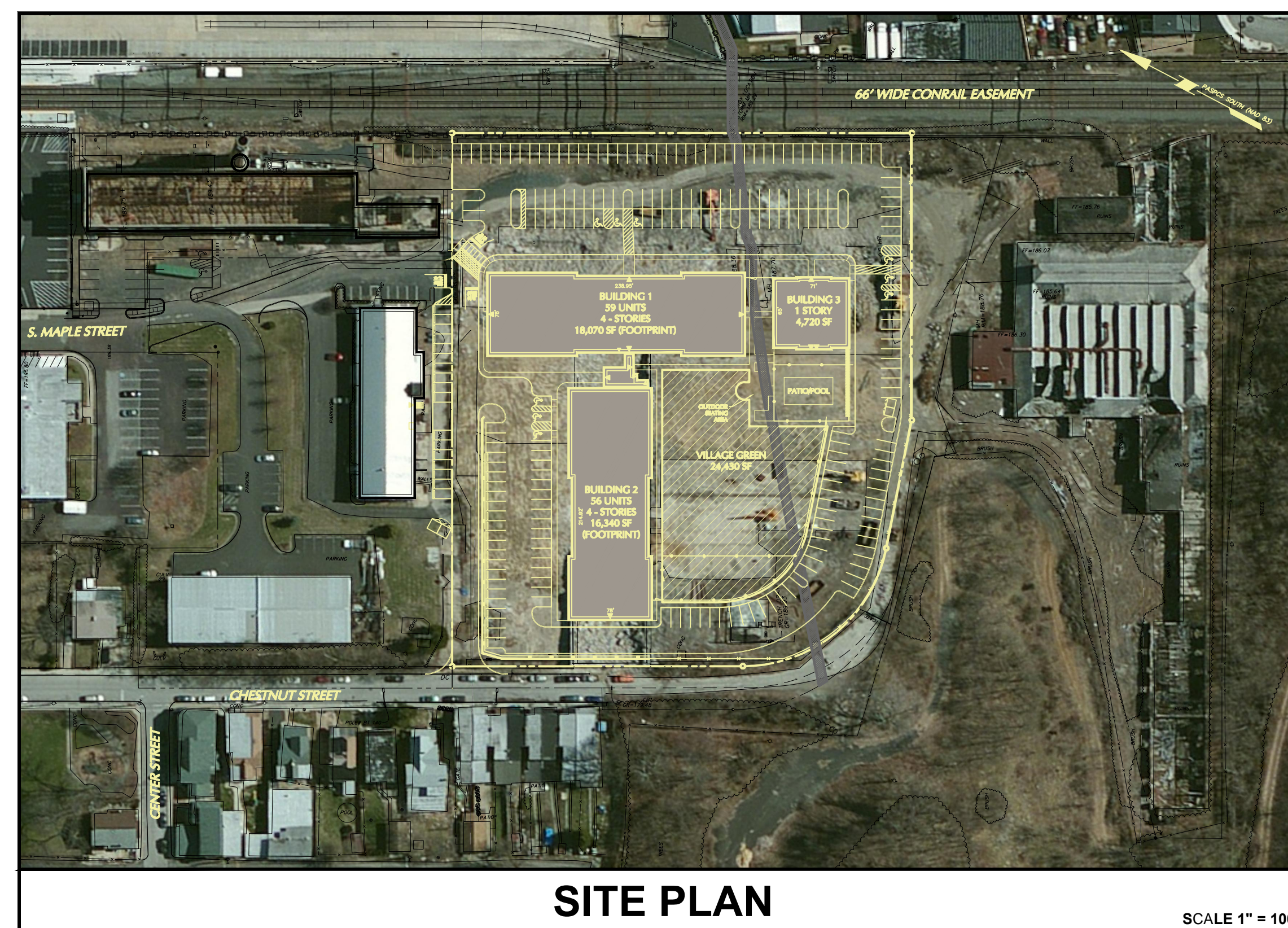
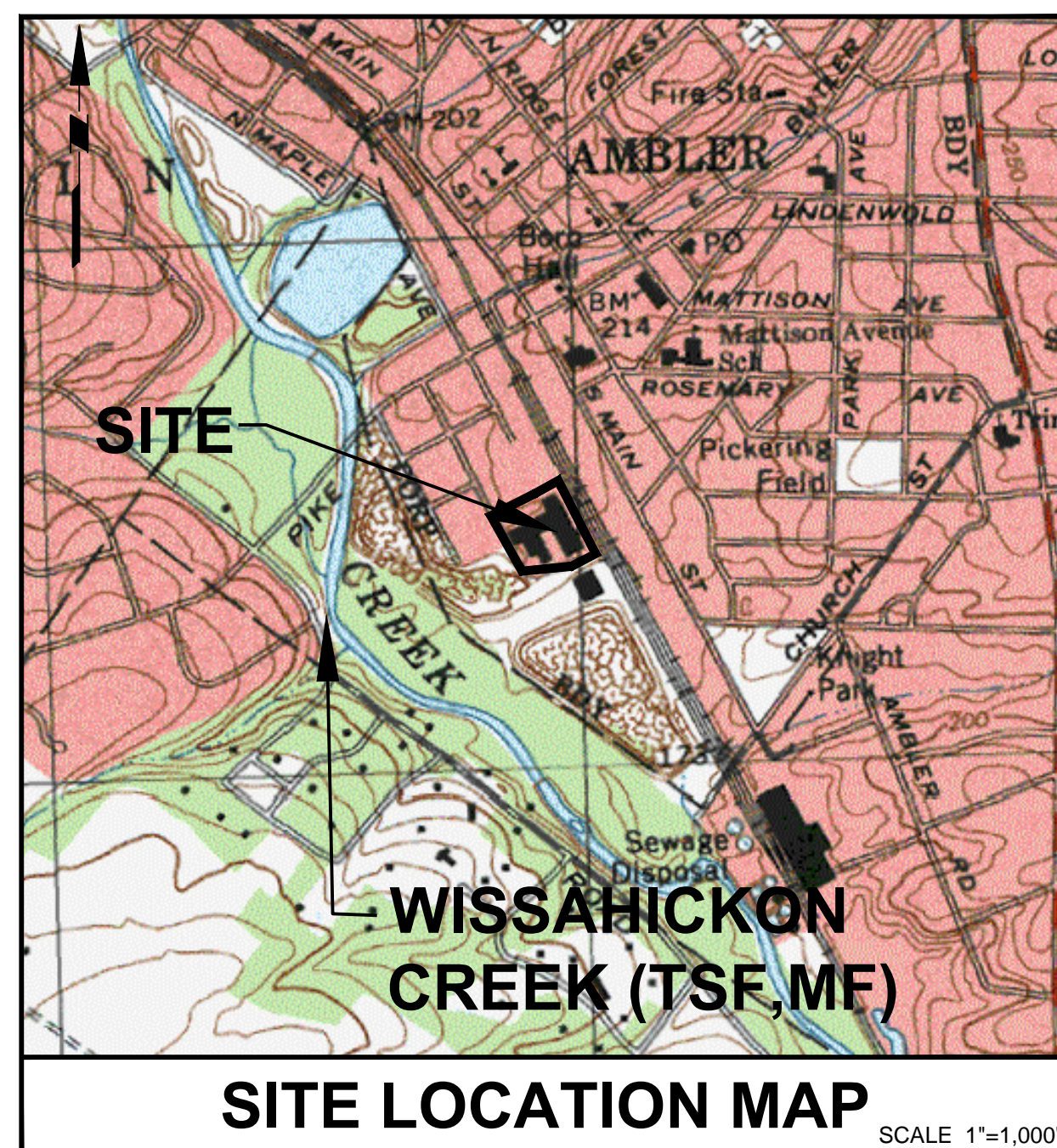


# AMBLER CROSSINGS

## BOROUGH OF AMBLER, MONTGOMERY COUNTY, PENNSYLVANIA

### EROSION AND SEDIMENT CONTROL PLAN APPLICATION



REFERENCE: WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE. SOURCE OF AERIAL IMAGERY IS MICROSOFT FROM 2011. CREDITS: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA, USGS, AEX, GETMAPPING, AEROGRIID, IGP, AND THE GIS USER COMMUNITY

DRAWING LIST				
Page No.	Drawing No.	Drawing Title	Scale	Date Revised
1	CE-100	COVER SHEET	AS SHOWN	12/18/2013
2	CE-101	SOIL EROSION AND SEDIMENT CONTROL PLAN-MAGNESIA EXCAVATION-DISPOSAL STAGE 1	1"=30'	12/18/2013
3	CE-102	SOIL EROSION AND SEDIMENT CONTROL PLAN STAGE 2	1"=30'	12/18/2013
4	CE-103	SOIL EROSION AND SEDIMENT CONTROL PLAN STAGE 3	1"=30'	12/18/2013
5	CE-501	SOIL EROSION AND SEDIMENT CONTROL DETAILS	N.T.S.	12/18/2013
6	CE-502	SOIL EROSION AND SEDIMENT CONTROL DETAILS	N.T.S.	12/18/2013

CONTACTS	
<b>SEWER COLLECTION ENGINEER</b> Gilmore & Associates Inc. 331 Butler Avenue New Britain, PA 18901 215-345-4330	<b>BOROUGH ENGINEER</b> Gilmore & Associates Jim Dougherty 350 Butler Ave New Britain, PA 18901 215-345-4330
<b>SEWER TREATMENT ENGINEER</b> Environmental Engineering & Management Associates, Inc. P.O. Box 232 Kulpsville, PA 19443 215-368-3375	<b>BOROUGH HALL</b> 122 East Butler Avenue Ambler, PA 19002 215-646-1000
<b>ELECTRIC AND GAS</b> PECO Customer Service Center 2301 Market Street P.O. Box 8699 Philadelphia, PA 19101 Customer service inquiries call: 1-800-494-4000 Gas or electric emergency call: 1-800-841-4141	<b>SEWER AND WATER SERVICE</b> Borough of Ambler 122 East Butler Avenue Ambler, PA 19002-4476 215-628-9457 215-628-0142 Fax

**APPLICANT / EQUITABLE OWNER:**  
 AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP  
 201 S. MAPLE AVENUE, SUITE 100  
 AMBLER, PA 19002  
 P: (484)532-7830

**RECORD OWNER:**  
 MAPLE AVE PARK PARTNERS, LLP  
 110 SPRUCE ROAD  
 AMBLER, PA 19002  
 P: (484)532-7830

**ENGINEER & SURVEYOR**  
**LANGAN**  
 Phone: 610.984.8500 Fax: 610.984.8501  
 One West Broad Street  
 Suite 200  
 Bethlehem, PA 18018  
[www.langan.com](http://www.langan.com)

**GENERAL SITE NOTES:**

- These plans represent the overall sitework improvements required for project construction. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor shall be solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor shall be responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
- The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner makes no guarantee in regard to the accuracy of any available information which was obtained during investigations. The Contractor shall make a thorough site inspection in order to field check existing site conditions, correlate conditions with the drawings and resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall make additional topographic surveys he deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
- The Contractor shall, when they deem necessary, provide written Requests for Information (RFIs) to the Owner and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and Engineer and shall allow for a minimum of two work days or additional reasonable time for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
- Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to construction. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to construction.
- There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA, ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION. TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG!!  
 PENNSYLVANIA LAW REQUIRES  
 (1) WORKING DAYS NOTICE FOR  
 CONSTRUCTION PURPOSES AND  
 (10) WORKING DAYS IN DESIGN STAGE  
 - STOP & CALL -  
 Pennsylvania One Call System, Inc.  
 1-800-242-1776



