

APPENDIX F

POST CONSTRUCTION STORMWATER MANAGEMENT PLANS

- COVER PAGE – 1
- EXISTING CONDITIONS PLAN – 2
- SITE PLAN – 3
- PCSM PLAN – 4
- SITE RESTORATION PLAN - 5
- SECTIONS PLAN –6-7
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GENERAL NOTES

1. THE PROPERTY IS WITHIN THE 100 YEAR FLOODPLAIN PER THE FEMA FLOOD MAP NUMBER 42011C0538G, 42011C0539G, 42011C0543G. 100 YEAR BASE FLOOD ELEVATION IS 172' AT THE SITE.
2. THE CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING ANY WORK.
3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE.
4. IN COMPLIANCE WITH ACT 287 OF 1974 AS AMENDED BY ACT 199 OF 2004, ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE A COMPILATION OF ACTUAL FIELD LOCATIONS AND DATA FURNISHED FROM INFORMATION SUPPLIED BY OTHERS. THE DEVELOPER, SURVEYER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND UTILITIES AS DEPICTED ON THIS DRAWING. ANY REQUEST FOR ADDITIONAL UNDERGROUND UTILITY INFORMATION SHOULD BE DIRECTED TO THAT RESPECTED UTILITY COMPANY. THE CONTRACTOR SHALL CONTACT PA ONE-CALL (1-800-242-1776) AT LEAST THREE (3) DAYS PRIOR TO BEGINNING WORK.
5. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS.
6. THIS PLAN WAS PREPARED FROM TOPOGRAPHIC FIELD SURVEY PERFORMED BY DAWOOD ENGINEERING, INC. IN OCTOBER 2016. DATUM FOR SURVEY IS NAVD88.

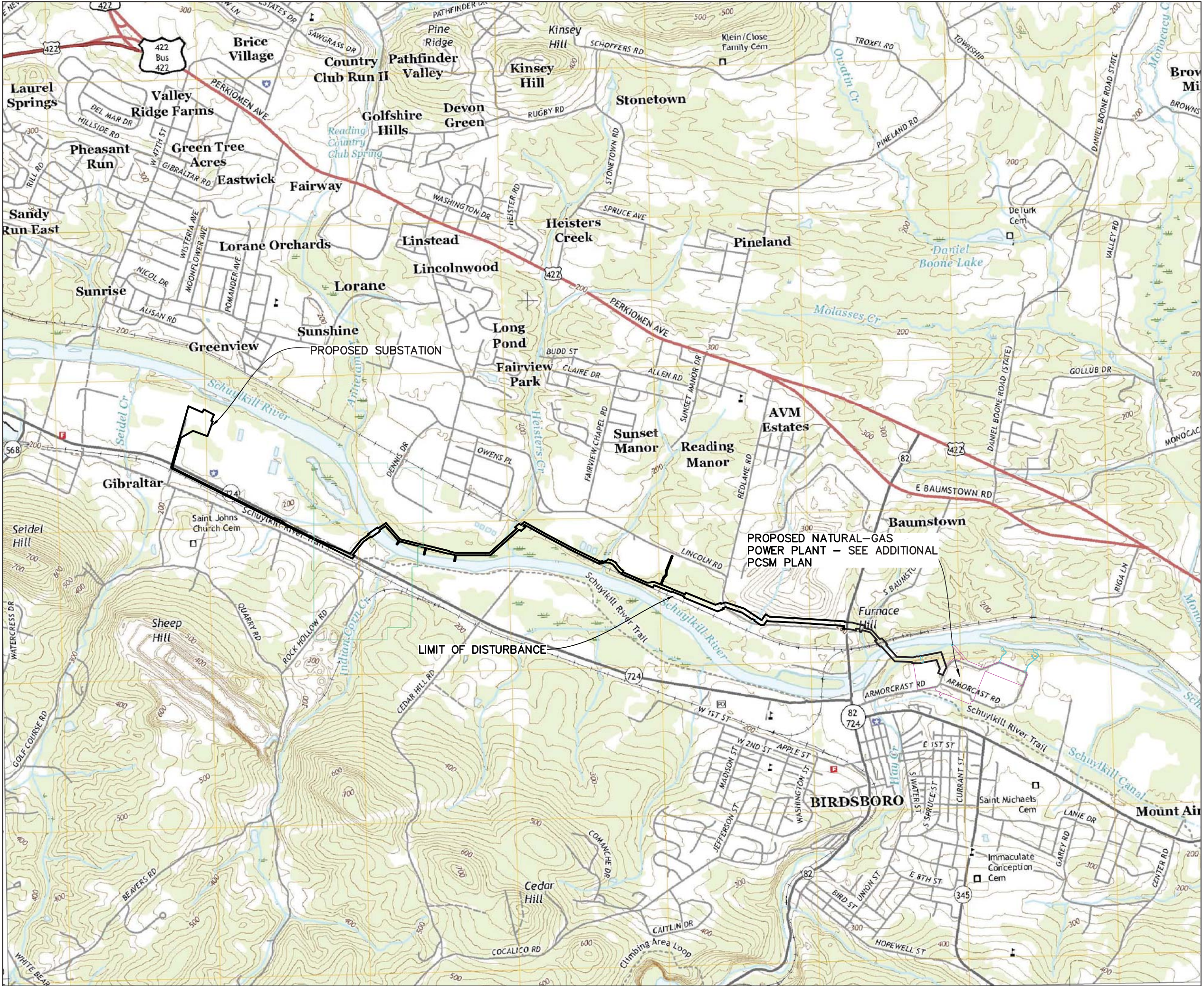
LINE INFORMATION

NAME	TOTAL LENGTH	DISTURBED AREA
BIRDSBORO TRANSMISSION LINE	3.90 MILES	39.18 ACRES



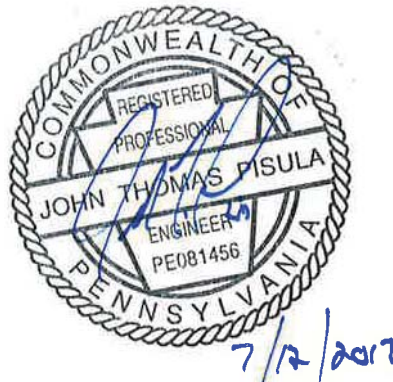
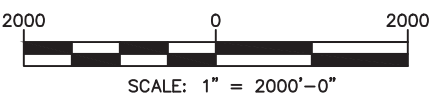
Before You Dig Anywhere
In . . . **PENNSYLVANIA**
STOP! Call 1-800-242-1776
Toll Free
PA Law requires 3 working days before
you excavate
PA One Call System, Inc.
One Call Serial #: 20162732157

PENNSYLVANIA ACT 199 (2004) AS AMENDED REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.



QUADRANGLE MAP NAMES: BIRDSBORO, PA

LOCATION MAP



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DOCUMENT PREPARED FOR:

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NO.	DATE	REVISIONS	DESCRIPTION
1	2.17.2017	UPDATE PER BCCD COMMENTS	
2	7.5.2017	REVISE FOR NPDES MINOR MODIFICATION	

PCSM PLAN
NATURAL GAS COMBINE CYCLE
BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY
PENNSYLVANIA

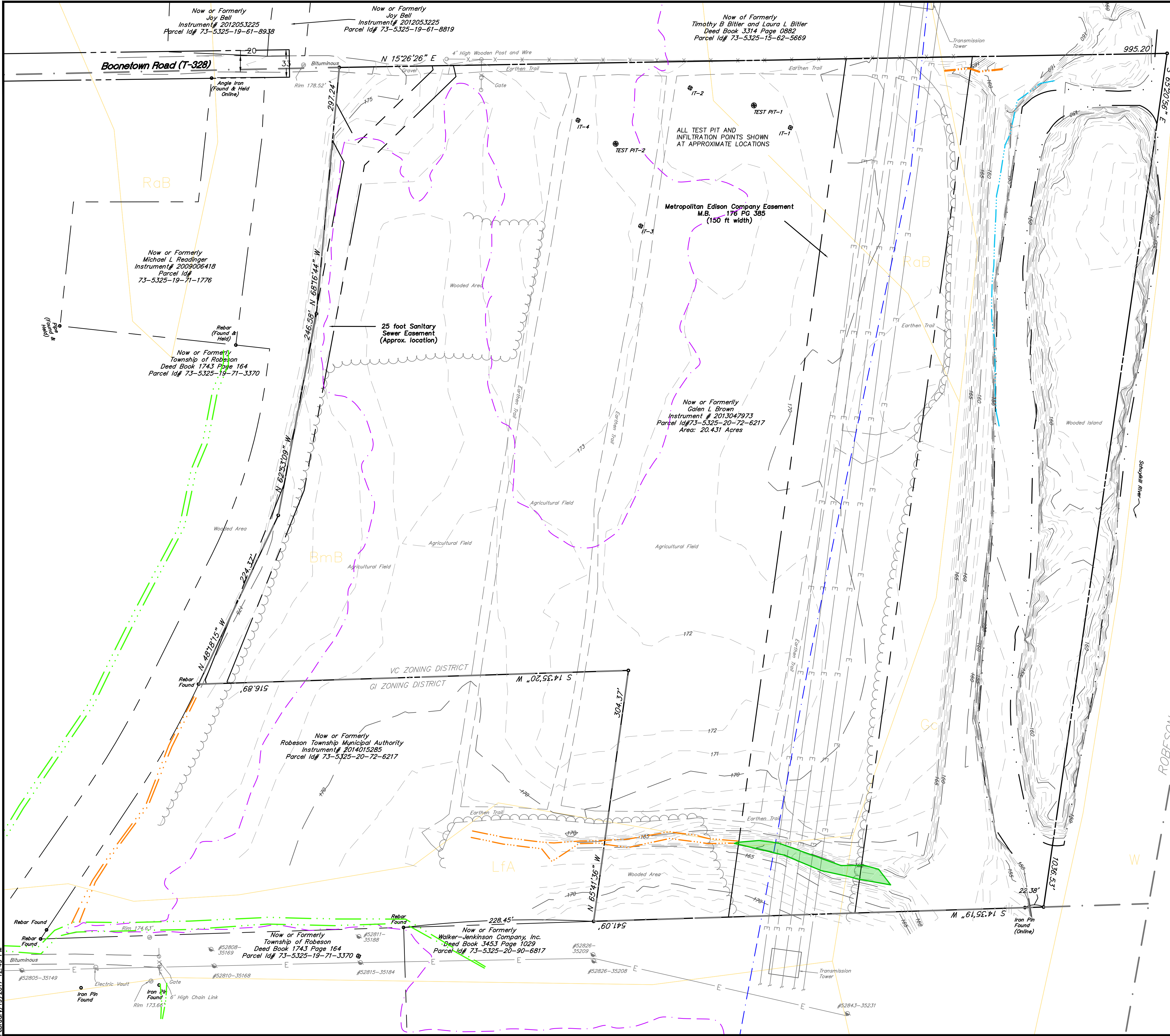
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COVER SHEET

