



**Planning and Zoning
Department**

616 Germantown Pike, Lafayette
Hill, PA 19444-1821

484-594-2625

www.whitemarshtwp.org

Subdivision and Land Development Cover
Page for SLD # 10-24

Project Name: Germantown Academy-
Proposed Daycare & Associated Improvements
(Waiver Request)

Address: 340 Morris Road

Date: 12.23.24

Status: Under Review

Updates:

- Revised Tree Survey Plan - 1.3.25
- Township Arborist Review Memo - 1.3.25
- Township Engineer Review- 1.7.25
- Zoning Ordinance Compliance Review Letter- 1.30.25
- Fire Marshal Review Memo- 2.5.25
- Shade Tree Commission Meeting Memo- 2.6.25



This Checklist and the following items MUST be submitted to the Township, completed in their entirety, at the time of submission for the Township to accept a subdivision/land development application.

This checklist page must be filled out after printing the completed form starting on page 2 where applicable.

<u>Applicant Initials</u>	<u>Required Items of Submission</u>	<u>Township Receipt</u>
<u>CWB</u>	Whitmarsh Township Checklist	_____
<u>CWB</u>	Whitmarsh Township Application (Signature <u>MUST</u> Be Original)	_____
_____	Whitmarsh Township Request for Modification (Signature <u>MUST</u> Be Original)	_____
_____	Whitmarsh Time Waiver Form (Signature <u>MUST</u> Be Original)	_____
<u>CWB</u>	Whitmarsh Township Escrow (Payable to Whitmarsh Township; credit card payment accepted in person)	_____
_____	Montgomery County Planning Commission Municipal Request for Review (County will request fee directly from applicant)	_____
<u>CWB</u>	Shade Tree Commission Checklist for Compliance with Chapter 55 (attached)	_____
_____	Transportation Impact Study [§105-21.B.(9)(c)] (if applicable)	_____
<u>CWB</u>	Stormwater Management Plan & Supporting Calculations (if applicable)	_____
_____	Supplemental Documents Applicable to a Specific Application	_____
_____	List of Encumbrances (Book & Page Numbers) (if applicable)	_____
<u>CWB</u>	Three (3) Complete Sets of All Application Materials	_____
<u>CWB</u>	PDF or Link to Digital File of Each Component of the Application	_____

Fees and plans showing all public improvements are submitted with this application. Any additional plan information required by the Township Engineer will be submitted to the Director of Planning and Zoning for distribution. The undersigned applicant agrees to comply with all the provisions of Chapter 105 of the Code of the Township of Whitemarsh, as amended, and agrees to obtain all necessary permits in connection with the proposed subdivision and/or land development.

Whitemarsh Township employees, or township-authorized agents, are hereby granted permission to enter upon the land, if necessary, for site inspections.

Original preliminary and/or original final subdivision and/or land development applications submitted by 4:00pm on the last business day of the month will be reviewed by the Whitemarsh Township Planning Commission at a regular meeting two (2) months following the date of submission or other appropriate meeting date depending upon the results of Township reviews.

I hereby certify, as the undersigned applicant, that I am familiar with the provisions of: [1] Chapter 105, "Subdivision and Land Development", [2] Chapter 58, "Grading, Erosion Control, Stormwater Management and Best Management Practices", and [3] Chapter 55, "Tree Protection Standards" of the Code of the Township of Whitemarsh, as amended, and, to the best of my knowledge and belief, this application and the submitted plans conform to those provisions.

Date of Submission: _____

Signature: _____

(Original Signature must be submitted)

Printed Name: _____

I, **(name)** Chad Brensinger, PE **(title)** Vice President of _____

(entity submitting application) Charles E. Shoemaker, Inc. do hereby affirm

that I am authorized by the applicant to affix my signature to this application.

Date: 12/20/2024

Signature: _____

(Original Signature must be submitted)



Applicant Name: Germantown Academy

Development Name: Germantown Academy - Early Childhood Learning Center

Location of Property: 340 Morris Road, Fort Washington, PA 19034

Date: 12/20/2024

PROJECT COVER SHEET – *Approved at June 6, 2023 Shade Tree Commission Meeting*

To verify fulfillment of Chapter 55 Ordinance requirements for:

1. *Maximum Tree Removal – 55-4B*
2. *Tree Replacement – 55-4D(6)(a)*
3. *Substitutions for Replacements – 55-4F*
4. *Replacement Tree Species – 55-4E*
5. *Tree and Shrub requirements for Chapters other than Chapter 55*

Complete the following tables, filling in data for each lettered item, and resolving each Compliance Test. In accordance with 55-4C(4)(e), provide this completed Cover Sheet together with the Landscape Plan.

Citations to Sections of Chapter 55 are provided for the convenience of the Applicant. Other Chapters of the Whitemarsh Township Code and other sections of Chapter 55, such as 55-2 Definitions, may be relevant. In the event of an inconsistency between this Cover Sheet and any provision of the Code, the language of the Code shall be controlling.

1) Calculation of Requirement for Maximum Tree Removal – 55-4B:

A.	Total of all existing Trees on the lot with DBH of 6” or greater, per 55-4C(3)(a).	42
B.	33% of line (A) = maximum existing Trees which may be Removed.	14
C.	Provide number of existing Trees proposed to be Removed by the Applicant, per 55-4C(3)(a).	14
	COMPLIANCE TEST: <i>If Line (C) is greater than Line (B), the Applicant’s proposal is not in compliance with the requirement that no more than 33% of trees having a DBH of six inches or greater may be removed.</i>	



2) Calculation of Replacement Requirement for Removed Trees having a DBH of Six Inches or Greater 55-4D(6)(a):

D.	Total DBH of all existing Living and Healthy Trees (as determined per 55-4A) having a DBH of 6" or greater that are proposed to be Removed , per 55-4C(3)(a).	150"
E.	Total DBH of all Living and Healthy Trees (as determined per 55-4A) having a DBH of 6" or greater, removed within five years prior to the submission of application , per 55-4C(3)(b).	0"
F.	Sum of line (D) and line (E) = Total DBH that must be replaced for all Removed Living and Healthy Trees.	150"
G.	Total Caliper inches of Canopy Replacement Trees proposed to be planted by the Applicant (as shown on the Landscape Plan) per 55-4D(6)(a). Each Canopy Replacement Tree shall have a minimum Caliper of three inches.	117"
	COMPLIANCE TEST: If Line (G) is less than Line (F), the Applicant's proposal is not in compliance with the minimum Canopy Tree Replacement Requirement. To comply with this requirement, the Applicant may request a waiver from the Shade Tree Commission to permit limited substitutions per 55-4F. If so, proceed to Substitution calculation (3) below.	

3) Calculation of maximum Proposed Substitutions for Replacement Canopy Trees – 554F, subject to certain limitations and approval by the Shade Tree Commission.

H.	40% of line (F) (round fractions <u>down</u> to a whole number) = maximum Caliper of required Replacement Canopy Trees that may be substituted with Understory Trees and/or FIL, upon STC approval, per 55-4F.	60"
I.	Line (F) less Line (G) = Shortfall in DBH compliance with the minimum Canopy Tree Replacement Requirement , per 55-4D(6)(a).	33"
	COMPLIANCE TEST: If line (H) is less than line (I), the deficit of minimum Canopy Tree Replacement requirement, per 55-4D(6) cannot be fully compensated with Substitutions, per 55-4F.	Compliant



J.	Line (I) divided by 3" (round fractions <u>up</u> to a whole number) = Shortfall in the <u>number</u> of required 3" Canopy Replacement Trees.	11
K.	Provide the total number of substitution Understory Trees proposed to be planted by the Applicant, per 55-4F(1).	21
L.	Line (K) divided by two = Number of required 3"-cal. Replacement Canopy Trees being substituted with Understory Trees per 55-4F(1).	11
M.	Line (J) less Line (L) = Number of required 3"-cal. Replacement Canopy Trees proposed by the Applicant to be substituted with payment of in-lieu fees , per 55-4F(2). NOTE: Review proposed Landscape Plan to ensure that the use of Replacement Understory Tree substitutes has been maximized prior to calculating the number of substitutes via in-lieu fees, per 55-4F(4).	0
N.	Sum of Line (L) and Line (M) = Total proposed number of Replacement Canopy Trees being substituted per 55-4F.	11
O.	Line (N) multiplied by 3" = Total shortfall of DBH to be fulfilled with substitutions as proposed by this Landscape Plan.	33"
	COMPLIANCE TEST: If (O) is greater than (H), the Applicant's proposal has exceeded the 40% maximum eligible for consideration for Replacement substitutions, per 55-4F, and is not in compliance.	Compliant
P.	Sum of Line (O) and (G) = Total Caliper compensation for Removed Trees as provided by this proposed Landscape Plan.	150"
	COMPLIANCE TEST: If (P) is less than (F), the Applicant's proposal is not in compliance with the Tree Replacement Requirement.	Compliant

4) Compliance with Species Requirement of Replacement Trees – 55-4E:

Q.	Total number of proposed Canopy Replacement Trees , per 55-4C(4)(c).	39
----	-----------------------------------------------------------------------------	----



R.	75% of line (Q) (round fractions <u>up</u> to the next whole number) = Minimum required number of Native Species Replacement Canopy Trees, per 55-4E.	30
S.	Provide the number of proposed Native Species Canopy Replacement Trees, per 55-4C(4)(c).	39
	COMPLIANCE TEST: If Line (S) is less than Line (R), the Applicant's proposal is not in compliance with the 75% Native Species requirement for Replacement Canopy Trees, per 55-4E.	Compliant
T.	Provide the number of proposed Native Species Understory Trees.	21
	COMPLIANCE TEST: If Line (T) is less than line (K), the Applicant's proposal is not in compliance with the 100% Native Species requirement for Replacement Understory Trees.	Compliant



5) Compliance with Landscaping Requirements of Other Code Chapters. Complete the following Tables for each applicable requirement.

REQUIRED TREES:

A	B	C	D*	E	F**
Full Code Citation: Chapter; sub-chapter, etc.	Subject matter as indicated in Code caption	Required # of Trees	Credits for Preserved Trees per 55-4D(5)	Proposed # of Trees	Column (C) less Columns (D) and (E)
105.39	Landscaping of Parking Facilities	6		6	0

***NOTE: Column (D) Credits are strictly limited to calculating Chapter 105-52 Buffer yards, in accordance with 55-4D(5).**

****NOTE: When the result in Column (F) is greater than zero, the Applicant's proposal is not in compliance with the applicable Code requirement.**

REQUIRED SHRUBS:

A	B	C	D	E*
Full Code Citation: Chapter; sub-chapter, etc.	Subject matter as indicated in Code caption	Required # of Shrubs	Proposed # of Shrubs	Column (C) less Column (D)
N/A				



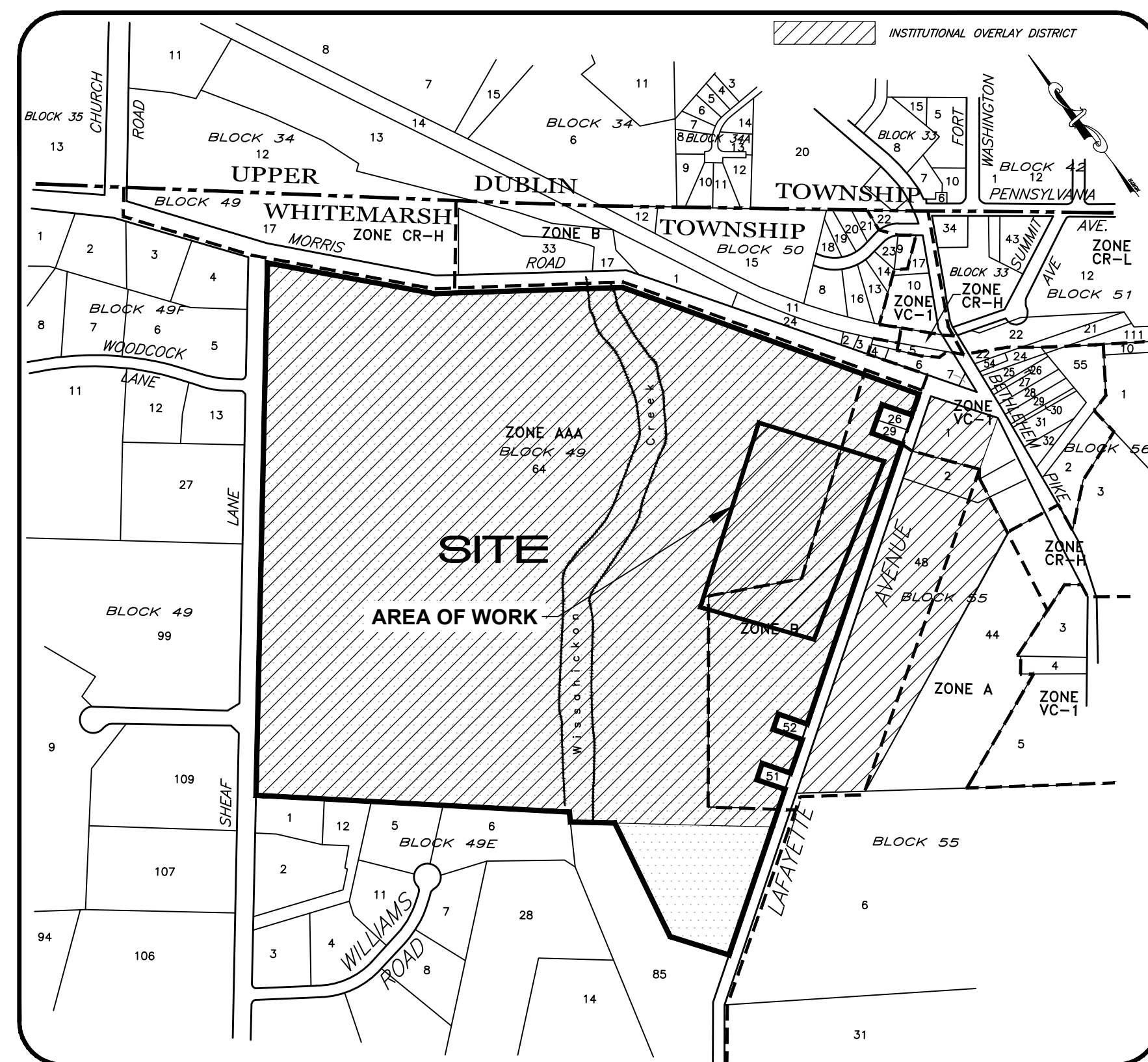
--	--	--	--	--

****NOTE: When the result in Column (E) is greater than zero, the Applicant's proposal is not in compliance with the applicable Code requirement.***

SITE IMPROVEMENT PLANS OF EARLY CHILDHOOD LEARNING CENTER

LOCATED AT GERMANTOWN ACADEMY

WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY, PA.



LOCATION MAP
SCALE: 1" = 600'

CIVIL DRAWING LIST

- | | |
|----------|-------------------------------------------------|
| 1 OF 14 | COVER SHEET |
| 2 OF 14 | OVERALL SITE PLAN |
| 3 OF 14 | EXISTING FEATURES PLAN |
| 4 OF 14 | DEMOLITION PLAN |
| 5 OF 14 | GRADING AND UTILITIES PLAN |
| 6 OF 14 | POST CONSTRUCTION STORMWATER MANAGEMENT PLAN |
| 7 OF 14 | POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS |
| 8 OF 14 | POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS |
| 9 OF 14 | EROSION & SEDIMENTATION CONTROL PLAN |
| 10 OF 14 | EROSION & SEDIMENTATION CONTROL DETAILS |
| 11 OF 14 | EROSION & SEDIMENTATION CONTROL DETAILS |
| 12 OF 14 | STORM SEWER PROFILES |
| 13 OF 14 | CONSTRUCTION DETAILS |
| 14 OF 14 | AERIAL PHOTO EXHIBIT |

LANDSCAPE DRAWING LIST

- | | |
|-------|------------------|
| L-001 | TREE SURVEY PLAN |
| L-002 | LANDSCAPE PLAN |



181
BEFORE YOU DIG ANYWHERE IN
PENNSYLVANIA CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA ACT 121 (2008) REQUIRES THREE WORKING
DAYS NOTICE TO UTILITIES BEFORE EXCAVATE,
DRILL, BURY OR TENDRUGH
SERIAL NUMBER:
20245460466

ARCHITECT
PHILLIPS & DONOVAN ARCHITECTS, LLC
P.O. BOX 160
3160 BEDMINSTER ROAD
BEDMINSTER, PA 18910
610-317-0221

PLAY DESIGNER/
LANDSCAPE ARCHITECT
STUDIO LUDO
4800 SPRINGFIELD AVENUE
PHILADELPHIA, PA 19143
215-454-6780

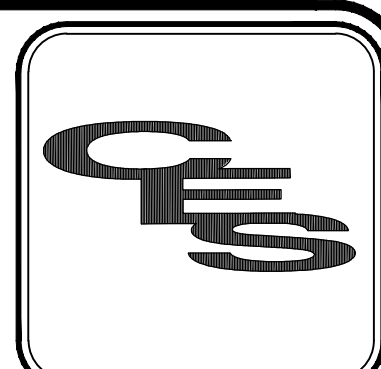
SYSTEMS ENGINEER
McHUGH ENGINEERING
P.O. BOX 160
136 POPLAR AVENUE
AMBLER, PA 19002
215-641-1158

OWNER / APPLICANT
GERMANTOWN ACADEMY
P. O. BOX 287
FORT WASHINGTON, PA. 19034

CIVIL ENGINEER / SURVEYOR
CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA. 18936
215 - 887 - 2165

STRUCTURAL ENGINEER
ANH STRUCTURES, LLC
216 COPPLES LANE
WALLINGFORD, PA 18086
610-812-5465

CONSTRUCTION MANAGEMENT
ANCHOR MANAGEMENT GROUP
1000 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA. 19428
610 - 276 - 9303



DATE	NO.	REVISION	BY
12-19-24	1	TREE PRESERVATION & BUS SHELTER	EDM

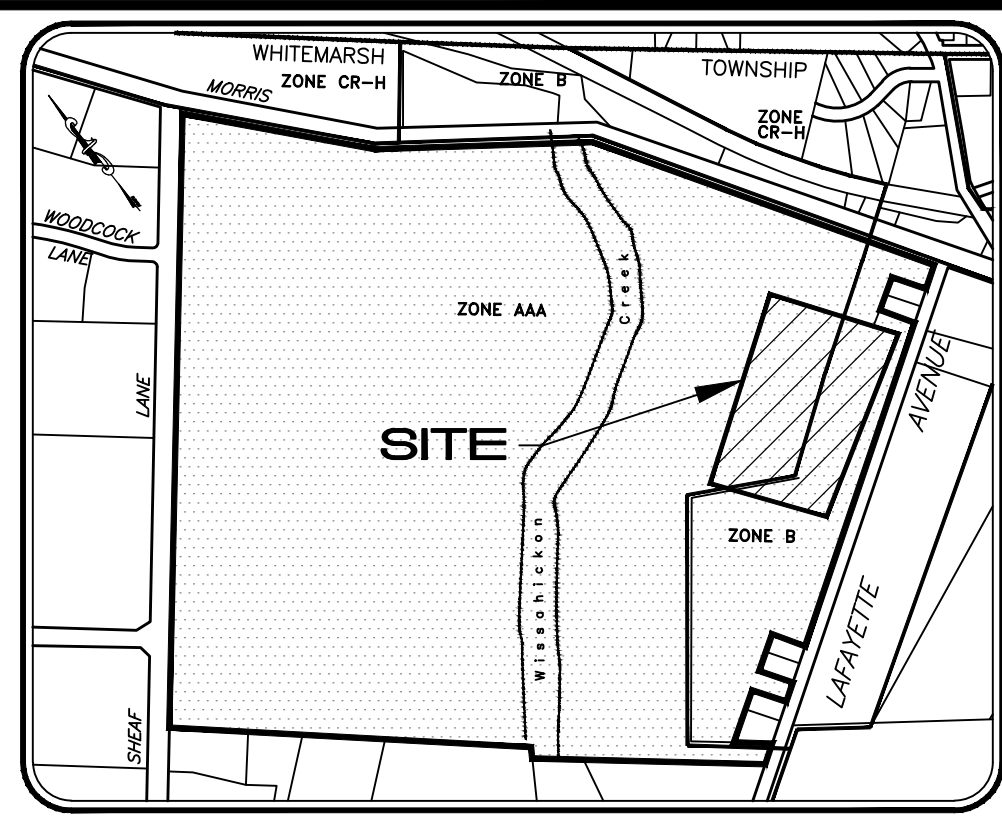
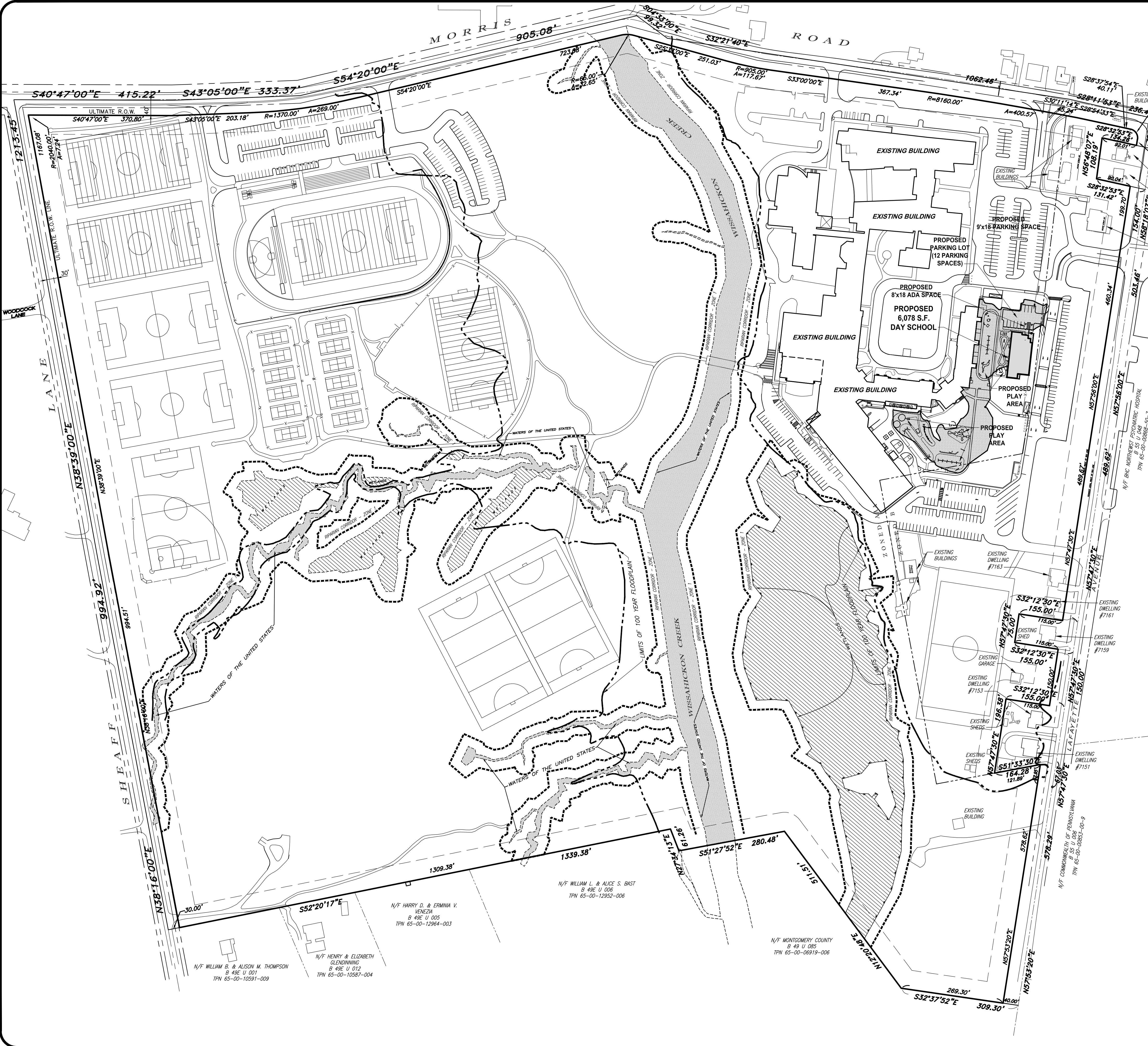
COUNTY PARCEL NO.
65-00-10522-003-9
BLOCK - UNIT
0049-0076
SITE ADDRESS
340 MORRIS ROAD
FORT WASHINGTON, PA 19034
DEED BOOK - PAGE
5974-01520

RECORDED OWNER
GERMANTOWN ACADEMY
P.O. BOX 287
FORT WASHINGTON
PA 19034

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@eshoemaker.com

COVER SHEET
OF
EARLY CHILDHOOD LEARNING CENTER
PREPARED FOR
GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE	DECEMBER 16, 2024
DWG NO.	WHIT-758
JOB NO.	25776
SHEET NO.	1 OF 14



LOCATION MAP
SCALE: 1" = 800'

ZONING REQUIREMENTS
 ZONE: 'AAA' - RESIDENTIAL DISTRICT AND 'B' - RESIDENTIAL OVERLAYED WITH INSTITUTIONAL DISTRICT (INSTITUTIONAL DISTRICT IS USED FOR THIS SUBMISSION)

	AAA	B	INSTITUTIONAL OVERLAY	MIN. PROVIDED
LOT AREA	1 ACRE	10,000 SF	10 ACRES	123,851 AC.
LOT WIDTH	175 FT. MIN.	80 FT. MIN.	200 FT. MIN.	1796 FT.
FRONT YARD	30 FT. MIN.	30 FT. MIN.	50 FT. MIN.	14 FT. *
SIDE YARD	30 FT. MIN.	12 FT. MIN.	50 FT. MIN.	10 FT. *
REAR YARD	30 FT. MIN.	30 FT. MIN.	50 FT. MIN.	N/A
BUILDING HEIGHT	35 FT. MAX.	35 FT. MAX.	40 FT. MAX.	55 FT.

* - DESIGNATES EXISTING CONDITION

IMPERVIOUS COVERAGE SUMMARY

	EXISTING IMPERVIOUS		PROPOSED IMPERVIOUS	
	ZONE AAA (113.2 AC.)	ZONE B (10.4 AC.)	ZONE AAA (113.2 AC.)	ZONE B (10.4 AC.)
BUILDINGS	4.68 AC.	1.36 AC.	4.85 AC.	1.36 AC.
PARKING / DRIVES	7.00 AC.	2.97 AC.	6.57 AC.	2.97 AC.
BIT, WALKS & PATHS	1.96 AC.	1.96 AC.	1.96 AC.	1.96 AC.
CONC. WALKS & PADS	3.82 AC.	0.24 AC.	3.89 AC.	0.24 AC.
TENNIS COURTS	1.68 AC.	---	1.68 AC.	---
TRACK & FIELD	1.00 AC.	---	1.00 AC.	---
OTHER FIELDS & PLAY AREA (SYNTHETIC TURF)	5.85 AC.	1.84 AC.	6.21 AC.	1.84 AC.
TOTAL AREA	25.79 AC. (22.2%)	6.17 AC. (5.3%)	25.96 AC. (22.9%)	6.17 AC. (5.3%)

25.79 + 6.17 = 31.96 AC.
 31.96 / 123.58 = 25.9%
 EXISTING IMPERVIOUS AREA = 25.9%

25.96 + 6.17 = 32.13 AC.
 32.13 / 123.58 = 26.0%
 PROPOSED IMPERVIOUS AREA = 26.0%

LEGEND

- FLOODWAY
- 100 YEAR FLOODPLAIN LINE (PLOTTED FROM ELEVATIONS INCLUDED IN FEMA FLOOD INSURANCE STUDY)
- WETLANDS
- RIPARIAN CORRIDOR - ZONE 1
- RIPARIAN CORRIDOR - ZONE 2
- RIPARIAN CORRIDOR SETBACK LINE

NOTES

- BOUNDARY INFORMATION TAKEN FROM DEEDS AND PLANS OF RECORD.
- HORIZONTAL DATUM IS BASED ON NAD 83 SPCS3 PENNSYLVANIA (SOUTH), GEIOD MODEL G200308 STATE PLANE COORDINATE BEARING BASIS. PLAN BEARINGS AS SHOWN ARE BASED ON DEED MERIDIAN. ROTATION TO NAD83 SPCS3 PENNSYLVANIA (SOUTH) MERIDIAN IS 01° 51' 36" COUNTER CLOCKWISE.
- TOPOGRAPHY INFORMATION SHOWN FROM FIELD SURVEYS PERFORMED BY CHARLES E. SHOEMAKER, INC. DURING OCTOBER, 2021, AND JANUARY, 2024. VERTICAL DATUM BASED ON NAVD 1988, USING TOPNET LIVE VIRTUAL NETWORK SYSTEM.
- EXISTING UTILITIES IN THE AREA OF THE PROPOSED DAY SCHOOL LOCATED BY GPRS, INC., NOVEMBER, 2024.
- ALL OTHER EXISTING UNDERGROUND UTILITY LOCATIONS WERE PLOTTED FROM UTILITY COMPANY PLANS SUPPLIED TO US IN ACCORDANCE WITH PA ACT 121 (2008) OR BY PHYSICAL SURVEY LOCATIONS. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY. CONTRACTORS ARE REQUIRED BY PA ACT 121 TO VERIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION ACTIVITIES. PENNSYLVANIA ONE CALL SYSTEMS, INC., PHONE NO. 1-800-242-1776 SERIAL NO. 20243460466.
- REFERENCE WAS MADE TO THE FOLLOWING:
 - EARTH DISTURBANCE/GRADING PERMIT PLANS, SHEETS 1-8 OF 9 OF PROPOSED HEALTH & WELLNESS ADDITION, AMENDED PHASE 2B, PREPARED BY CHARLES E. SHOEMAKER, INC., DATED OCTOBER 18, 2021, LAST REVISED DECEMBER 12, 2021.
 - LAND DEVELOPMENT PLANS, SHEETS 1-12 OF 12, OF GERMANTOWN ACADEMY PHASE 2A, PREPARED BY CHARLES E. SHOEMAKER, INC., DATED DECEMBER 11, 2015, LAST REVISED APRIL 21, 2016.
 - LAND DEVELOPMENT PLANS OF GERMANTOWN ACADEMY, SHEETS 1-80 OF 80, PREPARED BY CHARLES E. SHOEMAKER, INC., DATED OCTOBER 31, 2008, LAST REVISED JUNE 30, 2009.
- FLOOD DESIGNATION SHOWN ON PLANS. AREAS AS DEPICTED IN FIRM OF MONTGOMERY COUNTY, MAP NUMBERS 42091C0288G AND 42019C0289G EFFECTIVE DATE: MARCH 2, 2016.

I CERTIFY THAT THE PROPOSED FACILITY IS NOT UNDERLAIN BY LIMESTONE

CHAD BRENSINGER, P.E.
(DATE)

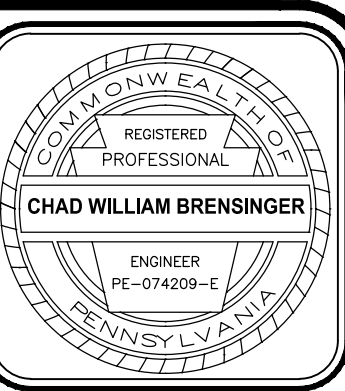
I, KEITH A. HOUSER, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THIS PLAN CORRECTLY REPRESENTS THE METES AND BOUNDS AS SURVEYED BY CHARLES E. SHOEMAKER, INC. AND THAT THE LOCATION, SIZE, AND MATERIAL OF EXISTING MARKERS ARE ACCURATELY SHOWN HEREON.

(REGISTERED PROFESSIONAL SURVEYOR)

(REGISTRATION NUMBER)

(SEAL)

(DATE)



DATE	NO.	REVISION
12-19-24	1	TREE PRESERVATION & BUS SHELTER

COUNTY PARCEL NO.: 65-00-1052-006-9
 BLOCK - UNIT 048-U/6
 SITE ADDRESS 340 MORRIS ROAD FORT WASHINGTON, PA 19054
 DEED BOOK - PAGE 3311-0230

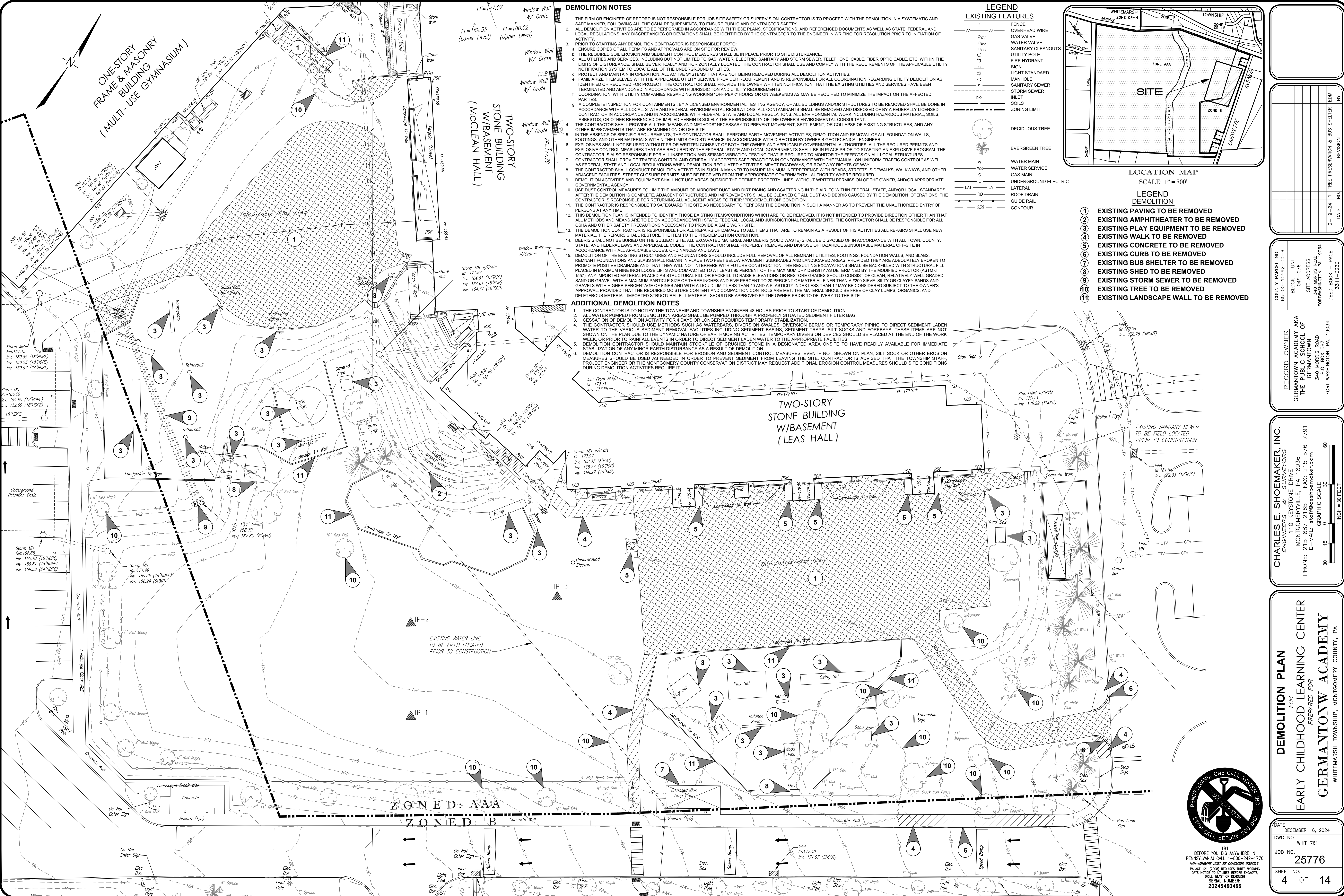
RECORD OWNER: GERMANTOWN ACADEMY AKA THE PUBLIC SCHOOL OF GERMANTOWN
 340 MORRIS ROAD FORT WASHINGTON, PA 19034

CHARLES E. SHOEMAKER, INC.
 ENGINEERS & SURVEYORS
 1010 STONE DRIVE YORK
 MONTGOMERY, PA 17505
 PHONE: 717-897-2165 FAX: 717-897-7791
 E-MAIL: ceshoemaker@eshoemaker.com

GRAPHIC SCALE: 360
 0 60 120 240
 SCALE: 1" = 120'

OVERALL SITE PLAN
 OF
EARLY CHILDHOOD LEARNING CENTER
 PREPARED FOR
GERMANTOWN ACADEMY
 WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE: DECEMBER 16, 2024
 DWG NO: WHIT-759
 JOB NO: 25776
 SHEET NO: 2 OF 14



DEMOLITION NOTES

- THE FIRM OR ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
- ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND REFERENCED DOCUMENTS AS WELL AS STATE, FEDERAL, AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO THE ENGINEER IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF ACTIVITY.
- PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR TO:
 - ENSURE COPIES OF ALL PERMITS AND APPROVALS ARE ON SITE FOR REVIEW.
 - THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO SITE DISTURBANCE.
 - ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES.
 - PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
- FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER SERVICES. ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY REQUIREMENTS.
- COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
- A COMPLETE INSPECTION FOR CONTAMINANTS, BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS. ALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS SOLELY THE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.
- FAMILIARIZE THEMSELVES WITH THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING OR OFF-SITE.
- IN THE ABSENCE OF SPECIFIC REQUIREMENTS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE, IN ACCORDANCE WITH DIRECTOR BY OWNERS GEOTECHNICAL ENGINEER.
- EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL" AS WELL AS FEDERAL, STATE AND LOCAL REGULATIONS WHEN DEMOLITION REGULATED ACTIVITIES IMPACT ROADWAYS, OR ROADWAY RIGHTS-OF-WAY.
- THE CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY WHERE REQUIRED.
- DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINES, WITHOUT WRITTEN PERMISSION OF THE OWNER, AND/OR APPROPRIATE GOVERNMENTAL AGENCY.
- USE DUST CONTROL MEASURES TO LIMIT THE AMOUNT OF AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR TO WITHIN FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
- THE CONTRACTOR IS RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
- THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE ON ACCORDANCE WITH STATE, FEDERAL, LOCAL AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
- THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR SHALL PROPERLY REMOVE AND DISPOSE OF HAZARDOUS/UNSATURABLE MATERIAL OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES AND LAWS.
- DEMOLITION OF THE EXISTING STRUCTURES AND FOUNDATIONS SHOULD INCLUDE FULL REMOVAL OF ALL REMNANT UTILITIES, FOOTINGS, FOUNDATION WALLS, AND SLABS. REMNANT FOUNDATIONS AND SLABS SHALL REMAIN IN PLACE TWO FEET BELOW PAVEMENT SUBGRADES AND LANDSCAPED AREAS, PROVIDED THEY ARE ADEQUATELY BROKEN TO PROMOTE POSITIVE DRAINAGE AND THAT THEY WILL NOT INTERFERE WITH FUTURE CONSTRUCTION. THE RESULTING EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL PLACED IN MAXIMUM NINE INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557). ANY IMPORTED MATERIAL PLACED AS STRUCTURAL FILL OR BACKFILL TO RAISE ELEVATIONS OR RESTORE GRADES SHOULD CONSIST OF CLEAN, RELATIVELY WELL GRADED SAND OR GRAVEL WITH A MAXIMUM PARTICLE SIZE OF THREE INCHES AND FIVE PERCENT TO 20 PERCENT OF MATERIAL FINER THAN A #200 SIEVE. SILTY OR CLAYEY SANDS AND GRAVELS WITH HIGHER PERCENTAGE OF FINES AND WITH A LIQUID LIMIT LESS THAN 40 AND A PLASTICITY INDEX LESS THAN 12 MAY BE CONSIDERED SUBJECT TO THE OWNERS APPROVAL. PROVIDED THAT THE REQUIRED MOISTURE CONTENT AND COMPACTION CONTROLS ARE MET, THE MATERIAL SHOULD BE FREE OF CLAY LUMPS, ORGANICS, AND DELETERIOUS MATERIAL. IMPORTED STRUCTURAL FILL MATERIAL SHOULD BE APPROVED BY THE OWNER PRIOR TO DELIVERY TO THE SITE.