SERIAL NUMBER 2935617

					Project	Drawing Title	Project No.	Drawing No.
12-18-13	PER PADEP REVIEW LETTER	1.	One West Broad Street, Suite 200, Bethlehem, PA 18018 T: 610.984.8500 F: 610.984.8501 www.langan.com NEW JERSEY NEW YORK VIRGINIA CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA DUBAI ISTANBUL Langan Engineering, Environmental, Surveying and Geotechnical Architecture, D.P.C. Langan Engineering and Construction Services, Inc. Langan International LLC Collectively known as Langan		AMBLER CROSSINGS	COVER SHEET	240025501	CE-100
Date	Description	No.			AMBLER BOROUGH MONTGOMERY COUNTY	PENNSYLVANIA	7-5-13	AS SHOWN
REVISIONS							Scale	Sheet 1 of 6
							Drawn By	

SUBMISSION DATE: 2013-12-18

PROJECT No. 24002551

2013.12.18

66' WIDE CONRAIL EASEMENT

SUBMISSION DATE: 2013-12-18

PROJECT No. 24002551



ACT 287 AS AMENDED

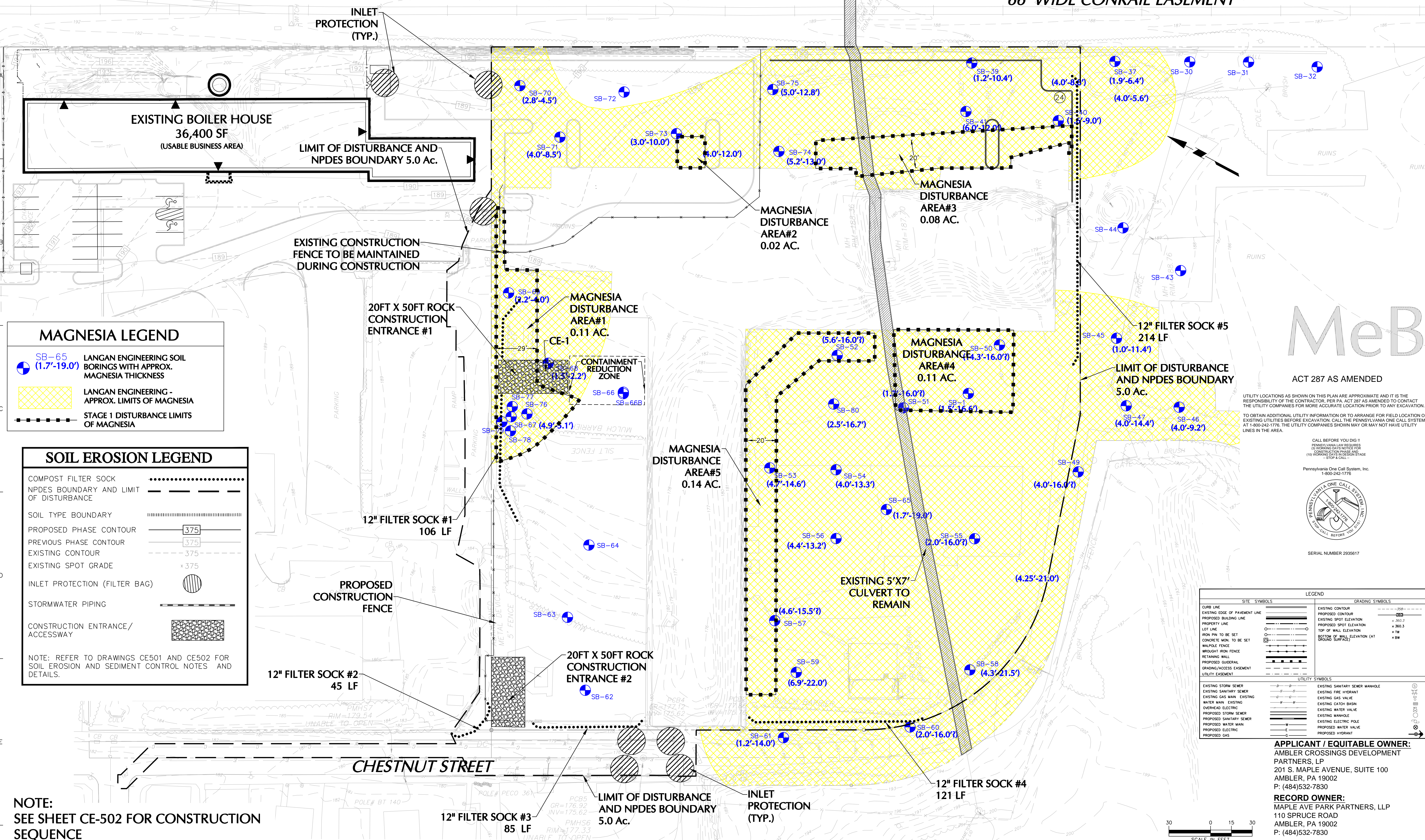
UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION. TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG!  
PENNSYLVANIA LAW REQUIRES  
DIY WORKING OWNERS NOTIFY FOR  
CONSTRUCTION OF ANY WORKING  
WORKING GUY'S DESIGN STAGE  
-STOP & CALL-

Pennsylvania One Call System, Inc.  
1-800-242-1776



SERIAL NUMBER 2935617



### MAGNESIA LEGEND

- SB-65 (1.7'-19.0') LANGAN ENGINEERING SOIL BORINGS WITH APPROX. MAGNESIA THICKNESS
- LANGAN ENGINEERING - APPROX. LIMITS OF MAGNESIA
- STAGE 1 DISTURBANCE LIMITS OF MAGNESIA

### SOIL EROSION LEGEND

- COMPOST FILTER SOCK
- NPDES BOUNDARY AND LIMIT OF DISTURBANCE
- SOIL TYPE BOUNDARY
- PROPOSED PHASE CONTOUR
- PREVIOUS PHASE CONTOUR
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- INLET PROTECTION (FILTER BAG)
- STORMWATER PIPING
- CONSTRUCTION ENTRANCE/ACCESSWAY

NOTE: REFER TO DRAWINGS CE501 AND CE502 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

SITE SYMBOLS		LEGEND	
	EXISTING CONTOUR		EXISTING CONTOUR
	PROPOSED CONTOUR		EXISTING SPOT ELEVATION
	EXISTING EDGE OF PAVEMENT LINE		PROPOSED SPOT ELEVATION
	PROPERTY LINE		TOP OF WALL ELEVATION
	LOT LINE		BOTTOM OF WALL ELEVATION (AT GROUND SURFACE)
	IRON PIN TO BE SET		WROUGHT IRON FENCE
	CONCRETE MON. TO BE SET		RETAINING WALL
	MULCH FENCE		PROPOSED QUADRAL
	WROUGHT IRON FENCE		GRADING/ACCESS EASEMENT
	RETAINING WALL		UTILITY EASEMENT
	PROPOSED QUADRAL		EXISTING STORM SEWER
	GRADING/ACCESS EASEMENT		EXISTING SANITARY SEWER
	UTILITY EASEMENT		EXISTING FIRE HYDRANT
	EXISTING STORM SEWER		EXISTING GAS VALVE
	EXISTING SANITARY SEWER		EXISTING CATCH BASIN
	EXISTING FIRE HYDRANT		EXISTING WATER VALVE
	EXISTING GAS VALVE		EXISTING MANHOLE
	EXISTING CATCH BASIN		EXISTING ELECTRIC POLE
	EXISTING WATER VALVE		PROPOSED WATER VALVE
	EXISTING MANHOLE		PROPOSED HYDRANT
	EXISTING ELECTRIC POLE		
	PROPOSED WATER VALVE		
	PROPOSED HYDRANT		

NOTE: SEE SHEET CE-502 FOR CONSTRUCTION SEQUENCE

AMBLER BOILER HOUSE SOIL TYPE DESCRIPTIONS AND LIMITATIONS					
Map Symbol	Soil	Hydrological Soil Group	Depth to Seasonally High Water Table (Ft)	Depth to Bedrock (Ft)	Soil Limitations
MeB	Man made, Shale and Sandstone Materials, Sloping	C	variable	variable	Variable Conditions, Possible Seasonal High water table

Notes: 1. For areas where seasonal high water table is a limitation, ponded water shall be pumped through a 'filter bag' or to the sediment basin/trap.

Date	Description	No.
12-18-13	PER PADEP REVIEW LETTER	1.

REVISIONS

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

JASON SCOTT ENGELHARDT

**LANGAN**

One West Broad Street, Suite 200, Bethlehem, PA 18018  
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK VIRGINIA CALIFORNIA  
PENNSYLVANIA CONNECTICUT FLORIDA

ABU DHABI ATHENS DOHA  
DUBAI ISTANBUL

Langan Engineering, Environmental, Surveying and Landbased Architecture, L.P.C.  
Langan Engineering and Environmental Services, Inc.  
Langan International LLC  
Collectively known as Langan

Project

**AMBLER CROSSINGS**

AMBLER BOROUGH  
MONTGOMERY COUNTY

PENNSYLVANIA

Drawing Title

**SOIL EROSION AND SEDIMENT CONTROL PLAN**

STAGE 1

Project No. 240025501

Date 7-5-13

Scale 1" = 30'

Drawn By

Project No. 240025501

Date 7-5-13

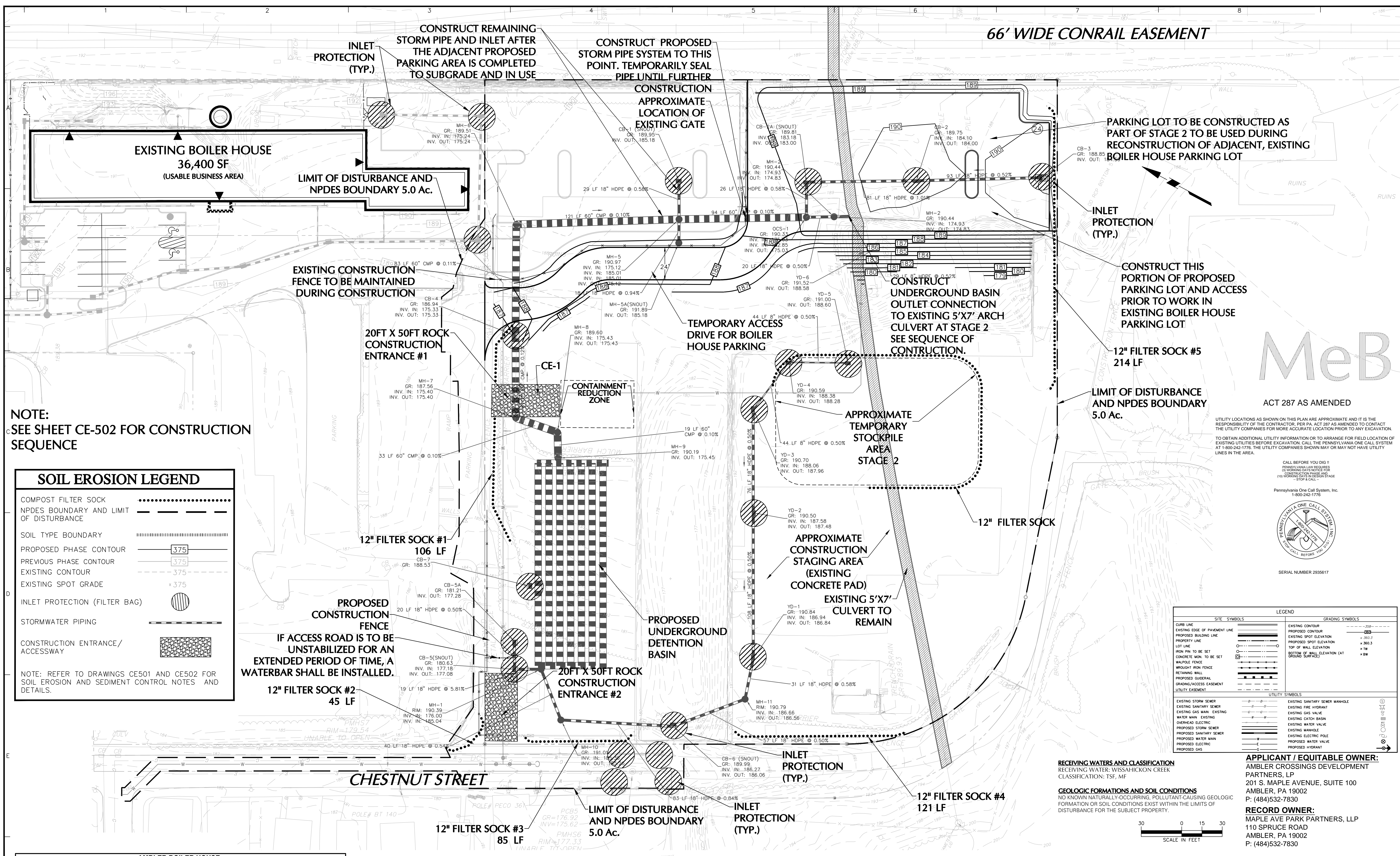
Scale 1" = 30'

