

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION HARRISBURG, PENNSYLVANIA

GOVERNOR TOM WOLF

SECRETARY JOHN QUIGLEY

## PROJECT NO. D23:009-101.1 BROOMALL LAKE DAM BREACH PROJECT

BOROUGH OF MEDIA  
DELAWARE COUNTY, PENNSYLVANIA



**pennsylvania**

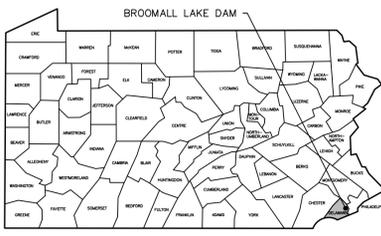
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WATERWAYS ENGINEERING  
HARRISBURG, PENNSYLVANIA

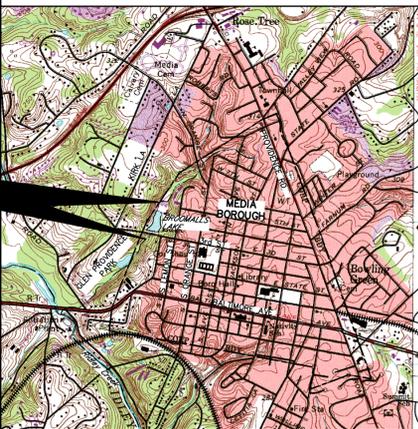
### INDEX TO DRAWINGS

TITLE	DWG. NO.
COVER SHEET	CS-1
GENERAL PLAN	GP-1
DETAILED PLAN	P-1
PROFILE AND CROSS SECTION	X-1
TRAFFIC CONTROL PLAN	TCP-1
EROSION AND SEDIMENTATION CONTROL PLAN	ES-1
EROSION AND SEDIMENTATION CONTROL GENERAL NOTES	ES-2
EROSION AND SEDIMENTATION CONTROL DETAILS	ES-3

**PROJECT LOCATION MAP**



**VICINITY MAP**



**APPROVALS**

SUBMITTED \_\_\_\_\_  
PROJECT COORDINATOR - D.E.P.

APPROVED \_\_\_\_\_  
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.

APPROVED \_\_\_\_\_  
ACTING DIRECTOR - BUREAU OF WATERWAYS ENGINEERING - D.E.P.

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF WATER MANAGEMENT

**PROJECT NO. D23:009-101.1**

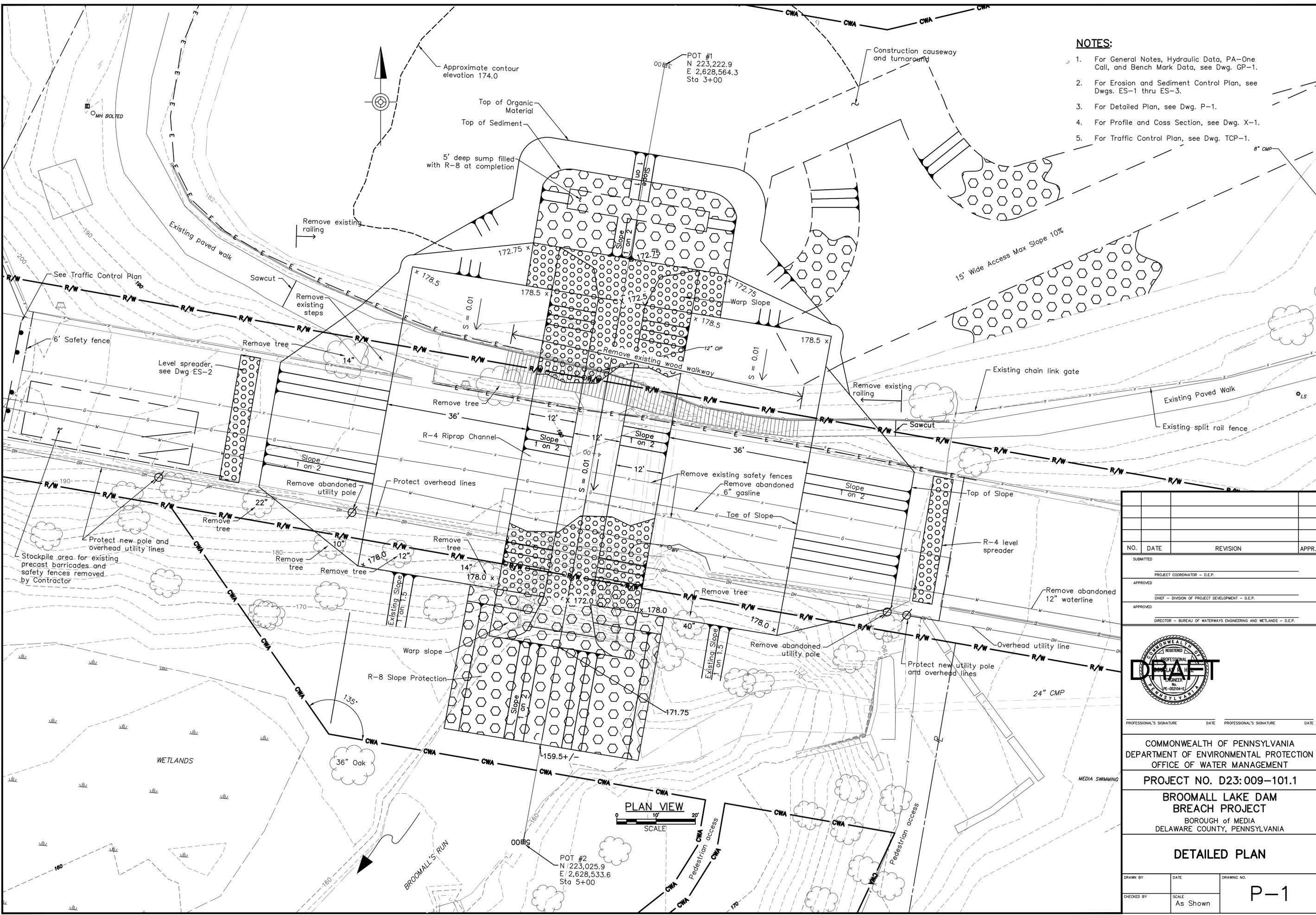
**BROOMALL LAKE DAM  
BREACH PROJECT**  
BOROUGH OF MEDIA  
DELAWARE COUNTY, PENNSYLVANIA

