### Haverford Township - Planning Commission

Meeting: Thursday, July 11, 2024

Time: 7:00 p.m.

Location: Commissioners Meeting Room -1014 Darby Rd., Havertown PA, 19083

### Members:

E. David Chanin - Chairperson
Maggie Dobbs - Vice - Chairperson
Stephen Welsh - Secretary
Angelo Capuzzi
Robert Fiordimondo
Louis D. Montresor
Julia Phillips

### Others in Attendance:

Charles Faulkner, Pennoni Associates, Township Engineer Jaime Jilozian, Director of Community Development

### Agenda

### 1. Opening of Meeting:

Roll Call

Pledge of Allegiance

2. Chatham Park Elementary School – Preliminary / Final Land Development Plan 400 Allston Road

D.C. Folio Nos. 22-02-00005-00

Applicant is proposing to construct three building additions containing approximately 12,500 SF and construct two parking lots containing thirty-two (32) new parking spaces and associated stormwater management.

Public Comment / Citizens Forum

3. Haverford Middle School –Preliminary/Final Land Development Plan D.C. Folio Nos. 22-07-00337-00

Applicant is proposing to construct a 2,500 SF building addition and two subsurface stormwater management systems. The property is located in the INS-Institutional District.

Public Comment / Citizens Forum

4. Review of Minutes

Planning Commission minutes of April 11th.

Adjournment

From: <u>Ken Matthews</u>

To: <u>Jaime Jilozian</u>; <u>cfaulkner@pennoni.com</u>

Cc: Ken Matthews
Subject: Certified Mail

**Date:** Thursday, June 20, 2024 2:58:04 PM

### Jaime,

FYI we are sending out certified mail to all the neighbors within 200 ft so we will no longer need that waiver. We are also putting in the letter that the District will be having a public presentation at Chatham Park's cafeteria on Monday July 8<sup>th</sup> at 6:30 to show the plans to the neighbors and answer any questions they have. Lastly we have also uploaded all the construction plans to the District's website and the link is being put in this letter being mailed out so neighbors can see all the plans. The mailing should go out in the next few days. We will be sending certified mail to the middle school neighbors as well following the Chatham mailing. If you could please let the Planning Commission know.

### Thanks,

Kenneth C. Matthews

C.B. Development Services, Inc.

Project Management & Owner's Representation

Celebrating 30 Years in Business!!!!

Cell- 610-453-0469 kmatthews@cbdsi.com www.cbdsi.com

### **ACT 34 PUBLIC HEARING** Additions & Renovations to **Chatham Park Elementary School**

### **PUBLIC HEARING NOTICE**

Please take notice that a public hearing will be held at the School District of Haverford Township Board Room located at 50 East Eagle Road, Havertown, PA on Wednesday, June 12, 2024 at 6:30 p.m. for the purpose of reviewing all relevant matters relating to the construction and equipping of the proposed Additions and Renovations to the Chatham Park Elementary School, (the "Project").

This public hearing is being held pursuant to the requirements of PA Public School Code of 1949, approved March 10, 1949, as amended and supplemented, including amendments made pursuant to Act 34 of the session of 1973 of the General Assembly.

A description of the Project, including facts relative to educational, physical, administrative, budgetary and fiscal matters of the Project, will be presented and will be available for consideration at this public hearing, and, beginning Thursday, May 17, 2024, a description booklet will be available during business hours at the School District of Haverford Township Administrative Offices located at the District Administration Building, 50 East Eagle Road, Havertown, PA.

The Havertown Township School Board, acting as operating agent of the Chatham Park Elementary School, by resolution duly adopted has authorized the following maximum project costs in connection with the Project:

•	Maximum Building Construction Cost for New Additions Only (D20, Line C) (Structure Costs, Fees, Movable Fixtures/ Equipment)	\$ 9,900,892
•	Other Project Costs (Sitework, Renovations, Financing, A&E Fees, Contingency)	\$ 21,064,208

Maximum Project Cost (page 16, D03, line I) \$ 30,965,100

Any and all interested parties may appear at and attend the public hearing and may be heard at such public hearing and / or may submit testimony to the District Administration Office until 12:00 noon on Wednesday, June 12, 2024. All testimony will be limited to five minutes per speaker. Additional testimony will be received from the floor at the hearing.

Public Comment will also be received in written format after the public hearing until 12:00 noon on Monday, July 12, 2024 at the Haverford Township Area District Administrative Offices (address listed above).



# DELAWARE COUNTY CONSERVATION DISTRICT ROSE TREE PARK - HUNT CLUB 1521 N. PROVIDENCE ROAD

1521 N. PROVIDENCE ROAD MEDIA, PENNSYLVANIA 19063

DIRECTORS

Cheryl Graff Tumola- Chairperson Raymond Iacobucci- Vice Chair Randy Bates- Sec. /Treas. Elaine Schaefer -Council Wayne Megill, Jr. Donna Silvestri Steven Beckley Steven Linvill Vincent Pennoni Telephone: (610) 892-9484 Web Address: www.delcocd.org

Karen Wilwol

District Manager

Ari C. Milillo
District Technician

Date: July 2, 2024

Maureen Reusche Haverford Township School District 50 E. Eagle Rd. Havertown, PA 19083-1532

Re: Completeness Notification Letter

Chatham Park Elementary Renovations & Additions

NPDES Permit Application No. PAC230304 Haverford Township, Delaware County

Dear Mr. Reusche:

The Delaware County Conservation District has reviewed the above referenced Notice of Intent (NOI) for completeness, and has determined that the NOI is complete. DCCD will now proceed with the technical review of the NOI. During the technical review, the adequacy of the application and its components will be evaluated to determine if sufficient information exists to render a decision on the technical merits of your NOI.

If you have questions about your NOI, please contact Ari C. Milillo by e-mail at mililloa@co.delaware.pa.us or by telephone at (610) 898-3853 and refer to PAC230304.

Sincerely,

Ari C. Milillo

District Technician

**Delaware County Conservation District** 

cc: Ryan Schuster, EIT—Kurowski & Wilson, LLC

**DEP Southeast Regional Office** 

Haverford Township



### TOWNSHIP OF

## **HAVERFORD**

DELAWARE COUNTY 1014 DARBY ROAD HAVERTOWN, PA 19083-2551 (610) 446-1000 LARRY HOLMES, ESQ., PRESIDENT
JUDY TROMBETTA, VICE PRESIDENT
DAVID R. BURMAN, TWP MANAGER/SECRETARY
AIMEE CUTHBERTSON, ASS'T TWP. MANAGER
JOHN F. WALKO, ESQ., SOLICITOR
PENNONI ASSOCIATES INC., ENGINEER

WARD COMMISSIONERS

1ST WARD BRIAN D. GONDEK, ESQ

2ND WARD SHERYL FORSTE-GRUPP, PH.D

3RD WARD KEVIN MCCLOSKEY, ESQ

4TH WARD JUDY TROMBETTA

5TH WARD LAURA CAVENDER

6TH WARD LARRY HOLMES, ESQ

7TH WARD CONOR QUINN

8TH WARD GERARD T. HART, MD

9TH WARD MICHAEL MCCOLLUM

**HAVTT 30255** 

June 27, 2024

Jaime Jilozian, Director of Community Development Haverford Township 1014 Darby Road Havertown, PA 19083-2251

RE: Preliminary/Final Land Development Plan Haverford Middle School- 1701 Darby Road

Dear Ms. Jilozian:

As requested, we have reviewed the following information prepared by K&W Engineers submitted for the referenced project:

- "Preliminary/Final Land Development Plan" (seven sheets) dated May 9,2024.
- "Post-Construction Stormwater Management Narrative and Calculations" dated May 9, 2024.
- Supporting documentation

The applicant, the School District of Haverford Township, proposes to construct a building addition at the referenced property. Two (2) subsurface stormwater management systems are proposed for stormwater management. The property is located within the INS-Institutional Zoning District and is serviced by public water and sanitary sewer. It is our understanding that no increase in the number of students or staff associated with this application.

The applicant is requesting the following waivers:

- From §160-3.B regarding the requirement for preliminary plan submission.
- From §160-4.E(5)[b] regarding the requirements to indicate property lines, other subdivisions or land developments, and zoning boundaries within 2,000 feet of the site.
- From §160-4.E(5)[e](3) regarding the requirement to show the location, names and widths of streets, curbs and pavement, all property lines and names of owners of tracts or parcels located within 200 feet of the site.
- From §160-4.E(5)[e](4) regarding the requirement to indicate all storm drainage, sanitary sewer and public water supply lines of facilities within 400 feet of the site.
- From §160-4.E(7) regarding the requirement to notify all property owners within 200 feet of the site.
- From §160-4.E(8) regarding the requirement to provide notice by certified mail to all property owners within 200 feet of the site.

The applicant is requesting the following zoning relief:

- From §182-602.C(3) regarding the requirement of maximum building coverage in the institutional zoning district.
- From §182-602.C(8) regarding the requirement of maximum impervious coverage ratio in the institutional zoning district.
- From §108-707.B regarding the requirement of minimum parking as 1 space for each 1,000 sf of gross floor area.

We offer the following comments:

### **ZONING**

1. The zoning data table indicates a decrease in impervious coverage. Impervious areas proposed to be removed should be identified on the plan.

### SUBDIVISION AND LAND DEVELOPMENT

- 2. A physical survey of the parcel to be developed showing all courses in minutes, seconds and degrees, distances to the nearest hundredth of a foot, physical area, monuments, existing easements, and rights-of-way are to be provided on the plan, or a waiver requested. (§160-4.E(5)[e](1))
- 3. Contours of the entire tract area to be provided, or a waiver requested. (§160-4.E(5)[e](2))
- 4. A site plan indicating required setbacks should be provided, or a waiver requested. (§160-4.E(5)[g](9))

### STORMWATER MANAGEMENT

- 5. The Infiltration Testing Analysis section (Appendix F) of the Soil report does not recommend stormwater be infiltrated in the area of the proposed Subsurface MRC facility. Please clarify what measures have been taken to address the issues indicated in the report.
- 6. The outlet for the proposed stormwater facility is indicated as connecting to an existing 6-inch roof drain pipe. Additional information should be provided regarding the pipe, including the integrity, capacity, and the ultimate discharge location, and any other areas that contribute flow to this pipe. Also, please clarify whether this pipe is being replaced under the proposed building addition. Lastly, there appears to be no elevation or depths of the existing roof drain pipe. It is unclear if this facility can be installed at the proposed elevations.
- 7. The water quality calculation in accordance with §78-35 is required.
- 8. The extent of post-development drainage area 1B should be clearly delineated on the drainage area map. (§78-25.D(3))
- 9. A detail for the outlet structure for the proposed MRC facility should be provided. (§78-25.D(3))
- 10. The invert elevation indicated in the stormwater report for the primary outlet device for the proposed infiltration facility outlet structure is inconsistent with the detail provided on the plan. (§78-25.D(3))
- 11. It is unclear which infiltration tests are associated with "TP-2". Please clarify. (§78-25.D(3))

- 12. Areas proposed for infiltration are to be protected from compaction during construction. It is unclear how this will be accomplished given the given the basin is under the only access route to/from the proposed building. (§78-32.E(1))
- 13. Pre-treatment is required prior to discharge to the proposed stormwater management facilities. (§78-30.K)
- 14. Verify no new utilities services will be required for the addition. ((§78-25.B(50))
- 15. Compost filter sock should be provided to minimize sediment leaving the site. (§78-25.B(20))

### **GENERAL**

- 16. The sequence of construction should clearly indicate when the stormwater management facility is to be installed.
- 17. Please indicate on the plans anticipated staging/access areas to be utilized for this construction and the associated limit of disturbance.
- 18. Additional detail should be provided regarding restoration of disturbed areas. It is unclear if the disturbed area outside of the proposed building addition is intended to be paved or grass area.
- 19. The height of the proposed building addition should be indicated on the plan.
- 20. If approved, a Grading, Drainage, Soil Erosion and Sedimentation Control Permit will be required.
- 21. A BMP Maintenance Agreement shall be executed and a contribution to the Township Stormwater Control and BMP Operation and Maintenance Fund shall be made (§78-49; §78-51).

Should you have any questions or comments, please feel free to contact the undersigned.

Sincerely,

**PENNONI** 

Charles Faulkner, PE Senior Engineer

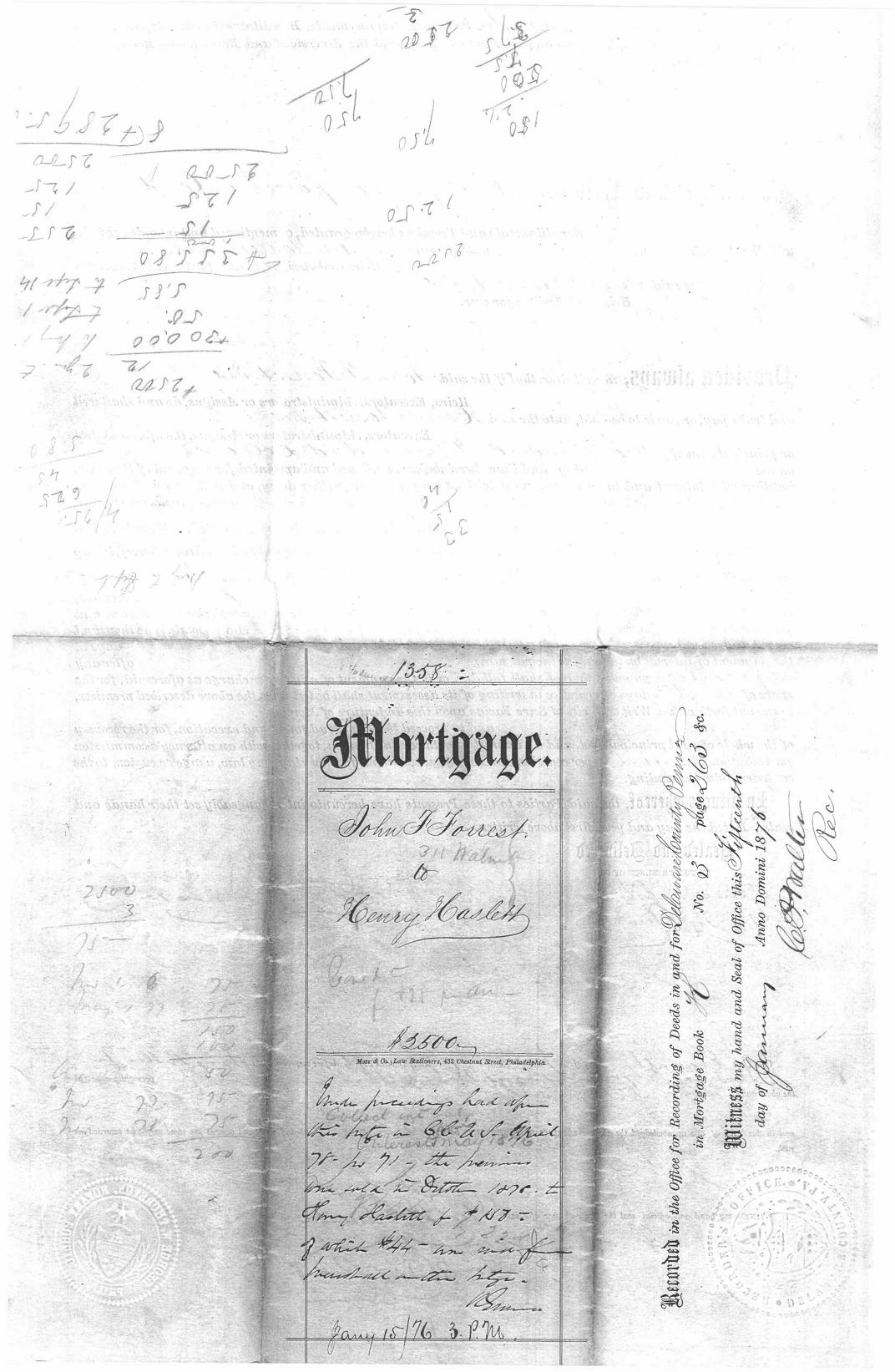
Charler Faulbur

CF/brg

cc: Carolyn DuBois, RLA, K&W Engineers (via email)
Maureen Reusche, Haverford Township School District (via email)
Jaime Jilozian, Haverford Township (via email)

# TOWNSHIP OF HAVERFORD APPLICATION FOR SUBDIVISION AND LAND DEVELOPMENT REVIEW

Developer/Applicant Informa	ation	
Name:		Phone:
Address:		
Name of Development:		
Location of Development		
Ownership Interest:	Owner of Record	Equitable Ownership
ATTACHED CO	OPY OF DEED OR A	AGREEMENT OF SALE
List waiver(s) sought (may no	ot include Zoning Coo	de requirements):
Application will not be accep	eted as complete without	out the following:
or more new residenti Required escrow depo SIGNED and Comple	orm water analysis of plan set raffic Impact study for all units or any nonresposit, county and towns eted grading permit apor subdivision involvi	r any development involving ten (10) idential development ship review fees (three separate checks) plication and application fee of \$50.00 ng earth-moving activities
Date Submitted:	By:	
Accepted as complete by the	Haverford Township	Zoning Officer
Signature:	Date:	



# Uns Indenture, Mada in the year of our Lord one thousand Between eight hundred and Seventy five Forrest of Lower Merion, Montgomery County and ennsylvania of the one part, and Centy Haslett rounty and State of

of the other part. WHITEAS, the said John Forrest in and by Mis Obligation or Writing obligatory under his hand and seal duly executed, bearing even date herewith, stands bound unto the said Henry Daslett in the sum of Hive thousand Dollars. United States of America, conditioned for the payment of the just sum of lawful money of the Two thousand Five hundred Dollars at the expiration of three years from the date hereof

lawful money as aforesaid, in

Together with interest thereon, payable half yearly at the rate of Six per cent. per annum, until such time as a higher rate becomes lawful, and immediately thereafter at the highest rate, not exceeding Seven per cent., legally chargeable. Together with all taxes, and charges in nature thereof, that may be laid or levied upon the said obligation, or this Indenture of Mortgage, or the principal or interest moneys thereby secured, immediately upon their assessment, without any fraud or further delay.

rounded, however, and it is thereby expressly agreed, that if at any time default shall be made in the payment of interest as aforesaid, for the space of Ihurty payment thereof shall fall due, or in the payment of any tax or charge as after any half yearly aforesaid, for the space of Churty days after notice in writing of its assessment shall be left upon the premises hereinafter described, then and in such case the whole principal debt aforesaid shall, at the option of the Executors, Administrators or Assigns, become due and payable immediately; and payment of said principal debt, and all interest thereon, may be enforced and recovered at once, any thing therein contained

Brouded further, however, and it is thereby expressly agreed, to the contrary notwithstanding. that if at any time thereafter, by reason of any default in payment, either of said principal sum at its maturity, or of said interest or of taxes and charges, within the time specified, a Writ of Fieri Facias is properly issued upon the judgment obtained upon said Obligation, or by virtue of said Warrant of Attorney, or a Writ of Scire Facias is properly issued upon this Indenture of Mortgage, an attorney's commission for collection, viz.: from per cent. shall be payable, and shall be recovered in addition to all principal, interest and taxes then due besides costs of suit, as in and by the said recited Obligation and the Condition thereof, relation being thereunto had may more fully and at large appear.

How this Indenture witnesseth, that the said John & Forrest

as well for and in consideration of the aforesaid debt or principal sum of Two thousand Five hundred Dollars

and for the better securing the payment of the same, with interest as aforesaid, unto the said Denry Haslest his Executors, Administrators and Assigns, in discharge of the said recited Obligation, as for, and in consideration of the further

sum of One Dollar unto him in hand well and truly paid by the said Henry Has left

at and before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, enfeoffed, released and confirmed, and by these presents dotte grant, bargain, sell, alien, enfeoff, release and confirm unto the said Sury Staslett his

Heirs and Assigns,

TORUMENT CONTRACTOR WITH THE PROPERTY OF THE P money of which is intended to be secured by the Indulum Is he I seemed my tee, the fuguest of the fundamen to be forthwith receded granted and conveyed unto the said his well by Andrulus bearing would heaville and whented Sang the same fremes which Kiny Rock and May of hear of hegenning Couloining turny acus oner or how. and thus quarters that faily further and our tenths to the along and browng said Daily Rach houth muly our degrees and thence by hunt intended to be conveyed to Afred Steward thus quarters that twenty these perchas and mus tenths to watere wad and by lund of John Rools South hockedyeer und Machanda of the Anily Touch, theme along the Michaele of Journ quater That fifty sex fueles and his little to a stone on the by hand of Dedance Andream South pury the degrees and a to Leedonis Mill, thence along the South seeds of sand ward Eight tenths to water on the druth orde of afulle wad bading Turely fire degrees and their queeties that die proches and to a stow, thouse by hand of Albertal Mille and others douth dout duty four degrees, that foly over furthe and for tenths Sperily tread thouse by lund intended to be conveyed to John Lothes as follows, to wit; Beginning at a stone on the East oute of the Township Hunare Lound Conneytrance brunded and limited All that Cortain track-fues or pared of land studted and hardered

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in the world and manufacting at the control of the

Together with all and singular the improvements Ways, Waters, Water-Courses, Rights, Liberties, Privileges, Improvements, Hereditaments and Appurtenances whatsoever thereunto belonging, or in any wise appertaining, and the Reversions and Remainders, Rents, Issues and Profits thereof. To Dave and to Gold the said tract piece or parcel of land Hereditaments and Premises hereby granted, or mentioned and intended so to be, unto the said densy Haslett his with the Appurtenances, Heirs and Assigns, to and for the only proper use and behoof of the said Lenry Haslett his Heirs and Assigns for ever. Provided always, nevertheless, that if the said John Forrest his Heirs, Executors, Administrators or Assigns, do and shall well and truly pay, or cause to be paid, unto the said Henry Haslett his Executors, Administrators or Assigns, the aforesaid debt or principal sum of Two thous and Tive hundred Dollars. day and time hereinbefore mentioned and appointed for payment of the same, together with interest and taxes as aforesaid, without any fraud or further delay, and without any deduction, defalcation, or abatement to be made of any thing, for or in respect of any taxes, charges or assessments whatsoever, that then, and from thenceforth, as well this present Endenture, and the Estate hereby granted, as the said recited Obligation shall cease, determine, and become void, any thing hereinbefore contained to the contrary thereof, in any

wise notwithstanding. And provided, U.S.D., that it shall and may be lawful for the said Acuty Hasless his
Executors, Administrators or Assigns, when and as soon as the principal debt or sum hereby secured shall become due and payable as aforesaid, to wit: on the Third day of November Anno Domini one thousand eight hundred and Seventy eight or in case default shall be made for the space of thirty days in the payment of interest on the said principal sum,

All the said principal sum,

half yearly payment thereof shall fall due, or in the payment of any tax or charge as aforesaid, for the space of Thirty days after notice in writing of its assessment shall be left upon the above described premises, to sue out forthwith a Writ or Writs of Scire Facias upon this Indenture of Mortgage,

and to proceed thereon to judgment and execution, for the recovery of the whole of said principal debt, and all interest and taxes due thereon, together with an attorney's commission for collection, viz.: per cent. besides costs of suit, without further stay, any law, usage or custom to the contrary notwithstanding.

Lu witness wherent, the said Parties to these Presents have hereunto interchangeably set their hands and seals. Dated the day and year first above written.

Sealed and Belivered

IN THE PRESENCE OF US,

Chev. M. Chewsth

De Finnest

On the Elinal day of Junuary Anno Domini 18/1, before me, a Notury Public fr the Salety of Junuary at Philadelphia personally appeared the above named John Francist.

and in due form of law acknowledged the above Andenture of Mortgage to be his such.

act and deed, and desired the same might be recorded as

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





#### WWW.TRAFFICPD.COM

### May 10, 2024

Mr. Anthony Testa School District of Haverford Township 50 Eagle Road Havertown, PA 19083

### **RE: Traffic Evaluation**

Haverford Middle School

Haverford Township, Delaware County, PA
TPD No. SDHT.00004

Dear Mr. Testa:

Traffic Planning and Design, Inc. (TPD) has completed a Traffic Evaluation in conjunction with the proposed Haverford Middle School expansion in Haverford Township, Delaware County, PA. The existing school building is located on the east side of Darby Road, between Golf Road and E. Marthart Avenue. The 2,500± square foot (s.f.) expansion is proposed to provide for additional seating area for the cafeteria.

It is TPD's understanding that there will be no change to the traffic operations of the school with the proposed cafeteria expansion as compared to the existing school; the number of students, staff, buses, etc. will be unchanged. As such, it is TPD's opinion that the proposed cafeteria expansion will result in no discernable difference in traffic operations to the motoring public.

If there are questions or additional information is required, please call anytime.

Sincerely,

TRAFFIG PLANNING AND DESIGN, INC.

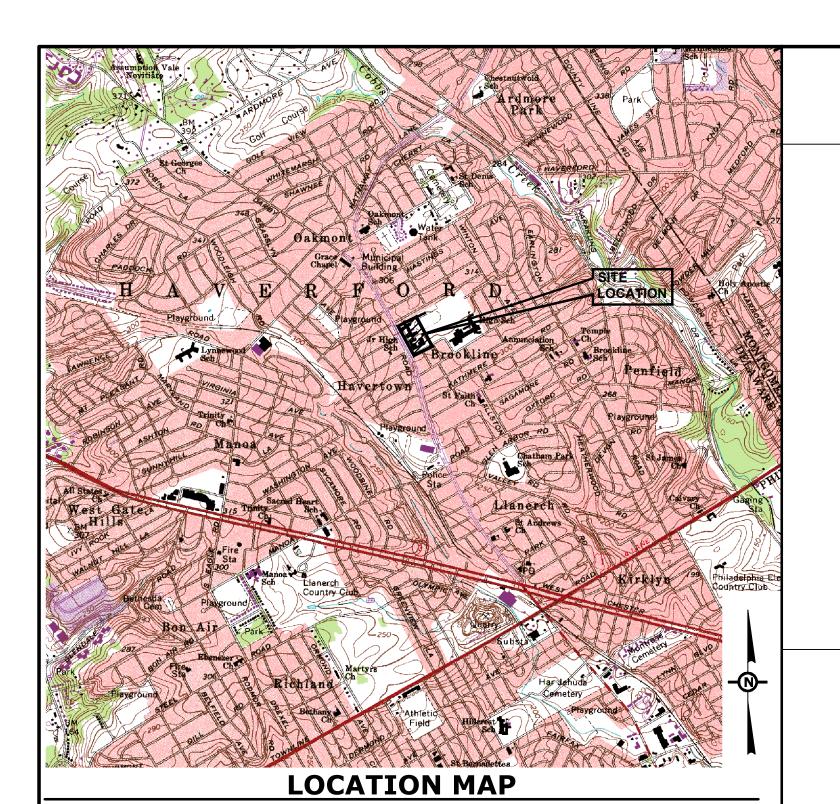
Guido W. DiMartino, P.E.

Regional Leader - Transportation Planning

GDiMartino@TrafficPD.com

Attachment: Site Plan

Cc: Kenneth C. Matthews, C.B. Development Services, Inc.



# PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

# ADDITION & RENOVATION

**FOR** 

# HAVERFORD MIDDLE SCHOOL

# HAVERFORD TOWNSHIP, DELAWARE COUNTY **PENNSYLVANIA**

## LANDOWNER / APPLICANT

400 ALLSTON ROAD HAVERTOWN, PA 19083

TELEPHONE: 610.853.5900 X7204 CONTACT: MAUREEN REUSCHE, Ed.D.

### **PLAN PREPARER**

2201 NORTH FRONT STREET, SUITE 200 HARRISBURG, PA 17110

TELEPHONE: 717.635.2835 CONTACT: CAROLYN E. DUBOIS, R.L.A.

### **SITE SURVEYOR**

KUROWSKI & WILSON, LLC 2201 NORTH FRONT STREET, SUITE 200

HARRISBURG, PA 17110

CONTACT: DENNIS P. BURKHARD, P.L.S.

### **WAIVER REQUESTS**

THE FOLLOWING WAIVERS OF THE HAVERFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

160-3 B - PRELIMINARY PLAN 160-4.E.5.b - ZONING BOUNDARIES WITHIN 2000 FEET OF THE SITE. 160-4.E.5.e.3 - PUBLIC IMPROVEMENTS AND PROPERTY OWNER INFORMATION WITHIN 200 FEET OF THE SITE.

160-4.E.5.e.4 - PUBLIC UTILITIES WITHIN 400 FEET OF THE SITE. 160-4.E.7 - NOTIFICATION OF ALL PROPERTY OWNERS WITHIN 200 FEET 160-4.E.8 - CERTIFIED MAIL NOTIFICATION OF ALL PROPERTY OWNERS WITHIN 200 FEET.

# **ZONING VARIANCES**

THE FOLLOWING VARIANCES OF THE HAVERFORD TOWNSHIP ZONING ORDINANCE ARE REQUESTED BY THE

182-602.C.3 - MAXIMUM BUILDING COVERAGE OF 20% 182-602.C.8 - MAXIMUM IMPERVIOUS COVERAGE RATIO OF 40% 108-707.B - MINIMUM PARKING REQUIREMENTS WHICH REQUIRE 1 SPACE FOR EACH 1,000 SF OF GROSS

### **ACT 287 UTILITY INFORMATION**

LINE PROTECTION (UULP) LAW, PA ACT 287 OF 1974, AS AMENDED BY ACT 50 OF 2017 FOR NOTIFICATION OF UTILITIES BEFORE EXCAVATION IN CONTRACT AREA. THE UNDERGROUND UTILITIES LOCATION CALL NUMBER IS 1-800-242-1776 (or 811) PA ONE-CALL SERIAL NUMBER: 20233392262 (DESIGN TICKET)

PA ONE-CALL SERIAL NUMBER DATE: 12/19/2023 THE FOLLOWING UTILITY FACILITY OWNERS WERE NOTIFIED BY THE PA ONE-CALL SYSTEM, INC.

ADDRESS: 762 LANCASTER AVE BRYN MAWR, PA. 19010 CONTACT: THOMAS WADDY

HAVERFORD TOWNSHIP ADDRESS: 1014 DARBY RD CONTACT: DAN MARIANI

ADDRESS: 1250 HADDONFIELD-BERLIN RD CHERRY HILL, NJ. 08034

CONTACT: WYATT PARRISH EMAIL: <u>WYATT\_PARRISH@CABLE.COMCAST.COM</u>

PECO AN EXELON COMPANY C/O USIC ADDRESS: 450 S HENDERSON ROAD SUITE B KING OF PRUSSIA, PA. 19406 CONTACT: NIKKIA SIMPKINS

VERIZON BUSINESS FORMERLY MCI

CONTACT: VICTOR WOOD EMAIL: VICTOR .S.WOOD@VERIZON.COM PHONE: 979-414-2782

### **DELAWARE COUNTY PLANNING COMMISSION**

THIS PLAN REVIEWED BY THE DELAWARE COUNTY PLANNING COMMISSION

## **RECORDER OF DEEDS**

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR DELAWARE COUNTY THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_ INSTRUMENT NUMBER

# **ZONING DATA**

ZONING DISTRICT: (INS) INSTITUT	ΓΙΟΝΑL		
PROPOSED USE: INSTITUTIONAL			
REQUIREMENT:	REQUIRED:	EXISTING:	PROPOSED:
MINIMUM LOT AREA:	2 ACRES	10.71 ACRES	10.71 ACRES
MINIMUM LOT WIDTH:	150 FEET	765 FEET	765 FEET
FRONT YARD SETBACK:	100 FEET	36 FEET	36 FEET
SIDE YARD SETBACK:	50 FEET EA.	40 FEET	40 FEET
REAR YARD SETBACK:	75 FEET	368 FEET	368 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET	44 FEET	44 FEET
MAX. BUILDING COVERAGE	20%	21.6%	22.2%
MAX. IMPERVIOUS COVERAGE:	40%	67.7%	37.8%

### **SITE DATA**

TAX PARCEL:	22070033700
DEED REF. / INSTRUMENT #:	BOOK K, NO. 3, PAGE 263
EXISTING LOT AREA:	10.71 ACRES, MEASURED
PROPOSED SEWAGE DISPOSAL:	PUBLIC
PROPOSED WATER SUPPLY:	PUBLIC

### **PARKING DATA**

PARKING REQUIRED: 1 SPACE / 1000 SF OF GROSS FLOOR AREA EXISTING BUILDING 243,780 SF / 1000 = 244 SPACES PROPOSED BUILDING 246,280 SF / 1000 = 247 SPACES REQUIRED

NO PARKING IS PROPOSED AS PART OF THIS PROJECT

## WETLANDS CERTIFICATION

FILL PERMITS ARE NOT REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.

HEREBY CERTIFY THAT THERE ARE NO WETLANDS IN THE AREA OF PROPOSED DEVELOPMENT ON THE SUBJECT PROPERTY. THE PROPOSED PROJECT WILL NOT IMPACT OFF-SITE WETLANDS, AND WETLAND

### **CERTIFICATE OF ACCURACY (PLAN)**

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE LAND DEVELOPMENT PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT

J. MARC KUROWSKI, P.E.

### **CERTIFICATE OF ACCURACY (SURVEY)**

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE BOUNDARY SURVEY SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT.

DENNIS P. BURKHARD, P.L.S.

## **STORMWATER CERTIFICATION OF ACCURACY**

MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF HAVERFORD TOWNSHIP'S

### **SHEET INDEX**

LAND DEVELOPMENT PLANS			
SHEET NUMBER	SHEET TITLE		
C-001	COVER SHEET		
C-101	OVERALL EXISTING FEATURES PLAN		
C-101.1	EXISTING FEATURES PLAN		
C-102	DEMOLITION PLAN		
C-103	IMPROVEMENTS PLAN		
C-501	DETAILS		
C-701	E&S PLAN		

### CERTIFICATE OF OWNERSHIP, **ACKNOWLEDGMENT OF PLAN**

COMMONWEALTH OF PENNSYLVANIA ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BEFORE ME THE UNDERSIGNED PERSONALLY APPEARED. WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW. WITNESS MY HAND AND

NOTARY PUBLIC	MY COMMISSION EXPIRES
IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OW THE PROPERTY SHOWN ON THIS PLAT AND THAT ALL STREETS THEREOF, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY TENDE DEDICATION TO PUBLIC USE.	S OR PARTS
OWNER(S)	

## **TOWNSHIP ENGINEER**

NOTORIAL SEAL THE DAY AND THE DATE ABOVE WRITTEN

THIS PLAN REVIEWED BY THE HAVERFORD TOWNSHIP ENGINEER THIS

### **TOWNSHIP BOARD OF COMMISSIONERS**

THIS PLAN APPROVED BY THE HAVERFORD TOWNSHIP BOARD OF COMMISSIONERS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED ON THIS

## TOWNSHIP PLANNING COMMISSION

THIS PLAN RECOMMENDED FOR APPROVAL BY THE HAVERFORD TOWNSHIP

### **OWNER STORMWATER STATEMENT**

(OWNER) ACKNOWLEDGE THAT THE STORMWATER BMP'S SHOWN WITHIN THESE PLANS ARE PERMANENT FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT PRIOR APPROVAL BY SUSQUEHANNA TOWNSHIP.

### **GENERAL EROSION & SEDIMENT CONTROL NOTES**

- ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE
- DEFICIALS. THE E&S PLAN PREPARER. THE POSM PLAN PREPARER. THE LICENSED PROFESSIONAL RESPONSIBLE FOR AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA EVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE
- 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.
- 5.  $\,$  AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION 6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE
- OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN 7 AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN. 8. 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. 9. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS 10. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 11. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION MUST BE NOTED IN THE LOG FOLLOWING EACH INSPECTION. THE INSPECTION LOG WILL ALWAYS BE KEPT ON THE SITE AND MADE AVAILABLE 12. 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
- 13. 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. 14. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. 15. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES — 6 TO 12 INCHES ON COMPACTED SOILS — PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A
- MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A 16. 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.
- 17. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO 18. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 19. 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 20. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE
- REACTIVATED WITHIN 1 YEAR. MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS 21. 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
- 22. 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 23. FAILURE TO CORRECTLY INSTALL E&S BMPS. FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP
- TO \$10,000 PER DAY IN CIVIL PENALTIES. UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION 24. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS. 25. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR
- CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION, 25.1. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND POLLUTION EVENTS.
- 25.2. ALL STEPS TAKEN TO REDUCE, ELIMINATE, AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE. 26. THE TIME FRAME TO CORRECT THE NON-COMPLIANT, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL 27. STORM WATER INLETS MUST BE PROTECTED UNTIL THE TRIBUTARY ACRES ARE STABILIZED

28. UNLESS OTHERWISE NOTED, THE LIMITS OF GRADING SHALL BE CONSIDERED THE LIMITS OF DISTURBANCE.

29. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE APPLICANT TO ELIMINATE ALL SUCH PROBLEMS. 30. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION. THE CONTRACTOR SHALL ACT TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION. 31 THE CONTRACTOR IS ADVISED TO RECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 6-4 PROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART I, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART G. PROTECTION OF NATURAL, RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.

### FOR BMPs AND SWM FACILITIES

- 1 THE DURDOSE OF THIS DROGDAM IS TO IDENTIFY THE OWNERSHIP AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE PROPOSED STRUCTURAL STORMWATER BMP'S. THE SUBJECT SITE HAS BEEN DESIGNED SUCH THAT THE INCREASE IN STORMWATER VOLUME SHALL BE ATTENUATED BY AN MANAGED RELEASE CONCEPT (MRC) FACILITY I ORDER TO MEET THE TOWNSHIP REQUIREMENTS THE ABOVE FACILITIES HAVE BEEN DESIGNED TO MITIGATE THE INCREASE IN STORMWATER RUNOFF VOLUME DURING THE 2 YEAR, 24 HOUR STORM EVENT. 2. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT DURING THE CONSTRUCTION OF THE MRC. THE MRC
- COMPONENTS WHERE APPLICABLE (I.E. INLETS, OUTLET STRUCTURES, UNDERDRAIN, ETC.), THE INSTALLATION OF 3. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER FACILITIES AND BMP'S LOCATED OUTSIDE OF THE PUBLIC-RIGHT-OF-WAY. THESE FACILITIES INCLUDE BUT ARE NOT LIMITED TO THE CONVEYANCE SYSTEMS AND MRC FACILITIES. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR KEEPING THE FACILITIES FREE OF OBSTRUCTIONS. THE PROPERTY OWNER SHALL GRANT TO THE TOWNSHIP THE RIGHT TO ENTER ALL PARTS OF THE PROPERTY TO INSPECT ON SITE STORMWATER MANAGEMENT FACILITIES IN ORDER TO ENSURE THEY ARE BEING OPERATED AS INTENDED PER THE PROVIDED MAINTENANCE REQUIREMENTS. THE PROPERTY

OWNER SHALL FURTHER RECOGNIZE THAT IF SAID STORMWATER FACILITIES ARE NOT MAINTAINED IN ACCORDANCE

WITH THE ABOVE, HAVERFORD TOWNSHIP HAS LEGAL RIGHT TO ACCESS THE PROPERTY, APPLY REQUIRED

SHOULD BE OBSERVED FOR CORRECT EXCAVATION DEPTHS AND AREAS. THE INSTALLATION OF THE ASSOCIATED

4. A BMP FAILURE CONSISTS OF THE BMP NOT FUNCTIONING AS PER THE DESIGN. FAILURES WOULD CONSIST OF, BUT IS NOT LIMITED TO, ANY BLOCKAGES TO CONVEYANCE SYSTEMS, OUTLET STRUCTURE CLOGGING/DISCONNECTION, ETC. THE PROPERTY OWNER SHALL MAKE THE NECESSARY REPAIRS TO THE FACILITY AS PER THE FINAL PCSM PLAN. 5. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWNSHIPS CONSTRUCTION AND MATERIAL SPECIFICATIONS THE AFOREMENTIONED FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.

MAINTENANCE MEASURES TO SAID AREAS, AND ASSESS PENALTIES AND COSTS INVOLVED.

HAVERFORD TOWNSHIP SCHOOL DISTRICT

TELEPHONE:

400 ALLSTON ROAD, HAVERTOWN, PA 19083

MAUREEN REUSCHE

610-853-5900

## **GENERAL NOTES**

THE PURPOSE OF THIS PLAN IS TO CONSTRUCT AN ADDITION FOR HAVERFORD MIDDLE SCHOOL THE EXISTING SITE FEATURES, TOPOGRAPHY AND PROPERTY BOUNDARY LINES SHOWN HEREON

HALL BE OWNED, OPERATED, AND MAINTAINED BY THE PROPERTY OWNER, ALL PERMANENT

- ALL CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATIONS 408 & ALL PERMANENT STORMWATER MANAGEMENT FACILITIES OUTSIDE OF THE PUBLIC RIGHT-OF-WA
- THERE ARE NO EXISTING COVENANTS FOR THE SUBJECT TRAC
- THE DEVELOPER / CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A MINIMUM OF 48 HOURS NOTICE AND TO COORDINATE WITH THE TOWNSHIP / TOWNSHIP ENGINEER IN REGARDS TO ALL MUNICIPAL INSPECTION WORK REQUIRED ON THE PROJECT SITE.

