

2020-4



**pennsylvania**  
OFFICE OF OPEN RECORDS

RECEIVED

JAN 22 2020

CODES DEPARTMENT  
CALN TOWNSHIP

**STANDARD RIGHT-TO-KNOW REQUEST FORM**

DATE REQUESTED: 1-22-20

REQUEST SUBMITTED BY:  E-MAIL  U.S. MAIL  FAX  IN-PERSON

REQUEST SUBMITTED TO (Agency name & address): CALN Township

NAME OF REQUESTER: Kevin Barton

STREET ADDRESS: 409 Lockport Lane

CITY/STATE/COUNTY/ZIP(Required): Coxeville, PA, USA, 19320

TELEPHONE (Optional): \_\_\_\_\_ EMAIL (optional): \_\_\_\_\_

RECORDS REQUESTED: \*Provide as much specific detail as possible so the agency can identify the information. Please use additional sheets if necessary

*Hillview <sup>FINAL</sup> Development plans, Phase III; prints of  
Landscape slopes, lots, storm water runoff plans.*

DO YOU WANT COPIES?  YES  NO

DO YOU WANT TO INSPECT THE RECORDS?  YES  NO

DO YOU WANT CERTIFIED COPIES OF RECORDS?  YES  NO

DO YOU WANT TO BE NOTIFIED IN ADVANCE IF THE COST EXCEEDS \$100?  YES  NO

**\*\* PLEASE NOTE: RETAIN A COPY OF THIS REQUEST FOR YOUR FILES \*\***  
**\*\* IT IS A REQUIRED DOCUMENT IF YOU WOULD NEED TO FILE AN APPEAL \*\***

**FOR AGENCY USE ONLY**

OPEN-RECORDS OFFICER: *Abigail Jean*

I have provided notice to appropriate third parties and given them an opportunity to object to this request

DATE RECEIVED BY THE AGENCY: 1/22/20

AGENCY FIVE (5) BUSINESS DAY RESPONSE DUE: 1/29/20

*Viewed  
in person  
1/27/20*

**\*\*Public bodies may fill anonymous verbal or written requests. If the requestor wishes to pursue the relief and remedies provided for in this Act, the request must be in writing. (Section 702.) Written requests need not include an explanation why information is sought or the intended use of the information unless otherwise required by law. (Section 703.)**



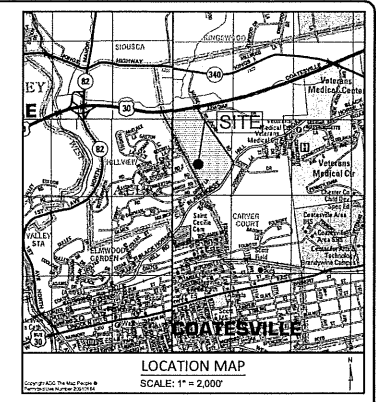
**STORMWATER MANAGEMENT NOTES:**

- 1. PRIOR TO STARTING CONSTRUCTION, ALL UTILITY SERVICES IN THE AREA SHALL BE LOCATED AND MEASURES TAKEN TO PROTECT THE EXISTING FACILITIES. ANY DAMAGE TO EXISTING FACILITIES SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER AND SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES IF NECESSARY.
- 3. LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM FIELD SURVEY AND EXISTING RECORDS. COMPLETENESS AND ACCURACY OF EXISTING UTILITY INFORMATION IS NOT GUARANTEED. PRIOR TO THE START OF ANY CONSTRUCTION, THE CONTRACTOR SHALL ACCURATELY FIELD LOCATE LOCATION AND ELEVATION OF EXISTING UTILITIES AT POINTS OF CONFLICT AND POTENTIAL CONFLICT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND LOCATED BY MEANS OF ANY DRAWING FROM INFORMATION SHOWN ON THESE PLANS. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST POINT (POINT OF CONFLICT) AND PROCEEDS UPWARD TO HIGHER INTERFERENCE POINTS (PROCEEDING) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD-VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 4. CONSTRUCTION SHALL BE LOCATED AND MEASURES TAKEN TO PROTECT THE EXISTING FACILITIES IN ACCORDANCE WITH PENNSYLVANIA ACT 191, ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM THE NEGLIGENCE OF THE CONTRACTOR SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL PERSONS, VEHICLES AND BUILDINGS NEARBY THE CONSTRUCTION AREA FROM INJURY AND DAMAGE DURING THE COURSE OF WORK.
- 6. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
- 7. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 1/4" INCH SCALE TO SHAPET AND 2.00" PER 1" TO PREVENT PHONOING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY PROJECT COSTS, MUST BE REPORTED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT DESIGN RECOMMENDATIONS IS SOLELY AT THE CONTRACTOR'S OWN RISK.
- 8. ALL SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL STATUTES AND REGULATIONS.
- 9. ALL TRENCHING, SHORING AND EXCAVATING OPERATIONS SHALL BE PERFORMED IN COMPLIANCE WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 10. SCAFFOLD DIMENSIONS FROM THIS PLAN SHALL NOT BE USED FOR CONSTRUCTION WITHOUT PERMISSION FROM D.L. HOWELL & ASSOC., INC.
- 11. SUBBASE MATERIAL FOR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUABLE MATERIALS. IF ANY UNSUABLE SOIL IS ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL REMOVE IT AND REPLACE TO THE RECOMMENDATIONS OUTLINED IN A GEOTECHNICAL EVALUATION PROVIDED SPECIFICALLY FOR THIS SITE.

**GRADING & UTILITY GENERAL NOTES:**

- 12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE LOCAL AUTHORITY OR GOVERNING AGENCY OF THE BEGINNING DATE OF CONSTRUCTION AND TO ENSURE THAT NO WORK IS PERFORMED WITHOUT THE REQUIRED PERMITS AND INSPECTIONS BY THE LOCAL AUTHORITY OR GOVERNING AGENCY.
- 13. THE CONDITIONS ON THE GROUND DIFFER FROM THOSE SHOWN ON THE PLAN. THE CONTRACTOR SHALL NOTIFY IMMEDIATELY IN WRITING THE ENGINEER OF RECORD.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TRAFFIC CONTROL, SHEETING, SIGNING AND MAINTENANCE OF OPEN EXCAVATIONS.
- 15. ALL MANHOLES SHALL BE PRECAST CONCRETE.
- 16. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, STANDARDS AND PROCEDURES, SAFETY PROCEDURES, AND PROGRAMS IN CONNECTION WITH THE WORK AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER CONTRACT.
- 17. CONTRACTOR SHALL REVIEW VARIOUS PHASES OF WORK WITH THE OWNER TO DETERMINE WHETHER ANY PHASE WILL CONFLICT WITH THE OWNER'S ONLY OPERATIONS. NOTICE OF CONFLICT TO APPROVE THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO BE PERFORMED SO AS TO BE THE LEAST DISRUPTIVE.
- 18. ANYTHING DAMAGED DURING CONSTRUCTION ACTIVITIES SHALL BE REPAIRED TO SURROUND AND REPLACED AT THE CONTRACTOR'S EXPENSE. REPLACEMENT PAVERS SHALL MATCH THE EXISTING PAVEMENT SECTION.
- 19. IN ANY AREA SUBJECT TO VIBRATION ACTIVITY DURING CONSTRUCTION A MINIMUM OF 18 INCHES OF COVER SHALL BE MAINTAINED FOR ALL UNDERGROUND UTILITIES (STORMWATER, SANITARY SEWER, WATER, ELECTRIC, GAS, ETC.).
- 20. ALL FILL SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT UNDERGROUND SETTLEMENTS. THE FILL SHALL BE SPREAD IN A SERIES OF LAYERS, NOT EXCEEDING EIGHT INCHES IN THICKNESS, AND BE COMPACTED BY A SHEEPSFOOT ROLLER OR OTHER APPROVED METHOD AFTER EACH LAYER IS SPREAD. THE CONTRACTOR SHALL PROVIDE COMPACTED TESTS AND REPORTS.
- 21. IF THE CONTRACTOR RUNS INTO HIGH WATER TABLE, SHALLOW BEDROCK, OR SOIL INSTABILITY THE DESIGN ENGINEER OR THE ON-SITE GEOTECHNICAL ENGINEER MUST BE CONTACTED IMMEDIATELY BEFORE ANY ADDITIONAL WORK IS COMPLETED.
- 22. ALL OTHER UTILITY LINES INCLUDING, BUT NOT LIMITED TO, ELECTRIC, GAS, STREETLIGHT SUPPLY, CABLE TELEVISION, AND TELEPHONE, SHALL BE PLACED UNDERGROUND. INCLUDING OF UTILITIES SHALL BE IN STRICT ACCORDANCE WITH THE ENGINEERING STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OR PUBLIC UTILITY CONCERNED. UNDERGROUND UTILITIES SHALL BE IN PLACE, CONNECTED, AND APPROVED BEFORE THE STREETS ARE CONSTRUCTED WHERE SUCH UTILITIES LIE UNDER THE PROPOSED DRIVEWAY AND BAYING ANY PERSON IS PERMITTED TO OCCUPY ANY BUILDINGS SERVED BY SUCH FACILITIES.
- 23. ALL STORM SEWERS SHALL BE CONSTRUCTED PER CURRENT SPECIFICATIONS AS OUTLINED IN PUBLICATION 108 DESIGN HANDBOOK.
- 24. THE CONTRACTOR MUST REFORM EXISTING MANHOLE BENCH FOR NEW CONNECTION. PENETRATION OF MANHOLE SHALL HAVE A MINIMUM OF 3.0'.

- 25. THE CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS AND APPROVALS HAVE BEEN OBTAINED PRIOR TO THE COMMENCEMENT OF ANY SITE CONSTRUCTION.
- 26. THE PROPOSED DRAINAGE CHANNELS ON THIS PLAN HAVE BEEN BASED ON THE PROPOSED BUILDING FINISHED FLOOR ELEVATIONS AND HAS BEEN USED TO DESIGN THE STORMWATER HANDOFF FACILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEERING DEPARTMENT UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER.
- 27. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR INSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL LOCAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIVE STANDARDS AND REGULATIONS.
- 28. CONTRACTORS SHALL NOT EXCAVATE INTO ADJACENT PROPERTIES UNLESS A TEMPORARY CONSTRUCTION EASEMENT HAS BEEN OBTAINED BY THE ADJACENT PROPERTY OWNER. CONTRACTORS SHALL HAVE PROPERTY LINES CLEARLY MARKED IN AREAS WHERE GRADING OR OTHER CONSTRUCTION ACTIVITIES WILL BEGIN WITHIN FIVE (5) FEET OF THE PROPERTY AND SHALL CONSTRUCT SUEDE MARKERS WHICH ARE NECESSARY TO PREVENT EXCAVATION INTO ADJACENT PROPERTIES.
- 29. EXCAVATION AND DEMOLITION CONTROL MEASURES SHALL BE IN PLACE AND FUNCTION PRIOR TO ANY EXCAVATION OR DEMOLITION WORK.
- 30. ALL ROADWAY, DRIVEWAY AND DETENTION BASIN FILL SHALL BE COMPACTED IN ACCORDANCE WITH APPLICABLE REGULATIONS. COPIES OF CONSTRUCTION TEST RESULTS SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER. IF REQUIRED, THE CONTRACTOR SHALL BE OBLIGATED TO PROVIDE RESULTS DIRECTLY TO THE ENGINEER'S AGENCY.
- 31. EXISTING SUBSURFACE UTILITY INFORMATION INDICATED IS BASED UPON VISUAL FIELD INSPECTION BY GEORGE & ASSOCIATES, INC. SUCH INFORMATION CONCERNING THE SIZE, LOCATION, DEPTH, QUANTITY, ETC., OF SUBSURFACE UTILITIES IS APPROXIMATE IN NATURE AND HAS BEEN OBTAINED AS AN AID IN THE PROJECT DESIGN. THE INFORMATION PROVIDED IS REPRESENTATIVE OF SUBSURFACE CONDITIONS ONLY AT LOCATIONS AND DEPTHS WHERE SUCH INFORMATION WAS OBTAINED. THERE IS NO EXPRESSED OR IMPLIED WARRANTY THAT EXISTING UTILITIES LOCATIONS, DEPTHS, QUANTITIES, ETC. AS SHOWN EXIST BETWEEN EXPOSED LOCATIONS. ACCORDINGLY, UTILITY INFORMATION SHOWN SHOULD NOT BE RELIED UPON BY CONTRACTOR PROFESSIONALS. IF A DISCREPANCY EXISTS BETWEEN EXPOSED LOCATIONS, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF ALL UTILITIES BEFORE EXCAVATION.
- 32. ALL EXCAVATION, DEMOLITION AND CONSTRUCTION SHALL MEET OR EXCEED PENNSYLVANIA REQUIREMENTS OF TRANSPORTATION SPECIFICATIONS.
- 33. A MINIMUM OF SIX (6) INCHES OF CLEAN TOPSOIL SHALL BE PROVIDED ON ALL LAWN AND PLAYING AREAS.
- 34. ALL RETAINING WALLS DEPICTED HEREON HAVE BEEN SHOWN FOR LOCATION AND GRADING PURPOSES ONLY. SHIP FOUNDATIONS AND SPECIFICATIONS WILL BE PROVIDED BY THE CONTRACTOR. THE TOWNSHIP WILL REVIEW AND APPROVE ALL WALLS CONFORM WITH CURRENT BUILDING CODE IN REGARD TO ALL ASPECTS INCLUDING BUT NOT LIMITED TO ELEVATION DIFFERENCES. TOWNSHIP MUST REVIEW AND APPROVE ALL WALLS PRIOR TO CONSTRUCTION.
- 35. ALL EXCAVATION OR FILL SHALL BE MADE WITH A FACE STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER IN WRITING.