Drawn By

Sheet 2 of 6

**CE-101**

DATE PLOTTED: 12/18/2013 11:51:00 AM

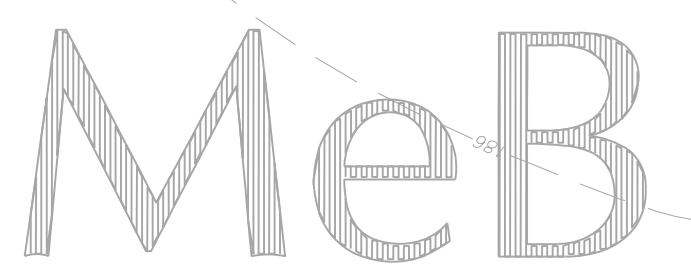


**NOTE:**  
SEE SHEET CE-502 FOR CONSTRUCTION SEQUENCE

### SOIL EROSION LEGEND

COMPOST FILTER SOCK	.....
NPDES BOUNDARY AND LIMIT OF DISTURBANCE	-----
SOIL TYPE BOUNDARY	-----
PROPOSED PHASE CONTOUR	375
PREVIOUS PHASE CONTOUR	375
EXISTING CONTOUR	375
EXISTING SPOT GRADE	x 375
INLET PROTECTION (FILTER BAG)	⊙
STORMWATER PIPING	—
CONSTRUCTION ENTRANCE/ACCESSWAY	⊞

NOTE: REFER TO DRAWINGS CE501 AND CE502 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.



ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.  
TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1176. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG!  
PENNSYLVANIA LAW REQUIRES  
DIY WORKING OWNERS TO CALL  
BEFORE ANY EXCAVATION  
OR WORKING GAINS DESIGN STAGE  
STOP & CALL

Pennsylvania One Call System, Inc.  
1-800-242-1176



SERIAL NUMBER 2935617

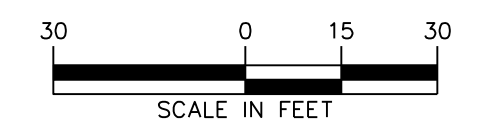
SITE SYMBOLS		LEGEND	
CURB LINE	---	EXISTING CONTOUR	---
EXISTING EDGE OF PAVEMENT LINE	---	PROPOSED CONTOUR	---
PROPOSED BUILDING LINE	---	EXISTING SPOT ELEVATION	x 360.7
PROPERTY LINE	---	PROPOSED SPOT ELEVATION	x 360.3
LOT LINE	---	TOP OF WALL ELEVATION	x 360.0
IRON PIN TO BE SET	⊙	BOTTOM OF WALL ELEVATION (AT GROUND SURFACE)	x BW
CONCRETE MON. TO BE SET	⊞		
MULCH FENCE	---		
WROUGHT IRON FENCE	---		
RETAINING WALL	---		
PROPOSED QUADRAL GRADING/ACCESS EASEMENT	---		
UTILITY EASEMENT	---		
UTILITY SYMBOLS			
EXISTING STORM SEWER	---	EXISTING SANITARY SEWER MANHOLE	⊙
EXISTING SANITARY SEWER	---	EXISTING FIRE HYDRANT	⊙
EXISTING GAS MAIN	---	EXISTING GAS VALVE	⊙
WATER MAIN	---	EXISTING CATCH BASIN	⊙
OVERHEAD ELECTRIC	---	EXISTING WATER VALVE	⊙
PROPOSED STORM SEWER	---	EXISTING MANHOLE	⊙
PROPOSED SANITARY SEWER	---	EXISTING ELECTRIC POLE	⊙
PROPOSED WATER MAIN	---	PROPOSED WATER VALVE	⊙
PROPOSED ELECTRIC	---	PROPOSED HYDRANT	⊙

**RECEIVING WATERS AND CLASSIFICATION**  
RECEIVING WATER: WISSAHICKON CREEK  
CLASSIFICATION: TSF, MF

**GEOLOGIC FORMATIONS AND SOIL CONDITIONS**  
NO KNOWN NATURALLY-OCCURRING, POLLUTANT-CAUSING GEOLOGIC FORMATION OR SOIL CONDITIONS EXIST WITHIN THE LIMITS OF DISTURBANCE FOR THE SUBJECT PROPERTY.

**APPLICANT / EQUITABLE OWNER:**  
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP  
201 S. MAPLE AVENUE, SUITE 100  
AMBLER, PA 19002  
P: (484)532-7830

**RECORD OWNER:**  
MAPLE AVE PARK PARTNERS, LLP  
110 SPRUCE ROAD  
AMBLER, PA 19002  
P: (484)532-7830



AMBLER BOILER HOUSE					
SOIL TYPE DESCRIPTIONS AND LIMITATIONS					
Map Symbol	Soil	Hydrological Soil Group	Depth to Seasonally High Water Table (Ft)	Depth to Bedrock (Ft)	Soil Limitations
MeB	Man made, Shale and Sandstone Materials, Sloping	C	variable	variable	Variable Conditions, Possible Seasonal High water table

Notes: 1. For areas where seasonal high water table is a limitation, ponded water shall be pumped through a "filter bag" or to the sediment basin/trap.

Date	Description	No.
12-18-13	PER PADEP REVIEW LETTER	1.

REVISIONS

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

JASON SCOTT ENGELHARDT  
REGISTERED PROFESSIONAL ENGINEER  
PENNSYLVANIA

**LANGAN**

One West Broad Street, Suite 200, Bethlehem, PA 18018  
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK VIRGINIA CALIFORNIA  
PENNSYLVANIA CONNECTICUT FLORIDA

ABU DHABI ATHENS DOHA  
DUBAI ISTANBUL

Langan Engineering, Environmental, Surveying and Landscaping Architecture, P.C.  
Langan Engineering and Environmental Services, Inc.  
Langan International LLC  
Collectively known as Langan

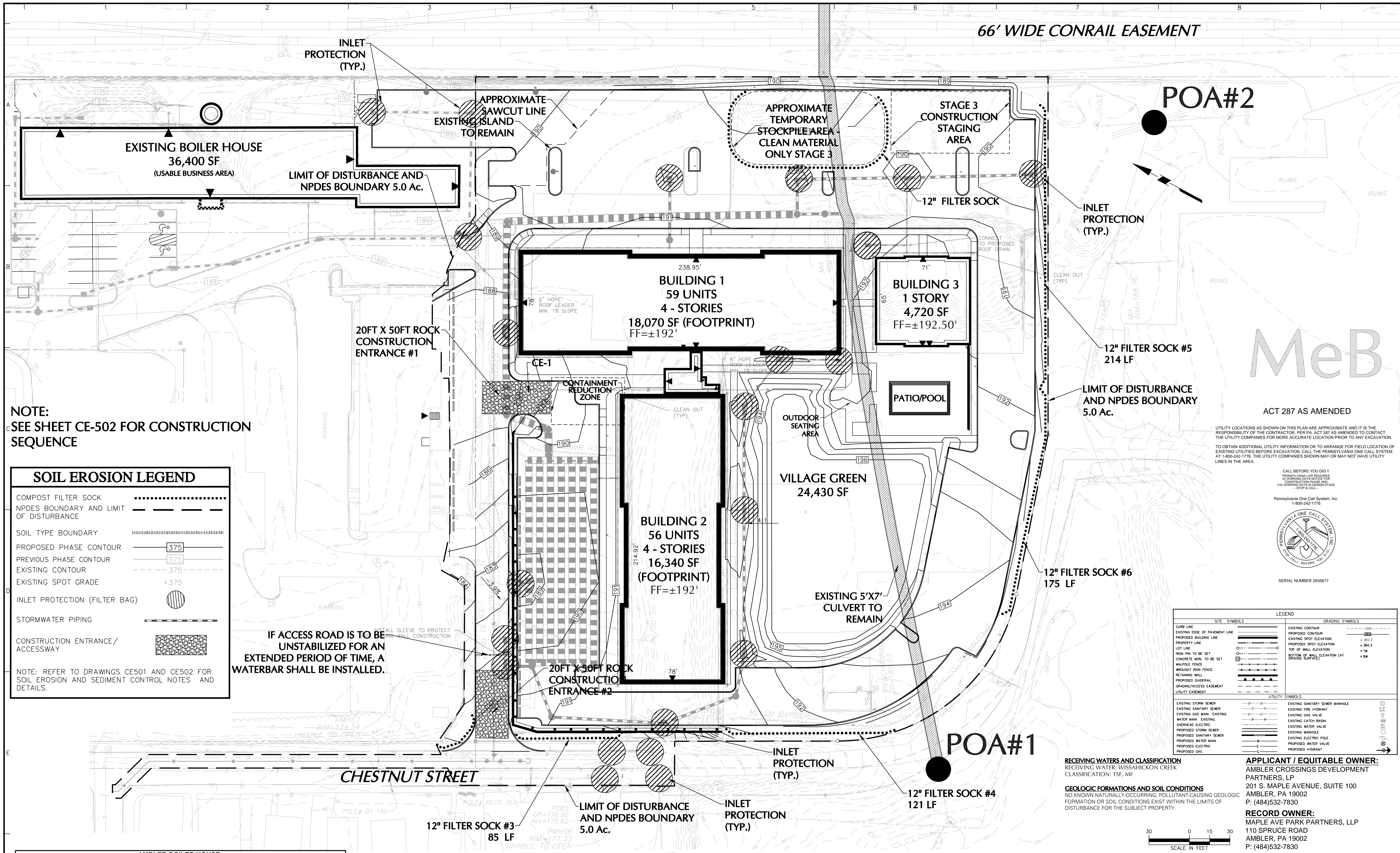
Project  
**AMBLER CROSSINGS**  
AMBLER BOROUGH  
MONTGOMERY COUNTY  
PENNSYLVANIA

Drawing Title  
**SOIL EROSION AND SEDIMENT CONTROL PLAN**  
**STAGE 2**

Project No. 240025501  
Date 7-5-13  
Scale 1"=30'  
Drawn By  
Drawing No. **CE-102**  
Sheet 3 of 6

66' WIDE CONRAIL EASEMENT

POA#2



**NOTE:**  
SEE SHEET CE-502 FOR CONSTRUCTION SEQUENCE

**SOIL EROSION LEGEND**

COMPOST FILTER SOCK	.....
NPDES BOUNDARY AND LIMIT OF DISTURBANCE	-----
SOIL TYPE BOUNDARY	-----
PROPOSED PHASE CONTOUR	----- 375
PREVIOUS PHASE CONTOUR	----- 375
EXISTING CONTOUR	----- 375
EXISTING SPOT GRADE	+375
INLET PROTECTION (FILTER BAG)	⊙
STORMWATER PIPING	-----
CONSTRUCTION ENTRANCE/ACCESSWAY	⊞

NOTE: REFER TO DRAWINGS CE501 AND CE502 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

IF ACCESS ROAD IS TO BE UNSTABILIZED FOR AN EXTENDED PERIOD OF TIME, A WATERBAR SHALL BE INSTALLED.