### **SEQUENCE OF CONSTRUCTION**

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. SCHEDULE SHALL INCLUDE REGULAR INSPECTION AND MAINTENANCE REQUIREMENTS INCLUDING ENGINEER'S PRESENCE AT SITE TO OBSERVE CONSTRUCTION AT <u>CRITICAL STAGES</u> AS INDICATED HEREIN. CONTRACTOR SHALL NOTIFY ENGINEER 48

- 1. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE DELAWARE COUNTY CONSERVATION DISTRICT TO AN ON-SITE 2. AT LEAST THREE (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 THE LOCATION OF 3. CONTRACTOR SHALL CLEARLY MARK THE LIMIT OF DISTURBANCE AS SHOWN ON THE PLAN. ORANGE CONSTRUCTION FENCE OR WOODEN STAKES WITH FLAG TAPE ARE ADEQUATE FOR FIELD MARKING. ADDITIONALLY, CONTRACTOR SHALL CLEARLY MARK ALL 4. CLEAR AND GRUB THE PORTIONS OF THE SITE AND DEMO ITEMS AS REQUIRED. STRIP TOPSOIL AND STOCKPILE AT THE TEMPORARY AREA PROVIDED SURROUND WITH COMPOST FILTER SOCK AND SEED PER TEMPORARY SEEDING SPECIFICATIONS FERTILIZE AND MULCH, BEGIN BULK EXCAVATION OF THE SITE TO THE REQUIRED GRADES AS SHOWN ON THE PLANS, ANY EXCAVATED SOIL
- MATERIAL REMOVED FROM THE SITE SHALL ONLY BE PLACED IN AN AREA THAT HAS AN APPROVED EROSION CONTROL PLAN. ENSURE SEDIMENT LADEN RUNOFF IS DIRECTED TO AN APPROPRIATE EROSION CONTROL BMP. 5. INSTALL STORMWATER COLLECTION AND CONVEYANCE FACILITIES BEGINNING AT THE DOWNSTREAM CONNECTIONS AND WORKING UPSTREAM, ALL STORM SEWER CONSTRUCTION INCLUDES TRENCHING, BACKFILLING, AND APPLYING FINAL STABILIZATION, ALL AREAS DRAINING TO STORMWATER COLLECTION, CONVEYANCE, AND MANAGEMENT FACILITIES SHALL BE IMMEDIATELY STABILIZED AND, IF NEEDED, TEMPORARY DIVERSION MEASURES UTILIZED TO MINIMIZE THE AMOUNT OF SEDIMENT REACHING THEM. INSTALL TEMPORARY INLET PROTECTION WHERE INDICATED ON THE PLAN.
- 6. UPON ACHIEVING FINAL ELEVATION IN THE PROPOSED BUILDING PAD AREA, EXCAVATE THE BUILDING FOOTERS, POUR CONCRETE FOR FOOTERS AND CONSTRUCT FOUNDATION WALL. WHEN CONDITIONS WARRANT, THE FOOTERS AND FOUNDATION WALLS MAY BE BACKFILLED, FILL MATERIAL SHALL BE FREE OF ROOTS, SOD, AND OTHER ORGANIC MATERIAL, FROZEN SOIL, STONES, AND DISCARDED CONSTRUCTION MATERIAL. THE FILL SHALL BE PLACED IN 8" LAYERS, WITH EACH LAYER BEING ROLLED AND COMPACTED PRIOR TO THE NEXT LAYER BEING PLACED. WHEN THE AREA REACHES THE PRESCRIBED ELEVATION, THE SUBBASE SHOULD BE THOROUGHLY ROLLED AND COMPACTED TO ELIMINATE ANY SOFT OR UNSETTLED AREAS.
- 7. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE COUNTY CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO THE REMOVAL/CONVERSION OF THE E&S BMPS. 8. THE CONTRACTOR SHALL REMOVE TEMPORARY INLET PROTECTION AND FLUSH ALL STORM SEWER PIPES AFTER THE SITE IS
- HE FINISHED GRADES OF THE PERMANENT SWM BASINS. IMMEDIATELY STABILIZE AND SEED ALL DISTURBED AREAS IN THE VICINITY OF THE BASIN. THE BASINS SHOULD NOT BE CONVERTED DURING NON-GERMINATING PERIODS. CONTRACTOR SHALL REPAIR AND PERMANENTLY STABILIZE THE AREAS DISTURBED DURING REMOVAL OF THE
- STABILIZATION- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS. \*\*IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE
- ACTIVITIES, DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES, DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION

### **ENVIRONMENTAL DUE DILIGENCE**

- ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS ASSOCIATE WITH THE PROJECT OUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATABASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OF AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY
- 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. 3. ALL IMPERVIOUS SURFACES TO BE REMOVED ARE TO BE REMOVED FULL DEPTH, INCLUDING ANY STONE BASE SO AS TO RECEIVE CREDIT AS A POST DEVELOPMENT CONDITION PERVIOUS SURFACE IN THE STORMWATER
- 4. AT THE CONCLUSION OF THE PROJECT, AND AS A PREREQUISITE FOR THE RELEASE OF THE FINANCIAL SECURITY, THE APPLICANT SHALL PROVIDE CERTIFICATION OF COMPLETION FROM THE ENGINEER, LANDSCAPE ARCHITECT, SURVEYOR OR OTHER QUALIFIED PERSONS VERIFYING THAT ALL PERMANENT SWM FACILITIES HAVE BEEN CONSTRUCTED ACCORDING TO THE PLANS AND SPECIFICATIONS AND APPROVED REVISIONS THERETO.

### **MULCH SPECIFICATIONS**

ON ALL DISTURBED AREAS WHICH DO NOT HAVE AN EROSION CONTROL BLANKET SPECIFIED FOR INSTALLATION. STRAW MULCH SHALL BE APPLIED AT THE RATE OF 3.0 TONS PER ACRE IMMEDIATELY AFTER SEEDING THE SURFACE. ON STEEP SLOPES OF 3:1 OR GREATER, MULCH SHALL BE ANCHORED THROUGH THE USE OF JUTE NETTING OR MIXING WITH ASPHALT AT THE RATE OF 100 GALLONS PER 3 TONS OF STRAW MULCH.

- SOIL AMENDMENTS SPECIFICATIONS APPLY THE FOLLOWING SOIL SUPPLEMENTS PRIOR TO TEMPORARY AND PERMANENT SEEDING: A) PULVERIZED AGRICULTURAL LIMESTONE CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A
- 10-20-20 ANALYSIS COMMERCIAL FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 140 POUNDS PER 1,000 SQUARE YARDS. C) 38-0-0 UREAFORM SLOW-RELEASE NITROGEN FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804,

### **SEED MIXTURES**

TEMPORARY SEED MIXTURE
TEMPORARY SEEDING SHALL CONSIST OF ANNUAL RYEGRASS (100 PERCENT BY WEIGHT), OR EQUIVALENT, AND SHALL BE PLACED AT THE RATE OF 10 POUNDS PER 1000 SQUARE YARDS. TEMPORARY SEEDING SHALL BE APPLIED TO THOSE AREAS THAT ARE A POTENTIAL EROSION PROBLEM DURING CONSTRUCTION AND TO THOSE AREAS EXPOSED FOR LONGER THAN 20 CALENDAR DAYS, IF CONDITIONS DO NOT PERMIT TEMPORARY SEEDING, MULCHING SHALL BE EMPLOYED. ADDITIONALLY, NITROGEN FERTILIZER (50-50-50) @ ONE (1) TON PER ACRE, AGRICULTURAL LIME @ ONE (1) TON PER ACRE, AND STRAW MULCH @ THREE (3) TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

PERMANENT SEED MIXTURE
TURF TYPE TALL FESCUE SHALL BE APPLIED AT A RATE OF 21.0 POUNDS PER 1,000 SY. 80% MIN. GERMINATION; MIN. (REFER TO THE SOIL AMENDMENT SPECIFICATIONS, AS DETAILED ABOVE WITHIN THE MULCH SPECIFICATIONS)

## **RECYCLING OR DISPOSAL**

FEDERAL REGULATIONS ASSOCIATED WITH THE DISPOSAL OF SLICH MATERIALS

## **OF MATERIALS**

SOLVENTS AND SEALANTS, (ETC.)

MANAGEMENT (PCSM) BMP FACILITIES AND FROM IMPERVIOUS AREAS (EX. SWEEPING OF STREETS & PARKING LOTS) DURING OPERATION AND MAINTENANCE SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET.SEQ., 271.1., AND 287.1 ET.SEQ. NO WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED 2. 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 3. ANTICIPATED CONSTRUCTION WASTE MAY INCLUDE TYPICAL BUILDING MATERIALS (I.E. LUMBER, DRYWALL, MASONRY, CARDBOARD AND PAPER, INSULATION, ASPHALT, ROOFING, PLASTIC AND VINYL, PAINTS, STAINS,

4. IT IS STRONGLY ENCOURAGED THAT SUCH RECOVERABLE WASTE MATERIALS BE SEPARATED AND APPROPRIATELY RECYCLED. NO POTENTIAL TOXIC OR HAZARDOUS WASTE IS KNOWN TO BE PRESENT ON SITE. IF ANY TOXIC OR

HAZARDOUS WASTE IS ENCOUNTERED, THE CONTRACTOR SHALL FOLLOW ANY AND ALL APPLICABLE STATE OR

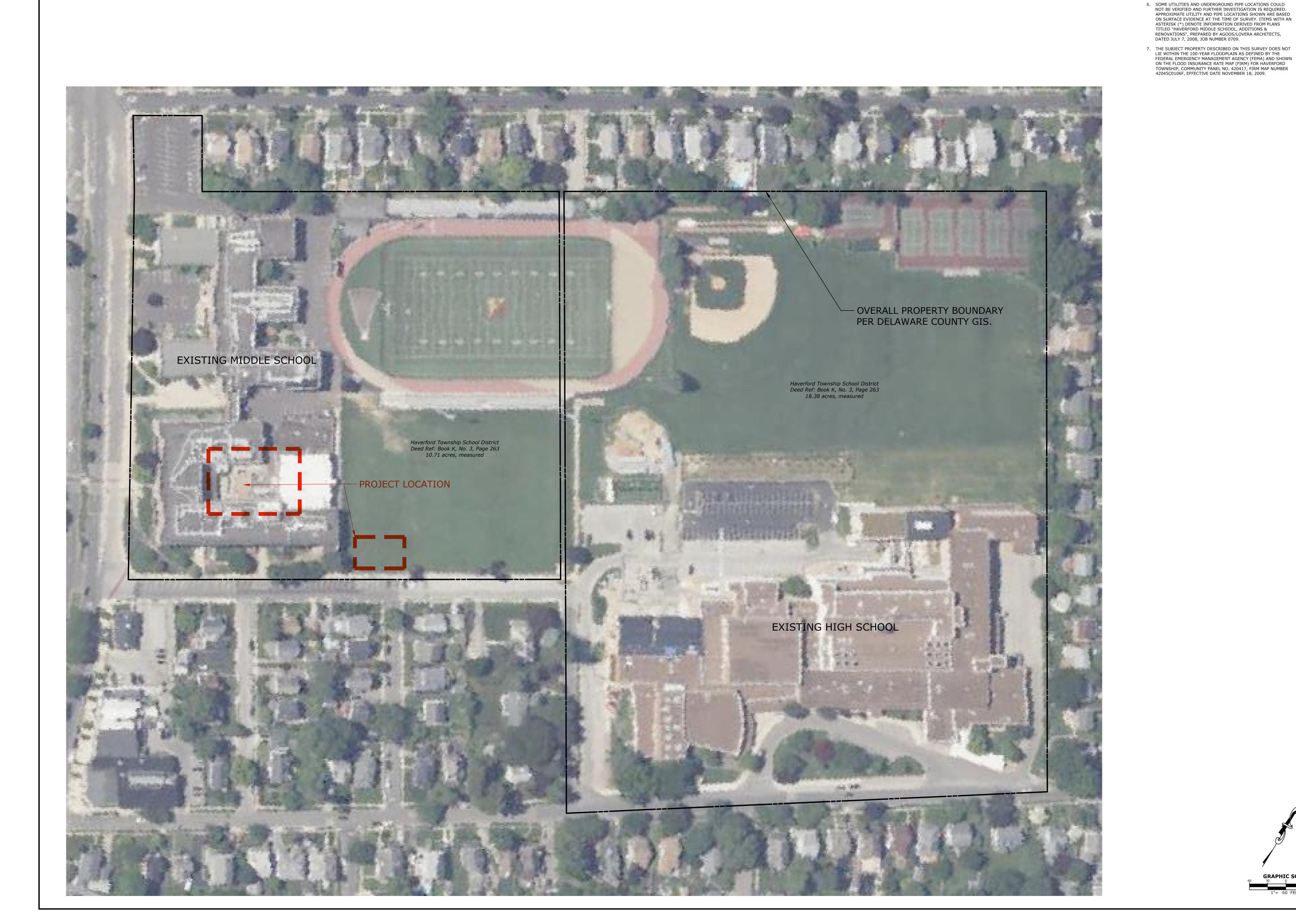
**OH** . ROAL

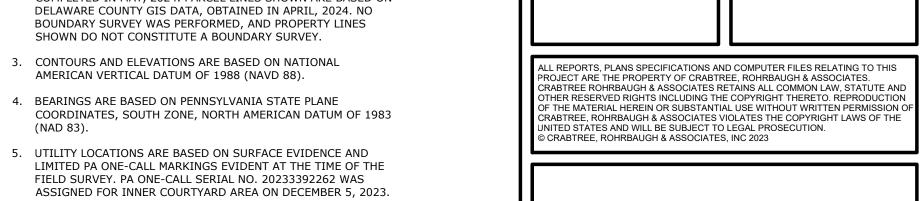
REVISIONS



**PROJECT** SHEET AS SHOWN

MAY 9, 2024





**SURVEY NOTES** 

1. THIS SURVEY WAS PERFORMED AND MAPPING PREPARED

TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY K&W ENGINEERS AND CONSULTANTS,

AN UPDATED PA ONE-CALL SERIAL NO. 20241313097 WAS ASSIGNED ON MAY 10, 2024 FOR THE ENTIRE AREA SURVEYED.

COMPLETED IN MAY, 2024. PARCEL LINES SHOWN ARE BASED ON

WITHOUT THE BENEFIT OF A TITLE SEARCH.

DESIGNING ENVIRONMENTS

REVISIONS

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**PROJECT** 

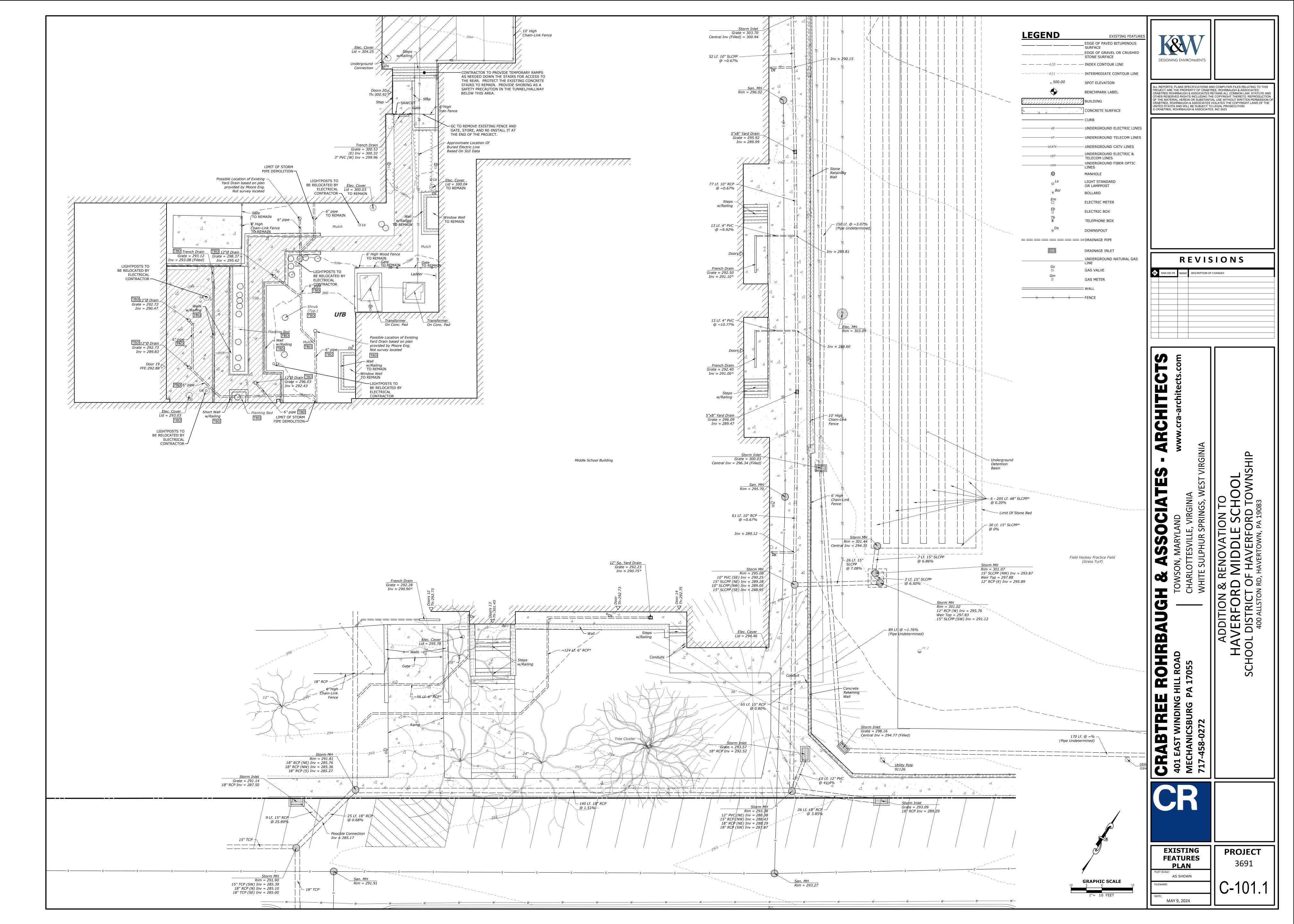
C-101

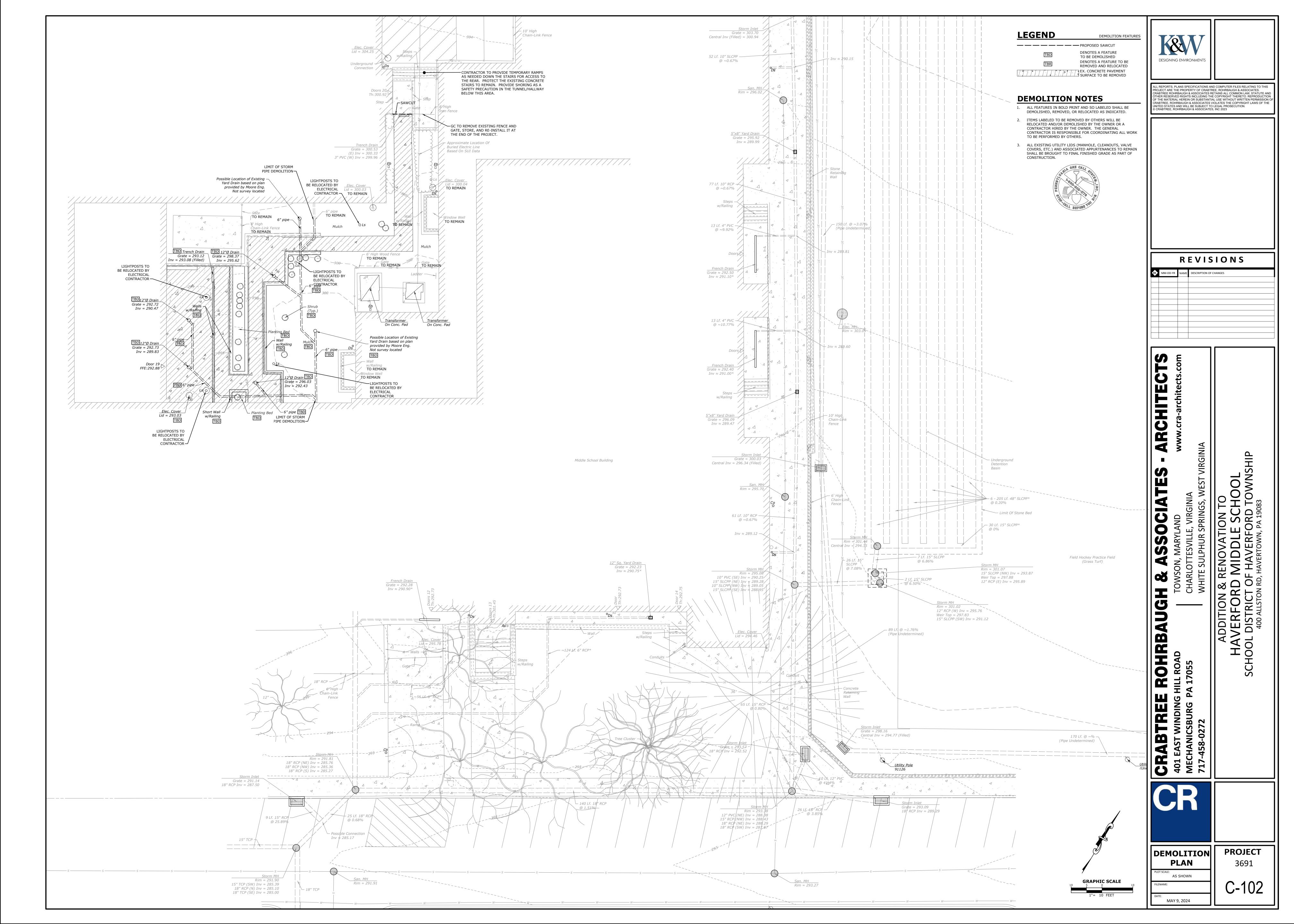
**FEATURES PLAN** 

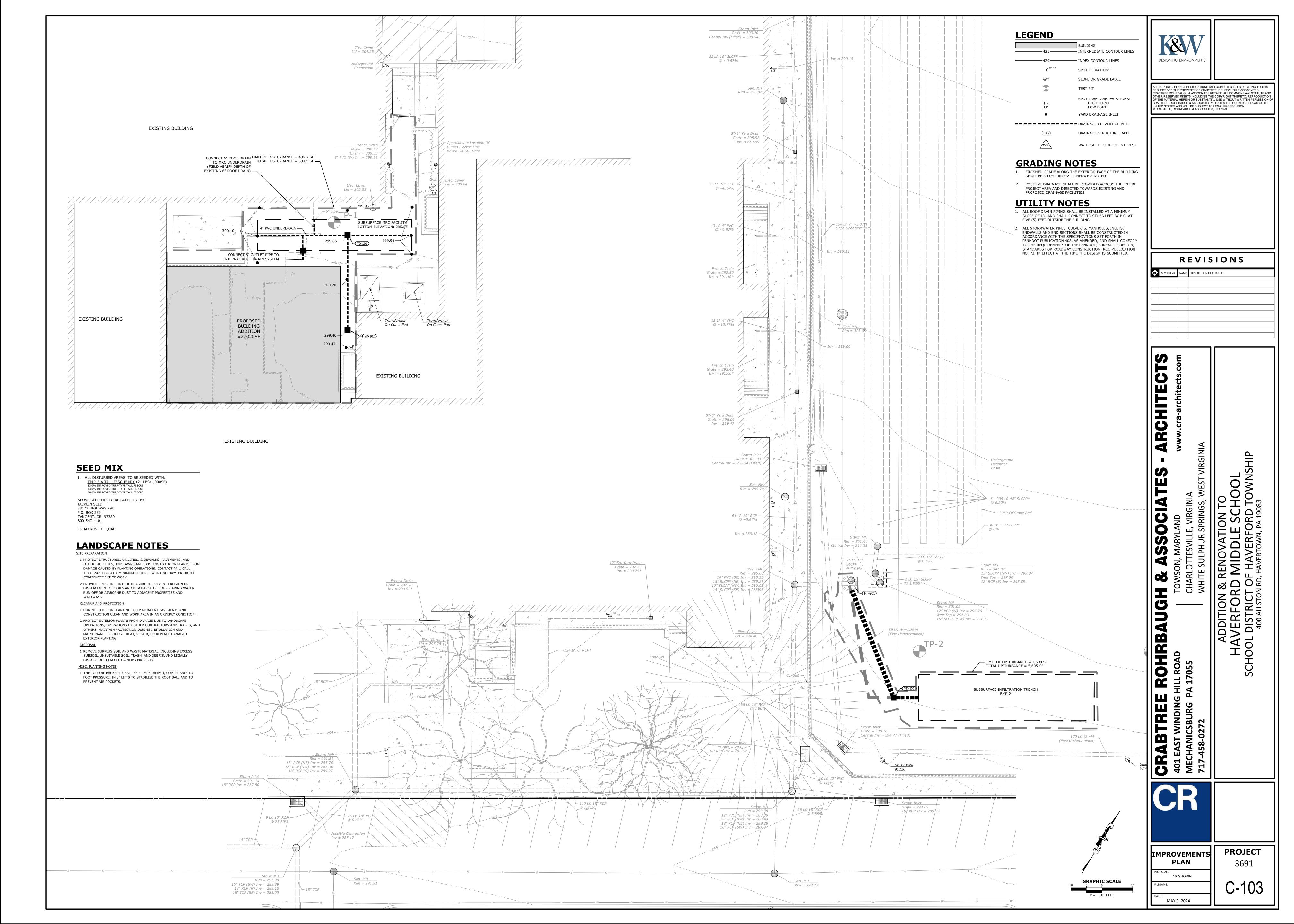
OVERALL EXISTING

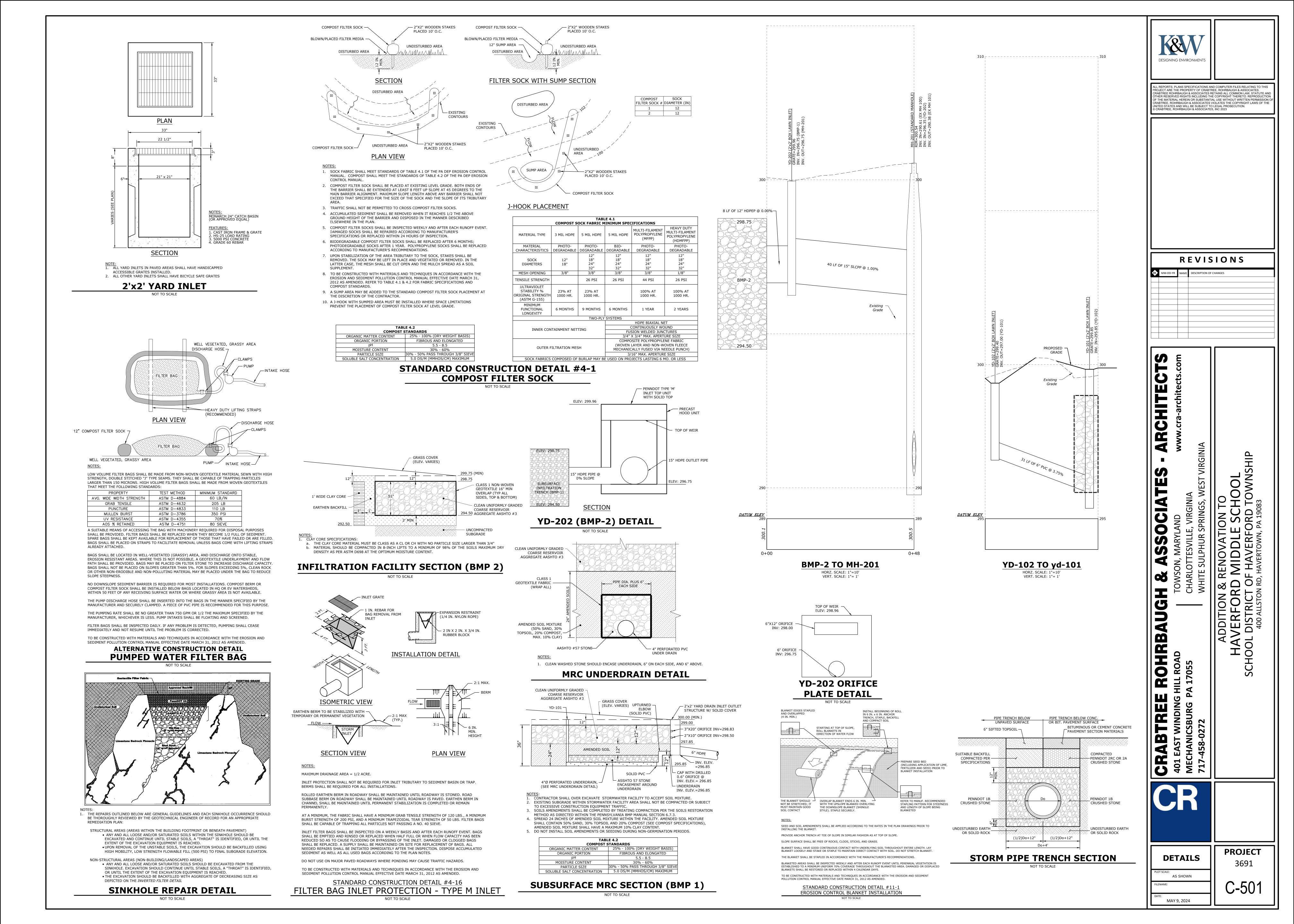
AS SHOWN

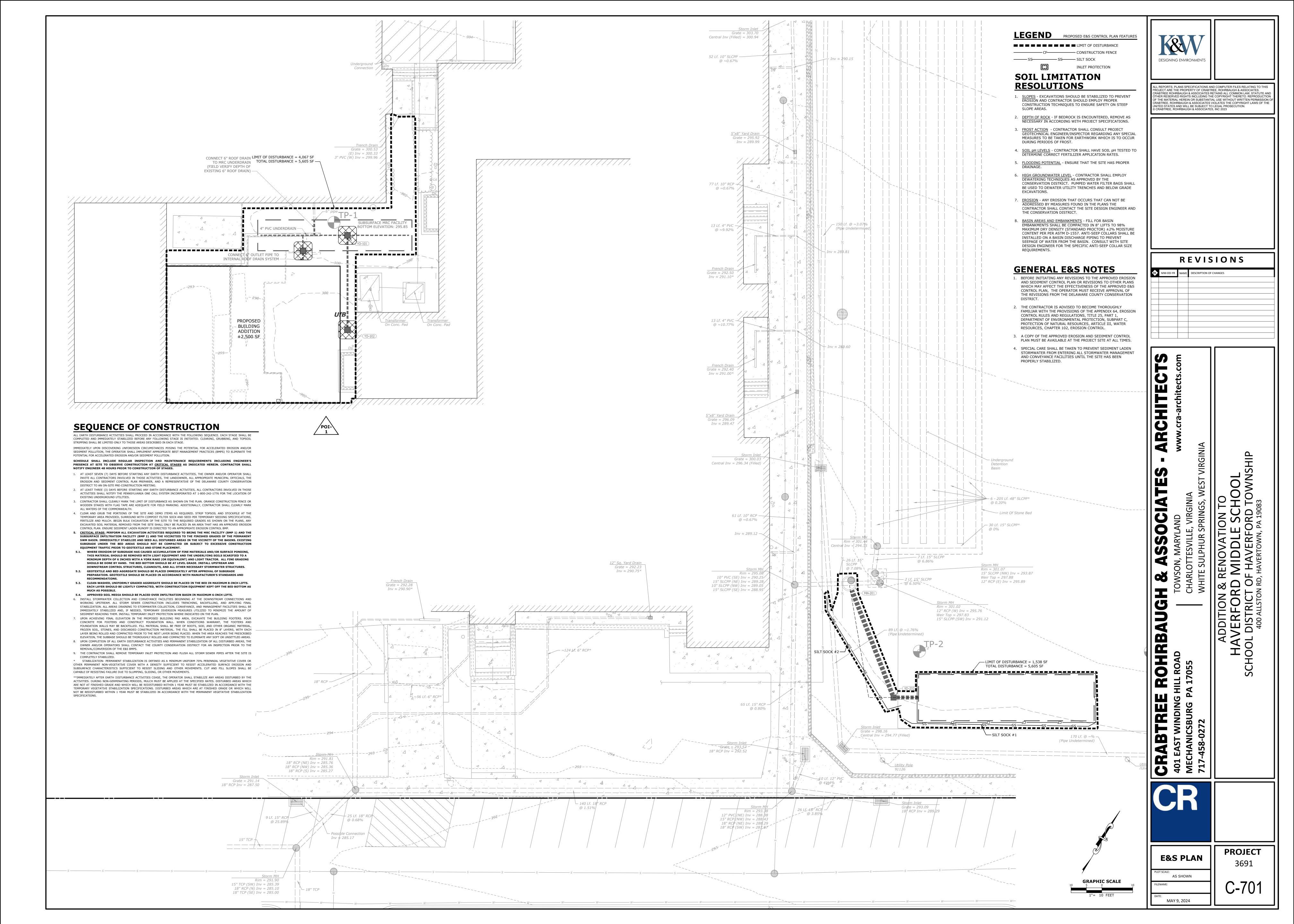
MAY 9, 2024













### DESIGNING ENVIRONMENTS

2201 North Front Street, Suite 200 :: Harrisburg, PA 17110

717.635.2835 : www.kandwengineers.com

June 21, 2024

Haverford Township ATTN: Gary Smith, Zoning Officer and Community Planner 1014 Darby Road Havertown, PA 19083-2251

Re: Revised Preliminary / Final Land Development Submission

Chatham Park Elementary School – Renovations and Additions

K&W Project No. 2003.082

Dear Gary:

We are in receipt of Pennoni's review, dated June 3, 2024, for the above-referenced project. Accordingly, we have revised the plans to address the comments contained therein (as applicable) and offer responses to said comments below (original comments are shown in **bold**, responses in *italics*).

### **ZONING:**

- 1. In all Institutional districts, there shall be a front yard landscape strip, planted and landscaped subject to the approval of the Shade Tree Commission. (§182-718.B(1)[c])
  - Response: The Landscape Plan has been approved by the Shade Tree Commission via a confirmation email directly to the Township.
- 2. In It is unclear if the proposed parking areas will require lighting. Please clarify. (§182-718.F) Partially addressed. Lighting plans has been provided. The plans shall be updated to indicate proposed lighting levels and details of the proposed poles and fixtures. (Township Design standards)

Response: Please see Electrical plans included with this submission, Sheets E0.1-E0.3.

### SUBDIVISION AND LAND DEVELOPMENT:

- 3. Shade trees are required to be installed at a minimum distance of six (6) feet from the inside edge of the sidewalk or right-of-way line (§160-5.B(6)).
  - Response: New shade trees have been placed at least six (6) feet from the sidewalk and/or right-of-way line.
- 4. The Shade Tree Commission should review all proposed landscaping and tree replacement.

  Response: The Landscape Plan has been approved by the Shade Tree Commission via

Response: The Landscape Plan has been approved by the Shade Tree Commission via a confirmation email directly to the Township.

5. A Sewage facilities planning module or exemption will be required (§160-4.E(5[d]).

Response: Sewage facilities planning exemption has been submitted to DEP, and approval letters will be provided once obtained.

### STORMWATER MANAGEMENT

6. An erosion and sediment control plan should be provided. (§78-25.A(4)) An erosion and sediment control plan was not included with this submission.

Response: The E&S Plan is included in this submission. See sheet C-701.1 and C-701.2. Please note that the NPDES review, containing the E&S and PCSM plans, have been submitted to Delaware County Conservation District (DCCD) and are currently under review.

7. Areas proposed for infiltration are to be protected from compaction during construction. (§78-32.E(1)). Construction fence should be provided around the perimeter of the areas proposed for infiltration.

Response: Construction fence is shown on the E&S Plan, sheets C-701.1 and C-701.2, included in this submission. Additionally, within the construction sequence, stage 6.1 states that construction fencing must be placed around the BMPs.

#### **GENERAL**

8. Given the additional parking/drop off area and one-way access drive within the proximity of the existing drives and the Twin Oaks Drive/Allston Road intersection, it would be prudent to evaluate the circulation, queuing and pedestrian routes to determine if further improvements/modifications to the area are warranted. The plans should clearly delineate ingress and egress routes for busses and the egress route for cars entering the new parent drop off area. Signage and pavement markings should also be revised to clearly define these routes. Lastly, other alternatives for restricting vehicles from exiting the lot at the middle drive should be explored.

Response: Additional signage has been added to the site plan per discussions during a meeting on site with Pennoni on Monday, June 17, 2024. See Sheet C-103.1. The northern ADA ramp at the center drive aisle has been revised to be separated into two ramps in order to eliminate the need for turning maneuvers within the street, also per the discussion during the site visit on 06/17/24.

9. The maximum longitudinal length for driveway crossings in nonresidential developments is 40 feet. (Township Design Standards)

Response: Per email correspondence with Pennoni on 6/20/2024, this requirement refers to the maximum length of the depressed curb for driveway openings. This requirement does not pertain to this project since there are no driveways that have a depressed curb.

10. Evidence of approval from the Delaware County Conservation District is to be provided. (§160-4.F(2)[b])

Response: Approval from the DCCD will be provided once it is obtained.

11. If approved, a Grading, Drainage, Soil Erosion and Sedimentation Control Permit will be required.

Response: Acknowledged.

12. A BMP Maintenance Agreement shall be executed and a contribution to the Township Stormwater Control and BMP Operation and Maintenance Fund shall be made (§78-49; §78-51). Response: A BMP Maintenance Agreement will be provided by the School District, once finalized.

### THE FOLLOWING COMMENTS PERTAIN TO THE MOST RECENT PLAN SUBMISSION:

13. Provide turning templates for the largest vehicle, that will utilize the facility and emergency vehicles' that will need to enter the lot to verify the proposed radii at all entrances are adequate to accommodate these vehicles (§160-5.B(3).

Response: A Truck Movement Plan has been added to the plan set. See Truck Movement Plans 1 & 2.

14. Additional signage and/or directional arrows would be prudent to fully designate one-way entrances and travel lanes at various locations.

Response: Additional signage has been added to the site plan per discussions during a meeting on site with Pennoni on Monday, June 17, 2024. See Sheet C-103.1.

15. It appears the radius associated with the proposed parent drop off driveway will require resetting or relocation of the existing open mouth inlet at the northwest side. The plan should be updated accordingly, and a detail provided.

Response: The existing open mouth inlet is now shown to be replaced with a manhole, in order to eliminate the need for any pipe relocations or adjustments within Allston Road. A new open mouth inlet has been shown to be installed just north of the existing, and will connect to this new manhole.

16. It is unclear how the proposed ADA ramps at the parent drop drive will accommodate students/pedestrians crossing Allston Road. It appears additional ramps and/or replacement/relocation of the existing ramps on the north side of the intersection may be required.

Response: Existing accessible routes have been shown on the plans which provide access from all directions. Crosswalks will be repainted for clarity. See Sheet C-103.1.

17. Details should be provided for the new connection and sanitary sewer lateral to the proposed building addition at the southwest side of the site (§160-5.B(9).

Response: Additional sewer details have been added to the plans, see Sheet C-502.

- 18. A 5-foot sump is provided for various inlets associated with the underground basins. It may be prudent to consider other alternatives including larger structures to accommodate the sump. Response: Inlet I-203 contains the 5' sump, and this inlet has been revised to be a Type-4 inlet box.
- 19. A note should be added to the plan indicating that any substandard curb and sidewalk is required to be replaced.

Response: Note 6 has been added to the Site plan, see sheet C-103.

20. It appears the work within the right-of-way of Allston Road/Twin Oaks Drive may meet the requirements of (§157-30G) regarding restoration following excavation.

Response: Per email correspondence with Pennoni on 6/20/2024, these requirements are typically verified by the Township after the improvements are made.

Please contact our office if you have any questions or require additional information. The revised application package consists of the following items:

Seventeen (17) sets
 Preliminary / Final Land Development Plans (42"x30")

We are requesting that this application be placed on the agenda for discussion at the July 11, 2024, Planning Commission Meeting.

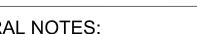
Sincerely,

K&W

Carolyn E. DuBois, ASLA

**Project Manager** 





- 1. PROVIDE THE SERVICES OF A QUALIFIED CONTRACTOR TO IDENTIFY ALL EXISTING UNDERGROUND COMMUNICATION AND ELECTRIC LINES LOCATED IN ALL CONSTRUCTION AND NEW DUCTBANK LOCATIONS. ALL IDENTIFIED AREAS
- 2. ALL EXISTING DUCTBANKS AND UNDERGROUND RACEWAYS/WIRING SHOWN ARE FOR REFERENCE ONLY. EXACT LOCATIONS TO BE DETERMINED PER
- 1. AT COMPLETION OF PROJECT, DISCONNECT AND REMOVE ALL ELECTRICAL WIRING, LIGHTING, SYSTEMS AND EQUIPMENT TO MODULAR CLASSROOM TRAILERS AND ASSOCIATED TEMPORARY COVERED WALKWAYS.BETWEEN THE BUILDING AND THE TRAILERS. PATCH ANY EXTERIOR WALL PENETRATIONS
- 2. DISCONNECT AND REMOVE EXISTING NATURAL GAS EMERGENCY GENERATOR AND ITS ASSOCIATED FEEDER, PIPING AND HOUSEKEEPING PAD IN THEIR ENTIRETY . PATCH AND SEAL ALL EXTERIOR WALL PENETRATIONS WEATHER

ALL REPORTS, PLANS SPECIFICATIONS AND COMPUTER FILES RELATING TO THIS PROJECT ARE THE PROPERTY OF CRABTREE, ROHRBAUGH & ASSOCIATES. CRABTREE ROHRBAUGH & ASSOCIATES RETAINS ALL COMMON LAW, STATUTE AND OTHER RESERVED RIGHTS INCLUDING THE COPYRIGHT THERETO. REPRODUCTION OF THE MATERIAL HEREIN OR SUBSTANTIAL USE WITHOUT WRITTEN PERMISSION OF CRABTREE, ROHRBAUGH & ASSOCIATES VIOLATES THE COPYRIGHT LAWS OF THE UNITED STATES AND WILL BE SUBJECT TO LEGAL PROSECUTION.