ADDITIONAL DEMOLITION NOTES

- THE CONTRACTOR IS TO NOTIFY THE TOWNSHIP AND TOWNSHIP ENGINEER 48 HOURS PRIOR TO START OF DEMOLITION.
- ALL WATER PUMPS FROM DEMOLITION AREAS SHALL BE PUMPED THROUGH A PROPERLY SITUATED SEDIMENT FILTER BAG.
- CESSATION OF DEMOLITION ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.
- THE CONTRACTOR SHOULD USE METHODS SUCH AS WATERBARS, DIVERSION SWALES, DIVERSION BERMS OR TEMPORARY PIPING TO DIRECT SEDIMENT LADEN WATER TO THE VARIOUS SEDIMENT REMOVAL FACILITIES INCLUDING SEDIMENT TRAPS, SILT SOCKS AND FOREBAYS. THESE ITEMS ARE NOT SHOWN ON THE PLAN DUE TO THE DYNAMIC NATURE OF EARTHMOVING ACTIVITIES. TEMPORARY DIVERSION DEVICES SHOULD BE PLACED AT THE END OF THE WORK WEEK, OR PRIOR TO RAINFALL EVENTS IN ORDER TO DIRECT SEDIMENT LADEN WATER TO THE APPROPRIATE FACILITIES.
- DEMOLITION CONTRACTOR SHOULD MAINTAIN STOCKPILE OF CRUSHED STONE IN A DESIGNATED AREA ON-SITE TO HAVE READILY AVAILABLE FOR IMMEDIATE STABILIZATION OF ANY MINOR EARTH DISTURBANCE AS A RESULT OF DEMOLITION.
- DEMOLITION CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL MEASURES, EVEN IF NOT SHOWN ON PLAN. SILT SOCK OR OTHER EROSION MEASURES SHOULD BE USED AS NEEDED IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE. CONTRACTOR IS ADVISED THAT THE TOWNSHIP STAFF PROJECT ENGINEER OR THE MONTGOMERY COUNTY CONSERVATION DISTRICT MAY REQUEST ADDITIONAL EROSION CONTROL MEASURES SHOULD SITE CONDITIONS DURING DEMOLITION ACTIVITIES REQUIRE IT.

LEGEND

EXISTING FEATURES

- FENCE
- OVERHEAD WIRE
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- STORM SEWER
- INLET
- SOILS
- ZONING LIMIT

DECIDUOUS TREE

EVERGREEN TREE

WATER MAIN

WATER SERVICE

GAS MAIN

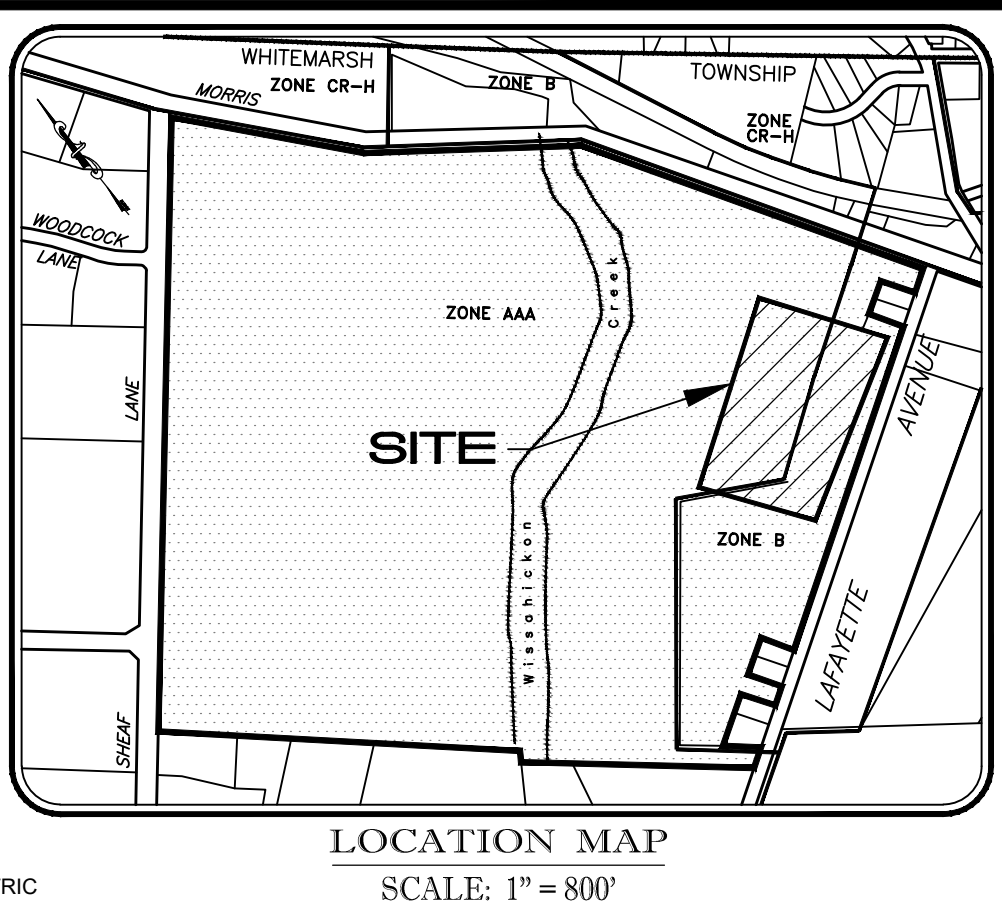
UNDERGROUND ELECTRIC

LATERAL

ROOF DRAIN

GUIDE RAIL

CONTOUR



- LEGEND DEMOLITION**
- EXISTING PAVING TO BE REMOVED
 - EXISTING AMPHITHEATER TO BE REMOVED
 - EXISTING PLAY EQUIPMENT TO BE REMOVED
 - EXISTING WALK TO BE REMOVED
 - EXISTING CONCRETE TO BE REMOVED
 - EXISTING CURB TO BE REMOVED
 - EXISTING BUS SHELTER TO BE REMOVED
 - EXISTING SHED TO BE REMOVED
 - EXISTING STORM SEWER TO BE REMOVED
 - EXISTING TREE TO BE REMOVED
 - EXISTING LANDSCAPE WALL TO BE REMOVED

NO.	DATE	REVISION
1	12-19-24	1 TREE PRESERVATION & BUS SHELTER
2		EDM

COUNTY PARCEL NO.: 65-03-1522-003-9
 BLOCK - UNIT: 049-076
 SITE ADDRESS: 340 MORRIS ROAD, FORT WASHINGTON, PA. 19004
 DEED BOOK - PAGE: 3311-0230

RECORD OWNER:
 GERMANTONW ACADEMY AKA THE PUBLIC SCHOOL OF GERMANTON
 340 MORRIS ROAD
 FORT WASHINGTON, PA. 19034

CHARLES E. SHOEMAKER, INC.
 ENGINEERS & SURVEYORS
 1010 STONE DRIVE
 MONTGOMERY, PA. 19126
 PHONE: 215-897-2165 FAX: 215-897-7791
 E-MAIL: cesho@eshoemaker.com

DEMOLITION PLAN FOR EARLY CHILDHOOD LEARNING CENTER PREPARED FOR GERMANTONW ACADEMY
 WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE: DECEMBER 16, 2024
 DWG NO: WHI-761
 JOB NO: 25776
 SHEET NO: 4 OF 14



BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776
 NOW MEMBERS MUST BE CONTACTED DIRECTLY
 PA ACT 121 (2008) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATE, DRILL, BURN OR SEWER

ONE-STORY
FRAME & MASONRY
BUILDING
(MULTI-USE GYMNASIUM)

TWO-STORY
STONE BUILDING
W/BASEMENT
(MCLEAN HALL)

TWO-STORY
STONE BUILDING
W/BASEMENT
(LEAS HALL)

PROPOSED 6,078 S.F.
DAY SCHOOL
F.F. 180.70

12 SPACES

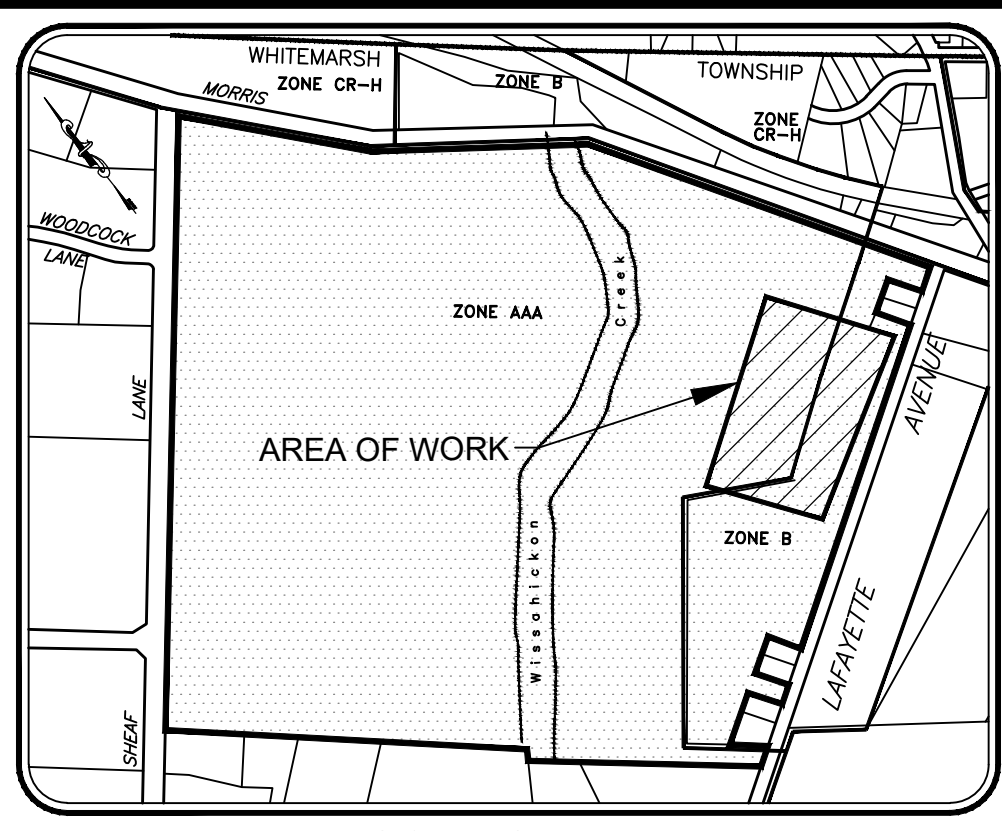
PROPOSED UNDERGROUND
INFILTRATION
BASIN
SEE SHEET 8 OF 13
FOR CONFIGURATION

LEGEND
EXISTING FEATURES

- FENCE
- OVERHEAD WIRE
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- FIRE HYDRANT SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- STORM SEWER
- INLET
- SOILS
- ZONING LIMIT
- DECIDUOUS TREE
- EVERGREEN TREE
- W WATER MAIN
- WS WATER SERVICE
- G GAS MAIN
- U UNDERGROUND ELECTRIC
- LAT LAT
- RD ROOF DRAIN
- GR GUIDE RAIL
- 238 CONTOUR

LEGEND
PROPOSED FEATURES

- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED STORM SEWER & INLET
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY LATERAL
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FENCE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED ARTIFICIAL TURF
- PROPOSED SAND
- AREA OF MINIMAL DISTURBANCE
- LIMIT OF DISTURBANCE

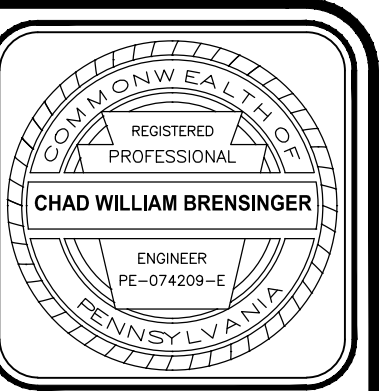


LOCATION MAP
SCALE: 1" = 800'

EXISTING IMPERVIOUS COVERAGE		PROPOSED IMPERVIOUS COVERAGE	
COVERAGE TYPE	AREA (SQ. FT.)	COVERAGE TYPE	AREA (SQ. FT.)
PAVING (PLAYGROUND AND DRIVE)	15,382	BUILDING	6,078
PAVING (NORTHWEST NEAR BUILDING)	8,565	OVERHANG	872
CONCRETE	1,641	CONCRETE PLAY AREAS	12,920
SHEDS	146	ARTIFICIAL TURF PLAY AREAS	4,135
AMPHITHEATER	349	PAVING	5,206
LANDSCAPE WALLS	464	CONCRETE SIDEWALK	3,827
RUINS	40	CURB	198
BUS SHELTER	525	WALL	78
TOTAL	27,112	AMPHITHEATER	400
		SHEDS	341
		BUS SHELTER	525
		TOTAL	34,055

NOTES:

1. DETAILED GRADING (ADA COMPLIANCE), DRAINAGE, LAYOUT, CONSTRUCTION DETAILS RELATING TO PLAY AREAS WILL BE BASED ON DESIGNS PREPARED BY STUDIO LUDO.
2. LANDSCAPING DESIGN AND LAYOUT WILL BE BASED ON PLANS PREPARED BY STUDIO LUDO.
3. PERFORATED HDPE PIPE LOCATED WITHIN THE PLAY AREA LOCATED IN THE COURTYARD BETWEEN THE PROPOSED DAY SCHOOL AND LEAS HALL IS PROVIDED AS SUBSURFACE DRAINAGE. ANY SECONDARY DRAINAGE FEATURES SHALL BE COORDINATED WITH THE LANDSCAPE DESIGNER.
4. FINAL LATERAL LOCATION IN THE FIELD TO PRESERVE EXISTING TREES. ACTUAL LOCATION TO BE FINALIZED ONE EXISTING SANITARY SEWER IS LOCATED IN THE FIELD PRIOR TO CONSTRUCTION.
5. PROPOSED SITE GRADING SHOWN FOR GENERAL PURPOSES AND MAY BE ADJUSTED TO SUIT ACTUAL FIELD CONDITIONS TO ENSURE ADEQUATE DRAINAGE AROUND THE BUILDING AREA BASED ON THE GRADING CONCEPT SHOWN ON THIS PLAN, AS APPLIED TO THE FINAL BUILDING DESIGN BY OTHERS. CHARLES E. SHOEMAKER, INC. IS NOT RESPONSIBLE FOR GROSS DEVIATIONS FROM THE PROPOSED PLAN.
6. CONTRACTOR SHOULD FIELD VERIFY ALL EXISTING AND PROPOSED GRADES AND RELATIVE ELEVATIONS PERTINENT TO PROPOSED IMPROVEMENTS PRIOR TO CONSTRUCTION TO VERIFY DETAILS OF PROPOSED IMPROVEMENTS IN RELATION TO THE EXISTING SITE CONSTRAINTS.
7. THE SITE CONTRACTOR AND PROPERTY OWNER SHOULD BE ADVISED THAT THE MUNICIPALITY MAY REQUIRE A FINAL AS-BUILT SURVEY AND PLANS IN ORDER TO VERIFY THAT PROJECT IMPROVEMENTS ARE CONSTRUCTED CONSISTENT WITH APPROVED PERMIT PLANS AND DO NOT EXCEED ALLOWABLE IMPERVIOUS AREAS.
8. ARCHITECT, CONTRACTOR OR HOMEOWNER IS RESPONSIBLE FOR FINAL BUILDING DESIGNS, RELATIVE ELEVATIONS, ACCESS AND DETAILS. DETAILED GRADE AND ELEVATION ADJUSTMENTS PERTAINING TO THE BUILDING AREA ARE THE RESPONSIBILITY OF THE HOMEOWNER OR CONTRACTOR AND SHOULD BE PROJECT SPECIFIC AND BASED ON ACCEPTED CONSTRUCTION PRACTICES AND MANUFACTURER RECOMMENDATIONS OF SELECTED MATERIALS.
9. PRIOR TO FRAMING, THE APPLICANT SHOULD SUBMIT A FOUNDATION AS-BUILT TO THE TOWNSHIP, SHOWING THE LOCATION AND



COUNTY PARCEL NO.	RECORD OWNER	DATE	NO.	BY
65-00-10592-00-B	GERMANTONW ACADEMY	12-19-24	1	EDM

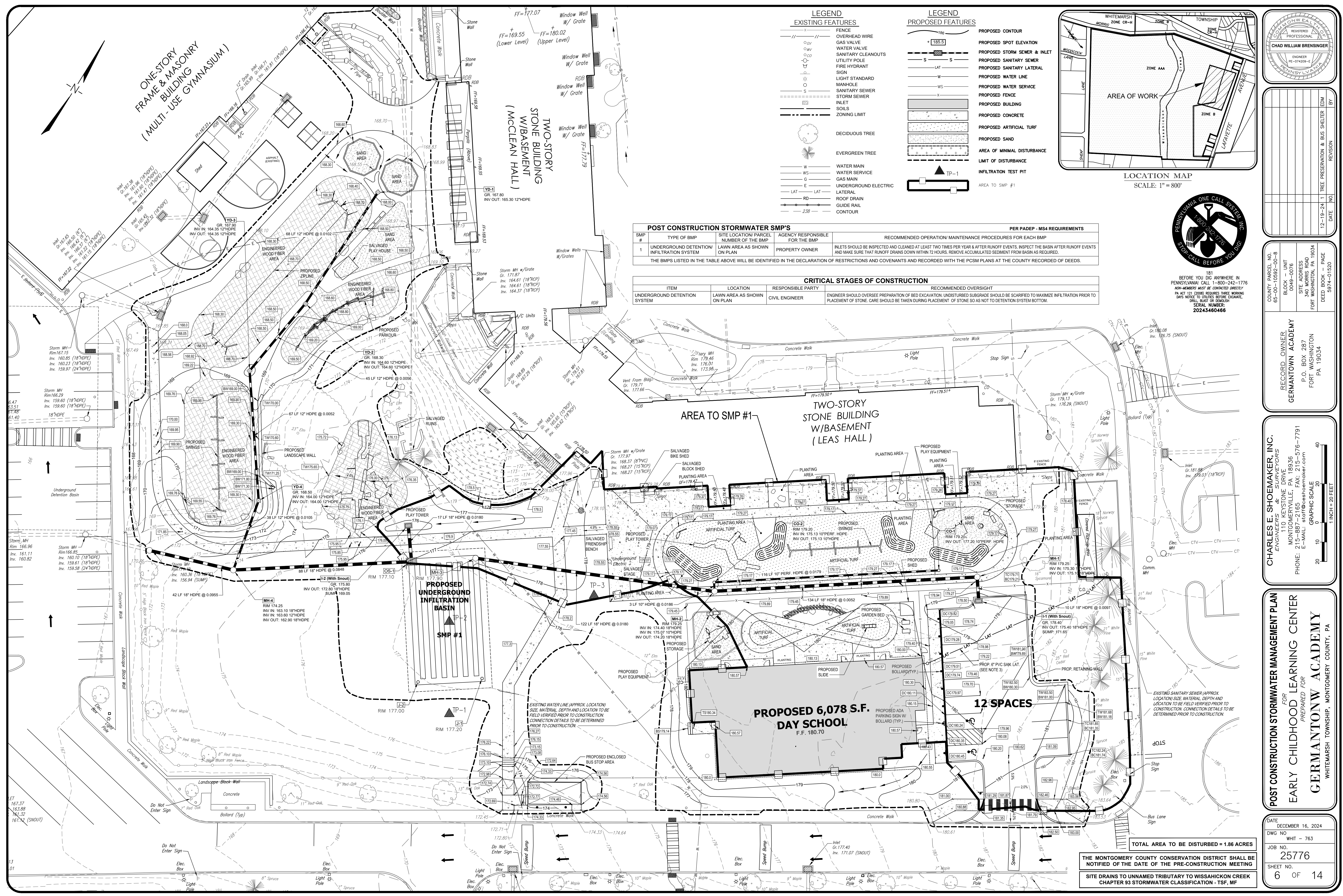
CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: ceshoemaker.com

RECORD OWNER
GERMANTONW ACADEMY
P.O. BOX 287
FORT WASHINGTON, PA 19034
DEED BOOK - PAGE
5974-01520

GRADING & UTILITY PLAN
FOR
EARLY CHILDHOOD LEARNING CENTER
PREPARED FOR
GERMANTONW ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

DATE: DECEMBER 16, 2024
DWG NO: WHIT - 762
JOB NO: 25776
SHEET NO: 5 OF 14

DATE: DECEMBER 16, 2024
DWG NO: WHIT - 762
JOB NO: 25776
SHEET NO: 5 OF 14



ONE-STORY
FRAME & MASONRY
BUILDING
(MULTI-USE GYMNASIUM)

TWO-STORY
STONE BUILDING
W/BASEMENT
(MCLEAN HALL)

AREA TO SMP #1
TWO-STORY
STONE BUILDING
W/BASEMENT
(LEAS HALL)

PROPOSED 6,078 S.F.
DAY SCHOOL
F.F. 180.70

12 SPACES

TOTAL AREA TO BE DISTURBED = 1.86 ACRES

THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED OF THE DATE OF THE PRE-CONSTRUCTION MEETING
SITE DRAINS TO UNNAMED TRIBUTARY TO WISSAHICKON CREEK
CHAPTER 93 STORMWATER CLASSIFICATION - TSF, MF

LEGEND
EXISTING FEATURES

- FENCE
- OVERHEAD WIRE
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- STORM SEWER
- INLET
- SOILS
- ZONING LIMIT
- DECIDUOUS TREE
- EVERGREEN TREE
- W WATER MAIN
- WS WATER SERVICE
- G GAS MAIN
- E UNDERGROUND ELECTRIC
- LAT LATERAL
- RD ROOF DRAIN
- GR GUIDE RAIL
- 2.38 CONTOUR

LEGEND
PROPOSED FEATURES

- 189 PROPOSED CONTOUR
- + 185.5 PROPOSED SPOT ELEVATION
- S PROPOSED STORM SEWER & INLET
- S PROPOSED SANITARY SEWER
- S PROPOSED SANITARY LATERAL
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE
- X PROPOSED FENCE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED ARTIFICIAL TURF
- PROPOSED SAND
- AREA OF MINIMAL DISTURBANCE
- LIMIT OF DISTURBANCE
- INFILTRATION TEST PIT
- AREA TO SMP #1

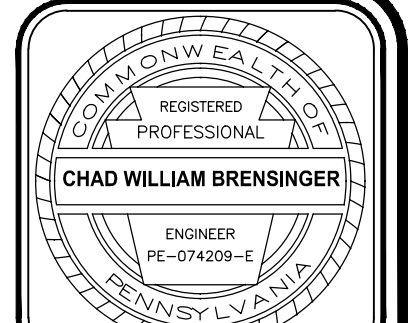
POST CONSTRUCTION STORMWATER SMP'S

SMP #	TYPE OF BMP	SITE LOCATION/ PARCEL NUMBER OF THE BMP	AGENCY RESPONSIBLE FOR THE BMP	PER PADEP - MS4 REQUIREMENTS
1	UNDERGROUND DETENTION/ INFILTRATION SYSTEM	LAWN AREA AS SHOWN ON PLAN	PROPERTY OWNER	INLETS SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES PER YEAR AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED.

THE BMP'S LISTED IN THE TABLE ABOVE WILL BE IDENTIFIED IN THE DECLARATION OF RESTRICTIONS AND COVENANTS AND RECORDED WITH THE PCSM PLANS AT THE COUNTY RECORDED OF DEEDS.

CRITICAL STAGES OF CONSTRUCTION

ITEM	LOCATION	RESPONSIBLE PARTY	RECOMMENDED OVERSIGHT
UNDERGROUND DETENTION SYSTEM	LAWN AREA AS SHOWN ON PLAN	CIVIL ENGINEER	ENGINEER SHOULD OVERSEE PREPARATION OF BED EXCAVATION. UNDISTURBED SUBGRADE SHOULD BE SCARIFIED TO MAXIMIZE INFILTRATION PRIOR TO PLACEMENT OF STONE. CARE SHOULD BE TAKEN DURING PLACEMENT OF STONE SO AS NOT TO DETENTION SYSTEM BOTTOM.



NO.	DATE	REVISION
1	12-19-24	TREE PRESERVATION & BUS SHELTER

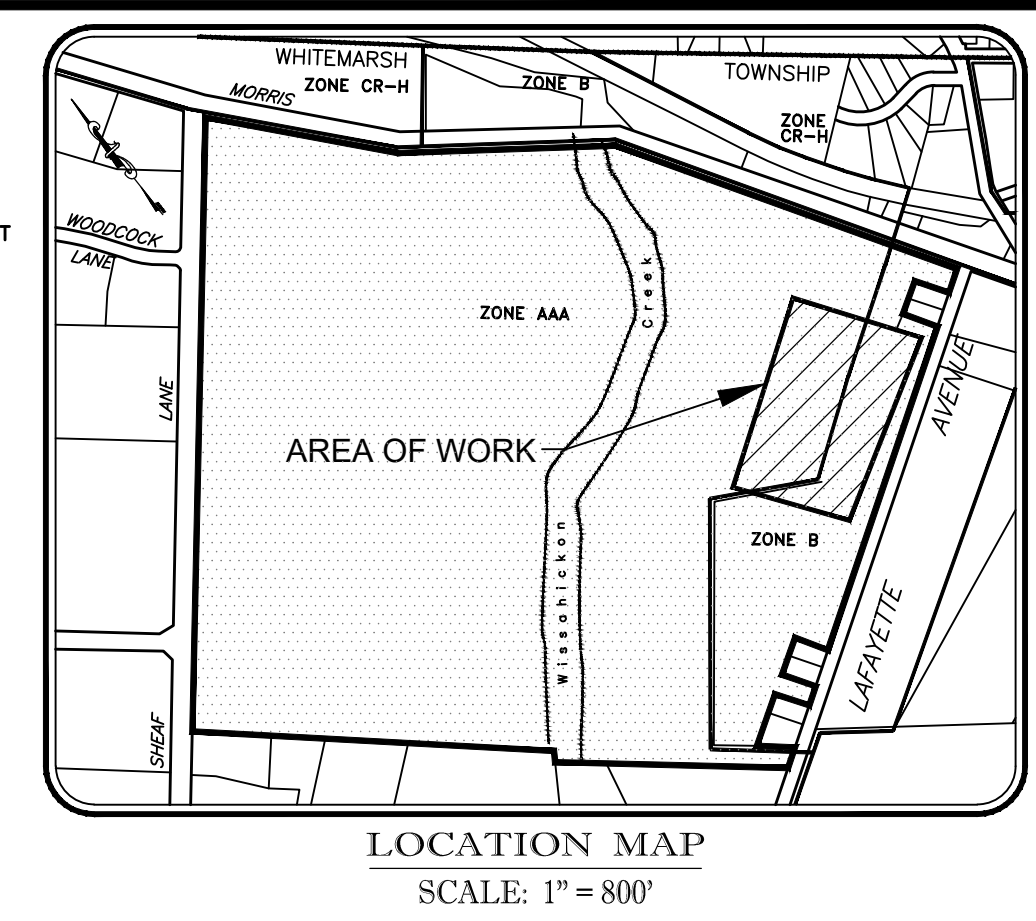
COUNTY PARCEL NO. 65-00-1522-003-9
BLOCK - UNIT 0049-0076
SITE ADDRESS 440 MORRIS ROAD
FORT WASHINGTON, PA 19034
DEED BOOK - PAGE 5974-01520

RECORDED OWNER
GERMANTOWN ACADEMY
P.O. BOX 287
FORT WASHINGTON, PA 19034

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
1010 STONE DRIVE
MONTGOMERY, PA 19114
PHONE: 215-897-2165 FAX: 215-897-7791
E-MAIL: ceshoemaker.com

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
FOR
EARLY CHILDHOOD LEARNING CENTER
PREPARED FOR
GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

DATE: DECEMBER 16, 2024
DWG NO. WHIT - 763
JOB NO. 25776
SHEET NO. 6 OF 14



LOCATION MAP
SCALE: 1" = 800'



181
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776
NON-EMERGENCY CALLS ARE HANDLED DURING BUSINESS HOURS. PA ACT 121 (2008) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATION. DIAL 811 OR VISIT 811.PA.GOV
SERIAL NUMBER: 20245460466

DATE: DECEMBER 16, 2024
DWG NO. WHIT - 763
JOB NO. 25776
SHEET NO. 6 OF 14

MONITORING, INSPECTIONS, AND REPORTING REQUIREMENTS

Visual Inspections

The permittee and co-permittee(s) must ensure that the visual site inspections are conducted weekly, and within 24 hours 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 prepared in a format provided by the department, and conducted by qualified personnel, trained and experienced in erosion and sediment control. The permittee shall ensure that the E&S BMPs and PCSM BMPs 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:

- (1) a summary of site conditions, E&S BMP and PCSM BMP, implementation and maintenance and compliance actions; and
- (2) the date, time, name, and signature of the person conducting the inspection

Non-Compliance Reporting

Where E&S, PCSM, or PPC BMPs 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. Non-compliance reports shall include the following information:

- (1) any condition on the project site which may endanger public health, safety, or the environment, or involve incidents which cause or threaten pollution
- (2) the period of non-compliance, including the exact dates and times and/or anticipated time when the activity will return to compliance
- (3) steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance; and
- (4) the date or schedule of dates, and identifying remedies for corrective non-compliance conditions

Reduction, Loss, or Failure of the BMPs

Upon reduction, loss, or failure of the BMPs, the permittee and co-permittee shall take immediate action to restore the BMPs or provide an alternative method of treatment. Such restored BMPs or alternative treatment shall be at least as effective as the original BMPs.

Termination of Coverage

NOT: Upon permanent stabilization of earth disturbance activities associated with construction activity what are authorized by this permit and when BMPs 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 1.6, Signatory Requirements, of this permit. All letter certifying discharge termination are to be sent to the department or authorized conservation district. The NOT must contain the following information: facility name, address, location, operator, name and address, permit number, identification and proof of acknowledgement from the person(s) who will be responsible for operation and maintenance of the PCSM BMPs in accordance with the approved PCSM plan, and the reason for permit termination. Until the permittee has received written acknowledgement of the NOT, the permittee will remain responsible for operating and maintaining all E&S BMPs and PCSM BMPs 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 permanent stabilization of the site and proper installation of PCSM BMPs 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 professional and by the permittee certifying that work has been performed in accordance with the terms and conditions of this permit and the approved E&S and PCSM Plans.

IMPORT OR EXPORT OF FILL

If the site will need to import or export material from the site, the responsibility for performing "Due Diligence" and determination of "Clean Fill" will lie with the contractor.

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 pick, block, or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the Waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use).

Clean fill affected by a spill or release of a regulated substance: fill materials affected by a spill or release of a regulated substance shall qualify as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Table FP-1a and FP-1b found in the Department's policy "Management of Fill".

Any person placing clean fill that has been affected by the spill or release of a regulated substance must use for 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 required as a part of Due Diligence unless visual inspection and/or review of past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

Fill material that does not qualify as Clean Fill is Regulated Fill. Regulated Fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available online at www.pacode.com.

RECYCLING AND DISPOSAL

Individuals responsible for earth disturbance activities must ensure that proper mechanisms are in place to control waste materials. Construction wastes include but are not limited to, excess soil materials, building materials, concrete wash water, sanitary wastes, etc. that could adversely impact water quality. Measures should be planned and implemented for housekeeping, materials management, and litter control. Wherever possible, recycling of excess materials is preferred, rather than disposal.

Post construction stormwater management waste materials, including, but not limited to, pollutants and sediments from filters, materials pumped from inlet sumps, spent filter cartridges, etc., shall be disposed of in accordance with applicable PA DEP regulations. In most cases, the sediment and spent cartridges, once dewatered, can be disposed of in a sanitary landfill.

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. The contractor shall not illegally bury, dump, or discharge any building material or wastes at this site.