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA, ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG!!

PENNSYLVANIA ONE CALL SYSTEM, INC.

1-800-242-1776

SERIAL NUMBER 2935617

SITE SYMBOLS		LEGEND	
CURB LINE	---	EXISTING CONTOUR	-----
EXISTING EDGE OF PAVEMENT LINE	---	PROPOSED CONTOUR	-----
PROPOSED BUILDING LINE	---	EXISTING SPOT ELEVATION	+ 360.7
PROPERTY LINE	---	PROPOSED SPOT ELEVATION	+ 360.3
LOT LINE	---	TOP OF WALL ELEVATION	+ 176
IRON PIN TO BE SET	⊙	BOTTOM OF WALL ELEVATION (AT GROUND SURFACE)	+ 8W
CONCRETE MON. TO BE SET	⊙		
MALPOLE FENCE	---		
WROUGHT IRON FENCE	---		
REMAINING WALL	---		
PROPOSED GROUND	---		
GRADING/ACCESS EASEMENT	---		
UTILITY EASEMENT	---		
EXISTING STORM SEWER	---	EXISTING SANITARY SEWER MANHOLE	⊙
EXISTING SANITARY SEWER	---	EXISTING FIRE HYDRANT	⊙
EXISTING GAS MAIN	---	EXISTING GAS VALVE	⊙
WATER MAIN	---	EXISTING CATCH BASIN	⊙
OVERHEAD ELECTRIC	---	EXISTING WATER VALVE	⊙
PROPOSED STORM SEWER	---	EXISTING MANHOLE	⊙
PROPOSED SANITARY SEWER	---	EXISTING ELECTRIC POLE	⊙
PROPOSED WATER MAIN	---	PROPOSED WATER VALVE	⊙
PROPOSED ELECTRIC	---	PROPOSED HYDRANT	⊙
PROPOSED GAS	---		

**RECEIVING WATERS AND CLASSIFICATION**  
RECEIVING WATER: WISSAHICKON CREEK  
CLASSIFICATION: TSF, MF

**APPLICANT / EQUITABLE OWNER:**  
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP  
201 S. MAPLE AVENUE, SUITE 100  
AMBLER, PA 19002  
P: (484)532-7830

**RECORD OWNER:**  
MAPLE AVE PARK PARTNERS, LLP  
110 SPRUCE ROAD  
AMBLER, PA 19002  
P: (484)532-7830

**AMBLER BOILER HOUSE**

**SOIL TYPE DESCRIPTIONS AND LIMITATIONS**

Map Symbol	Soil	Hydrological Soil Group	Depth to Seasonally High Water Table (Ft)	Depth to Bedrock (Ft)	Soil Limitations
MeB	Man made, Shale and Sandstone Materials, Sloping	C	variable	variable	Variable Conditions, Possible Seasonal High water table

Notes: 1. For areas where seasonal high water table is a limitation, ponded water shall be pumped through a "filter bag" or to the sediment basin/trap.

Date	Description	No.
12-18-13	PER PADEP REVIEW LETTER	1.

REVISIONS

**JASON SCOTT ENGELHARDT**

REGISTERED PROFESSIONAL ENGINEER

JASON ENGELHARDT  
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

**LANGAN**

One West Broad Street, Suite 200, Bethlehem, PA 18018  
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK VIRGINIA CALIFORNIA  
PENNSYLVANIA CONNECTICUT FLORIDA

ABU DHABI ATHENS DOHA  
DUBAI ISTANBUL

Langan Engineering, Environmental, Surveying and Landscaped Architecture, P.C.  
Langan Engineering and Environmental Services, Inc.  
Langan International LLC  
Collectively known as Langan

Project

**AMBLER CROSSINGS**

AMBLER BOROUGH  
MONTGOMERY COUNTY

PENNSYLVANIA

Drawing Title

**SOIL EROSION AND SEDIMENT CONTROL PLAN**

STAGE 3

Project No. 240025501  
Date 7-5-13  
Scale 1"=30'  
Drawn By

Drawing No. **CE-103**

Sheet 4 of 6

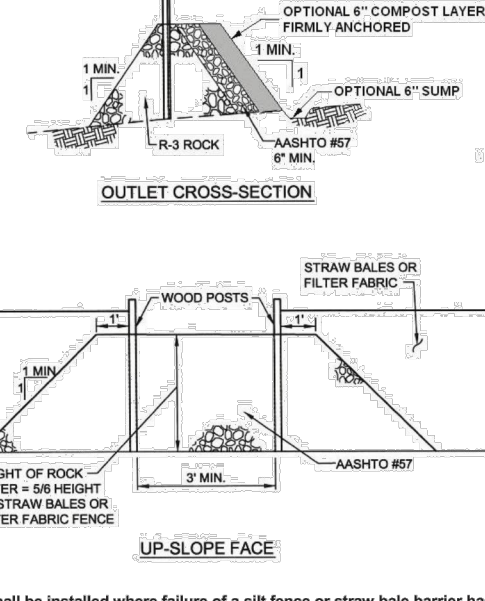
SUBMISSION DATE: 2013-12-18  
PROJECT No. 24002551

APPENDIX C - STANDARD E&S PLAN NOTES

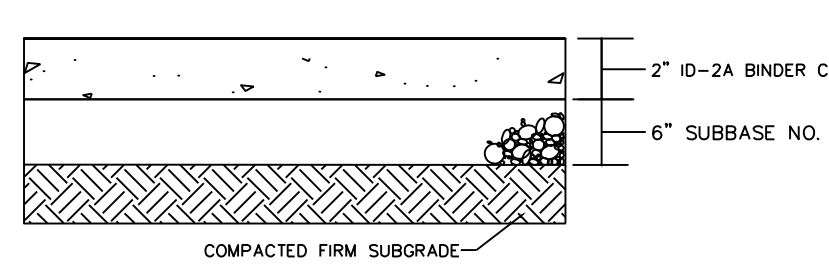
The following notes should be placed on the E&S plan drawings.

- All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times. The reviewing agency shall be notified of any changes to the approved plan prior to implementation of those changes. The reviewing agency may require a written submittal of those changes for review and approval at its discretion.
- At least 7 days prior to starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from the local conservation district to an on-site preconstruction meeting.
- At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the local conservation district or by the Department prior to implementation.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
- Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the BMP sequence for that stage or phase have been installed and are functioning as described in this E&S plan.
- At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan maps(s) in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the contractor shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution and notify the local conservation district and/or the regional office of the Department.
- 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.
- All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated.
- The contractor is responsible for ensuring that any material brought on site is clean fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as clean fill due to analytical testing.
- All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
- Vegetation and equipment may neither enter directly nor exit directly from lots (specify lot numbers) onto (specify road names).
- Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, relining and renetting must be performed immediately if the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
- A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed into any roadside ditch, storm sewer, or surface water.
- All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
- Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches — 6 to 12 inches on compacted soils — prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
- All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill used to support buildings, structures and contents, etc. shall be compacted in accordance with local requirements or codes.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
- Frozen materials or soft, muddy, or highly compressible materials shall not be incorporated into fills.
- Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.
- Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
- Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
- E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the local conservation district or the Department.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district for an inspection prior to removal/conversion of the E&S BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to permanent post-construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid removal of disturbed areas, such removal/conversions are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection.
- Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

STANDARD CONSTRUCTION DETAIL #4-6  
Rock Filter Outlet

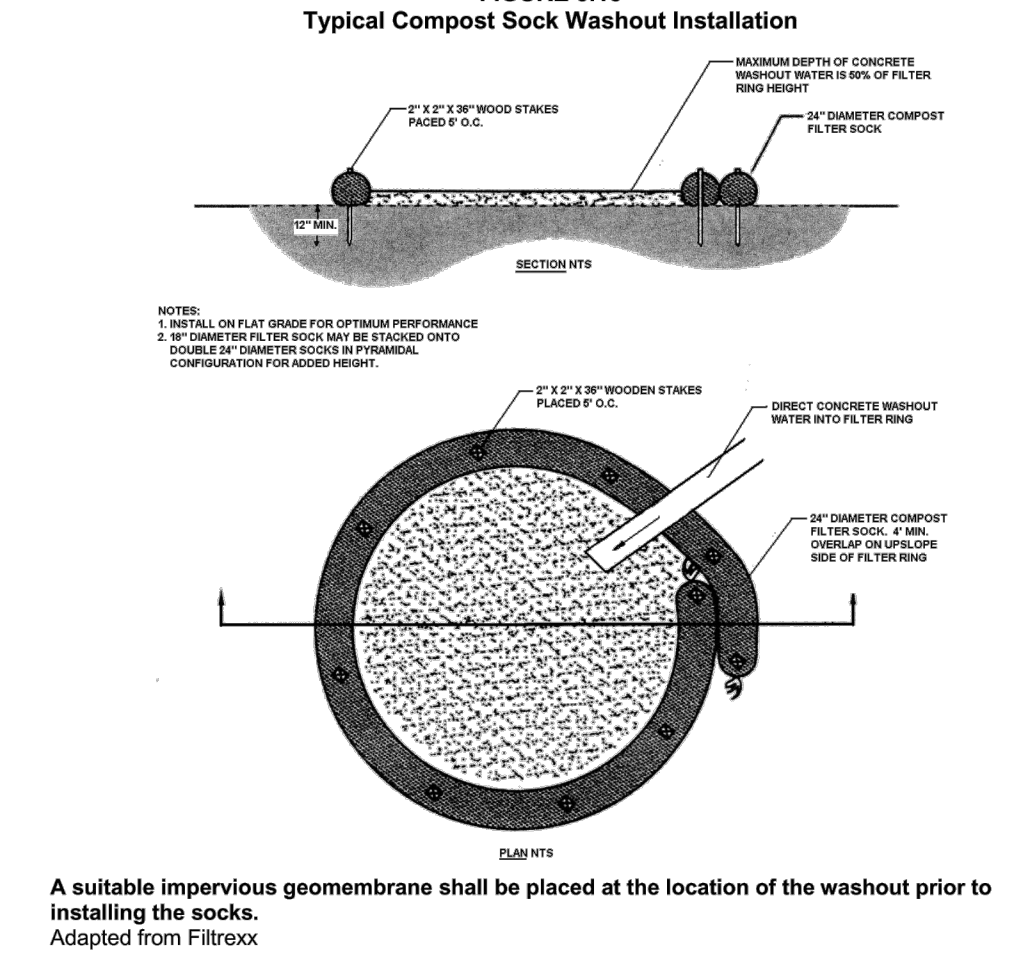


ROCK FILTER OUTLET



\*TEMPORARY PAVEMENT SECTION SHALL BE COORDINATED WITH THE GEOTECHNICAL REPORT

TEMPORARY ACCESS DRIVE PAVING



A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks. Adapted from Fibrox.