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KEY PLAN

3637 Columbia Avenue

Lancaster PA 17603

P: 717.285.3141 MooreEngineering.com

REVISIONS

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

ROHRBAUG

SITE DEMOLITION PLAN -ELECTRICAL

AS INDICATED

**PROJECT** 

3691

JUNE 11, 2024



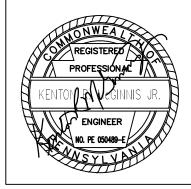


- 1. PATCH AND RESTORE SITE TO MATCH EXISTING CONDITIONS WHERE EXCAVATION DISTURBS EXISTING TO REMAIN SURFACES.
- 2. COORDINATE HANDHOLE LOCATIONS WITH ARCHITECT, OWNER, NEW WORK
- 3. ANY FEEDER CONDUITS RUN OUTSIDE THE BUILDING MUST BE CONCRETE
- 1. PROVIDE FLAT LEVEL HOUSEKEEPING PAD FOR GENERATOR. TRENCH, BACK-FILL, IN-FILL AND GRADE SLOPED BANK AS REQUIRED. REFER TO DETAIL 1/E10.2. PROVIDE BOLLARDS LOCATED 4-FOOT FROM GENERATOR ENCLOSURE AROUND THE ENCLOSURE SPACED NO GREATER THAN 54" ON CENTER. BOLLARDS LOCATED IN FRONT OF A GENERATOR ENCLOSURE ACCESS DOOR
- INTERCEPT EXISTING WIRING FOR SITE POLE LIGHTS. CONNECT TO HOMERUN AS SHOWN. EXTEND ALL WIRE/CONDUIT AS REQUIRED. PROVIDE ROOM CONTROLLER/TIME CLOCK ADJACENT TO PANEL CP1-1 FOR CONTROL.
- 3. PROVIDE ROOM CONTROLLER/TIMECLOCK ADJACENT TO PANEL LP11 FOR SITE

3637 Columbia Avenue Lancaster PA 17603

P: 717.285.3141

MooreEngineering.com



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### KEY PLAN

REVISIONS			
MM-DD-YR	NAME	DESCRIPTION OF CHANGES	

ROHRBAUGH

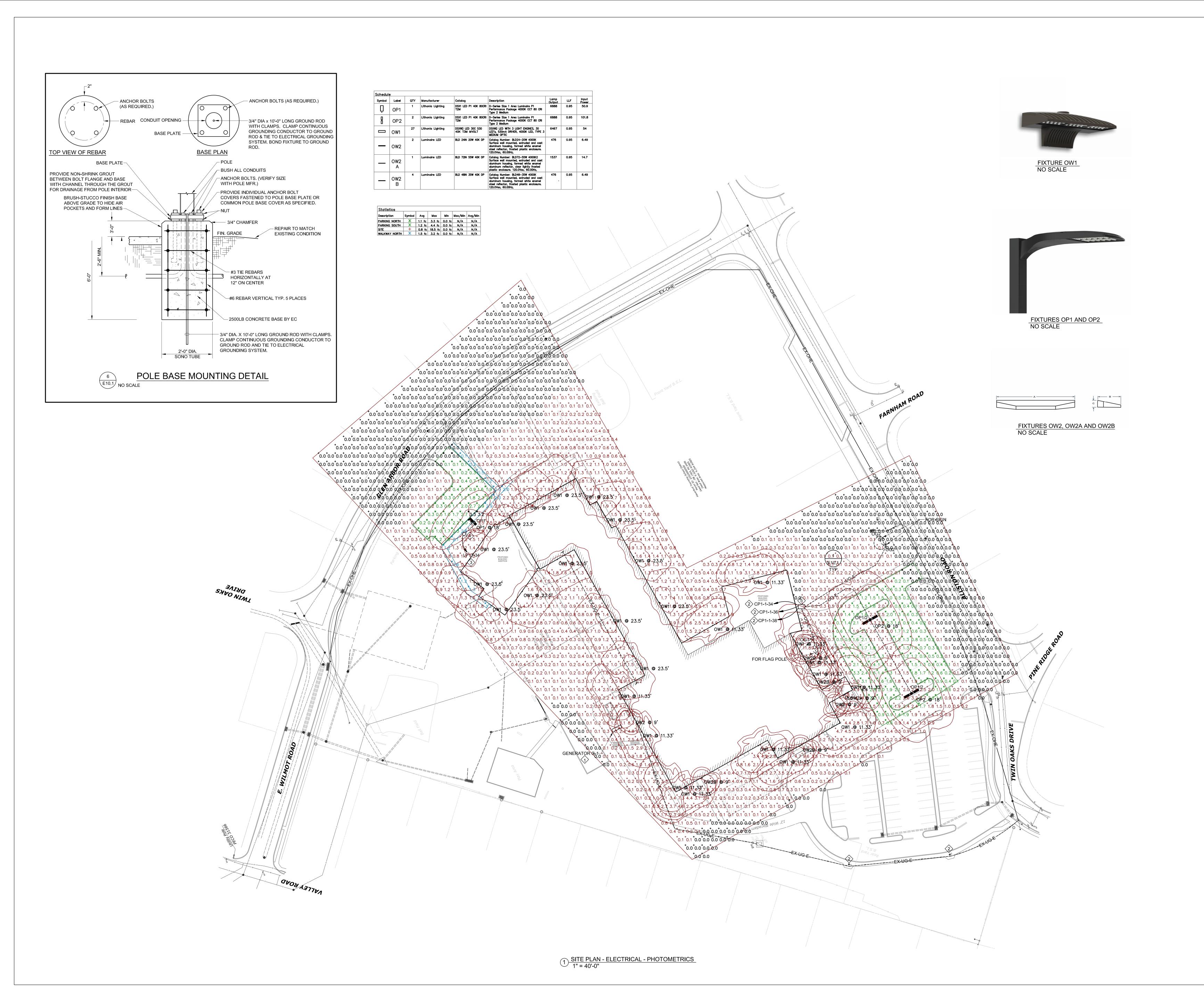


SITE PLAN - ELECTRICAL

AS INDICATED

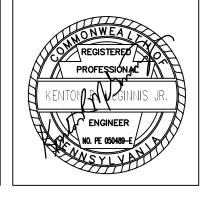
**PROJECT** 3691

JUNE 11, 2024





P: 717.285.3141 MooreEngineering.com



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KEY PLAN

REVISIONS

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

CHATHAM PARI SCHOOL DISTRICT

EROHRB/
HILL ROAD
PA 17055



SITE PLAN - ELECTRICAL PHOTOMETRICS

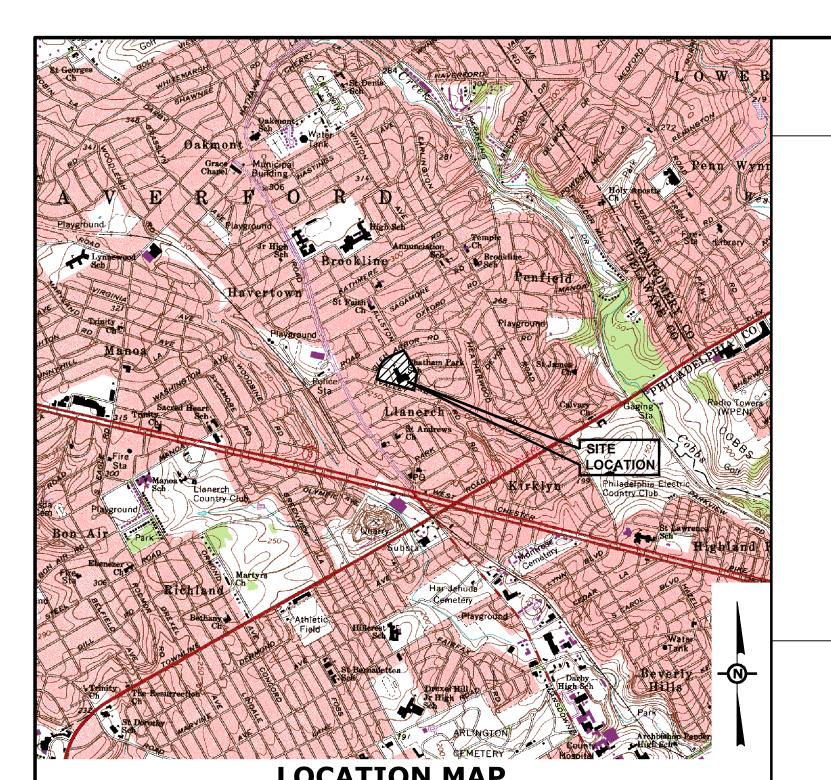
AS INDICATED

JUNE 11, 2024

E0.3

**PROJECT** 

3691



# PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

# RENOVATIONS & ADDITIONS

TO

# CHATHAM PARK ELEMENTARY SCHOOL

# HAVERFORD TOWNSHIP, DELAWARE COUNTY PENNSYLVANIA

### LANDOWNER / APPLICANT

HAVERFORD TOWNSHIP SCHOOL DISTRICT 400 ALLSTON ROAD HAVERTOWN, PA 19083

TELEPHONE: 610.853.5900 X7204
CONTACT: MAUREEN REUSCHE, Ed.D., SUPERINTENDENT

### **PLAN PREPARER**

2201 NORTH FRONT STREET, SUITE 200 HARRISBURG, PA 17110 TELEPHONE: 717.635.2835 CONTACT: CAROLYN E. DUBOIS, R.L.A.

### **SITE SURVEYOR**

KUROWSKI & WILSON, LLC 2201 NORTH FRONT STREET, SUITE 200 HARRISBURG, PA 17110

TELEPHONE: 717.635.2835 CONTACT: DENNIS P. BURKHARD, P.L.S.

### **WAIVER REQUESTS**

THE FOLLOWING WAIVERS OF THE HAVERFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE ARE REQUESTED BY THE APPLICANT:

160-3.B - PRELIMINARY PLAN.
160-4.E.5.b - ZONING BOUNDARIES WITHIN 2000 FEET OF THE SITE.
160-4.E.5.e.3 - PUBLIC IMPROVEMENTS AND PROPERTY OWNER INFORMATION WITHIN 200 FEET OF THE SITE.
160-4.E.5.e.4 - PUBLIC UTILITIES WITHIN 400 FEET OF THE SITE.

## **ACT 287 UTILITY INFORMATION**

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF PENNSYLVANIA UNDERGROUND UTILITY LINE PROTECTION (UULP) LAW, PA ACT 287 OF 1974, AS AMENDED BY ACT 50 OF 2017 FOR NOTIFICATION OF UTILITIES BEFORE EXCAVATION IN CONTRACT AREA. THE UNDERGROUND UTILITIES LOCATION CALL NUMBER IS 1-800-242-1776 (or 811)

PA ONE-CALL SERIAL NUMBER: 20233452455 (DESIGN TICKET)

PA ONE-CALL SERIAL NUMBER DATE: 12/11/2023
THE FOLLOWING UTILITY FACILITY OWNERS WERE NOTIFIED BY THE PA ONE-CALL SYSTEM, INC.

ADDRESS: 1500 CORPORATE DR CANONSBURG, PA. 15317 CONTACT: FIBER DIG TEAM PERSONNEL

PHONE: 800-654-3110

AOUA PENNSYI VANTA

ADDRESS: 762 LANCASTER AVE BRYN MAWR, PA. 19010

CONTACT: THOMAS WADDY
EMAIL: TBWADDY@AQUAAMERICA.CO

HAVERFORD TOWNSHIP ADDRESS: 1014 DARBY RD

HAVERTOWN, PA. 19083
CONTACT: DAN MARIANI
EMAIL: dmariani@havtwp.org

COMCAST ADDRESS: 1250 HADDONFIELD-BERLIN RD

CHERRY HILL, NJ. 08034
CONTACT: WYATT PARRISH
EMAIL: WYATT PARRISH@CABLE.COMCAST.COM

PECO AN EXELON COMPANY C/O USIC ADDRESS: 450 S HENDERSON ROAD SUITE B

KING OF PRUSSIA, PA. 19406
CONTACT: NIKKIA SIMPKINS
FMAII: nikkiasimpkins@usicilc.com

**ZONING DATA** 

ZONING DISTRICT: (INS) INSTITUT	ZONING DISTRICT: (INS) INSTITUTIONAL			
PROPOSED USE: INSTITUTIONAL				
REQUIREMENT:	REQUIRED:	EXISTING:	PROPOSED:	
MINIMUM LOT AREA:	2 ACRES	9.244 ACRES	9.244 ACRES	
MINIMUM LOT WIDTH:	150 FEET	570 FEET	570 FEET	
FRONT YARD SETBACK:	100 FEET	114 FEET	104 FEET	
SIDE YARD SETBACK:	50 FEET EA.	N/A	N/A	
REAR YARD SETBACK:	75 FEET	69 FEET	N/A	
MAXIMUM BUILDING HEIGHT:	35 FEET	26.42 FEET	34.25 FEET	
MAX. BUILDING COVERAGE	20%	12%	15%	
MAX. IMPERVIOUS COVERAGE:	40%	33.5%	38.9%	

### **SITE DATA**

TAX PARCEL:	22020000500
DEED REF. / INSTRUMENT #:	1569-0406
EXISTING LOT AREA:	9.5282 ACRES
PROPOSED SEWAGE DISPOSAL:	PUBLIC
PROPOSED WATER SUPPLY:	PUBLIC

### **PARKING DATA**

PARKING REQUIRED: 182-707.B

BUILDING OR USES OTHER THAN SPECIFIED

1 SPACE / 1,000 SF OF GROSS FLOOR AREA

92,293 GROSS FLOOR AREA / 1,000 = 93 SPACES REQUIRED

EXISTING SPACES: 63

PROPOSED SPACES: 32

### **SHEET INDEX**

_	
C-001	COVER SHEET
C-002	PCSM SUPPORTING INFORMATION
C-003	E&S SUPPORTING INFORMATION
C-101	OVERALL EXISTING FEATURES PLA
C-101.1	EXISTING FEATURES PLAN
C-101.2	EXISTING FEATURES PLAN
C-102	DEMOLITION PLAN
C-102.1	DEMOLITION PLAN
C-103	OVERALL SITE PLAN
C-103.1	SITE PLAN
C-103.2	SITE PLAN
C-104	GRADING PLAN
C-104.1	GRADING PLAN
C-105	OVERALL PCSM PLAN
C-105.1	PCSM PLAN
C-105.2	PCSM PLAN
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C-701.2	E&S PLAN
C-702	E&S DETAILS
C-801	OFFSITE DRAINAGE PLAN
C-901	TRUCK MOVEMENT

ELECTRICAL PLANS

E0.1 SITE DEMOLITION PLAN - ELECTRICAL

E0.2 SITE PLAN - ELECTRICAL

E0.3 SITE PLAN - ELECTRICAL - PHOTOMETRICS

TRUCK MOVEMENT

# WETLANDS CERTIFICATION

BRADLY GOCHNAUER DATE

HEREBY CERTIFY THAT THERE ARE NO WETLANDS IN THE AREA OF PROPOSED DEVELOPMENT ON THE SUBJECT PROPERTY. THE PROPOSED PROJECT WILL NOT IMPACT OFF-SITE WETLANDS, AND WETLAND FILL PERMITS ARE NOT REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.

### **CERTIFICATE OF ACCURACY (PLAN)**

J. MARC KUROWSKI, P.E

# **CERTIFICATE OF ACCURACY (SURVEY)**

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE BOUNDARY SURVEY SHOWN
AND DESCRIBED HEREON IS TRUE AND CORRECT.
\_\_\_\_\_\_\_, 20\_\_\_\_\_\_

DENNIS P. BURKHARD, P.L.S.

# STORMWATER CERTIFICATION OF ACCURACY

I, \_\_\_\_\_\_\_, HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF HAVERFORD TOWNSHIP'S STORMWATER MANAGEMENT ORDINANCE.

# CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN

COUNTY OF DELAWARE				
ON THIS THE	_ DAY OF	, 20	_ BEFORE ME	THE
UNDERSIGNED PERSONALL	Y APPEARED.			
OWNER(S)				
OWNER(S)				
PROPERTY SHOWN ON THIS DEED AND DESIRE THE SAM	CCORDING TO LAW, DEPOSE ANI PLAN AND THAT THEY ACKNOW  TE TO BE RECORDED AS SUCH  ND THE DATE ABOVE WRITTEN	WLEDGE THE S	SAME TO BE T	HEIR ACT AND

THE PROPERTY	Y SHOWN ON THIS	PLAT AND THAT	ARE THE OWNERS ( ALL STREETS OR P. EREBY TENDERED FO	ARTS
DEDICATION TO		DICATED, ARE HI	ENEBT TENDERED FC	
OWNER(S)				

MY COMMISSION EXPIRES

## **TOWNSHIP ENGINEER**

NOTARY PUBLIC

# TOWNSHIP BOARD OF COMMISSIONERS

THIS PLAN APPROVED BY THE HAVERFORD TOWNSHIP BOARD OF COMMISSIONERS,
AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED ON THIS
\_\_\_\_\_\_ DAY OF \_\_\_\_\_\_\_ 20\_\_\_\_\_\_

### **TOWNSHIP PLANNING COMMISSION**

THIS PLAN RECOMMENDED FOR APPROVAL BY THE HAVERFORD TOWNSHIP

PLANNING COMMISSION THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_

CHAIRMAN \_\_\_\_\_

SECRETARY

### **OWNER STORMWATER STATEMENT**

I \_\_\_\_\_\_\_\_(OWNER) ACKNOWLEDGE THAT THE STORMWATER BMP'S SHOWN WITHIN THESE PLANS ARE PERMANENT FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT PRIOR APPROVAL BY HAVERFORD TOWNSHIP.

# DELAWARE COUNTY PLANNING COMMISSION

THIS PLAN REVIEWED BY THE DELAWARE COUNTY PLANNING COMMISSION

THIS \_\_\_\_\_\_ DAY OF \_\_\_\_\_\_ 20\_\_\_

CHAIRMAN \_\_\_\_\_

SECRETARY

### **GENERAL NOTES**

- THE PURPOSE OF THIS PLAN IS TO CONSTRUCT THREE BUILDING ADDITIONS, PROVIDE ADDITIONAL PARKING AND OTHER MISCELLANEOUS SITE IMPROVEMENTS FOR CHATHAM PARK ELEMENTARY SCHOOL.
   THE EXISTING SITE FEATURES, TOPOGRAPHY AND PROPERTY BOUNDARY LINES SHOWN HEREON ARE OBTAINED FROM A DRAWING OF SURVEY INFORMATION PRODUCED BY KUROWSKI & WILSON LLC.
   PUBLIC WATER TO BE PROVIDED BY AQUIA PENNSYLVANIA
- TOBLIC SEWER TO BE TRAVIDLE BY HAVEN ONE TOWNSHIP.
   THE SITE DEVELOPMENT WILL COMPLY WITH ALL APPLICABLE TOWNSHIP ORDINANCES IN EFFECT AT THE TIME OF THIS LAND DEVELOPMENT PLAN SUBMISSION.
   STREET CURB & SIDEWALKS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AN SPECIFICATIONS OF HAVERFORD TOWNSHIP, AS APPLICABLE.
   ALL CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATIONS 408 & 72 STANDARDS AND AL APPLICABLE HAVERFORD TOWNSHIP ORDINANCES.
   ALL SIGNS SHALL CONFORM TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION AND
- SPECIFIED BY THE MUNICIPAL ENGINEER. A SEPARATE PERMIT IS REQUIRED FOR ANY NEW SIGNS AND ALL NEW SIGNS MUST MEET TOWNSHIP REQUIREMENTS.

  9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES OUTSIDE OF THE PUBLIC RIGHT-OF-WAY SHALL BE OWNED, OPERATED, AND MAINTAINED BY THE PROPERTY OWNER. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE DEDICATED

TOWNSHIP SPECIFICATIONS AND SHALL BE INSTALLED BY THE DEVELOPER IN A MANNER

# TO HAVERFORD TOWNSHIP OR PENNDOT. 10. THERE ARE NO EXISTING COVENANTS FOR THE SUBJECT TRACT. 11. THE DEVELOPER / CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A MINIMUM OF 48 HOURS NOTICE AND TO COORDINATE WITH THE TOWNSHIP / TOWNSHIP ENGINEER IN REGARDS TO ALL MUNICIPAL INSPECTION WORK REQUIRED ON THE PROJECT SITE.

# RECORDER OF DEEDS

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND

FOR DELAWARE COUNTY THIS \_\_\_\_\_\_ DAY OF \_\_\_\_\_\_ 20\_\_\_\_

INSTRUMENT NUMBER\_\_\_\_\_\_



HO



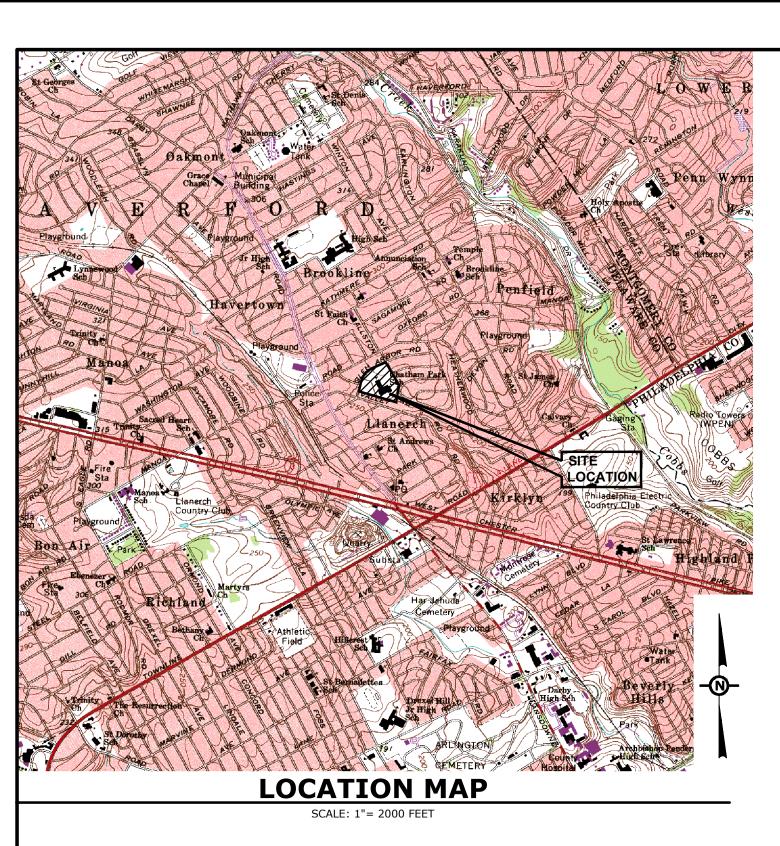
COVER SHEET

MAY 7, 2024

REVISIONS

C-001

**PROJECT** 



## **PCSM PLAN SET**

SHEET NUMBER	SHEET TITLE
C-002	PCSM SUPPORTING INFORMATION
C-101	OVERALL EXISTING FEATURES PLAN
C-101.1	EXISTING FEATURES PLAN
C-101.2	EXISTING FEATURES PLAN
C-105	OVERALL PCSM PLAN
C-105.1	PCSM PLAN
C-105.2	PCSM PLAN
C-301	STORMWATER PROFILES
C-601	PCSM DETAILS
C-602	PCSM DETAILS
C-603	PCSM DETAILS
C-801	OFFSITE DRAINAGE PLAN

### **ENVIRONMENTAL DUE DILIGENCE**

ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED 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 DATABASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OF AUDITS. ANALYTICAL TESTING IS NOT A REOUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE

. ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FR-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.

### **MULCH SPECIFICATIONS**

DEPARTMENT'S POLICY "MANAGEMENT OF CLEAN FILL".

ON ALL DISTURBED AREAS WHICH DO NOT HAVE AN EROSION CONTROL BLANKET SPECIFIED FOR INSTALLATION, STRAW MULCH SHALL BE APPLIED AT THE RATE OF 3.0 TONS PER ACRE IMMEDIATELY AFTER SEEDING THE SURFACE. ON STEEP SLOPES OF 3:1 OR GREATER, MULCH SHALL BE ANCHORED THROUGH THE USE OF JUTE NETTING OR MIXING WITH ASPHALT AT THE RATE OF 100 GALLONS PER 3 TONS OF STRAW MULCH. SOIL AMENDMENTS SPECIFICATIONS

APPLY THE FOLLOWING SOIL SUPPLEMENTS PRIOR TO PERMANENT SEEDING: PULVERIZED AGRICULTURAL LIMESTONE CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 2,480 POUNDS PER 1,000 SOUARE YARDS. B) 10-20-20 ANALYSIS COMMERCIAL FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 210 POUNDS PER 1,000 SQUARE YARDS. C) 38-0-0 UREAFORM SLOW-RELEASE NITROGEN FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 50 POUNDS PER 1,000 SQUARE YARDS.

### **SEED MIXTURES**

% PURE LIVE SEED: 81% APPLICATION RATE: 10 LBS / 1000 SQ.YD. FERTILIZER TYPE: NITROGEN FERTILIZER (10-10-10)

PERMANENT SEED MIXTURE
TOPSOIL PLACEMENT DEPTH: 8' SPECIES: TURF TYPE TALL FESCUE APPLICATION RATE: 21 LBS / 1 000SO YE FFRTILIZER RATE: 10-20-20 FERTILIZER APPL. RATE: 1000 LBS / ACRE LIMING RATE: 6 TONS / ACRE MULCH TYPE: STRAW MULCH

MULCHING RATE: 3 TON / ACRE PERMANENT SEED MIXTURE - STEEP SLOPES TOPSOIL PLACEMENT DEPTH: 6" SPECIES: PENNDOT FORMULA D LOW MOW GRASS MIX % PURE LIVE SEED: 81% APPLICATION RATE: 30LBS / 1,000SQ.YD. FERTILIZER RATE: NITROGEN FERTILIZER (10-20-20) FERTILIZER APPLICATION RATE: 140LBS / 1,000 SQ.YD LIMING RATE: 800LBS / 1,000SO.YD. MULCH TYPE: STRAW MULCH MULCHING RATE: 3 TON / ACRE

MULCH TYPE: STRAW MULCH MULCHING RATE: 3 TON / ACRE ANCHOR MATERIAL: NON ASPHALTIC EMULSION OR TERRA TACK II ANCHORING METHOD: MANUAL BROADCASTING OR HYDRO SEEDER

RATE OF ANCHOR MATERIAL APPL.: 28 GALLONS /

SEEDING SEASON DATES: 4/15 - 5/30 & 9/1-10/15

FERTILIZER APPLICATION RATE: 500 LB / ACRE

LIMING RATE: 1 TON / ACRE

ANCHOR MATERIAL: NON ASPHALTIC EMULSION OR ANCHORING METHOD: MANUAL BROADCASTING OR HYDRO SEEDER RATE OF ANCHOR MATERIAL APPL.: 28 GALLONS / SEEDING SEASON DATES: 3/15 - 6/1 & 8/1 - 10/15

### LANDOWNER / APPLICANT

HAVERFORD TOWNSHIP SCHOOL DISTRIC 400 ALLSTON ROAD HAVERTOWN, PA 19083

TELEPHONE: 610.853.5900 X7204 CONTACT: MAUREEN REUSCHE, Ed.D., SUPERINTENDENT

## **SITE ENGINEER / PLAN PREPARER**

KUROWSKI & WILSON, LLC 2201 NORTH FRONT STREET, SUITE 200 HARRISBURG, PA 17110

TELEPHONE: 717.635.2835 CAROLYN E. DUBOIS, R.L.A.

### **SITE SURVEYOR**

KUROWSKI & WILSON, LLC 2201 NORTH FRONT STREET, SUITE 200 HARRISBURG, PA 17110

TELEPHONE: 717.635.2835 CONTACT: DENNIS P. BURKHARD, P.L.S.

### **WATERSHED NOTE**

THE SITE IS LOCATED IN THE COBBS CREEK WATERSHED APPROXIMATELY 0.80 MILES WEST OF THE COBBS CREEK. ACCORDING TO 25 PA CODE CHAPTER 93, COBBS CREEK IS DESIGNATED AS A WARM WATER FISHERY (WWF) WITH MIGRATORY FISH (MF). COBBS CREEK IS NOT LISTED AS A HIGH OUALITY, EXCEPTIONAL VALUE, OR SPECIAL PROTECTION STREAM. COBBS CREEK IS IMPAIRED ACCORDING TO CHAPTER 4 OR 5 OF THE INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT. THE SITE DOES NOT DISCHARGE TO WATERS WITH A TMDL.

### **RECYCLING OR DISPOSAL OF MATERIALS**

1. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSE OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1., AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. 2. ANTICIPATED CONSTRUCTION WASTE MAY INCLUDE TYPICAL BUILDING MATERIALS (I.E. LUMBER, DRYWALL, MASONRY, CARDBOARD AND PAPER, INSULATION, ASPHALT, ROOFING, PLASTIC AND VINYL, PAINTS, STAINS, SOLVENTS AND SEALANTS, (ETC.)

3. IT IS STRONGLY ENCOURAGED THAT SUCH RECOVERABLE WASTE MATERIALS BE SEPARATED AND APPROPRIATELY RECYCLED. NO POTENTIAL TOXIC OR HAZARDOUS WASTE IS KNOWN TO BE PRESENT ON SITE. IF ANY TOXIC OR HAZARDOUS WASTE IS ENCOUNTERED, THE CONTRACTOR SHALL FOLLOW ANY AND ALL APPLICABLE STATE OR FEDERAL REGULATIONS ASSOCIATED WITH THE DISPOSAL OF SUCH MATERIALS.

## **SOILS INFORMATION**

GLENELG-WHEATON COMPLEX GWB 0 TO 8 PERCENT SLOPES

HYDROLOGIC GROUP C] TALLEYVILLE-URBAN LAND ANTHROPIC UDORTHENTS COMPLEX, O TO 8 PERCENT SLOPES 「HYDROLOGIC GROUP D

URBAN LAND, SCHIST AND GNEISS, Udb URBAN LAIND, SCING .... 0 TO 8 PERCENT SLOPES

## **SOIL LIMITATIONS RESOLUTIONS**

AFE WORKING TECHNIQUES TO ENSURE SAFETY ON STEEP SLOPE AREAS AND WITHIN AND AROUND ALL EXCAVATIONS INCLUDING FOOTERS, FOUNDATIONS AND UTILITY TRENCHES. BENCHING AND TRENCH BOXES SHOULD BE EMPLOYED WHERE REQUIRED OR APPROPRIATE TO ENSURE SAFE WORKING CONDITIONS AND COMPLIANCE WITH APPLICABLE SAFETY STANDARDS AND REGULATIONS. CORROSIVE TO CONCRETE/STEEL - WHERE PERMITTED, UNDERGROUND PIPES, CONDUITS, AND STORAGE TANKS SHOULD BE MADE CORROSION RESISTANT MATERIALS. WHERE NECESSARY, SUITABLE PRECAUTIONS SHOULD BE TAKEN TO PROTECT UNDERGROUND CONCRETE AND UNCOATED STEEL STRUCTURES AND FACILITIES FROM CORROSION.

CAVING CUT BANKS - CONTRACTOR SHOULD EMPLOY PROPER CONSTRUCTION, STABILIZATION, AND

. <u>DROUGHTY SOILS</u> - IRRIGATION MAY BE REQUIRED FOR SEED GERMINATION AND ESTABLISHMENT OF SUFFICIENT STAND OF VEGETATIVE COVER. USE OF SOD OR ADVANCED SEEDING TECHNIQUES, SUCH AS HYDROSEEDING, SHOULD BE CONSIDERED

EASILY ERODIBLE - CONTRACTOR SHALL LIMIT THE EXTENT AND DURATION OF EARTH DISTURBANCE THE LEAST AMOUNT PRACTICABLE TO COMPLETE THE PROJECT. CONTRACTOR SHOULD PHASE CONSTRUCTION WHERE POSSIBLE TO LIMIT THE TOTAL AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME. TEMPORARY AND PERMANENT STABILIZATION MEASURES SHOULD BE IMPLEMENTED AS SOON AS POSSIBLE. SEDIMENT CONTROL BMPS MAY REQUIRE MORE FREQUENT MAINTENANCE AND SEDIMENT REMOVAL AS COMPARED WITH SITES THAT DO NOT HAVE EASILY ERODIBLE SOIL. CONTRACTOR SHALL CONTACT THE SITE DESIGN ENGINEER AND THE CONSERVATION DISTRICT TO DEVISE ALTERNATIVE SOLUTIONS IF ANY EROSION CONDITIONS OCCUR THAT CANNOT BE ADDRESSED BY MEASURES FOUND IN THE PLANS.

FLOODING - SOIL STOCKPILES, BUILDING MATERIALS, AND EQUIPMENT SHOULD NOT BE STAGED WITHIN THE 100-YEAR FLOODPLAIN OR THE FLOODWAY AS SHOWN ON THE PLAN DRAWINGS, OR OTHER AREAS THAT MAY BE SUBJECT TO FLOODING. IF ACCUMULATED WATER NEEDS TO BE REMOVED FROM A WORK AREA, THE WATER SHALL BE TO A SEDIMENT CONTROL BMP, SUCH AS A SEDIMENT TRAP. SEDIMENT BASIN, OR PUMPED WATER FILTER BAG PLACED FOR DISCHARGE OVER A STABILIZED, WELL-VEGETATED AREA.

DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE - STRUCTURES WITH BASEMENTS AND OTHER SUBSURFACE STRUCTURES SHOULD BE AVOIDED. BUILDING FOUNDATIONS SHOULD BE FURNISHED WITH APPROPRIATE FOUNDATION DRAINS AND SUMP PUMPS WHERE NECESSARY. SATURATED SOILS SHOULD BE DEWATERED PRIOR TO USE IN GRADING. WET, MUCKY, OR SOUPY SOILS SHOULD NOT BE USED IN THE CONSTRUCTION OF FILLS OR SLOPES. IF ACCUMULATED WATER NEEDS TO BE REMOVED FROM A WORK AREA, THE WATER SHALL BE TO A SEDIMENT CONTROL BMP, SUCH AS A SEDIMENT TRAP, SEDIMENT BASIN, OR PUMPED WATER FILTER BAG PLACED FOR DISCHARGE OVER A STABILIZED. WELL-VEGETATED AREA, SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR

SUBSURFACE DRAIN OR OTHER APPROVED METHOD. . HYDRIC / HYDRIC INCLUSIONS - HYDRIC SOILS OR SOILS WITH HYDRIC INCLUSIONS MAY BE INDICATIVE OF WETLANDS, HIGH GROUNDWATER TABLE, OR POORLY DRAINED SOILS. WETLANDS SHOULD BE IDENTIFIED AND AVOIDED IF POSSIBLE. DEWATERING TECHNIQUES SHALL BE USED AS

8. LOW STRENGTH/LANDSLIDE PRONE - FOR SOILS WITH LOW STRENGTH, PRECAUTIONS SHOULD BE TAKEN TO PREVENT SLOPE FAILURES DUE TO IMPROPER CONSTRUCTION PRACTICES SUCH AS OVER-STEEPENING AND OVERLOADING OF SLOPES, REMOVAL OF LATERAL SUPPORT, AND FAILURE TO PREVENT SATURATION OF SLOPES. SETBACKS SHOULD BE APPLIED IN ACCORDANCE WITH PADEP STANDARDS UNLESS IT CAN BE SHOWN THAT PROPOSED CUTS AND FILLS DO NOT POSE A HAZARD TO PUBLIC SAFETY OR SURFACE WATERS. ALSO, ROAD FILL MATERIAL WILL LIKELY NEED TO BE IMPORTED IN AREAS WHERE SOILS HAVE LOW STRENGTH. CONTRACTOR SHALL CONSULT PROJECT GEOTECHNICAL ENGINEER/INSPECTOR FOR APPROPRIATE MEASURES TO BE IMPLEMENTED TO COMPACT, MITIGATE, AND/OR STABILIZE AREAS OF LOW STRENGTH OR LANDSLIDE PRONE SOILS.

). SLOW PERCOLATION - CONTRACTOR SHALL PERFORM SITE GRADING TO PROVIDE SUFFICIENT POSITIVE DRAINAGE AWAY FROM BUILDINGS, FOUNDATIONS, AND OTHER STRUCTURES. IF ACCUMULATED WATER NEEDS TO BE REMOVED FROM A WORK AREA, THE WATER SHALL BE TO A SEDIMENT CONTROL BMP, SUCH AS A SEDIMENT TRAP, SEDIMENT BASIN, OR PUMPED WATER FILTER BAG PLACED FOR DISCHARGE OVER A STABILIZED, WELL-VEGETATED AREA.

10. <u>PIPING</u> - SOILS THAT ARE SUSCEPTIBLE TO PIPING CAN BE ERODIBLE AND NOT WELL SUITED FOR ONSTRUCTION OF EMBANKMENTS, DIKES, AND LEVEES. CONSTRUCTION TECHNIQUES SHALL BE EMPLOYED TO ENSURE THESE SOILS ARE PROPERLY COMPACTED AND STABILIZED

11. POOR SOURCE OF TOPSOIL - MANY SOIL TYPES ARE DROUGHTY OR TOO WET TO BE SUITABLE SOURCES OF TOPSOIL. SOIL TESTS SHOULD BE DONE TO DETERMINE THE PROPER APPLICATION OF SOIL AMENDMENTS TO PROMOTE THE GROWTH OF THE DESIRED VEGETATION. WHEREVER SOILS THAT ARE FAIR OR GOOD SOURCES OF TOPSOIL EXIST ON A SITE, THEY SHOULD BE CAREFULLY PRESERVED AND STORED FOR LATER USE IN RESTORATION. IF NECESSARY, TOPSOIL MAY BE IMPORTED TO THE SITE

12. <u>FROST ACTION</u> - CONTRACTOR SHALL CONSULT PROJECT GEOTECHNICAL ENGINEER / INSPECTOR GARDING ANY SPECIAL MEASURES TO BE TAKEN FOR EARTHWORK THAT IS TO OCCUR DURING

13. WETNESS - PROPER DRAINAGE AND DEWATERING MEASURES SHALL BE EMPLOYED AT ALL TIMES. 14. <u>SLOPES</u> - EXCAVATIONS SHOULD BE STABILIZED TO PREVENT EROSION AND CONTRACTOR SHOULD MPLOY PROPER CONSTRUCTION TECHNIQUES TO ENSURE SAFETY ON STEEP SLOPE AREAS. 15. DEPTH OF ROCK - IF BEDROCK IS ENCOUNTERED, REMOVE AS NECESSARY IN ACCORDANCE WITH

16. <u>SOIL PH\_LEVELS</u> - CONTRACTOR SHALL HAVE SOIL PH\_TESTED TO DETERMINE CORRECT FERTILIZER 17. FLOODING POTENTIAL - ENSURE THAT THE SITE HAS PROPER DRAINAGE.

PROJECT SPECIFICATIONS.

18. <u>HIGH GROUNDWATER LEVEL</u> - CONTRACTOR SHALL EMPLOY DEWATERING TECHNIQUES AS APPROVED TRENCHES AND BELOW GRADE EXCAVATIONS.

19. BASIN AREAS AND EMBANKMENTS - FILL FOR BASIN EMBANKMENTS SHALL BE COMPACTED IN 8" LIFTS 98% MAXIMUM DRY DENSITY (STANDARD PROCTOR) +/- 2% MOISTURE CONTENT PER ASTM D-1557. ANTI-SEEP COLLARS SHALL BE INSTALLED ON A BASIN DISCHARGE PIPING TO PREVENT SEEPAGE OF WATER FROM THE BASIN. CONSULT WITH SITE DESIGN ENGINEER FOR THE SPECIFIC ANTI-SEEP COLLAR SIZE REQUIREMENTS.

### **PCSM PLAN GENERAL NOTES**

THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE N.P.D.E.S. PERMIT FOR THE PROJECT SITE, INCLUDING OBTAINING STATUS AS A CO-PERMITTEE OF THE PERMIT. FOR INFORMATION REGARDING COMPLIANCE WITH THE N.P.D.E.S. PERMIT, CONTACT: DELAWARE COUNTY CONSERVATION DISTRICT 1521 N. PROVIDENCE ROAD

MEDIA. PA 19063 610.892.9484 1. THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPs. ADDITIONAL SOIL TESTING MAY BE REQUIRED PRIOR TO THE INSTALLATION OF BMPs TO ENSURE PROPER LOCATION AND FUNCTION. A LICENSED PROFESSIONAL KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPs SHALL CONDUCT THE OVERSIGHT.

THE "POST CONSTRUCTION STORMWATER MANAGEMENT NARRATIVE AND CALCULATIONS" REPORT SHALL BE CONSIDERED PART OF THE PLANS. 3. A "NOTICE OF TERMINATION" (NOT) WILL BE REQUIRED TO BE SUBMITTED. PRIOR TO ACCEPTING THE NOT, CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMPs. 4. COMPACTION OF FILL. ALL STRUCTURAL FILL TO BE PLACED IN 6" LIFTS AND COMPACTED TO NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 2% OF THE

OPTIMUM. APPLICABLE FOR BERMS, STREETS, ETC. UNLESS SPECIFIED OTHERWISE ON THE PLANS OR IN ANY SUPPLEMENTAL SPECIFICATIONS. ALL STORMWATER STRUCTURES GREATER THAN FIVE FEET IN DEPTH REQUIRE STEPS. 6. ALL REQUESTS FOR REQUIRED INSPECTIONS BY THE CONTRACTOR ARE TO BE DEEMED AS APPROVED REQUESTS ON BEHALF OF THE OWNER. 7. THE APPLICANT MUST SCHEDULE CONSTRUCTION INSPECTIONS FOR THE STORMWATER

MANAGEMENT FACILITIES WITH THE TOWNSHIP INCLUDING THE PROPOSED REMOVAL OF IMPERVIOUS SURFACES FULL DEPTH. 8. UPON RECEIPT OF THE CERTIFICATE OF COMPLETION, AND PRIOR TO RELEASE OF THE REMAINING FINANCIAL SECURITY THE TOWNSHIP SHALL CONDUCT A FINAL INSPECTION TO CERTIFY COMPLIANCE WITH THE ORDINANCE 9. UPON COMPLETION OF THE PLAN IMPROVEMENTS THE APPLICANT SHALL SUBMIT A RECORD PLAN FOR RECORDATION IN THE OFFICE OF THE RECORDER OF DEEDS. THE RECORDS PLAN MUST SHOW THE FINAL DESIGN SPECIFICATIONS FOR ALL STORMWATER MANAGEMENT FACILITIES AND BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. WHEN A DIGITAL SUBMISSION OF A RECORD

PLAN IS REQUIRED, ALL COORDINATES AS DEPICTED ON THE PLAN SHALL BE BASED ON THE PA SOUTH ZONE STATE PLANE COORDINATES SYSTEM(NAD83 FOR HORIZONTAL AND HNAVD88 FOR

10. THE LANDOWNER SHALL KEEP ON FILE WITH THE TOWNSHIP THE NAME, ADDRESS AND THE TELEPHONE NUMBER OF THE PERSON OR COMPANY RESPONSIBLE FOR MAINTENANCE ACTIVITIES. IN THE EVENT OF A CHANGE, NEW INFORMATION WILL BE SUBMITTED TO THE TOWNSHIP WITHIN TEN(10) DAYS OF THE CHANGE. 11. ENUMERATE PERMANENT SWM FACILITIES AS PERMANENT REAL ESTATE APPURTENANCES AND RECORD AS DEED RESTRICTION OR EASEMENT THAT RUN WITH THE LAND.

12. IDENTIFICATION OF A RESPONSIBLE INDIVIDUAL, CORPORATION, ASSOCIATION OR OTHER ENTITY FOR OWNERSHIP AND MAINTENANCE OF BOTH TEMPORARY AND PERMANENT STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL FACILITIES. 13. A PRE-CONSTRUCTION MEETING MUST BE HELD PRIOR TO EARTH MOVING ACTIVITIES AND RECORDATION OF THE PLAN. THE FOLLOWING PERSONAL ARE TO BE INCLUDED FROM: HAVERFORD TOWNSHIP, HAVERFORD TOWNSHIP PUBLIC WORKS DEPARTMENT, HAVERFORD TOWNSHIP ENGINEER, THE DELEWARE COUNTY CONSERVATION DISTRICT, HAVERFORD TOWNSHIP SCHOOL

14. AT THE COMPLETION OF THE PROJECT, AND AS A PREREQUISITE FOR THE RELEASE OF THE FINANCIAL SECURITY, THE APPLICANT SHALL PROVIDE CERTIFICATION OF COMPLETION FROM AN ENGINEER, LANDSCAPE ARCHITECT, SURVEYOR, OR OTHER QUALIFIED PERSON VERIFYING THAT ALL PERMANENT SWM FACILITIES HAVE BEEN CONSTRUCTED ACCORDING TO THE PLANS AND SPECIFICATIONS AND APPROVED REVISIONS THERETO 15. ALL IMPERVIOUS SURFACES TO BE REMOVED ARE TO BE REMOVED FULL DEPTH, INCLUDING ANY

DISTRICT, K&W ENGINEERS, THE EXCAVATOR.

OVERLAYING EXISTING SURFACES.

