



Date: September 26, 2016

To: Radnor Township Planning Commission

From: Roger Phillips, PE

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official
Steve Gabriel - Rettew

RE: Academy of Notre Dame de Namur – Preliminary Subdivision Plan
Goshen Holding Company, Inc. – Applicant

Date Accepted: September 6, 2016

90 Day Review: December 5, 2016

Gannett Fleming, Inc. has completed a review of the Preliminary Subdivision Plans for compliance with the Radnor Township Code. These Plans was reviewed for conformance with Zoning, Subdivision and Land Development, and other applicable codes of the Township of Radnor.

The applicant is proposing to develop the property with a new Science, Technology, Engineering, and Mathematics building along with new walkways, ADA accessible ramps, grading and associated stormwater management improvements. This project is located in the PI zoning district of the Township.

Preliminary Subdivision Plans – Academy of Notre Dame de Namur

Plans Prepared By: Momeneee, Inc.

Dated: 08/31/2016

The applicant has indicated that the following waiver is being requested:

§255.20.B(5) – To not provide a Transportation Impact Study. The addition of the STEM building will not create any additional traffic load for the property.



I. Zoning

1. §280-69.C – No building or structure shall exceed three stories or 38 feet in height. The height of the proposed STEM building must be shown on the plans.
2. §280-69.C – No building or permanent structure, other than a guardhouse or facility which provides controlled access to a property, shall be located less than 120 feet from a street right-of-way line. There is an existing statue located less than 120 feet from the street right-of-way line that is an existing nonconformity that the applicant would like to continue.
3. §280-72.B(1) – Each application for a land development approval or application to establish a Planned Institutional District to any property not included in the district shall be accompanied by submission to the Township of Radnor of a current institutional long-range development plan describing the existing and anticipated future development of the institution. A institutional long-range development plan must be submitted.

II. Subdivision and Land Development

1. §255-20.B(1)(o)[6] – Rights-of-way and/or easements or all drainage facilities, utilities or other purposes must be shown on the plans. Any sanitary sewer easements must be shown on the plans.
2. §255-20.B(1)(o)[9] – The location of all fire hydrants must be shown on the proposed layout plan.
3. §255-43.1.B.(2) – For all nonresidential or institutional subdivisions and/or land developments involving more than 5,000 square feet of floor area, the amount of land to be dedicated for park and recreation area shall be 2,500 square feet per 6,400 square feet of floor area (existing or proposed), or portion thereof, unless the developer agrees to a fee in lieu of \$3,307 per 6,400 square feet of floor area (existing or proposed).

III. Stormwater

1. Stormwater calculations demonstrating that the requirements of the stormwater ordinance must be submitted as part of the Final Plan submission. Final approval of the stormwater management plan will be required as part of the Grading Permit process. Any revisions to the size or location of the individual structures or other features will be addressed at that time.



2. As part of a condition for the Connelly Center Grading Permit (GP 16-017), we note that the applicant has included an additional 1,668 SF of impervious surface in the stormwater management design.

IV. General

1. The applicant is proposing to relocate a portion of the existing sanitary sewer. More details must be provided including plan and profiles of the proposed sewer.
2. The relocated sanitary sewer must be a minimum of 8”.

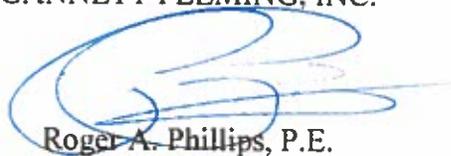
In addition to our review comments, a memorandum dated September 21, 2016 from Amy Kaminski of Gilmore & Associates, Inc. the Township Traffic Engineer and a memo dated September 21, 2016 from Ray Daly Building Code Official have been attached and are incorporated herein by reference.

Should the Planning Commission consider recommending approval of this project, we suggest that the recommendation be conditioned on requiring the applicant to satisfactorily address the above comments.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager





MEMORANDUM

Date: September 21, 2016

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Transportation Services Manager

cc: Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Academy of Notre Dame STEM Building
Preliminary Land Development Review 1
Radnor Township, Delaware County, PA
G&A 16-09027

Gilmore & Associates, Inc. (G&A) has completed a transportation review of the above referenced Preliminary Land Development Plan for the STEM Building at the Academy of Notre Dame, 560 Sproul Road. The applicant proposes to construct one (1) 14,822 square foot building located to the south end of the campus, just west of Godfrey Road and Sproul Road. We offer the following comments for Radnor Township consideration:

A. DOCUMENTS REVIEWED

1. Preliminary Land Development Plans for the Academy of Notre Dame STEM Building, prepared for the Academy of Notre Dame, prepared by Momenee, Inc., consisting of 11 sheets, dated August 31, 2016.
2. Subdivision and Land Development Application Form.
3. Delaware County Planning Commission Application for ACT 247 Review.

B. GENERAL COMMENTS

1. §255-20.B(5)(C)[1][e] – A transportation impact study shall be required for all major subdivisions and land developments, specifically any institutional development. The applicant has requested a waiver from this requirement.
2. §255-27: B(3)(d), C(1) and C(2): Sproul Road (S.R. 0320) is identified as an arterial road and the reviewed plans indicate a 50' right-of-way (25' half-width), an approximate 28' cartway width (14' half-width) with no curbing or sidewalks. The Board of Commissioners may require additional right-of-way and/or cartway widths

in order to lessen traffic congestion, to secure safety from fire, panic and other dangers, to facilitate the adequate provision for transportation and other public requirements and to promote the general welfare. The Board of Commissioners may want to consider additional improvements or right-of-way along this frontage. Although this is a PennDOT road, PennDOT would take this under consideration.

3. §255-27 both B(3)(d) and C(1): Godfrey Road (S.R. 1036) is required to have a 60 right-of-way, 36 foot cartway width, curbs and sidewalks. The reviewed plans indicate a 33' right-of-way (16.5' half-width), an approximate 20' cartway width (10' half-width) and no curbing or sidewalks. The Board of Commissioners may want to consider these additional improvements or right-of-way along this frontage. Although this is a PennDOT road, PennDOT would likely support the Township's request for improvements. The applicant is required to revise the plan or request a waiver.
4. Consideration should be given to providing an emergency access to the proposed building from the existing site driveway. Depending on the placement, this access could also serve the Connelly Arts Center building in the event of an emergency. The internal onsite circulation does not appear to provide adequate emergency access to buildings located in the southwest quadrant of the site. The access should be designed to accommodate the largest anticipated emergency vehicle.
5. The proposed handicap ramp from The Mansion building shows a slope of 8%. Although ADA requirements allows for up to maximum 8.33% slope for a ramp, the designer should reduce the slope to 7.5% in order to ensure the final slope is within the 8.33% tolerance following construction.



RADNOR TOWNSHIP

MEMORANDUM

TO: MR. STEVE NORCINI
FROM: RAY DALY
SUBJECT: 560 SPROUL ROAD, ACADEMY OF NOTRE DAME
DATE: SEPTEMBER 21, 2016
CC: MR. PHILLIPS

Mr. Norcini

From the Fire Codes perspective there is no access to any portion of the building via a roadway. The closest access to the new building is from the lawn area which measures approximately 200' from the road. During any evacuation the Emergency personal would need to walk across the lawn to gain access to the building. No Fire apparatus or Emergency vehicles can get close to the building. During inclement weather this route would most likely be impassable.

By placing the new STEM building at the end of the court yard, the access to the court yard and the rear of the existing building has been almost eliminated. There are Fire Department Connections located within the court yard for some existing buildings, this makes use of the FDC's in operational. The recommendation would be to relocate the FDC's to roadway facing locations.

There needs to be additional Fire Hydrant/s placed on site to meet the new building needs. The placement of the new hydrant/s will need to be determined upon final planning or if any additional access to the new building is agreed upon.

Respectfully,

Ray Daly

Building Codes/Fire Codes Official

August 31, 2016

Radnor Township
301 Iven Avenue
Wayne, PA 19087

**RE: Preliminary Land Development Application
Academy of Notre Dame de Namur – STEM Building
Radnor Township, Delaware County**

Our File # 15-372

Gentlemen:

On behalf of the Academy of Notre Dame De Namur, we are submitting a Preliminary Land Development application for improvements to the school's campus. The intent of this plan is to develop the property with a new Science, Technology, Engineering, and Mathematics building along with other related site improvements. We are providing the enclosed documents and applications in support of a Preliminary Land Development application for the project.

Enclosed for review are the following:

- Signed Township Application
- Township Application fee of \$2,050.00
- Township Escrow Review Fee of \$15,000.00
- Signed County Act 247 Review Application
- County Act 247 Review fee of \$970.00
- Copy of the Title Documentation and Deed Description
- 2 copies of the Stormwater Management Narrative
- 26 Sets of Preliminary Land Development Plans (8 signed and notarized)
- 7 Sets of size 11"x17" Plans
- 10 Thumb Drives of the submission materials

The applicant is requesting a waiver to not provide a Transportation Impact Study as required per code section 255-20.B(5). The addition of the new STEM building will not create an additional traffic load for the property. I trust that this information will be sufficient for you to review this application. Should you have any questions or require any additional information, please let me know.

Very truly yours,
MOMENEE, INC.



Brian D. Madsen, P.E.

15372L01_RT

cc: Academy of Notre Dame

DELAWARE COUNTY PLANNING COMMISSION

APPLICATION FOR ACT 247 REVIEW

Incomplete applications will be returned and will not be considered "received" until all required information is provided.

Please type or print legibly

DEVELOPER/APPLICANT

Name Academy of Notre Dame E-mail rschultz@ndapa.org

Address 560 Sproul Road, Villanova, PA 19085 Phone 610-687-0650

Name of Development Academy of Notre Dame - STEM Building

Municipality Radnor Township

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm Momenee, Inc. Phone 610-527-3030

Address 924 County Line Road

Contact Kevin R. Momenee, P.E. E-mail kmomenee@momenee.com

Type of Review	Plan Status	Utilities		Environmental Characteristics
		Existing	Proposed	
<input type="checkbox"/> Zoning Change	<input type="checkbox"/> Sketch	<input checked="" type="checkbox"/> Public Sewerage	<input checked="" type="checkbox"/> Public Sewerage	
<input checked="" type="checkbox"/> Land Development	<input checked="" type="checkbox"/> Preliminary	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Wetlands
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Final	<input checked="" type="checkbox"/> Public Water	<input checked="" type="checkbox"/> Public Water	<input type="checkbox"/> Floodplain
<input type="checkbox"/> PRD	<input type="checkbox"/> Tentative	<input type="checkbox"/> Private Water	<input type="checkbox"/> Private Water	<input type="checkbox"/> Steep Slopes

Zoning District Pi - Planned Institutional

Tax Map # 36 / 37 / 066.001

Tax Folio # 36 / 04 / 02648 / 00

STATEMENT OF INTENT

WRITING "SEE ATTACHED PLAN" IS NOT ACCEPTABLE.

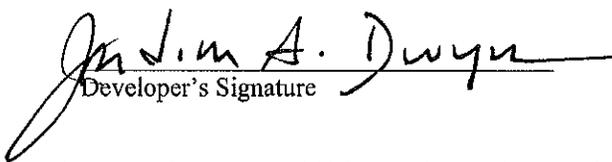
Existing and/or Proposed Use of Site/Buildings:

It is proposed to improve the site with a new STEM classroom building at the campus of the Academy of Notre Dame. Other improvements

will include new walkways, ADA accessible ramps, grading, and associated stormwater management improvements.

Total Site Area 38.143 Acres
Size of All Existing Buildings 83,110 Square Feet
Size of All Proposed Buildings 97,932 Square Feet
Size of Buildings to be Demolished ⁰ Square Feet

Academy of Notre Dame
Print Developer's Name


Developer's Signature

MUNICIPAL SECTION

ALL APPLICATIONS AND THEIR CONTENT ARE A MUNICIPAL RESPONSIBILITY.

Local Planning Commission Regular Meeting _____

Local Governing Body Regular Meeting _____

Municipal request for DCPD staff comments prior to DCPC meeting, to meet municipal meeting date:

Actual Date Needed _____

IMPORTANT: If previously submitted, show assigned DCPD File # _____

Print Name and Title of Designated Municipal Official

Phone Number

Official's Signature

Date

FOR DCPD USE ONLY

Review Fee: Check # _____ Amount \$ _____ Date Received _____

Applications with original signatures must be submitted to DCPD.

**RADNOR TOWNSHIP
301 IVEN AVE
WAYNE PA 19087
P) 610 688-5600
F) 610 971-0450
WWW.RADNOR.COM**

SUBDIVISION ~~ LAND DEVELOPMENT

Location of Property Academy of Notre Dame – 560 Sproul Road, Villanova, PA 19085

Zoning District: Pi – Planned Institutional Application No. _____
(Twp. Use)

Fee \$2,050.00 Ward No. 3-1 Is property in HARB District NO

Applicant: (Choose one) Owner Equitable Owner

Name Academy of Notre Dame

Address 560 Sproul Road, Villanova, PA 19085

Telephone 610-687-0650 Fax _____ Cell _____

Email rschultz@ndapa.org

Designer: (Choose one) Engineer Surveyor

Name Kevin R. Momenee, P.E.

Address 924 County Line Road, Bryn Mawr, PA 19010

Telephone 610-527-3030 Fax 610-527-9008 Cell _____

Email kmomenee@momenee.com

Area of property 38.143 Acres Area of disturbance 71,500 SF

Number of proposed buildings 1 Proposed use of property Institutional

Number of proposed lots 1

Plan Status: Sketch Plan Preliminary Final Revised

Are there any requirements of Chapter 255 (SALDO) not being adhered to?

Explain the reason for noncompliance.

255-20.B(5) – Request to not provide a Transportation Impact Study. The proposed plan and construction of the new STEM building will not create an additional traffic load on the area.

Are there any infringements of Chapter 280 (Zoning), and if so what and why?

N/A

Individual/Corporation/Partnership Name

Academy of Notre Dame

I do hereby certify that I am the owner, equitable owner or authorized representative of the property which is the subject of this application.

Signature

Print Name

Judith A Dwyer
JUDITH A DWYER

By filing this application, you are hereby granting permission to Township officials to visit the site for review purposes.

NOTE: All requirements of Chapter 255 (Subdivision of Lane) of the Code of the Township of Radnor must be complied with whether or not indicated in this application.

①

Please do not publish. Thank you 10

PREPARED BY:
Joseph J. Mezzanotte, Esquire
Whiteford, Taylor & Preston L.L.P.
Seven Saint Paul Street
Baltimore, Maryland 21202

Recorder please return to:
Pennsylvania Land Transfer Co.
24 E. Front St, Media PA 19063
Phone 610-566-9045 *14475*

RECORD AND RETURN TO:
Pennsylvania Land Transfer Company
24 East Front Street
Media, Pennsylvania 19063
Folio No.: 36-04-02648-00 & 36-04-02648-01

RD BK04027-0810 DT-DEED
2007014029 02/12/2007 09:11:33 AM:1
RCD FEE: \$90.00 PCL SUB TAX: \$100,500.00 ST TAX: \$111,000.00
36-RADNR \$100,500.00 THOMAS J. JUDGE JR. ROD
DELAWARE COUNTY



DEED

THIS DEED (the "Deed") is made this 7th day of February 2007, from THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC., a Maryland nonstock, non-profit corporation (the "Grantor"), to THE ACADEMY OF NOTRE DAME DE NAMUR, a Pennsylvania nonstock, non-profit corporation (the "Grantee").

WITNESSETH, that for and in consideration of the sum of One Dollar (\$1.00), the Grantor does grant, convey and assign to the Grantee, its successors and assigns, in fee simple, all that lot of ground in Delaware County, Pennsylvania, as more particularly described in EXHIBIT A attached hereto and made a part hereof (the "Property").

TOGETHER with the buildings and improvements on the Property, and the rights, alleys, ways, waters, easements, privileges, appurtenances and advantages belonging to or appertaining thereto.

SUBJECT, HOWEVER, to all easements, covenants, conditions, restrictions and all other matters of record.

SUBJECT FURTHER, to the following restrictions which are part of the consideration for this Deed and which shall run with the land and be binding upon the Property and the Grantee and its successors and assigns in accordance with the following terms:

1. For a period of fifteen (15) years from and after the date hereof the Property shall be used only as a Catholic School (together with related Catholic School activities and camps) and no portion of the Property, nor any building or other structure erected on the Property, shall be used for any purpose whatsoever other than as a Catholic School (together with related Catholic School activities and camps) unless the Grantee and its

A-2

successors and assigns obtains the Grantor's, and its successors' and/or assigns', prior written consent to such use, which consent may be withheld by Grantor or its successors or assigns, in their sole, absolute and subjective discretion. The preceding sentence is hereinafter referred to as the "Restrictive Covenant." The Restrictive Covenant shall be binding upon the Property and shall be a covenant running with the land which burdens the Property.

2. Notwithstanding the provisions of Paragraph 1 above, the Restrictive Covenant shall terminate and be of no further force and effect in the event of a transfer of title to the Property to any (a) mortgagee or holder of a deed of trust on the Property provided that such mortgagee or holder of a deed of trust is an ADC Lender with respect to ADC Financing and further provided that such mortgagee or holder takes title to the Property through foreclosure, (b) third party purchaser who is unrelated to the Grantee and who purchases the Property at a foreclosure sale of the Property conducted by an ADC Lender, or (c) mortgagee or purchaser who is not related to the named Grantee hereunder provided that such mortgagee or holder of a deed of trust is an ADC Lender with respect to ADC Financing and further provided that such mortgagee or holder takes title in good faith and for fair value by deed in lieu of foreclosure ("Exempt Deed-in-Lieu of Foreclosure"). For purposes of this Paragraph 2, "good faith" shall mean that the person or entity that takes title to the Property pursuant to a deed-in-lieu of foreclosure has not done so for the purpose of circumventing the operation and effect of the Restrictive Covenant for the continued benefit of the Grantor. For purposes of this Paragraph 2 "ADC Lender" shall mean a commercial bank or commercial financial institution that entered into an ADC Financing transaction in good faith and for fair value, and the term "ADC Lender" shall be deemed to include a financial institution that acts in good faith and for fair value in providing credit enhancement with respect to ADC Financing. The term "ADC Financing" shall mean acquisition, development or construction financing of the Property or refinancing of the same. Until the termination of the Restrictive Covenant in accordance with the terms hereof, in the event of any foreclosure under a mortgage or deed of trust on the Property, the Grantor hereunder shall be entitled to notice of such foreclosure, sent to the Grantor by certified mail and by first class mail at the following address or any substitute address supplied by Grantor to Grantee and/or its mortgagees: THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC., 1531 Greenspring Avenue, Stevenson, Maryland 21153, ATTN: President, with copy to JOSEPH J. MEZZANOTTE, ESQUIRE, Whiteford, Taylor & Preston L.L.P., 7 Saint Paul Street, Suite 1400, Baltimore, Maryland 21202. Notice of all foreclosures shall be given to Grantor at the above address or any

substitute address supplied by Grantor not more than sixty (60) and not less than thirty (30) days before the date of such foreclosure sale, and the Grantor's rights under the Restrictive Covenant shall be deemed sufficient to entitle it to such notice even if such rights would not otherwise entitle the Grantor to notice pursuant to Pennsylvania Rule of Civil Procedure 3129.2 (or any subsequent Rule requiring the mailing of notice of a foreclosure sale to persons having subordinate interests in the applicable property). By accepting this Deed, Grantee warrants to Grantor that it shall not participate in any activity or conduct intended to circumvent the intent and purpose of the Restrictive Covenant.

3. Notwithstanding the provisions of Paragraph 1 above of this Deed, Grantee shall be permitted, upon obtaining the prior written consent of the Grantor and its successors and/or assigns which consent shall not be unreasonably withheld by Grantor, to sell, lease or otherwise transfer to third parties, free and clear of the Restrictive Covenant, portions of the Property which the Grantee, in its good faith reasonable judgment, deems no longer to be necessary for its operation as a Catholic School, provided that (i) the portion of the Property which the Grantee intends to sell, lease or otherwise transfer does not exceed ten percent (10%) of the gross acreage of the Property in the aggregate during the fifteen (15) year Restrictive Covenant Period, and (ii) the intended sale, lease or other transfer will not adversely affect the current or future operations of the Academy of Notre Dame de Namur School which is currently operating on the Property or ingress, egress or access to the Academy of Notre Dame de Namur School and the Grantee shall so certify this in writing to Grantor at the time that Grantee requests Grantor's written consent for such sale, lease or other transfer, and (iii) the Academy of Notre Dame de Namur School is open and operating on the Property and neither the Grantee nor its successors has any plans at such time or in the then foreseeable future to cease all or any substantial portion of the Academy of Notre Dame de Namur School's operations at the Property as they are then conducted or to relocate all or any substantial portion of the Academy of Notre Dame de Namur School's operations from the Property to another location and the Grantee shall so certify this in writing to the Grantor at the time the Grantee requests Grantor's written consent. If Grantor consents to Grantee's request, then Grantor, upon the written request of Grantee, shall execute a written partial release of the Restrictive Covenant in recordable form and in form acceptable to Grantor to evidence Grantor's consent and release of up to ten percent (10%) of the gross acreage of the Property from the lien, operation and effect of the Restrictive Covenant. Any and all taxes, costs and expenses associated with the recordation of any such partial release shall be borne by Grantee.

4. The Restrictive Covenant shall inure to the benefit of and be enforceable by the Grantor and its successors and assigns, by any and all proceedings at law or in equity including, but not limited to, injunctive relief.
5. Failure by the Grantor or its successors or assigns to enforce any breach or violation of the Restrictive Covenant herein contained shall in no event be deemed a waiver of the right to do so unless such waiver is made in writing by Grantor, and any written waiver shall not be deemed to be a waiver of any other violation or breach occurring prior or subsequent thereto unless the written waiver expressly so states.
6. Damages shall, at the Grantor's option, not be deemed adequate compensation for any breach or violation of the Restrictive Covenant. For so long as the Restrictive Covenant is in force, the Grantee and any successor owner of all or any portion of the Property, as the case may be (an "Owner"), shall indemnify, defend and hold the Grantor and its successors and assigns harmless from and against any and all losses, damages, liabilities, costs and expenses (including reasonable attorneys' fees and litigation expenses) (collectively, "Claims") incurred or suffered by the Grantor and/or its successors and assigns as a result of any breach (including any anticipatory breach) or violation of the Restrictive Covenant by such Owner. The liability of any Owner under the terms of this Paragraph 6 shall be limited to Claims arising as a result of a breach or violation of the Restrictive Covenant by such Owner during the term of its ownership of the Property. No Owner shall be liable for Claims arising as a result of a breach or violation of the Restrictive Covenant by a predecessor or successor Owner.
7. Subject to the provisions of Paragraphs 2 and 10 hereof, any person or entity accepting a deed, lease or other instrument conveying any interest in the Property, whether or not the same incorporates reference to the Restrictive Covenant or the Deed, covenants for itself to observe, perform and be bound by the Restrictive Covenant.
8. By acceptance of this Deed, the Grantee hereby covenants and agrees to strictly observe and comply with the Restrictive Covenant. The Grantee acknowledges that but for the Grantee's agreement to accept title to the Property subject to the Restrictive Covenant, the Grantor would not have conveyed title to the Property to the Grantee.
9. Notwithstanding the provisions of Paragraph 1 of this Deed, Grantor agrees that if all sums due and owing from Grantee to Grantor under the Seller Financing Documents (as defined below) are paid in full to Grantor when and as such sums become due and payable under the Seller

Financing Documents then, on the twelfth (12th) anniversary of the date of this Deed, Grantor will execute a release of the Restrictive Covenant and/or agree to no longer enforce the Restrictive Covenant provided that all sums due and owing from Grantee to Grantor under the Seller Financing Documents have been paid in full to Grantor on or before the twelfth (12th) anniversary of the date of this Deed. The term "Seller Financing Documents" shall mean the following documents (and all amendments, modifications, restatements and extensions thereto) which have been executed and delivered by Grantee to Grantor in connection with the transaction evidenced by this Deed:

- a. Promissory Note dated on or about the date of this Deed in the original principal amount of Four Million Six Hundred Thousand Dollars (\$4,600,000.00) and made by Grantee, as maker, to Grantor (the "Promissory Note");
 - b. Open-End Mortgage and Security Agreement dated on or about the date hereof granted by Grantee to Grantor with respect to the property described in this Deed; and
 - c. All other documents now or hereafter evidencing or securing the loan in the original principal amount of Four Million Six Hundred Thousand Dollars (\$4,600,000.00) made by Grantor to Grantee on or about the date hereof and which is evidenced by the Promissory Note.
10. In the event the Restrictive Covenant has not previously terminated in accordance with the provisions of Paragraph 2 or Paragraph 9 hereof, then on the fifteenth (15th) anniversary of the date hereof, the Restrictive Covenant shall automatically terminate without the necessary of any action by Grantor or Grantee.

TO HAVE AND TO HOLD the Property hereby conveyed unto the Grantee, its successors and assigns, in fee simple, forever, subject, however, to the foregoing Restrictive Covenant and all other restrictions, covenants, conditions, easements and instruments of record relating to the Property.

AND the Grantor hereby covenants to warrant specially the Property, and to execute such further assurances of the Property as may be requisite.

IN ADDITION to the preceding conveyance, Grantor does hereby quitclaim unto Grantee and its successors and assigns **WITHOUT RECOURSE AND WITHOUT ANY REPRESENTATION OR WARRANTY (EXPRESS, IMPLIED OR OTHERWISE)**

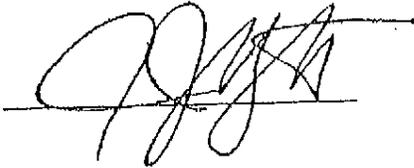
WHATSOEVER, all of Grantor's right, title and interest, if any, in that certain land situated in Delaware County, Pennsylvania, as more particularly described in EXHIBIT B attached hereto and made a part of (the "Quitclaimed Land").

IN WITNESS WHEREOF, the Grantor has caused this Deed to be duly executed as of the day and year first above written.

WITNESS:

GRANTOR

THE BALTIMORE PROVINCE OF THE
SISTERS OF NOTRE DAME DE NAMUR,
INC.,
a Maryland corporation

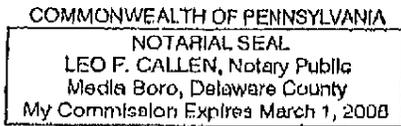


By: Sr. Marian Schaechtel (SEAL)
Sr. Marian Schaechtel
President

STATE OF PENNSYLVANIA, COUNTY OF Chester TO WIT:

I HEREBY CERTIFY, that on this 7th day of February, 2007, before me, the subscriber, a Notary Public of the State of Pennsylvania, personally appeared SR. MARIAN SCHAECHTEL, SND, who acknowledged herself to be the President of The Baltimore Province of the Sisters of Notre Dame de Namur, Inc., Grantor herein, and that she, as such President, being authorized to do so, executed the foregoing Deed on behalf of The Baltimore Province of the Sisters of Notre Dame de Namur, Inc. by signing her name as President.

AS WITNESS my hand and Notarial Seal.



Leo Callen

NOTARY PUBLIC

My Commission expires: _____

The address of the within-named Grantee is:
560 Sproul Road
Villanova, Pennsylvania 19085

Sr. Mary Anne Broughton, SND

Sr. Mary Anne Broughton
President
On Behalf of Grantee

EXHIBIT A
Description of Property

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, situate in the Township of Radnor, County of Delaware and Commonwealth of Pennsylvania, described in accordance with a Map of property of Academy of Notre Dame de Namur, made by Yerkes Engineering Company, Bryn Mawr, Pennsylvania, dated July 27, 1965, as follows, to wit:

BEGINNING at a drill hole at the intersection of the center line of Radnor Chester Road (Sproul Road) (fifty feet wide), with the center line of Godfrey Road (thirty-three feet wide); thence along the center line of Godfrey Road, South sixty-seven degrees, seventeen minutes West, one thousand one hundred twenty-four and thirty-two one-hundredths feet to a point, a corner of land of the Estate of R. L. Montgomery; thence along said land, North twenty-four degrees, thirty minutes West, one thousand five hundred eighty-eight and five one-hundredths feet to a marble stone in line of land now or formerly of Immaculata Gallagher; thence along said land, North sixty-five degrees, twenty-three minutes East, two hundred fifty feet to a point; thence extending South twenty-four degrees, thirty-seven minutes East, four hundred fifteen feet to a point; thence extending North sixty-five degrees, twenty-three minutes East, one thousand two hundred twenty-one and forty-three one-hundredths feet to a point in the center line of Radnor Chester Road (Sproul Road); thence extending along said Road the two following courses and distances: (1) South eleven degrees, fifty-five minutes East, one hundred ninety-seven and twenty-four one-hundredths feet to a drill hole on angle; and (2) South seven degrees, forty-eight minutes East, one thousand sixty-three and thirty-seven one-hundredths feet to a drill hole, the first mentioned point and place of beginning.

BEING the same property which was granted and conveyed by Academy of Notre Dame de Namur, Inc., a Pennsylvania nonprofit corporation, to The Baltimore Province of the Sisters of Notre Dame de Namur, Inc., a Maryland nonprofit corporation, pursuant to an Indenture dated May 22, 1970 which was recorded in the Office of the Recorder of Deeds for Delaware County, Pennsylvania in Deed Book 2369, Page 796.

EXHIBIT 'B'

ALL THAT CERTAIN LOT OR PIECE OF GROUND WITH THE BUILDINGS AND IMPROVEMENTS THEREON ERECTED, SITUATE IN THE TOWNSHIP OF RADNOR, COUNTY OF DELAWARE AND COMMONWEALTH OF PENNSYLVANIA, DESCRIBED IN ACCORDANCE WITH A SURVEY MADE BY MOMENEE SURVEY GROUP, INC., DATED 1-19-2005; LAST REVISED 12-19-2006, AS FOLLOWS:

BEGINNING AT A DRILL HOLE AT THE INTERSECTION OF THE CENTER LINE OF RADNOR CHESTER ROAD (SPROUL ROAD) (FIFTY FEET WIDE), WITH THE CENTER LINE OF GODFREY ROAD (THIRTY THREE FEET WIDE); THENCE ALONG THE CENTER LINE OF GODFREY ROAD, SOUTH 67 DEGREES 16 MINUTES 58 SECONDS WEST, 1124.37 FEET, A CORNER OF LAND OF THE ESTATE OF R.L. MONTGOMERY; THENCE ALONG SAID LAND, NORTH TWENTY FOUR DEGREES, THIRTY MINUTES WEST, ONE THOUSAND FIVE HUNDRED EIGHTY EIGHT AND FIVE ONE-HUNDREDTHS FEET TO A MARBLE STONE IN LINE OF LAND NOW OR FORMERLY OF IMMACULATA GALLAGHER; THENCE ALONG SAID LAND, NORTH SIXTY FIVE DEGREES, TWENTY THREE MINUTES EAST, TWO HUNDRED FIFTY FEET TO A POINT; THENCE EXTENDING SOUTH TWENTY FOUR DEGREES, THIRTY SEVEN MINUTES EAST, FOUR HUNDRED FIFTEEN FEET TO A POINT; THENCE EXTENDING NORTH SIXTY FIVE DEGREES, TWENTY THREE MINUTES EAST, ONE THOUSAND TWO HUNDRED TWENTY ONE AND FORTY THREE ONE-HUNDREDTHS FEET TO A POINT IN THE CENTER LINE OF RADNOR CHESTER ROAD (SPROUL ROAD); THENCE EXTENDING ALONG SAID ROAD THE TWO FOLLOWING COURSES AND DISTANCES: (1) SOUTH ELEVEN DEGREES, FIFTY FIVE MINUTES EAST, ONE HUNDRED NINETY SEVEN AND TWENTY FOUR ONE-HUNDREDTHS FEET TO A DRILL HOLE AN ANGLE; AND (2) SOUTH SEVEN DEGREES, FORTY EIGHT MINUTES EAST, ONE THOUSAND SIXTY THREE AND THIRTY SEVEN ONE-HUNDREDTHS FEET TO A DRILL HOLE, THE FIRST MENTIONED POINT AND PLACE OF BEGINNING.

UNDER AND SUBJECT TO CERTAIN RESTRICTIONS OF RECORD.

FOLIO #36-04-02648-00 & #36-04-02648-01

SCHEDULE "A"

NUMBER: 75846-TD

Effective Date: 3/31/96 JTF/SMP

1. Policy or Policies to be issued:
(a) ALTA Owners Policy Form: 10/17/1992 Amount
Proposed insured: \$0.00

Endorsement(s): Pa. ____

(b) ALTA Loan Policy Form: 10/17/1992 Amount
Proposed insured: \$0.00

Endorsement(s): Pa. 300 ____ Pa. 100 ____ Pa. 900 ____

2. The estate or interest in the land described or referred to in the Commitment and covered herein is fee simple and is at the effective date hereof vested in:

THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC., A MARYLAND NON-PROFIT CORPORATION by Deed from ACADEMY OF NOTRE DAME DE NAMUR, INC. (A PENNSYLVANIA NON-PROFIT CORPORATION) dated 5/22/1970, recorded 5/22/1970, in DEED BOOK 2369, PAGE 796.

3. The land referred to in this Commitment is described in Schedule C.

ALL THAT CERTAIN lot or piece of land, situate in RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA.

Being known as: 560 SPROUL ROAD

UNITED GENERAL TITLE INSURANCE COMPANY

SCHEDULE "B" - Section I

NUMBER: 75846-TD

The following are the requirements to be complied with:

1. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attached subsequent to the effective date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.
2. Payment of the full consideration to or for the account of the grantors or mortgagors.
3. Instrument(s), in insurable form, creating the estate or interest to be insured must be executed, delivered and filed for record:

Mortgage:

THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC., A MARYLAND NON-PROFIT CORPORATION

to:

SCHEDULE "B" - Section - I (continued)

NUMBER: 75846-TD

UPON SATISFACTORY EVIDENCE OF DISCHARGE, SATISFACTION OR COMPLIANCE WITH THE FOLLOWING ITEMS AFFECTING TITLE TO THE SUBJECT PREMISES, SUCH ITEMS WILL BE REMOVED AND THE POLICY WILL BE ISSUED WITHOUT EXCEPTION THEREFOR.

4. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by public records.
5. Rights or claims by parties in possession or under agreement(s) of sale not shown by public records.
6. Proof of identity, legal age, competency of Grantors/Mortgagors and marital status (including deaths and divorces) affecting any individual Grantors/Mortgagors, herein.
7. Township, County and School tax receipts for the following prior years to be produced and filed with the Company, viz: 1993 to 1995 inclusive.
8. Township, County and School Taxes for current year. (If paid-receipts to be produced and filed with the Company.)
Assessment: \$5,000.00 Folio No. 36-04-02648-00 (38.142 acres ground)
1996 Assessment \$225,150.00 (12.688 acres misc. bldgs. exempt)
9. Receipts for Water and Sewer Rents for the following years. (If paid-receipts to be produced and filed with the Company.) viz: 1993 to 1995 inclusive.
10. Water and Sewer Rents for current year. (If paid-receipts to be produced and filed with the Company.)
11. Proof that no sewers have been installed or have been ordered to be installed upon or abutting these premises.
12. **MORTGAGES: NONE**
13. **MECHANICS LIENS AND MUNICIPAL CLAIMS: NONE**
14. **JUDGMENTS: NONE**
15. Articles of Incorporation or Charter of Mortgagor to be produced and filed with Company.
16. Proof that the Charter of Mortgagor is still in full force and effect.
17. By-Laws of Mortgagor to be produced and filed with Company.
18. Consent of governing body, if any, of Mortgagor to the present transaction, to be produced and filed with Company.

SCHEDULE "B" - Section - II

NUMBER: 75846-TD

SCHEDULE B OF THE POLICY OR POLICIES TO BE ISSUED WILL CONTAIN THE FOLLOWING EXCEPTIONS UNLESS THE SAME ARE DISPOSED OF TO THE SATISFACTION OF THE COMPANY.

1. Any discrepancies, conflicts or shortages in area or boundary lines, or any encroachments, or any overlapping of improvements which a correct survey would show.
2. Possible additional tax assessments for new construction and/or major improvements.
3. Easements or claims of easements not appearing of record.
4. Acreage content not insured.
5. Title to that portion of premises in the beds of Radnor-Chester Road (Sproul Road) and Godfrey Road is subject to public and private rights therein.
6. Rights granted to Philadelphia Electric Company as in Deed Books 2258 page 67 and 2336 page 950.
7. Rights granted to Philadelphia Suburban Water Company as in Deed Books 2258 page 105 and 2266 page 229.

SCHEDULE "C"

NUMBER: 75846-TD

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, SITUATE in the Township of Radnor, County of Delaware, and Commonwealth of Pennsylvania, described in accordance with a Map of property of Academy of Notre Dame de Namur, made by Yerkes Engineers Company, Bryn Mawr, Pennsylvania, dated 7/27/1965, as follows, to wit:

BEGINNING at a drill hole at the intersection of the center line of Radnor-Chester Road (Sproul Road)(50 feet wide), with the center line of Godfrey Road (33 feet wide); thence along the center line of Godfrey Road, South 67 degrees, 17 minutes West, 1124.32 feet to a point, a corner of land of the Estate of R.L. Montgomery; thence along said land, North 24 degrees, 30 minutes West, 1588.05 feet to a marble stone in line of land now or formerly of Immaculate Gallagher; thence along said land, North 65 degrees, 23 minutes East, 250 feet to a point; thence extending South 24 degrees, 37 minutes East, 415 feet to a point; thence extending North 65 degrees, 23 minutes East, 1221.43 feet to a point in the center line of Radnor-Chester Road (Sproul Road); thence extending along said Road the two following courses and distances: (1) South 11 degrees, 55 minutes East, 197.24 feet to a drill hole an angle; and (2) South 07 degrees, 48 minutes East, 163.37 feet to a drill hole, the first mentioned point and place of BEGINNING.

BEING Folio No. 36-04-02648-00.

BEING THE SAME PREMISES WHICH ACADEMY OF NOTRE DAME DE NAMUR, INC. (A PENNSYLVANIA NON-PROFIT CORPORATION), by Deed dated 5/22/1970 and recorded 5/22/1970 in DELAWARE COUNTY, PENNSYLVANIA in Deed Book 2369, Page 796, conveyed unto THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC., A MARYLAND NON-PROFIT CORPORATION, in fee.

CONDITIONS AND STIPULATIONS

1. The term "mortgage", when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminated exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions, the Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.

STANDARD EXCEPTIONS

The policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company.

1. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed Insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.
2. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
3. Any discrepancies, conflicts in boundary lines, encroachments, easements, measurements, variations in area or content, party walls and/or other facts which a correct survey and/or a physical inspection of the premises would disclose.
4. Rights or claims of parties in possession not shown in the public records.
5. In the event this Commitment is issued with respect to a construction loan to be disbursed in future periodic installments, then the policy shall contain an additional exception which shall read as follow:

Pending disbursement of the full proceeds of the loan secured by the mortgage insured, this policy only insures the amount actually disbursed, but increases as proceeds are disbursed in good faith and without knowledge of any intervening lien or interest to or for the account of the mortgagor up to the amount of the policy. Such disbursement shall not extend the date of the policy or change any part thereof unless such change is specifically made by written endorsement duly issued on behalf of the Company. Upon request by the Insured (and payment of the proper charges therefore), the Company's agent or approved attorney will search the public records subsequent to the date of the policy and furnish the insured a continuation report showing such matters affecting title to the land as they have appeared in the public records subsequent to the date of the policy or date of the last preceding continuation report, and if such continuation report shows intervening lien, or liens, or interest to or for the account of the mortgagor, then in such event this policy does not increase in liability unless such matters as actually shown on such continuation report are removed from the public records by the insured.

COMMITMENT FOR TITLE INSURANCE

**UNITED GENERAL
TITLE INSURANCE COMPANY**

United General Title Insurance Company, a Louisiana Corporation, herein called the Company, for a valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums charged therefore; all subject to the provisions of Schedule A and B and to the Conditions and Stipulations hereto.

This Commitment shall be effective only when the identity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of issuance of this Commitment or by subsequent endorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate 180 days after the Effective Date hereof or when the policy or policies committed for shall be issued, whichever first occurs, provided that the failure to issue policy or policies is not the fault of the Company.

In Witness Whereof, the Company has caused its Corporate Name and Seal to be hereunto affixed: this instrument, including Commitment, Conditions and Stipulation attached, to become valid when Schedule A and Schedule B have been attached hereto.

UNITED GENERAL TITLE INSURANCE COMPANY

Richard H. Hines Jr.

President



Pheney E. Anderson

Secretary

Countersigned *Sister Mary Ann Broughton, M.D.*
Authorized Officer or Agent

37-408

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BE IT KNOWN that for and in consideration of the payment by
 PHILADELPHIA ELECTRIC COMPANY, (hereinafter called Company) to
 the undersigned of the sum of One Dollar (\$1.00), the receipt whereof
 is hereby acknowledged, the said Company, its successors and assigns
 is hereby granted by the undersigned owner of premises situate on
 the northwest side of Godfrey Road, in the Township of ROSS, in
 County of DELAWARE, Commonwealth of PENNSYLVANIA, as more particularly
 described in Deed dated April 4, 1966, and recorded in the aforesaid
 County in Deed Book No. 2237, page 814 Ac., the uninterrupted right,
 liberty and privilege to install, operate, maintain, inspect, renew,
 repair and remove aerial and underground electric facilities required
 to supply aerial and underground electric service to the premises
 and those adjacent thereto.

Together with the right of ingress and egress at all times for
 the purposes aforesaid.

The aforesaid rights are granted under and subject to the fol-
 lowing conditions:

(1) The location of the electric facilities to be installed
 hereunder shall be shown and delineated on plans prepared by
 Philadelphia Electric Company, copies of which will be in the pos-
 session of the parties hereto having first been approved by them.

(2) The undersigned agrees that the initial exercise of any
 of the rights and powers herein granted shall not be construed as
 fixing or limiting Company's rights and privileges hereunder.

(3) The undersigned agrees that no building or other permanent
 structure shall be erected over the underground electric facilities.

EXECUTED this 21st day of March A.D. 1969

ATTEST: John A. Jones
 Secretary

ACADEMY OF NOTRE DAME DE MARIE, INC.
 BY: John A. Jones
 President

COMMONWEALTH OF PENNSYLVANIA
 COUNTY OF DELAWARE

On this, the 21st day of March, 1969, before me,
John A. Jones, the undersigned officer, personally appeared
John A. Jones, who acknowledged himself to be the
 President of ACADEMY OF NOTRE DAME DE MARIE, INC., a corporation,
 and that he as such President, being authorized to do so executed the
 foregoing instrument, for the purposes therein contained by signing
 the name of the corporation by himself as President.
 In witness whereof, I hereunto set my hand and official seal.



John A. Jones
 Notary Public
 My Commission Expires

John A. Jones
 Notary Public
 My Commission Expires

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GRANT OF RIGHT OF WAY

KNOW ALL MEN BY THESE PRESENTS that THE ACADEMY OF NOTRE DAME DE NAMUR a Pennsylvania corporation, hereinafter called "GRANTOR", being owner of certain lands and property on the Northwest Corner of Radnor-Chester Road and Godfrey Road located in Radnor Township, Delaware County, Pennsylvania, and specifically described in deed dated 15 April 1966 recorded in Deed Book 2297, Page 814, in the Office for the Recording of Deeds in and for said County of Madis, Pennsylvania, in consideration of the sum of One Dollar (\$1.00) legal money of the United States of America and other good and valuable consideration paid to GRANTOR at the sealing and delivery of these presents, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey to PHILADELPHIA SUBURBAN WATER COMPANY, a Pennsylvania corporation with its principal office at Bryn Mawr, Pennsylvania, its successors and assigns, the perpetual and exclusive Right of Way and easement at any and all times hereafter to lay, relay, install, inspect, operate, repair, alter, remove, renew and replace through, across and under said lands and property now of GRANTOR an eight (8) inch inside diameter water transmission main.

The permanent Right of Way granted herein to consist of a strip of land twenty (20) feet wide, with an additional ten (10) feet of width of temporary Right of Way during the initial installation to facilitate the moving and storing of necessary materials and equipment. The twenty (20) feet wide permanent strip

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described as follows:

BEGINNING at a point in the centerline of Godfrey Road, as laid out thirty-three (33.00) feet wide, said point further described as being South sixty-seven degrees seventeen minutes West ($8.67^{\circ}17'W$) one thousand ninety-three and thirty hundredths feet (1093.30') from the intersection of the centerline of Radnor-Chester Road, as laid out fifty (50.00') feet wide and the centerline of Godfrey Road; thence from said point of beginning, continuing along the centerline of Godfrey Road, South sixty-seven degrees seventeen minutes West ($8.67^{\circ}17'W$), twenty and one hundredths feet (20.01') to a point; thence through the lands of GRANTOR North twenty-four degrees thirty minutes West ($8.24^{\circ}30'W$) five hundred twenty-nine and sixty-nine hundredths feet (529.69') to a point; thence North sixty-five degrees thirty minutes East ($8.65^{\circ}30'E$), one hundred twenty and no hundredths feet (120.00') to a point; thence South twenty-four degrees thirty minutes East ($8.24^{\circ}30'E$), twenty and no hundredths feet (20.00') to a point; thence South sixty-five degrees thirty minutes West ($8.65^{\circ}30'W$), one hundred and no hundredths feet (100.00') to a point; thence South twenty-four degrees thirty minutes East ($8.24^{\circ}30'E$), five hundred ten and thirty-one hundredths feet to the aforementioned point and place of beginning.

CONTAINING twenty-eight hundredths (0.28) acres more or less.

The foregoing description and location shown on Plan E-6612 prepared by PHILADELPHIA SUBURBAN WATER COMPANY, attached and made a part hereof;

TOGETHER with the rights of ingress, egress and regress to and from said Right of Way and water main at any and all times for the purpose of laying, re-laying, installing, operating, inspecting, maintaining, repairing, altering, removing, renewing, and replacing said water main and its appurtenances, together with the right to move in and use such equipment and materials as may be required to accomplish the foregoing. Subject to the obligation of said PHILADELPHIA SUBURBAN WATER COMPANY, its successors and assigns, after laying said water main and appurtenances, and after any subsequent maintenance, repair, alteration, removal or replacement thereof by it or them, to restore the surface of the ground disturbed as nearly as practicable to its contour and condition prior to such disturbance thereof.

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RESERVING, however, to GRANTOR the right to use the ground over said water main and Right of Way granted for access and regress, provided such use shall not obstruct the rights herein granted, and more specifically, GRANTOR agrees not to erect any building or structure on the permanent Right of Way or to change the grade of the surface over the water main.

TO HAVE AND TO HOLD all and singular the rights, liberties, privileges, Right of Way and easement above described unto said PHILADELPHIA SUBURBAN WATER COMPANY, its successors and assigns forever.

This grant and all of the covenants herein contained shall inure to the benefit of and shall be binding upon GRANTOR, its successors and assigns.

GRANTOR understands that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof which is not expressed herein and that no such agreement will be binding on said PHILADELPHIA SUBURBAN WATER COMPANY, its successors or assigns.

IN WITNESS WHEREOF this instrument is signed and sealed this

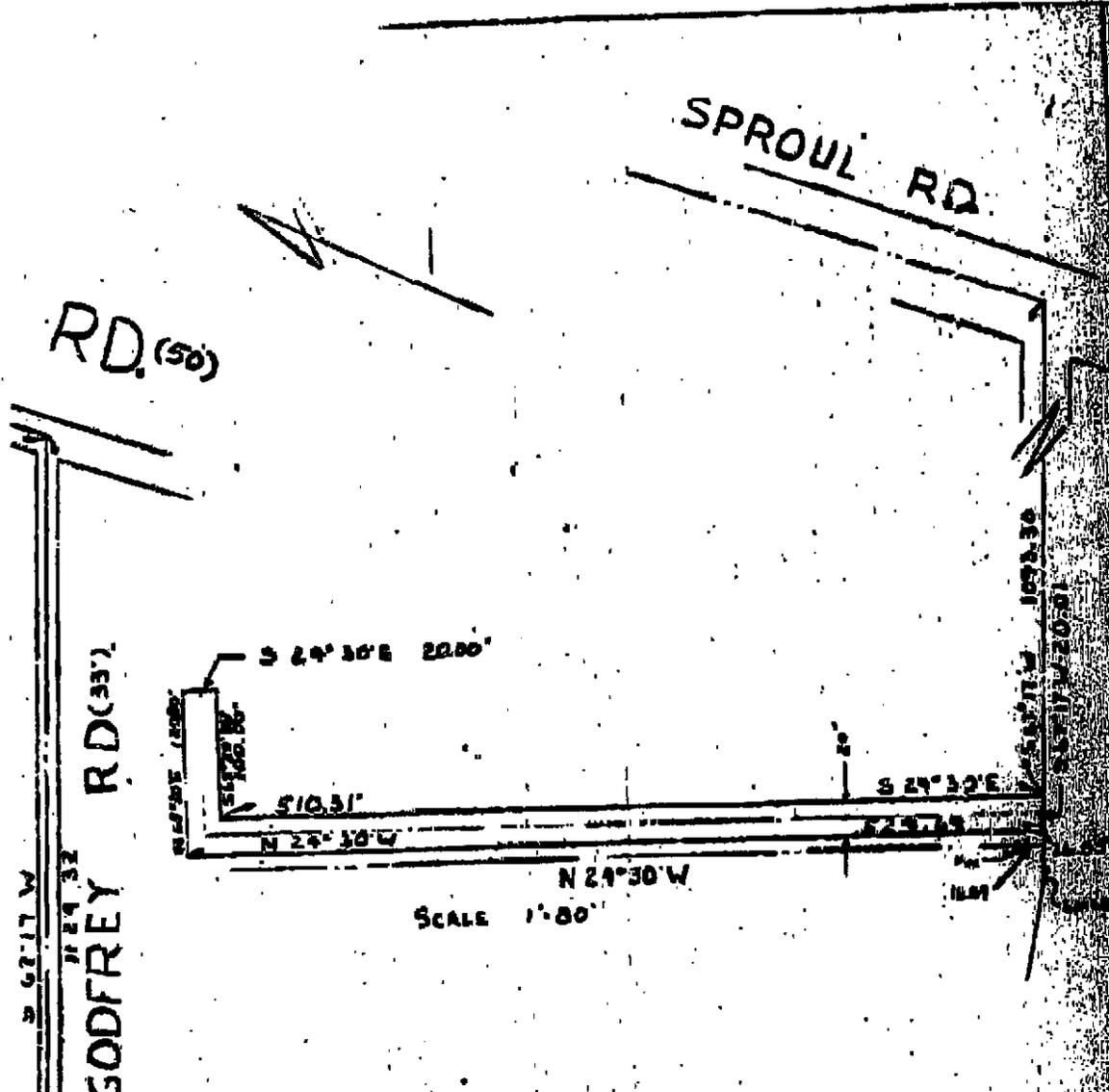
21st day of February

Joseph B. Kinnell
Witness

Sister Anne Raymond
Witness

Witness





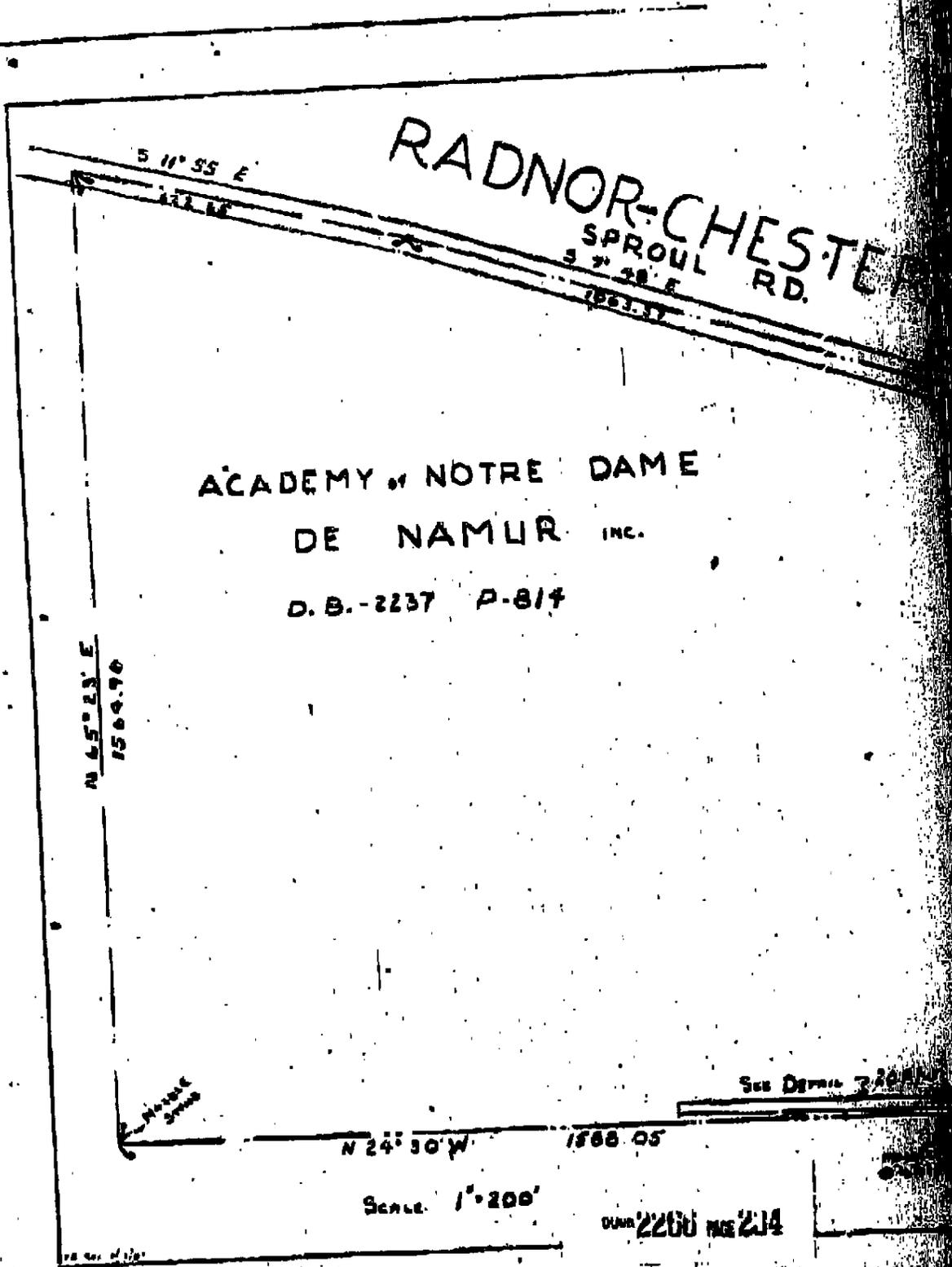
PHILADELPHIA SUBURBAN WATER CO.
 PLAN OF 20 FOOT R/W
 ACADEMY OF NOTRE DAME
 DE NAMUR

RADNOR TWP. DELAWARE CO. PA.
 10-19-66 PLATE G-21 2500

As - E-10

2260 REC 2.5

As 31501



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M-6457

THIS INDENTURE, made this _____ day of _____ A.D. 1966, between ACADEMY OF NOTRE DAME DE NAMUR, INC., (hereinafter called the grantor) of the one part and PHILADELPHIA ELECTRIC COMPANY, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, (hereinafter called the grantee) of the other part:

WHEREAS, the grantor is the owner of the premises situate on the north side of Godfrey Road, in the Township of RADNOR, County of DELAWARE, Commonwealth of PENNSYLVANIA, more particularly described in Deed dated April 4, 1966, recorded in the aforesaid County in Deed Book 2237, page 814, etc.:

NOW, THEREFORE, THIS INDENTURE WITNESSETH: That in consideration of the payment of the sum of One Dollar (\$1.00), and for other good and valuable considerations the receipt whereof is hereby acknowledged, the said grantor does hereby give and grant to the said grantee, its successors and assigns, the perpetual right, liberty and privilege to erect, operate and maintain a pole line including poles, wires, anchor guys and appurtenances:

BEGINNING at a point on the said north side of Godfrey Road approximately 800 feet west of Sprout Road; thence extending from said point of beginning in a northerly direction for a distance of approximately 170 feet to a point on premises of the undersigned,

together with the right to serve others from the aforesaid pole line who now or in the future may request service; also the perpetual right of ingress and egress to and from the pole line, as well as the right to trim and keep trimmed in a workmanlike manner all trees and branches of trees to the extent deemed necessary by grantee to provide sufficient clearance for the protection of the pole line.

IN WITNESS WHEREOF, the said grantor has duly executed this Indenture on the day and date first above written.

ACADEMY OF NOTRE DAME DE NAMUR, INC.

ATTEST: Sister Catherine Joan
Secretary

BY: Sister Anne Raymond
President



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GRANT OF RIGHT OF WAY

KNOW ALL MEN BY THESE PRESENTS that THE ACADEMY OF NOTRE DAME DE NAMER a Pennsylvania corporation, hereinafter called "GRANTOR", being owner of certain lands and property on the Northwest Corner of Radnor-Chester Road and Godfrey Road located in Radnor Township, Delaware County, Pennsylvania, and specifically described in deed dated 15 April 1966 recorded in Deed Book 2237, Page 814, in the Office for the Recording of Deeds in and for said County at Harrisburg, Pennsylvania, in consideration of the sum of One Dollar (\$1.00) lawful money of the United States of America and other good and valuable consideration paid to GRANTOR at the sealing and delivery of these presents, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey to PHILADELPHIA SUBURBAN WATER COMPANY, a Pennsylvania corporation with its principal office at Bryn Mawr, Pennsylvania, its successors and assigns, the perpetual and exclusive Right of Way and easement at any and all times hereafter to lay, relay, install, inspect, operate, repair, alter, remove, renew and replace through, across and under said lands and property now of GRANTOR an eight (8) inch inside diameter water transmission main.

The permanent Right of Way granted herein to consist of a strip of land twenty (20) feet wide, with an additional ten (10) feet of width of temporary Right of Way during the initial installation to facilitate the moving and storing of necessary materials and equipment. The twenty (20) feet wide permanent strip described as follows:

BEGINNING at a point in the centerline of Godfrey Road, as laid out thirty-three (33.00) feet wide, said point further described as being South sixty-seven degrees

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seventeen minutes West (S.67°-17'W.) one thousand ninety-three and thirty hundredths feet (1093.30') from the intersection of the centerline of Radnor-Chester Road, as laid out fifty (50.00') feet wide and the centerline of Godfrey Road; thence from said point of beginning, continuing along the centerline of Godfrey Road, South sixty-seven degrees seventeen minutes West (S.67°-17'W.), twenty and one hundredths feet (20.01') to a point; thence through the lands of GRANTON North twenty-four degrees thirty minutes West (N.24°-30'W.) five hundred fifty-nine and sixty-nine hundredths feet (559.69) to a point; thence North sixty-five degrees thirty minutes East (N.65°-30'E.), twenty and no hundredths (20.00') feet to a point; thence South twenty-four degrees thirty minutes East (S.24°-30'E.), five hundred sixty and thirty-one hundredths feet (560.31') to a point, the aforementioned point and place of beginning, CONTAINING twenty-six hundredths (0.26) acres more or less.

The foregoing description and location shown on Plan E-6412 prepared by PHILADELPHIA SUBURBAN WATER COMPANY, attached and made a part hereof.

TOGETHER with the rights of ingress, egress and regress to and from said Right of Way and water main at any and all times for the purpose of laying, re-laying, installing, operating, inspecting, maintaining, repairing, altering, removing, renewing, and replacing said water main and its appurtenances, together with the right to move in and use such equipment and materials as may be required to accomplish the foregoing, subject to the obligation of said PHILADELPHIA SUBURBAN WATER COMPANY, its successors and assigns, after laying said water main and appurtenances, and after any subsequent maintenance, repair, alteration, removal or replacement thereof by it or them, to restore the surface of the ground disturbed as nearly as practicable to its contour and condition prior to such disturbance thereof.

RESERVING, however, to GRANTON the right to use the ground over said water main and Right of Way granted for ingress and regress, provided such use shall not obstruct the rights herein granted, and more specifically, GRANTON agrees not to erect any building or structure on the permanent Right of Way or to change the grade of the surface over the water main.

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TO HAVE AND TO HOLD all and singular the rights, liberties, privileges,
Right of Way and easement above described unto said PHILADELPHIA SUBURBAN WATER
COMPANY, its successors and assigns forever.

This grant and all of the covenants herein contained shall inure to the
benefit of and shall be binding upon GRANTOR, its successors and assigns.

GRANTOR understands that the person securing this grant is without authority
to make any agreement in regard to the subject matter hereof which is not expressed
herein and that no such agreement will be binding on said PHILADELPHIA SUBURBAN
WATER COMPANY, its successors or assigns.

IN WITNESS WHEREOF this instrument is signed and sealed this

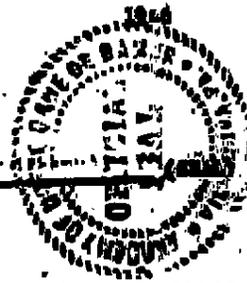
11th day of November,

Witness

Sister Anna Raymond
Witness

Witness

Sister Catherine Jean
Witness



(SEAL)

07/09/2014 08:09 FAX

State of: Pennsylvania.
County of: Delaware

On this, the 18th day of November 1966, before me a Notary Public
the undersigned officer, personally appeared Sister Catherine Joan
who acknowledged Sister Anne Raymond
to be the President of
Academy of Notre Dame DeNamur, Inc., a Pennsylvania corporation
being authorized to do so, executed the foregoing instrument for the purposes
therein contained by signing the name of the Sister Anne Raymond
as President

IN WITNESS WHEREOF, I hereunto set my hand and Official Seal

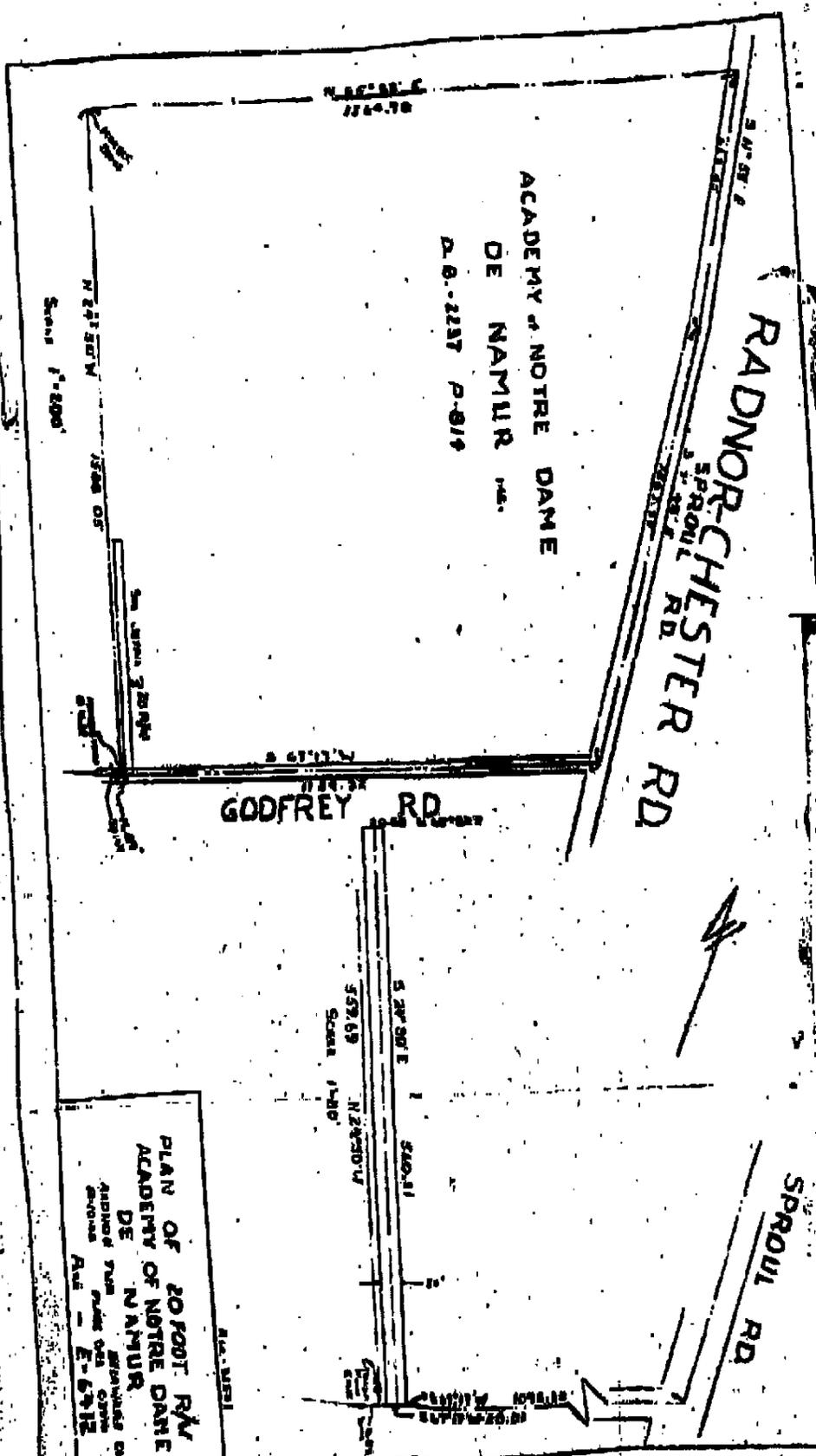
Dorothy R. Wernald
Notary Public

DOROTHY R. WERNALD
Notary Public, Middle State, Delaware County
My Commission Expires January 22, 2008



07/09/2014 08:09 FAX

013



ACADEMY OF NOTRE DAME
DE NAMUR INC.

P.O. 2237 P-819

RADNOR-CHESTER RD
SPROUL RD

GODFREY RD

PLAN OF 20 FOOT R/W
ACADEMY OF NOTRE DAME
DE NAMUR
APPROVED THIS _____ BY _____
CITY ENGINEER
APPROVED THIS _____ BY _____
COUNTY ENGINEER

AC. 10.1

NOTED 02/20/05

This Deed, this 4th day of April 1966

Between, ACADEMY OF NOTRE DAME DE NAMUR, INC.,

a corporation organized and existing under and by virtue of the laws of the Commonwealth of Pennsylvania, (hereinafter called "Grantor"), of the one part, and THE FIVE-FIFTY CORPORATION, a Pennsylvania Corporation, (hereinafter called the "Grantee"), of the other part.

Witnesseth, That in consideration of EIGHTY FIVE THOUSAND DOLLARS (\$85,000.00) Dollars, in hand paid, the receipt whereof is hereby acknowledged, the said Grantor does hereby grant and convey unto the said Grantee, its successors and assigns,

1444166
347525-8

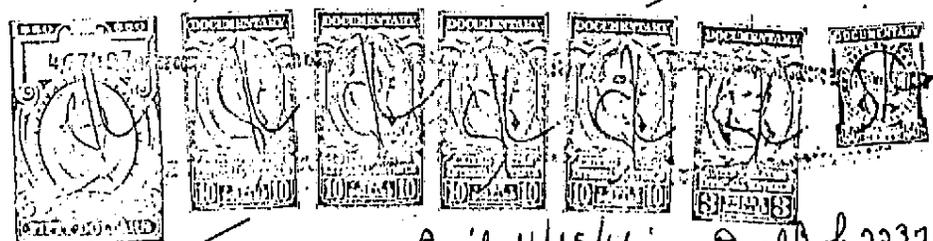
ALL THAT CERTAIN tract or parcel of ground, situate in the Township of Radnor, County of Delaware and Commonwealth of Pennsylvania, described according to a Map of property of Academy of Notre Dame De Namur, made by Yerkes Engineering Co., Consulting Engineers, Bryn Mawr, Pennsylvania, dated July 27th, 1965 as follows, to wit:

BEGINNING at a point in the middle of Radnor-Chester Road (Sproul Road, Fifty feet wide), said point is at the distance of One thousand two hundred sixty and sixty one one-hundredths feet measured North-westerly along the middle of Radnor-Chester Road (Sproul Road) from its intersection with the middle of Godfrey Road (Thirty three feet wide); -thence leaving Radnor-Chester Road (Sproul Road) by other land of Academy of Notre Dame De Namur, of which this is a part, the two following courses and distances; (1) South sixty five degrees, twenty three minutes West, One thousand two hundred twenty one and forty three one-hundredths feet to a point; (2) North twenty four degrees, thirty seven minutes West, Four hundred fifteen feet to a point in line of land now or formerly of Immaculata Gallagher; thence by same, North sixty five degrees, twenty three minutes East, One thousand three hundred fourteen and ninety six one-hundredths feet to a point in the middle of Radnor-Chester Road (Sproul Road); thence along the middle of same, South eleven degrees, fifty five minutes East, Four hundred twenty five and forty one one-hundredths feet to the place of beginning. Containing Twelve and eighty four one-thousandths acres be the same more or less.

BEING part of the same premises which The Baltimore Province of the Sisters of Notre Dame De Namur, Inc., a Maryland Corp., by Indenture bearing date the 4th day of April, A. D. 1966, and recorded at Media in the office for the Recording of Deeds, in and for the County of Delaware on the 15th day of April, A. D. 1966, in Deed Book No. , Page , etc., granted and conveyed unto Academy of Notre Dame De Namur, Inc., a Pa. Corp., in fee.

UNDER AND SUBJECT to certain restrictions of record.