**COVER SHEET**

DRAWN BY	DATE	DRAWING NO.
CHECKED BY	SCALE	<b>CS-1</b>
	As Shown	

ALL DIMENSIONS AND EXISTING  
CONDITIONS SHALL BE CHECKED  
AND VERIFIED BY CONTRACTOR  
AT THE SITE.





- NOTES:**
1. For General Notes, Hydraulic Data, PA-One Call, and Bench Mark Data, see Dwg. GP-1.
  2. For Erosion and Sediment Control Plan, see Dwgs. ES-1 thru ES-3.
  3. For Detailed Plan, see Dwg. P-1.
  4. For Profile and Cross Section, see Dwg. X-1.
  5. For Traffic Control Plan, see Dwg. TCP-1.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			

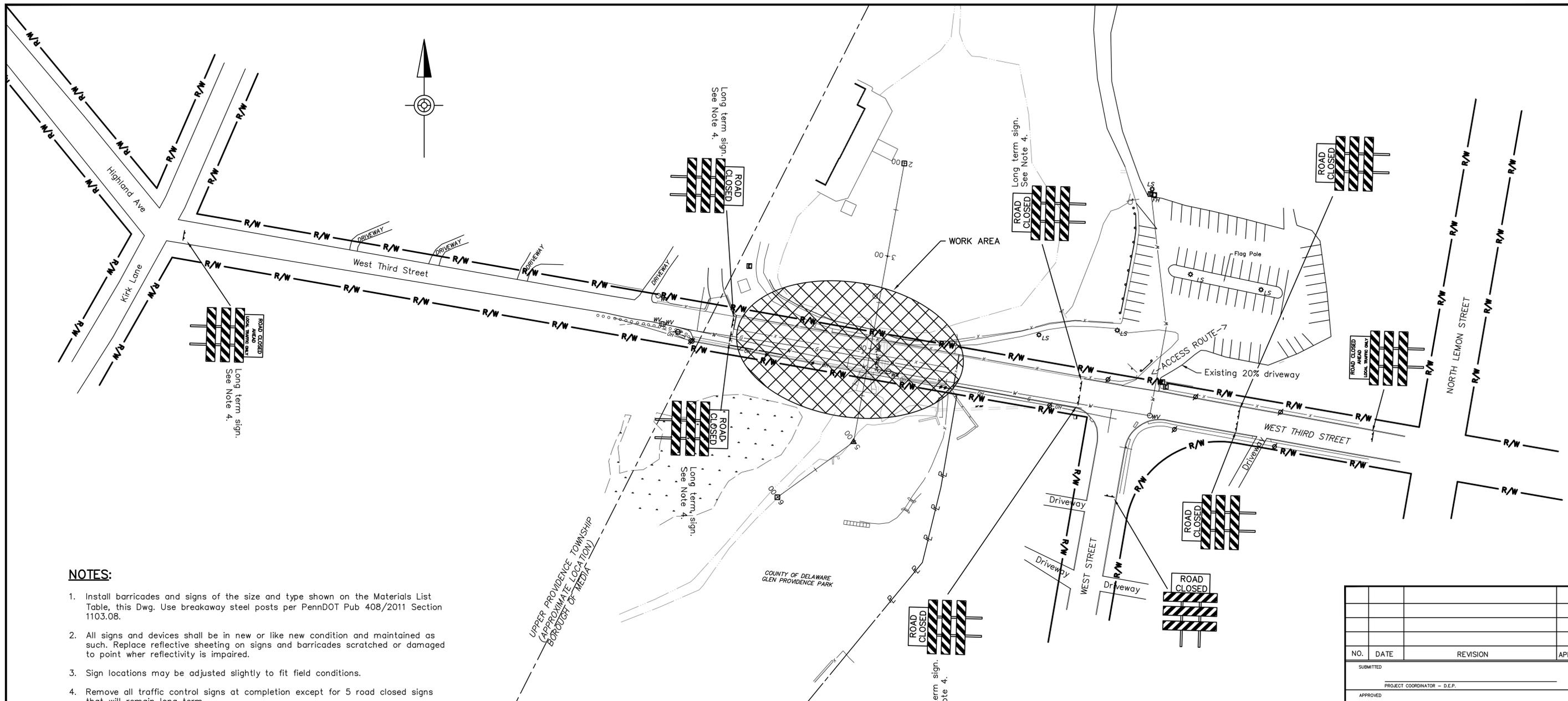


COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OFFICE OF WATER MANAGEMENT  
 PROJECT NO. D23:009-101.1  
 BROOMALL LAKE DAM  
 BREACH PROJECT  
 BOROUGH of MEDIA  
 DELAWARE COUNTY, PENNSYLVANIA

**DETAILED PLAN**

DRAWN BY	DATE	DRAWING NO.
CHECKED BY	SCALE As Shown	<b>P-1</b>





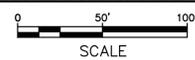
**NOTES:**

1. Install barricades and signs of the size and type shown on the Materials List Table, this Dwg. Use breakaway steel posts per PennDOT Pub 408/2011 Section 1103.08.
2. All signs and devices shall be in new or like new condition and maintained as such. Replace reflective sheeting on signs and barricades scratched or damaged to point where reflectivity is impaired.
3. Sign locations may be adjusted slightly to fit field conditions.
4. Remove all traffic control signs at completion except for 5 road closed signs that will remain long term.

**MATERIALS LIST**

Quantity	PennDOT No.	Description	Size
7	R11-2	Road Closed	48" x 30"
2	R11-3A	Road Closed, Local Traffic Only	60" x 30"
9	--	Type III Barricade	---
18	--	Type B Breakaway Post	---
Sufficient	--	Sandbags, balast	---

**TRAFFIC CONTROL PLAN**



**LEGEND**

- SIGN
- WORK AREA

NO.	DATE	REVISION	APPR.

SUBMITTED \_\_\_\_\_  