16. RIGHT OF ENTRY IS GRANTED TO THE MUNICIPALITY FOR THE PURPOSE OF OF INSPECTING ALL STORMWATER CONVEYANCE, TREATMENT, OR STORAGE FACILITIES. 17. A MINIMUM DEPTH OF 24 INCHES BETWEEN THE BOTTOM OF ANY BMP AND ANY LIMITING FACTOR MUST BE PROVIDED. A MINIMUM DEPTH OF 24 INCHES OF OVER-EXCAVATION IS REQUIRED WHEN BEDROCK IS ENCOUNTERED DURING CONSTRUCTION.

18. NO WETLANDS ARE NOTED ON THE NATIONAL WETLANDS INVENTORY MAPPING, AND NO WETLANDS WERE DELINEATED WITHIN THE BOUNDARIES OF THE PROJECT SITE. 19. THE MAINTENANCE OF ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO NORMAL MAINTENANCE AS WELL AS REPAIR OF STRUCTURAL DAMAGE OR DETERIORATION OF ANY KIND, INCLUDING THAT CAUSED BY SINKHOLES OR OTHER EVENTS. THE TOWNSHIP SHALL HAVE THE RIGHT, BUT NOT THE DUTY, OF ACCESS AT ANY TIME TO INSPECT AND MAINTAIN THE FACILITY AT

THE PROPERTY OWNER'S EXPENSE IF THE OWNER SHOULD FAIL TO PROPERLY MAINTAIN THE 20. A PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER, IN ADDITION TO THE TOWNSHIP, SHALL BE CONTACTED UPON THE DISCOVERY OF ANY SINKHOLE OR CARBONATE GEOLOGY FORMATIONS DURING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES

21. AREAS LABELED AS ROADWAY MAINTENANCE ACTIVITIES WILL CONSIST SOLELY OF MILLING AND

### **OPERATION & MAINTENANCE PROGRAM** FOR BMPs AND SWM FACILITIES

1. THE PURPOSE OF THIS PROGRAM IS TO IDENTIFY THE OWNERSHIP AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE PROPOSED STRUCTURAL STORMWATER BMP'S. THE SUBJECT SITE HAS BEEN DESIGNED SUCH THAT THE INCREASE IN STORMWATER VOLUME SHALL BE ATTENUATED BY INFILTRATION BASINS. IN ORDER TO MEET THE NPDES REQUIREMENTS THE ABOVE FACILITIES HAVE BEEN DESIGNED TO MITIGATE THE INCREASE IN STORMWATER RUNOFF VOLUME DURING THE 2 YEAR, 24 HOUR STORM EVENT.

2. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT DURING THE CONSTRUCTION OF THE STORMWATER FACILITIES. THE BASINS SHOULD BE OBSERVED FOR CORRECT EXCAVATION DEPTHS AND AREAS, THE INSTALLATION OF THE ASSOCIATED COMPONENTS WHERE APPLICABLE (I.E. INLETS, OUTLET STRUCTURES, ETC.), OVER EXCAVATION TO DEPTH, AND CONFIRMATION OF THE CORRECT

3. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER FACILITIES AND BMP'S LOCATED OUTSIDE OF THE PUBLIC-RIGHT-OF-WAY. THESE FACILITIES INCLUDE BUT ARE NOT LIMITED TO THE CONVEYANCE SYSTEMS AND INFILTRATION FACILITIES. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR KEEPING THE FACILITIES FREE OF OBSTRUCTIONS. THE PROPERTY OWNER SHALL GRANT TO THE TOWNSHIP THE RIGHT TO ENTER ALL PARTS OF THE PROPERTY TO INSPECT ON SITE STORMWATER MANAGEMENT FACILITIES IN ORDER TO ENSURE THEY ARE BEING OPERATED AS INTENDED PER THE PROVIDED MAINTENANCE REQUIREMENTS. THE PROPERTY OWNER SHALL FURTHER RECOGNIZE THAT IF SAID STORMWATER FACILITIES ARE NOT MAINTAINED IN ACCORDANCE WITH THE ABOVE, HAVERFORD TOWNSHIP HAS LEGAL RIGHT TO ACCESS THE PROPERTY, APPLY REQUIRED MAINTENANCE MEASURES TO SAID AREAS, AND ASSESS PENALTIES AND COSTS INVOLVED.

4. A BMP FAILURE CONSISTS OF THE BMP NOT FUNCTIONING AS PER THE DESIGN. FAILURES WOULD CONSIST OF, BUT IS NOT LIMITED TO, ANY BLOCKAGES TO CONVEYANCE SYSTEMS, OUTLET STRUCTURE CLOGGING/DISCONNECTION, INFILTRATION AREAS NOT INFILTRATING, ETC. THE PROPERTY OWNER SHALL MAKE THE NECESSARY REPAIRS TO THE FACILITY AS PER THE FINAL PCSM PLAN. IF INFILTRATION DOES NOT OCCUR IN THE BASINS AS PER DESIGNED, PROPERTY OWNER SHALL CONTACT THE ENGINEER TO DETERMINE REMEDIATION EFFORTS

5. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWNSHIPS CONSTRUCTION AND MATERIAL SPECIFICATIONS THE AFOREMENTIONED FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. HAVERFORD TOWNSHIP SCHOOL DISTRICT

TELEPHONE: 610.853.5900 X7204 MAUREEN REUSCHE, Ed.D., SUPERINTENDENT

### **SEQUENCE OF CONSTRUCTION**

LL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE ÌS INITIATED. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT

SCHEDULE SHALL INCLUDE REGULAR INSPECTION AND MAINTENANCE REQUIREMENTS INCLUDING ENGINEER'S PRESENCE AT SITE TO OBSERVE CONSTRUCTION AT <u>CRITICAL STAGES</u> AS INDICATED HEREIN. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS PRIOR TO CONSTRUCTION OF STAGES. 1. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER AND/OR

PRACTICES (BMPS) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE DELEWARE COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION

2. AT LEAST THREE (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 THE LOCATION OF EXISTING UNDERGROUND UTILITIES. . CONTRACTOR SHALL CLEARLY MARK THE LIMIT OF DISTURBANCE AS SHOWN ON THE PLAN. ORANGE CONSTRUCTION FENCE OR WOODEN STAKES WITH FLAG TAPE ARE ADEQUATE FOR FIELD MARKING. ADDITIONALLY, CONTRACTOR SHALL CLEARLY MARK ALL WATERS OF THE COMMONWEALTH. 4. INSTALL ALL SEGMENTS OF COMPOST FILTER SOCK IN THE LOCATIONS SHOWN ON THE PLANS.

5. ROUGH GRADE THE ACCESS DRIVES INTO THE SITE AND IMMEDIATELY CONSTRUCT THE TEMPORARY ROCK CONSTRUCTION ENTRANCES AS SHOWN ON THE PLAN. ALL VEHICLES ENTERING THE SITE SHALL DO SO VIA THE ROCK CONSTRUCTION ENTRANCES. ANY MUD OR SEDIMENT TRACKED ONTO MACADAM ROADWAYS SHALL BE REMOVED BY THE CONTRACTOR AT THE END OF EACH WORKING DAY. WASHING OF THE ROADWAY IS NOT PERMITTED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE ACCESS DRIVES THROUGHOUT THE TERM OF CONSTRUCTION ACTIVITIES.

CRITICAL STAGE: INSTALL UNDERGROUND INFILTRATION BASINS (BMP 1 AND BMP 2). EXISTING UBGRADE UNDER THE BED AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE BED PLACEMENT. 6.1. INSTALL CONSTRUCTION FENCING AROUND LOCATIONS OF BMP 1 AND BMP 2, AS SHOWN ON THE

6.1. WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.

6.2. GEOTEXTILE AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS.

6.3. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 8-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM AS MUCH AS POSSIBLE.

6.4. APPROVED SOIL MEDIA SHOULD BE PLACED OVER INFILTRATION BASINS IN MAXIMUM 6-INCH 7. CLEAR AND GRUB THE REMAINING PORTIONS OF THE SITE AND DEMO ITEMS AS REQUIRED. STRIP TOPSOIL AND STOCKPILE AT THE TEMPORARY AREA PROVIDED. SURROUND WITH COMPOST FILTER SOCK AND SEED PER TEMPORARY SEEDING SPECIFICATIONS. FERTILIZE AND MULCH. BEGIN BULK EXCAVATION OF THE SITE TO THE REQUIRED GRADES AS SHOWN ON THE PLANS. ANY EXCAVATED SOIL MATERIAL REMOVED FROM THE SITE

SHALL ONLY BE PLACED IN AN AREA THAT HAS AN APPROVED EROSION CONTROL PLAN. ENSURE SEDIMENT

LADEN RUNOFF IS DIRECTED TO AN APPROPRIATE EROSION CONTROL BMP. 8. ROUGH GRADE SITE DRIVEWAY AND PARKING AREAS, AND MODIFY ROCK CONSTRUCTION ENTRANCE ACCORDING TO THE PROPOSED GRADES. 9. INSTALL STORMWATER COLLECTION AND CONVEYANCE FACILITIES BEGINNING AT THE DOWNSTREAM

CONNECTIONS AND WORKING UPSTREAM. ALL STORM SEWER CONSTRUCTION INCLUDES TRENCHING. BACKFILLING, AND APPLYING FINAL STABILIZATION, ALL AREAS DRAINING TO STORMWATER COLLECTION CONVEYANCE, AND MANAGEMENT FACILITIES SHALL BE IMMEDIATELY STABILIZED AND, IF NEEDED, TEMPORARY DIVERSION MEASURES UTILIZED TO MINIMIZE THE AMOUNT OF SEDIMENT REACHING THEM. INSTALL

10. PLACE STONE SUBBASE IN AREAS OF PAVING AS SOON AS PRACTICAL TO PREVENT EROSION. E&S MATTING SHALL BE INSTALLED ON DISTURBED SLOPES WHICH ARE 3:1 OR GREATER. CONTRACTOR TO ENSURE SEDIMENT LADEN RUNOFF IS DIRECTED TO AN E&S CONTROL BMP 11. UPON ACHIEVING FINAL ELEVATION IN THE PROPOSED BUILDING PAD AREAS FOR EACH BUILDING ADDITION, EXCAVATE THE BUILDING FOOTERS. POUR CONCRETE FOR FOOTERS AND CONSTRUCT FOUNDATION WALL.

WHEN CONDITIONS WARRANT, THE FOOTERS AND FOUNDATION WALLS MAY BE BACKFILLED. FILL MATERIAL SHALL BE FREE OF ROOTS, SOD, AND OTHER ORGANIC MATERIAL, FROZEN SOIL, STONES, AND DISCARDED CONSTRUCTION MATERIAL. THE FILL SHALL BE PLACED IN 8" LAYERS, WITH EACH LAYER BEING ROLLED AND COMPACTED PRIOR TO THE NEXT LAYER BEING PLACED. WHEN THE AREA REACHES THE PRESCRIBED ELEVATION, THE SUBBASE SHOULD BE THOROUGHLY ROLLED AND COMPACTED TO ELIMINATE ANY SOFT OR UNSETTLED AREAS.

12. INSTALL WATER SERVICE PIPING, ELECTRIC, AND OTHER REQUIRED UTILITIES. 13. INSTALL PAVEMENT OR CONCRETE TO ALL AREAS INDICATED ON THE PLANS AND APPLY TOPSOIL WITH PERMANENT SEEDING TO ALL AREAS TO REMAIN AS LANDSCAPE OR GRASS. IF NEEDED, IMPORT TOPSOIL AND

TEMPORARY INLET PROTECTION WHERE INDICATED ON THE PLAN.

APPLY THE MINIMUM REQUIRED DEPTH TO ESTABLISH PERMANENT VEGETATION. SEED, FERTILIZE, AND MULCH EXPOSED OR DISTURBED AREAS. 15. INSTALL ALL PROPOSED LANDSCAPING AT THIS TIME. SEE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN FOR PLANTINGS AND SPECIFICATIONS.

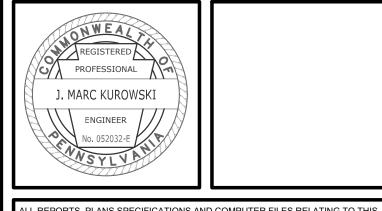
16. THE CONTRACTOR SHALL REMOVE TEMPORARY INLET PROTECTION AND FLUSH ALL STORM SEWER PIPES AFTER THE SITE IS COMPLETELY STABILIZED 17. ONCE SITE IS COMPLETELY STABILIZED, THE CONSTRUCTION FENCING AROUND BMP 1 AND BMP 2 SHALL BE

18. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES, REMOVAL OF ALL TEMPORARY BMPS, AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL PREPARE A DRAFT NOTICE OF TERMINATION (NOT) AND AS-BUILT PLANS SUITABLE TO CONDUCT FINAL INSPECTION. CONTACT THE DELEWARE COUNTY CONSERVATION DISTRICT FOR A FINAL INSPECTION. PROPER DISPOSAL AND/OR RECYCLING OF THE BMPS IS REQUIRED BY THE SITE CONTRACTOR.

\* STABILIZATION- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. \*\*IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

### **SUBSURFACE INFILTRATION BASINS / BEDS** OPERATION & MAINTENANCE PROCEDURES SCHEDULE ALL CATCH BASINS AND INLETS CONTRIBUTING TO THE FACILITY SEMI-ANNUAL SHOULD BE INSPECTED AND CLEANED OUT INSPECT FACILITY AND CONTROL STRUCTURE TO ENSURE QUARTERLY **FUNCTIONALITY** REMOVE FLOATING DEBRIS AND ACCUMULATED PETROLEUM PRODUCTS OUARTERLY OVERLYING VEGETATION SHOULD BE MAINTAINED IN GOOD CONDITION, AS NEEDED AND ANY BARE SPOTS RE-VEGETATED AS SOON AS POSSIBLE CLEAN OUT GUTTERS AND INLETS TO REDUCE SEDIMENT LOAD TO BASIN AS NEEDED REMOVE SEDIMENT AND DEBRIS FROM PIPE STORAGE AREAS AS NEEDED MAINTAIN RECORDS OF ALL INSPECTIONS AND MAINTENANCE ACTIVITY ONGOING GENERAL MAINTENANCE NOTES: VEHICULAR ACCESS SHOULD BE PROHIBITED AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. ONGOING

STORMWATER COLLECTION/CONVEYANCE				
OPERATION & MAINTENANCE PROCEDURES				
ACTIVITY	SCHEDULE			
INLETS & CATCH BASINS SHOULD BE CLEANED OF DEBRIS. REPAIRS SHOULD BE MADE AS SOON AS PROBLEMS ARISE	CLEAN ANNUALLY & REPAIR AS NEEDED			
INSPECT OUTFALL STRUCTURES QUARTERLY DURING 1ST YEAR & 1X PER YEAR THEREAFTER	QUARTERLY & ANNUALLY			
COLLECTION/CONVEYANCE SYSTEMS SHOULD BE INSPECTED	SEMI-ANNUAL			
GENERAL MAINTENANCE NOTES:  1. VACTOR TRUCKS MAY BE AN EFFICIENT CLEANING MECHANISM.  2. CATCH BASINS SHOULD BE CLEANED BEFORE HALF FULL.				



REPORTS PLANS SPECIFICATIONS AND COMPUTER FILES RELATING TO THI OJECT ARE THE PROPERTY OF CRABTREE, ROHRBAUGH & ASSOCIATES. RABTREE ROHRBAUGH & ASSOCIATES RETAINS ALL COMMON LAW STATUTE A ER RESERVED RIGHTS INCLUDING THE COPYRIGHT THERETO. REPRODUCTIO THE MATERIAL HEREIN OR SUBSTANTIAL USE WITHOUT WRITTEN PERMISSION O ABTREE, ROHRBAUGH & ASSOCIATES VIOLATES THE COPYRIGHT LAWS OF THE NITED STATES AND WILL BE SUBJECT TO LEGAL PROSECUTION. CRABTREE, ROHRBAUGH & ASSOCIATES, INC 2023

> **REVISIONS** REVISED PER TOWNSHIP COMMENT LETTER

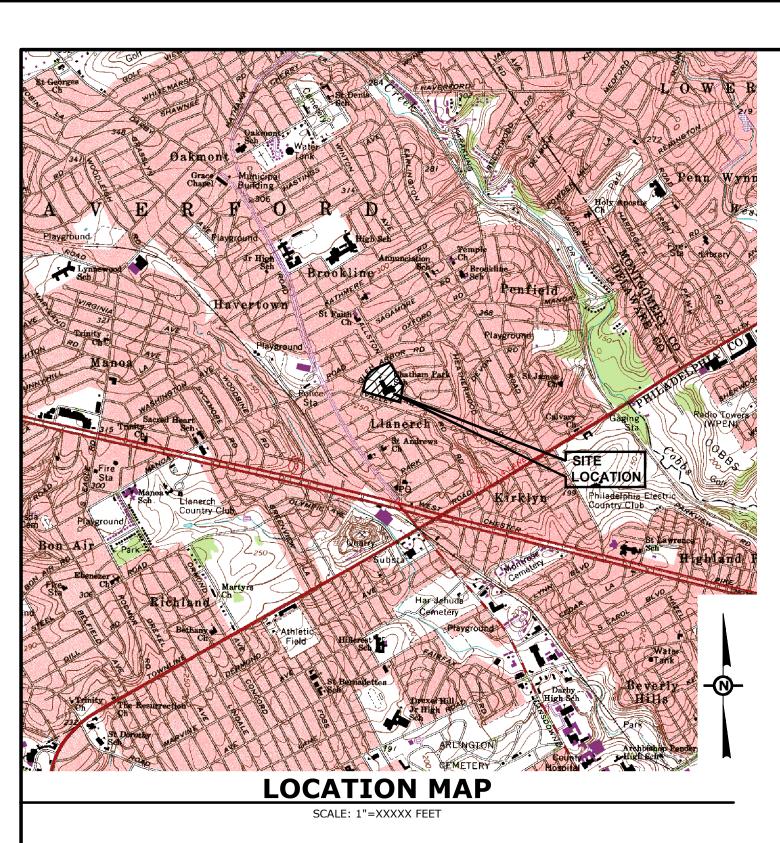
MM-DD-YR NAME DESCRIPTION OF CHANGES REVISED PER DCCD COMMENT LETTER 06-21-2024 REVISED PER TOWNSHIP & DCCD COMMENT LETTERS



SUPPORTING <u>INFORMATION</u>

MAY 7, 2024

C-002



### **E&S PLAN SET**

SHEET NUMBER	SHEET TITLE
C-003	E&S SUPPORTING INFORMATION
C-101	OVERALL EXISTING FEATURES PLAN
C-101.1	EXISTING FEATURES PLAN
C-101.2	EXISTING FEATURES PLAN
C-701	OVERALL E&S PLAN
C-701.1	E&S PLAN
C-701.2	E&S PLAN
C-702	E&S DETAILS

### **ENVIRONMENTAL DUE DILIGENCE**

ASSOCIATED WITH THE PROJECT OUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATABASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OF AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE

ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS

DEPARTMENT'S POLICY "MANAGEMENT OF CLEAN FILL". ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FR-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

## **MULCH SPECIFICATIONS**

MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

ON ALL DISTURBED AREAS WHICH DO NOT HAVE AN EROSION CONTROL BLANKET SPECIFIED FOR INSTALLATION, STRAW MULCH SHALL BE APPLIED AT THE RATE OF 3.0 TONS PER ACRE IMMEDIATELY AFTER SEEDING THE SURFACE. ON STEEP SLOPES OF 3:1 OR GREATER. MULCH SHALL BE ANCHORED THROUGH THE USE OF JUTE NETTING OR MIXING WITH ASPHALT AT THE RATE OF 100 GALLONS PER 3 TONS OF STRAW MULCH. SOIL AMENDMENTS SPECIFICATIONS APPLY THE FOLLOWING SOIL SUPPLEMENTS PRIOR TO PERMANENT SEEDING:

PULVERIZED AGRICULTURAL LIMESTONE CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 2,480 POUNDS PER 1,000 SOUARE YARDS. B) 10-20-20 ANALYSIS COMMERCIAL FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 210 POUNDS PER 1,000 SQUARE YARDS. 38-0-0 UREAFORM SLOW-RELEASE NITROGEN FERTILIZER CONFORMING TO PENN D.O.T. FORM 408, SECTION 804, APPLIED AT A RATE OF 50 POUNDS PER 1,000 SQUARE YARDS.

### **SEED MIXTURES**

% PURE LIVE SEED: 81% APPLICATION RATE: 10 LBS / 1000 SO.YD. FERTILIZER TYPE: NITROGEN FERTILIZER (10-10-10) SPECIES: TURF TYPE TALL FESCUE %PURE LIVE SEED: 97%

ANCHOR MATERIAL: NON ASPHALTIC EMULSION OR TERRA TACK II ANCHORING METHOD: MANUAL BROADCASTING OR APPLICATION RATE: 21 LBS / 1,000SQ.YD RATE OF ANCHOR MATERIAL APPL.: 28 GALLONS / FERTILIZER APPL. RATE: 1000 LBS / ACRE SEEDING SEASON DATES: 4/15 - 5/30 & 9/1-10/15

PERMANENT SEED MIXTURE - STEEP SLOPES TOPSOIL PLACEMENT DEPTH: 6" SPECIES: PENNDOT FORMULA D LOW MOW GRASS MIX % PURE LIVE SEED: 81% APPLICATION RATE: 30LBS / 1.000SQ.YI FERTILIZER RATE: NITROGEN FERTILIZER (10-20-20) FERTILIZER APPLICATION RATE: 140LBS / 1,000 SQ.YD. LIMING RATE: 800LBS / 1,000SQ.YD. MUI CH TYPE: STRAW MUI CH

ANCHOR MATERIAL: NON ASPHALTIC EMULSION OR TERRA TACK II ANCHORING METHOD: MANUAL BROADCASTING OR RATE OF ANCHOR MATERIAL APPL.: 28 GALLONS / SEEDING SEASON DATES: 3/15 - 6/1 & 8/1 - 10/15

FERTILIZER APPLICATION RATE: 500 LB / ACRE

LIMING RATE: 1 TON / ACRE

MULCH TYPE: STRAW MULCH

MULCHING RATE: 3 TON / ACRE

### LANDOWNER / APPLICANT

HAVERFORD TOWNSHIP SCHOOL DISTRICT 400 ALLSTON ROAD HAVERTOWN, PA 19083

LIMING RATE: 6 TONS / ACRE

MULCHING RATE: 3 TON / ACRE

MULCHING RATE: 3 TON / ACRE

MULCH TYPE: STRAW MULCH

TELEPHONE: 610 853 5900 X7204 CONTACT: MAUREEN REUSCHE, Ed.D., SUPERINTENDENT

### **SITE ENGINEER / PLAN PREPARER**

KUROWSKI & WILSON, LLC 2201 NORTH FRONT STREET, SUITE 200

HARRISBURG, PA 17110

TELEPHONE: 717.635.2835

### **SITE SURVEYOR**

CONTACT: CAROLYN E. DUBOIS, R.L.A.

KUROWSKI & WILSON, LLO 2201 NORTH FRONT STREET, SUITE 200 HARRISBURG, PA 17110

TELEPHONE: 717.635.2835 CONTACT: DENNIS P. BURKHARD, P.L.S.

### WATERSHED NOTE

THE SITE IS LOCATED IN THE COBBS CREEK WATERSHED APPROXIMATELY 0.80 MILES WEST OF THE COBBS CREEK. ACCORDING TO 25 PA CODE CHAPTER 93, COBBS CREEK IS DESIGNATED AS A WARM WATER FISHERY (WWF) WITH MIGRATORY FISH (MF). COBBS CREEK IS NOT LISTED AS A HIGH QUALITY, EXCEPTIONAL VALUE, OR SPECIAL PROTECTION STREAM. COBBS CREEK IS IMPAIRED ACCORDING TO CHAPTER 4 OR 5 OF THE INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT. THE SITE DOES NOT DISCHARGE TO WATERS WITH A TMDL.

### RECYCLING OR DISPOSAL OF MATERIALS

- 1. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1., AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. 2. ANTICIPATED CONSTRUCTION WASTE MAY INCLUDE TYPICAL BUILDING MATERIALS (I.E. LUMBER,
- DRYWALL, MASONRY, CARDBOARD AND PAPER, INSULATION, ASPHALT, ROOFING, PLASTIC AND VINYL, PAINTS, STAINS, SOLVENTS AND SEALANTS, (ETC.) 3. IT IS STRONGLY ENCOURAGED THAT SUCH RECOVERABLE WASTE MATERIALS BE SEPARATED AND APPROPRIATELY RECYCLED. NO POTENTIAL TOXIC OR HAZARDOUS WASTE IS KNOWN TO BE PRESENT ON SITE. IF ANY TOXIC OR HAZARDOUS WASTE IS ENCOUNTERED, THE CONTRACTOR SHALL FOLLOW ANY AND

ALL APPLICABLE STATE OR FEDERAL REGULATIONS ASSOCIATED WITH THE DISPOSAL OF SUCH MATERIALS.

### MAINTENANCE OF CONTROL STRUCTURES

UNTIL THE SITE IS STABILIZED. ALL EROSION AND SEDIMENT BMPS MUST BE MAINTAINED PROPERLY, MAINTENANCE MUST INCLUD PECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE OPERATOR SHALL ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY, MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BES MANAGEMENT PRACTICE FACILITIES. THE OPERATOR WILL MAINTAIN AND MAKE AVAILABLE TO THE DELAWARE COUNTY CONS DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGRADING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.

ANY DEBRIS ACCUMULATED AT SILT BARRIERS WILL BE REMOVED AND PROPERLY DISPOSED IN A RESPONSIBLE MANNER. BARRIERS SHALL BE CHECKED AND REALIGNED OR RESET AS REQUIRED. SILT SOCK SURROUNDING PUMPED WATER FILTER BAGS WILL BE INSPECTED AN CLEARED OF DEBRIS DAILY. ANY DEBRIS OR SOLID WASTE MATERIAL ACCUMULATED FROM CONSTRUCTION ACTIVITIES SHALL BE REMOVE FROM THE SITE AND DISPOSED OF IN AN APPROVED LANDFILL. CONSTRUCTION WASTE SHALL NOT BE BURIED ON THE SUBJECT SITE. TH COMPOST UPSTREAM OF ROCK FILTERS MUST BE INSPECTED AFTER RAIN EVENTS AND WEEKLY AND REPLACED TO APPROPRIATE DEPTH IF

THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE CLEANED AND REDRESSED WHEN VOIDS BECOME CHOKED WITH MUD AND MISCELLANEOUS ADJUSTMENTS AND CORRECTIONS SHALL BE MADE TO ANY EROSION CONTROL STRUCTURE AS DEEMED NECESSARY BY HE ENGINEER, MUNICIPAL OFFICIAL, OR COUNTY REPRESENTATIVE IN ORDER TO CORRECT UNFORESEEN PROBLEMS CAUSED BY STORMS PRIOR TO STABILIZATION. SILT SOCK - SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE SOCKS. SILT SOCKS SURROUNDING THE PUMPED WATER FILTER BAGS INCLUDED.

VEGETATIVE STABILIZATION WILL BE PERIODICALLY INSPECTED FOR PROPER GROWTH. ANY AREAS NOT RESPONDING WILL BE PROMPTLY RESEEDED. AREAS, WHICH SHOW SIGNS OF EROSION PRIOR TO STABILIZATION SHALL BE GRADED, RESEEDED, AND REMULCHED AS SOON

SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS

### **SOIL LIMITATIONS RESOLUTIONS**

CAVING CUT BANKS - CONTRACTOR SHOULD EMPLOY PROPER CONSTRUCTION, STABILIZATION, AND AFE WORKING TECHNIOUES TO ENSURE SAFETY ON STEEP SLOPE AREAS AND WITHIN AND AROUND ALL EXCAVATIONS INCLUDING FOOTERS, FOUNDATIONS AND UTILITY TRENCHES. BENCHING AND TRENCH BOXES SHOULD BE EMPLOYED WHERE REQUIRED OR APPROPRIATE TO ENSURE SAFE WORKING CONDITIONS AND COMPLIANCE WITH APPLICABLE SAFETY STANDARDS AND REGULATIONS. CORROSIVE TO CONCRETE/STEEL - WHERE PERMITTED, UNDERGROUND PIPES, CONDUITS, AND STORAGE TANKS SHOULD BE MADE CORROSION RESISTANT MATERIALS. WHERE NECESSARY,

STEEL STRUCTURES AND FACILITIES FROM CORROSION

ADDRESSED BY MEASURES FOUND IN THE PLANS.

3. DROUGHTY SOILS - IRRIGATION MAY BE REQUIRED FOR SEED GERMINATION AND ESTABLISHMENT OF SUFFICIENT STAND OF VEGETATIVE COVER. USE OF SOD OR ADVANCED SEEDING TECHNIQUES, SUCH AS HYDROSEEDING, SHOULD BE CONSIDERED EASILY ERODIBLE - CONTRACTOR SHALL LIMIT THE EXTENT AND DURATION OF EARTH DISTURBANCE O THE LEAST AMOUNT PRACTICABLE TO COMPLETE THE PROJECT. CONTRACTOR SHOULD PHASE

SUITABLE PRECAUTIONS SHOULD BE TAKEN TO PROTECT UNDERGROUND CONCRETE AND UNCOATED

- CONSTRUCTION WHERE POSSIBLE TO LIMIT THE TOTAL AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME. TEMPORARY AND PERMANENT STABILIZATION MEASURES SHOULD BE IMPLEMENTED AS SOON AS POSSIBLE. SEDIMENT CONTROL BMPS MAY REQUIRE MORE FREQUENT MAINTENANCE AND SEDIMENT REMOVAL AS COMPARED WITH SITES THAT DO NOT HAVE EASILY ERODIBLE SOIL CONTRACTOR SHALL CONTACT THE SITE DESIGN ENGINEER AND THE CONSERVATION DISTRICT TO DEVISE ALTERNATIVE SOLUTIONS IF ANY EROSION CONDITIONS OCCUR THAT CANNOT BE
- 5. FLOODING SOIL STOCKPILES, BUILDING MATERIALS, AND EQUIPMENT SHOULD NOT BE STAGED VITHIN THE 100-YEAR FLOODPLAIN OR THE FLOODWAY AS SHOWN ON THE PLAN DRAWINGS, OR OTHER AREAS THAT MAY BE SUBJECT TO FLOODING. IF ACCUMULATED WATER NEEDS TO BE REMOVED FROM A WORK AREA, THE WATER SHALL BE TO A SEDIMENT CONTROL BMP, SUCH AS A SEDIMENT TRAP, SEDIMENT BASIN, OR PUMPED WATER FILTER BAG PLACED FOR DISCHARGE OVER A STABILIZED, WELL-VEGETATED AREA.
- DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE STRUCTURES WITH BASEMENTS AND THER SUBSURFACE STRUCTURES SHOULD BE AVOIDED. BUILDING FOUNDATIONS SHOULD BE FURNISHED WITH APPROPRIATE FOUNDATION DRAINS AND SUMP PUMPS WHERE NECESSARY. SATURATED SOILS SHOULD BE DEWATERED PRIOR TO USE IN GRADING, WET, MUCKY, OR SOUPY SOILS SHOULD NOT BE USED IN THE CONSTRUCTION OF FILLS OR SLOPES. IF ACCUMULATED WATER NEEDS TO BE REMOVED FROM A WORK AREA, THE WATER SHALL BE TO A SEDIMENT CONTROL BMP, SUCH AS A SEDIMENT TRAP. SEDIMENT BASIN. OR PUMPED WATER FILTER BAG PLACED FOR DISCHARGE OVER A STABILIZED. WELL-VEGETATED AREA. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- HYDRIC / HYDRIC INCLUSIONS HYDRIC SOILS OR SOILS WITH HYDRIC INCLUSIONS MAY BE INDICATIVE OF WETLANDS, HIGH GROUNDWATER TABLE, OR POORLY DRAINED SOILS. WETLANDS SHOULD BE IDENTIFIED AND AVOIDED IF POSSIBLE. DEWATERING TECHNIQUES SHALL BE USED AS
- 8. LOW STRENGTH/LANDSLIDE PRONE FOR SOILS WITH LOW STRENGTH, PRECAUTIONS SHOULD BE AKEN TO PREVENT SLOPE FAILURES DUE TO IMPROPER CONSTRUCTION PRACTICES SUCH AS OVER-STEEPENING AND OVERLOADING OF SLOPES, REMOVAL OF LATERAL SUPPORT, AND FAILURE TO PREVENT SATURATION OF SLOPES. SETBACKS SHOULD BE APPLIED IN ACCORDANCE WITH PADEP STANDARDS UNLESS IT CAN BE SHOWN THAT PROPOSED CUTS AND FILLS DO NOT POSE A HAZARD TO PUBLIC SAFETY OR SURFACE WATERS. ALSO, ROAD FILL MATERIAL WILL LIKELY NEED TO BE IMPORTED IN AREAS WHERE SOILS HAVE LOW STRENGTH. CONTRACTOR SHALL CONSULT PROJECT GEOTECHNICAL ENGINEER/INSPECTOR FOR APPROPRIATE MEASURES TO BE IMPLEMENTED TO COMPACT, MITIGATE, AND/OR STABILIZE AREAS OF LOW STRENGTH OR LANDSLIDE PRONE SOILS. 9. SLOW PERCOLATION - CONTRACTOR SHALL PERFORM SITE GRADING TO PROVIDE SUFFICIENT
- POSITIVE DRAINAGE AWAY FROM BUILDINGS, FOUNDATIONS, AND OTHER STRUCTURES. IF ACCUMULATED WATER NEEDS TO BE REMOVED FROM A WORK AREA, THE WATER SHALL BE TO A SEDIMENT CONTROL BMP, SUCH AS A SEDIMENT TRAP, SEDIMENT BASIN, OR PUMPED WATER FILTER BAG PLACED FOR DISCHARGE OVER A STABILIZED, WELL-VEGETATED AREA.
- 10. PIPING SOILS THAT ARE SUSCEPTIBLE TO PIPING CAN BE ERODIBLE AND NOT WELL SUITED FOR CONSTRUCTION OF EMBANKMENTS, DIKES, AND LEVEES. CONSTRUCTION TECHNIQUES SHALL BE EMPLOYED TO ENSURE THESE SOILS ARE PROPERLY COMPACTED AND STABILIZED 11. POOR SOURCE OF TOPSOIL - MANY SOIL TYPES ARE DROUGHTY OR TOO WET TO BE SUITABLE SOURCES OF TOPSOIL. SOIL TESTS SHOULD BE DONE TO DETERMINE THE PROPER APPLICATION OF
- SOIL AMENDMENTS TO PROMOTE THE GROWTH OF THE DESIRED VEGETATION. WHEREVER SOILS THAT ARE FAIR OR GOOD SOURCES OF TOPSOIL EXIST ON A SITE, THEY SHOULD BE CAREFULLY PRESERVED AND STORED FOR LATER USE IN RESTORATION. IF NECESSARY, TOPSOIL MAY BE IMPORTED TO THE SITE 12. FROST ACTION - CONTRACTOR SHALL CONSULT PROJECT GEOTECHNICAL ENGINEER / INSPECTOR EGARDING ANY SPECIAL MEASURES TO BE TAKEN FOR EARTHWORK THAT IS TO OCCUR DURING
- 13. WETNESS PROPER DRAINAGE AND DEWATERING MEASURES SHALL BE EMPLOYED AT ALL TIMES.
- 14. <u>SLOPES</u> EXCAVATIONS SHOULD BE STABILIZED TO PREVENT EROSION AND CONTRACTOR SHOULD EMPLOY PROPER CONSTRUCTION TECHNIQUES TO ENSURE SAFETY ON STEEP SLOPE AREAS. 15. DEPTH OF ROCK - IF BEDROCK IS ENCOUNTERED, REMOVE AS NECESSARY IN ACCORDANCE WITH
- PROJECT SPECIFICATIONS. 16. <u>SOIL PH LEVELS</u> - CONTRACTOR SHALL HAVE SOIL PH TESTED TO DETERMINE CORRECT FERTILIZER 17. FLOODING POTENTIAL - ENSURE THAT THE SITE HAS PROPER DRAINAGE.
- 18. <u>HIGH GROUNDWATER LEVEL</u> CONTRACTOR SHALL EMPLOY DEWATERING TECHNIQUES AS APPROVED TRICT. PUMPED WATER FILTER BAGS SHALL BE USED TO DEWATER UTILITY TRENCHES AND BELOW GRADE EXCAVATIONS
- 19. BASIN AREAS AND EMBANKMENTS FILL FOR BASIN EMBANKMENTS SHALL BE COMPACTED IN 8" LIFTS O 98% MAXIMUM DRY DENSITY (STANDARD PROCTOR) +/- 2% MOISTURE CONTENT PER ASTM D-1557. ANTI-SEEP COLLARS SHALL BE INSTALLED ON A BASIN DISCHARGE PIPING TO PREVENT SEEPAGE OF WATER FROM THE BASIN. CONSULT WITH SITE DESIGN ENGINEER FOR THE SPECIFIC ANTI-SEEP COLLAR SIZE REQUIREMENTS.

### **TEMPORARY CONTROL MEASURES**

- 1. DURING CONSTRUCTION, THE CONTRACTOR SHALL KEEP THE SITE WELL DRAINED AT ALL TIMES. EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS. 2. ANY WASTE MATERIAL ACCUMULATED DURING CONSTRUCTION, WHICH WILL NOT BE REUSED IN LATER CONSTRUCTION, SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A RESPONSIBLE AND LEGAL MANNER.
- ALL UNSTABILIZED SOIL STOCKPILED TEMPORARILY SHALL BE COVERED WITH A TARP OR OTHER SUITABLE STABILIZATION (SEEDED) IN ORDER TO PREVENT WASHOFF WHEN PRECIPITATION IS IMMINENT. EMPORARY SEÈDING SHALL CONSIST OF ANNUAL RYEGRASS (100 PERCENT BY WEIGHT), OR EQUIVALENT, AND SHALL BE PLACED AT THE RATE OF 10 POUNDS PER 1000 SQUARE YARDS. TEMPORARY SEEDING SHALL BE APPLIED TO THOSE AREAS THAT ARE A POTENTIAL EROSION PROBLEM DURING CONSTRUCTION AND TO THOSE AREAS EXPOSED FOR LONGER THAN 20 CALENDAR DAYS. IF CONDITIONS DO NOT PERMIT TEMPORARY SEEDING. MULCHING SHALL BE EMPLOYED. ADDITIONALLY NITROGEN FERTILIZER (50-50-50) @ ONE (1) TON PER ACRE AGRICULTURAL LIME @ ONE (1) TON PER ACRE, AND STRAW MULCH @ THREE (3) TONS PER ACRE, STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- SILT BARRIER FENCE/SILT SOCK SHALL BE PLACED AT CRITICAL EROSION AREAS, AS SHOWN ON THE PLAN, IN ORDER TO PREVENT SEDIMENT FROM ENTERING ONTO PUBLIC ROADWAYS, ADJACENT PROPERTIES AND 6. STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT THE POINT OF CONSTRUCTION INGRESS AND EGRESS AS SHOWN ON THE PLAN. THIS STRUCTURE WILL PREVENT TRACKING AND FLOWING OF SEDIMENT ONTO THE PUBLIC ROADWAY. THE ENTRANCE SHALL REMAIN FUNCTIONAL FOR THE DURATION OF THE PROJECT.
- WHERE DUST OR WIND EROSION IS A PROBLEM, THE UNSTABLE SURFACE(S) SHALL BE SPRINKLED WITH WATER OR OTHER SUITABLE DUST SUPPRESSOR. 8. ANY WATER PUMPED FROM SANITARY, STORM, OR UTILITY TRENCHES, FOR ANY REASON, SHALL BE DIRECTED THROUGH A BMP SUCH AS A SEDIMENT FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS 9. THE CONTRACTOR SHALL EMPLOY MEASURES DURING CONSTRUCTION TO PREVENT SPILLS OF FUELS OR LUBRICANTS. IF A SPILL OCCURS, IT SHALL BE CONTROLLED IMMEDIATELY TO PREVENT ITS ENTRY INTO NEARBY
- 10. ALL EARTH MOVING ACTIVITIES SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA. 11. RESPONSIBILITY FOR IMPLEMENTING EROSION AND SEDIMENTATION CONTROL SHALL BE DESIGNATED TO A MINIMUM OF ONE INDIVIDUAL WHO WILL BE PRESENT AT THE PROJECT SITE DAILY. 12. WHEN THE ENGINEER, MUNICIPAL OFFICIAL, OR COUNTY REPRESENTATIVE DETERMINES THAT EROSION CONTROL
- MEASURES ARE NECESSARY, THAT WERE NOT FORESEEN IN THE DESIGN STAGE, SAID OFFICIAL SHALL ESTIMATE THE EROSION POTENTIAL AND SELECT MEASURES ON THE BASIS OF BOTH COST EFFECTIVENESS AND THE CONSEQUENCES OF THE EROSION. 13. ANY TEMPORARY EROSION CONTROL MEASURE APPLIED TO EXPOSED SOIL SURFACES SHALL REMAIN FUNCTIONAL UNTIL VEGETATION COVER IS SUFFICIENTLY ESTABLISHED. 14. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE SUBJECT TO APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION FORM 408 SPECIFICATIONS, MOST RECENT EDITION.

15. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.

### **GENERAL EROSION & SEDIMENT CONTROL 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 PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS
- 2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING
- 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 4. 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.
- 5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. 6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE
- OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN. 7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE
- CLEARING AND GRUBBING OPERATIONS BEGIN. 8. 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
- 9. 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. 10. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS
- PLAN, OVER UNDISTURBED VEGETATED AREAS. 11. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED. 12. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION MUST BE NOTED IN THE LOG FOLLOWING EACH INSPECTION. THE INSPECTION LOG WILL ALWAYS BE KEPT ON THE SITE AND MADE AVAILABLE TO THE CONSERVATION DISTRICT UPON REQUEST.
- 13. 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. 14. 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. 15. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. 16. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12
- MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL 17. 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. 18. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO

19. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A

- 20. 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. 21. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE
- REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS 22 E&S RMPS SHALL REMAIN FUNCTIONAL AS SUCH LINTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR
- 23. 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 RMPS 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. 24. FAILURE TO CORRECTLY INSTALL E&S BMPS. FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING TH
- DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION. 25. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

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

- 26. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION, 26.1. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND POLLUTION EVENTS
- 26.2. ALL STEPS TAKEN TO REDUCE, FLIMINATE, AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE. 26.3. THE TIME FRAME TO CORRECT THE NON-COMPLIANT, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL 27. SILT SOCK MUST BE INSTALLED PARALLEL TO EXISTING CONTOURS OR CONSTRUCTED LEVEL ALIGNMENTS. ENDS OF
- SILT FENCING MUST EXTEND TRAVELING UP-SLOPE AT 45 DEGREES. 28. STORM WATER INLETS MUST BE PROTECTED UNTIL THE TRIBUTARY ACRES ARE STABILIZED. 29. UNLESS OTHERWISE NOTED, THE LIMITS OF GRADING SHALL BE CONSIDERED THE LIMITS OF DISTURBANCE.
- 30. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE APPLICANT TO ELIMINATE ALL SUCH PROBLEMS. 31. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL ACT TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION. 32. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 6-4, EROSION
- CONTROL RULES AND REGULATIONS, TITLE 25, PART I, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART G, PROTECTION OF NATURAL. RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL. 33. AREAS OF DISTURBANCE ASSOCIATED WITH SITE RESTORATION ONLY MUST BE RESTORED TO EXISTING COVER CONDITION. 34. AREAS LABELED AS ROADWAY MAINTENANCE ACTIVITIES WILL CONSIST SOLELY OF MILLING AND OVERLAYING EXISTING

### **SEQUENCE OF CONSTRUCTION**

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE, EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH

IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. SCHEDULE SHALL INCLUDE REGULAR INSPECTION AND MAINTENANCE REQUIREMENTS INCLUDING ENGINEER'S PRESENCE AT SITE TO OBSERVE CONSTRUCTION AT CRITICAL STAGES AS INDICATED HEREIN. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS PRIOR TO CONSTRUCTION OF STAGES.