93.50



Rec'd 4/15/66 Deed Book 2237 page 818

THIS INDENTURE, MADE the 27th day of December in the year of our Lord One Thousand Nine Hundred and Forty-three (1943). —

BETWEEN H.S. SCHUTT, FLORENCE H. GEIST, ELOISE GEIST CHAPMAN, ELIZABETH GEIST ELY, and MARY GOLDEN GEIST ZANTZINGER, Trustees under Deed of Trust of Clarence H. Geist, dated October 7, 1935, hereinafter called the Grantors, of the one part, _____

A N D _____

THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC. a Corporation existing under and by virtue of the laws of the State of Maryland, hereinafter called the Grantee of the other part. _____

WITNESSETH, That the said Grantors, for and in consideration of the sum of SEVENTY-FIVE THOUSAND DOLLARS, lawful money of the United States of America, unto them well and truly paid by the said Grantee at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, have granted, bargained, sold, aliened, enfeoffed, released and confirmed, and by these presents, and by virtue of the power and authority in them vested by the hereinafter recited Deed of Trust, do grant, bargain, sell, alien, enfeoff, release and confirm unto the said Grantee, its Successors and Assigns, _____

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, SITUATE in the Township of Radnor, in the County of Delaware, and State of Pennsylvania, and described according to a survey and plan thereof, made by Pugh-Hubbard, Civil Engineer, as follows, to wit:—

BEGINNING at the intersection of Radnor and Chester Road and Godfrey Road; thence along the said Godfrey Road South sixty-eight degrees, forty-eight minutes West One Thousand One Hundred and Sixteen and Thirty-nine One-hundredths feet to a point in

Godfrey Road; thence extending North twenty-three degrees fifteen minutes West one thousand five hundred and eighty-one and ninety-two one-hundredths feet to a point in the line of land of J.M. Wilcox and Lincoln Godfrey, which point is two hundred and seventy-one and forty-five one-hundredths feet Northeast from a stone on said line being the point of intersection of land now or late of Tyron Lewis, J.M. Wilcox and Lincoln Godfrey; thence along said line North sixty-six degrees, thirty-five minutes East one thousand five hundred and sixty-five and six one-hundredths feet to a point in the centre line of Radner Road; thence along said Road South ten degrees, twenty-four minutes East six hundred and twenty-four and eighty-five one-hundredths feet to a point; thence extending along said Road South six degrees, sixteen minutes, forty seconds East one thousand and sixty-three and fifty-three one-hundredths feet to the first mentioned point and place of beginning.

CONTAINING Fifty Acres of land, be the same, more or less.
BEING the same premises, inter alia, which H.S. SCHUTT, ET AL, Executors and Trustees &c. by Indenture bearing date the Twenty-sixth day of August A.D. 1942, and recorded at Media, in the Office for the Recording of Deeds, in and for the County of Delaware, in Deed Book No. 1192, Page 1 &c., granted and conveyed unto the said H.S. Schutt, Florence H. Geist, Eloise Geist Chapman, Formerly (Sheaffer), Elizabeth Geist Ely and Mary Golden Geist Zantlinger, Trustees under Deed of Trust of Clarence H. Geist, dated October 7, 1935, in fee.

TO CERTAIN
UNDER AND SUBJECT TO BUILDING RESTRICTIONS.

AND in said Deed of Trust the Trustees and their Successors, Survivors and or Survivor of them were given the following powers, inter alia viz:-

1. To sell any real estate which may at any time form part

of this Trust for such prices, upon such terms, in such way and manner and for such interest and estates as may be deemed wise, and to make good Deeds therefor to the purchaser or purchasers thereof without any obligation on the latter to see to or be responsible for the application of the Purchase money".

TOGETHER with all and singular the buildings, improvements, streets, alleys, passages, ways, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances, whatsoever thereunto belonging, or in any wise appertaining, and the reversions and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, property, claim and demand whatsoever, of them the said Grantors, Trustees as aforesaid in law, equity, or otherwise, howsoever, of, in, and to the same and every part thereof,

TO HAVE AND TO HOLD the said lot or piece of ground with the buildings and improvements thereon erected, Hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantee, its Successors and Assigns, to and for the only proper use and behoof of the said Grantee, its Successors and Assigns, forever; UNDER AND SUBJECT NEVERTHELESS to the aforesaid certain building restrictions.

AND THE SAID H.S. SCHUTT, FLORENCE H. GEIST, ELOISE GEIST
CHAPMAN. ELIZABETH GEIST ELY, and MARY GOLDEN/ZANTZINGER, Trustees
Geist
under Deed of Trust of Clarence H. Geist, dated October 7, 1935, for themselves, and their and each of their respective heirs, executors, and administrators, do severally and not jointly covenant, promise and agree to and with the said Grantee, and its Successors and Assigns, by these presents, that they, the said H.S. Schutt, Florence H. Geist, Eloise Geist Chapman, Elizabeth Geist Ely and Mary Golden Geist Zantzinger, Trustees under Deed of Trust of Clarence H. Geist, dated October 7, 1935, have not

or willingly
done, committed or knowingly suffered to be done or committed,
any act, matter or thing whatsoever whereby the premises hereby
granted, or any part thereof, is, are, shall or may be impeached,
or incumbered in title, charge, estate, or otherwise, howsoever.

IN WITNESS WHEREOF the said H.S. Schutt, Florence H. Geist,
Eloise Geist Chapman, Elizabeth Geist Ely and Mary Golden Geist
Zantzinger, Trustees under Deed of Trust of Clarence H. Geist,
dated October 7, 1935, have hereunto set their hands and seals,
this 27th day of December in the year of our Lord one thousand
nine hundred and forty-three (1943).

SEALED AND DELIVERED IN THE :

PRESENCE OF US: : H.S. Schutt (Seal)
L. G. Waring : Florence H. Geist (Seal)
: Eloise Geist Chapman (Seal)
U.S.A. : Elizabeth Geist Ely (Seal)
\$82.50 :
Stamps Mary Golden Geist Zantzinger (Seal)

RECEIVED, the day of the date of the above Indenture of the
above-named Grantee, the full consideration hereinbefore mentioned.

WITNESS AT SIGNING:

L.G. Waring H.S. Schutt
Eloise Geist Chapman
Elizabeth Geist Ely and
Mary Golden Geist Zantzinger
Trustees under Deed of Trust
of Clarence H. Geist, dated
October 7, 1935.

ON THE 28th day of December Anno Domini 1943, before me, the
subscriber, a Notary Public for the Commonwealth of Pennsylvania,
residing in the City of Philadelphia personally appeared the
above-named H.S. SCHUTT, FLORENCE H. GEIST, and ELIZABETH GEIST

ELY, three of the Trustees under Deed of Trust of Clarence H. Geist, dated October 7, 1935, and in due form of law acknowledged the above Indenture to be their and each of their act and deed, and desired the same might be recorded as such. _____

WITNESS my hand and ^{notarial} seal the day and year aforesaid.

Louis G. Waring (Seal)

Notary Public

My Commission expires January 27th 1945.

STATE OF N.Y. :
: SS.
COUNTY & CITY OF N.Y. :

ON THE 27th day of December Anno Domini 1943, before me the subscriber, a Notary Public for the State of New York, residing in the City of Mt. Vernon N.Y. personally appeared the above-named ELOISE GEIST CHAPMAN, one of the Trustees under Deed of Trust of Clarence H. Geist, dated October 7, 1935, and in due form of law acknowledged the above Indenture to be her act and deed, and desired the same might be recorded as such. _____

WITNESS my hand and Notarial seal the day and year aforesaid.

Harold E. Pressane (Seal)

Attorney & Counsellor-at-law

Office Address: 40 Wall St N.Y.
City.

Residing in Westchester County

Cert filed in N.Y. Co. No. 44 Reg No 4P409
Cert. filed in Kings Co No 11 Reg No. A4014
Cert. filed in Bronx Co No 5 Reg No P44-13
Cert. filed in Queens Co No 182 Reg No A4539
Cert. filed in Richmond County

Commission expires March 30, 1944

STATE OF NEW YORK ?
: SS. No. 5913
COUNTY OF NEW YORK :

I, ARCHIBALD R. WATSON, County Clerk and Clerk of the _____

Supreme Court of New York County, the same being a Court of Record having by law a Seal, do hereby CERTIFY that HAROLD E. PREZZANO, whose name is subscribed to the annexed Deposition Certificate of acknowledgment or proof, was at the time of taking the same an Attorney and Counsellor at law duly commissioned to have and exercise the power of a Notary Public acting in and for said County, and sworn and qualified to act as such; that he has filed in the Clerk's Office of the County of New York a CERTIFIED COPY of his appointment and qualification for the County of Westchester, with his autograph signature; that as such Officer he was duly authorized by the laws of the State of New York to protest notes, to take and certify depositions, to administer oaths and affirmations, to take affidavits and certify the hereditaments, to be read in evidence or recorded in this State; and further, that I am well acquainted with the handwriting of such Attorney and Counsellor at law or have compared the signature of such officer with that deposited ^{in my Office} and believe that the signature to the said annexed instrument is genuine. _____

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal this 27th day of Dec. 1943.

Archibald R. Watson (Seal)

County Clerk and Clerk of the Supreme Court
New York County.

ON THE 28th day of December Anno Domini 1943, before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the City of Philadelphia, personally appeared the above-named MARY GOLDEN GEIST ZANTZINGER, One of the Trustees under Deed of Trust of Clarence H. Geist, dated October 7, 1935, and in due form of law acknowledged the above Indenture to be —

her act and deed, and desired the same might be recorded as such.

WITNESS my hand and Notarial seal the day and year aforesaid.

Louis G. Waring (Seal)

Notary Public

My Commission expires January 27,
1945.

The address of the Grantee above-named is Baltimore Maryland

(W. Chester

Registered in Radnor Town- L.G. Waring On behalf of Grantee
ship E S A 12/31/43

Recorded December 31, 1943. Evans Recorder.

DELAWARE COUNTY : SS

I, JOSEPH L. EYRE, Recorder of Deeds for
Delaware County, do CERTIFY that the
above DEED from H.S. SCHUTT, FLORENCE
H. GEIST, ELOISE GEIST CHAPMAN, ELIZABETH
GEIST ELY, and MARY GOLDEN GEIST
ZANTZINGER, Trustees under Deed of Trust
of Clarence H. Geist, dated October 7,
1935, to THE BALTIMORE PROVINCE OF THE
SISTERS OF NOTRE DAME DE NAMUR, INC. and
recorded in DEED BOOK NO. 1232, PAGE 170,
is a true and correct Copy as full and
entire as appears on the Record of this
Office.

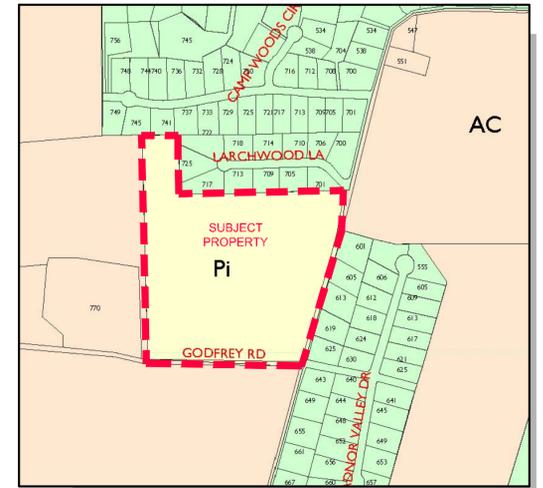
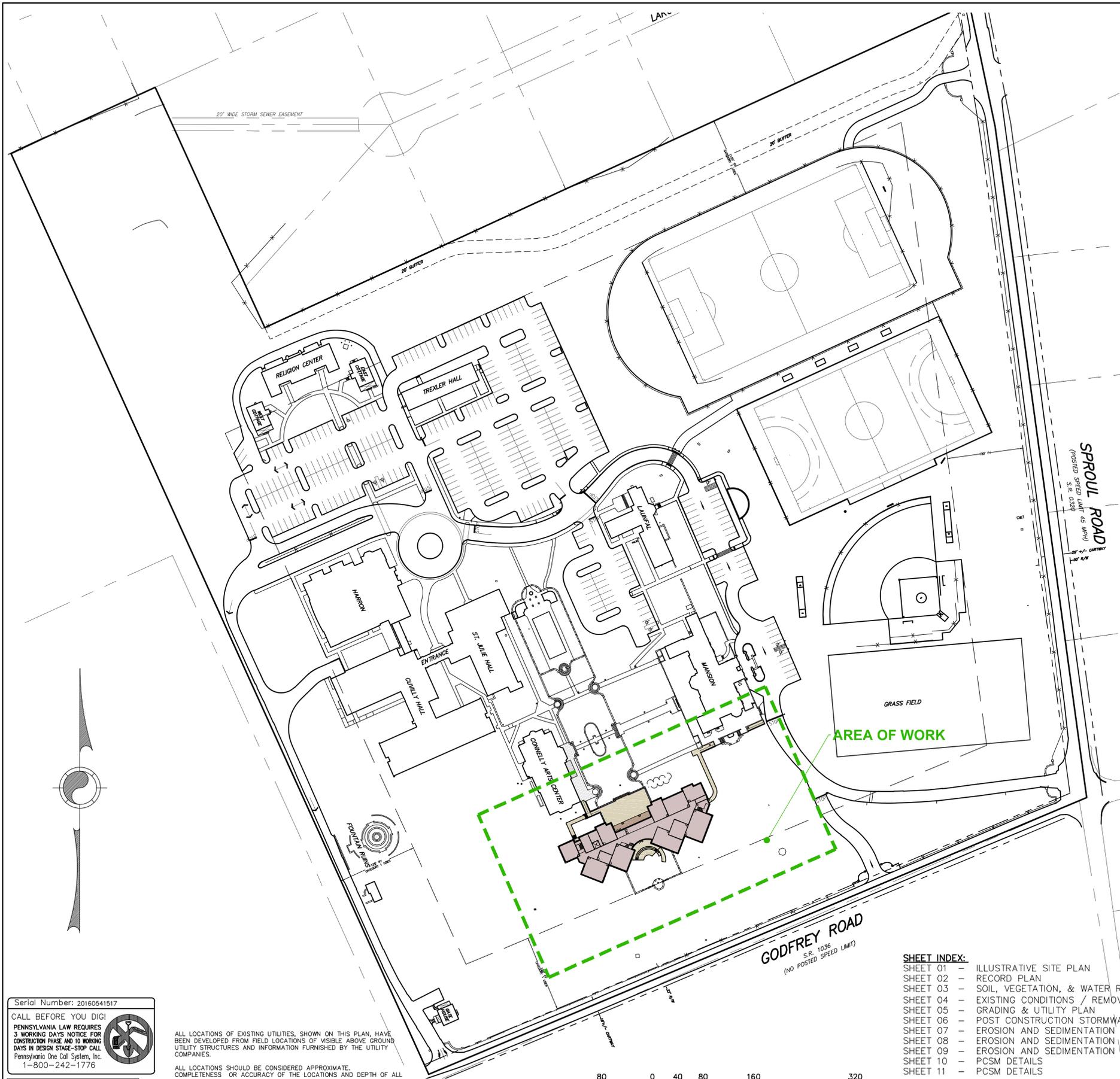
WITNESS my hand and seal this Twenty-
third day of December, Anno Domini 1964.

Joseph L. Eyre

Recorder of Deeds

By:

Fred L. Mac Dugall
Deputy Recorder

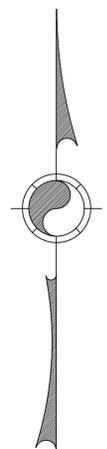
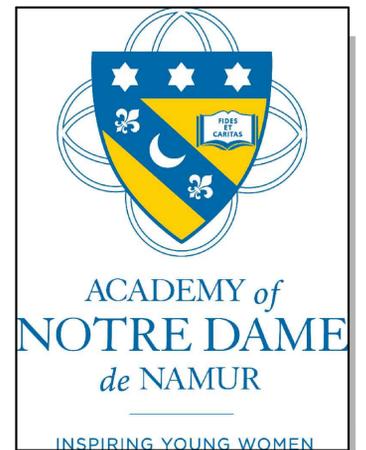


LOCATION MAP
SCALE: 1" = 600'

PRELIMINARY LAND DEVELOPMENT PLAN FOR ACADEMY OF NOTRE DAME DENAMUR

RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

OWNER/APPLICANT:
ACADEMY OF NOTRE DAME DENAMUR
560 SPROUL ROAD
VILLANOVA, PA 19085-1220
(610) 687-0650

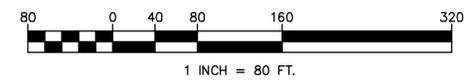


Serial Number: 20160541517
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE-STOP CALL
Pennsylvania One Call System, Inc.
1-800-242-1776

ALL LOCATIONS OF EXISTING UTILITIES, SHOWN ON THIS PLAN, HAVE BEEN DEVELOPED FROM FIELD LOCATIONS OF VISIBLE ABOVE GROUND UTILITY STRUCTURES AND INFORMATION FURNISHED BY THE UTILITY COMPANIES.

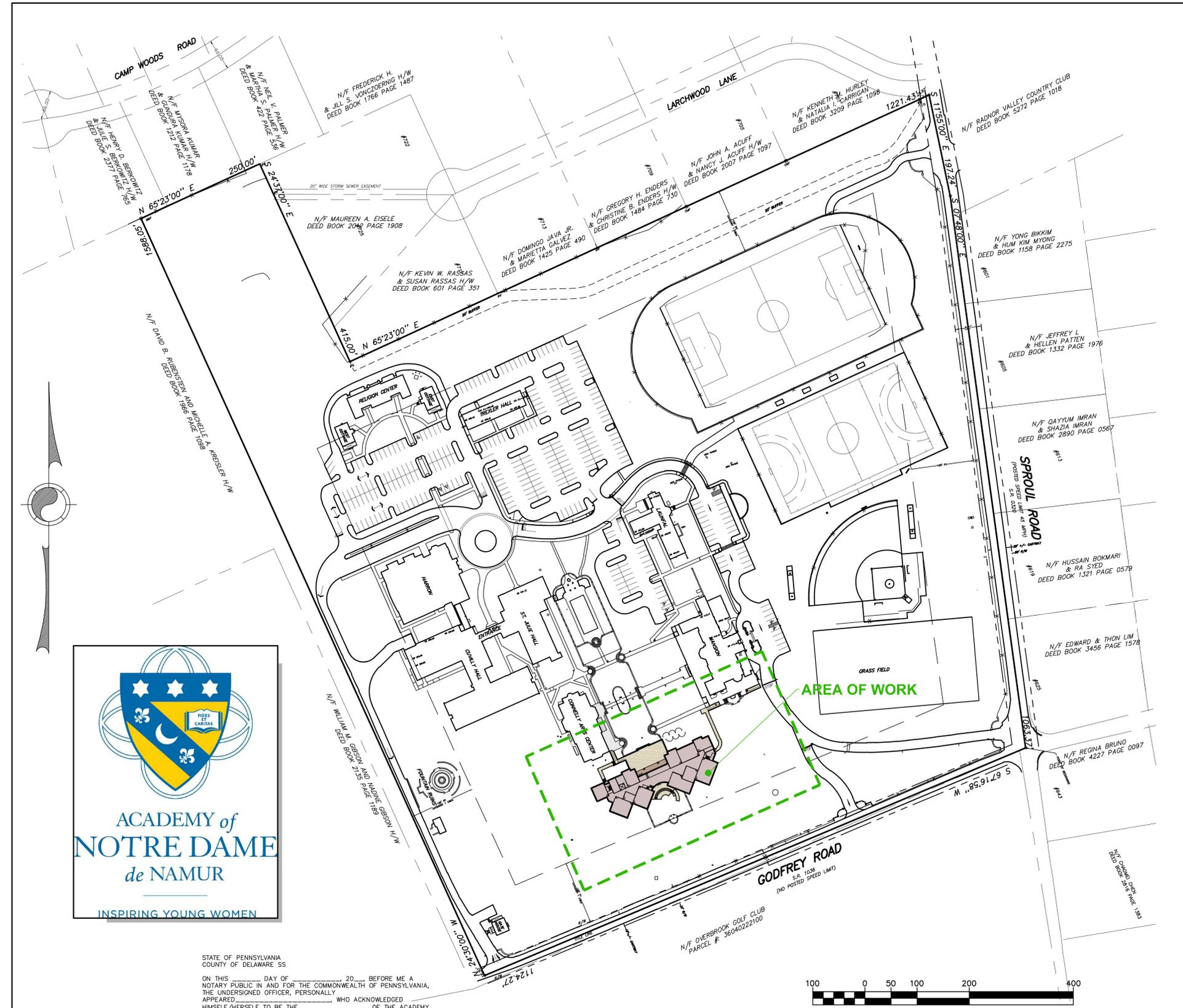
ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. COMPLETENESS OR ACCURACY OF THE LOCATIONS AND DEPTH OF ALL STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE THE START OF ANY WORK.

AS PER ACT 187 HOUSE BILL 2627, BEFORE THE START OF ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANIES THROUGH THE PENNSYLVANIA "ONE CALL SYSTEM" 1-800-242-1776 THREE DAYS PRIOR TO THE START OF ANY EXCAVATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION.



- SHEET INDEX:**
- SHEET 01 - ILLUSTRATIVE SITE PLAN
 - SHEET 02 - RECORD PLAN
 - SHEET 03 - SOIL, VEGETATION, & WATER RESOURCES MAP
 - SHEET 04 - EXISTING CONDITIONS / REMOVALS PLAN
 - SHEET 05 - GRADING & UTILITY PLAN
 - SHEET 06 - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
 - SHEET 07 - EROSION AND SEDIMENTATION CONTROL PLAN
 - SHEET 08 - EROSION AND SEDIMENTATION CONTROL DETAILS
 - SHEET 09 - EROSION AND SEDIMENTATION CONTROL DETAILS
 - SHEET 10 - PCSM DETAILS
 - SHEET 11 - PCSM DETAILS

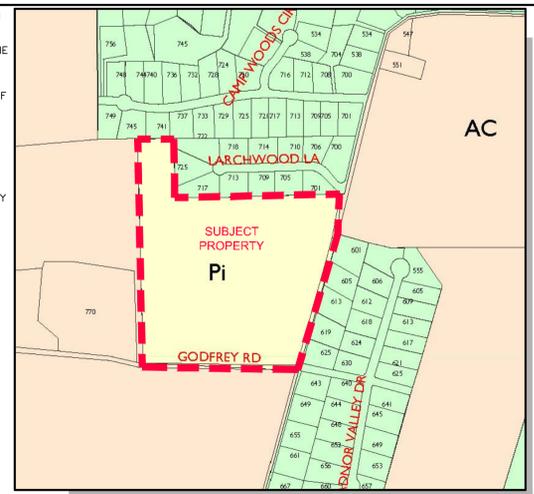
ILLUSTRATIVE SITE PLAN		FILE NO.:	15-372
ONE-CALL:	20160541517	OWNER/APPLICANT	ACADEMY OF NOTRE DAME
DRAWN BY:	BDM		560 SPROUL ROAD
CHECKED BY:	KRM		VILLANOVA, PA 19085-1220
SHEET	1	OF	11
DATE:	AUGUST 31, 2016	SCALE:	1" = 80'



ALL LOCATIONS OF EXISTING UTILITIES, SHOWN ON THIS PLAN, HAVE BEEN DEVELOPED FROM FIELD LOCATIONS OF VISIBLE ABOVE GROUND UTILITY STRUCTURES AND INFORMATION FURNISHED BY THE UTILITY COMPANIES.

ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. COMPLETENESS OR ACCURACY OF THE LOCATIONS AND DEPTH OF ALL STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE THE START OF ANY WORK.

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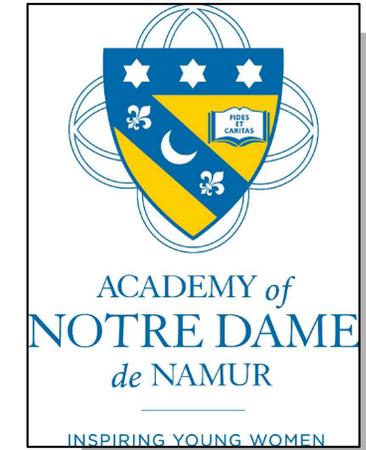
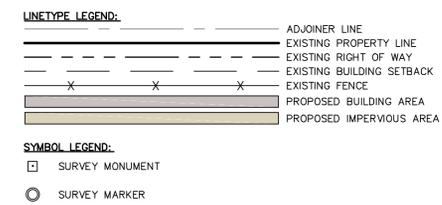
LOCATION MAP
SCALE: 1" = 600'
TOTAL AREA (TO THE TITLE LINE)
38.143 ACRES/1,661,497 S.F.

EXISTING IMPERVIOUS COVERAGE:		PROPOSED IMPERVIOUS COVERAGE:	
BUILDINGS	83,110 SF (5.0%)	BUILDINGS	97,932 SF (5.9%)
DRIVES/PARKING	208,524 SF	DRIVES/PARKING	208,524 SF
WALLS	3,359 SF	WALLS	3,128 SF
WALKS, PATIOS, ETC.	59,873 SF	WALKS, PATIOS, ETC.	65,760 SF
TRACK	60,136 SF	TRACK	60,136 SF
TOTAL	415,042 SF (25.0%)	TOTAL	435,478 SF (26.2%)
ARTIFICIAL TURF FIELDS	156,795 SF (9.4%)	ARTIFICIAL TURF FIELDS	156,795 SF (9.4%)
SOFTBALL INFIELD MIX	18,426 SF (1.1%)	SOFTBALL INFIELD MIX	18,426 SF (1.1%)
GRASSPAVE	1,664 SF (0.1%)	GRASSPAVE	1,664 SF (0.1%)

- GENERAL NOTES**
- OWNER/APPLICANT: NOTRE DAME DE NAMUR INC. 560 SPROUL ROAD VILLANOVA, PA 19085-1220 PHONE: 610-687-0650
 - TAX MAP PARCEL: 36-37-086-001
 - TAX FOLIO NUMBER: 36040264800
 - GROSS TRACT AREA: 1,661,497 S.F., 38.143 ACRES
 - SOURCE OF TITLE: DEED BOOK 2369, PAGE 796
 - BOUNDARY SURVEY, AND PARTIAL TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "BOUNDARY AND PARTIAL TOPOGRAPHIC SURVEY OF ACADEMY OF NOTRE DAME DE NAMUR" PREPARED BY MOMENEE SURVEY GROUP INC. DATED JANUARY 19, 2005 (FILE #04232). THE NOTED SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT PROVIDED BY THE CLIENT.
 - UPDATED FIELD SURVEY IN THE AREA OF THE PROPOSED IMPROVEMENTS FROM A FIELD SURVEY BY MOMENEE SURVEY GROUP INC. PERFORMED IN FEBRUARY 2016.
 - ADDITIONAL SITE INFORMATION TAKEN FROM A PLAN ENTITLED "MINOR GRADING PERMIT - ACADEMY OF NOTRE DAME DE NAMUR" PREPARED BY MOMENEE & ASSOCIATES, INC. DATED MARCH 31, 2014, LAST REVISED JULY 8, 2014. FILE # 12-043.
 - ADDITIONAL TOPOGRAPHY TAKEN FROM A PLAN ENTITLED "FINE ARTS BUILDING - ACADEMY OF NOTRE DAME DE NAMUR" PREPARED BY MOMENEE & ASSOCIATES INC. DATED AUGUST 12, 1998, LAST REVISED 12/14/98 (FILE #98114).
 - VERTICAL DATUM: U.S.G.S. BENCHMARK "RADNOR 1961", ELEVATION 394.82.
 - WETLANDS MAPPING FROM NATIONAL WETLANDS INVENTORY MAP. NO WETLANDS ARE LOCATED WITHIN THE AREA OF THE PROPOSED WORK.
 - THIS SITE IS NOT LOCATED WITHIN THE FEMA 100-YR FLOODPLAIN ZONE.
 - SOIL INFORMATION TAKEN FROM THE SOIL SURVEY FOR CHESTER AND DELAWARE COUNTIES PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE.
 - PUBLIC DOMESTIC WATER SERVICE PROVIDED BY AQUA PENNSYLVANIA.
 - THE SITE IS SERVED BY PUBLIC SEWERS.
 - THE INTENT OF THIS PLAN SET IS TO SHOW THE CONSTRUCTION OF A NEW SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS BUILDING AND RELATED SITE IMPROVEMENTS.
 - THE STORMWATER MANAGEMENT IMPROVEMENTS SHOWN INCLUDE CONTROL OF THE PREVIOUSLY INSTALLED CONNELLY FINE ARTS BUILDING PATIO REPLACEMENT.

EXISTING PARKING COUNT:
310 (NO STACKED PARKING SPACES)

WAIVERS REQUESTED:
§ 255-20.B.(5): REQUEST TO NOT PROVIDE A TRANSPORTATION IMPACT STUDY.



STATE OF PENNSYLVANIA
COUNTY OF DELAWARE SS

ON THIS _____ DAY OF _____ 20____, BEFORE ME A NOTARY PUBLIC IN AND FOR THE COMMONWEALTH OF PENNSYLVANIA, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED HIMSELF/HERSELF TO BE THE _____ OF THE ACADEMY OF NOTRE DAME DE NAMUR AND THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN AND THE LAND DEVELOPMENT PLAN THEREOF WAS MADE AT HIS/HER DIRECTION AND THAT HE/SHE ACKNOWLEDGES THE SAME TO BE HIS/HER ACT AND PLAN AND DESIRES THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

(SIGNATURE)

NOTARY PUBLIC OR OTHER OFFICER

MY COMMISSION EXPIRES: _____

ZONING DATA - PI (PLANNED INSTITUTIONAL DISTRICT):

ITEM	REQUIREMENT	EXISTING	PROPOSED
LOT AREA	10 ACRES MINIMUM	38.143 ACRES (GROSS)	38.143 ACRES (GROSS)
LOT WIDTH	300' MIN	1,612,673 SF 37.022 ACRES (NET)	1,612,673 SF 37.022 ACRES (NET)
BUILDING AREA	MAX 30%	OF R/W AND REGULATED STEEP SLOPES	OF R/W AND REGULATED STEEP SLOPES
REQUIRED GREEN AREA	NOT LESS THAN 55% OF NET AREA	1,243' ALONG SPROUL ROAD,	1,243' ALONG SPROUL ROAD,
BUILDING HEIGHT	38 FEET MAX	1,139' ALONG GODFREY ROAD	1,139' ALONG GODFREY ROAD
FRONT YARD	120' MIN FOR BUILDINGS	97,932 SF (5.9%)	97,932 SF (5.9%)
SIDE YARD	60' MIN FOR PARKING, VEHICULAR ACCESS**	1,179,205 SF (73.1%)	1,158,769 SF (71.9%)
REAR YARD	MIN 125' FOR CATEGORY 1 USES	170'	170'
	MIN 125' FOR CATEGORY 2 USES	177'	177'
	MIN 200' FOR CATEGORY 1 USES	50'	50'
	MIN 125' FOR CATEGORY 2 USES	70'	70'
	MIN 200' FOR CATEGORY 2 USES	116'	116'
		108'	108'

** WITH THE EXCEPTION OF APPROVED ACCESS ROADS

Serial Number: 2016054157

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

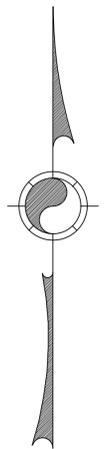
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RECORD PLAN		FILE NO.: 15-372
PRELIMINARY LAND DEVELOPMENT PLAN		
ACADEMY OF NOTRE DAME - STEM BUILDING		
RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA		
ONE-CALL: 2016054157	OWNER/APPLICANT: ACADEMY OF NOTRE DAME	
DRAWN BY: BDM	560 SPROUL ROAD	
CHECKED BY: KRM	VILLANOVA, PA 19085-1220	
SHEET 2 OF 11		DATE: AUGUST 31, 2016
SCALE: 1" = 100'		

ALL LOCATIONS OF EXISTING UTILITIES, SHOWN ON THIS PLAN, HAVE BEEN DEVELOPED FROM FIELD LOCATIONS OF VISIBLE ABOVE GROUND UTILITY STRUCTURES AND INFORMATION FURNISHED BY THE UTILITY COMPANIES.

ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. COMPLETENESS OR ACCURACY OF THE LOCATIONS AND DEPTH OF ALL STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE THE START OF ANY WORK.

AS PER ACT 187 HOUSE BILL 2627, BEFORE THE START OF ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANIES THROUGH THE "PENNSYLVANIA ONE CALL SYSTEM" 1-800-242-1776 THREE DAYS PRIOR TO THE START OF ANY EXCAVATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION.



- SOURCE OF TITLE**
 ACADEMY OF NOTRE DAME
 560 SPROUL RD
 VILLANOVA PA 19085-1220
 PARCEL # 36040264800
 PIN # 36-37-086:001
 DEED BOOK-PAGE: 4027-0810
- GENERAL NOTES**
- OWNER/APPLICANT: NOTRE DAME DE NAMUR INC. 560 SPROUL ROAD VILLANOVA, PA 19085-1220 PHONE: 610-687-0650
 - TAX MAP PARCELS: 36-37-086-001
 - TAX TOLID NUMBER: 36040264800
 - GROSS TRACT AREA: 1,661,497 S.F., 38.143 ACRES
 - SOURCE OF TITLE: DEED BOOK 4027, PAGE 810
 - BOUNDARY SURVEY, AND PARTIAL TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED 'BOUNDARY AND PARTIAL TOPOGRAPHIC SURVEY OF ACADEMY OF NOTRE DAME DE NAMUR' PREPARED BY MOMENE SURVEY GROUP INC. DATED JANUARY 19, 2005 (FILE #04232). THE NOTED SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT PROVIDED BY THE CLIENT.
 - UPDATED FIELD SURVEY IN THE AREA OF THE PROPOSED IMPROVEMENTS FROM A FIELD SURVEY BY MOMENE SURVEY GROUP INC. PERFORMED IN FEBRUARY 2016.
 - ADDITIONAL SITE INFORMATION TAKEN FROM A PLAN ENTITLED 'MINOR GRADING PERMIT - ACADEMY OF NOTRE DAME DE NAMUR' PREPARED BY MOMENE & ASSOCIATES, INC. DATED MARCH 31, 2014, LAST REVISED JULY 8, 2014. FILE # 12-043.
 - ADDITIONAL TOPOGRAPHY TAKEN FROM A PLAN ENTITLED 'FINE ARTS BUILDING - ACADEMY OF NOTRE DAME DE NAMUR' PREPARED BY MOMENE & ASSOCIATES INC. DATED AUGUST 12, 1998, LAST REVISED 12/14/98 (FILE #99114).
 - VERTICAL DATUM: U.S.G.S. BENCHMARK KV1909 "RADNOR 1961", ELEVATION 394.82.
 - WETLANDS MAPPING FROM NATIONAL WETLANDS INVENTORY MAP. NO WETLANDS ARE LOCATED WITHIN THE AREA OF THE PROPOSED WORK.
 - THIS SITE IS NOT LOCATED WITHIN THE FEMA 100-YR FLOODPLAIN ZONE.
 - SOIL INFORMATION TAKEN FROM THE SOIL SURVEY FOR CHESTER AND DELAWARE COUNTIES PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE.
 - PUBLIC DOMESTIC WATER SERVICE PROVIDED BY AQUA PENNSYLVANIA. THE SITE IS SERVED BY PUBLIC SEWERS.

EXISTING IMPERVIOUS COVERAGE:

BUILDINGS	83,110 SF (5.0%)
DRIVES/PARKING	208,524 SF
WALLS	5,339 SF
WALKS, PATIOS, ETC.	59,873 SF
TRACK	60,136 SF
TOTAL	415,042 SF (25.0%)
ARTIFICIAL TURF FIELDS	156,795 SF (9.4%)
SOFTBALL INFIELD MIX	18,426 SF (1.1%)
GRASSPAVE	1,664 SF (0.1%)

LINE/TYPE LEGEND:

---	ADJOINER LINE
---	EXISTING PROPERTY LINE
---	EXISTING RIGHT OF WAY
---	EXISTING BUILDING SETBACK
X X X	EXISTING FENCE
///	EXISTING OVERHEAD ELECTRIC
---	EXISTING ELECTRIC LINE
G	EXISTING GAS LINE
W	EXISTING WATER LINE
SS	EXISTING SANITARY LINE
---	EXISTING STORM PIPES
---	EXISTING 1' MINOR CONTOUR
---	EXISTING 5' MAJOR CONTOUR
---	TO BE REMOVED

SYMBOL LEGEND:

□	EXISTING SLOPES 14-20%
□	EXISTING SLOPES 20%+

SYMBOL LEGEND:

□	SURVEY MONUMENT
○	SURVEY MARKER
*	LIGHT
○	UTILITY POLE
●	EXISTING TREE
X	TREE TO BE REMOVED

Serial Number: 20160541517

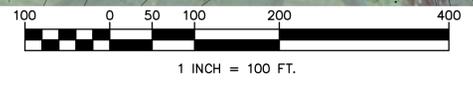
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SOILS INFORMATION

NAME	% TO DEPTH	S. H. TO DEPTH	EROD.	GROUP	HYDRO SOIL LIMITATIONS
GeB2	3-B	6.6+	6.6+	Moderate	B Moderate
Clene1g					
Channey Silt Loam					

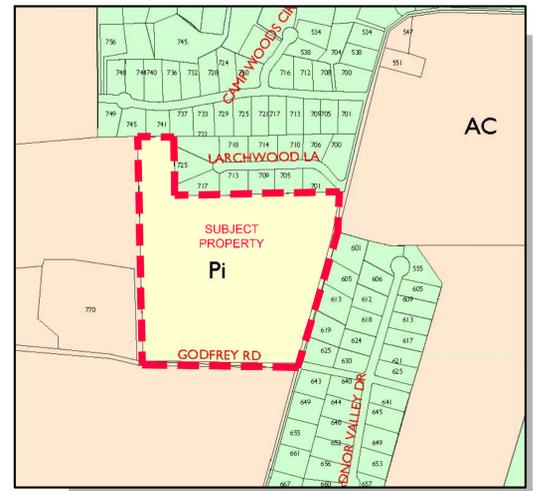
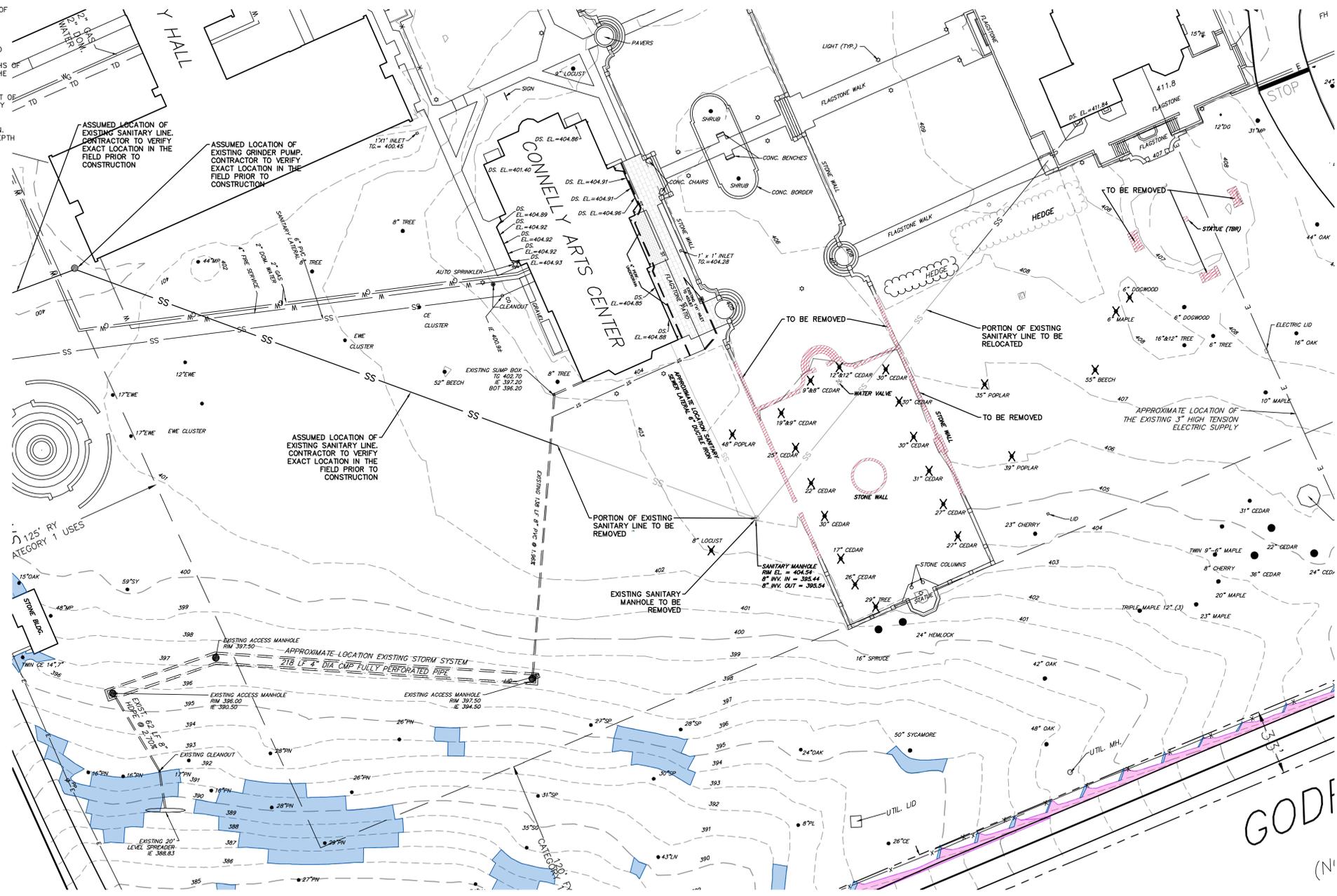


SOIL, VEGETATION & WATER RESOURCES MAP		FILE NO.: 15-372
PRELIMINARY LAND DEVELOPMENT PLAN ACADEMY OF NOTRE DAME - STEM BUILDING RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA		
ONE-CALL: 20160541517	OWNER/APPLICANT: ACADEMY OF NOTRE DAME	SHEET 3 OF 11 DATE: AUGUST 31, 2016 SCALE: 1" = 100'
DRAWN BY: BDM	560 SPROUL ROAD	
CHECKED BY: KRM	VILLANOVA, PA 19085-1220	

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LOCATION MAP
SCALE: 1" = 600'

SOURCE OF TITLE
ACADEMY OF NOTRE DAME
560 SPROUL RD
VILLANOVA PA 19085-1220
PARCEL #: 36040264800
PIN #: 36-37-086:001
DEED BOOK-PAGE: 4027-0810

- GENERAL NOTES**
- OWNER/APPLICANT: NOTRE DAME DE NAMUR INC. 560 SPROUL ROAD VILLANOVA, PA 19085-1220 PHONE: 610-687-0850
 - TAX MAP PARCEL: 36-37-086-001
 - TAX FOLIO NUMBER: 36040264800
 - GROSS TRACT AREA: 1,661,497 S.F., 38.143 ACRES
 - SOURCE OF TITLE: DEED BOOK 4027, PAGE 810
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 - PUBLIC DOMESTIC WATER SERVICE PROVIDED BY AQUA PENNSYLVANIA.
 - THE SITE IS SERVED BY PUBLIC SEWERS.

EXISTING IMPERVIOUS COVERAGE:

BUILDINGS	83,110 SF (5.0%)
DRIVES/PARKING	208,524 SF
WALLS, PATIOS, ETC.	3,399 SF
WALKS	59,813 SF
TRACK	60,136 SF
TOTAL	415,042 SF (25.0%)
ARTIFICIAL TURF FIELDS	156,795 SF (9.4%)
SOFTBALL INFIELD MIX	18,426 SF (1.1%)
GRASSPAVE	1,664 SF (0.1%)

LINE TYPE LEGEND:

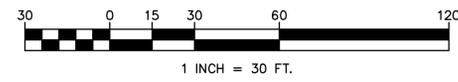
---	ADJOINER LINE
---	EXISTING PROPERTY LINE
---	EXISTING RIGHT OF WAY
---	EXISTING BUILDING SETBACK
---	EXISTING FENCE
X X X	EXISTING OVERHEAD ELECTRIC
E	EXISTING ELECTRIC LINE
C	EXISTING GAS LINE
W	EXISTING WATER LINE
SS	EXISTING SANITARY LINE
---	EXISTING STORM PIPES
---	EXISTING 1' MINOR CONTOUR
---	EXISTING 5' MAJOR CONTOUR
---	TO BE REMOVED
---	EXISTING SLOPES 14-20%
---	EXISTING SLOPES 20%+

SYMBOL LEGEND:

□	SURVEY MONUMENT
○	SURVEY MARKER
⊙	LIGHT
⊙	UTILITY POLE
●	EXISTING TREE
X	TREE TO BE REMOVED

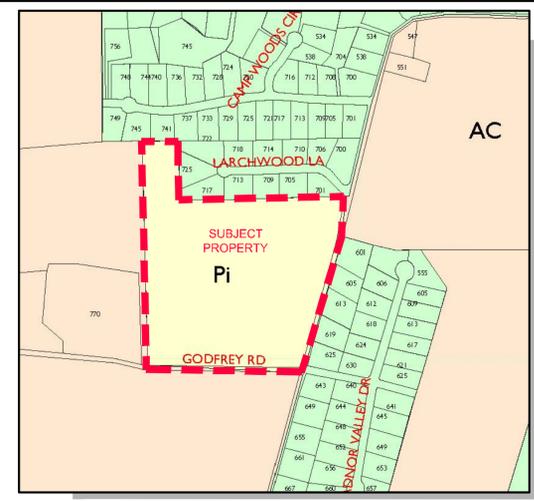
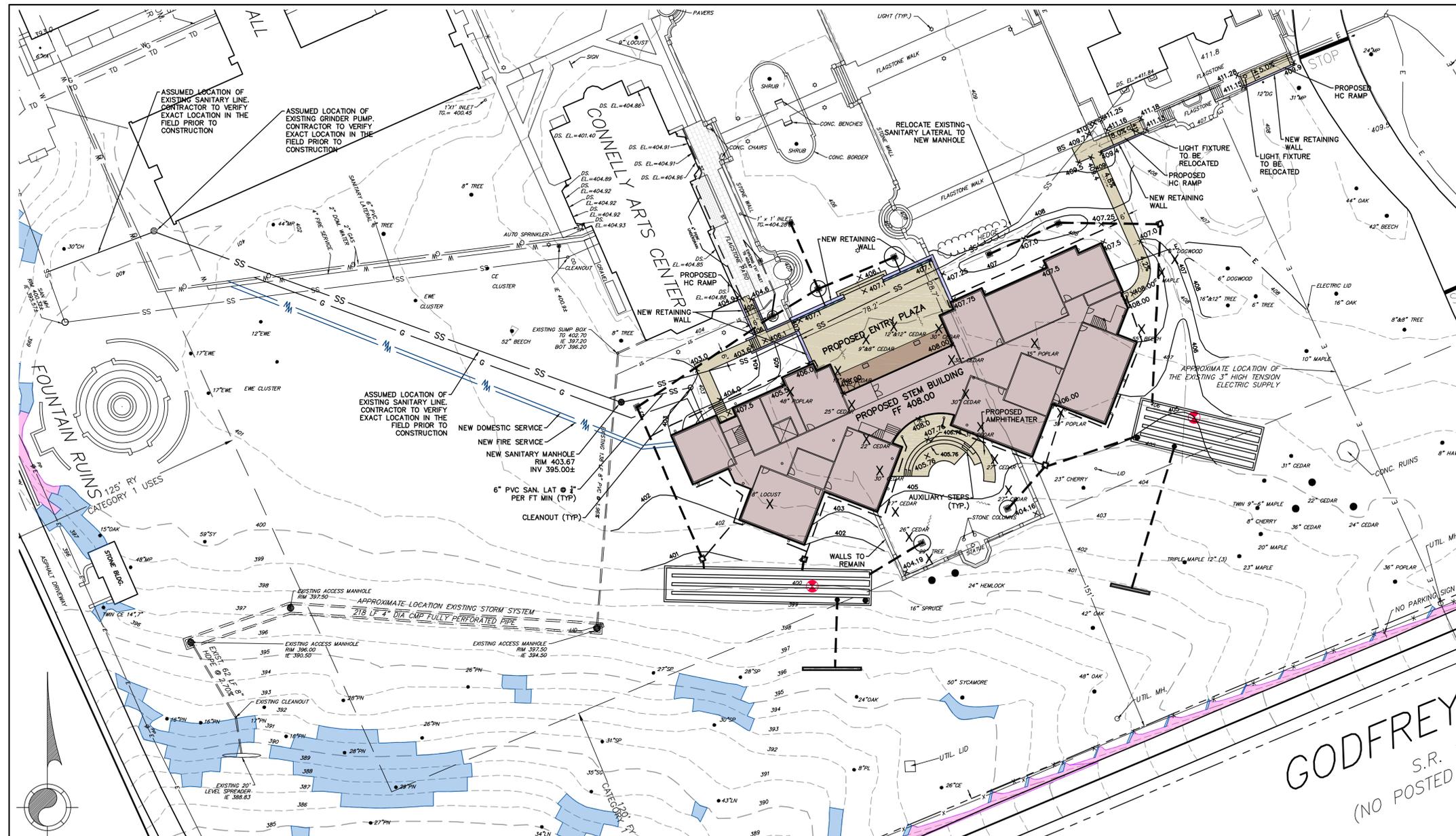
SOILS INFORMATION

NAME	% SLOPE	DEPTH TO S. H. WATER	DEPTH TO BEDROCK	HYDRO EROD. GROUP	HYDRO SOIL LIMITATIONS
Geb2	3-8	6.6+	6.6+	Moderate	B Moderate
Channery Sil Loom					



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EXISTING CONDITIONS / REMOVALS PLAN		FILE NO.: 15-372
PRELIMINARY LAND DEVELOPMENT PLAN		
ACADEMY OF NOTRE DAME - STEM BUILDING		
RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA		
ONE-CALL: 20160541517	OWNER/APPLICANT: ACADEMY OF NOTRE DAME	
DRAWN BY: BDM	560 SPROUL ROAD	
CHECKED BY: KRM	VILLANOVA, PA 19085-1220	
DATE: _____	SHEET 4 OF 11	DATE: AUGUST 31, 2016
		SCALE: 1" = 30'



LOCATION MAP
SCALE: 1" = 600'

SOURCE OF TITLE
ACADEMY OF NOTRE DAME
560 SPROUL RD
VILLANOVA PA 19085-1220
PARCEL #: 36040264800
PIN #: 36-37-096-001
DEED BOOK-PAGE: 4027-0810

- GENERAL NOTES:**
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 - PUBLIC DOMESTIC WATER SERVICE PROVIDED BY AQUA PENNSYLVANIA.
 - THE SITE IS SERVED BY PUBLIC SEWERS.
 - THE REFERENCED SURVEY(S), AND THIS PLAN, WERE COMPLETED WITHOUT THE AVAILABILITY OF A CURRENT TITLE REPORT AND SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED IN A FULL AND ACCURATE TITLE REPORT.
 - THE EXISTENCE AND/OR LOCATION OF ALL SUBSURFACE UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE FIELD VERIFIED BY ALL CONTRACTORS PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
 - THE PA ONE-CALL NUMBER FOR THIS SITE IS 20160541517.
 - SOIL DATA RETRIEVED VIA THE WEB SOIL SURVEY PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE AVAILABLE ONLINE AT <http://websoilsurvey.nrcs.usda.gov/>.

EXISTING IMPERVIOUS COVERAGE:

BUILDINGS	83,110 SF (5.0%)
DRIVES/PARKING	208,524 SF
WALLS	3,399 SF
WALKS, PATIOS, ETC.	59,873 SF
TRACK	60,136 SF
TOTAL	415,042 SF (25.0%)

ARTIFICIAL TURF FIELDS 156,795 SF (9.4%)
SOFTBALL INFIELD MIX 18,426 SF (1.1%)
GRASSPAVE 1,664 SF (0.1%)

IMPERVIOUS COVERAGE TO BE REMOVED:

WALLS	581 SF
WALKS, PATIOS, ETC.	223 SF
TOTAL	804 SF

IMPERVIOUS COVERAGE TO BE ADDED:

BUILDINGS	14,822 SF
WALLS	308 SF
WALKS, PATIOS, ETC.	6,110 SF
TOTAL	21,240 SF

PROPOSED IMPERVIOUS COVERAGE:

BUILDINGS	97,932 SF (5.9%)
DRIVES/PARKING	208,524 SF
WALLS	3,126 SF
WALKS, PATIOS, ETC.	65,760 SF
TRACK	60,136 SF
TOTAL	435,478 SF (26.2%)

ARTIFICIAL TURF FIELDS 156,795 SF (9.4%)
SOFTBALL INFIELD MIX 18,426 SF (1.1%)
GRASSPAVE 1,664 SF (0.1%)

TREES TO BE REMOVED:

1-6" MAPLE	19-24" CEDAR	4-30" CEDAR
1-6" DOGWOOD	1-22" CEDAR	1-31" CEDAR
1-8" LOCUST	1-25" CEDAR	1-35" POPLAR
8-8 1/2" CEDAR	1-26" CEDAR	1-39" POPLAR
12-12 1/2" CEDAR	2-27" CEDAR	1-48" POPLAR
1-17" CEDAR	1-29" TREE	1-55" BEECH

TREE REPLACEMENT FORMULA:

6 - 18 INCH DBH REMOVED	=	1 REPLACEMENT TREE
19 - 29 INCH DBH REMOVED	=	3 REPLACEMENT TREES, 2 BEING LARGE CANOPY TREES
30 INCH DBH & GREATER REMOVED	=	6 REPLACEMENT TREES, 4 BEING LARGE CANOPY TREES

TOTAL TREES BEING REMOVED:

6 - 18 INCH DBH	=	9
19 - 29 INCH DBH	=	7
30 INCH DBH & GREATER	=	9
TOTAL	=	25

REPLACEMENT TREES REQUIRED = 84, 50 BEING LARGE CANOPY TREES

NOTE: SHOULD ANY ADDITIONAL TREES BE REMOVED, ADDITIONAL REPLACEMENT TREES SHALL BE PROVIDED IN ACCORDANCE WITH THE RADNOR TOWNSHIP ORDINANCE No. 2012-05.

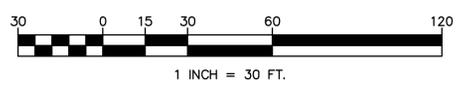
- TREE REPLACEMENT NOTES:**
- REPLACEMENT TREES WILL BE SELECTED FROM THE LIST OF TOWNSHIP APPROVED TREES PRIOR TO THE ISSUANCE OF A GRADING PERMIT.
 - TREES TO BE PLANTED OUTSIDE OF REQUIRED SITE LINE.

- CARE OF EXISTING TREES:**
- TREE PROTECTION FENCING SHALL BE INSTALLED TO PROTECT ALL EXISTING TREES FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND OTHERS. MAINTAIN PROTECTION FENCING FOR THE DURATION OF PROJECT.
 - SELECTIVELY PRUNE EXISTING TREES AT THE EDGE OF ALL TREE PROTECTION ZONES, AND OTHER EXISTING TREES AFFECTED BY CONSTRUCTION, UNDER LANDSCAPE ARCHITECT'S DIRECTION. REMOVE SUCKER SHOOTS, DEAD, RUBBING AND DAMAGED BRANCHES.
 - ANY EXCAVATION NEAR ADJACENT ROOT SYSTEMS WILL REQUIRE ROOT PRUNING OF AFFECTED TREE(S).
 - FERTILIZE PRUNED EXISTING TREES WITH 3 TO 4 LBS. OF LIQUID FERTILIZER PER 1,000 SQUARE FEET OF DRIP AREA, OR, 5 GALLONS OF LIQUID FERTILIZER PER CALIPER INCH OF TRUNK DIAMETER.
 - FERTILIZE IN EARLY SPRING BEFORE GROWTH BEGINS.
 - FERTILIZE BEGINNING 2' FROM TRUNK AT INTERVALS 2' TO 3' ON CENTER IN A GRID-LIKE PATTERN TO A DEPTH OF 6-18" WITHIN THE DRIFLINE AND BEYOND WHERE POSSIBLE. INJECTION FERTILIZATION METHOD SHALL BE ACCEPTABLE SUBJECT TO LANDSCAPE ARCHITECT'S APPROVAL.

- NOTES:**
- THE STORMWATER MANAGEMENT FACILITIES ARE DESIGNED FOR THE NEW AND/OR REPLACEMENT IMPERVIOUS COVER ON SITE PLUS AN ADDITIONAL 1,000 SF FOR POSSIBLE FUTURE DEVELOPMENT. IF THIS IS CONSTRUCTED IN THE FUTURE, 500 SF MAY BE DIRECTED TO PCSM #1 AND 500 SF MAY BE DIRECTED TO PCSM #2. IN ADDITION, THE STORMWATER FACILITIES WERE DESIGNED TO ACCOUNT FOR 1,668 SF OF IMPERVIOUS COVER FROM THE CONNELLY CENTER PATIO.
 - THE MAINTENANCE OF THE ON-SITE STORMWATER MANAGEMENT FACILITIES IS THE RESPONSIBILITY OF THE OWNER.
 - THE TOWNSHIP ENGINEER'S OFFICE SHALL BE NOTIFIED 48 HOURS PRIOR TO THE CONSTRUCTION OF THE SEEPAGE BED AND PRIOR TO THE START OF EARTHMOVING ACTIVITIES.
 - ON-SITE TREES ARE TO BE SAVED AND PRESERVED WHEREVER POSSIBLE.
 - ALL WOODY VEGETATION IS TO BE RETAINED WITHIN TWENTY-FIVE FEET OF A BUILDING SITE OR DISTURBED AREA SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING PLACED AT THE DRIFLINES.
 - GRADE CHANGES AROUND THE DRIFLINES OF TREES TO BE RETAINED SHALL BE MINIMIZED. TREATMENT OF THE TREES PRIOR TO CONSTRUCTION TO PROTECT THE ROOT SYSTEM SHALL BE PERFORMED.
 - ALL DISTURBED ROOTS MUST BE CUT AS CLEANLY AS POSSIBLE. THE TRENCH MUST BE BACKFILLED AS QUICKLY AS POSSIBLE, AVOIDING COMPACTION. TREE LIMBS MUST BE CUT BACK IN PROPORTION TO THE ROOT AREA LOSS.
 - ON-SITE TREES TO BE SAVED SHALL BE PREPARED FOR CONSTRUCTION BY APPROPRIATE FERTILIZATION AND PROTECTED BY APPROPRIATE FENCING. ALL TREES ARE TO BE DEEP ROOT FERTILIZED USING 16-32-16 SLOW RELEASE, WATER DISPENSIBLE @ 15 LBS. PER 100 GALLON OR EQUAL.
 - A GENERAL EASEMENT IS HEREBY CREATED OVER THE STORMWATER MANAGEMENT SYSTEM THAT PERMITS INGRESS AND EGRESS BY RADNOR TOWNSHIP.

SOILS INFORMATION

DEPTH TO TOP OF WATER BEDROCK	DEPTH TO HYDRO SOIL LIMITATIONS	HYDRO GROUP
Gs2		
Genel	3-8	6.6+
Channery Silt Loam	6.6+	6.6+
		Moderate
		B
		Moderate



LINE TYPE LEGEND:

ADJOINER LINE
EXISTING PROPERTY LINE
EXISTING RIGHT OF WAY
EXISTING BUILDING SETBACK
EXISTING FENCE
EXISTING OVERHEAD ELECTRIC
EXISTING ELECTRIC LINE
EXISTING GAS LINE
EXISTING WATER LINE
EXISTING SANITARY LINE
EXISTING STORM PIPES
EXISTING 1' MINOR CONTOUR
EXISTING 5' MAJOR CONTOUR
PROPOSED CONTOUR
PROPOSED STORM PIPE
PROPOSED BUILDING AREA
PROPOSED IMPERVIOUS AREA

SYMBOL LEGEND:

○	SURVEY MONUMENT
○	SURVEY MARKER
⊗	PERC TEST
☆	LIGHT
○	UTILITY POLE
●	EXISTING TREE
✕	TREE TO BE REMOVED
✕	PROPOSED SPOT ELEVATION

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Serial Number: 20160541517

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

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GRADING & UTILITY PLAN		FILE NO.: 15-372
MOMENEE, INC. a Karins Company ENGINEERING PLANNING SURVEYING		
PRELIMINARY LAND DEVELOPMENT PLAN		
ACADEMY OF NOTRE DAME - STEM BUILDING		
RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA		
ONE-CALL: 20160541517	OWNER/APPLICANT: ACADEMY OF NOTRE DAME	SHEET 5 OF 11 DATE: AUGUST 31, 2016 SCALE: 1" = 30'
DRAWN BY: BDM	560 SPROUL ROAD	
CHECKED BY: KRM	VILLANOVA, PA 19085-1220	

ALL LOCATIONS OF EXISTING UTILITIES, SHOWN ON THIS PLAN, HAVE BEEN DEVELOPED FROM FIELD LOCATIONS OF VISIBLE ABOVE GROUND UTILITY STRUCTURES AND INFORMATION FURNISHED BY THE UTILITY COMPANIES.

ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. COMPLETENESS OR ACCURACY OF THE LOCATIONS AND DEPTH OF ALL STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE THE START OF ANY WORK.

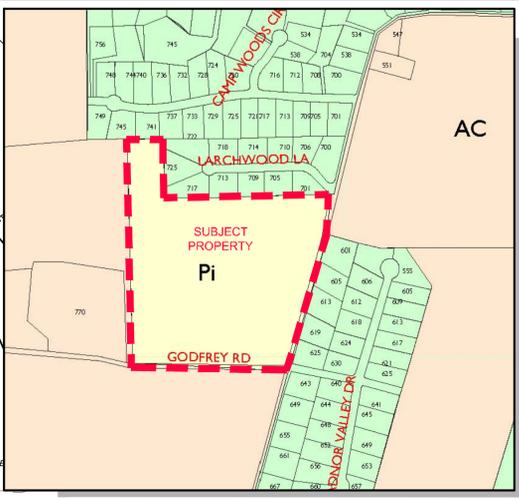
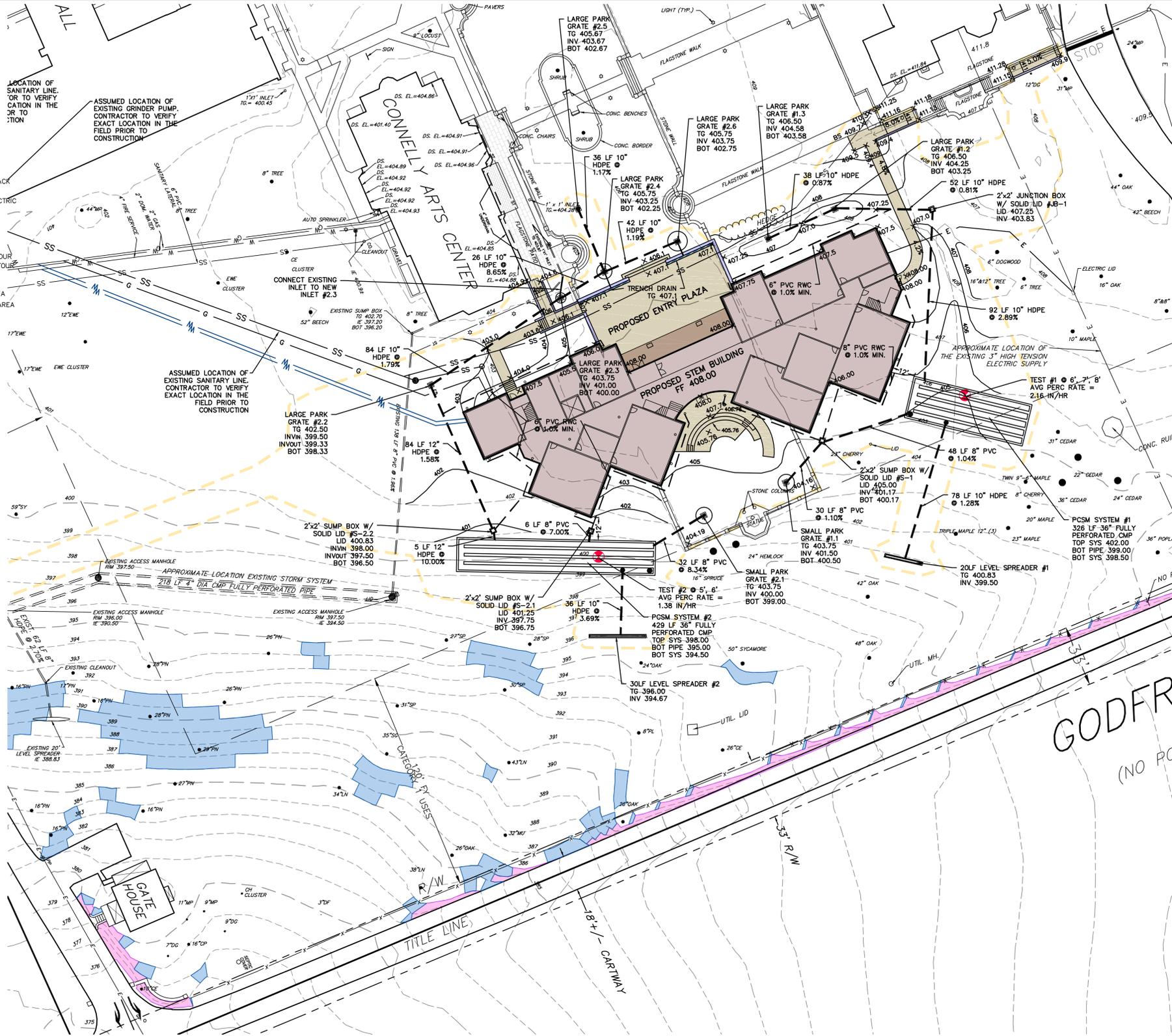
AS PER ACT 187 HOUSE BILL 2627, BEFORE THE START OF ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANIES THROUGH THE PENNSYLVANIA "ONE CALL SYSTEM" 1-800-242-1776 THREE DAYS PRIOR TO THE START OF ANY EXCAVATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION.

LINE TYPE LEGEND:

---	ADJOINER LINE
---	EXISTING PROPERTY LINE
---	EXISTING RIGHT OF WAY
---	EXISTING BUILDING SETBACK
---	EXISTING FENCE
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING ELECTRIC LINE
---	EXISTING GAS LINE
---	EXISTING WATER LINE
---	EXISTING SANITARY LINE
---	EXISTING STORM PIPES
---	EXISTING 1" MINOR CONTOUR
---	EXISTING 5' MAJOR CONTOUR
---	PROPOSED CONTOUR
---	PROPOSED STORM PIPE
---	PROPOSED BUILDING AREA
---	PROPOSED IMPERVIOUS AREA

SYMBOL LEGEND:

□	SURVEY MONUMENT
○	SURVEY MARKER
⊗	PERC TEST
☆	LIGHT
⊕	UTILITY POLE
●	EXISTING TREE
✂	TREE TO BE REMOVED
X	405.5 PROPOSED SPOT ELEVATION



LOCATION MAP
SCALE: 1" = 600'

SOURCE OF TITLE
ACADEMY OF NOTRE DAME
560 SPROUL RD
VILLANOVA PA 19085-1220
PARCEL # 36040264800
PIN # 36-37-086:001
DEED BOOK # PAGE: 4027-0810

- GENERAL NOTES:**
1. VERTICAL DATUM: U.S.G.S. BENCHMARK KV1909 "RADNOR 1961", ELEVATION 394.82.
 2. WETLANDS MAPPING FROM NATIONAL WETLANDS INVENTORY MAP. NO WETLANDS ARE LOCATED WITHIN THE AREA OF THE PROPOSED WORK.
 3. THIS SITE IS NOT LOCATED WITHIN THE FEMA 100-YR FLOODPLAIN ZONE.
 4. PUBLIC DOMESTIC WATER SERVICE PROVIDED BY AQUA PENNSYLVANIA.
 5. THE SITE IS SERVED BY PUBLIC SEWER.
 6. THE REFERENCED SURVEY(S), AND THIS PLAN, WERE COMPLETED WITHOUT THE AVAILABILITY OF A CURRENT TITLE REPORT AND SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED IN A FULL AND ACCURATE TITLE REPORT.
 7. THE EXISTENCE AND/OR LOCATION OF ALL SUBSURFACE UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE FIELD VERIFIED BY ALL CONTRACTORS PRIOR TO CONSTRUCTION.
 8. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
 9. THE PA ONE-CALL NUMBER FOR THIS SITE IS 20160541517.
 10. SOIL DATA RETRIEVED VIA THE WEB SOIL SURVEY PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE AVAILABLE ONLINE AT <http://websoilsurvey.nrcs.usda.gov/>.

EXISTING IMPERVIOUS COVERAGE:

BUILDINGS	83,110 SF (5.0%)
DRIVES/PARKING	208,524 SF
WALLS	3,399 SF
WALKS, PATIOS, ETC.	59,873 SF
TRACK	60,136 SF
TOTAL	415,042 SF (25.0%)

ARTIFICIAL TURF FIELDS

SOFTBALL INFIELD MIX	156,795 SF (9.4%)
GRASSPAVE	1,664 SF (0.1%)

PROPOSED IMPERVIOUS COVERAGE:

BUILDINGS	97,932 SF (5.9%)
DRIVES/PARKING	208,524 SF
WALLS	3,126 SF
WALKS, PATIOS, ETC.	65,760 SF
TRACK	60,136 SF
TOTAL	435,478 SF (26.2%)

ARTIFICIAL TURF FIELDS

SOFTBALL INFIELD MIX	156,795 SF (9.4%)
GRASSPAVE	1,664 SF (0.1%)

- OPERATION AND MAINTENANCE NOTES:**
1. THE RESPONSIBILITY FOR THE CONTINUED MAINTENANCE AND OPERATION OF THE POSM INFILTRATION SYSTEMS 1-2 AND OTHER DRAINAGE FACILITIES SHALL BE THE OBLIGATION OF THE PROPERTY OWNER.
 2. THE PROPERTY OWNER SHALL NOT ALTER OR REMOVE THE STORMWATER FACILITIES ON THE SITE.
 3. GENERAL OBJECTIVES OF MAINTENANCE ARE TO PREVENT CLOGGING OF THE INLETS, OUTLETS, PREVENT STANDING WATER, AND PREVENT THE GROWTH OF WEEDS AND NOXIOUS PLANTS.
 4. REGULAR INSPECTIONS SHOULD BE MADE OF INFILTRATION FACILITIES ESPECIALLY DURING WET WEATHER TO ENSURE THAT THE FACILITY IS MAINTAINING DESIRABLE RETENTION TIMES.
 5. ANNUALLY ASSESS THE VARIOUS SPECIES OF THE PLANT COVER. IT MAY BE NECESSARY TO SUPPLEMENT AND/OR REMOVE VARIOUS SPECIES DUE TO THEIR GROWING PATTERNS.
 6. AFTER ANY STORM RAINFALL EVENT OF A 2-YR OR GREATER MAGNITUDE, THE INFILTRATION BED AND ASSOCIATED OUTLET WORKS SHOULD BE INSPECTED. ANY DAMAGE OR BLOCKAGE TO THE OUTLET STRUCTURES SHOULD BE REPAIRED OR REMOVED IMMEDIATELY. ANY ERODED AREAS SHOULD BE TOPSOILED AND PERMANENTLY SEEDED AND MULCHED.