 PROJECT COORDINATOR - D.E.P.

APPROVED \_\_\_\_\_  
 CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.

APPROVED \_\_\_\_\_  
 DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.



PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OFFICE OF WATER MANAGEMENT

PROJECT NO. D23:009-101.1

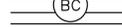
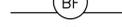
BROOMALL LAKE DAM  
 BREACH PROJECT

BOROUGH of MEDIA  
 DELAWARE COUNTY, PENNSYLVANIA

**TRAFFIC CONTROL PLAN**

DRAWN BY	DATE	DRAWING NO.
CHECKED BY	SCALE	TCP-1
	As Shown	

**LEGEND**

-  ROCK CONSTRUCTION ENTRANCE
-  COFFERDAM
-  BYPASS PUMP
-  FILTER BAG
-  BYPASS CHANNEL
-  BYPASS FLUME(S)
-  ROCK FILTER
-  FILTER FABRIC FENCE
-  FILTER SOCK
-  EROSION CONTROL BLANKET

**SOIL LIMITATION RESOLUTIONS**

- SLOPES** – Excavations should be stabilized to prevent erosion and Contractor should employ proper construction techniques to ensure safety on steep slope areas.
- DEPTH OF ROCK** – If bedrock is encountered, remove as necessary in according with project specifications.
- SOIL pH LEVELS** – Contractor shall have soil pH tested to determine correct fertilizer application rates.
- FLOODING POTENTIAL** – Schedule in-channel work for seasonal and forecasted periods of low stream flow. Normal flow should be conveyed past the work area by use of bypass channels, pipe flumes, cofferdams and bypass pumping.
- HIGH GROUNDWATER LEVEL** – Contractor shall employ dewatering techniques as approved by the Bureau of Waterways Engineering and Wetlands. Pumped water filter bags shall be used to dewater utility trenches and below grade excavations.
- EROSION** – The Contractor shall contact the Bureau of Waterways Engineering and Wetlands for any erosion that occurs that can not be addressed by measures found in the plans.