**DLHowell**  
Civil Engineering  
Land Planning  
Environmental  
www.DLHowell.com

1250 Wrights Lane  
West Chester, PA 19380  
Phone: (610) 618-8002  
Fax: (610) 618-8003

**STEEP SLOPE LEGEND**

15% TO 20% SLOPES

20% AND GREATER SLOPES

**CALL BEFORE YOU DIG!**  
PENNSYLVANIA LAW REQUIRES  
3 WORKING DAYS NOTICE FOR  
CONSTRUCTION PHASE AND 10 WORKING  
DAYS IN DESIGN STAGE-STOP CALL

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

**ONE CALL NOTE**  
NO SCALE

ACT 287 SERIAL NUMBER  
20182053490N 20182053491

D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Assoc., Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1-800-242-1776.

REV.	DATE	DESCRIPTION
1	07/27/19	ISSUED PER TOWNSHIP REVIEW LETTERS
2	08/23/19	REVISED PER TOWNSHIP REVIEW LETTERS
3	09/07/19	REVISED PER TOWNSHIP REVIEW LETTERS
4		
5		

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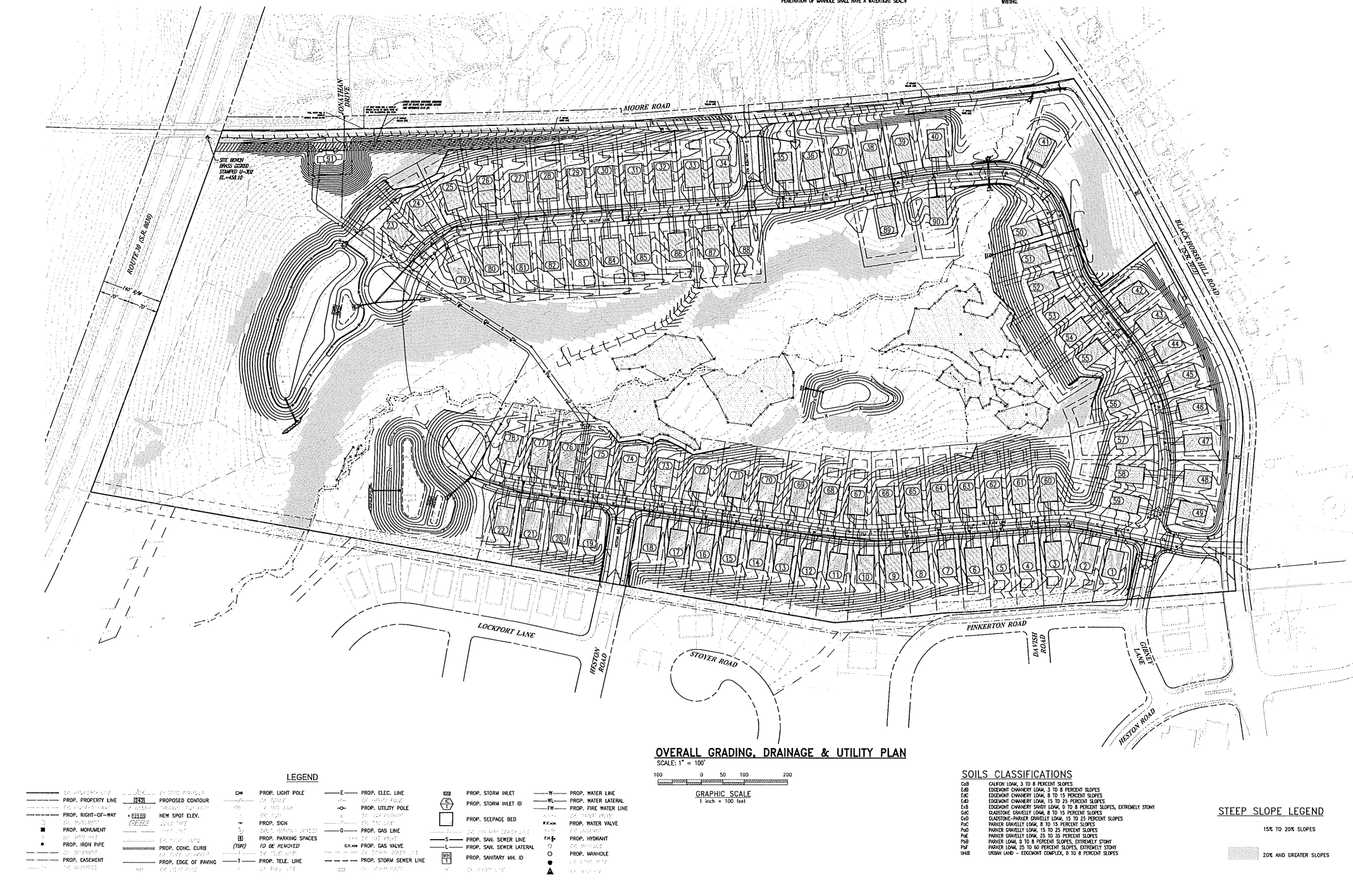
DEC 19 2019

**CODES DEPARTMENT  
CALN TOWNSHIP**

**OVERALL GRADING, DRAINAGE & UTILITY PLAN**

SOURCE: HILLVIEW III, LLC  
PROJECT: THE VILLAGES AT HILLVIEW  
37.5 ACRE TRACT, WILSON ROAD  
LOCALITY: CALN TOWNSHIP, CHESTER COUNTY, PA

DATE: 07/27/19  
SCALE: 1" = 100'  
DRAWN BY: ADW  
CHECKED BY: DWG  
PROJECT NO.: 3059  
DATE: 12/09/19  
DRAWING NO.: C03.1  
SHEET 10 OF 36



**LEGEND**

---	PROP. PROPERTY LINE	---	PROP. LIGHT POLE	---	PROP. STORM INLET
---	PROP. RIGHT-OF-WAY	---	PROP. SIGN	---	PROP. STORM INLET ID
---	PROP. MONUMENT	---	PROP. PARKING SPACES	---	PROP. SEEPAGE BED
---	PROP. IRON PIPE	---	TO BE REMOVED	---	PROP. SANITARY SEWER LINE
---	PROP. CASING	---	PROP. TELE. LINE	---	PROP. SANI. SEWER LATERAL
---	PROP. EDGE OF PAVING	---		---	PROP. SANITARY MH ID
---		---		---	PROP. WATER LINE
---		---		---	PROP. WATER LATERAL
---		---		---	PROP. FIRE WATER LINE
---		---		---	PROP. WATER VALVE
---		---		---	PROP. HYDRANT
---		---		---	PROP. MANHOLE
---		---		---	PROP. MANDREL
---		---		---	PROP. SURVEY