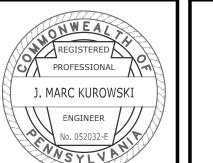
- 1. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES. THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS. THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE DELEWARE COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION
- 2. AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTÉM INCORPORATED AT
- 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL CLEARLY MARK THE LIMIT OF DISTURBANCE AS SHOWN ON THE PLAN. ORANGE
- CONSTRUCTION FENCE OR WOODEN STAKES WITH FLAG TAPE ARE ADEQUATE FOR FIELD MARKING. ADDITIONALLY, CONTRACTOR SHALL CLEARLY MARK ALL WATERS OF THE COMMONWEALTH. INSTALL ALL SEGMENTS OF COMPOST FILTER SOCK IN THE LOCATIONS SHOWN ON THE PLANS.
- 5. ROUGH GRADE THE ACCESS DRIVES INTO THE SITE AND IMMEDIATELY CONSTRUCT THE TEMPORARY ROCK CONSTRUCTION ENTRANCES AS SHOWN ON THE PLAN. ALL VEHICLES ENTERING THE SITE SHALL DO SO VIA THE ROCK CONSTRUCTION ENTRANCES. ANY MUD OR SEDIMENT TRACKED ONTO MACADAM ROADWAYS SHALL BE REMOVED BY THE CONTRACTOR AT THE END OF EACH WORKING DAY. WASHING OF THE ROADWAY IS NOT PERMITTED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH
- THE ACCESS DRIVES THROUGHOUT THE TERM OF CONSTRUCTION ACTIVITIES. CRITICAL STAGE: INSTALL UNDERGROUND INFILTRATION BASINS (BMP 1 AND BMP 2). EXISTING SUBGRADE UNDER THE BED AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE BED PLACEMENT.
- 6.1. INSTALL CONSTRUCTION FENCING AROUND LOCATIONS OF BMP 1 AND BMP 2, AS SHOWN ON THE 6.1. WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE. INSTALL UPSTREAM AND DOWNSTREAM CONTROL

STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER

- STRUCTURES. 6.2. GEOTEXTILE AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS
- 6.3. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 8-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM AS MUCH AS POSSIBLE
- 6.4. APPROVED SOIL MEDIA SHOULD BE PLACED OVER INFILTRATION BASINS IN MAXIMUM 6-INCH . CLEAR AND GRUB THE REMAINING PORTIONS OF THE SITE AND DEMO ITEMS AS REQUIRED. STRIP TOPSOIL AND STOCKPILE AT THE TEMPORARY AREA PROVIDED, SURROUND WITH COMPOST FILTER SOCK AND SEED PER TEMPORARY SEEDING SPECIFICATIONS, FERTILIZE AND MULCH. BEGIN BULK EXCAVATION OF THE SITE TO THE REQUIRED GRADES AS SHOWN ON THE PLANS, ANY EXCAVATED SOIL MATERIAL REMOVED FROM THE SITE
- SHALL ONLY BE PLACED IN AN AREA THAT HAS AN APPROVED EROSION CONTROL PLAN. ENSURE SEDIMENT LADEN RUNOFF IS DIRECTED TO AN APPROPRIATE EROSION CONTROL BMP. 8. ROUGH GRADE SITE DRIVEWAY AND PARKING AREAS, AND MODIFY ROCK CONSTRUCTION ENTRANCE
- ACCORDING TO THE PROPOSED GRADES. 9. INSTALL STORMWATER COLLECTION AND CONVEYANCE FACILITIES BEGINNING AT THE DOWNSTREAM CONNECTIONS AND WORKING UPSTREAM. ALL STORM SEWER CONSTRUCTION INCLUDES TRENCHING, BACKFILLING, AND APPLYING FINAL STABILIZATION. ALL AREAS DRAINING TO STORMWATER COLLECTION, CONVEYANCE, AND MANAGEMENT FACILITIES SHALL BE IMMEDIATELY STABILIZED AND, IF NEEDED, TEMPORARY DIVERSION MEASURES UTILIZED TO MINIMIZE THE AMOUNT OF SEDIMENT REACHING THEM. INSTALL TEMPORARY INLET PROTECTION WHERE INDICATED ON THE PLAN.
- 10. PLACE STONE SUBBASE IN AREAS OF PAVING AS SOON AS PRACTICAL TO PREVENT EROSION. E&S MATTING SHALL BE INSTALLED ON DISTURBED SLOPES WHICH ARE 3:1 OR GREATER. CONTRACTOR TO ENSURE SEDIMENT LADEN RUNOFF IS DIRECTED TO AN E&S CONTROL BMP.
- 11. UPON ACHIEVING FINAL ELEVATION IN THE PROPOSED BUILDING PAD AREAS FOR EACH BUILDING ADDITION EXCAVATE THE BUILDING FOOTERS. POUR CONCRETE FOR FOOTERS AND CONSTRUCT FOUNDATION WALL. WHEN CONDITIONS WARRANT. THE FOOTERS AND FOUNDATION WALLS MAY BE BACKFILLED. FILL MATERIAL SHALL BE FREE OF ROOTS, SOD, AND OTHER ORGANIC MATERIAL, FROZEN SOIL, STONES, AND DISCARDED CONSTRUCTION MATERIAL THE FILL SHALL BE PLACED IN 8" LAYERS. WITH EACH LAYER BEING ROLLED AND COMPACTED PRIOR TO THE NEXT LAYER BEING PLACED. WHEN THE AREA REACHES THE PRESCRIBED ELEVATION, THE SUBBASE SHOULD BE THOROUGHLY ROLLED AND COMPACTED TO ELIMINATE ANY SOFT OR UNSETTLED AREAS.
- 12. INSTALL WATER SERVICE PIPING, ELECTRIC, AND OTHER REQUIRED UTILITIES. 13. INSTALL PAVEMENT OR CONCRETE TO ALL AREAS INDICATED ON THE PLANS AND APPLY TOPSOIL WITH PERMANENT SEEDING TO ALL AREAS TO REMAIN AS LANDSCAPE OR GRASS, IF NEEDED, IMPORT TOPSOIL AND

AND/OR RECYCLING OF THE BMPS IS REQUIRED BY THE SITE CONTRACTOR.

- APPLY THE MINIMUM REQUIRED DEPTH TO ESTABLISH PERMANENT VEGETATION. SEED, FERTILIZE, AND MULCH EXPOSED OR DISTURBED AREAS 15. INSTALL ALL PROPOSED LANDSCAPING AT THIS TIME. SEE POST CONSTRUCTION STORMWATER MANAGEMENT
- (PCSM) PLAN FOR PLANTINGS AND SPECIFICATIONS. 16. THE CONTRACTOR SHALL REMOVE TEMPORARY INLET PROTECTION AND FLUSH ALL STORM SEWER PIPES AFTER
- 17. ONCE SITE IS COMPLETELY STABILIZED, THE CONSTRUCTION FENCING AROUND BMP 1 AND BMP 2 SHALL BE 18. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES, REMOVAL OF ALL TEMPORARY BMPS, AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS. THE OWNER AND/OR OPERATORS SHALL PREPARE A DRAFT NOTICE OF TERMINATION (NOT) AND AS-BUILT PLANS SUITABLE TO CONDUCT FINAL INSPECTION. CONTACT THE DELEWARE COUNTY CONSERVATION DISTRICT FOR A FINAL INSPECTION. PROPER DISPOSAL
- \* STABILIZATION- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. \*\*IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES, DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.



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REVISIONS

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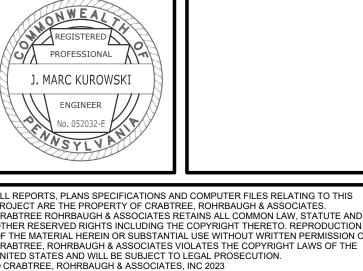
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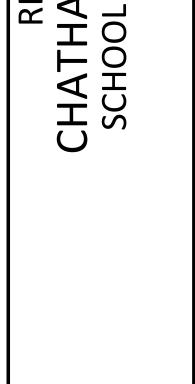
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MM-DD-YR NAME DESCRIPTION OF CHANGES

05-30-2024

**3** 06-21-2024



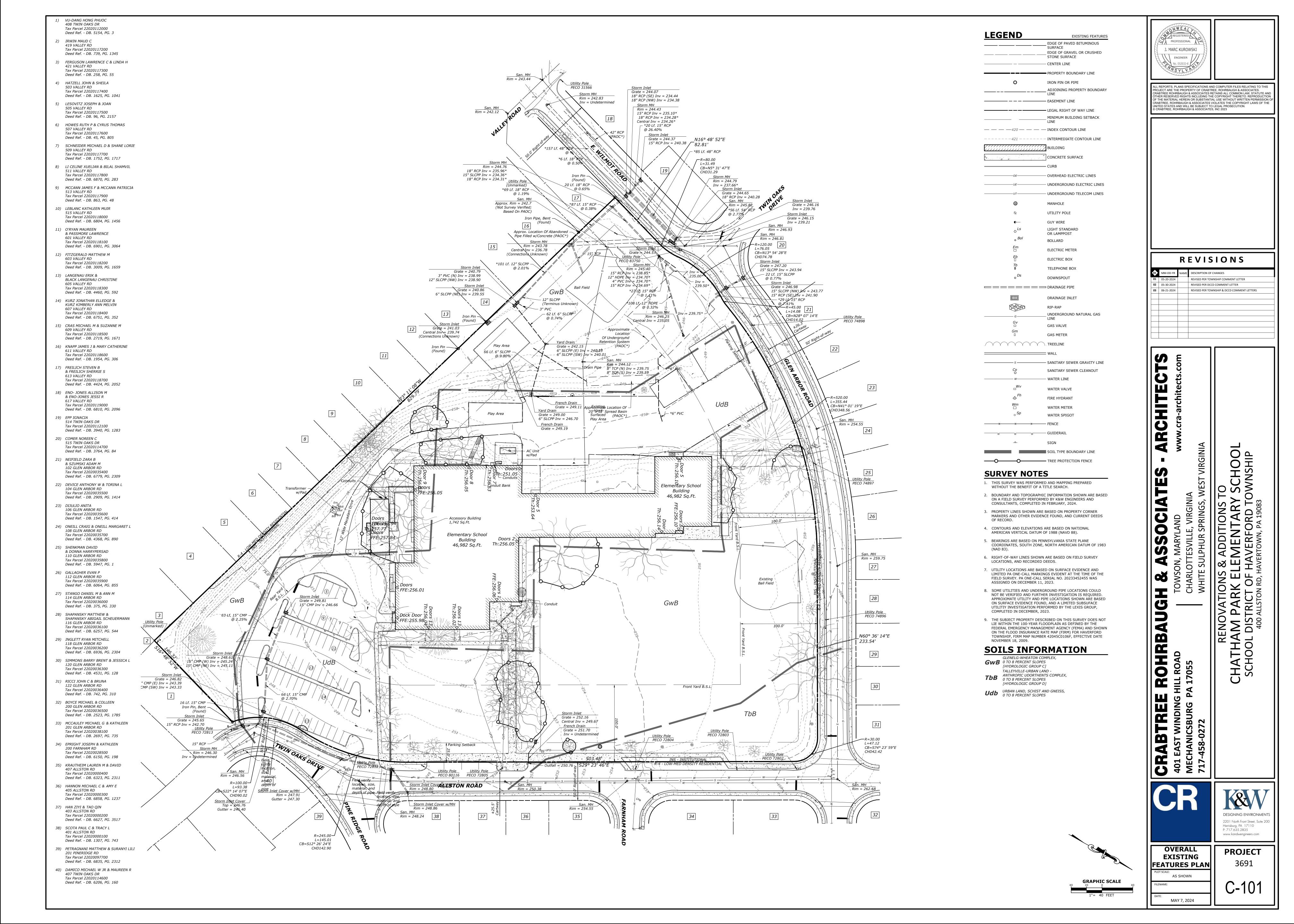


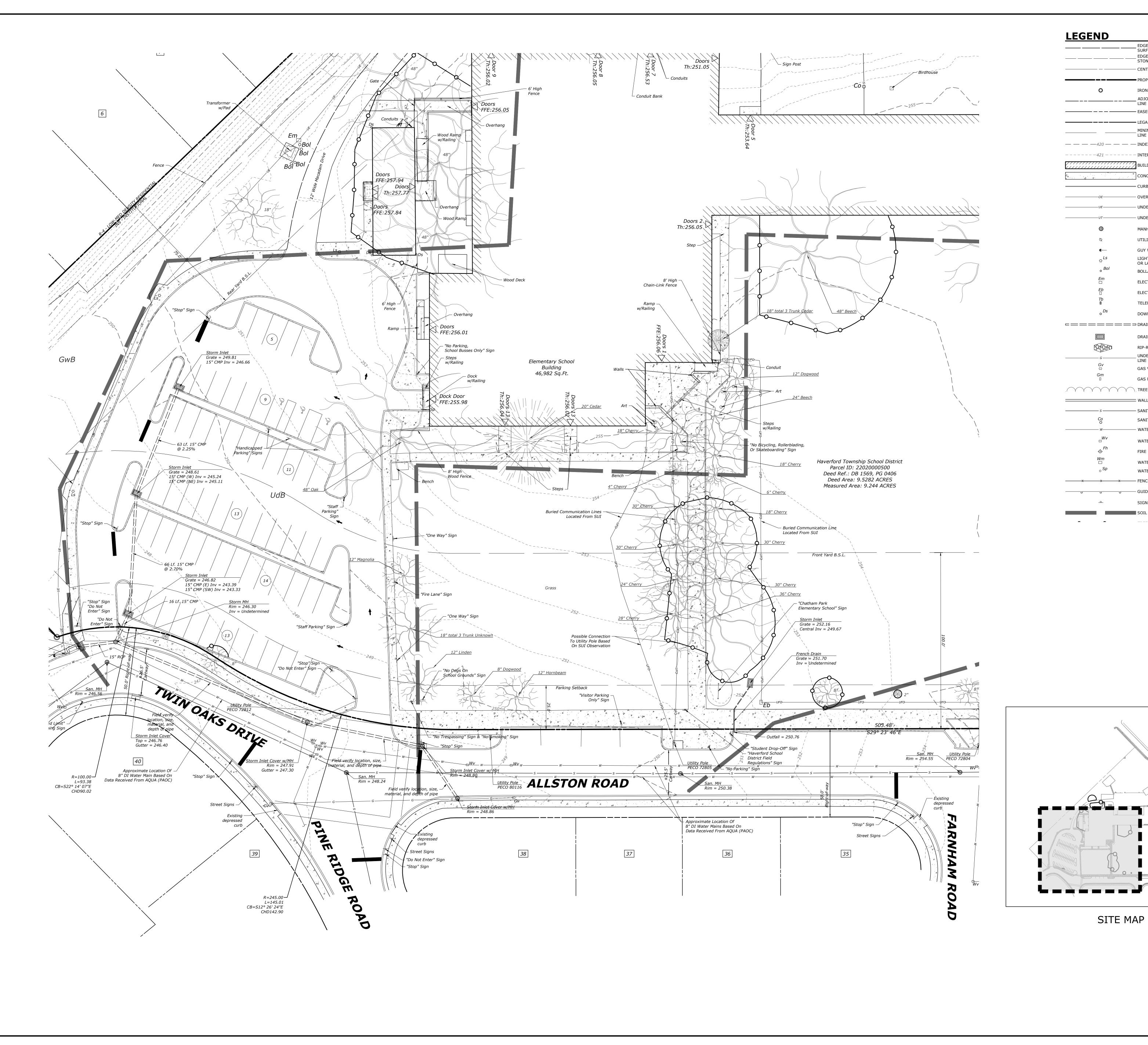


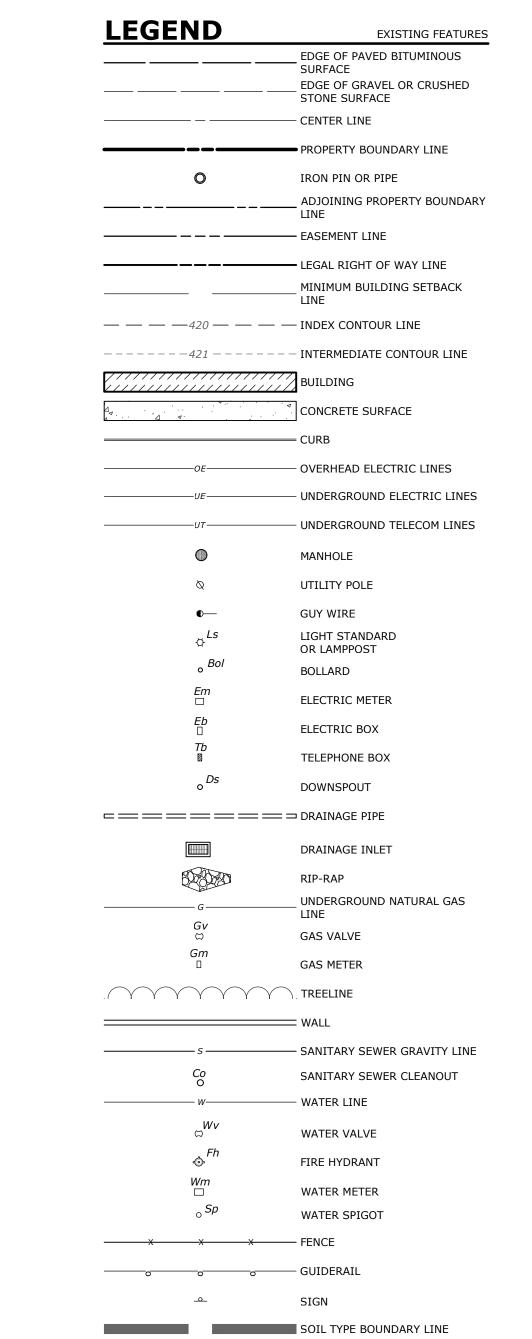
**PROJECT** SUPPORTING <u>INFORMATION</u>

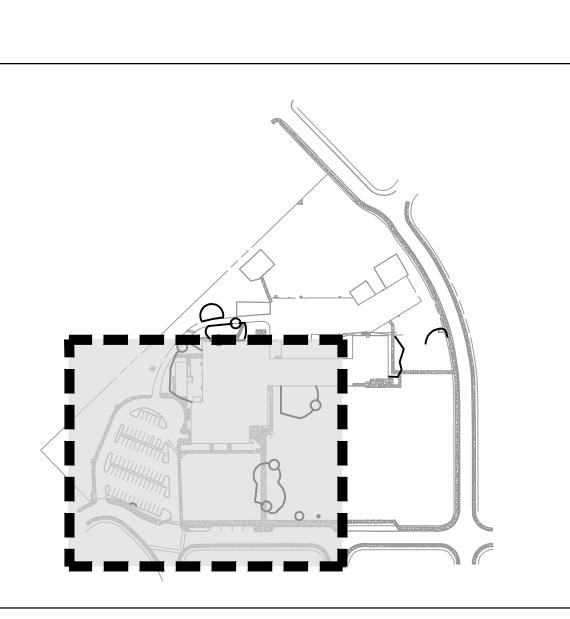
C-003

MAY 7, 2024











2201 North Front Street, Suite 200 Harrisburg, PA 17110 P: 717.635.2835 www.kandwengineers.com **PROJECT** 3691

MAY 7, 2024

**EXISTING FEATURES** PLAN AS SHOWN

ROHF ILL ROAD 17055

PROFESSIONAL

J. MARC KUROWSKI

ENGINEER

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REVISIONS

REVISED PER TOWNSHIP COMMENT LETTER

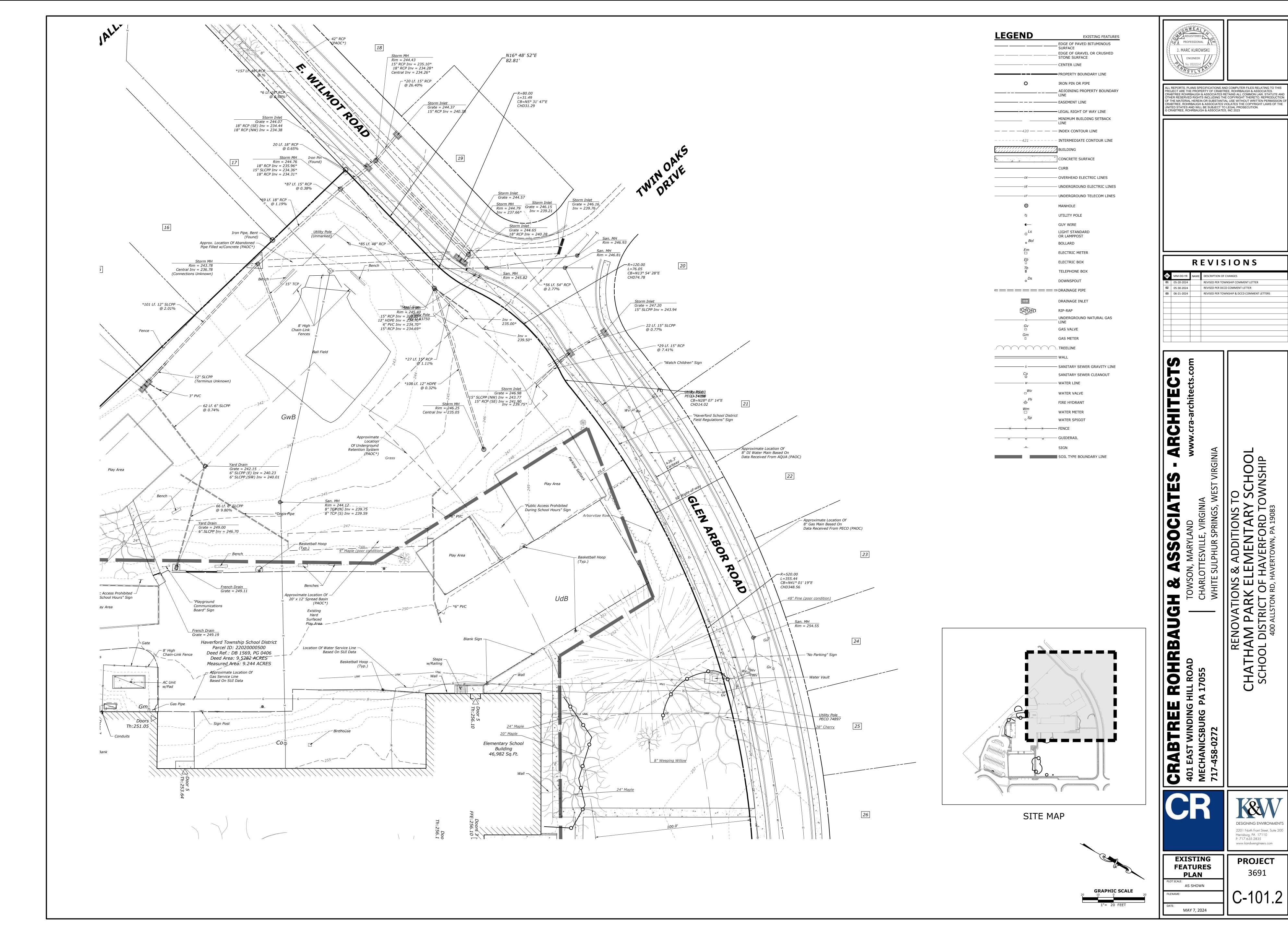
REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

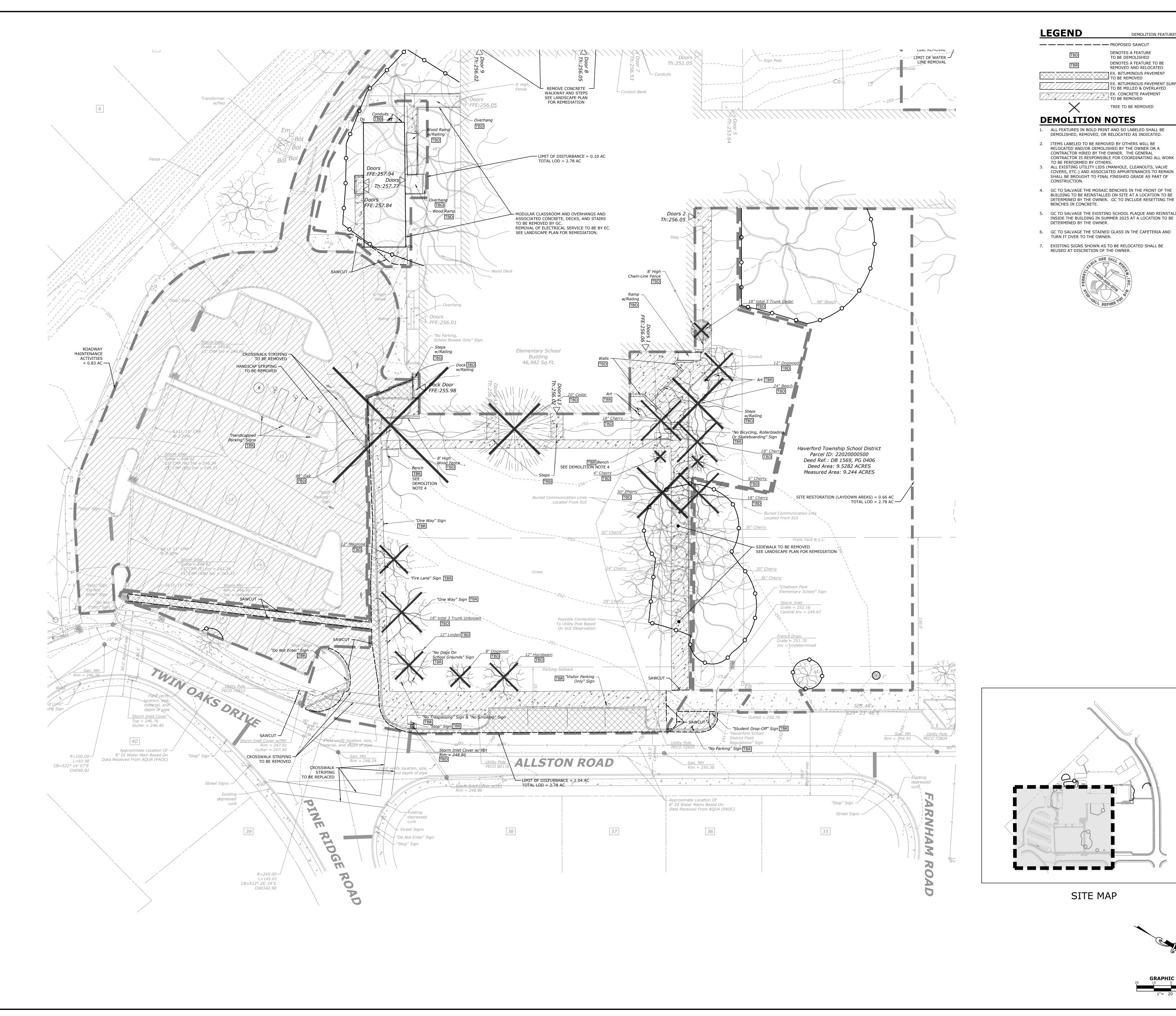
REVISED PER DCCD COMMENT LETTER

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

03 06-21-2024





**LEGEND** DEMOLITION FEATURES

— — — — — PROPOSED SAWCUT DENOTES A FEATURE TO BE DEMOLISHED

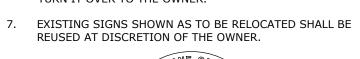
DENOTES A FEATURE TO BE REMOVED AND RELOCATED EX. BITUMINOUS PAVEMENT TO BE REMOVED EX. BITUMINOUS PAVEMENT SURFACE EX. CONCRETE PAVEMENT TO BE REMOVED TREE TO BE REMOVED

## **DEMOLITION NOTES**

1. ALL FEATURES IN BOLD PRINT AND SO LABELED SHALL BE

- DEMOLISHED, REMOVED, OR RELOCATED AS INDICATED. 2. ITEMS LABELED TO BE REMOVED BY OTHERS WILL BE RELOCATED AND/OR DEMOLISHED BY THE OWNER OR A
- CONTRACTOR HIRED BY THE OWNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE PERFORMED BY OTHERS.

  3. ALL EXISTING UTILITY LIDS (MANHOLE, CLEANOUTS, VALVE COVERS, ETC.) AND ASSOCIATED APPURTENANCES TO REMAIN
- SHALL BE BROUGHT TO FINAL FINISHED GRADE AS PART OF CONSTRUCTION. 4. GC TO SALVAGE THE MOSAIC BENCHES IN THE FRONT OF THE BUILDING TO BE REINSTALLED ON SITE AT A LOCATION TO BE
- 5. GC TO SALVAGE THE EXISTING SCHOOL PLAQUE AND REINSTALL INSIDE THE BUILDING IN SUMMER 2025 AT A LOCATION TO BE DETERMINED BY THE OWNER.
- 6. GC TO SALVAGE THE STAINED GLASS IN THE CAFETERIA AND
- TURN IT OVER TO THE OWNER.



REVISIONS				
01	MM-DD-YR	NAME	DESCRIPTION OF CHANGES	
01	05-20-2024		REVISED PER TOWNSHIP COMMENT LETTER	
02	05-30-2024		REVISED PER DCCD COMMENT LETTER	
03	06-21-2024		REVISED PER TOWNSHIP & DCCD COMMENT LETTERS	

J. MARC KUROWSKI

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**ROH**ILL ROA
17055

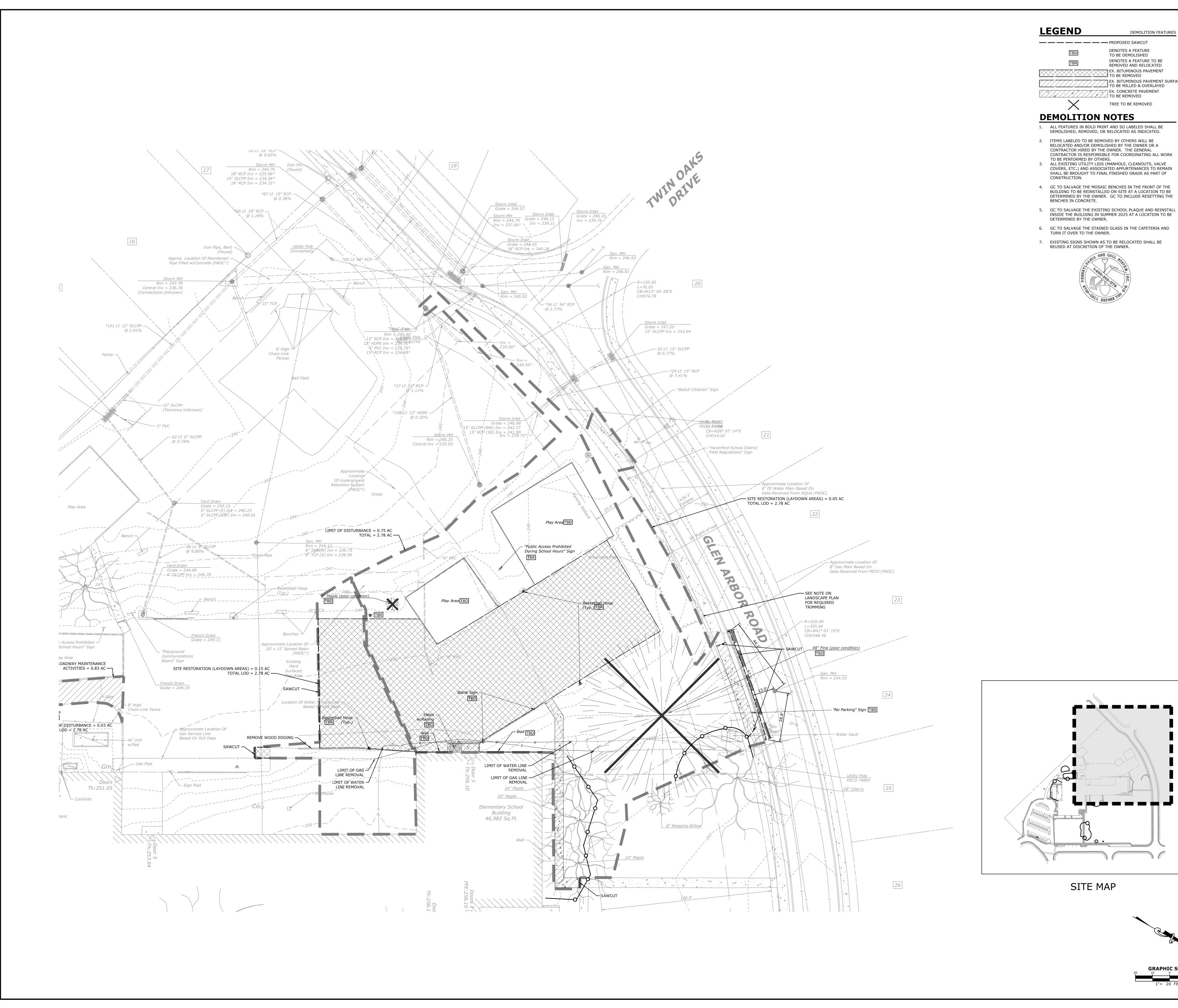
2201 North Front Street, Suite 200 Harrisburg, PA 17110 P: 717.635.2835

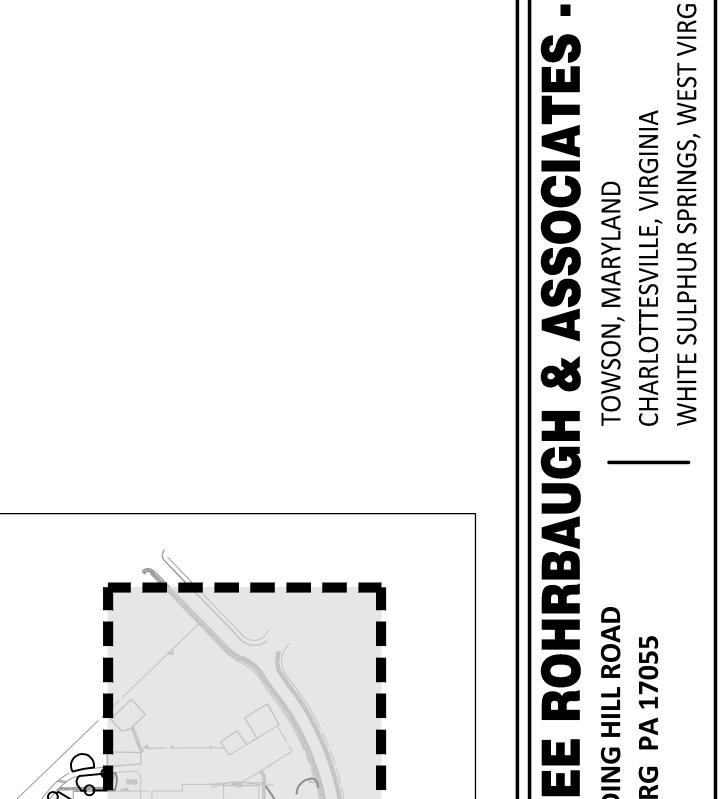
DEMOLITION PLAN

**PROJECT** 

AS SHOWN MAY 7, 2024

3691 C-102





SITE MAP

DEMOLITION FEATURES

EX. BITUMINOUS PAVEMENT SURFACE

DENOTES A FEATURE TO BE DEMOLISHED DENOTES A FEATURE TO BE REMOVED AND RELOCATED

TREE TO BE REMOVED

TO BE REMOVED

03 06-21-2024 REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

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REVISED PER DCCD COMMENT LETTER

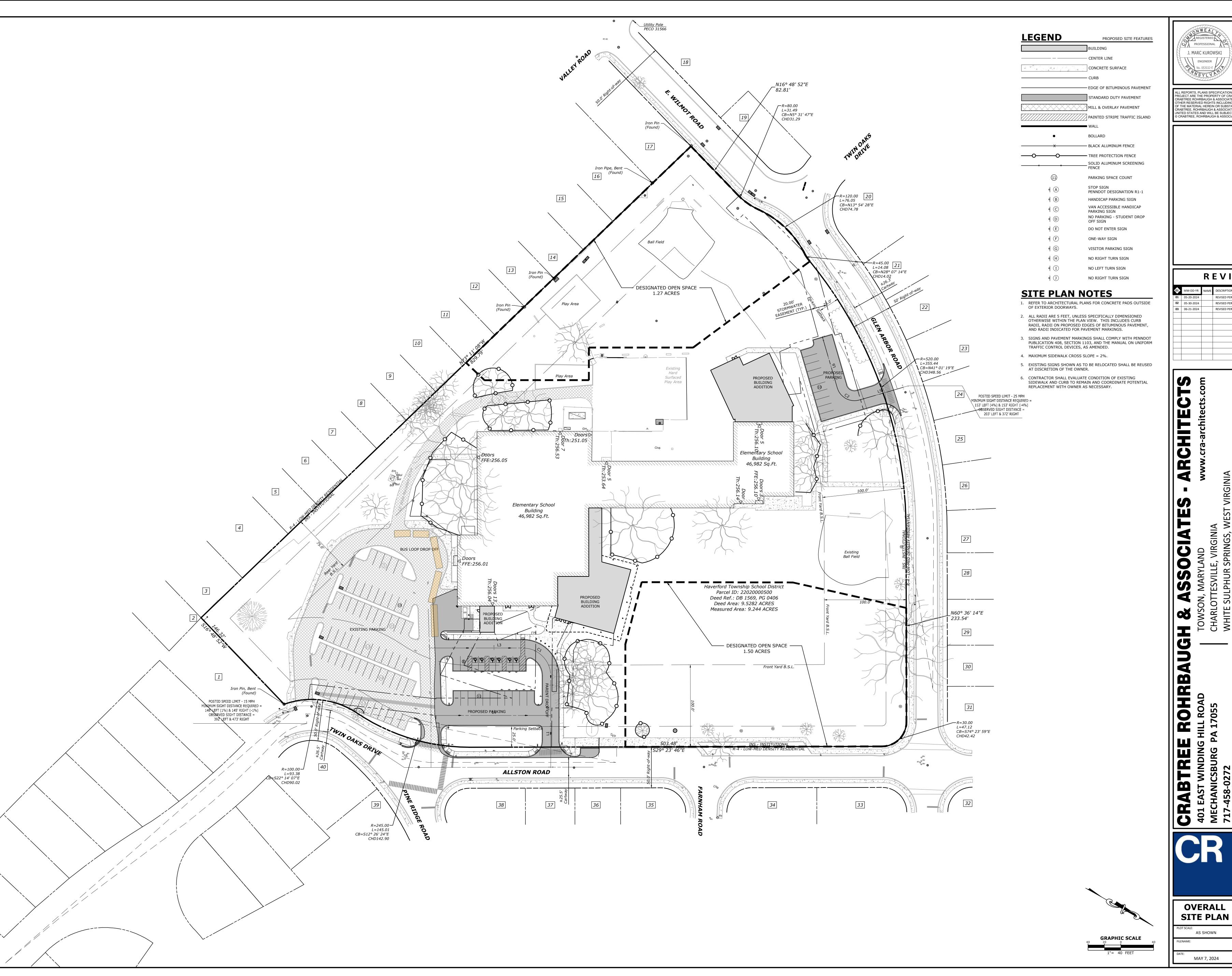
01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

**PROJECT** 

DEMOLITION PLAN

MAY 7, 2024



PROFESSIONAL J. MARC KUROWSKI

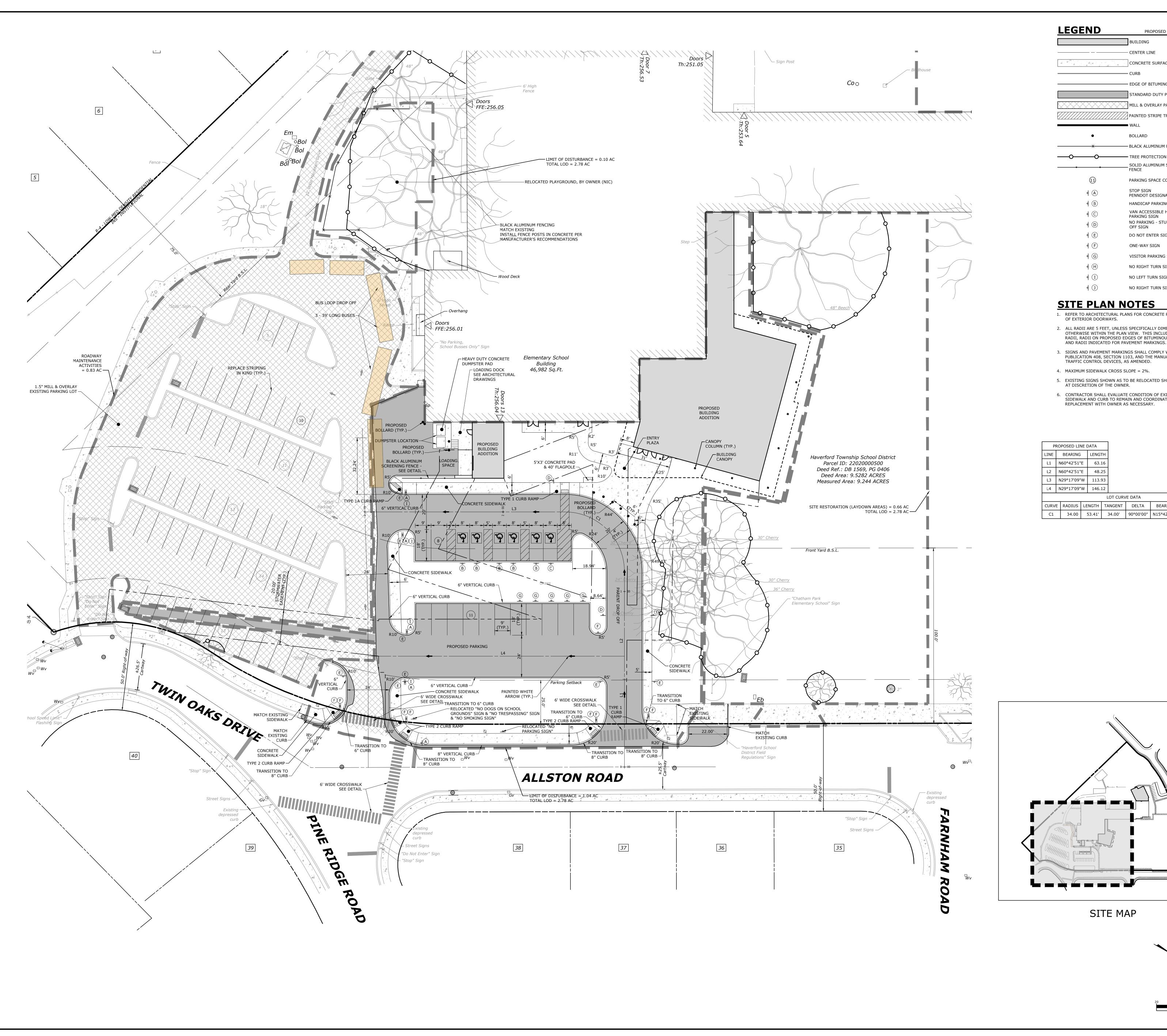
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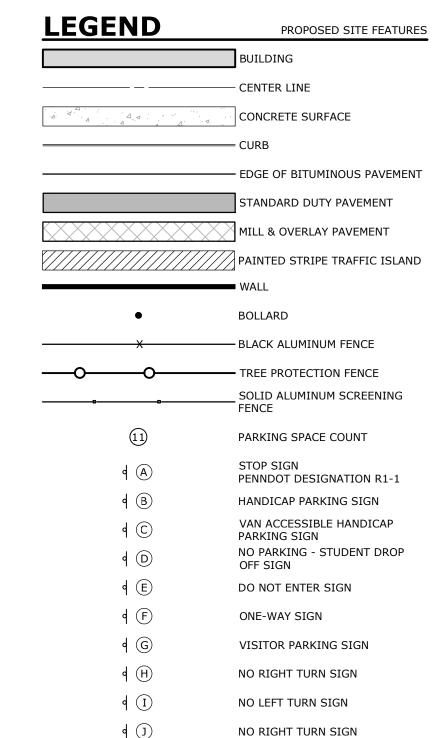
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REVISIONS 01 MM-DD-YR NAME DESCRIPTION OF CHANGES REVISED PER TOWNSHIP COMMENT LETTER REVISED PER DCCD COMMENT LETTER REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

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**PROJECT** 





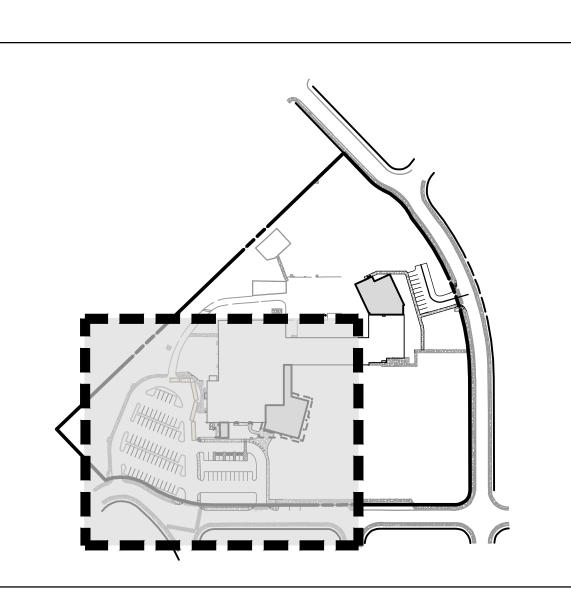
# **SITE PLAN NOTES**

# 1. REFER TO ARCHITECTURAL PLANS FOR CONCRETE PADS OUTSIDE OF EXTERIOR DOORWAYS.

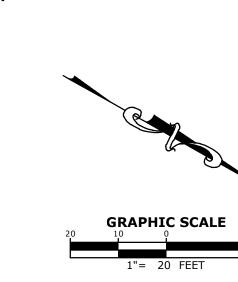
- 2. ALL RADII ARE 5 FEET, UNLESS SPECIFICALLY DIMENSIONED OTHERWISE WITHIN THE PLAN VIEW. THIS INCLUDES CURB RADII, RADII ON PROPOSED EDGES OF BITUMINOUS PAVEMENT,
- 3. SIGNS AND PAVEMENT MARKINGS SHALL COMPLY WITH PENNDOT PUBLICATION 408, SECTION 1103, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS AMENDED.
- 4. MAXIMUM SIDEWALK CROSS SLOPE = 2%.
- 5. EXISTING SIGNS SHOWN AS TO BE RELOCATED SHALL BE REUSED AT DISCRETION OF THE OWNER.
- 6. CONTRACTOR SHALL EVALUATE CONDITION OF EXISTING SIDEWALK AND CURB TO REMAIN AND COORDINATE POTENTIAL REPLACEMENT WITH OWNER AS NECESSARY.