UTILITY LINE TRENCH EXCAVATION NOTES

1. Limit advanced clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
2. 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.
3. All soil excavated from the trench will be placed on the uphill side of the trench.
4. Limit daily trench excavation to the length of pipe placement, plug installation, and backfilling that can be completed in the same day.
5. Water which accumulates in the open 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 device.
6. On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and immediately stabilized.

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN OBJECTIVES

PRESERVE INTEGRITY OF RECEIVING WATERS - Best management practices will be incorporated into this project and will protect the integrity of the existing stormwater management systems and receiving stream channels. Best management practices will include and underground infiltration/detention basin.

PREVENT INCREASE IN RUNOFF RATES - Through the use of detention in the underground basin, stormwater runoff rates will be less than the existing conditions in all rainfall events (1-100 yr.) Therefore, there will be no increase in peak runoff flow rates.

MINIMIZE RUNOFF VOLUME - Through the use of volume reduction BMPs, stormwater runoff volumes will be less than the 2-yr existing condition. Infiltration BMPs will be used, as shown on the Post Construction Stormwater Management Plan, as well as evapotranspiration through proposed landscaping which is calculated in the Post Construction Stormwater Management Narrative. This project meets Pennsylvania Department of Environmental Protection Control Guideline #1 (CG-1).

MINIMIZE IMPERVIOUS AREA - The overall layout of this project will help to contribute to minimization of impervious area. The proposed roads and buildings are situated towards the center of the site with peripheral areas being left undisturbed and less compacted wherever possible.

MINIMIZE LAND CLEARING AND GRADING - The overall layout of this project will help to contribute to minimization of land clearing and grading activities. The limits of disturbance are delineated on the Post Construction Stormwater Management Plan.

MAXIMIZED PROTECTION OF EXISTING DRAINAGE FEATURES & VEGETATION - Existing drainage patterns on site will be maintained and improved upon. The property is tributary to the Wissahickon Creek. Therefore, protection of this resource is of the utmost importance. Existing trees and vegetation will be preserved to the greatest extent possible.

MINIMIZED COMPACTION - The overall layout of this project will help contribute to minimization of compaction. The proposed parking and buildings are situated towards the center of the site, in areas previously cleared for development, with the peripheral areas being left undisturbed and less compacted wherever possible. In these outer areas where disturbance is inevitable, heavy construction will be limited and only finish grading and seeding will be necessary in most cases. Infiltration BMPs will be protected from unnecessary compaction during construction with orange construction flags as shown on the plans. Areas of minimal compaction and grading are shaded on the Post Construction Stormwater Management Plan.

OTHER MEASURES - Construction activities on this site will help improve local stormwater management conditions. These BMPs are depicted in the Post Construction Stormwater Management Plans. In the event of unanticipated erosion situations or malfunctioning structural BMP devices, the Owner should immediately contact the Township Engineer, Project Engineer, or MCD for guidance to address the problem.

MINIMIZE THERMAL IMPACTS - Thermal impacts are difficult to quantify, but can be mitigated with design considerations throughout the project. Warm, impervious areas are generally the main contributor to the thermal problem. During the construction phases of the project, thermal impacts will be minimal due to the lack of heat retaining impervious areas. The pervious disturbed area will contribute minimally to this pollution source, and these temporary thermal impacts will be limited by limiting disturbance wherever possible and completing construction in a timely fashion.

After construction is complete, the earth surrounding the underground pipes and roof drains will act as a heat sink (transfers thermal energy from higher temperature to lower temperature) and this component will be the prime contributor to thermal water quality. Proposed underground pipes will be cooler than the impervious surfaces above and will cool the water on its way to surface waters or ground water through conduction.

SEQUENCE OF CONSTRUCTION

GENERAL NOTES:

1. The contractor is to notify the Township and Township Engineer 48 hours prior to start of construction.
2. All topsoil is to be re-spread over all landscaped and lawn areas to a uniform depth of 1/2 inches. Graded areas should be scarified or otherwise loosened to a depth of 3" to 5" prior to topsoil placement to permit bonding of the topsoil. Soil tests are also recommended to determine actual lime and fertilizer needs.
3. No more than 1500 square feet of disturbed area is to reach final grade before initiating seeding and mulching operations.
4. All water pumped from work areas shall be pumped through a properly situated sediment filter bag.
5. Cessation of earthmoving activity for 4 days or longer requires temporary stabilization.
6. The contractor should use methods such as waterbars, diversion swales, diversion berms or temporary piping to direct sediment laden water to the various sediment removal facilities including sediment basins, sediment traps, silt socks and forebays. These items may not be shown on the plan due to the dynamic nature of earthmoving activities. Temporary diversion devices should be placed at the end of the work week, or prior to rainfall events in order to direct sediment laden water to the appropriate facilities.
7. 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 TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE.

SEQUENCE:

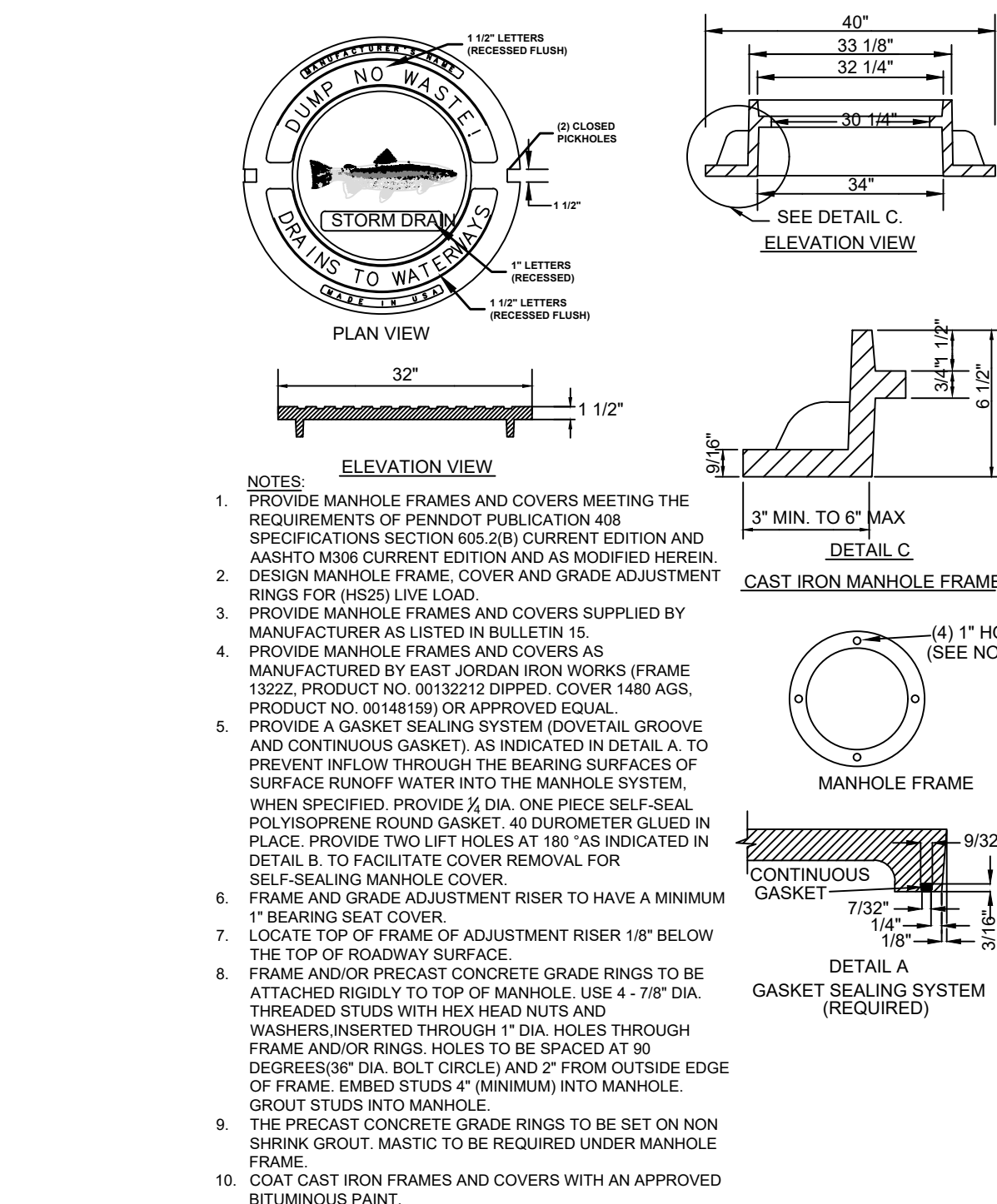
1. At least 7 days before starting any earth moving disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, and the erosion and sediment control plan preparator to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System incorporated at 1-800-242-1776 for buried utilities locations.
2. Prior to disturbance, delineate limits of disturbance on the project site with survey stakes/ribbon or orange construction fence.
3. Install rock construction entrance at location shown on Erosion and Sedimentation Control Plan.
4. Install silt socks and tree protection fencing throughout site.
5. Once all down gradient erosion control measures are in place and functional and MCD has been notified, clear and grub site area. Stockpile excess topsoil in the designated area.
6. Rough grade proposed building footprint.
7. Begin construction of the proposed building.
8. Begin construction of play areas.
9. Excavate the stone infiltration basin as shown on plan. Care should be taken while excavating beds to minimize compaction. Scarify the bottom bed to optimize infiltration. Place stone base and collection pipes backfilled with clean stone.
10. Final grade the remaining site area. Install landscaping and apply permanent seeding and mulch until proper vegetative cover is established. No more than 15,000 square feet of disturbed area is to reach final grade before initiating seeding and mulching operations. Stabilization occurs when disturbed area has 70% uniform vegetation cover. Remove temporary inlet protection within the site. After all other areas have achieved uniform stabilization, remove any remaining erosion control devices. Apply permanent seeding and mulch to areas disturbed by removal of perimeter E&S controls.
11. Install final warning course and overlays on all roadways and driveways, once heavy construction phase is completed.
12. Construction activities are expected to commence in the Summer 2025 and be completed within two (2) years.

DETENTION BASIN W/ INFILTRATION CONSTRUCTION SEQUENCE:

1. Excavate proposed detention basin area as delineated on the PCSM Plan.
2. Install filter fabric on sides of excavated areas.
3. Scarify basin bottom.
4. Install 1" stone base. Placement should be in one lift.
5. Install 36" detention pipes and junction boxes at required elevations and backfill with #57 stone.
6. Install filter fabric on top of stone.
7. Place appropriate fill & pave to finish grades.
8. Inlet sediment protection should be immediately placed on all inlets if not already present.

NOTE:

Project engineer, township engineer, or local conservation district reserve the right to perform soil analysis of topsoil or amended soil, or request soil analysis results; analysis results may be used to verify topsoil/amended soil properties and to make recommendations on seed mixtures, plantings, fertilizer, etc.



CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDROHYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
URBAN LAND (U _g B)	X C/S	X	X				X	X		X	X				

SOIL LIMITATION RESOLUTIONS

CUTBANKS CAVE - OSHA STANDARDS AND REGULATIONS MUST BE FOLLOWED AT ALL TIMES TO ENSURE THE SAFETY OF WORKER DURING TRENCHING AND EXCAVATION. CORROSIVE TO CONCRETE/STEEL - SPECIAL SITE EXAMINATION AND DESIGN MAY BE REQUIRED; INSTALL UTILITIES ENTIRELY WITHIN ONE KIND OF SOIL OR SOIL LAYER. DROUGHTY - USE NATIVE VEGETATION WHERE POSSIBLE; SUPPLEMENTAL IRRIGATION MAY BE NECESSARY FOR VEGETATION ESTABLISHMENT. EASILY ERODIBLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. USE SOD OR EROSION CONTROL NETTING IN AREAS OF STEEP SLOPES OR CONCENTRATED FLOWS. FLOODING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES. HYDROHYDRIC INCLUSIONS - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES. LOW STRENGTH/LANDSLIDE PRONE - MECHANICALLY COMPACT BERMS AND GRADE WHEN MATERIAL IS NOT SATURATED. SLOW PERCOLATION - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES. PIPING - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. POOR SOURCE OF TOPSOIL - SEED, FERTILIZING, AND SOIL PREPARATION FOR ADVERSE CONDITIONS. FROST ACTION - RECOMMENDED TO WORK DURING WARM WINTER MONTHS. SHRINK-SWELL - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. CONSULT GEOTECHNICAL ENGINEER FOR SUITABILITY AND EXCHANGE SOIL IF DEEMED NECESSARY. POTENTIAL SINKHOLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. INFILTRATION FACILITIES SHOULD BE MINIMIZED IN AREAS UNDERLAIN BY LIMESTONE. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA. PONDING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. WETNESS - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES.

PERMANENT SEEDING REQUIREMENTS (LAWN AREAS)

MIX No.	SPECIES	SEEDING RATE	MIX No.	SPECIES	SEEDING RATE
2	Tall Fescue, or Fine Fescue, or Kentucky Bluegrass, plus Redtop, or Perennial Ryegrass	75 lb./Ac. 40 lb./Ac. 30 lb./Ac. 3 lb./Ac.	4	Birdfoot Trifolium, plus Reed Canarygrass	10 lb./Ac. 15 lb./Ac.
3	Birdfoot Trifolium, plus Tall Fescue	10 lb./Ac. 35 lb./Ac.	10	Tall Fescue, plus Fine Fescue	60 lb./Ac. 15 lb./Ac.

NOTES:

1. Seeding rates are for pure live seed; seeding rate shall be adjusted by percent germination.
2. Mixture No. 2 is suitable for frequent mowing. Do not cut shorter than 4 inches.
3. Keep Redtop seeding rate to that indicated. This species has small seeds and is very competitive.
4. Diversion channels, detention basins, and sediment traps or berms shall be seeded and mulched immediately.
5. Due to the absence of soil tests, the site shall be prepared by the application of at least 6 tons of agricultural grade limestone and 100-200-200 (100 pounds of N, 200 pounds of P2O5, and 200 pounds of K2O) per acre. Work time and fertilizer into the soil deeply where possible.
6. After seeding, mulch with hay or straw at a rate of 3 tons per acre.
7. For best results, grass and legume seedings should be made in spring (March, April, and early May). However, through proper choice of seed mixtures, seed specifications, and establishment techniques, disturbed sites can be seeded almost any time from spring to fall. Legume seedings of at least ten to twelve weeks to produce seedlings sufficiently large and hardy to survive the winter. Grasses generally require at least four to six weeks of growth prior to hard frosts. It is suggested that legumes be seeded before August 15 in southeastern Pennsylvania (corn maturity zone 4).
8. No topsoil stockpile shall be removed from the site or used as soil.

RECOMMENDED SEED MIXTURES FOR VARIOUS AREAS

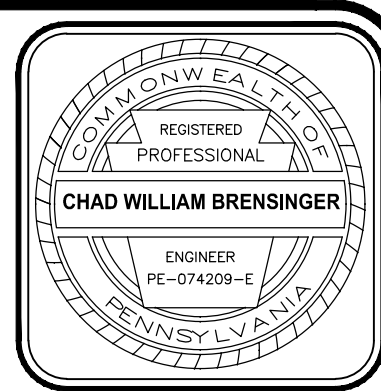
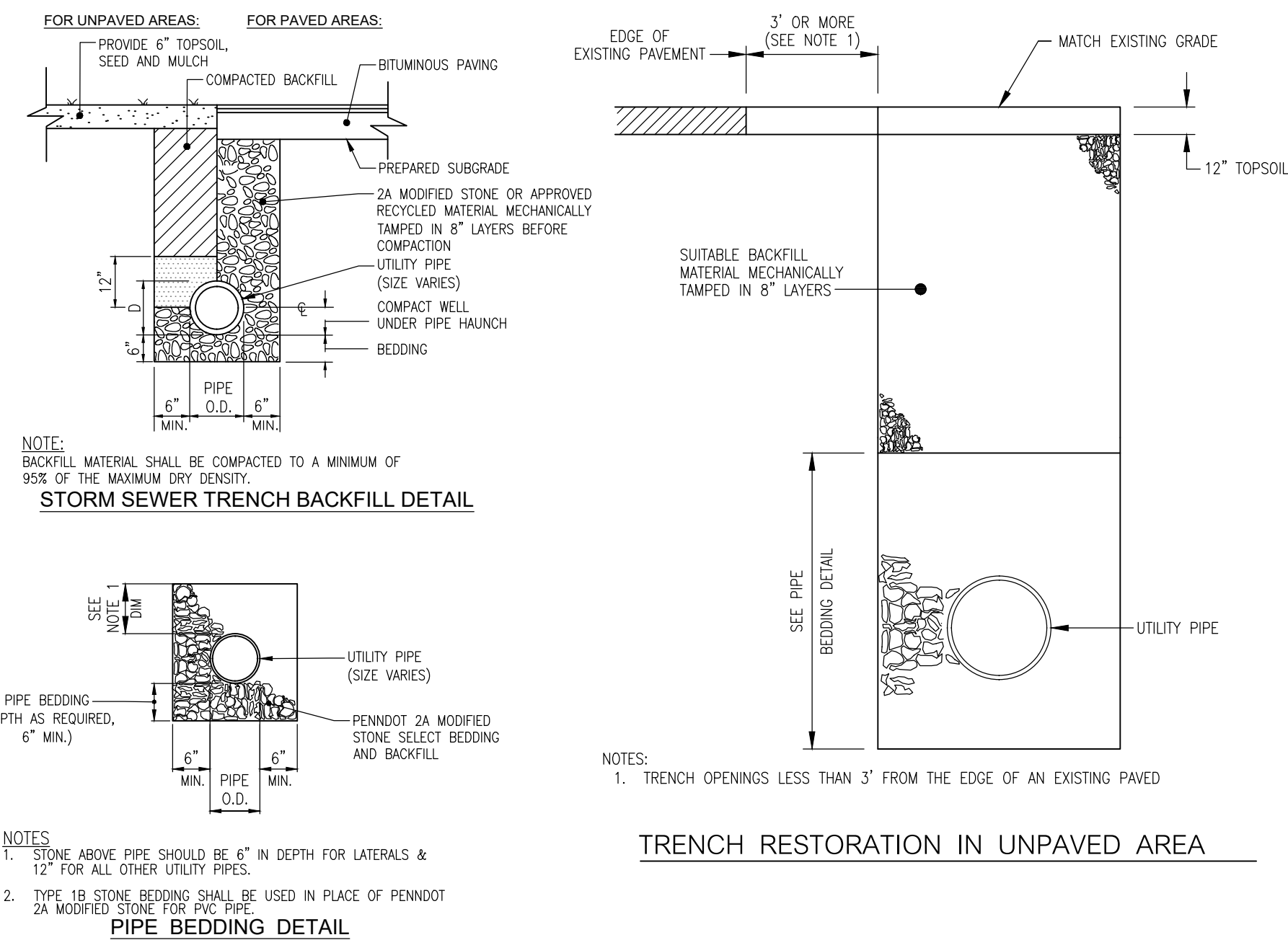
AREA	MIXTURE
Slopes and banks (unmowed)	3
(mowed)	2 or 10
Drainage swales	2, 3 or 4
Utility Right-of-Way	3
Lawns	2, 3 or 10

MULCHING REQUIREMENTS

All conservation and erosion control areas, whether seeded with a drill, broadcasted, or hydroseeded, should be mulched to reduce soil erosion and to aid seed germination and seedling establishment. Grass hay and cereal straw are preferred mulches and should be applied to produce a loose layer 0.75 to 1 inch deep. Generally, 3 tons of mulch per acre are sufficient. As a guideline, a thickness of five to six overlapping straw or hay stems is acceptable for mulching. Straw or hay should not be chopped or finely broken during application. On steep slopes, hay rather than mulch is recommended.

CAUTION: Hay mulch may introduce undesirable weeds; use clean mulch if weeds might be a problem.

Long straws and stems are more readily anchored in place and afford seedling plants more protection than does chopped straw or hay. Mulches of hay or straw may be tied down with commercial netting of various types of asphalt emulsion or cutback asphalt at a rate of 100 to 150 gallons per acre. Application of cellulose fiber over the straw or hay mulch at a rate of 80 to 100 pounds per acre also is an excellent way to lock or hold the mulch in place.



NO.	DATE	REVISION
1	12-19-24	TREE PRESERVATION & BUS SHELTER EDM
2		TREE PRESERVATION & BUS SHELTER EDM

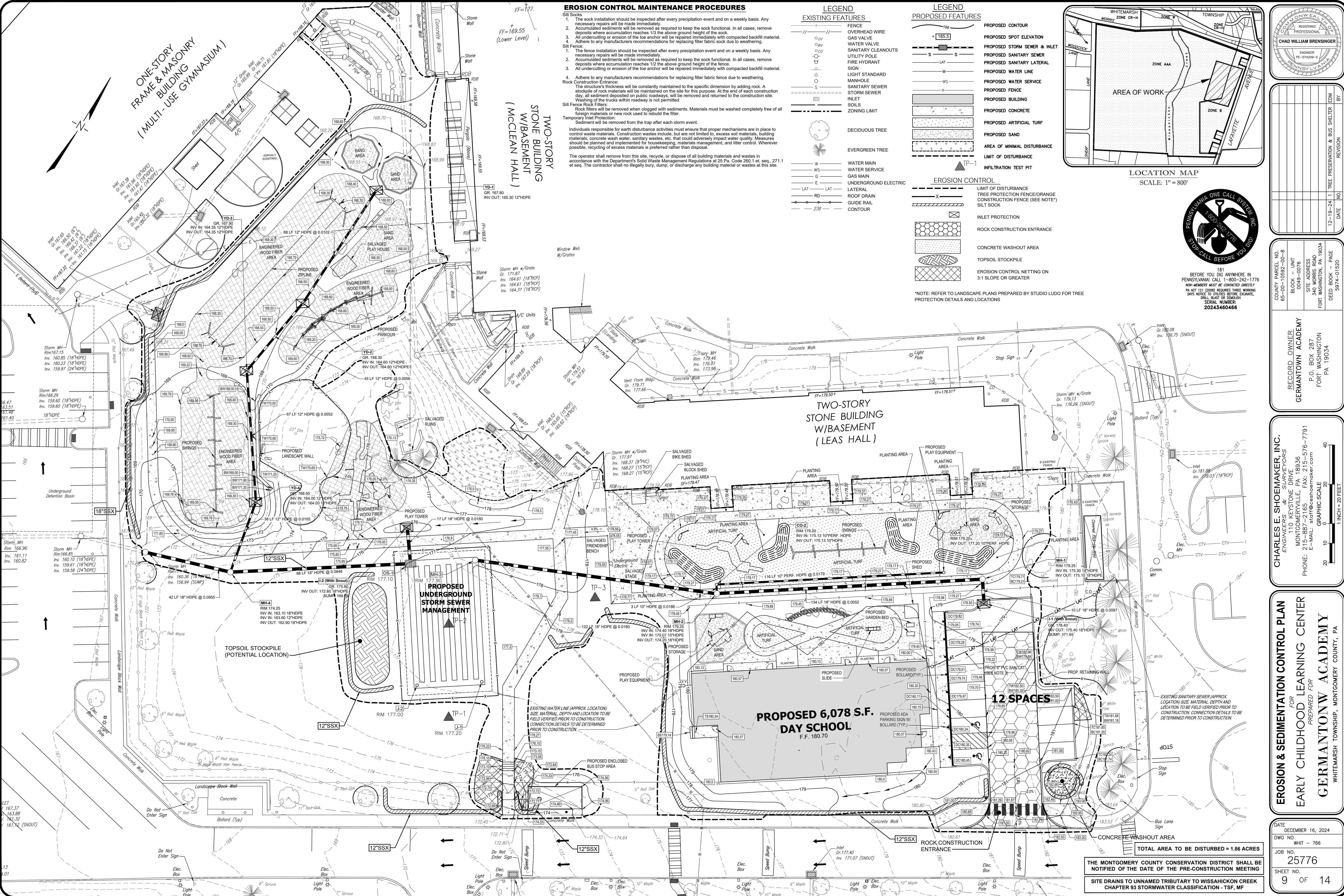
COUNTY PARCEL NO.: 65-00-15292-009-B
BLOCK - UNIT: 0049-0076
SITE ADDRESS: 40 MORRIS ROAD, FORT WASHINGTON, PA 19034
DEED BOOK - PAGE: 5974-01520

RECORDED, OWNER: GERMANTOWN ACADEMY
P.O. BOX 287, FORT WASHINGTON, PA 19034

CHARLES E. SHOEMAKER, INC.
ENGINEERING SERVICES
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 18936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: char@eshoemaker.com

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
FOR EARLY CHILDHOOD LEARNING CENTER
PREPARED FOR GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

DATE	DECEMBER 16, 2024
DWG NO.	WHIT - 764
JOB NO.	25776
SHEET NO.	7 OF 14



EROSION CONTROL MAINTENANCE PROCEDURES

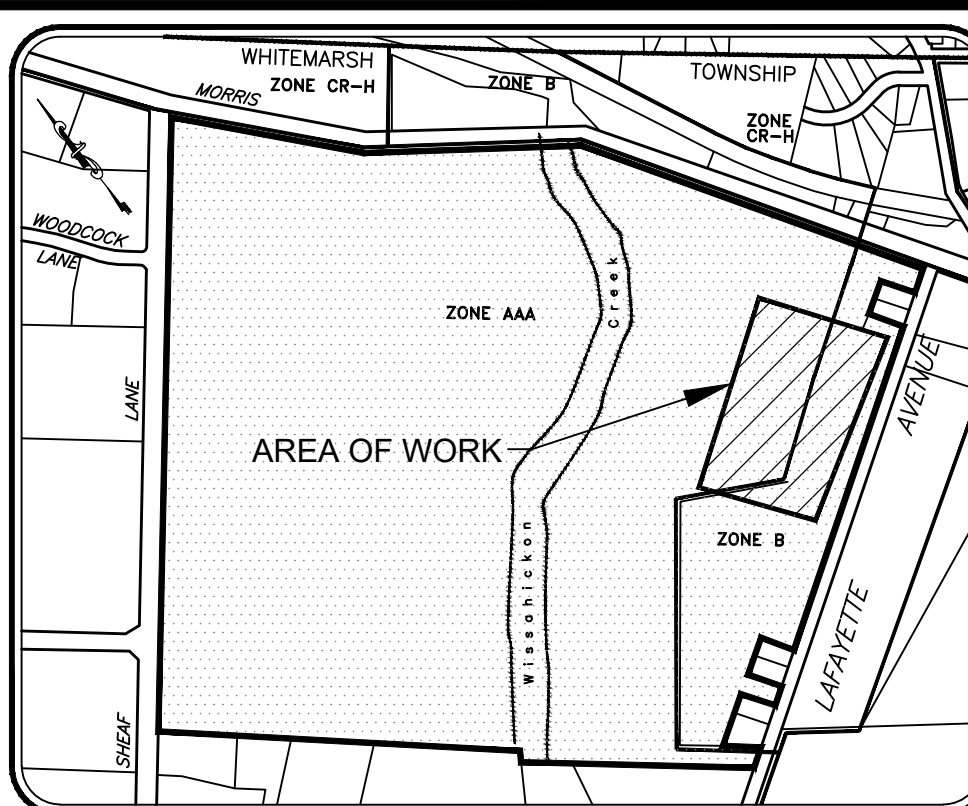
- Silt Socks**
- The sock installation should be inspected after every precipitation event and on a weekly basis. Any necessary repairs will be made immediately.
 - Accumulated sediments will be removed as required to keep the sock functional. In all cases, remove deposits where accumulation reaches 1/3 the above ground height of the sock.
 - All undercutting or erosion of the toe anchor will be repaired immediately with compacted backfill material.
 - Adhere to any manufacturers recommendations for replacing filter fabric sock due to weathering.
- Silt Fence**
- The fence installation should be inspected after every precipitation event and on a weekly basis. Any necessary repairs will be made immediately.
 - Accumulated sediments will be removed as required to keep the sock functional. In all cases, remove deposits where accumulation reaches 1/2 the above ground height of the fence.
 - All undercutting or erosion of the toe anchor will be repaired immediately with compacted backfill material.
 - Adhere to any manufacturers recommendations for replacing filter fabric fence due to weathering.
- Rock Construction Entrance**
- The structure's thickness will be constantly maintained to the specific dimension by adding rock. A stockpile of rock materials 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. Washing of the trucks within roadway is not permitted.
- Silt Fence Rock Filters**
- Rock filters will be removed when clogged with sediments. Materials must be washed completely free of all foreign materials or new rock used to rebuild the filter.
- Temporary Inlet Protection**
- Sediment will be removed from the trap after each storm event.
- Individuals responsible for earth disturbance activities must ensure that proper mechanisms are in place to control waste materials. Construction wastes include, but are not limited to, excess soil materials, building materials, concrete wash water, sanitary wastes, etc. that could adversely impact water quality. Measures should be planned and implemented for housekeeping, materials management, and litter control. Wherever possible, recycling of excess materials is preferred rather than disposal.
- The operator shall remove from this 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. The contractor shall not illegally bury, dump, or discharge any building material or wastes at this site.

LEGEND EXISTING FEATURES

- FENCE
- OVERHEAD WIRE
- GAS VALVE
- WATER VALVE
- SANITARY CLEANOUTS
- UTILITY POLE
- FIRE HYDRANT SIGN
- LIGHT STANDARD
- MANHOLE
- SANITARY SEWER
- STORM SEWER
- INLET
- SOILS
- ZONING LIMIT
- DECIDUOUS TREE
- EVERGREEN TREE
- WATER MAIN
- WATER SERVICE
- GAS MAIN
- UNDERGROUND ELECTRIC
- LATERAL
- ROOF DRAIN
- GUIDE RAIL
- CONTOUR

LEGEND PROPOSED FEATURES

- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED STORM SEWER & INLET
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY LATERAL
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FENCE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED ARTIFICIAL TURF
- PROPOSED SAND
- AREA OF MINIMAL DISTURBANCE
- LIMIT OF DISTURBANCE
- INFILTRATION TEST PIT
- EROSION CONTROL
- LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE/ORANGE CONSTRUCTION FENCE (SEE NOTE)
- SILT SOCK
- INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT AREA
- TOPSOIL STOCKPILE
- EROSION CONTROL NETTING ON 3:1 SLOPE OR GREATER



LOCATION MAP
SCALE: 1" = 800'



181
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776
NON-RESIDENTS MUST BE CONTACTED DIRECTLY
PA ACT 121 (2008) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATION, DRILL, BLAST OR DEMOLISH
SERIAL NUMBER:
20243460466

REGISTERED PROFESSIONAL ENGINEER
CHAD WILLIAM BRENSINGER
PE-042086
PENNSYLVANIA

NO.	DATE	REVISION	BY
1	12-19-24	TREE PRESERVATION & BUS SHELTER	EDM

COUNTY PARCEL NO. 65-00-1522-003-9
BLOCK - UNIT 049-0076
RECORDED OWNER: GERMANTOWN ACADEMY
P.O. BOX 287 FORT WASHINGTON, PA 19034
DEED BOOK - PAGE 5974-01520

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
1010 STONE DRIVE
MONTGOMERY, PA 19366
PHONE: 215-887-2165 FAX: 215-887-7791
E-MAIL: ceshoemaker.com

EROSION & SEDIMENTATION CONTROL PLAN FOR EARLY CHILDHOOD LEARNING CENTER PREPARED FOR GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

DATE: DECEMBER 16, 2024
DWC NO: WHIT - 766
JOB NO: 25776
SHEET NO: 9 OF 14

TOTAL AREA TO BE DISTURBED = 1.86 ACRES
THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED OF THE DATE OF THE PRE-CONSTRUCTION MEETING
SITE DRAINS TO UNNAMED TRIBUTARY TO WISSAHICKON CREEK CHAPTER 93 STORMWATER CLASSIFICATION - TSF, MF

STANDARD EROSION AND SEDIMENT CONTROL PLAN NOTES

- All earth disturbances, including clearing and grubbing, as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed, and dated by the reviewing agency) must be available at the project site at all times. The reviewing agency shall be notified of any changes to the approved drawings and implementation of those changes. The reviewing agency may require a written submittal of those changes for review and approval at its discretion.
- At least 7 days prior to starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate local conservation officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of the critical stages of implementation of the PCSM plan, and a representative from the local conservation district to an on-site preconstruction meeting.
- At least 3 days prior to starting an earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System, Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the local conservation district or by the Department prior to implementation.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots, and other objectionable material.
- Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing, and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the BMP sequence for that stage or phase of the plan have been installed and are functioning as described in the E&S plan.
- At no time shall construction activities enter areas showing the limit of disturbance shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan maps(s) in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution and notify the local conservation district and/or the regional office of the Department.
- All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 280.1 et 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
- All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated. The contractor is responsible for ensuring that any material brought on site is clean fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as clean fill due to analytical testing.
- All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
- Vehicles and equipment may neither enter directly from nor exit directly onto roads.
- Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each rainfall event and on a weekly basis. All preventative and remedial maintenance work shall be performed immediately after, repair, replacement, regrading, reseeded, re-mulching and re-mulching must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
- A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
- All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
- Areas which are to be topsoiled to a minimum depth of 3 to 5 inches - 8 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 unless specified otherwise in the plan set. Fill out slopes shall have a minimum of 2 inches of topsoil.
- All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- Fill materials shall be free of frozen particles, brush, rock, soil, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
- Frozen materials or soft, muddy or highly compressible materials shall not be incorporated into fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.
- Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in this plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. These areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
- Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
- E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the local conservation district or the Department.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district for an inspection prior to removal/conversion of the E&S BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection.
- Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 a fine in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

ADDITIONAL EROSION AND SEDIMENT CONTROL PLAN NOTES

- The operator shall assure that the approved erosion and sediment control plan is properly and completely implemented.
- The operator shall assure that the erosion and sediment control plan has been prepared, approved by the appropriate Conservation District, and is being implemented and maintained for all soil and/or rock spoil and borrow areas, regardless of their location.
- All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag discharging over non-disturbed areas.
- The contractor is advised to become thoroughly familiar with the provisions of the Appendix 64, Erosion Control Rules and Regulations, Title 5, Part 1, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article III, Water Resources, Chapter 102, Erosion Control.
- Only limited disturbance will be permitted to provide access to the sediment basins and diversion berm for grading and acquiring borrow to construct those BMPs.
- Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMP controls must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately.
- Permittees and co-permittees are responsible for ensuring that a licensed professional have oversight responsibilities for the design proper installation of the BMPs identified in the PCSM plan prior to the submission of the NOT for this permit. The licensed professional shall certify that the BMPs identified in the plan have been installed in accordance with the approved plan, the maintenance schedule of the PCSM BMPs and maintenance requirements contained within the approved PCSM plan must be followed and failure to comply with the installation schedule is a violation of this permit, the Clean Streams Law, and the Clean Water Act.

OTHER BMPs

- Sediment must be removed from storm water inlet protection after each runoff event.
- At stream crossings, 50' buffer areas should be maintained. On buffers, clearing, soil disturbances, excavation, and equipment traffic should be minimized. Activities such as stacking logs, burning cleared brush, discharging rainwater from trenches, welding pipe sections, refueling and maintaining equipment should be accomplished outside of buffers.

TEMPORARY STABILIZATION AND PERMANENT STABILIZATION

- Hay or straw mulch must be applied at 3.0 tons per acre
- Mulch with mulch control netting or erosion control blankets must be installed on all 3:1 slopes or steeper.
- Straw mulch shall be applied in long strands, not chopped or finely broken.
- Sediment removed from BMPs shall be disposed of in landscape areas outside of steep slopes, wetlands, floodplains, or drainage swales and immediately stabilized or buried in topsoil stockpiles.
- An E&S plan shall be submitted to the department or authorized conservation district and implemented for all spoil and borrow areas, regardless of their location.

OTHER ISSUES

- The NPDES Boundary is equal to the limits of disturbance and any off-site areas within the limits of disturbance that are the responsibility of the developer to install. Off-site facilities such as utilities and roadways.
- The project's receiving watercourse is Ticon Creek (Chapter 93 classification is EV, MF) and Swamp Creek (Chapter 93 classification is TSF, MF). The owner is responsible for the long term "operation and maintenance" of the BMPs.
- Upon completion or temporary cessation of the earth disturbance activity, the project site shall be immediately stabilized in accordance with the recommendations contained in the Erosion and Sediment Pollution Control Manual (E&S Manual), Commonwealth of Pennsylvania, Department of Environmental Protection No. 363-2134-008, March 2012, as amended and updated. Erosion and Sediment Control BMPs shall be implemented and maintained until permanent stabilization is completed and PCSM BMPs are operated.
- 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 contractor.