**OVERALL GRADING, DRAINAGE & UTILITY PLAN**  
SCALE: 1" = 100'  
GRAPHIC SCALE  
1 inch = 100 feet

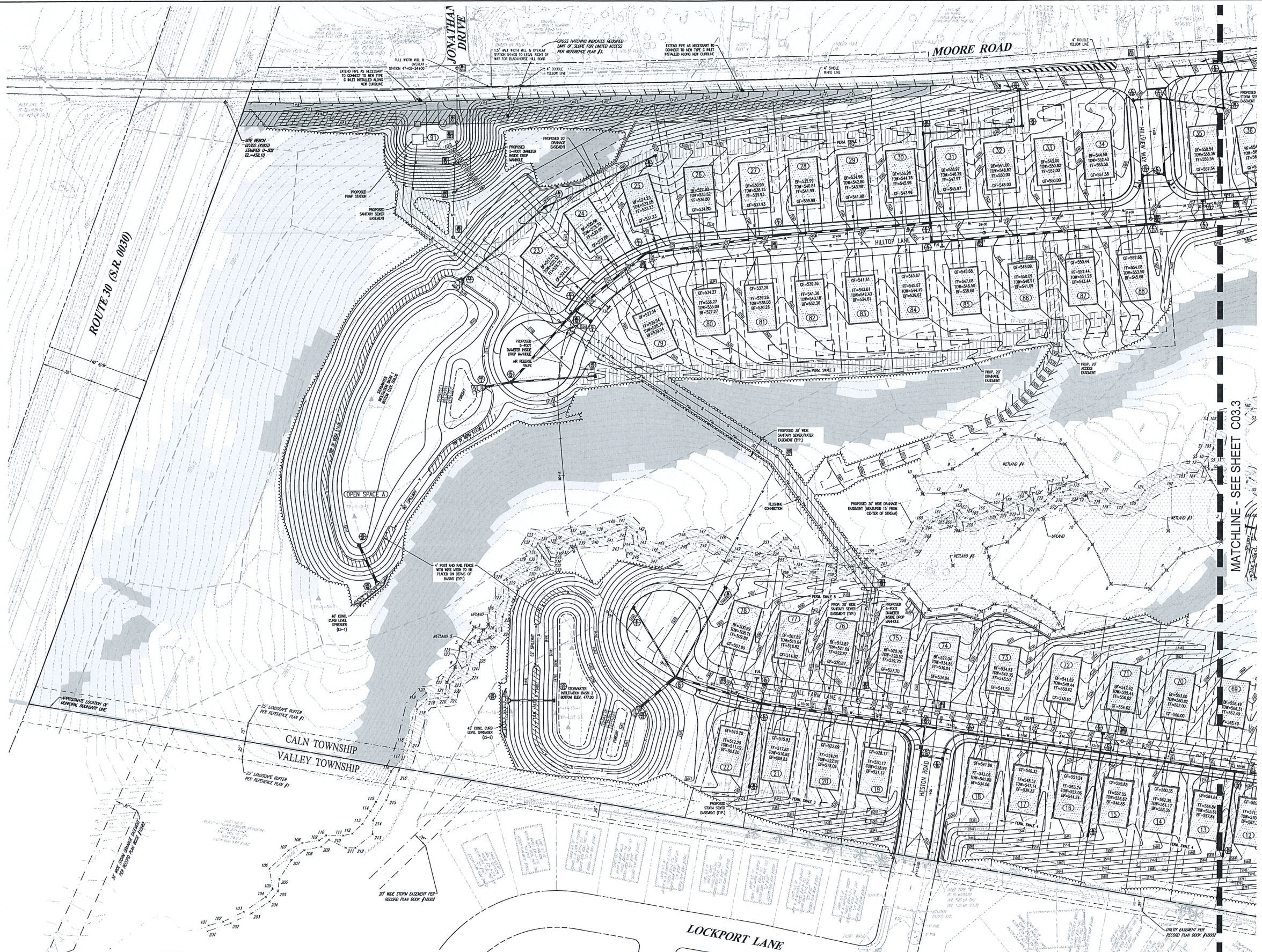
**SOILS CLASSIFICATIONS**

CUH	CLAYEY LOAM, 3 TO 8 PERCENT SLOPES
EUH	EDGEWATER CHANNEY LOAM, 3 TO 8 PERCENT SLOPES
EC	EDGEWATER CHANNEY LOAM, 15 TO 25 PERCENT SLOPES
EAD	EDGEWATER CHANNEY LOAM, 15 TO 25 PERCENT SLOPES, EXTREMELY STONY
GC	GLAUCOUS GRAYEY LOAM, 15 TO 25 PERCENT SLOPES
GAC	GLAUCOUS GRAYEY LOAM, 15 TO 25 PERCENT SLOPES
GL	GLAUCIOUS-PINKER GRAYEY LOAM, 15 TO 25 PERCENT SLOPES
PAC	PINKER GRAYEY LOAM, 8 TO 15 PERCENT SLOPES
PAU	PINKER GRAYEY LOAM, 15 TO 25 PERCENT SLOPES
PAW	PINKER GRAYEY LOAM, 25 TO 30 PERCENT SLOPES
PS	PINKER LOAM, 8 TO 15 PERCENT SLOPES, EXTREMELY STONY
PAU	PINKER LOAM, 15 TO 25 PERCENT SLOPES, EXTREMELY STONY
UW	URBAN LAM - EDGEWATER COMPLEX, 0 TO 8 PERCENT SLOPES

**STEEP SLOPE LEGEND**

15% TO 20% SLOPES

20% AND GREATER SLOPES



- LEGEND**
- |                   |                    |                      |                        |                           |                       |
|-------------------|--------------------|----------------------|------------------------|---------------------------|-----------------------|
| EX. PROPERTY LINE | PROPOSED CONTOUR   | PROP. LIGHT POLE     | PROP. ELEC. LINE       | PROP. STORM INLET         | PROP. WATER LINE      |
| EX. RIGHT-OF-WAY  | NEW SPOT ELEV.     | PROP. SIGN           | EX. UTILITY POLE       | PROP. STORM INLET ID      | PROP. WATER LATERAL   |
| PROP. MONUMENT    | EX. ELEV.          | PROP. PARKING SPACES | EX. GAS LINE           | PROP. SEEPAGE BED         | PROP. FIRE WATER LINE |
| PROP. IRON PIPE   | EX. TELE. LINE     | TO BE REMOVED        | PROP. GAS VALVE        | EX. SANITARY SEWER LINE   | PROP. HYDRANT         |
| EX. EXISTENT      | PROP. CONC. CURB   | EX. TELE. LINE       | PROP. STORM SEWER LINE | PROP. SANI. SEWER LATERAL | EX. MANHOLE           |
| PROP. EXISTENT    | EX. ASPHALT PAVING | EX. ELEC. LINE       | EX. STORM SEWER        | PROP. SANITARY MAN. ID    | EX. MANHOLE           |
| EX. MANHOLE       | EX. 15'-0" PAV.    | EX. ELEC. LINE       | EX. 15'-0" PAV.        | EX. MANHOLE               | EX. MANHOLE           |

**GRADING, DRAINAGE & UTILITY PLAN**  
 SCALE: 1" = 50'  
 GRAPHIC SCALE  
 1 inch = 50 feet

**NOTE**

TO MAINTAIN FUTURE MAINTENANCE OF THE SANITARY SEWER SYSTEM, ALL ELECTRIC, TELEPHONE, CABLE OR OTHER UTILITY STRUCTURES SHALL BE PLACED IN ANY SANITARY SEWER EXCAVATION, EXCEPT WHERE THESE UTILITIES ARE REQUIRED TO BE IN A SANITARY SEWER PUMP STATION AND ARE LOCATED SO THAT THEY DO NOT IMPED SEWER SYSTEM MAINTENANCE.

**SOILS CLASSIFICATIONS**  
 CAUFM LOAM, 3 TO 8 PERCENT SLOPES  
 EAB  
 EDKENT CHALKY LOAM, 3 TO 8 PERCENT SLOPES  
 EDKENT CHALKY LOAM, 8 TO 15 PERCENT SLOPES  
 EAB  
 EDKENT CHALKY LOAM, 15 TO 25 PERCENT SLOPES  
 EDKENT CHALKY LOAM, 25 TO 35 PERCENT SLOPES, EXTREMELY STONY  
 GAC  
 CLAYSTONE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES  
 CLAYSTONE GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES  
 PAKER GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES  
 PAKER GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES  
 PAKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES  
 PAKER LOAM, 8 TO 15 PERCENT SLOPES, EXTREMELY STONY  
 PAKER LOAM, 25 TO 35 PERCENT SLOPES, EXTREMELY STONY  
 UH4B  
 URBAN LAND - EDKENT COMPLEX, 0 TO 8 PERCENT SLOPES

**STEEP SLOPE LEGEND**  
 15% TO 20% SLOPES  
 20% AND GREATER SLOPES

**DLHowell** RECEIVED  
 Civil Engineering  
 Land Planning  
 Environmental  
 www.DLHowell.com  
 DEC 19 2019  
 1250 Wrights Lane  
 West Chester, PA 19380  
 Phone: (610) 918-9002  
 Fax: (610) 918-9004  
**CODES DEPARTMENT  
 CALN TOWNSHIP**

DAVID W. GIBBONS  
 PROFESSIONAL ENGINEER  
 CIVIL ENGINEERING  
 No. 1001 N. 10th St., Suite 100  
 West Chester, PA 19380  
 Phone: (610) 918-9002  
 Fax: (610) 918-9004

NO.	DATE	DESCRIPTION
1	08/02/18	ISSUED FOR TOWNSHIP REVIEW LETTERS
2	08/27/18	REVISIONS
3	09/12/18	REVISIONS
4	09/27/18	REVISIONS
5	10/15/18	REVISIONS
6	11/05/18	REVISIONS
7	11/20/18	REVISIONS
8	12/12/18	REVISIONS

**FINAL  
 GRADING, DRAINAGE & UTILITY PLAN**  
 CLIENT: HILLVIEW III, LLC  
 PROJECT: THE VILLAGES AT HILLVIEW  
 LOCATIONS: MOORE ROAD AND BLACK HORSE HILL ROAD  
 CALN TOWNSHIP, CHESTER COUNTY PA  
 RECORD PLAN NO. 11802

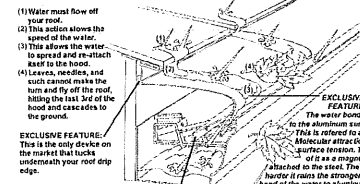
DATE: 07/27/18  
 SCALE: 1"=50'  
 DRAWN BY: DMG  
 CHECKED BY: ADW  
 PROJECT NO.: 3059  
 CADD FILE: HILLVIEW\_III\_FINAL.PLA  
 PLOTTED: 12/09/19  
 DRAWING NO.: C03.2  
 SHEET: 11 OF 36

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DEC 19 2019

CODES DEPARTMENT  
CALN TOWNSHIP

EASY FLOW GUTTER GUARDS:

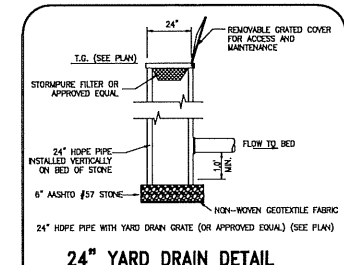


GUTTER GUARD NOTE:

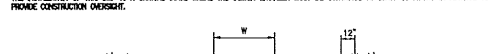
THE BUILDER OR SITE CONTRACTOR MUST SUBSTITUTE THIS PARTICULAR PRODUCT WITH ANOTHER OUTER/DOWN SPOUT PROTECTION DEVICE AS LONG AS SPECIFICATIONS OF SAID REPLACEMENT ARE FORWARDED TO THE TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

GUTTER GUARD DETAIL

SCALE: N.T.S.



BMP 6.4.8 VEGETATED SWALE



CONSTRUCTION SEQUENCE

- 1. BEGINS VEGETATED SWALE CONSTRUCTION ONLY WHEN THE TEMPORARY EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE IN PLACE. VEGETATED SWALES SHOULD BE CONSTRUCTED AND STABILIZED EARLY IN THE CONSTRUCTION SEQUENCE, PREFERABLY BEFORE MASS EARTHWORK AND PAVING BEGINS TO MAINTAIN THE AREA VOLUME OF RAINFALL.
- 2. REMOVE GRASS FROM THE VEGETATED SWALE. EQUIPMENT SHALL AVOID EXCESSIVE COMPACTION AND/OR LIVED OBSTRUCTION. EQUIPMENT SHOULD OPERATE FROM THE SIDE OF THE SWALE AND NEVER ON THE BOTTOM. IF EXCAVATION LEADS TO SUBSIDENCE, COMPACTOR OF THE SWALE (MAKE AN ALLOWANCE FOR THIS) IS NOT PERMITTED. TO MAINTAIN THE SWALE'S CROSS SECTION, COMPACTOR OF THE SWALE SHOULD BE REPLACED WITH A ROLLER OF EQUAL OR GREATER WEIGHT AND WIDELER WIDTH. THE SWALE SHOULD BE STABILIZED BEFORE MASS EARTHWORK AND PAVING BEGINS TO MAINTAIN THE AREA VOLUME OF RAINFALL.
- 3. CONSTRUCT CHAIN SWALE, AS REQUIRED.
- 4. THE SWALE SHOULD BE STABILIZED BEFORE MASS EARTHWORK AND PAVING BEGINS TO MAINTAIN THE AREA VOLUME OF RAINFALL.
- 5. SEED VEGETATED SWALE WITH APPROVED PLANTS AND SEEDING MIXTURES. PLAN THE SWALE AT THE TIME OF THE YEAR WHEN SUCCESSFUL ESTABLISHMENT WITHOUT IRRIGATION IS MOST LIKELY. HOWEVER, TEMPORARY IRRIGATION MAY BE NEEDED IN PERIODS OF LITTLE RAIN OR DROUGHT. VEGETATION SHOULD BE ESTABLISHED AS SOON AS POSSIBLE TO PREVENT EROSION AND SOIL LOSS.
- 6. ONCE ALL TEMPORARY AREAS ARE SUFFICIENTLY STABILIZED, REMOVE TEMPORARY EROSION CONTROL MEASURES. IT IS VERY IMPORTANT THAT THE SWALE BE STABILIZED BEFORE RECEIVING UPRAMP STORMWATER FLOW.

MINTENANCE

MAINTENANCE ACTIVITIES TO BE DONE ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (i.e. 1-INCH ANNUAL RAINFALL).

- 1. PROTECT AND CORRECT EROSION PROBLEMS, CHANNEL TO VENTURE, AND SEDIMENT AND CHANNEL ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OF CHANNEL VEGETATION).
- 2. REPAIR VEGETATION ON SLOPES FOR EROSION AND VEGETATION OF SLOPES OR GULLERS, CORRECT AS NEEDED.
- 3. REPAIR FOR POOLS OF STANDING WATER, DEBRIS AND OBSTRUCTION TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
- 4. MOW AND TRIM VEGETATION TO MAINTAIN SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION SPECIES OF OUTRIPS IN A LOCAL COMMUNITY FACILITY, NOT WHEN SWALE IS OPEN TO ROAD TRAFFIC.
- 5. REPAIR FOR LITTER, REMOVE PILES OF WASTE.
- 6. REPAIR FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.
- 7. REPAIR SWALE SLOPE (DRAIN CUTOFFS, PILES, ETC.) AND OUTLET FOR POOLS OF STANDING OR BLOOMING, CORRECT AS NEEDED.