**SOILS**

	SOIL INFORMATION	SOIL LIMITATIONS
GeC	Glenelg channery silt loam, 8 to 15 percent slopes	Cutbanks cave, easily erodible, slide prone
GeD	Glenelg channery silt loam, 15 to 25 percent slopes	Cutbanks cave, easily erodible, slide prone
GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	Cutbanks cave, slide prone
Me	Made land, schist and gneiss materials	Not listed
MgC	Manor loam, 8 to 15 percent slopes	Cutbanks cave, easily erodible, slide prone
MkF	Manor soils, 35 to 60 percent slopes	Cutbanks cave, easily erodible, slide prone
W	Water	NA
We	Wehadkee silt loam	Cutbanks cave, slide prone

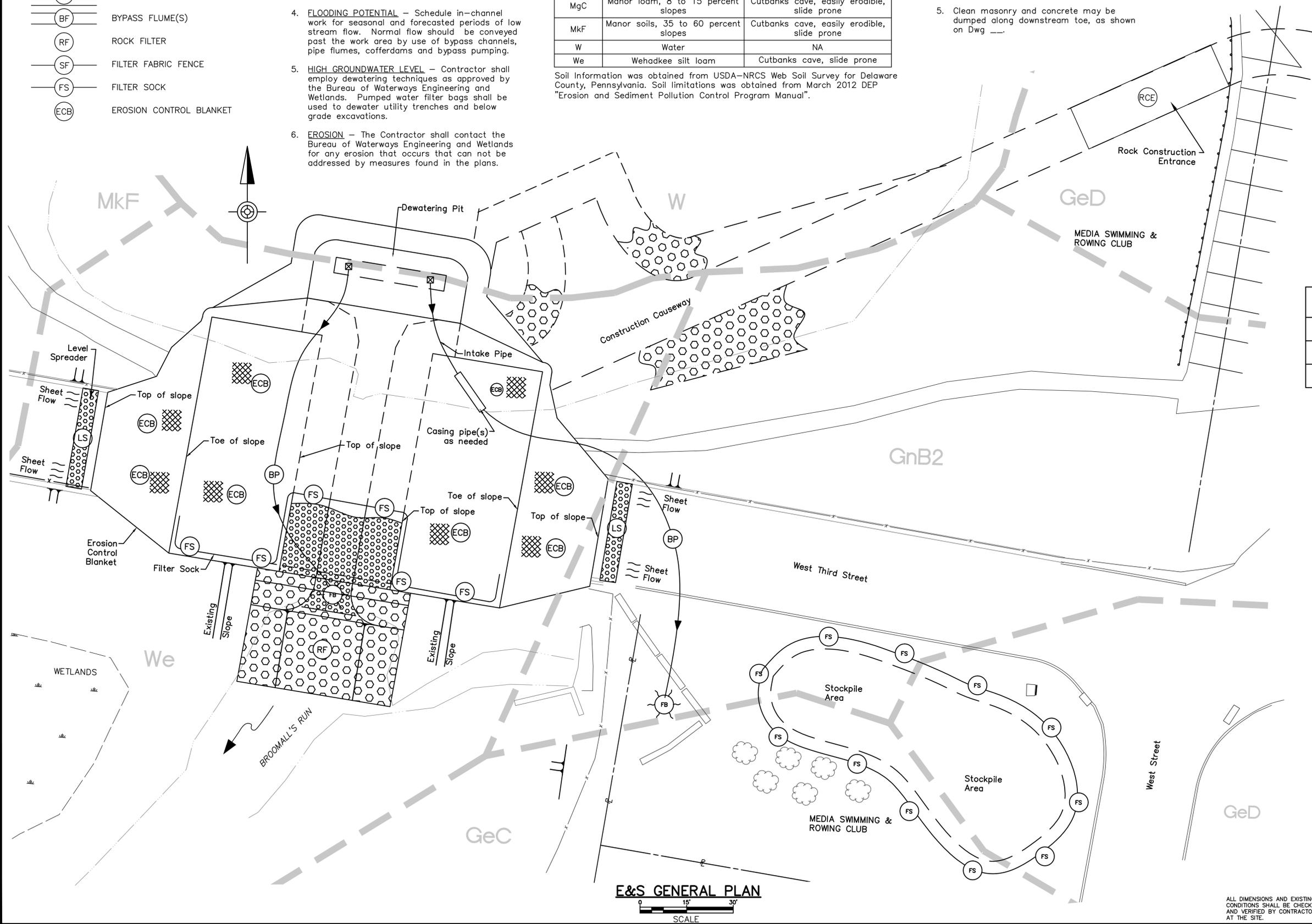
Soil Information was obtained from USDA-NRCS Web Soil Survey for Delaware County, Pennsylvania. Soil limitations was obtained from March 2012 DEP "Erosion and Sediment Pollution Control Program Manual".

**SEQUENCE**

- Install Rock Construction Entrance, Perimeter BMPs and Level Spreaders.
- Construct causeway and begin excavation and concrete/masonry removal.
- Install bypass pumps and filter bags prior to removal of existing box culvert.
- Establish excavated bench along downstream face with 108 foot width and 2:1 side slopes.
- Clean masonry and concrete may be dumped along downstream toe, as shown on Dwg \_\_\_\_.
- Install R-8 Dumped Rock on downstream face and Filter Sock BMP along top of slope.
- Install Erosion Control Blankets along the side slopes.
- As excavation progresses and R-4 channel is completed, shift Filter Sock placement along new top of slope.