STORMWATER INFILTRATION TESTING:
INFILTRATION TESTING WAS PERFORMED ON SITE IN AUGUST 2016 BY DELAWARE VALLEY SEPTICS. TESTING WAS CONDUCTED ON SITE AS SHOWN ON THE PLAN.

TEST #1 - AVG RATE = 2.16 IN/HR.
TEST #2 - AVG RATE = 1.38 IN/HR.

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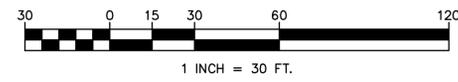
RESOLUTION TO SOIL LIMITATIONS:
BASED ON THE EXISTING SOIL TYPES AND IF THE PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES ARE INSTALLED AND MAINTAINED PROPERLY, NO UNFORESEEN SOIL LIMITATIONS OR PROBLEMS ARE LIKELY. NEVERTHELESS, IF A PROBLEM DOES DEVELOP, THE DEVELOPER MUST TEMPORARILY SEED AND MULCH THE DISTURBED AREA. SUITABLE TOPSOIL SHALL BE IMPORTED TO SITE IF INADEQUATE QUANTITIES OF SUITABLE TOPSOIL EXIST ON SITE. ADEQUACY OF SOIL TO BE DETERMINED BY SITE GEOTECHNICAL ENGINEER IN CONJUNCTION WITH THE LANDSCAPE ARCHITECT. SOIL AMENDMENTS SHALL BE ADDED AS REQUIRED. ALL UNSUITABLE MATERIAL SHALL BE DISPOSED OF PROPERLY. SITE GEOTECHNICAL ENGINEER SHALL ALSO BE CONSULTED DURING WINTER GRADING OPERATIONS.

SOILS INFORMATION

DEPTH TO NAME	DEPTH TO % SLOPE	DEPTH TO WATER	DEPTH TO TO BEDROCK	HYDRO EROD.	SOIL GROUP	LIMITATIONS
GeB2	3-8	6.6+	6.6+	Moderate	B	Moderate
Channery Silt Loam						

SPECIFIC GEOLOGIC AND SOIL CONDITIONS:
NO SPECIAL SOIL OR GEOLOGIC ISSUES ARE KNOWN.

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POST CONSTRUCTION STORMWATER MANAGEMENT PLAN FILE NO.: 15-372

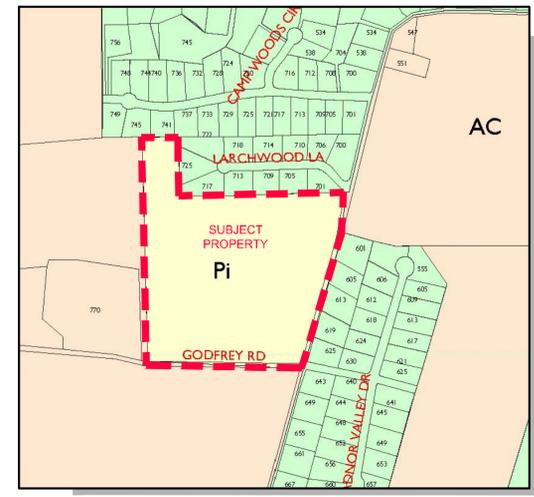
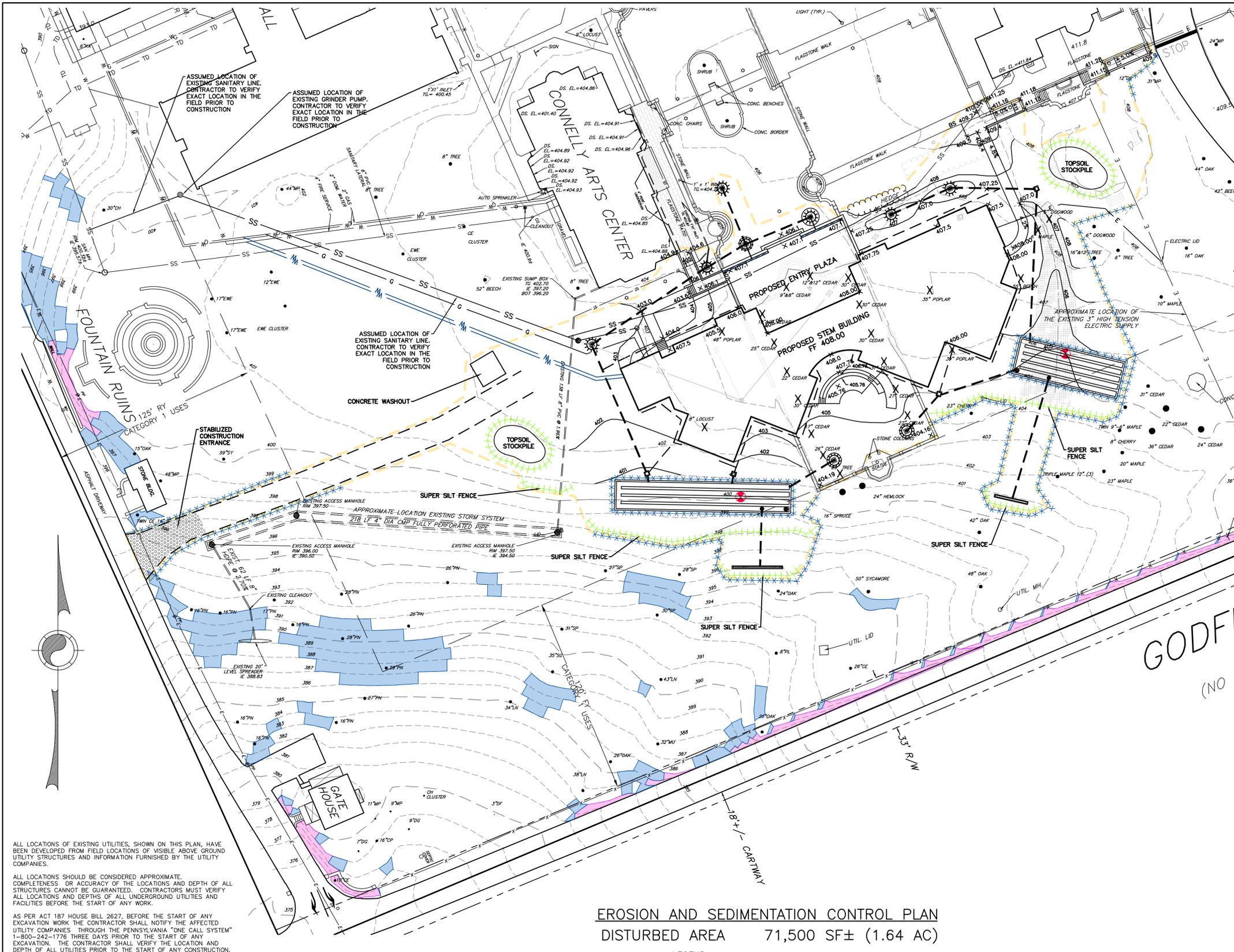
MOMENEY, INC.
a Karins Company
ENGINEERING | PLANNING | SURVEYING

REGISTERED PROFESSIONAL ENGINEER
KEVIN R. MOMENEY
ENGINEER PE020328E

PRELIMINARY LAND DEVELOPMENT PLAN
ACADEMY OF NOTRE DAME - STEM BUILDING
RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA

ONE-CALL:	20160541517	OWNER/APPLICANT:	ACADEMY OF NOTRE DAME
DRAWN BY:	BDM	ADDRESS:	560 SPROUL ROAD
CHECKED BY:	KRM	CITY:	VILLANOVA, PA 19085-1220

SHEET **6** OF 11
DATE: AUGUST 31, 2016
SCALE: 1" = 30'



LOCATION MAP
SCALE: 1" = 600'

CONSTRUCTION TIMING & SEQUENCE:

1. All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed before any following stage is initiated. Clearing and grubbing shall be limited only to those areas necessary for each stage. Deviation from that sequence must be approved in writing from the local conservation district or by the department prior to implementation.
2. At least 7 days before starting any earth disturbance activities, including the 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 county conservation district for an on-site pre-construction meeting.
3. Construction begins. Anticipated date: December 2016
4. Install the stabilized construction entrance off Godfrey Road as shown on the plans. This entrance must be utilized by all construction vehicles entering/exiting the site.
5. Install tree protection fencing as indicated on plan. Tree protection fencing must be in place and approved prior to any disturbance. The limits of disturbance shall be staked out and clearly marked in the field. All disturbance shall be contained to the delineated limit of construction. Install orange construction fencing around the proposed PCSM system areas as shown.
6. Install silt fence as indicated on plan. Silt fence shall be installed up-slope of construction fencing. Note: additional sediment barriers shall be installed down-slope of any disturbance areas as needed throughout the entire project.
7. Prior to earth disturbance, notify the Township Engineer that construction is going to begin.
8. Begin to demolish and remove from site the portions of the existing walls, walls, and other designated impervious areas as shown on the plans. All construction debris shall be removed from the site and disposed of in an approved manner.
9. Clear and grub the areas as necessary within the limits of disturbance of existing vegetation. Strip topsoil and stockpile suitable material for future use. Unsuitable material shall be disposed of properly. Surround stockpile with silt fence. Temporarily seed all stockpiled topsoil.
10. Install the construction staging area.
11. Rough grade the site. Any graded or disturbed area must be temporarily seeded if no further earth moving is anticipated immediately. In-lieu material shall be moving to the fill area noted on the plans.
12. Install the new sanitary manhole and reconfigure the existing sanitary lines as shown on the plans.
13. Excavate for and begin to construct the foundations for the new building. Upon completion of foundation walls and first floor construction, begin building construction. In conjunction with the building construction, begin construction of the amphitheater.
14. Stabilize and install temporary ground cover vegetation on graded areas that remain undisturbed during building construction. Any graded or disturbed area must be temporarily seeded if no further earth moving is anticipated immediately. Upon completion or temporary cessation of the earth disturbance activity that will exceed 4 days, or any stage thereof, the project site shall be immediately stabilized with the appropriate temporary or permanent stabilization.
15. Inspect sediment barriers frequently, especially after heavy storms. Replace and repair sediment barriers as necessary.
16. Install underground utilities as necessary.
17. Install roof rainwater collection system, inlets, sump boxes, junction box, and the associated conveyance piping as shown on the plans. Install inlet protection on the inlets. All inlets shall be completely sealed off until the contributory area to the inlets are permanently stabilized.
18. **CRITICAL STAGE** (the site's engineer or designer shall be on site to inspect the installation of the PCSM facilities) - Upon final stabilization of the respective contributory areas, excavate for and install the PCSM System #1 and PCSM System #2. Excavate to the bottom of the permanent system, as indicated on the plans. Install geotextile fabric, pipe bedding and pipe system as indicated on the plans. Installation of the stone shall be checked by the design or site engineer prior to installation to ensure that it is clean washed stone. In the event that sediment enters or clogs the system appropriate measures shall be taken (i.e. cleaning the sub/sediment from the fabric, stone, bed, etc. And/or replacement of the fabric and stone). If groundwater or bedrock is found during the excavation of the pipe system, the engineer shall be consulted to determine the necessary measures that should be taken. The bottom of the system shall be undisturbed or uncompacted substrate. Connect PCSM System #1 to the level spreader #1 and connect PCSM System #2 to the level spreader #2. Unblock all inlets and connect inlets to the systems as shown on the plans.
19. All bed bottoms shall be level after grading.
20. Prior to infiltration bed grading and placement of geotextile, up-gradient areas shall be sufficiently stabilized to prevent the washing of sediment into the recharge areas. It is the contractor's responsibility to prevent the deposition of sediment or sediment-laden water into the infiltration structures after final grading.
21. Bedrock is encountered at any time during excavation of the infiltration bed, excavation is to be discontinued in the affected area and the owner and engineer notified at once.
22. Place geotextile in accordance with manufacturer's standards and recommendations. Adjacent strips of geotextile shall overlap a minimum of two feet. Secure fabric at least four (4) feet outside of bed and take steps necessary to prevent any sediment from entering trench.
23. Aggregate shall be clean with a wash loss of no more than 0.5 percent. Installation of the stone should be checked by the design or site engineer prior to installation into the infiltration bed to ensure that it is clean washed stone. Aggregate that does not meet this criterion will be removed at no extra cost to the owner and the beds restored to the owner's satisfaction.
24. Following placement of bed aggregate, the geotextile shall be folded over the bed, with appropriate fabric overlap, to protect from sediment washout along bed edges. Topsoil (or appropriate material specified by particular district) will be used to fill above the bed to the specified height.
25. Until the site is stabilized all erosion and sedimentation controls must be maintained properly. Maintenance must include inspections of all erosion and sedimentation controls after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, mulching, and renetting, must be performed immediately.
26. Remove excavated materials not required for final construction from site and dispose of them in an approved manner.
27. Remove any accumulated surplus storage materials and staging area and rough grade areas of removals.
28. Spread stockpiled topsoil around and all disturbed areas. Seed all graded areas to re-establish vegetation. Stabilized slopes in excess of 4:1 with sod or netting and mulch.
29. Remove construction fencing and spread stockpile topsoil over remaining disturbed areas. Seed all graded areas to re-establish vegetation. All slopes in excess of 4:1 shall be stabilized immediately. Remove inlet protection from inlets. Note: consultation with the county conservation district is required prior to removal of any temporary E&S controls.
30. Install landscape materials and landscape materials.
31. Upon the re-establishment of vegetation on all denuded areas, remove all sediment barriers.
32. Stabilize and seed any areas disturbed by the removal of sediment barriers.
33. Construction finished. Anticipated date: December 2017.
34. Complete Notice of Termination and submit to the Delaware County Conservation District upon the completion of the entirety of the project.

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EROSION AND SEDIMENTATION CONTROL PLAN

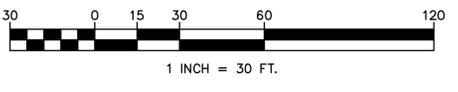
DISTURBED AREA 71,500 SF± (1.64 AC)

LEGEND

- TREE PROTECTION BARRIER FENCING *****
- SILT FENCE [Symbol]
- LIMIT OF DISTURBANCE [Symbol]
- EROSION CONTROL BLANKET [Symbol]
- INLET PROTECTION [Symbol]

SOILS INFORMATION

NAME	% SLOPE	DEPTH TO WATER	DEPTH TO BEDROCK	HYDRO EROD.	GROUP	HYDRO SOIL LIMITATIONS
CeB2	3-8	6.6+	6.6+	Moderate	B	Moderate
Glenelg	3-8	6.6+	6.6+	Moderate	B	Moderate
Channey Silt Loam						



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SPECIFIC GEOLOGIC AND SOIL CONDITIONS:

NO SPECIAL SOIL OR GEOLOGIC ISSUES ARE KNOWN.

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DRAWN BY: BDM	560 SPOUL ROAD	
CHECKED BY: KRM	VILLANOVA, PA 19085-1220	DATE: AUGUST 31, 2016
		SCALE: 1" = 30'

EROSION AND SEDIMENT CONTROL NOTES:

**RECEIVING WATER: MILES RUN TO DARBY CREEK
CHAPTER 93 CLASSIFICATION: CWF, MF**

- ALL SLOPES 3:1 OR STEEPER WILL UTILIZE ECOS (NORTH AMERICAN OR EQUAL).
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION, THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGARDING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
- WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION ON SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
 - THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
 - ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE REOCCURENCE OF THE NON-COMPLIANCE.
 - THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
- BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EAS CONTROL PLAN THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NONDISTURBED AREAS.
- THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64 EROSION CONTROL RULES AND REGULATIONS TITLE 25, PART 1. ENVIRONMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL, BORROW AREAS, REGARDLESS OF THEIR LOCATION.
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
- NEWLY GRADED SLOPES TWENTY FIVE PERCENT (25%) OR GREATER SHALL BE IMMEDIATELY SODDED OR STABILIZED WITH EROSION CONTROL NETTING.
- UPON COMPLETION OR TEMPORARY CESSATION OF ANY EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY PHASE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOODCHIPS, HAY BALES, CRUSHED STONES AND OTHER MULCH SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
- THE CONTRACTOR SHALL, BY SCHEDULING THE CONSTRUCTION, UTILIZE NEW PLANTINGS AND PROPERLY INSTALL EROSION CONTROL FENCING, HAY BALES AND OTHER EROSION CONTROL MEASURES TO MINIMIZE EROSION DAMAGE.
- ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MUST BE SEEDED AND MULCHED WITH A QUICK GERMINATING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE YEAR MUST BE SEEDED AND MULCHED IMMEDIATELY.
- A ROUTINE "END-OF-DAY-CHECK" SHALL BE MADE DURING CONSTRUCTION TO MAKE SURE THAT ALL CONTROL MEASURES ARE WORKING PROPERLY. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL DESIGN, IMPLEMENT, AND MAINTAIN CONTROL MEASURES WHICH PREVENT ACCELERATED EROSION AND SEDIMENTATION. THERE SHALL BE NO ADVERSE DISCHARGE OF THE SEDIMENT OR OTHER SOLID MATERIALS FROM THE SITE AS THE RESULT OF STORM WATER RUNOFF.
- TEMPORARY EROSION CONTROL MEASURES MAY BE REMOVED ONLY AFTER THE CONSTRUCTION AREA AND CONTAINED SILT IS STABILIZED AND THE LAWN AREA ESTABLISHED.
- ALL PERSONS ENTERING ACTIVE TANKS, MANHOLES, INLETS, ETC. MUST COMPLY WITH OSHA REQUIREMENTS FOR ENTRY INTO CONFINED SPACES.
- WHERE DRAINAGE SWALES ARE WITHIN 20' OF A BASEMENT, WATERPROOFING SHALL BE APPLIED TO THE BASEMENT.
- ON-SITE TREES TO BE SAVED SHALL BE PREPARED FOR CONSTRUCTION BY APPROPRIATE FERTILIZATION AND PROTECTED BY APPROPRIATE FENCING.
- THE PERMITTEE MUST DEVELOP, AND HAVE APPROVED BY THE DISTRICT, A SEPARATE EROSION AND SEDIMENTATION CONTROL PLAN FOR EACH SPOIL, BORROW, OR OTHER WORK AREA NOT DETAILED IN THE PERMITTED PLAN, WHETHER LOCATED WITHIN OR OUTSIDE OF THE CONSTRUCTION LIMITS.
- GRADING EQUIPMENT SHALL NOT BE ALLOWED TO CROSS PERMANENT OR INTERMITTENT STREAMS PRIOR TO OBTAINING THE APPROPRIATE PERMITS.
- NO EXCAVATIONS OR FILLS THAT ENDOACH ON NATURAL WATERCOURSES, FLOOD HAZARD AREAS, CONSTRUCTED CHANNELS, OR WETLANDS SHALL OCCUR WITHOUT THE NECESSARY STATE AND/OR FEDERAL PERMITS.
- STORMWATER MANAGEMENT RECHARGE FACILITIES SHALL BE FENCED OFF DURING CONSTRUCTION.
- CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH. UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
- TO PROTECT ADJACENT PROPERTIES, ALL AREAS REQUIRING INTERIM STABILIZATION MUST BE ADDRESSED IMMEDIATELY FOLLOWING COMPLETION OF DISTURBANCE.
- FORDING OF LIVE OR INTERMITTENT STREAMS OR TRAVEL IN THEIR BEDS BY MECHANIZED EQUIPMENT IS NOT PERMITTED; BRIDGES OR CULVERTS SHALL BE USED WHEN CROSSING STREAMS IS NECESSARY.
- ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FT. OF A BUILDING SITE OR DISTURBED AREA SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING PLACED AT THE DRIPLINES. THE FINAL LOCATION MUST BE APPROVED BY THE TOWNSHIP ARBORIST PRIOR TO THE ISSUANCE OF PERMITS. THE LOCATION OF THE DRIPLINES AND FENCING SHALL BE FIELD ADJUSTED IN ORDER TO MINIMIZE IMPACT TO EXISTING TREES.
- SHOULD ANY TREES NOT SCHEDULED OR PERMITTED TO BE IRREPARABLY DAMAGED DURING CONSTRUCTION AND DIE WITHIN (18) MONTHS OF THE CONCLUSION OF CONSTRUCTION ACTIVITIES, THOSE TREES WILL BE REQUIRED TO BE REPLACED.
- IF THE CONTRACTOR CAN NOT BALANCE THE CUT AND FILL SOIL VOLUMES THAN AN ADDITIONAL PLAN FOR EACH SPOIL AREA WILL BE SUBMITTED TO THE CHESTER COUNTY CONSERVATION DISTRICT FOR APPROVAL.
- TEMPORARILY SEED ALL STOCKPILED TOPSOIL. IMMEDIATELY TEMPORARILY SEED ALL TEMPORARY E & S CONTROL AREAS.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTIONS SHALL BE DOCUMENTED. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.
- UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE. OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 3 TONS PER ACRE.
- PERMANENT VEGETATION TO BE SEED ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED. MULCH SHALL BE APPLIED AT 3.0 TONS PER ACRE.
- ALL WORK WILL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, THE COUNTY, AND THE TOWNSHIP.
- THE DRIVEWAY/PARKING AREA SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO PREVENT SUBGRADE EROSION, AND TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN 15 DAYS OF THE PRELIMINARY GRADING.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR SUITABLE EQUIVALENT, AT A RATE OF 3 TONS PER ACRE.
- ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER THAN 3:1).
- A STABILIZED CONSTRUCTION ENTRANCE PAD OF 15" TO 2" SIZE CLEAN STONE WILL BE PLACED AT ALL CONSTRUCTION DRIVEWAYS IMMEDIATELY AFTER INITIAL SITE DISTURBANCE. DIMENSIONS: LENGTH - NOT LESS THAN 50 FT. EXCEPT ON SINGLE RESIDENCE LOT WHERE 30 FT. MINIMUM WOULD APPLY, WIDTH - 10 FT. MINIMUM , BUT NOT LESS THAN THE FULL WIDTH OF THE ENTRANCE OR EXIT DRIVES, DEPTH - NOT LESS THAN 6". FILTER CLOTH IS REQUIRED PRIOR TO STONE PLACEMENT EXCEPT ON SINGLE RESIDENCE LOTS.
- ANY CHANGES TO THE EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT OFFICE. THE REVISED EROSION AND SEDIMENT CONTROL PLAN MUST MEET ALL CURRENT STATE EROSION AND SEDIMENT POLLUTION REQUIREMENTS, AS WELL AS ALL DISTRICT REQUIREMENTS.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OF OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIC RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1-YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1-YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
- IN CONJUNCTION WITH EARTHMOVING ACTIVITY, INSTALL THE DESIGNED CONSERVATION MEASURES IN ACCORDANCE WITH SUBMITTED PLANS AND SPECIFICATIONS.
 - INSTALL SEDIMENT BARRIERS AS CLOSE TO CONTOURS AS POSSIBLE. BARRIERS WILL BE CHECKED PERIODICALLY. DAMAGED BARRIERS ARE TO BE REPLACED AND SEDIMENT WHICH IS COLLECTED BY THE BARRIER WILL BE REMOVED AND SPREAD AND STABILIZED WITH VEGETATION ELSEWHERE ON THE SITE.
 - SEDIMENT SHALL NOT BE ALLOWED TO ACCUMULATE HIGHER THAN ONE FOOT ABOVE EXISTING GRADE. SEE DETAILS FOR SEDIMENT BARRIER TYPE AND INSTALLATION PROCEDURES.
 - DURING CONSTRUCTION, ALL SEDIMENT TRAPPED AT BARRIERS SHALL BE CLEANED OUT AFTER EACH EROSION PRODUCING STORM.
 - ON-SITE GRADING DURING CONSTRUCTION SHALL BE LIMITED AND RESTRICTED TO ONLY THAT IMMEDIATE AREA REQUIRED FOR THE CONSTRUCTION PROCEDURE.
 - TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEED WITH VEGETATIVE COVER AND STOCKPILED FOR RE-USE IN FINISH GRADING.
 - GRADED AREAS ARE TO BE TEMPORARILY SEEDED AND MULCHED FOLLOWING EARTHMOVING PROCEDURES.
 - INSPECT SEDIMENT CONTROLS FREQUENTLY, ESPECIALLY AFTER HEAVY STORMS. REPLACE AND REPAIR SEDIMENT CONTROLS AS NECESSARY.
- AREAS WHICH ARE TO BE TOP-SOLED SHALL BE SCARPED TO A MINIMUM DEPTH OF 3 TO 3 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, I.E. YARDS.
- SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY, OR AS NEEDED OR AS DIRECTED BY THE DCCO OR MUNICIPALITY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED OR SWEEP INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.

GENERAL NOTES -- MAINTENANCE DURING CONSTRUCTION:

- AREAS THAT CONTAIN SOD SHALL BE CHECKED VERY CAREFULLY TO ENSURE THAT JOINTS BETWEEN THE SOD STRIPS ARE TIGHT AND SECURE. WHERE JOINT SEPARATION IS IN EVIDENCE, A CAREFUL INSPECTION OF EACH JOINT SHALL BE MADE TO DETERMINE WHETHER UNDERMINING OF THE STRIPS IS OCCURRING. IF IT IS, THE STRIPS SHALL BE ROLLED UP, THE SUBSURFACE SHALL BE FILLED AND GRADED AS REQUIRED, AND THE SOD STRIPS SHALL BE RE-LAD WITH JOINT TIGHT AND PEGGING.
- SEEDS AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEED. A BURIAL OR STRAW COVER WILL BE APPLIED TO RETURN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
- THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZEABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE.
- AFTER SLOPES AND SWALES ARE ESTABLISHED, WEEKLY INSPECTIONS SHALL BE MADE TO DETERMINE THE DURABILITY OF THE STABILIZATION MEASURES. AN INSPECTION OF ALL FACILITIES WILL BE MADE AFTER EVERY STORM TO DETERMINE THEIR RESISTANCE TO DRIVING RAIN.

STABILIZATION NOTES:

- THE PERMITTEE(S) SHALL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS AND RELATED ITEMS INCLUDED WITHIN ON THESE PLANS UNTIL THE SITE IS PERMANENTLY STABILIZED.
- STORMWATER RUNOFF FROM UNSTABILIZED AREAS DURING THE CONSTRUCTION PROCESS IS TO BE RESTRICTED FROM ENTERING THE INFILTRATION BED IN ACCORDANCE WITH MEASURES OUTLINED THROUGHOUT THE NOTES SHOWN ON THE PLANS.

UTILITY LINE TRENCH EXCAVATION NOTES:

- LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE OF PLUS TO TWO TIMES THE LENGTH OF PIPE INSTALLATION. CONTACT THE DEPARTMENT OR PERMITTEE(S) SHARY REDUCING THE DISTANCE.
- WORK GROVES AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PUMP CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
- LIMIT ONLY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
- WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE REUSED THROUGHOUT THE PROJECT.
- ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

CLEAN FILL REQUIREMENTS:

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. THE TERM "USED ASPHALT" DOES NOT INCLUDE DUMPED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-10 AND FP-10 FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL". ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES INCLUDING, BUT NOT LIMITED TO VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT. REUSE OF WASTE IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ONLINE AT WWW.PACODE.COM.

MAINTENANCE OF TEMPORARY SEDIMENTATION CONTROL:

A ROUTINE "END OF DAY CHECK" SHALL BE MADE DURING CONSTRUCTION TO MAKE SURE THAT ALL CONTROL MEASURES ARE WORKING PROPERLY. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL PREVENT ACCELERATED EROSION AND SEDIMENTATION. THERE SHALL BE NO ADVERSE DISCHARGE OF THE SEDIMENT OR OTHER SOLID MATERIALS FROM THE SITE AS A RESULT OF STORMWATER RUNOFF.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY.

- STABILIZED CONSTRUCTION ENTRANCE: THE STABILIZED CONSTRUCTION ENTRANCES ARE TO BE CONSTRUCTED PER THE DETAIL. THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE DETAIL DIMENSION. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.
- SILT FENCE: SILT FENCE SHALL BE INSTALLED PER THE DETAIL. SEDIMENT SHALL BE REMOVED FROM SILT FENCES WHEN IT REACHES 1/2 THE FENCE HEIGHT OR AS DIRECTED BY THE CONSERVATION DISTRICT OR TOWNSHIP ENGINEER. SILT FENCING WHICH HAS BEEN UNDERMINED OR TOPPED WILL BE REPLACED WITH ROCK FILTER OUTLETS IMMEDIATELY.
- ROCK FILTER OUTLETS: ROCK FILTER OUTLETS SHALL BE INSTALLED PER THE DETAIL. SEDIMENT SHALL BE REMOVED FROM BEHIND ROCK FILTER OUTLET AFTER EACH STORM EVENT. WHEN STONE BECOMES CLOGGED WITH SEDIMENT, THE ROCK FILTER OUTLET SHALL BE REPLACED WITH CLEAN STONE.
- INLET PROTECTION: INLET PROTECTION SHALL BE CONSTRUCTED PER THE DETAIL AND CLEANED AFTER EACH STORM EVENT OR AS DIRECTED BY THE CONSERVATION DISTRICT OR TOWNSHIP ENGINEER.
- AIR POLLUTION: BURNING OF TREES, STUMPS, CUTTINGS, AND OTHER PERISHABLE MATERIALS WILL NOT BE PERMITTED UNLESS SPECIFICALLY ALLOWED BY THE MUNICIPALITY. THE PROVISIONS OF THE PENNSYLVANIA AIR POLLUTION CONTROL ACT SHALL BE STRICTLY ENFORCED TO DATE, WILL GOVERN AND ARE A PART OF THIS PLAN BY REFERENCE.
- PERMANENT STABILIZATION NOTE: AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE EROSION. ALL SWALES MUST BE TEMPORARILY LINED WITH CURLEX TO ALLOW VEGETATION TO ESTABLISH. IF VEGETATION CAN NOT GROW THEN THAT AREA MUST BE SODDED.
- SEDIMENT DISPOSAL: SILT REMOVED FROM TEMPORARY SEDIMENT CONTROL STRUCTURES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF FLOOD PLAINS, WETLANDS, STEEP SLOPES AND DRAINAGE SWALES.
- DUST CONTROL: DUST AND OTHER PARTICLES SHALL BE KEPT WITHIN TOLERABLE LIMITS BY USING WATER. APPLICATION SHALL BE AS NEEDED OR AS DIRECTED BY THE TOWNSHIP ENGINEER OR THE CONSERVATION DISTRICT. USE OF GASEOUS OR LIQUID DUST SUPPRESSANTS OR AGENTS SHALL BE LIMITED TO ONLY THOSE PARTICULAR SITUATIONS IN WHICH PERIODIC CLEANING AND/OR WETTING IS NOT FEASIBLE DUE TO CONDITIONS CAUSED BY WEATHER, TRAFFIC, ETC.
- AIR POLLUTION: BURNING OF TREES, STUMPS, CUTTINGS, AND OTHER PERISHABLE MATERIALS WILL NOT BE PERMITTED UNLESS SPECIFICALLY ALLOWED BY THE MUNICIPALITY. THE PROVISIONS OF THE PENNSYLVANIA AIR POLLUTION CONTROL ACT SHALL BE STRICTLY ENFORCED TO DATE, WILL GOVERN AND ARE A PART OF THIS PLAN BY REFERENCE.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS: THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT EAS BMP'S AND PCSM BMP'S ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

- A SUMMARY OF SITE CONDITIONS, EAS BMP AND PCSM BMP, IMPLEMENTATION AND COMPLIANCE ACTIONS; AND
- THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING:

WHERE EAS, PCSM OR PPC BMP'S ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO-PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

- ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;
- THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;
- STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT REOCCURENCE OF THE NONCOMPLIANCE; AND
- THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

REDUCTION, LOSS, OR FAILURE OF THE BMP'S: UPON REDUCTION, LOSS, OR FAILURE OF THE BMP'S, THE PERMITTEE AND CO-PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMP'S OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMP'S OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMP'S.

TERMINATION OF COVERAGE:

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMP'S IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME, AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMP'S IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE NOT, THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL EAS BMP'S AND PCSM BMP'S ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS: WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PROPER INSTALLATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMP'S IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED ENGINEER AND THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED EAS AND PCSM PLANS.

RECYCLING OR DISPOSAL OF MATERIALS: THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

CONSTRUCTION/DEMOLITION WASTE --SOLID WASTE RESULTING FROM THE CONSTRUCTION OR DEMOLITION OF BUILDINGS AND OTHER STRUCTURES, INCLUDING, BUT NOT LIMITED TO, WOOD, PLASTER, METALS, ASPHALTIC SUBSTANCES, BRICKS, BLOCK AND UNSERIALIZED CONCRETE. THE TERM DOES NOT INCLUDE THE FOLLOWING IF THEY ARE SEPARATE FROM OTHER WASTE AND ARE USED AS CLEAN FILL:

- UNCONTAMINATED SOIL, ROCK, STONE, GRAVEL, BRICK AND BLOCK, CONCRETE AND USED ASPHALT; AND
- WASTE FROM LAND CLEARING, GRUBBING AND EXCAVATION, INCLUDING TREES, BRUSH, STUMPS AND VEGETATIVE MATERIAL.

MANAGEMENT OF CONSTRUCTION AND DEMOLITION WASTE: SALVAGING - BY DEFINITION, MATERIALS SALVAGED FOR USE IN THEIR INTENDED FUNCTION ARE NOT WASTES. EXAMPLES INCLUDE: BATHROOM FIXTURES, CEILING PANELS, DOORS, FLOORING, LIGHTING FIXTURES, MIRRORS, ETC.

SOURCE SEPARATED RECYCLABLE MATERIALS ARE ALSO NOT WASTES. FOR CONSTRUCTION, RENOVATION AND DEMOLITION ACTIVITIES THIS INCLUDES: CARDBOARD, GLASS, METALS, PAPER AND PLASTICS.

ALL CONCRETE TRUCKS SHALL UTILIZE THE CONCRETE WASHOUT AREA AS INDICATED ON THE EROSION & SEDIMENT CONTROL PLAN FOR CLEANING OUT TRUCKS. ACCUMULATED MATERIAL SHALL BE DISPOSED OF PROPERLY IN ACCORDANCE WITH THE REGULATIONS NOTED ABOVE.

IN THE EVENT A POLLUTION INCIDENT OCCURS WHICH CAUSES OR THREATENS TO CAUSE SURFACE OR GROUNDWATER POLLUTION, THE OWNER SHALL:

- PROFITLY NOTIFY THE DEPARTMENT BY TELEPHONE OF THE LOCATION AND NATURE OF THE DANGER,
- NOTIFY ALL KNOWN DOWNSTREAM USERS OF THE WATER,
- IMMEDIATELY TAKE ALL NECESSARY STEPS TO PREVENT INJURY TO PROPERTY AND DOWNSTREAM USERS, AND PROTECT WATERS FROM POLLUTION OR DANGER OF POLLUTION,
- REMOVE ANY CONTAMINATION FROM AFFECTED GROUND OR SURFACE WATER TO THE EXTENT REQUIRED BY THE DEPARTMENT.

HYDROSEEDING SPECIFICATIONS:

DEFINITION: STABILIZING SEDIMENT PRODUCING AND SEVERELY ERODED AREAS BY ESTABLISHING PERMANENT GRASS COVER.

PURPOSE: TO PROVIDE PERMANENT VEGETATIVE COVER TO CONTROL RAPID RUN-OFF AND EROSION.

PROCEDURE: SURFACE TO BE HYDRO-SEEDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATES. A WATER-SLURRY MIXTURE COMPOSED OF THE BELOW MENTIONED "MATERIALS" SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDRO-SEEDED.

MATERIALS:

PERMANENT SEEDING

NAME	DESCRIPTION	APPLICATION RATE (PER ACRE)
1) SEED MIXTURE % BY WEIGHT	60% PENNSTAR KENTUCKY BLUEGRASS 30% PENNLAWN RED RESCUE 10% PENNFINE PERENNIAL RYEGRASS	260 LBS
2) COMMERCIAL FERTILIZER	10/20/20/20	1,000 LBS
3) LIME	GROUND AGRICULTURAL LIMESTONE (MAY BE APPLIED SEPARATELY)	2 TONS
4) MULCH	HAY OR STRAW	3 TONS
5) SOIL STABILIZER	TERRA TACK OR EQUIVALENT	20 LBS

TEMPORARY SEEDING

1) SEED	ANNUAL RYEGRASS (95% PURE)	40 LBS
2) COMMERCIAL FERTILIZER	5-5-5	1,000 LBS
3) LIME	GROUND AGRICULTURAL LIMESTONE (MAY BE APPLIED SEPARATELY)	1 TON
4) MULCH	HAY OR STRAW	3 TONS

SOILS NOTES:

SITE PREPARATION:

THE PROPOSED DEVELOPMENT SHOULD INCLUDE THE COMPLETE REMOVAL OF ALL REMNANT FOUNDATIONS, FLOOR SLABS, CONCRETE PADS, PAVEMENTS AND UTILITIES LOCATED WITHIN AND TEN FEET BEYOND THE PERIMETER OF THE PROPOSED BUILDINGS FOOTPRINTS. THE REMAINDER OF THESE STRUCTURES MAY GENERALLY REMAIN IN PLACE IF REMOVED TO A MINIMUM DEPTH OF TWO FEET BELOW FINAL GRADES, PROVIDING THEIR LOCATION DOES NOT CONFLICT WITH OTHER CONSTRUCTION SUCH AS UTILITY INSTALLATION. ACTIVE UTILITIES THAT ARE PRESENT ON SITE SHOULD BE RELOCATED TO AREAS OUTSIDE OF THE PROPOSED BUILDING AREA.

BACKFILL OF ALL DEMOLITION AND UTILITY RELOCATION AREAS SHOULD BE PERFORMED IN ACCORDANCE WITH THE FILL AND COMPACTION CRITERIA SECTION THAT FOLLOWS. THE BACKFILL MATERIAL SHOULD BE INSPECTED AND TESTED BY A WETTER MAY BE REQUIRED TO ACHIEVE OPTIMUM MOISTURE CONTENT. PRIOR TO THE PLACEMENT OF ANY REQUIRED FILL, AREAS EXTENDING A MINIMUM OF TEN (10) FEET BEYOND THE PROPOSED CONSTRUCTION SHOULD BE STRIPPED OF ALL TOPSOIL, ROOT MAT, ASPHALT, CONCRETE, STONE, AND OTHER DELETERIOUS MATERIALS. FOLLOWING REMOVAL OF THE SURFACE MATERIALS AND PRIOR TO STRUCTURAL FILL STOCKPILE SOILS, THE PROPOSED GRADING AREAS SHOULD BE PROOF-ROLLED AND COMPACTED. IT IS RECOMMENDED THAT A STEEL DRUM ROLLER HAVING A MINIMUM STATIC WEIGHT OF TEN (10) TONS BE UTILIZED FOR THIS PURPOSE. PROOF-ROLLING AND COMPACTION PROCEDURES ARE NECESSARY TO CONTACT AND VERIFY THE INTEGRITY OF THE UPPER ZONES OF THE SOILS. ANY LOOSE OR UNSTABLE AREAS ENCOUNTERED DURING PROOF-ROLLING, WHICH ARE THE RESULT OF EXCESSIVE MOISTURE WITHIN THE SOIL MATRIX, CAN BE AERATED AND DRIED IN-PLACE. FOLLOWING ADEQUATE DRYING TIME, THESE SOILS CAN BE DENSIFIED IN-PLACE. ALTERNATELY, ANY LOOSE OR SOFT ZONES OF SOIL CAN BE REMOVED AND REPLACED WITH STRUCTURAL FILL AS OUTLINED IN THE FILL AND COMPACTION SECTIONS BELOW DUE TO THE FINED-GRAINED NATURE OF THE EXISTING RESIDUAL SOILS. REPEATED CONSTRUCTION TRAFFIC ACROSS THE SITE WILL LEAD TO INSTABILITIES. CONSTRUCTION TRAFFIC SHOULD BE LIMITED ACROSS THE SITE. IT IS RECOMMENDED THAT ALL CONSTRUCTION AREAS, INCLUDING THOSE WHICH WERE EXCAVATED TO ACHIEVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D698 AND COMPACTED TO A MINIMUM PERCENTAGE OF THE MAXIMUM DRY DENSITY AS INDICATED IN THE FOLLOWING TABLE.

FILL CRITERIA:

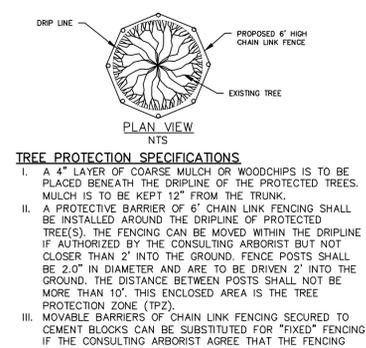
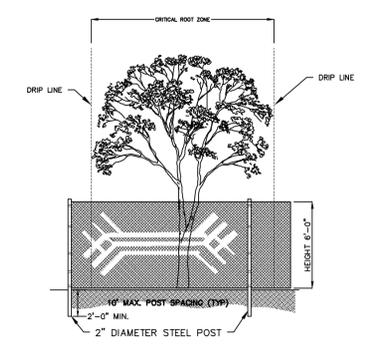
FILL MATERIAL, WHICH SUPPORTS FOUNDATIONS, FLOOR SLABS, AND PAVEMENTS, AS WELL AS MATERIAL USED FOR RETAINING WALL BACKFILL AND TO CONSTRUCT BASIN BERMS, IS CONSIDERED STRUCTURAL FILL. FOLLOWING SITE PREPARATION MEASURES, STRUCTURAL FILL REQUIRED TO ELEVATE THE BUILDING PADS AND FOUNDATIONS MAY BE PLACED. IT IS ANTICIPATED THAT EXCAVATIONS TO ACHIEVE THE PROPOSED BUILDING AND SITE GRADES WILL MAKE AVAILABLE THE RESIDUAL SOILS, WEATHERED ROCK, AND POSSIBLY THE BEDROCK FOR USE AS STRUCTURAL FILL. OTHER FILL WILL HAVE TO BE IMPORTED.

ANY STRUCTURAL OR LOAD BEARING SOIL WHICH IS IMPORTED TO THE SITE (IF REQUIRED) SHOULD MEET THE FOLLOWING CRITERIA: 1) FREE OF ORGANIC MATTER, ASH, CINDERS, AND DEMOLITION DEBRIS, 2) PARTICLE SIZE DISTRIBUTION THAT IS WELL GRADED, 3) PLASTICITY INDEX LESS THAN 10, AND 4) LESS THAN 15 PERCENT BY WEIGHT ROCK FRAGMENTS LARGER THAN 3", LESS THAN 30 PERCENT BY WEIGHT LARGER THAN 3/4" AND LESS THAN 30 PERCENT BY WEIGHT SMALLER THAN THE NO. 200 SIEVE.

THE ABOVE CRITERIA ARE PROVIDED AS A GENERAL GUIDELINE FOR SOIL MATERIALS IMPORTED TO THE SITE. SOIL MATERIALS, AVAILABLE FOR USE AS A STRUCTURAL FILL, SHOULD BE SUBMITTED TO A GEOTECHNICAL ENGINEER FOR EVALUATION PRIOR TO IMPORTATION TO THE SITE.

CONSTRUCTION CRITERIA:

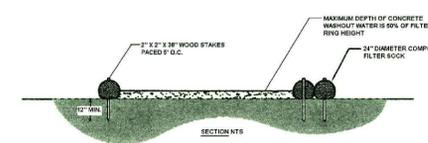
STRUCTURAL FILL: SHOULD GENERALLY BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING EIGHT (8) INCHES IN LOCAL THICKNESS AND COMPACTED WITH A SHEEPSFOOT ROLLER OR SHEEPSFOOT VIBRATORY ROLLER. MINIMUM STATIC WEIGHT OF 10 TONS. USE OF A SHEEPSFOOT ROLLER WILL AID IN CRUSHING EXCAVATED WEATHERED ROCK MATERIAL FOR USE AS STRUCTURAL FILL. THE FILL SHOULD BE PLACED IN HORIZONTAL LIFTS OF SIX (6) INCHES LOOSE THICKNESS WHERE COMPACTION BY HAND-OPERATED EQUIPMENT IS NECESSARY. THE OPTIMUM LIFT THICKNESS AND NUMBER OF REPEATS NECESSARY TO ACHIEVE THE REQUIRED PERCENTAGE COMPACTION VALUES SHOULD BE DETERMINED IN THE FIELD WITH TEST PASSES OF THE CHOSEN COMPA



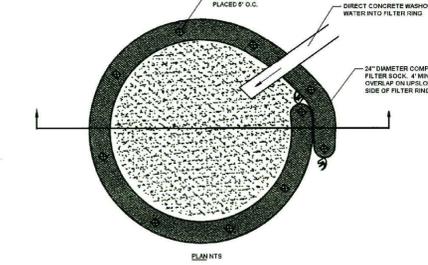
- DO NOT:**
- ALLOW RUNOFF OF SPILLAGE DAMAGING MATERIALS INTO THE AREA BELOW ANY TREE CANOPY.
 - STORE MATERIALS, STOCKPILE SOIL, OR PARK OR DRIVE VEHICLES WITHIN THE TREE PROTECTION ZONE.
 - CUT, BREAK SKIN, OR BRUISE ROOTS, BRANCHES, OR TRUNKS WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE CONSULTING ARBORIST.
 - DISCHARGE EXHAUST INTO FOLIAGE.
 - SECURE CABLE, CHAIN, OR ROPE TO TREES OR SHRUBS.
 - TRENCH, DIG, OR OTHERWISE EXCAVATE WITHIN THE DRIPLINE OR PROTECTION ZONE OF THE TREE(S) WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE CONSULTING ARBORIST.
 - APPLY SOIL STERILANTS UNDER PAVEMENT NEAR EXISTING TREES.

- TREE PROTECTION SPECIFICATIONS**
- A 4" LAYER OF COARSE MULCH OR WOODCHIPS IS TO BE PLACED BENEATH THE DRIPLINE OF THE PROTECTED TREES. MULCH IS TO BE KEPT 12" FROM THE TRUNK.
 - A PROTECTIVE BARRIER OF 6" CHAIN LINK FENCING SHALL BE INSTALLED AROUND THE DRIPLINE OF PROTECTED TREE(S). THE FENCING CAN BE MOVED WITHIN THE DRIPLINE IF AUTHORIZED BY THE CONSULTING ARBORIST BUT NOT CLOSER THAN 2" INTO THE GROUND. FENCE POSTS SHALL BE 2.0" IN DIAMETER AND ARE TO BE DRIVEN 2' INTO THE GROUND. THE DISTANCE BETWEEN POSTS SHALL NOT BE MORE THAN 10'. THIS ENCLOSED AREA IS THE TREE PROTECTION ZONE (TPZ).
 - MOVABLE BARRIERS OF CHAIN LINK FENCING SECURED TO CEMENT BLOCKS CAN BE SUBSTITUTED FOR "FIXED" FENCING IF THE CONSULTING ARBORIST AGREES THAT THE FENCING WILL HAVE TO BE MOVED TO ACCOMMODATE CERTAIN PHASES OF CONSTRUCTION. THE BUILDER MAY NOT MOVE THE FENCE WITHOUT AUTHORIZATION FROM THE CONSULTING ARBORIST.
 - WHERE THE CONSULTING ARBORIST HAS DETERMINED THAT TREE PROTECTION FENCING WILL INTERFERE WITH THE SAFETY OF WORK CREWS, TREE WRAP MAY BE USED AS AN ALTERNATIVE FORM OF TREE PROTECTION. WOODEN SLATS AT LEAST ONE INCH THICK ARE TO BE BOUND SECURELY, EDGE TO EDGE, AROUND THE TRUNK. A SINGLE LAYER OR MORE OF ORANGE PLASTIC CONSTRUCTION FENCING IS TO BE WRAPPED AND SECURED AROUND THE OUTSIDE OF THE WOODEN SLATS. MAJOR SCAFFOLD LIMBS MAY REQUIRE PROTECTION AS DETERMINED BY THE CONSULTING ARBORIST. STRAW WADDLE MAY ALSO BE USED AS A TRUNK WRAP BY COLING THE WADDLE AROUND THE TRUNK UP TO A MINIMUM HEIGHT OF SIX FEET FROM GRADE. A SINGLE LAYER OR MORE OF ORANGE PLASTIC CONSTRUCTION FENCING IS TO BE WRAPPED AND SECURED AROUND THE STRAW WADDLE.

TREE PROTECTION DETAIL
N.T.S.

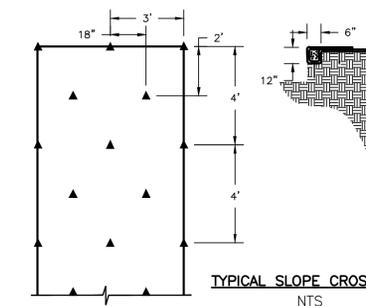


- NOTES:**
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
 - 2" DIAMETER FILTER SOCK MUST BE STITCHED ONTO DOUBLE 2" CONCRETE SOCKS IN FINAL CONFIGURATION FOR ADDED HEIGHT.



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

CONCRETE WASHOUT DETAIL
N.T.S.

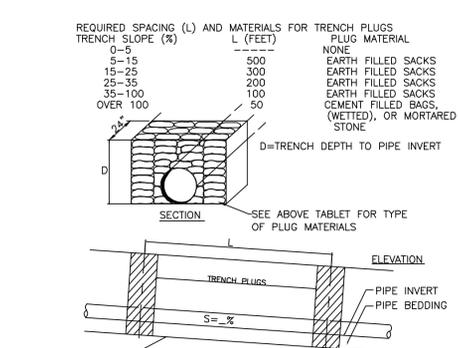


- NOTES:**
- INSTALL LANDLOK TURF REINFORCEMENT MATS (OR EQUAL) AND SOIL FILL (OPTIONAL), FOR THE SITE GRADING PRIOR TO THE INSTALLATION OF THE SLOPE.
 - PREPARE SOIL BEFORE INSTALLING MATS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED, UNLESS USING BLANKET THAT IS PRESEED (THEN FOLLOW MANUFACTURER'S SPECIFICATIONS).
 - BEGIN AT TOP OF SLOPE BY ANCHORING T.R.M. IN TRENCH AS INDICATED IN THE DETAIL, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 - ROLL THE T.R.M.'s EITHER DOWN VERTICALLY OR HORIZONTALLY ACROSS THE SLOPE.
 - THE EDGES OF PARALLEL T.R.M.'s MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
 - WHEN T.R.M.'s MUST BE SPICED DOWN THE SLOPE, PLACE T.R.M. END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 2" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
 - 1/2" SHARPED WIRE STAPLES, METAL GEOTEXTILE PINS, TRIANGULAR WOODEN DR PLASTIC STAKES CAN BE USED TO ANCHOR T.R.M.'s TO FINISHED GRADE.

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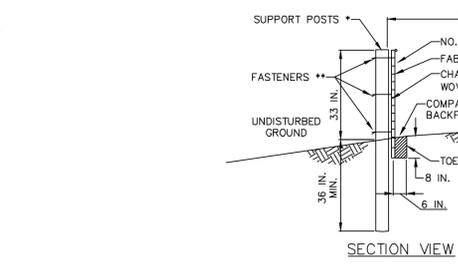
REQUIRED SPACING (L) AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	L (FEET)	PLUG MATERIAL
0-5	500	NONE
5-15	300	EARTH FILLED SACKS
15-25	200	EARTH FILLED SACKS
25-35	100	EARTH FILLED SACKS
35-100	50	CEMENT FILLED SACKS (WETTED), OR MORTARED STONE



NOTES:
TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, OR WATER-BODY CROSSINGS REGARDLESS OF TRENCH SLOPE. OTHERWISE NOT REQUIRED.
TOPSOIL MAY NOT BE USED TO FILL SACKS.

CONSTRUCTION OF TRENCH PLUGS
N.T.S.

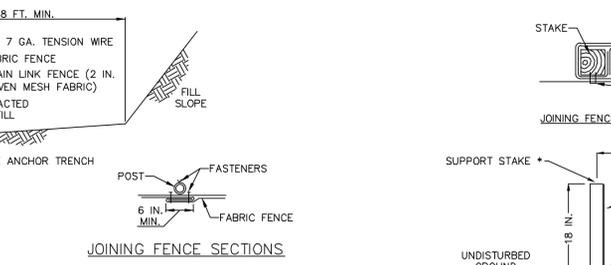


- * POSTS SPACED AT 10 FT. MAX. USE 2-1/2 IN. DIA HEAVY DUTY GALVANIZED OR ALUMINUM POSTS.
** CHAIN LINK TO POST FASTENERS SPACED AT 14 IN. MAX. USE NO. 9 GA. ALUMINUM WIRE OR NO. 9 GALVANIZED STEEL WIRE. FABRIC TO SHAIN FASTENERS SPACED AT 24 IN. MAX. ON CENTER.

- NOTES:**
- FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.
 - FABRIC WIDTH SHALL BE 42 IN. MINIMUM.
 - POSTS SHALL BE INSTALLED USING A POSTHOLE DRILL.
 - CHAIN LINK SHALL BE GALVANIZED NO. 11.5 GA. STEEL WIRE WITH 2-1/4 IN. OPENING, NO. 11 GA. ALUMINUM COATED STEEL WIRE IN ACCORDANCE WITH ASTM-A-491, OR GALVANIZED NO. 9 GA. STEEL WIRE TOP AND BOTTOM WITH GALVANIZED NO. 11 GA. STEEL INTERMEDIATE WIRES. NO. 7 GAGE TENSION WIRE TO BE INSTALLED HORIZONTALLY THROUGH HOLES AT TOP AND BOTTOM OF CHAIN-LINK FENCE OR ATTACHED WITH HOG RINGS AT 5 FT MAX. CENTERS.
 - SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
 - SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
 - FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

STANDARD CONSTRUCTION DETAIL #4-10
SUPER SILT FENCE
NOT TO SCALE

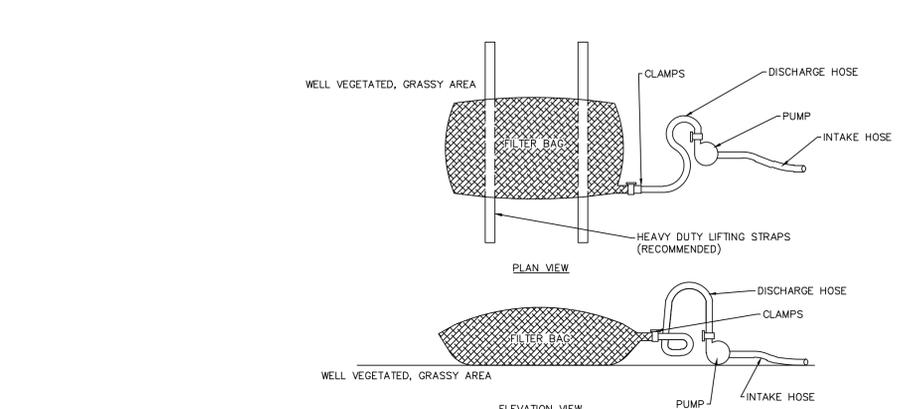
- UTILITY LINE TRENCH EXCAVATIONS:**
- THE FOLLOWING SPECIFICATIONS AND DETAILS MUST BE FOLLOWED FOR ALL UTILITY TRENCHES WHICH HAVE THE POTENTIAL TO CONVEY SEDIMENT LADEN WATER TO SITE BOUNDARIES OR WATER WAYS WITHOUT FIRST PASSING THROUGH SEDIMENT REMOVAL FACILITIES.
- CONSTRUCTION REQUIREMENTS
 - 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.
 - ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
 - 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 IN ACCORDANCE WITH TABLE 4.11 AND BE CONSTRUCTED OF THE MATERIALS AND TO THE DETAILS SHOWN IN FIGURE 4-21.
 - 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.
 - CONSTRUCTION OF THE CROSSING WILL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION M.
 - WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING, IN ACCORDANCE WITH ITEM B.5 OF SECTION M, BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS.
 - SOILS EXCAVATED FROM EXISTING SURFACE LAYER SHOULD BE STOCKPILED SEPARATELY AND RETURNED AS FINAL SURFACE LAYER FOLLOWING TRENCH BACKFILLING.
 - EXCEPTIONS - IN CERTAIN CASES TRENCHES CANNOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED. IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM 2 WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
 - DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND 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 AREA SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.



- * STAKES SPACED AT 8 FT. MAX. USE 2 IN X 2 IN (3/8 IN.) WOOD OR EQUIVALENT STEEL (U OR T) STAKES

- NOTES:**
- FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.
 - FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.
 - SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
 - SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
 - ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).
 - FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

STANDARD CONSTRUCTION DETAIL #4-7
STANDARD SILT FENCE (18" HIGH)
NOT TO SCALE



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:

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

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.

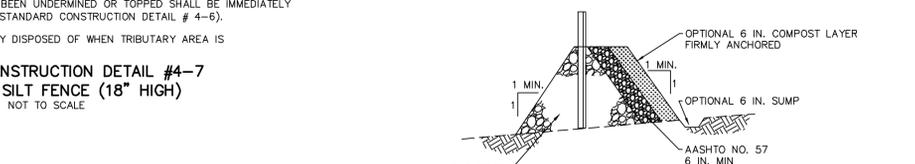
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EY WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

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.

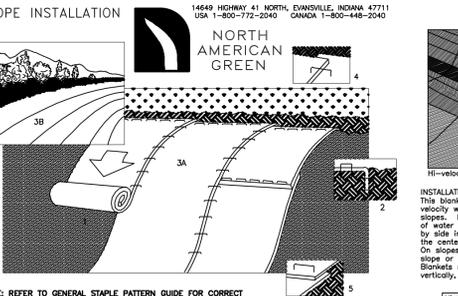
STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG
NOT TO SCALE



NOTES:

- A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EY WATERSHEDS.
- SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET
NOT TO SCALE



- NOTES:**
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 - ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
 - WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

Hi-Velocity Curlex Blankets
American Excelsior Company

Designed to control erosion in areas of high-velocity water runoff, the Excelsior Hi-Velocity Curlex Blanket is a machine-produced mat of cured wood excelsior of 80% six inch or longer fiber length, with consistent thickness and fairly uniform fiber distribution over its entire area. Each side is covered with black, extra heavy-duty extruded plastic netting designed to last for years and reinforce the root system after the excelsior mat has decomposed. They are smolder-resistant-no chemical additives.

- INSTALLATION INSTRUCTIONS:**
The blanket is designed to withstand high-velocity water movements in ditches and on slopes. In ditches, install blanket in direction of water flow. When using two blankets side by side in a ditch, do not put the seams in the center of the ditch. Offset 6" to 1 foot. On slopes, start blanket 3 feet over crest of slope or dig anchor ditches if specified. Blankets may be installed horizontally or vertically, whichever is easier.
- STAPLING INSTRUCTIONS FOR AMXCO HI-VELOCITY CURLEX BLANKETS:**
Use wire staples, 20# in diameter or greater, 1" spaced with legs 8" long or longer and 1" to 2" crown. Size and gauge of staples used will vary with soil types. Use four staples across at the start of each roll and continue to staple along the length of the roll at 2 ft. intervals. When blankets are placed across side of each roll, in addition to stapling the edges of each roll, staple so as to catch the edge of the blanket at the appropriate intervals (see drawing), place staples in the center of the blanket halfway between the outer staples.
- Typical Stapling Pattern for High-Velocity Ditches and Slopes:**
Use 4 staples across at the start of each roll and continue to staple throughout the length of the roll at 2 ft. intervals.
- SOIL TYPES PER SECOND:**
- | | |
|-----------------|--------|
| Clay/loam loam | 11 FPS |
| Clay/silt clay | 8 FPS |
| Fine sandy loam | 8 FPS |
| Silt loam | 8 FPS |
- These figures are based on ditch depth of over 18" and up to 132" on slope protection. The maximum water velocity to be applied to the blanket slope and velocity effect of water velocity.*

CHANNEL STABILIZATION
N.T.S.

EROSION & SEDIMENTATION CONTROL DETAILS FILE NO.: 15-372

MOMENEE, INC.
a Karins Company
ENGINEERING | PLANNING | SURVEYING

REGISTERED PROFESSIONAL ENGINEER
KEVIN R. MOMENEE
PE020328E

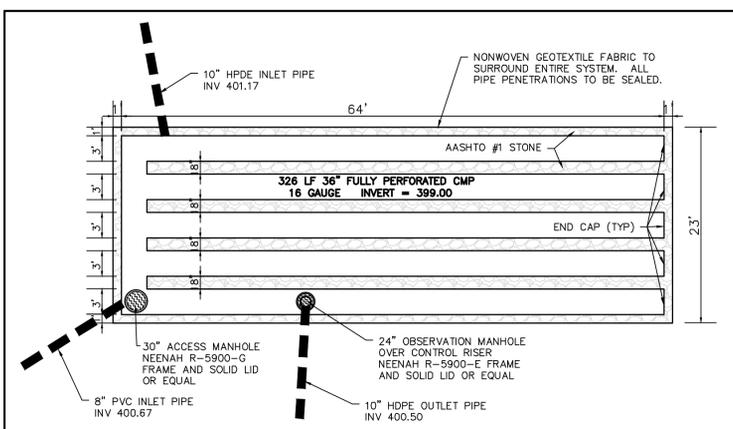
PRELIMINARY LAND DEVELOPMENT PLAN
ACADEMY OF NOTRE DAME - STEM BUILDING

RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA

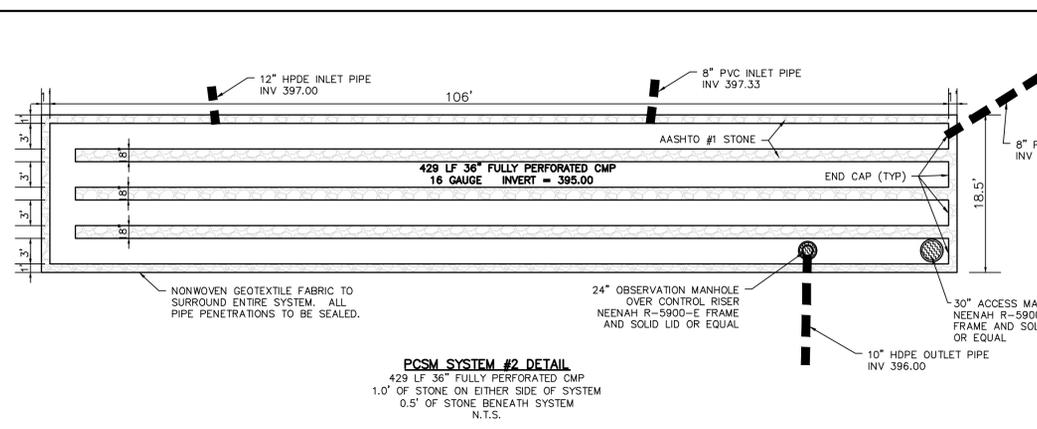
OWNER/APPLICANT
ACADEMY OF NOTRE DAME
560 SPOUL ROAD
VILLANOVA, PA 19085-1220

ONE-CALL: 2016054157
DRAWN BY: BDM
CHECKED BY: KRM

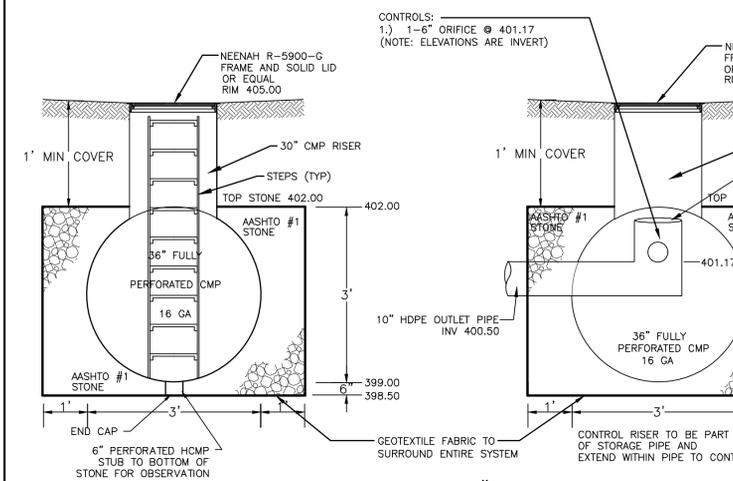
SHEET 9 OF 11
DATE: AUGUST 31, 2016
SCALE: AS NOTED



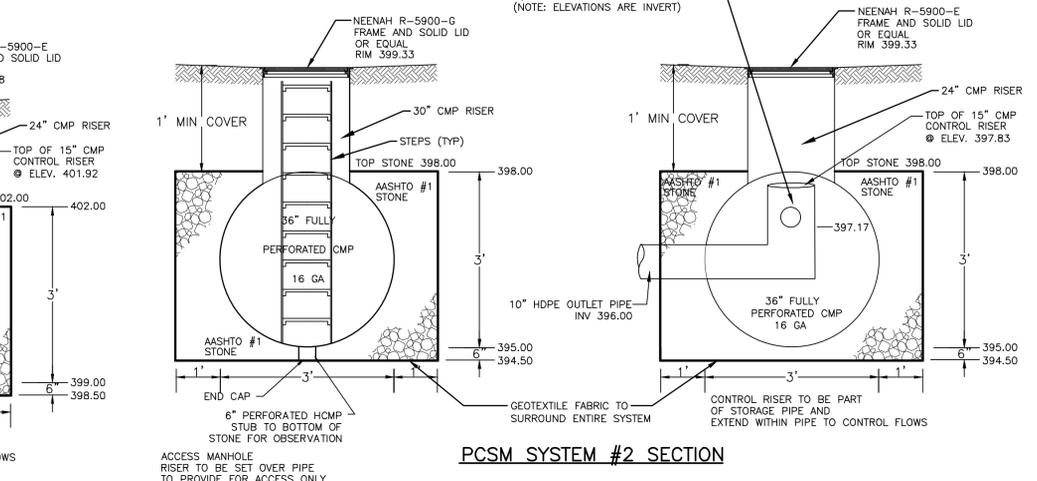
PCSM SYSTEM #1 DETAIL
326 LF 36\"/>



PCSM SYSTEM #2 DETAIL
429 LF 36\"/>



PCSM SYSTEM #1 SECTION



PCSM SYSTEM #2 SECTION

CONSTRUCTION NOTES:

1. GEOTEXTILE FABRIC SHALL BE CLEAN NON-WOVEN GEOTEXTILE (PERMEABLE FILTER FABRIC) CLASS 1 AND SHALL BE IN ACCORDANCE WITH PADOT SPECIFICATION FROM 408. THE TYPE AND/OR THICKNESS SHALL BE DUPONT TYFAR #3401, AMOCO PROPEX #4545 OR APPROVED EQUAL OR AS OTHERWISE INDICATED ON THE PLAN.
2. ALL STONE USED FOR THE CONSTRUCTION OF THE INFILTRATION BMP SHALL BE UNIFORMLY GRADED, CLEAN, AND WASHED CRUSHED STONE AGGREGATE MEETING PENNDOT/AASHTO #1 SPECIFICATIONS.
3. ALL PERSONS ENTERING ACTIVE TANKS, MANHOLES, INLETS, ETC. MUST COMPLY WITH OSHA REQUIREMENTS FOR ENTRY INTO CONFINED SPACES.
4. RAIN WATER CONDUITS ARE TO COLLECT ALL ROOF RUNOFF AND CONVEY IT TO THE APPROPRIATE STORMWATER MANAGEMENT FACILITY.
5. CLEANOUTS ARE REQUIRED AT ALL CHANGES IN DIRECTION OF THE ROOF DRAINS AND SANITARY SEWER LATERALS.
6. ALL SEEPAGE BEDS SHALL BE INSTALLED WITH A MINIMUM SEPARATION DISTANCE OF 10 FEET FROM ALL BASEMENT WALLS.
7. ALL CMP AND HCMP SHALL BE ALUMINUM OR ALUMINIZED STEEL.
8. ALL HDPE PIPE SHALL BE SMOOTH INTERIOR FLOW.
9. ALL PVC PIPE SHALL BE SDR 35.
10. THE RISER CONNECTIONS IN THE STORMWATER MANAGEMENT SYSTEM SHALL BE WATER-TIGHT. REFER TO DETAILS.
11. WHERE DRAINAGE SWALES ARE WITHIN 20' OF A BASEMENT, WATERPROOFING SHALL BE APPLIED TO THE BASEMENT.
12. PERFORATIONS FOR 36\"/>

CONSTRUCTION SPECIFICATIONS FOR STORMWATER MANAGEMENT SYSTEMS

1. ALTER AND REFINE THE GRADES AS NECESSARY TO BRING SUBGRADE TO REQUIRED GRADES AND SECTIONS AS SHOWN IN THE DRAWINGS.
2. THE TYPE OF EQUIPMENT USED IN SUBGRADE PREPARATION CONSTRUCTION SHALL NOT CAUSE UNDESIRABLE SUBGRADE COMPACTION. TRAFFIC OVER SUBGRADE SHALL BE KEPT AT A MINIMUM.
3. INSTALL POLYPROPYLENE NONWOVEN GEOTEXTILE FABRIC WHICH MEETS PADOT CLASS 1 SPECIFICATIONS (I.E. DUPONT TYFAR #3401, AMOCO PROPEX #4545, OR APPROVED EQUAL) ON BOTTOM OF BED AREAS AND TACK UP SIDES OF EXCAVATION, WHERE EDGES OF ROLLS OVERLAP, THEY SHALL GO SO BY AT LEAST EIGHTEEN INCHES. ADEQUATE FABRIC SHALL BE LEFT ON THE ROLLS (NOT CUT FROM SIDE INSTALLATION) TO FACILITATE OVERTOPPING THE SYSTEM AT COMPLETION OF INSTALLATION.
4. ALL STONE FOR THE CONSTRUCTION OF THE INFILTRATION BMP SHALL BE UNIFORMLY GRADED AND CLEAN, WASHED, AGGREGATE. THE STONE SHALL MEET PENNDOT/AASHTO #1 SPECIFICATIONS. STONE TO BE CHECKED BY THE DESIGN OR SITE ENGINEER PRIOR TO INSTALLATION.
5. STONE BASE COURSE SHALL BE LAID OVER A DRY SUBGRADE TO A DEPTH SHOWN IN DRAWINGS. DO NOT ROLL OR COMPACT THE STONE BASE COURSE. KEEP THE BASE COURSE CLEAN FROM DEBRIS, CLAY AND ERODING SOIL. INSTALL TANKS AND PIPE AS SHOWN AND BACKFILL WITH STONE.
6. COVER SYSTEM WITH REMAINING FABRIC, ALLOWING OPENINGS FOR ACCESS COVERS.
7. SYSTEM TO BE TOTALLY ENCLOSED IN THE NON-WOVEN GEOTEXTILE FABRIC.
8. INFILTRATION BMP FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED ANY OF THE INFILTRATION SEEPAGE BEDS, APPROPRIATE MEASURES SHOULD BE TAKEN (I.E. CLEANING THE SOIL/SEDIMENT FROM FABRIC, STONE, BED ETC. AND OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
9. THE BOTTOM OF ALL INFILTRATION BMP'S SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.
10. INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
12. EXCAVATION FOR THE INFILTRATION FACILITY SHALL BE PERFORMED WITH EQUIPMENT THAT WILL NOT COMPACT THE BOTTOM OF THE SEEPAGE BED OR LIKE FACILITY.
13. THE BOTTOM OF THE BED AND/OR TRENCH SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF AGGREGATE.