FINAL MAINTENANCE ACTIVITIES

- 1. PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT.
- 2. REPAIR DRAIN AREAS, INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR BROOMS CHANNELS ARE FORMING.
- 3. RETIRED AND REPEAT SWALE IF DRAIN DROPS TO MORE THAN 4IN WITHIN 48 HOURS.
- 4. REPAIR AND CORRECT CHAIN SWALE WHEN SOILS OF ALTERED WATER FLOW (CHANNELIZATION, OBSTRUCTIONS, EROSION, ETC.) ARE IDENTIFIED.
- 5. MOW DURING WINTER MONTHS, FILLZING, AND APPLY PESTICIDE ONLY WHEN ABSOLUTELY NECESSARY.

FINAL MAINTENANCE ACTIVITIES

- 1. PROTECT AND CORRECT EROSION PROBLEMS, CHANNEL TO VENTURE, AND SEDIMENT AND CHANNEL ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OF CHANNEL VEGETATION).
- 2. REPAIR VEGETATION ON SLOPES FOR EROSION AND VEGETATION OF SLOPES OR GULLERS, CORRECT AS NEEDED.
- 3. REPAIR FOR POOLS OF STANDING WATER, DEBRIS AND OBSTRUCTION TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
- 4. MOW AND TRIM VEGETATION TO MAINTAIN SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION SPECIES OF OUTRIPS IN A LOCAL COMMUNITY FACILITY, NOT WHEN SWALE IS OPEN TO ROAD TRAFFIC.
- 5. REPAIR FOR LITTER, REMOVE PILES OF WASTE.
- 6. REPAIR FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.
- 7. REPAIR SWALE SLOPE (DRAIN CUTOFFS, PILES, ETC.) AND OUTLET FOR POOLS OF STANDING OR BLOOMING, CORRECT AS NEEDED.

SOIL SPECIFICATIONS

SWALE SOIL: SHALL BE USCS CLASS M, HAVING LESS THAN 5% SAND, LESS THAN 10% SILT, AND LESS THAN 5% CLAY. SOIL SHALL BE FREE OF ROCKS, COBBLES, LIMESTONE, OR OTHER DEBRIS. SOIL SHALL BE FREE OF ROCKS, COBBLES, LIMESTONE, OR OTHER DEBRIS. SOIL SHALL BE FREE OF ROCKS, COBBLES, LIMESTONE, OR OTHER DEBRIS.

- 1. PROTECT AND CORRECT EROSION PROBLEMS, CHANNEL TO VENTURE, AND SEDIMENT AND CHANNEL ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OF CHANNEL VEGETATION).
- 2. REPAIR VEGETATION ON SLOPES FOR EROSION AND VEGETATION OF SLOPES OR GULLERS, CORRECT AS NEEDED.
- 3. REPAIR FOR POOLS OF STANDING WATER, DEBRIS AND OBSTRUCTION TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
- 4. MOW AND TRIM VEGETATION TO MAINTAIN SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION SPECIES OF OUTRIPS IN A LOCAL COMMUNITY FACILITY, NOT WHEN SWALE IS OPEN TO ROAD TRAFFIC.
- 5. REPAIR FOR LITTER, REMOVE PILES OF WASTE.
- 6. REPAIR FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.
- 7. REPAIR SWALE SLOPE (DRAIN CUTOFFS, PILES, ETC.) AND OUTLET FOR POOLS OF STANDING OR BLOOMING, CORRECT AS NEEDED.

BMP GENERAL NOTE

ALL BMP'S SHALL BE CONSTRUCTED AND MAINTAINED AS PER THE SPECIFICATIONS AND DESIGN DETAILS SHOWN ON THESE PLANS. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

GENERAL PCSM NOTES:

- 1. ALL BMP'S SHALL BE CONSTRUCTED TO MEET THE SPECIFICATIONS AND DESIGN DETAILS SHOWN ON THESE PLANS. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.
- 2. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.
- 3. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

STORMWATER MANAGEMENT NOTES:

- 1. NO POST CONSTRUCTION STORMWATER MANAGEMENT SHALL BE PERMITTED WITHOUT THE REVIEW AND APPROVAL OF THE TOWNSHIP ENGINEER.
- 2. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.
- 3. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

POST CONSTRUCTION STORMWATER FACILITIES OPERATION AND MAINTENANCE PROCEDURES:

THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

INLETS AND DRAINS (NO RESPONSIBILITY)

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

ON-TOP SEEPAGE BEDS (OWNER RESPONSIBILITY)

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

LEVEL SPREADERS (NO RESPONSIBILITY)

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

INTEGRATION BASINS (NO RESPONSIBILITY)

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

FINAL NOTE

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

SUBSEQUENT YEARS

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

FOREWORD (NO RESPONSIBILITY)

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

INSPECTION AND MAINTENANCE PROCEDURES

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

SOIL USE LIMITATIONS AND RESTRICTIONS

INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.

SITE SOILS

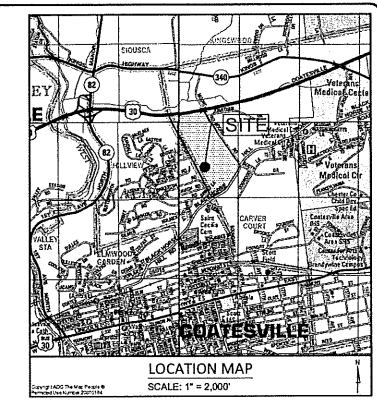
INSPECTION: THE TOWNSHIP ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DEFICIENCIES IDENTIFIED DURING INSPECTIONS AND MAINTENANCE ACTIVITIES.





**DLHowell**  
Civil Engineering  
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West Chester, PA 19380  
Phone: (610) 918-9002  
Fax: (610) 918-9003



**NATURAL SENSITIVE RESOURCE LEGEND**

FLOODPLAIN = 0.0 ACS

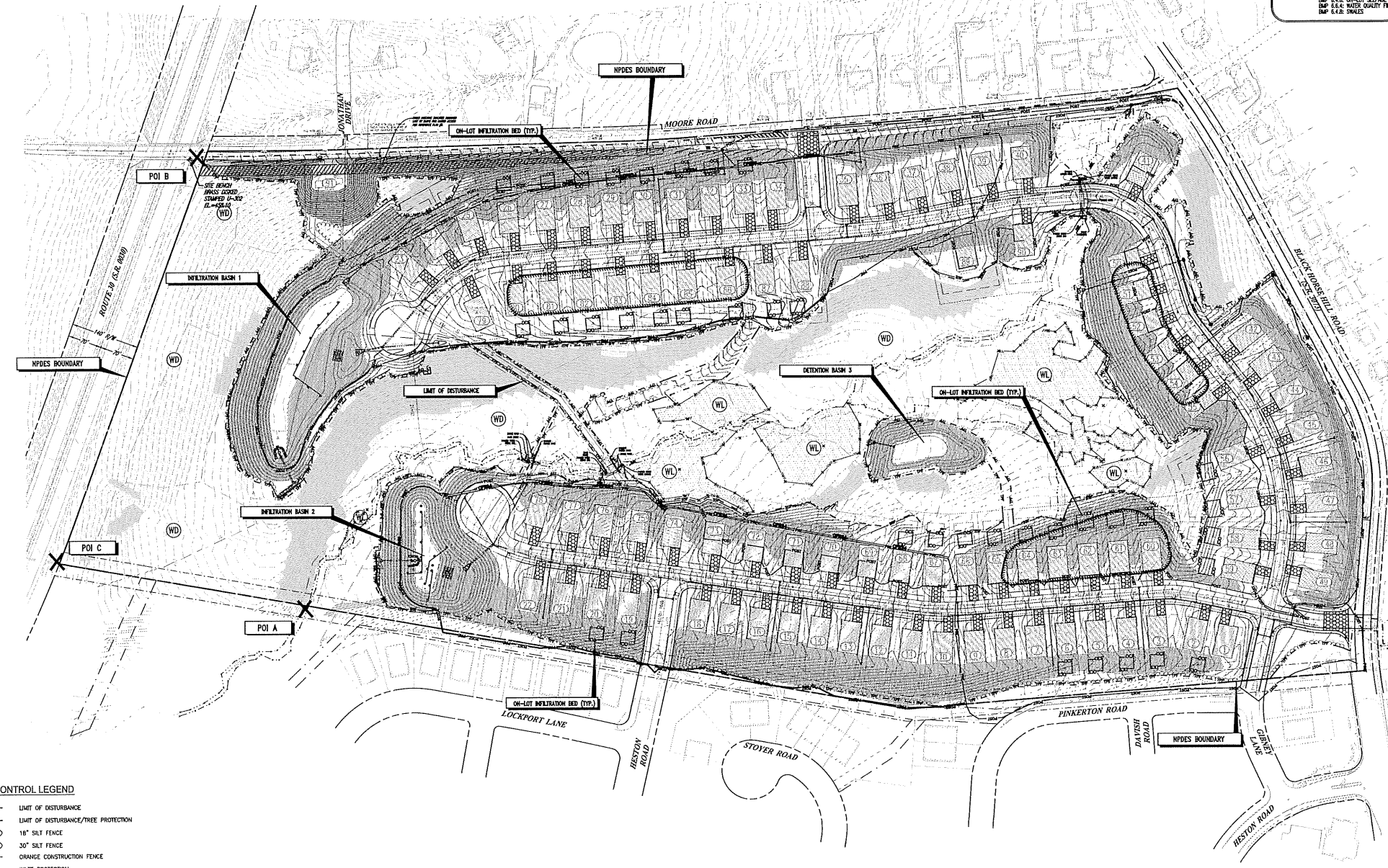
WB WATERBODIES = 0.0 ACS  
WL WETLANDS = 2.17 ACS  
WD WOODLANDS = 28.80 ACS

STEEP SLOPES 15-25% = 0.88 ACS  
STEEP SLOPES > 25% = 0.81 ACS

NOTES: CALCULATED PER METHOD LISTED ON WORKSHEET 3 OF APPENDIX A

**STORMWATER BMP LEGEND**

BMP 4.0.0: PAVED DRIVEWAYS  
BMP 4.0.1: ON-LIT SEEPAGE BEDS  
BMP 4.0.2: MED. QUALITY FILTERS  
BMP 4.0.3: SWALES



**EROSION AND SEDIMENT CONTROL NARRATIVE - 102.4(b)(4)**  
THE PURPOSE OF THIS NARRATIVE AND THE EROSION CONTROL ASPECTS OF THE PLANS ARE TO PREVENT THE ACCELERATED EROSION OF EXPOSED SITE SOILS DURING CONSTRUCTION AND TO RETURN ON SITE ALL SEDIMENT PRODUCED BY CONSTRUCTION ACTIVITIES. THIS WILL BE ACCOMPLISHED BY STRICT ADHERENCE TO THE FOLLOWING NOTES, SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL DETAILS SHOWN ON THE PLANS. THIS PLAN WILL FURTHER ACT TO PROVIDE THE FOLLOWING:

- MINIMIZE EXTENT AND DURATION OF EARTH DISTURBANCE
- MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
- MINIMIZE SOIL COMPACTION
- UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF

**MAINTENANCE - 102.4(b)(5)(x)**  
MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL DEVICES WILL CONSIST OF WEEKLY INSPECTIONS OF EACH DEVICE TO DETERMINE HOW WELL THE DEVICE IS FUNCTIONING. MAINTENANCE RECORDS WILL BE KEPT. ALL FACILITIES WILL BE INSPECTED AFTER EVERY STORM TO DETERMINE THEIR DURABILITY TO WITHSTAND DURING RAIN AND EROSION. ALL LOCAL REGULATIONS SHALL BE COMPLIED WITH. ALL DEVICES CHECKED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY. A WRITTEN REPORT DOCUMENTING ALL INSPECTIONS AND REPAIRS MUST BE KEPT ON-SITE AT ALL TIMES.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL APPLY:

1. ANY SEEDS OR SOILED AREAS THAT HAVE BECOME STRIPPED OF VEGETATION SHALL BE REVEGETATED WITH APPROPRIATE STABILIZATION MATERIALS. THIS PROCEDURE SHALL BE REPEATED AFTER EVERY STORM (2" OF) UNTIL NO MORE SOILS OF EROSION ARE OBSERVED.
2. AT WEEKLY INSPECTIONS AND AFTER EACH RAIN EVENT NECESSARY CLEANING WILL BE PERFORMED.
3. ANY FILTER FABRIC FENCE, WHICH HAS BEEN UNDERMINED OR OVER TOPPED, MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
4. ANY SEDIMENT REMOVED FROM BMPs DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON-SITE AND INCORPORATED INTO THE SITE GRADING.