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JOB NO.	216040.01
FILE NAME	LDP-FL-T101
SCALE	AS SHOWN
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SHEET NO	

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LEGEND

- Asphalt
- Edge Of Gravel
- Property Line
- Adopter Line
- Fence
- Edge of Water
- Tree Line
- Overhead Telephone Line
- Overhead Electric Line
- Gas Line
- Existing 1' Contour
- Existing 5' Contour
- Sign
- Utility Pole
- Approximate Direction
- Sanitary Sewer Manhole
- Infiltration Test
- Test Pit
- Soil Data
- FEMA 100 Year Floodway
- FEMA Zone AE (100 Year Floodplain)
- Zoning Boundary
- Watercourse (Ephemeral)
- Palustrine Emergent Wetland Boundary

SCALE: 1" = 60'

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REVISIONS		DESCRIPTION	
NO.	DATE	DESCRIPTION	UPDATED PER BCD COMMENTS
1	2.12.2017		

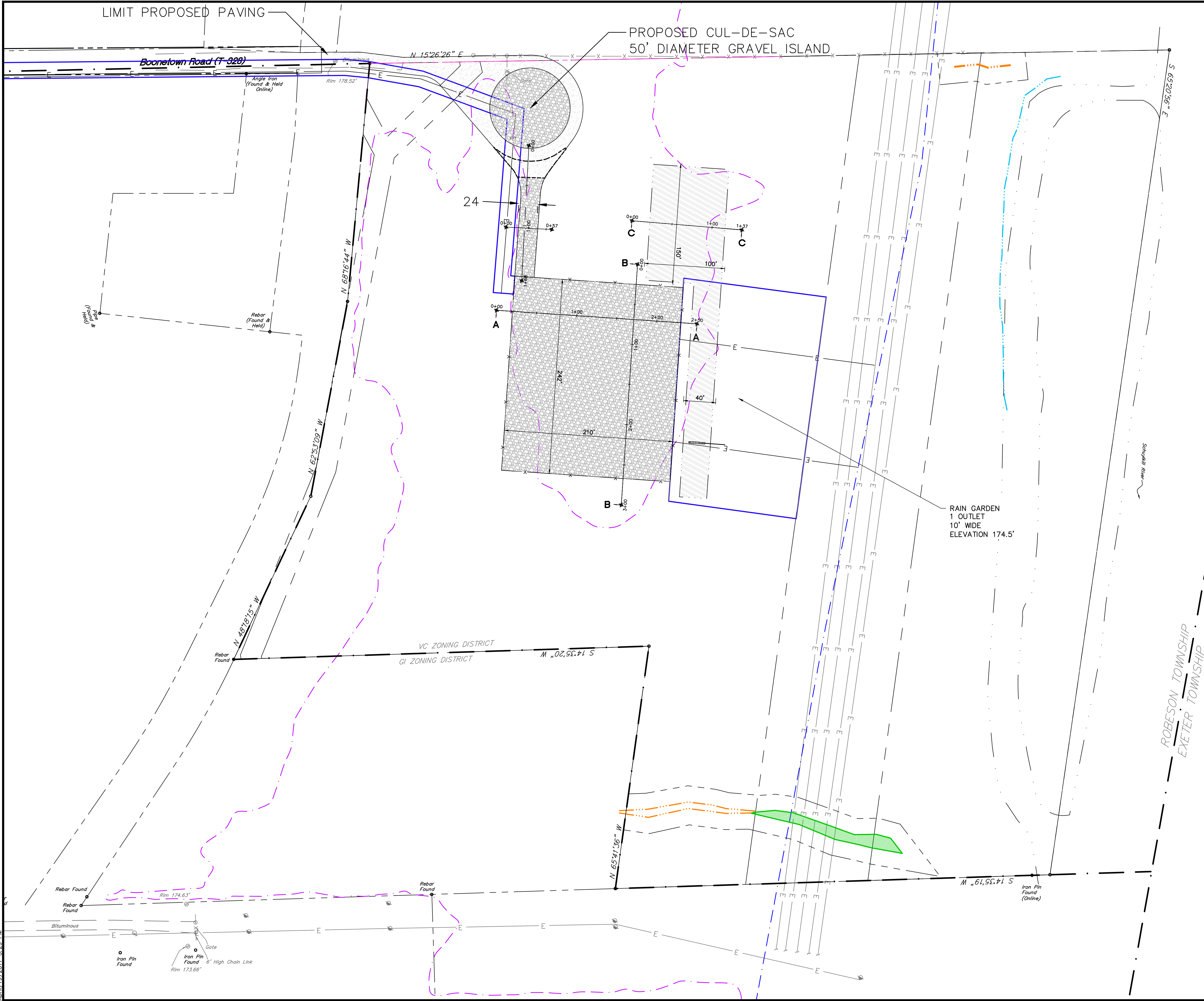
PCSM PLAN
NATURAL GAS COMBINE CYCLE
BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY PENNSYLVANIA

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EXISTING
CONDITIONS

DATE	JANUARY 13, 2016
JOB NO.	216040.01
FILE NAME	216040.01
SCALE	AS SHOWN
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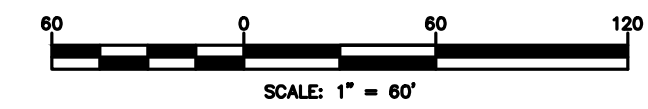


EXISTING LEGEND

- Asphalt
- Edge Of Gravel
- Property Line
- Adjoiner Line
- Fence
- Edge of Water
- Tree Line
- Overhead Telephone Line
- Overhead Electric Line
- Gas Line
- Sign
- Utility Pole
- Approximate Direction
- Sanitary Sewer Manhole
- FEMA 100 Year Floodway
- FEMA Zone AE (100 Year Floodplain)
- Zoning Boundary
- Watercourse (Ephemeral)
- Palustrine Emergent Wetland Boundary

PROPOSED LEGEND

- PROPOSED GRAVEL
- PROPOSED PAVING
- PROPOSED RAIN GARDEN
- ROAD ROW TO BE DEDICATED
- PROPOSED SUBDIVISION LINE
- PROPOSED ELECTRIC
- PROPOSED ELECTRIC ROW
- PROPOSED CONCRETE MONUMENT
- PROPOSED IRON PIN



- NO WELLS, FOUNDATIONS OR DRAINFIELDS LIE WITHIN 100 FEET FROM THE INFILTRATION BMPS SHOWN ON THE PLAN.

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REVISIONS	NO.	DATE	DESCRIPTION
	1	2/17/2017	UPDATE PER BCD COMMENTS
	2	4/12/2017	UPDATE PER REVISED CUL-DE-SAC

PCSM PLAN

NATURAL GAS COMBINE CYCLE

BIRDSBORO TRANSMISSION LINE

TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO

BERKS COUNTY PENNSYLVANIA

DRAWING TITLE

SITE PLAN

DATE

JANUARY 13, 2016

JOB NO.

216040.01

FILE NAME

21604001-LDP-01-COV1

SCALE

AS SHOWN

DRAWN BY

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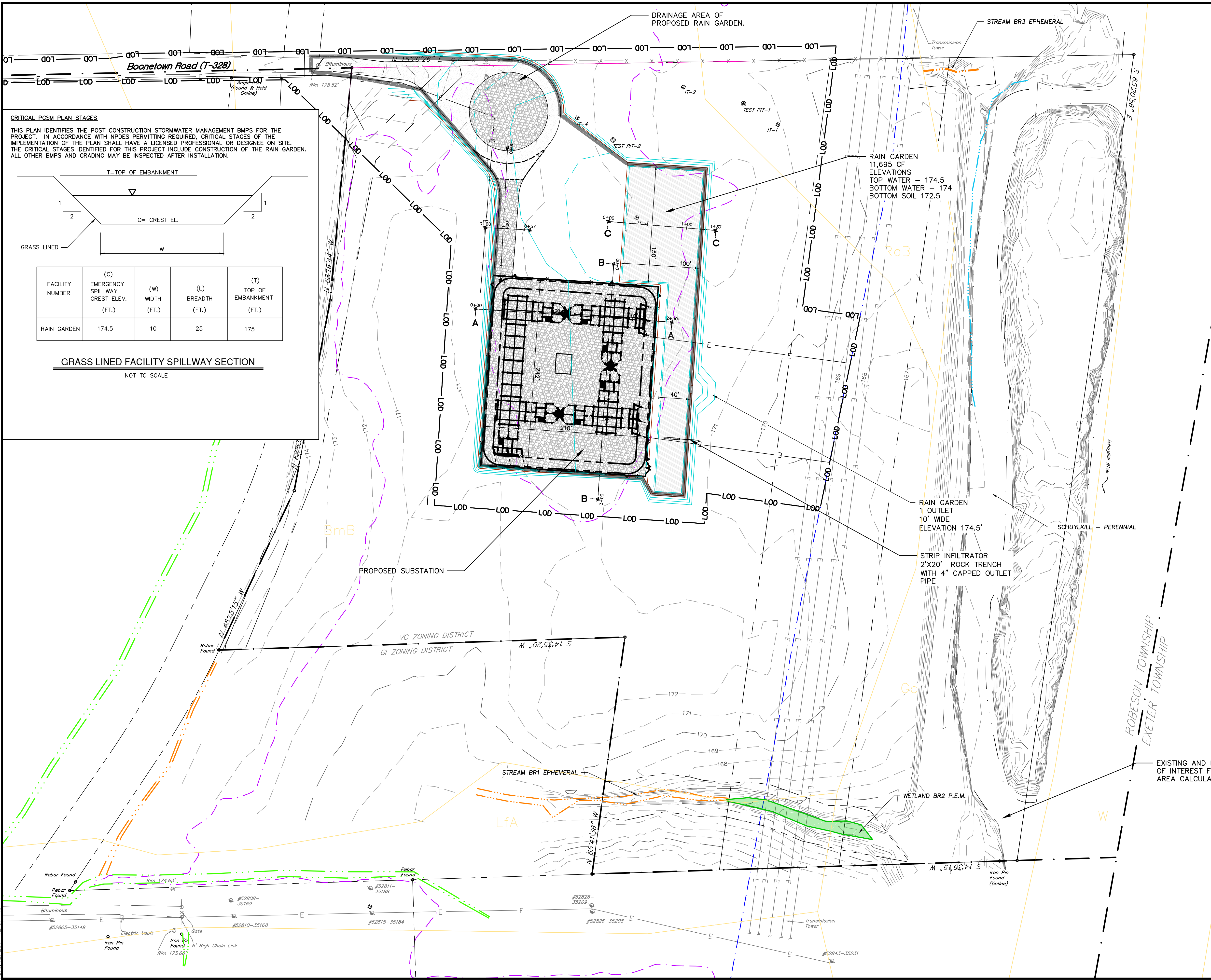
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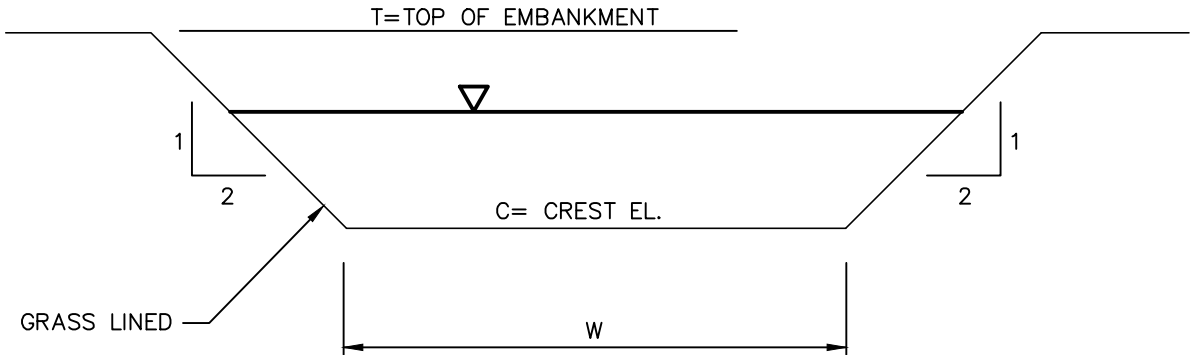
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CRITICAL PCSM PLAN STAGES