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 prick, block, or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the "Waters of the Commonwealth" unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use).

Clean fill affected by a spill or release of a regulated substance: fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Table FP-1a and FP-1b found in the Department's policy "Management of Fill".

Any person placing clean fill that has been affected by the 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 history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not required as a part of Due Diligence unless visual inspection and/or review of past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

Fill material that does not qualify as Clean Fill is Regulated Fill. Regulated Fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available online at www.pacode.com.

EROSION CONTROL PLAN OBJECTIVES

MINIMIZE EXTENT & DURATION OF EARTH DISTURBANCE - Because this site is developed and already highly impervious, minimization of land clearing and grading is very limited. However, new disturbances relating to these improvements will be limited to the greatest extent practical as shown on the plan. Much of the disturbance proposed is demolition of the existing building, parking lot, etc. The limits of disturbance are delineated on the Erosion Control Plan as well as the Post Construction Stormwater Management Plan. Duration of earth distance will be limited to the greatest extent possible.

MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES & VEGETATION - This property is located in an urban, developed area and there are no existing drainage features or vegetation onsite that require protection.

MINIMIZE COMPACTION - Because this site is developed and already highly impervious, soil compaction has already occurred, but new disturbances relating to these proposed improvements will be limited to the greatest extent practical as shown on the plan.

OTHER MEASURES - In addition to the erosion control measures listed in the Narrative report and delineated on the plan, construction activities on this site will enhance stormwater runoff generated from this site. In the event of unanticipated erosion situations or malfunctioning erosion control devices, the contractor should immediately contact the Township Engineer, Project Engineer or MCD for guidance to address the problem.

MINIMIZE THERMAL IMPACTS - Thermal impacts are difficult to quantify, but can be mitigated with design considerations throughout the project. Warm, impervious areas are generally the main contributor to thermal pollution. During the construction phases of the project, thermal impacts will be less than existing conditions due to the lack of heat retaining impervious areas. The pervious disturbed area will contribute minimally to this pollution source, and generally much less than the existing impervious site conditions. Any potential for thermal impacts will be mitigated through the use of the stormwater conveyance system. The earth surrounding the underground pipes will act as a heat sink (transfers thermal energy from higher temperature to lower temperature) and this component will be a prime contributor to thermal water quality.

SEQUENCE OF CONSTRUCTION

GENERAL NOTES:

- The contractor is to notify the Township and Township Engineer 48 hours prior to start of construction.
- All topsoil to be used is to be uniform over all landscape and law areas to a uniform depth of 3 inches. Graded areas should be scarified or otherwise loosened to a depth of 3" to 5" prior to topsoil placement to permit bonding of the topsoil. Soil tests are also recommended to determine actual time and fertilizer needs.
- No more than 15,000 square feet of disturbed area is to reach final grade before initiating seeding and mulching operations.
- All water pumped from work areas shall be pumped through a properly situated sediment filter bag.
- Ceasation of earthmoving activity for 4 days or longer requires temporary stabilization.
- The contractor should use methods such as waterbars, diversion swales, diversion berms or temporary piping to direct sediment laden water to the various sediment removal facilities including sediment basins, sediment traps, silt socks and forebays. These items may not be shown on the plan due to the dynamic nature of earthmoving activities. Temporary diversion devices should be placed at the end of the work week, or prior to rainfall events in order to direct sediment laden water to the appropriate facilities.
- 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 TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE.

SEQUENCE:

- At least 7 days before starting any earth moving disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriated municipal officials, and the erosion and sediment control plan preparer to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for buried utilities location.
- Prior to disturbance, delineate limits of disturbance on the project site with survey stakes/ribbon or orange construction fence.
- Install rock construction entrance on Erosion and Sedimentation Control Plan.
- Install silt socks and tree protection fencing throughout site.
- Once all down gradient erosion control measures are in place and functional and MCD has been notified, clear and grub site area. Stockpile excess topsoil in the designated area.
- Rough grade proposed building footprint.
- Begin construction of the proposed building.
- Begin construction of play area.
- Excavate the stone infiltration basin as shown on plan. Care should be taken while excavating beds to minimize compaction.
- Scarify the bottom of beds to optimize infiltration. Place stone basins and collection pipes backfilled with clean stone.
- (CRITICAL STAGE OF TABLE ON PCSM PLAN) - MUST BE OVERSEEN BY LICENSED PROFESSIONAL
- Construct utility connections to proposed building.
- Install remaining underground utilities including electric, telephone, etc.
- Remove rock construction entrance and install bituminous base course on driveway.
- Construct and stabilize concrete sidewalks.
- Final grade the remaining site area, install landscaping and apply permanent seeding and mulch until proper vegetative cover is established. No more than 15,000 square feet of disturbed area is to reach final grade before initiating seeding and mulching operations. Stabilization occurs when disturbed area has 70% uniform vegetative cover. Remove temporary inlet protection within the site. After all other stormwater management devices are installed, remove any remaining erosion control devices. Apply permanent seeding and mulch to areas disturbed by removal of perimeter E&S controls.
- Install final wearing course and overlays on all roadways and driveways, once heavy construction phase is completed.
- Construction activities are expected to conclude in the summer 2025 and be completed within two (2) years.

DETENTION BASIN W/ INFILTRATION CONSTRUCTION SEQUENCE:

- Excavate proposed detention basin area as delineated on the PCSM Plan.
- Install filter fabric on sides of excavated areas.
- Scarify basin bottom.
- Install 1' stone base. Placement should be in one fill.
- Install 30" detention pipes and junction boxes at required elevations and backfill with #57 stone.
- Install filter fabric on top of stone.
- Place appropriate fill & pave to finish grades.
- Inlet sediment protection should be immediately placed on all inlets if not already present.

NOTE:

Project engineer, township engineer, or local conservation district reserve the right to perform soil analysis of topsoil or amended soil, or request soil analysis results. Analysis results may be used to verify topsoil/amended soil properties and to make recommendations on seed mixtures, plantings, fertilizer, etc.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS

Visual Inspections

The permittee and co-permittee(s) must ensure that visual site inspections are conducted weekly, and within 24 hours 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 a qualified personnel, trained and experienced in erosion and sediment control. 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 threaten pollution;
- 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 recurrence of the noncompliance; and
- the date or schedule of dates, and identifying remedies for correcting noncompliance conditions.

Reduction, Loss, or Failure of the BMPs

Upon reduction, loss, or failure of the BMPs, the permittee and co-permittee shall take immediate action to restore the BMPs or provide an alternative method of treatment. Such restored BMPs or alternative treatment shall be at least as effective as the original BMPs.

Termination of Coverage

NOT: Upon permanent stabilization of earth disturbance activities associated with construction activity that are authorized by this permit and when BMPs 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 and address, permit number and address, permit identification and proof of acknowledgment from the person(s) who will be responsible for operation and maintenance of the PCSM BMPs in accordance with the approved PCSM Plan, and the reason for permit termination. Until the permittee has received written acknowledgement of the NOT, the permittee will remain responsible for operating and maintaining all E&S BMPs and PCSM BMPs 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 permanent stabilization of the site and proper installation of PCSM BMPs 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 professional and by the permittee certifying that work has been performed in accordance with the terms and conditions of this permit and the approved E&S and PCSM Plans.

IMPORT OR EXPORT OF FILL

This site may require exportation of fill. The contractor will be responsible for transporting excess materials to a properly permitted site. The responsibility for performing "Environmental Due Diligence" and determination of "Clean Fill" will rest with contractor.

Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the "Waters of the Commonwealth" unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use).

Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill".

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 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 has been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's Policy "Management of Fill".

Fill material that does not qualify as Clean Fill is Regulated Fill. Regulated Fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available online at www.pacode.com.

UTILITY LINE TRENCH EXCAVATION NOTES

- Limit advanced 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 the 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/or backfilling begins. Water removed from the trench shall be pumped through a filtration device.
- On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and immediately stabilized.

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDROHYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	WETNESS
URBAN LAND (UgB)	X	C/S	X	X				X	X		X	X			

SOIL LIMITATION RESOLUTIONS

CUTBANKS CAVE - TRENCHING AND EXCAVATION

CORROSIVE TO CONCRETE/STEEL - SPECIAL SITE EXAMINATION AND DESIGN MAY BE REQUIRED; INSTALL UTILITIES ENTIRELY WITHIN ONE KIND OF SOIL OR SOIL LAYER

DROUGHTY - USE NATIVE VEGETATION WHERE POSSIBLE. SUPPLEMENTAL IRRIGATION MAY BE NECESSARY FOR VEGETATION ESTABLISHMENT

EASILY ERODIBLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. USE SOD OR EROSION CONTROL NETTING IN AREAS OF STEEP SLOPES OR CONCENTRATED FLOWS

FLOODING - POSITIVE STORM DRAINAGE. PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN

DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.

HYDROHYDRIC INCLUSIONS - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.

LOW STRENGTH/LANDSLIDE PRONE - MECHANICALLY COMPACT BERMS AND GRADE WHEN MATERIAL IS NOT SATURATED

SLOW PERCOLATION - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.

PIPING - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT

POOR SOURCE OF TOPSOIL - SEED, FERTILIZING, AND SOIL PREPARATION FOR ADVERSE CONDITIONS

FROST ACTION - RECOMMENDED TO WORK DURING WARM WINTER MONTHS

SHRINK-SWELL - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. CONSULT GEOTECHNICAL ENGINEER FOR SUITABILITY AND EXCHANGE SOIL, IF DETERMINED NECESSARY

POTENTIAL SINKHOLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. INFILTRATION FACILITIES SHOULD BE MINIMIZED IN AREAS UNDERLAIN BY LIMESTONE. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA

WETNESS - POSITIVE STORM DRAINAGE. PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES.



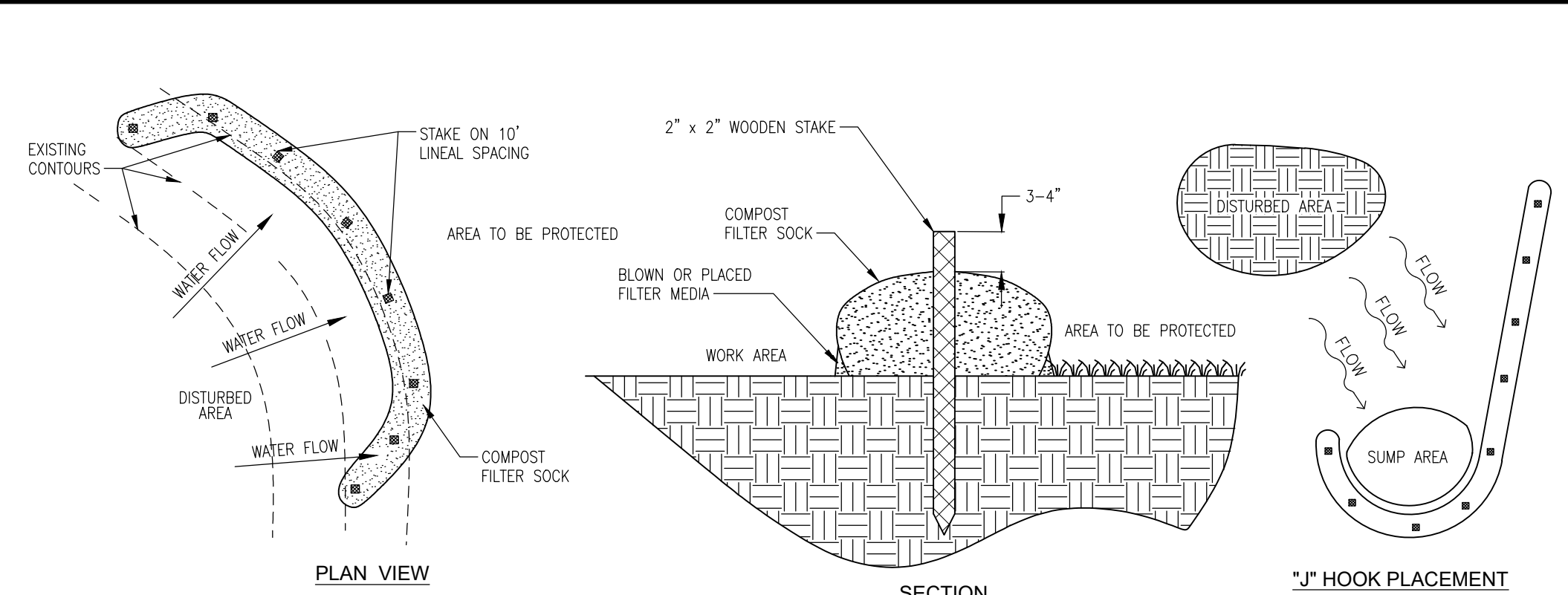
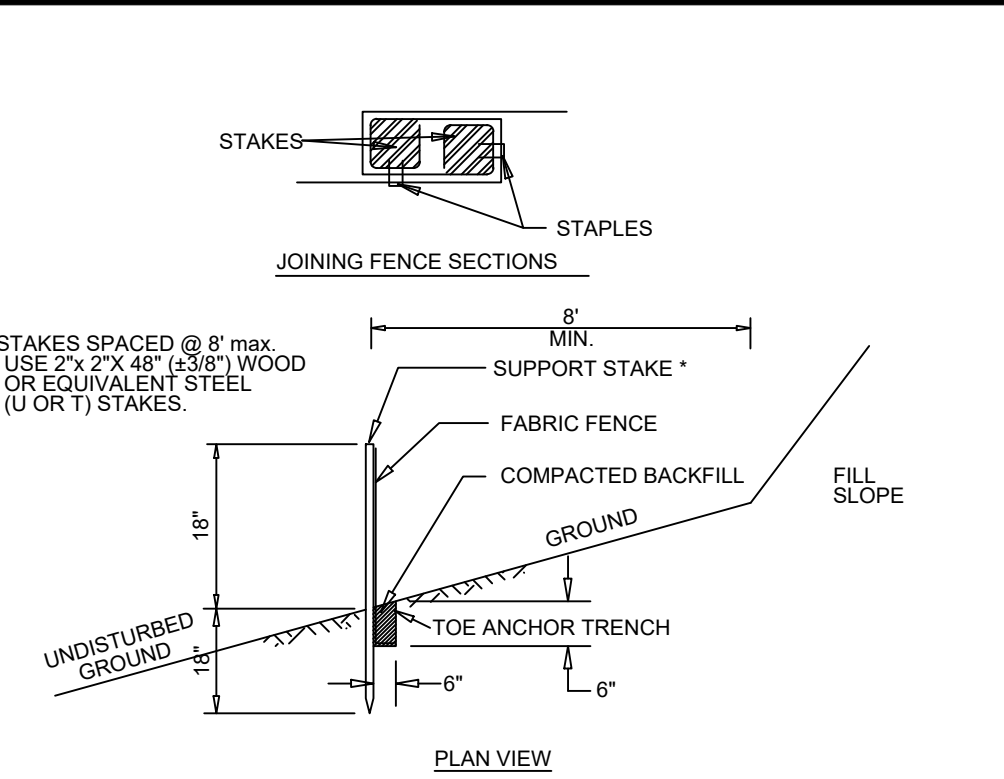
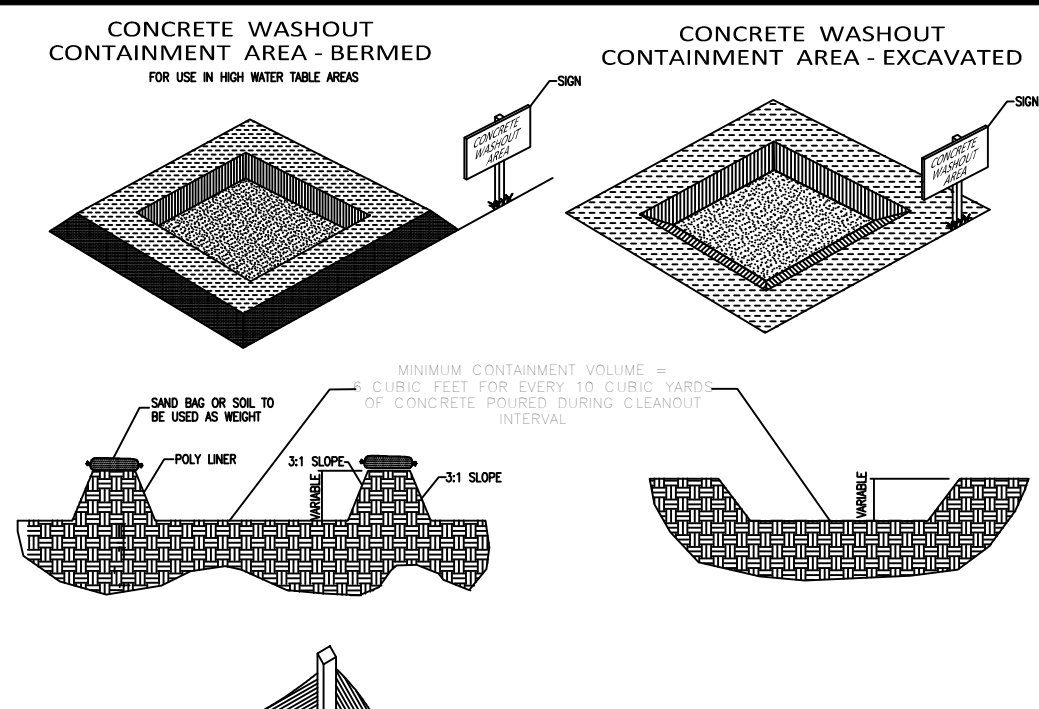
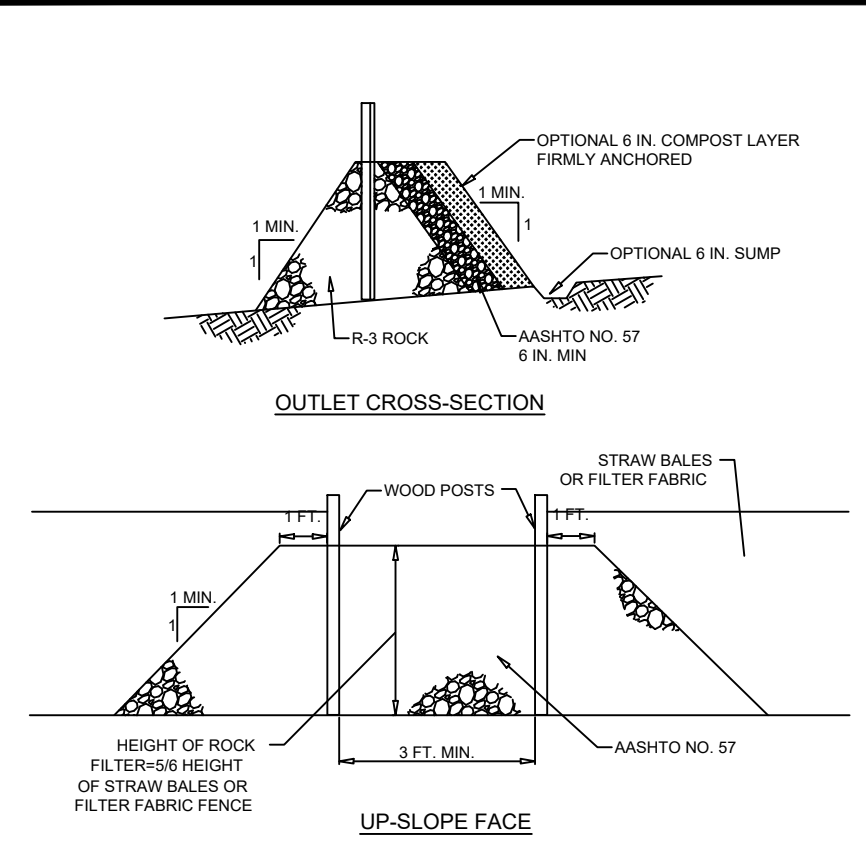
DATE	NO.	REVISION
12-19-24	1	TREE PRESERVATION & BUS SHELTER EDM

COUNTY PARCEL NO.: 65-00-15292-003-B
BLOCK - UNIT: 0049-0076
RECORDED, OWNER: GERMANTOWN ACADEMY
ENGINEER'S EXEMPTION DRIVE: P.O. BOX 287, MONTGOMERYVILLE, PA 19036
SITE ADDRESS: 340 MORRIS ROAD, FORT WASHINGTON, PA 19034
DEED BOOK - PAGE: 5974-01520

CHARLES E. SHOEMAKER, INC.
ENGINEERS/ARCHITECTS/PLANNERS
ENGINEERS/EXEMPTION DRIVE
MONTGOMERYVILLE, PA 19036
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: ce@eshoemaker.com

EROSION & SEDIMENTATION CONTROL DETAILS
FOR
EARLY CHILDHOOD LEARNING CENTER
PREPARED FOR
GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

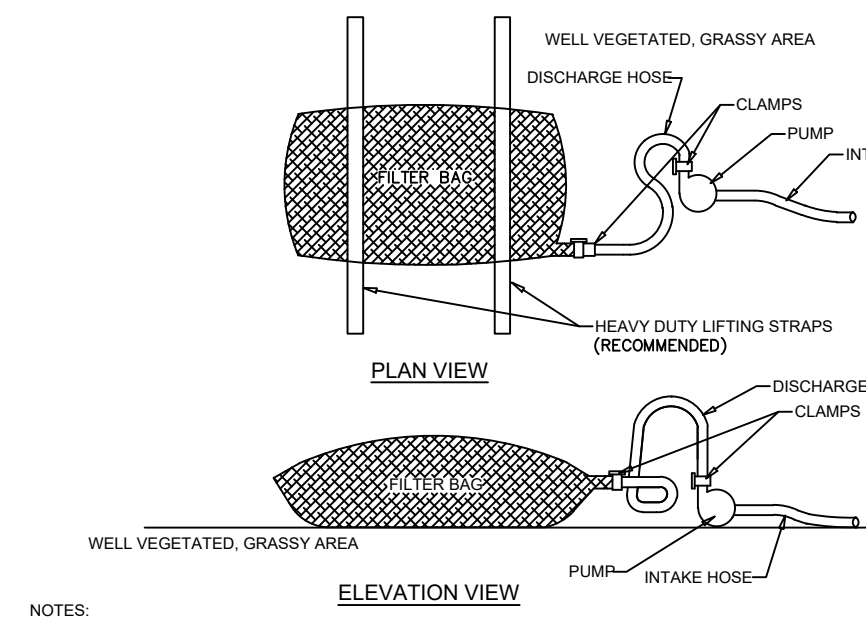
DATE	DECEMBER 16, 2024
DWGS NO.	WHIT - 767
JOB NO.	25776
SHEET NO.	10 OF 14



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 1/2 AND 1/4 WATER SHEETS.
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

**STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET**

N.T.S.



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. TENSILE STRENGTH	ASTM D-4884	205 LB
GRAB TENSILE	ASTM D-4832	110 LB
PUNCTURE	ASTM D-4833	350 PSF
MULLEN BURST	ASTM D-3786	350 PSF
UV RESISTANCE	ASTM D-4355	70%
SOCKS BE TARED	ASTM D-4151	85% 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. FILTER 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 IMPERMEABLE 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 1/4 OR 1/2 WATER SHEETS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

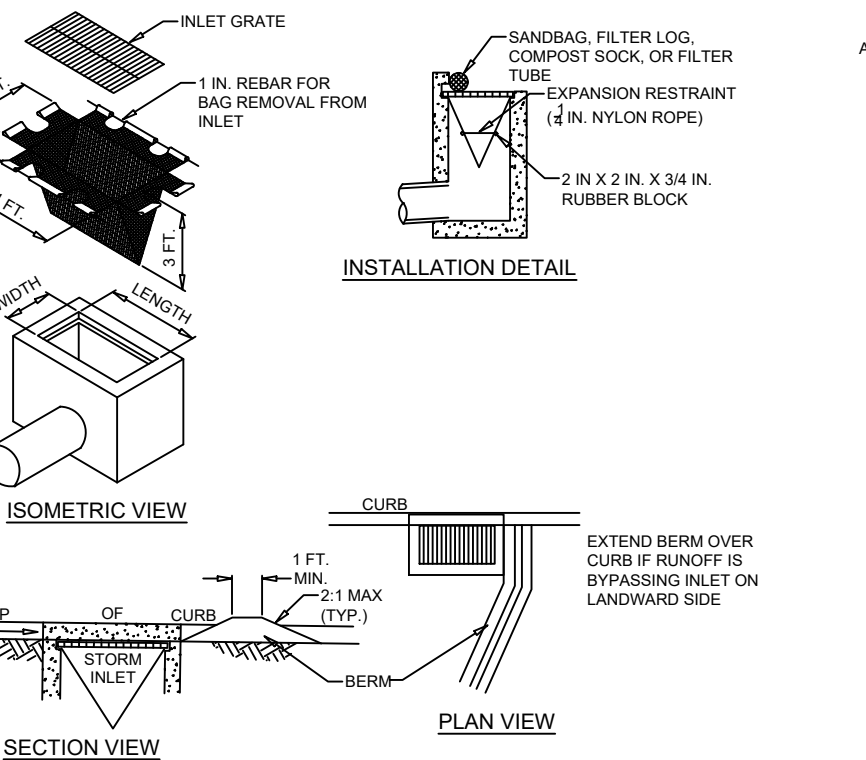
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

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**

N.T.S.



NOTES:
MAXIMUM DRAINAGE AREA = 1/2 ACRE.
INLET PROTECTION SHALL NOT BE INSTALLED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

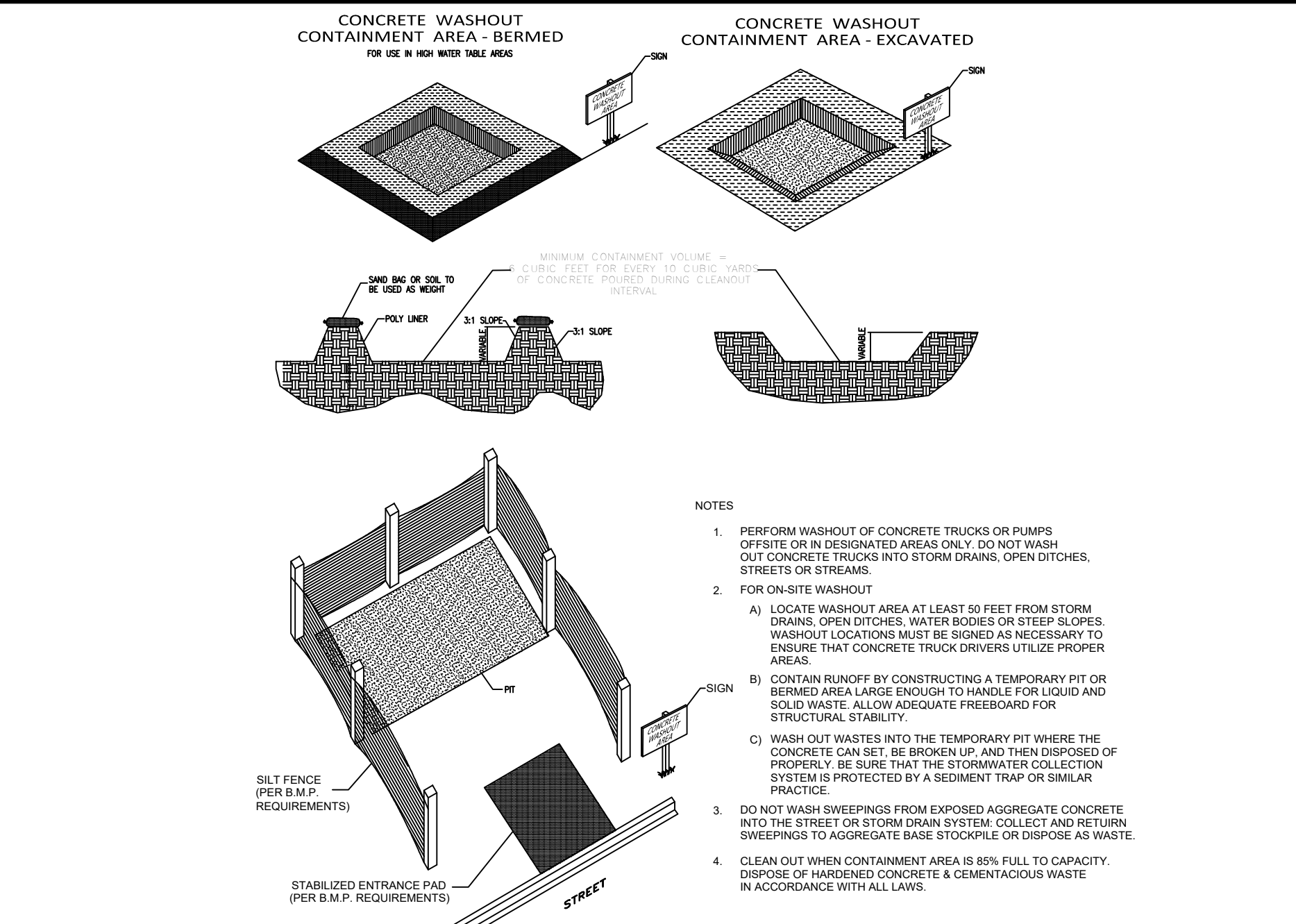
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS. A MINIMUM BURST STRENGTH OF 200 LBS. AND A MINIMUM TENSILE TEAR STRENGTH OF 10 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND REPAIRED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED 50% AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPAIRED OR REPLACED IMMEDIATELY. REPAIRS SHALL BE MADE IMMEDIATELY AFTER THE INSPECTION. DISPOSAL OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

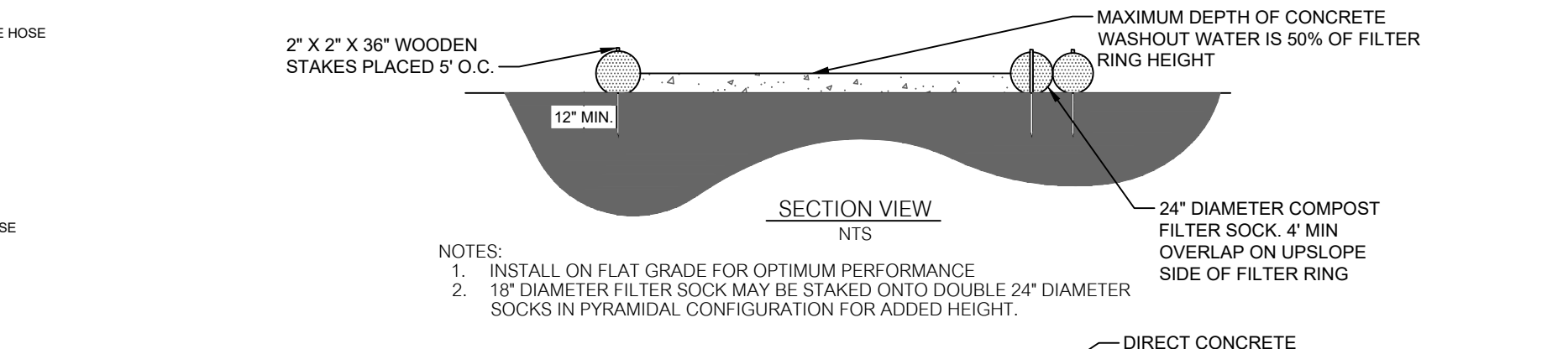
DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET**

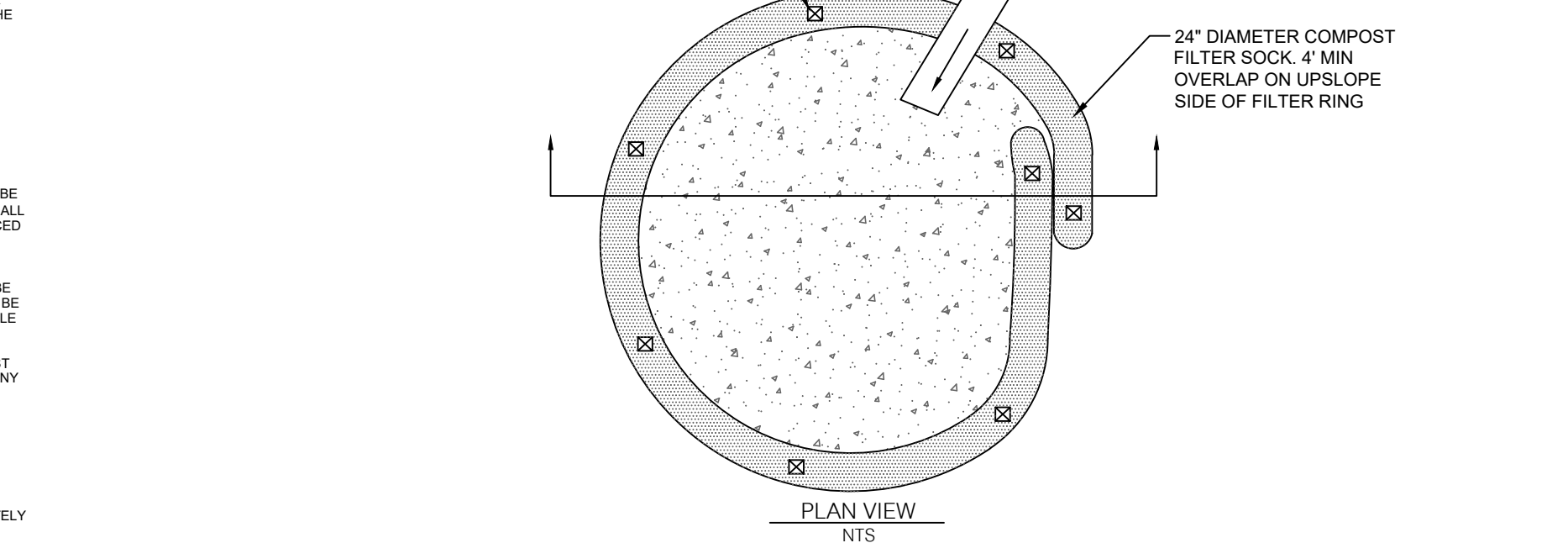
N.T.S.



NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STAKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.



NOTES:
1. PERFORM WASHOUT OF CONCRETE TRUCKS OR PUMPS. DISPOSE IN DESIGNATED AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS OR STREAMS.
2. FOR ON-SITE WASHOUT:
A) LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, WATER BODIES OR STEEP SLOPES. WASHOUT LOCATIONS MUST BE SIGNED AS NECESSARY TO ENSURE THAT CONCRETE TRUCK DRIVERS UTILIZE PROPER AREA.
B) CONTAIN RUNOFF BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH TO HANDLE FLOW OF LIQUID AND SOLID WASTE. ALLOW ADEQUATE FREEBOARD FOR STRUCTURAL STABILITY.
C) WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY. BE SURE THAT THE STORMWATER COLLECTION SYSTEM IS PROTECTED BY A SEDIMENT TRAP OR SIMILAR PRACTICE.
3. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN SYSTEM. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCKPILE OR DISPOSE AS WASTE.
4. CLEAN UP WHEN CONTAINMENT AREA IS 80% FULL TO CAPACITY. DISPOSE OF HARDENED CONCRETE & CEMENTITIOUS WASTE IN ACCORDANCE WITH ALL LAWS.