**PROJECT WASTE NOTE - 102.4(b)(5)(x)**  
THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 3021 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE OPERATOR SHALL NOT ILLEGALLY BURN, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

**THERMAL IMPACTS NOTE - 102.4(b)(5)(viii)**  
THERMAL IMPACTS ARE BEING MITIGATED DURING CONSTRUCTION PHASE BY HOLDING CONSTRUCTION RUNOFF THROUGH SEDIMENT BASINS OR TRAPS WITH SHADERS AND THEN PERMITTING EROSION CONTROL MEASURES TO SLOW FLOW, FRESH FILTERED WATER SOAKS THEN THROUGH EXISTING WELL VEGETATED AREAS WHICH ALLOWS FURTHER COOLING BEFORE ENTERING SURFACE WATERS.

**RECEIVING SURFACE WATERS - 102.4(b)(5)**  
**THE PENNSYLVANIA TITLE 25, CHAPTER 83 CLASSIFICATION FOR THE RECEIVING WATERS OF THE COMMONWEALTH**  
UNTIL THE WEST BRANCH BRANDYwine CREEK WATERSHED: A TRIBUTARY STREAM (207) AND MANDATORY FISHES (M) WATER COURSE SURFACE WATERS NOTE

1. THE SITE IS SITUATED WITHIN THE WEST BRANCH BRANDYwine CREEK WATERSHED AND THE WHOLE SITE WILL LOCATE TO AN UNBARRED TRIBUTARY TO THE WATERSHED OF THE PROPERTY. FLOOD FLOWS AND THE NECESSARY VOLUME REDUCTIONS ARE PROVIDED TO THESE POINTS OF INTEREST.

**GEOLOGIC FORMATION NOTE - 102.8(f)(12)**  
LOCATION OF GEOLOGIC FORMATIONS TAKEN FROM PLAN ENTITLED, "GEOLOGIC FORMATIONS" PREPARED BY THE CHESTER COUNTY GIS DEPARTMENT, DATED: FEBRUARY 2004.  
THERE ARE NO KNOWN GEOLOGIC FORMATIONS THAT WOULD NEGATIVELY IMPACT SITE DEVELOPMENT (I.E. BRICKWORK, PAINTS, FRAGILES, ETC.).



NO.	DATE	REVISION	DESCRIPTION
1	12/27/18	REVISED PER TOWNSHIP PERMITS LETTERS	
2	09/25/19	REVISED PER TOWNSHIP PERMITS LETTERS	
3	08/21/19	REVISED PER TOWNSHIP PERMITS LETTERS	

RECEIVED  
DEC 19 2019  
CODES DEPARTMENT  
CALN TOWNSHIP

**ONE CALL CONTACTS**

**DOWNTOWN MUNICIPAL WATER AUTHORITY**  
100 WATER PLANT WAY  
DOWNTOWN, PA 19333-2800  
CONTACT: OFFICE PERSONNEL  
EMAIL: dfoverster@dmwa.com

**CALN TOWNSHIP**  
200 MUNICIPAL DRIVE  
PO BOX 22149  
TOWNSHIP, PA 19372-2149  
CONTACT: SCOTT DILL  
EMAIL: sg@calntownship.org

**COMCAST CABLE COMMUNICATIONS**  
1004 CONCORDING BLVD.  
DOWNTOWN, PA 19333  
CONTACT: JACK CONNELL  
EMAIL: jack.connell@comcast.com

**PECO ENERGY**  
3628 HORIZON DR.  
KING OF PRUSSIA, PA 19106  
CONTACT: PAT DECCO  
EMAIL: pdecco@peco.net

**TRANSCONTINENTAL GAS PIPE LINE**  
89 INDIAN ROAD  
PRINCETON, NJ 08540  
CONTACT: DAVE SCHWETTER

**PENNSYLVANIA AMERICAN WATER**  
4 WELLSINGTON BLVD.  
WYOMING, PA 19380  
CONTACT: GERALD DEBAIRD

**WELT COMMUNICATIONS LLC**  
7011  
ONE TECHNOLOGY CENTER  
TULSA, OK 74103  
CONTACT: SCOTT JANK  
EMAIL: scottjank@welt.com

**VERIZON PENNSYLVANIA INC.**  
870 FLOOR  
500 STATE STREET  
PHILADELPHIA, PA 19107  
PRICED: 855-558-5558  
CONTACT: ERNESTO GONZALEZ  
EMAIL: ernesto.gonza@verizon.com

**EAST BRANDYwine TOWNSHIP**  
1214 HERRSCHMIDT PkE.  
DOWNTOWN, PA 19333-1833  
CONTACT: WALTER J. WALKER  
EMAIL: rootwalker@brandywine.org

**AQUA PENNSYLVANIA INC.**  
DOMINGTOWN MUNICIPAL WATER AUTHORITY  
COMCAST CABLE COMMUNICATION  
PECO ENERGY  
PENNSYLVANIA AMERICAN WATER  
WELT COMMUNICATIONS  
EAST BRANDYwine TOWNSHIP  
VERIZON PENNSYLVANIA INC.  
TRANSCONTINENTAL GAS PIPELINE

**CALL BEFORE YOU DIG!**  
PENNSYLVANIA LAW REQUIRES  
A WORKING DAYS NOTICE FOR  
CONSTRUCTION PHASE AND 10 WORKING  
DAYS IN DESIGN STAGE--STOP CALL

NO SCALE

1-800-242-1776

**ONE CALL NOTE**

**ACT 287 SERIAL NUMBER**  
0316588 CALN 0316589 EAST BRANDYwine

D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Associates, Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1-800-242-1776.

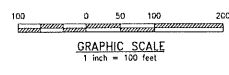
**SOILS CLASSIFICATIONS**

CL	CLAY LOAM, 40 TO 60 PERCENT SILT
CLC	CLAY LOAM, 40 TO 60 PERCENT SILT, 5 TO 8 PERCENT SAND
CLH	CLAY LOAM, 40 TO 60 PERCENT SILT, 8 TO 15 PERCENT SAND
CLU	CLAY LOAM, 40 TO 60 PERCENT SILT, 15 TO 25 PERCENT SAND
CLUL	CLAY LOAM, 40 TO 60 PERCENT SILT, 15 TO 25 PERCENT SAND, EXTREMELY STONY
SC	SANDY SILT, 60 TO 80 PERCENT SILT
SCC	SANDY SILT, 60 TO 80 PERCENT SILT, 5 TO 15 PERCENT SAND
SCU	SANDY SILT, 60 TO 80 PERCENT SILT, 15 TO 25 PERCENT SAND
SCUL	SANDY SILT, 60 TO 80 PERCENT SILT, 15 TO 25 PERCENT SAND, EXTREMELY STONY
SM	SANDY SILT, 60 TO 80 PERCENT SILT, 25 TO 35 PERCENT SAND
SMC	SANDY SILT, 60 TO 80 PERCENT SILT, 25 TO 35 PERCENT SAND, 5 TO 15 PERCENT SAND
SMU	SANDY SILT, 60 TO 80 PERCENT SILT, 25 TO 35 PERCENT SAND, EXTREMELY STONY
SMUL	SANDY SILT, 60 TO 80 PERCENT SILT, 25 TO 35 PERCENT SAND, EXTREMELY STONY
SW	SANDY SILT, 60 TO 80 PERCENT SILT, 35 TO 60 PERCENT SAND
SWC	SANDY SILT, 60 TO 80 PERCENT SILT, 35 TO 60 PERCENT SAND, 5 TO 15 PERCENT SAND
SWU	SANDY SILT, 60 TO 80 PERCENT SILT, 35 TO 60 PERCENT SAND, EXTREMELY STONY
SWUL	SANDY SILT, 60 TO 80 PERCENT SILT, 35 TO 60 PERCENT SAND, EXTREMELY STONY

**EROSION CONTROL LEGEND**

- LIMIT OF DISTURBANCE
- - - TPF
- 18" SALT FENCE
- 30" SALT FENCE
- ORANGE CONSTRUCTION FENCE
- INLET PROTECTION
- TSP
- STABILIZED ROCK
- CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET

**OVERALL EROSION & SEDIMENTATION CONTROL PLAN**  
SCALE: 1" = 100'



**LEGEND**

---	PROP. PROPERTY LINE	---	PROP. LIGHT POLE	---	PROP. ELEC. LINE	---	PROP. WATER LINE
---	PROP. PROPOSED CONTOUR	---	PROP. UTILITY POLE	---	PROP. STORM INLET	---	PROP. WATER LATERAL
---	PROP. RIGHT-OF-WAY	---	PROP. SIGN	---	PROP. STORM INLET ID	---	PROP. FIRE WATER LINE
---	PROP. MONUMENT	---	PROP. PARKING SPACES	---	PROP. SEEPAGE BED	---	PROP. WATER VALVE
---	PROP. IRON PIPE	---	TO BE REVEALED	---	PROP. SAN. SINKER LINE	---	PROP. HYDRANT
---	PROP. EASEMENT	---	PROP. TELE. LINE	---	PROP. SAN. SINKER LATERAL	---	PROP. MANHOLE
---		---		---	PROP. SANITARY WH. ID	---	PROP. FIRE HYDRANT

**FINAL OVERALL EROSION & SEDIMENTATION CONTROL PLAN**

DATE: 07/27/18  
SCALE: 1" = 100'  
DRAWN BY: ADH  
CHECKED BY: DWG  
PROJECT NO.: 3059  
DATE PLOTTED: 12/09/19  
DRAWING NO.: C05.1  
SHEET 18 OF 35