PROPOSED LINE DATA							
LINE		BEARING		LENG	ГН		
L1	1 N60°42'51"E		63.16				
L2	N60°42'51"E		48.25				
L3	N29°17'09"W		113.93				
L4	N29°17'09"W		146.12				
·					L	OT CUR	/
			Г				ſ

	N29°17'09"	'W	113.9	93					
	N29°17'09"	'W	146.	12					
	LOT CURVE DATA								
V	RADIUS	LE	NGTH	TANGEN	Γ	DELTA	BEARING	DISTANCE	
	34.00	5	53.41'	34.00'		90°00'00"	N15°42'51"E	48.08'	



SITE MAP



# ROHF HILL ROAD PA 17055

PROFESSIONAL

J. MARC KUROWSKI

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REVISIONS

REVISED PER TOWNSHIP COMMENT LETTER

REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

REVISED PER DCCD COMMENT LETTER

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

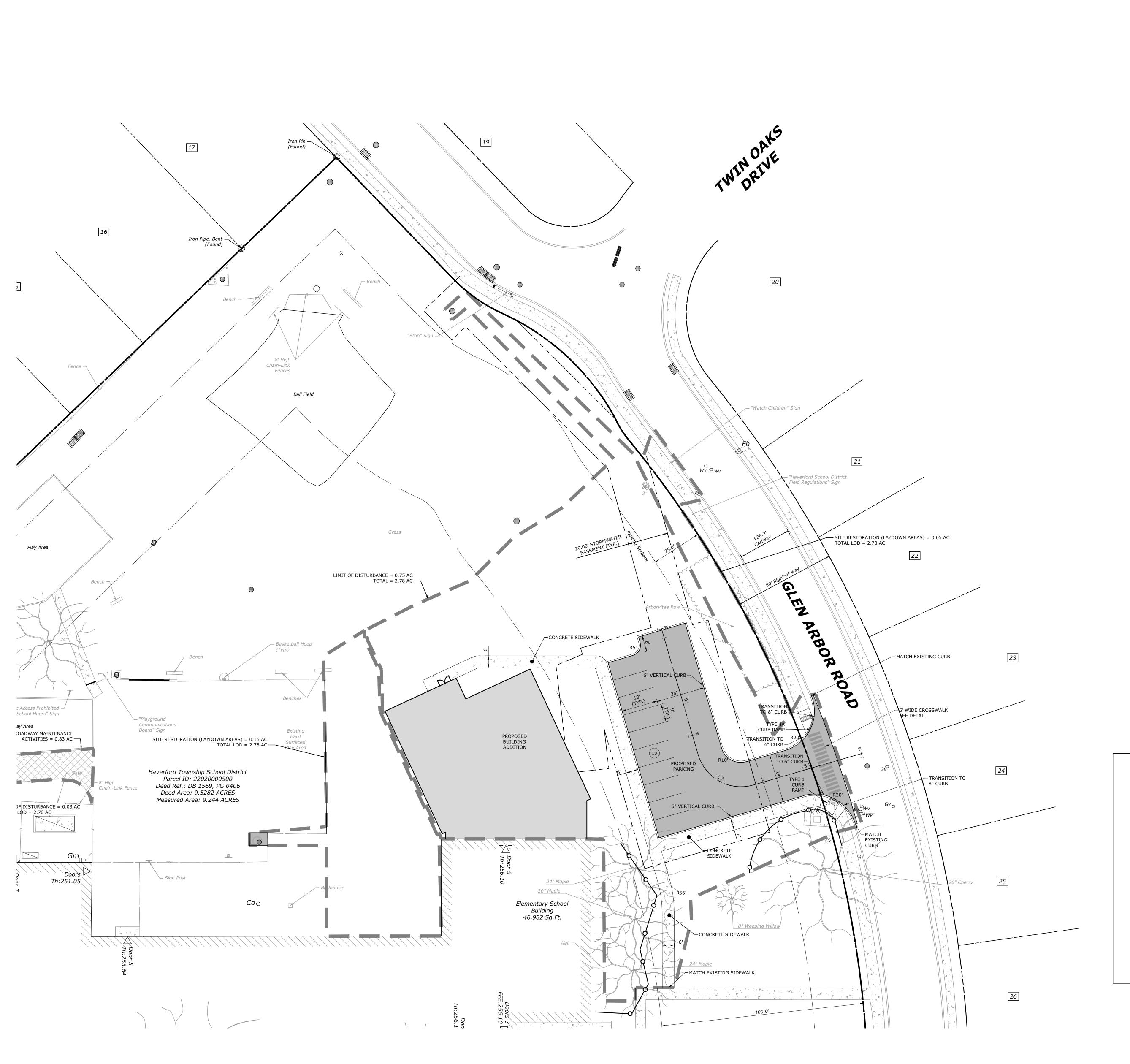
**02** 05-30-2024

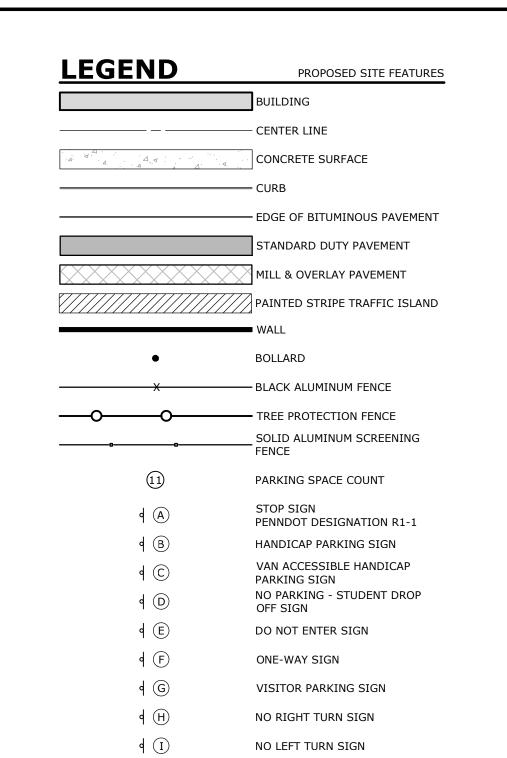
03 06-21-2024



**PROJECT** SITE **PLAN** 3691

MAY 7, 2024





# **SITE PLAN NOTES**

1. REFER TO ARCHITECTURAL PLANS FOR CONCRETE PADS OUTSIDE OF EXTERIOR DOORWAYS.

NO RIGHT TURN SIGN

- 2. ALL RADII ARE 5 FEET, UNLESS SPECIFICALLY DIMENSIONED OTHERWISE WITHIN THE PLAN VIEW. THIS INCLUDES CURB
- RADII, RADII ON PROPOSED EDGES OF BITUMINOUS PAVEMENT, AND RADII INDICATED FOR PAVEMENT MARKINGS.
- 3. SIGNS AND PAVEMENT MARKINGS SHALL COMPLY WITH PENNDOT PUBLICATION 408, SECTION 1103, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS AMENDED.
- 4. MAXIMUM SIDEWALK CROSS SLOPE = 2%.

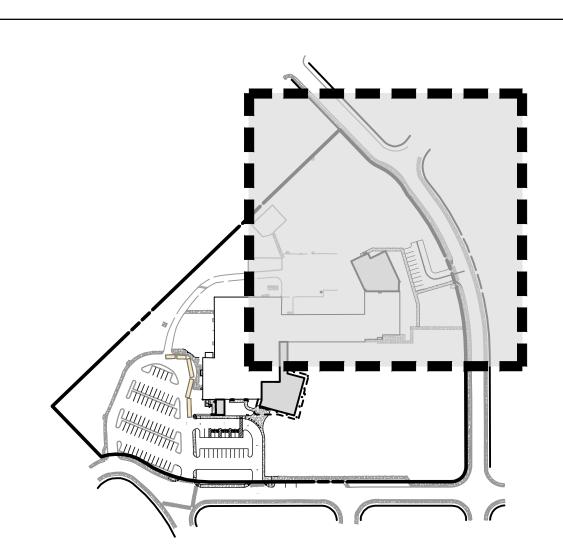
AT DISCRETION OF THE OWNER.

- 5. EXISTING SIGNS SHOWN AS TO BE RELOCATED SHALL BE REUSED
- 6. CONTRACTOR SHALL EVALUATE CONDITION OF EXISTING SIDEWALK AND CURB TO REMAIN AND COORDINATE POTENTIAL REPLACEMENT WITH OWNER AS NECESSARY.

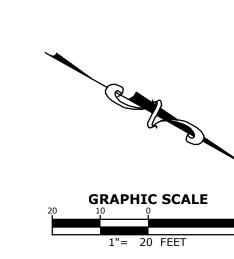
PROPOSED LINE DATA LINE BEARING L5 N45°30'30"W 55.47

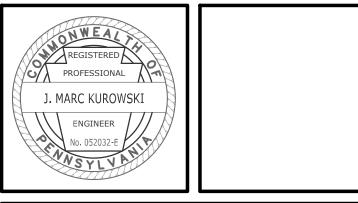
L6 N44°29'30"E

LOT CURVE DATA CURVE RADIUS LENGTH TANGENT DELTA BEARING DISTANCE C2 | 22.00 | 34.56' | 22.00' | 90°00'00" | N0°30'30"W | 31.11'



SITE MAP





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01 MM-DD-YR NAME DESCRIPTION OF CHANGES REVISED PER TOWNSHIP COMMENT LETTER **02** 05-30-2024 REVISED PER DCCD COMMENT LETTER REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

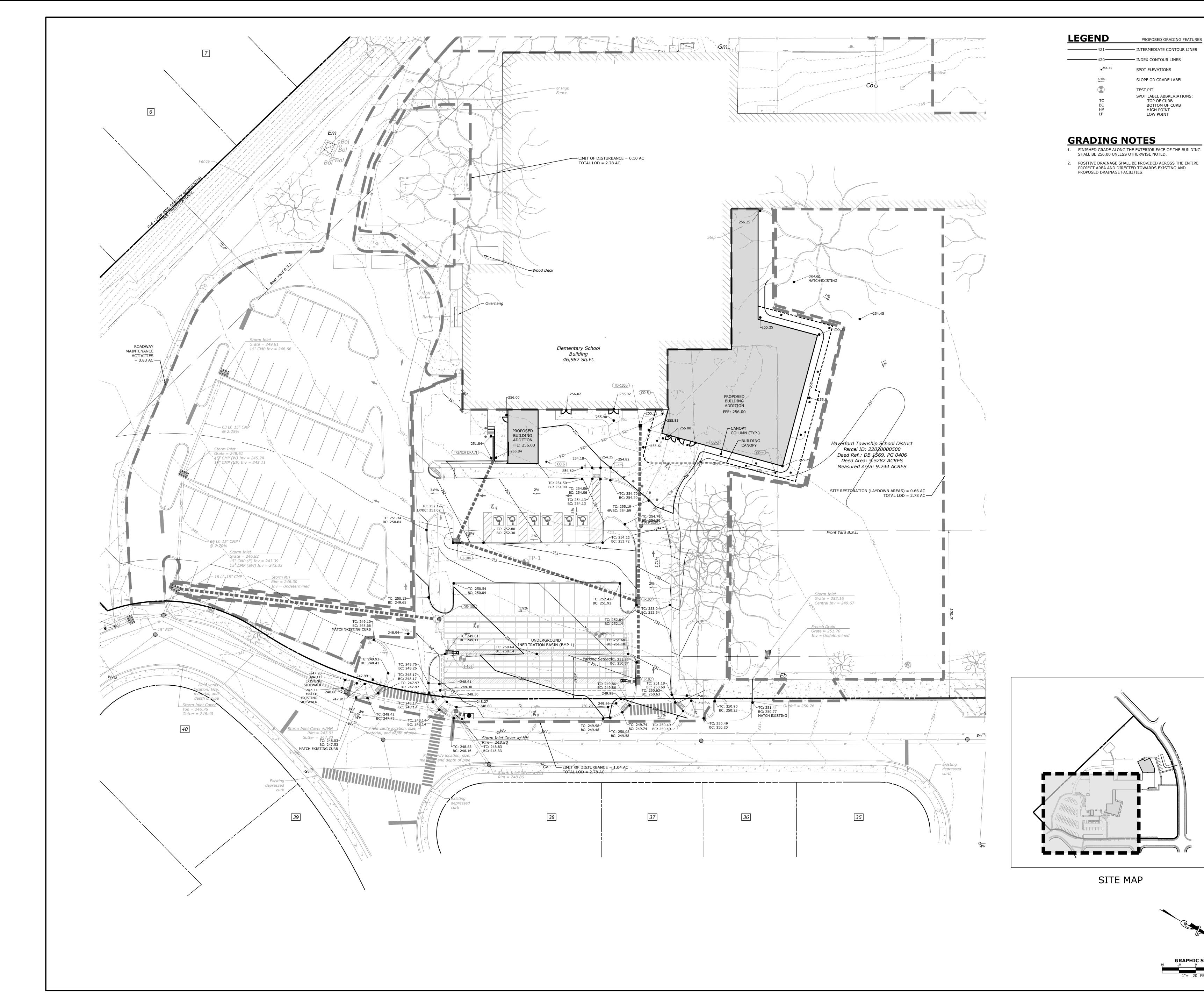
03 06-21-2024

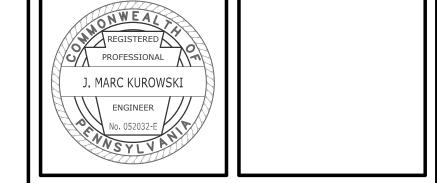
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**PROJECT** 

SITE PLAN 3691

AS SHOWN C-103.2 MAY 7, 2024





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REVISED PER TOWNSHIP COMMENT LETTER REVISED PER DCCD COMMENT LETTER

REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

03 06-21-2024



ROHF HILL ROAD PA 17055

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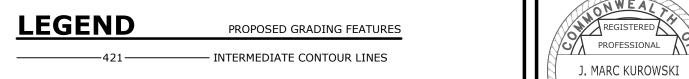
**GRADING** PLAN

AS SHOWN

MAY 7, 2024

**PROJECT** 3691 C-104





HIGH POINT LOW POINT

420— INDEX CONTOUR LINES SPOT ELEVATIONS SLOPE OR GRADE LABEL TEST PIT SPOT LABEL ABBREVIATIONS: TOP OF CURB **BOTTOM OF CURB** 

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# **GRADING NOTES**

- 1. FINISHED GRADE ALONG THE EXTERIOR FACE OF THE BUILDING SHALL BE 256.00 UNLESS OTHERWISE NOTED.
- POSITIVE DRAINAGE SHALL BE PROVIDED ACROSS THE ENTIRE PROJECT AREA AND DIRECTED TOWARDS EXISTING AND PROPOSED DRAINAGE FACILITIES.

SITE MAP

# REVISIONS

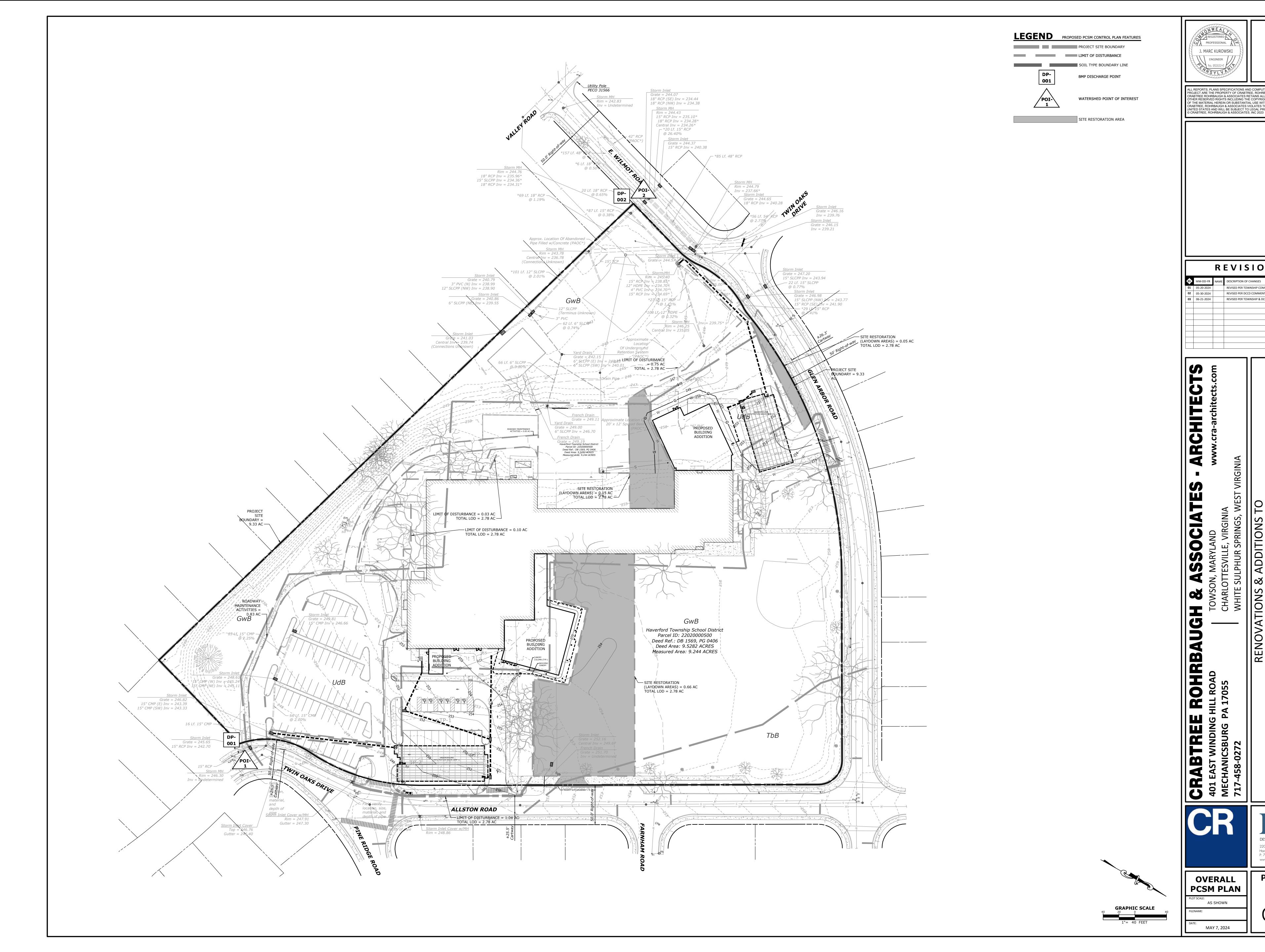
01	MM-DD-YR	NAME	DESCRIPTION OF CHANGES
01	05-20-2024		REVISED PER TOWNSHIP COMMENT LETTER
)2	05-30-2024		REVISED PER DCCD COMMENT LETTER
03	06-21-2024		REVISED PER TOWNSHIP & DCCD COMMENT LETTERS



GRADING PLAN

**PROJECT** 

OT SCALE:
AS SHOWN MAY 7, 2024



REVISED PER DCCD COMMENT LETTER REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

REGISTERED PROFESSIONAL J. MARC KUROWSKI \\ ENGINEER |

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REVISIONS

REVISED PER TOWNSHIP COMMENT LETTER

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**OVERALL** 

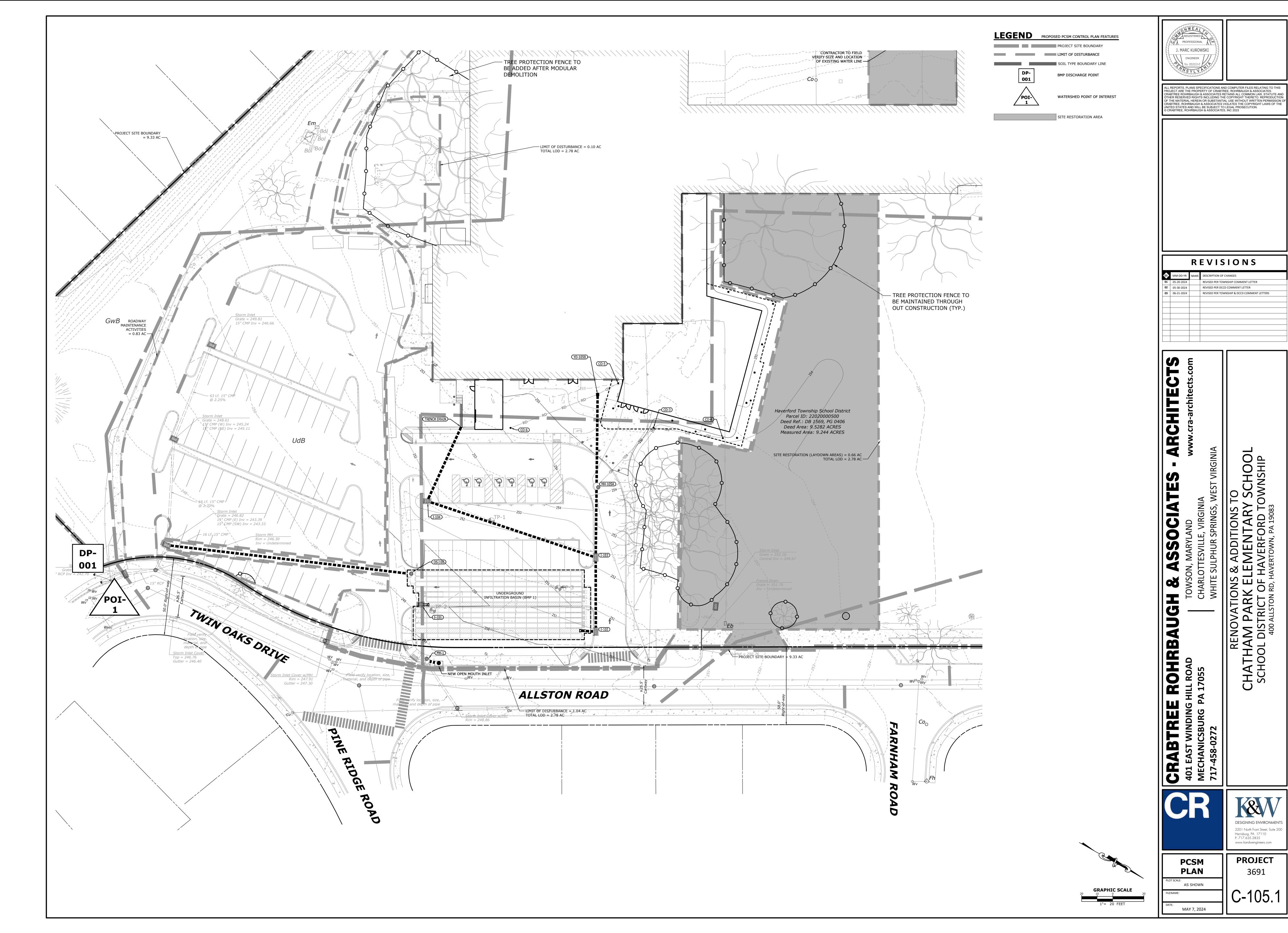
**PCSM PLAN** 

AS SHOWN

MAY 7, 2024

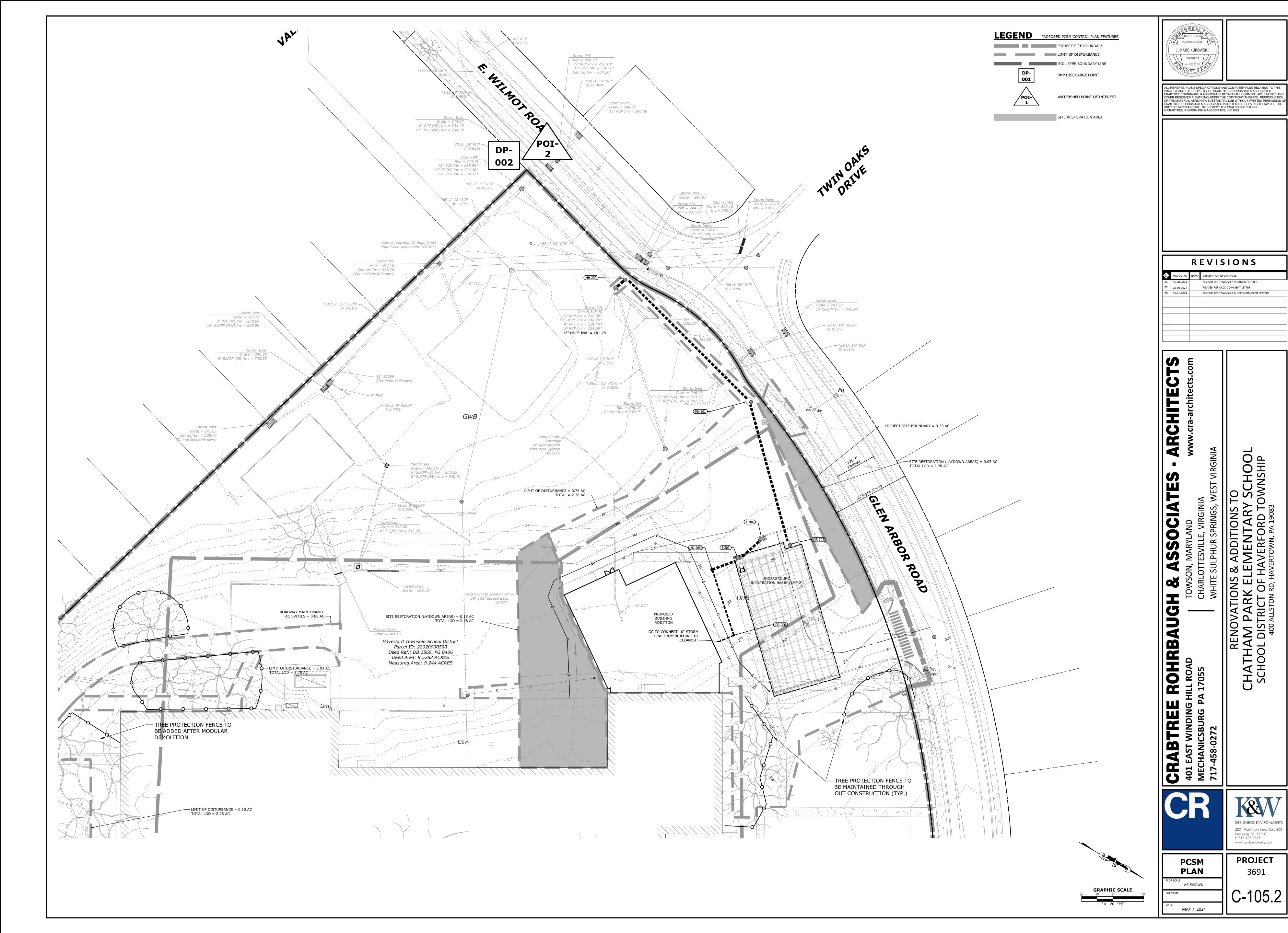
C-105

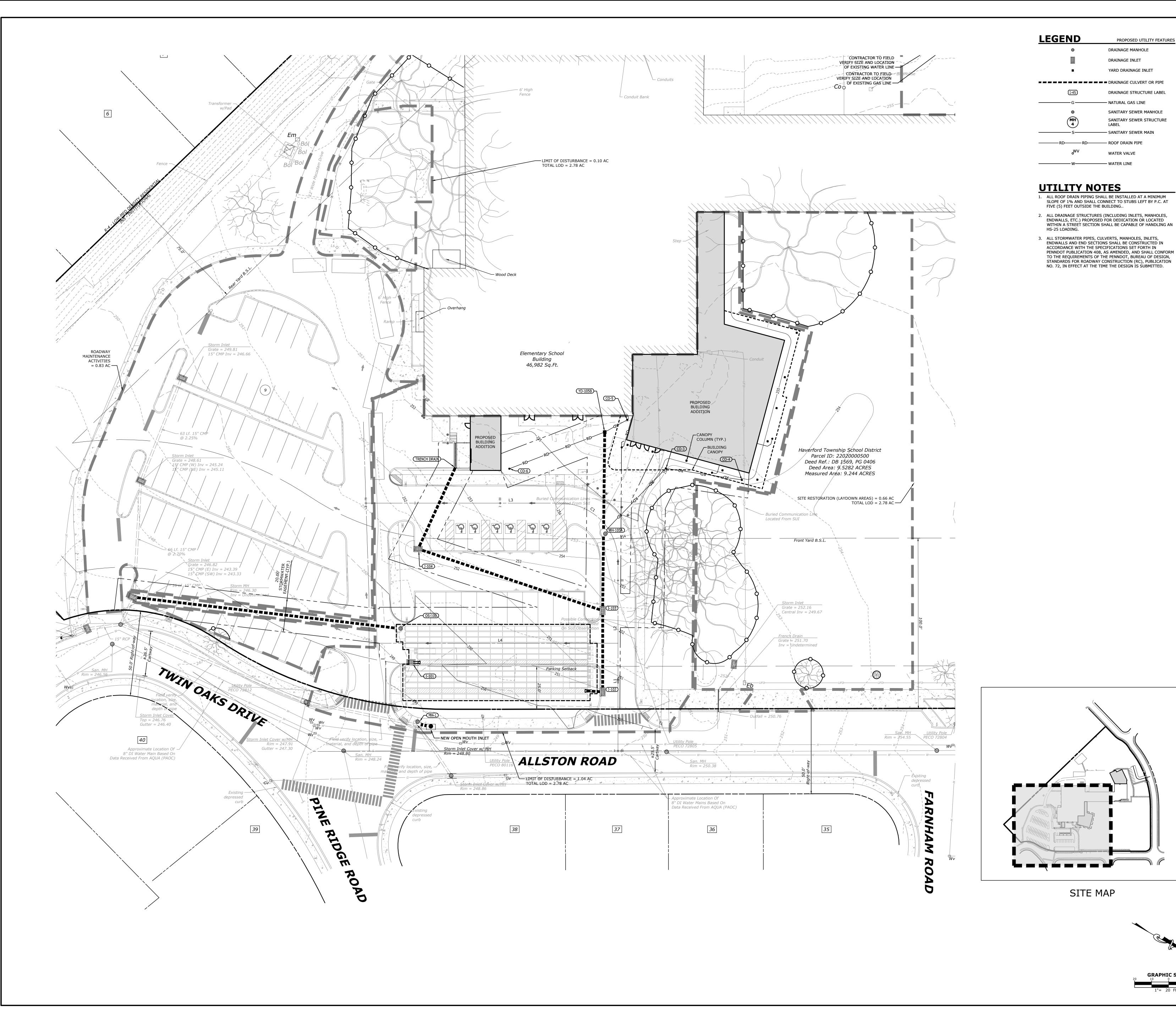
**PROJECT** 

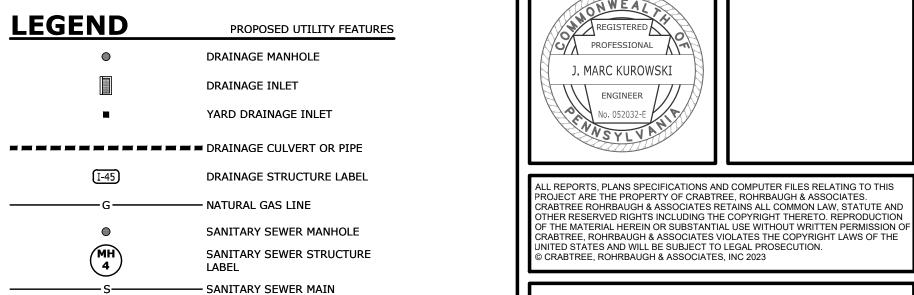


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**PROJECT** 







REVISIONS

REVISED PER TOWNSHIP COMMENT LETTER

REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

REVISED PER DCCD COMMENT LETTER

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

03 06-21-2024

WATER VALVE

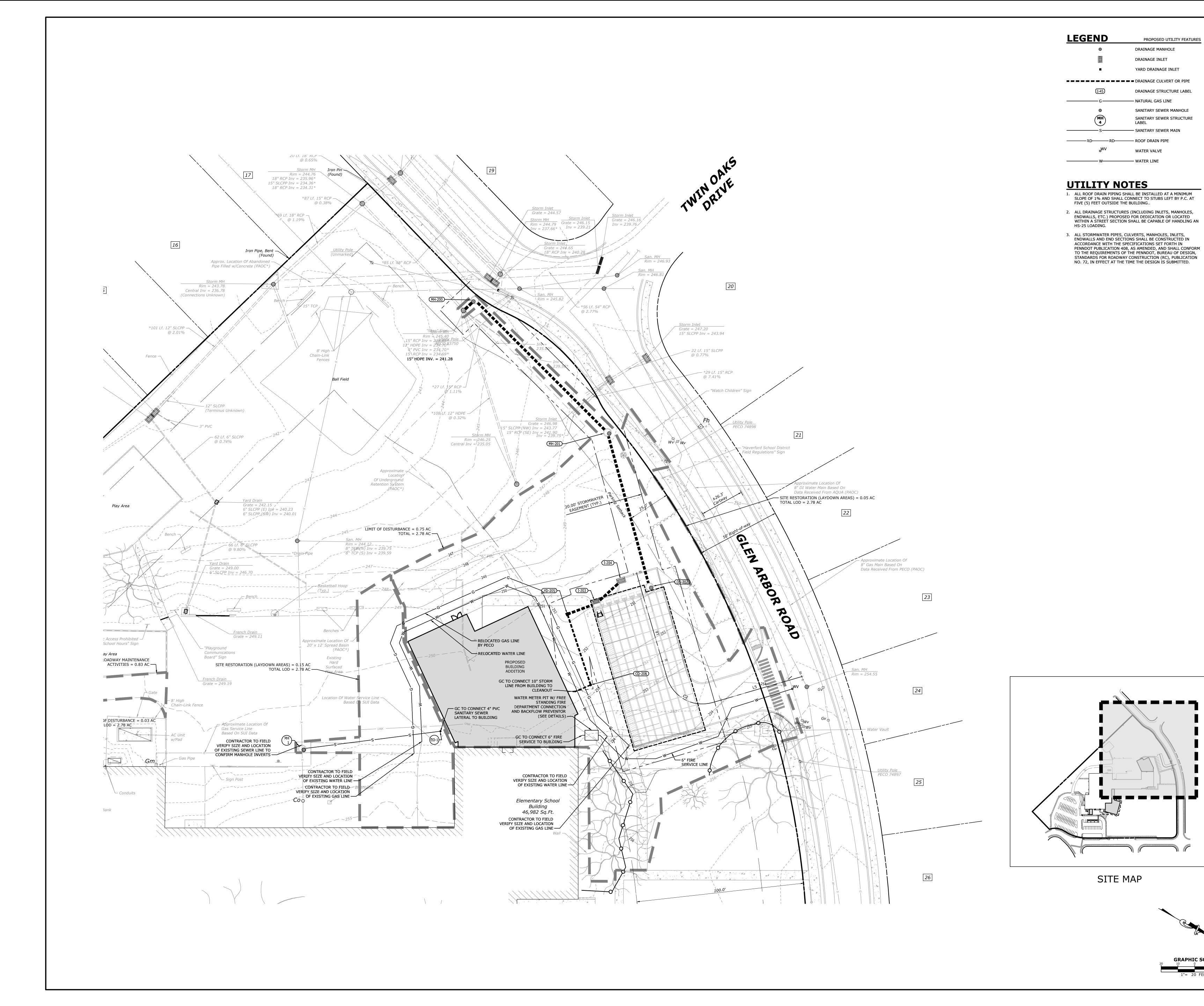
ROHF HILL ROAD A 17055

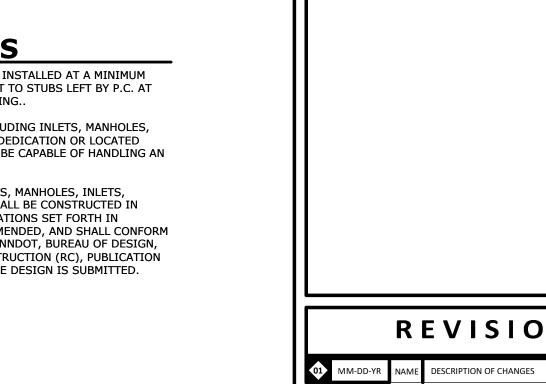
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**PROJECT** 3691 C-106

UTILITY PLAN

MAY 7, 2024





UTILITY PLAN

MAY 7, 2024

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**PROJECT** 

C-106.1

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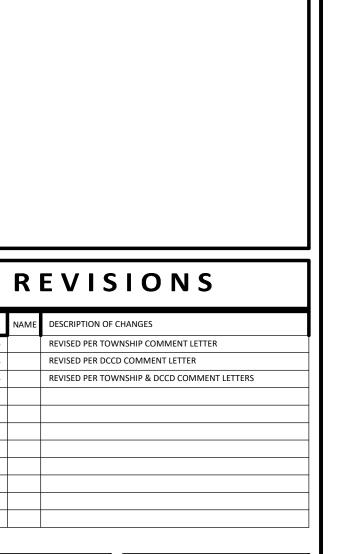
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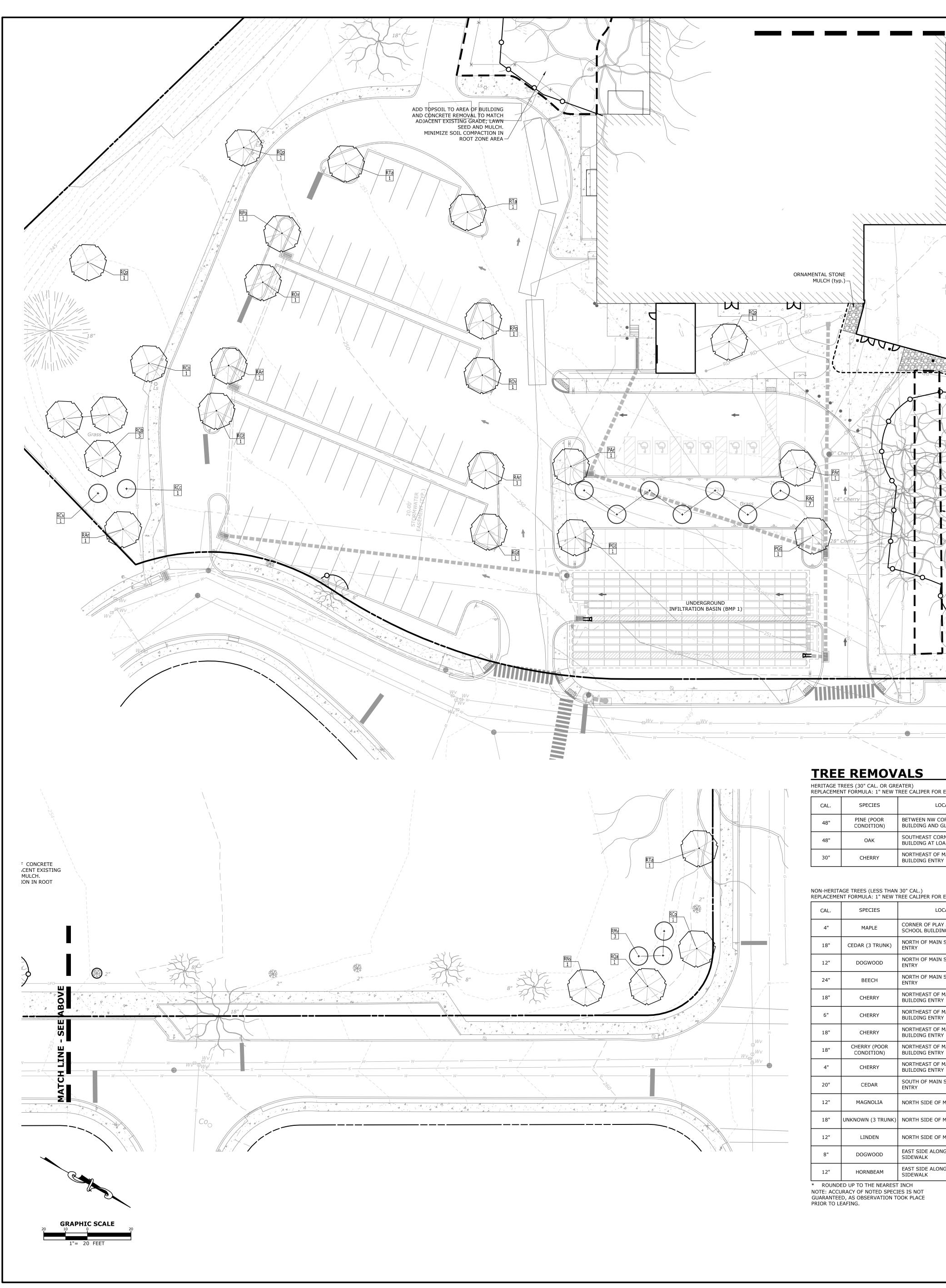
PROFESSIONAL

**02** 05-30-2024

03 06-21-2024

J. MARC KUROWSKI





	<u> </u>	<del>/ \                                   </del>				
ERITAGE TREES (30" CAL. OR GREATER) EPLACEMENT FORMULA: 1" NEW TREE CALIPER FOR EVERY 1" TREE CALIPER REMOVED						
CAL.	SPECIES	LOCATIO	REPLACEMENT VALUE (CAL.)			
48"	PINE (POOR CONDITION)	BETWEEN NW CORNER BUILDING AND GLEN A	48"			
48"	OAK	SOUTHEAST CORNER OF BUILDING AT LOADING	48"			
30"	CHERRY	NORTHEAST OF MAIN S BUILDING ENTRY	30"			
			TOTAL	126"		

CAL.	SPECIES	LOCATION		REPLACEMENT VALUE (CAL.)
4"	MAPLE	CORNER OF PLAY AREA SCHOOL BUILDING	AT REAR OF	1"
18"	CEDAR (3 TRUNK)	NORTH OF MAIN SCHOOL ENTRY	OL BUILDING	5" (4.5")*
12"	DOGWOOD	NORTH OF MAIN SCHOOL ENTRY	OL BUILDING	3"
24"	BEECH	NORTH OF MAIN SCHOOL ENTRY	OL BUILDING	6"
18"	CHERRY	NORTHEAST OF MAIN S BUILDING ENTRY	SCHOOL .	5" (4.5")*
6"	CHERRY	NORTHEAST OF MAIN SCHOOL BUILDING ENTRY		2" (1.5")*
18"	CHERRY	NORTHEAST OF MAIN SCHOOL BUILDING ENTRY		5" (4.5")*
18"	CHERRY (POOR CONDITION)	NORTHEAST OF MAIN SCHOOL BUILDING ENTRY		5" (4.5")*
4"	CHERRY	NORTHEAST OF MAIN SCHOOL BUILDING ENTRY		1"
20"	CEDAR	SOUTH OF MAIN SCHOOL	OL BUILDING	5"
12"	MAGNOLIA	NORTH SIDE OF MAIN	ENTRY DRIVE	3"
18"	UNKNOWN (3 TRUNK)	NORTH SIDE OF MAIN	ENTRY DRIVE	5" (4.5")*
12"	LINDEN	NORTH SIDE OF MAIN	ENTRY DRIVE	3"
8"	DOGWOOD	EAST SIDE ALONG ALLS SIDEWALK	STON ROAD	2"
12"	HORNBEAM	EAST SIDE ALONG ALLSTON ROAD SIDEWALK		3"
ROUNDED UP TO THE NEAREST INCH IE: ACCURACY OF NOTED SPECIES IS NOT			TOTAL	54"

GRAND TOTAL

MATCH LINE - SHEET C-107.1

\ <u>48" Beech</u>\

— ORNAMENTAL STONE

Haverford Township School District

Parcel ID: 22020000500

Deed Area: 9.5282 ACRES

Measured Area: 9.244 ACRES

Deed Ref.: DB 1/569, PG 0406

MULCH (typ.)