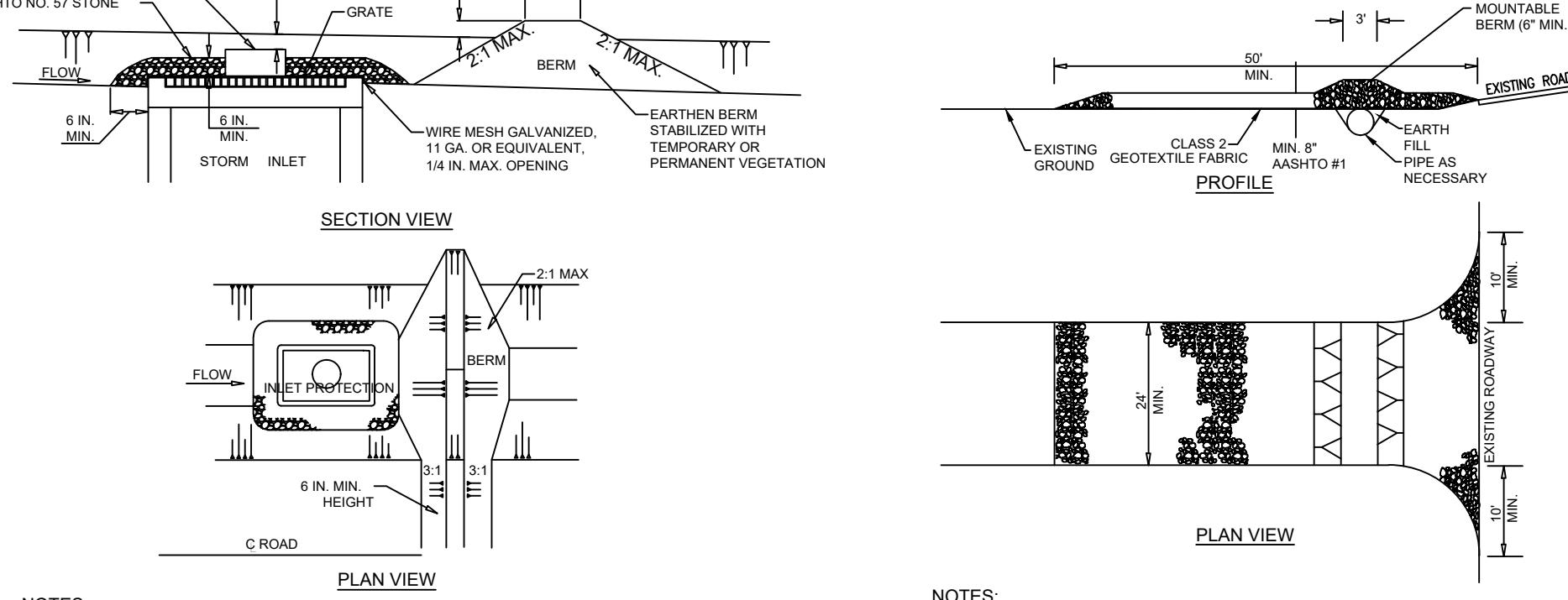


REQUIRED SPACING (L) & MATERIALS FOR TRENCH PLUG

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

**STANDARD CONSTRUCTION DETAIL #4-20
STONE INLET PROTECTION AND BERM - TYPE M INLET**

N.T.S.



NOTES:
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.
ROLLED EARTHEN BERM IN ROADWAY SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT. PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.
STONE INLET PROTECTION AND BERM FOR A TYPE M INLET CAN BE USED IN ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND A 1/4" READ A PERFORATED PLATE WELDED TO A METAL RISER MAY NOT BE SUBSTITUTED FOR THE WIRE MESH. A SLOTTED PLATE WELDED TO THE RISER MAY BE USED IN CONJUNCTION WITH THE WIRE MESH. CALCULATIONS ARE PROVIDED TO SHOW SUFFICIENT CAPACITY OF THE INLET TO ACCEPT THE PEAK RUNOFF FOR A 2-YEAR STORM EVENT FROM THE TRIBUTARY DRAINAGE AREA. TOP OF PIPE SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADWAY IF PONDING WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC. EARTHEN BERM SHALL BE ROLLED.

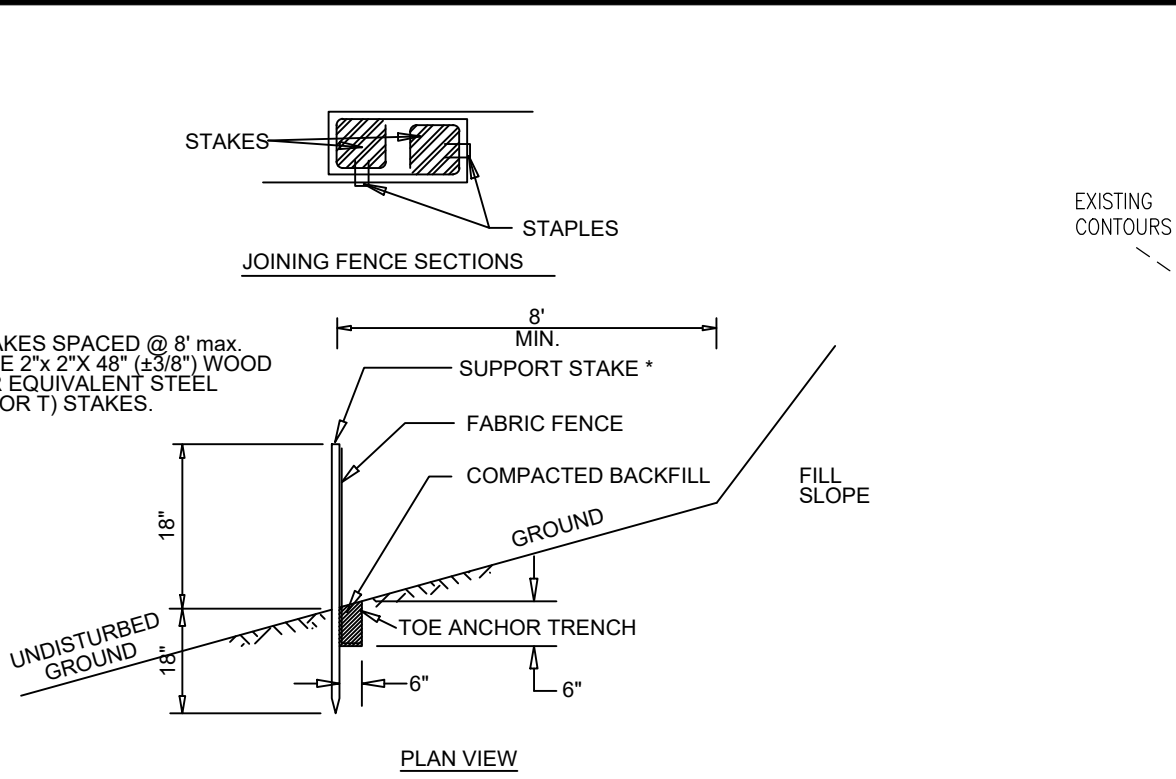
SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

FOR SYSTEMS DISCHARGING TO HIGH OR ON SURFACE WATER, A 6 IN. THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

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

**STANDARD CONSTRUCTION DETAIL #4-20
STONE INLET PROTECTION AND BERM - TYPE M INLET**

N.T.S.



NOTES:
Fabric shall have the minimum properties as shown in Table 4.3.
Fabric width shall be 30" minimum. Stakes shall be hardwood or equivalent steel (U or T) stakes.
Silt fence shall be installed at existing level grade. Both ends of each fence section shall be extended at least 6 feet upslope at 45 degrees to the main fence alignment (Figure 4.1).
Sediment shall be removed where accumulations reach half the aboveground height of the fence.
Any section of silt fence which has been undermined or topped shall be immediately regraded 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 FILTER FABRIC FENCE (18")

N.T.S.

THIS DETAIL IS IN COMPLIANCE WITH PA DEP EROSION & SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, TECHNICAL GUIDANCE NUMBER 363-2134-008 (MARCH 2012) AND MEETS OR EXCEEDS UPPER DUBLIN TOWNSHIP STANDARD DETAILS.



NOTES:
1. SILT FENCE MUST BE PLACED DOWNSLOPE OF ALL STOCKPILES.

TEMPORARY SEEDING REQUIREMENTS

SPECIES SEEDING RATE (lb./Ac.)
FOR SPRING SEEDING (UP TO JUNE 15)
Annual Ryegrass 40
or spring oats plus ryegrass, 84
or spring oats plus ryegrass, 160 (3 bu)
or winter wheat, 168 (3 bu)
or winter rye, 168 (3 bu)
FOR LATE SPRING AND SUMMER SEEDING (JUNE 16 TO AUGUST 15)
Annual Ryegrass, 40
or Japanese or foxtail millet, 40
or sudangrass, 40
or spring oats, 96 (3 bu)
or winter wheat, 180 (3 bu)
or winter rye, 168 (3 bu)
FOR LATE SUMMER AND FALL SEEDING (AUGUST 16 AND LATER)
Annual Ryegrass, 40
or winter rye, 168 (3 bu)
or winter wheat, 180 (3 bu)
or spring oats (can be used but winter kills), 96 (3 bu)

NOTES:
1. Upon completion of an earth disturbance activity or any stage or phase of an activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation. During the non-growing season, October 15 through March 15, mulch must be applied at the recommended rates.
Temporary seeding shall be performed after the end of the non-growing season.
Disturbed areas which are not at finish grade and which will be disturbed within one year shall be seeded and mulched with a quick growing temporary seeding mixture and mulch.
Disturbed areas which are either at finish grade or will not be redistributed within one year must be seeded and mulched with permanent seed mixture and mulch.

2. MULCHING: Mulches alone help protect areas from erosion. Mulches also provide initial protection if area is to be seeded later. Use hay or straw at a rate of 3 tons per acre.
3. SITE PREPARATION: Apply 1 ton of agricultural-grade limestone per acre, plus fertilizer at the rate of 50-50-50 (50 pounds of N, 50 pounds of P2O5, and 50 pounds of K2O) per acre, and work in where possible.
4. Topsoil stockpiles must be seeded and mulched immediately.

PERMANENT SEEDING REQUIREMENTS

MIX No.	SPECIES	SEEDING RATE	MIX No.	SPECIES	SEEDING RATE
2	Tall Fescue, or Fine Fescue, or Kentucky Bluegrass, plus Redtop, or Perennial Ryegrass	75 lb./Ac. 40 lb./Ac. 30 lb./Ac. 3 lb./Ac. 20 lb./Ac.	4	Birdfoot Trefoil, plus Reeg Canarygrass	10 lb./Ac. 15 lb./Ac.
3	Birdfoot Trefoil, plus Tall Fescue	10 lb./Ac. 35 lb./Ac.	10	Tall Fescue, plus Fine Fescue	60 lb./Ac. 15 lb./Ac.

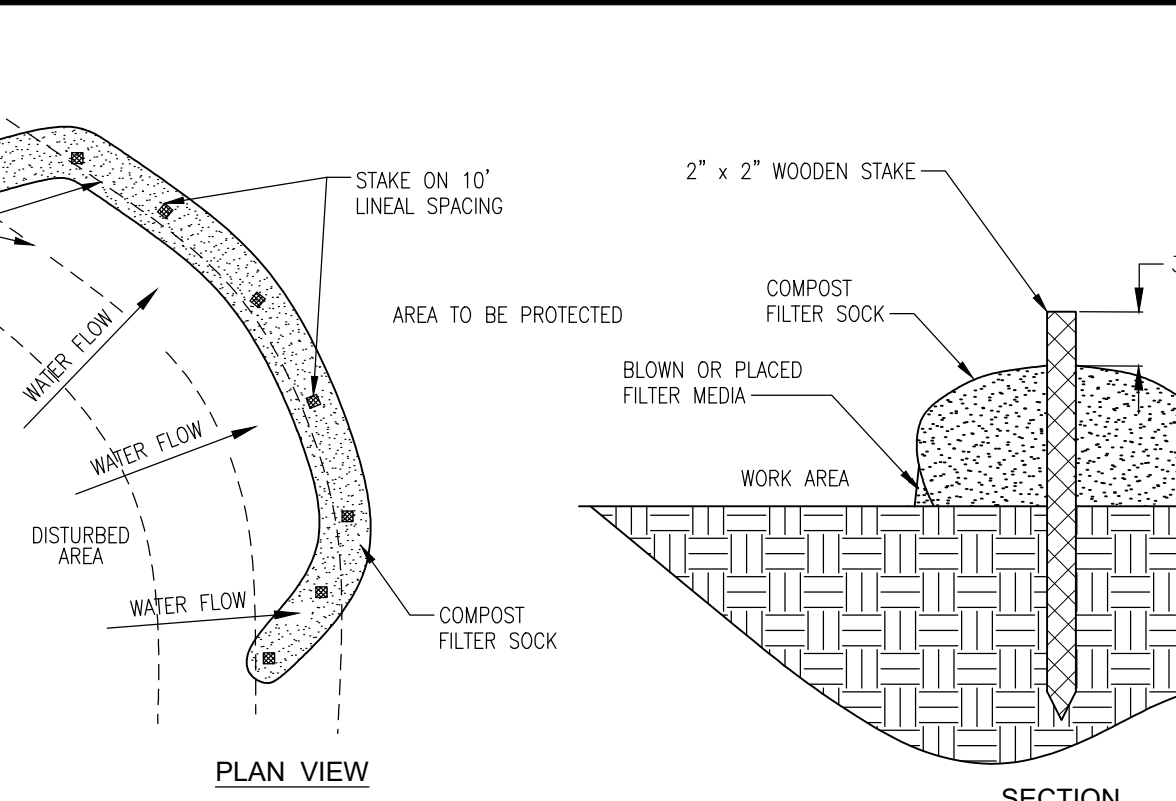
NOTES:
1. Seeding rates are for pure live seed, seeding rate shall be adjusted by percent germination.
2. Mixture No. 2 is suitable for frequent mowing. Do not cut shorter than 4 inches.
3. Keep Redtop seeding rate to that indicated. This species has small seeds and is very competitive.
4. Diversion channels, detention basins, and sediment traps or berms shall be seeded and mulched immediately.
5. Due to the absence of soil tests, the site shall be prepared by the application of at least 6 tons of agricultural grade limestone and 100-200-200 (100 pounds of N, 200 pounds of P2O5, and 200 pounds of K2O) per acre. Work time and fertilizer into the soil deeply where possible.
6. After seeding, mulch with hay or straw at a rate of 3 tons per acre.
7. For best results, grass and legume seedings should be made in spring (March, April, and early May). However, through proper choice of seed mixtures, seed specifications, and establishment techniques, disturbed sites can be seeded almost any time from spring to fall. Legume seedings need a growing period of at least ten to twelve weeks to produce seedlings sufficiently large and hardy to survive the winter. Grasses generally require at least four to six weeks of growth prior to hard frosts. It is suggested that legumes be seeded before August 15 in southeastern Pennsylvania (corn maturity zone 4).
8. Graded areas should be scarified or otherwise loosened to a depth of 3" to 5" prior to topsoil placement to permit bonding of the topsoil.

RECOMMENDED SEED MIXTURES FOR VARIOUS AREAS

AREA	MIXTURE
Slopes and banks (mowed)	3
Drainage swales (unmowed)	2 or 10
Utility Right-of-Way	2, 3 or 4
Lawns	3
	2, 3 or 10

MULCHING REQUIREMENTS
All conservation and erosion control areas, whether seeded with a drill, broadcasted, or hydroseeded, should be mulched to reduce soil erosion and to aid seed germination and seedling establishment. Grass hay and cereal straw are preferred mulches and should be applied to produce a loose layer 0.75 to 1 inch deep. Generally, 3 tons of mulch per acre are sufficient. As a guideline, a thickness of five to six overlapping straw or hay stems is acceptable for mulching. Straw or hay should not be chopped or finely broken during application. On steep slopes, hay rather than straw mulch is recommended.

CAUTION: Hay mulch may introduce undesirable weeds; use clean mulch if weeds might be a problem. Long straws and stems are more readily anchored in place and afford seedling plants more protection than does chopped straw or hay. Mulches of hay or straw may be tied down with commercial netting of various types or with wire mesh or chicken wire at a rate of 100 to 1500 gallons per acre. Application of cellulose fiber over the straw or hay mulch at a rate of 800 to 1000 pounds per acre also is an excellent way to tack or hold the mulch in place.

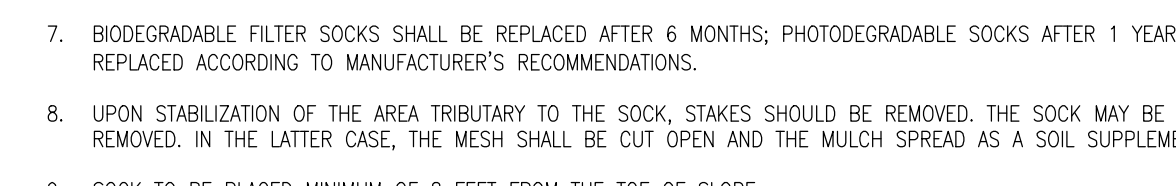


NOTES:
1. PERFORM WASHOUT OF CONCRETE TRUCKS OR PUMPS. DISPOSE IN DESIGNATED AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS OR STREAMS.
2. FOR ON-SITE WASHOUT:
A) LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, WATER BODIES OR STEEP SLOPES. WASHOUT LOCATIONS MUST BE SIGNED AS NECESSARY TO ENSURE THAT CONCRETE TRUCK DRIVERS UTILIZE PROPER AREA.
B) CONTAIN RUNOFF BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH TO HANDLE FLOW OF LIQUID AND SOLID WASTE. ALLOW ADEQUATE FREEBOARD FOR STRUCTURAL STABILITY.
C) WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY. BE SURE THAT THE STORMWATER COLLECTION SYSTEM IS PROTECTED BY A SEDIMENT TRAP OR SIMILAR PRACTICE.
3. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN SYSTEM. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCKPILE OR DISPOSE AS WASTE.
4. CLEAN UP WHEN CONTAINMENT AREA IS 80% FULL TO CAPACITY. DISPOSE OF HARDENED CONCRETE & CEMENTITIOUS WASTE IN ACCORDANCE WITH ALL LAWS.

**STANDARD CONSTRUCTION DETAIL #4-4
ROCK CONSTRUCTION ENTRANCE**

N.T.S.

THIS DETAIL IS IN COMPLIANCE WITH PA DEP EROSION & SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, TECHNICAL GUIDANCE NUMBER 363-2134-008 (MARCH 2012) AND MEETS OR EXCEEDS UPPER DUBLIN TOWNSHIP STANDARD DETAILS.



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 1/2 AND 1/4 WATER SHEETS.
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

**STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET**

N.T.S.

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. FILTER 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 IMPERMEABLE 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 1/4 OR 1/2 WATER SHEETS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

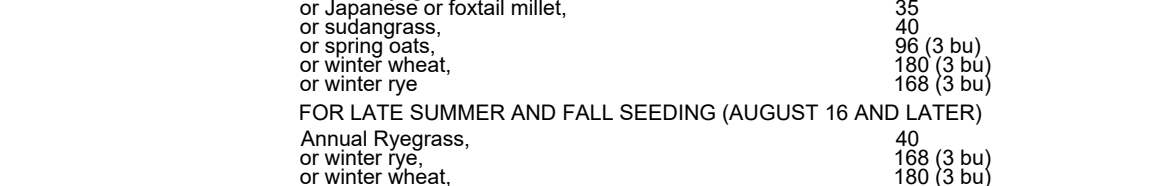
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

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**

N.T.S.



NOTES:
1. PERFORM WASHOUT OF CONCRETE TRUCKS OR PUMPS. DISPOSE IN DESIGNATED AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS OR STREAMS.
2. FOR ON-SITE WASHOUT:
A) LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, WATER BODIES OR STEEP SLOPES. WASHOUT LOCATIONS MUST BE SIGNED AS NECESSARY TO ENSURE THAT CONCRETE TRUCK DRIVERS UTILIZE PROPER AREA.
B) CONTAIN RUNOFF BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH TO HANDLE FLOW OF LIQUID AND SOLID WASTE. ALLOW ADEQUATE FREEBOARD FOR STRUCTURAL STABILITY.
C) WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY. BE SURE THAT THE STORMWATER COLLECTION SYSTEM IS PROTECTED BY A SEDIMENT TRAP OR SIMILAR PRACTICE.
3. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN SYSTEM. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCKPILE OR DISPOSE AS WASTE.
4. CLEAN UP WHEN CONTAINMENT AREA IS 80% FULL TO CAPACITY. DISPOSE OF HARDENED CONCRETE & CEMENTITIOUS WASTE IN ACCORDANCE WITH ALL LAWS.

**STANDARD CONSTRUCTION DETAIL #4-20
STONE INLET PROTECTION AND BERM - TYPE M INLET**

N.T.S.

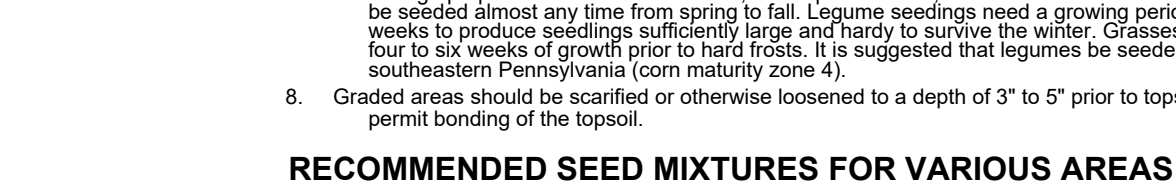
SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

FOR SYSTEMS DISCHARGING TO HIGH OR ON SURFACE WATER, A 6 IN. THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

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

**STANDARD CONSTRUCTION DETAIL #4-20
STONE INLET PROTECTION AND BERM - TYPE M INLET**

N.T.S.



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 1/2 AND 1/4 WATER SHEETS.
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

**STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET**

N.T.S.

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. FILTER 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 IMPERMEABLE 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.

PROFESSIONAL ENGINEER
CHAD WILLIAM BRENSINGER
REGISTERED PROFESSIONAL ENGINEER
PENNSYLVANIA
PE-042026

NO.	DATE	REVISION
1	12-19-24	TREE PRESERVATION & BUS SHELTER
2	05-14-24	EDM
3	05-14-24	BY

RECORDED, OWNER
GERMANTOWN ACADEMY
P.O. BOX 287
FORT WASHINGTON
PA 19034

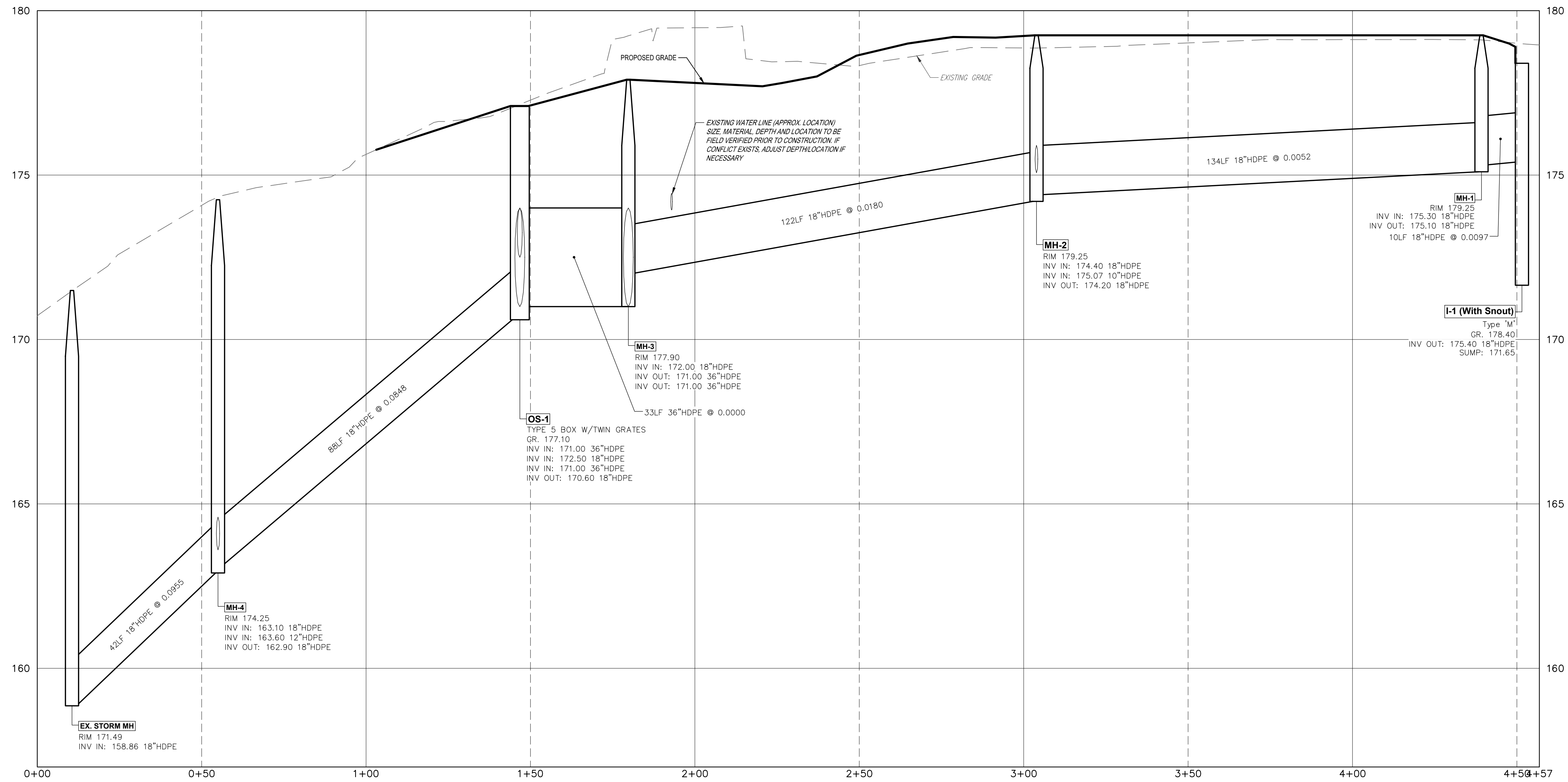
COUNTY PARCEL NO.: 65-00-1522-003-B
BLOCK - UNIT 0049-0076
SITE ADDRESS 40 MORRIS ROAD FORT WASHINGTON, PA 19034
DEED BOOK - PAGE 5974-01520

CHARLES E. SHOEMAKER, INC.
ENGINEERS & ARCHITECTS
MONTGOMERYVILLE, PA 17036
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: char@eshoemaker.com

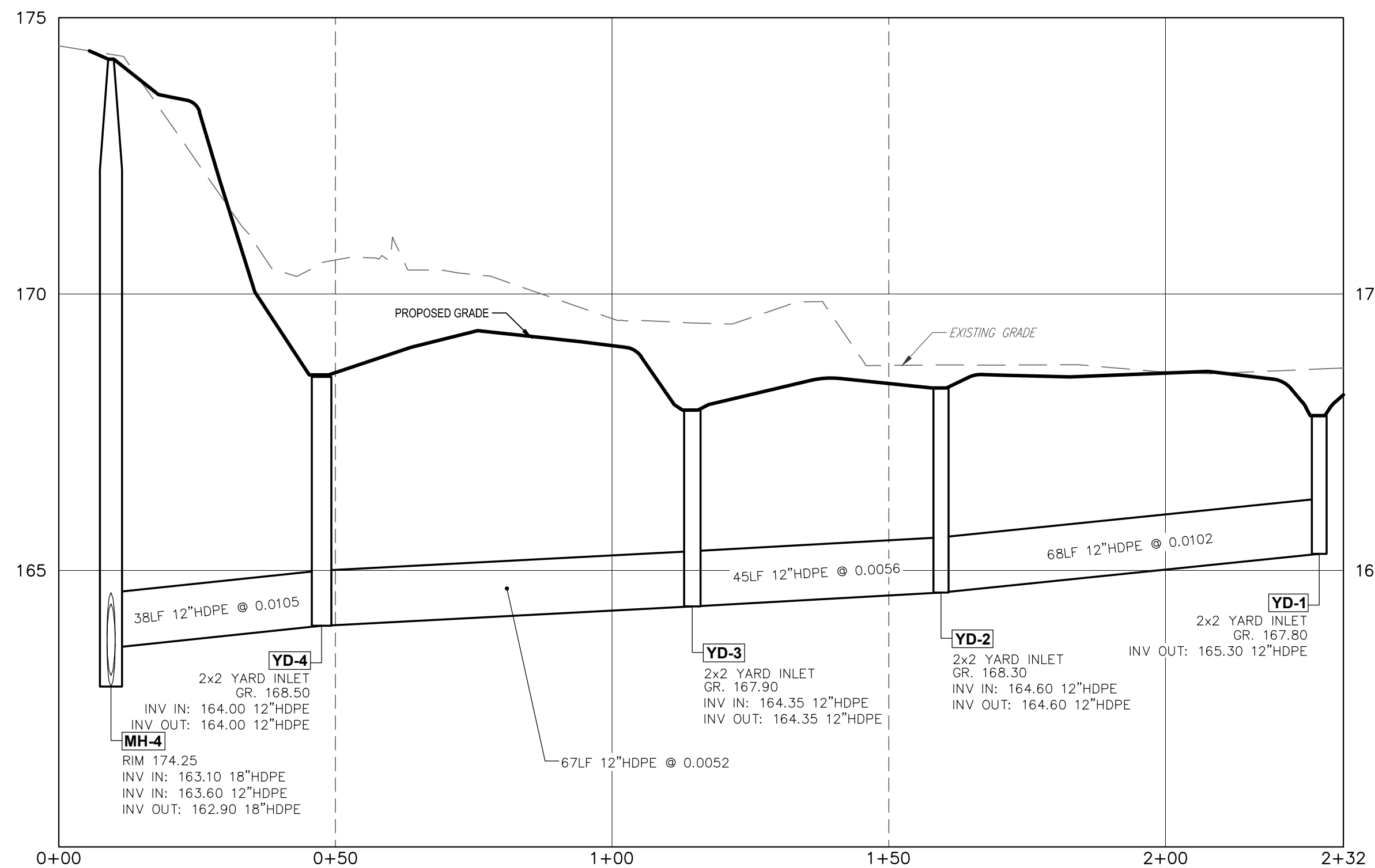
EROSION & SEDIMENTATION CONTROL DETAILS
FOR
EARLY CHILDHOOD LEARNING CENTER
PREPARED FOR
GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

DATE DECEMBER 16, 2024
DWC NO. WHIT - 768
JOB NO. 25776
SHEET NO. 11 OF 14

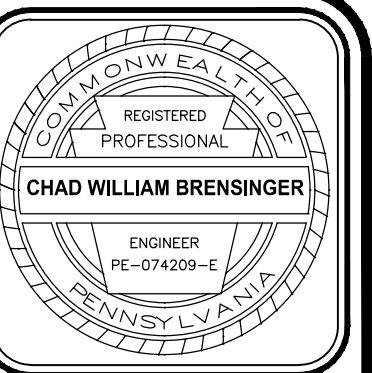
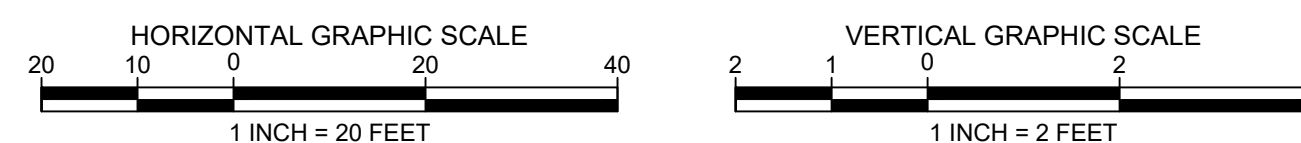
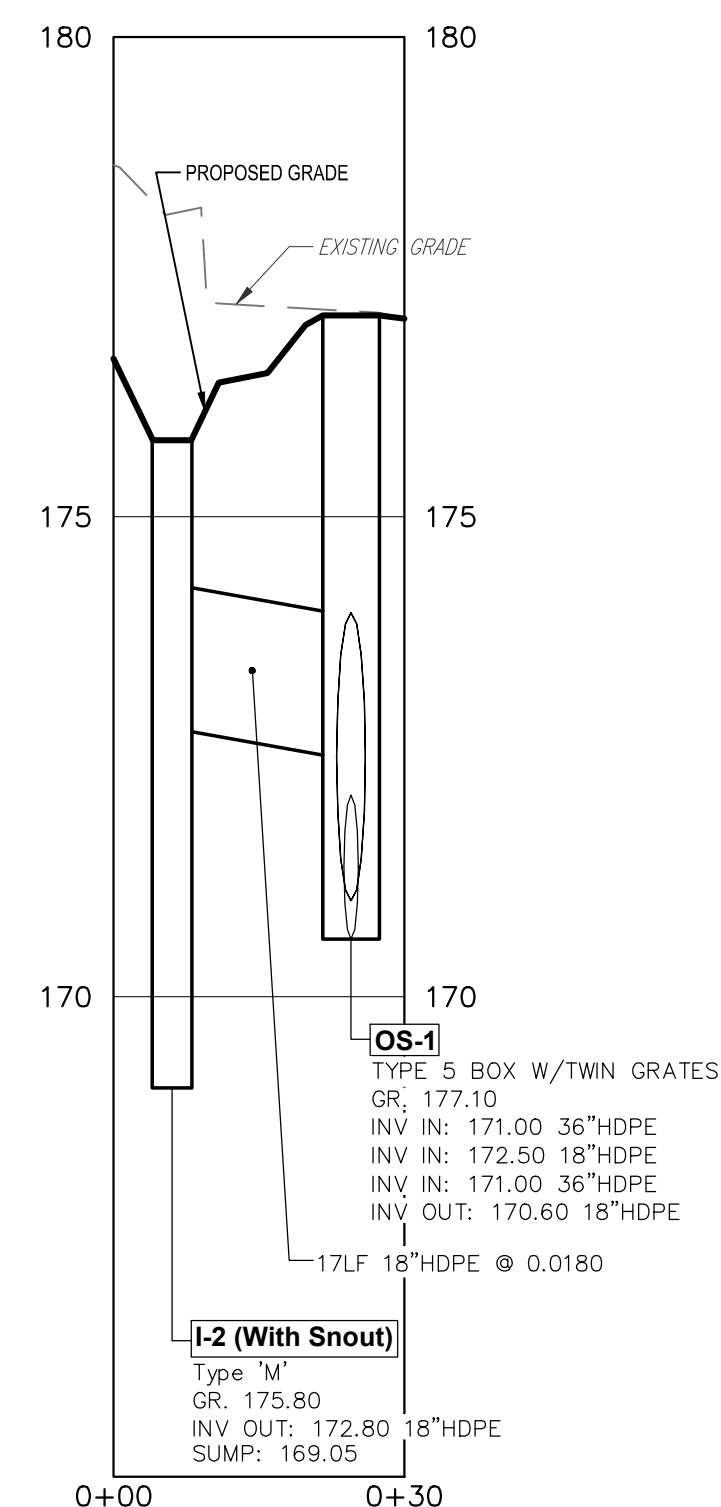
EXISTING STORM MANHOLE TO I-1



