STAKE INTO PLACE USING 30 IN. STAKES THROUGH THE CENTER OF EACH BALE. STRING BINDING SHALL NOT TOUCH THE GROUND.
3. INSTALL ANOTHER LAYER OF STRAW BALES AS SHOWN IN PLAN AND SECTION VIEWS. STAKE INTO PLACE USING 48 IN. STAKES.
4. Install 36 IN. SILT FENCE ALL AROUND THE STRAW BALE STRUCTURE AS SHOWN. SILT FENCE MUST BE TRENCHED IN AT A DEPTH OF 6 IN.
5. INSTALL ANOTHER LAYER OF STRAW BALES ON THE OUTSIDE OF THE SILT FENCE AND STAKE TO THE GROUND WITH 30 IN. STAKES.
6. REFER TO THE EROSION AND SEDIMENTATION CONTROL PLAN FOR A DISCUSSION OF DEWATERING PROCEDURES.

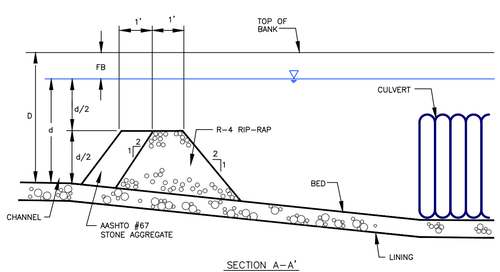
4 10D STRAW BALE FILTER TRAP
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

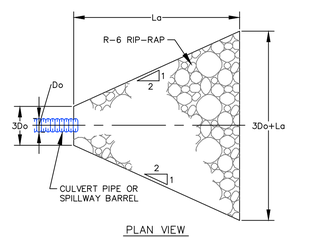


SECTION B-B'
NOT TO SCALE

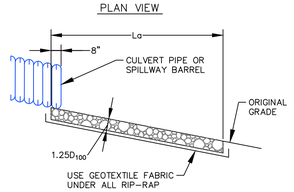


SECTION A-A'
NOT TO SCALE

5 10D TYPICAL ROCK FILTER AT CULVERT INLET
NOT TO SCALE



PLAN VIEW



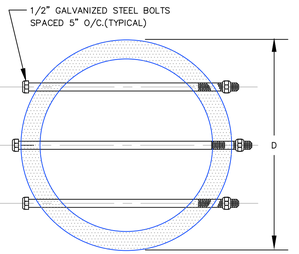
CROSS SECTION

NSCA RIP-RAP GRADATIONS

NSCA NO.	MAX. D_{100} (in)	AVG. D_{50} (in)	MIN. D_0 (in)	PERMISSIBLE VELOCITY (fps)
R-3	6	3	2	6.5
R-4	12	6	3	9.0
R-5	18	9	5	11.5
R-6	24	12	7	13.0

NOTE: UNIT WEIGHT OF ROCK SHALL BE APPROXIMATELY 165 pcf. ROCK RIP-RAP SHALL BE WELL-GRADED CRUSHED STONE COMPLYING WITH PennDOT 408, SECTION 850.

6 10D TYPICAL PIPE OUTLET
NOT TO SCALE



NOTES: 1. ROCK GUARD ON INLET OF CULVERT
2. SUITABLE ALTERNATIVE ROCK/TRASH GUARDS MAY ALSO BE UTILIZED.

7 10D TYPICAL ROCK/TRASH GUARD
NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEVIN C. CLARK — ENGINEER — 041211-E

BA GROUP INC. Environmental Consultants

REVISIONS

DELAWARE COUNTY SOLID WASTE AUTHORITY
ROLLING HILLS LANDFILL
SOUTHERN AREA LANDFILL EXPANSION
EARL TOWNSHIP BERKS COUNTY PENNSYLVANIA

STORMWATER MANAGEMENT CHANNEL AND MISCELLANEOUS DETAILS - SHEET 1 OF 2

DATE: 09/25/17
DRAWN BY: SWH
CHECKED: KCC
BAI DRAWING NO: DCSWA-107D018D
SHEET NO. 10D OF 11

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