**NOTES:**

- For General Notes, see Dwg GP-1.
- For E&S Notes, see Dwg ES-2.
- For E&S Details, see Dwg ES-3.
- See Dwg \_\_\_\_ for R-8 slope on downstream face.



DETAILED E&S CONTROL PLAN	
CONTRACTOR:	
DATE:	
SIGNATURE:	

NO.	DATE	REVISION	APPR.

SUBMITTED \_\_\_\_\_  
 PROJECT COORDINATOR – D.E.P.  
 APPROVED \_\_\_\_\_  
 CHIEF – DIVISION OF PROJECT DEVELOPMENT – D.E.P.  
 APPROVED \_\_\_\_\_  
 DIRECTOR – BUREAU OF WATERWAYS ENGINEERING AND WETLANDS – D.E.P.

**DRAFT**

PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OFFICE OF WATER MANAGEMENT  
 PROJECT NO. D23:009-101.1  
 BROOMALL LAKE DAM  
 BREACH PROJECT  
 BOROUGH of MEDIA  
 DELAWARE COUNTY, PENNSYLVANIA  
**EROSION AND SEDIMENT  
 CONTROL PLAN**

DRAWN BY	DATE	DRAWING NO.
CHECKED BY	SCALE	ES-1
	As Shown	

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.

**E&S GENERAL PLAN**  
 SCALE 0 15' 30'

**E&S GENERAL NOTES**

The following General Directives apply to all phases of construction activities:

1. A copy of the approved Erosion and Sediment Control Plan must be available at the project site at all times.
2. Special care shall be taken to prevent sediment laden stormwater from entering all stormwater management and conveyance facilities until the site has been properly stabilized.
3. During construction, the Contractor is to make certain all runoff is directed to the sediment control devices. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs.
4. All erosion and sedimentation pollution control measures shall remain in place and maintained until the site has been stabilized. Vegetated areas are considered to be stabilized when a uniform 70 percent vegetative cover of erosion resistant perennial species has been achieved, or the disturbed area is covered with an acceptable BMP which permanently minimizes accelerated erosion and sedimentation.  
  
Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including cleanout, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs or modifications of those installed will be required.
5. After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately.
6. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs.
7. All soil stockpiles shall be seeded with a grass cover immediately to avoid prolonged exposure of the bare soil material to rainfall events. If the area is expected to be disturbed again during the construction process, the temporary seed mixture may be utilized. Stockpiles shall not be greater than 35 feet in height, nor shall stockpile slopes be steeper than 2 to 1. Whenever possible, place all excavated material upslope from disturbed areas. Stockpiles shall be set parallel to grade to reduce runoff.
8. All vehicles and equipment must enter and exit the project site through the rock construction entrances.
9. Erosion control blanket shall be installed on disturbed slopes as shown on the plans.
10. In all cases during construction, the area of disturbance should be minimized.
11. Silt barrier (silt fence and compost filter socks) shall be placed end to end, securely staked in place, and maintained until area is stabilized.
12. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.
13. Upon general completion of the site improvements, topsoil shall be placed and final grading passes shall be made perpendicular to the direction of runoff.
14. Reseed and reestablish any barren and disturbed areas not having established ground cover.
15. Any disturbed area must be stabilized immediately. If the area is expected to be disturbed again during the construction process, the temporary seed mixture may be utilized. 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 stabilized in accordance with temporary seeding specifications. Disturbed areas which are either at finished grade or will not be redisturbed within 1 year must be stabilized in accordance with permanent seeding specifications.
16. The Contractor shall be cognizant of appropriate seasons for planting grass seed mixtures, and plan his construction schedule to appropriately utilize the best times of the year for germination of the seed and stabilization of the site.
17. Wherever the term "Seeding" is mentioned in the Construction Sequence or in the Erosion and Sediment Pollution Control Plan, the term means the entire soil preparation, seeding, and mulching process.
18. Sediment and soil material that is removed from clogged or full BMPs shall be disposed of by thoroughly mixing with other suitable fill materials on the project site, and incorporated into fill in upland areas of the project site. The fill area and other disturbed areas shall be stabilized in accordance with the Erosion and Sediment Pollution Control Plan. In no case shall the sediment or "waste" soil material be carelessly dumped or otherwise placed in a

manner that causes the material to again be eroded and transported by runoff, either on or off the project site.