THIS PLAN IDENTIFIES THE POST CONSTRUCTION STORMWATER MANAGEMENT BMPs FOR THE PROJECT. IN ACCORDANCE WITH NPDES PERMITTING REQUIRED, CRITICAL STAGES OF THE IMPLEMENTATION OF THE PLAN SHALL HAVE A LICENSED PROFESSIONAL OR DESIGNER ON SITE. THE CRITICAL STAGES IDENTIFIED FOR THIS PROJECT INCLUDE CONSTRUCTION OF THE RAIN GARDEN. ALL OTHER BMPs AND GRADING MAY BE INSPECTED AFTER INSTALLATION.



FACILITY NUMBER	(C) EMERGENCY SPILLWAY CREST ELEV. (FT.)	(W) WIDTH (FT.)	(L) BREADTH (FT.)	(T) TOP OF EMBANKMENT (FT.)
RAIN GARDEN	174.5	10	25	175

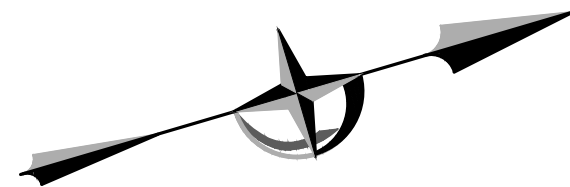
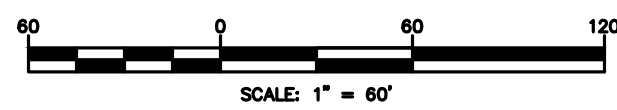
GRASS LINED FACILITY SPILLWAY SECTION
NOT TO SCALE

EXISTING LEGEND

- Asphalt
- Edge Of Gravel
- Property Line
- Adjoiner Line
- Fence
- Edge of Water
- Tree Line
- Overhead Telephone Line
- Overhead Electric Line
- Gas Line
- Sign
- Utility Pole
- Approximate Direction
- Sanitary Sewer Manhole
- FEMA 100 Year Floodway
- FEMA Zone AE (100 Year Floodplain)
- Zoning Boundary
- Watercourse (Ephemeral)
- Palustrine Emergent Wetland Boundary

PROPOSED LEGEND

- PROPOSED EVERGREEN
- LIMIT OF DISTURBANCE/NPDES
- PERMIT BOUNDARY
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED ELECTRIC
- PROPOSED GRAVEL
- PROPOSED PAVING
- PROPOSED RAIN GARDEN
- COMPOST FILTER SOCK



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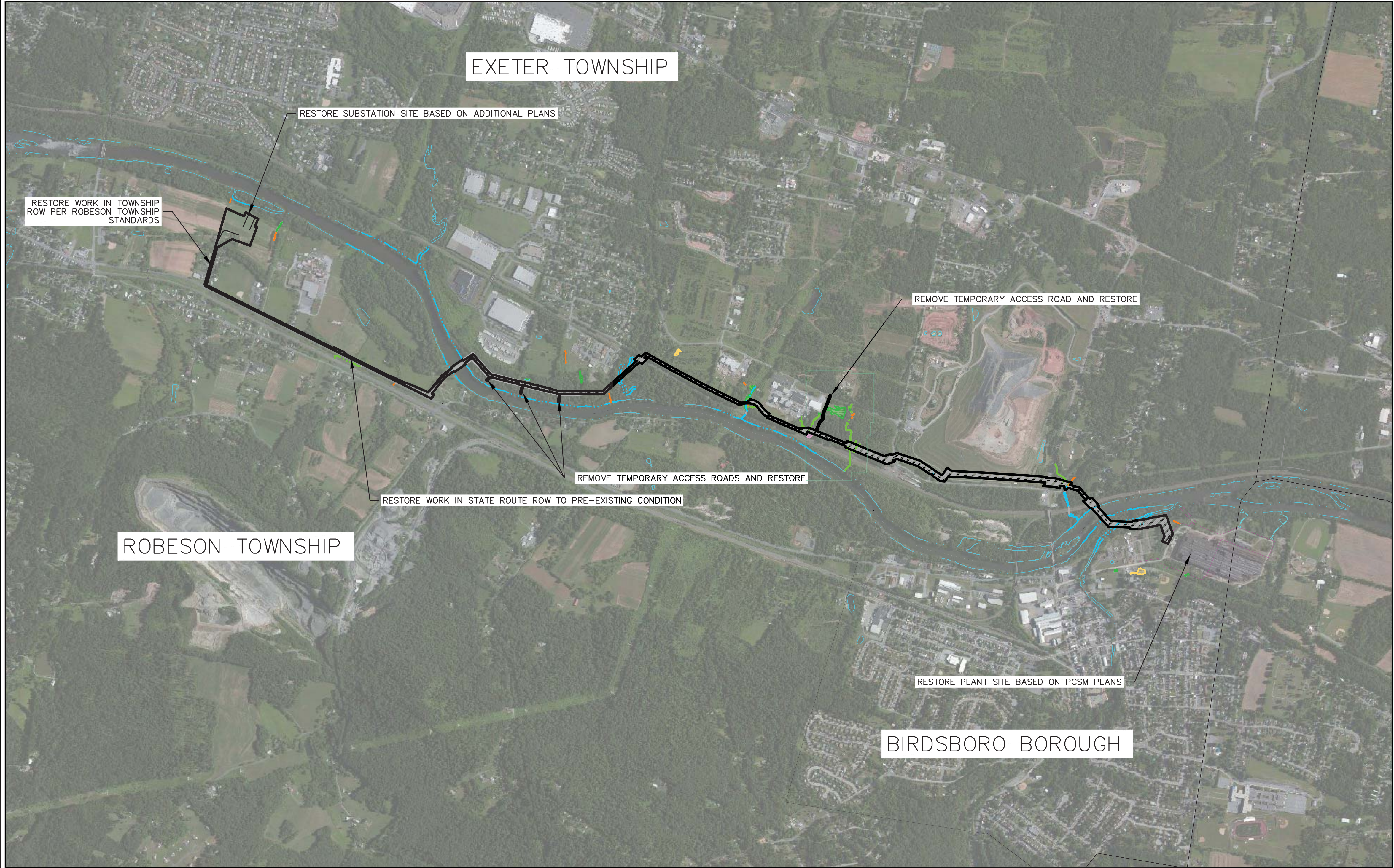
PCSM PLAN
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BERKS COUNTY PENNSYLVANIA

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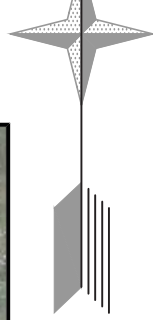
PCSM PLAN

DATE	JANUARY 13, 2016
JOB NO.	216040.01
FILE NAME	216040.01
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STATE PLANE GRID
PA SOUTH NAD 83

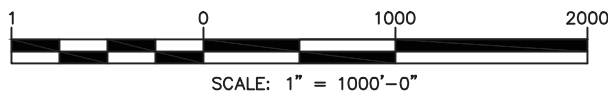


LEGEND:

- Existing Major Contour
 - Existing Minor Contour
 - Existing Overhead Electric Line
 - Existing Property Line
 - Existing Edge of Road
 - Watercourse (Ephemeral)
 - Watercourse (Intermittent)
 - Watercourse (Perennial)
 - Palustrine Emergent Wetland Boundary
 - Palustrine Forested Wetland Boundary
 - Palustrine Scrub-Shrub Wetland Boundary
 - FEMA Floodway
 - FEMA Floodplain
 - Soil Label
 - Soil Boundary
- PROPOSED TRANSMISSION LINE
- PROPOSED POLE
- PROPOSED MANHOLE
- LIMITS OF DISTURBANCE/NPDES PERMIT BOUNDARY
- COUNTY BOUNDARY
- RESTORATION TO MEADOW OR BETTER CONDITION OR AS NOTED

NOTES:

1. TOPSOIL SHALL BE GRADED BACK TO ORIGINAL LOCATION AND THE SITE SHALL BE RETURNED TO MEADOW OR BETTER CONDITION.
2. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED AND MULCHED.
3. UPON STABILIZATION, REMOVE ALL PERIMETER SILTSOXX AND ALL OTHER EROSION CONTROL MEASURES.
4. ALL TEMPORARY ACCESS ROADS SHALL BE REMOVED.
5. PERMANENTLY SEED AND MULCH ALL REMAINING DISTURBED AREAS.
6. ALL SILT SOCK ARE TO BE 12" IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS.
7. EROSION CONTROL BLANKETING OR HYDRA MULCHING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER OR WITHIN 100 FEET OF SURFACE WATER.
8. ROW CLEARING AND TREE CUTTING MUST BE CONDUCTED BY HAND IN ALL AREAS INSIDE OF THE CONSTRUCTION FENCE.