TABLE 4.2  
Compost Standards

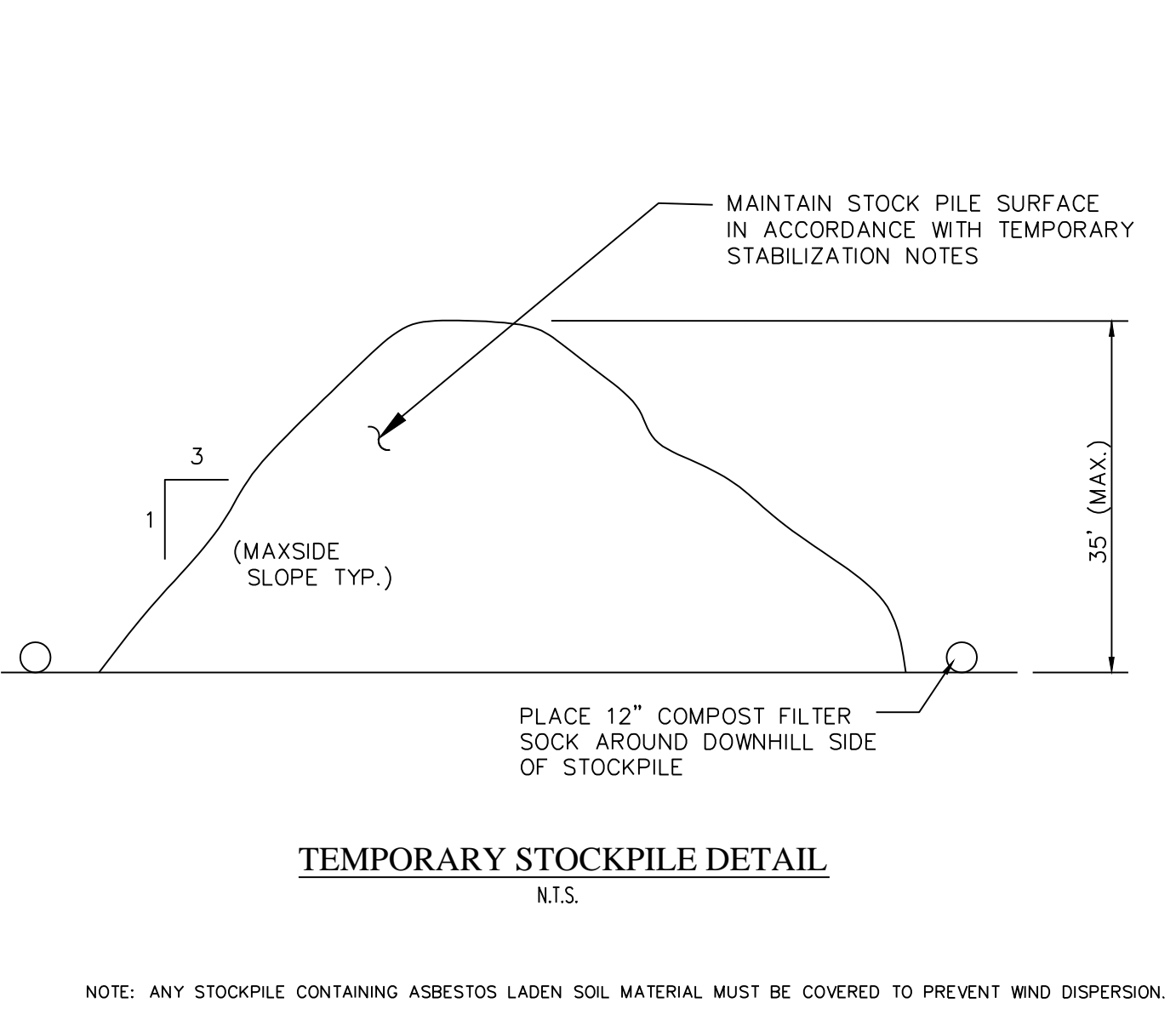
Organic Matter Content	80% - 100% (dry weight basis)
Organic Particles	Fines and degraded
Maturity Content	0% - 10%
Particle Size	95% pass through 1" screen
Stable Soil Concentration	5.0 (dry-matter) Maximum

TABLE 4.1  
Compost Sock Fabric Minimum Specifications

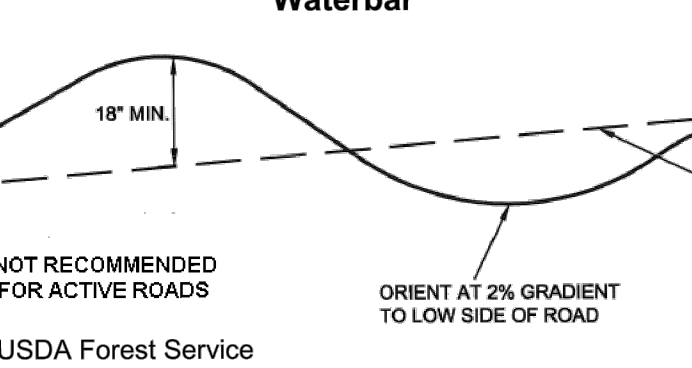
Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Photo-degradable	Photo-degradable	Photo-degradable
Sock Dimensions	12\"/>				

COMPOST FILTER SOCKS



NOTE: ANY STOCKPILE CONTAINING ASBESTOS LADEN SOIL MATERIAL MUST BE COVERED TO PREVENT WIND DISPERSION.

STANDARD CONSTRUCTION DETAIL #3-5  
Waterbar



Adapted from USDA Forest Service

Waterbars shall discharge to a stable area.

Waterbars shall be inspected weekly (daily on active roads) and after each runoff event. Damaged or eroded waterbars shall be restored to original dimensions within 24 hours of inspection.

Maintenance of waterbars shall be provided until roadway, skidtrail, or right-of-way has achieved permanent stabilization.

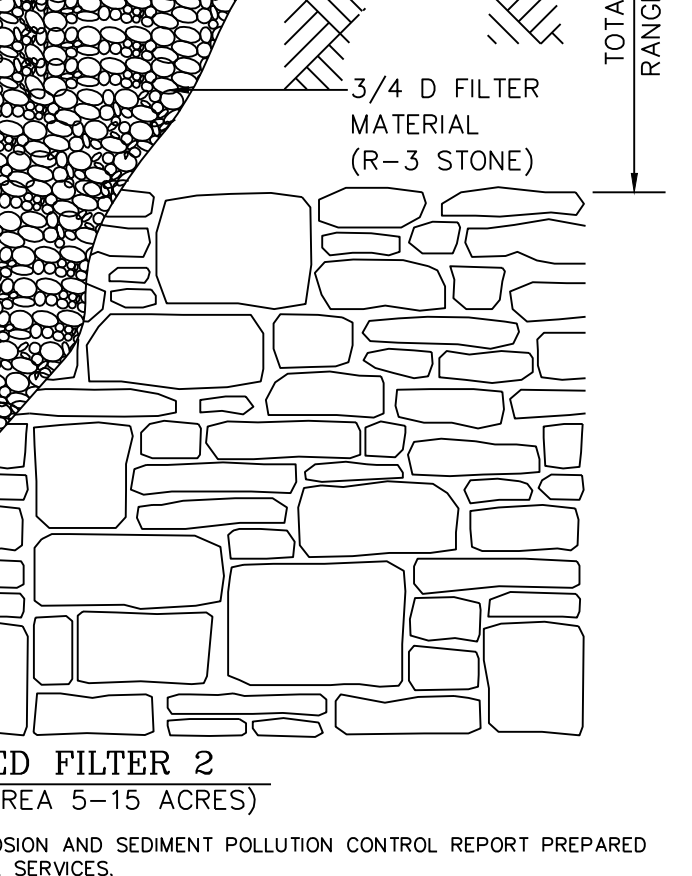
Waterbars on retired roadways, skidtrails, and right-of-ways shall be left in place after permanent stabilization has been achieved.