30" Cherry

30" Cherry

36" Cherry

ZONE AREA

ADD TOPSOIL TO AREA OF CONCRETE

GRADE; LAWN SEED AND MULCH. MINIMIZE SOIL COMPACTION IN ROOT

REMOVAL TO MATCH ADJACENT EXISTING

PLANT SCHEDULE								
PARKING LOT TREES								
SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT				
PAr	ACER RUBRUM 'RED SUNSET'/ RED SUNSET RED MAPLE	3	2" CAL.	B&B				
PGt	GLEDITSIA TRIACANTHOS 'INERMIS'/ THORNLESS HONEYLOCUST	3	2" CAL.	B&B				
REPLACEMENT TREES - 2" CAL.								

	<del>-</del>			
SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT
RAc	AMELANCHIER CANADENSIS/ SERVICEBERRY		2" CAL.	B&B
RCc	CARPINUS CAROLINIANA/ AMERICAN HORNBEAM	6	2" CAL.	B&B
RCe	CERCIS CANADENSIS/ EASTERN REDBUD	6	2" CAL.	B&B
RCm	CORNUS MAS/ CORNELIAN CHERRY DOGWOOD	6	2" CAL.	B&B
RCv	CRATAEGUS X VIRIDIS 'WINTER KING'/ WINTER KING HAWTHORN	6	2" CAL.	B&B
RMv	MAGNOLIA VIRGINIANA/ SWEETBAY MAGNOLIA	7	2" CAL.	B&B
RPs	PRUNUS SUBHIRTELLA 'AUTUMNALIS'/ HIGAN CHERRY	6	2" CAL.	B&B
	TOTAL	44		

REPLACEMENT	TREES -	2	1/2"	CA

	DETTERM TREES 2 1/2 CREE			
SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROO
RAr	ACER RUBRUM 'RED SUNSET'/ RED SUNSET RED MAPLE	3	2 1/2" CAL.	B&E
RCo	CELTIS OCCIDENTALIS/ COMMON HACKBERRY	4	2 1/2" CAL.	B&E
RGt	GLEDITSIA TRIACANTHOS 'INERMIS'/ THORNLESS HONEYLOCUST	4	2 1/2" CAL.	B&E
RLs	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'/ SWEET GUM	5	2 1/2" CAL.	B&E
RNs	NYSSA SYLVATICA/ BLACKGUM	5	2 1/2" CAL.	B&E
ROv	OSTRYA VIRGINIANA/ AMERICAN HOPHORNBEAM	5	2 1/2" CAL.	B&E
RPo	PLATANUS OCCIDENTALIS/ AMERICAN SYCAMORE	5	2 1/2" CAL.	B&E
RPr	PRUNUS SEROTINA/ BLACK CHERRY	6	2 1/2" CAL.	B&E
RQa	QUERCUS ALBA/ WHITE OAK	5	2 1/2" CAL.	B&E
RQb	QUERCUS BICOLOR/ SWAMP WHITE OAK	4	2 1/2" CAL.	B&E
RQp	QUERCUS PHELLOS/ WILLOW OAK	4	2 1/2" CAL.	B&E
RTa	TILIA AMERICANA 'BOULEVARD' / BOULEVARD AMERICAN BASSWOOD	5	2 1/2" CAL.	B&E
	TOTAL	55		
			•	

LANT SCHEDULE									
RKING LOT TREES									
'MBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT					
PAr	ACER RUBRUM 'RED SUNSET'/ RED SUNSET RED MAPLE	3	2" CAL.	B&B					
PGt	GLEDITSIA TRIACANTHOS 'INERMIS'/	3	2" CAL.	B&B					

REPLACEMENT TREES - 2" CAL.							
SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT			
RAc	AMELANCHIER CANADENSIS/ SERVICEBERRY	7	2" CAL.	В&В			
RCc	CARPINUS CAROLINIANA/ AMERICAN HORNBEAM	6	2" CAL.	B&B			
RCe	CERCIS CANADENSIS/ EASTERN REDBUD	6	2" CAL.	В&В			
RCm	CORNUS MAS/ CORNELIAN CHERRY DOGWOOD	6	2" CAL.	В&В			
RCv	CRATAEGUS X VIRIDIS 'WINTER KING'/ WINTER KING HAWTHORN	6	2" CAL.	В&В			
RMv	MAGNOLIA VIRGINIANA/ SWEETBAY MAGNOLIA	7	2" CAL.	В&В			
RPs	PRUNUS SUBHIRTELLA 'AUTUMNALIS'/ HIGAN CHERRY	6	2" CAL.	B&B			

PI AC	EMENT	TREES	- 2	1/2"	CA

	· · · · · · · · · · · · · · · · · · ·			
SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT
RAr	ACER RUBRUM 'RED SUNSET'/ RED SUNSET RED MAPLE	3	2 1/2" CAL.	B&B
RCo	CELTIS OCCIDENTALIS/ COMMON HACKBERRY	4	2 1/2" CAL.	B&B
RGt	GLEDITSIA TRIACANTHOS 'INERMIS'/ THORNLESS HONEYLOCUST	4	2 1/2" CAL.	B&B
RLs	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'/ SWEET GUM	5	2 1/2" CAL.	B&B
RNs	NYSSA SYLVATICA/ BLACKGUM	5	2 1/2" CAL.	B&B
ROv	OSTRYA VIRGINIANA/ AMERICAN HOPHORNBEAM	5	2 1/2" CAL.	B&B
RPo	PLATANUS OCCIDENTALIS/ AMERICAN SYCAMORE	5	2 1/2" CAL.	B&B
RPr	PRUNUS SEROTINA/ BLACK CHERRY	6	2 1/2" CAL.	B&B
RQa	QUERCUS ALBA/ WHITE OAK	5	2 1/2" CAL.	B&B
RQb	QUERCUS BICOLOR/ SWAMP WHITE OAK	4	2 1/2" CAL.	B&B
RQp	QUERCUS PHELLOS/ WILLOW OAK	4	2 1/2" CAL.	B&B
RTa	TILIA AMERICANA 'BOULEVARD' / BOULEVARD AMERICAN BASSWOOD	5	2 1/2" CAL.	B&B
	TOTAL	55		

**LEGEND** 

PROPOSED LANDSCAPE PLAN FEATURES DECIDUOUS TREE

SMALL/MEDIUM DECIDUOUS TREE

PLANTING LABEL

# LANDSCAPE NOTES

1. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES, AND LAWNS AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS, CONTACT PA-1-CALL 1-800-242-1776 AT A MINIMUM OF THREE WORKING DAYS PRIOR TO COMMENCEMENT OF WORK.

2. PROVIDE EROSION CONTROL MEASURE TO PREVENT EROSION OR

DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUN-OFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND 3. ALL TREE AND SHRUB REMOVAL AS SHOWN ON THE DEMOLITION PLAN

SHALL HAVE ALL STUMPS AND ROOTS REMOVED BY MEANS OF STUMP GRINDING AND/OR BACKHOE. ALL BIODEGRADABLE PLANT MATERIAL FROM THE REMOVAL PROCESS SHALL BE COLLECTED AND REMOVED FROM THE SITE.

# PLANT BED ESTABLISHMENT

ARCHITECT FOR APPROVAL.

CLEANUP AND PROTECTION

1. CONTRACTOR TO CONFIRM EXISTING TOPSOIL DEPTH AND SHALL FURNISH SOIL ANALYSIS BY QUALIFIED LAB STATING PERCENTAGES OF ORGANIC MATTER, GRADUATION OF SAND, SILT AND CLAY CONTENT, DELETERIOUS MATERIAL, PH AND MINERAL AND PLANT-NUTRIENT CONTENT OF TOPSOIL. CONTRACTOR TO PROVIDE DATA AT A MINIMUM OF 5 DIFFERENT PLANTING AREAS. CONTRACTOR TO SUBMIT EXISTING TOPSOIL DEPTH AND RECOMMENDED QUANTITIES OF NITROGEN, PHOSPHORUS AND POTASH INGREDIENTS TO BE ADDED TO PRODUCE A SATISFACTORY TOPSOIL TO LANDSCAPE

2. TOPSOIL SHALL HAVE ACIDITY RANGE OF PH 5.0 TO PH 7.0 AND AN ORGANIC CONTENT OF AT LEAST 3-4%. MINIMUM TOPSOIL DEPTH IN PLANTING BEDS SHALL BE 12" BUT 18" IS RECOMMENDED. ADDITIONAL TOPSOIL SHALL BE ADDED WHEN POSSIBLE. 3. APPLY APPROVED SOIL AMENDMENTS AND FERTILIZER ON SURFACE

AND THOROUGHLY BLEND PLANTING SOIL MIX FOR PLANTING 4. LAY OUT INDIVIDUAL TREE LOCATIONS AND AREAS FOR MULTIPLE

EXTERIOR PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECTS ACCEPTANCE OF LAYOUT BEFORE PLANTING. MAKE MINOR ADJUSTMENTS AS REQUIRED. PLANT MATERIAL

ANSI Z60.1, WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING, PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK-FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALE, INJURIES, ABRASIONS, AND DISFIGUREMENT. 2. PROVIDE TREES OF SIZES AND GRADES COMPLYING WITH ANSI Z60.1

1. FURNISH NURSERY-GROWN TREES AND SHRUBS COMPLYING WITH

SIZE MAY BE USED IF ACCEPTABLE TO ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS. 3. IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF TREES IS SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER LABEL TO ASSURE SYMMETRY IN PLANTING.

FOR THE TYPE OF TREES AND SHRUBS REQUIRED. TREES OF A LARGER

1. DURING EXTERIOR PLANTING, KEEP ADJACENT PAVEMENTS AND CONSTRUCTION CLEAN AND WORK AREA IN AN ORDERLY CONDITION. 2. PROTECT EXTERIOR PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND OTHERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED EXTERIOR PLANTING.

1. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.

1. WARRANT THE FOLLOWING EXTERIOR PLANTS FOR THE WARRANTY PERIOD INDICATED IN THE SPECIFICATIONS, AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. WARRANTY PERIODS FOR ALL PLANT MATERIAL: ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.

2. REMOVE DEAD EXTERIOR PLANTS IMMEDIATELY. REPLACE IMMEDIATELY UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.

3. REPLACE EXTERIOR PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD. 4. A LIMIT OF ONE REPLACEMENT OF EACH EXTERIOR PLANT WILL BE REQUIRED, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.

MISC. PLANTING NOTES 1. ALL PLANTING MATERIAL TO BE INSTALLED AS PER SIZE INDICATED ON

PLANT SCHEDULE. 2. ANY SUBSTITUTIONS THAT MAY BE REQUIRED SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING MATERIAL.

3. ALL PLANTINGS AND PLANTING PROCEDURES SHALL CONFORM TO GOOD NURSERY AND LANDSCAPE PRACTICE AND THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMAN. 4. PRIOR TO COMMENCEMENT OF WORK ALL UTILITIES BOTH ABOVE AND BELOW GROUND SHALL BE LOCATED THROUGH THE PA 1CALL SYSTEM AND/OR THE GENERAL CONTRACTOR ON SITE. IF ANY CONFLICTS DO OCCUR THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY

FOR RELOCATION. 5. CONTRACTOR TO VERIFY ALL PLANT COUNTS AND LOCATIONS PRIOR

TO ORDERING MATERIAL. K&W AND THE OWNER ACCEPT NO RESPONSIBILITY FOR TYPOGRAPHICAL ERRORS AND MISCOUNTS. 6. ALL PLANTINGS SHALL HAVE WATER RETAINING CRYSTALS SUCH AS TERRASORB, OR APPROVED EQUAL, INCORPORATED INTO PLANTING

SOIL AS RECOMMENDED BY MANUFACTURER. 7. ANY PLANT NOT INCLUDED IN A PLANTING BED SHALL HAVE A MULCHED CIRCLE. THE SIZE OF THE MULCHED CIRCLE SHALL BE DETERMINED ACCORDING TO THE OVERALL PLANT SIZE OR CALIPER. CONSULT THE LANDSCAPE ARCHITECT FOR CLARIFICATION IF

8. EACH PLANT SHALL BE PLANTED SUCH THAT THE ROOT FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. DO NOT, AT ANY TIME, COVER THE ROOTBALL WITH TOPSOIL BACKFILL. 9. THE TOPSOIL BACKFILL SHALL BE FIRMLY TAMPED, COMPARABLE TO

FOOT PRESSURE, IN 3" LIFTS TO STABILIZE THE ROOT BALL AND TO

PREVENT AIR POCKETS.

10. WATER ALL PLANTINGS INDIVIDUALLY WITH AN OPEN ENDED GARDEN HOSE SUBSEQUENT TO INSTALLATION. DO NOT USE MECHANICAL SPRINKLERS TO WATER PLANTINGS.

11. LANDSCAPE MATERIAL PLANTING SHALL TAKE PLACE IN THE SPRING OR FALL DURING THE RECOGNIZED ACCEPTABLE PLANTING PERIODS AS NOTED IN THE SPECIFICATIONS. SUMMER PLANTING WILL NOT BE 12. TO ENSURE PROPER SIGHT DISTANCE FOR THE PROPOSED DRIVEWAY,

EXISTING VEGETATION ALONG GLEN ARBOR ROAD TO BE PRUNED BACK REGULARLY TO A DISTANCE AT LEAST 5' FROM THE INSIDE EDGE OF THE ADJACENT SIDEWALK. SELECTIVE PRUNING SHALL BE PERFORMED; NO SHEARING WILL BE ALLOWED. DO NOT REMOVE MORE THAN ONE-THIRD OF THE LIVE FOLIAGE. PRUNING SHALL BE PERFORMED IN EARLY- TO

# MID-SPRING PRIOR TO NEW GROWTH EMERGENCE. LANDSCAPE REQUIREMENTS

PARKING LOT LANDSCAPING
REQUIREMENT: FIVE (5) PERCENT OF THE PARKING AREA TO BE LANDSCAPED. CALCULATION: 7,435 SF NEW PARKING LOT x 5% = 372 SF

HERITAGE TREES (30" CAL. OR GREATER) REPLACEMENT FORMULA: 1" NEW TREE CALIPER FOR EVERY 1" TREE CALIPER REMOVED. NON-HERITAGE TREES (LESS THAN 30" CAL.) REPLACEMENT FORMULA: 1" NEW TREE CALIPER FOR EVERY 4" TREE CALIPER REMOVED. CAL. INCHES REQUIRED (REPLACEMENT VALUE): 180"

PROPOSED REPLACEMENT TREE QUANTITY / REPLACEMENT VALUE (2 1/2" CAL.): 55 / 137" PROPOSED REPLACEMENT TREE QUANTITY / REPLACEMENT VALUE (2" CAL.): 44 / 88" CAL. INCHES PROPOSED (REPLACEMENT VALUE): 225"

REQUIRED LANDSCAPE AREA: 372 SF

PROPOSED LANDSCAPE AREA: 3,404 SF (46%)

**SEED MIX** 1. ALL DISTURBED AREAS OUTSIDE OF BASIN AND STEEP SLOPES TO BE SEEDED WITH: TRIPLE A TALL FESCUE MIX (21 LBS/1,000SF)
33.0% IMPROVED TURF-TYPE TALL FESCUE
33.0% IMPROVED TURF-TYPE TALL FESCUE

34.0% IMPROVED TURF-TYPE TALL FESCUE ABOVE SEED MIX TO BE SUPPLIED BY: JACKLIN SEED 33477 HIGHWAY 99E P.O. BOX 239 TANGENT, OR 97389 800-547-4101

OR APPROVED EQUAL

**LANDSCAPE PLAN** 

AS SHOWN

MAY 7, 2024

|| **Q** 4 ≥ ½

DESIGNING ENVIRONMENTS 2201 North Front Street, Suite 200

Harrisburg, PA 17110

**PROJECT** 

3691

www.kandwengineers.com

P: 717.635.2835

REVISIONS MM-DD-YR NAME DESCRIPTION OF CHANGES REVISED PER TOWNSHIP COMMENT LETTER REVISED PER DCCD COMMENT LETTER REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

03 06-21-2024

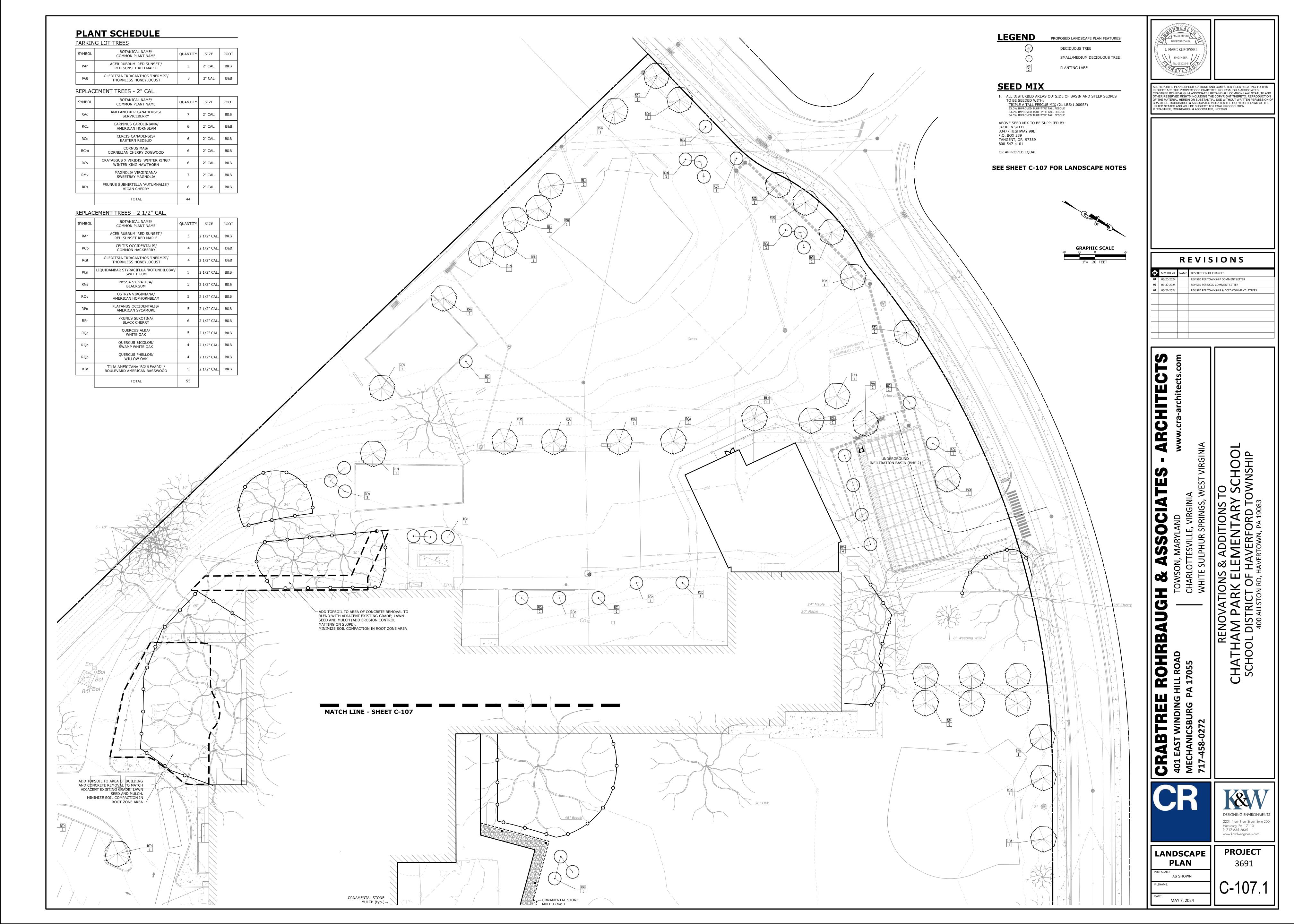
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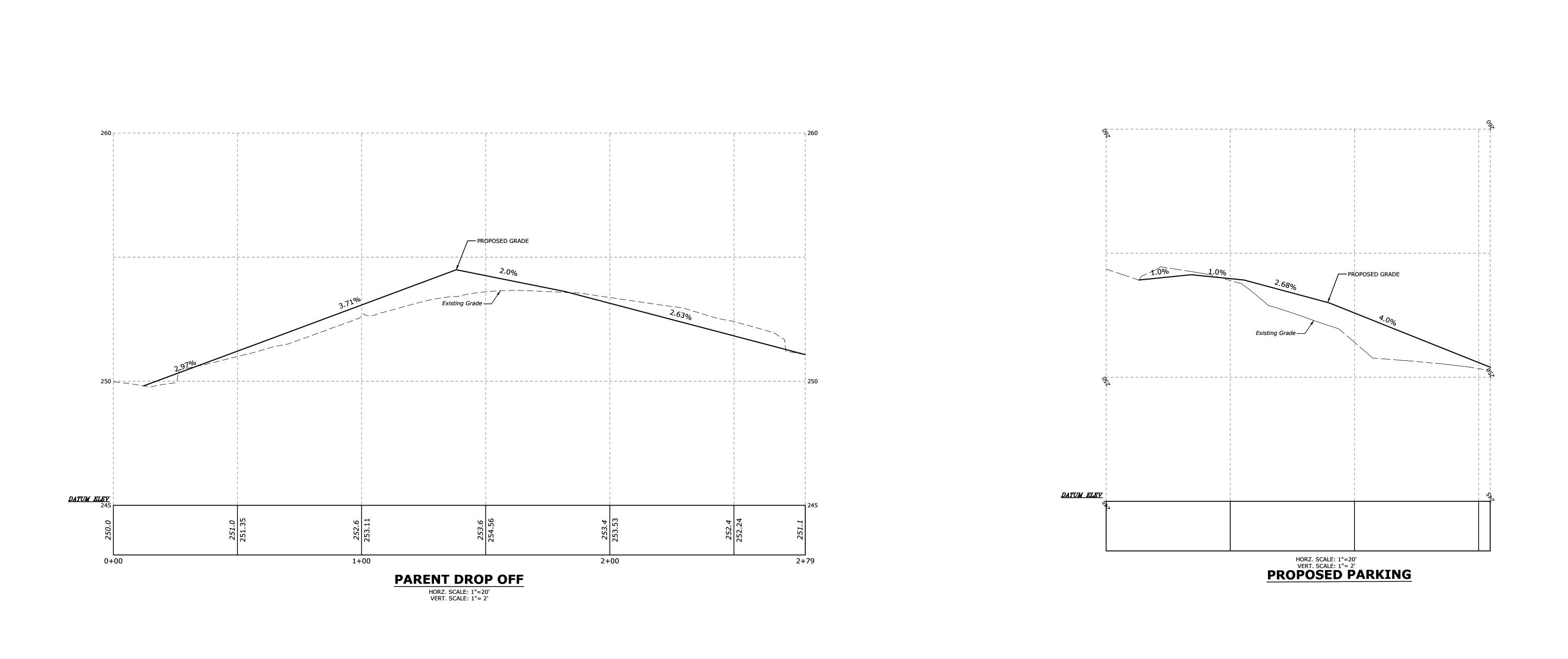
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REVISED PER TOWNSHIP COMMENT LETTER

REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

REVISED PER DCCD COMMENT LETTER

 01
 MM-DD-YR
 NAME
 DESCRIPTION OF CHANGES

 01
 05-20-2024
 REVISED PER TOWNSHIP COMM

**02** 05-30-2024

03 06-21-2024

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**DRIVEWAY** 

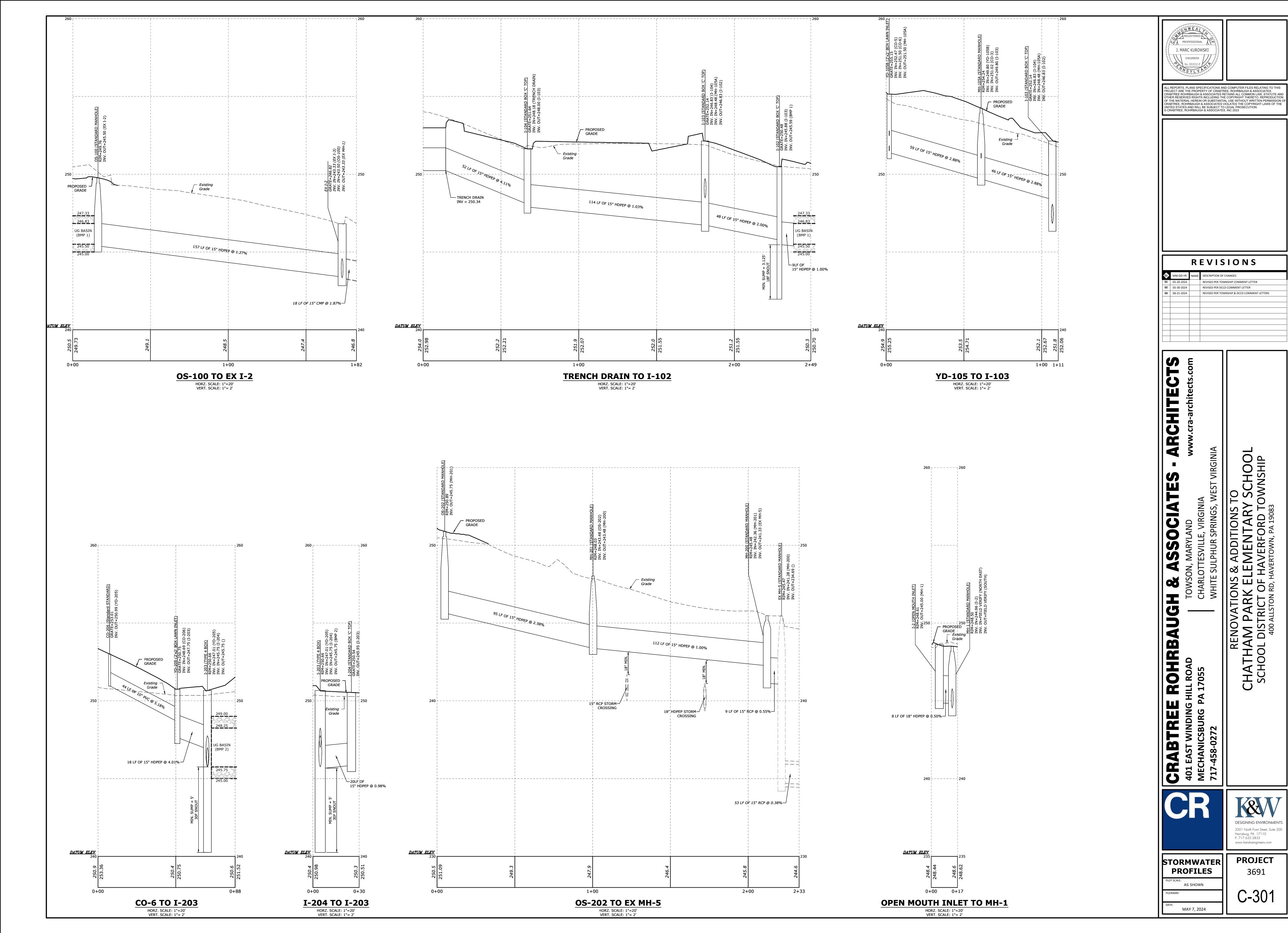
**PROFILES** 

MAY 7, 2024

PLOT SCALE: AS SHOWN

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**PROJECT** C-201

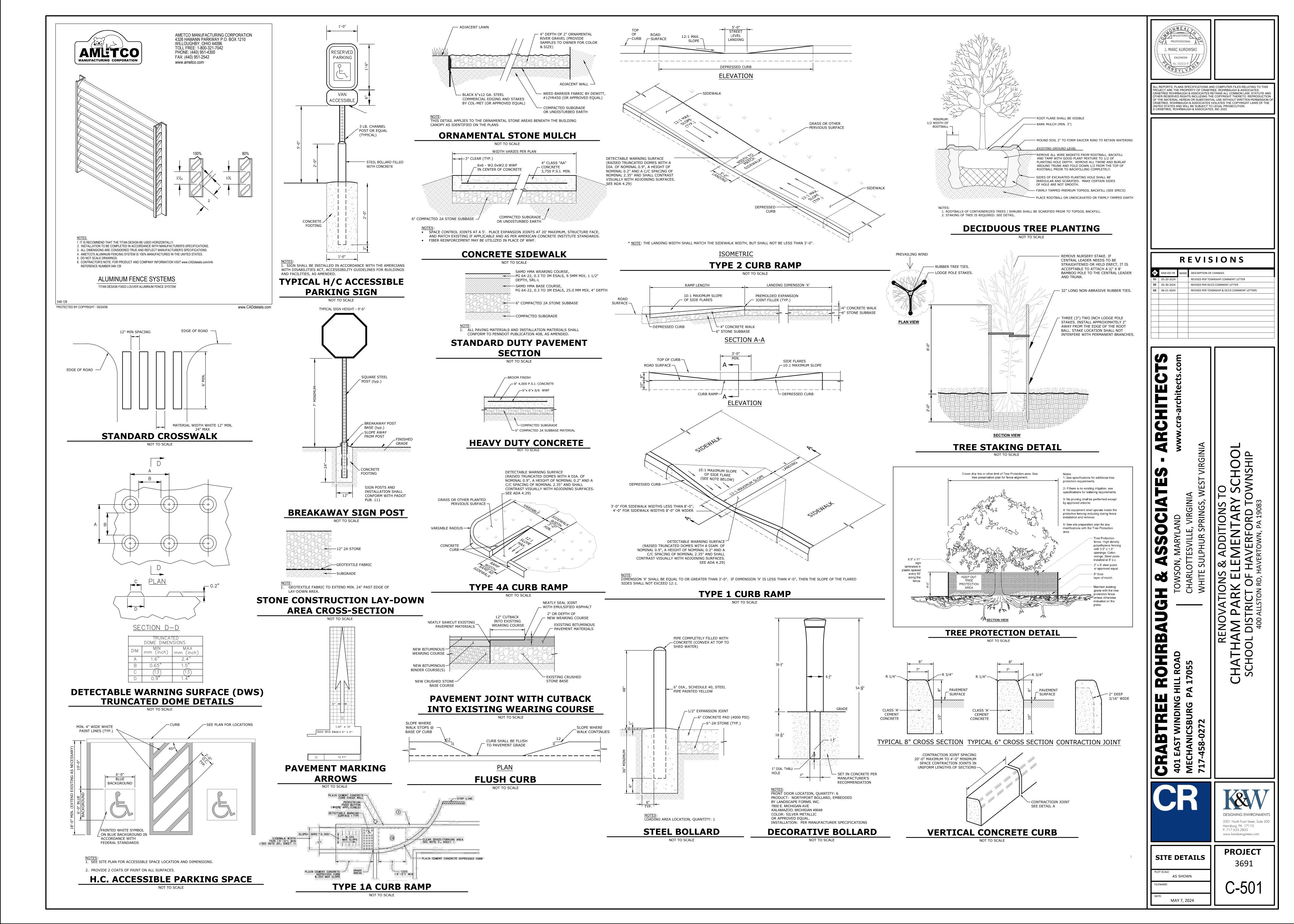


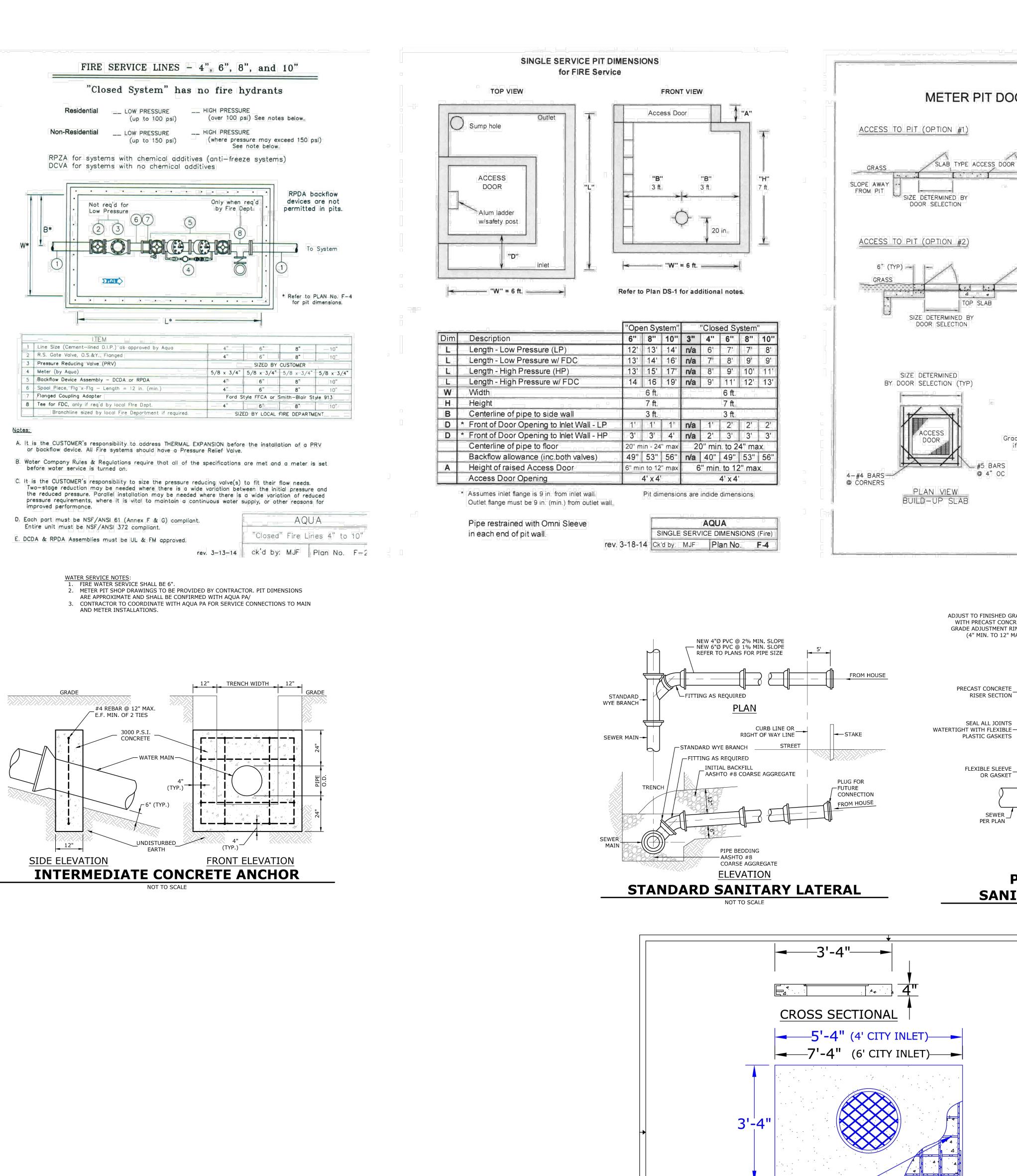
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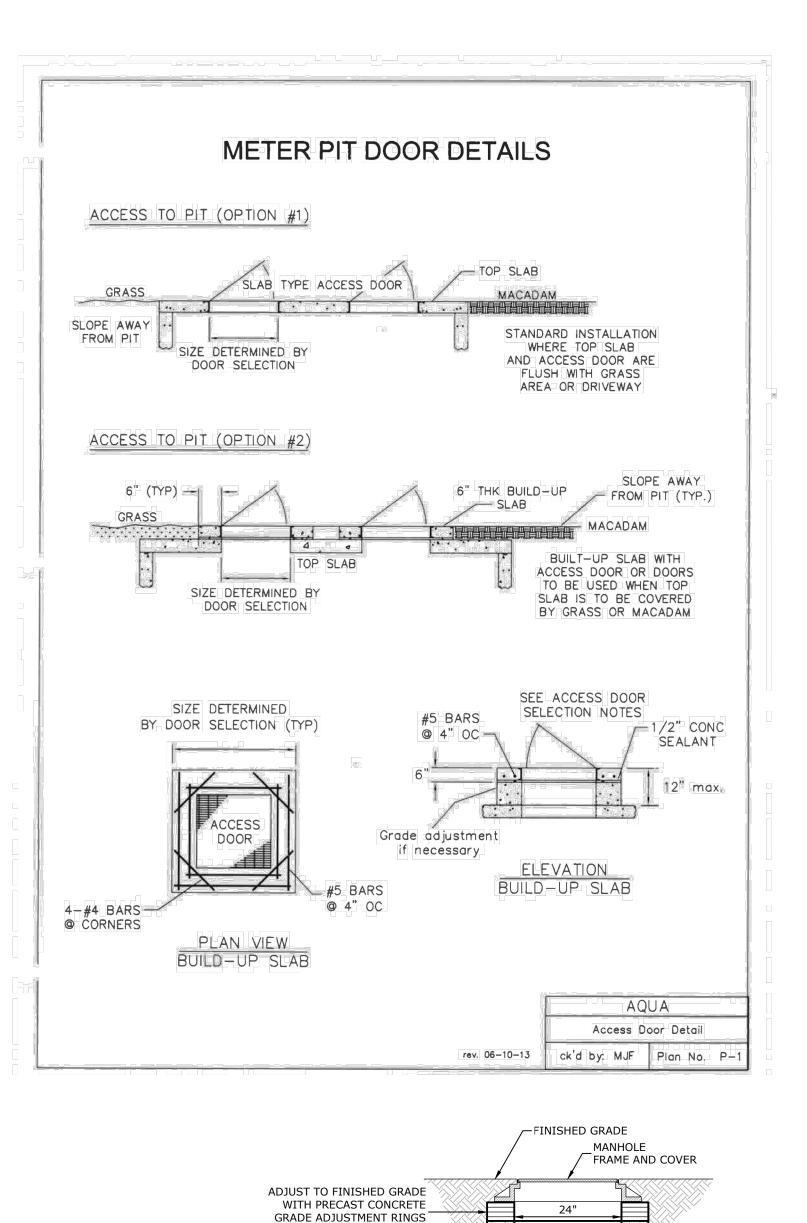
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**PROJECT** 

3691







(4" MIN. TO 12" MAX.)