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REVISIONS		DESCRIPTION	
NO.	DATE	REVISED PER	BCDD COMMENTS
1	2.17.2017		
2	7.5.2017		REVISE FOR NPDES MINOR MODIFICATION

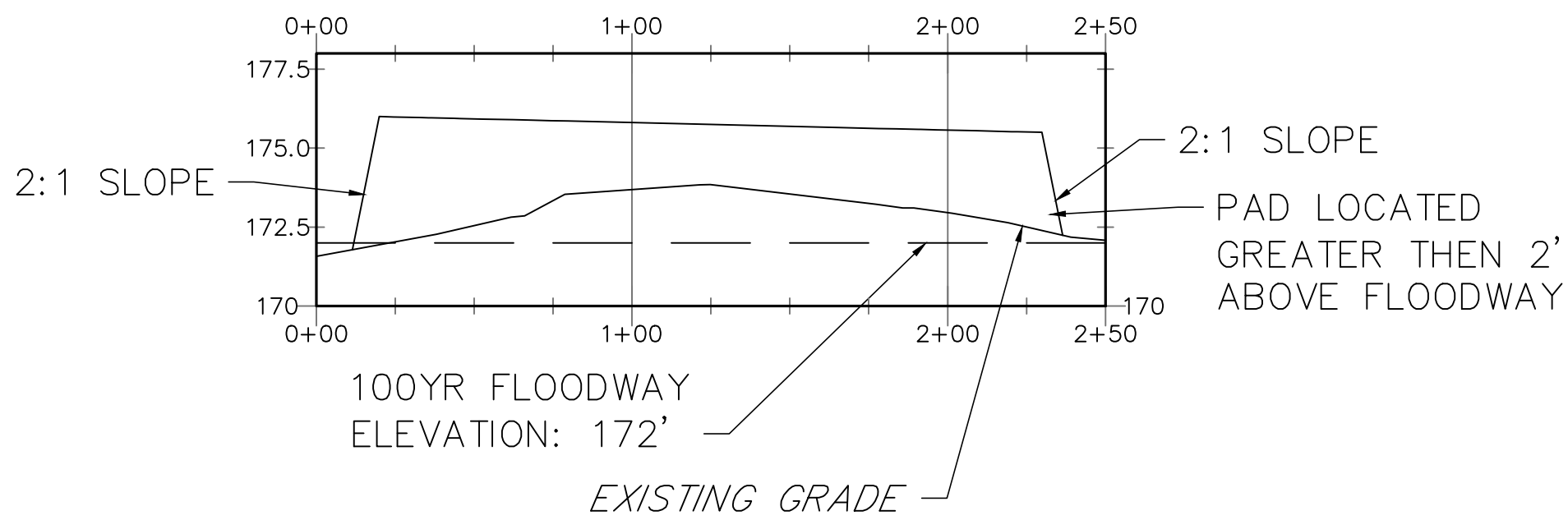
PCSM PLAN
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BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY PENNSYLVANIA

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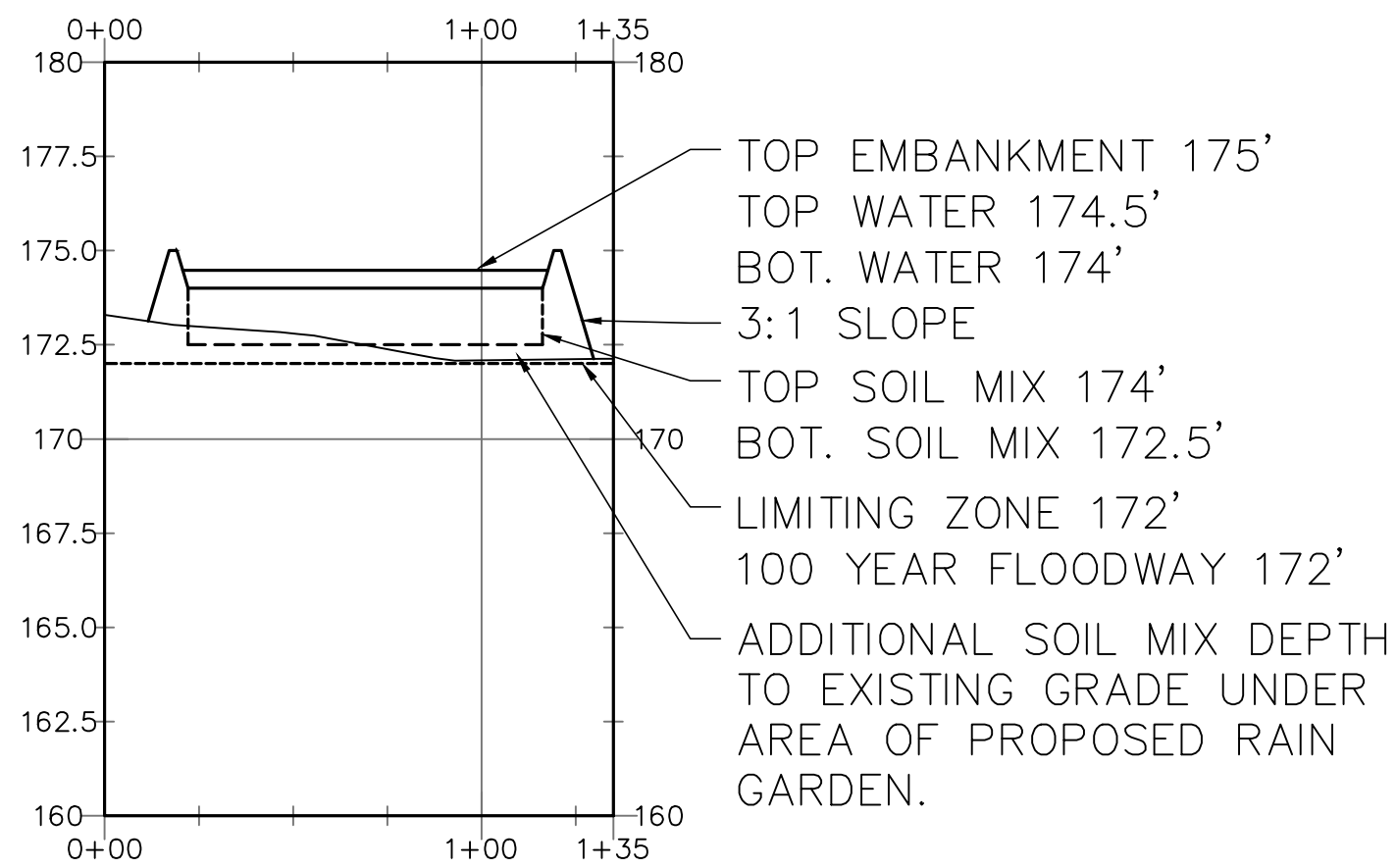
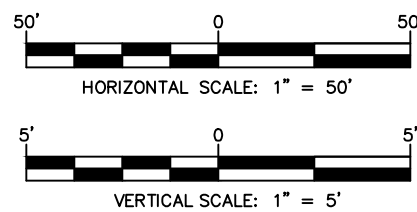
SITE RESTORATION
PLAN

DATE	JANUARY 13, 2016
JOB NO.	216040.01
FILE NAME	LDP-FL-ES01
SCALE	AS SHOWN
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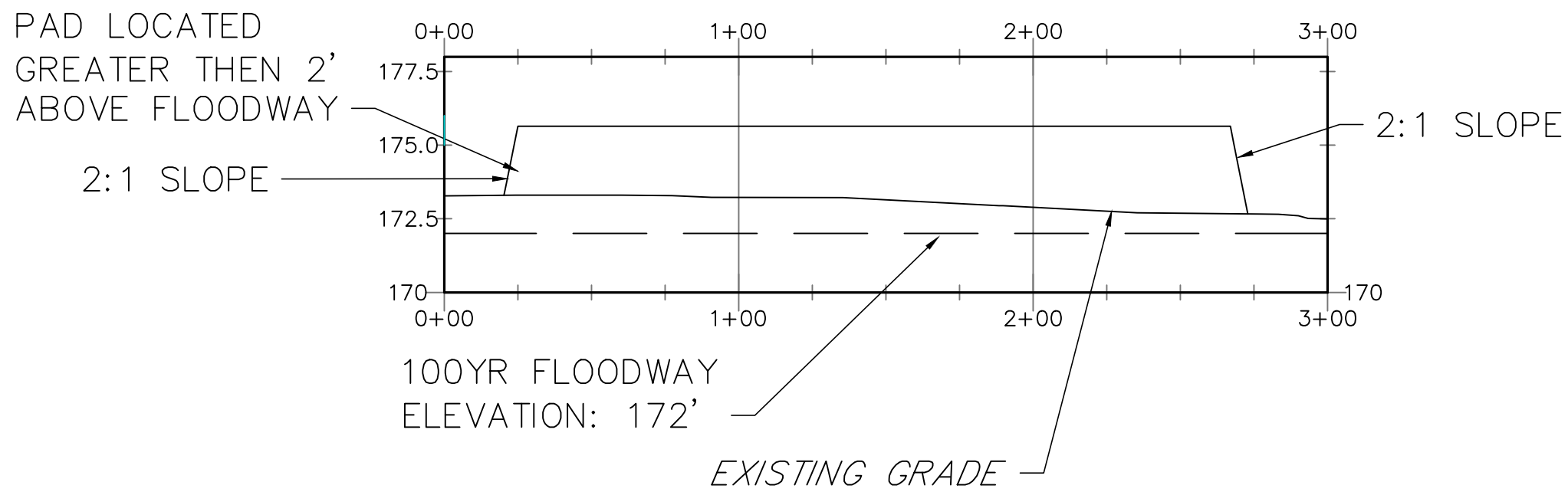
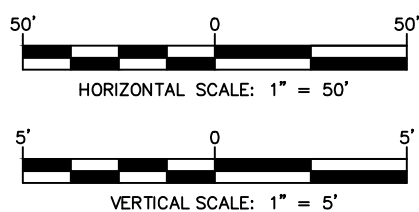
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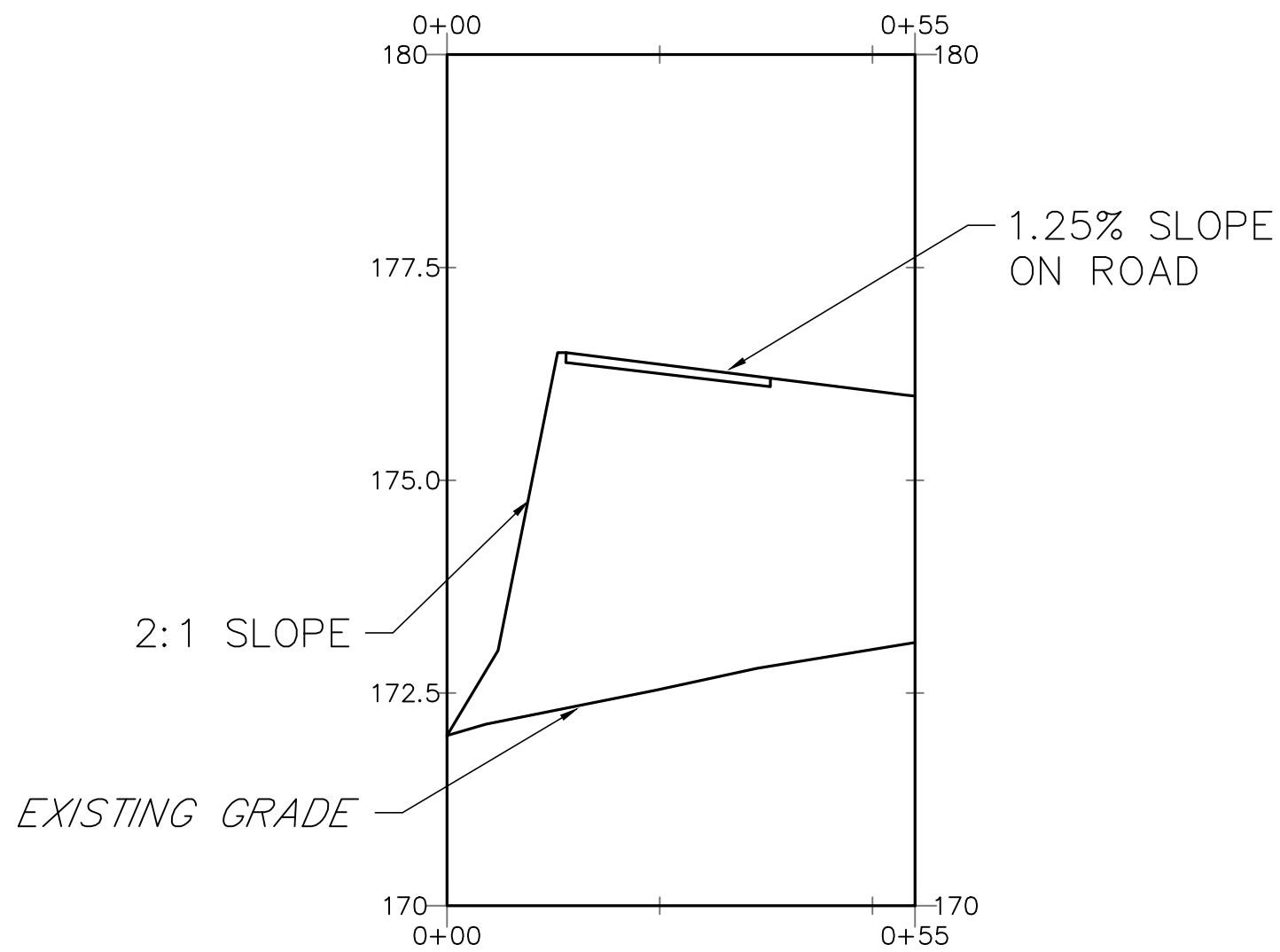
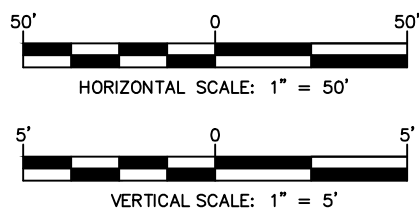
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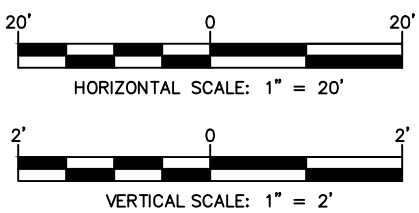
SECTION C-C