TABLE 3.1 - Maximum Waterbar Spacing

PERCENT SLOPE	SPACING (FT)
<5	250
5 - 15	150
15 - 30	100
> 30	50

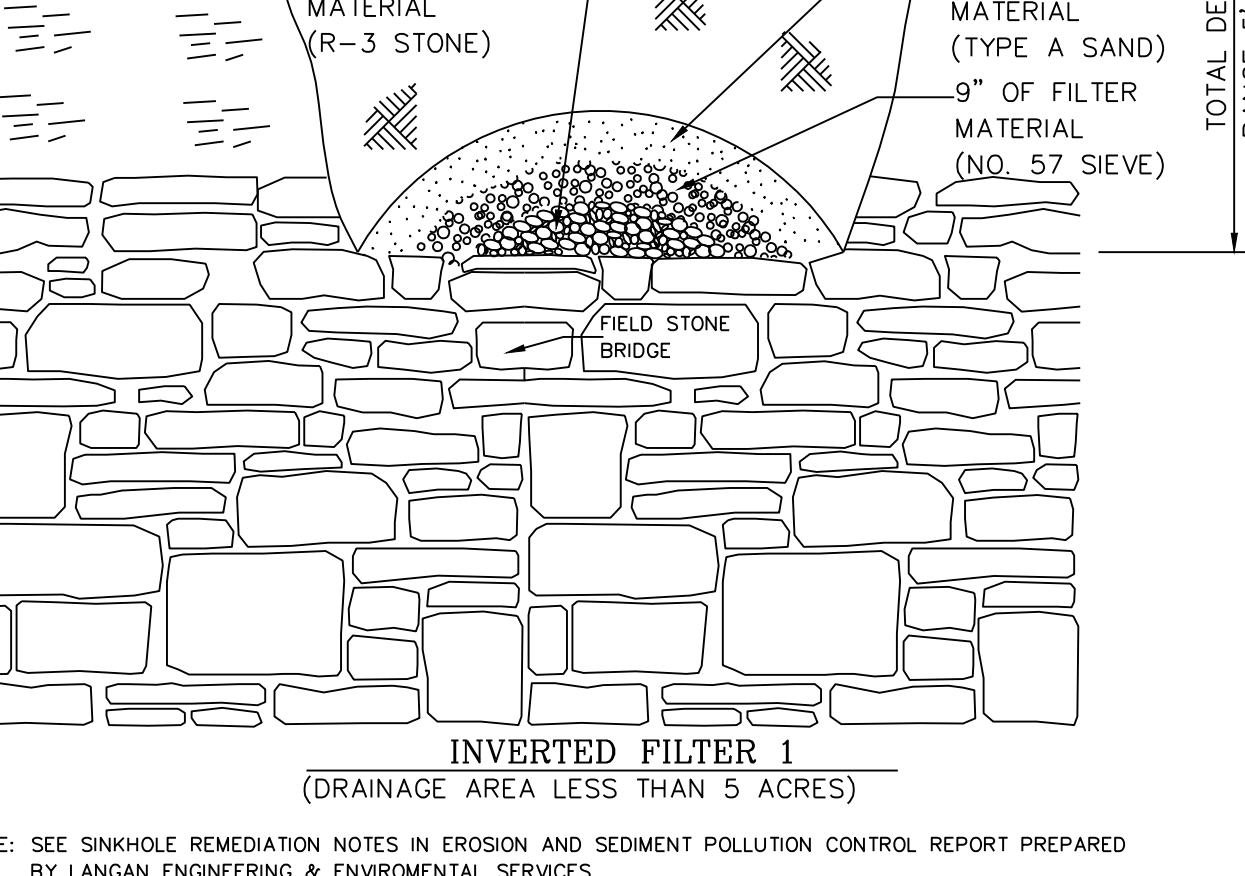
Adapted from USDA Forest Service

WATER BAR DETAIL



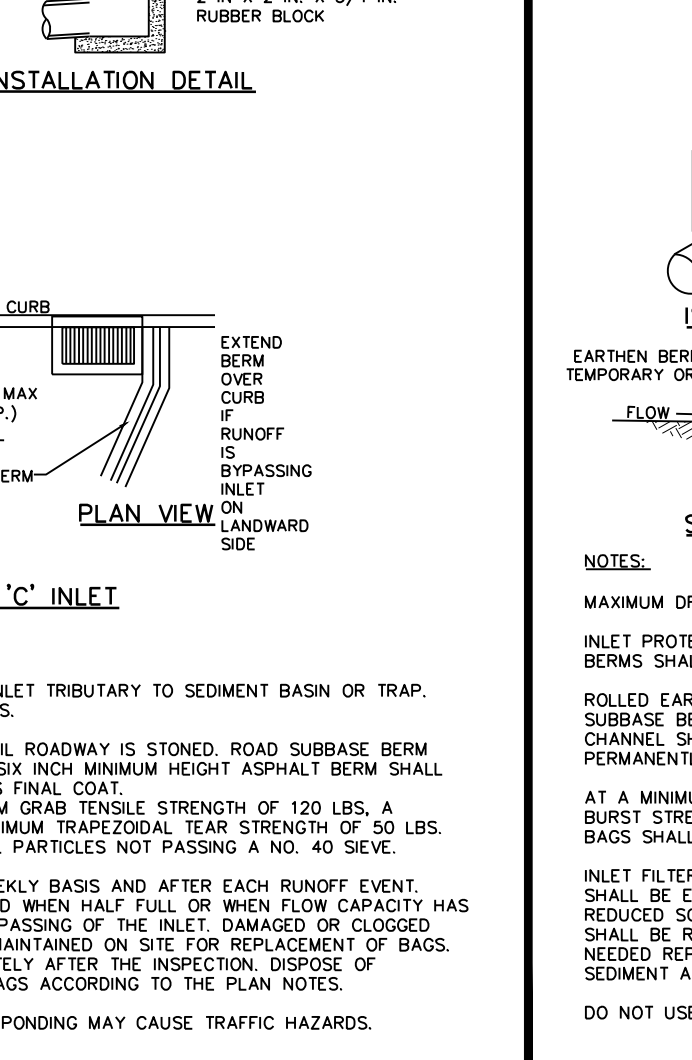
NOTE: SEE SINKHOLE REMEDIATION NOTES IN EROSION AND SEDIMENT POLLUTION CONTROL REPORT PREPARED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES.

WATER BAR DETAIL



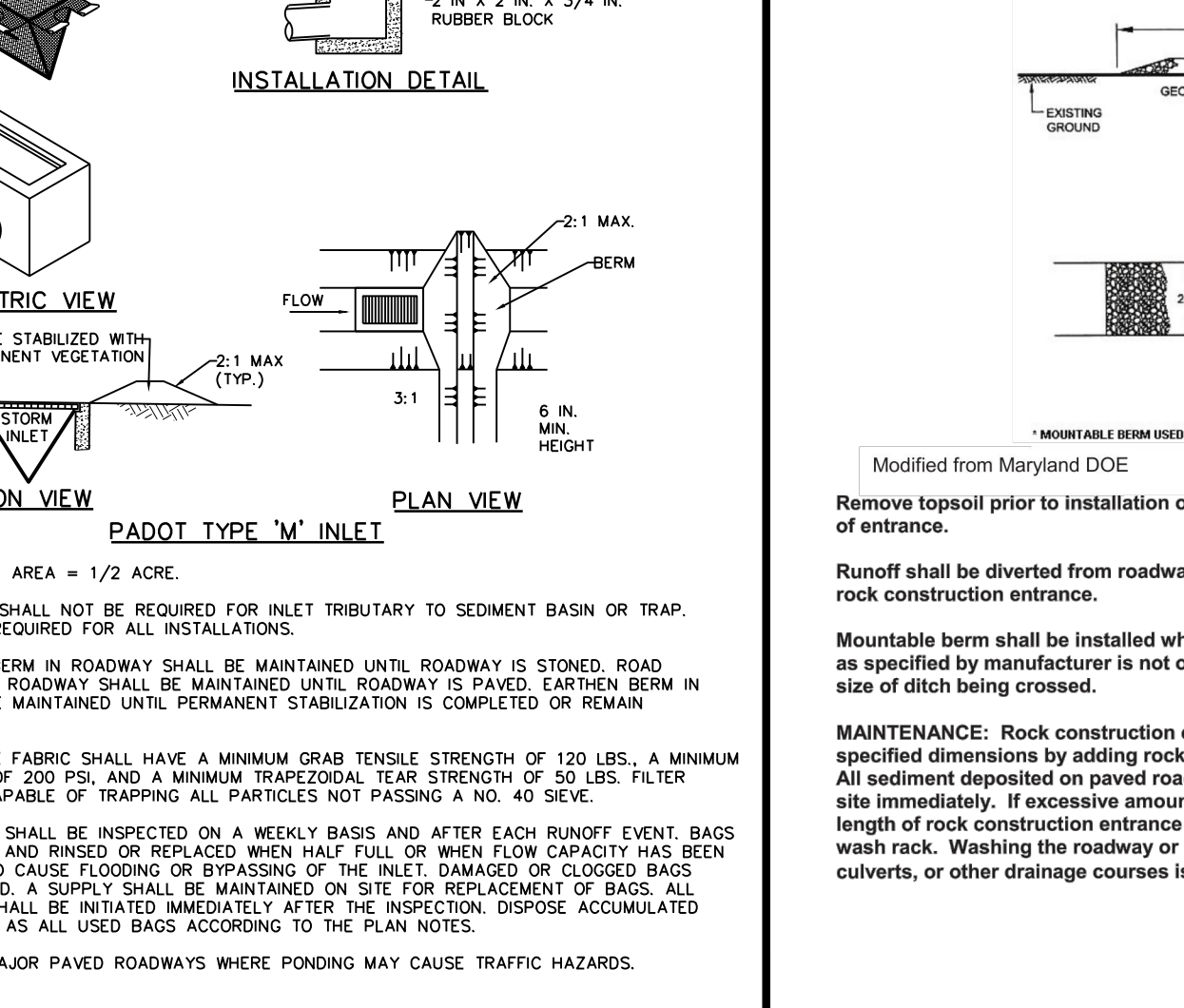
NOTE: SEE SINKHOLE REMEDIATION NOTES IN EROSION AND SEDIMENT POLLUTION CONTROL REPORT PREPARED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES.

SINKHOLE TREATMENT



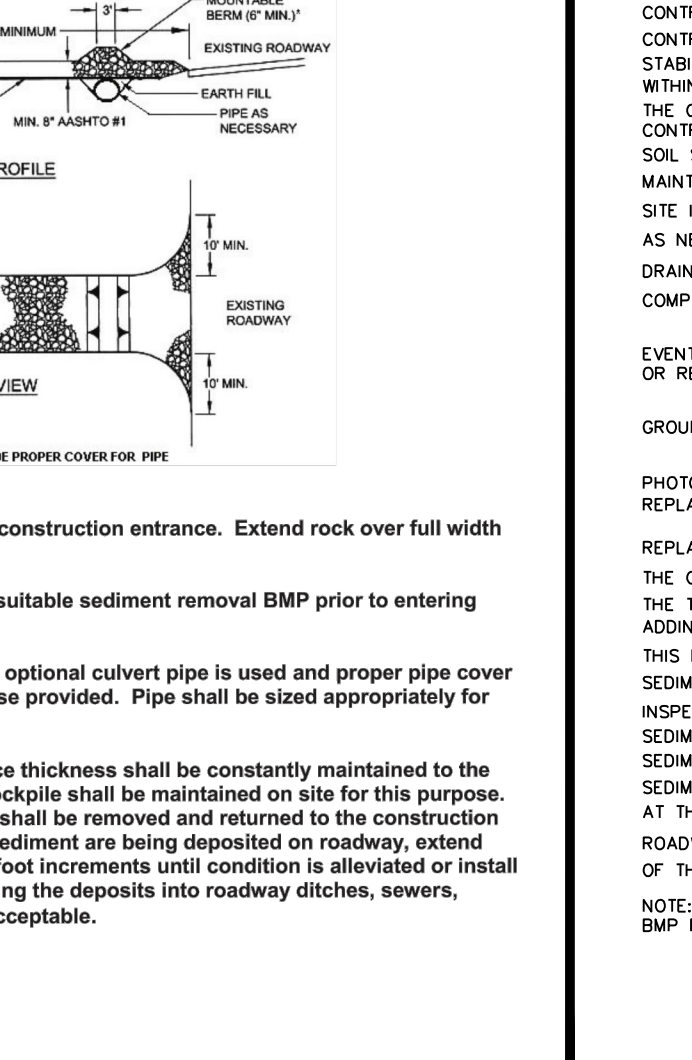
NOTE: DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

SINKHOLE TREATMENT



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

TEMPORARY TOPSOIL STOCKPILE



Modified from Maryland DOT

MAINTENANCE PROGRAM

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AND RELATED ITEMS INCLUDED WITHIN THIS PLAN. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR THE PROPER CONSTRUCTION AND STABILIZATION OF PERMANENT CONTROL MEASURES AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.

THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PERMANENT CONTROL MEASURES.

SOIL SEDIMENT REMOVED FROM ANY TEMPORARY CONTROL MEASURE DURING REGULAR MAINTENANCE WILL BE INCORPORATED BACK INTO THE EARTHWORK AS FILL ON THE SITE IN ACCORDANCE WITH THE APPROVED PADEP CLEAN UP PLAN FOR THE PROJECT.

AS NECESSARY, SOIL SEDIMENT MATERIAL SHALL BE DISTRIBUTED ON-SITE WITHOUT CHANGING DRAINAGE PATTERNS DURING A SPECIFIC CONSTRUCTION STAGE.

SOIL SEDIMENT REMOVED FROM ANY TEMPORARY CONTROL MEASURE DURING REGULAR MAINTENANCE WILL BE INCORPORATED BACK INTO THE EARTHWORK AS FILL ON THE SITE IN ACCORDANCE WITH THE APPROVED PADEP CLEAN UP PLAN FOR THE PROJECT.

COMPOST FILTER SOCK INSTALLED ON THE PROJECT SITE SHALL BE MAINTAINED AS FOLLOWS:

- THE SOCK CONDITION WILL BE INSPECTED ONCE A WEEK OR AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED OF PROPERLY.
- BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- ANY MANUFACTURER'S RECOMMENDATIONS WILL BE ADHERED TO FOR REPLACING THE SOCK DUE TO WEATHERING.

THE CONSTRUCTION ENTRANCE WILL BE INSPECTED AT THE END OF EACH WORK DAY. THE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE.

SEDIMENT ACCUMULATION IN THE SEDIMENTATION BASIN AND TRAPS SHALL BE INSPECTED ONCE A WEEK OR AFTER EVERY STORM EVENT, WHICHEVER COMES FIRST. SEDIMENT ACCUMULATION WILL BE MONITORED WITH A CLEARLY MARKED GAUGE POLE. SEDIMENT WILL BE REMOVED FROM THE BASIN WHEN IT REACHES THE SPECIFIED CLEAN OUT ELEVATION.

AT THE END OF EACH CONSTRUCTION DAY, ANY SEDIMENT DEPOSITED ON PUBLIC ROADWAYS, WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER WILL NOT BE PERMITTED.

NOTE: THE CONTRACTOR SHALL HAVE ON SITE A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.