FILL NOTES:

1. IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE PERMITTEE.
2. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
3. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
4. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
5. ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
6. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PADOTDE.COM.

INFILTRATION BMP NOTES:

1. INFILTRATION BMP FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED ANY OF THE PCSM INFILTRATION SYSTEMS #1-2, APPROPRIATE MEASURES (I.E. CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, BED, ETC. AND OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
2. ALL STONE FOR THE CONSTRUCTION OF THE INFILTRATION BMP SHOULD BE UNIFORMLY GRADED AND CLEAN WASHED AGGREGATE.
3. THE BOTTOM OF ALL INFILTRATION BMP'S SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.
4. INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
5. PRIOR TO THE PLACEMENT OF STONE IN THE PCSM INFILTRATION SYSTEMS 1-2, THE CONTRACTOR SHALL MAKE A TEST PIT 2 FEET BELOW THE BED BOTTOM TO ENSURE THAT BEDROCK AND/OR GROUNDWATER ARE NOT PRESENT IN THIS ZONE. IN THE EVENT THAT GROUNDWATER AND/OR BEDROCK ARE WITHIN 2 FEET OF BED BOTTOM, THE BED SHALL BE RELOCATED AND REDESIGNED BEFORE CONSTRUCTION MAY CONTINUE.
6. AFTER THE PCSM INFILTRATION SYSTEMS 1-2 ARE COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE INFILTRATION BEDS TO ELIMINATE IMPACTS WHICH MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE BMP INFILTRATION SYSTEMS, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.
7. ALL BMP INFILTRATION SYSTEMS SHALL BE LOCATED A MINIMUM OF 10' FROM A BASEMENT WALL.
8. THE PROJECT ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE INITIATION OF ANY EMB OR PCSM CRITICAL STAGE OF CONSTRUCTION AS NOTED ON THE EROSION & SEDIMENTATION CONTROL PLAN AND POST CONSTRUCTION STORMWATER MANAGEMENT PLAN. CRITICAL STAGES INCLUDE THOSE LISTED ON THIS SHEET OF THESE PLANS AND MORE GENERALLY THE INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMP'S, STRUCTURALLY ENGINEERED BMP'S, OR OTHER BMP'S AS DEEMED APPROPRIATE BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR PERFORMING ON-SITE INSPECTIONS FOR ALL CRITICAL STAGES IN ORDER TO ENSURE GENERAL PCSM PLAN COMPLIANCE TO FACILITATE FINAL CERTIFICATION THAT THE SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN.

STORMWATER MANAGEMENT FACILITY MAINTENANCE PLAN

THE STORMWATER MANAGEMENT SYSTEMS ON THIS LOT CONSISTS OF TWO SUBSURFACE DETENTION/RECHARGE BASINS. THE BASINS ARE COMPRISED OF FULLY PERFORATED CORRUGATED METAL PIPE WITHIN A STONE BED SURROUNDED BY FILTER FABRIC. AN INTERNAL CONTROL RISER ALLOWS CONTROLLED DISCHARGE OF FLOWS FROM THE SYSTEMS. WATER RUNOFF IS DIRECTED TO THE INFILTRATION BEDS VIA A ROOF RAINWATER COLLECTION SYSTEM, SERIES OF INLETS, AND PIPING WHICH CAPTURE AND COLLECT RUNOFF FROM THE NEW ROOF AREAS, AMPHITHEATER, ENTRY PLAZA, WALKS, AND SOME OTHER AREAS ON THE PROPERTY. THE INLETS ARE PROVIDED WITH A ONE FOOT SUMP BELOW THE INLET AND OUTLET PIPES SO THAT DEBRIS CAN BE COLLECTED PRIOR TO FLOWING INTO THE SUBSURFACE INFILTRATION BEDS.

THE SYSTEMS ARE DESIGNED TO PROMOTE GROUNDWATER RECHARGE. A CONTROL STRUCTURE WITHIN THE SYSTEMS DISCHARGE TO PROPOSED LEVEL SPREADERS WHERE THE RUNOFF MAY BE DISSIPATED TO GRADE IN AN UN-CONCENTRATED MANNER. AN ACCESS MANHOLE WITH A LADDER IS PROVIDED AT THE CONTROL STRUCTURE TO FACILITATE ACCESS AND MAINTENANCE OF THE SYSTEM.

THE RESPONSIBILITY FOR THE CONTINUED OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES ON THIS LOT IS THAT OF THE PROPERTY OWNER.

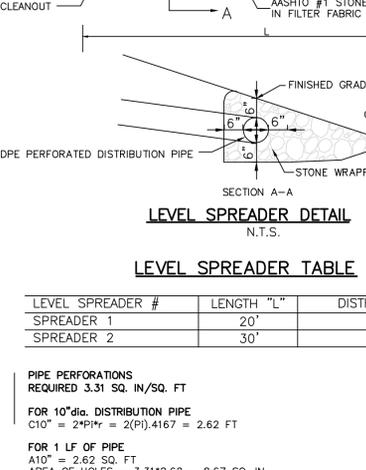
MAINTENANCE OF THE FACILITIES SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

1. THE OWNER, OCCUPANT, TENANT OR OTHER USER OF THE PROPERTY SHALL NOT IMPEDRE THE FLOW OF WATER DRAINING TO THE STORMWATER MANAGEMENT BASIN.
2. ALL ROOF DOWNSPOUTS, INLETS, CURB OPENINGS AND OTHER WATER WAYS SHALL BE KEPT OPEN AND OPERATION TO PASS THE FLOW OF WATER TO THE BASIN AS INTENDED.
3. GRASS AND LANDSCAPING IN THE VICINITY OF ALL INLETS SHALL BE KEPT TRIM AND FREE FROM DEBRIS ACCUMULATION, AND DOWNSPOUTS AND INLETS SHALL BE KEPT FREE OF OBSTRUCTIONS THAT COULD BLOCK THE FREE FLOW OF WATER TO AND WITHIN THEM.
4. INLET SUMPS SHALL BE CLEANED OF ACCUMULATED DEBRIS BEFORE ANY DEBRIS CAN BE DISCHARGED INTO THE SYSTEMS. INLET STRUCTURES SHALL BE INSPECTED AT LEAST MONTHLY TO INSURE THAT THEY ARE CLEAN AND REMAIN OPERATIONAL.
5. SUBSURFACE PIPES SHALL BE INSPECTED ON AN ANNUAL BASIS TO INSURE THAT THEY ARE CLEAN AND OPERATIONAL. ACCUMULATED DEBRIS AND SILT SHALL BE REMOVED IN A TIMELY MANNER. THE SUBSURFACE PIPES SHALL BE KEPT FREE OF OBSTRUCTIONS THAT COULD BLOCK THE FREE FLOW OF WATER WITHIN THEM.
6. PROMPT REMEDIAL MEASURES ARE TO BE TAKEN IN THE EVENT OF ANY BLOCKAGE OR MALFUNCTION OF THE SYSTEM.

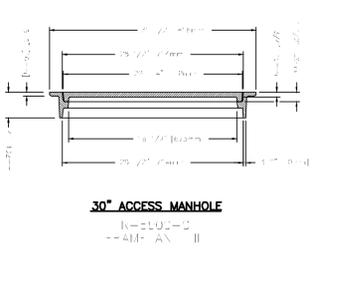
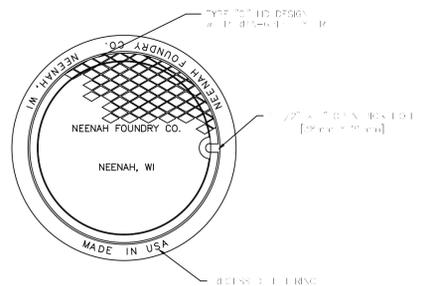
THE OWNER, OCCUPANT, TENANT OR OTHER USER OF THE PROPERTY SHALL NOT TAKE ANY MEASURES TO DISRUPT OR IN ANY WAY IMPAIR THE EFFECTIVENESS OF THE BASIN OR ITS CONTROLS. THIS INCLUDES ALTERATION OF GRADES IN ANY MANNER THAT WOULD DIVERT RUNOFF AWAY FROM INLET COLLECTION POINTS.



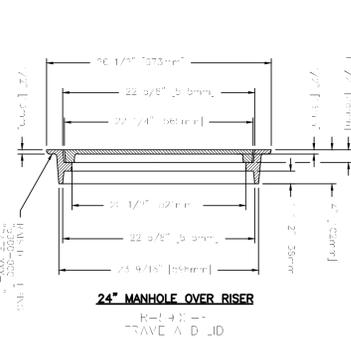
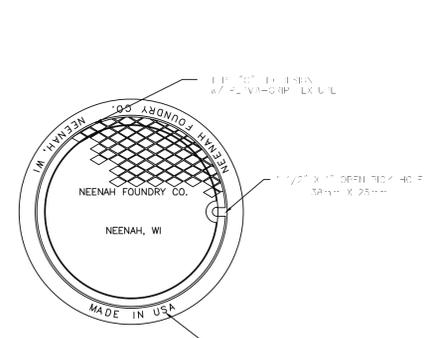
DOWNSPOUT DETAIL



TERMINAL CLEANOUT (TYPICAL)



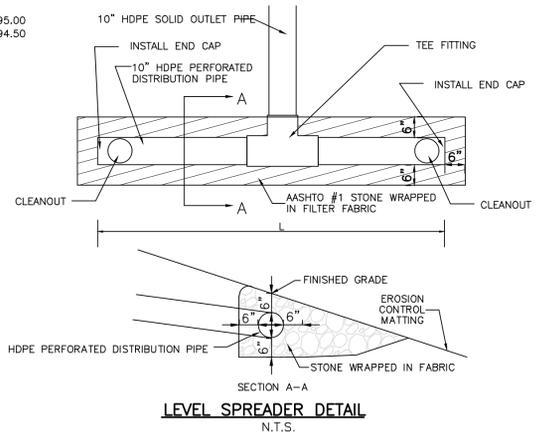
30\"/>



24\"/>



STORMWATER MANHOLE DETAILS



LEVEL SPREADER DETAIL

LEVEL SPREADER TABLE

LEVEL SPREADER #	LENGTH "L"	DISTRIBUTION PIPE
SPREADER 1	20'	10" HDPE
SPREADER 2	30'	10" HDPE

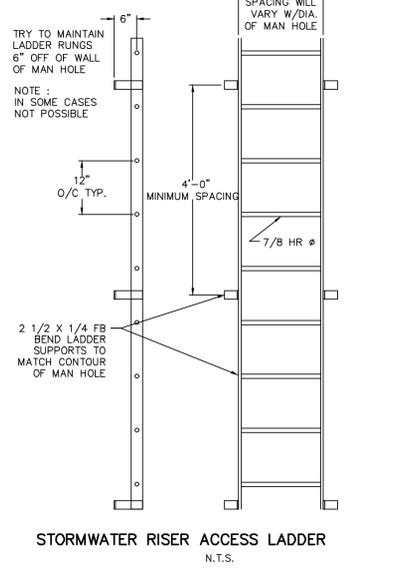
PIPE PERFORATIONS REQUIRED 3.31 SQ. IN./SQ. FT

FOR 10" dia. DISTRIBUTION PIPE
 $C10' = 2\pi r L = 2(\pi)(4.167) = 2.62 \text{ FT}$

FOR 1 LF OF PIPE
 $A10' = 2.62 \text{ SQ. FT}$
 AREA OF HOLES = $3.31 \times 2.62 = 8.67 \text{ SQ. IN}$

FOR 3/4" dia. HOLES
 $A3/4' = 0.442 \text{ SQ. IN}$
 NO. HOLES NEEDED = $8.67 / 0.442 = 20 \text{ HOLES}$

USE 5-3/4" dia. HOLES SPACED EQUALLY AROUND THE CIRCUMFERENCE @ 3" c.c. PER LENGTH OF PIPE STARTING @ 1.5" FROM EITHER END OF PIPE.



STORMWATER RISER ACCESS LADDER

PCSM DETAILS

MOMENEE, INC.
a Karins Company
ENGINEERING | PLANNING | SURVEYING

PRELIMINARY LAND DEVELOPMENT PLAN
ACADEMY OF NOTRE DAME - STEM BUILDING
 RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA

OWNER/APPLICANT
 ACADEMY OF NOTRE DAME
 560 SPOUL ROAD
 VILLANOVA, PA 19085-1220

ONE-CALL: 2016054157
 DRAWN BY: BDM
 CHECKED BY: KRM

FILE NO.: 15-372

REGISTERED PROFESSIONAL ENGINEER
 KEVIN R. MOMENEE
 ENGINEER PE020320E

SHEET **11** OF 11
 DATE: AUGUST 31, 2016
 SCALE: AS NOTED



*Excellence Delivered **As Promised***

Date: September 26, 2016

To: Radnor Township Planning Commission

From: Roger Phillips, PE

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official
Steve Gabriel - Rettew

RE: 800 Goshen Road – Preliminary Subdivision Plan
Goshen Holding Company, Inc. – Applicant

Date Accepted: July 5, 2016

90 Day Review: October 3, 2016, extended to October 31, 2016

Gannett Fleming, Inc. has completed a review of the Preliminary Subdivision Plans for compliance with the Radnor Township Code. These Plans were reviewed for conformance with Zoning, Subdivision and Land Development, and other applicable codes of the Township of Radnor.

The applicant is proposing to subdivide and develop an existing parcel into 3 individual parcels and construct single family homes. This existing parcel was created as part of a previous subdivision plan that was recorded in 1998 and indicates on the recorded plan that Lot 9, this parcel, is Open Space. Since that lot was restricted as Open Space on the 1998 plan it cannot be developed as a building lot without legal relief. The Township Solicitor's office is addressing this issue with counsel for the applicant.

The applicant is also proposing that this project be developed under the Lot Averaging section of the Zoning Code which must be approved by the Board of Commissioners. This project is located in the R1 zoning district of the Township.

Should it be deemed that the subject parcel is capable of further subdivision, the following comments must be addressed.



Preliminary Subdivision Plans – 800 Goshen Road

Plans Prepared By: Chester Valley Engineers, Inc.

Dated: 06/03/2016, last revised 08/31/2016

The applicant has indicated by letter dated September 2, 2016 that the following waiver is being requested:

§255.27.C(1) – Requires Minor Collector Roads (Goshen Road, S.R. 1034) to provide a 30' half right-of-way width and an 18" cartway width. The applicant is request a waiver from the road widening requirements of 18' half cartway width for this subdivision.

I. Zoning

1. §280-15.A – Each lot in the R-1 district shall have a lot area of not less than one acre, and such lot shall be not less than 120 feet in width at the building line. The applicant is proposing to use Lot Averaging (§280-110) for this project. If the Board of Commissioners approves the use of Lot Averaging, then the minimum lot area per family and lot width relating to an individual lot in the district where the lot is located may be reduced by not more than 25%, provided that the median lot area per family requirement for the entire tract is not less than the minimum required for the district. Since a typical benefit of lot averaging is the preservation of open space or natural features, the applicant must provide reasoning and benefit as to why lot averaging is necessary and should be considered for this project. The applicant has indicated in his response letter dated September 2, 2016 that lot averaging is being used in an effort to preserve the stream valley, natural features and existing wooded areas on the site. The Board of Commissioners must approve the use of lot averaging.
2. §280-15.F – The maximum impervious surface is 22%. The Zoning table on sheet 3 of 13 has been revised to shown the proposed impervious surface for each individual lot. The applicant must provide a breakdown of how the impervious coverage was calculated on the plans.
3. §280-102 – No lot area shall be so reduced that the area of the lot or the dimensions of the open spaces shall be smaller than herein prescribed. This plan is reducing the open space that was created on the previously approved subdivision plan. The applicant has indicated in the September 2, 2016 response letter that they believe that Radnor Township has submitted confirmation on this property being a buildable lot, per Eugene R. Evans (Evans & Noll, LLP) letter dated 10/20/1998. This letter was previously submitted to the Township by the Applicants Attorney. In addition, Subdivision Plan No. 97-S-17 was approved on 02/17/05 and recorded with the Delaware County Recorder of Deeds on 02/17/2005, documenting Lot 9 approved for future .

4. §280-103 – Two parking spaces must be provided for each dwelling unit. The applicant has indicated in comment 1.1 of the September 2, 2016 response letter that three car garages are going to be provided to meet his requirement. The dimensions of the garage must be shown on the plans.
5. §280-110 – In order to permit a more varied, more efficient and more economical development pattern in a specific locations, preserve stream valley and other natural features and provide for a better and more attractive arrangement of homes and open space than is possible under the usual district zoning requirements, the requirements of an AC Agricultural Conservation District or an R-1 or R-2 Residence District may be modified when approved by the Board of Commissioner in accordance with the provisions of this Section, Lot Averaging. The applicant must provide reasoning and benefit as to why lot averaging is necessary and should be considered for this project. The applicant has indicated in his response letter dated September 2, 2016 that lot averaging is being used in an effort to preserve the stream valley, natural features and existing wooded areas on the site. The Board of Commissioners must approve the use of lot averaging.
6. §280-112.D(6) – Roads, streets, or drives shall be permitted in the steep slope areas, but only when no viable alternative alignment or location is feasible upon determination by the Township Engineer. Evidence must be provided that there is no other viable access to the site for the individual lots in order to consider the disturbance of steep slopes. It appears that access to Darby Paoli Road is available from the front of the lots. The applicant has provided correspondence from Francis Hanney of PennDOT dated August 31, 2016 that indicates the proposed driveway is sufficient to serve the proposed 3-lot project a no additional access points are required.

II. Subdivision and Land Development

7. §255-20.B(1)(o)[6] – Rights-of-way and/or easements or all drainage facilities, utilities or other purposes must be shown on the plans. All utility easements must be a minimum of 20-feet, and it appears that part of the easement shown on Sheet 3 is less than 20 feet. This must be verified and revised.
8. §255-20.B(6)(b) – A letter indicating the availability of central water supply from the appropriate utility must be provided. The applicant has indicated in the September 2, 2016 response letter that a letter was requested from Aqua PA and will forward once received.
9. §255-27.C(1) – Goshen Road is classified as a Minor Collection Road. The required right of way is 60 feet and the required cartway is 36 feet. Curbs and sidewalks must be provided in accordance with this section. The applicant has requested a waiver for widening to 18' half width cartway in a September 2, 2016 letter to the Board of Commissioners.



10. §255-34.E – The depth of lots shall generally not exceed their width by more than 2.5 times. It appears that Lot #2 and Lot #3 will exceed the width by more than 2.5 times. The applicant has indicated in the September 2, 2016 response letter that the depth to width ratio of the proposed lot does exceed the 2.5:1 ratio, and are similar to the adjacent lots 5,6,7 and 8 along Montparnasse Place. The applicant goes on further to indicate that such general requirements cannot be used to prevent subdivision of lots such as lot 9 which contains restrictive features such as floodplain, see Blain v. Township of Radnor.
11. §255-35.A – Easements with a minimum width of 20 feet shall be provided as necessary for utilities. The easement area on sheet 3 must be revised.
12. §255-40.C(2) – Access and circulation for fire-fighting and their emergency equipment, moving vans, fuel trucks, garbage collection, deliveries and snow removal shall be planned for efficient operation and convenience. This must be reviewed and approved by the Township Code Official/Fire Marshall. Significant concern exists as to the ability to access the proposed houses from the single driveway at the rear of the properties.
13. 255-43.C.(2) – Land set aside as open space on a subdivision plan is not subject to development. The Applicant will need to request a waiver from the Board of Commissioners to proceed with this plan. The applicant has indicated in the September 2, 2016 response letter that they believe that Radnor Township has submitted confirmation on this property being a buildable lot, per Eugene R. Evans (Evans & Noll, LLP) letter dated 10/20/1998. This letter was previously submitted to the Township by the Applicants Attorney. In addition, Subdivision Plan No. 97-S-17 was approved on 02/17/05 and recorded with the Delaware County Recorder of Deeds on 02/17/2005, documenting Lot 9 approved for future .

III. Stormwater

1. The stormwater report appears to contain an inconsistency with regards to the CN value used for Lawn, Good Condition for Soil Type B. On Page 18 of the report entitled “Post-Construction Stormwater Management Report” last revised August 31, 2016; the CN value used in the calculations is 39. The CN value used on pages 19 and 20 is 61. The HydroCAD model appears to use a CN value of 61. Please explain this inconsistency and revise the report/calculations as required as part of the Final Plan approval process.
2. Stormwater calculations demonstrating that the requirements of the stormwater ordinance must be submitted as part of the Final Plan submission. Final approval of the stormwater management plan will be required as part of the Grading Permit process. Any revisions to the size or location of the individual structures or other features will be addressed at that time.



IV. General

1. The plans do not appear to show any erosion and sedimentation control features in the area of the sanitary lateral connection to the main. Please update the plans to include appropriate controls.
2. A sewage Facilities Planning Module Application was submitted. The application has been executed and returned to the Design Engineer for submission to the PA DEP.
3. Please update the typical trench detail shown on Sheet 5 of 23. For sanitary sewer pipe having a diameter of 21" and less, use AASHTO No. 8 coarse aggregate for First Class Bedding and Initial Backfill for a depth of 12" above the pipe.
4. The PVC Sanitary Lateral Connection to Sanitary Main Detail shown on Sheet 5 of 23 appears to indicate that the proposed lateral connection will be with a 20" x 6" PVC Wye connection. No cleanouts are shown on the plan. Cleanouts shall be cast iron in accordance with Township standards.

In addition to our review comments, a memorandum dated September 15, 2016 from Amy Kaminski of Gilmore & Associates, Inc. the Township Traffic Engineer and a memo dated September 21, 2016 from Ray Daly Building Code Official have been attached and are incorporated herein by reference.

We recommend the Planning Commission not consider recommending approval of this until all outstanding Zoning and Subdivision/Land Development issues have been addressed.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager





MEMORANDUM

Date: September 15, 2016

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Transportation Services Manager

cc: Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Radnor Township – 800 Goshen Road
Preliminary Subdivision Plan Review #2
Radnor Township, Delaware County, PA
G&A 16-06057

Gilmore & Associates, Inc. (G&A) has completed a transportation review of the referenced Preliminary Subdivision Plan for a 3 unit single-family detached residential development at 800 Goshen Road (S.R. 1034). The applicant proposes to construct three (3) detached dwelling units on an 8.93 acre parcel located in the R-1 Zoning District. The units will take access via a shared existing minimum use driveway to Goshen Road (S.R. 1034). Goshen Road is identified as a minor collector road requiring a 60 feet right-of-way, 36 feet cartway width, curbing and sidewalks. We offer the following comments for Radnor Township consideration:

A. DOCUMENTS REVIEWED

1. Preliminary Subdivision Plans for 800 Goshen Road, prepared for Goshen Holding Company, Inc., prepared by Chester Valley Engineers, Inc., consisting of 23 sheets, dated June 3, 2016, revised August 31, 2016.
2. A cover letter dated September 2, 2016 prepared by Chester Valley Engineers, Inc.
3. Waiver request letter dated September 2, 2016.

B. SUBDIVISION AND LAND DEVELOPMENT ORDINANCE COMMENTS

1. §255-20.B(1)(o)[6] –The applicant indicates a proposed access easement & utility easement on Sheet 3. Display the easement also on Sheet 4A showing the easement location in reference to the proposed driveway and utilities.
2. §255-27.C(1) –The required dimensional standards for a minor collector include a 60 foot right-of-way (30 foot half-width right-of-way), 36 foot cartway width (18 foot half-width), curbs and sidewalks along the site frontage.

- i. The unmarked half-width cartway of Goshen Road (S.R. 1034) appears to provide an approximate 14 foot half-width; an 18 foot half-width cartway is required under this section of the ordinance. The applicant is requesting a waiver from this requirement.
 - ii. Curb appears to be present along the parcel frontage on Goshen Road (S.R. 1034); however, no sidewalks are provided and the existing shoulder appears to be inadequate for pedestrian use. A small isolated section of sidewalk is proposed along the southeast radius of the driveway entrance. The applicant should clarify the intent of the proposed sidewalk (i.e. school bus pick up/drop off). Although PennDOT did not install sidewalk along the frontage of the parcel, sidewalk is required for developments per the SALDO ordinance unless a waiver is granted by the Board of Commissioners.
3. §255-27.E(4) – The minimum use driveway shall be owned and maintained by all abutting property owners. A homeowner’s association or other legal entity approved by the Board of Commissioners shall be formed in order to properly administer such maintenance responsibilities. The applicant has indicated appropriate documentation will be provided for review. §255-29.E(2) - Access and circulation for fire-fighting, other emergency equipment and garbage collection should be planned for efficient operation and convenience.
4. §255-29.F - The Applicant should identify the anticipated refuse collection stations and ensure adequate onsite circulation.
5. §255-35.E – Utility easements shall have a minimum width of 20 feet. The easement located on Lot 3 of Sheet 3 has a 10 foot width. Revise as necessary or request a waiver.
6. §255-40.C(2) - Access and circulation for fire-fighting and other emergency equipment, moving vans, fuel trucks, garbage collection, deliveries and snow removal shall be planned for efficient operation and convenience. The applicant shall demonstrate through truck turning templates the availability of adequate onsite circulation.
7. We recommend widening the proposed common driveway to match the existing PennDOT approved driveway width of 18 feet per HOP permit #06075174.
8. We recommend constructing the driveway from a bituminous material beginning at the existing entrance and continuing to the terminus. The existing portion of the driveway should be paved where from a bituminous material.
9. We recommend the Applicant consider providing an onsite vehicle turn around area.



RADNOR TOWNSHIP

MEMORANDUM

TO: MR. STEVE NORCINI
FROM: RAY DALY
SUBJECT: 800 GOSHEN ROAD
DATE: SEPTEMBER 21, 2016
CC: MR. PHILLIPS

Mr. Norcini

I have attached a copy of my first concerns with the purposed land development. I understand the first concern has been addressed pertaining to the road width and bridge capacity.

The roadway width was commented on from the engineer. They stated it was the same road width as Montparnasse Place. What they don't comment on is that on Montparnasse, these single homes have long single driveways. Driveways in which off street parking can take place. The new purposed homes have very small driveways to hold additional cars so the likelihood of street parking great. The 16' roadway width would be lessened.

The issue with turning still remains. Montparnasse has one cul-de-sac and additional small turn at the end of the driveway. There was discussion when the small turn was original placed that it was too small however it was approved. The new purposed has no place to stage any Emergency apparatus or have access to turn around.

Access to this purposed site is problematic. Any help from planning would be appreciated.

Respectfully,

Ray Daly

Building Codes/Fire Codes Official

September 2, 2016

Ms. Hollye Wagner
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**RE: (REVISED) PRELIMINARY SUBDIVISION PLANS – 800 GOSHEN ROAD
CVE PROJECT NO. 18404-1000**

Dear Ms. Wagner,

On behalf of the Applicant, Goshen Holding Company, Inc., we have enclosed the following:

- Twenty-six (26) sets of (24" x 36") Preliminary Subdivision Plans, Sheets 1-23, prepared by Chester Valley Engineers, dated 6/3/16, last revised 8/31/16. Ten (10) sets of the plans are signed by the Owner and Notarized on Sheet 3, as required.
- Seven (7) sets of (11" x 17") Preliminary Subdivision Plans, Sheets 1-13, prepared by Chester Valley Engineers, dated 6/3/16, last revised 8/31/16.
- Two (2) copies of the Post Construction Stormwater Management Report for 800 Goshen Road, prepared by Chester Valley Engineers, dated 6/3/16, last revised 8/31/16.
- Two (2) copies of the Erosion and Sedimentation Pollution Control Report for 800 Goshen Road, prepared by Chester Valley Engineers, dated 6/3/16, last revised 8/31/16.
- Two (2) copies of the completed PADEP Act 537 Sewage Facilities Planning Module Application Mailer, including the Existing Features and Demolition Plan, Sheet 2C and the Grading and Utilities Plan, Sheet 4C
- Two (2) copies of the PNDI receipt, dated 5/9/16 with attached two (2) copies of the PA Fish and Boat Commission PNDI clearance letter dated 5/25/16
- Two (2) copies of the PennDOT letter from Fran Hanney, dated 8/31/16, regarding the approved driveway access
- Ten (10) thumb drives (labeled 800 Goshen Road) containing .pdf files of all items noted above

We have revised the plans to address the Township Consultant review letters in order, as follows:

GANNETT FLEMING REVIEW MEMORANDUM (dated July 22, 2016):

I. Zoning

1. §280-15.A – The Applicant is using lot averaging (§280-110) in an effort to preserve the stream valley, natural features and existing wooded areas on the site. The 25% reduction in lot width from 120' to 90' in accordance with the lot averaging requirements are in compliance with this section.

Chester Valley Engineers

2. §280-15.B – The zoning table on sheet 3 has been revised to show the proposed building coverage for each lot in the subdivision, as requested.
3. §280-15.C – The 60' front yard setback is shown for Lot 1 along Goshen Road. The road frontage along Darby-Paoli Road consists of Floodplain which is more restrictive than the 60' front yard setback. Therefore, since the 60' FY setback for lots 1-3 along Darby-Paoli Road falls within the floodplain, this setback is not shown on the plan. The floodplain is serving as the setback.
4. §280-15.E – The zoning table on sheet 3 has been revised to show the proposed rear yard setbacks for all proposed lots, as requested.
5. §280-15.F – The zoning table on sheet 3 has been revised to show the impervious coverage (%) totals for the proposed lots, as requested.
6. §280-15.F – The 35' riparian buffer is noted in the zoning table for all lots, as requested.
7. §280-102 – The Applicant believes that Radnor Township has submitted confirmation on this property being a buildable lot, per Eugene R. Evans (Evans & Noll, LLP) letter dated 10/20/98. This letter was previously submitted to the Township by the Applicant's Attorney. In addition, Subdivision Plan No. 97-S-17 was approved on 2/17/05, and recorded with the Delaware County Recorder of Deeds on 2/17/05, documenting Lot 9 as approved for future development.
8. §280-103 – Each proposed dwelling unit is providing 3 car garage parking spaces to meet the required parking of 2 spaces per dwelling unit. Note 18 has been added to sheet 3 to address this comment.
9. §280-110 - The Applicant is using lot averaging (§280-110) in an effort to preserve the stream valley, natural features and existing wooded areas on the site. The proposed dwelling units are situated to minimize steep slope disturbance and to arrange the homes to maximize the views of the stream valley.
10. §280-112.D(6) – Please refer to the PennDOT letter from Fran Hanney (dated 8/31/16) that references the approved driveway access, specifically "A single driveway serving such a site is an excellent access management practice by minimizing the number of conflict points on our highways." Based on this correspondence, access to these lots from Darby-Paoli Road is not feasible and the proposed common driveway through steep slopes is being proposed for this subdivision in accordance with the approved PennDOT Minimum Use Driveway for the property.

Chester Valley Engineers

11. §280-112.D and E – Based on the PennDOT correspondence from Fran Hanney, a common driveway through steep slopes is proposed for this subdivision. The applicant is utilizing retaining walls to minimize the steep slope disturbance and preserve natural features for the driveway construction. The driveway is a permitted use, therefore a variance is not applicable for this disturbance.

II. Subdivision and Land Development

1. §255-20.B(1)(d)[3] – The lot size and yard requirements are noted on the Subdivision Plan and in the zoning table on sheet 3. The 60' front yard setback is shown for Lot 1 along Goshen Road. The road frontage along Darby-Paoli Road consists of Floodplain which is more restrictive than the 60' front yard setback. Therefore, since the 60' FY setback for lots 1-3 along Darby-Paoli Road falls within the floodplain, this setback is not shown on the plan. The floodplain is serving as the setback.
2. §255-20.B(1)(n) - We have revised the Existing Conditions Plans, Sheets 2, 2B to show the existing principal buildings (and respective uses), driveways, topography, storm drains, culverts, bridges and utilities/easements, and other significant man-made features within 500' of and within the site, as required. This information is also shown on the Grading and Utilities Plans, Erosion and Sedimentation Control Plans, and Landscape Plans. Please note that these sheets are shown at 60 scale. Also, for plan review clarity, the improved area of the proposed three lots is also shown as one plan at 40 scale.
3. §255-20.B(1)(o)[2] – The layout and approximate dimensions, areas and uses of the lots; building setback lines and rear and side yard lines are shown for each lot on sheet 3.
4. §255-20.B(1)(o)[6] – The proposed access and utility easement is noted on sheet 3.
5. §255-20.B(1)(o)[7] – The project proposes a common driveway for 3 dwelling units per §255-27.I(7). No streets, sidewalks or paths are proposed for this project.
6. §255-20.B(1)(o)[8] – The project proposes a common driveway. No streets and no street lights are proposed for this project.
7. §255-20.B(1)(o)[9] – The existing fire hydrants on Montparnasse Place and on Goshen Road at Montparnasse Place intersection are noted on the Existing Condition Plans, sheet 2B. The proposed fire hydrant along the proposed common driveway is noted on sheet 4A.
8. §255-20.B(1)(6)(b) – A service letter from Aqua PA has been requested. We have received email confirmation from Gary Horne that water service is available for the site, but the letter has not been issued yet. Upon receipt of the service availability confirmation letter, we will provide a copy to the Township.

Chester Valley Engineers

9. §255-27.A(8) – PennDOT Highway Occupancy Permit #06075174 for a Minimum Use Driveway was issued on 8/16/10. The driveway was constructed as part of PennDOT Construction for Goshen Road, S. R. 1034, Section S23, per the plans prepared by Pickering Courts and Summerson, Inc., approved on 5/14/09. Copies of the approved Permit and Plans will be provided to the Township Engineer and the Township Traffic Engineer.
10. §255-27.C(1) – The required right-of-way along Goshen Road is shown as 60 feet. The applicant's Traffic Engineer, Greg Richardson, PE of Traffic Planning and Design, Inc. has verified with Fran Hanney of PennDOT that the existing PennDOT approved driveway access to the subject property that was constructed as part of the 2010 PennDOT construction project is sufficient for this 3 lot subdivision. A waiver from this Ordinance requirement for widening to 18' half cartway width has been requested.
11. §255-32 – The Erosion and Sedimentation Pollution Control Report has been revised to remove the reference to Delchester Road and structure references. This information was not relative to the subject property and the text was removed from the report.
12. §255-34.E – The lot depth to width ratio shall **generally** not exceed 2.5:1. The depth to width ratio of the proposed lots does exceed the 2.5:1 ratio, and are similar to the adjacent lots 5, 6, 7 and 8 along Montparnasse Place. Such general requirements cannot be used to prevent subdivision of lots such as Lot 9 which contain restrictive features such as floodplain. See *Blain v. Township of Radnor*.
13. §255-35.D – A 50' drainage easement along the existing watercourse has been added to the plans on sheets 3 and 4C.
14. §255-37.A - This subdivision proposes a common driveway to serve three lots. Since no streets are proposed, no sidewalks and/or paths are proposed.
15. §255-37.B – Any proposed sidewalks will be a minimum of 4' wide, as required.
16. §255-37.E – This subdivision proposes a common driveway to serve three lots. Since no streets are proposed, no sidewalks and/or paths (including lighting) are proposed.
17. §255-38.A – There are no streets (nor street trees) proposed for this subdivision. The applicant is proposing to install replacement trees on the site to supplement the site as requested by the Shadetree Commission. The applicant received recommendation for approval from the Shadetree Commission at their regular meeting on August 24, 2016.
18. §255-40.C(2) – This Ordinance section applies to Multi-family and attached dwelling units and is not applicable to this subdivision based on the single family dwelling use.

Chester Valley Engineers

19. §255-51.A – The project proposes a common driveway and internal sidewalks are not provided for this driveway. Curbs were constructed for a portion of the property frontage along Goshen Road with no sidewalks as part of the 2010 PennDOT improvements project. A section of proposed sidewalk at the common driveway entrance is proposed along the southeast radius as noted on sheets 4A, 4C.
20. §255-51.B – The project proposes a common driveway with curbing.
21. §255-54.B – We have provided a proposed fire hydrant and water line design on the revised plans. Water design will be coordinated with Aqua PA.
22. §255-43.C.(2) - The Applicant believes that Radnor Township has submitted confirmation on this property being a buildable lot, per Eugene R. Evans (Evans & Noll, LLP) letter dated 10/20/98. This letter was previously submitted to the Township by the Applicant's Attorney. In addition, Subdivision Plan No. 97-S-17 was approved on 2/17/05, and recorded with the Delaware County Recorder of Deeds on 2/17/05, documenting Lot 9 approved for future development.

III. Stormwater

1. Stormwater calculations have been provided for review. Any comments issued during Final Plans and or the Grading Permit process will be addressed, as required.
2. The profile for SW301 to the outfall is noted on plan sheet 10. The utility crossings have also been added to the profiles on sheet 10.

IV. General

1. The tree protection has been revised to the latest Radnor Tree Protection Detail and is noted on sheet 7 of the plan set.
2. The PADEP Act 537 Sewage Facilities Planning Module Exemption Mailer has been revised to include the flows as 262.5 gpd/edu. Also, the NPDES Permit # for the Southwest Plant is listed as PA 0026671. The revised Planning Module Exemption Mailer is enclosed with this submission.

GILMORE & ASSOCIATES, INC. REVIEW MEMORANDUM (dated June 24, 2016):

A. Documents Reviewed

Items 1-4. Comments on submission content. No response required.

Chester Valley Engineers

B. Subdivision and Land Development Ordinance Comments

1. §255-20.B(1)(j) – Sheet 3 denotes the complete outline survey of the property including all courses, distances, tie-ins, and areas. Sheets 2, 4 and 6 now include the entire property with match lines, noted as sheets 2A-2C, 4A-4C, 6A-6C. Please note that sheets 2A-2B, 4A-4B, 6A-6B are at 60 scale. Also, for plan review clarity, the improved area of the proposed three lots is also shown at 40 scale on sheets 2C, 4C and 6C.
2. §255-20.B(1)(o)[6] – A proposed access and utility easement across the 3 proposed lots is noted on sheet 3. The access easement is for the common driveway that takes access from Goshen Road per the PennDOT approved minimum use driveway.
3. §255-27.A(8) - PennDOT Highway Occupancy Permit #06075174 for a Minimum Use Driveway was issued on 8/16/10. The driveway was constructed as part of PennDOT Construction for Goshen Road, S. R. 1034, Section S23, per the plans prepared by Pickering Corts and Summerson, Inc., approved on 5/14/09. Copies of the approved Permit and Plans will be provided to the Township Engineer and the Township Traffic Engineer.
4. §255-27.C(1) – Please refer to PennDOT letter dated 8/31/16. The applicant’s Traffic Engineer, Greg Richardson, PE of Traffic Planning and Design, Inc. has verified with Fran Hanney of PennDOT that the existing PennDOT approved driveway access to the subject property that was constructed as part of the 2010 PennDOT construction project is sufficient for this 3 lot subdivision.
 - i. The required half right-of-way of 30’ is provided along the property frontage and is noted on sheet 3.
 - ii. The half width of cartway of 18’ would unlikely be required by PennDOT for Goshen Road, S. R. 1034, as confirmed by the applicant’s Traffic Engineer and Fran Hanney of PennDOT. A waiver has been requested from the widening requirement.
 - iii. Curbs were constructed for a portion of the property frontage along Goshen Road as part of the 2010 PennDOT improvements project. No sidewalks were provided by PennDOT. A section of proposed sidewalk at the common driveway entrance is proposed along the southeast radius.
5. §255-27.D – A cul-de-sac turnaround is not required for a common driveway. Therefore, the applicant is not proposing to construct a cul-de-sac.
6. §255-27.E(4) – The private common driveway will be owned and maintained by the abutting property owners. The appropriate documentation will be provided for review, as required.

Chester Valley Engineers

The applicant will coordinate the appropriate documentation through his legal counsel. The driveway agreements will be recorded at or prior to the conveyance of the first lot.

7. §255-27.H(6) – The curb radii have been added to the common driveway entrance along Goshen Road, noted on sheet 3. The driveway radii for the 3 lots have been revised to 10' minimum at the intersection with the common driveway.
8. §255-28 – The available and required sight distances for the PennDOT approved minimum use driveway entrance to Goshen Road have been added to sheets 4A and 4C.
9. §255-29 – This section applies to off-street parking facilities (parking lots) and is not applicable to the proposed common driveway.
10. §255-29.A(12)(c) – This section applies to off-street parking facilities and is not applicable to the proposed common driveway.
11. §255-40.C(2) – This section applies to Multi-family or Attached Residential Development and does not apply to Single Family Residential Development.
 - i. This section of the Ordinance applies to Multi-family or Attached Residential Development and does not apply to Single Family Residential Development.
 - ii. Montparnasse Place was previously approved as a public street in accordance with the Township Ordinances. A secondary means of emergency access to Montparnasse Place is not required.
12. §255-40.E(3) – This section applies to Multi-family or Attached Residential Development, however the proposed driveway will be constructed in accordance with the Township standards. The composition of the existing driveway entrance to Goshen Road is noted on sheet 4C, Note 19. This references the constructed pavement section and approved PennDOT Plans.
13. §255-40.F - This section applies to Multi-family or Attached Residential Development and does not apply to Single Family Residential Development.

RADNOR TOWNSHIP (RAY DALY) REVIEW MEMORANDUM (dated June 27, 2016):

1. The slope of the existing portion of the driveway is approximately 7-8%; the slope of the proposed common driveway is 2%-4%. The maximum driveway slope allowed per §255-27.I.(4) is 16%. Goshen Road and the existing bridge currently serves as the access (including emergency vehicles) to the existing dwellings along Goshen Road in the project area. The proposed common driveway entrance is 40' wide at the entrance to Goshen Road and 16' wide for the common portion of the driveway.

Chester Valley Engineers

2. The slope of the proposed common driveway is 2%-4%. These grades are sufficient for the emergency apparatus.
3. The common driveway width of 16' is similar to the width of the common driveway for the previously approved and constructed lots 5-7 on Montparnasse Place.
4. Cul-de-sac turnarounds are not required for common driveways.
5. The proposed dwellings provide 3 car garages with 3 additional driveway parking spaces.
6. Comment on structures allowed to overhang the wall. This issue will be addressed during the building permit stage. The applicant will comply with the applicable building codes, as required.
7. Sanitary sewer connections will be constructed in accordance with PADEP requirements, Public Works Department requirements and specifications, as required for floodplain installation.

If you have any questions on this Application/submission, please contact me at 610-644-4623, X-121, or jmaziarz@chesterv.com. Thank you.

Regards,
CHESTER VALLEY ENGINEERS, INC.



Jeremy R. Maziarz, PE
Associate

cc: Cas Holloway
Dave Falcone

Enclosures

September 2, 2016

Board of Commissioners
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**RE: PRELIMINARY SUBDIVISION PLANS – 800 GOSHEN ROAD
WAIVER REQUEST
CVE PROJECT NO. 18404-1000**

Dear Commissioners,

The Applicant believes that PennDOT controls the widening of state roads and PennDOT has indicated that they will not require the widening of Goshen Road. However, we are submitting this waiver request as a formality.

On behalf of the Applicant, Goshen Holding Company, Inc., we respectfully request the following waiver from the Radnor Township Subdivision Ordinance, Chapter 255:

1. §255-27.C.(1) – Requires Minor Collector Roads (Goshen Road, S. R. 1034) to provide a 30' half right-of-way width and an 18' half cartway width.

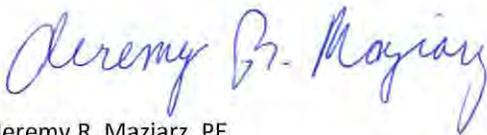
The required right-of-way along Goshen Road is provided as 60' (30' half right-of-way width) and the existing cartway is 28' wide (14' half cartway width).

Fran Hanney, PennDOT District 6-0 Traffic Services Manager, confirmed (letter dated 8/31/16) that the existing PennDOT approved driveway access to the subject property that was constructed as part of the 2010 PennDOT construction project is sufficient for this 3 lot subdivision.

Based on the approved PennDOT Highway Occupancy Permit #06075174, dated 8/16/10, for the Minimum Use Driveway entrance on Goshen Road, we request a waiver from the road widening requirements of 18' half cartway width for this subdivision.

If you have any questions on this request, please contact me at 610-644-4623, X-121, or jmaziarz@chesterv.com. Thank you.

Regards,
CHESTER VALLEY ENGINEERS, INC.



Jeremy R. Maziarz, PE
Associate

cc: Cas Holloway
Dave Falcone

**SEWAGE FACILITIES PLANNING MODULE
APPLICATION MAILER**



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

For more information, visit DEP's website at
www.depweb.state.pa.us, keyword: Act 537.

INSTRUCTIONS FOR COMPLETING SEWAGE FACILITIES PLANNING MODULE APPLICATION MAILER

(remove before sending mailer to the approving agency (the Department of Environmental Protection (DEP) or delegated local agency))

Please read the following instructions carefully before completing the application mailer. This information will be used to determine if sewage facilities planning is necessary for your project, and, if it is, which forms are appropriate.

Act 537 Sewage Facilities' planning is the duty of local municipalities. The responsibility of meeting the sewage disposal needs of the municipality rests with the municipality. Each municipality is required to have an Act 537 Official Sewage Facilities Plan to adequately address these needs. Adoption by resolution of a planning module is the vehicle for legally amending the municipality's Official Plan. It is imperative that the municipality receives all of the information required in order to make informed decisions.

Upon completion, submit this Mailer / Application form to the approving agency (DEP or delegated local agency). Additionally, provide a copy of the completed form to the County Health Department having jurisdiction over the area in which the proposed project is located.

Unless your project qualifies for one of the planning exemptions provided in Act 537, a package of sewage facilities planning forms appropriate for the project will be sent to the return address indicated on the mailer, or instructions for obtaining the appropriate forms from DEP's website (www.depweb.state.pa.us) will be issued. Each form includes detailed instructions that explain the use of the form and how to complete it. The package of completed forms and its supporting documentation is called a **sewage facilities planning module**, or "planning module." Once the planning module is complete, it must be submitted to the municipality in which the project is located for review and, if acceptable, adoption.

After adoption by the municipality, complete planning modules are submitted to either DEP or, if appropriate, to the delegated agency for review and final action. Some municipalities (or groups of municipalities working together) have requested and received DEP approval to review and take final action on planning modules. These are known as **delegated agencies**. To find out if your project is located in an area served by a delegated agency, contact the municipality or DEP's regional office serving your area.

Please note that both DEP and delegated agencies are required by law to charge fees for the review of planning modules. The fees DEP must charge are set by law in Act 537, while delegated agencies may set fees which can be the same or different from those in Act 537. For more information on review fees for your particular project, see the planning module documents or contact the approving agency (DEP or delegated agency) serving the area of your project.

NOTE: DEP will provide all planning module forms, however, if your project is a **minor subdivision** (defined as a subdivision of 10 lots or less, intended for single family residential homes served by individual onlot sewage disposal systems) you may also contact the municipality in which your project is located for a "Component 1" minor subdivision planning module form.

1. Print the name of the proposed development and name, address, telephone number and email address of the person who is proposing the project. If planning module components are to be sent to a different person or address, include this information on the front of the mailer in the return address block.
2.
 - a. Enter the county in which the project is located.
 - b. Enter the municipality in which the project is located.
 - c. Enter the road or address (if available) or street coordinates (example - west side of T-235, 1 mile south of intersection of Rt 15 and T-235).
 - d. Enter the appropriate tax parcel identification number (if available) of the parcel proposed for subdivision.
 - e. Enter the name of the U.S. Geological Survey (USGS) 7.5-minute quadrangle map which contains the project area, and the location of the project area on that map in inches up and over from the lower right corner of the map to the approximate center of the project. (Example - Centerville West quad, 7 inches up and 2.5 inches over from lower right corner of map.) Alternatively, include an original or a copy of the USGS quad map with the project area outlined on it.
 - f. If the proposed project is located within a special protection watershed, (i.e., watersheds with a stream classification of High Quality or Exceptional Value), check "yes." If not located in special protection watershed, check "no."
3. Check the box that best describes the intended use of the proposed land development project. **Residential** refers to single-family lots. **Multi-residential** includes apartments, condos, etc. **Commercial** includes retail centers, office

parks, industrial development, etc. **Institutional** refers to schools, hospitals and the like. **Brownfield Site Redevelopment** refers to projects proposing to recycle land. Some developments will involve more than one type of use, or will not fit comfortably into any of the classifications given. If this is the case, choose more than one category or explain under **Other**.

4.
 - a. Enter the number of single family residential lots or Equivalent Dwelling Units (EDUs) proposed. An EDU is defined as that part of a multi-family dwelling or nonresidential project with flows equal to 400 gallons per day (gpd) (the assumed flow, for planning purposes, of a single family residential lot). To determine the number of EDUs, divide the proposed sewage flow of the project by 400 gpd.
 - b. Enter the total number of lots created from this parcel of land since May 15, 1972, including the lots being proposed at this time. (Onlot disposal proposals only.)
 - c. Enter the total project acreage and the acreage of any remaining land (land not proposed for development but under the same ownership and adjacent to the project area).
5. Enter the proposed total sewage flow from the project in gpd. See Title 25 of the Pennsylvania Code, Chapter 73, Section 73.17, (www.pacode.com), or DEP's *Domestic Wastewater Facilities Manual*, DEP ID: 362-0300-001 available on DEP's website at www.depweb.state.pa.us, keyword: wastewater.
6. Choose the category (a, b, c or d) that describes the method of sewage disposal planned to serve the project and enter the information requested. Since this information could have an effect on the planning requirements for your project, be as accurate as possible. If more than one method of sewage disposal is planned, or if an interim method is planned, indicate it here.
 - a. Sewerage System

If an existing system is being extended to serve the proposed project, or if lots are to connect directly to an existing sewage collection system, check all boxes that describe the project. Write in the names of the existing collection systems that will be used, the interceptor sewer which will be used for conveyance and the treatment facility where the sewage flows will be treated. Include the National Pollutant Elimination Discharge System (NPDES) permit number for the treatment facility, where applicable.
 - b. Construction of Sewerage Treatment Facility (with stream discharge or with spray irrigation as final disposal option)

Check the box corresponding to the chosen final disposal option (stream discharge or spray irrigation field). This category does **NOT** include individual residence spray irrigation systems (IRSIS) which are considered onlot sewage disposal systems ((c), below). For stream discharges, name the receiving waterbody. If the proposed facility is intended to replace an existing, malfunctioning onlot system, check the box marked "repair."
 - c. Onlot Sewage Disposal Systems (individual, community, or large-volume)

Check the box corresponding to the type of onlot sewage disposal systems proposed to serve the project. An **individual onlot sewage disposal system** is a system of piping, tanks or other facilities used for collecting, treating and disposing of sewage into a subsurface absorption area. This category also includes IRSIS. A **community onlot system** is a facility either publicly or privately owned which will collect and dispose of sewage from two or more lots or EDUs into a subsurface absorption area. A **large-volume onlot system** is an individual or community onlot system which is designed to treat flows in excess of 10,000 gpd.

The approving agency must be notified at least 10 days in advance of all soil testing activities (including those related to planning exemption requests - see 7(b)(5)(v)), so that its staff have the option of observing the tests.
 - d. Retaining Tanks (holding tanks or privies)

If retaining tanks are proposed as the method of sewage disposal, enter the number of holding tanks or privies which are proposed to serve the project.
7. Check this box if you desire to obtain your sewage facilities planning module forms from DEP's website. You will be provided with appropriate instructions, website addresses and DEP coding information in a letter rather than a package of paper forms.

8. Requests for Planning Exemption under the Sewage Facilities Act

You may request to be exempt from Act 537 planning requirements. Effective December 15, 1995, certain classes of subdivisions are no longer subject to the planning requirements of the Sewage Facilities Act. Completing Section 8 will help you and the approving agency determine if your project fits into one of these categories.

a. Protection of rare, endangered or threatened species.

DEP's technical guidance document "Policy for Pennsylvania Natural Diversity Inventory (PNDI) Coordination During Permit Review and Evaluation," (400-0200-001) requires DEP to ensure that requests for authorizations, are coordinated with the Department of Conservation and Natural Resources' (DCNR) Pennsylvania Natural Diversity Inventory (PNDI).

Conducting a search of the PNDI database and providing a copy of a "PNDI Project Environmental Review Receipt" for the proposed project and, if potential impacts are identified by the search, clearance or recommendation letters from the jurisdictional agency responsible for the particular species identified by a search, satisfies this requirement.

To avoid project delay, self-explanatory, self-conducted "PNDI Project Planning Environmental Review" searches are initiated at www.naturalheritage.state.pa.us. This interactive, online search will ask questions about the proposed project and provide the appropriate receipt, instructions or additional information regarding coordination with jurisdictional agencies.

As an alternative to the self-conducted search, project sponsors may request DEP staff to conduct the search by providing a completed "PNDI Project Planning & Environmental Review Form" (PNDI Form). The form is available at www.naturalheritage.state.pa.us. Individuals making this request should be aware that, due to the nature of the search software, DEP staff may need to contact them for additional information to successfully complete the search and that exclusive of any other items, their sewage planning exemption request is considered incomplete by DEP, until the appropriate receipt, clearance or recommendation letters are received.

For more information, see the "Policy for Pennsylvania Natural Diversity Inventory (PNDI) Coordination During Permit Review and Evaluation," (400-0200-001), available online in the eLibrary at DEP's website address www.depweb.state.pa.us.

b. Attach a plot plan for the proposed project. The plan must depict anticipated lots to be created, either estimated sewer line runs (public sewer proposals), or site suitability test locations and Site Investigation and Percolation Test Reports (onlot proposals).

c. Projects proposing use of onlot sewage disposal systems

(1) Information Required from the Municipality

The municipality in which the project is located (identified in Item 2.b. of the mailer) should determine if the municipality's Official Sewage Facilities Plan shows that the area planned for the project is to be served by onlot sewage disposal systems. If it is, the municipality should indicate this by having an authorized municipal official sign and date the form in the space provided. The official's name and title should be printed on the line below.

(2) Information Required from the Municipal Sewage Enforcement Officer (SEO)

The municipality's SEO must conduct personally, observe or otherwise confirm in a manner approved by DEP, site testing on each proposed lot in the subdivision (including any remaining land) to determine that separate sites are available for both a permitted primary onlot sewage disposal system and a replacement system (to be used if the original system fails in the future). If the SEO finds that each lot has been tested properly and fulfills these criteria, the SEO must indicate this by signing and dating the form in the space provided. His/her name and certification number should be printed on the line below.

(3) Information Required from the Applicant

The person proposing the subdivision, or his/her authorized agent, must determine if each lot in the subdivision (including the remaining land, if any) is at least one (1) acre in size. If they are, the applicant or his/her agent must indicate this by signing and dating the form in the space provided.

(4) Determinations Made by the Approving Agency

When the above listed information is received, the approving agency will determine the following:

- (a) If the geology of the project area is conducive to nitrate-nitrogen contamination of groundwater (determined from the topographic map location information); or
- (b) If elevated levels of nitrate-nitrogen are known to exist within one-quarter (1/4) mile of the proposed development (determined from agency groundwater sampling records in existence at the time of the application); or
- (c) If the area proposed for development is within an identified High Quality (HQ) or Exceptional Value (EV) watershed (determined from the topographic map location).

Following this investigation, the approving agency will render a decision on the exemption request within 10 working days of receiving the request for exemption. Both the applicant and municipality will be notified of the decision. If the request cannot be granted, the person named in the return address block will receive the proper planning module component forms (or instructions to obtain them from the DEP website) along with the notification of the decision, including the reason(s) that the request cannot be granted.

d. Projects proposing use of public sewerage facilities (i.e., ownership by municipality or authority)

(1) Information Required from the Municipality

The municipality in which the proposed project is located (identified in Item 2.b. of the mailer) will determine the following from written documentation requested and obtained by the applicant from the facility permittee. ***This documentation MUST also be sent to the approving agency (DEP or delegated local agency) for evaluation.***

- (a) Certification from the permittees of the collection, conveyance and treatment facilities proposed for use that capacity is available in these facilities to receive and treat the sewage flows from the proposed project; and
- (b) That these added flows will not cause an overload or 5-year projected overload in the facilities.

If the facilities proposed for use are owned and operated by an authority, or authorities, then attach a letter from each to the mailer.

If this written certification has been submitted by the applicant, an authorized municipal official should sign and date the form and print his/her name and title and the municipality name in the spaces provided.

NOTE: Since planning is a municipal responsibility, sewer authorities involved should make required information available but should **NOT** sign the mailer as the authorized municipal official.

(2) Determinations Made by the Approving Agency

When the above listed information is received by the approving agency, the approving agency will determine the following (from DEP records):

- (a) That the existing collection, conveyance and treatment facilities are in compliance;
- (b) That the existing facilities have no existing or 5-year projected overload;
- (c) That the municipality has a currently approved Official Sewage Facilities Plan which is being implemented; and
- (d) That the project does not propose service by facilities needing a new or modified permit from DEP under the Clean Streams Law.

Following this investigation, the approving agency will render a decision on the exemption request within 10 working days of receiving the request for exemption. Both the applicant and the municipality will be notified of the decision. If the request cannot be granted, the person named in the return address block will receive the proper planning module component forms (or instructions to obtain them from DEP's website) along with the notification of the decision, including the reason that the request cannot be granted.

If unsure of which local DEP office to contact, the following DEP regional offices will assist you in determining the appropriate local DEP office that serves your specific municipality.

If you need more information or assistance, please contact your local DEP office.

DEP REGIONAL OFFICES

Southeast Region

2 E. Main St.
Norristown, PA 19401
Main Telephone: 484-250-5900
24-Hour Emergency: 484-250-5900

Counties: Bucks, Chester, Delaware, Montgomery and Philadelphia

Northwest Region

230 Chestnut St.
Meadville, PA 16335-3481
Main Telephone: 814-332-6945
24-Hour Emergency: 1-800-373-3398

Counties: Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren

Southwest Region

400 Waterfront Drive
Pittsburgh, PA 15222-4745
Main Telephone: 412-442-4000
24-Hour Emergency: 412-442-4000

Counties: Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland

Northeast Region

2 Public Square
Wilkes-Barre, PA 18711-0790
Main Telephone: 570-826-2511
24-Hour Emergency: 570-826-2511

Counties: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming

Southcentral Region

909 Elmerton Ave.
Harrisburg, PA 17110
Main Telephone: 717-705-4700
24-Hour Emergency: 1-877-333-1904

Counties: Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York

Northcentral Region

208 W. Third St., Suite 101
Williamsport, PA 17701
Main Telephone: 570-327-3636
24-Hour Emergency: 570-327-3636

Counties: Bradford, Cameron, Clearfield, Centre, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union

1. Development Information

Name of Development 800 Goshen Road Subdivision
Developer Name Goshen Holding Company, Inc.
Address 110 Gallagher Road
Wayne, PA 19087
Telephone # 610-964-9040
Email cas@cfholloway.com

2. Location of Development

a. County Delaware
b. Municipality Radnor
c. Address or Coordinates 800 Goshen Road, Newtown Square, PA 19073
d. Tax Parcel # 36-48-027
e. USGS Quad Name Norristown, Valley Forge
inches up 1 over 17
from bottom right corner of map.
f. Located in a High Quality/Exceptional Value watershed?
 Yes No

3. Type of Development Proposed (check appropriate box)

Residential Multi-Residential
Describe Three (3) lot subdivision, Single Family Dwellings
 Commercial Institutional
Describe _____
 Brownfield Site Redevelopment
 Other (specify) _____

4. Size

a. # of lots 3 # of EDUs 3 EDUs (262.5 gpd/EDU)
b. # of lots since 5/15/72 previously subdivided, 1 lot since 1998
c. Development Acreage 8,933 acres
d. Remaining Acreage 0 acres

5. Sewage Flows 787.5 gpd

6. Proposed Sewage Disposal Method (check applicable boxes)

a. Sewerage System
 Existing (connection only) New (extension)
 Public Private
 Pump Station(s)/Force Main Gravity
Name of existing system being extended _____
Interceptor Name Darby Creek Interceptor
Treatment Facility Name Southwest Philadelphia Wastewater Treatment Plant

NPDES Permit # PA 0026671

b. Construction of Treatment Facility
 With Stream Discharge
 With Land Application (not including IRSIS)
 Other
 Repair?
Name of waterbody where point of discharge is proposed (if stream discharge) _____

c. Onlot Sewage Disposal Systems (check appropriate box)
 Individual onlot system(s) (including IRSIS)
 Community onlot system
 Large-Volume onlot system

d. Retaining tanks
Number of Holding Tanks _____
Number of Privies _____

7. Request Sewage Facilities Planning Module forms in electronic format

8. Request for Planning Exemption

a. Protection of rare, endangered or threatened species
Check one:
 The "PNDI Project Environmental Review Receipt" is attached.
or
 A completed "PNDI Project Planning & Environmental Review Form," (PNDI Form) is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning exemption will be considered incomplete and that the DEP processing of my planning exemption request will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials i/ RM

b. Plot Plan Attached Site Reports Attached

c. Onlot Disposal Systems

(1) I certify that the Official Plan shows this area as an onlot service area.

(Signature of Municipal Official) / Date

Name (Print) / Title

Municipality (must be same as in 2.b.)

Telephone # _____

(2) I certify that each lot in this subdivision has been tested and is suitable for both a primary and replacement sewage disposal system.

Signature of SEO / Date

Name (Print) / Certification #

Telephone # _____

(3) I certify that each lot in this subdivision is at least 1 acre in size

(Signature of Project Applicant/Agent) / Date

d. Public Sewerage Service (i.e., ownership by municipality or authority)

Based upon written documentation, I certify that the facilities proposed for use have capacity and that no overload exists or is projected within 5 years. (Attach documents.)

(Signature of Municipal Official) / Date

Name (Print) / Title

Municipality (must be same as in 2.b.)

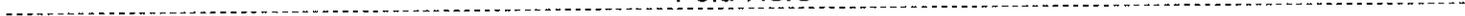
Telephone # _____

Return Correspondence/Forms to:

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP USE	
Components Sent	
Onlot Disposal	<input type="checkbox"/>
Collection and Treatment	<input type="checkbox"/>
Planning Agency Review	<input type="checkbox"/>
Exempt from Planning	<input type="checkbox"/>
Code	_____
Date	_____

"Fold Here"





August 31, 2016

DELAWARE COUNTY, RADNOR TOWNSHIP
SR 1034 (GOSHEN ROAD)
800 GOSHEN ROAD

Mr. Cas Holloway
C.F. Holloway, III & Company
110 Gallagher Road
Wayne, PA 19087

Dear Mr. Holloway:

I have had the opportunity to speak with Greg Richardson of Traffic Planning and Design, Inc. (TPD) regarding your proposed 3-lot subdivision in Radnor Township, Delaware County. It is my understanding that you are requesting the Department's opinion regarding vehicular access to our roadway network.

Regarding vehicular access to our roadways, it is my understanding that you possess an approved highway occupancy permit (HOP# 06075174) for a minimum use driveway on Goshen Road. Furthermore, it is my understanding that the driveway was constructed as part of a 2010 PennDOT construction project along this section of Goshen Road. With the proposed level of development, it is our opinion that this driveway is sufficient to serve the proposed 3-lot project and no additional access points are required. A single driveway serving such a site is an excellent access management practice by minimizing the number of conflict points on our highways.

Also, it should be noted that if HOP# 06075174 did not exist and you were applying for an HOP for this driveway today, it is unlikely that additional improvements, including widening of Goshen Road, would be required due to the low volume nature of the access.

Respectfully,

A handwritten signature in blue ink, appearing to read "Francis J. Hanney", is written over a light blue circular stamp.

Francis J. Hanney
District Traffic Services Manager

cc: Radnor Township
Traffic Planning and Design

August 12, 2016

VIA ELECTRONIC MAIL

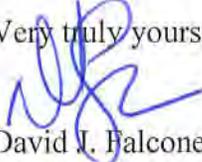
John Rice, Esquire
Grim, Biehn & Thatcher
104 S. Sixth Street
Perkasie, PA 18944-0215

**Re: Radnor Township Preliminary Subdivision Application
#2016-S-08
800 Goshen Road**

Dear John:

As you are aware, applicant, Goshen Holding Company, Inc. (the "GHC"), submitted a Preliminary Subdivision Application to the Township on June 3, 2016 (the "Application"). The Application is pending before Radnor Township. Pursuant to the Pennsylvania Municipalities Code, the governing body shall render a decision and communicate it to the applicant not later than ninety (90) days following the date of the regular meeting next following the date that the application is filed. GHC hereby extends until October 1, 2016, the deadline for Radnor Township to act on the above-referenced Application.

Thank you for your continued help with this project. Please feel free to call me if you have any questions, or if you would like to discuss this issue further.

Very truly yours,

David J. Falcone

cc: Caswell F. Holloway, III (via electronic mail)
Jeremy Maziarz, P.E. (via electronic mail)
John C. Snyder, Esquire (via electronic mail)



Gannett Fleming

*Excellence Delivered **As Promised***

Date: July 22, 2016

To: Radnor Township Planning Commission

From: Roger Phillips, PE

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official
Steve Gabriel - Rettew

RE: 800 Goshen Road – Preliminary Subdivision Plan
Goshen Holding Company, Inc. – Applicant

Date Accepted: July 5, 2016
90 Day Review: October 3, 2016

Gannett Fleming, Inc. has completed a review of the Preliminary Subdivision Plans for compliance with the Radnor Township Code. These Plans was reviewed for conformance with Zoning, Subdivision and Land Development, and other applicable codes of the Township of Radnor.

The applicant is proposing to subdivide and develop an existing parcel into 3 individual parcels and construct single family homes. This existing parcel was created as part of a previous subdivision plan that was recorded in 1998 and indicates on the recorded plan that Lot 9, this parcel, is Open Space. Since that lot was restricted as Open Space on the 1998 plan it cannot be developed as a building lot without legal relief. The Township Solicitor's office is addressing this issue with counsel for the applicant.

The applicant is also proposing that this project be developed under the Lot Averaging section of the Zoning Code which must be approved by the Board of Commissioners. This project is located in the R1 zoning district of the Township.

Should it be deemed that the subject parcel is capable of further subdivision, the following comments need to be addressed.

Preliminary Subdivision Plans – 800 Goshen Road

Plans Prepared By: Chester Valley Engineers, Inc.

Dated: 06/03/2016



I. Zoning

1. §280-15.A – Each lot in the R-1 district shall have a lot area of not less than one acre, and such lot shall be not less than 120 feet in width at the building line. The applicant is proposing to use Lot Averaging (§280-110) for this project. If the Board of Commissioners approves the use of Lot Averaging, then the minimum lot area per family and lot width relating to an individual lot in the district where the lot is located may be reduced by not more than 25%, provided that the median lot area per family requirement for the entire tract is not less than the minimum required for the district. Since a typical benefit of lot averaging is the preservation of open space or natural features, the applicant must provide reasoning and benefit as to why lot averaging is necessary and should be considered for this project.
2. §280-15.B – Not more than 15% of the area of each lot may be occupied by buildings. The Zoning table on sheet 3 of 13 must be revised to show the proposed for each individual lot.
3. §280-15.C – There shall be a front yard on each street on which a lot abuts, which shall not be less than 60 feet in depth. The front yard setback for lots 2 and 3 are shown incorrectly on the plan. The front yard setback should be dimensioned from Darby Paoli Road. Since Lot 1 is a corner lot, 2 front yard setbacks must be provided. The Zoning table on Sheet 3 or 13 must show the proposed lot dimensions for each individual lot.
4. §280-15.E – For every principal building, there shall be a rear yard on each lot that shall not be less than 40 feet in depth. The Zoning table on sheet 3 of 13 must be revised to shown the proposed rear yard setback for each individual lot.
5. §280-15.F – The maximum impervious surface is 22%. The Zoning table on sheet 3 of 13 must be revised to shown the proposed impervious surface for each individual lot. The applicant must provide a breakdown of the impervious coverage calculation on the plans.
6. §280-15.F – A riparian buffer setback of 35 feet is provided. The setback must be listed in the Zoning table on sheet 3 of 13.
7. §280-102 – No lot area shall be so reduced that the area of the lot or the dimensions of the open spaces shall be smaller than herein prescribed. This plan is reducing the open space that was created on the previously approved subdivision plan.
8. §280-103 – Two parking spaces must be provided for each dwelling unit. The applicant must dimension on the plans where the two required spaces will be provided.
9. §280-110 – In order to permit a more varied, more efficient and more economical development pattern in a specific locations, preserve stream valley and other natural features and provide for a better and more attractive arrangement of homes and open space

than is possible under the usual district zoning requirements, the requirements of an AC Agricultural Conservation District or an R-1 or R-2 Residence District may be modified when approved by the Board of Commissioner in accordance with the provisions of this Section, Lot Averaging. The applicant must provide reasoning and benefit as to why lot averaging is necessary and should be considered for this project.

10. §280-112.D(6) – Roads, streets, or drives shall be permitted in the steep slope areas, but only when no viable alternative alignment or location is feasible upon determination by the Township Engineer. Evidence must be provided that there is no other viable access to the site for the individual lots in order to consider the disturbance of steep slopes. It appears that access to Darby Paoli Road is available from the front of the lots.
11. §280-112.D and E – These sections establish standard for the permitted disturbance of steep slope areas. According to the preliminary plans submitted, there are significant areas of steep slopes proposed to be disturbed outside of what would be permitted by these sections. A variance is required for this condition or the limit of disturbance revised.

II. Subdivision and Land Development

1. §255-20.B(1)(d)[3] – Lot size and yard requirements must be shown on the plans for each individual lot. The front yard setbacks should be dimensioned from Darby Paoli Road. Since Lot 1 is a corner lot, 2 front yard setbacks must be provided.
2. §255-20.B(1)(n) – Existing principal buildings (and their respective uses) and driveways on the adjacent peripheral strip. Sewer lines, storm drains, culverts, bridges, utility easements, quarries, railroad and other significant man-made features within 500 feet of and within the site (this includes properties across street) must be shown on the site plan or a waiver requested.
3. §255-20.B(1)(o)[2] – The lay out and approximate dimensions, areas and uses of lots; building setback lines and rear and side yard lines must be shown on the plans for each lot.
4. §255-20.B(1)(o)[6] – Rights-of-way and/or easements or all drainage facilities, utilities or other purposes must be shown on the plans. An access easement for the shared driveway and the sanitary and storm sewers must be shown on the plans.
5. §255-20.B(1)(o)[7] – Sidewalks and pedestrian paths must be shown on the proposed layout plans.
6. §255-20.B(1)(o)[8] – The location of all street lights must be shown on the proposed layout plan.