STORM MH-4 TO YD-1



I-2 TO OS-1



NO.	DATE	BY	REVISION
12-19-24	1	EDM	TREE PRESERVATION & BUS SHELTER

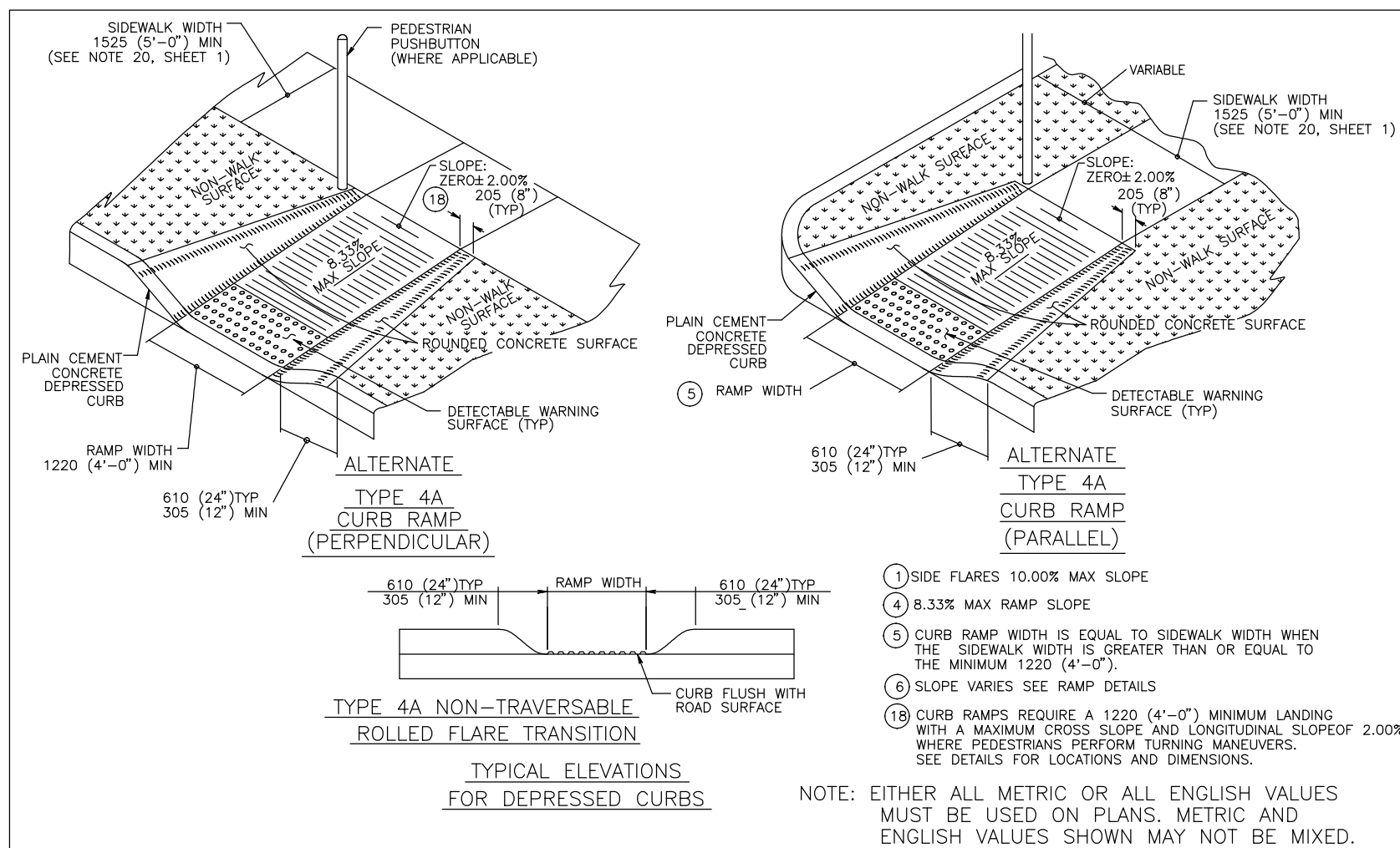
COUNTY PARCEL NO. 65-00-1052-009-B
 BLOCK - UNIT 0049-0076
 SITE ADDRESS 340 MORRIS ROAD
 FORT WASHINGTON, PA 19034
 DEED BOOK - PAGE 5974-01520

RECORDED OWNER
GERMANTOWN ACADEMY
 P.O. BOX 287
 FORT WASHINGTON, PA 19034

CHARLES E. SHOEMAKER, INC.
 ENGINEERS & SURVEYORS
 110 KEYSTONE DRIVE
 MONTGOMERYVILLE, PA 18936
 PHONE: 215-887-2165 FAX: 215-576-7791
 E-MAIL: staff@eshoemaker.com

STORM SEWER PROFILES
 FOR
EARLY CHILDHOOD LEARNING CENTER
 PREPARED FOR
GERMANTOWN ACADEMY
 WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA

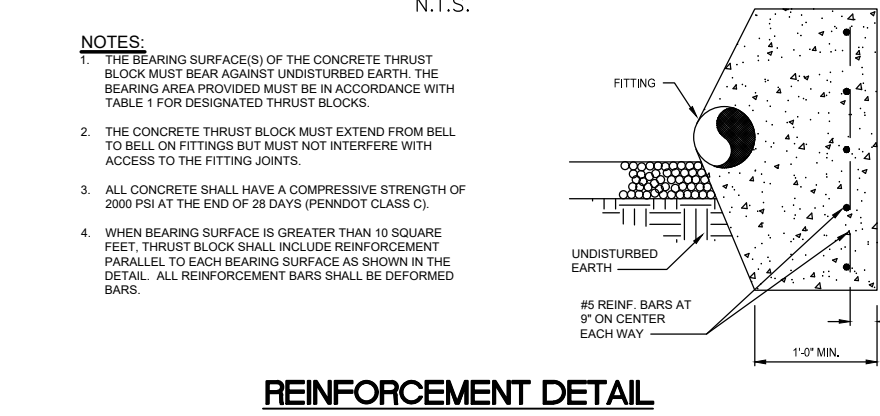
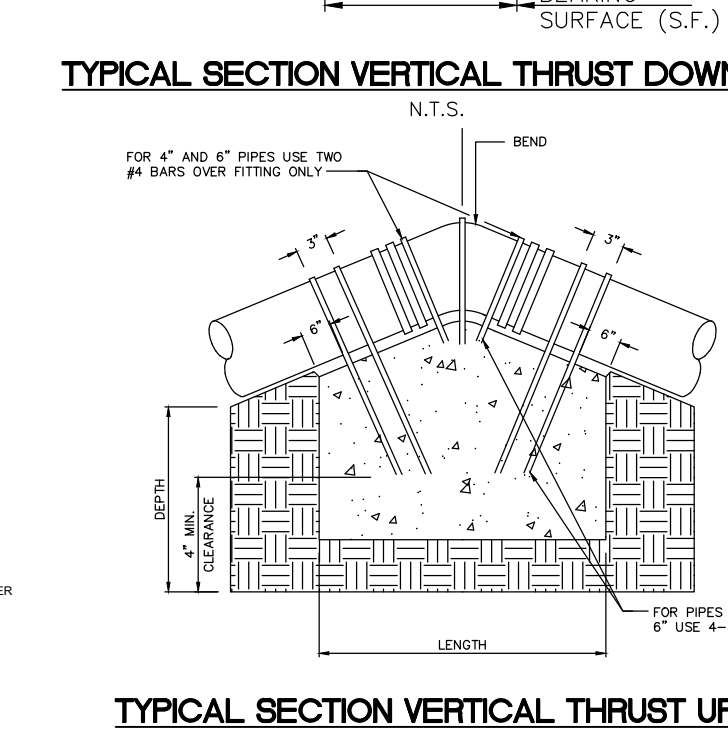
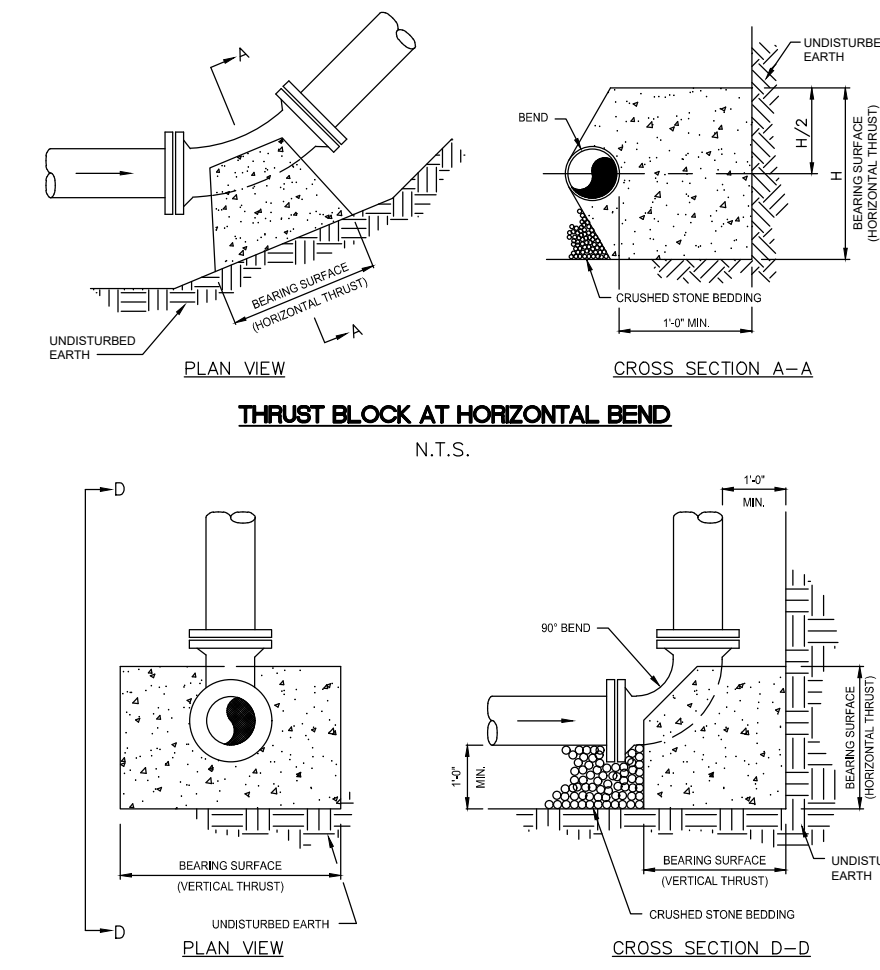
DATE	DECEMBER 16, 2024
DWG NO.	WHIT - 769
JOB NO.	25776
SHEET NO.	12 OF 14



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

CURB RAMP AND SIDEWALKS
NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 4 CURB RAMP

RECOMMENDED JUN 1, 2010. RECOMMENDED JUN 1, 2010. SHT 4 OF 13
RC-67M



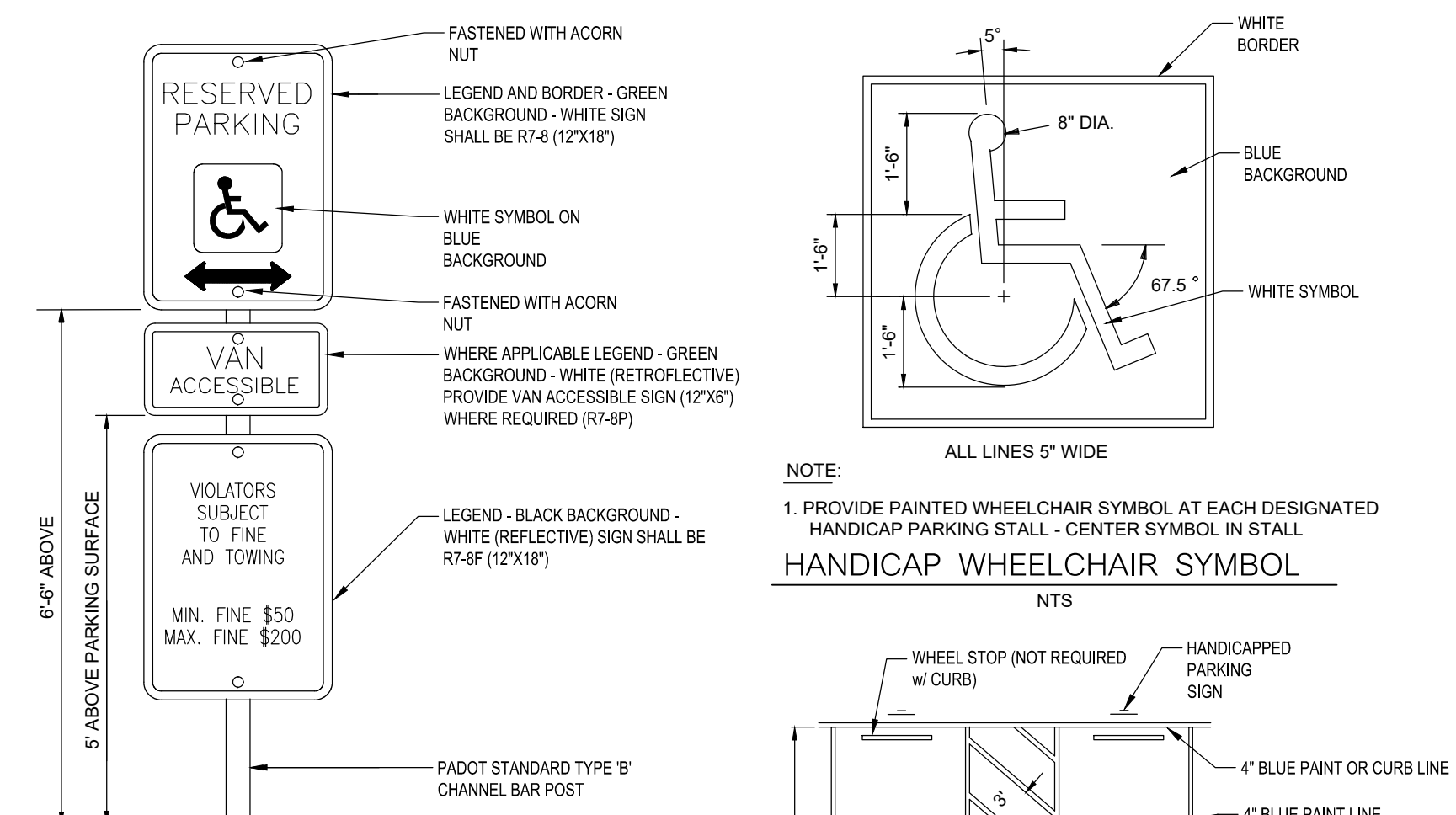
MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD

TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	6" AND 8"			10" AND 12"		
	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION
SAND, 1 TON/SQ.FT.	1.50	3.00	6.00	12.00	3.00	6.00
SOFT CLAY, 1 TON/SQ.FT.	1.00	1.50	3.00	6.00	1.50	3.00
SAND GRAVEL, 2 TON/SQ.FT.	1.00	1.50	3.00	6.00	1.50	3.00
CLAY, 3 TON/SQ.FT.	1.00	1.00	2.00	4.00	1.00	2.00
SOFT ROCK, 5 TON/SQ.FT.	1.00	1.00	1.00	2.50	1.00	2.50
ROCK, 20 TON/SQ.FT.	1.00	1.00	1.00	1.00	1.00	1.00

MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD

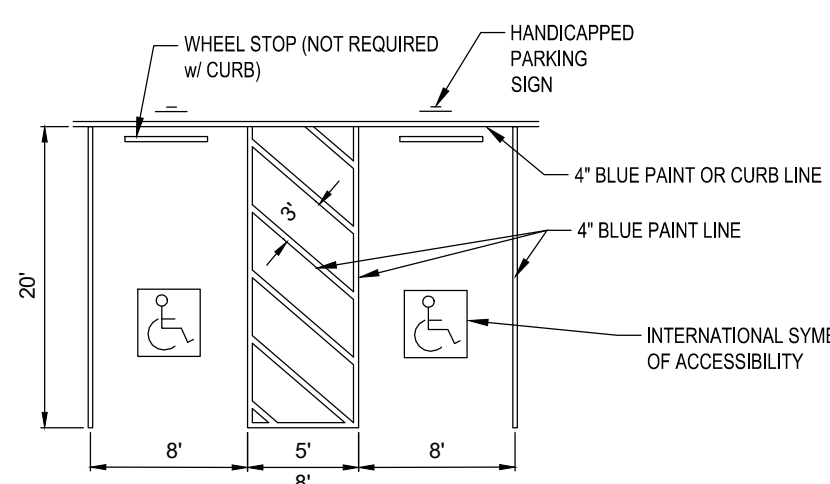
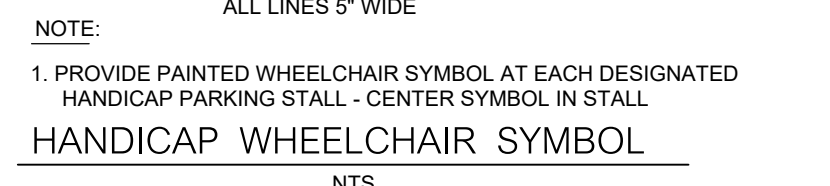
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	14" AND 16"			18" AND 20"		
	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION	DEGREE BEND OR DEFLECTION
SAND, 1 TON/SQ.FT.	5.50	11.00	21.50	43.00	8.50	16.50
SOFT CLAY, 1 TON/SQ.FT.	2.50	5.50	11.00	21.50	4.00	8.50
SAND GRAVEL, 2 TON/SQ.FT.	2.00	3.50	7.00	14.00	3.00	6.50
CLAY, 3 TON/SQ.FT.	1.00	2.00	4.00	8.00	1.50	3.50
SOFT ROCK, 5 TON/SQ.FT.	1.00	1.00	1.00	2.50	1.00	2.50
ROCK, 20 TON/SQ.FT.	1.00	1.00	1.00	1.00	1.00	1.00

THRUST BLOCKING - SCHEDULE OF DIMENSIONS

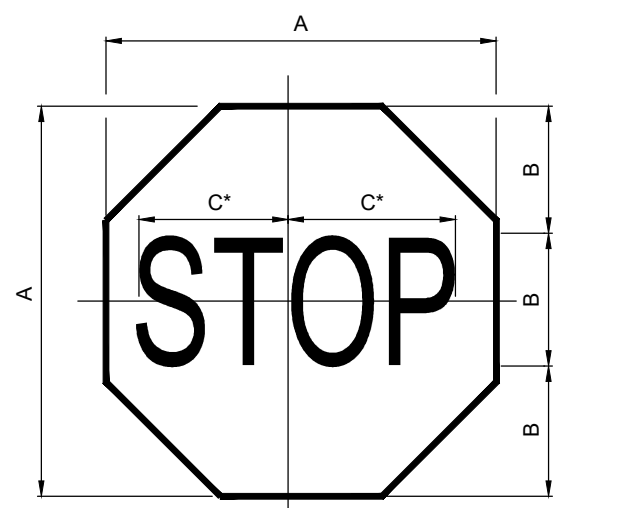


RESERVED PARKING SPACE
W/ PENALTIES & VAN ACCESSIBLE SIGNS

NOTES:
1. PROVIDE PAINTED WHEELCHAIR SYMBOL AT EACH DESIGNATED HANDICAP PARKING STALL - CENTER SYMBOL IN STALL



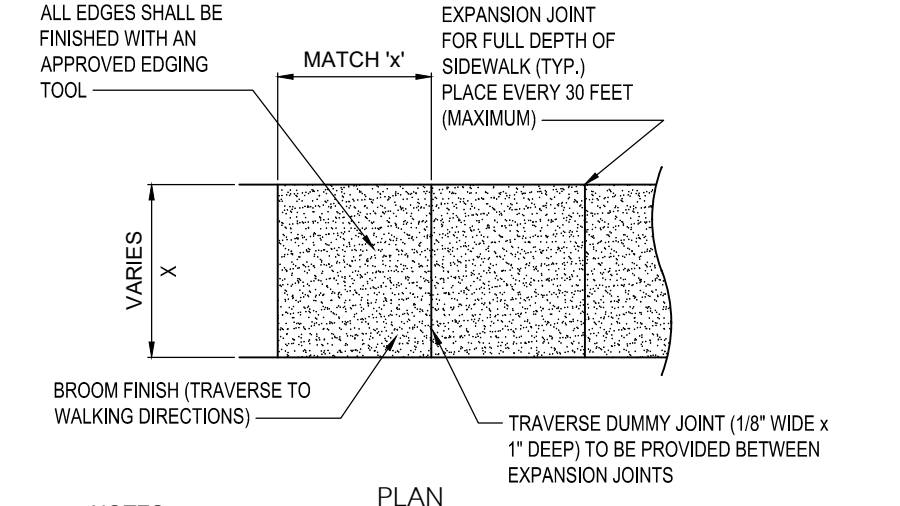
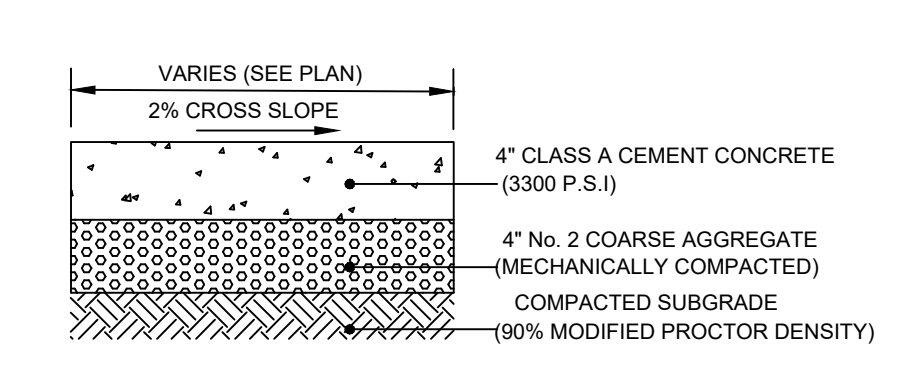
HANDICAPPED PARKING SPACE MARKINGS



R1-1 'STOP' SIGN DETAIL

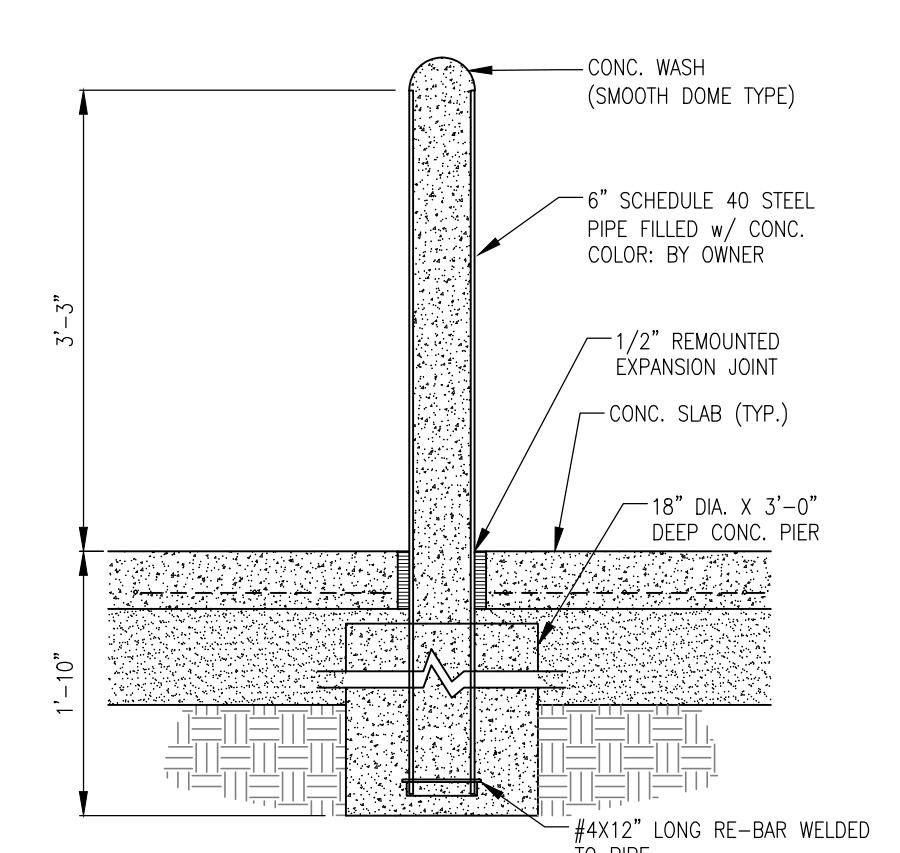
TABLE: SIGN SIZE vs DIMENSIONS (A, B, C), SERIES, BORDER, BLANK STD.

- NOTES:
1. REFER TO PA DOT PUB 68 - OFFICIAL TRAFFIC CONTROL DEVICES - TITLE 67, CHAPTER 211 - SECTION 211.52 FOR ADDITIONAL NOTES.
2. ALL ABOVE DIMENSIONS ARE IN INCHES



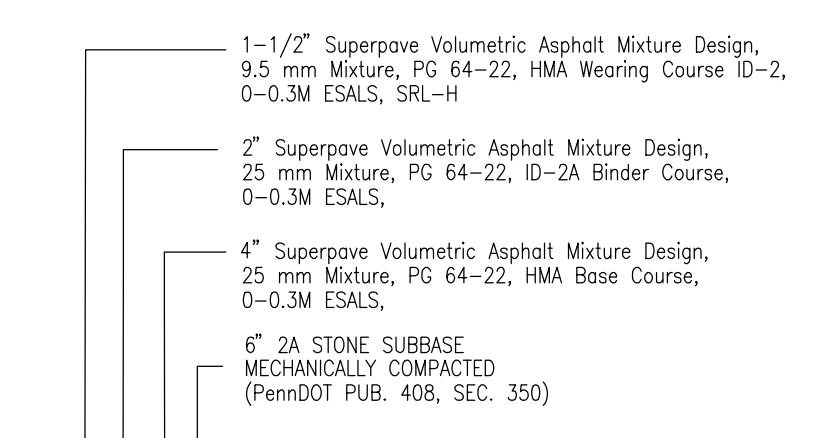
CONCRETE SIDEWALK DETAIL

- NOTES:
1. CONCRETE TO BE CLASS A (4000 PSI) AT 28 DAYS.
2. 1/2" PREMOLDED EXPANSION JOINTS TO BE PLACED EVERY 30 FEET (MAXIMUM) WHERE SIDEWALKS ARE REQUIRED TO BE 5 FEET WIDE, AND AT ALL LOCATIONS WHERE EXISTING PAVEMENT OR SIDEWALK MEETS PROPOSED SIDEWALK, WHERE SIDEWALK ABUTS CURB OR OTHER SIMILAR STRUCTURES, AND WHERE SIDEWALK TRANSITIONS FROM 4" THICK TO 6" THICK (DRIVEWAYS APRONS, ETC.).
3. WITH ALL PROPOSED SIDEWALK, A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRAVERSE TO THE SLOPE OF THE SIDEWALK.
4. SIDEWALK TO BE CURED WITH AQURON 2000 OR APPROVED EQUAL.

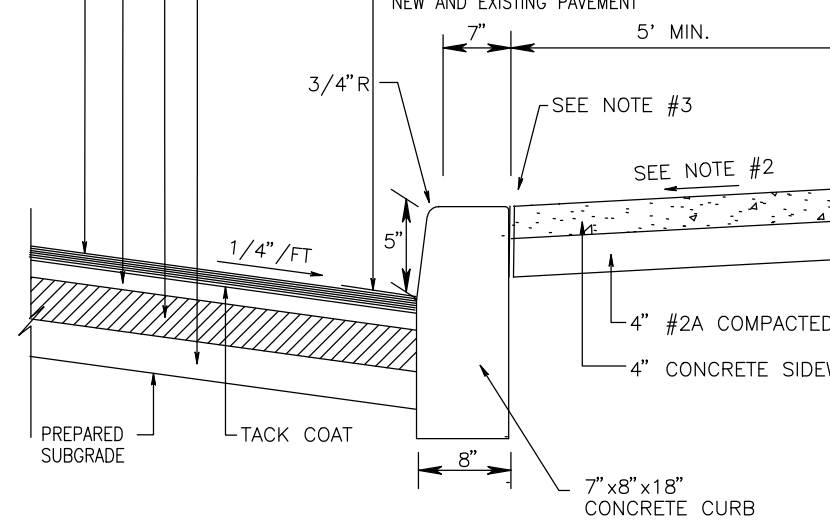


BOLLARD DETAIL

- NOTES:
1. CONCRETE TO BE CLASS A (4000 PSI) AT 28 DAYS.
2. 1/2" PREMOLDED EXPANSION JOINTS TO BE PLACED EVERY 30 FEET (MAXIMUM) WHERE SIDEWALKS ARE REQUIRED TO BE 5 FEET WIDE, AND AT ALL LOCATIONS WHERE EXISTING PAVEMENT OR SIDEWALK MEETS PROPOSED SIDEWALK, WHERE SIDEWALK ABUTS CURB OR OTHER SIMILAR STRUCTURES, AND WHERE SIDEWALK TRANSITIONS FROM 4" THICK TO 6" THICK (DRIVEWAYS APRONS, ETC.).
3. WITH ALL PROPOSED SIDEWALK, A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRAVERSE TO THE SLOPE OF THE SIDEWALK.
4. SIDEWALK TO BE CURED WITH AQURON 2000 OR APPROVED EQUAL.

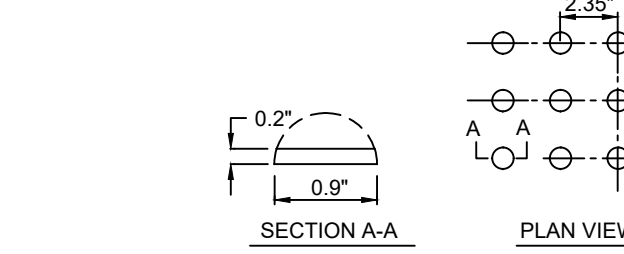
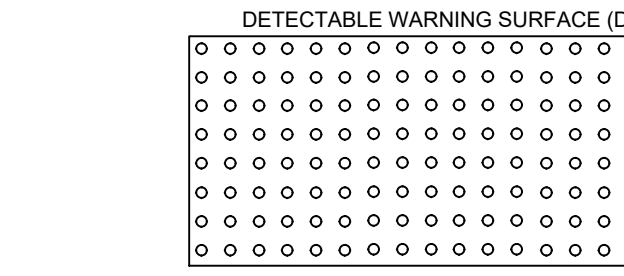


TRUNCATED DOME DETAIL



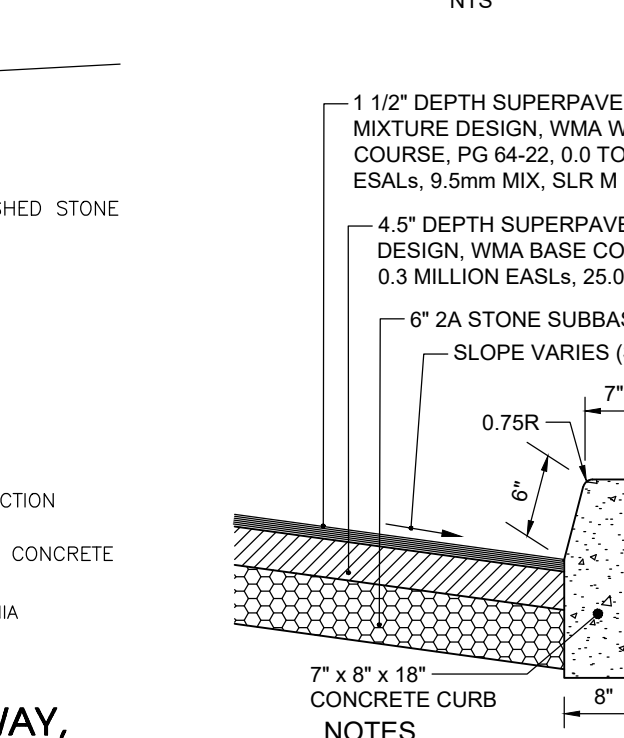
- NOTES:
1. CONCRETE TO BE CLASS A (4000 PSI) AT 28 DAYS.
2. PROVIDE A MINIMUM SLOPE OF 1/4" PER FOOT IN AT LEAST ONE DIRECTION ACROSS WALK.
3. PROVIDE 1/2" WIDE BITUMINOUS EXPANSION JOINT MATERIAL WHEREVER CONCRETE WALK ABUTS CURB, BUILDINGS, ETC.
4. MATERIAL AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, LATEST REVISION.
5. ALL NEW PAVING MUST BE SUPERPAVE. TACK COAT MUST BE USED.

TYPICAL SITE PARKING AND DRIVEWAY SECTION



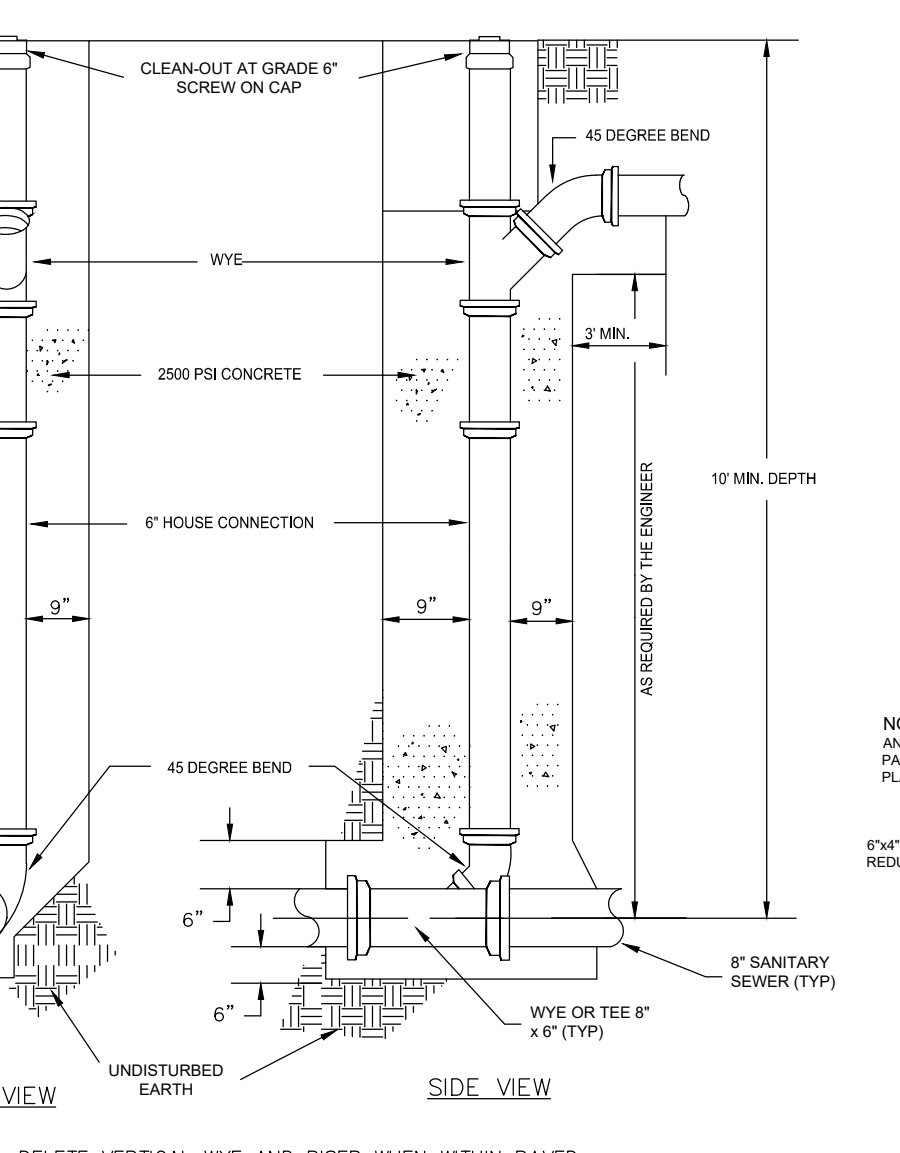
SECTION A-A

PLAN VIEW

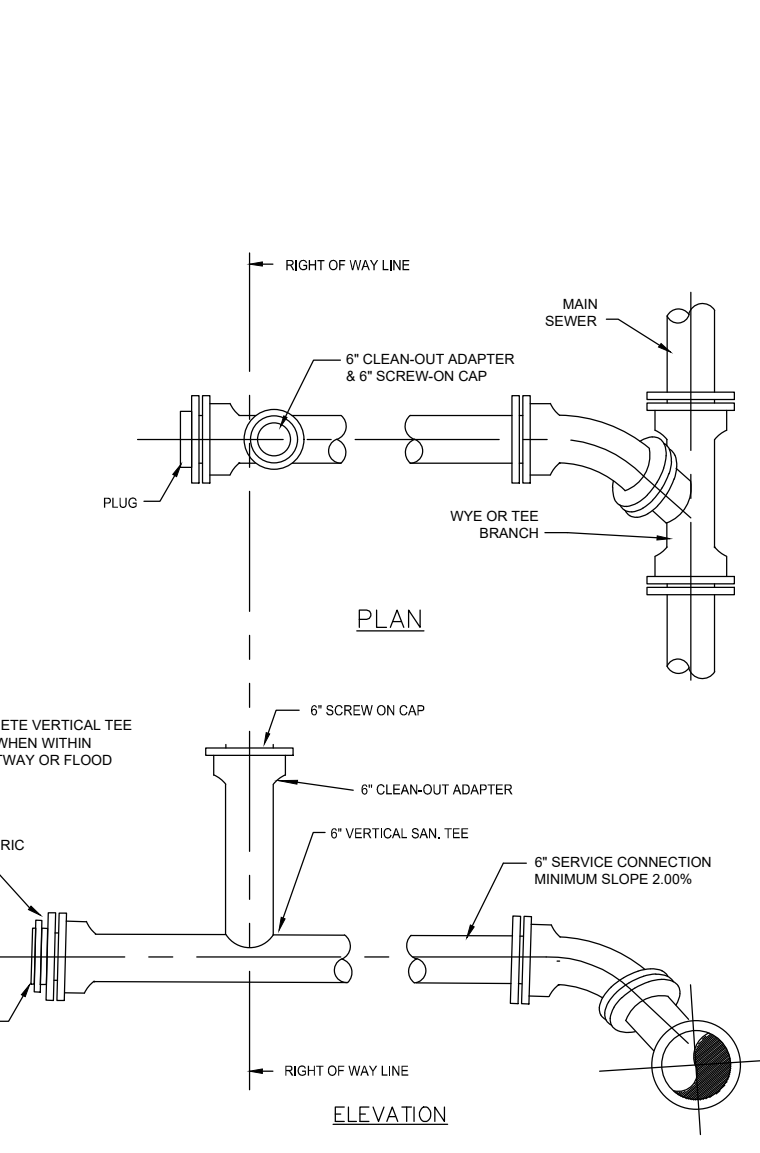


TYPICAL ON-SITE CROSS SECTION

- NOTES:
1. CONCRETE TO BE CLASS A (4000 PSI) AIR ENTRAINED MIX.
2. PROVIDE A MINIMUM SLOPE OF 1/4" PER FOOT IN AT LEAST ONE DIRECTION ACROSS SIDEWALK.
3. PROVIDE 1/2" WIDE BITUMINOUS EXPANSION JOINT MATERIAL WHEREVER CONCRETE SIDEWALK ABUTS CURB.
4. SIDEWALK AND CURB TO BE CURED WITH AQURON 2000 OR APPROVED EQUAL.