MAINTENANCE INSPECTION

UTILITY TRENCH EXCAVATION GUIDELINES

1. Construction requirements -

- Limit advance clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
- Work crews and equipment for trenching, placement of pipe, plug construction and backfilling will be self contained and separate from clearing and grubbing and site restoration and stabilization operations.
- Limit daily trench excavation to the length of pipe placement, plug installation and backfilling that can be completed the same day.
- Trench plugs will be spaced and constructed of the materials shown on Drawing 270.

(1) At all crossings of waters of the Commonwealth, trench plugs will be installed at the banks after trench excavation. The plugs may be temporarily removed when placing the pipe, but then replaced.

(2) Construction of the crossing will be in accordance with the requirements of PADEP.

2. Water which accumulates in the open trench will be completely removed by pumping, as required, to a facility for removal of sediment in accordance with PADEP guidelines.

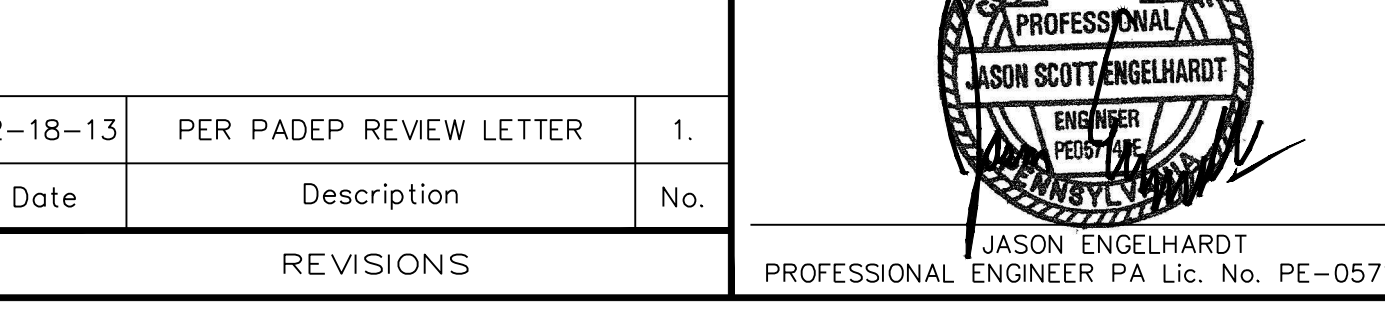
- On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and appropriate temporary erosion and sediment pollution control measures/facilities will be installed. Seeding and mulching of or disturbed areas will be done at the end of each week.
- Exceptions - In certain cases trenches cannot be backfilled until the pipe is hydraulically tested, or anchors and other permanent features are installed in these cases, all of the requirements listed under item 1 will remain in effect with the following exceptions:
  - Daily backfilling of the trench may be delayed for six days. All pressure testing and the complete backfilling of the open trench must be completed by the seventh working day.
  - If daily backfilling is delayed, the disturbed area will be graded to final contours, appropriate temporary erosion and sediment control measures/facilities will be installed, and the areas seeded and mulched within the next two calendar days.

UTILITY TRENCH NOTES

INLET PROTECTION (FILTER BAG) CURBED ROADWAY



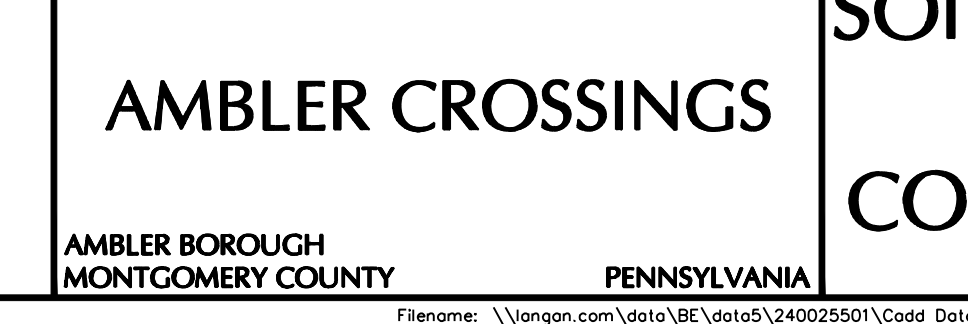
ROCK CONSTRUCTION ENTRANCE



MAINTENANCE INSPECTION



UTILITY TRENCH NOTES



APPLICANT / EQUITABLE OWNER:

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP  
201 S. MAPLE AVENUE, SUITE 100  
AMBLER, PA 19002  
P: (484)532-7830

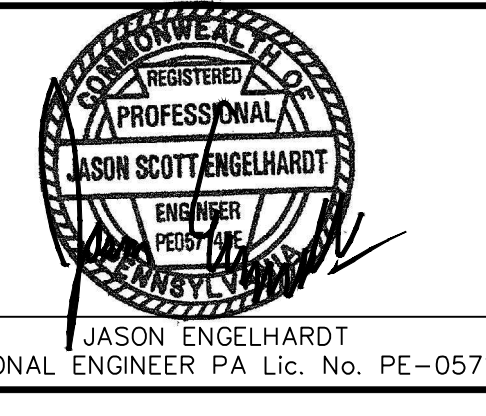
RECORD OWNER:  
MAPLE AVE PARK PARTNERS, LLP  
110 SPRUCE ROAD  
AMBLER, PA 19002  
P: (484)532-7830

REVISIONS

Date	Description	No.
12-18-13	PER PADEP REVIEW LETTER	1.

REVISIONS

Date	Description	No.
12-18-13	PER PADEP REVIEW LETTER	1.



**LANGAN**  
One West Broad Street, Suite 200, Bethlehem, PA 18018  
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK VIRGINIA CALIFORNIA  
PENNSYLVANIA CONNECTICUT FLORIDA

ABU DHABI ATHENS DOHA  
DUBAI ISTANBUL

Langan Engineering, Environmental, Consulting and Architecture, P.C.  
Langan Engineering and Environmental Services, Inc.  
Langan International LLC  
Collectively known as Langan

Project  
**AMBLER CROSSINGS**

AMBLER BOROUGH  
MONTGOMERY COUNTY  
PENNSYLVANIA

Drawing Title  
**SOIL EROSION AND SEDIMENT CONTROL DETAILS**

Project No. 240025501  
Date 7-5-13  
Scale N.T.S.  
Drawing No. **CE-501**  
Drawn By  
Sheet 5 of 6

**TABLE 11.3  
Plant Tolerances of Soil Limitation Factors**

Species	Growth Habit	Tolerates				Minimum Seed Specifications <sup>3</sup>				Seeds/lb (1,000s)
		Wet Soil	Dry Site	Low Fertility	Acid Soil (Ph 5-5.5) <sup>2</sup>	Purity (%)	Ready Germ (%)	Hard Seed (%)	Total Germ (%)	
<b>Warm-Season Grasses</b>										
Deertongue	bunch	yes	yes	yes	yes	95	75		75	250
Weeping lovegrass	bunch	no	yes	yes	yes	97	75		75	1,500
Switchgrass	bunch	yes	yes	yes	yes			(60 PLS)		390
Big bluestem	bunch	no	yes	yes	yes			(60 PLS)		150
<b>Cool-Season Grasses</b>										
Tall Fescue	bunch	yes	no	yes	no	95	80		80	227
Redtop	sod	yes	yes	yes	yes	92	80		80	5,000
Fine fescues	sod	no	no	yes	no	95	80		80	400
Perennial ryegrass	bunch	yes	no	no	no	95	85		85	227
Annual ryegrass	bunch	yes	no	yes	no	95	85		85	227
Kentucky bluegrass	sod	yes	no	no	no	85	75		75	2,200
Reed canarygrass	sod	yes	yes	yes	no	95	70		70	520
Orchardgrass	bunch	yes	yes	yes	yes	95	80		80	654
Timothy	bunch	yes	no	yes	yes	95	80		80	1,230
Smooth bromegrass	sod	no	yes	yes	no	95	80		80	136
<b>Legumes<sup>4</sup></b>										
Crownvetch	sod	no	yes	yes	no	98	40	30	65	120
Birdsfoot trefoil <sup>5</sup>	bunch	yes	no	yes	yes	98	60	20	80	400
Flatpea	sod	no	no	yes	yes	98	55	20	75	10
Serecia lepedeza	bunch	no	yes	yes	yes	98	60	20	80	335
<b>Cereals</b>										
Winter wheat	bunch	no	no	no	no	98	85		85	15
Winter rye	bunch	no	no	no	no	98	85		85	18
Spring oats	bunch	no	no	no	no	98	85		85	13
Sundagrass	bunch	no	yes	no	no	98	85		85	55
Japanese millet	bunch	yes	no	yes	yes	98	80		80	155

- Growth habit refers to the ability of the species to either form a dense sod by vegetative means (stolons, rhizomes, or roots) or remain in a bunch or single plant form. If seeded heavily enough, even bunch formers can produce a very dense stand. This is sometimes called a sod, but not in the sense of a sod formed by vegetative means.
- Once established, plants may grow at a somewhat lower Ph, but cover generally is only adequate at Ph 6.0 or above.
- Minimum seedlots are truly minimum, and seedlots to be used for revegetation purposes should equal or exceed these standards. Thus, deertongue grass should germinate 75% or better. Crownvetch should have at least 40% readily germinable seed and 30% hard seed. Commonly, seedlots are available that equal or exceed minimum specifications. Remember that disturbed sites are adverse for plant establishment. Ready germination refers to seed that germinates during the period of the germination test and that would be expected, if conditions are favorable, to germinate rapidly when planted. The opposite of ready germination is dormant seed, of which hard seed is one type.
- Switchgrass seed is sold only on the basis of pure live seed (PLS).
- Need specific legume inoculant. Inoculant suitable for garden peas and sweetpeas usually is satisfactory for flatpea.
- Birdsfoot trefoil is adapted over the entire state, except in the extreme southeast where crown and root rots may injure stands.

Penn State, "Erosion Control & Conservation Plantings on Noncropland,"

**TABLE 11.6  
Mulch Application Rates**

Mulch Type	Application Rate (Min.)			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Straw	3 tons	140 lb.	1,240 lb.	Either wheat or oat straw, free of weeds, not chopped or finely broken
Hay	3 tons	140 lb.	1,240 lb.	Timothy, mixed clover and timothy or other native forage grasses
Wood Chips	4 - 6 tons	185 - 275 lb.	1,650 - 2,500 lb.	May prevent germination of grasses and legumes
Hydromulch	1 ton	47 lb.	415	See limitations below

Hydromulch Notes:  
1. Shredded paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application rate for any hydromulch should be 2,000 lb/acre at a minimum.

**STABILIZATION METHODS AND STANDARDS**

**TEMPORARY SEEDING:**

- THE FOLLOWING SURFACES OF THE SITE SHALL BE TEMPORARILY SEEDED
  - THE SURFACE OF TOPSOIL STOCKPILES
  - THE SURFACE OF EXPOSED EARTH AREAS NOT SUBJECT TO CONSTRUCTION
- SEEDING SHALL OCCUR IMMEDIATELY AFTER THE ESTABLISHMENT OF THE TOPSOIL STOCKPILES OR ROUGH GRADING. THE FOLLOWING SEED SHALL BE PLANTED:
  - RYEGRASS - BLUE TAG CERTIFIED - 100% - 4 TO 5 LBS. PER 1,000 SQUARE FEET.
  - ANNUAL TYPE - TYPICAL
  - PERENNIAL TYPE - NOT APPLICABLE
- PREPARE AREAS TO BE SEEDED AS FOLLOWS:
  - REMOVE ALL DEBRIS, INCLUDING LARGE STONE. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY PULVERIZED AGRICULTURAL GRADED LIME AT A RATE OF 2 TONS PER ACRE
  - BEFORE AUGUST, SEPTEMBER, OR OCTOBER SEEDING, APPLY 20-25 LBS. OF 10-20-20 FERTILIZER PER 1,000 SQUARE FEET. WORK INTO TOP INCH OF SOIL
- SOW SEED AT THE INDICATED RATE. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST LOT.