7. §255-20.B(1)(o)[9] – The location of all fire hydrants must be shown on the proposed layout plan.
8. §255-20.B(6)(b) – A letter indicating the availability of central water supply from the appropriate utility must be provided.
9. §255-27.A(8) – A highway occupancy permit is required for the driveway on Goshen Road (SR 1034), and any proposed access from Darby Paoli Road.
10. §255-27.C(1) – Goshen Road is classified as a Minor Collection Road. The required right of way is 60 feet and the required cartway is 36 feet. Curbs and sidewalks must be provided in accordance with this section.
11. §255-32 – An Erosion and Sedimentation Pollution Control Report was submitted. The report indicates a primary dwelling, a barn, and a detached garage exist on the subject property. A driveway connects the detached garage to Delchester Road and provides access to the site. This information appears to be incorrect and the report must be revised.
12. §255-34.E – The depth of lots shall generally not exceed their width by more than 2.5 times. It appears that Lot #2 and Lot #3 will exceed the width by more than 2.5 times. This must be revised or a waiver requested.
13. §255-35.D – Where a subdivision or land development is traversed by a watercourse, there shall be provided a drainage easement or right-of-way conforming substantially to the line of such watercourse and of such width as will be adequate to preserve natural drainage but not less than 50 feet or as may be required by the Township and/or the PA DEP. This must be shown on the plans.
14. §255-37.A – Sidewalks and pedestrian paths shall minimize pedestrian-vehicle conflict and shall be provided when required by the Board of Commissioners.
15. §255-37.B – The minimum width of all sidewalks and pedestrian paths shall be four feet.
16. §255-37.E – Sidewalks and pedestrian paths shall be adequately lighted, if required by the Board of Commissioners.
1. §255-38.A – Within any land development or major subdivision, street trees shall be planted along all streets where suitable trees do not exist. The landscape plan indicates that there will be no street trees provided. Street trees must be provided in accordance with this section.
17. §255-40.C(2) – Access and circulation for fire-fighting and their emergency equipment, moving vans, fuel trucks, garbage collection, deliveries and snow removal shall be planned for efficient operation and convenience. This must be reviewed and approved by the



Township Code Official/Fire Marshall. Significant concern exists as to the ability to access the proposed houses from the single driveway at the rear of the properties.

18. §255-51.A – Sidewalks shall be constructed as required by §255-27C. These standards shall apply on all new streets and on existing streets, unless in the opinion of the Board of Commissioners they are unnecessary for public safety and convenience.
19. §255-51.B – Curbs shall be provided as required in §255-27C, unless in the opinion of the Board of Commissioners they are unnecessary.
20. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.
21. 255-43.C.(2) – Land set aside as open space on a subdivision plan is not subject to development. Applicant will need to request a waiver from the Board of Commissioners to proceed with this plan.

III. Stormwater

1. Stormwater calculations demonstrating that the requirements of the stormwater ordinance must be submitted as part of the Final Plan submission. Final approval of the stormwater management plan will be required as part of the Grading Permit process. Any revisions to the size or location of the individual structures or other features will be addressed at that time.
2. A profile for the storm sewer installation from SW301 to the Outfall must be provided. The applicant must include all utility crossings.

IV. General

1. The applicant includes a tree protection detail on sheet 7 of 13; however, it is not consistent with the latest Radnor Tree Protection detail. Please use the attached current tree protection detail.
2. A sewage Facilities Planning Module Application was submitted. The flows submitted in the application are incorrect. The flows should be 262.5 gpd/EDU. Also the NPDES permit number for the Southwest Plant is PA 0026671. This information must be revised and re-submitted.



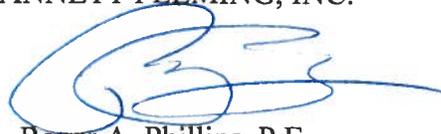
In addition to our review comments, a memorandum dated June 24, 2014 from Any Kaminski of Gilmore & Associates, Inc. the Township Traffic Engineer and a memo dated June 27, 2016 from Ray Daly Building Code Official have been attached and are incorporated herein by reference.

We recommend the Planning Commission not consider recommending approval of this until all outstanding Zoning and Subdivision/Land Development issues have been addressed.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.

A handwritten signature in blue ink, appearing to read 'R. Phillips', is written over the company name.

Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: June 24, 2016

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Transportation Services Manager

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Radnor Township – 800 Goshen Road
Preliminary Subdivision Plan Review #1
Radnor Township, Delaware County, PA
G&A 16-06057

Gilmore & Associates, Inc. (G&A) has completed a transportation review of the referenced Preliminary Subdivision Plan for a 3 unit single-family detached residential development at 800 Goshen Road (S.R. 1034). The applicant proposes to construct three (3) detached dwelling units on an 8.93 acre parcel located in the R-1 Zoning District. The units will take access via a shared existing driveway to Goshen Road (S.R. 1034). Goshen Road is identified as a minor collector road requiring a 60 feet right-of-way, 36 feet cartway width, curbing and sidewalks. We offer the following comments for Radnor Township consideration:

A. DOCUMENTS REVIEWED

1. Preliminary Subdivision Plans for 800 Goshen Road, prepared for Goshen Holding Company, Inc., prepared by Chester Valley Engineers, Inc., consisting of 13 sheets, dated June 3, 2016.
2. A cover letter dated June 3, 2016 prepared by Chester Valley Engineers, Inc.
3. Subdivision and Land Development Application Form.
4. Delaware County Planning Commission Application for Act 247 Review.

B. SUBDIVISION AND LAND DEVELOPMENT ORDINANCE COMMENTS

1. §255-20.B(1)(j) – The plans shall be revised to include a complete outline survey of the property to be subdivided or developed, showing all courses, distances, tie-ins to all adjacent intersections, and areas. It appears that sheets 2, 4, and 6 of 13 do not include a complete outline survey of the property.

2. §255-20.B(1)(o)[6] – As part of the preliminary subdivision and land development application, the Applicant will need to obtain an access easement for the shared access drive between the three proposed lots at 800 Goshen Road and any other parcels with access to the existing shared access driveway. It is unclear from the current plan set if an existing parcel located to the southwest of the site has access to the existing driveway.
3. §255-27.A(8) – Any Applicant who encroaches within the legal right-of-way of a state highway is required to obtain a highway occupancy permit from the Pennsylvania Department of Transportation. Although note No. 6 indicates a minimum use driveway permit No. 06075174 was issued by PennDOT for the driveway connection to Goshen Road it is unclear at what location the driveway was approved and the approved traffic volumes. Provide documentation and plans of the approved driveway for Township review.
4. §255-27.C(1) – During Final Land Development, Goshen Road shall be improved by the applicant to meet the required dimensional standards for a minor collector with a 60 foot right-of-way (30 foot half-width right-of-way), 36 foot cartway width (18 foot half-width), curbs and sidewalks along the site frontage.
 - i. The identified required right-of-way line width appears to vary in width along the site frontage; verify and revise as needed to call out and identify the required 30 foot half-width right-of-way.
 - ii. The unmarked half-width cartway appears to provide an approximate 14 foot half-width; an 18 feet half-width cartway is required under this section of the ordinance.
 - iii. Curb appears to be present along the parcel frontage; however, no sidewalks are provided and the existing shoulder appears to be inadequate for pedestrian use.
5. §255-27.D – We recommend the Applicant construct a cul-de-sac to provide an onsite vehicle turn around area.
6. §255-27.E(4) – The private street shall be owned and maintained by all abutting property owners. A homeowner's association or other legal entity approved by the Board of Commissioners shall be formed in order to properly administer such maintenance responsibilities.
7. §255-27.H(6) – Revise the plans to identify the curb radii for the driveway access to Goshen Road (S.R. 1034) as well as each individual driveway. The minimum curb radii at street intersections shall be 10 feet for driveways.
8. §255-28 – The applicant shall revise the plans to include the available and required sight distance for the existing access driveway to Goshen Road.
9. §255-29 – The minimum aisle dimensions for two-way use shall be 22 feet.
10. §255-29.A(12)(c) – The width of entrance and exit drives shall be a maximum of 25 feet at the street line and 35 feet at the curblines.
11. §255-40.C(2) – Access and circulation for fire-fighting and other emergency equipment, moving vans, fuel trucks, garbage collection, deliveries and snow removal shall be planned for efficient operation and convenience.

- i. The applicant shall demonstrate through truck turning templates adequate onsite circulation for the identified vehicles under this section of the ordinance.
 - ii. The township may want to require the applicant improve the emergency access along the existing Stone Wall from the Common Driveway to Montparnasse Place. The improved emergency access would provide a secondary means of access for not only this proposed development both for the existing residence on Montparnasse Place.
12. §255-40.E(3) – All driveways shall be paved and constructed in accordance with Township standards. The plans shall be updated to identify the composition of the existing and proposed driveway.
13. §255-40.F – The Applicant shall identify the anticipated refuse collection stations and ensure adequate onsite circulation.



RADNOR TOWNSHIP

MEMORANDUM

TO: MR. STEVE NORCINI
FROM: RAY DALY
SUBJECT: 800 GOSHEN ROAD
DATE: JUNE 27, 2016
CC: MR. PHILLIPS

Mr. Norcini

The first comment is the steep slope and the ability for emergency apparatus to enter the site. Is there a direct way to enter the road using the Goshen Road Bridge? Is the bridge wide enough and can it handle the weight of the Fire apparatus? How wide is the Roadway entrance?

There seems to be no flat or level spot on site for apparatus to stage or set up and perform their task.

The second comment is the width of the road way, it is not wide enough for the equipment to pass side to side. There is insufficient room to extend the out riggers on the Ladder truck.

There is no space for the Fire or Emergency personal to turn around at the top of the hill; it is a dead end road. This means everyone will need to back down a steep slope and out onto Goshen Road.

The driveways onto the lots are problematic in that if someone has guest there is no additional parking except to block the road.

Building wise it looks that one home has no rear yard only a steep drop off into the flood plain. Would any structures, decks and sheds be allowed to overhang the retaining wall?

Sewers need to enter the flood plain to be connected; are there any issues with the connections to insure no leakage into/onto this area?

Respectfully,

Ray Daly

Building Codes/Fire Codes Official

J. LAWRENCE GRIM, JR.
JEFFREY G. TRAUGER
MARY C. EBERLE
JOHN B. RICE
DIANNE C. MAGEE *
DALE EDWARD CAYA
DAVID P. CARO ♦
DANIEL J. PACI ♦ †
JONATHAN J. REISS ◊
GREGORY E. GRIM †
PETER NELSON *
PATRICK M. ARMSTRONG
SEAN M. GRESH
DIANE M. SODANO *
KELLY L. EBERLE *
COLBY S. GRIM
JOEL STEINMAN
MATTHEW E. HOOVER
STEPHEN J. KRAMER

* ALSO ADMITTED IN NEW JERSEY
◊ ALSO ADMITTED IN NEW YORK
† MASTERS IN TAXATION
♦ ALSO A CERTIFIED PUBLIC ACCOUNTANT

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PLEASE REPLY TO:
PERKASIE

John B. Rice, Esquire
e-mail: jrice@grimlaw.com

JOHN FREDERIC GRIM, OF COUNSEL

104 S. SIXTH STREET
P.O. BOX 215
PERKASIE, PA. 18944-0215
(215) 257-6811
FAX (215) 257-5374

(215) 536-1200
FAX (215) 538-9588

(215) 348-2199
FAX (215) 348-2520

July 18, 2016

Sent via electronic correspondence

David J. Falcone, Esquire
SAUL EWING LLP
1200 Liberty Ridge Drive, Suite 200
Wayne, PA 19087

**RE: Radnor Township Preliminary Subdivision Application #2016-S-08
800 Goshen Road**

Dear Mr. Falcone:

As we have previously discussed, Radnor Township has asked this office to review the above application, as well as the plans and approvals for the previous 1998 Montparnasse subdivision that created the lot that is the subject of your current application (Lot 9) in order to determine restrictions on your client's right to subdivide this parcel. As you are aware, the 1998 subdivision plans recorded in Plan Book 20, Page 18 clearly denote Lot 9 as open space. This designation can be found both on the actual plan and in the notes listed on the plan. Moreover, the Township's approval resolution states that the approval was for a subdivision containing eight building lots and one non-building lot (Lot 9). We have also discussed this matter with neighboring residents who resided on their properties at the time of this initial subdivision who have confirmed that your client promised that this ninth lot would remain open space and undeveloped. These recollections are supported by sworn testimony Mr. Holloway made to the Township Zoning Hearing Board concerning this earlier subdivision and this affirmation is noted in the minutes of the various Township boards and commissions during their respective reviews of the 1998 subdivision.

Under current Pennsylvania law, restrictive notes on subdivision plans are enforceable either through applicable local ordinances or by an action in equity. SLDO Section 255-43 C. (2) requires that land set aside as open space "...be absolute and not subject to reversion for possible future use for further development." Additionally, absent an applicable ordinance provision, the Commonwealth Court has affirmed a municipality's right to enforce plan notes by the filing of an action in equity. Doylestown Township v. Teeling 635 A2d 657 (1993). Although

David J. Falcone, Esquire

July 18, 2016

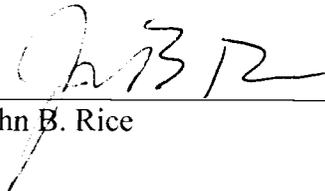
Page 2

the plan as proposed may ultimately meet existing Township ordinance requirements, the Township will file an appropriate action in the Delaware County Court of Common Pleas to enforce the notes on the 1998 record plan and to confirm the status of Lot 9 as open space. I am providing this notice to you so that you are fully aware of the Township's position regarding this plan. I am copying Mr. Holloway on this letter so that he is aware of the Township's concerns. Thank you for your kind consideration.

Sincerely,

GRIM, BIEHN & THATCHER

By:



John B. Rice

JBR/hlp

cc: Peter Nelson, Esquire (via e-mail)

Robert Zienkowski, Township Manager, Radnor Township (via e-mail)

Kevin W. Kochanski, Director, Community Development, Radnor Township (via e-mail)

Stephen F. Norcini, P.E., Director of Public Works, Radnor Township (via e-mail)

Roger A. Phillips, P.E., Gannett Fleming, Inc. (via e-mail)

Amy B. Kaminski, P.E., PTOE, Gilmore & Associates, Inc. (via e-mail)

Caswell Holloway



DELAWARE COUNTY PLANNING DEPARTMENT

COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063

COUNCIL

MARIO J. CIVERA, JR.
CHAIRMAN
COLLEEN P. MORRONE
VICE CHAIRMAN
JOHN P. McBLAIN
DAVID J. WHITE
MICHAEL F. CULP

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 **FAX:** (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

LINDA F. HILL
DIRECTOR

July 21, 2016

Robert A. Zienkowski
Radnor Township
301 Iven Avenue
Wayne, PA 19087

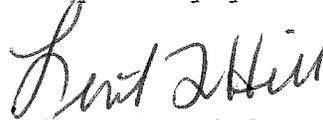
RE: Name of Dev't: Goshen Holding Company
DCPD File No.: 34-4386-98-16
Developer: Goshen Holding Company, Inc.
Location: Southwest corner of Darby and Goshen Roads
Recv'd in DCPD: June 17, 2016

Dear Mr. Zienkowski:

In accordance with the provisions of Section 502 of the Pennsylvania Municipalities Planning Code, the above described proposal has been sent to the Delaware County Planning Commission for review. At a meeting held on July 21, 2016, the Commission took action as shown in the recommendation of the attached review.

Please refer to the DCPD file number shown above in any future communications related to this application.

Very truly yours,


Linda F. Hill
Director

cc: Goshen Holding Company, Inc.
Chester Valley Engineers, Inc.



DCPD

DELAWARE COUNTY PLANNING DEPARTMENT

Court House/ Government Center , 201 W. Front St., Media, PA 19063
Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

Date: July 21, 2016
File No.: 34-4386-98-16

PLAN TITLE: Goshen Holding Company

DATE OF PLAN: June 3, 2016

OWNER OR AGENT: Goshen Holding Company, Inc.

LOCATION: Southwest corner of Darby and Goshen Roads

MUNICIPALITY: Radnor Township

TYPE OF REVIEW: Preliminary subdivision

ZONING DISTRICT: R-1 residential

SUBDIVISION ORDINANCE: Local

PROPOSAL: Subdivide 8.933 acres into three lots

UTILITIES: Public

RECOMMENDATIONS: Disapproval, based on irregular lot layout per Zoning §280-15 and SALDO §255-34, prospective impacts on environmentally constrained land, and potential deviation from the original intent to preserve said portion of land as open space

STAFF REVIEW BY: Michael A. Leventry



Date: July 21, 2016
File No.: 34-4386-98-16

REMARKS:

PREVIOUS ACTION

A plan for the site was last reviewed by the Delaware County Planning Commission at its meeting on May 21, 1998, as a final subdivision. The applicant proposed to create an eight parcel subdivision, a private access road, and to designate the remainder of the parcel as open space.

CURRENT PROPOSAL

The plan proposes to subdivide 3.895 acres into three parcels that are to be developed as single-family detached dwellings. The parcels will utilize a proposed shared driveway, and will partially encompass areas that were deed restricted by the original subdivision.

SITE CHARACTERISTICS

A majority of the site's existing topography is made up of slopes greater than 20%. The sloped areas extend into the Darby Creek's floodplain boundary. Proposed development does not encroach into Darby Creek's floodplain, however, a stormwater feature serving Lots 1 and 2 is within the floodplain.

APPLICABLE ZONING

The development is located within the R-1 Residential district, and is subject to applicable regulations set forth by the Township's zoning code.

Date: July 21, 2016
File No.: 34-4386-98-16

REMARKS continued:

NONCONFORMITIES

The site's proposed lot configuration does not appear to comply with Radnor's SALDO §255-34; subsections B, D, and E, pertaining to lot dimensions and street access. Additionally, the lot configuration does not appear to comply with §280-15(A) of Radnor's zoning code.

Where Section 255-34(B) requires that residential lots front on an existing or proposed street, Lots 2 and 3 do not.

Where Section 255-34(D) requires side lot lines to be at right angles to the street upon which the parcel fronts, Lots 2 and 3 do not comply.

Where Section 255-34(E) requires that lot depths not be greater than 2.5 times their width, Lots 2 and 3 do not comply.

Where zoning ordinance Section 280-15(A) requires each lot to be not less than 120 ft. in width at the building line, Lots 2 and 3 do not comply.

COMPLIANCE

The proposal as submitted does not appear to comply with the Radnor's zoning code and subdivision and land development ordinance provisions.

SITE DESIGN

Lots 2 and 3 are to encompass long, broad, far reaching "ribbons" of forested buffer that are deed restricted; which raises maintenance concerns for said deed restricted areas (access to, and removal of, fallen trees as well as prevention of trespass or

Date: July 21, 2016
File No.: 34-4386-98-16

REMARKS continued:

vandalism). Consideration should be given to conveyance of the far reaching southern and western ribbons of deed restricted land to the adjacent land owners who are better suited logistically to monitor and maintain said areas.

LAND PRESERVATION

Based on the Delaware County Planning Department's May 21, 1998 review, there seems to be a strong indication that this property was intended for preservation (labeled and referred to as such within the file's submitted drawing and review). Any outstanding preservation concerns should be addressed prior to any subdivision approvals.

WETLANDS

The Township Engineer and the PA Department of Environmental Protection, Southeast Regional Office, Soils and Waterways Section, Water Management Program, must verify the extent of wetlands at the site prior to any earthmoving activities.

ENVIRONMENTAL

The developer should contact the Pennsylvania Department of Environmental Protection regarding the need for sewage facilities planning approval.

The Township should confirm receipt of any necessary Pennsylvania Department of Environmental Protection planning approval prior to final approval.

Date: July 21, 2016
File No.: 34-4386-98-16

REMARKS continued:

STORMWATER MANAGEMENT

The Township Engineer must verify the adequacy of all proposed stormwater management facilities.

HISTORICAL AND ARCHEOLOGICAL SIGNIFICANCE

The area where the development is proposed has a high potential for underground archeological resources. The area is labeled Zone L - Open Space, and may have artifacts from prehistoric or early settlement eras. There are no buildings on the site. If during construction any artifacts are discovered, please contact Delaware County Planning Department for a brief documentation.

RECORDING

In accordance with Section 513(a) of the Pennsylvania Municipalities Planning Code (MPC), final plans must be recorded within ninety (90) days of municipal approval.

June 26,2016

Kevin W. Kochanski
Director of Community Development
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

Re: 800 Goshen Road proposed preliminary subdivision
Application # 2015-S-08

Dear Mr. Kochanski :

I am writing you at the suggestion of John Rice, Esquire as the property owner most directly affected by this proposed subdivision because I will be out of the country in Europe on July 5, the date of the proposed hearing on this proposal and thus cannot attend in person.

I built my principal residence at 758 Darby-Paoli Road in the Township over 49 years ago and have lived here since then. I bought this land and constructed this house primarily based upon assurances that the semi-rural character of this area was not subject to change for many years into the future and because I value relative privacy and the preservation of natural habitats. These assurances included the terms of the family trusts delaying breakup of Ardrossan until at least the year 2000 and the position of my immediate neighbor to the south and east, the William Norris tract, that he was not interested in selling any of his property. In fact, I made inquiries about a possible purchase of additional land from Mr. Norris in order to give me additional protection, but to no avail.

Subsequently, Mr. Norris died and his property was transferred intact as part of his estate plan to the Trustees of the University of Pennsylvania, which in due course sold that intact property to C.F. Holloway and Company, evidenced by a deed dated October 15, 1998. The new owner then formed Goshen Holding Company, Inc. which filed proposals to subdivide the former Norris tract. That proposal contemplated either seven or eight new houses (the number dependent upon whether the Norris stone mansion would be retained; it subsequently was demolished, resulting in the eight house Montparnesse neighborhood.) Mr. Holloway approached my wife and me to inform us of his intentions and requested our assurances that we would not oppose his planned subdivision and construction of the eight houses. I expressed our concern of storm water runoff adversely affecting us because of the very steep slope of the hill to the south of our house. Mr. Holloway then told us that **IN EXCHANGE FOR OUR AGREEMENT** to not oppose his development he was going to gift the land above us on the hill (which includes an old lumber road or trail) together with the nine plus acres designated as Lot 9 to a nature conservancy. In addition, the subdivision plot plans he submitted at the time to obtain Township approval show Lot 9 clearly marked as **OPEN SPACE**. Apparently, now almost 18 years later, he wants to unilaterally reverse his promise made to us in exchange for our prior forbearance. I consider this a breach of contract. I also believe that he may have approached other neighbors bordering on the former Norris tract with similar promises. This raises other pertinent questions in my mind

and which may also be of interest to various government agencies. For example, was he granted any special relief from real estate taxes or a more favorable tax assessment over all these years with respect to Lot 9? Did his holding company take a charitable income tax deduction for his proposed gift of the land to a nature conservancy? I would suggest that these are relevant issues to be investigated.

A few days ago, as soon as I received a letter advising of the hearing on July 5, I briefly reviewed plans for his current proposal on file with the Township and compared them with his proposals for a single house to be built on Lot 9 which was the subject of a series of zoning hearings a few years ago. Apparently, although I was never informed of what eventually happened with respect to that, the last activity of which I am aware was four years ago. There is much that these plans do not reveal, such as the precise location of the three houses to be constructed, whether there will be other structures on the sites, nor the size or style of the houses to be built. On the other hand, some information can be gleaned from them. For example, numerous small evergreen trees apparently are to be planted, which suggests that the existing old growth trees, consisting of oak, tulip poplar and beech, will be clear cut. This would denude the existing slopes, some of which are steep. It also appears that there will be two smaller lots and one large one, with the effect of bunching the houses nearest to me instead of spreading them out. As far as I could tell, it appears that the house to be built nearest me would be on the same spot he selected over four years ago for the one house he wanted to build on Lot 9. All of this will result in the removal of many large existing trees which not only provide shade for my house, but also help to retain the steep slope from erosion. His plans include plans for storm water containment systems, but with the limited time I had available and the tiny symbols and writing on the plans I was unable to fully understand what is proposed. If the systems are to be similar to the open collection ponds found in many developments I am not only concerned of how unsightly this would be, but also whether stagnant ponds would result, which are likely breeding spots for mosquitos.

I am alarmed that the proposal would destroy one of the last remaining stretches of natural habitat along the Darby Creek valley within the Township. I am assuming the houses he builds would include sloping lawns to the banks of the creek, largely devoid of larger mature old growth trees. In contrast, I have been very careful to leave almost all of my property on both sides of the creek in their natural form and planting.

The environmental impact would be legion. The stretch of the creek valley in its natural state between the Goshen Road bridge and the triple arch stone bridge on my property will be lost forever. When it goes so does the habitat for numerous species of flora and fauna, including great blue herons, red tailed hawks, mallard ducks, geese, owls, deer, red foxes and other animals and birds too numerous to mention. Much of that part of the stream is home to trout and open to fishermen in season.

I am most concerned about the impact of the proposal upon the risk of increased and more severe flooding, which is already a major problem. One neighboring house has been flooded on the lower level several times. The breadth and strength of the flooded Darby Creek in this portion is awesome. As Lot 9 and the resulting three subdivided lots are developed the natural contours of the steep slopes will be changed, probably resulting in greater water and soil runoff, particularly

if those slopes have been denuded of a number of larger mature trees. The increased runoff and accumulation of soil and ground cover into the creek bed will almost certainly increase the flooding risk to homeowners upstream. Four years ago a neighbor took photographs of Lot 9 during a flood, and the water level encroached appreciably beyond the orange storm fences delineating the house he proposed to build there. I am extremely concerned that the triple arch stone bridge, over which my and my neighbor's driveway provides our only access to our houses from the road could have its structural integrity threaten by the increased flooding risk. Furthermore, my two and a half acre lot is shaped like the head of a hatchet, with the house built on the narrowest portion. This is why I wanted to buy additional land from Mr. Norris. My eastern property line from my house to the road follows the utility lines for power and telephone. That means that a portion of my property is directly downslope from where I think he proposes to build the house closest to me. It would be naive to believe that my share of the natural habitat on that portion will not be covered with mud running downhill, particularly during construction.

I would greatly appreciate it if you would distribute copies of this letter to members of the Planning Commission and such others as you deem relevant, and also make it part of the record of these proceedings. I am sorry I could not mail you a paper copy, but do not have access to a compatible printer in the short time remaining before I leave.

Very truly yours,

Peter O. Clauss, Esq.

CC: John Rice, Esq.

Peter Nelson, Esq.

J. Lawrence Grim, Jr., Esq

Andrew B. Clauss, Esq.

J. Manly Parks, Esq.

Elaine Schaefer

The Radnor Conservancy

Laura Luker

Abby Rosenthal

Fred Dougherty

David Piver, Esq.

Jeff Rosenblum

Francis DeRoos

WILLIAM A. SPINGLER
President

ELAINE P. SCHAEFER
Vice-President

DONALD E. CURLEY

JOHN FISHER

JAMES C. HIGGINS

KEVIN HIGGINS

JOHN NAGLE



RADNOR TOWNSHIP
301 IVEN AVENUE
WAYNE, PENNSYLVANIA 19087-5297

Phone (610) 688-5600

Fax (610) 971-0450

www.radnor.com

ROBERT A. ZIENKOWSKI
Township Manager
Township Secretary

JOHN B. RICE, ESQ.
Solicitor

JOHN E. OSBORNE
Treasurer

April 5, 2012

Cas Holloway
C.F. Holloway, III & Company
110 Gallagher Road
Wayne, Pennsylvania 19087

**SUBJECT: GRADING PERMIT APPLICATION
800 GOSHEN ROAD, LOT 9**

Mr. Holloway,

The Township has received and reviewed your grading permit application for the above noted property. Please be advised that your permit is being denied for the following reasons:

1. The recorded land development plans indicate that Lot 9 is "Open Space". Open space is not able to be developed. Chapter 255, the Subdivision and Land Development Ordinance, defines open space as:

"A portion of a tract available and accessible for use by the residents of the tract, unless dedicated to the Township, **generally undeveloped**. Open space may include areas of steep slopes, floodplains and other significant features to be preserved. **Open space shall not include** street or street rights-of-way, parking areas, **yards and lots of individual dwelling units** or other public improvements nor does it include required buffer areas. Open space uses may include active and passive recreation."

In order to remove the "Open Space" note on Lot 9 of the Approved Final Subdivision Plan for 800 Goshen Road recorded at Book 20, Page 18 of the Delaware County Recorder of Deeds, you will need to file a Revised Final Plan.

2. Zoning Ordinance Sections 280-112.D and E establish standards for the permitted disturbance of steep slope areas. According to the grading plan submitted with your application, there are significant areas of steep slopes proposed to be disturbed outside of what would be permitted by these sections. As such, a variance would be required.

3. Zoning Ordinance Article XVII establishes regulations for permitted uses and disturbance within the floodplain. The grading plan submitted with your application indicates that there is disturbance within the floodplain. It is unclear if this disturbance is permitted or if relief would be required. Additional information should be submitted to demonstrate compliance with the requirements of this Ordinance or a variance would be required.

If you have any questions, please contact me.

Sincerely,



Kevin W. Kochanski, RLA, CZO
Director of Community Development

cc: Board of Commissioners
Robert Zienkowski, Township Manager
Steve Norcini, Director of Public Works
John B. Rice, Township Solicitor

Resolution #98-11

WHEREAS, C. F. Holloway, III & Co. having made application to subdivide 21.858 acres into nine lots, eight of which are building lots at 800 Goshen Road, and

WHEREAS, the application was accompanied by Major-Final subdivision plans consisting of nineteen (19) sheets prepared by Chester Valley Engineers, Inc. dated December 16, 1997 and last revised April 17, 1998, and

WHEREAS, the Radnor Township Planning Commission at their meeting of May 4, 1998 reviewed the abovementioned subdivision application and the associated plans and recommend approval

NOW, THEREFORE, BE IT RESOLVED that the Major-Final subdivision plan of C.F. Holloway, III & Co. #97-S-17 being the same hereby approved to the following conditions:

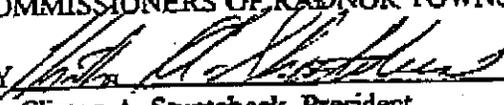
1. That Sheet #3 be redrawn so that compliance with Section 280-112 of the Code can be determined.
2. That the stormwater management system, as well as a portion of the proposed dwelling on Lot #1, appears to be located in the areas of slope exceeding 22%.
3. That the grading of Lot #2 appears to be located in the areas of slope exceeding 22%, however, these areas of slope appear to be manmade. A differentiation of slopes in excess of 22% that are manmade should be indicated on the plan.
4. That retaining walls and storm sewers to the stormwater management system on Lot #3 appears to be located in the areas of slope exceeding 22%.
5. That the roof drains on Lot #4 appear to disturb areas of slope exceeding 22%.
6. The trees sizes and species should be indicated on Sheet #4 through 8 so that the effect of construction can be more readily determined.
7. That the Improvement Construction Plan, Sheet #13, shall indicate centerline with bearings, distances and curve data, and shall be so drawn that the plan view is directly above the profile view.
8. That the Improvement Construction Plan, Sheet #14, include the plan view of the storm sewer.
9. That the Improvement Construction Plan, Sheet #15, include the plan view of the storm sewer.

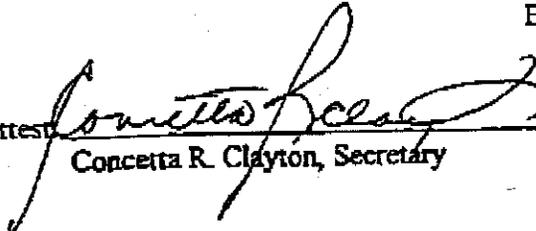
Received 01/02/2004 03:11PM in 05:44 on line (7) for 2637 WORKSRV2 printed B00E2E60 on 01/02/2004 03:17PM * Pg 9/11
01/01/04 03:24pm P. 009

- 10. That the Improvement Construction Plan, Sheet #16, include the plan view of the storm sewer.
- 11. That the 6" face on the granite curb detail be correctly indicated on Sheet #17.
- 12. That the discharge points of all stormwater management systems on individual lots be indicated on the plan.
- 13. That the Shade Tree Commission review and approve the plan.
- 14. That the homeowners documents be reviewed and approved by the Township Solicitor.
- 15. That Planning Modules in accordance with Section 255-22B(3) of the Code be waived or approved by the Pennsylvania Department of Environmental Protection.
- 16. That escrow funds, in a form satisfactory to the Township Solicitor and in an amount satisfactory to the Township Engineer, be posted with the Township in accordance with Section 255-65 of the Code of the Township of Radnor.

RESOLVED this 26th day of May 1998.

COMMISSIONERS OF RADNOR TOWNSHIP

BY 
Clinton A. Stuntebeck, President

Attest 
Concetta R. Clayton, Secretary

Resolution #98-06

WHEREAS, C. F. Holloway, III & Co. having made application to subdivide 21.858 acres into nine lots, eight of which are building lots at 800 Goshen Road, and

WHEREAS, the application was accompanied by Major-Preliminary subdivision plans consisting of five (5) sheets prepared by Chester Valley Engineers, Inc. dated December 16, 1997 and last revised January 20, 1998, and

WHEREAS, the Radnor Township Planning Commission at their meeting of February 2, 1998 reviewed the abovementioned subdivision application and the associated plans and recommend approval.

NOW, THEREFORE, BE IT RESOLVED that the Major-Preliminary subdivision plan of C.F. Holloway, III & Co. #97-S-17 being the same hereby approved to the following conditions:

1. That interior street lights be 4,000 lumens and the street light on the corner of Montparnasse at Goshen Road be 8,000 lumens.
2. That the concrete monuments be 4" X 4" on the top, 6" X 6" on the bottom and 24" in length and so indicated on the plan.
3. That Sheet #1 comply with Section 255-21A(6) of the Township Code which requires lettering to be so drawn as to be legible should the plan be reduced to half size, and the Location Map include the proposed property lines be located on this plan.
4. That a statement from an engineer experienced in erosion control be noted on the plan in accordance with Section 255-31E(2) of the Code.
5. That the sanitary sewer and storm sewers proposed to be constructed in areas in which slopes exceed 22% require Zoning Hearing Board approval in accordance with Section 280-112N of the Code.
6. That the plan indicate the area of disturbance and the size, species and location of all shade and street trees affected by the proposed development in accordance with Ordinance #97-34.
7. That the homeowners documents be reviewed and approved by the Township Solicitor.

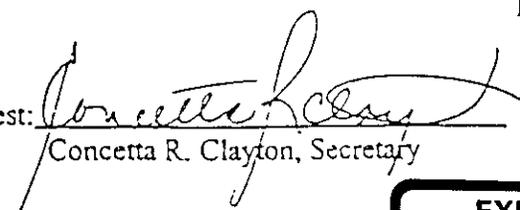
RESOLVED this 9th day of March 1998.

COMMISSIONERS OF RADNOR TOWNSHIP

BY


Clinton A. Stuntebeck, President

Attest:


Concerta R. Clayton, Secretary

EXHIBIT



ALL-STATE® INTERNATIONAL

sheet of any plans submitted. In the event that the Developer fails to approve or disapprove such plans and specifications within sixty (60) days of such presentation, the approval of such plans and specifications shall be deemed denied.

Section 4. Applicability. It is understood that the obligation to submit plans and obtain approval, not only from the appropriate township and other governmental authorities, but also as set forth hereinabove in this Article, shall apply to all portions of the Lots.

Section 5. Immunity. Neither Developer, nor any of its officers, directors, or agents, nor any successors or assigns thereto or thereof, shall be liable for damages to anyone submitting any plans or request to them for approval, or to any other Owner affected hereby, by reason of mistake in judgment, negligence or nonfeasance arising out of or in connection with the approval or disapproval or failure to approve, any such plans or request. Every Owner who submits any plan or request to the Developer for approval agrees, by submission thereof, and every Owner agrees by acquiring title to any portion of The Properties, that he will not bring any such action or suit to recover any such damage.

Section 6. Fences. No fences other than black aluminum "wrought iron" type fences shall be erected unless completely concealed from view by landscaping material or other structures.

Section 7. Enforcement. Developer shall have the express power and the right in equity to specifically enforce strict compliance with the provisions of this Article.

ARTICLE VIII GENERAL PROVISIONS

Section 1. Duration and Amendment. The covenants and restrictions of this Declaration shall run with and bind the land, and shall inure to the benefit of and be enforceable by the Association, or the Owner of any land subject to this Declaration, their respective legal representatives, heirs, successors, and assigns perpetually, unless an instrument signed by those Members entitled to cast two-thirds of the existing votes, and approved in writing by the Radnor Township Board of Supervisors has been recorded, agreeing to change said covenants and restrictions in whole or in part. Provided, however, that no such agreement to change shall be effective unless made and recorded six (6) months in advance of the effective date of such change, and unless written notice of the proposed agreement is sent to every Owner at least ninety (90) days in advance of any action taken. Excepting, however, that no prior notice or approval by Owners shall be required for technical changes, corrections and clarifications to the Declaration.

Section 2. Amendment by Developer. Notwithstanding anything set forth in Section 1 of this Article, until Developer's Class B membership is terminated under Article II, Section 2, the Developer shall have the right to make technical changes, corrections and clarifications to the Declaration, and same shall be effective upon the recording of an amendment to the Declaration with the office of the Recorder of Deeds in and for Delaware County, Pennsylvania. Developer may record amendment(s) to the Declaration of a substantive nature, where necessary to meet the requirements of any lender, title insurer or utility company or authority or governmental agency, or,

at Developer's sole discretion, to comply with any applicable regulations, recommendations or guidelines of FNMA, FHLMC, VA, FHA, HUD or other similar agencies, provided that no such amendment shall be made or recorded without prior written approval of the Board of Supervisors of Radnor Township; or, materially and adversely alter the rights or liabilities of any Owner, or the title to any Lot, unless the affected Owner consents to such amendment.

Section 3. Notices. Any notice required to be sent shall be deemed to have been properly sent when mailed, postpaid, to the last known address of the person who appears as Member or Owner on the records of the Association at the time of such mailing.

Section 4. Enforcement. The Association, or any Owner, shall have the right to enforce these covenants and restrictions by any proceeding at law or in equity, against any person or persons violating or attempting to violate any covenant or restriction, to restrain any violation, to require specific performance and/or recover damages; and against the land to enforce any lien created by these covenants; and failure by the Association or any Owner to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of the right to do so thereafter. The expense of enforcement by the Association shall be chargeable to the Owner of the Lot violating these covenants and restrictions and shall constitute a lien on the Lot, collectible in the same manner as assessments hereunder.

The Developer shall have the right to enforce these covenants and restrictions by any proceeding at law or in equity, against any person or persons violating or attempting to violate any covenant or restriction, which right of enforcement shall terminate upon the termination of Developer's Class B membership in accordance with the provisions of this Declaration.

Any rights given to Radnor Township shall be enforceable by and through the Radnor Township Board of Supervisors in the manner permitted by the provisions of this Declaration establishing such right, in addition to, and not in lieu of, any remedies available to the Township at law or in equity. Any costs and attorneys' fees incurred by Radnor Township in enforcing its rights hereunder shall be included in the amount of any lien sought to be enforced and otherwise recoverable in any other collection or enforcement action.

Section 5. Severability. Invalidation of any one of these covenants or restrictions by judgment or court order shall in no way affect the validity of any other provisions, which shall remain in full force and effect.

Section 6. Headings. The headings contained in this Declaration are for reference purposes only and are not intended to be used to interpret the meaning of any provision of this Declaration.

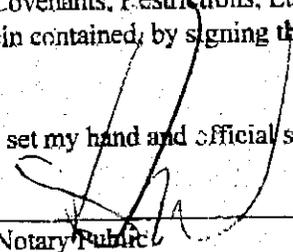
COMMONWEALTH OF PENNSYLVANIA

SS.

COUNTY OF West Chester

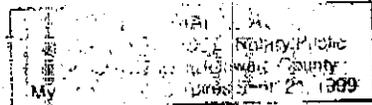
ON THIS, the 24 day of July, 1999, before me, the undersigned Officer, personally appeared CASWELL F. HOLLOWAY, III, who acknowledged himself to be the President of GOSHEN HOLDING COMPANY, and that he as such Officer, being authorized to do so, executed the foregoing Declaration of Covenants, Restrictions, Easements, Charges and Liens for Montparnasse for the purposes therein contained, by signing the name of said Corporation by himself as such Officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



Notary Public

(SEAL)



Section 7. Amendment of the Plan. Developer hereby reserves the right to alter or amend the Plan, upon approval of the Radnor Township Board of Supervisors.

IN WITNESS WHEREOF, Developer has executed this Declaration 26 day of JULY, 1999.

ATTEST:

Caswell F. Holloway, III

GOSHEN HOLDING COMPANY, INC.

BY:

Caswell F. Holloway, III
Caswell F. Holloway, III, President

DELAWARE COUNTY PLANNING COMMISSION

APPLICATION FOR ACT 247 REVIEW

Incomplete applications will be returned and will not be considered "received" until all required information is provided.

Please type or print legibly

DEVELOPER/APPLICANT

Name Goshen Holding Company, Inc. E-mail cas@cfholloway.com

Address 110 Gallagher Road, Wayne, PA 19087 Phone 610-964-9040

Name of Development Subdivision - 800 Goshen Road

Municipality Radnor Township

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm Chester Valley Engineers, Inc. Phone 610-644-4623, X-121

Address 83 Chestnut Road, P. O. Box 447, Paoli, PA 19301

Contact Jeremy R. Maziarz, PE E-mail jmaziarz@chesterv.com

Type of Review	Plan Status	Utilities		Environmental Characteristics
		Existing	Proposed	
<input type="checkbox"/> Zoning Change	<input type="checkbox"/> Sketch	<input checked="" type="checkbox"/> Public Sewerage	<input checked="" type="checkbox"/> Public Sewerage	
<input type="checkbox"/> Land Development	<input checked="" type="checkbox"/> Preliminary	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Private Sewerage	<input checked="" type="checkbox"/> Wetlands
<input checked="" type="checkbox"/> Subdivision	<input type="checkbox"/> Final	<input checked="" type="checkbox"/> Public Water	<input checked="" type="checkbox"/> Public Water	<input checked="" type="checkbox"/> Floodplain
<input type="checkbox"/> PRD	<input type="checkbox"/> Tentative	<input type="checkbox"/> Private Water	<input type="checkbox"/> Private Water	<input checked="" type="checkbox"/> Steep Slopes

Zoning District R-1

Tax Map # 36 / 48 / 027

Tax Folio # 36 / 04 / 02471 / 00

STATEMENT OF INTENT

WRITING "SEE ATTACHED PLAN" IS NOT ACCEPTABLE.

Existing and/or Proposed Use of Site/Buildings:

The property is proposed to be subdivided into 3 single family residential lots.

Total Site Area 8.933 Acres
Size of All Existing Buildings 0 Square Feet
Size of All Proposed Buildings 6600 (total footprint - 3 units) Square Feet
Size of Buildings to be Demolished 0 Square Feet

Caswell F. Holloway, III

Print Developer's Name

Developer's Signature

MUNICIPAL SECTION

ALL APPLICATIONS AND THEIR CONTENT ARE A MUNICIPAL RESPONSIBILITY.

Local Planning Commission Regular Meeting July 5th 2016

Local Governing Body Regular Meeting _____

Municipal request for DCPD staff comments prior to DCPC meeting, to meet municipal meeting date:

Actual Date Needed _____

IMPORTANT: If previously submitted, show assigned DCPD File # _____

Roger A. Phillips, PE Township Engineer
Print Name and Title of Designated Municipal Official

610-660-5600
Phone Number

Official's Signature

6/15/2016
Date

FOR DCPD USE ONLY

Review Fee: Check # _____ Amount \$ _____ Date Received _____

Applications with original signatures must be submitted to DCPD.

June 3, 2016

Ms. Suzan Jones
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**RE: PRELIMINARY SUBDIVISION PLANS – 800 GOSHEN ROAD
CVE PROJECT NO. 18404-1000**

Dear Ms. Jones,

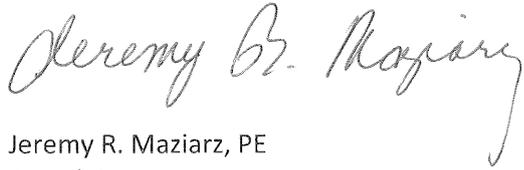
On behalf of the Applicant, Goshen Holding Company, Inc., we have enclosed the following:

- Ten (10) sets of (24" x 36") Preliminary Subdivision Plans, Sheets 1-13, prepared by Chester Valley Engineers, dated 6/3/16, no revision date. The plans are signed by the Owner and Notarized on Sheet 3, as required.
- Thirty (30) sets of (11" x 17") Preliminary Subdivision Plans, Sheets 1-13, prepared by Chester Valley Engineers, dated 6/3/16, no revision date.
- Two (2) copies of the Post Construction Stormwater Management Report for 800 Goshen Road, prepared by Chester Valley Engineers, dated 6/3/16
- Two (2) copies of the Erosion and Sedimentation Pollution Control Report for 800 Goshen Road, prepared by Chester Valley Engineers, dated 6/3/16
- Two (2) copies of the completed PADEP Act 537 Sewage Facilities Planning Module Application Mailer, including the Existing Features and Demolition Plan, Sheet 2 and the Grading and Utilities Plan, Sheet 4
- Two (2) copies of the PNDI receipt, dated 5/9/16 with attached two (2) copies of the PA Fish and Boat Commission PNDI clearance letter dated 5/25/16
- Completed Radnor Township Subdivision and Land Development Application
- Completed Act 247 Delaware County Planning Commission Application for Review
- Check #015844 in the amount of \$15,000.00 made payable to Radnor Township for the Professional Escrow Fee
- Check #015846 in the amount of \$2,450.00 made payable to Radnor Township for the Application Fee
- Check #015843 in the amount of \$180.00 made out to the Delaware County Treasurer
- Two (2) copies of the property deed
- Two (2) copies of the Title Report for the property
- Ten (10) thumb drives containing .pdf files of all items noted above

Chester Valley Engineers

If you have any questions on this Application/submission, please contact me at 610-644-4623, X-121, or jmaziarz@chesterv.com. Thank you.

Regards,
Chester Valley Engineers, Inc.

A handwritten signature in cursive script that reads "Jeremy R. Maziarz". The signature is written in black ink and is positioned to the right of the typed name.

Jeremy R. Maziarz, PE
Associate

cc: Cas Holloway
Dave Falcone

Enclosures

RADNOR TOWNSHIP
301 IVEN AVE
WAYNE PA 19087
P) 610 688-5600
F) 610 971-0450
WWW.RADNOR.COM

SUBDIVISION ~ LAND DEVELOPMENT

Location of Property 800 GOSHEN ROAD, NEWTOWN SQUARE, PA 19073

Zoning District R-1

Application No. _____
(Twp. Use)

Fee \$ 2450.⁰⁰

Ward No. 4

Is property in HARB District NO

Applicant: (Choose one)

Owner X

Equitable Owner _____

Name GOSHEN HOLDING COMPANY, INC.

Address 110 GALLAGHER ROAD, WAYNE, PA 19087

Telephone 610-964-9040 Fax 610-964-9240 Cell _____

Email cas@cfholloway.com

Designer: (Choose one)

Engineer X

Surveyor _____

Name CHESTER VALLEY ENGINEERS, INC.

Address 83 CHESTNUT ROAD
P.O. BOX 447

Telephone 610-644-4623 Fax 610-889-3143

Email jmaziarz@chesterv.com

Area of property 8.933 ACRES Area of disturbance 42,688 SF = 0.98 ACRES

Number of proposed buildings 3

Proposed use of property RESIDENTIAL

Number of proposed lots 3

Plan Status: Sketch Plan _____ Preliminary X Final _____ Revised _____

Are there any requirements of Chapter 255 (SALDO) that are not in compliance with?

Are there any requirements of Chapter 255 (SALDO) not being adhered to?
Explain the reason for noncompliance.

N/A

Are there any infringements of Chapter 280 (Zoning), and if so what and why?

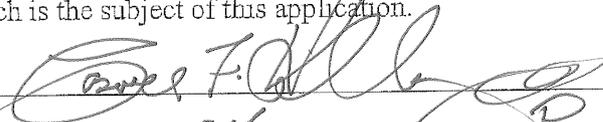
N/A

Individual/Corporation/Partnership Name

GOSHEN HOLDING COMPANY, INC.

I do hereby certify that I am the owner, equitable owner or authorized representative of the property which is the subject of this application.

Signature



Print Name

CHRISTOPHER F. KOWALSKI TO PROPOSITOR

By filing this application, you are hereby granting permission to Township officials to visit the site for review purposes.

NOTE: All requirements of Chapter 255 (Subdivision of Lane) of the Code of the Township of Radnor must be complied with whether or not indicated in this application.

DELAWARE COUNTY PLANNING COMMISSION

APPLICATION FOR ACT 247 REVIEW

Incomplete applications will be returned and will not be considered "received" until all required information is provided.

Please type or print legibly

DEVELOPER/APPLICANT

Name Goshen Holding Company, Inc. E-mail cas@cfholloway.com

Address 110 Gallagher Road, Wayne, PA 19087 Phone 610-964-9040

Name of Development Subdivision - 800 Goshen Road

Municipality Radnor Township

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm Chester Valley Engineers, Inc. Phone 610-644-4623, X-121

Address 83 Chestnut Road, P. O. Box 447, Paoli, PA 19301

Contact Jeremy R. Maziarz, PE E-mail jmaziarz@chesterv.com

Table with 5 columns: Type of Review, Plan Status, Utilities (Existing/Proposed), and Environmental Characteristics. Includes checkboxes for Zoning Change, Land Development, Subdivision, PRD, Sketch, Preliminary, Final, Tentative, Public/Private Sewerage/Water, Wetlands, Floodplain, and Steep Slopes.

Zoning District R-1

Tax Map # 36 / 48 / 027

Tax Folio # 36 / 04 / 02471 / 00

STATEMENT OF INTENT

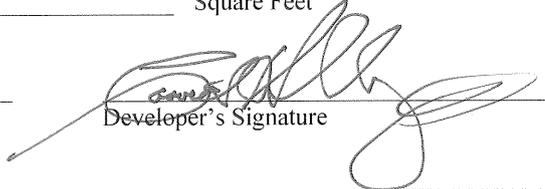
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Total Site Area 8.933 Acres
Size of All Existing Buildings 0 Square Feet
Size of All Proposed Buildings 6600 (total footprint - 3 units) Square Feet
Size of Buildings to be Demolished 0 Square Feet

Caswell F. Holloway, III
Print Developer's Name


Developer's Signature

MUNICIPAL SECTION

ALL APPLICATIONS AND THEIR CONTENT ARE A MUNICIPAL RESPONSIBILITY.

Local Planning Commission Regular Meeting _____

Local Governing Body Regular Meeting _____

Municipal request for DCPD staff comments prior to DCPC meeting, to meet municipal meeting date:

Actual Date Needed _____

IMPORTANT: If previously submitted, show assigned DCPD File # _____

Print Name and Title of Designated Municipal Official

Phone Number

Official's Signature

Date

FOR DCPD USE ONLY

Review Fee: Check # _____ Amount \$ _____ Date Received _____

Applications with original signatures must be submitted to DCPD.

EXHIBIT A

ALL THAT CERTAIN parcel of land with the buildings and improvements thereon erected SITUATE in Radnor Township, Delaware County, Pennsylvania, being known as Lot 9 as shown on a survey dated February 15, 2007 by Chester Valley Engineers, Inc., Pennsylvania, and being more fully described as follows:

BEGINNING at a point formed by the intersection of the title line through the bed of Darby-Paoli Road (S.R. 1015, Legal Right of Way width 60 feet, the Southwest Ultimate Right of Way line widened to a width of 40 feet from the centerline thereof) with the title line through the bed of Goshen Road (S.R. 1034, Legal Right of Way width 50 feet, the northerly Ultimate Right of Way line widened to a width of 30 feet from the centerline thereof); thence from the point of beginning, leaving said Darby-Paoli Road, along said title line through the bed of Goshen Road the following five (5) courses and distances. (1) South 48 degrees 19 minutes 17 seconds West 153.77 feet to a point of curvature, (2) along a curve to the left having a radius of 338.36 feet, an arc length of 144.52 feet and a chord bearing South 36 degrees 05 minutes 06 seconds West 143.42 feet to a point of tangency; (3) South 23 degrees 50 minutes 56 seconds West 79.10 feet to a point of curvature; (4) along a curve to the right having a radius of 76.64 feet, an arc length of 61.25 feet and a chord bearing South 46 degrees 44 minutes 41 seconds West 59.64 feet to a point of tangency; (5) South 69 degrees 38 minutes 25 seconds West 656.35 feet to the intersection of the said title line through the bed of Goshen Road with the centerline of Montparnasse Place (50 feet wide); thence along said centerline of Montparnasse Place, North 40 degrees 21 minutes 35 seconds West 84.10 feet to a corner of lands of Lot 8; thence leaving said Montparnasse Place, crossing over the easterly right of way line thereof 26.60 feet distant, along said lands of Lot 8 the following two (2) courses and distances: (1) North 69 degrees 38 minutes 25 seconds East 426.81 feet to a point; (2) North 20 degrees 21 minutes 35 seconds West 182.37 feet to a point; thence partly along said lands of Lot 8 and partly along lands of Lot 7, North 46 degrees 40 minutes 03 seconds West 317.52 feet to a corner of lands of Lot 6; thence along said lands of Lot 6, South 88 degrees 06 minutes 10 seconds West 150.37 feet to a corner of lands of Lot 5; thence along said lands of Lot 5, South 62 degrees 47 minutes 05 seconds West 192.80 feet to a corner of lands of Lot 4, thence along said lands of Lot 4 the following two (2) courses and distance: (1) South 54 degrees 21 minutes 29 seconds West 257.75 feet to a point; (2) South 06 degrees 38 minutes 49 seconds West 189.64 feet to a common corner of lands of Lot 1, lands of Lot 2 and lands of Lot 3 at the center of the cul-de-sac right of way of said Montparnasse Place; thence along said lands of Lot 3 the following three courses and distances: (1) through the bed of said Montparnasse Place, North 15 degrees 31 minutes 24 seconds West 53.00 feet to a point on the cul-de-sac right of way line of said Montparnasse Place (2) leaving said right of way line, North 06 degrees 38 minutes 49 seconds East 142.58 feet to a point; (3) North 17 degrees 58 minutes 03 seconds East 114.04

feet to a point on line of lands now or late of Mark A. Zern; thence along said lands of Zern and also along lands now or late of David O. Olsen, lands now or late of Stephen L. Harlin and lands now or late of Peter O. Clauss, North 60 degrees 21 minutes 40 seconds East 928.79 feet to the said title line through the bed of Darby-Paoli Road, having crossed over the southwesterly Ultimate Right of Way line thereof 33.12 feet from the end of this last described line; thence along said title line through the bed of Darby-Paoli Road the following two (2) courses and distances: (1) South 49 degrees 25 minutes 20 seconds East 264.00 feet to a point; (2) South 61 degrees 27 minutes 20 seconds East 376.34 feet to the said intersection with the said title line through the bed of Goshen Road, and the point and place of BEGINNING.

LESS AND EXCEPTING ALL THAT CERTAIN tract, piece or parcel of land conveyed in Record Book 4499, Page 1410.

FOLIO NO. 36-04-02471-00

BEING PART OF the same premises which The Trustees of the University of Pennsylvania, a PA Non-Profit Corporation, by Deed dated 10/15/1998 and recorded 10/23/1998 in the Office of the Recorder of Deeds in and for the County of Delaware in Volume 1785, Page 2105, granted and conveyed unto Goshen Holding Company, Inc.

36-04-02471-00

9104901 N15
Folio 26 19 - 1998 - 02

DEED - Trustees' Conveyance (Corp. Ind.) No. 7125 - Passed by and held by John F. ...

This Indenture, Made the

fifteenth day of OCTOBER in the year of our Lord one thousand nine hundred and NINETY-EIGHT (1998)

Between THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA, a PA Non-Profit Corporation (hereinafter called Grantor) party of the first part
AND
GOSHEN HOLDING COMPANY, INC. (hereinafter called Grantee) Party

of the other part, **Witnesseth**, That the said Grantor

for and in consideration of the sum of ONE MILLION THREE HUNDRED TWENTY THOUSAND (\$1,320,000) DOLLARS lawful money of the United States of America, unto it well and truly paid by the said Grantee as and before the making and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed, released and confirmed and by these presents does

grant, bargain, sell, alien, convey, release and confirm unto the said Grantee, its successors and assigns,

ALL THAT CERTAIN parcel of land with the buildings or improvements thereon erected, hereditaments and appurtenances, SITUATE in the Township of Radnor, County of Delaware and State of Pennsylvania, being bounded and described according to a survey and plan thereof entitled Plan of Survey for the University of Pennsylvania, dated 10/6/1976 by Chester Valley Engineers, Inc., PAOLI, Pennsylvania, and being more fully described as follows:

BEGINNING at a point on the title line in City-PAOLI Road - S.R. 1015, a point on line of land, now or late of Peter O. Clause; thence from the point of beginning, along said title line, the following 2 courses and distances: (1) South 49 degrees 25 minutes 20 seconds East 264 feet; (2) South 41 degrees 27 minutes 20 seconds East 276.64 feet to a point on the title line in Goshen Road - S.R. 1014; thence along said title line, the following 5 courses and distances: (1) South 48 degrees 19 minutes 17 seconds West 143.40 feet to a point of curvature; (2) along a curve to the left having a radius of 336.36 feet, an arc length of 144.52 feet, and a chord bearing South 36 degrees 5 minutes 6 seconds West 143.40 feet to a point of tangency; (3) South 23 degrees 40 minutes 46 seconds West 79.10 feet to a point of curvature; (4) along a curve to the right having a radius of 76.64 feet, an arc length of 144.52 feet, and a chord bearing South 46 degrees 44 minutes 46 seconds West 59.64 feet to a point of tangency; (5) South 49 degrees 25 minutes 20 seconds East 264 feet to a point of beginning.

(Bad Copy - You can get legal from the prardeed.)

W1785 B2105 (Current Deed)

Together with all and singular buildings, ways, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances whatsoever thereto belonging, or in any wise appertaining, and the reversion and remainders, rents, issues and profits thereof, and all the estate, right, title, interest, property, claim and demand whatsoever of *it* *in law, equity,*
or otherwise howsoever, of, in, and to the same and every part thereof.

To have and to hold *the said* lot or piece of ground with the buildings and improvements thereon erected,

hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said
Grantee, its successors

and assigns to and for the only proper use and behoof of the said Grantee, its successors *and assigns forever*

And *the said* Grantor does

consent, promise and agree, to and with the said Grantee, its successors and assigns, by these presents, that *it* *the said* Grantor, has

not done, committed, or knowingly or willingly suffered to be done or committed, any act, matter or thing whatsoever whereby the premises hereby granted, or any part thereof, is, are, shall or may be impeached, charged or incumbered, in title, charge, estate, or otherwise howsoever.

In ~~Witness~~ Whereof, the party of the first part has hereunto set its hand and seal dated the day above first written.

UNIVERSITY OF PENNSYLVANIA

SEALED AND DELIVERED
IN THE PRESENCE OF US:

BY

ATTEST:

[Signature]
ASSOCIATE SECRETARY
UNIVERSITY OF PENNSYLVANIA

Received, the day of the date of the above indenture, of the within named Grantee

On this, the _____ day of _____ 19__ before me

the undersigned officer, personally appeared

_____ State of _____ knows to me (or satisfactorily proven) to be the person described in the foregoing instrument and acknowledge that he executed the same in the capacity therein stated and for the purposes therein contained.

In Witness Whereof, I hereunto set my hand and official seal.

County of Philadelphia State of PA

On this, the 15th day of October 1998, before me a Notary Public

the undersigned officer, personally appeared Scott C. Lederman who acknowledged himself (herself) to be the

Treasurer of The Trustees of the University of Pennsylvania, a corporation, and that he as such being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself (herself) as

In Witness Whereof, I hereunto set my hand and official seal.

[Signature]
Notary

Notarial Seal
Duncan W. Van Dusen, Notary Public
Philadelphia, Pennsylvania County
My Commission Expires Nov. 8, 2000
Member, Pennsylvania Association of Notaries

The address of the aforesaid Grantor

is 3451 Walnut St
(Room 737)

On behalf of the Grantor
Philadelphia 19104-6205

RECORDED OF DEEDS
DELAWARE CO. PA
077439
98 OCT 23 AM 10:26
TR 9004901NE

[Signature]
08/15/98

GRANTOR:
The Trustees of the University
of Pennsylvania, a PA Non-Profit
Corp.
TO
GRANTEE:
Goshen Holding Company, Inc.
PREMISES: 800 Goshen Road
Radnor Township
Delaware County, PA

Folio #36-04-02471-00

Judith L. Clark Company, Philadelphia 7731

Recorded in the office for the recording of deeds in and for

in Deed Book No. page Bk.

Witness my hand and seal of Office this day of

Anne Demiel 19

ML1785 2108

<i>First American Title</i>	Commitment for Title Insurance
	ISSUED BY First American Title Insurance Company
Commitment	220-006491

First American Title Insurance Company, a Nebraska corporation herein called the Company, for a valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefore; all subject to the provisions of Schedule A and B and to the Conditions and stipulations hereof.

This Commitment shall be effective only when the identity of the proposed insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent endorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six (6) months after the effective date hereof or when the policies committed for shall issue, whichever first occurs provided that the failure to issue the policy or policies is not the fault of the Company.

This commitment shall not be valid or binding until countersigned by either an officer or authorized agent of this company.

In WITNESS WHEREOF, First American Title Insurance Company has caused this Commitment to be signed and sealed as of the effective date of commitment shown in Schedule A, the Commitment to become valid when countersigned by an authorized signatory.

First American Title Insurance Company



Dennis J. Gilmore
President



Jeffrey S. Robinson
Secretary

(This Commitment is valid only when Schedules A and B are attached)

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CONDITIONS AND STIPULATIONS

1. The term "mortgage", when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed insured has or acquires actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act or reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment, In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions, the Exclusions from Coverage and the Conditions and Stipulations of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this commitment except as expressly modified herein.
4. Any action or actions or right of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status or the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.

NOTICE

Your title insurance fee covers the cost of closing on the insured real estate property IF it takes place during regular office hours and at the office of the title insurance agent or underwriter.

If your closing takes place at a location or time of your choosing, or that of your lender or Realtor; the title insurance agent or underwriter may impose an additional charge for this special service. You may determine the amount of this additional charge, if any, by calling:

NOTICE

ATTENTION IS DIRECTED TO THE PROVISIONS OF THE PENNSYLVANIA HUMAN RELATIONS ACT (Act of October 27, 1955, as amended (43 P.S. s 951 et seq.)) prohibiting discrimination because of race, color, religious creed, ancestry or national origin in the selling, leasing or financing of commercial housing. The said law pertains to all housing accommodations except (1) those situated in a single or two unit building in which one of the units is occupied by the owner thereof, and (2) those owned by religious, charitable, educational, private and fraternal organizations to promote the religious principles or the aims, purposes or fraternal principles for which such organizations were established. This notice does not in any way constitute an objection or defect in the title of the premises being conveyed, but is being given in accordance with 16 Pa. Code § 43.13 (relating to giving of notice by title insurance companies) adopted by the Pennsylvania Human Relations Commission.

NOTICE

IF THE POLICY ISSUED IS: ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (2-3-10) the policy will contain the following Deductible Amounts and Maximum Dollar Limits of Liability For Covered Risks 16, 18, 19 and 21:

	<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16:	1% of Policy Amount or \$2,500.00 (whichever is less)	\$10,000.00
Covered Risk 18:	1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 19:	1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 21:	1% of Policy Amount or \$2,500.00 (whichever is less)	\$ 5,000.00

CU Settlement Services, LLC
1974 Sproul Road, Ste 403, Broomall, PA19008
Phone: 610-604-7400 Fax: 484-335-4423
as Policy issuing agent for: First American Title Insurance Company

SCHEDULE A

1. Effective Date: **March 17, 2016, 8:00 am**

2. Policy (or Policies) to be issued: Policy Amount

- ALTA Owner's Policy of Title Insurance (6-17-06)
- ALTA Homeowner's Policy of Title Insurance (2-3-10)
- ALTA Loan Policy of Title Insurance (6-17-06)
- ALTA Expanded Coverage Residential Loan Policy (7-26-10)
- ALTA Short Form Loan Policy of Title Insurance (6-16-07)
- ALTA Short Form Expanded Coverage Residential Loan Policy (7-26-10)

a. Owner's Policy

Proposed Insured:

b. Loan Policy

\$1,085,000.00

Proposed Insured: **The Bryn Mawr Trust Company, its successors and/or assigns as their interests may appear
P. O. Box 1160
Bryn Mawr PA 19010**

c. Proposed Insured:

3. The estate or interest in the land described or referred to in this Commitment is **Fee Simple**

4. **Fee Simple** interest in the land described in this Commitment is owned, at the Commitment Date, by **Goshen Holding Company, Inc.**

5. The land referred to in the Commitment is described in Exhibit A.

Subdivision/Condominium information, if any:

For informational purposes only:

800 Goshen Road, Radnor, Radnor Township, Delaware County, PA 19078

SEE ATTACHED EXHIBIT "A"

Deed Information: Deed from The Trustees of the University of Pennsylvania to Goshen Holding Company, Inc. in 1785/2105 dated 10/15/98 recorded 10/23/98.

COUNTERSIGNED:
CU Settlement Services, LLC



AUTHORIZED SIGNATURE

(This Schedule A valid only when Schedule B is attached.)

EXHIBIT "A"

ALL THAT CERTAIN parcel of land with the buildings and improvements thereon erected SITUATE in Radnor Township, Delaware County, Pennsylvania, being known as Lot 9 as shown on a survey dated February 15, 2007 by Chester Valley Engineers, Inc., Pennsylvania, and being more fully described as follows:

BEGINNING at a point formed by the intersection of the title line through the bed of Darby-Paoli Road (S.R. 1015, Legal Right of Way width 60 feet, the Southwest Ultimate Right of Way line widened to a width of 40 feet from the centerline thereof) with the title line through the bed of Goshen Road (S.R. 1034, Legal Right of Way width 50 feet, the northerly Ultimate Right of Way line widened to a width of 30 feet from the centerline thereof); thence from the point of beginning, leaving said Darby-Paoli Road, along said title line through the bed of Goshen Road the following five (5) courses and distances. (1) South 48 degrees 19 minutes 17 seconds West 153.77 feet to a point of curvature, (2) along a curve to the left having a radius of 338.36 feet, an arc length of 144.52 feet and a chord bearing South 36 degrees 05 minutes 06 seconds West 143.42 feet to a point of tangency; (3) South 23 degrees 50 minutes 56 seconds West 79.10 feet to a point of curvature; (4) along a curve to the right having a radius of 76.64 feet, an arc length of 61.25 feet and a chord bearing South 46 degrees 44 minutes 41 seconds West 59.64 feet to a point of tangency; (5) South 69 degrees 38 minutes 25 seconds West 656.35 feet to the intersection of the said title line through the bed of Goshen Road with the centerline of Montparnasse Place (50 feet wide); thence along said centerline of Montparnasse Place, North 40 degrees 21 minutes 35 seconds West 84.10 feet to a corner of lands of Lot 8; thence leaving said Montparnasse Place, crossing over the easterly right of way line thereof 26.60 feet distant, along said lands of Lot 8 the following two (2) courses and distances: (1) North 69 degrees 38 minutes 25 seconds East 426.81 feet to a point; (2) North 20 degrees 21 minutes 35 seconds West 182.37 feet to a point; thence partly along said lands of Lot 8 and partly along lands of Lot 7, North 46 degrees 40 minutes 03 seconds West 317.52 feet to a corner of lands of Lot 6; thence along said lands of Lot 6, South 88 degrees 06 minutes 10 seconds West 150.37 feet to a corner of lands of Lot 5; thence along said lands of Lot 5, South 62 degrees 47 minutes 05 seconds West 192.80 feet to a corner of lands of Lot 4, thence along said lands of Lot 4 the following two (2) courses and distance: (1) South 54 degrees 21 minutes 29 seconds West 257.75 feet to a point; (2) South 06 degrees 38 minutes 49 seconds West 189.64 feet to a common corner of lands of Lot 1, lands of Lot 2 and lands of Lot 3 at the center of the cul-de-sac right of way of said Montparnasse Place; thence along said lands of Lot 3 the following three courses and distances: (1) through the bed of said Montparnasse Place, North 15 degrees 31 minutes 24 seconds West 53.00 feet to a point on the cul-de-sac right of way line of said Montparnasse Place (2) leaving said right of way line, North 06 degrees 38 minutes 49 seconds East 142.58 feet to a point; (3) North 17 degrees 58 minutes 03 seconds East 114.04 feet to a point on line of lands now or late of Mark A. Zern; thence along said lands of Zern and also along lands now or late of David O. Olsen, lands now or late of Stephen L. Harlin and lands now or late of Peter O. Clauss, North 60 degrees 21 minutes 40 seconds East 928.79 feet to the said title line through the bed of Darby-Paoli Road, having crossed over the southwesterly Ultimate Right of Way line thereof 33.12 feet from the end of this last described line; thence along said title line through the bed of Darby-Paoli Road the following two (2) courses and distances: (1) South 49 degrees 25 minutes 20 seconds East 264.00 feet to a point; (2) South 61 degrees 27 minutes 20 seconds East 376.34 feet to the said intersection with the said title line through the bed of Goshen Road, and the point and place of BEGINNING.

LESS AND EXCEPTING ALL THAT CERTAIN tract, piece or parcel of land conveyed in Record Book 4499, Page 1410.

FOLIO NO. 36-04-02471-00

BEING PART OF the same premises which The Trustees of the University of Pennsylvania, a PA Non-Profit Corporation, by Deed dated 10/15/1998 and recorded 10/23/1998 in the Office of the Recorder of Deeds in and for the County of Delaware in Volume 1785, Page 2105, granted and conveyed unto Goshen Holding Company, Inc.