SECTION B-B



ACCESS ROAD TYPICAL SECTION



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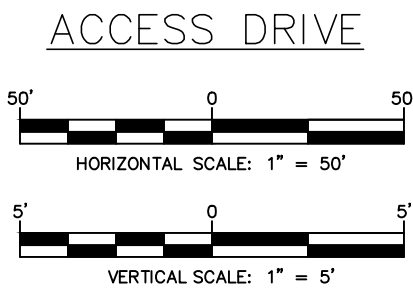
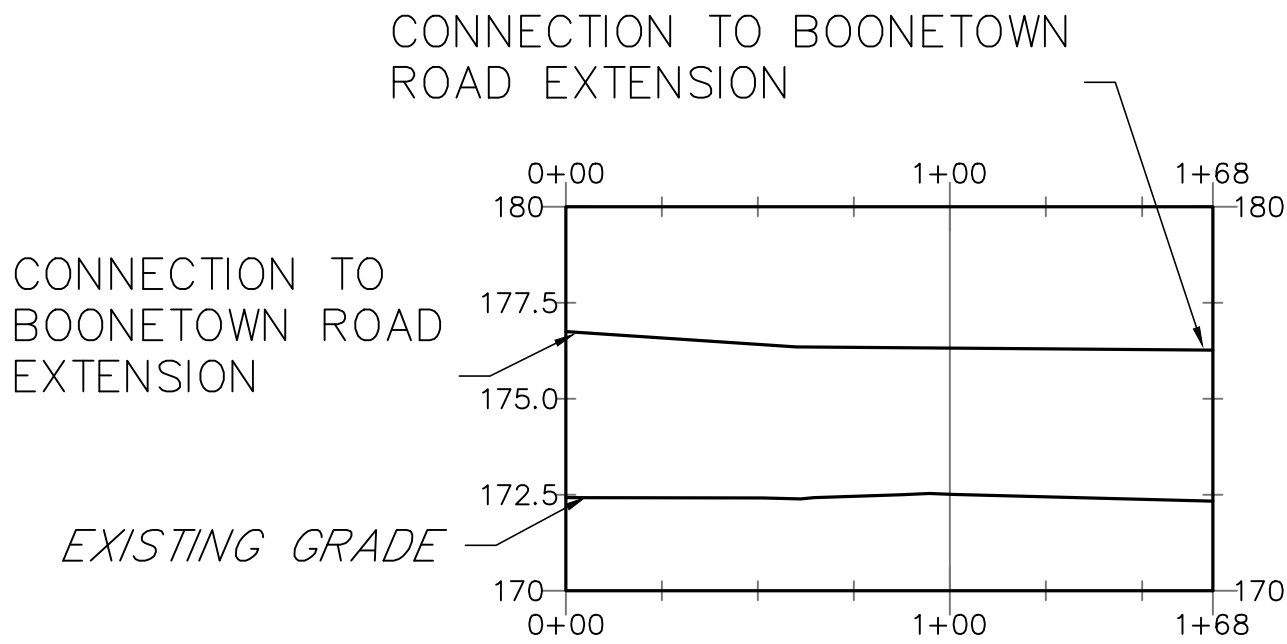
PCSM PLAN
NATURAL GAS COMBINE CYCLE
BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY
PENNSYLVANIA

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SECTIONS

DATE JANUARY 13, 2016
JOB NO. 216040.01
FILE NAME LDP-PO-LY01
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SCALE	AS SHOWN
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SECTIONS

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PCSM PLAN
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BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY
PENNSYLVANIA

REVISIONS		DESCRIPTION	
NO.	DATE	DESCRIPTION	COMMENTS
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MULCHING

MATERIAL SHALL BE HAY OR STRAW WHICH IS FREE OF WEED AND SEEDS, NOT MOLDY, ROTTEN, AND SHALL BE APPLY TO ALL SLOPES FATTER THAN 3:1 AT A RATE OF 140 LBS/1,000 SF. (APPROXIMATELY TWO BALES PER 1,000 SF OR 3 TON PER AC)

HYDOSEEDING SPECIFICATION

MATERIAL	DESCRIPTION	APPLICATION RATE (PER 1,000 SY)
(1) SEED MIXTURE (% BY WEIGHT)	REDTOP – 10% PENNLAWN FESCUE – 45% KENTUCKY BLUEGRASS – 45%	27 LBS
(2) 8–16–16	COMMERCIAL FERTILIZER	200 LB
(3) LIME	GROUND COMMERCIAL LIMESTONE	1,650 LBS
(4) MULCH	WOOD CELLULOSE FIBER	750 LBS

APPROPRIATE TACK COAT
PROCEDURE: SURFACE TO BE HYDOSEEDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATION. A WATER-SURRY MIXTURE COMPOSED OF THE ABOVE "MATERIALS", ITEMS (1) THROUGH (3), INCLUSIVE, SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDOSEEDED. IMMEDIATELY THEREAFTER, ITEM (4) "MULCH" SHALL BE BLOWN ON THE SAME AREA AND TACK-COATED. RATES AND TYPE OF MATERIALS SHALL BE AS SPECIFIED.

SEED TYPE	DESCRIPTION, FORMULA SPECIES	% BY WEIGHT	MINIMUM %		MAX % WEED SEED	SEEDING RATE	FERTILIZER RATE LBS./1000 S.F.	LIME RATE LBS./1000 S.F.	MULCH RATE
			PURITY	GERMINATION					
TYPE 3 TEMPORARY SEEDING	PADOT FORMULA (E) ANNUAL RYEGRASS	100	98	90	.15	50 LBS/ACRE	PER PENNDOT REQUIREMENTS	125	1 1/2" STRAW 3 TON/ACRE

TEMPORARY SEEDING TABLES

SEEDING MIXES ABOVE SHALL BE USED OR APPROVED EQUAL

VEGETATIVE STABILIZATION: PASTURE MIX			RATE (LB/AC)
SEED TYPE	ERNMX# 134*		30
	25% TIMOTHY, 'CLIMAX' (PHLEUM PRATENSE) 15% TALL FESCUE, 'BRONSON' (PASTURE TYPE – FESTUCA ARUNDINACEA) 15% ALSIKE CLOVER (TRIFOLIUM HYBRIDUM) 13% REDTOP (AGROSTIS ALBA (A. GIGANTEA)) 12% ANNUAL RYEGRASS (LOLIUM MULTIFORUM (L. PERENNE VAR. ITALICUM)) 10% FESTULOLIUM, 'DUO' (FESTUCA ELATIOR X LOLIUM PERENNE) 5% WHITE CLOVER, DUTCH (TRIFOLIUM REPENS, DUTCH) 5% WHITE CLOVER, LADINO (TRIFOLIUM REPENS, LADINO)		
FERTILIZER	10–20–20*		600
LIME	AGRICULTURAL LIME		4,000
MULCH	STRAW/HAY		6,000

PERMANENT SEEDING TABLES

SEEDING MIXES ABOVE SHALL BE USED OR APPROVED EQUAL

VEGETATIVE STABILIZATION: STREAM BANK AND WETLAND MIX			RATE (LB/AC)
SEED TYPE	ERNMX# 128*		20
	20% FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE) 17% DEERTONGUE, TIOPA (PANCIMUM CLANDESTINUM (DICHANTHELIUM C.) 16% VIRGINIA WILD RYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE) 15% JAPANESE MILLET (ECHINOCHLOA CRUSGALLI VAR. FRUMENTACEA) 8% SWITCHGRASS, 'SHAWNEE' (Panicum VIRGATUM, 'SHAWNEE') 4% SHOWY TICKREFOIL, PA ECOTYPE (DESMODIUM CANADENSE) 2% GREEN BULRUSH, PA ECO TYPE (SCIRPUS ATROVIRENS) 2% OXEYE SUNFLOWER, PA ECOTYPE (HELIOPSIS HELIANTHOIDES) 1% AUTUMN BENTGRASS, ALBANY PINE BUSH – NY ECOTYPE (AGROSTIS PERENNANS, ALBANY PINE BY)		
MULCH	STRAW/HAY		6,000

OPERATION AND MAINTENANCE SCHEDULE:

- THE OPERATOR SHALL MAINTAIN AND BE RESPONSIBLE FOR ALL STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES (I.E. RAIN GARDENS, SWALES AND LEVEL SPREADERS) THAT ARE PROPOSED ON THE PLANS.
- THE OPERATOR SHALL CONDUCT A VISUAL INSPECTION OF ALL STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES AT LEAST ONCE EVERY THREE MONTHS AND IMMEDIATELY AFTER STORM EVENTS. SUCH VISUAL EXAMINATION SHALL AT LEAST INVOLVE AN EXAMINATION OF THE STORMWATER COLLECTION, CONVEYANCE AND BMP FACILITIES FOR DEBRIS DEPOSITION (SUCH DEBRIS MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, AGGREGATE MATERIAL, LEAVES, GRASS CLIPPINGS, SOIL AND TRASH), AND AN EXAMINATION OF THE STORMWATER BMP FACILITIES FOR SOIL AND STRUCTURAL SETTLEMENT, DEPRESSIONS, SINKHOLES, SEEPS, STRUCTURAL CRACKING, ANIMAL BURROWS, EXCESSIVE VEGETATION, CLOGGING, EROSION AND FOUNDATION MOVEMENT.
- THE OPERATOR SHALL REMOVE ANY ACCUMULATION OF DEBRIS AND REPAIR ANY DAMAGE TO THE STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES. REPAIRS SHALL BE MADE USING MATERIAL THAT MEETS OR EXCEEDS THE SPECIFICATIONS PROVIDED ON THE PLANS.
- THE OPERATOR IS REQUIRED TO MAINTAIN A RECORD OF ALL INSPECTIONS, REPAIRS AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES AT THIS PROJECT SITE.
- RAIN GARDEN SHOULD DEWATER WITHIN 72 HOURS AFTER A RAIN EVENT. CLOGGED AREAS OF INFILTRATION SHALL BE EXCAVATED AND REPLACED. EXCAVATED MATERIAL SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.