19. The Contractor shall dispose of waste materials obtained from demolition activities in a legal manner, and shall recycle as much of the waste material as possible, in accordance with applicable sections of the contract specifications. All building materials and wastes must be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 PA Code 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
20. Should any soil materials be removed from the site at any time, the soil materials must be disposed of properly. The Contractor will be responsible for the proper removal and disposal of any excess topsoil and fill material from the site. The receiving site must have a Soil Erosion and Sedimentation Control Plan approved by the County Conservation District prior to the placement of any fill. In addition, the receiving site may require a NPDES Permit.
21. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the Operator shall implement appropriate best management practices to eliminate the potential for accelerated erosion and/or sediment pollution. Should additional or unexpected erosion or sedimentation occur during construction, or questions regarding the maintenance control practices arise, contact the Bureau of Waterways Engineering and Wetlands.
22. The Contractor will be responsible for the removal of any excess material and make sure site(s) receiving the excess has an approved Erosion and Sediment Control Plan that meets the conditions of Chapter 102 and/or other State or Federal Regulations.
23. Clean fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "Used Asphalt" does not include milled asphalt or asphalt that has been processed for reuse.)
24. Clean fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1A and FP-1B found in the Department's Policy "Management of Fill".
25. Any person placing clean fill that has been affected by a spill or release of a regulated substance must use Form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the Owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these instructions.
26. Environmental due diligence: Investigative techniques including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits.  
  
Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance.  
  
If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's Policy "Management of Fill".
27. Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's Municipal or Residual Waste Regulations based on 25 PA Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.

**MAINTENANCE PROGRAM**

1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including cleanout, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs or modifications of those installed will be required.
2. The Contractor must ensure that visual site inspections are conducted weekly, and after each measurable precipitation event by qualified personnel, trained and experienced in erosion and sediment control, to ascertain that the erosion and sediment control (E&S) BMPs are operational and effective in preventing pollution to the waters of the Commonwealth. A written report of each inspection shall be kept, and include:
  - a) A summary of the site conditions, E&S BMPs, and compliance; and
  - b) The date, time, and the name of the person conducting the inspection.
3. A rock construction entrance shall be placed at the point of construction ingress and egress as noted on the plan. The structure will prevent tracking and flowing of sediment onto existing stabilized areas. Clean and redress the rock construction entrance when the voids become choked with mud and sediment. The entrance shall remain functional for the duration of the project.
4. Where dust or wind erosion is a problem, the unstable surface(s) shall be sprinkled with water or other suitable dust suppresser.
5. Any temporary erosion control measure applied to exposed soil surfaces shall remain functional until vegetative cover is sufficiently established.
6. Permanent soil protection will be completed as early as practical.
7. Any debris accumulated at silt barriers (silt fence and compost filter sock) shall be removed and properly disposed. Barriers shall be checked daily and realigned or reset as required. Remove sediment when it reaches one half of barrier height.
8. Any sediment removed from BMPs during construction will be returned to upland areas on site and incorporated into the site grading.
9. All channels must be kept free of obstructions such as fill ground, fallen leaves and woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all weedy, brushy or woody growth.
10. Vegetated channels shall be constructed free of rocks, tree roots, stumps or other projections that will impede normal channel flow and/or prevent good lining to soil contact. The channel shall be initially over-excavated to allow for topsoil placement.
11. Vegetative stabilization shall be periodically inspected for proper growth. Any areas not responding shall be promptly reseeded. Areas which show signs of erosion prior to stabilization shall be graded, reseeded and mulched as soon as possible. Sod shall be utilized at areas where seeding does not appear to be properly stabilizing an area.

**SEEDING**

**SOIL SUPPLEMENTS**

Apply the following soil supplements prior to temporary and permanent seeding:

- a) Pulverized Agricultural Limestone conforming to PennDOT Form 408, Section 804, applied at a rate of 5,000 pounds per acre.
- b) 10-20-20 Analysis Commercial Fertilizer conforming to PennDOT Form 408, Section 804, applied at a rate of 750 pounds per acre.
- c) 38-0-0 Ureaform slow-release nitrogen fertilizer conforming to PennDOT Publication 408, Section 804, applied at a rate of 50 pounds per 1,000 square yards.

**TEMPORARY SEED MIXTURE**

For use in areas where construction activities have been suspended for more than four days.

Temporary seeding shall consist of Annual Ryegrass (100 percent by weight), or equivalent, and shall be placed at the rate of 2 pounds per 1,000 square feet. Temporary seeding shall be applied to those areas that are a potential erosion problem during construction and to those areas exposed for longer than 4 calendar days. If conditions do not permit temporary seeding, mulching shall be employed. Straw mulch shall be applied in long strands, not chopped or finely broken.

**PERMANENT SEED MIXTURE**

The following seeding mixture, applied at the rate of 7.0 pounds per 1,000 square feet:

- a) Perennial Ryegrass Mixture (Lolium Perenne). A combination of improved certified varieties with no one variety exceeding 30% of the total Ryegrass component. 40% of the total seed mixture by weight; Purity: 98%; Germination: 90%; Maximum percentage of Weed Seed: 0.15%.
- b) Creeping Red Fescue or Chewings Fescue. Percentage of total seed mixture by weight: 30%; Purity: 98%; Germination: 85%; Maximum percentage of Weed Seed: 0.15%.
- c) Kentucky Bluegrass Mixture (Poa Pratensis). A combination of improved certified varieties with no one variety exceeding 40% of the total Kentucky Bluegrass component. Percentage of total seed mixture by weight: 40%; Purity: 98%; Germination: 80%; Maximum percentage of Weed Seed: 0.20%.