SCHEDULE B - SECTION I REQUIREMENTS

The following are the requirements to be complied with:

- (1) The instrument(s) creating the estate or interest must be approved, executed, delivered and filed for record.
Mortgage / Deed of Trust from Goshen Holding Company to The Bryn Mawr Trust Company.
- (2) Pay the agreed amounts for the interest in the land and/or the mortgage to be insured.
- (3) Pay all premiums, fees and charges for the policy.
- (4) If any improvements have been made in the past six months, all unfiled claims of mechanics and materialmen will be excepted as follows: Any lien or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
- (5) Original photo identification for all parties to the transaction must be provided.
- (6) You must tell us in writing the name of anyone not referred to in this Commitment who will get an interest in the land or who will make a loan on the land, and we may make additional requirements or exceptions relating to the interest or loan.
- (7) A search commencing with the effective date of this commitment will be performed prior to the closing of this transaction. If this search reveals a title defect or other objectionable matter, an endorsement will be issued requiring this defect or objection be cleared on or prior to closing.
- (8) Possible unfiled mechanics and municipal claims.
- (9) Proof that all natural persons in this transaction are of full age and legally competent.
- (10) Proof of identity of Grantor(s) and/or Mortgagor(s) in the transaction(s) being insured hereunder must be produced and copies thereof filed with the Company.
- (11) Tax Payer Identification Number(s) and the future address of the Grantor(s) must be furnished at closing to Company for completion of IRS Form 1099S (if applicable).
- (12) Proof that there are no overdue support obligations of record with the Domestic Relations Section of the parties to this transaction, up through the date of recording of the instruments to be insured.
- (13) Proof to be furnished that as to each grantor/mortgagor who is an individual, if presently married, that he/she is neither separated from his/her spouse nor a party to any pending divorce proceeding in any jurisdiction, otherwise, the non-record spouse must join in the deed or mortgage contemplated hereunder.
- (14) If any party to the settlement intends to use a Power of Attorney at settlement, a copy of such Power MUST be submitted for review in advance of settlement. Failure to comply with this requirement may result in the postponement of the settlement. The Power of Attorney MUST be acceptable to the Company as to form and content.
- (15) Proof must be furnished that there are no other mortgage obligations being given by the proposed purchaser(s) and/or mortgagor(s) in connection with the proposed conveyance and/or refinance other than the mortgage being insured.
- (16) YOU MUST ADVISE THE COMPANY IMMEDIATELY IF ANY OF THE PARTIES TO THE TRANSACTION HAVE FILED A PETITION FOR BANKRUPTCY.
- (17) Town, County and School Taxes and Water and Sewer Rents for the prior three years. (Receipts to be produced and filed with the Company.) If certification of payment or amount due is obtained from the taxing and municipal authorities in lieu of such receipts, proof must be provided that the taxing and municipal authorities have not turned collection of any unpaid amounts over to a collection agency or law firm. Absent such proof, or if the taxing or municipal authorities have turned collection over to a collection agency or law firm, then additional certification of

payment or amount due to be obtained from such collection agency or law firm.

- (18) The Company may make other requirements or exceptions upon its review of the documents creating the estate or interest to be insured or otherwise ascertaining details of the transaction.
- (19) Local Real Estate Taxes may not be included with this search. Verify current and prior years with local taxing authority.
- (20) **MORTGAGE to secure an original principal indebtedness of \$875,000.00 (Open-End), and any other amounts or obligations secured thereby, recorded on January 09, 2012 in Record Book 5047, Page 1251.**
Dated: December 20, 2011
Mortgagor: Goshen Holding Company, Inc.
Mortgagee: Penn Liberty Bank

Assignment of Rents and Leases recorded on January 09, 2012 in Record Book 5047, Page 1262.

- (21) **MORTGAGE to secure an original principal indebtedness of \$50,000.00 (Open-End), and any other amounts or obligations secured thereby, recorded on March 13, 2014 in Record Book 5472, Page 903.**
Dated: December 05, 2013
Mortgagor: Goshen Holding Company, Inc.
Mortgagee: Penn Liberty Bank

Assignment of Rents and Leases recorded on March 13, 2014 in Record Book 5472, Page 914.

- (22) **If any of the mortgages certified hereon secure a line of credit, the line of credit account must be closed and no further draw or disbursement made. The borrower will be required to execute a letter to the lender requiring the account be closed that will accompany a payoff of the mortgage.**
- (23) **Judgments: NONE**
- (24) **Recorder of Deeds Financing Statements: None**
- (25) **As to Goshen Holding Company, Inc. the following must be furnished:**
Proper Resolution by its Board of Directors authorizing the proposed conveyance.
Proof all corporate taxes owed the Commonwealth of Pennsylvania have been paid to date.
Certificate of Good Standing must be furnished (only if the corporation is a foreign corporation, i.e. incorporated in a state other than Pennsylvania).
- (26) **Real estate taxes returned to the Tax Claim Bureau of Delaware County not certified. Proper certification to be obtained from said bureau.**
- (27) **Real Estate Taxes and Municipal Claims (If paid, receipts are to be produced and filed with the Company).**
- (28) **Tax Account Number: 36-04-02471-00 Assessment: \$858,740.00 (Land Only)**
- (29) **Notice of settlement to this Company must be given at least 48 hours prior to settlement.**

**SCHEDULE B - SECTION II
EXCEPTIONS**

DISPOSITION

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

- (1) Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this commitment.
- (2) Rights or claims by parties in possession or under the terms of any unrecorded lease or agreement(s) of sale.
- (3) Easements, or claims of easements, not shown by the Public Records.
- (4) Any variation in location of lines or dimensions or other matters which an accurate survey would disclose.
- (5) Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by public records.
- (6) Town, County and School Taxes and Water and Sewer Rents for the current year. (If paid, receipts are to be produced and filed with the Company.)

PARCEL NUMBER: 36-04-02471-00
- (7) Possible additional tax assessments for new construction and/or major improvements.
- (8) Accuracy of area content not insured.
- (9) Title to that part of the premises lying in the bed and right of way of all roads, driveways and alleyways is subject to public and private rights therein.
- (10) Homeowners Association dues, if any.
- (11) Easement of party walls, if any.
- (12) Any unpaid water and/or sewage, if any.

- (13) **Subject to all matters shown on the Plan as recorded in the Recorder's Office of Delaware County, Pennsylvania in Plan Volume 27, Page 120.**
- (14) **Rights granted to PECO Energy Company, Bell Atlantic-Pennsylvania, Inc. and Suburban Cable TV Co., Inc. as set forth in Record Book 1900, Page 995.**
- (15) **Rights granted to PECO Energy Company as set forth in Record Book 5018, Page 1668.**
- (16) **Rights granted to Philadelphia Suburban Water Company as set forth in Record Book 1863, Page 2054.**
- (17) **Restrictions and other matters, if any, appearing of record in Record Book 1908, Page 2076; First Amendment in Record Book 3417, Page 2091 and Second Amendment in Record Book 3604, Page 2153, but deleting any covenant, condition, or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).**
- (18) **Deed Restriction and Easement Agreement as set forth in Record Book 3604, Page 2157.**
- (19) **Stormwater Controls and Best Management Practices Operations and Maintenance Agreement as set forth in Record Book 5009, Page 710.**
- (20) **Sewer Easement Agreement as set forth in Deed Book 1920, Page 95.**

- (21) **Subject to rights of other littoral/riparian owners abutting Stream, a body of water which flows through or along the subject premises.**

CU Settlement Services, LLC
PRIVACY NOTICE

Purpose of This Notice

Title V of the Gramm-Leach-Bliley Act (GLBA) generally prohibits any financial institution, directly or through its affiliates, from sharing nonpublic personal information about you with a nonaffiliated third party unless the institution provides you with a notice of its privacy policies and practices, such as the type of information that it collects about you and the categories of persons or entities to whom it may be disclosed. In compliance with the GLBA, we are providing you with this document, which notifies you of the privacy policies and practices of **CU Settlement Services, LLC and First American Title Insurance Company**.

We **may** collect nonpublic personal information about you from the following sources:

- Information we receive from you, **such as** on applications or other forms.
- Information about your transactions **we secure from our files, or from our affiliates or others.**
- Information we **may** receive from a consumer reporting agency.
- Information that we receive from others involved in your transaction, such as the real estate agent or lender.

Unless it is specifically stated otherwise in an amended Privacy Policy Notice, no additional **nonpublic personal** information will be collected about you.

We may disclose any of the above information that we collect about our customers or former customers to our affiliates or to nonaffiliated third parties as permitted by law. This will only be done in the event the information is required for subsequent insurance, for a claim or for record keeping purposes.

We do not provide nonpublic information about you to any nonaffiliated company whose products and services are being marketed unless you authorize us to do so. These non-affiliated companies are not allowed to use this information for purposes beyond your specific authorization.

WE DO NOT DISCLOSE ANY NONPUBLIC PERSONAL INFORMATION ABOUT YOU WITH ANYONE FOR ANY PURPOSE THAT IS NOT SPECIFICALLY PERMITTED BY LAW.

We restrict access to nonpublic personal information about you to those employees who need to know that information in order to provide products or services to you. We maintain physical, electronic and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

All documents relating to the above referenced file, whether now existing or created hereafter may be stored as electronic images. The originals of the electronically stored documents will be destroyed and the electronic document shall be deemed to serve as the original of the instrument or document thereafter. A printed reproduction of the electronically stored document may be used in place of the original in any litigation, correspondence or other proceeding requiring production of the original.

The paper original of the electronically stored document will be destroyed after the document is electronically imaged and stored and CU Settlement Services, LLC is entitled to enforce the instrument at the time the paper instrument is destroyed.

First American Title Insurance Company Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

**SEWAGE FACILITIES PLANNING MODULE
APPLICATION MAILER**



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

For more information, visit DEP's website at
www.depweb.state.pa.us, keyword: Act 537.

INSTRUCTIONS FOR COMPLETING SEWAGE FACILITIES PLANNING MODULE APPLICATION MAILER

(remove before sending mailer to the approving agency (the Department of Environmental Protection (DEP) or delegated local agency))

Please read the following instructions carefully before completing the application mailer. This information will be used to determine if sewage facilities planning is necessary for your project, and, if it is, which forms are appropriate.

Act 537 Sewage Facilities' planning is the duty of local municipalities. The responsibility of meeting the sewage disposal needs of the municipality rests with the municipality. Each municipality is required to have an Act 537 Official Sewage Facilities Plan to adequately address these needs. Adoption by resolution of a planning module is the vehicle for legally amending the municipality's Official Plan. It is imperative that the municipality receives all of the information required in order to make informed decisions.

Upon completion, submit this Mailer / Application form to the approving agency (DEP or delegated local agency). Additionally, provide a copy of the completed form to the County Health Department having jurisdiction over the area in which the proposed project is located.

Unless your project qualifies for one of the planning exemptions provided in Act 537, a package of sewage facilities planning forms appropriate for the project will be sent to the return address indicated on the mailer, or instructions for obtaining the appropriate forms from DEP's website (www.depweb.state.pa.us) will be issued. Each form includes detailed instructions that explain the use of the form and how to complete it. The package of completed forms and its supporting documentation is called a **sewage facilities planning module**, or "planning module." Once the planning module is complete, it must be submitted to the municipality in which the project is located for review and, if acceptable, adoption.

After adoption by the municipality, complete planning modules are submitted to either DEP or, if appropriate, to the delegated agency for review and final action. Some municipalities (or groups of municipalities working together) have requested and received DEP approval to review and take final action on planning modules. These are known as **delegated agencies**. To find out if your project is located in an area served by a delegated agency, contact the municipality or DEP's regional office serving your area.

Please note that both DEP and delegated agencies are required by law to charge fees for the review of planning modules. The fees DEP must charge are set by law in Act 537, while delegated agencies may set fees which can be the same or different from those in Act 537. For more information on review fees for your particular project, see the planning module documents or contact the approving agency (DEP or delegated agency) serving the area of your project.

NOTE: DEP will provide all planning module forms, however, if your project is a **minor subdivision** (defined as a subdivision of 10 lots or less, intended for single family residential homes served by individual onlot sewage disposal systems) you may also contact the municipality in which your project is located for a "Component 1" minor subdivision planning module form.

1. Print the name of the proposed development and name, address, telephone number and email address of the person who is proposing the project. If planning module components are to be sent to a different person or address, include this information on the front of the mailer in the return address block.
2.
 - a. Enter the county in which the project is located.
 - b. Enter the municipality in which the project is located.
 - c. Enter the road or address (if available) or street coordinates (example - west side of T-235, 1 mile south of intersection of Rt 15 and T-235).
 - d. Enter the appropriate tax parcel identification number (if available) of the parcel proposed for subdivision.
 - e. Enter the name of the U.S. Geological Survey (USGS) 7.5-minute quadrangle map which contains the project area, and the location of the project area on that map in inches up and over from the lower right corner of the map to the approximate center of the project. (Example - Centerville West quad, 7 inches up and 2.5 inches over from lower right corner of map.) Alternatively, include an original or a copy of the USGS quad map with the project area outlined on it.
 - f. If the proposed project is located within a special protection watershed, (i.e., watersheds with a stream classification of High Quality or Exceptional Value), check "yes." If not located in special protection watershed, check "no."
3. Check the box that best describes the intended use of the proposed land development project. **Residential** refers to single-family lots. **Multi-residential** includes apartments, condos, etc. **Commercial** includes retail centers, office

parks, industrial development, etc. **Institutional** refers to schools, hospitals and the like. **Brownfield Site Redevelopment** refers to projects proposing to recycle land. Some developments will involve more than one type of use, or will not fit comfortably into any of the classifications given. If this is the case, choose more than one category or explain under **Other**.

4.
 - a. Enter the number of single family residential lots or Equivalent Dwelling Units (EDUs) proposed. An EDU is defined as that part of a multi-family dwelling or nonresidential project with flows equal to 400 gallons per day (gpd) (the assumed flow, for planning purposes, of a single family residential lot). To determine the number of EDUs, divide the proposed sewage flow of the project by 400 gpd.
 - b. Enter the total number of lots created from this parcel of land since May 15, 1972, including the lots being proposed at this time. (Onlot disposal proposals only.)
 - c. Enter the total project acreage and the acreage of any remaining land (land not proposed for development but under the same ownership and adjacent to the project area).
5. Enter the proposed total sewage flow from the project in gpd. See Title 25 of the Pennsylvania Code, Chapter 73, Section 73.17, (www.pacode.com), or DEP's *Domestic Wastewater Facilities Manual*, DEP ID: 362-0300-001 available on DEP's website at www.depweb.state.pa.us, keyword: wastewater.
6. Choose the category (a, b, c or d) that describes the method of sewage disposal planned to serve the project and enter the information requested. Since this information could have an effect on the planning requirements for your project, be as accurate as possible. If more than one method of sewage disposal is planned, or if an interim method is planned, indicate it here.
 - a. Sewerage System

If an existing system is being extended to serve the proposed project, or if lots are to connect directly to an existing sewage collection system, check all boxes that describe the project. Write in the names of the existing collection systems that will be used, the interceptor sewer which will be used for conveyance and the treatment facility where the sewage flows will be treated. Include the National Pollutant Elimination Discharge System (NPDES) permit number for the treatment facility, where applicable.
 - b. Construction of Sewerage Treatment Facility (with stream discharge or with spray irrigation as final disposal option)

Check the box corresponding to the chosen final disposal option (stream discharge or spray irrigation field). This category does **NOT** include individual residence spray irrigation systems (IRSIS) which are considered onlot sewage disposal systems ((c), below). For stream discharges, name the receiving waterbody. If the proposed facility is intended to replace an existing, malfunctioning onlot system, check the box marked "repair."
 - c. Onlot Sewage Disposal Systems (individual, community, or large-volume)

Check the box corresponding to the type of onlot sewage disposal systems proposed to serve the project. An **individual onlot sewage disposal system** is a system of piping, tanks or other facilities used for collecting, treating and disposing of sewage into a subsurface absorption area. This category also includes IRSIS. A **community onlot system** is a facility either publicly or privately owned which will collect and dispose of sewage from two or more lots or EDUs into a subsurface absorption area. A **large-volume onlot system** is an individual or community onlot system which is designed to treat flows in excess of 10,000 gpd.

The approving agency must be notified at least 10 days in advance of all soil testing activities (including those related to planning exemption requests - see 7(b)(5)(v)), so that its staff have the option of observing the tests.
 - d. Retaining Tanks (holding tanks or privies)

If retaining tanks are proposed as the method of sewage disposal, enter the number of holding tanks or privies which are proposed to serve the project.
7. Check this box if you desire to obtain your sewage facilities planning module forms from DEP's website. You will be provided with appropriate instructions, website addresses and DEP coding information in a letter rather than a package of paper forms.

8. Requests for Planning Exemption under the Sewage Facilities Act

You may request to be exempt from Act 537 planning requirements. Effective December 15, 1995, certain classes of subdivisions are no longer subject to the planning requirements of the Sewage Facilities Act. Completing Section 8 will help you and the approving agency determine if your project fits into one of these categories.

a. Protection of rare, endangered or threatened species.

DEP's technical guidance document "Policy for Pennsylvania Natural Diversity Inventory (PNDI) Coordination During Permit Review and Evaluation," (400-0200-001) requires DEP to ensure that requests for authorizations, are coordinated with the Department of Conservation and Natural Resources' (DCNR) Pennsylvania Natural Diversity Inventory (PNDI).

Conducting a search of the PNDI database and providing a copy of a "PNDI Project Environmental Review Receipt" for the proposed project and, if potential impacts are identified by the search, clearance or recommendation letters from the jurisdictional agency responsible for the particular species identified by a search, satisfies this requirement.

To avoid project delay, self-explanatory, self-conducted "PNDI Project Planning Environmental Review" searches are initiated at www.naturalheritage.state.pa.us. This interactive, online search will ask questions about the proposed project and provide the appropriate receipt, instructions or additional information regarding coordination with jurisdictional agencies.

As an alternative to the self-conducted search, project sponsors may request DEP staff to conduct the search by providing a completed "PNDI Project Planning & Environmental Review Form" (PNDI Form). The form is available at www.naturalheritage.state.pa.us. Individuals making this request should be aware that, due to the nature of the search software, DEP staff may need to contact them for additional information to successfully complete the search and that exclusive of any other items, their sewage planning exemption request is considered incomplete by DEP, until the appropriate receipt, clearance or recommendation letters are received.

For more information, see the "Policy for Pennsylvania Natural Diversity Inventory (PNDI) Coordination During Permit Review and Evaluation," (400-0200-001), available online in the eLibrary at DEP's website address www.depweb.state.pa.us.

b. Attach a plot plan for the proposed project. The plan must depict anticipated lots to be created, either estimated sewer line runs (public sewer proposals), or site suitability test locations and Site Investigation and Percolation Test Reports (onlot proposals).

c. Projects proposing use of onlot sewage disposal systems

(1) Information Required from the Municipality

The municipality in which the project is located (identified in Item 2.b. of the mailer) should determine if the municipality's Official Sewage Facilities Plan shows that the area planned for the project is to be served by onlot sewage disposal systems. If it is, the municipality should indicate this by having an authorized municipal official sign and date the form in the space provided. The official's name and title should be printed on the line below.

(2) Information Required from the Municipal Sewage Enforcement Officer (SEO)

The municipality's SEO must conduct personally, observe or otherwise confirm in a manner approved by DEP, site testing on each proposed lot in the subdivision (including any remaining land) to determine that separate sites are available for both a permitted primary onlot sewage disposal system and a replacement system (to be used if the original system fails in the future). If the SEO finds that each lot has been tested properly and fulfills these criteria, the SEO must indicate this by signing and dating the form in the space provided. His/her name and certification number should be printed on the line below.

(3) Information Required from the Applicant

The person proposing the subdivision, or his/her authorized agent, must determine if each lot in the subdivision (including the remaining land, if any) is at least one (1) acre in size. If they are, the applicant or his/her agent must indicate this by signing and dating the form in the space provided.

(4) Determinations Made by the Approving Agency

When the above listed information is received, the approving agency will determine the following:

- (a) If the geology of the project area is conducive to nitrate-nitrogen contamination of groundwater (determined from the topographic map location information); or
- (b) If elevated levels of nitrate-nitrogen are known to exist within one-quarter (1/4) mile of the proposed development (determined from agency groundwater sampling records in existence at the time of the application); or
- (c) If the area proposed for development is within an identified High Quality (HQ) or Exceptional Value (EV) watershed (determined from the topographic map location).

Following this investigation, the approving agency will render a decision on the exemption request within 10 working days of receiving the request for exemption. Both the applicant and municipality will be notified of the decision. If the request cannot be granted, the person named in the return address block will receive the proper planning module component forms (or instructions to obtain them from the DEP website) along with the notification of the decision, including the reason(s) that the request cannot be granted.

d. Projects proposing use of public sewerage facilities (i.e., ownership by municipality or authority)

(1) Information Required from the Municipality

The municipality in which the proposed project is located (identified in Item 2.b. of the mailer) will determine the following from written documentation requested and obtained by the applicant from the facility permittee. ***This documentation MUST also be sent to the approving agency (DEP or delegated local agency) for evaluation.***

- (a) Certification from the permittees of the collection, conveyance and treatment facilities proposed for use that capacity is available in these facilities to receive and treat the sewage flows from the proposed project; and
- (b) That these added flows will not cause an overload or 5-year projected overload in the facilities.

If the facilities proposed for use are owned and operated by an authority, or authorities, then attach a letter from each to the mailer.

If this written certification has been submitted by the applicant, an authorized municipal official should sign and date the form and print his/her name and title and the municipality name in the spaces provided.

NOTE: Since planning is a municipal responsibility, sewer authorities involved should make required information available but should **NOT** sign the mailer as the authorized municipal official.

(2) Determinations Made by the Approving Agency

When the above listed information is received by the approving agency, the approving agency will determine the following (from DEP records):

- (a) That the existing collection, conveyance and treatment facilities are in compliance;
- (b) That the existing facilities have no existing or 5-year projected overload;
- (c) That the municipality has a currently approved Official Sewage Facilities Plan which is being implemented; and
- (d) That the project does not propose service by facilities needing a new or modified permit from DEP under the Clean Streams Law.

Following this investigation, the approving agency will render a decision on the exemption request within 10 working days of receiving the request for exemption. Both the applicant and the municipality will be notified of the decision. If the request cannot be granted, the person named in the return address block will receive the proper planning module component forms (or instructions to obtain them from DEP's website) along with the notification of the decision, including the reason that the request cannot be granted.

If unsure of which local DEP office to contact, the following DEP regional offices will assist you in determining the appropriate local DEP office that serves your specific municipality.

If you need more information or assistance, please contact your local DEP office.

DEP REGIONAL OFFICES

Southeast Region

2 E. Main St.
Norristown, PA 19401
Main Telephone: 484-250-5900
24-Hour Emergency: 484-250-5900

Counties: Bucks, Chester, Delaware, Montgomery and Philadelphia

Northwest Region

230 Chestnut St.
Meadville, PA 16335-3481
Main Telephone: 814-332-6945
24-Hour Emergency: 1-800-373-3398

Counties: Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren

Southwest Region

400 Waterfront Drive
Pittsburgh, PA 15222-4745
Main Telephone: 412-442-4000
24-Hour Emergency: 412-442-4000

Counties: Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland

Northeast Region

2 Public Square
Wilkes-Barre, PA 18711-0790
Main Telephone: 570-826-2511
24-Hour Emergency: 570-826-2511

Counties: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming

Southcentral Region

909 Elmerton Ave.
Harrisburg, PA 17110
Main Telephone: 717-705-4700
24-Hour Emergency: 1-877-333-1904

Counties: Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York

Northcentral Region

208 W. Third St., Suite 101
Williamsport, PA 17701
Main Telephone: 570-327-3636
24-Hour Emergency: 570-327-3636

Counties: Bradford, Cameron, Clearfield, Centre, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union

1. Development Information

Name of Development 800 Goshen Road Subdivision
Developer Name Goshen Holding Company, Inc.
Address 110 Gallagher Road
Wayne, PA 19087
Telephone # 610-964-9040
Email cas@cfholloway.com

2. Location of Development

a. County Delaware
b. Municipality Radnor
c. Address or Coordinates 800 Goshen Road, Newtown
Square, PA 19073
d. Tax Parcel # 36-48-027
e. USGS Quad Name Norristown, Valley Forge
inches up 1 over 17
from bottom right corner of map.
f. Located in a High Quality/Exceptional Value watershed?
 Yes No

3. Type of Development Proposed (check appropriate box)

Residential Multi-Residential
Describe Three (3) lot subdivision, Single Family Dwellings
 Commercial Institutional
Describe _____
 Brownfield Site Redevelopment
 Other (specify) _____

4. Size

a. # of lots 3 # of EDUs 3 EDUs (300
gpd/EDU)
b. # of lots since 5/15/72 previously subdivided, 1 lot since 1998
c. Development Acreage 8.933 acres
d. Remaining Acreage 0 acres

5. Sewage Flows 900 gpd

6. Proposed Sewage Disposal Method (check applicable boxes)

a. Sewerage System
 Existing (connection only) New (extension)
 Public Private
 Pump Station(s)/Force Main Gravity
Name of existing system being extended _____
Interceptor Name Darby Creek Interceptor
Treatment Facility Name Southwest Philadelphia
Wastewater Treatment Plant

NPDES Permit # _____

b. Construction of Treatment Facility
 With Stream Discharge
 With Land Application (not including IRSIS)
 Other
 Repair?
Name of waterbody where point of discharge is proposed
(if stream discharge)

c. Onlot Sewage Disposal Systems
(check appropriate box)
 Individual onlot system(s) (including IRSIS)
 Community onlot system
 Large-Volume onlot system
d. Retaining tanks
Number of Holding Tanks _____
Number of Privies _____

7. Request Sewage Facilities Planning Module forms in electronic format

8. Request for Planning Exemption

a. Protection of rare, endangered or threatened species
Check one:
 The "PNDI Project Environmental Review Receipt" is attached.
or
 A completed "PNDI Project Planning & Environmental Review Form," (PNDI Form) is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning exemption will be considered incomplete and that the DEP processing of my planning exemption request will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials JRM

b. Plot Plan Attached Site Reports Attached

c. Onlot Disposal Systems

(1) I certify that the Official Plan shows this area as an onlot service area.

(Signature of Municipal Official) / Date

Name (Print) / Title

Municipality (must be same as in 2.b.)

Telephone # _____

(2) I certify that each lot in this subdivision has been tested and is suitable for both a primary and replacement sewage disposal system.

Signature of SEO / Date

Name (Print) / Certification #

Telephone # _____

(3) I certify that each lot in this subdivision is at least 1 acre in size

(Signature of Project Applicant/Agent) / Date

d. Public Sewerage Service (i.e., ownership by municipality or authority)

Based upon written documentation, I certify that the facilities proposed for use have capacity and that no overload exists or is projected within 5 years. (Attach documents.)

(Signature of Municipal Official) / Date

Name (Print) / Title

Municipality (must be same as in 2.b.)

Telephone # _____

Return Correspondence/Forms to:

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP USE	
Components Sent	
Onlot Disposal	<input type="checkbox"/>
Collection and Treatment	<input type="checkbox"/>
Planning Agency Review	<input type="checkbox"/>
Exempt from Planning	<input type="checkbox"/>
Code _____	
Date _____	

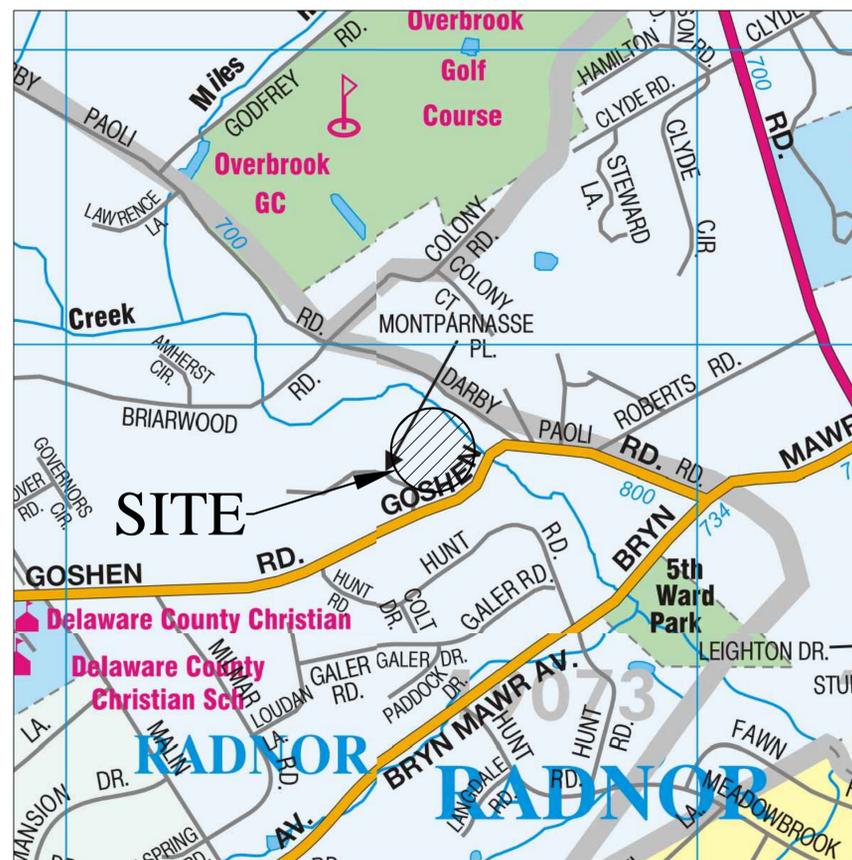
"Fold Here"

PRELIMINARY SUBDIVISION PLANS FOR 800 GOSHEN ROAD

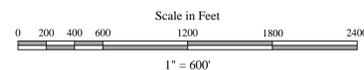
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

CIVIL ENGINEER AND SURVEYOR:
CHESTER VALLEY ENGINEERS, INC.
83 CHESTNUT ROAD, P.O. BOX 447
PAOLI, PA 19301
(610) 644-4623

OWNER/APPLICANT:
GOSHEN HOLDING COMPANY, INC.
CONTACT: C. F. HOLLOWAY, III
110 GALLAGHER ROAD
WAYNE, PA 19087
610-964-9040



LOCATION MAP



SHEET INDEX

SHEET NUMBER	DATE ISSUED	LAST REVISED	TITLE
1	06/03/16	08/31/16	COVER SHEET
2A-C	06/03/16	08/31/16	EXISTING CONDITIONS AND DEMOLITION PLANS
3	06/03/16	08/31/16	SUBDIVISION PLAN
4A-C	06/03/16	08/31/16	GRADING AND UTILITIES PLANS
5	06/03/16	08/31/16	CONSTRUCTION DETAILS
6A-C	06/03/16	08/31/16	EROSION AND SEDIMENTATION CONTROL PLANS
7	06/03/16	08/31/16	EROSION AND SEDIMENTATION CONTROL DETAILS
8	06/03/16	08/31/16	EROSION AND SEDIMENTATION CONTROL NOTES
9A-C	06/03/16	08/31/16	POST-CONSTRUCTION STORMWATER MANAGEMENT PLANS
10	06/03/16	08/31/16	POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS AND PROFILES
11	06/03/16	08/31/16	POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS AND PROFILES
12	06/03/16	08/31/16	POST-CONSTRUCTION STORMWATER MANAGEMENT OPERATION AND MAINTENANCE NOTES
13A-C	06/03/16	08/31/16	LANDSCAPE PLANS

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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 2011 0751124
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OF THE LATEST REVISIONS THEREOF:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2007) SUBPART "P", PART 1926.1010 - EXCAVATIONS, TRENCHING AND SHORING;
(2) EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET 2C FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20110751124



CVE PROJECT NO. 18404-1000
DATE: JUNE 3, 2016
REVISED: AUGUST 31, 2016

TREES TO BE REMOVED

8" TO 23"	24" TO 35"	36"+
13" A	10" M	24" A
12" P	8" C	24" C
12" O	8" T	24" T
18" A	12" C	30" P
15" P	12" C	24" B
8" O	15" C	24" C
15" B	10" A	24" P
15" A	15" A	24" P
12" A	15" B	24" D
10" A	8" M	24" A
18" A	10" H	24" P
15" P	12" M	24" A
8" B	10" T	30" P
10" C	12" M	30" A
12" M	18" B	
8" M	8" C	
15" O	18" O	
20" C	10" C	
12" M		

TOTAL 39 TREES 15 TREES 15 TREES

EXISTING TREE ABBREVIATIONS

- A = ASH
- B = BEECH
- BU = BUTTERNUT
- C = CHERRY
- CA = CALTALPA
- CH = CHESTNUT
- D = DOWWOOD
- E = ELM
- H = HICKORY
- L = LOCUST
- M = MARLE
- O = OAK
- P = POPLAR
- PI = PINE
- SA = SASSAFRAS
- SO = SWEETGUM
- SP = SPRUCE
- SY = SYCAMORE
- W = WALNUT

SEE SHEET 2C

MATCHLINE

SEE SHEET 2B

MATCHLINE

SEE SHEET 2B

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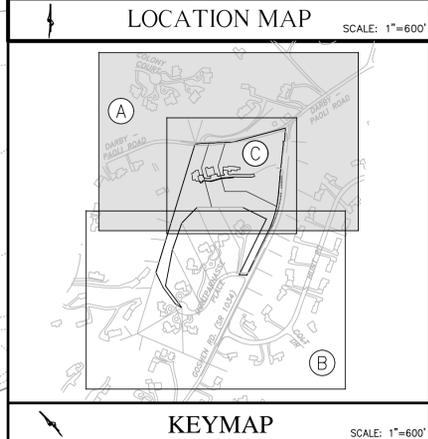
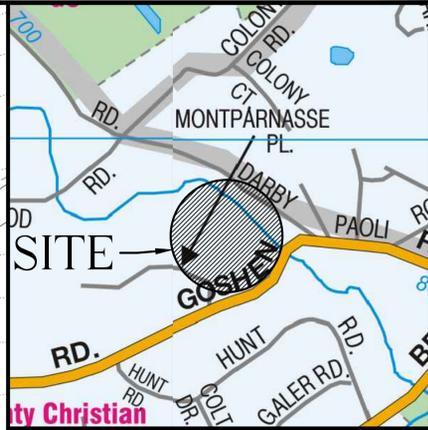
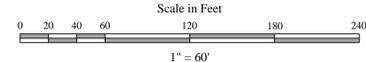
PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 2011 0751124
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES GOVERNMENT PUBLICATIONS OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CHESTER VALLEY ENGINEERS, INC. FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES ARISING THEREFROM OR RESULTING THEREFROM, AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

OWNER OF RECORD:
GOSHEN HOLDING COMPANY, INC.
110 GALLAGHER ROAD
WAYNE, PA 19087
610-964-9040

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUBTILITY FOR ROAD GRADING			CHARACTERISTICS THAT AFFECT FLOOD TOLERANCE		
				WINTER GRADING	ROAD GRADING	ROAD FILL	TOPSOIL	FORM POOD	EMBANKMENTS
GhE2	CHEWELA CHANNERY SILT LOAM	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY	
GhC2	MODERATELY ERODED 8% TO 12% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY	
GhD	MODERATELY ERODED 15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY	
GhE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY	
Gh	CHEWELA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING	
MhF	MANOR SOILS	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY	

OWNER OF RECORD:
GOSHEN HOLDING COMPANY, INC.
110 GALLAGHER ROAD
WAYNE, PA 19087
610-964-9040



EXISTING FEATURES LEGEND

[Symbol]	EXISTING TRACT BOUNDARY
[Symbol]	EXISTING ADJACENT PROPERTY LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	EXISTING EASEMENT LINE
[Symbol]	BUILDING SETBACK LINE
[Symbol]	FLOOD PLAIN
[Symbol]	EXISTING STREAM
[Symbol]	SOILS LINE AND DESCRIPTION
[Symbol]	EXISTING PAVING
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING CURB
[Symbol]	EXISTING SIDEWALK
[Symbol]	EXISTING 2' CONTOURS
[Symbol]	EXISTING 10' CONTOURS
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	EXISTING FENCE
[Symbol]	EXISTING GUIDE RAIL
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING STORM INLET AND PIPE
[Symbol]	EXISTING STORM ENDWALL AND PIPE
[Symbol]	EXISTING MANHOLE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING OVERHEAD WRES
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING DECIDUOUS TREE
[Symbol]	EXISTING CONIFEROUS TREE
[Symbol]	EXISTING TREE AND SHRUB LINE
[Symbol]	EXISTING WETLAND POINTS
[Symbol]	STEEP SLOPES 14-20%
[Symbol]	STEEP SLOPES 20% AND GREATER
[Symbol]	EXISTING TREE TO BE REMOVED

EXISTING CONDITIONS AND DEMOLITION PLAN - 60 SCALE

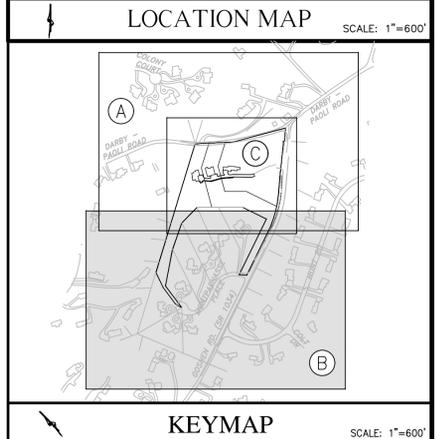
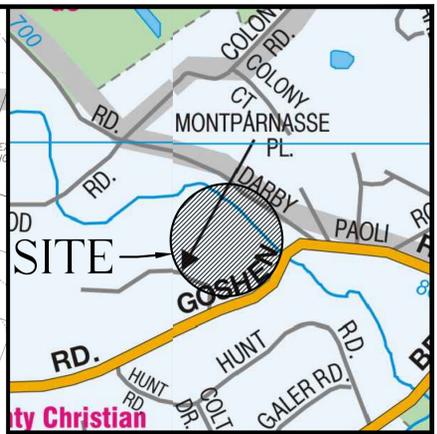
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS
NO.	DATE	REVISION

PRELIMINARY SUBDIVISION PLANS
FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
Civil Engineers & Land Surveyors

Jeremy R. Maziarz
REGISTERED PROFESSIONAL ENGINEER
5055-F-2
PENNSYLVANIA

SCALE: 1" = 60'
DATE: 06/03/16
DRAWN BY: SVD
CHECKED BY: JRM
DRAWING NO.: 18404



EXISTING FEATURES LEGEND

	EXISTING TRACT BOUNDARY
	EXISTING ADJACENT PROPERTY LINE
	EXISTING RIGHT-OF-WAY LINE
	EXISTING EASEMENT LINE
	BUILDING SETBACK LINE
	FLOOD PLAIN
	EXISTING STREAM
	SOILS LINE AND DESCRIPTION
	EXISTING PAVING
	EXISTING BUILDING
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EXISTING CONDITIONS AND DEMOLITION PLAN - 60 SCALE

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18404

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EXCAVATIONS, TRENCHING, AND SHORING
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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2001) SUBPART PP, PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING";
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2236) DATED 1985 (REVISED).

PENNSYLVANIA ONE-CALL SYSTEM, INC.
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1-800-242-1776
POCS SERIAL NUMBER: 20110751124

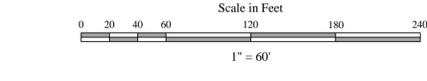
SEE SHEET 2C FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

TAX PARCEL NO. 36-48-027 - FOLIO NO. 36-04-02471-00

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUITABILITY FOR				CHARACTERISTICS THAT AFFECT
				WINTER GRADING	ROAD SUBGRADE	ROAD FILL	TOPSOIL	
CHEWACLA CHANNERY SILT LOAM								
GdE2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
GdC2	8% TO 12% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
GdO	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
GdE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
CHEWACLA MANOR SOILS								
Gh	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING
MfE	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY

OWNER OF RECORD:
GOSHEN HOLDING COMPANY, INC.
110 GALLAGHER ROAD
WAYNE, PA 19087
610-964-9040



Chester Valley Engineers
REGISTERED PROFESSIONAL ENGINEER
JEREMY R. MAZIARZ
5055-F-2
PENNSYLVANIA

Jeremy R. Maziarz

UTILITY LIST

COMCAST CABLE COMMUNICATIONS
1004 CORNERSTONE BLVD
DOWNTOWN, PA 19335-5366
ATTN: MR. LEE MCGARRITY
1-610-466-1509

VERIZON PENNSYLVANIA, INC.
180 SHEREE BLVD, SUITE 2100
EXTON, PA 19341
ATTN: MS. THERESA L. BAKER
1-610-280-2154

AQUA PENNSYLVANIA, INC.
762 LANCASTER AVENUE
BRYN MAWR, PA 19010
ATTN: MR. WILLIAM A. ZAHN
1-610-525-1400 EXT. 4203

PECO ENERGY COMPANY
1050 W. SWEDSFORD ROAD
BERWYN, PA 19312
ATTN: MR. BILL HENSIL
1-610-725-7129

RADNOR TOWNSHIP
301 IVEN AVENUE
WAYNE, PA 19087-5297
ATTN: MR. DAVID A. BASHORE
1-610-688-5600

TREES TO BE REMOVED

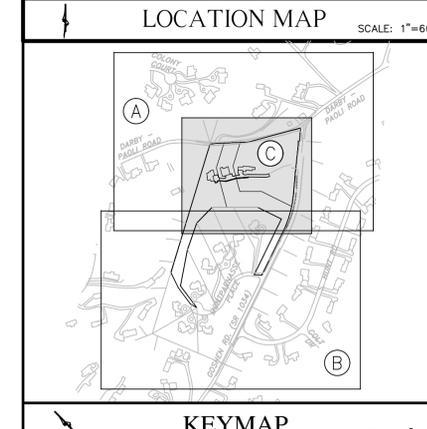
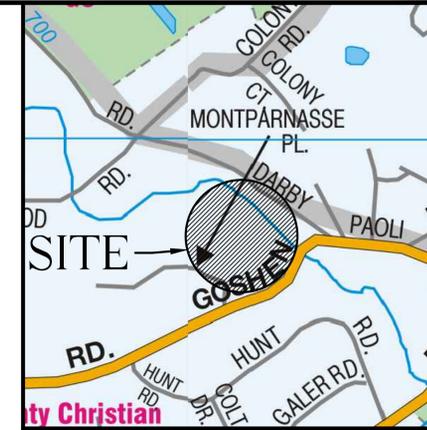
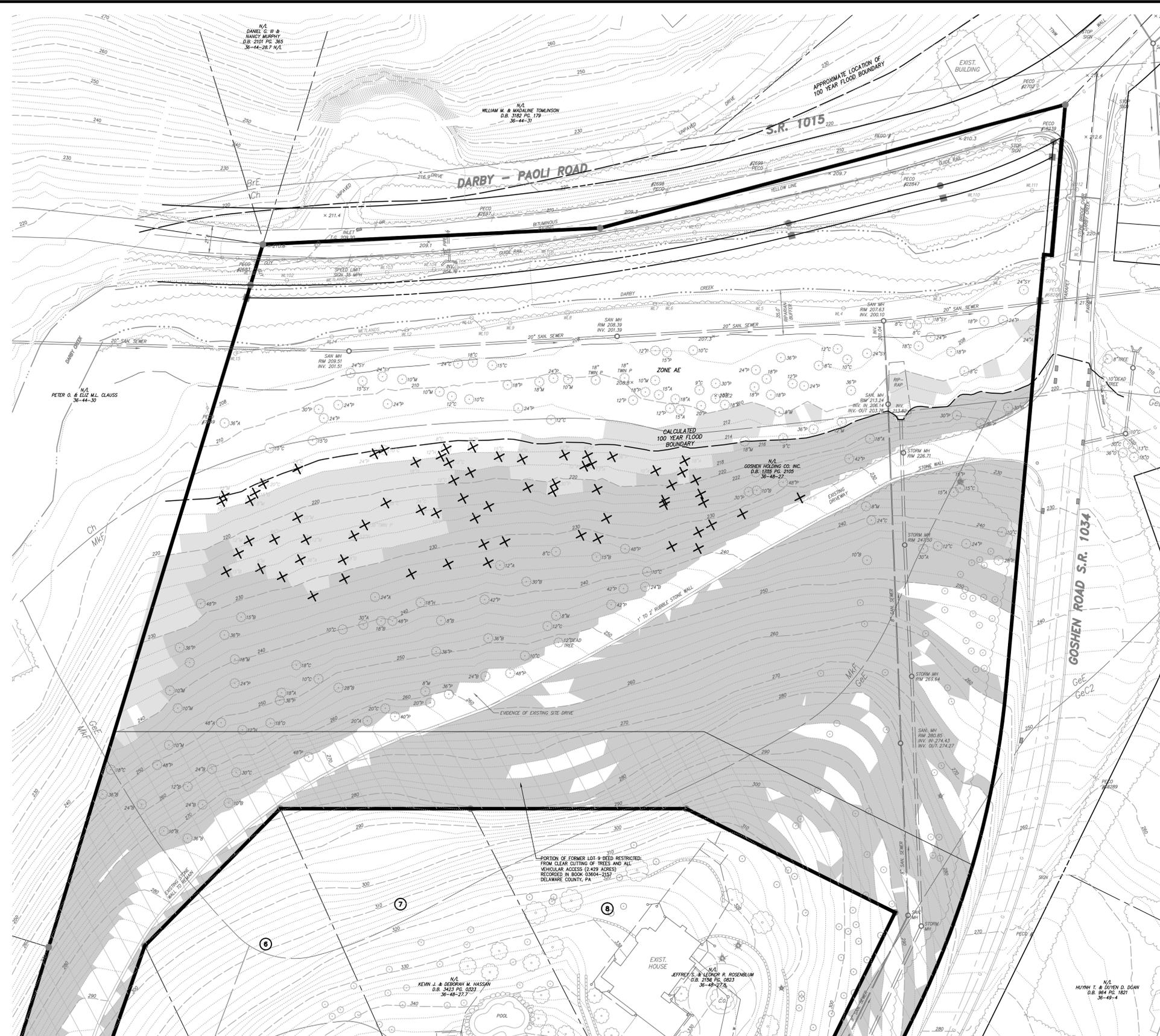
8" TO 23"	24" TO 35"	36"+
13" A	10" M	24" A
12" A	8" C	24" C
12" P	12" C	24" P
12" O	8" C	24" M
18" A	12" C	30" P
15" P	12" C	24" B
8" O	15" C	24" C
15" B	10" A	24" P
15" A	15" B	24" A
12" A	15" B	24" D
10" A	8" M	24" A
18" A	10" P	24" P
15" P	12" M	24" A
8" B	10" M	30" P
10" C	12" M	30" A
12" M	18" B	
8" M	8" C	
15" O	18" O	
20" C	10" C	
12" M		

EXISTING TREE ABBREVIATIONS

A = ASH
B = BEECH
BU = BUTTERNUT
C = CHERRY
CA = CATALPA
CH = CHESTNUT
D = DOGWOOD
E = ELM
H = HICKORY
L = LOCUST
M = MAPLE
D = OAK
P = POPLAR
PI = PINE
SA = SASSAFRAS
SG = SWEETGUM
SP = SPRUCE
SY = SYCAMORE
W = WALNUT

EXISTING FEATURES LEGEND

---	EXISTING TRACT BOUNDARY
---	EXISTING ADJACENT PROPERTY LINE
---	EXISTING RIGHT-OF-WAY LINE
---	EXISTING EASEMENT LINE
---	BUILDING SETBACK LINE
---	FLOOD PLAIN
---	EXISTING STREAM
---	SOILS LINE AND DESCRIPTION
---	EXISTING PAVING
---	EXISTING BUILDING
---	EXISTING CURB
---	EXISTING SIDEWALK
---	EXISTING 2' CONTOURS
---	EXISTING 10' CONTOURS
---	EXISTING SPOT ELEVATION
---	EXISTING FENCE
---	EXISTING GUIDE RAIL
---	EXISTING SIGN
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---	EXISTING WETLAND POINTS
---	STEEP SLOPES 14-20%
---	STEEP SLOPES 20% AND GREATER
---	EXISTING TREE TO BE REMOVED



DEMOLITION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL/DEMOLITION OF ALL ANCILLARY FEATURES WHICH ARE LOCATED ON THE PROPERTY AND CONFLICT WITH PROPOSED GRADING INCLUDING, BUT NOT LIMITED TO, POSTS, VEGETATION, PADS, STEPS, SIGNS, SHRUBS, CURBS, LIGHT AND LAMP POSTS, MAILBOXES, MECHANICAL, ELECTRICAL AND HVAC EQUIPMENT, WALLS, ROOF DRAIN PIPING, ETC.
- IF REQUIRED, CONTRACTOR IS RESPONSIBLE FOR GRADE ADJUSTMENT OF ALL SURFACE UTILITIES, INCLUDING BUT NOT LIMITED TO VALVES, LIDS, GRATES, RIMS, CAPS, STORM AND SANITARY STRUCTURES WITHIN THE LIMITS OF WORK. GRADE ADJUSTMENTS SHALL BE MADE PRIOR TO THE INSTALLATION OF PAVEMENT WEARING COURSE OR PLACEMENT OF TOPSOIL IN UNPAVED AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL EXISTING FEATURES WHICH ARE DAMAGED DURING CONSTRUCTION AND ARE INDICATED TO REMAIN.
- REMOVAL OF EXISTING PAVED SURFACES INCLUDES THE REMOVAL OF CRUSHED STONE BASE MATERIALS.
- REMOVAL OF EXISTING STRUCTURES INCLUDES THE REMOVAL OF ALL FOOTINGS, FOUNDATION WALLS AND OTHER STRUCTURAL SUPPORT ELEMENTS.
- REMOVAL OF ALL FENCES, POSTS AND OTHER SIMILAR FEATURES INCLUDES THE REMOVAL OF CONCRETE FOOTINGS AND BASES.
- CONTRACTOR IS RESPONSIBLE FOR ALL TREE REMOVAL WITHIN THE PROPOSED LIMITS OF WORK, PER THE OWNER'S DISCRETION.
- DEMOLITION OF TREES AND OTHER VEGETATION INCLUDES REMOVAL OF ALL STUMPS AND ROOT SYSTEMS WITHIN 24" OF EXISTING GRADE.
- WHERE PROPOSED CURB AND SIDEWALK ARE TO MATCH EXISTING, THE CONTRACTOR IS TO PROVIDE A CLEAN TRANSITION AND REMOVE/REPLACE ANY EXISTING CURB AND/OR SIDEWALK THAT IS DAMAGED, PER THE OWNER'S DISCRETION.
- BITUMINOUS PAVING SHALL BE SAWCUT PRIOR TO APPLICATION OF THE NEW PAVING, INCLUDING PATCHING IN AREAS OF CURB REPLACEMENT, IF REQUIRED.

EXISTING CONDITIONS AND DEMOLITION PLAN - 40 SCALE

NO.	DATE	REVISION
1	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
2	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS
FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers civil engineers & land surveyors	Chester Valley Engineers, Inc. Main Office: 83 Chestnut Road P.O. Box 447, Paoli, PA 19301 (610) 644-4623 (610) 889-3143 Fax cve@chestervalley.com http://www.chestervalley.com	PROJ. NO.: 18404 DATE: 06/03/16
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(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED
1985 (REVISED).

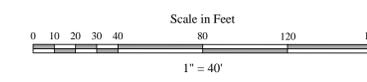
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PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: 20110751124

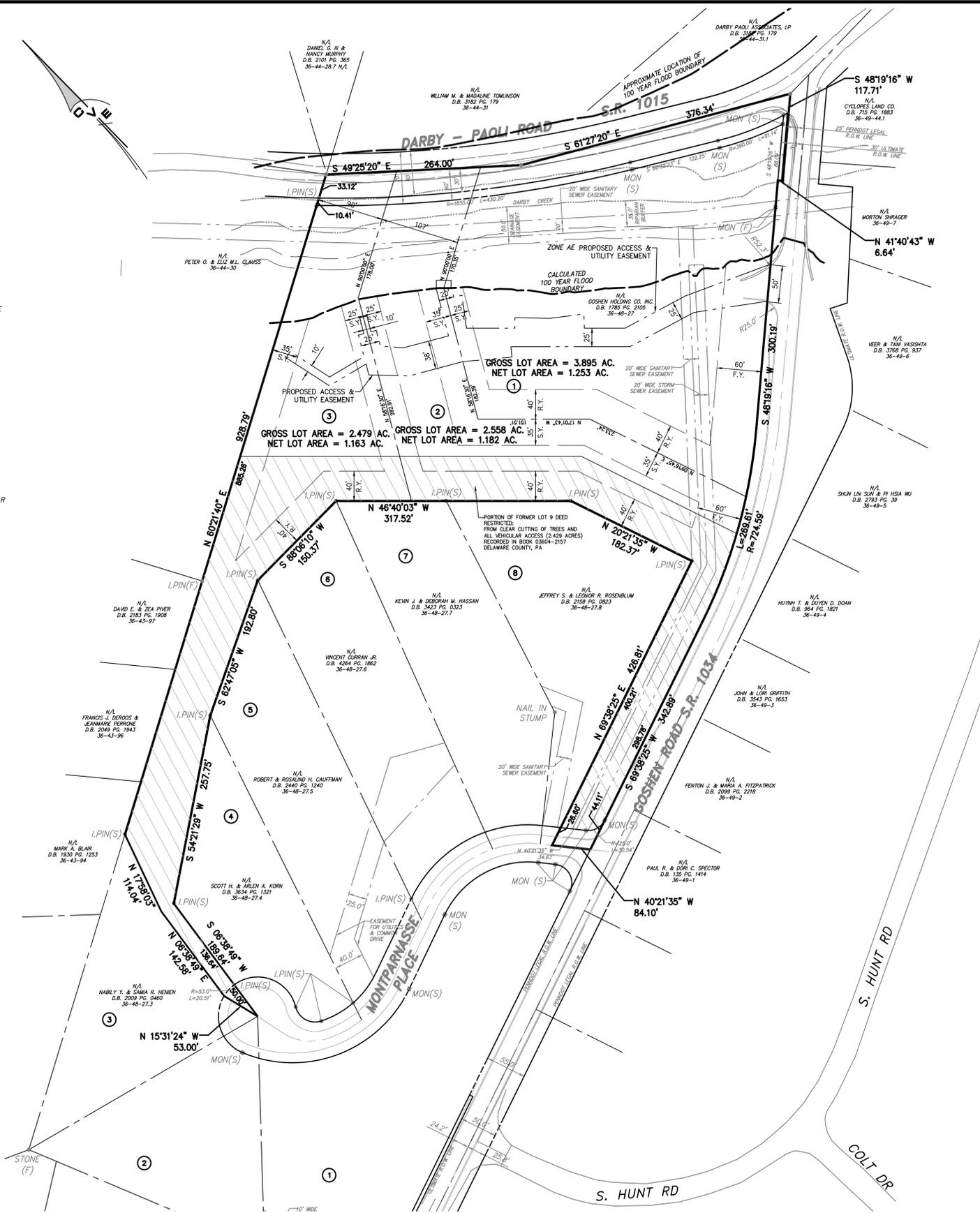
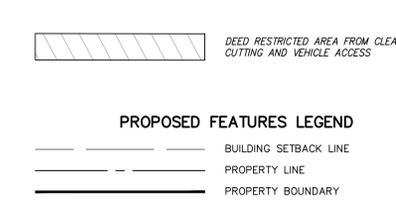
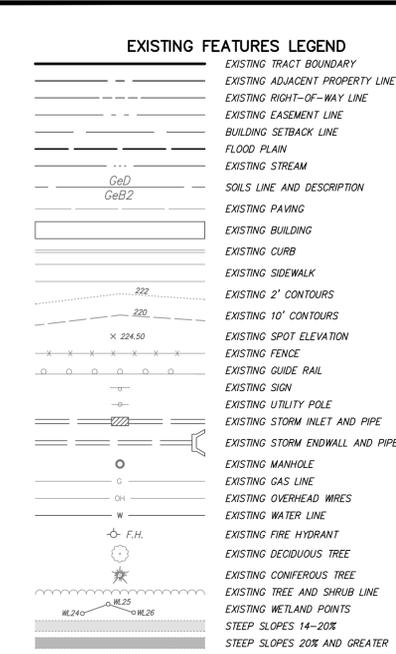
SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUBSTABILITY FOR:			CHARACTERISTICS THAT AFFECT:
				ROAD GRADING	ROAD SUBGRADE	ROAD FILL	
CHEWELD CHANNERY SILT LOAM							
GdE2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD PERMEABILITY
GdC2	8% TO 15% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD PERMEABILITY
GdO	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD PERMEABILITY
GdE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD PERMEABILITY
CHEWELA							
Ch	CHEWELA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	FLOODING
MANOR SOILS							
MdF	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR INSTABILITY

OWNER OF RECORD:
GOSHEN HOLDING COMPANY, INC.
110 GALLAGHER ROAD
WAYNE, PA 19087
610-964-9040



J:\C\F\18001\8404\DWG\SHR\SUBDIVISION PLAN SET\SHR 02A.DWG - EX. COND. & DEMO PLAN.DWG 9/20/16 2:11:15 PM



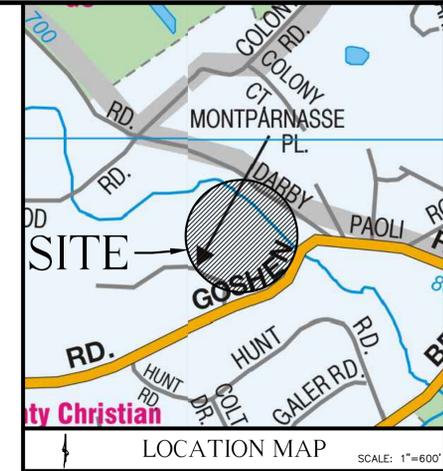
ZONING REQUIREMENTS

R-1 RESIDENCE DISTRICT (LOT AVERAGING)

	REQUIRED	PROVIDED	LOT 1	LOT 2	LOT 3
TRACT AREA:	5 ACRES (MIN.)	8.933 ACRES	1.25 ACRES	1.18 ACRES	1.16 ACRES
LOT AREA:	0.75 ACRE (MIN.)		130'	125'	120'
LOT WIDTH:	90' MIN. @ BLDG LINE		130'	125'	120'
BUILDING COVERAGE:	15% (MAX.)	4.0%	4.0%	4.27%	4.34%
FRONT YARD:	60' (MIN.)	60' (MIN.)	60' (MIN.)	60' (MIN.)	60' (MIN.)
SIDE YARD:	25' (MIN.)	25' (MIN.)	25' (MIN.)	25' (MIN.)	25' (MIN.)
REAR YARD:	60' (AGGREGATE)	60' (AGGREGATE)	60' (AGGREGATE)	60' (AGGREGATE)	60' (AGGREGATE)
BUILDING HEIGHT:	40' (MIN.)	40' (MIN.)	40' (MIN.)	40' (MIN.)	40' (MIN.)
IMPERVIOUS COVERAGE:	35' (MAX.)	35'	35'	35'	35'
IMPERVIOUS COVERAGE:	22% (MAX.)	21.71%	21.71%	10.42%	8.47%
RIPARIAN BUFFER:	35'	35'	35'	35'	35'

NOTES:

- THE PROPOSED SUBDIVISION CONSISTS OF LOT 9 AS SHOWN ON DECLARATION PLAT FOR MONTPARNASSE HOMEOWNERS ASSOCIATION GOSHEN HOLDING COMPANY, INC., DECLARANT, DATED 09-14-2004, RECORDED 02-17-2005 IN DELAWARE COUNTY PLAN BOOK 00027-0120; AND BEING THE SAME PREMISES AS SET FORTH IN CU SETTLEMENT SERVICES, LLC COMMITMENT NO. K700328.
- BOUNDARY INFORMATION SHOWN BY PHYSICAL FIELD SURVEY PERFORMED AUGUST 19, 1996 IN ACCORDANCE WITH DEED (APPARENTLY UNRECORDED) BETWEEN ISAAC NORRIS, ESQUIRE AND CLARA NORRIS, DATED AUGUST 22, 1896 SUPPLIED BY CLIENT, AND OTHER ADJOINING DEEDS AND PLANS OF RECORD, GOSHEN ROAD RIGHT-OF-WAY IS REFERENCED FROM PENNDOT DRAWINGS FOR CONSTRUCTION, S.R. 1034, SECTION S23, DELAWARE COUNTY, PA, APPROVED 5/14/09.
- TOPOGRAPHIC INFORMATION SHOWN BY PHYSICAL FIELD SURVEY PERFORMED FEBRUARY, 2008 BY CHESTER VALLEY ENGINEERS, INC.
- WETLANDS LIMITS SHOWN PLOTTED FROM SURVEY OF DELINEATION BY DELVAL SOIL AND ENVIRONMENTAL CONSULTANTS, INC., DOYLESTOWN, PA.
- FLOODPLAIN INFORMATION SHOWN TAKEN FROM FLOOD INSURANCE RATE MAP FOR DELAWARE COUNTY PA, BEING MAP #4209100365G DATED MARCH 2, 2016 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- MINIMUM USE DRIVEWAY PERMIT NO. 06075174 WAS ISSUED BY PADOT ON 08/16/10 FOR THE DRIVEWAY CONNECTION TO GOSHEN ROAD.
- SITE TO BE SERVICED BY PUBLIC WATER (AQUA PA) AND GAS AND ELECTRIC (PECO ENERGY CO) FROM EXISTING FACILITIES LOCATED IN GOSHEN ROAD.
- LOTS 1-8 TAKEN FROM PLAN RECITED IN NOTE #1, SHOWN FOR REFERENCE ONLY.
- ELEVATIONS REFERENCED TO U.S.G.S. DATUM. BENCHMARK IS U.S.G.S. DISC, SET VERTICALLY IN FACE OF DOWNSTREAM BRIDGE WALL IN VICINITY OF CENTERLINE OF BRIDGE ON GOSHEN ROAD OVER DARBY CREEK, ELEVATION 222.75. (NGVD 1929 DATUM)
- NGVD DATUM 1929 = NAVD DATUM 1988+1.076'
- SOILS INFORMATION SHOWN TAKEN FROM SOIL SURVEY OF CHESTER AND DELAWARE COUNTIES, PA ISSUED MAY, 1963 BY THE SOIL CONSERVATION SERVICE OF THE U.S. DEPARTMENT OF AGRICULTURE.
- LOT AREA: 8.933 ACRES (GROSS).
-0.478 ACRES (PADOT R.O.W.)
-1.697 ACRES (75% FLOODPLAIN)
-3.113 ACRES (75% STEEP SLOPES >20%)
3.645 ACRES (NET)
- DETAILED DESIGN DRAWINGS AND CALCULATIONS FOR ALL PROPOSED RETAINING WALLS TO BE SUBMITTED TO RADNOR TOWNSHIP FOR REVIEW AND APPROVAL AT THE TIME OF BUILDING PERMIT APPLICATION.
- TOTAL NUMBER OF TREES TO BE REMOVED = 69
- THE BOTTOM OF PROPOSED RETAINING WALLS ARE EQUAL TO OR ABOVE THE MOST RECENTLY UP DATED 100-YEAR FLOOD PLAN ELEVATION (NOV. 2009)
- ALL ROOF DOWNSPOUTS SHALL BE CONNECTED TO THE PROPOSED STORMWATER MANAGEMENT SYSTEM.
- THE PROPOSED USE IS SINGLE FAMILY RESIDENTIAL FOR ALL LOTS. EACH PROPOSED DWELLING SHALL HAVE 4 TO 5 BEDROOMS.
- EACH PROPOSED DWELLING UNIT WILL PROVIDE THREE CAR GARAGES TO MEET THE TWO PARKING SPACE REQUIREMENT.
- THE EXISTING PAVED DRIVEWAY CONNECTION TO GOSHEN ROAD WAS CONSTRUCTED PER THE PENNDOT CONSTRUCTION DRAWINGS OF S.R. 1034, SECTION S23, PREPARED BY PICKERING, CORTIS & SUMMERSON, INC., APPROVED ON 5/14/09. THE DRIVEWAY SECTION PER THE CONSTRUCTION PLANS CONSISTS OF SUPERPAVE, HMA WEARING COARSE, PG 64-22, 0.3 TO <3 MILLION ESALS, 9.5 MM MIX, 40 MM DEPTH, SRL-H ON SUPERPAVE HMA BINDER COURSE, PG 64-22, 0.3 TO <3 MILLION ESALS, 19 MM MIX, 50 MM DEPTH ON SUPERPAVE HMA BASE COURSE, PG 64-22, 0.3 TO <3 MILLION ESALS, 25 MM MIX, 130 MM DEPTH ON SUBBASE 200 MM DEPTH (NO. 2A) WITH BITUMINOUS TACK COAT.



COMMONWEALTH OF PENNSYLVANIA
COUNTY OF _____

ON THIS, THE _____ DAY OF _____, 2016, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED CASWELL F. HOLLOWAY, III, WHO, ACKNOWLEDGED HIMSELF TO BE THE PRESIDENT OF GOSHEN HOLDING COMPANY, INC., A PENNSYLVANIA CORPORATION, AND THAT AS SUCH TO DO SO, HE HAS EXECUTED THE FOREGOING PLAN BY SIGNING THE NAME OF SAID CORPORATION BY HIMSELF AS PRESIDENT THAT SAID CORPORATION IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN.

MY COMMISSION EXPIRES: _____

(NOTARY PUBLIC)

(OWNER)

APPROVED BY RESOLUTION OF THE BOARD OF COMMISSIONERS OF RADNOR TOWNSHIP THIS _____ DAY OF _____, 2016.

PRESIDENT

SECRETARY

REVIEWED BY THE RADNOR TOWNSHIP DIRECTOR OF PUBLIC WORKS, THIS _____ DAY OF _____, 2016.

TOWNSHIP DIRECTOR OF PUBLIC WORKS

REVIEWED BY THE RADNOR TOWNSHIP ZONING OFFICER, THIS _____ DAY OF _____, 2016.

TOWNSHIP ZONING OFFICER

REVIEWED BY THE RADNOR TOWNSHIP ENGINEER, THIS _____ DAY OF _____, 2016.

TOWNSHIP ENGINEER

APPLICANT ACKNOWLEDGEMENT:

I, _____, ON THIS DATE, _____, HEREBY ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.

ENGINEER CERTIFICATION:

I, _____, ON THIS DATE, _____, HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE RADNOR TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

SUBDIVISION PLAN

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
civil engineers & land surveyors

Scale: 1"=80'

DATE: 06/03/16
DRAWN BY: SVD
CHECKED BY: JRM

PROJECT NO.: 18404

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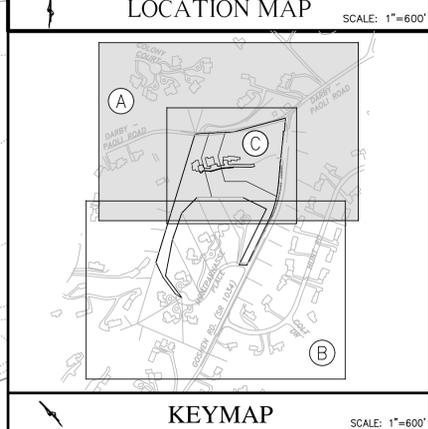
PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 2011 0251124
SEE SHEET 2C FOR FACILITY OFFICE DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.
PENNSYLVANIA ONE-CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 1-800-242-1776
POCS SERIAL NUMBER: 20110751124



TAX PARCEL NO. 36-48-027 - FOLIO NO. 36-04-02471-00



- PROPOSED FEATURES LEGEND**
- PROPOSED BUILDING
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED CURB
 - PROPOSED RETAINING WALL
 - PROPOSED TYPE C INLET AND PIPE
 - PROPOSED STORM MANHOLE AND PIPE
 - DOWNSPOUT CONNECTION TO ROOF DRAIN
 - COLLECTION PIPE W/ CLEAN-OUT
 - PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
 - INFILTRATION TEST LOCATION
 - PROPOSED 2' CONTOURS
 - PROPOSED 10' CONTOURS
 - PROPOSED SPOT ELEVATION
 - PROPOSED FIRE HYDRANT
 - PROPOSED WATER MAIN/SERVICE



- EXISTING FEATURES LEGEND**
- EXISTING TRACT BOUNDARY
 - EXISTING ADJACENT PROPERTY LINE
 - EXISTING RIGHT-OF-WAY LINE
 - EXISTING EASEMENT LINE
 - BUILDING SETBACK LINE
 - FLOOD PLAIN
 - EXISTING STREAM
 - SOILS LINE AND DESCRIPTION
 - EXISTING PAVING
 - EXISTING BUILDING
 - EXISTING CURB
 - EXISTING SIDEWALK
 - EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - EXISTING SPOT ELEVATION
 - EXISTING FENCE
 - EXISTING GUIDE RAIL
 - EXISTING SIGN
 - EXISTING UTILITY POLE
 - EXISTING STORM INLET AND PIPE
 - EXISTING STORM ENDWALL AND PIPE
 - EXISTING MANHOLE
 - EXISTING GAS LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING WATER LINE
 - EXISTING FIRE HYDRANT
 - EXISTING DECIDUOUS TREE
 - EXISTING CONIFEROUS TREE
 - EXISTING TREE AND SHRUB LINE
 - EXISTING WETLAND POINTS
 - STEEP SLOPES 14-20%
 - STEEP SLOPES 20% AND GREATER

GRADING AND UTILITIES PLAN - 60 SCALE

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS
 FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors

Jeremy R. Maziarz
 REGISTERED PROFESSIONAL ENGINEER
 ENGINEER 5055-F-E
 PENNSYLVANIA

SCALE: 1" = 60'

DATE: 06/03/16
 DRAWN BY: SVD
 CHECKED BY: JRM

PROJ. ECT. NO.: 18404
 F.B. NO.:
 DRAWING NO.:

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 UNDERGROUND UTILITIES SERIAL NO.: 2011 0751124
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EXCAVATIONS, TRENCHING, AND SHORING
 ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES GOVERNMENT PUBLICATIONS OF THE LATEST REVISIONS THEREIN:
 (1) CONSTRUCTION INDUSTRY CONSENSUS AND INTERPRETATIONS (CNSI 2007) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING";
 (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2236) DATED 1985 (REVISED).