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 Land Planning  
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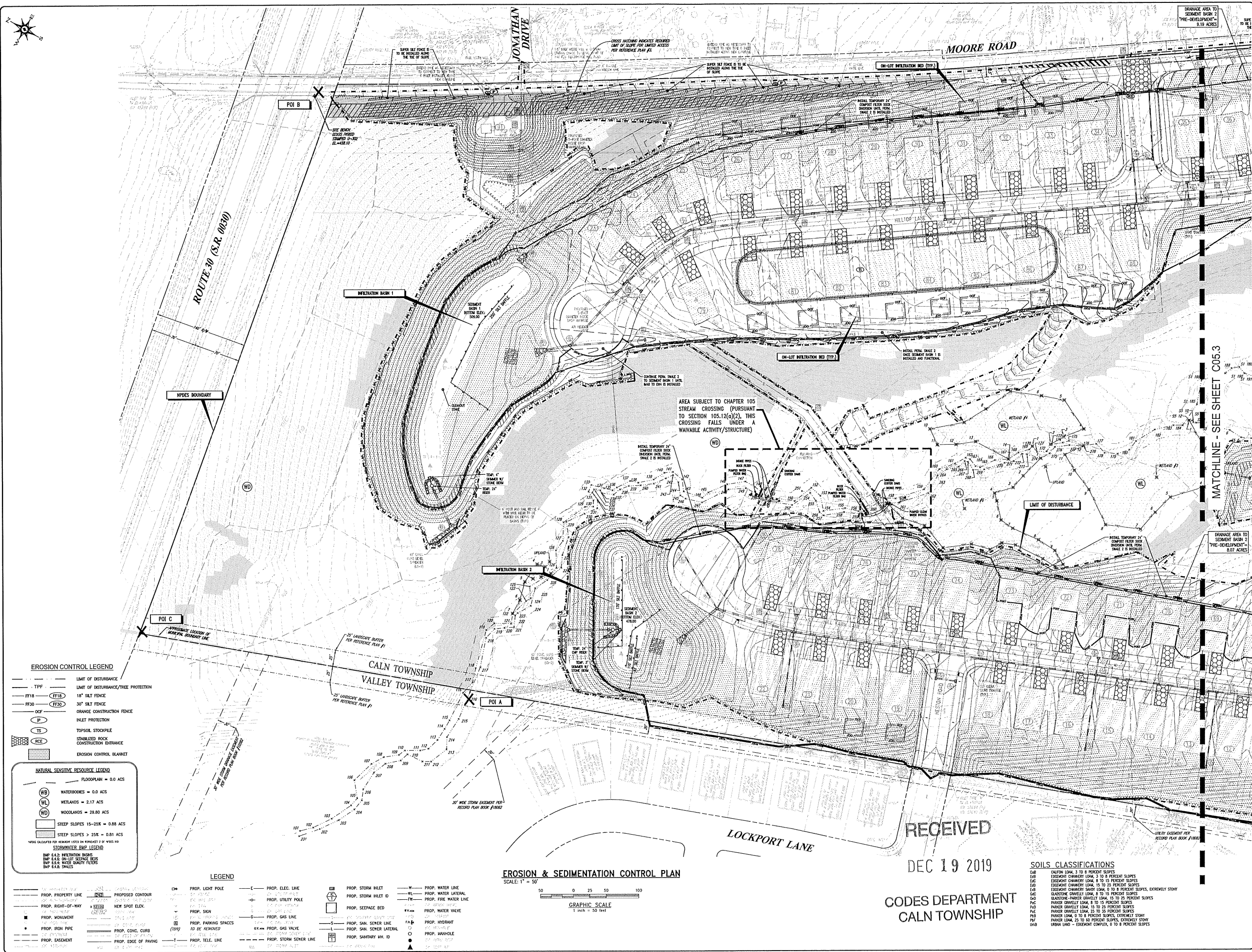
1250 Wiggins Lane  
 West Chester, PA 19380  
 Phone: (610) 918-9002  
 Fax: (610) 918-9003



NO.	DATE	DESCRIPTION
1	07/27/18	PRELIMINARY
2	08/22/18	REVISED PER TOWNSHIP ROAD LETTERS
3	12/07/18	REVISED PER TOWNSHIP ROAD LETTERS
4	02/27/19	REVISED PER TOWNSHIP ROAD LETTERS
5	03/07/19	REVISED PER TOWNSHIP ROAD LETTERS
6	04/07/19	REVISED PER TOWNSHIP ROAD LETTERS
7	05/07/19	REVISED PER TOWNSHIP ROAD LETTERS
8	06/07/19	REVISED PER TOWNSHIP ROAD LETTERS

**FINAL**  
**EROSION & SEDIMENTATION CONTROL PLAN**  
 CLIENT: HILLVIEW III, LLC  
 PROJECT: THE VILLAGES AT HILLVIEW  
 LOCATION: MOORE ROAD AND BLACK HORSE HILL ROAD  
 CALN TOWNSHIP, CHESTER COUNTY PA

DATE:	07/27/18
SCALE:	1"=50'
DRAWN BY:	ADM
CHECKED BY:	DWG
PROJECT NO.:	3059
DATE FILED:	07/27/18
FILED BY:	DAVID W. GIBBONS
DATE:	12/09/19
DRAWING NO.:	C05.2
SHEET:	19 OF 35



**EROSION CONTROL LEGEND**

---	LIMIT OF DISTURBANCE
---	LIMIT OF DISTURBANCE/TREE PROTECTION
FF18	18" SILT FENCE
FF30	30" SILT FENCE
OCF	ORANGE CONSTRUCTION FENCE
IP	INLET PROTECTION
TS	TOPSOIL STOCKPILE
RCE	STABILIZED ROCK CONSTRUCTION ENTRANCE
EB	EROSION CONTROL BLANKET

**NATURAL SENSITIVE RESOURCE LEGEND**

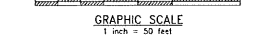
FLOODPLAIN	= 0.0 ACS
WATERBODIES	= 0.0 ACS
WETLANDS	= 2.17 ACS
WOODLANDS	= 29.80 ACS
STEEP SLOPES 15-25%	= 0.88 ACS
STEEP SLOPES > 25%	= 0.81 ACS

\*WAS CALCULATED FOR WETLAND LISTS ON PERCENT OF WATERS HD

**LEGEND**

---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	W	PROP. WATER LINE
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	WL	PROP. WATER LATERAL
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	FW	PROP. FIRE WATER LINE
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. WATER VALVE
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. HYDRANT
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. MANHOLE
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. SAN. SEWER LINE
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. SAN. SEWER LATERAL
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. SANITARY WH. ID
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. SANITARY WH. ID
---	PROPOSED CONTOUR	CD	PROP. LIGHT POLE	E	PROP. ELEC. LINE	---	PROP. SANITARY WH. ID

**EROSION & SEDIMENTATION CONTROL PLAN**  
 SCALE: 1" = 50'



**RECEIVED**  
 DEC 19 2019  
 CODES DEPARTMENT  
 CALN TOWNSHIP

**SOILS CLASSIFICATIONS**

CS	CALN (L) - 3 TO 8 PERCENT SLOPES
ES	EDGEWATER CHANNERY (L) - 3 TO 8 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 8 TO 15 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 15 TO 25 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 25 TO 35 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 35 TO 45 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 45 TO 55 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 55 TO 65 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 65 TO 75 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 75 TO 85 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 85 TO 95 PERCENT SLOPES
EG	EDGEWATER CHANNERY (L) - 95 TO 100 PERCENT SLOPES

EROSION AND SEDIMENTATION CONTROL NARRATIVE

The purpose of this narrative and the erosion control aspects of the plans are to prevent the accelerated erosion of the project...

EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

- 1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES.
2. IF ANY DISTURBED AREAS ARE TO BE MAINTAINED TO THE LIMITS OF DISTURBANCE ON THE EROSION AND SEDIMENTATION CONTROL PLAN...

LINE TRENCH EXCAVATION NOTES

- 1. LINE TRENCH EXCAVATION AND SHIELDING OPERATIONS TO A DEPTH EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CURBS AND GUARDRAIL FOR TRENCHING, PLACEMENT OF PIPE, AND CONSTRUCTION AND BACKFILLING WILL BE SET, CONFINED AND MAINTAINED THROUGHOUT THE PROJECT.

INDIVIDUAL ON-LOT STAGING SEQUENCE

- 1. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.
2. INITIAL THE TEMPORARY SET BEING SHOWN ON THE PLANS AND AS DIRECTED BY THE CONSTRUCTION DISTRICT, MAINTAIN TEMPORARY SETS THROUGHOUT THE PROJECT.
3. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.

CONSTRUCTION SEQUENCE NOTES

- 1. ALL EARTH DISTURBANCE ACTIVITIES SHALL BE ACCORDANCE WITH THE FOLLOWING SEQUENCE: EACH STAGE SHALL BE COMPLETED BEFORE THE NEXT STAGE BEGINS.
2. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES THE OWNER SHALL HAVE ALL CONTROLS INSTALLED IN PLACE.
3. THE OWNER SHALL MAINTAIN THE SITE, INCLUDING THE SURFACE OF ALL EXISTING WALKWAYS AND WALKS IN ACCORDANCE WITH THE DEPARTMENT'S ROAD MAINTENANCE REGULATIONS.

SEQUENCE OF CONSTRUCTION

- 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES THE OWNER SHALL HAVE ALL CONTROLS INSTALLED IN PLACE.
2. THE OWNER SHALL MAINTAIN THE SITE, INCLUDING THE SURFACE OF ALL EXISTING WALKWAYS AND WALKS IN ACCORDANCE WITH THE DEPARTMENT'S ROAD MAINTENANCE REGULATIONS.
3. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.

STORMWATER INFILTRATION FACILITY CONSTRUCTION SPECIFICATIONS

- 1. THE INFILTRATION FACILITY SHALL BE CONSTRUCTED TO THE DEPTH OF THE INFILTRATION FACILITY AS SHOWN ON THE PLANS.
2. THE INFILTRATION FACILITY SHALL BE CONSTRUCTED TO THE DEPTH OF THE INFILTRATION FACILITY AS SHOWN ON THE PLANS.
3. THE INFILTRATION FACILITY SHALL BE CONSTRUCTED TO THE DEPTH OF THE INFILTRATION FACILITY AS SHOWN ON THE PLANS.

TOPSOIL APPLICATION

- 1. TOPSOIL SHALL BE APPLIED TO THE SURFACE OF ALL DISTURBED AREAS TO A DEPTH OF 2 TO 3 INCHES TO PROTECT THE TOPSOIL TO THE DEPTH OF THE INFILTRATION FACILITY AS SHOWN ON THE PLANS.
2. TOPSOIL SHALL BE APPLIED TO THE SURFACE OF ALL DISTURBED AREAS TO A DEPTH OF 2 TO 3 INCHES TO PROTECT THE TOPSOIL TO THE DEPTH OF THE INFILTRATION FACILITY AS SHOWN ON THE PLANS.

SANITARY & WATER STREAM CROSSING CONSTRUCTION SEQUENCE

- 1. INITIAL SURFACE SET BEING SHOWN ON THE PLANS AND AS DIRECTED BY THE CONSTRUCTION DISTRICT, MAINTAIN TEMPORARY SETS THROUGHOUT THE PROJECT.
2. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.
3. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.

MAINTENANCE & INSPECTION OF EROSION CONTROLS

MAINTENANCE AND INSPECTION OF EROSION CONTROLS SHALL BE THE RESPONSIBILITY OF THE OWNER. THE OWNER SHALL MAINTAIN ALL EROSION CONTROLS THROUGHOUT THE PROJECT...

DEFINITIONS (PER THE DEPARTMENT OF ENVIRONMENTAL PROTECTION)

AREA: THAT PORTION OF THE EARTH SURFACE WHICH IS SUBJECT TO EROSION. THIS PORTION OF THE EARTH SURFACE SHALL BE THAT PORTION OF THE EARTH SURFACE WHICH IS SUBJECT TO EROSION...

SEEDING, MULCHING AND SODDING

SEEDING, MULCHING AND SODDING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CHESTER COUNTY CONSERVATION DISTRICT. ALL SEEDS OTHER THAN BIRD SEED SHALL BE PLANTED IN ACCORDANCE WITH THE DEPARTMENT'S ROAD MAINTENANCE REGULATIONS...

SOIL USE LIMITATIONS AND RESOLUTIONS

SOIL USE LIMITATIONS AND RESOLUTIONS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CHESTER COUNTY CONSERVATION DISTRICT. ALL SOILS OTHER THAN BIRD SEED SHALL BE PLANTED IN ACCORDANCE WITH THE DEPARTMENT'S ROAD MAINTENANCE REGULATIONS...