**MULCH SPECIFICATIONS**

On all disturbed areas which do not have an erosion control blanket specified for installation:

Immediately after seeding, or within 6 hours after seeding is completed, spread mulch uniformly over the entire seeded area at a rate of 6,000 pounds (dry weight) per acre. The mulch shall be moist at the time of placement. To prevent the mulch from being blown away or bunched by the wind and to ensure the mulch cover holds the soil and seed in place, anchor the moist mulch to the soil by an approved means.

On slopes where machinery cannot be used, hold the mulch in place by a means that will not be detrimental to subsequent operations. Nonasphaltic mulch binders may be applied uniformly over and through the mulch at the Manufacturer's recommended rate.

Mulches shall be free of foreign materials, coarse or woody materials such as tobacco and soybean stems, substances toxic to plant growth, and mature seed bearing stalks or roots of prohibited and noxious weeds as defined by law. Mulches shall be cut into lengths of not less than 6 inches and cured to less than 20 percent moisture content by weight.

Mulches shall be hay, straw, or a combination of both. Hay shall be Timothy Hay, Mixed Clover and Timothy Hay, or other approved native or forage grasses. Straw shall be either Wheat or Oat Straw, reasonably free of viable seeds.

Mulch Binders - Mulch binders shall be nonasphaltic emulsions, of either a water soluble natural vegetable gum blended with gelling and hardening agents or a water soluble blend of hydrophilic polymers, viscosifiers, sticking aids, and gums. Obtain binders from a Producer listed in Bulletin 15.

DETAILED E&S CONTROL PLAN	
CONTRACTOR:	
DATE:	
SIGNATURE:	

NO.	DATE	REVISION	APPR.

SUBMITTED	_____
PROJECT COORDINATOR - D.E.P.	
APPROVED	_____
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.	
APPROVED	_____
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.	



**DRAFT**

PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF WATER MANAGEMENT

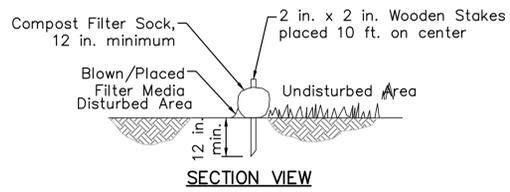
PROJECT NO. D23:009-101.1

BROOMALL LAKE DAM  
BREACH PROJECT  
BOROUGH of MEDIA  
DELAWARE COUNTY, PENNSYLVANIA

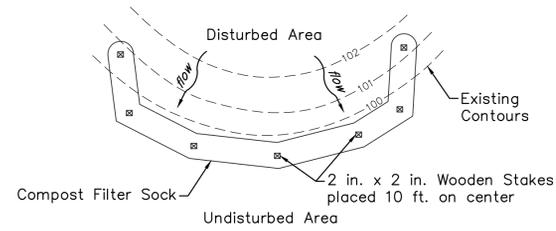
**EROSION AND SEDIMENT  
CONTROL PLAN**

DRAWN BY	DATE	DRAWING NO.
CHECKED BY	SCALE	ES-2
	As Shown	

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.