PENNSYLVANIA ONE-CALL SYSTEM, INC.
 CALL 3 WORKING DAYS BEFORE YOU DIG
 1-800-242-1776
 POC'S SERIAL NUMBER: 20110751124

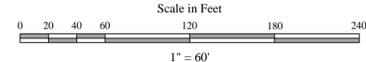
TAX PARCEL NO. 36-48-027 - FOLIO NO. 36-04-02471-00

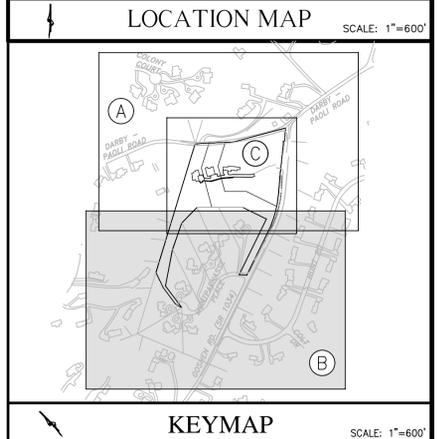
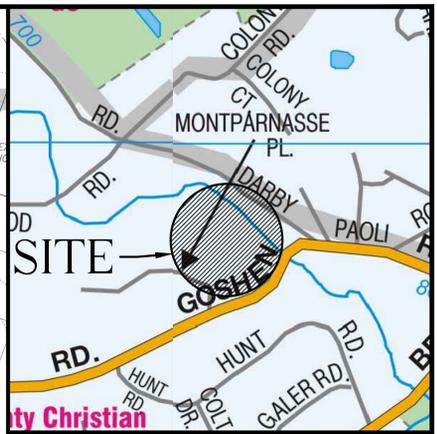
SEE SHEET 2C FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

OWNER OF RECORD:
 GOSHEN HOLDING COMPANY, INC.
 110 GALLAGHER ROAD
 WAYNE, PA 19087
 610-964-9040

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUBSTABILITY FOR:			CHARACTERISTICS THAT AFFECT TOPSOIL FERTILITY
				WINTER GRADING	ROAD SUBGRADE	ROAD FILL	
CHEWACLA CHANNERY SILT LOAM							
GdS2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
GdC2	8% TO 15% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
GdO	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
GdE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
CHEWACLA CHEWACLA SILT LOAM							
Gh	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING
MANOR SOILS							
MfF	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR INSTABILITY





EXISTING FEATURES LEGEND

- EXISTING TRACT BOUNDARY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- FLOOD PLAIN
- EXISTING STREAM
- Soils Line and Description
- EXISTING PAVING
- EXISTING BUILDING
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING MANHOLE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE AND SHRUB LINE
- EXISTING WETLAND POINTS
- STEEP SLOPES 14-20%
- STEEP SLOPES 20% AND GREATER

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED TYPE C INLET AND PIPE
- PROPOSED STORM MANHOLE AND PIPE
- DOWNSPOUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
- INFILTRATION TEST LOCATION
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED FIRE HYDRANT
- PROPOSED WATER MAIN/SERVICE

GRADING AND UTILITIES PLAN - 60 SCALE

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS FOR
800 GOSHEN ROAD
 OWNER: GOSHEN HOLDING COMPANY, INC.
 BUILDER: C.F. HOLLOWAY, III, & COMPANY
 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors

PROJ. ECT. NO.: **18404**

SCALE: 1" = 60'

DATE: 06/03/16
 DRAWN BY: SVD
 CHECKED BY: JRM

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PENNSYLVANIA ACT 187 REQUIREMENTS
 UNDERGROUND UTILITIES SERIAL NO. 2011 0751124
 CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
 ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OF THE SAFEST VERSIONS HERETO:

CHEWACLA MANOR SOILS

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	WINTER GRADING	SUBSTABILITY FOR ROAD SUBGRADE	ROAD FILL	TOPSOIL	FARM POOD (BANKMENTS)	CHARACTERISTICS THAT AFFECT
GhE2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY	
GhC2	8% TO 15% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY	
GhD	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY	
GhE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY	
Gh	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING	
Mf	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY	

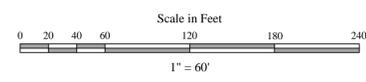
OWNER OF RECORD:
 GOSHEN HOLDING COMPANY, INC.
 110 GALLAGHER ROAD
 WAYNE, PA 19087
 610-964-9040

Chester Valley Engineers
 JEREMY R. MAZIARZ
 REGISTERED PROFESSIONAL ENGINEER
 5055-F-2
 PENNSYLVANIA

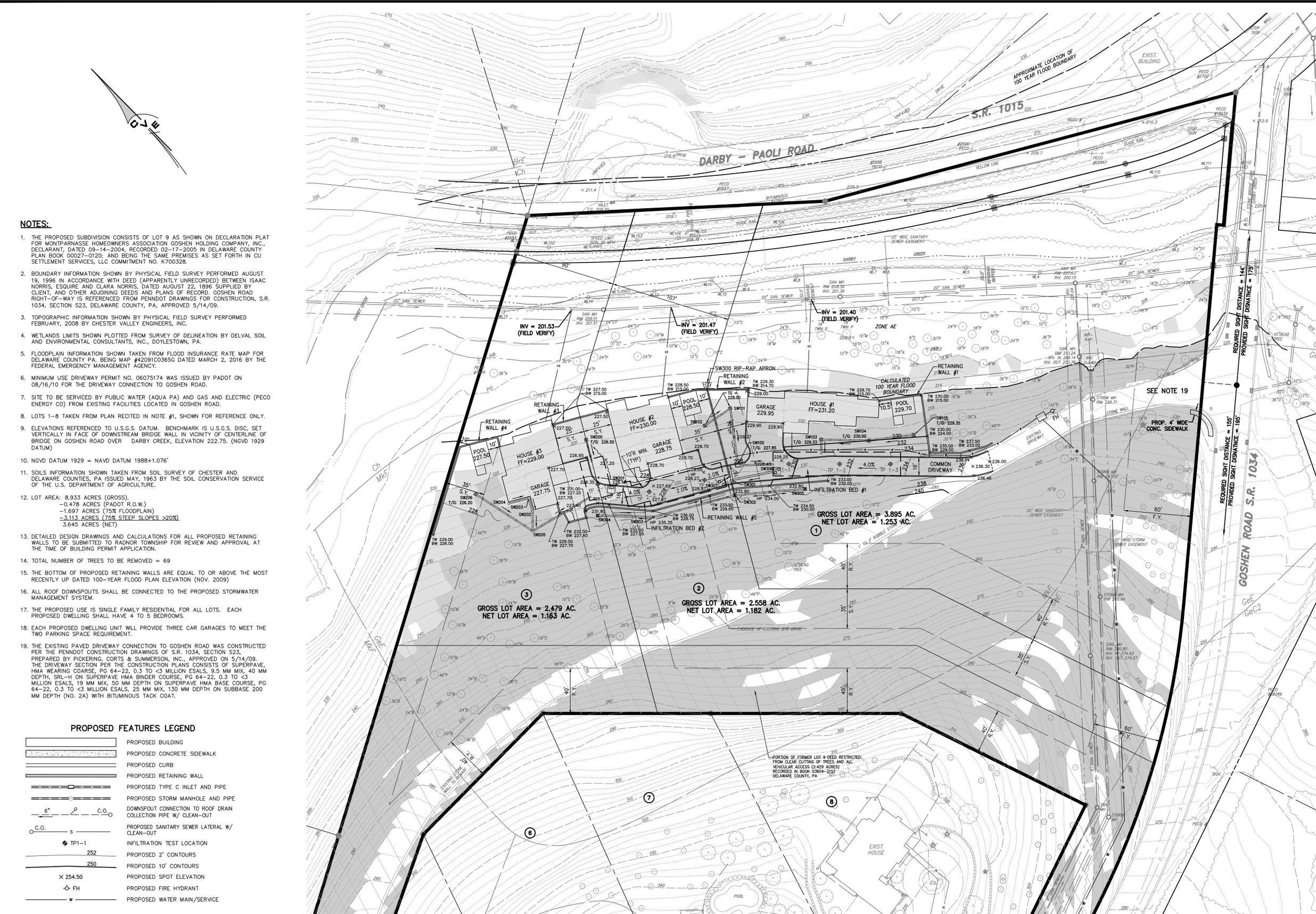
SEE SHEET 2C FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE-CALL SYSTEM, INC.
 CALL 3 WORKING DAYS BEFORE YOU DIG
 1-800-242-1776
 POC SERIAL NUMBER: 20110751124

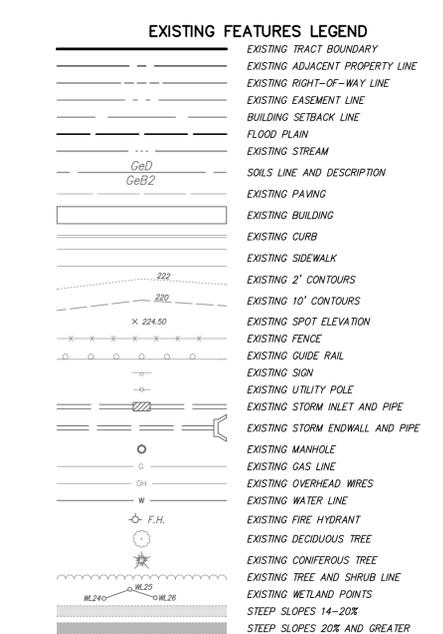
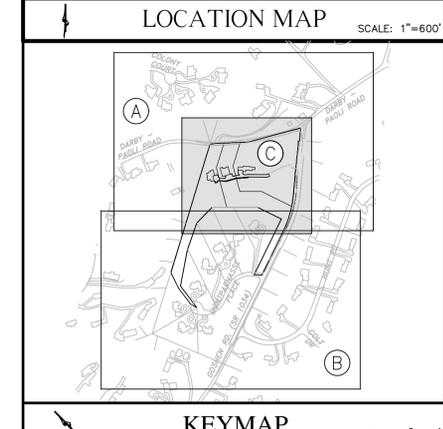
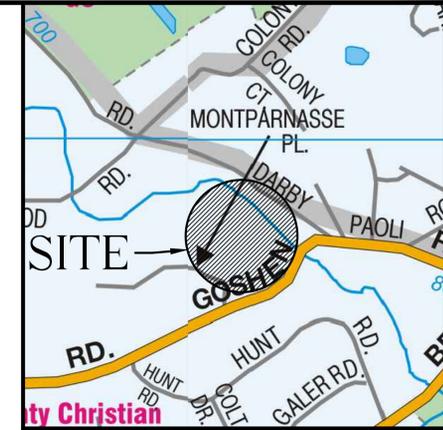
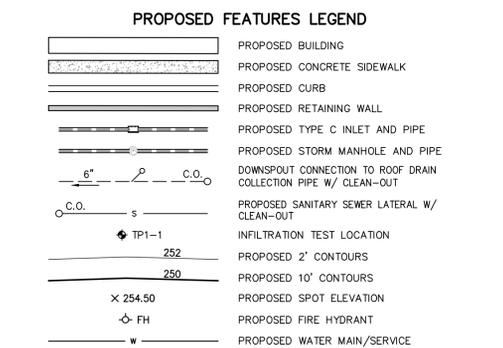
TAX PARCEL NO. 36-48-027 - FOLIO NO. 36-04-02471-00



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- NOTES:**
- THE PROPOSED SUBDIVISION CONSISTS OF LOT 9 AS SHOWN ON DECLARATION PLAT FOR MONTPARNASSE HOMEOWNERS ASSOCIATION GOSHEN HOLDING COMPANY, INC., DECLARANT, DATED 09/11/2004, RECORDED 02-17-2005 IN DELAWARE COUNTY PLAN BOOK 00027-0120; AND BEING THE SAME PREMISES AS SET FORTH IN CU SETTLEMENT SERVICES, LLC COMMITMENT NO. K700328.
 - BOUNDARY INFORMATION SHOWN BY PHYSICAL FIELD SURVEY PERFORMED AUGUST 19, 1996 IN ACCORDANCE WITH DEED (APPARENTLY UNRECORDED) BETWEEN ISAAC NORRIS, ESQUIRE AND CLARA NORRIS, DATED AUGUST 22, 1896 SUPPLIED BY CLIENT, AND OTHER ADJOINING DEEDS AND PLANS OF RECORD. GOSHEN ROAD RIGHT-OF-WAY IS REFERENCED FROM PENNDOT DRAWINGS FOR CONSTRUCTION, S.R. 1034, SECTION S23, DELAWARE COUNTY, PA, APPROVED 5/14/09.
 - TOPOGRAPHIC INFORMATION SHOWN BY PHYSICAL FIELD SURVEY PERFORMED FEBRUARY, 2008 BY CHESTER VALLEY ENGINEERS, INC.
 - WETLANDS LIMITS SHOWN PLOTTED FROM SURVEY OF DELINEATION BY DELVAL SOIL AND ENVIRONMENTAL CONSULTANTS, INC., DOYLESTOWN, PA.
 - FLOODPLAIN INFORMATION TAKEN FROM FLOOD INSURANCE RATE MAP FOR DELAWARE COUNTY PA, BEING MAP #42091C0365G DATED MARCH 2, 2016 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
 - MINIMUM UDE DRIVEWAY PERMIT NO. 06075174 WAS ISSUED BY PADOT ON 08/16/10 FOR THE DRIVEWAY CONNECTION TO GOSHEN ROAD.
 - SITE TO BE SERVICED BY PUBLIC WATER (AQUA PA) AND GAS AND ELECTRIC (PECO ENERGY CO) FROM EXISTING FACILITIES LOCATED IN GOSHEN ROAD.
 - LOTS 1-8 TAKEN FROM PLAN RECITED IN NOTE #1, SHOWN FOR REFERENCE ONLY.
 - ELEVATIONS REFERENCED TO U.S.G.S. DATUM. BENCHMARK IS U.S.G.S. DISC, SET VERTICALLY IN FACE OF DOWNSTREAM BRIDGE WALL IN VICINITY OF CENTERLINE OF BRIDGE ON GOSHEN ROAD OVER DARBY CREEK, ELEVATION 222.75. (NGVD 1929 DATUM)
 - NGVD DATUM 1929 = NAVD DATUM 1988+1.076'
 - SOILS INFORMATION SHOWN TAKEN FROM SOIL SURVEY OF CHESTER AND DELAWARE COUNTIES, PA ISSUED MAY, 1963 BY THE SOIL CONSERVATION SERVICE OF THE U.S. DEPARTMENT OF AGRICULTURE.
 - LOT AREA: 8.933 ACRES (GROSS).
-0.478 ACRES (PADOT R.O.W.)
-1.697 ACRES (75% FLOODPLAIN)
-3.113 ACRES (75% STEEP SLOPES >20%)
3.645 ACRES (NET)
 - DETAILED DESIGN DRAWINGS AND CALCULATIONS FOR ALL PROPOSED RETAINING WALLS TO BE SUBMITTED TO RADNOR TOWNSHIP FOR REVIEW AND APPROVAL AT THE TIME OF BUILDING PERMIT APPLICATION.
 - TOTAL NUMBER OF TREES TO BE REMOVED = 69
 - THE BOTTOM OF PROPOSED RETAINING WALLS ARE EQUAL TO OR ABOVE THE MOST RECENTLY UP DATED 100-YEAR FLOOD PLAN ELEVATION (NOV. 2009)
 - ALL ROOF DOWNSPOUTS SHALL BE CONNECTED TO THE PROPOSED STORMWATER MANAGEMENT SYSTEM.
 - THE PROPOSED USE IS SINGLE FAMILY RESIDENTIAL FOR ALL LOTS. EACH PROPOSED DWELLING SHALL HAVE 4 TO 5 BEDROOMS.
 - EACH PROPOSED DWELLING UNIT WILL PROVIDE THREE CAR GARAGES TO MEET THE TWO PARKING SPACE REQUIREMENT.
 - THE EXISTING PAVED DRIVEWAY CONNECTION TO GOSHEN ROAD WAS CONSTRUCTED PER THE PENNDOT CONSTRUCTION DRAWINGS OF S.R. 1034, SECTION S23, PREPARED BY PICKERING, CORTIS & SUMMERSON, INC., APPROVED ON 5/14/09. THE DRIVEWAY SECTION PER THE CONSTRUCTION PLANS CONSISTS OF SUPERPAVE, HMA WEARING COARSE, PG 64-22, 0.3 TO <3 MILLION ESALS, 9.5 MM MIX, 40 MM DEPTH, SRL-H ON SUPERPAVE HMA BINDER COURSE, PG 64-22, 0.3 TO <3 MILLION ESALS, 13 MM MIX, 50 MM DEPTH ON SUPERPAVE HMA BASE COURSE, PG 64-22, 0.3 TO <3 MILLION ESALS, 25 MM MIX, 130 MM DEPTH ON SUBBASE 200 MM DEPTH (NO. 2A) WITH BITUMINOUS TACK COAT.



GRADING AND UTILITIES PLAN - 40 SCALE

2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS
NO.	DATE	REVISION

PRELIMINARY SUBDIVISION PLANS
FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
Civil Engineers & Land Surveyors
Main Office: 83 Chestnut Road
P.O. Box 447, Paoli, PA 19301
(610) 644-6625
(610) 889-3143 Fax
cve@chester.com
http://www.chester.com

18404
F.B.
JRM

SCALE: 1"=40'
DATE: 06/03/16
DRAWN BY: SVD
CHECKED BY: JRM

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1-800-242-1776
POCS SERIAL NUMBER: 20110751124

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	WINTER GRADING	SUITABILITY FOR ROAD SUBGRADE	ROAD FILL	TOPSOIL	CHARACTERISTICS THAT AFFECT FARM POOD IMBARKMENTS
GhE2	CHANNERY SILT LOAM	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
GaC2	MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
GaD	MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
GaE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	GOOD	PERMEABILITY
Ch	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING
MkF	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY

OWNER OF RECORD:
GOSHEN HOLDING COMPANY, INC.
110 GALLAGHERY ROAD
WAYNE, PA 19087
610-964-9040

REGISTERED PROFESSIONAL ENGINEER
JEREMY R. MAZIARZ
ENGINEER 50057-E
PENNSYLVANIA

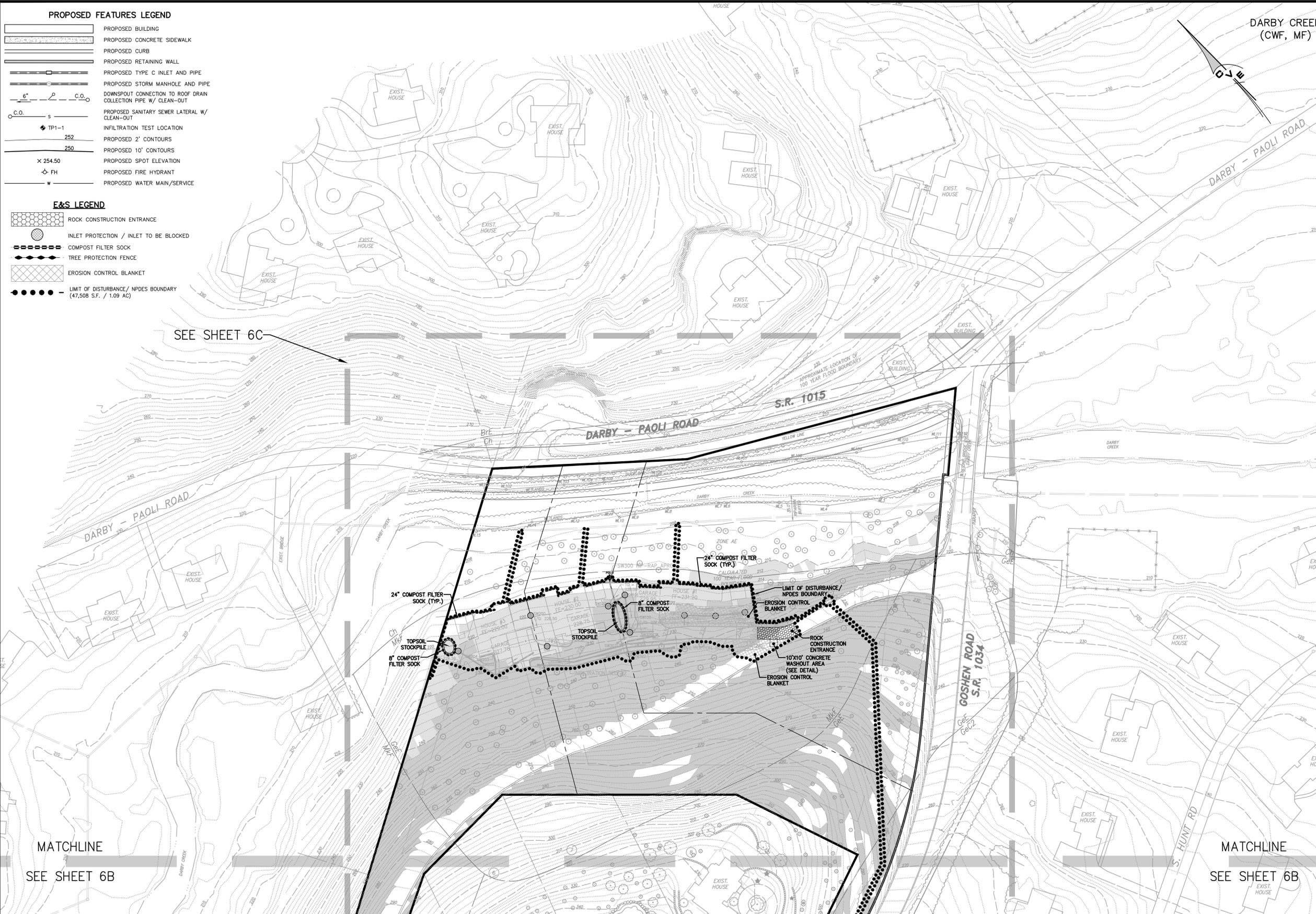
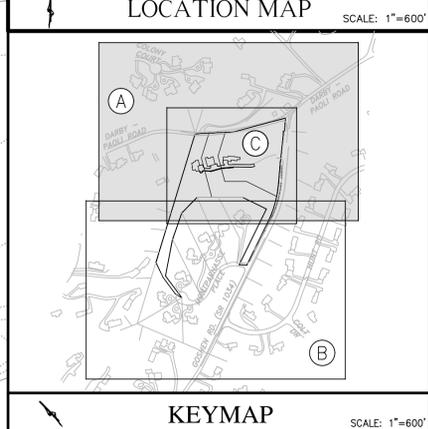
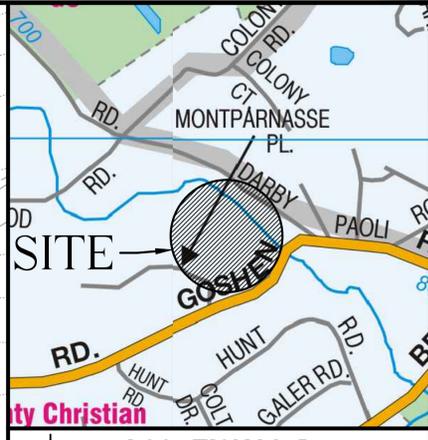
Jeremy R. Maziarz

Scale in Feet
0 10 20 30 40 80 120 160
1" = 40'

SHEET 4C OF 23

- PROPOSED FEATURES LEGEND**
- PROPOSED BUILDING
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED CURB
 - PROPOSED RETAINING WALL
 - PROPOSED TYPE C INLET AND PIPE
 - PROPOSED STORM MANHOLE AND PIPE
 - PROPOSED DOWNSPOUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
 - PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
 - INTEGRATION TEST LOCATION
 - PROPOSED 2' CONTOURS
 - PROPOSED 10' CONTOURS
 - PROPOSED SPOT ELEVATION
 - PROPOSED FIRE HYDRANT
 - PROPOSED WATER MAIN/SERVICE

- E&S LEGEND**
- ROCK CONSTRUCTION ENTRANCE
 - INLET PROTECTION / INLET TO BE BLOCKED
 - COMPOST FILTER SOCK
 - TREE PROTECTION FENCE
 - EROSION CONTROL BLANKET
 - LIMIT OF DISTURBANCE/ NPDES BOUNDARY (47,508 S.F. / 1.09 AC)



- EXISTING FEATURES LEGEND**
- EXISTING TRACT BOUNDARY
 - EXISTING ADJACENT PROPERTY LINE
 - EXISTING RIGHT-OF-WAY LINE
 - EXISTING EASEMENT LINE
 - BUILDING SETBACK LINE
 - FLOOD PLAIN
 - EXISTING STREAM
 - SOILS LINE AND DESCRIPTION
 - EXISTING PAVING
 - EXISTING BUILDING
 - EXISTING CURB
 - EXISTING SIDEWALK
 - EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - EXISTING SPOT ELEVATION
 - EXISTING FENCE
 - EXISTING GUIDE RAIL
 - EXISTING SIGN
 - EXISTING UTILITY POLE
 - EXISTING STORM INLET AND PIPE
 - EXISTING STORM ENDWALL AND PIPE
 - EXISTING MANHOLE
 - EXISTING GAS LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING WATER LINE
 - EXISTING FIRE HYDRANT
 - EXISTING DECIDUOUS TREE
 - EXISTING CONIFEROUS TREE
 - EXISTING TREE AND SHRUB LINE
 - EXISTING WETLAND POINTS
 - STEEP SLOPES 14-20%
 - STEEP SLOPES 20% AND GREATER

EROSION AND SEDIMENTATION CONTROL PLAN - 60 SCALE

2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS
NO.	DATE	REVISION

PRELIMINARY SUBDIVISION PLANS
 FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors

Jeremy R. Maziarz
 REGISTERED PROFESSIONAL ENGINEER
 ENGINEER 50557-E

SCALE: 1" = 60'

DATE: 06/03/16

DRAWN BY: SVD

CHECKED BY: JRM

PROJ. ECT. NO.: 18404

F.B.:

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 (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2236) DATED 1985 (REVISED).

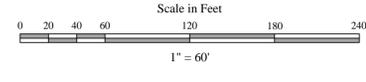
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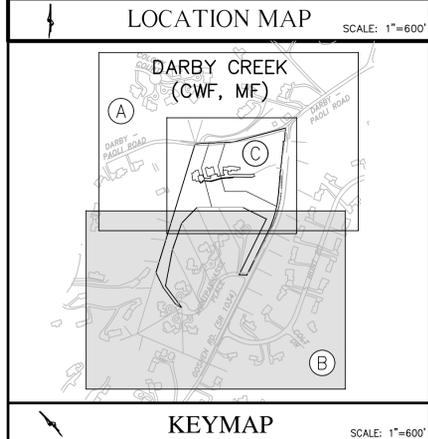
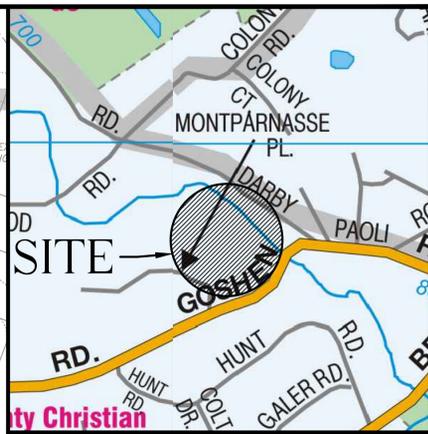
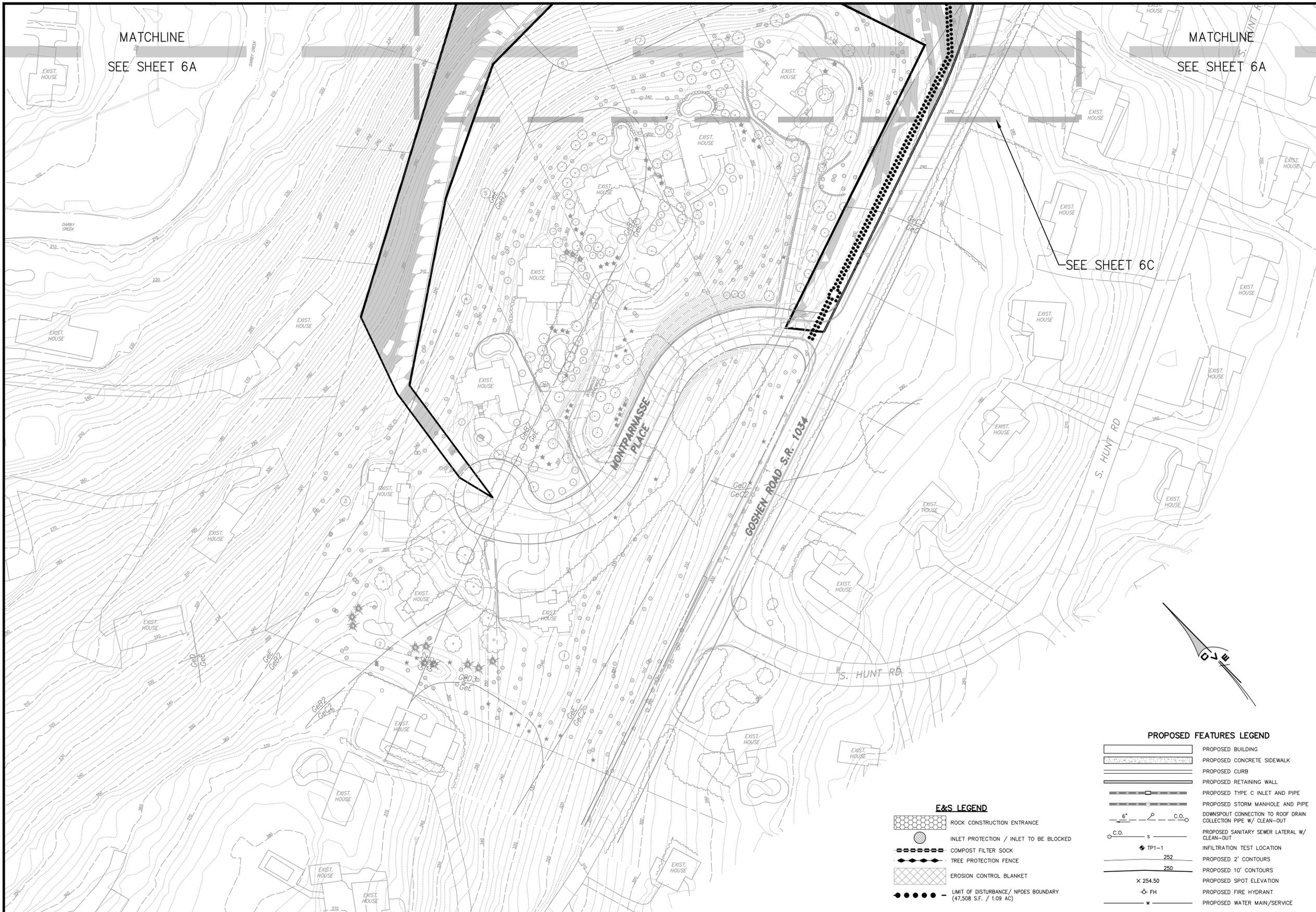
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 ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES GOVERNMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OF THE LATEST REVISIONS THEREIN:
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 (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2236) DATED 1985 (REVISED).

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	STABILITY FOR:			CHARACTERISTICS THAT AFFECT THAT AFFECT:
				WINTER GRADING	ROAD SUBGRADE	ROAD FILL	
CHEWELD CHANNERY SILT LOAM							
GhB2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
GhC2	8% TO 15% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
GhD	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
GhE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	FAIR TO GOOD	PERMEABILITY
CHEWACLA							
Ch	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	FLOODING
MANOR SOILS							
Mf	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	INSTABILITY

OWNER OF RECORD:
 GOSHEN HOLDING COMPANY, INC.
 110 GALLAGHER ROAD
 WAYNE, PA 19087
 610-964-9040





EXISTING FEATURES LEGEND

- EXISTING TRACT BOUNDARY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- FLOOD PLAIN
- EXISTING STREAM
- SOILS LINE AND DESCRIPTION
- EXISTING PAVING
- EXISTING BUILDING
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING MANHOLE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING DEODIOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE AND SHRUB LINE
- EXISTING WETLAND POINTS
- STEEP SLOPES 14-20%
- STEEP SLOPES 20% AND GREATER

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED TYPE C INLET AND PIPE
- PROPOSED STORM MANHOLE AND PIPE
- DOWNSPOUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
- INFILTRATION TEST LOCATION
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED FIRE HYDRANT
- PROPOSED WATER MAIN/SERVICE

E&S LEGEND

- ROCK CONSTRUCTION ENTRANCE
- INLET PROTECTION / INLET TO BE BLOCKED
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- EROSION CONTROL BLANKET
- LIMIT OF DISTURBANCE/ NPDES BOUNDARY (47,508 SF. / 1.09 AC)

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	WINTER GRADING	SUBSTRATE	ROAD FILL	ROAD TOPSOIL	ROAD FARM POOD	EMBANKMENTS	CHARACTERISTICS THAT AFFECT
CHEWACLA CHANNERY SILT LOAM										
G4B2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	G000	FAIR TO GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	PERMEABILITY
G4C2	8% TO 15% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	G000	FAIR TO GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	PERMEABILITY
G4D	15% TO 25% SLOPES	5' PLUS	3' TO 5'	G000	FAIR TO GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	PERMEABILITY
G4E	25% TO 35% SLOPES	5' PLUS	3' TO 5'	G000	FAIR TO GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	PERMEABILITY
CHEWACLA MANOR SOILS										
G5	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING		
MF	35% TO 60% SLOPES	5' PLUS	2' TO 7'	G000	G000	G000	FAIR	INSTABILITY		

OWNER OF RECORD:
 GOSHEN HOLDING COMPANY, INC.
 110 GALLAGHER ROAD
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 (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2236) DATED 1985 (REVISED).
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 POC'S SERIAL NUMBER: 20110751124

EROSION AND SEDIMENTATION CONTROL PLAN - 60 SCALE

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

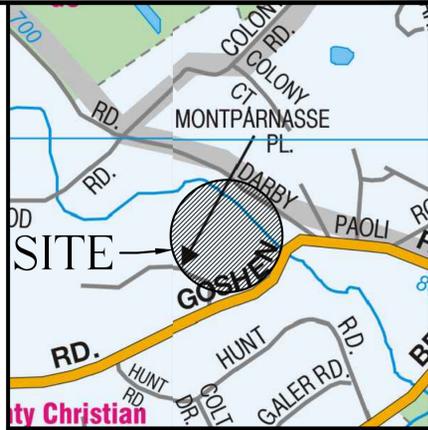
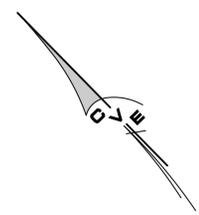
PRELIMINARY SUBDIVISION PLANS
 FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
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 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors

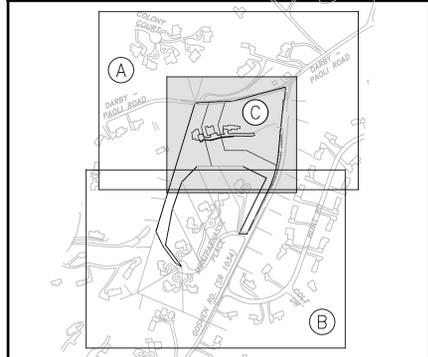
18404

SCALE: 1" = 60'
 DATE: 06/03/16
 DRAWN BY: SVD
 CHECKED BY: JRM
 DRAWING NO.

DARBY CREEK
(CWF, MF)



LOCATION MAP SCALE: 1"=600'



KEYMAP SCALE: 1"=600'



PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED TYPE C INLET AND PIPE
- PROPOSED STORM MANHOLE AND PIPE
- DOWNSPOUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
- INFILTRATION TEST LOCATION
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED FIRE HYDRANT
- PROPOSED WATER MAIN/SERVICE

E&S LEGEND

- ROCK CONSTRUCTION ENTRANCE
- INLET PROTECTION / INLET TO BE BLOCKED
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- EROSION CONTROL BLANKET
- LIMIT OF DISTURBANCE/ NPDES BOUNDARY (47,508 S.F. / 1.09 AC)

EXISTING FEATURES LEGEND

- EXISTING TRACT BOUNDARY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- FLOOD PLAN
- EXISTING STREAM
- SOILS LINE AND DESCRIPTION
- EXISTING PAVING
- EXISTING BUILDING
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING MANHOLE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE AND SHRUB LINE
- EXISTING WETLAND POINTS
- STEEP SLOPES 14-20%
- STEEP SLOPES 20% AND GREATER

EROSION AND SEDIMENTATION CONTROL PLAN - 40 SCALE

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS FOR
800 GOSHEN ROAD
 OWNER: GOSHEN HOLDING COMPANY, INC.
 BUILDER: C.F. HOLLOWAY, III, & COMPANY
 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors

Jeremy R. Maziarz
 REGISTERED PROFESSIONAL ENGINEER
 5055-F-2
 PENNSYLVANIA

18404

SCALE: 1"=40' DATE: 06/03/16 DRAWN BY: SVD CHECKED BY: JRM DRAWING NO.

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PENNSYLVANIA ACT 187 REQUIREMENTS
 UNDERGROUND UTILITIES SERIAL NO. 2011-0751124
 CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATION OF EXISTING SURFACE UTILITY STRUCTURES SHOWN ON THESE PLANS. THE CONSTRUCTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EROSION, TRENCHING, AND SHORING
 ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING STATE DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OF THE LATEST REVISIONS THEREOF:
 (1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2001) SUBPART "F", PART 1926.1010 - "EXCAVATIONS, TRENCHING AND SHORING".
 (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2298) DATED 1985 (REVISED).

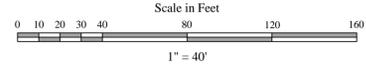
PENNSYLVANIA ONE-CALL SYSTEM, INC.
 CALL 3 WORKING DAYS BEFORE YOU DIG
 1-800-242-1776
 POC'S SERIAL NUMBER: 20110751124

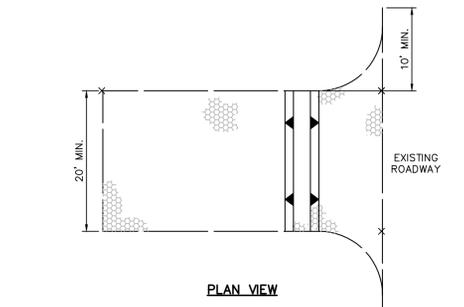
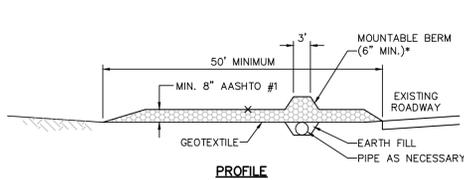
TAX PARCEL NO. 36-48-027 - FOLIO NO. 36-04-02471-00

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	WINTER GRADING			ROAD SUBGRADE			ROAD FILL			CHARACTERISTICS THAT AFFECT FARM POOD IMBARRMENTS
				FAIR	POOR TO FAIR	POOR	FAIR TO GOOD	GOOD	FAIR TO GOOD	GOOD			
GhE2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	FAIR TO GOOD	GOOD	PERMEABILITY				
GaC2	8% TO 12% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	FAIR TO GOOD	GOOD	PERMEABILITY				
GaD	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	FAIR TO GOOD	GOOD	PERMEABILITY				
GaE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	FAIR TO GOOD	GOOD	PERMEABILITY				
Ch	CHEWACLA SALT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	GOOD	FLOODING				
MfF	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	GOOD	INSTABILITY				

OWNER OF RECORD:
 GOSHEN HOLDING COMPANY, INC.
 110 GALLAGHER ROAD
 WAYNE, PA 19087
 610-964-9040

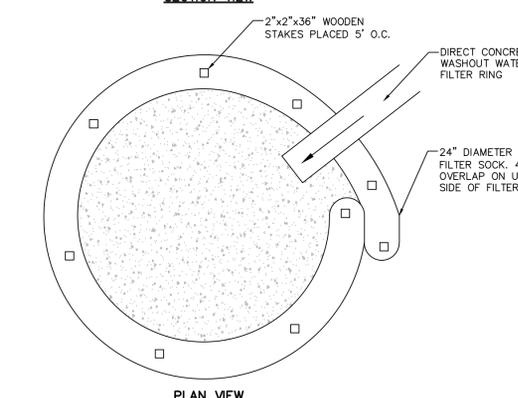
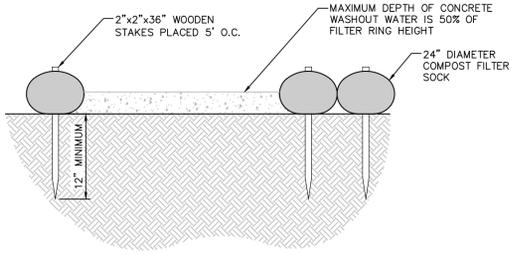




ROCK CONSTRUCTION ENTRANCE DETAIL
N.T.S.

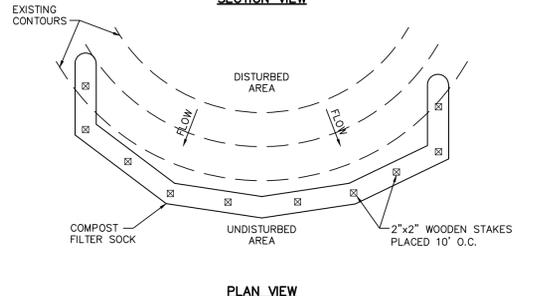
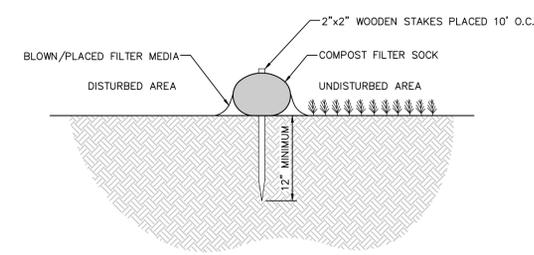
- NOTES:**
1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
 2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
 3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE:
ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.



CONCRETE WASHOUT AREA DETAIL
N.T.S.

- NOTES:**
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
 2. 18" DIAMETER SILT SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SILK SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
 3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUTS. WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED IMMEDIATELY.
 4. CARE SHOULD BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS.
 5. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED IMMEDIATELY.
 6. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
 7. 7 GALLONS OF WASH WATER ARE REQUIRED TO WASH ONE TRUCK CHUTE AND 50 GALLONS OF WATER ARE REQUIRED TO WASH THE HOPPER OF A CONCRETE PUMP TRUCK.



COMPOST FILTER SOCK DETAIL
N.T.S.

- NOTES:**
1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
 2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
 3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
 4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF TECH SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
 5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
 6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

TABLE 4.1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

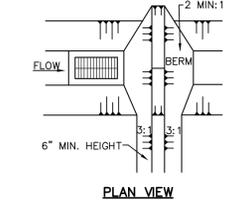
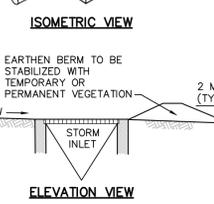
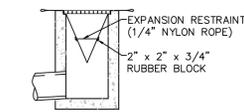
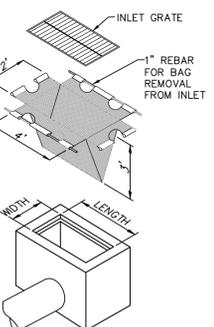
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPF)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPF)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

TWO-PLY SYSTEMS

INNER CONTAINMENT NETTING	HDPE BIAXIAL NET
	CONTINUOUSLY WOUND FUSION-WELDING JUNCTURES
OUTER FILTRATION MESH	3/4"x3/4" MAX. APERTURE SIZE
	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
3/16" MAX. APERTURE SIZE	
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.	

TABLE 4.2 - COMPOST STANDARDS

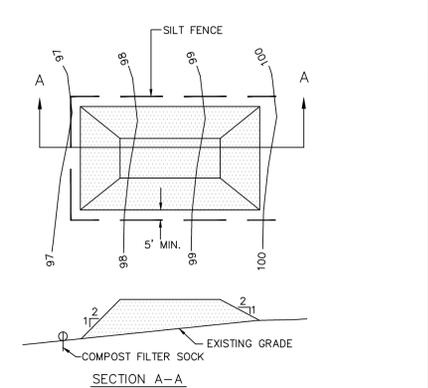
ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



FILTER BAG INLET PROTECTION - TYPE M INLET DETAIL
N.T.S.

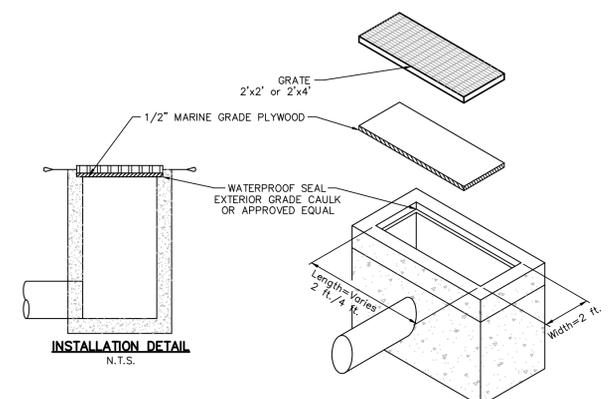
- NOTES:**
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
 2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
 4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS. A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRIANGULAR TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
 5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

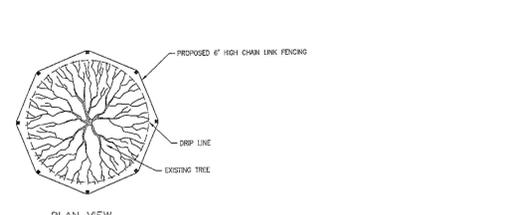
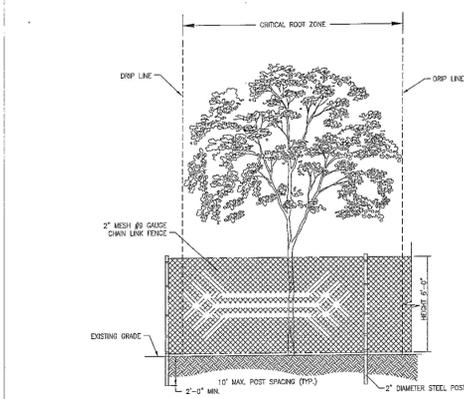


- NOTES:**
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
 2. ALL SIDE SLOPES SHALL BE 2 TO 1 OR FLATTER.
 3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS.
 4. COMPOST FILTER SOCK SHALL BE INSTALLED AS DETAILED HEREON.
 5. LOCATION OF PROPOSED STOCKPILE WHICH AFFECTS EROSION CONTROLS ARE SHOWN SCHEMATICALLY ONLY. ACTUALLY STOCKPILE LOCATION MAY CHANGE DURING CONSTRUCTION.
 6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.

STOCKPILE DETAIL
N.T.S.



INLET TEMPORARY SEAL DETAIL
N.T.S.



TREE PROTECTION SPECIFICATIONS

1. A 4" layer of coarse mulch or woodchips is to be placed beneath the drip line of the protected trees. Mulch is to be kept 12" from the trunk.
2. A protective barrier of 6" chain link fencing shall be installed around the drip line of protected trees. The fencing can be raised above the drip line if authorized by the Consulting Arborist but not closer than 2" from the trunk of any tree. Fence posts shall be 2.0" in diameter and one to be placed 2' from the trunk. The distance between posts shall not be more than 10'. This enclosed area is the Tree Protection Zone (TPZ).
3. Where the Consulting Arborist has determined that tree protection fencing will interfere with the safety of work crews, then they may be used as an alternative form of tree protection. Barrier posts at least one inch thick are to be placed around the trunk. A single layer of coarse plastic construction material is to be placed over and secured around the outside of the plastic walls. Major structural trees may require protection to be installed to the trunk up to a minimum height of six feet from grade. A single layer of coarse plastic construction material is to be equipped and secured around the trunk.

DO NOT:

1. Allow any off of spillage of dumping materials into the area below any tree canopy.
2. Store materials, stockpile ash, or park or drive vehicles within the TPZ.
3. Cut, break, slash, or trim roots, branches, or limbs without first obtaining authorization from the Consulting Arborist.
4. Remove any tree or shrub within the TPZ.
5. Discard refuse into the TPZ.
6. Use any equipment or vehicle to enter or disturb.
7. Trench, dig, or otherwise disturb within the drip line or 1/2 of the height of the tree without authorization from the Consulting Arborist.
8. Apply soil sterilants under pavement near existing trees.

Rockwell Associates, LLC
Arboriculture • Urban Forestry • Horticulture
Consulting • Planning • Management
P.O. Box 542, Ridley Park, PA 19078
Phone (610) 731-7969
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lhr@rockwellconsultants.com
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GENERAL EROSION AND SEDIMENTATION CONTROL NOTES

OWNER / OPERATOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THESE PLANS.

ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS, SHALL BE DONE IN ACCORDANCE WITH APPROVED EAS PLANS. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN (STAMPED AND SIGNED BY THE DELAWARE COUNTY CONSERVATION DISTRICT) SHALL BE ON THE PROJECT SITE AT ALL TIMES. THE REVENING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLANS. IF CHANGES TO THESE PLANS ARE MADE, THE REVENING AGENCY MAY REQUIRE THE WRITER SUBMITAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

A OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE DELAWARE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPILL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

1. THE PROJECT SITE SHALL AT ALL TIME BE AVAILABLE FOR INSPECTION BY AUTHORIZED OFFICERS AND EMPLOYEES OF THE FOLLOWING AGENCY: DELAWARE COUNTY CONSERVATION DISTRICT (DCCD) 1521 NORTH PENNSYLVANIA ROAD PAIDEN, PA 19383 PHONE: (610) 892-3484

2. THE RECEIVING WATERS FOR THIS PROJECT IS DABRY CREEK. THE CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATER DISCHARGING FROM THIS PROJECT IS COLD WATER FISH (CWF).

3. NOTIFY THE COUNTY CONSERVATION DISTRICT AND ARRANGE A PRE-CONSTRUCTION MEETING FOR ALL INVOLVED PARTIES (INCLUDING DCCD, APPLICANT, ENGINEER, AND TOWNSHIP OFFICIALS).

4. NOTIFY THE TOWNSHIP ENGINEER AT LEAST 48 HOURS PRIOR TO ANY EARTH DISTURBANCE ACTIVITIES.

5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER SUCH THAT ALL EROSION AND AIR/WATER POLLUTION IS MINIMIZED, STATE AND LOCAL LAWS CONCERNING ABATEMENT SHALL BE FOLLOWED.

6. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROCKS, AND OTHER OBJECTIONABLE MATERIAL.

7. THE LIMITS OF WORK SHOWN ON THIS PLAN ARE THE REAL EXISTENT REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO THESE LIMITS IN MINIMIZING DISTURBED LAND, AND ALL CONSTRUCTION SHALL BE CONFINED WITHIN THESE LIMITS. THE SMALL 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.

8. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDDED WITH A VEGETATIVE COVER AND STOCKPILED FOR REUSE IN FINISH GRADING. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER. SEDIMENT BARRIERS SHALL BE INSTALLED ON THE LOW SIDE OF THE FILE. THERE SHALL BE A 10' BUFFER ZONE BETWEEN STOCKPILE AREAS.

9. STOCKPILE UNFROZEN EROSION CONTROLS DEVELOP DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND STREAMS IN ACCORDANCE WITH PADOT 408, SECTION 845. STOCKPILES OF CRUSHED STONE AND MULCHES MUST BE MAINTAINED AT THE SITE IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

10. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 5801 ET. SEQ. 2711. THE OPERATOR SHALL NOT STORE OR STORED MATERIALS, INCLUDING SOILS, DUMPS, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.

11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN EAS PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FILL FROM 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.

13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS.

14. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

15. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN UP, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE COMPLETED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

16. SEDIMENT TRACKED ONTO A PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY, AND AS NEEDED OR AS REQUIRED BY THE TOWNSHIP OR THE DCCD, AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

17. ALL SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

18. AREAS WHICH ARE TO BE TOP-SOLED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO THE PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. I.E. YARDS.

19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SUPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, CONDUIITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

21. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROCKS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

22. FROZEN MATERIALS OF SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

23. FILLS SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR SUBSURFACE DRAINAGE SYSTEMS APPROVED METHOD.

25. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS SHOULD NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLENDED ACCORDING TO THE STANDARDS AND SPECIFICATIONS FOR SUBSURFACE DRAINAGE SYSTEMS.

26. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED FOR ANY AMOUNT OF TIME, MUST BE SEEDDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. DISTURBED AREAS WHICH ARE NOT AT FINISH GRADE SHALL BE RE-DISTURBED IMMEDIATELY. DISTURBED AREAS WHICH ARE EITHER AT FINISH GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE SEEDDED WITH A PERMANENT SEED MIXTURE AND MULCHED IMMEDIATELY.

27. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED PERMANENT STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION. CUTJ AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

28. EKS BMP'S 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.

29. 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 EKS BMP'S.

30. AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED OR CONVERTED TO PERMANENT POST-CONSTRUCTION STORMWATER MANAGEMENT SYSTEMS AS REQUIRED BY THE STANDARDS AND SPECIFICATIONS FOR SUBSURFACE DRAINAGE SYSTEMS APPROVED METHOD. AREAS DISTURBED DURING THE REMOVAL OR CONVERSION OF THE BMP'S SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID VEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

31. 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.

32. FAILURE TO CORRECTLY INSTALL EKS BMP'S, FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF EKS BMP'S WILL RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES AS PROVIDED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAM LAW. THE CLEAN STREAM LAW PROVIDES FOR UP TO \$10,000 PER DAY CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR OR CRIMINAL PENALTIES FOR EACH VIOLATION.

33. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 100, EROSION CONTROL.

34. THE PERMITTEE SHALL NOTIFY THE DELAWARE COUNTY CONSERVATION DISTRICT IMMEDIATELY PRIOR TO ANY CESSATION IN EARTHMOVING ACTIVITIES.

35. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE

GENERAL SITE DISTURBANCE WITHIN THE TRIBUTARY AREA OF THOSE CONTROLS BEGINS. RUNOFF FROM DISTURBED AREAS MUST PASS THROUGH A SEDIMENT REMOVAL OR RETENTION FACILITY BEFORE LEAVING THE SITE.

36. ONLY LIMITED UP-SLOPE DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO SEDIMENT TRAPS AND CHANNELS OF CONVEYANCE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE CONTROLS.

37. WHERE AREAS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION: A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS. B. THE MEASURES TO BE TAKEN TO REDUCE, ELIMINATE AND PREVENT THE REOCURRENCE OF THE NON-COMPLIANCE. C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

38. ACCUMULATED SILT SHALL BE REMOVED ALONG SILT FENCING OR COMPOST FILTER SOCKS, REGRADED, AND STABILIZED ELSEWHERE ON THE SITE. SILT SHALL ALSO BE REMOVED FROM THE SEDIMENT TRAPS AT THE CLEANOUT ELEVATIONS. THE SILT SHALL BE SPREAD ELSEWHERE ON THE SITE AND SEEDED.

39. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE TO BE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO THE DISCHARGE OF OR STABILIZING OF SURFACES UPSTREAM OF THE POINT OF DISCHARGE, THE PERMITTEE SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EXTRA MULCHING, COMMERCIALY PRODUCED EROSION CONTROL MULCH BLANKETS, SILT BARRIERS AND/OR THE CONSTRUCTION AND MAINTENANCE OF TEMPORARY SEDIMENTATION BASINS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

40. THE CODES ENFORCEMENT OFFICER (OR HIS DESIGNEE) SHALL INSPECT ALL ON-LOT EROSION AND SEDIMENTATION CONTROL FACILITIES ON A LOT IMMEDIATELY PRIOR TO HIS INSPECTION OF A BUILDING OR BUILDINGS UNDER CONSTRUCTION ON SUCH LOT, TO ASSURE THAT THE LOT SHALL REMAIN STABILIZED DURING ALL STAGES OF CONSTRUCTION AND AT THE TIME OF ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

41. IN THE EVENT THAT THE CODES ENFORCEMENT OFFICER, UPON ANY SUCH INSPECTION, DETERMINES THAT THE LOT IS NOT STABILIZED, HE SHALL SO ADVISE THE GRADING PERMITTEE AND SHALL IMMEDIATELY NOTIFY THE SCHEDULED BUILDING INSPECTION OFFICER (IF APPLICABLE) OF THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY UNTIL THE LOT HAS BEEN STABILIZED.

42. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT POLLUTION CONTROLS AND SITE STABILIZATION. THE CONTRACTOR SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.

43. ALL AREAS LEFT EXPOSED SHALL BE TEMPORARILY SEEDDED AND MULCHED IMMEDIATELY. ALL STOCKPILES ARE TO BE TEMPORARILY SEEDDED IMMEDIATELY UPON COMPLETION OF THE WORK. MATERIALS IS TO BE PHASED OVER AND EXTENDED PERIOD OF TIME, TEMPORARY SEEDING IS TO OCCUR AT THE END OF EACH STOCKPILED PHASE.

44. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED, REPAIRED AND REPLACED AS NECESSARY ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THESE MEASURES.

45. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO PROTECT TREES AND SHRUBS FROM UNNECESSARY DAMAGE.

46. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INADEQUATE FOR CONTROLLING EROSION AND SEDIMENT POLLUTION, ADDITIONAL MEASURES MUST BE IMPLEMENTED BY THE CONTRACTOR IMMEDIATELY TO ELIMINATE ALL PROBLEMS PER TOWNSHIP RECOMMENDATIONS.

47. WHILE THE TOWNSHIP HAS MADE EVERY EFFORT TO DETERMINE COMPLIANCE WITH ORDINANCES RELATING TO STORM WATER DRAINAGE, EROSION CONTROL AND BEST MANAGEMENT PRACTICES, MATTERS WITH REGARD TO FINAL GRADING, DRAINAGE AND THE PERFORMANCE OF STORMWATER MANAGEMENT FACILITIES AND FINAL LOCATIONS IN THE FIELD. THEREFORE, THE TOWNSHIP RESERVES THE RIGHT TO REQUIRE SUCH MODIFICATIONS TO THE STORM WATER DRAINAGE, EROSION CONTROL SYSTEMS AND BEST MANAGEMENT PRACTICES AS MAY BE NECESSARY TO PREVENT THE DISCHARGE OF STORM DRAINAGE ACROSS PATHWAYS, TOWARDS OR AGAINST BUILDINGS, TO CURE PROBLEMS OF EROSION OCCURRING BECAUSE OF INADEQUATE CONSTRUCTION METHODS OR DESIGN AND/OR TO PREVENT EXCESSIVE PERIODS OF STANDING WATER (OVER 24 HOURS) IN FACILITIES WHERE EXCESSIVE PERIODS OF STANDING WATER IS NOT INTENDED BY THE BEST MANAGEMENT PRACTICES DESIGN. MORE SPECIFICALLY, UPON VERBAL AND/OR WRITTEN NOTICE FROM THE TOWNSHIP TO THE APPLICANT OF UNSATISFACTORY DRAINAGE, EROSION CONDITIONS OR STANDING WATER, THE APPLICANT SHALL HAVE 90 DAYS FROM THE DATE OF SAID NOTICE TO CORRECT THE CONDITIONS IN ACCORDANCE WITH THE TOWNSHIP'S DIRECTION, WHICH MAY INCLUDE SUBSTITUTION OF CORRECTIVE DESIGNS BY A PROFESSIONAL ENGINEER, THE INSTALLATION OF ADDITIONAL PIPING, EROSION CONTROL BLANKETING, EARTHEN BUNKERS, SWALES, ROCK LININGS OR OTHER CORRECTIVE MEASURES AS NECESSARY TO REDRECT DRAINAGE FLOWS AND RESTORE THE SURFACE AND/OR TO PREVENT FURTHER EROSION.

48. CORRECTIVE CONSTRUCTION MEASURES AND/OR ENGINEERING DESIGNS SHALL COMPLY WITH THE TOWNSHIP CODES IN ACCORDANCE WITH THE TIME CONSTRAINTS PROVIDED IN SECTION 508(4) OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, AS AMENDED.

49. ALL UTILITY LINES, INCLUDING BUT NOT LIMITED TO ELECTRIC, GAS, STREETLIGHT PIPING AND TELEPHONE SHALL BE PLACED UNDERGROUND. INSTALLATION OF ALL UTILITIES SHALL BE IN STRICT ACCORDANCE WITH THE ENGINEERING STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OR PUBLIC UTILITY COMMISSION.

50. DUST SHALL BE KEPT WITHIN TOLERABLE LIMITS (AS DETERMINED BY THE TOWNSHIP ENGINEER) BY USE OF SPRINKLED WATER. IF SPRINKLED WATER IS NOT EFFECTIVE (AS DETERMINED BY THE TOWNSHIP ENGINEER) ADDITIONAL MEASURES WILL BE NECESSARY, INCLUDING (BUT NOT LIMITED TO) APPLICATION OF CHEMICALS APPROVED BY THE PADEP, PLACING EROSION CONTROL BLANKETS ON ALL EXPOSED AREAS, PLACING PLASTIC ON STOCKPILE AREAS, OR MULCHING THE ENTIRE SITE.

51. BURYING OF ORGANIC MATERIAL GENERATED BY TREE REMOVAL OR OTHER LAND CLEARING ACTIVITIES IS PROHIBITED.

52. ANY CONSTRUCTION WORK ON THE SANITARY SEWER SYSTEM SHALL BE COMPLETED UNDER THE INSPECTION OF THE TOWNSHIP, AND MUST BE COMPLETED IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS CONCERNING CONSTRUCTION OF AND CONNECTION TO SANITARY SEWERAGE FACILITIES IN THE TOWNSHIP (AVAILABLE AT THE TOWNSHIP BUILDING). CONSTRUCTION WORK REQUIRING INSPECTION AND TESTING SHALL NOT BE BACKFILLED WITHOUT APPROVAL OF THE TOWNSHIP. CONSTRUCTION WORK BACKFILLED WITHOUT SUCH APPROVAL OR CONSENT SHALL BE UNCOVERED, THE COST OF UNCOVERING AND REPAIRING TO BE DONE BY THE DEVELOPER OR CONTRACTOR.

53. UPON COMPLETION OF GRADING, TOPSOIL STRIPPED AND PRESERVED DURING THE COURSE OF A PROJECT SHALL BE REDISTRIBUTED ON THE SITE TO COVER DISTURBED AREAS OF THE SITE. TOPSOIL SHALL NOT TO BE REMOVED FROM THE SITE UNLESS APPROVED BY THE TOWNSHIP ENGINEER TO RELOCATE IT TO ANOTHER AREA WITHIN THE TOWNSHIP. IF NO AREAS WITHIN THE TOWNSHIP ARE AVAILABLE, ONLY THE TOWNSHIP ENGINEER MAY AUTHORIZE EXPORTING TOPSOIL TO OTHER AREAS WITHIN THE TOWNSHIP.

54. UPON REQUEST, THE PERMIT HOLDER AND/OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT FOR ANY SEDIMENT CONTROL TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT, OR DEP.

55. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E & S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE DELAWARE COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENTATION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENTATION POLLUTION.

56. ALL CONCRETE TRUCKS SHALL UTILIZE THE CONCRETE WASHOUT AREA PRIOR TO LEAVING THE SITE.

57. UTILITY LINE TRENCH EXCAVATION NOTES: A. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE DEPTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY. B. 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 STABILIZATION AND STABILIZATION OPERATIONS. C. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL OR OFF-ROAD SIDE OF THE TRENCH. D. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. E. EROSION WHICH OCCURS THROUGHOUT THE TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DECK. F. AT THE END OF EACH DAY OF TRENCH AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADDED TO FINAL TOPSOILS AND IMMEDIATELY STABILIZED.

58. WHERE PLANNING IMMEDIATE GRASS, MULCH/POWDER OR LEGUME SEEDING OR ORNAMENTAL PLANTING, USE ONLY A WELL-COMPOSTED PRODUCT THAT CONTAINS NO SUBSTANCES TOXIC TO PLANTS (SUCH AS COPPER AND ZINC) SHOULD BE AVOIDED IF THE SOIL IS TO BE LANDSCAPED OR SEEDED, AS IT WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT. COMPOSTS CONTAINING BROWN PARTICLES THAT RANGE IN SIZE PRODUCE A MORE STABLE MAT.

NOTE: COMPOST SHALL NOT BE USED INSTEAD OF EROSION CONTROL BLANKETING.

MULCHING NOTES ALL SEEDED AREAS SHOULD BE MULCHED OR BLANKETED TO MINIMIZE THE POTENTIAL FOR FAILURE TO ESTABLISH AN ADEQUATE VEGETATIVE COVER. MULCHING MAY ALSO BE USED AS A TEMPORARY STABILIZATION OF SOME DISTURBED AREAS IN NON-GERMINATING SEASONS. STRAW AND HAY MULCH SHOULD BE APPLIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.

3. POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH. AVOID APPLICATION DURING RAIN AND ON WINDY DAYS. A 24-HOUR CURING PERIOD AND A SOIL TEMPERATURE HIGHER THAN 45 DEG. FAHRENHEIT ARE ESPECIALLY REQUIRED. MULCHING SHOULD BE GENERALLY HEAVIEST AT EDGES OF SEEDED AREAS AND AT GREATS OF ROADS AND BANKS TO PREVENT LOSS BY WIND. THE REMAINDER OF THE AREA SHOULD BE BINDER APPLIED UNIFORMLY. BINDERS MAY BE APPLIED AFTER MULCH IS SPREAD OR SPRAYED INTO THE MULCH AS IT IS BEING BLOWN INTO THE SOIL. APPLYING MULCH AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE.

4. SYNTHETIC BINDERS OR OTHER BINDERS, WHICH MAY BE USED AS RECOMMENDED BY MANUFACTURER, MUST BE MANUFACTURED BY A MANUFACTURER WHOSE DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.

5. ALL TYPES OF BRUSH OR STRAW SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP BASK SEEDING UNIFORMLY SPREAD THROUGHOUT BASIN BOTTOM. IN THE EVENT SEEDS COLLECT IN ONE AREA OR DISCHARGE FROM THE BASIN, THE CONTRACTOR SHALL RE-SEED, REGRADING AND SECURE SEED/MULCH WITH THE APPROPRIATE LIGHTWEIGHT PLASTIC, FIBER OR PAPER NETTING, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

7. SHREDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5:1. WOOD CHIP 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.

MULCH APPLICATION RATES

MULCH TYPE	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.
STRAW	3 TONS	140 LB.	1,240 LB.
HAY	3 TONS	140 LB.	1,240 LB.

WOOD CHIPS	4-6 TONS	185 - 275 LB.	1,650 - 2,500 LB.
HYDROMULCH	1 TON	47 LB.	415 LB.

SEE LIMITATIONS ABOVE

3. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEED PREPARATION. COMPACTED SOILS SHOULD BE PROCEDED 6 TO 12 INCHES ABOVE CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

THERMAL IMPACTS THE RUNOFF FROM THE PROJECT AREA THAT OUTLETS TO THE EXISTING WETLANDS FIRST DRAINS THROUGH UNDERGROUND STORM DRAINAGE SYSTEMS, TEMPORARY CHANNELS, AND AN ABOVE GROUND SEDIMENT BASIN.

INTERCEPTING THE RUNOFF WITH THE ONSITE TEMPORARY BMP'S HELPS TO DISSIPATE THE HEAT ENERGY THAT THE STORMWATER ABSORBS FROM THE DISTURBED PROJECT AREA.

A MAJORITY OF ONSITE RUNOFF FROM DISTURBED AREAS WILL TRAVEL THROUGH AN UNDERGROUND STORM DRAINAGE SYSTEM. THE DRAINAGE SYSTEM HAS LIMITED SUNLIGHT EXPOSURE AND RESULTS IN A COOL SUBSTRATE THAT CAN BE USED FOR TILLAGE. IRREGULARITIES IN SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.

THE COOLING INFLUENCES OF THE ONSITE BMP'S AND RATE REDUCTION PROVIDED BY THE SEDIMENT BASIN WILL NEUTRALIZE AND REDUCE THE HEAT ENERGY ASSORBED BY THE PROJECT SITE RUNOFF PRIOR TO DISCHARGE INTO THE RECEIVING WATERCOURSE.

SOIL AMENDMENT APPLICATION RATE EQUIVALENTS*

SOIL AMENDMENT	PERMANENT SEEDING APPLICATION RATE (MIN.) PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	NOTES
AGRICULTURAL LIME	6 TONS	240 LB.	2,480 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
FERTILIZER	1,000 LB	25 LB.	210 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES
AGRICULTURAL LIME	1 TON	40 LB.	410 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES
FERTILIZER	500 LB	12.5 LB.	100 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES

* TEST TOPSOIL TO DETERMINE ACTUAL LIME AND FERTILIZER NEEDS.

DISPOSAL AND RECYCLING CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED OR UNUSED CONSTRUCTION MATERIALS. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY. CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

LIKELY WASTE TO BE GENERATED AT THIS SITE: UNUSED CONCRETE TO BE PLACED IN CONCRETE WASHOUT AREAS BUILDING CONSTRUCTION DEBRIS TO BE DEPOSITED IN APPROPRIATE CONTAINERS

SPECIAL GEOLOGIC AND SOIL CONDITIONS THE ONLY SPECIAL SOIL OR GEOLOGIC CONDITION EXISTING ON THIS PROJECT SITE IS A HIGH GROUNDWATER TABLE ON THE DOWNSLOPE PORTION OF THE SITE NEAR THE EXISTING WETLANDS. THE HIGH GROUNDWATER TABLE IS AVOIDED BY TAKING SEVERAL TEST PITS AND BORINGS TO DETERMINE THE GROUNDWATER ELEVATION AND DESIGNING THE TEMPORARY AND PROPOSED BMP'S ELEVATIONS A MINIMUM 2' ABOVE.

ADDITIONAL GENERAL EROSION AND SEDIMENT POLLUTION CONTROL NOTES

1. THE TOWNSHIP CODES ENFORCEMENT OFFICER, IN CONSULTATION WITH THE TOWNSHIP ENGINEER, SHALL HAVE THE AUTHORITY TO LIMIT, DURING THE COURSE OF CONSTRUCTION, THE NUMBER OF TRUCKS AND TRAILERS, WHETHER GRANTED UNDER THIS CHAPTER OR GRANTED AS A RESULT OF AN APPROVAL OF A SUBDIVISION OR LAND DEVELOPMENT WHERE NECESSARY TO PREVENT EROSION AND SEDIMENT LADEN DISCHARGES IN VIOLATION OF THE PROVISIONS OF THE TOWNSHIP EROSION CONTROL ORDINANCES.

2. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT UNDESIRABLE SETTLEMENT. THE FILL SHALL BE SPREAD IN A SEQUENCE OF LAYERS, NOT EXCEEDING 12 INCHES IN THICKNESS, AND ALL AREAS SHALL BE PROMPTLY SEEDDED AND MULCHED AND/OR SOODED OR OTHERWISE PROTECTED FROM EROSION IMMEDIATELY UPON COMPLETION OF THE GRADING OPERATION AND SHALL BE WATERED, TENDED AND MAINTAINED UNTIL GROWTH IS WELL ESTABLISHED. PAVING BASE SHALL BE PLACED IMMEDIATELY TO PREVENT EROSION OF PROPOSED PAVED AREAS.

3. NO ONE SHALL DEPOSIT OR PLACE ANY DEBRIS OR OTHER MATERIAL IN ANY WATERCOURSE, DRAINAGE DITCH OR STRUCTURE IN SUCH A MANNER AS TO OBSTRUCT FREE FLOW. IN ADDITION, THE EMBANKMENTS OF ALL WATERCOURSES MUST BE STABILIZED AND PROTECTED AGAINST FURTHER EROSION IN PERMANENT BY THE TOWNSHIP ENGINEER.

4. THE APPLICANT OR OWNER OF ANY PROPERTY ON WHICH ANY WORK HAS BEEN DONE PURSUANT TO A PERMIT GRANTED UNDER THIS CHAPTER SHALL CONTINUOUSLY MAINTAIN AND REPAIR ALL GRADED SURFACES AND ANTI-EROSION DEVICES, SUCH AS RETAINING WALLS, DRAINAGE STRUCTURES OR MEANS, PLANTINGS AND GROUND COVER INSTALLED OR COMPLETED. THIS OBLIGATION SHALL APPLY NOT ONLY TO THE PERMIT HOLDER BUT ALSO TO HIS OR HER SUCCESSORS IN TITLE TO THE PROPERTY.

5. BEFORE GRANTING OCCUPANCY PERMITS FOR BUILDINGS, BUILDING LOTS SHALL BE FINISH GRADED AND DISTURBED AREAS SHALL BE STABILIZED SO THAT ANTI-EROSION MEASURES CAN BE MAINTAINED ONTO THE NEXT YEAR. TO ESTABLISH PERMANENT VEGETATIVE COVER AND IF, BECAUSE OF THE LACK OF GROUND COVER, EXPOSED AREAS RESULT IN EXCESS RUNOFF OR SILT DISCHARGES UNTO ADJOINING PROPERTIES OR THE PUBLIC, THE PERMITTEE SHALL BE RESPONSIBLE FOR THE IMMEDIATE INSTALLATION AND MAINTENANCE OF EXTRA MULCHING, COMMERCIALY PRODUCED EROSION CONTROL MULCH BLANKETS, SILT BARRIERS AND/OR THE CONSTRUCTION AND MAINTENANCE OF TEMPORARY SEDIMENTATION BASINS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

6. THE CODES ENFORCEMENT OFFICER (OR HIS DESIGNEE) SHALL INSPECT ALL ON-LOT EROSION AND SEDIMENTATION CONTROL FACILITIES ON A LOT IMMEDIATELY PRIOR TO HIS INSPECTION OF A BUILDING OR BUILDINGS UNDER CONSTRUCTION ON SUCH LOT, TO ASSURE THAT THE LOT SHALL REMAIN STABILIZED DURING ALL STAGES OF CONSTRUCTION AND AT THE TIME OF ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

7. IN THE EVENT THAT THE CODES ENFORCEMENT OFFICER, UPON ANY SUCH INSPECTION, DETERMINES THAT THE LOT IS NOT STABILIZED, HE SHALL SO ADVISE THE GRADING PERMITTEE AND SHALL IMMEDIATELY NOTIFY THE SCHEDULED BUILDING INSPECTION OFFICER (IF APPLICABLE) OF THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY UNTIL THE LOT HAS BEEN STABILIZED.

8. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT POLLUTION CONTROLS AND SITE STABILIZATION. THE CONTRACTOR SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.

9. ALL AREAS LEFT EXPOSED SHALL BE TEMPORARILY SEEDDED AND MULCHED IMMEDIATELY. ALL STOCKPILES ARE TO BE TEMPORARILY SEEDDED IMMEDIATELY UPON COMPLETION OF THE WORK. MATERIALS IS TO BE PHASED OVER AND EXTENDED PERIOD OF TIME, TEMPORARY SEEDING IS TO OCCUR AT THE END OF EACH STOCKPILED PHASE.

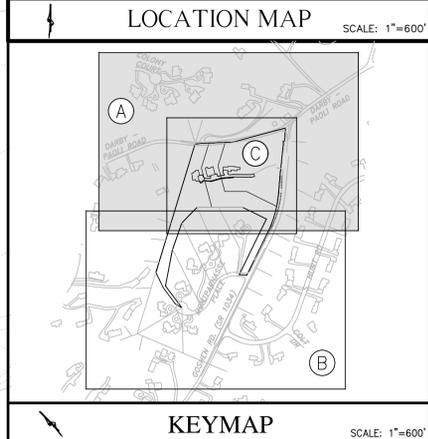
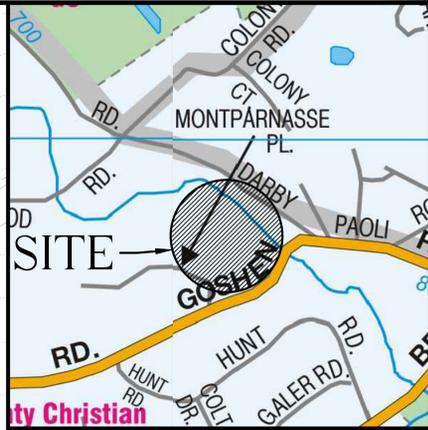
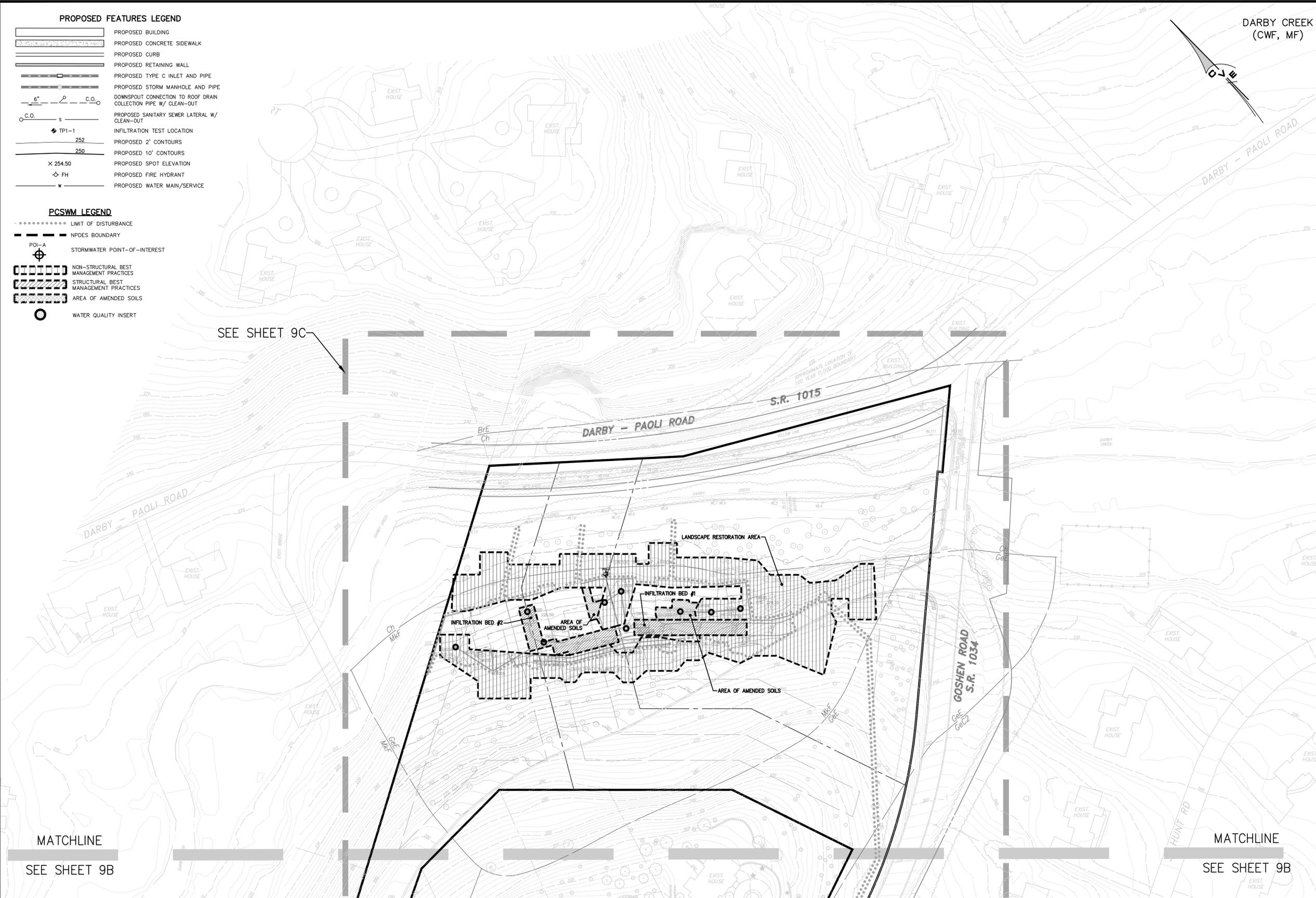
10. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED, REPAIRED AND REPLACED AS NECESSARY ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THESE MEASURES.

11. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO PROTECT TREES AND SHRUBS FROM UNNECESSARY DAMAGE.

12. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INADEQUATE FOR CONTROLLING EROSION AND SEDIMENT POLLUTION, ADDITIONAL MEASURES MUST BE IMPLEMENTED BY THE CONTRACTOR IMMEDIATELY TO ELIMINATE ALL PROBLEMS PER TOWNSHIP RECOMMENDATIONS.

13. WHILE THE TOWNSHIP HAS MADE EVERY EFFORT TO DETERMINE COMPLIANCE WITH ORDINANCES RELATING TO STORM WATER DRAINAGE, EROSION CONTROL AND BEST MANAGEMENT PRACTICES, MATTERS WITH REGARD TO FINAL GRADING, DRAINAGE AND THE PERFORMANCE OF STORMWATER MANAGEMENT FACILITIES AND FINAL LOCATIONS IN THE FIELD. THEREFORE, THE TOWNSHIP RESERVES THE RIGHT TO REQUIRE SUCH MODIFICATIONS TO THE STORM WATER DRAINAGE, EROSION CONTROL SYSTEMS AND BEST MANAGEMENT PRACTICES AS MAY BE NECESSARY TO PREVENT THE DISCHARGE OF STORM DRAINAGE ACROSS PATHWAYS, TOWARDS OR AGAINST BUILDINGS, TO CURE PROBLEMS OF EROSION OCCURRING BECAUSE OF INADEQUATE CONSTRUCTION METHODS OR DESIGN AND/OR TO PREVENT EXCESSIVE PERIODS OF STANDING WATER (OVER 24 HOURS) IN FACILITIES WHERE EXCESSIVE PERIODS OF STANDING WATER IS NOT INTENDED BY THE BEST MANAGEMENT PRACTICES DESIGN. MORE SPECIFICALLY, UPON VERBAL AND/OR WRITTEN NOTICE FROM THE TOWNSHIP TO THE APPLICANT OF UNSATISFACTORY DRAINAGE, EROSION CONDITIONS OR STANDING WATER, THE APPLICANT SHALL HAVE 90 DAYS FROM THE DATE OF SAID NOTICE TO CORRECT THE CONDITIONS IN ACCORDANCE WITH THE TOWNSHIP'S DIRECTION, WHICH MAY INCLUDE SUBSTITUTION OF CORRECTIVE DESIGNS BY A PROFESSIONAL ENGINEER, THE INSTALLATION OF ADDITIONAL PIPING, EROSION CONTROL BLANKETING, EARTHEN BUNKERS, SWALES, ROCK LININGS OR OTHER CORRECTIVE MEASURES AS NECESSARY TO REDRECT DRAINAGE FLOWS AND RESTORE THE SURFACE AND/OR TO PREVENT FURTHER EROSION.

14. CORRECTIVE CONSTRUCTION MEASURES AND/OR ENGINEERING DESIGNS SHALL COMPLY WITH THE TOWNSHIP CODES IN ACCORDANCE WITH THE TIME CONSTRAINTS PROVIDED IN SECTION



EXISTING FEATURES LEGEND

- EXISTING TRACT BOUNDARY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- FLOOD PLAIN
- EXISTING STREAM
- EXISTING LINE AND DESCRIPTION
- EXISTING PAVING
- EXISTING BUILDING
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING UTILITY AND PIPE
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING MANHOLE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE AND SHRUB LINE
- EXISTING WETLAND POINTS
- STEEP SLOPES 14-20%
- STEEP SLOPES 20% AND GREATER

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN - 60 SCALE

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS FOR 800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors
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 (610) 644-4625
 (610) 889-3143 Fax
 cve@chestervalley.com
 http://www.chestervalley.com

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SCALE: 1" = 60'
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 DRAWN BY: SVD
 CHECKED BY: JRM

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED TYPE C INLET AND PIPE
- PROPOSED STORM MANHOLE AND PIPE
- DOWNSPOUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
- TP1-1 INFILTRATION TEST LOCATION
- 252 PROPOSED 2' CONTOURS
- 250 PROPOSED 10' CONTOURS
- X 254.50 PROPOSED SPOT ELEVATION
- FH PROPOSED FIRE HYDRANT
- v PROPOSED WATER MAIN/SERVICE

PCSWM LEGEND

- LIMIT OF DISTURBANCE
- NPDES BOUNDARY
- POI-A STORMWATER POINT-OF-INTEREST
- NON-STRUCTURAL BEST MANAGEMENT PRACTICES
- STRUCTURAL BEST MANAGEMENT PRACTICES
- AREA OF AMENDED SOILS
- WATER QUALITY INSERT

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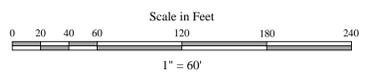
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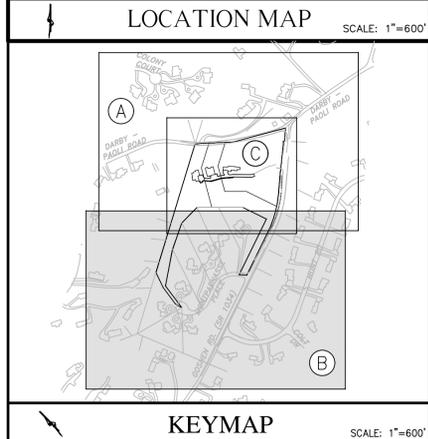
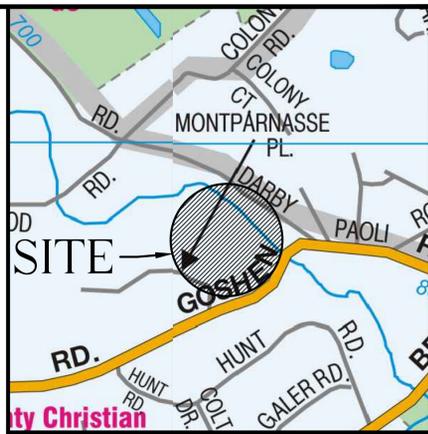
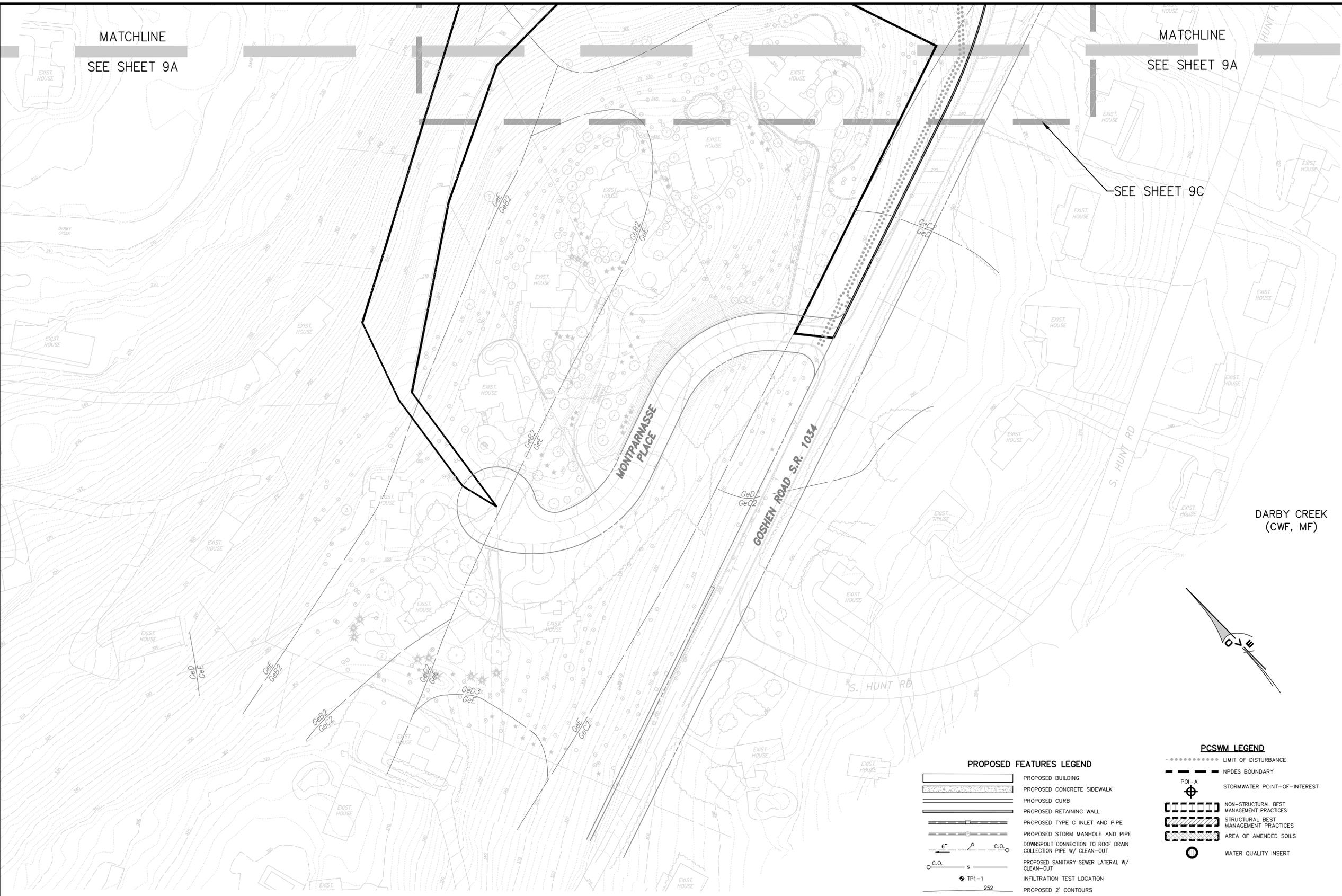
SEE SHEET 9B

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUBSTABILITY FOR:				CHARACTERISTICS THAT AFFECT:
				WINTER GRADING	ROAD SUBGRADE	ROAD FILL	TOPSOIL	
GLENLEO CHANNERY SILT LOAM								
GdS2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
GdC2	8% TO 12% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
Gd0	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
GdE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
CHEWACLA MANOR SOILS								
Ch	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING
Mf	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY

OWNER OF RECORD:
 GOSHEN HOLDING COMPANY, INC.
 110 GALLAGHER ROAD
 WAYNE, PA 19087
 610-964-9040





EXISTING FEATURES LEGEND

- EXISTING TRACT BOUNDARY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- FLOOD PLAIN
- EXISTING STREAM
- SOILS LINE AND DESCRIPTION
- EXISTING PAVING
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
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- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED TYPE C INLET AND PIPE
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- DOWNSPUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
- INFILTRATION TEST LOCATION
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED FIRE HYDRANT
- PROPOSED WATER MAIN/SERVICE

PCSWM LEGEND

- LIMIT OF DISTURBANCE
- NPDES BOUNDARY
- STORMWATER POINT-OF-INTEREST
- NON-STRUCTURAL BEST MANAGEMENT PRACTICES
- STRUCTURAL BEST MANAGEMENT PRACTICES
- AREA OF AMENDED SOILS
- WATER QUALITY INSERT

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN - 60 SCALE

NO.	DATE	REVISION
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OWNER: GOSHEN HOLDING COMPANY, INC.
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Chester Valley Engineers
 civil engineers & land surveyors
 Main Office: 83 Chestnut Road, P.O. Box 447, Paoli, PA 19081
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 (610) 889-3143 Fax
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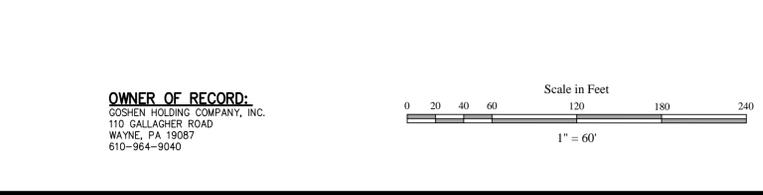
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 WAYNE, PA 19087
 610-964-9040

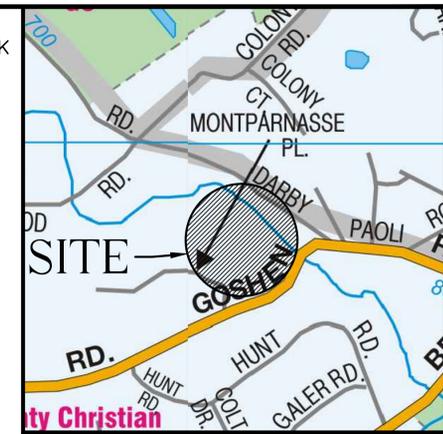
SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	WINTER GRADING	SUITABILITY FOR ROAD SUBGRADE	ROAD FILL	TOPSOIL	FARM POOD	EMBANKMENTS	CHARACTERISTICS THAT AFFECT
CHENELE CHANNERY SILT LOAM										
GcB2	3% TO 8% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	GOOD	PERMEABILITY
GcC2	8% TO 15% SLOPES MODERATELY ERODED	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	GOOD	PERMEABILITY
GcD	15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	GOOD	PERMEABILITY
GcE	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	GOOD	GOOD	PERMEABILITY
CHEWACLA MANOR SOILS										
Ch	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING		
MkF	35% TO 60% SLOPES	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY		

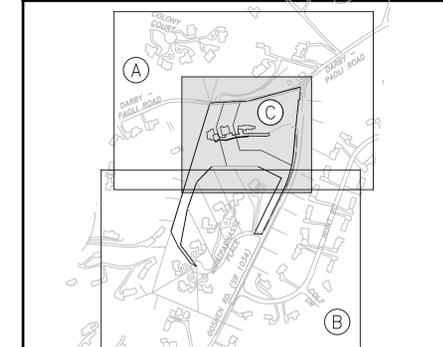


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 PCSWM PLAN 09-9/1/2015 3:02:26 PM

DARBY CREEK
(CWF, MF)



LOCATION MAP SCALE: 1"=600'



KEYMAP SCALE: 1"=600'

WORKSHEET 10 PCSM BMP'S:

- PRIMARY BMP:**
1. STRUCTURAL BMP 6.7.2 - LANDSCAPE RESTORATION
• SEE LANDSCAPING PLAN FOR EXACT LOCATION
- SECONDARY BMP'S:**
2. NON-STRUCTURAL BMP 5.4.1 - PROTECT SENSITIVE/SPECIAL VALUE FEATURES
• STEEP SLOPES
• FLOODPLAIN
• WETLANDS
3. STRUCTURAL BMP 6.7.3 - SOILS AMENDMENT/RESTORATION
• AREA OF AMENDED SOILS WITHIN YARD AREAS
- LIST OF STRUCTURAL BMP'S**
QUANTITY TYPE
2 INFILTRATION BED #1 AND #2
9 INLET EQUIPPED WITH WATER QUALITY INSERT
- SPECIAL GEOLOGIC AND SOIL CONDITIONS**
NO SPECIAL SOIL OR GEOLOGICAL ISSUES ARE KNOWN.

PROPOSED FEATURES LEGEND

[Symbol]	PROPOSED BUILDING
[Symbol]	PROPOSED CONCRETE SIDEWALK
[Symbol]	PROPOSED CURB
[Symbol]	PROPOSED RETAINING WALL
[Symbol]	PROPOSED TYPE C INLET AND PIPE
[Symbol]	PROPOSED STORM MANHOLE AND PIPE
[Symbol]	DOWNSPOUT CONNECTION TO ROOF DRAIN COLLECTION PIPE W/ CLEAN-OUT
[Symbol]	PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
[Symbol]	INFILTRATION TEST LOCATION
[Symbol]	PROPOSED 2' CONTOURS
[Symbol]	PROPOSED 10' CONTOURS
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED FIRE HYDRANT
[Symbol]	PROPOSED WATER MAIN/SERVICE

PCSWM LEGEND

[Symbol]	LIMIT OF DISTURBANCE
[Symbol]	NPDES BOUNDARY
[Symbol]	STORMWATER POINT-OF-INTEREST
[Symbol]	NON-STRUCTURAL BEST MANAGEMENT PRACTICES
[Symbol]	STRUCTURAL BEST MANAGEMENT PRACTICES
[Symbol]	AREA OF AMENDED SOILS
[Symbol]	WATER QUALITY INSERT

EXISTING FEATURES LEGEND

[Symbol]	EXISTING TRACT BOUNDARY
[Symbol]	EXISTING ADJACENT PROPERTY LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	EXISTING EASEMENT LINE
[Symbol]	BUILDING SETBACK LINE
[Symbol]	FLOOD PLAIN
[Symbol]	EXISTING STREAM
[Symbol]	SOILS LINE AND DESCRIPTION
[Symbol]	EXISTING PAVING
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING CURB
[Symbol]	EXISTING SIDEWALK
[Symbol]	EXISTING 2' CONTOURS
[Symbol]	EXISTING 10' CONTOURS
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	EXISTING FENCE
[Symbol]	EXISTING GUIDE RAIL
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING STORM INLET AND PIPE
[Symbol]	EXISTING STORM ENDWALL AND PIPE
[Symbol]	EXISTING MANHOLE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING OVERHEAD WIRES
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING DECIDUOUS TREE
[Symbol]	EXISTING CONIFEROUS TREE
[Symbol]	EXISTING TREE AND SHRUB LINE
[Symbol]	EXISTING WETLAND POINTS
[Symbol]	STEEP SLOPES 14-20%
[Symbol]	STEEP SLOPES 20% AND GREATER

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN - 40 SCALE

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS FOR 800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

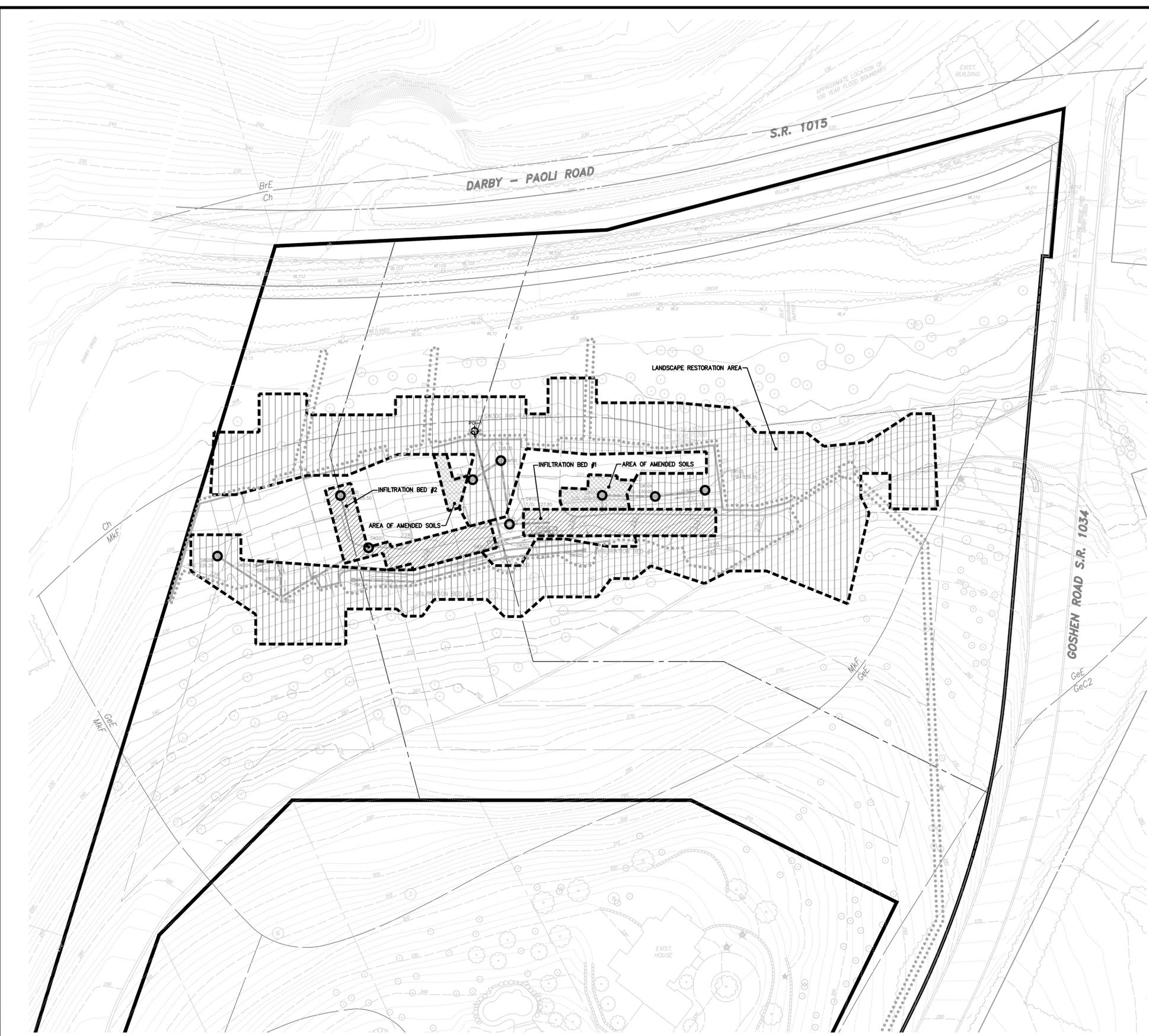
Chester Valley Engineers
civil engineers & land surveyors

Jeremy R. Maziarz
REGISTERED PROFESSIONAL ENGINEER
5005-F-2
PENNSYLVANIA

Scale in Feet
1" = 40'

DATE: 06/03/16
DRAWN BY: SVD
CHECKED BY: JRM

PROJECT NO: 18404
F.B.:



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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO. 2011 0751124
DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER:
SEE SHEET 2C FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.
PENNSYLVANIA ONE-CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 1-800-242-1776
POCS SERIAL NUMBER: 20110751124

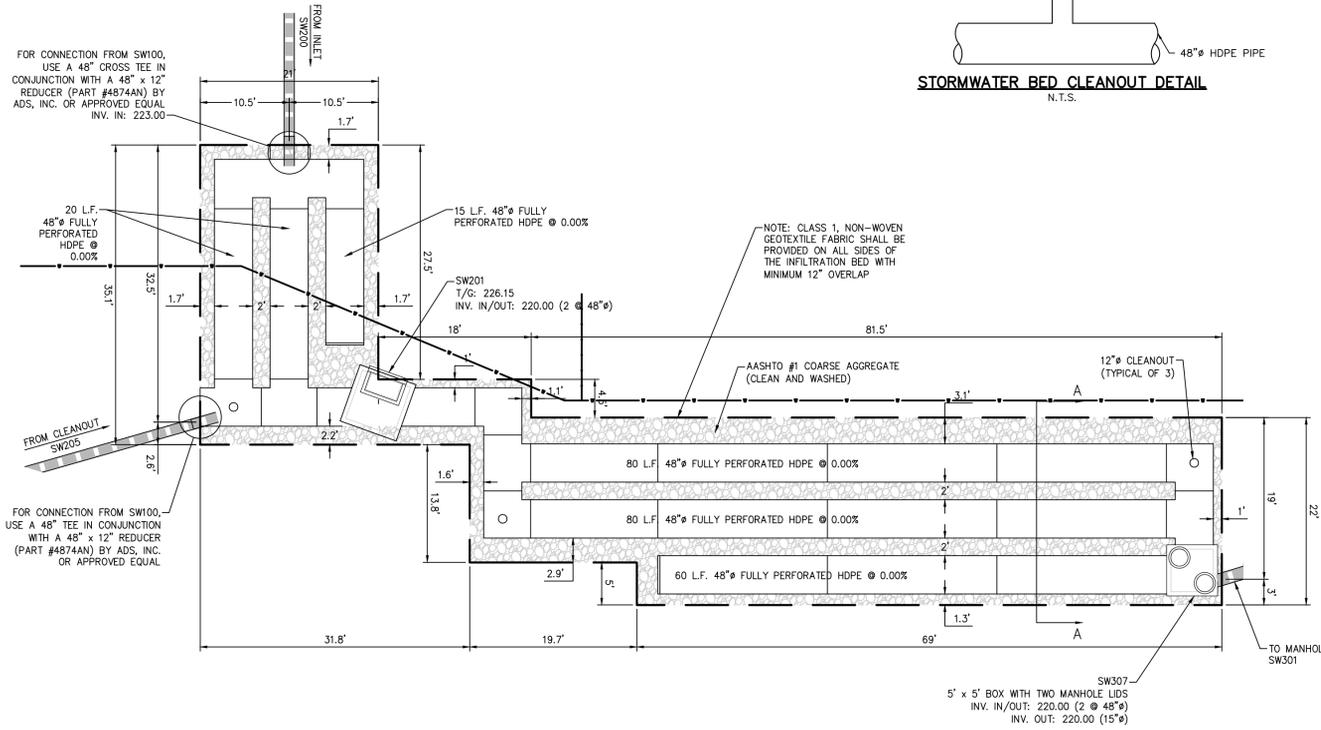
SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	WINTER GRADING	SUITABILITY FOR ROAD SUBGRADE	ROAD FILL	TOPSOIL	CHARACTERISTICS THAT AFFECT FARM POOD (IMPROVEMENTS)
G4E2	GLENELO CHANNERY SILT LOAM	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
G4C2	MODERATELY ERODED 8% TO 12% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
G4D	MODERATELY ERODED 15% TO 25% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
G4E	25% TO 35% SLOPES	5' PLUS	3' TO 5'	GOOD	FAIR TO GOOD	GOOD	GOOD	PERMEABILITY
Ch	CHEWACLA SILT LOAM	0' TO 1'	3' TO 6'	FAIR	POOR TO FAIR	FAIR	GOOD	FLOODING
MkF	MANOR SOILS	5' PLUS	2' TO 7'	GOOD	GOOD	GOOD	FAIR	INSTABILITY

OWNER OF RECORD:
GOSHEN HOLDING COMPANY, INC.
110 GALLAGHER ROAD
WAYNE, PA 19087
610-964-9040

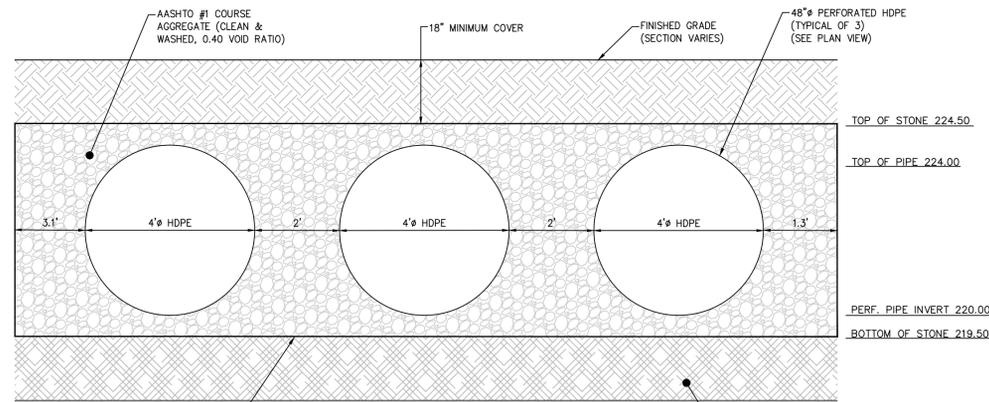
INFILTRATION BED NOTES:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
2. REFER TO PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, RC-35M, RC-45M, RC-45M, RC-46M, LATEST EDITION.
3. PERFORATIONS SHALL BE CLASS 2 PERFORATIONS, AASHTO M294, TYPE SP FOR HDPE PIPE.



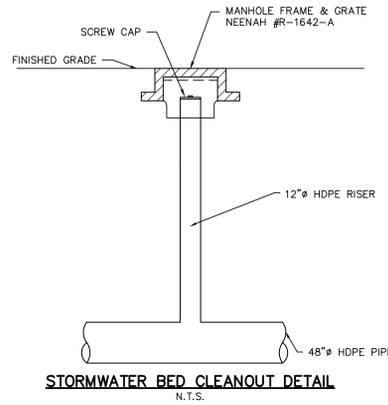
286 L.F. 48" FULLY PERFORATED HDPE
 TOTAL STORAGE PROVIDED = 3,594 C.F.
 TOTAL FOOTPRINT = 2,707 S.F.
 TOP OF STONE = 224.50
 48" HDPE INVERT = 220.00
 BOTTOM OF STONE = 219.50

INFILTRATION BED #2 DETAIL
 SCALE: 1" = 10'

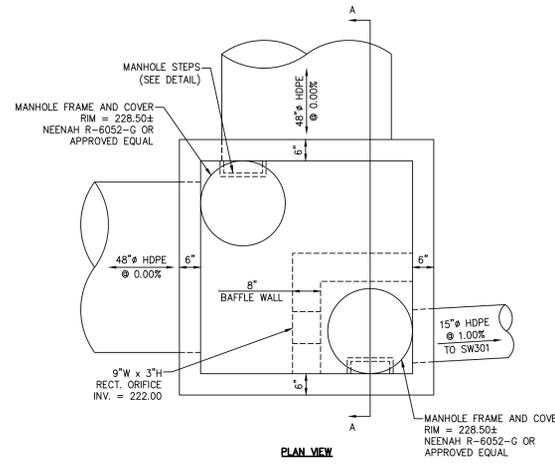


NOTE: CLASS 1, NON-WOVEN GEOTEXTILE FABRIC SHALL BE PROVIDED ON ALL SIDES OF THE INFILTRATION BED WITH MINIMUM 12" OVERLAP

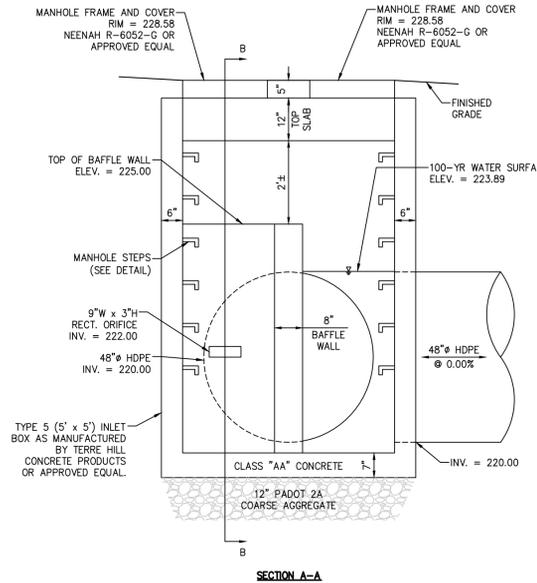
SECTION A-A
INFILTRATION BED #2 CROSS SECTION A-A
 N.T.S.



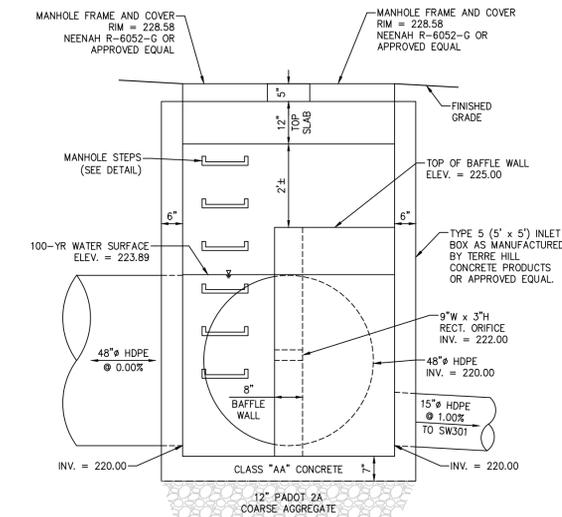
STORMWATER BED CLEANOUT DETAIL
 N.T.S.



PLAN VIEW

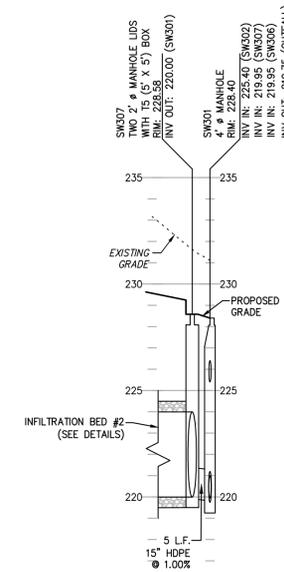


SECTION A-A

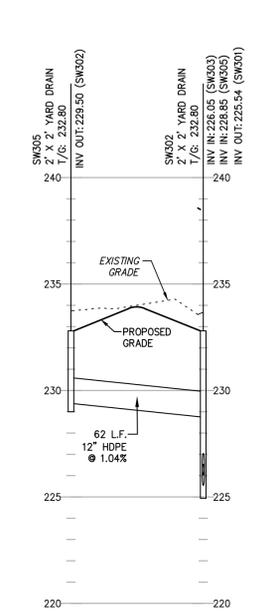


SECTION B-B

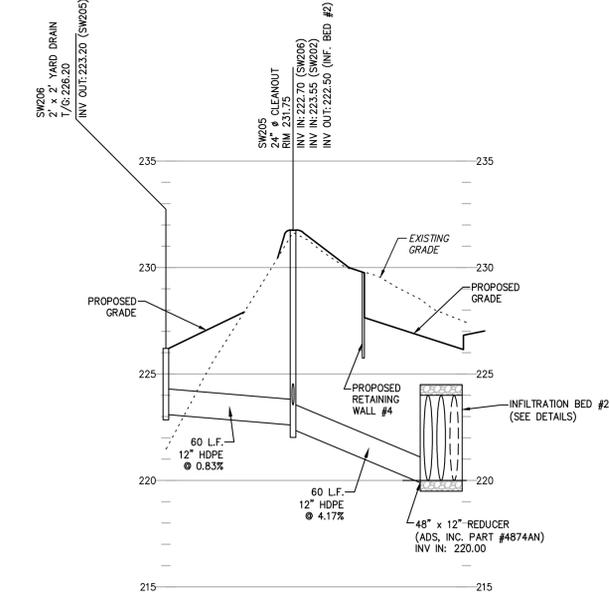
BED #2 OUTLET STRUCTURE DETAIL (SW307)
 N.T.S.



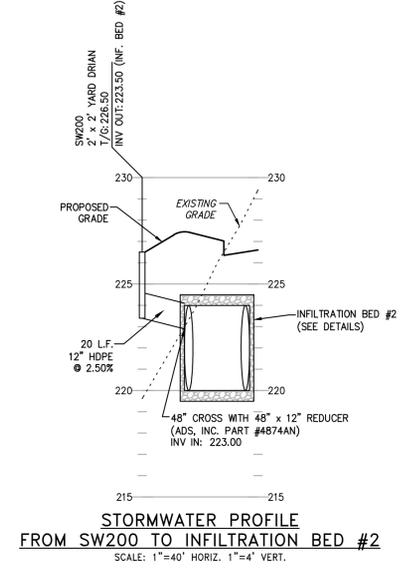
STORMWATER PROFILE FROM SW307 TO SW301
 SCALE: 1"=40' HORIZ. 1"=4' VERT.



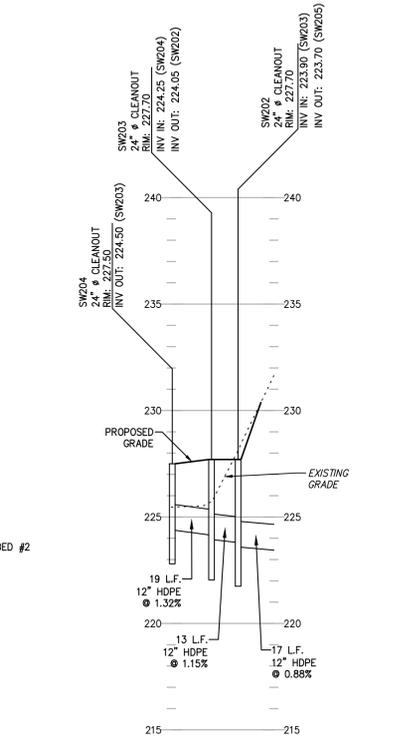
STORMWATER PROFILE FROM SW305 TO SW302
 SCALE: 1"=40' HORIZ. 1"=4' VERT.



STORMWATER PROFILE FROM SW206 TO INFILTRATION BED #2
 SCALE: 1"=40' HORIZ. 1"=4' VERT.



STORMWATER PROFILE FROM SW200 TO INFILTRATION BED #2
 SCALE: 1"=40' HORIZ. 1"=4' VERT.



STORMWATER PROFILE FROM SW204 TO SW205
 SCALE: 1"=40' HORIZ. 1"=4' VERT.

POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS AND PROFILES

NO.	DATE	REVISION
2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS

PRELIMINARY SUBDIVISION PLANS
 FOR
800 GOSHEN ROAD
OWNER: GOSHEN HOLDING COMPANY, INC.
BUILDER: C.F. HOLLOWAY, III, & COMPANY
 RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

Chester Valley Engineers
 civil engineers & land surveyors

18404

SCALE: AS NOTED DATE: 06/03/16 DRAWN BY: SVD CHECKED BY: JRM

GENERAL NOTES:

- STORMWATER MANAGEMENT DESIGN:
 - REFER TO POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT FOR MAIN LINE HEALTH - CONCORD, PREPARED BY CHESTER VALLEY ENGINEERS.
- EROSION AND SEDIMENTATION CONTROL:
 - REFER TO "EROSION AND SEDIMENTATION CONTROL PLAN", PREPARED BY CHESTER VALLEY ENGINEERS.
- MAINTENANCE NOTES:
 - THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER:
 - INFILTRATION BED #1
 - INFILTRATION BED #2
 - WATER QUALITY FILTER
 - COMMON AREA LANDSCAPING
 - STORM SEWER AND ASSOCIATED STRUCTURES
 - THE PARTY RESPONSIBLE FOR THE LONG TERM OPERATIONS AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL MAKE RECORDS OF THE INSTALLATION AND ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST TEN (10) YEARS. THESE RECORDS SHALL BE SUBMITTED TO THE TOWNSHIP AS ESTABLISHED BY THE OPERATION AND MAINTENANCE PLAN OR IF OTHERWISE REQUIRED BY THE TOWNSHIP.
- DESIGN CONSIDERATIONS:
 - INFILTRATION BEDS DESIGNED TO STORE AND MITIGATE POST-DEVELOPMENT RUNOFF TO RATES LESS THAN THOSE REQUIRED BY TOWNSHIP CODE.
- THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:
 - PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS.
 - PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF.
 - MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
 - MINIMIZE IMPERVIOUS AREAS.
 - MINIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
 - MINIMIZE LAND CLEARING AND GRADING.
 - MINIMIZE SOIL COMPACTION.
 - UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMP'S THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.

- THE RECEIVING WATERCOURSE FOR THIS PROJECT IS DARBY CREEK. THE CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATER DISCHARGING FROM THE PROJECT SITE IS COLD WATER FISH (CWF).
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMP'S. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMP'S, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.

- AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.
- A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP'S.
- PCSM REPORTING AND RECORDKEEPING: THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

- FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.A.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

- THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
- THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S.

- UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMP'S IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

- THE NOTICE OF TERMINATION MUST INCLUDE:
- THE FACILITY NAME, ADDRESS AND LOCATION.
 - THE OPERATOR NAME AND ADDRESS.
 - THE PERMIT NUMBER.
 - THE REASON FOR PERMIT TERMINATION.
 - IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S IN ACCORDANCE WITH §102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

- PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY ERODIBLE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY. IMMEDIATELY DURING NON-TERMINATION PERIODS. MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED. PREFERABLY WITH A PERMANENT TREATMENT.

BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP MANUAL)

- THE TERM "FAILURE" FOR THE PROPOSED INFILTRATION BEDS #1 AND #2 SHALL BE DEFINED AS:
- THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE OR DISCHARGE PIPE
 - THE LOSS OF STRUCTURAL INTEGRITY
 - STANDING WATER IS OBSERVED IN THE BED AFTER 72 HOURS

THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE, DISCHARGE PIPING, STONE AND PERFORATED PIPE AS NEEDED. IF STANDING WATER IS OBSERVED AFTER 72 HOURS, THE EMERGENCY VALVE PROVIDED IN THE OUTLET STRUCTURE SHALL BE OPENED UNTIL THE BASIN IS FULLY DRAINED.

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) LONG-TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSMW BMP'S ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSMW BMP'S UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSMW BMP'S.

FOR ANY PROPERTY CONTAINING A PCSMW BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSMW BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSMW BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSMW BMP'S AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSMW BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY THE SUBSEQUENT GRANTEE'S, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER §102.7(b)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSMW BMP'S OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSMW BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSMW BMP'S LOCATED ON THE PROPERTY.

DESIGN ENGINEER CERTIFICATION:

I, _____, ON THIS DATE _____, HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

DESIGN ENGINEER

OWNER BMP CERTIFICATION:

THE UNDERSIGNED, _____, OWNER OF THE PROPERTY, HEREBY ACKNOWLEDGES THAT THE STORMWATER CONTROLS AND BMP'S ARE FIXTURES THAN CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP.

OWNER

SOIL TYPE USE LIMITATIONS AND RESOLUTIONS

- SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH.

RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL.
- ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.

RESOLUTIONS: APPLYING LIMES CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITROGEN, PHOSPHOROUS, POTASSIUM, SULFER, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTIVE VEGETATIVE SPECIES TOLERANT TO LOW FERTILITY SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF CHANNELS.

RESOLUTIONS: PROVIDING TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL PUBLISHED BY PADEP.
- WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS, TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS, IRRIGATING VEGETATED AREAS AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE LIMITATIONS ON LOCATING RESERVOIR AREAS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND STORMWATER DETENTION BASINS.

RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIVING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.
- SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.
- SOILS THAT ARE DIFFICULT TO COMPACT, UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORM WATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOILS TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

- WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

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- RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIVING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

- SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

- RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOILS TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

DISPOSAL AND RECYCLING

PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S AND THE PROPER DISPOSAL OF ALL WASTES ONSITE.

LIKELY WASTE TO BE GENERATED DURING MAINTENANCE OF THE INFILTRATION BEDS, WATER QUALITY FILTER, AND UNDERGROUND STORM SEWER SYSTEM ARE:

- ACCUMULATED SEDIMENT
- ACCUMULATED GARBAGE AND DEBRIS.

ACCUMULATED SEDIMENT REMOVED FROM POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF WETLANDS, STEEP SLOPES, AND DRAINAGE SWALES. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED CRITICAL VEGETATION AREAS (CVA).

GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

CRITICAL VEGETATION AREAS (CVA)

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEDED, AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1, IN ALL DRAINAGE SWALES AND INFILTRATION BASIN.

THERMAL IMPACT

STORMWATER RUNOFF LEAVES THE PROJECT AREA BY WAYS OF SHEET FLOW FROM LANDSCAPED AREAS OR FROM AN INFILTRATION BASIN OUTLET. RUNOFF FROM THE PROJECT AREA DRAINS INTO THE EXISTING WETLANDS THAT EVENTUALLY LEAD TO CHESTER CREEK BY WAY OF WEBB CREEK TO WEST BRANCH CHESTER CREEK. THE RECEIVING WATERCOURSE AND SUBSEQUENT STREAMS RECEIVING RUNOFF FROM THE SUBJECT PROPERTY EXIST IN THE DELAWARE RIVER WATERSHED.

RUNOFF FROM THE PROJECT AREA THAT OUTLETS TO THE RECEIVING WATERCOURSE FIRST DRAIN THROUGH THE FOLLOWING ONSITE BMP'S: BIO-FILTRATION AREAS, UNDERGROUND STORM DRAINAGE SYSTEMS, A VEGETATED SWALE AND AN INFILTRATION BASIN. WHAT STORMWATER RUNOFF THAT LEAVES THE PROJECT SITE WILL COME FROM THE COOLER TEMPERATURE ZONE (I.E. DEWATER FROM THE BOTTOM) OF THE INFILTRATION BASIN AND SLOWLY METEDED THROUGH A MULTIPLE STAGE OUTLET STRUCTURE TO ENSURE THAT POST DEVELOPMENT FLOWS DO EXCEED PRE-DEVELOPMENT FLOW RATES.

INTERCEPTING THE RUNOFF WITH THE ONSITE BMP'S DOES NOT ALLOW THE HEAT ENERGY FROM THE PAVED SURFACES TO REACH THE RECEIVING WATERCOURSE.

LANDSCAPE RESTORATION

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE VEGETATED FILTER STRIP ON SITE.

INSPECTION REQUIREMENTS

- FILTER STRIPS SHOULD BE INSPECTED AFTER EVERY STORM EVENT GREATER THAN ONE (1) INCH DURING THE ESTABLISHMENT PERIOD.
 - THE ROUTINE INSPECTIONS, THE RESTORATION STRIP SHALL BE INSPECTED FOR RHIZOMATOUS WEEDS. THESE WEEDS SHOULD BE HAND TREATED WITH HERBICIDE.

BMP FAILURE

- BMP FAILURE IS DEFINED AS DISCOVERING LACK OF VEGETATION AND OVERGROWTH OF RHIZOMATOUS WEEDS.
- REPAIR BMP FAILURE BY REMOVING UNWANTED WEEDS OR HAND TREATING WITH HERBICIDE, AS NEEDED.

GENERAL MAINTENANCE NOTES

- A SEASONAL BURNING OR MOWING MAY BE REQUIRED, ALTHOUGH CARE MUST BE TAKEN TO MAKE SURE THAT ANY MANAGEMENT IS COORDINATED WITH ESSENTIAL RESEEDING AND OTHER IMPORTANT ASPECTS OF MEADOW REESTABLISHMENT.
- IN THE FIRST YEAR, WEEDS MUST BE CAREFULLY CONTROLLED AND CONSISTENTLY MOWED BACK TO 4-6 INCHES TALL WHEN THEY REACH 12 INCHES IN HEIGHT.
- IN THE SECOND YEAR, WEEDS SHOULD CONTINUE TO BE MONITORED AND MOWED AND RHIZOMATOUS WEEDS SHOULD BE HAND TREATED WITH HERBICIDE. WEEDS SHOULD NOT BE SPRAYED WITH HERBICIDE AS THE DRIFT FROM THE SPRAY MAY KILL LARGE PATCHES OF DESIRABLE PLANTS, ALLOWING WEEDS TO MOVE INTO THESE NEW OPEN AREAS.
- IN THE BEGINNING OF THE THIRD SEASON, THE YOUNG MEADOW SHOULD BE BURNED OFF IN MID-SPRING. IF BURNING IS NOT POSSIBLE, THE MEADOW SHOULD BE MOWED VERY CLOSELY TO THE GROUND INSIDEAD.
- THE MOWED MATERIAL SHOULD BE REMOVED FROM THE SITE TO EXPOSE THE SOIL TO THE SUN. THIS HELPS ENCOURAGE RAPID SOIL WARMING WHICH FAVORS THE ESTABLISHMENT OF "WARM SEASON" PLANTS OVER "COOL SEASON" WEEDS.

CONSTRUCTION SEQUENCE

- ALL WEEDS OR EXISTING VEGETATION MUST BE ELIMINATED PRIOR TO SEEDING. PERENNIAL WEEDS MAY REQUIRE YEAR LONG MOTHERING, REPEATED SPRAYINGS WITH HERBICIDES, OR REPEATED TILLAGE WITH EQUIPMENT THAT CAN UPROOT AND KILL PERENNIAL WEEDS.
- PLANTING CAN TAKE PLACE FROM SPRING THAW THROUGH JUNE 30 OR FROM SEPTEMBER 1 THROUGH SOIL FREEZE-UP ("DORMANT SEEDING"). PLANTING IN JULY AND AUGUST IS GENERALLY NOT RECOMMENDED DUE TO THE FREQUENCY OF DROUGHT DURING THIS TIME. SEEDING CAN BE ACCOMPLISHED BY A VARIETY OF METHODS: NO-TILL SEEDER FOR MULTI-ACRE PLANTING; BROADCAST SEEDER; HAND BROADCASTER FOR SMALL AREAS OF ONE ACRE OR LESS. SEED QUALITY IS CRITICAL AND A SEED MIX SHOULD BE USED WITH A MINIMUM PERCENTAGE ON NON-SEED PLANT PARTS.
- ASSIGN RESPONSIBILITIES FOR WATERING, WEEDING, MOWING, AND MAINTENANCE. MONITOR SITE REGULARLY FOR GROWTH AND POTENTIAL PROBLEMS.

STORM SEWER

INSPECTION REQUIREMENTS:

- ALL STORM COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (3") INCHES (MAJOR STORM EVENT), FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY; IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

GENERAL MAINTENANCE NOTES:

- ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR ANY NECESSARY ENTRY. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE.
- CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
- REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.

LANDSCAPING

GENERAL MAINTENANCE NOTES:

- LANDSCAPING SHALL BE INSPECTED BY A NURSERY PROFESSIONAL FOR DISEASE, DAMAGE, AND INSECT INFESTATION ANNUALLY. DISEASED AND INFESTED PLANTINGS SHALL BE TREATED APPROPRIATELY. DEAD OR DYING PLANTINGS SHALL BE REMOVED AND REPLACED IN KIND.
- PRUNING, WATERING, AND FERTILIZATION SHALL BE PERFORMED SEASONALLY DURING THE GROWING SEASON BY A NURSERY PROFESSIONAL.
- LANDSCAPING SHALL BE INSPECTED FOR ADEQUATE MULCHING ONCE A MONTH AND AFTER EACH MAJOR STORM EVENT. MULCH SHALL BE AT LEAST TWO (2") INCHES DEEP, BUT SHALL NOT COVER THE ROOT CROWN OF PLANTS. EARTH SAUCERS SHALL BE MAINTAINED TWO (2") INCHES IN DEPTH; ANY EROSION OF MULCH SHALL BE CORRECTED TO MINIMUM SAUCER DEPTH.
- CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

POST CONSTRUCTION STORMWATER MANAGEMENT FINAL CERTIFICATION

THE PERMITTEE SHALL INCLUDE WITHIN THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.A. C.S.A. CHAPTER 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

- THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.
- THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S.

CRITICAL STAGES OF CONSTRUCTION

THE ENGINEER MUST BE PRESENT ON-SITE FOR INSPECTIONS OF THE OVERALL FUNCTIONALITY OF THE STORMWATER BMP'S AS WELL AS FOR THE FOLLOWING SPECIFIC COMPONENTS:

- EXCAVATION AND FINAL GRADING OF INFILTRATION BEDS #1 AND #2 AND WATER QUALITY FILTERS.
- PLACEMENT OF THE CLEAN GEOTEXTILE FABRIC, PIPE AND STONE INTO THE INFILTRATION BEDS.
- CONSTRUCTION OF THE PROPOSED OUTLET STRUCTURES AND DISCHARGE PIPES IN THE INFILTRATION BEDS.
- INSTALLATION OF ALL WATER QUALITY INSERTS.
- INSPECTION OF INFILTRATION BEDS #1 AND #2, WATER QUALITY FILTERS AND WATER QUALITY INLETS FOR OVERALL FUNCTIONALITY AS WELL AS INSPECTION OF ITS INDIVIDUAL SPECIFIC COMPONENTS, INCLUDING, BUT NOT LIMITED TO THE OUTLET STRUCTURE, DISCHARGE PIPE, STONE, AND GEOTEXTILE.

SUBSURFACE INFILTRATION BED

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM(S).

SPECIFICATIONS

- STONE FOR STORMWATER MANAGEMENT SYSTEMS SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO SIZE NUMBER 3 PER AASHTO SPECIFICATIONS, PART I, 19TH ED., 1998, OR LATER AND SHALL HAVE Voids 40% AS MEASURED BY ASTM-C29. CHOKER BASE COURSE AGGREGATE FOR BEDS SHALL BE 3/8 INCH TO 3/4 INCH UNIFORMLY GRADED COARSE AGGREGATE AASHTO SIZE NUMBER 57 PER TABLE 4, AASHTO SPECIFICATIONS, PART I, 13TH ED., 1998 (P. 47).
- NON-WOVEN GEOTEXTILE SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
 - GRAB TENSILE STRENGTH (ASTM-D4632) 120 LBS
 - MULLEN BURST STRENGTH (ASTM-D3786) 225 PSF
 - FLOW RATE (ASTM-D4491) 95 GAL/MIN/FT²
 - UV RESISTANCE AFTER 500 HRS (ASTM-D4355) 70%
 - HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED
 - ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451.

- CORRUGATED ALUMINIZED STEEL PIPE SHALL BE 14 GAUGE AND CONSIST OF THE FOLLOWING MATERIALS AND CONFORM TO THE FOLLOWING PROPERTIES:
 - STRUCTURAL DESIGN OF CORRUGATED STEEL PIPE AND STRUCTURAL PLATE PIPE (ASTM A-796, ASTM B-790)
 - CORRUGATED PIPE FABRICATION (AASHTO M-36, AASHTO M-274), (ASTM A-760, ASTM A-929)

- INSPECTION REQUIREMENTS:
 - ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED AND A REPORT PREPARED BY A REGISTERED PROFESSIONAL ENGINEER EVERY THREE (3) YEARS.
 - THE INFILTRATION FACILITY SHALL BE INSPECTED 72 HOURS FOLLOWING ALL RAIN EVENTS EXCEEDING ONE (1") INCH OF RUNOFF. IF STANDING WATER IS VISIBLE AT THAT TIME WITHIN THE INFILTRATION FACILITY, THE INFILTRATION FACILITY MUST BE EXCAVATED AND RECONSTRUCTED TO OBTAIN AN INFILTRATION RATE APPROVED BY EASTOWN TOWNSHIP.
 - INSPECTIONS SHALL REQUIRE THE INVESTIGATION OF THE INFILTRATION FACILITY FOR STANDING WATER, TRASH, AND DEBRIS; ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY.

GENERAL MAINTENANCE NOTES

- ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE.
- REMOVE SEDIMENT/TRASH/DEBRIS FROM PERIMETER DRAINAGE STRUCTURES AND OUTLET STRUCTURE.
- THE OVERLYING VEGETATION OF SUBSURFACE DETENTION FEATURES SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- VEHICULAR ACCESS ON SUBSURFACE INFILTRATION AREAS SHOULD BE PROHIBITED IN UNPAVED AREAS, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. IF CONTINUAL ACCESS IS NEEDED, USE OF PERMEABLE, TURF REINFORCEMENT SHOULD BE CONSIDERED.
- CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

CONSTRUCTION SEQUENCE

- INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- INSTALL CONSTRUCTION FENCING AROUND PERIMETER OF INFILTRATION AREA TO PREVENT CONSTRUCTION TRAFFIC FROM COMPACTING EXISTING SUBGRADE AREAS.
- INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
- THE BOTTOM OF THE BED SHOULD BE SCARIFIED PRIOR TO THE PLACEMENT OF AGGREGATE.
- CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 6-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM.
- APPROVED SOIL MEDIA OR PAVEMENT BASE COURSES SHOULD BE PLACED OVER DETENTION BED IN MAXIMUM 6-INCH LIFTS. SEED AND STABILIZE AREA IF APPLICABLE.
- DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF SUBSURFACE INFILTRATION BEDS. SEE CRITICAL STAGES OF CONSTRUCTION ON THIS SHEET FOR ALL APPLICABLE STAGES WHICH REQUIRE AN ENGINEER TO BE CONTACTED.

WATER QUALITY INLETS

- PROPOSED INLETS NOTED ON THE PCSM PLAN

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN ALL WATER QUALITY INLETS ON SITE.

INSPECTION REQUIREMENTS

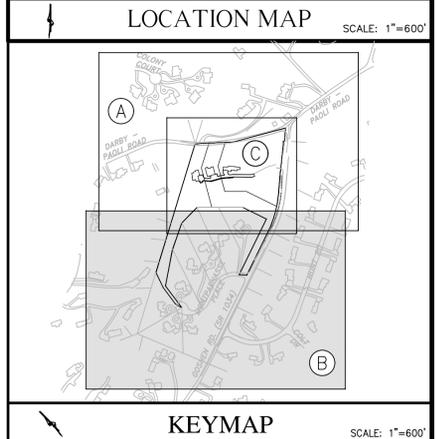
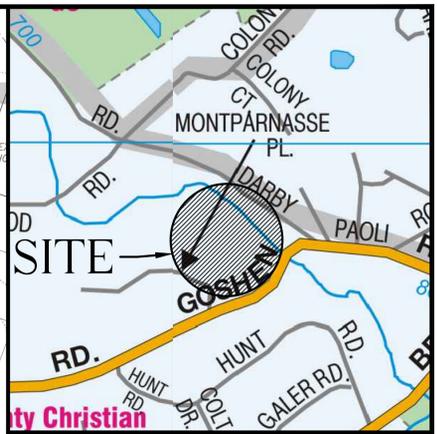
- WATER QUALITY INLET INSERTS SHOULD BE INSPECTED ONE TIME PER YEAR AND AFTER EVERY MAJOR RAIN EVENT (3" OR GREATER).
- DURING THE ROUTINE INSPECTIONS, THE FILTER MEDIA SHALL BE CLEANED.
- ONE REGULAR CHANGE AND DISPOSAL OF THE FILTER MEDIA SHALL OCCUR DURING THE CALENDAR YEAR AS WELL.

GENERAL MAINTENANCE NOTES

- WATER QUALITY INLET INSERTS SHALL BE CHECKED TO ENSURE THEY ARE SECURELY FASTENED DURING EACH INSPECTION.
- RECOMMENDED MAINTENANCE IS PERFORMED INCLUDING REMOVAL AND DISPOSAL OF THE FILTER MEDIA OR EXCESS MATERIAL BY PERSONNEL.

DISPOSAL

- DISPOSAL OF REMOVED MATERIAL WILL DEPEND ON THE NATURE OF THE DRAINAGE AREA AND THE INTENT AND FUNCTION OF THE WATER QUALITY INSERT.
- MATERIAL REMOVED FROM WATER QUALITY INSERTS THAT SERVE "HOT SPOTS" SUCH AS FUELING STATIONS THAT RECEIVE A LARGE AMOUNT OF DEBRIS SHOULD BE HANDLING ACCORDING TO DEP REGULATIONS FOR THAT TYPE OF SOLID WASTE, SUCH AS A LANDFILL THAT IS APPROVED BY



EXISTING FEATURES LEGEND

[Symbol]	EXISTING TRACT BOUNDARY
[Symbol]	EXISTING ADJACENT PROPERTY LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	EXISTING EASEMENT LINE
[Symbol]	BUILDING SETBACK LINE
[Symbol]	FLOOD PLAIN
[Symbol]	EXISTING STREAM
[Symbol]	SOILS LINE AND DESCRIPTION GeD GeB2
[Symbol]	EXISTING PAVING
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING CURB
[Symbol]	EXISTING SIDEWALK
[Symbol]	EXISTING 2' CONTOURS
[Symbol]	EXISTING 10' CONTOURS
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	EXISTING FENCE
[Symbol]	EXISTING GUIDE RAIL
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING STORM INLET AND PIPE
[Symbol]	EXISTING STORM ENDWALL AND PIPE
[Symbol]	EXISTING MANHOLE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING OVERHEAD WIRES
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING DECIDUOUS TREE
[Symbol]	EXISTING CONIFEROUS TREE
[Symbol]	EXISTING TREE AND SHRUB LINE
[Symbol]	EXISTING WETLAND POINTS
[Symbol]	STEEP SLOPES 14-20%
[Symbol]	STEEP SLOPES 20% AND GREATER

PROPOSED FEATURES LEGEND

[Symbol]	PROPOSED BUILDING
[Symbol]	PROPOSED CONCRETE SIDEWALK
[Symbol]	PROPOSED CURB
[Symbol]	PROPOSED RETAINING WALL
[Symbol]	PROPOSED TYPE C INLET AND PIPE
[Symbol]	PROPOSED STORM MANHOLE AND PIPE
[Symbol]	PROPOSED STORM ENDWALL AND PIPE
[Symbol]	PROPOSED SANITARY SEWER LATERAL W/ CLEAN-OUT
[Symbol]	INFILTRATION TEST LOCATION
[Symbol]	PROPOSED 2' CONTOURS
[Symbol]	PROPOSED 10' CONTOURS
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED FIRE HYDRANT
[Symbol]	PROPOSED WATER MAIN/SERVICE

LANDSCAPE PLAN - 60 SCALE

2	8/31/16	ADDRESS TOWNSHIP REVIEW COMMENTS
1	8/15/16	REVISED PER SHADE TREE COMMISSION COMMENTS
NO.	DATE	REVISION
PRELIMINARY SUBDIVISION PLANS		
FOR		
800 GOSHEN ROAD		
OWNER: GOSHEN HOLDING COMPANY, INC.		
BUILDER: C.F. HOLLOWAY, III, & COMPANY		
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA		
Chester Valley Engineers, Inc. Main Office: 83 Chestnut Road P.O. Box 447, Paoli, PA 19301 (610) 644-6625 (610) 889-3143 Fax cve@cheesterv.com http://www.cheesterv.com		PROJ. NO.: 18404 F.B.:
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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (CNSI 2007) SUBPART "P", PART 1026/1010 - "EXCAVATIONS, TRENCHING AND SHORING"
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (094 2236) DATED 1985 (REVISED).

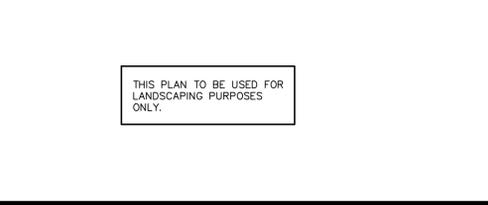
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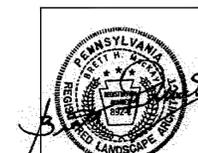
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SEE SHEET 2C FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

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OWNER OF RECORD:
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