RAIN GARDENS:

- MULCH AND INSTALL EROSION PROTECTION AT SURFACE FLOW ENTRANCES WHERE NECESSARY.
- WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.
- MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY 2–3 YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.
- BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC.
- DURING PERIODS OF EXTENDED DROUGHT, BIORETENTION AREAS MAY REQUIRE WATERING.
- TREES AND SHRUBS, IF APPLICABLE, SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH.
- WEEDING WILL BE NEEDED THE FIRST COUPLE OF YEARS. REMOVE BY HAND ONLY THOSE PLANTS THAT ARE POSITIVELY IDENTIFIED AS WEEDS. IN THE THIRD YEAR AND BEYOND, THE NATIVE GRASSES, SEDGES, RUSHES, AND WILDFLOWERS WILL BEGIN TO MATURE AND WILL OUT-COMPETE THE WEEDS. WEEDING ISOLATED PATCHES MIGHT STILL BE NEEDED ON OCCASION AND INVASIVE SPECIES SHOULD ALWAYS BE REMOVED.

RAIN GARDEN SEQUENCE OF CONSTRUCTION:

- INSTALL PERIMETER CONTROLS IN THE AREA OF THE RAIN GARDEN.
- LIGHTLY SCARIFY THE SOIL IN THE AREA OF THE RAIN GARDEN.
- FILL CAN BE USED TO CONSTRUCT THE BERM. SOIL SHOULD BE ADDED IN 8-INCH LIFTS. SPREAD TOPSOIL ON BERM.
- INSTALL RAIN GARDEN OUTLET AS SHOWN ON THE PLANS AND DETAILS.
- PROTECT THE PONDING AREA FROM COMPACTION FROM EARTHMOVING AND OTHER HEAVY EQUIPMENT.
- TAMP DOWN THE OUTSIDE AND TOP OF THE BMP STRUCTURE LIGHTLY, SIDES SHOULD BE SMOOTH, CREST AND BERM BOTTOM SHOULD BE LEVEL.
- PLACE 18" OF SOIL MIX.
- PLANT RAIN GARDEN AS DESCRIBED IN THE PLANTING PLAN. SEED AND MULCH DISTURBED AREAS WITH COMPOST TO STABILIZE THE SOIL WHILE PLANTS BECOME ESTABLISHED.
- RAIN GARDEN SHALL REMAIN PROTECTED FROM SEDIMENTATION UNTIL THE DRAINAGE AREA TO THE RAIN GARDEN IS COMPLETELY STABILIZED.

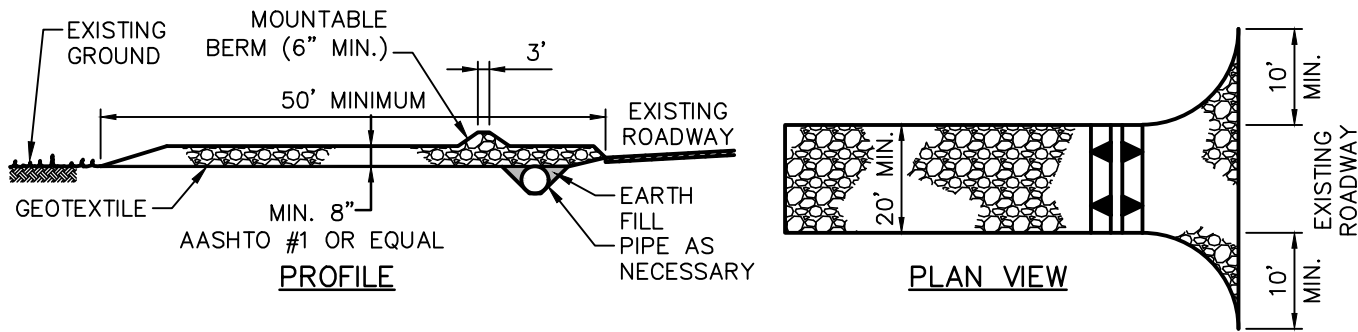
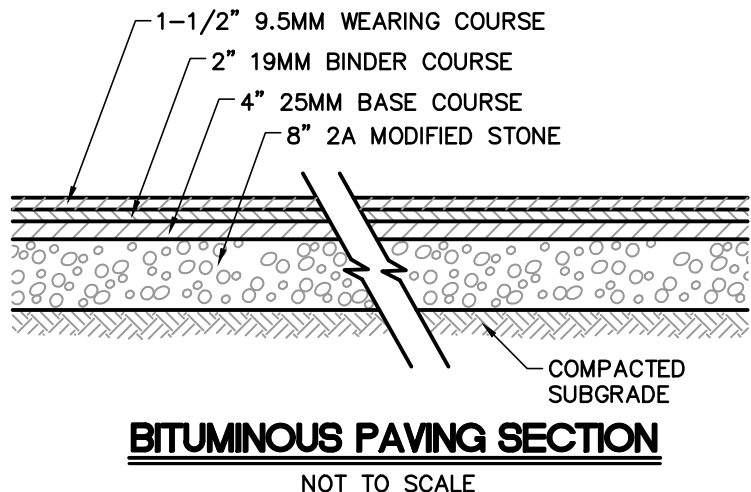
MIX NO.	SPECIES	SEED RATE (PURE LIVE SEED)
1	ANNUAL RYEGRASS	10
3	BIRDSFOOT TREFOIL	6
3	TALL FESCUE	30

TABLE 11.4 EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL

LANDSCAPE RESTORATION SEED MIX

SEEDING MIXES ABOVE SHALL BE USED OR APPROVED EQUAL

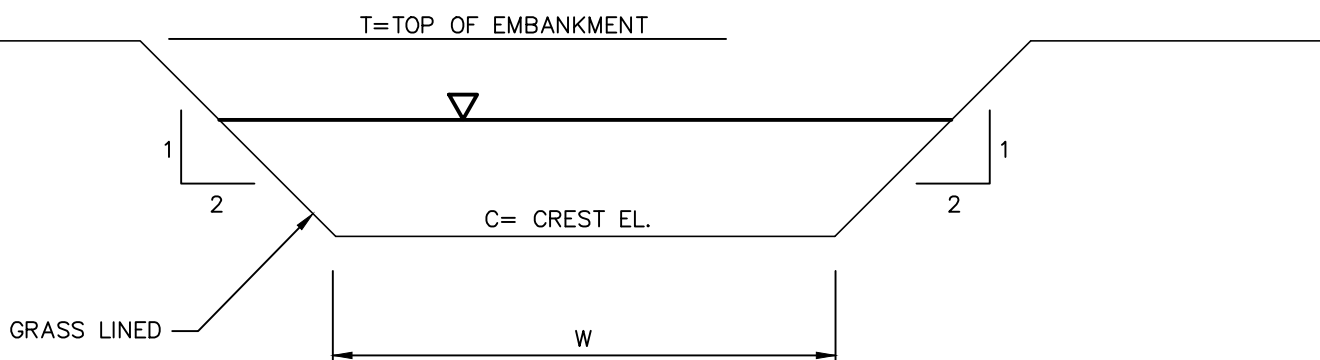
PURE LIVE SEED IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100.



- TOPSOIL SHOULD BE REMOVED PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MOUNTABLE BERM SHOULD BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY THE MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE TO BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
- MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWER, CULVERTS, OR OTHER DRAINAGEWAYS IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE

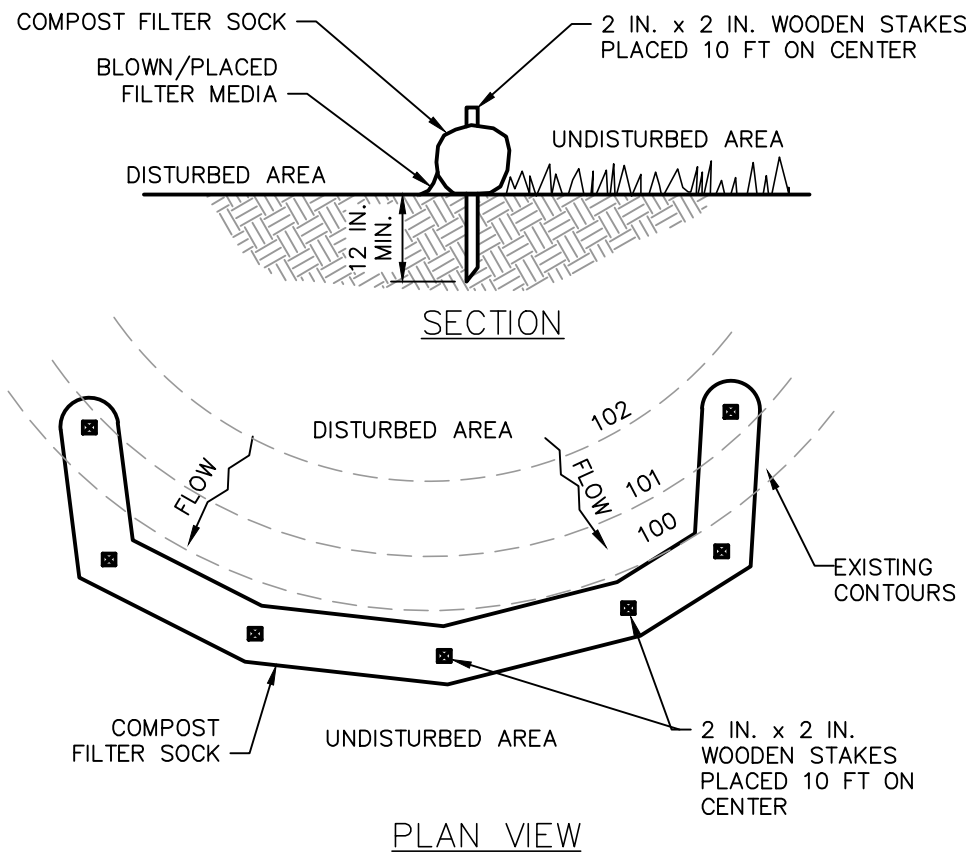
NOT TO SCALE



FACILITY NUMBER	(C) EMERGENCY SPILLWAY CREST ELEV. (FT.)	(W) WIDTH (FT.)	(L) BREADTH (FT.)	(T) TOP OF EMBANKMENT (FT.)
RAIN GARDEN	174.5	10	25	175