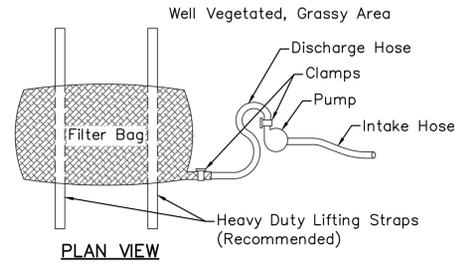
**SECTION VIEW**



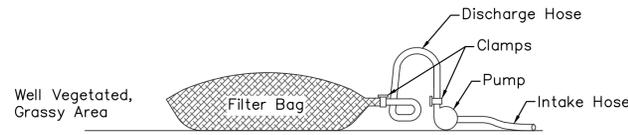
**PLAN VIEW**

**COMPOST FILTER SOCK**

No Scale



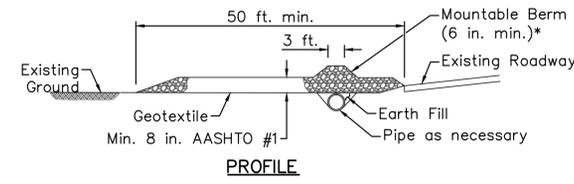
**PLAN VIEW**



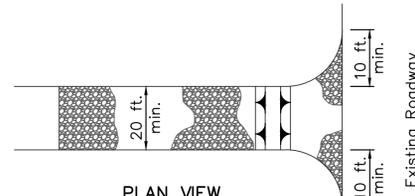
**ELEVATION VIEW**

**FILTER BAG**

No Scale



**PROFILE**

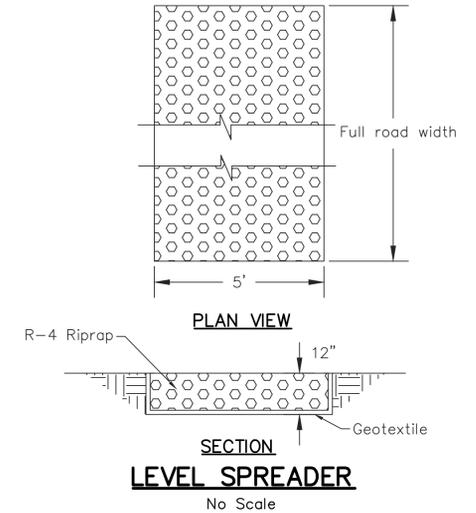


**PLAN VIEW**

**ROCK CONSTRUCTION ENTRANCE**

No Scale

\* Mountable berm used to provide proper cover for pipe.



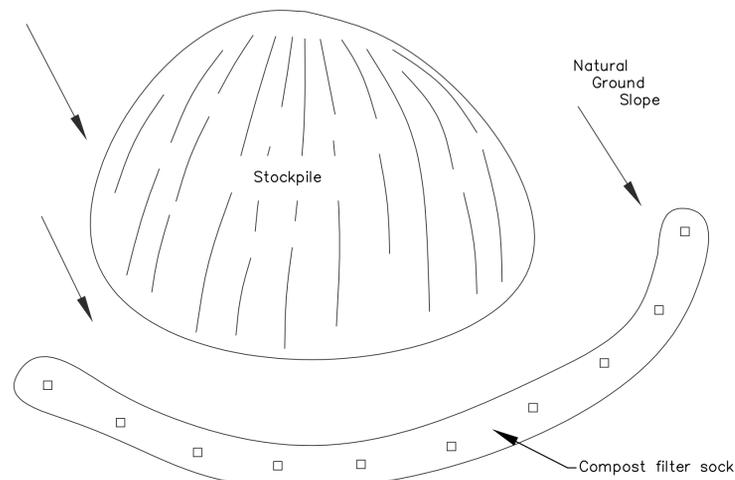
**PLAN VIEW**

**SECTION**

**LEVEL SPREADER**

No Scale

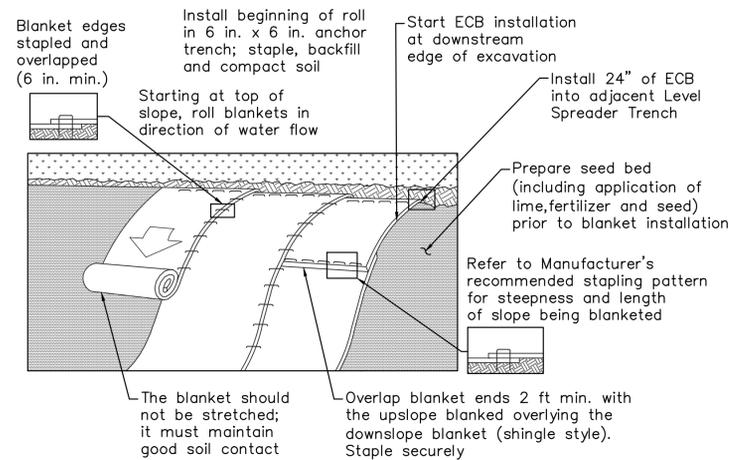
DETAILED E&S CONTROL PLAN	
CONTRACTOR:	
DATE:	
SIGNATURE:	



Contractor to acquire approval for use and occupancy of stockpile sites located at Contractor's discretion. Sites shall not be located in wetlands. Site to be restored/revegetated to original condition upon removal of stockpile. Maximum stockpile height must not exceed 35 feet; maximum side slope is 2:1.

**STOCKPILE**

No Scale



**EROSION CONTROL BLANKET**

No Scale

**NOTE:** Refer to TS-\_\_\_ for seed and soil preparation required prior to ECB placement. Refer to manufacturers recommended stapling pattern

**NOTES:**

1. For General Notes, see Dwg GP-1.
2. For E&S Notes, see Dwg ES-2.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
			
PROFESSIONAL'S SIGNATURE _____ DATE _____ PROFESSIONAL'S SIGNATURE _____ DATE _____			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT <b>PROJECT NO. D23:009-101.1</b> <b>BROOMALL LAKE DAM BREACH PROJECT</b> BOROUGH of MEDIA DELAWARE COUNTY, PENNSYLVANIA <b>EROSION AND SEDIMENT CONTROL PLAN</b>			
DRAWN BY	DATE	DRAWING NO.	
CHECKED BY	SCALE	ES-3	
		As Shown	

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.