SERVICE CONNECTION - DEEP SEWER



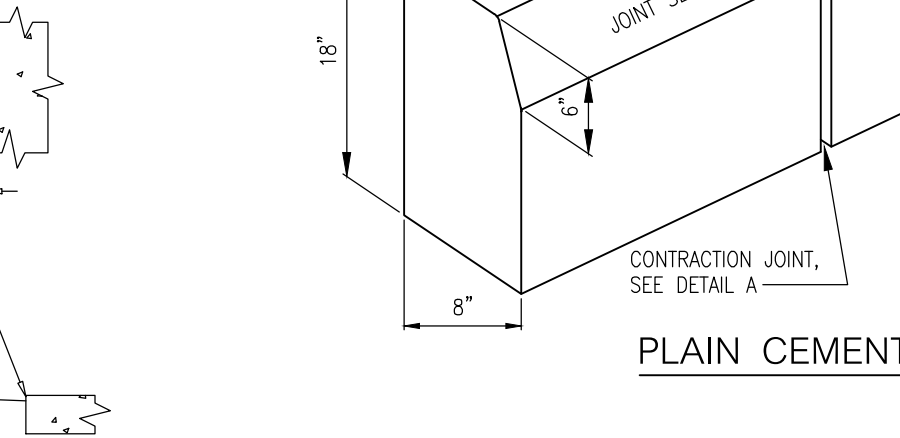
SERVICE CONNECTION - SHALLOW SEWER



CLEANOUT DETAIL

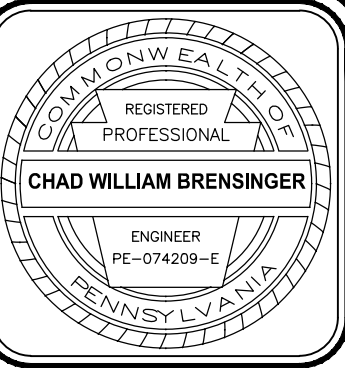


PLAIN CEMENT CONCRETE CURB



FLUSH HANDICAP DEPRESSED CONCRETE CURB DETAIL

- NOTES:
1. MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR ALL PLAN CEMENT CONCRETE CURB GUTTER, AND SECTION 694 FOR CONCRETE CURB CUT RAMPS.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTION.
3. PROVIDE 3/4" WIDE PREMOLDED EXPANSION JOINT MATERIAL WHEREVER CONCRETE SIDEWALK ABUTS ANY RIGID PAVEMENT, SIDEWALK, OR STRUCTURE EVERY 50 FEET (MAX.) WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
4. CURB CUT RAMP DIMENSIONS AND SLOPES SHOULD BE ADHERED TO UNLESS EXISTING CONDITIONS REQUIRE SPECIAL DESIGN BASED ON ROADWAY GRADES, WITH ADJACENT CONCRETE SURFACE.
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB CUT RAMP BY COARSE BROOMING TRAVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB CUT RAMP INCLUDING FLARED SIDE RAMPS.
6. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL IN ACCORDANCE WITH PUBLICATION 408.
7. DOWEL PIN CURB WHERE CURB ABUTS INLET HOODS.
8. CURB SHALL BE CURED WITH AQURON 2000 OR APPROVED EQUAL.



REVISION TABLE

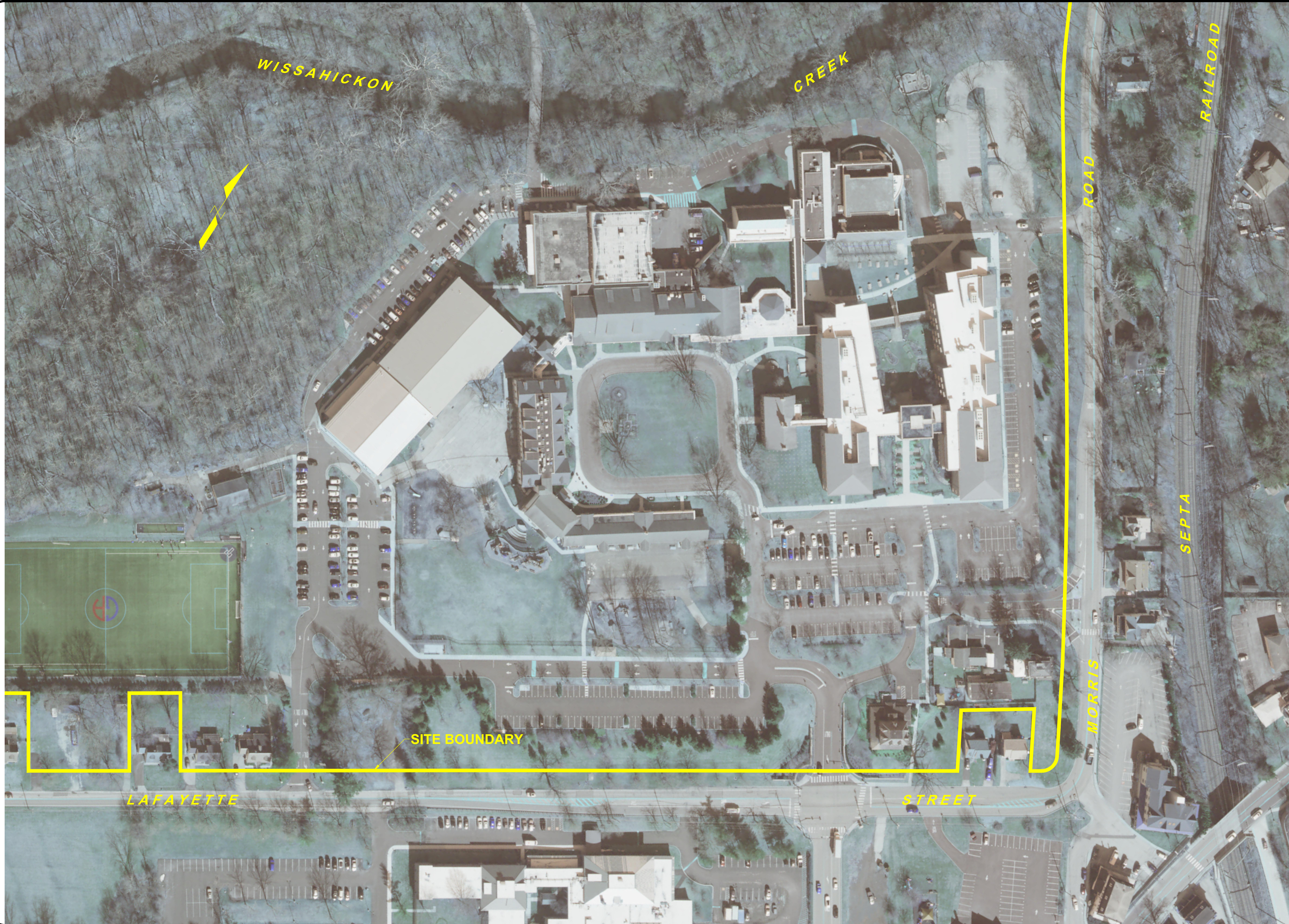
NO.	DATE	BY	EDM	EDM
1	12-19-24	1	TREE PRESERVATION & BUS SHELTER	EDM

COUNTY PARCEL NO. 65-00-1522-00-9
BLOCK - UNIT 0049-0076
SITE ADDRESS 340 MORRIS ROAD FORT WASHINGTON, PA 19034
DEED BOOK - PAGE 5974-01520

RECORDED OWNER GERMANTOWN ACADEMY
P.O. BOX 287 FORT WASHINGTON PA 19034

CHARLES E. SHOEMAKER, INC.
ENGINEERS & SURVEYORS
110 KEYSTONE DRIVE
MONTGOMERYVILLE, PA 17936
PHONE: 215-887-2165 FAX: 215-576-7791
E-MAIL: staff@eshoemaker.com

CONSTRUCTION DETAILS FOR EARLY CHILDHOOD LEARNING CENTER PREPARED FOR GERMANTOWN ACADEMY
WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA



WISSAHICKON

CREEK

ROAD

RAILROAD

SEPTA

MORRIS

LAFAYETTE

STREET

SITE BOUNDARY



NO.	DATE	REVISION	EDM	BY
1	12-19-24	TREE PRESERVATION & BUS SHELTER		

RECORDED OWNER
GERMANTOWN ACADEMY
 P.O. BOX 287
 FORT WASHINGTON
 PA 19034

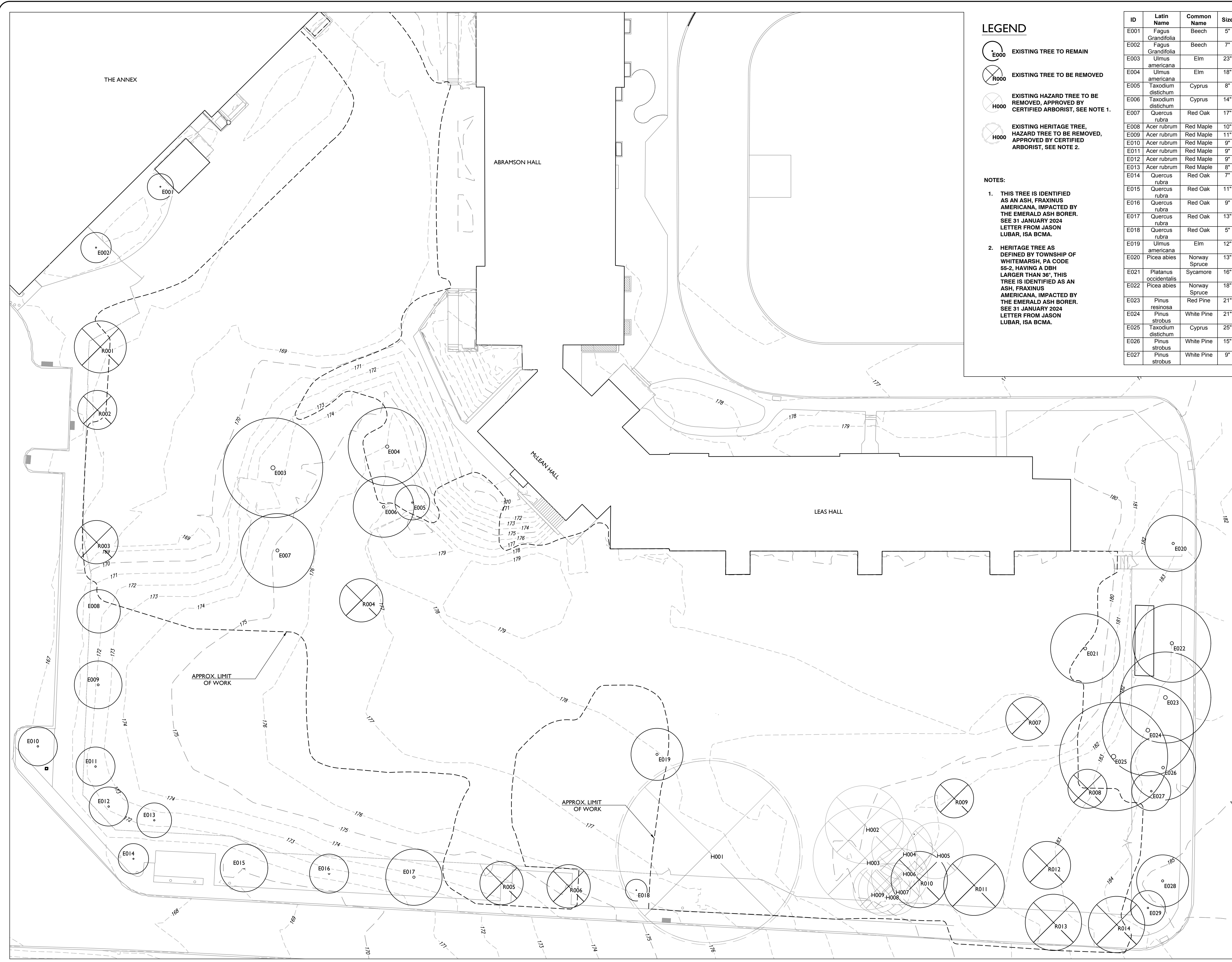
COUNTY PARCEL NO.
 65-00-1052-00-9
 BLOCK - UNIT
 049-0076
 SITE ADDRESS
 440 MORRIS ROAD
 FORT WASHINGTON, PA 19034
 DEED BOOK - PAGE
 5974-01520

CHARLES E. SHOEMAKER, INC.
 ENGINEERS & SURVEYORS
 110 KEYSTONE DRIVE
 MONTGOMERYVILLE, PA 18936
 PHONE: 215-887-2165 FAX: 215-576-7791
 E-MAIL: info@shoemaker.com

GRAPHIC SCALE
 0 30 60 120
 1 INCH = 60 FEET

AERIAL PHOTOGRAPH EXHIBIT
 OF
EARLY CHILDHOOD LEARNING CENTER
 PREPARED FOR
GERMANTOWN ACADEMY
 WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE: DECEMBER 16, 2024
 DWG NO: WHI-758
 JOB NO: 25776
 SHEET NO: 14 OF 14



LEGEND

- E000 EXISTING TREE TO REMAIN
- R000 EXISTING TREE TO BE REMOVED
- H000 EXISTING HAZARD TREE TO BE REMOVED, APPROVED BY CERTIFIED ARBORIST, SEE NOTE 1.
- H000 EXISTING HERITAGE TREE, HAZARD TREE TO BE REMOVED, APPROVED BY CERTIFIED ARBORIST, SEE NOTE 2.

- NOTES:**
1. THIS TREE IS IDENTIFIED AS AN ASH, FRAXINUS AMERICANA, IMPACTED BY THE EMERALD ASH BORER. SEE 31 JANUARY 2024 LETTER FROM JASON LUBAR, ISA BCMA.
 2. HERITAGE TREE AS DEFINED BY TOWNSHIP OF WHITEMARSH, PA CODE 55-2, HAVING A DBH LARGER THAN 36", THIS TREE IS IDENTIFIED AS AN ASH, FRAXINUS AMERICANA, IMPACTED BY THE EMERALD ASH BORER. SEE 31 JANUARY 2024 LETTER FROM JASON LUBAR, ISA BCMA.

ID	Latin Name	Common Name	Size
E001	Fagus Grandifolia	Beech	5"
E002	Fagus Grandifolia	Beech	7"
E003	Ulmus americana	Elm	23"
E004	Ulmus americana	Elm	18"
E005	Taxodium distichum	Cypress	8"
E006	Taxodium distichum	Cypress	14"
E007	Quercus rubra	Red Oak	17"
E008	Acer rubrum	Red Maple	10"
E009	Acer rubrum	Red Maple	11"
E010	Acer rubrum	Red Maple	9"
E011	Acer rubrum	Red Maple	9"
E012	Acer rubrum	Red Maple	9"
E013	Acer rubrum	Red Maple	8"
E014	Quercus rubra	Red Oak	7"
E015	Quercus rubra	Red Oak	11"
E016	Quercus rubra	Red Oak	9"
E017	Quercus rubra	Red Oak	13"
E018	Quercus rubra	Red Oak	5"
E019	Ulmus americana	Elm	12"
E020	Picea abies	Norway Spruce	13"
E021	Platanus occidentalis	Sycamore	16"
E022	Picea abies	Norway Spruce	18"
E023	Pinus resinosa	Red Pine	21"
E024	Pinus strobus	White Pine	21"
E025	Taxodium distichum	Cypress	25"
E026	Pinus strobus	White Pine	15"
E027	Pinus strobus	White Pine	9"

E028	Picea glauca	Spruce	12"
E029	Picea glauca	Spruce	8"
R001	Acer rubrum	Red Maple	12"
R002	Acer rubrum	Red Maple	9"
R003	Acer rubrum	Red Maple	8"
R004	Quercus rubra	Red Oak	10"
R005	Quercus rubra	Red Oak	10"
R006	Quercus rubra	Red Oak	10"
R007	Platanus occidentalis	Sycamore	10"
R008	Fagus Grandifolia	Beech	9"
R009	Ulmus americana	Elm	9"
R010	Cornus Florida	Dogwood	17"
R011	Catalpa speciosa	Catalpa	14"
R012	Magnolia grandiflora	Magnolia	12"
R013	Fagus Grandifolia	Beech	13"
R014	Fagus Grandifolia	Beech	13"
H001	Quercus alba	Oak	42"
H002	Fraxinus americana	Ash	18"
H003	Fraxinus americana	Ash	24"
H004	Fraxinus americana	Ash	14"
H005	Fraxinus americana	Ash	13"
H006	Fraxinus americana	Ash	31"
H007	Fraxinus americana	Ash	12"
H008	Fraxinus americana	Ash	12"
H009	Fraxinus americana	Ash	11"



PROJECT TITLE:
GERMANTOWN ACADEMY
PROJECT ADDRESS:
 340 MORRIS ROAD
 FORT WASHINGTON, PA 19034

ARCHITECT
 PHILLIPS & DONOVAN ARCHITECTS, LLC
 P.O. BOX 160
 3160 Bedminster Road
 Bedminster, PA 18910
 610.317.0221

PLAY DESIGNER
 STUDIO LUDO
 4800 Springfield Avenue
 Philadelphia, PA 19143
 215.454.6780

CIVIL ENGINEER
 CHARLES E. SHOEMAKER, INC
 110 Keystone Dr.
 Montgomeryville, PA 18936
 215.887.2165



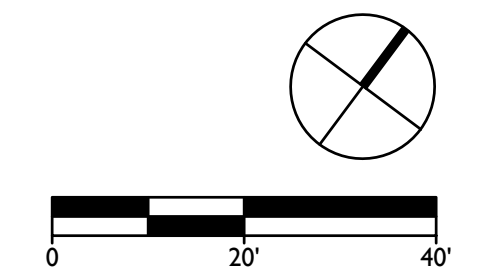
ISSUE/DATE:
 PERMIT SUBMISSION
 12.20.2024

SHEET TITLE:
 TREE SURVEY PLAN

SHEET NUMBER:
L-001

SCALE: 1" = 20'

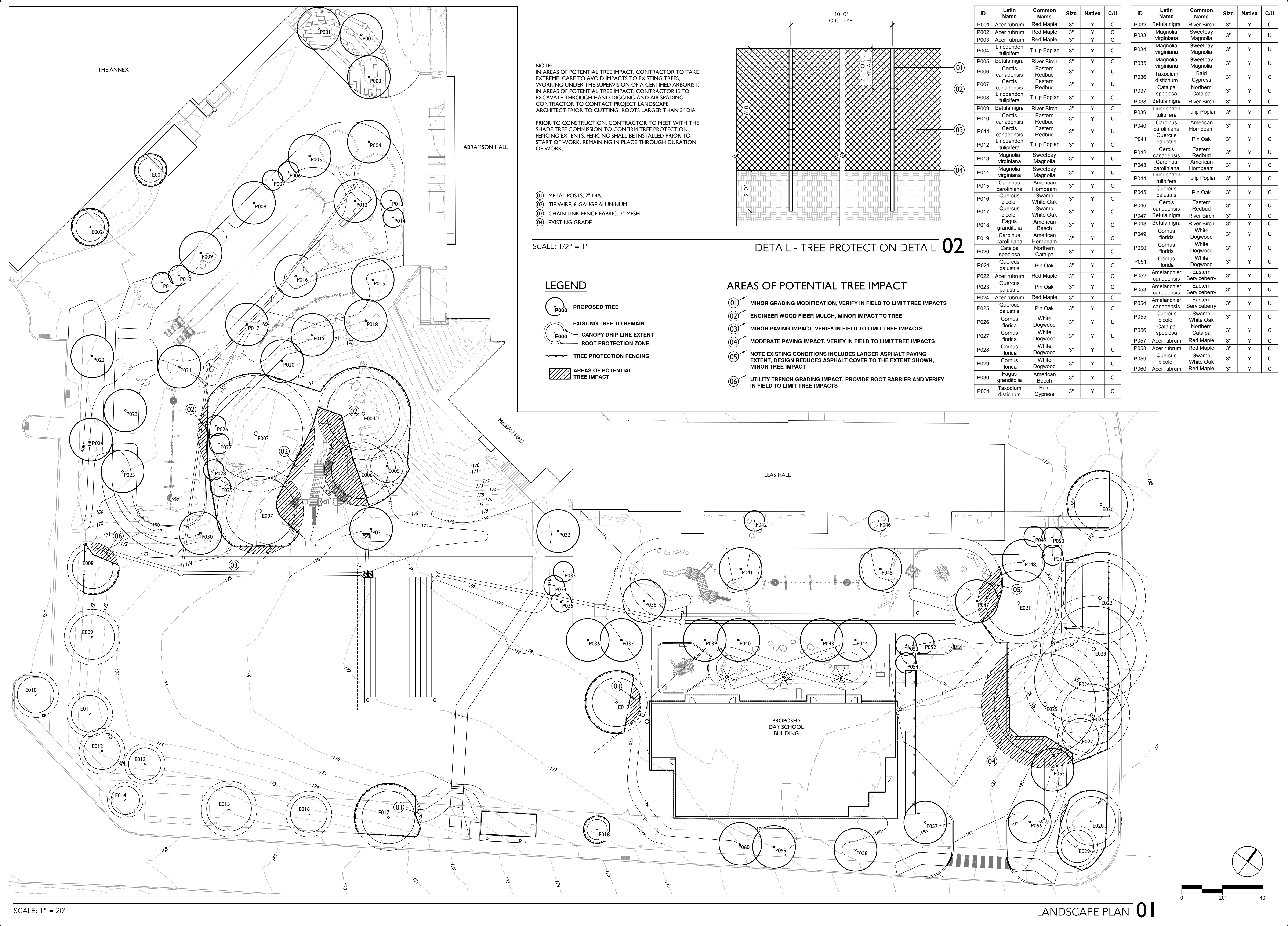
TREE SURVEY PLAN 01





ISSUE/DATE:
 PERMIT SUBMISSION
 12.20.2024

SHEET TITLE:
LANDSCAPE PLAN
 SHEET NUMBER:
L-002



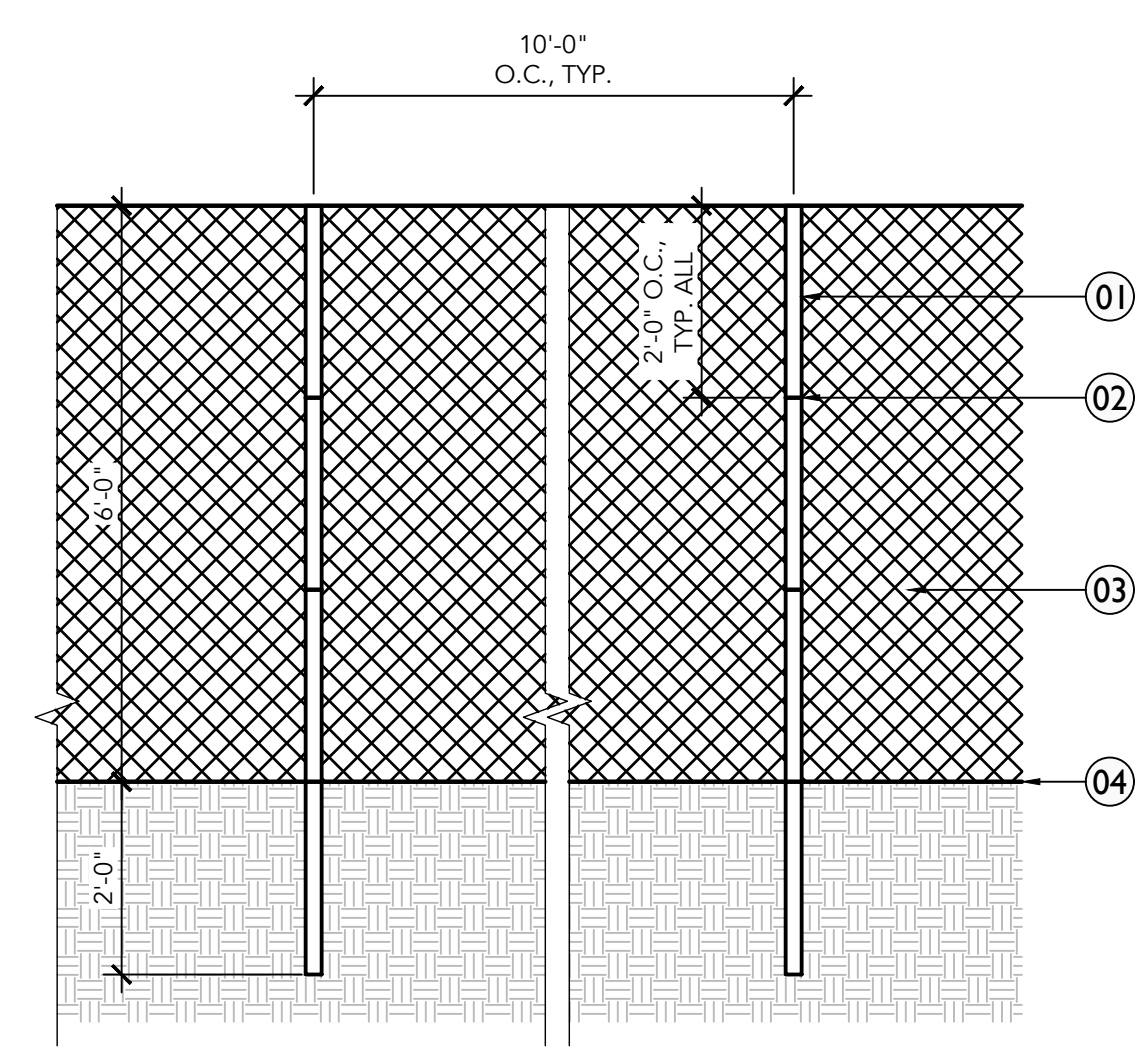
NOTE:
 IN AREAS OF POTENTIAL TREE IMPACT, CONTRACTOR TO TAKE EXTREME CARE TO AVOID IMPACTS TO EXISTING TREES, WORKING UNDER THE SUPERVISION OF A CERTIFIED ARBORIST. IN AREAS OF POTENTIAL TREE IMPACT, CONTRACTOR IS TO EXCAVATE THROUGH HAND DIGGING AND AIR SPADING. CONTRACTOR TO CONTACT PROJECT LANDSCAPE ARCHITECT PRIOR TO CUTTING ROOTS LARGER THAN 3" DIA.
 PRIOR TO CONSTRUCTION, CONTRACTOR TO MEET WITH THE SHADE TREE COMMISSION TO CONFIRM TREE PROTECTION FENCING EXTENTS. FENCING SHALL BE INSTALLED PRIOR TO START OF WORK, REMAINING IN PLACE THROUGH DURATION OF WORK.

- ① METAL POSTS, 2" DIA.
- ② TIE WIRE, 6-GAUGE ALUMINUM
- ③ CHAIN LINK FENCE FABRIC, 2" MESH
- ④ EXISTING GRADE

SCALE: 1/2" = 1'

LEGEND

- PROPOSED TREE
- EXISTING TREE TO REMAIN
- CANOPY DRIP LINE EXTENT
- ROOT PROTECTION ZONE
- TREE PROTECTION FENCING
- AREAS OF POTENTIAL TREE IMPACT



DETAIL - TREE PROTECTION DETAIL 02

AREAS OF POTENTIAL TREE IMPACT

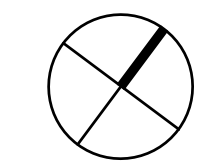
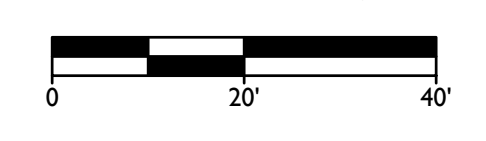
- ① MINOR GRADING MODIFICATION, VERIFY IN FIELD TO LIMIT TREE IMPACTS
- ② ENGINEER WOOD FIBER MULCH, MINOR IMPACT TO TREE
- ③ MINOR PAVING IMPACT, VERIFY IN FIELD TO LIMIT TREE IMPACTS
- ④ MODERATE PAVING IMPACT, VERIFY IN FIELD TO LIMIT TREE IMPACTS
- ⑤ NOTE EXISTING CONDITIONS INCLUDES LARGER ASPHALT PAVING EXTENT, DESIGN REDUCES ASPHALT COVER TO THE EXTENT SHOWN, MINOR TREE IMPACT
- ⑥ UTILITY TRENCH GRADING IMPACT, PROVIDE ROOT BARRIER AND VERIFY IN FIELD TO LIMIT TREE IMPACTS

ID	Latin Name	Common Name	Size	Native	CU
P001	Acer rubrum	Red Maple	3"	Y	C
P002	Acer rubrum	Red Maple	3"	Y	C
P003	Acer rubrum	Red Maple	3"	Y	C
P004	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P005	Betula nigra	River Birch	3"	Y	C
P006	Cercis canadensis	Eastern Redbud	3"	Y	U
P007	Cercis canadensis	Eastern Redbud	3"	Y	U
P008	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P009	Betula nigra	River Birch	3"	Y	C
P010	Cercis canadensis	Eastern Redbud	3"	Y	U
P011	Cercis canadensis	Eastern Redbud	3"	Y	U
P012	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P013	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P014	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P015	Carpinus caroliniana	American Hornbeam	3"	Y	C
P016	Quercus bicolor	Swamp White Oak	3"	Y	C
P017	Quercus bicolor	Swamp White Oak	3"	Y	C
P018	Fagus grandifolia	American Beech	3"	Y	C
P019	Carpinus caroliniana	American Hornbeam	3"	Y	C
P020	Catalpa speciosa	Northern Catalpa	3"	Y	C
P021	Quercus palustris	Pin Oak	3"	Y	C
P022	Acer rubrum	Red Maple	3"	Y	C
P023	Quercus palustris	Pin Oak	3"	Y	C
P024	Acer rubrum	Red Maple	3"	Y	C
P025	Quercus palustris	Pin Oak	3"	Y	C
P026	Cornus florida	White Dogwood	3"	Y	U
P027	Cornus florida	White Dogwood	3"	Y	U
P028	Cornus florida	White Dogwood	3"	Y	U
P029	Cornus florida	White Dogwood	3"	Y	U
P030	Fagus grandifolia	American Beech	3"	Y	C
P031	Taxodium distichum	Bald Cypress	3"	Y	C

ID	Latin Name	Common Name	Size	Native	CU
P032	Betula nigra	River Birch	3"	Y	C
P033	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P034	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P035	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P036	Taxodium distichum	Bald Cypress	3"	Y	C
P037	Catalpa speciosa	Northern Catalpa	3"	Y	C
P038	Betula nigra	River Birch	3"	Y	C
P039	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P040	Carpinus caroliniana	American Hornbeam	3"	Y	C
P041	Quercus palustris	Pin Oak	3"	Y	C
P042	Cercis canadensis	Eastern Redbud	3"	Y	U
P043	Carpinus caroliniana	American Hornbeam	3"	Y	C
P044	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P045	Quercus palustris	Pin Oak	3"	Y	C
P046	Cercis canadensis	Eastern Redbud	3"	Y	U
P047	Betula nigra	River Birch	3"	Y	C
P048	Betula nigra	River Birch	3"	Y	C
P049	Cornus florida	White Dogwood	3"	Y	U
P050	Cornus florida	White Dogwood	3"	Y	U
P051	Cornus florida	White Dogwood	3"	Y	U
P052	Amelanchier canadensis	Eastern Serviceberry	3"	Y	U
P053	Amelanchier canadensis	Eastern Serviceberry	3"	Y	U
P054	Amelanchier canadensis	Eastern Serviceberry	3"	Y	U
P055	Quercus bicolor	Swamp White Oak	3"	Y	C
P056	Catalpa speciosa	Northern Catalpa	3"	Y	C
P057	Acer rubrum	Red Maple	3"	Y	C
P058	Acer rubrum	Red Maple	3"	Y	C
P059	Quercus bicolor	Swamp White Oak	3"	Y	C
P060	Acer rubrum	Red Maple	3"	Y	C

SCALE: 1" = 20'

LANDSCAPE PLAN 01



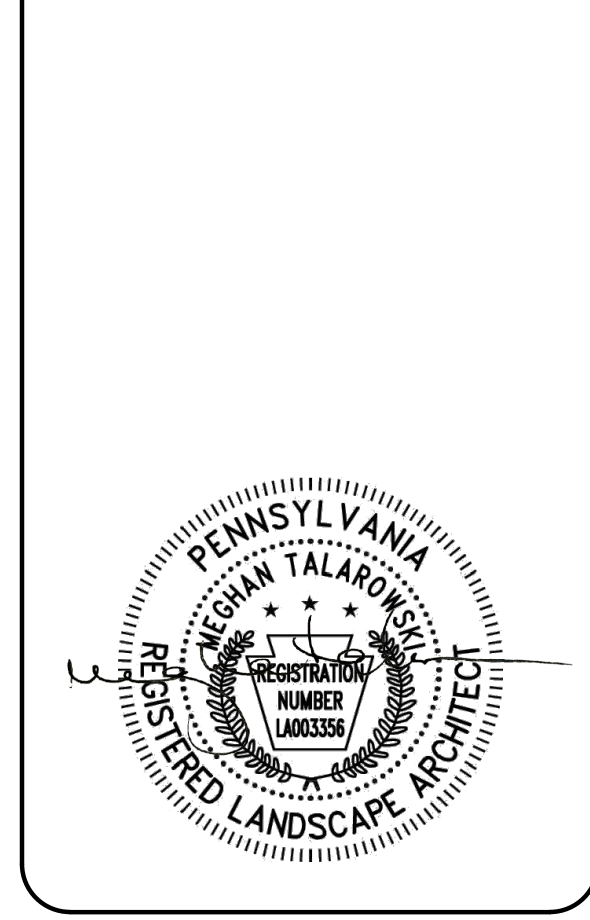


PROJECT TITLE:
**GERMANTOWN
 ACADEMY**
 PROJECT ADDRESS:
 340 MORRIS ROAD
 FORT WASHINGTON, PA 19034

ARCHITECT
 PHILLIPS & DONOVAN
 ARCHITECTS, LLC
 P.O. BOX 160
 3160 Bedminster Road
 Bedminster, PA 18910
 610.317.0221

PLAY DESIGNER
 STUDIO LUDO
 4800 Springfield Avenue
 Philadelphia, PA 19143
 215.454.6780

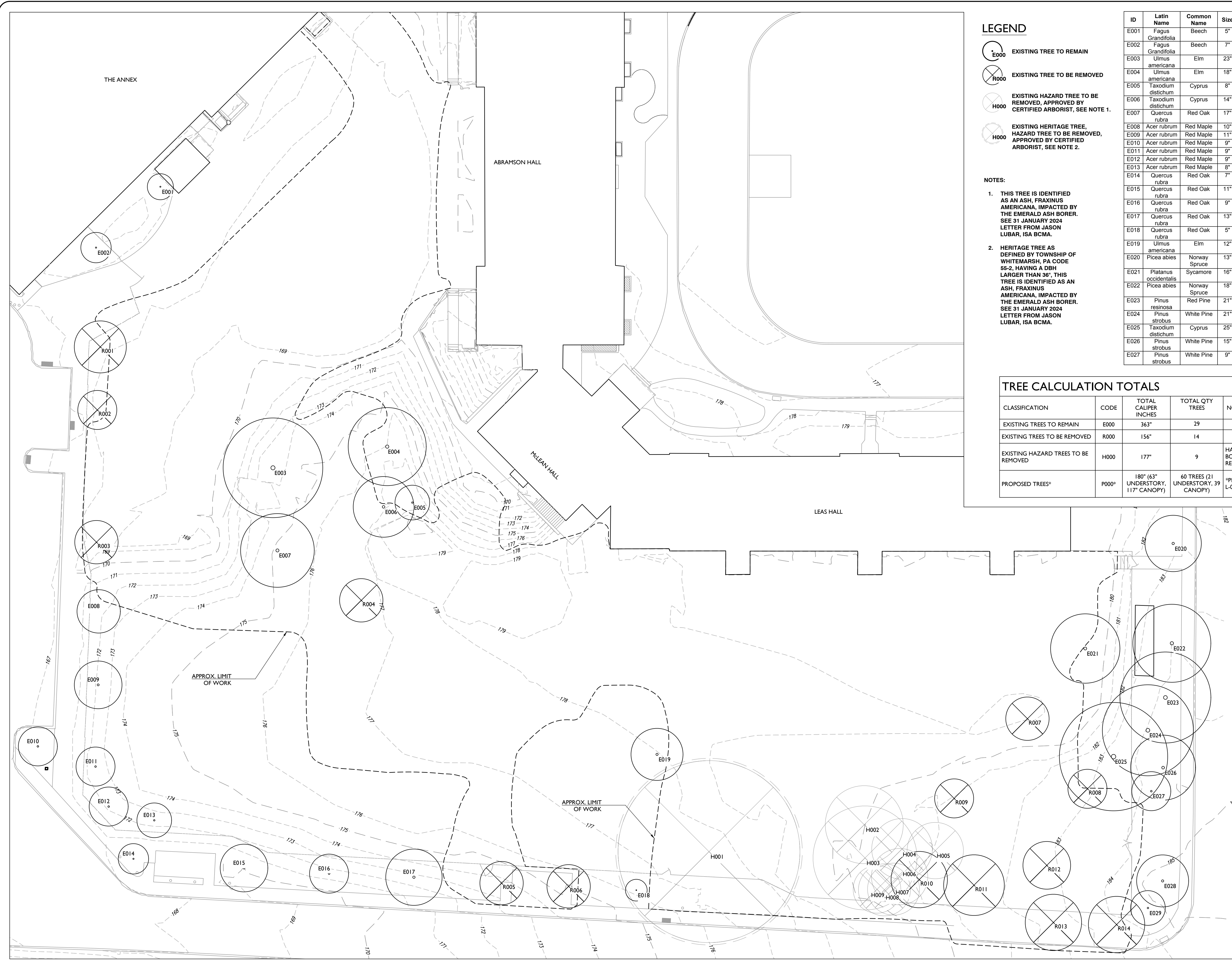
CIVIL ENGINEER
 CHARLES E.
 SHOEMAKER, INC
 110 Keystone Dr.
 Montgomeryville, PA 18936
 215.887.2165



ISSUE/DATE:
 PERMIT SUBMISSION
 12.20.2024

SHEET TITLE:
 TREE SURVEY
 PLAN

SHEET NUMBER:
L-001



LEGEND

- E000 EXISTING TREE TO REMAIN
- R000 EXISTING TREE TO BE REMOVED
- H000 EXISTING HAZARD TREE TO BE REMOVED, APPROVED BY CERTIFIED ARBORIST, SEE NOTE 1.
- H000 EXISTING HERITAGE TREE, HAZARD TREE TO BE REMOVED, APPROVED BY CERTIFIED ARBORIST, SEE NOTE 2.