**PERMANENT SEEDING:**

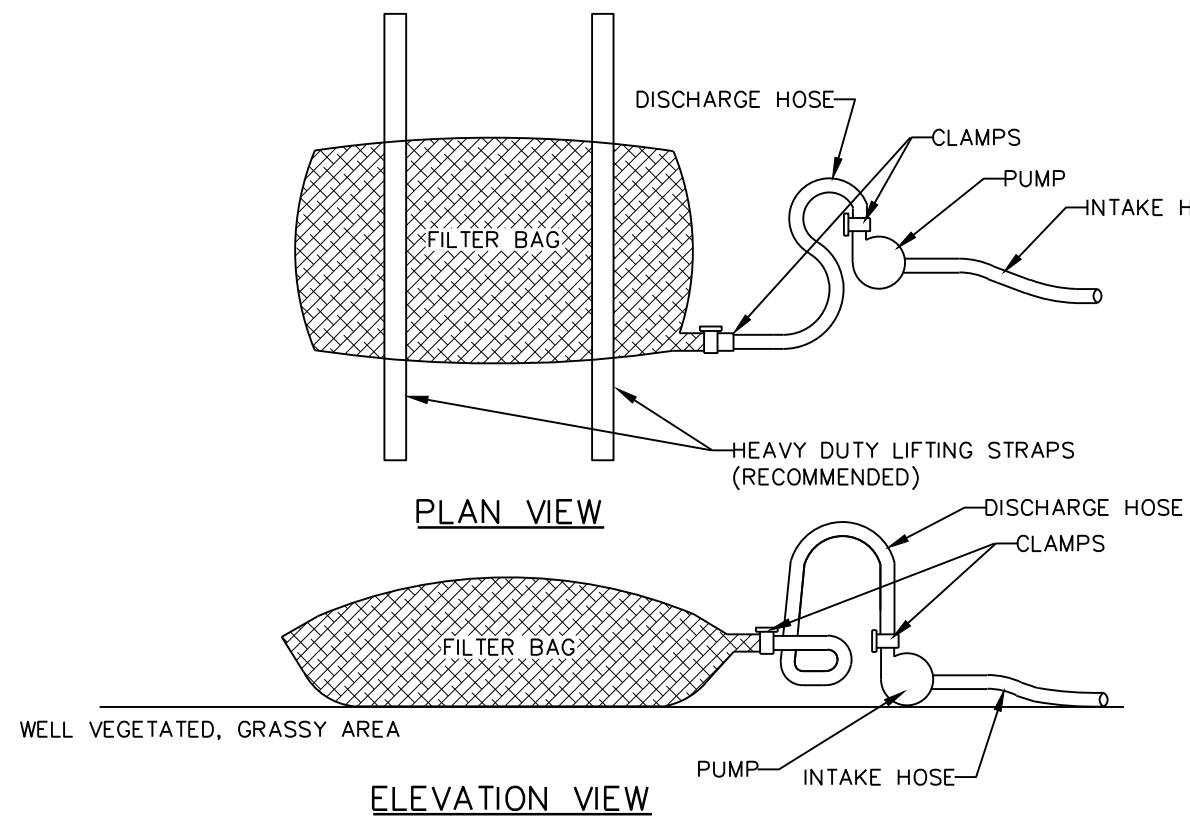
- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
- THE FOLLOWING SEED MIX SHALL BE SOWN AT THE RATES AS DEPICTED:
  - RED FESCUE 1 1/2 LBS./1,000 SF
  - PERENNIAL RYEGRASS 1 LBS./1,000 SF
  - KENTUCKY BLUEGRASS 1 1/2 LBS./1,000 SF
  - SPREADING FESCUE 1 LBS./1,000 SF
- SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2 TONS/AC OR 90 LBS/1,000 SF
- SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:
  - SPRING: APRIL 1 - MAY 31
  - FALL: AUGUST 16 - OCTOBER 31
- GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

**TABLE 11.1  
Cubic Yards of Topsoil Required for Application to Various Depths**

Depth (in)	Per 1,000 Square Feet	Per Acre
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074

Adapted from VA DSWC

**SEDIMENT FILTER BAG FOR PUMPED WATER**



PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

NOTES:  
LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:  
A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL, UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.  
BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.  
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HO OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.  
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.  
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.  
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.  
\* WATER TO BE PUMPED IN ACCORDANCE WITH THE PADEP APPROVED CLEAN UP PLAN.

**Sequence of Construction**

- Each stage of the sequence of construction must be completed prior to initiation of the next stage of the sequence of construction. Construction activities within each stage may overlap provided that work within each area is carried out in sequence. The Montgomery County Soil Conservation District must be notified by the contractor in writing 72 hours prior to any land disturbances. A pre-construction meeting is to be held with the District, on site, prior to disturbance. An owner representative, the site contractor representative, project engineer, and any other pertinent personnel should attend. The borough shall be notified of said meeting.
- The "Ambler Crossings" project shall be constructed in accordance with plans approved by the Borough of Ambler, erosion and sediment pollution control plans approved by the Montgomery County Conservation District and the PADEP approved Clean Up Plan under the Land Recycling Act 2 Program.
- All blasting activity, if required, should be done in accordance with the local, state and federal regulations. Contractor should notify Owner and all regulatory agencies in writing prior and obtain any necessary permits prior to any blasting activities.

**STAGE 1**

- Install a gravel buffer of AASHTO No. 1 rock, 8 inches deep at the construction entrances (CE-1&2) immediately before initial disturbances as per standards on drawings. Gravel buffer to be underlain by filter fabric as indicated on the detail plans. All construction traffic should use only this area for ingress and egress. Set up the contaminant reduction zone for the decontamination of equipment and personnel where shown on plans. As conditions warrant, these locations may be modified with the prior approval from the Montgomery County Soil Conservation district.
- Install construction entrances, compost filter socks and adjust existing perimeter fence as indicated on drawing CE-101, CE-102 & CE-103. Method of installation and maintenance in accordance with PADEP requirements and as indicated on the detail plans. The installation of the construction entrances, compost filter socks, and existing perimeter fence relocations at the indicated location should be done prior to any other earth disturbances.
- Excavate and dispose of material in the magnesia disturbance areas, delineated on sheet CE-101, in accordance with the PADEP approved Clean Up Plan.

**STAGE 2**

- Clear and grub area of proposed disturbance.
- Crush concrete rubble onsite and stockpile where indicated on drawing CE-102.
- If the main access road near Chestnut St. is to be un-stabilized for an extended period of time, a water bar shall be installed as indicated on drawing CE-102.
- Install underground basin connection to existing 5x7' arch culvert. Install storm pipe from this connection and under the permanent northeast parking lot to the fence line at the existing Boiler House parking lot as shown on drawing CE-102. Contractor shall ensure all pipes and structures constructed upstream of this connection have adequate sediment controls at the end of each day. At no point shall sediment laden runoff from construction activities enter the existing culvert.
- Construct permanent northeast parking area to subbase elevation to be utilized for temporary Boiler House parking. Construct temporary access to new parking area. Place topsoil and excess fill material in areas designated on the plan and in accordance with the PADEP approved Clean Up Plan.
- Install the remaining storm sewer system from the fence line at the existing Boiler House parking lot as shown on drawing CE-102 to the underground detention basin and install the underground detention basin. Install permanent storm sewer pipes and associated drainage structures at the Ambler Crossings site. The storm sewer systems shall be installed from downstream to upstream. As catch basins are constructed, place inlet protection filter bags inside and maintain as indicated on drawing CE-102.
- Install remaining section of storm pipe and structure. Place inlet filter bag in catch basin. Rebuild remaining section of Boiler House parking to proposed subbase elevation.

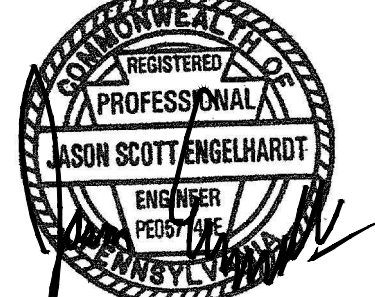
**STAGE 3**

- Remove temporary access drive after Boiler House parking is rebuilt and connected to new northeast parking area.
- Construct retaining wall at eastern corner of site and along Chestnut Street.
- Excavate for building foundations, re-consolidate excavated material onsite and/or properly dispose of excess material offsite in accordance with PADEP approved Clean Up Plan.
- Begin construction of on-site utilities including roof leaders. On site subsurface utilities shall consist of gas, electric, telephone, cable, water, and sanitary sewers. Advance trench excavation shall be limited to the length of pipe that can be completed in the same day. Trench excavation material to be re-consolidated onsite and/or properly disposed of excess material in accordance with the PADEP approved Clean Up Plan. On the day following utility installation, the trench area shall be graded to subgrade elevation. Hydroseeding and/or liquid mulching of all disturbed areas shall be completed at the end of each work day. All water, sewer, gas mains and other underground facilities shall be installed prior to paving.
- Construct curbing along paved areas and roadways as indicated on drawing CE-103.
- Construct sidewalks as indicated on drawing CE-103.
- Place gravel subbase and bituminous subbase course in areas of proposed pavement.
- Complete final site grading and landscape of all appropriate areas. Stabilize with permanent seed and mulch.
- Once final capping operation is completed the contamination reduction zone can be removed.
- Commence vertical construction of proposed buildings and pool. Schedule determined by Contractors.
- Complete final surface course paving.
- Construction entrances, compost filter socks, perimeter fence, and inlet protection shall be maintained until all improvements to the site are completed, road and parking areas are paved, and 70% uniform permanent vegetative coverage has been established.
- Once all permanent measures have been installed, clean out accumulated silt from the compost filter socks, remove the construction entrances, compost filter socks, perimeter fence, and inlet protection and dispose of properly in accordance with the PADEP approved Clean Up Plan. All disturbed areas caused by the removal of temporary sediment pollution control devices must be permanently stabilized.

**APPLICANT / EQUITABLE OWNER:**  
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP  
201 S. MAPLE AVENUE, SUITE 100  
AMBLER, PA 19002  
P: (484)532-7830

**RECORD OWNER:**  
MAPLE AVE PARK PARTNERS, LLP  
110 SPRUCE ROAD  
AMBLER, PA 19002  
P: (484)532-7830

12-18-13	PER PADEP REVIEW LETTER	1.
Date	Description	No.
REVISIONS		

  
**JASON ENGELHARDT**  
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

  
 One West Broad Street, Suite 200, Bethlehem, PA 18018  
 T: 610.984.8500 F: 610.984.8501 www.langan.com  
 NEW JERSEY NEW YORK VIRGINIA CALIFORNIA  
 PENNSYLVANIA CONNECTICUT FLORIDA  
 ABU DHABI ATHENS DOHA  
 DUBAI ISTANBUL  
 Langan Engineering, Environmental, Surveying and Landbased Architecture, L.P.C.  
 Langan Environmental Services, Inc.  
 Langan International LLC  
 Collectively known as Langan

Project  
**AMBLER CROSSINGS**  
AMBLER BOROUGH  
MONTGOMERY COUNTY

Drawing Title  
**SOIL EROSION AND  
SEDIMENT  
CONTROL DETAILS**

Project No.	240025501	Drawing No.	
Date	7-5-13		
Scale	N.T.S.		<b>CE-502</b>
Drawn By			
		Sheet 6 of 6	