GRASS LINED FACILITY SPILLWAY SECTION

NOT TO SCALE



NOTES:

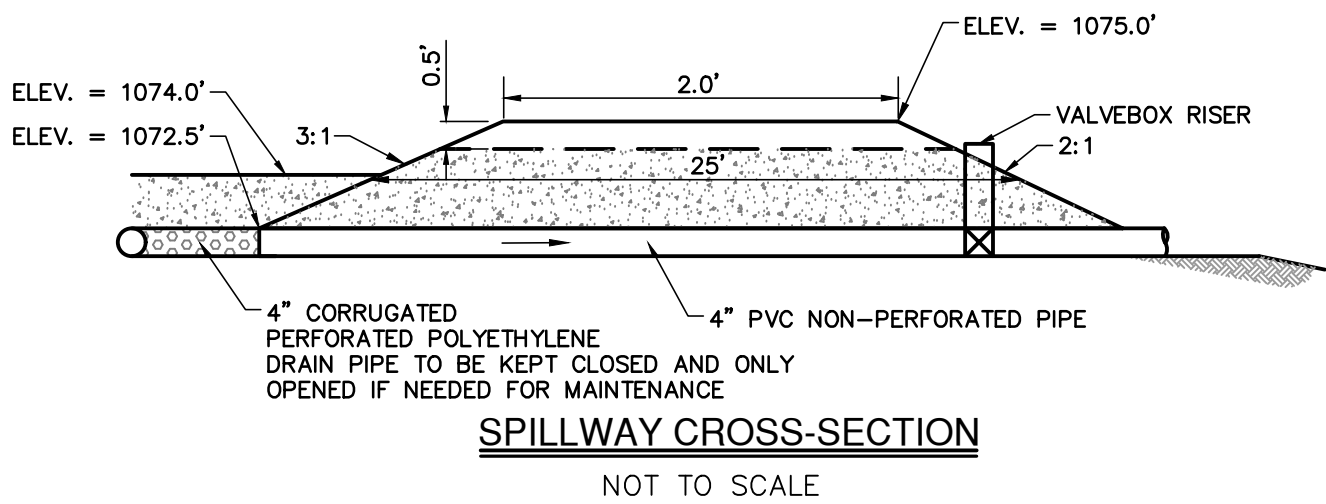
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE 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.

COMPOST FILTER SOCK

NOT TO SCALE

RAIN GARDEN MIX – ERNMX–180		
% MIX	BOTANICAL NAME	COMMON NAME
20.00%	Panicum rigidulum	Redtop Panic Grass
20.00%	Schizachyrium scoparium	Little Bluestem
10.00%	Elymus virginicus	Virginia Wild Rye
5.00%	Carex vulpinoidea	Fox Sedge
5.00%	Chasmanthium latifolium	River Oats
5.00%	Echinacea purpurea	Purple Coneflower
5.00%	Liatris spicata	Marsh Blazing Star
5.00%	Rudbeckia hirta	Black 'eyed Susan
3.00%	Monarda fistulosa	Wild Bergamot
3.00%	Pestemon digitalis	Tall White Beard Tongue
2.00%	Andropogon gerardii	Big Bluestem
2.00%	Asclepias incarnata	Swamp Milkweed
2.00%	Aster novae-angliae	New England Aster
2.00%	Baptisia australis	Blue False Indigo
2.00%	Geum laciniatum	Rough Aven
2.00%	Senna hebecarpa	Wild Senna
2.00%	Tradescantia ohiensis	Ohio Spiderwort
2.00%	Verbena hastata	Blue Vervain
2.00%	Zizia aurea	Golden Alexanders
1.00%	Agrostis perennans	Autumn Bentgrass
100.00%	SEEDING RATE: 15LB. PER ACRE OR 1/3 – 1/2 LB. PER 1,000 SQ. FT.	

SEEDING MIXES ABOVE SHALL BE USED OR APPROVED EQUAL



SPILLWAY CROSS-SECTION

NOT TO SCALE

DOCUMENT PREPARED FOR:

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DOCUMENT PREPARED BY:

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NO.	DATE	REVISIONS	DESCRIPTION	
			UPDATED PER	BCDD COMMENTS
1	2.17.2017			

PCSM PLAN
NATURAL GAS COMBINE CYCLE
BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY
PENNSYLVANIA

DRAWING TITLE

CONSTRUCTION
DETAILS

DATE	JANUARY 13, 2016
JOB NO.	216040.01
FILE NAME	21604001-LDP-01-COV1
SCALE	AS SHOWN
DRAWN BY	GLA
CHECKED BY	JTP
SHEET NO	

CONTRACTORS/OPERATORS WHO ARE NOT THE PERMITTEE SHALL BE CO-PERMITTEES

FEDERAL NPDES REGULATIONS AT 40 C.F.R. §122.21(B) REQUIRE THAT CONTRACTOR/OPERATOR(S) MUST BECOME A PERMITTEE. AN OPERATOR IS A PERSON WHO MEETS EITHER OF THE FOLLOWING CRITERIA: 1.) YOU HAVE OPERATIONAL CONTROL OF CONSTRUCTION PROJECT PLANS AND SPECIFICATIONS, INCLUDING THE ABILITY TO MAKE MODIFICATIONS TO THOSE PLANS AND SPECIFICATIONS; OR 2.) YOU HAVE DAY-TO-DAY OPERATIONAL CONTROL (SUPERVISION) OF THOSE ACTIVITIES AT THE PROJECT THAT ARE NECESSARY TO ENSURE COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR THE SITE OR ENSURE COMPLIANCE WITH OTHER PERMIT CONDITIONS, I.E., GENERAL CONTRACTORS, SUBCONTRACTORS GENERALLY DO NOT HAVE SUPERVISORY CONTROL OVER EARTH DISTURBANCE ACTIVITIES AND THEREFORE USUALLY SHOULD NOT BECOME A PERMITTEE OR CO-PERMITTEE. IF PRIOR TO CONSTRUCTION ACTIVITIES, THERE IS NO OPERATOR, THE OWNER MUST APPLY FOR THE PERMIT. ONCE THE OPERATOR HAS BEEN SELECTED, THE CONTRACTOR/OPERATOR MUST USE PADEP FORM 3150-PM-BWEW0228 AND TRANSFEREE/CO-PERMITTEE APPLICATION FORM TO HAVE THE PERMIT TRANSFERRED TO THE CONTRACTOR.

FAILURE OF THE CONTRACTOR/OPERATOR TO BE ADDED TO THE PERMIT IS A VIOLATION OF FEDERAL AND STATE LAW AND REGULATION.

THIS APPLICATION MUST BE FILED AT LEAST 30 DAYS PRIOR TO THE PROPOSED CHANGE OF OWNERSHIP AND/OR OPERATIONAL CONTROL WHICH WILL RESULT IN THE TRANSFER OF PERMIT RESPONSIBILITY, COVERAGE AND LIABILITY.

MANAGEMENT OF FILL AND EXCAVATED MATERIALS

THE CONTRACTOR MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT THE FILL MATERIAL ASSOCIATED WITH THIS PROJECT QUALIFIES AS CLEAN FILL. DEFINITIONS OF CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE PROVIDED BELOW. ALL FILL MATERIAL MUST BE USED IN ACCORDANCE WITH THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL," DOCUMENT NUMBER 258-2182-773. A COPY OF THIS POLICY IS AVAILABLE ONLINE AT WWW.DEPWEB.STATE.PA.US. UNDER THE HEADING QUICK ACCESS ON THE LEFT SIDE OF THE SCREEN, CLICK ON "FORMS AND PUBLICATIONS." ON THE LEFT SIDE OF THE SCREEN CLICK ON "TECHNICAL GUIDANCE DOCUMENTS - FINAL." THEN TYPE THE DOCUMENT NUMBER 258 2182 773 INTO THE SEARCH WINDOW AND CONDUCT THE SEARCH. CLICK ON "MANAGEMENT OF FILL."

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 RE-USE.)

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."

PADEP FORM FP-001 SHALL BE REQUIRED:

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE PADEP 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 AND MUST BE KEPT ON SITE AND MADE AVAILABLE UPON REQUEST BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. FAILURE TO PRODUCE THE FORM UPON REQUEST MAY RESULT IN THE REVOKING, SUSPENSION OR TERMINATION OF YOUR PERMIT COVERAGE.

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 A 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."

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.

SITE CLEANUP & RECYCLE PROGRAM

1. GARBAGE, FUELS, OR ANY SUBSTANCE HARMFUL TO HUMAN, AQUATIC, OR FISH LIFE, SHALL BE PREVENTED FROM ENTERING SPRINGS, STREAMS, PONDS, LAKES, WETLANDS, OR ANY OTHER WATER COURSE OR WATER BODY.
2. OILS, FUELS, LUBRICANTS, AND COOLANTS SHALL BE PLACED IN SUITABLE CONTAINERS AND DISPOSED PROPERLY.
3. ALL TRASH AND GARBAGE SHALL BE COLLECTED AND DISPOSED PROPERLY.
4. ALL SEDIMENT REMOVED FROM SEDIMENT CAPTURING DEVICES OR STORMWATER BMPS SHALL BE REDISTRIBUTED OVER THE GRADED AREA OF THE PROJECT AND SEEDED AND MULCHED IN ACCORDANCE WITH THE PLAN AND DETAILS.
5. ALL BUILDING MATERIALS AND WASTES SHALL 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.

PCSM OPERATION AND MAINTENANCE REQUIREMENTS

1. THE PERMITTEE SHALL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPS ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.
2. THE PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS.
3. THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPS OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE PA DEP.
4. A PERMITTEE THAT DOESN'T TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS SHALL REMAIN RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS LOCATED ON THE PROJECT SITE UNTIL SUCH TIME AS THE BMPS ARE REMOVED AND THE SITE IS RESTORED TO APPROXIMATE ORIGINAL CONDITIONS.