ROAD STREAM CROSSING CONSTRUCTION SEQUENCE

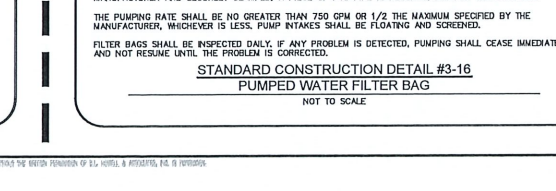
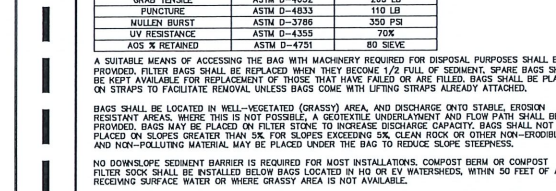
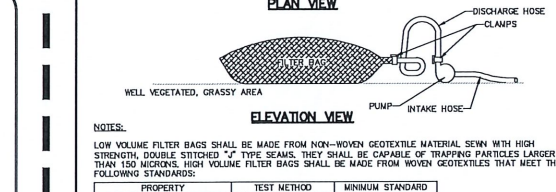
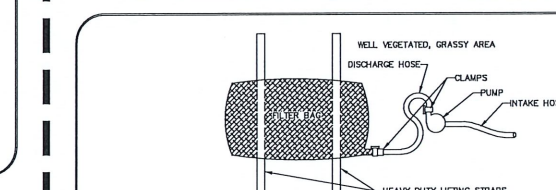
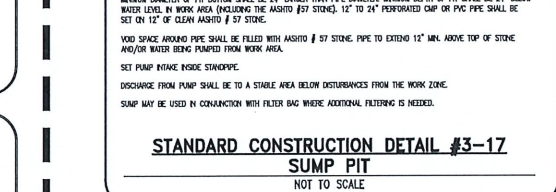
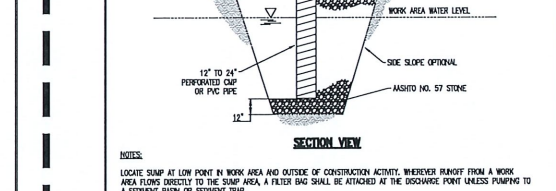
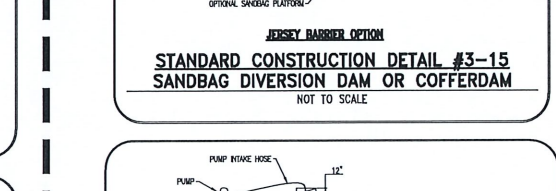
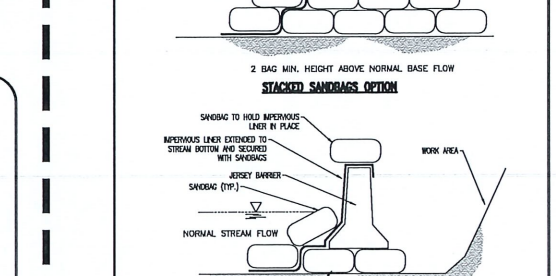
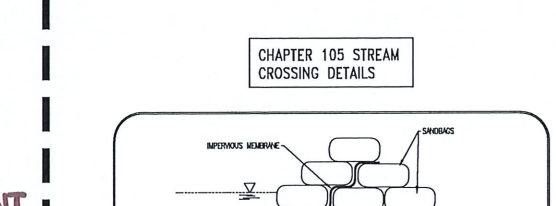
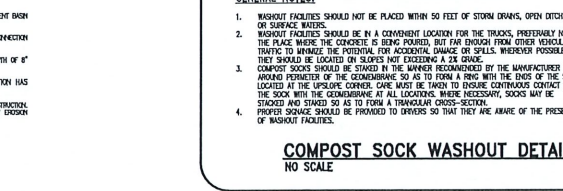
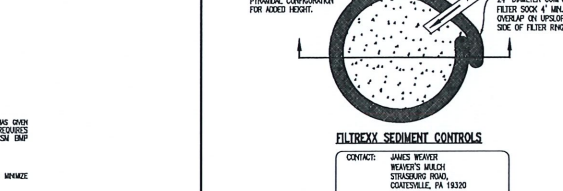
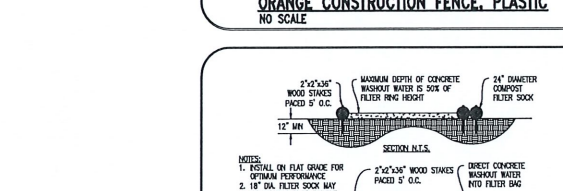
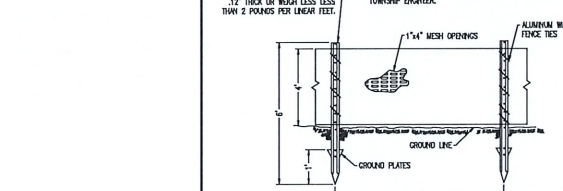
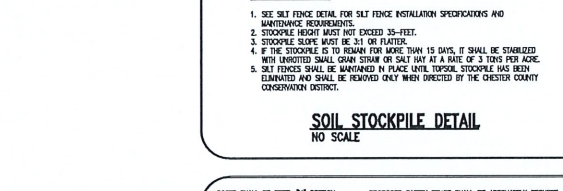
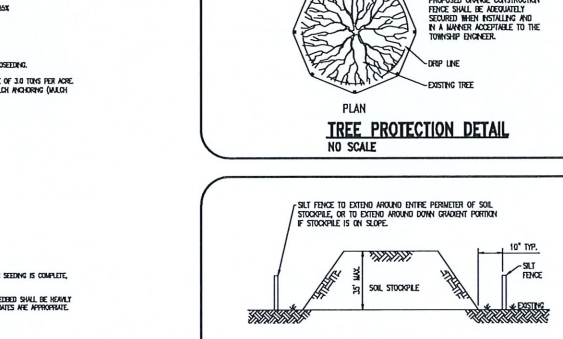
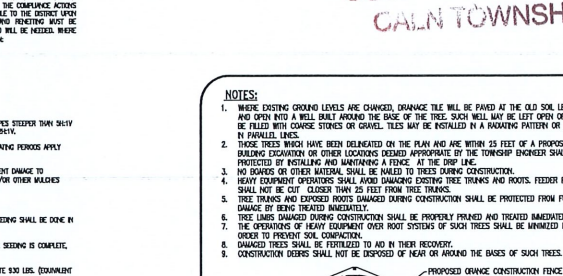
- 1. INITIAL SURFACE SET BEING SHOWN ON THE PLANS AND AS DIRECTED BY THE CONSTRUCTION DISTRICT, MAINTAIN TEMPORARY SETS THROUGHOUT THE PROJECT.
2. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.
3. INITIAL STAGING ROAD CONSTRUCTION DISTANCE AT DRIVEWAY.

SEDIMENT BASIN CONVERSION SEQUENCE OF CONSTRUCTION

- 1. ONCE THE DRAINAGE AREA TO THE SEDIMENT BASIN HAS BEEN COMPLETELY STABILIZED AND THE CHESTER COUNTY CONSERVATION DISTRICT HAS GIVEN APPROVAL FOR THE CONSTRUCTION OF THE SEDIMENT BASIN, THE OWNER SHALL MAINTAIN THE SEDIMENT BASIN THROUGHOUT THE PROJECT.
2. THE SEDIMENT BASIN SHALL BE CONSTRUCTED TO THE DEPTH OF THE SEDIMENT BASIN AS SHOWN ON THE PLANS.

SEDIMENT BASIN CONVERSION SEQUENCE OF CONSTRUCTION

- 1. ONCE THE DRAINAGE AREA TO THE SEDIMENT BASIN HAS BEEN COMPLETELY STABILIZED AND THE CHESTER COUNTY CONSERVATION DISTRICT HAS GIVEN APPROVAL FOR THE CONSTRUCTION OF THE SEDIMENT BASIN, THE OWNER SHALL MAINTAIN THE SEDIMENT BASIN THROUGHOUT THE PROJECT.
2. THE SEDIMENT BASIN SHALL BE CONSTRUCTED TO THE DEPTH OF THE SEDIMENT BASIN AS SHOWN ON THE PLANS.



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CHAPTER 105 STREAM CROSSING DETAILS