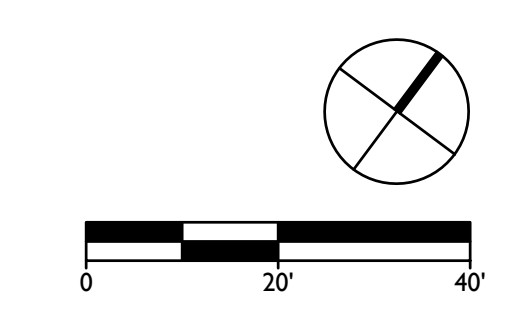
NOTES:

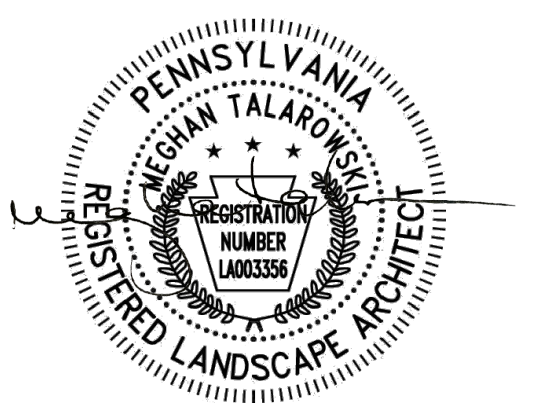
1. THIS TREE IS IDENTIFIED AS AN ASH, FRAXINUS AMERICANA, IMPACTED BY THE EMERALD ASH BORER. SEE 31 JANUARY 2024 LETTER FROM JASON LUBAR, ISA BCMA.
2. HERITAGE TREE AS DEFINED BY TOWNSHIP OF WHITEMARSH, PA CODE 55-2, HAVING A DBH LARGER THAN 36", THIS TREE IS IDENTIFIED AS AN ASH, FRAXINUS AMERICANA, IMPACTED BY THE EMERALD ASH BORER. SEE 31 JANUARY 2024 LETTER FROM JASON LUBAR, ISA BCMA.

ID	Latin Name	Common Name	Size
E001	Fagus Grandifolia	Beech	5"
E002	Fagus Grandifolia	Beech	7"
E003	Ulmus americana	Elm	23"
E004	Ulmus americana	Elm	18"
E005	Taxodium distichum	Cypress	8"
E006	Taxodium distichum	Cypress	14"
E007	Quercus rubra	Red Oak	17"
E008	Acer rubrum	Red Maple	10"
E009	Acer rubrum	Red Maple	11"
E010	Acer rubrum	Red Maple	9"
E011	Acer rubrum	Red Maple	9"
E012	Acer rubrum	Red Maple	9"
E013	Acer rubrum	Red Maple	8"
E014	Quercus rubra	Red Oak	7"
E015	Quercus rubra	Red Oak	11"
E016	Quercus rubra	Red Oak	9"
E017	Quercus rubra	Red Oak	13"
E018	Quercus rubra	Red Oak	5"
E019	Ulmus americana	Elm	12"
E020	Picea abies	Norway Spruce	13"
E021	Platanus occidentalis	Sycamore	16"
E022	Picea abies	Norway Spruce	18"
E023	Pinus resinosa	Red Pine	21"
E024	Pinus strobus	White Pine	21"
E025	Taxodium distichum	Cypress	25"
E026	Pinus strobus	White Pine	15"
E027	Pinus strobus	White Pine	9"
E028	Picea glauca	Spruce	12"
E029	Picea glauca	Spruce	8"
R001	Acer rubrum	Red Maple	12"
R002	Acer rubrum	Red Maple	9"
R003	Acer rubrum	Red Maple	8"
R004	Quercus rubra	Red Oak	10"
R005	Quercus rubra	Red Oak	10"
R006	Quercus rubra	Red Oak	10"
R007	Platanus occidentalis	Sycamore	10"
R008	Fagus Grandifolia	Beech	9"
R009	Ulmus americana	Elm	9"
R010	Cornus Florida	Dogwood	17"
R011	Catalpa speciosa	Catalpa	14"
R012	Magnolia grandiflora	Magnolia	12"
R013	Fagus Grandifolia	Beech	13"
R014	Fagus Grandifolia	Beech	13"
H001	Fraxinus americana	Ash	42"
H002	Fraxinus americana	Ash	18"
H003	Fraxinus americana	Ash	24"
H004	Fraxinus americana	Ash	14"
H005	Fraxinus americana	Ash	13"
H006	Fraxinus americana	Ash	31"
H007	Fraxinus americana	Ash	12"
H008	Fraxinus americana	Ash	12"
H009	Fraxinus americana	Ash	11"

TREE CALCULATION TOTALS

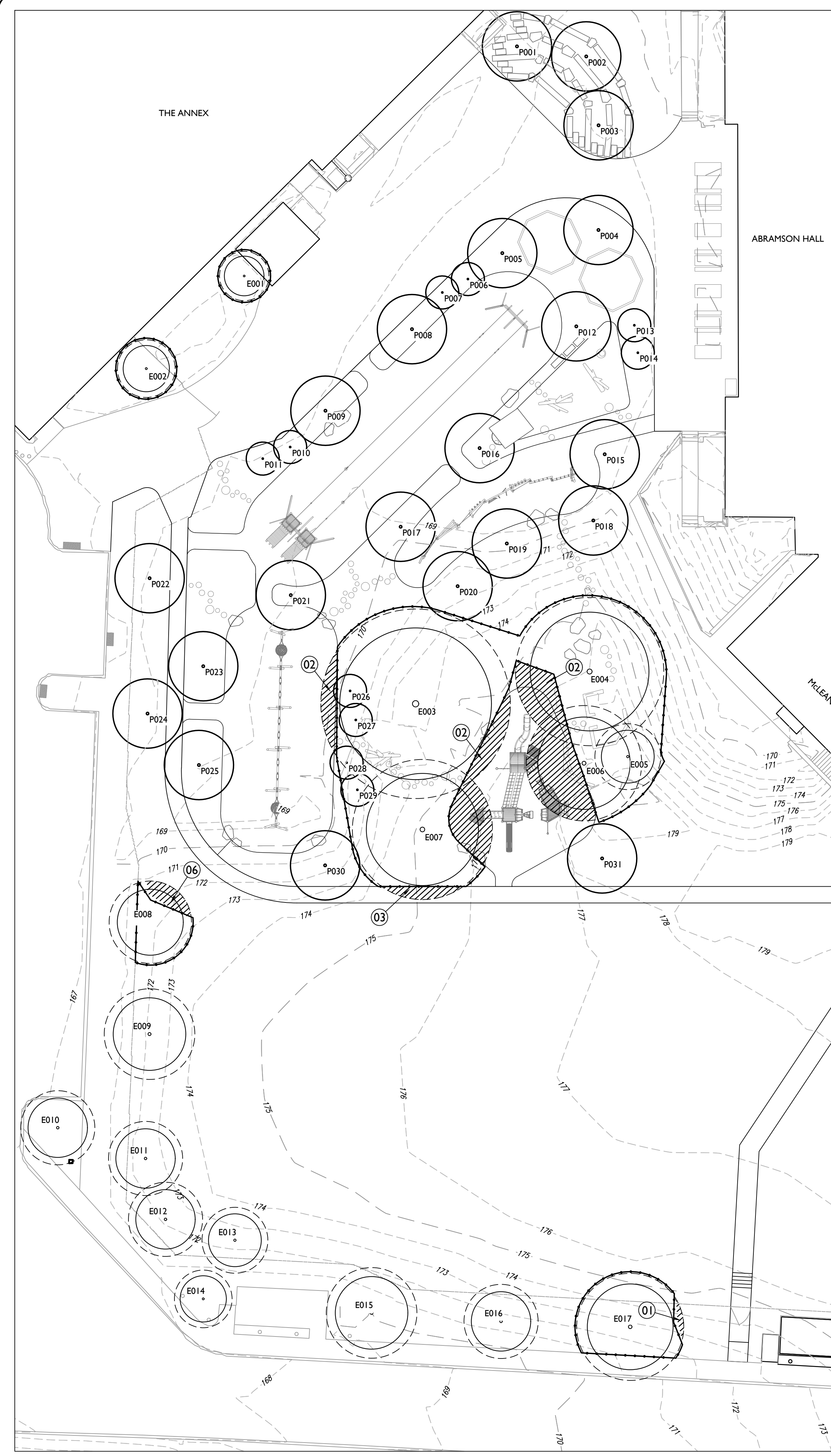
CLASSIFICATION	CODE	TOTAL CALIPER INCHES	TOTAL QTY TREES	NOTE
EXISTING TREES TO REMAIN	E000	363"	29	
EXISTING TREES TO BE REMOVED	R000	156"	14	
EXISTING HAZARD TREES TO BE REMOVED	H000	177"	9	HAZARD TREES IMPACTED BY EMERALD ASH BORER, SEE NOTE 1 AND 2, EXCLUDED FROM REPLACEMENT REQUIREMENTS
PROPOSED TREES*	P000*	180" (63" UNDERSTORY, 117" CANOPY)	60 TREES (21 UNDERSTORY, 39 CANOPY)	*PROPOSED TREES ARE EXCLUDED FROM SHEET L-001, SEE SHEET L-002 LANDSCAPE PLAN





ISSUE/DATE:
 PERMIT SUBMISSION
 12.20.2024

SHEET TITLE:
 LANDSCAPE PLAN
 SHEET NUMBER:
L-002



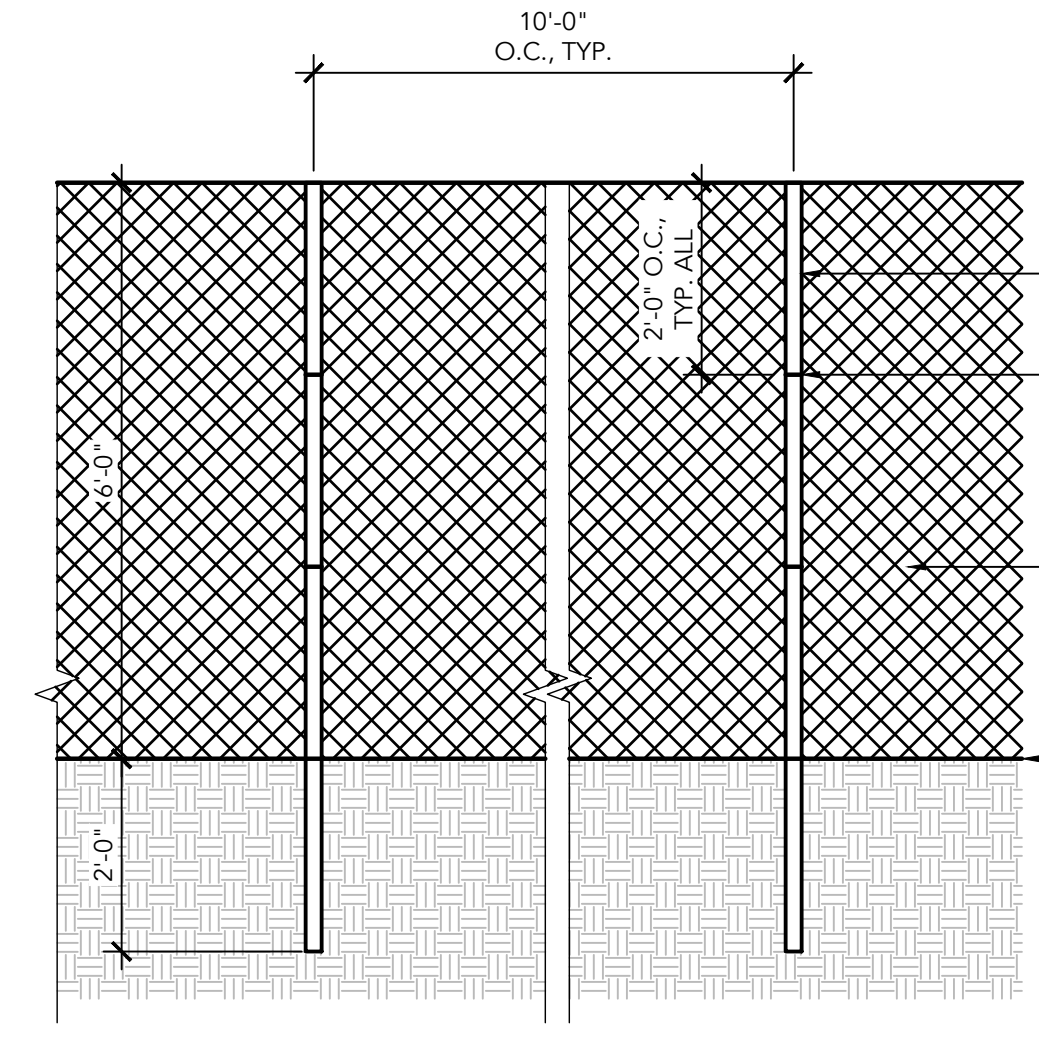
NOTE:
 IN AREAS OF POTENTIAL TREE IMPACT, CONTRACTOR TO TAKE EXTREME CARE TO AVOID IMPACTS TO EXISTING TREES, WORKING UNDER THE SUPERVISION OF A CERTIFIED ARBORIST. IN AREAS OF POTENTIAL TREE IMPACT, CONTRACTOR IS TO EXCAVATE THROUGH HAND DIGGING AND AIR SPADING. CONTRACTOR TO CONTACT PROJECT LANDSCAPE ARCHITECT PRIOR TO CUTTING ROOTS LARGER THAN 3" DIA.
 PRIOR TO CONSTRUCTION, CONTRACTOR TO MEET WITH THE SHADE TREE COMMISSION TO CONFIRM TREE PROTECTION FENCING EXTENTS. FENCING SHALL BE INSTALLED PRIOR TO START OF WORK, REMAINING IN PLACE THROUGH DURATION OF WORK.

- 01 METAL POSTS, 2" DIA.
- 02 TIE WIRE, 6-GAUGE ALUMINIUM
- 03 CHAIN LINK FENCE FABRIC, 2" MESH
- 04 EXISTING GRADE

SCALE: 1/2" = 1'

LEGEND

- PROPOSED TREE
- EXISTING TREE TO REMAIN
- CANOPY DRIP LINE EXTENT
- ROOT PROTECTION ZONE
- TREE PROTECTION FENCING
- AREAS OF POTENTIAL TREE IMPACT



DETAIL - TREE PROTECTION DETAIL 02

AREAS OF POTENTIAL TREE IMPACT

- 01 MINOR GRADING MODIFICATION, VERIFY IN FIELD TO LIMIT TREE IMPACTS
- 02 ENGINEER WOOD FIBER MULCH, MINOR IMPACT TO TREE
- 03 MINOR PAVING IMPACT, VERIFY IN FIELD TO LIMIT TREE IMPACTS
- 04 MODERATE PAVING IMPACT, VERIFY IN FIELD TO LIMIT TREE IMPACTS
- 05 NOTE EXISTING CONDITIONS INCLUDES LARGER ASPHALT PAVING EXTENT, DESIGN REDUCES ASPHALT COVER TO THE EXTENT SHOWN, MINOR TREE IMPACT
- 06 UTILITY TRENCH GRADING IMPACT, PROVIDE ROOT BARRIER AND VERIFY IN FIELD TO LIMIT TREE IMPACTS

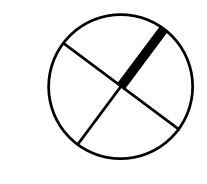
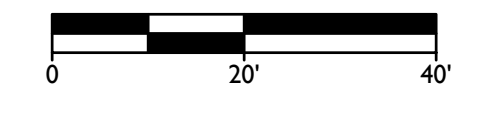
ID	Latin Name	Common Name	Size	Native	CU
P001	Acer rubrum	Red Maple	3"	Y	C
P002	Acer rubrum	Red Maple	3"	Y	C
P003	Acer rubrum	Red Maple	3"	Y	C
P004	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P005	Betula nigra	River Birch	3"	Y	C
P006	Cercis canadensis	Eastern Redbud	3"	Y	U
P007	Cercis canadensis	Eastern Redbud	3"	Y	U
P008	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P009	Betula nigra	River Birch	3"	Y	C
P010	Cercis canadensis	Eastern Redbud	3"	Y	U
P011	Cercis canadensis	Eastern Redbud	3"	Y	U
P012	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P013	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P014	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P015	Carpinus caroliniana	American Hornbeam	3"	Y	C
P016	Quercus bicolor	Swamp White Oak	3"	Y	C
P017	Quercus bicolor	Swamp White Oak	3"	Y	C
P018	Fagus grandifolia	American Beech	3"	Y	C
P019	Carpinus caroliniana	American Hornbeam	3"	Y	C
P020	Catalpa speciosa	Northern Catalpa	3"	Y	C
P021	Quercus palustris	Pin Oak	3"	Y	C
P022	Acer rubrum	Red Maple	3"	Y	C
P023	Quercus palustris	Pin Oak	3"	Y	C
P024	Acer rubrum	Red Maple	3"	Y	C
P025	Quercus palustris	Pin Oak	3"	Y	C
P026	Cornus florida	White Dogwood	3"	Y	U
P027	Cornus florida	White Dogwood	3"	Y	U
P028	Cornus florida	White Dogwood	3"	Y	U
P029	Cornus florida	White Dogwood	3"	Y	U
P030	Fagus grandifolia	American Beech	3"	Y	C
P031	Taxodium distichum	Bald Cypress	3"	Y	C

ID	Latin Name	Common Name	Size	Native	CU
P032	Betula nigra	River Birch	3"	Y	C
P033	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P034	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P035	Magnolia virginiana	Sweetbay Magnolia	3"	Y	U
P036	Taxodium distichum	Bald Cypress	3"	Y	C
P037	Catalpa speciosa	Northern Catalpa	3"	Y	C
P038	Betula nigra	River Birch	3"	Y	C
P039	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P040	Carpinus caroliniana	American Hornbeam	3"	Y	C
P041	Quercus palustris	Pin Oak	3"	Y	C
P042	Cercis canadensis	Eastern Redbud	3"	Y	U
P043	Carpinus caroliniana	American Hornbeam	3"	Y	C
P044	Liriodendron tulipifera	Tulip Poplar	3"	Y	C
P045	Quercus palustris	Pin Oak	3"	Y	C
P046	Cercis canadensis	Eastern Redbud	3"	Y	U
P047	Betula nigra	River Birch	3"	Y	C
P048	Betula nigra	River Birch	3"	Y	C
P049	Cornus florida	White Dogwood	3"	Y	U
P050	Cornus florida	White Dogwood	3"	Y	U
P051	Cornus florida	White Dogwood	3"	Y	U
P052	Amelanchier canadensis	Eastern Serviceberry	3"	Y	U
P053	Amelanchier canadensis	Eastern Serviceberry	3"	Y	U
P054	Amelanchier canadensis	Eastern Serviceberry	3"	Y	U
P055	Quercus bicolor	Swamp White Oak	3"	Y	C
P056	Catalpa speciosa	Northern Catalpa	3"	Y	C
P057	Acer rubrum	Red Maple	3"	Y	C
P058	Acer rubrum	Red Maple	3"	Y	C
P059	Quercus bicolor	Swamp White Oak	3"	Y	C
P060	Acer rubrum	Red Maple	3"	Y	C

FOR TREE CALCULATIONS, SEE TABLE ON SHEET L-001 TREE SURVEY PLAN

SCALE: 1" = 20'

LANDSCAPE PLAN 01





Urban Foresters - Natural Resource Consultants Planners - Forensic Arborists

Germantown Academy

January 3, 2025

To: Samantha Zrillo

Whitemarsh Township - Planner

616 Germantown Pike Lafayette

Hill, PA 19444-1821

From: John Hosbach

Applicant: Germantown Academy
Day School

Dear Sam,

Pursuant to my site inspection and plan review, the following are my comments. The Germantown Academy is proposing a Day School which will involve numerous improvements along with the required construction of this proposed addition.

Tree survey plan

Plan identifying the size, species, and location of all existing trees having a diameter at breast height (DBH) of six inches or greater and denoting each tree to be saved or removed. All removed trees shall be identified if removed in the past five years.

Like other projects, the school and its said campus, inhabits numerous trees (over 500), which in most cases are not even within the proposed improvements. The applicant has provided a tree inventory which is sufficient for this application.

Tree Removal

Maximum tree removal.

The removal of more than 33% of trees, having a DBH of six inches or greater, on any lot, shall not be permitted.

The applicant is proposing the removal of 14 viable trees which is compliant for this application and the inventory provided. 29 trees are within proximity of the proposed day school facility. The applicant is also removing 9 hazardous trees which were confirmed during my visit. These are subject ash trees which have been impacted by EAB. They should be removed immediately to reduce liability and should not wait for the project to begin.



Urban Foresters - Natural Resource Consultants Planners - Forensic Arborists

Tree Protection

Denote location and species of each preserved tree and all boundary trees, and the location of tree protection fences, encompassing the dimensions of each root protection zone as established by one of the following two means, whichever is greater:

- [1] Calculated at 1.25 feet (radius) per one inch of (DBH) diameter breast height.
- [2] A circle with a radius extending from a tree's trunk to a point no less than the furthest crown dripline.

The tree protection was found to be compliant.

Replacement tree requirement.

Every living and healthy tree with a DBH of six inches or greater and which is designated to be removed or which is destroyed, shall be replaced with one or more new canopy trees, of a type and species approved by the Shade Tree Commission or its designee, with a trunk diameter of not less than three inches in caliper. The total caliper of replacement trees, measured at six inches above the ground line, shall equal or exceed the DBH of the removed trees.

The applicant is proposing 180" of mitigation replacement trees (39 canopy trees @ 3" and 21 understory trees @ 3"). The planting palate denotes the total makeup of native species. The palate will not only benefit environmental concerns but will contribute to wildlife value. A waiver will be required for the use of understory trees. they are exceeding the requirement by 24". It is my recommendation that the understory trees will provide a great layering system.

General Notes.

- **I have reviewed the site and have confirmed that only one dying ash within this project scope are defined heritage trees (42")**

John Rockwell Hosbach jr.
CONSULTANT



GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

January 7, 2025

File No. 2025-00030

Mr. Craig T. McAnally, Township Manager
Whitemarsh Township Municipal Building
616 Germantown Pike
Lafayette Hill, PA 19444

Reference: Request for Waiver of Land Development
Germantown Academy
340 Morris Road
Whitemarsh Township, Montgomery County, Pennsylvania
SLD #10-24

Dear Mr. McAnally:

We are in receipt of an application including plans dated December 16, 2024, prepared by Charles E. Shoemaker, Inc., regarding the above referenced project, requesting that the Township consider granting a waiver of Land Development for the proposed project. As requested, we have reviewed the plans for the property submitted by the applicant, which show the proposed site work. It is our understanding that the proposed improvements will not result in an increase in enrollment or vehicle trips generated.

Following a cursory technical review of the above-mentioned documents, we recommend the granting of a waiver of the Land Development process. The plans will be reviewed for compliance with Chapter 58, 'Grading, Erosion Control and Stormwater Management' as part of the Earth Disturbance Permit Application. Should you have any questions regarding this matter, please do not hesitate to contact me at this office.

Sincerely,

Krista Heinrich, P.E.
Township Engineer
Gilmore & Associates, Inc.

KH/sl

cc: Mr. Charles L. Guttenplan, AICP – Director of Planning and Zoning
Mr. Sean Kilkenny, Esq.; The Law Offices of Sean Kilkenny, LLC – Township Solicitor (*via email*)

O:\MUNICIPAL\2025\2500030-WshT_340 Morris Road – SLD#10-24\correspondence\SLD Waiver Req.doc

65 East Butler Avenue | Suite 100 | New Britain, PA 18901 | Phone: 215-345-4330 | Fax: 215-345-8606



Whitemarsh TOWNSHIP

616 GERMANTOWN PIKE - LAFAYETTE HILL, PA 19444-1821
TEL: 610-825-3535 FAX: 610-825-9416
www.whitemarshtp.org

BOARD of SUPERVISORS

Jacy Toll – Chair
Fran McCusker– Vice Chair
Vincent Manuele
Elizabeth Moy
Patrice Turenne

Craig T. McAnally
Township Manager

January 30, 2025

Germantown Academy
c/o Daniel Houston
P. O. Box 287
Fort Washington, PA 19034

**RE: SLD #10-24: Germantown Academy, 340 Morris Road
Land Development Waiver Request for New Early Childhood Learning Center
Zoning Ordinance Compliance Review Letter**

Dear Mr. Houston:

Please accept this as a review of the Zoning Ordinance Compliance issues for your above referenced Land Development Waiver Request, based upon a 14-sheet plan set prepared by Charles E. Shoemaker, Inc., dated December 16, 2024, revised December 19, 2024 and a two-sheet landscape plan prepared by Studio Ludo, dated December 20, 2024 with no noted revisions.

The plan proposes a new 6,078 square foot school building, associated parking and play areas south of the main entrance/exit to the campus on Lafayette Avenue. The site is zoned AAA – Residential and B – Residential with the Institutional Overlay District over the entire campus. As indicated on the plans, the Institutional Overlay District governs the property given the school use.

The following are the Zoning Ordinance compliance issues noted concerning the submitted plans.

- | <u>Section</u> | <u>Issue/Comment</u> |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. §116-11. | ‘Ultimate Right-of-Way’ is defined in this section as the future or planned width of a roadway as shown on the Official Ultimate Right-of-Way Map of the Township. Said map defines the ultimate right-of-way for Lafayette Avenue as 80’ or 40’ from center. The ultimate right-of-way should be labeled on the plan; it appears, in general, to coincide with the front lot line of the tract and the front setback, to be measured from the ultimate right-of-way, is therefore correctly depicted. |
| 2. §116-22. | A note must be added to the plans that states that the permanent removal of topsoil from land within the Township is prohibited. |
| 3. §116-176.A.(1) | The dimensional requirements listed for the Institutional Overlay District on Sheet 2 must be clarified. Some dimensions refer to relief granted by the Zoning Hearing Board in 2009 (ZHB #2009-03) for the overall master plan for the campus; this relief does not apply specifically to the present proposal. Since the |

Institutional Overlay District governs, its requirements should be listed, alongside the respective dimensions of the proposed building.

4. §116-184.F. All parking shall conform to the requirements of the Whitmarsh Township Fire Prevention Code as enacted and amended. The applicant must obtain approval from the Whitmarsh Township Fire Marshal. The Fire Marshal will be issuing a separate review of this proposal.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,



Charles L. Guttenplan, AICP
Director of Planning and Zoning/Zoning Officer

cc: Craig McAnally, Township Manager
Robert A. Sztubinski, B.C.O., Director of Building and Codes
Andrew Thomas, Fire Marshal
Sean P. Kilkenny, Esq., Township Solicitor
Krista Heinrich, P.E., Township Engineer
Gregory J. Davis, Esq., Applicant's Attorney
Chad W. Brensinger, P.E., Applicant's Engineer

WHITEMARSH TOWNSHIP

To: Charlie L. Guttenplan, Director of Planning & Zoning/Zoning Officer.

From: Andrew G. Thomas, Fire Marshal



Subject: SLD#10-24 GERMANTOWN ACADEMY
LAND DEVELOPMENT WAIVER REQUEST; DAYCARE & RELATED IMPROVEMENTS
340 MORRIS ROAD
FORT WASHINGTON, PA 19034

Date: 02/05/2025

After reviewing the proposed plans for the Germantown Academy expansion project, the following items must be addressed.

1. Fire department connections shall be installed within 100' of the approved hydrants in approved locations. (this is if the building is being sprinklered)
2. Please show the distance to the closest fire hydrant to the proposed new building.
3. The building will need an NFPA 72 compliant fire alarm system.
4. An emergency entry key box will be needed for the facility in accordance with Whitemarsh Township Ordinance 1036 accepts on March 14, 2024
5. The plan must be in accordance with Whitemarsh Township Ordinance 1012 accepted on April 14, 2022, Section 503.2.1 Dimensions and International Fire Code Section 5031.1 Buildings and facilities.
 - a. Dimensions. Fire Apparatus access roads shall have an unobstructed width of 24 feet, exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of 14 feet. No access driveway shall be located closer than five feet to a structure.
 - b. 503.1.1 Buildings and facilities. *Approved* fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the *exterior walls* of the first story of the building as measured by an *approved* route around the exterior of the building or facility.

Andrew G. Thomas
Fire Marshal, Emergency Management Coordinator
616 Germantown Pike
Lafayette Hill, PA 19444
Phone: 610-825-3535 ext. 2614
Email: athomas@whitemarshwp.org

WHITEMARSH TOWNSHIP

To: Craig McAnally, Township Manager
From: Samantha Zrillo, Township Planner *SZ*
Subject: SLD#10-24 Germantown Academy (340 Morris Road)--2.4.25 STC Meeting
Date: February 6, 2025
cc: Charlie Guttenplan, AICP, Township Director of Planning and Zoning
Krista Heinrich, PE, Township Engineer, Gilmore Associates
John Hosbach Jr., RCA, ACF, CUCF, Township's Consulting Arborist
Daniel Houston, Applicant's Representative
Mike Rufo, Applicant's Project Manager
Taryn Daluis, RLA, Applicant's Landscape Architect

Plans Reviewed: Studio Ludo, Tree Survey Plan & Landscape Plan, dated 12/20/2024. Note the Landscape Plan was revised to show tree calculation totals.

In attendance: Mike Rufo, Anchor Management Group, Applicant's Project Manager & Taryn Daluis, RLA, Studio Ludo, Applicant's Landscape Architect

Mr. Rufo gave an overview of the project. Germantown Academy, in accordance with Whitemarsh Township, created a master plan around 2009 and has been implementing it incrementally since then. The current project proposal is an approximately 6,000 square foot Early Childhood Learning Center.

Ms. Daluis introduced herself and explained that Studio Ludo's focus is nature play spaces. Ms. Daluis then went over the Tree Survey and Landscape Plans in detail. There are several hazardous Ash trees that are proposed to be removed, including a 42" Heritage Ash. The hazard trees have not been included in the calculations. Fourteen trees are to be removed and 29 are to be preserved. The applicant is proposing to plant a diverse selection of 60 native new trees—39 canopy and 21 understory. There are several areas identified on the Landscape Plan where construction will conflict with tree root protection zones, but the trees will be minimally impacted. The plan specifications include a pre-construction meeting with the Township and to have the School's preferred Arborist on site when working in potential conflict areas. Ms. Daluis concluded by requesting waivers for tree protection fencing and to allow removal of the Heritage Tree.

After a general discussion and public comment, Ms. Zrillo mentioned the Township Engineer's Comment in the project review memo, dated 2.4.25, regarding the proposed Sanitary Lateral connection. Mr. Rufo and Ms. Daluis said the plan will be revised and there will not be an impact to trees.

Ms. Borkowski made a motion to authorize the removal of the 42" Hazardous Heritage Tree and to recommend approval to the Board of Supervisors under the condition that the applicant uses ISA Best Management Practices and has an Arborist on site when working in the areas of conflict. The following waivers are also recommended for approval:

- 55-4.C.(3)(c) from the requirement of doing a tree inventory of the entire site
- 55-4.C.(4)(b) and 55-4.D.(1) to allow tree protection fencing to be within the root protection zones in the three areas of conflict
- 55-4.D.(6) to allow the utilization of understory trees

Ms. Kosabutski seconded the motion. Motion carried unanimously (3-0).

Samantha Zrillo
Township Planner
616 Germantown Pike
Lafayette Hill, PA 19444
Phone: 610-825-3535 ext. 2608
Email: szrillo@whitemarshwp.org