LONG-TERM OPERATION AND MAINTENANCE PLAN

1. MAINTENANCE AFTER CONSTRUCTION AND UNTIL THE ENTIRE SITE IS RESTORED TO ORIGINAL CONDITIONS SHALL BE THE RESPONSIBILITY OF THE FACILITY OWNER.
2. THE PARTY RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE BMPS MAY ENTER THE SITE UPON REASONABLE NOTICE, IN A REASONABLE MANNER, AND AT REASONABLE TIMES FOR PURPOSES OF LONG-TERM OPERATION AND MAINTENANCE, INCLUDING REGULAR INSPECTIONS.
3. UNTIL THE SITE IS RESTORED TO ORIGINAL CONDITIONS, ALL PERMANENT E&S AND PCSM BMPS SHALL BE MAINTAINED TO ENSURE PROPER FUNCTION AND OPERATION.
4. CARE MUST BE TAKEN TO PROTECT THE PCSM BMPS FROM EXCESSIVE SEDIMENT AND OTHER POLLUTANTS. PROTECT MEASURES SHOULD BE UTILIZED WHENEVER AN OPERATION WITH THE POTENTIAL TO RELEASE POLLUTANTS IS CONDUCTED UPSLOPE OF A STORMWATER FACILITY.
5. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BMPS AT LEAST ONCE EVERY THREE MONTHS AND AFTER HEAVY RAINS. INSPECTIONS SHOULD OCCUR WITHIN 24 HOURS OF HEAVY RAIN EVENTS.
6. AREAS OF MINIMUM DISTURBANCE WITHIN THE TRANSMISSION LINE LOD SHALL BE MAINTAINED AS MEADOW ONCE THE CONSTRUCTION IS COMPLETED.
7. LANDSCAPE RESTORATION WITH NATIVE SPECIES WITHIN THE TRANSMISSION LINE LIMIT OF DISTURBANCE SHALL BE ACCOMPLISHED BY PLANTING NATIVE SPECIES AND SEASONAL MOWING AS REQUIRED. MANAGEMENT SHALL BE COORDINATED WITH ESSENTIAL RESEEDING AND OTHER IMPORTANT ASPECTS OF MEADOW RE-ESTABLISHMENT.
8. VEGETATED AREAS SHALL BE MAINTAINED AND INSPECTED REGULARLY FOR GULLY EROSION, DENSITY OF VEGETATION, AND DAMAGE FROM FOOT OR VEHICULAR TRAFFIC. MAINTENANCE SHOULD INCLUDE WATERING, FERTILIZING, RESEEDING, AND REPAIR OF ERODING AREAS AS NEEDED.
9. NATURAL DRAINAGE FEATURES BEING PROTECTED SHOULD BE PERIODICALLY INSPECTED TO ASSESS EROSION, BANK STABILITY, SEDIMENT/DEBRIS ACCUMULATION AND VEGETATIVE CONDITIONS INCLUDING THE PRESENCE OF INVASIVE SPECIES. PROBLEMS SHOULD BE CORRECTED IN A TIMELY MANNER. UNDESIRABLE SPECIES SHOULD BE REMOVED AND DESIRABLE NATIVE REPLACEMENTS PLANTED IF NECESSARY.
10. AREAS OF MINIMUM SOIL COMPACTION SHOULD BE MAINTAINED BY PLANTING LOW MAINTENANCE NATIVE VEGETATION. COMPACTION OF SOIL SHOULD BE AVOIDED BY LIMITING LAWN MOWING OR OTHER ACTIVITIES.
11. BERMS, BASINS, AND STRUCTURES SHOULD BE INSPECTED FOR EVIDENCE OF DETEIORATION, STANDING WATER, AND ANY DEFINED SETTLING OR DEPRESSIONS. MAINTENANCE SHOULD INCLUDE REGULAR REMOVAL OF ACCUMULATED SEDIMENT, TRASH AND DEBRIS.
12. REPAIR OR REPLACE ANY BMPS NOT FUNCTIONING AS INTENDED. PONDS SHOULD DEWATER WITHIN 72 HOURS AFTER A RAIN EVENT. CLOGGED AREAS OF INFILTRATION POND BOTTOMS SHALL BE EXCAVATED AND REPLACED. EXCAVATED MATERIAL SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
13. OUTFALL LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER STORMWATER CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS.
14. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY. MAJOR STRUCTURAL REPAIRS, IF NECESSARY, MUST BE EVALUATED BY AN ENGINEER.
15. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED.
16. UPON REDUCTION, LOSS, OR FAILURE OF ANY BMP, THE FACILITY OWNER SHALL TAKE IMMEDIATE ACTION TO RESTORE, REPAIR, OR REPLACE THE BMP OR PROVIDE AN ALTERNATE BMP. THESE ACTIONS SHOULD BE UNDERTAKEN TO PROTECT, MAINTAIN, RECLAIM, AND RESTORE WATERS OF THE COMMONWEALTH.

SOILS NARRATIVE:

SOILS BY THEIR VERY NATURE TEND TO VARY FROM AREA TO AREA AND THEREFORE ARE PROJECT SPECIFIC. THE DESKTOP STUDY PREFORMED AS PART OF THIS REPORT AND SUMMARIZED BELOW IS ONLY IDENTIFIED TO PROVIDE THE CONTRACTOR WITH BASIC BACKGROUND INFORMATION ABOUT THE SOILS THAT MIGHT BE ENCOUNTERED. EACH AND EVERY SOIL CONDITION MUST BE EVALUATED AND OBSERVED IN THE FIELD FOR LIMITATIONS. SOILS LISTED BELOW ARE SHOWN TO BE PRESENT WITHIN THE LIMIT OF DISTURBANCE. EXTRA PRECAUTIONS SHALL BE TAKEN WHEN A SOIL IS INDICATED TO HAVE A LIMITATION.

THE FOLLOWING SOILS ARE PRESENT WITHIN THE LIMIT OF DISTURBANCE:

- AbA- ABBOTTSTOWN SILT LOAM, 0 TO 3 PERCENT SLOPES.
- BmB- BIRDSBORO SILT LOAM, 3 TO 8 PERCENT SLOPES.
- CwA- CROTON SILT LOAM, 0 TO 3 PERCENT SLOPES
- Gc- GIBALTAR SILT LOAM
- LfA- LAMINGTON SILT LOAM, 0 TO 3 PERCENT SLOPES
- PeB- PENN CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- PeC- PENN CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- PKC- PENN-KLINESVILLE CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- PKD- PENN-KLINESVILLE CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- RoB- RARITAN SILT LOAM, 3 TO 8 PERCENT SLOPES
- Uo- UDORTHENTS

SOIL LIMITATIONS:

- CUTBANKS CAVE ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON, PENN CHANNERY, PENN-KLINESVILLE, RARITAN, & UDORTHENTS SOILS
- CORROSIVE TO CONCRETE PENN CHANNERY & PENN-KLINESVILLE SOILS
- CORROSIVE TO CONCRETE AND STEEL ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON, RARITAN, & UDORTHENTS SOILS
- DROUGHTY PENN CHANNERY, PENN-KLINESVILLE & UDORTHENTS SOILS
- EASILY ERODIBLE ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON & UDORTHENTS SOILS
- HIGH WATER TABLE ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON & RARITAN SOILS
- POTENTIALLY HYDRIC ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON, PENN CHANNERY, PENN-KLINESVILLE & RARITAN SOILS
- LOW STRENGTH ABBOTTSTOWN, CROTON, GIBALTAR, PENN CHANNERY, PENN-KLINESVILLE & UDORTHENTS SOILS
- SLOW PERCOLATION ABBOTTSTOWN, CROTON, GIBALTAR, LAMINTON, RARITAN, & UDORTHENTS SOILS
- PIPING ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON, PENN CHANNERY, PENN-KLINESVILLE & RARITAN SOILS
- POOR TOPSOIL ABBOTTSTOWN, BIRDSBORO, CROTON, LAMINTON, PENN CHANNERY, PENN-KLINESVILLE, RARITAN, & UDORTHENTS SOILS
- FROST ACTION ABBOTTSTOWN, BIRDSBORO, CROTON, GIBALTAR, LAMINTON, PENN CHANNERY, PENN-KLINESVILLE, RARITAN, & UDORTHENTS SOILS
- PONDING CROTON & LAMINTON SOILS
- WETNESS ABBOTTSTOWN, BIRDSBORO, CROTON, LAMINTON & RARITAN SOILS

SOIL RESOLUTIONS:

- CUTBANKS CAVE CUT SLOPES SHOULD BE NO GREATER THAN 2:1 AND FILL SLOPES SHOULD BE 3:1 IN THESE SOIL AREAS OR OTHERWISE STABILIZED WITH SLOPE LINING.
- CORROSIVE TO CONCRETE USE HDPE PIPE IN THESE SOIL AREAS.
- CORROSIVE TO CONCRETE AND STEEL USE HDPE PIPE IN THESE SOIL AREAS.
- DROUGHTY VEGETATIVE SPECIES TOLERANT OF DRY CONDITIONS SHALL BE USED. WATERING OF SEED MAY BE REQUIRED.
- EASILY ERODIBLE ALL AREAS OF CONCENTRATED FLOW ARE TO BE LINED AND IMMEDIATELY STABILIZED WITH MULCH OR EROSION CONTROL BLANKETS.
- HIGH WATER TABLE INSTALL PIPING TO DISCHARGE ANY WATER ENCOUNTERED TO BEYOND THE TOE OF SLOPE IN THESE SOIL AREAS.
- POTENTIALLY HYDRIC ALL WETLANDS HAVE BEEN LOCATED WITHIN THE PROJECT LIMITS OF THE WELL SITE. SEE WETLAND MAPPING FOR WETLAND LOCATIONS.
- LOW STRENGTH THE USE OF GEO-TEXTILES OR SOIL ADDITIVES SHOULD BE UTILIZED IN THESE SOIL AREAS TO IMPROVE SOIL STRENGTH IN THESE SOIL AREAS
- PIPING SUITABLE CONSTRUCTION MATERIAL WILL BE USED FOR THE BERMS, SUCH AS CLAY CORES, TO FIGHT THIS LIMITATION IN THESE SOIL AREAS
- POOR TOPSOIL IMPORTING OF OFFSITE TOPSOIL OR THE USE OF SOIL ADDITIVES ARE NEEDED TO IMPROVE SOIL QUALITY IN THESE SOIL AREAS
- FROST ACTION TRENCH ARE TO BE BACKFILLED WITH SUITABLE FILL AND TO BE PLACED AT A SUITABLE DEPTH. STRUCTURES SHALL BE DESIGNED TO ACCOUNT FOR FROST ACTION. BASIN EMBANKMENTS TO USE MODIFIED OR IMPORTED SOIL AS NEEDED TO MEET SPECIFICATIONS
- PONDING INSTALL PIPING TO DISCHARGE ANY WATER ENCOUNTERED TO BEYOND THE TOE OF SLOPE IN THESE SOIL AREAS.
- WETNESS IMPORTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS SHALL BE USED. PROPER DRAINAGE SYSTEMS MAY BE REQUIRED.

DOCUMENT PREPARED FOR:

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DOCUMENT PREPARED BY:



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REVISIONS		DESCRIPTION	
NO.	DATE		

PCSM PLAN
NATURAL GAS COMBINE CYCLE
BIRDSBORO TRANSMISSION LINE
TOWNSHIP OF ROBESON, EXETER AND BIRDSBORO
BERKS COUNTY
PENNSYLVANIA

DRAWING TITLE

EROSION AND
SEDIMENT
CONTROL NOTES

DATE	JANUARY 13, 2016
JOB NO.	216040.01
FILE NAME	21604001-LDP-01-COV1
SCALE	AS SHOWN
DRAWN BY	GLA
CHECKED BY	JTP
SHEET NO	