STANDARD CONSTRUCTION DETAIL #3-15 SANDBAG DIVERSION DAM OR COFFERDAM

STANDARD CONSTRUCTION DETAIL #3-17 SUMP PIT

STANDARD CONSTRUCTION DETAIL #3-17 SUMP PIT

STANDARD CONSTRUCTION DETAIL #3-17 SUMP PIT

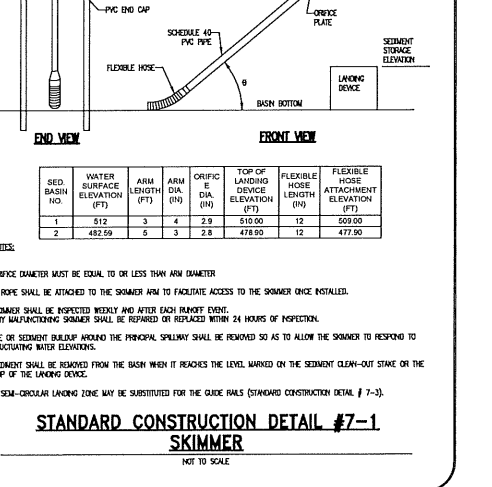
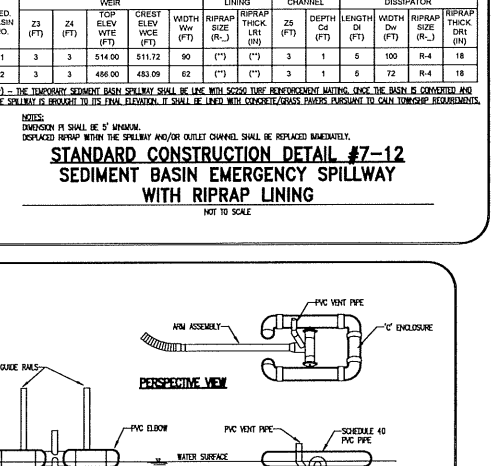
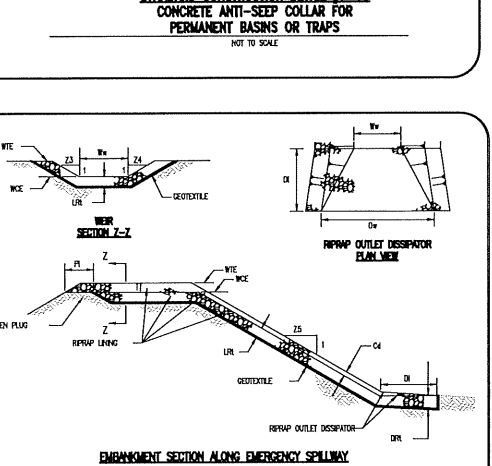
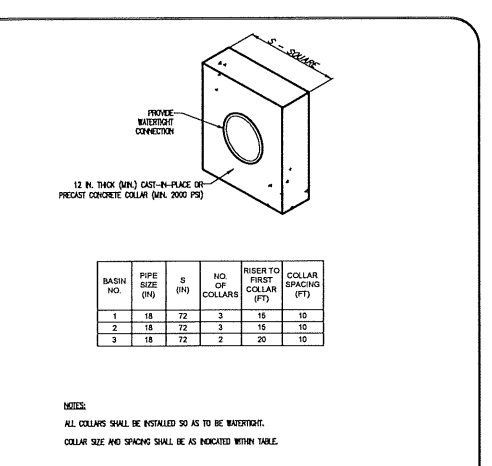
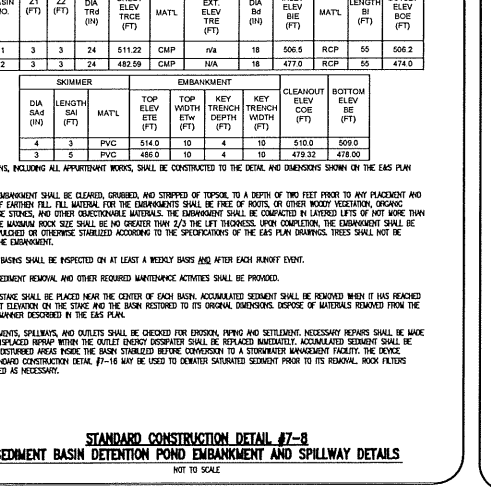
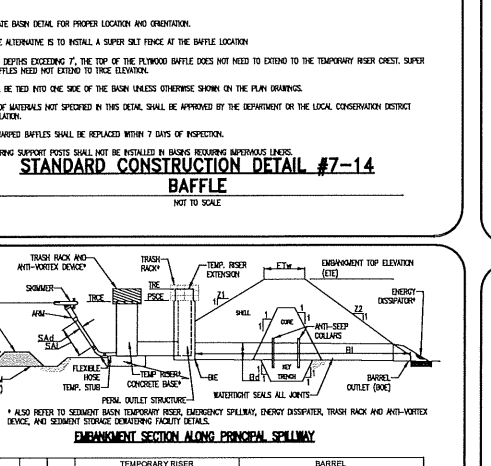
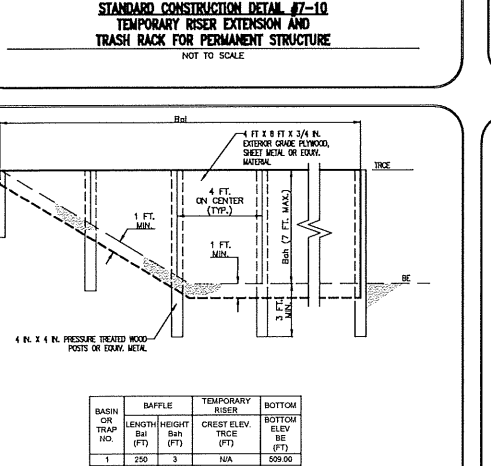
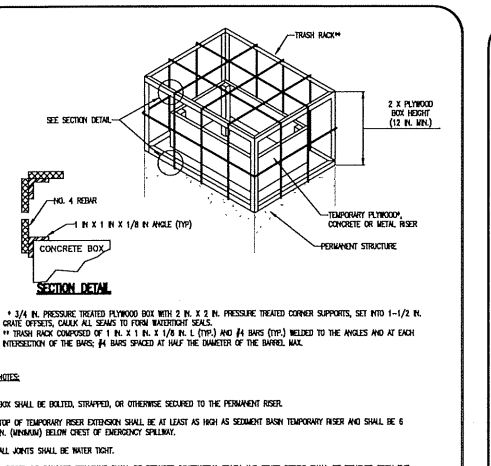
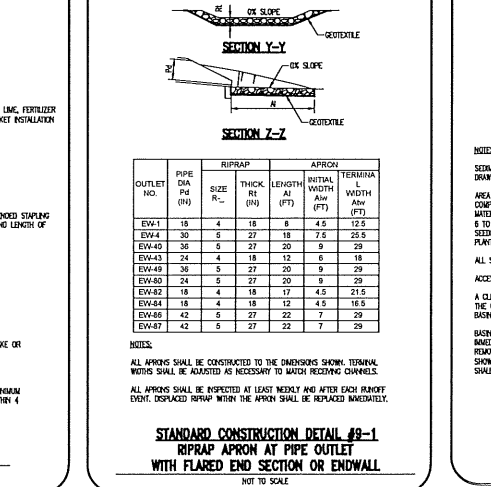
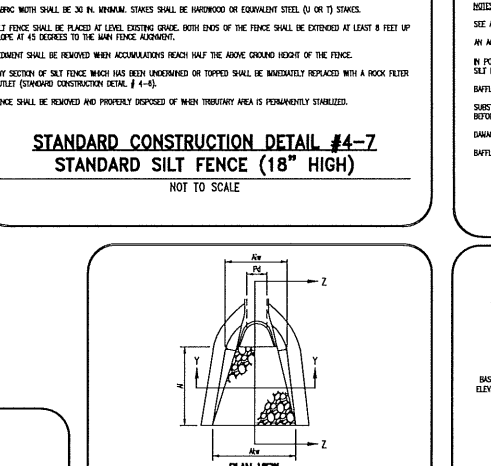
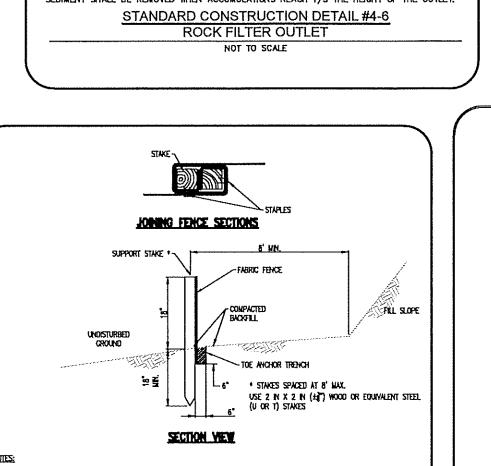
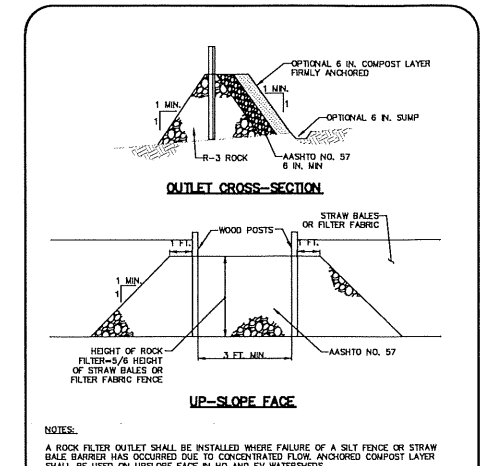
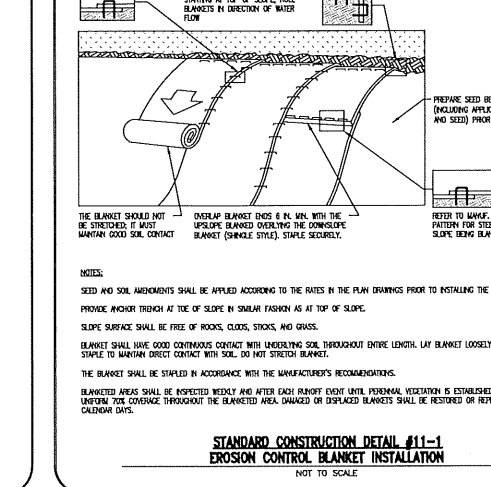
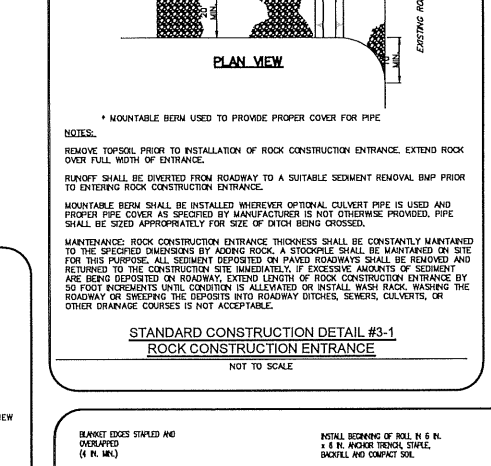
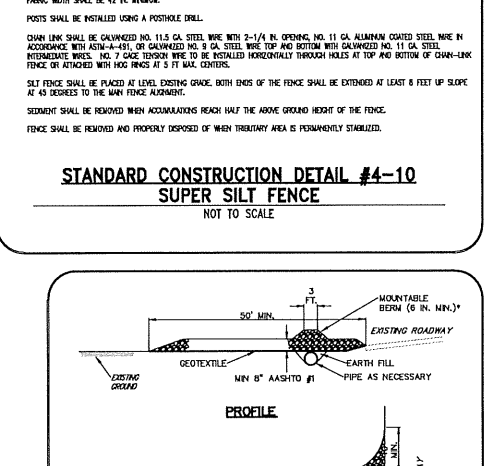
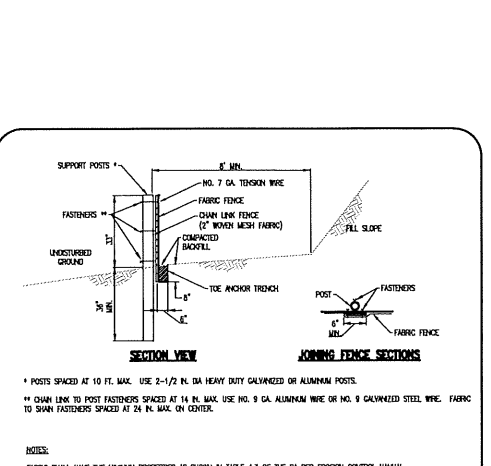
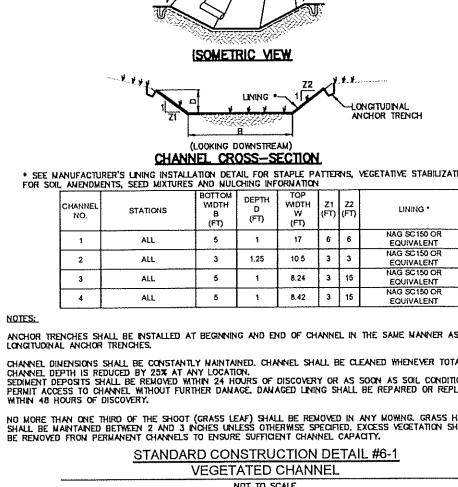
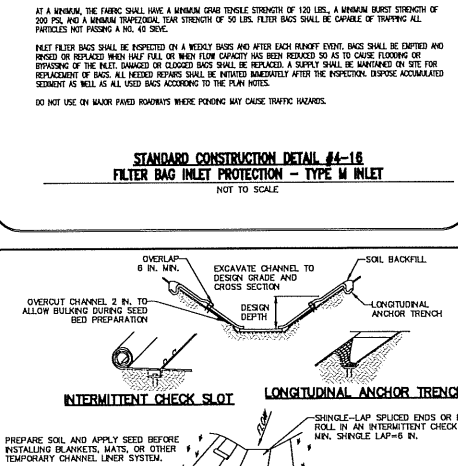
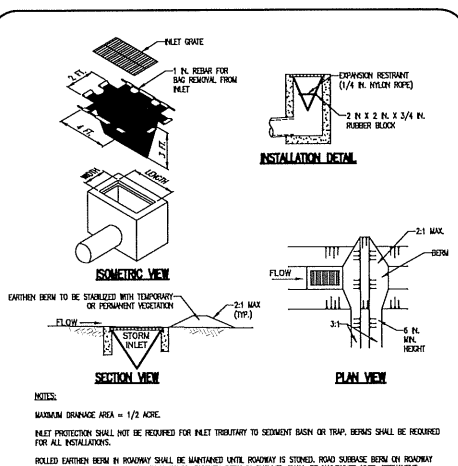
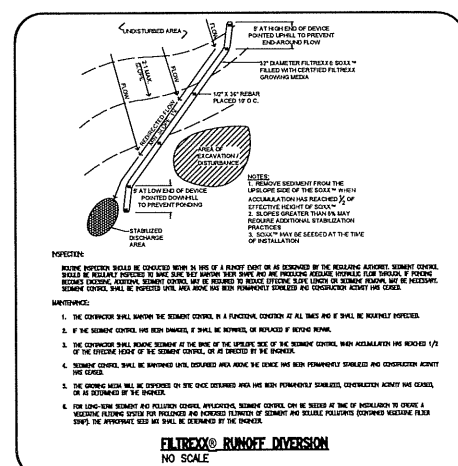
STANDARD CONSTRUCTION DETAIL #3-17 SUMP PIT

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DAVID W. GIBBONS  
PROFESSIONAL ENGINEER  
No. 1250 Wrights Lane  
West Chester, PA 19380

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CALN TOWNSHIP

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FINAL  
EROSION & SEDIMENTATION CONTROL DETAILS

HILLVIEW HILL LLC  
PROJECT: THE VILLAGES AT HILLVIEW  
LOCATIONS: MOORE ROAD AND BLACK HORSE HILL ROAD  
CALN TOWNSHIP, CHESTER COUNTY PA

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DATE: 07/27/18  
SCALE: AS SHOWN  
DRAWN BY: ANW  
CHECKED BY: ANW  
PROJECT NO.: 3059  
DATE: 12/09/19  
DRAWING NO.: C05.5  
SHEET 22 OF 36