RISER SECTION

SEAL ALL JOINTS

PLASTIC GASKETS

FLEXIBLE SLEEVE

PLAN VIEW

1. CONCRETE- 4000psi, AIR ENTRAINED

3. WELDED WIRE FABRIC-

4. ----INTENTIONALLY BLANK----

2. REINFORCING STEEL- GRADE 60, ASTM A-615

5. FRAME AND COVER- SEE ACCOMPANYING SPEC. SHEET

NOTES

#4 REBAR @ 6" C.C. (4' CITY INLET)

#5 REBAR @ 6" C.C. (6' CITY INLET)

INSIDE DIAMETER

PRECAST CONCRETE

**SANITARY SEWER MANHOLE** 

COMPACTED

PRECAST ECCENTRIC CONE SECTION

PRECAST REINFORCED

5" FOR 4'-0" DIAM. M.H. 6" FOR 5'-0" DIAM. M.H.

-WALL THICKNESS:

CONCRETE CHANNEL TO BE FORMED AND POURED IN PLACE

PRECAST CONCRETE OR ← CAST-IN-PLACE CONCRETE

CONCRETE RISER SECTION

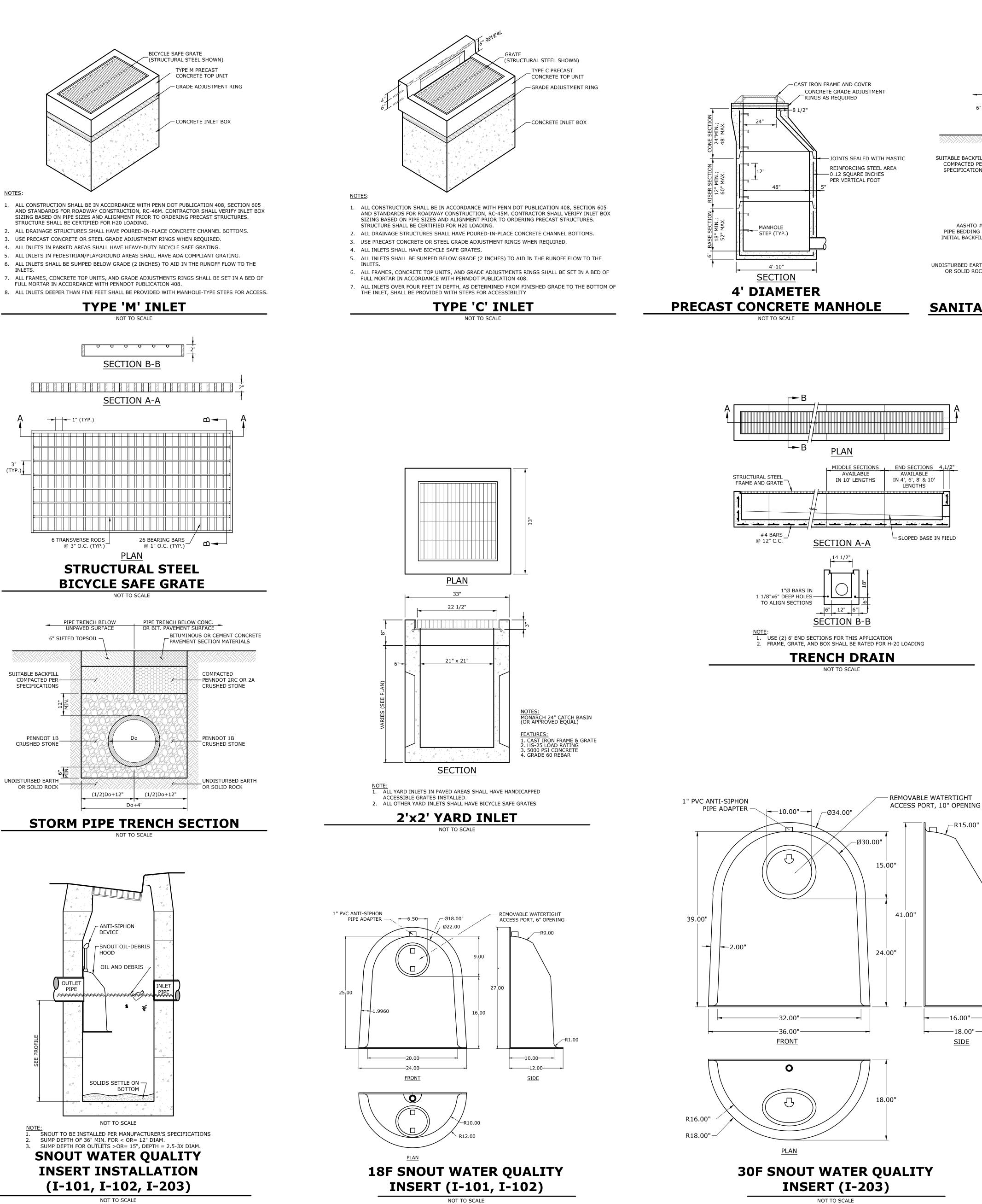


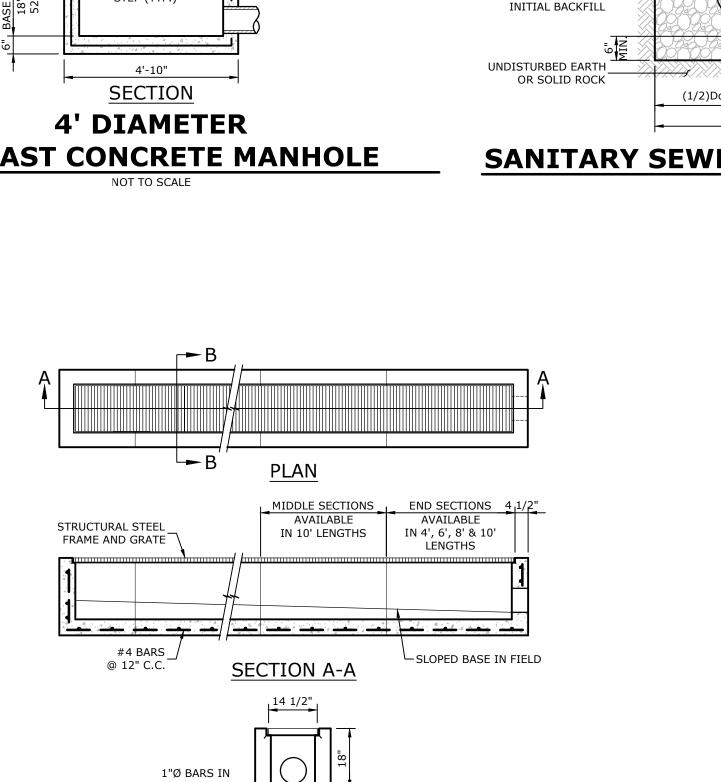
PROFESSIONAL J. MARC KUROWSKI ENGINEER

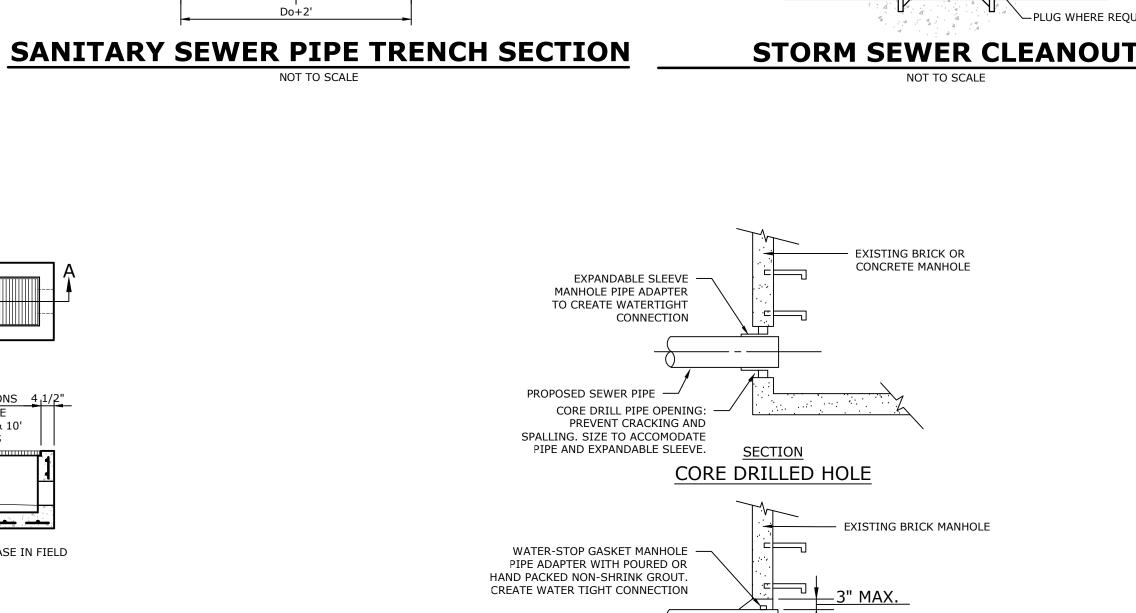
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BITUMINOUS OR CEMENT CONCRETE

COMPACTED

- AASHTO #8

PIPE BEDDING &

INITIAL BACKFILL

OR SOLID ROCK

UNDISTURBED EARTH

PENNDOT 2RC OR 2A CRUSHED STONE DETECTION TAPE,

12" BELOW FIN. GRADE

PAVEMENT SECTION MATERIALS 1' CUTBACK IN

PAVED AREAS

6" SIFTED TOPSOIL ¬

SUITABLE BACKFILL

COMPACTED PER -

SPECIFICATIONS

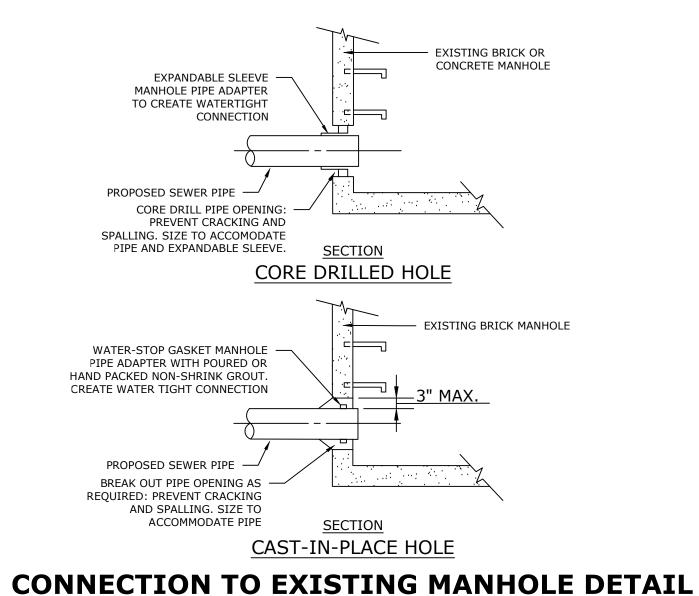
AASHTO #8-

PIPE BEDDING &

\_R15.00"

——16.00"—<del>-</del>

—18.00"—



GRASS/AREA

LANDSCAPE

TOP OF CONCRETE COLLAR MIN. DIAM. MIN.

45° WYE

BEND FITTING

45° WYE

BRANCH FITTING

INSTALL COVER FLUSH WITH

FINISHED GRADE

PER PLAN

C.I. FRAME & COVER AS

APPROVED EQUAL.

MANUFACTURED BY NEENAH

FOUNDRY, MODEL NO. R1975-A2 OR

SLOPE OFF 1"

PAVED AREA

-THREADED CAP

FINISH W/ GRADE

-3000 PSI (MIN.)

PIPE SIZE AND MATERIAL

AT 28 DAYS

-1" SPACE

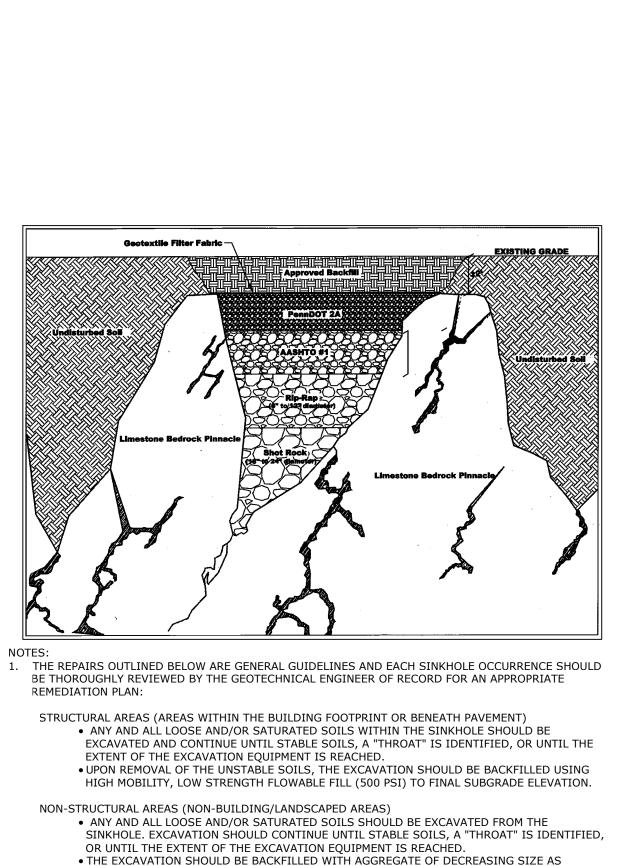
PER PLAN

6" MIN. CONCRETE

(3000 PSI AT 28 DAYS)

-ENCASEMENT AROUND PIPE

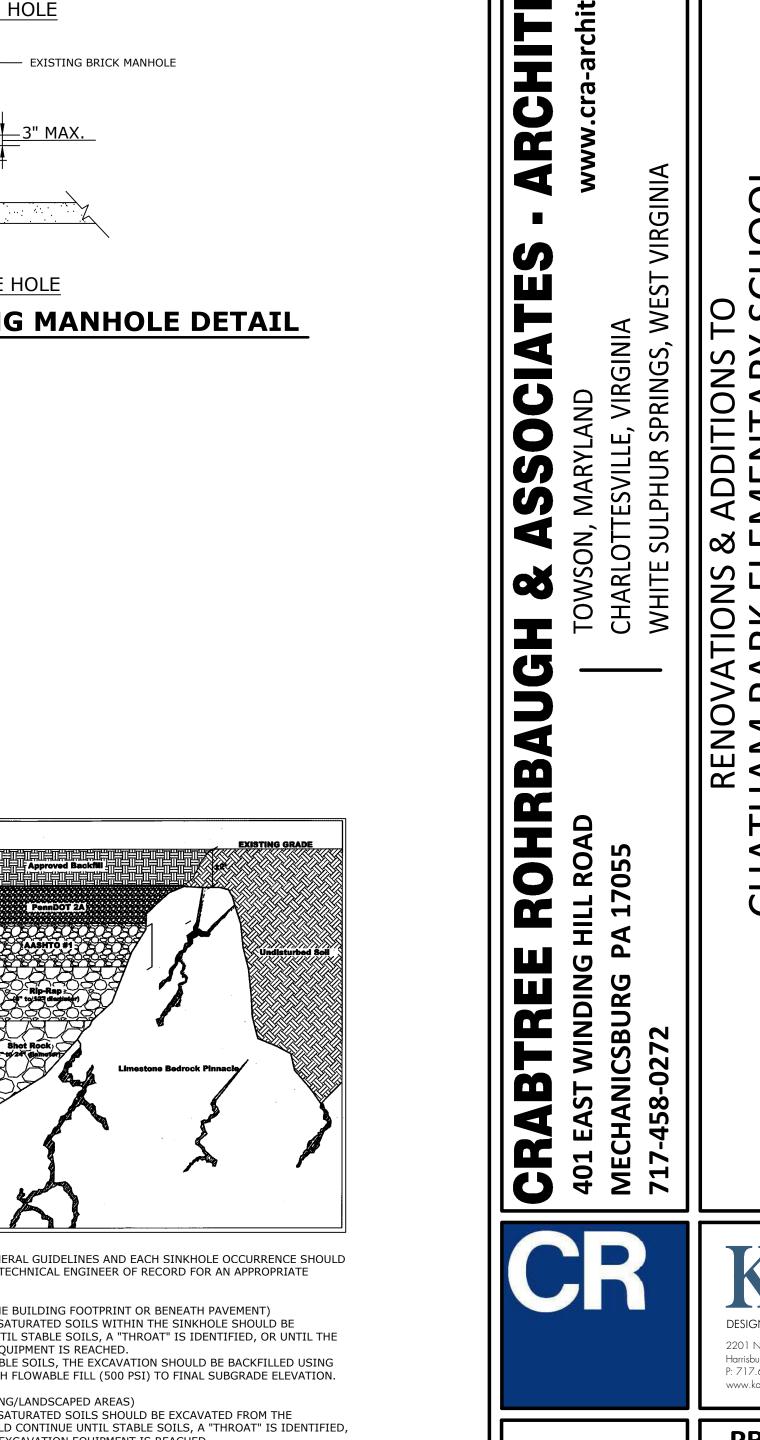
CONCRETE COLLAR



DEPICTED ON THE INVERTED FILTER DETAIL

SINKHOLE REPAIR DETAIL

NOT TO SCALE



J. MARC KUROWSKI

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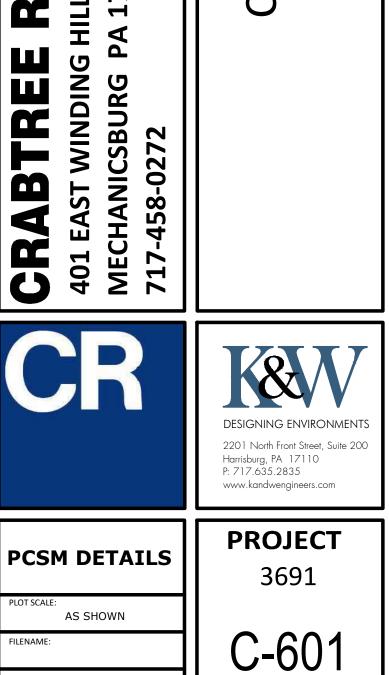
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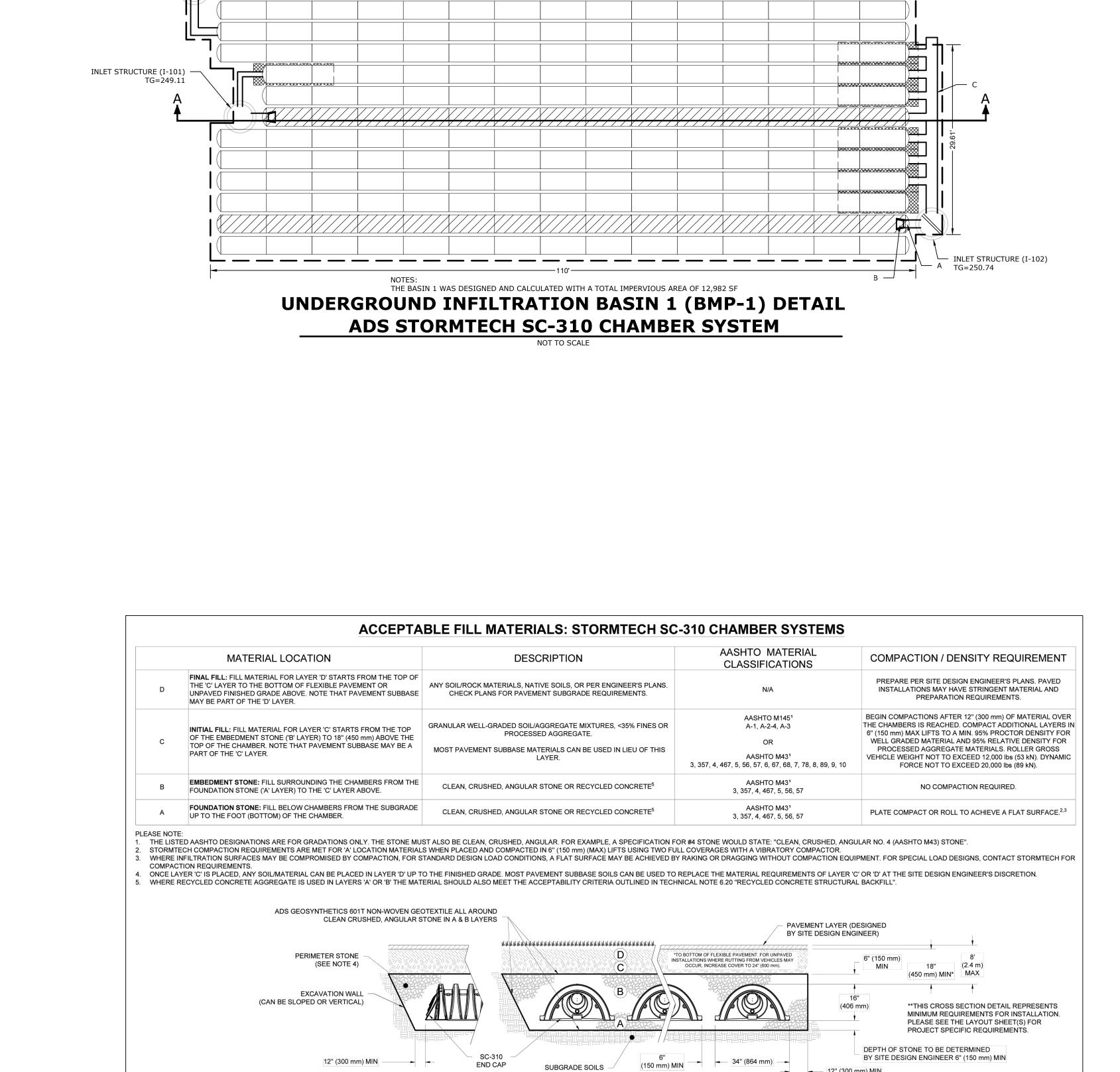
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MAY 7, 2024



SUBGRADE SOILS  $\,-\,$ 

ADS STORMTECH SC-310 CHAMBER SYSTEM CROSS SECTION DETAIL

CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION

SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION

CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.

REQUIREMENTS FOR HANDLING AND INSTALLATION:

YELLOW COLORS.

PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.

 TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS. TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".

THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH

 TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR

12" (300 mm) MIN

PROPOSED ELEVATIONS

PROPOSED LAYOUT: UG BASIN

6 STORMTECH SC-310 END CAPS
6 STONE ABOVE (in)
6 STONE BELOW (in)
40 STONE VOID
INSTALLED SYSTEM VOLUME (CF)

(COVER STONE INCLUDED)

(BASE STONE INCLUDED) SYSTEM AREA (SF)

OUTLET STRUCTURE (OS-100) -

TG=249.79

(PERIMETER STONE INCLUDED)

# **SC-310 TECHNICAL SPECIFICATION DETAIL**

11.9" (302 mm)

12.7" (323 mm)

ALL STUBS, EXCEPT FOR THE SC310ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT

\* FOR THE SC310ECEZ THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm).

BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

34.0" X 16.0" X 85.4" (864 mm X 406 mm X 2169 mm)

(16.8 kg)

14.7 CUBIC FEET

31.0 CUBIC FEET

SC-310 TECHNICAL SPECIFICATION

85.4" (2169 mm) INSTALLED LENGTH

⇒ BUILD ROW IN THIS DIRECTION

OVERLAP NEXT CHAMBER HERE

(OVER SMALL CORRUGATION)

0.6" (15 mm)

0.7" (18 mm)

90.7" (2304 mm) ACTUAL LENGTH -----

MINIMUM INSTALLED STORAGE\*

PRE CORED END CAPS END WITH "PC"

PART#

SC310EPE06B / SC310EPE06BP0

SC310EPE08T / SC310EPE08TPC

SC310EPE08B / SC310EPE08BPC

SC310EPE10T / SC310EPE10TPC

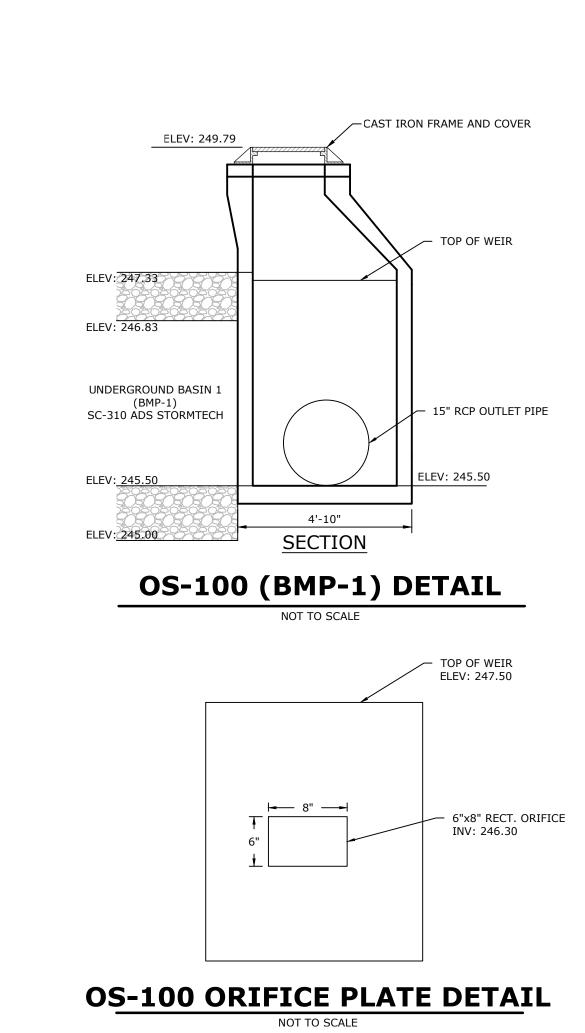
NOTE: ALL DIMENSIONS ARE NOMINAL

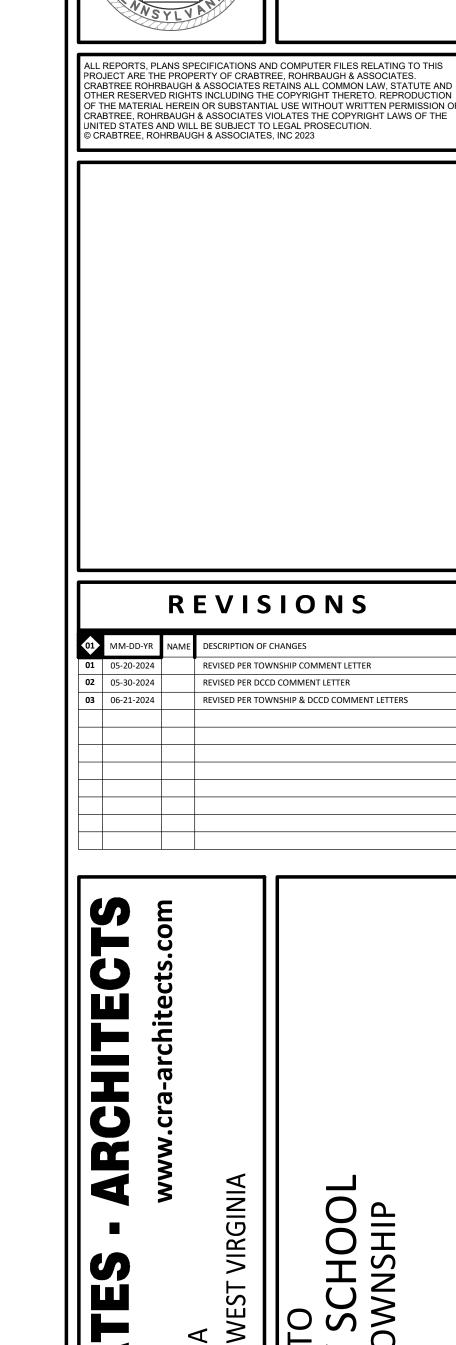
\*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

6" (150 mm)

8" (200 mm)







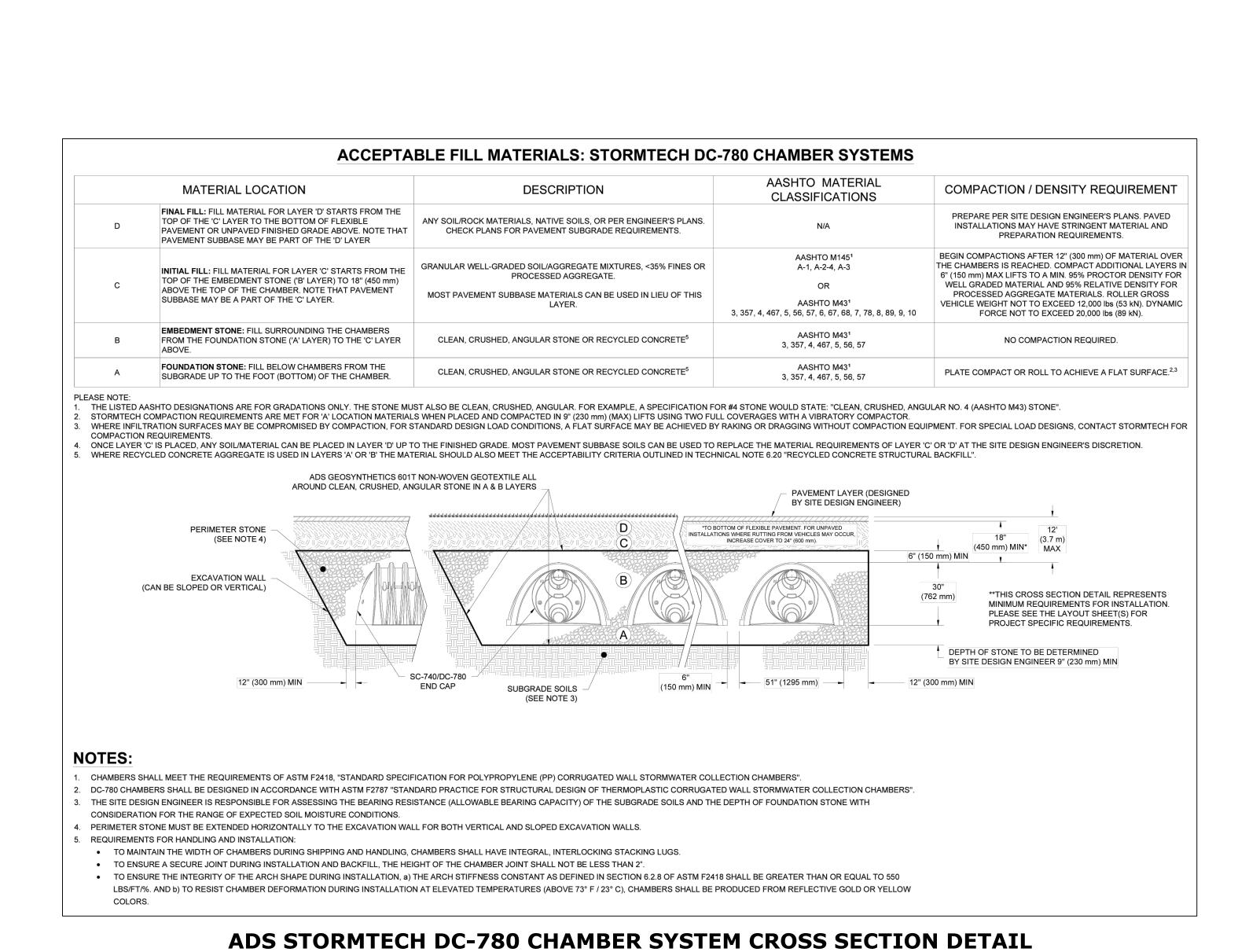
**PCSM DETAILS** 

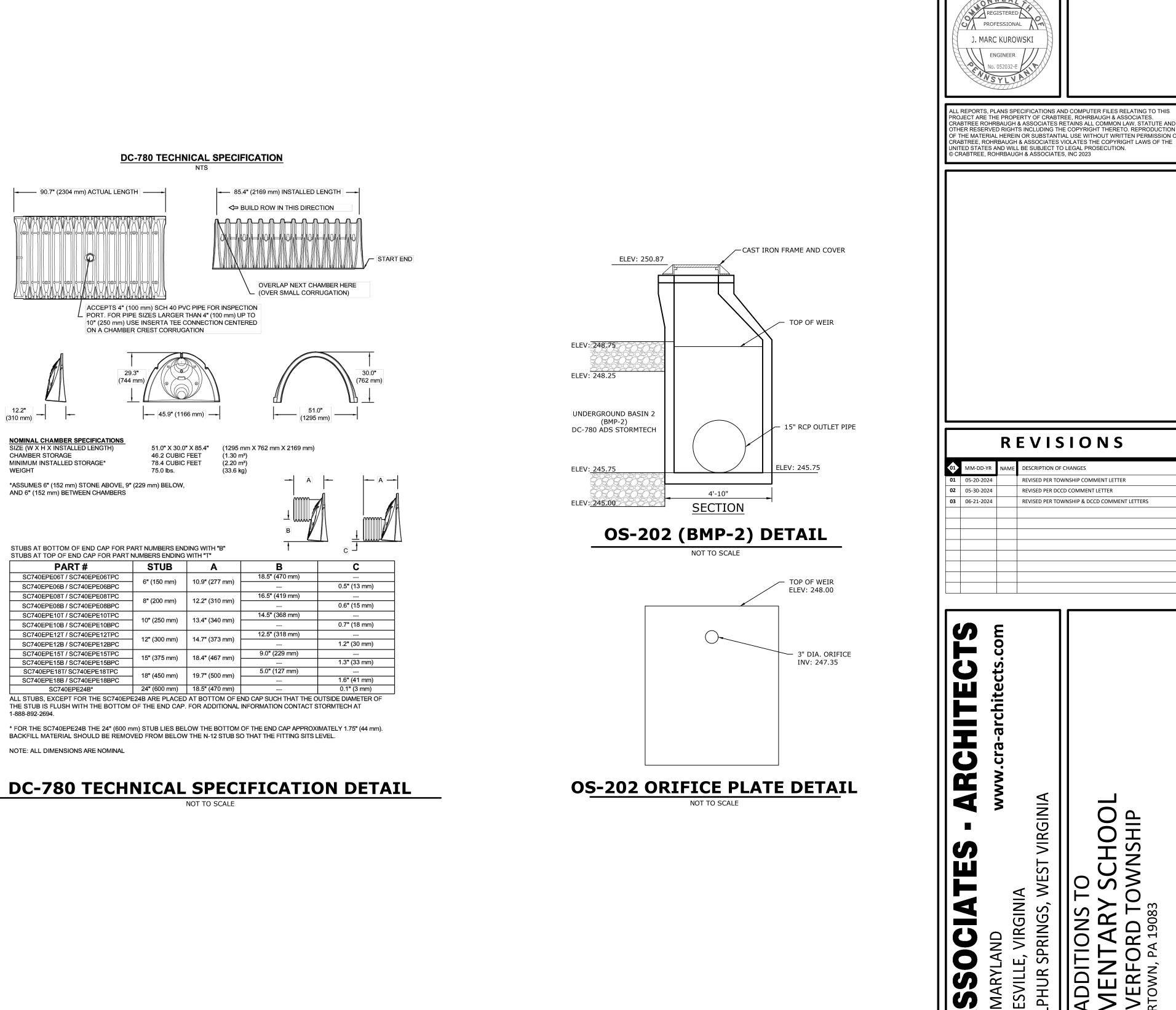
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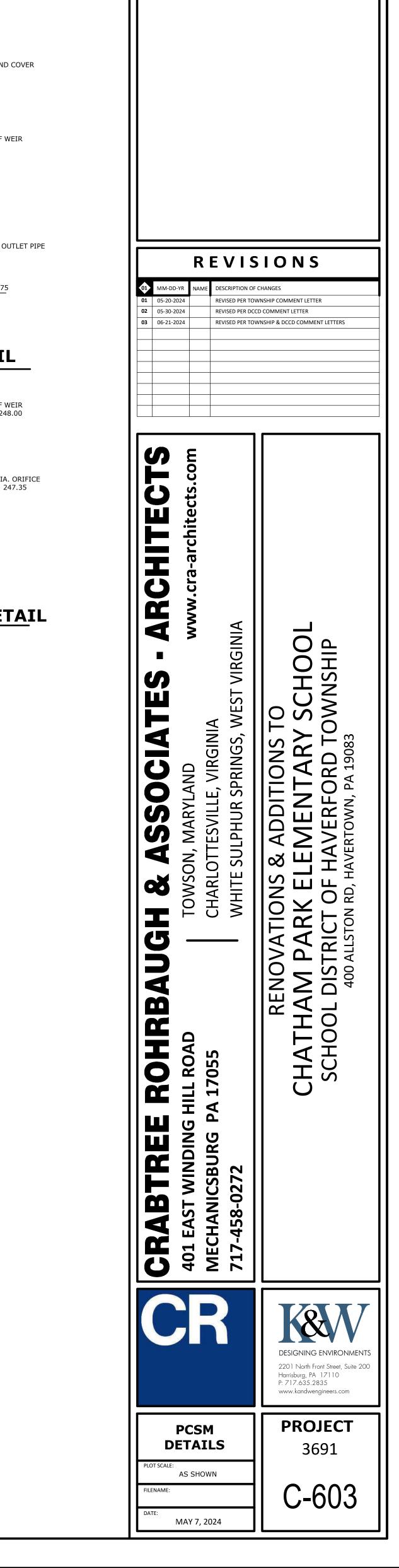
# PROPOSED LAYOUT: UG BASIN 2 PROPOSED ELEVATIONS (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED) 81 SYSTEM AREA (SF) 5.1 SYSTEM PERIMETER (ft) OUTLET STRUCTURE (OS-202) — TG=250.87 INLET STRUCTURE (I-203) — TG=250.45 NOTES: THE BASIN 1 WAS DESIGNED AND CALCULATED WITH A TOTAL IMPERVIOUS AREA OF 19,988 SF UNDERGROUND INFILTRATION BASIN 2 (BMP-2) DETAIL **ADS STORMTECH DC-780 CHAMBER SYSTEM**

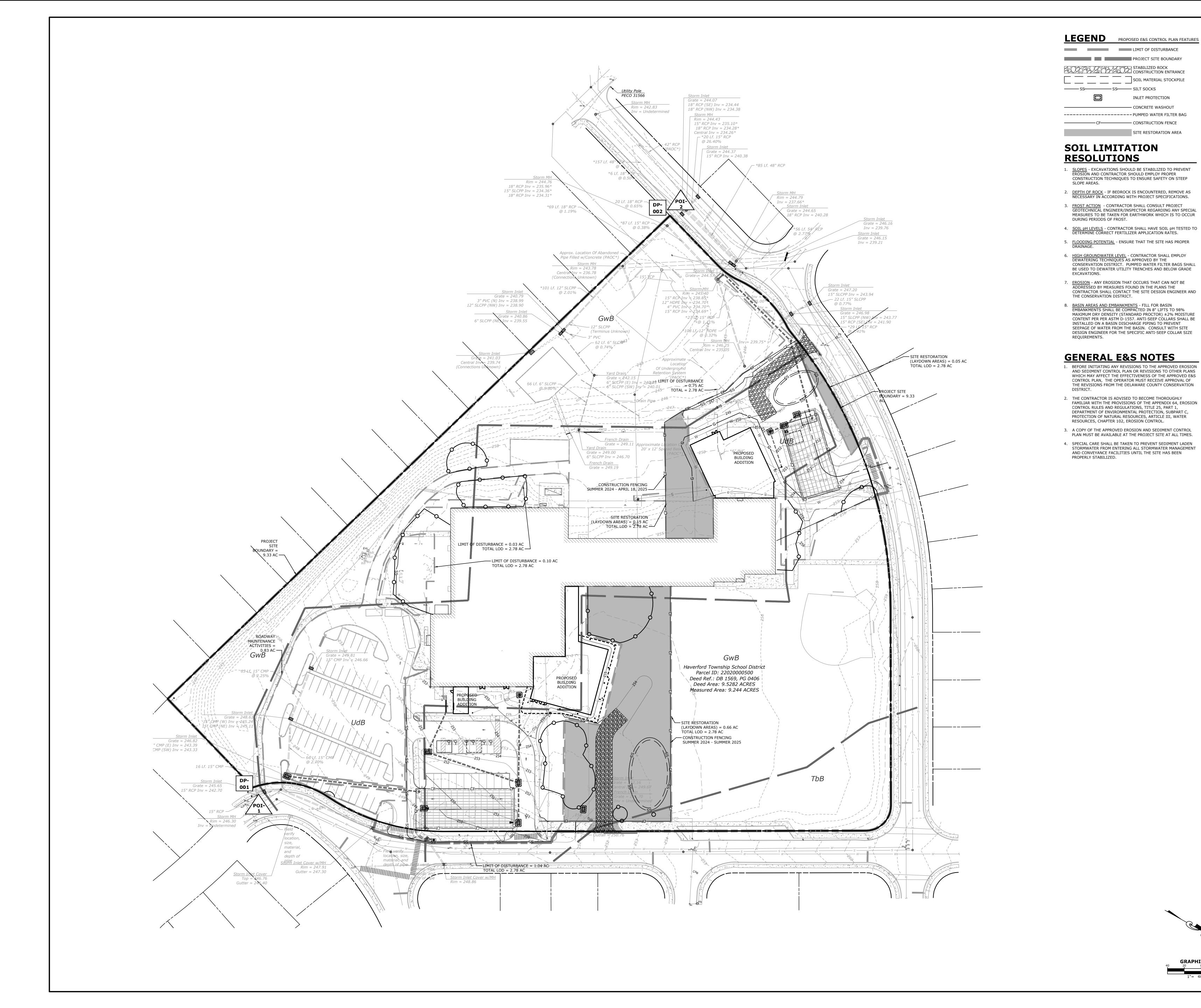




(310 mm)

WEIGHT







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REVISIONS

REVISED PER TOWNSHIP COMMENT LETTER

REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

REVISED PER DCCD COMMENT LETTER

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

03 06-21-2024

PROFESSIONAL ,

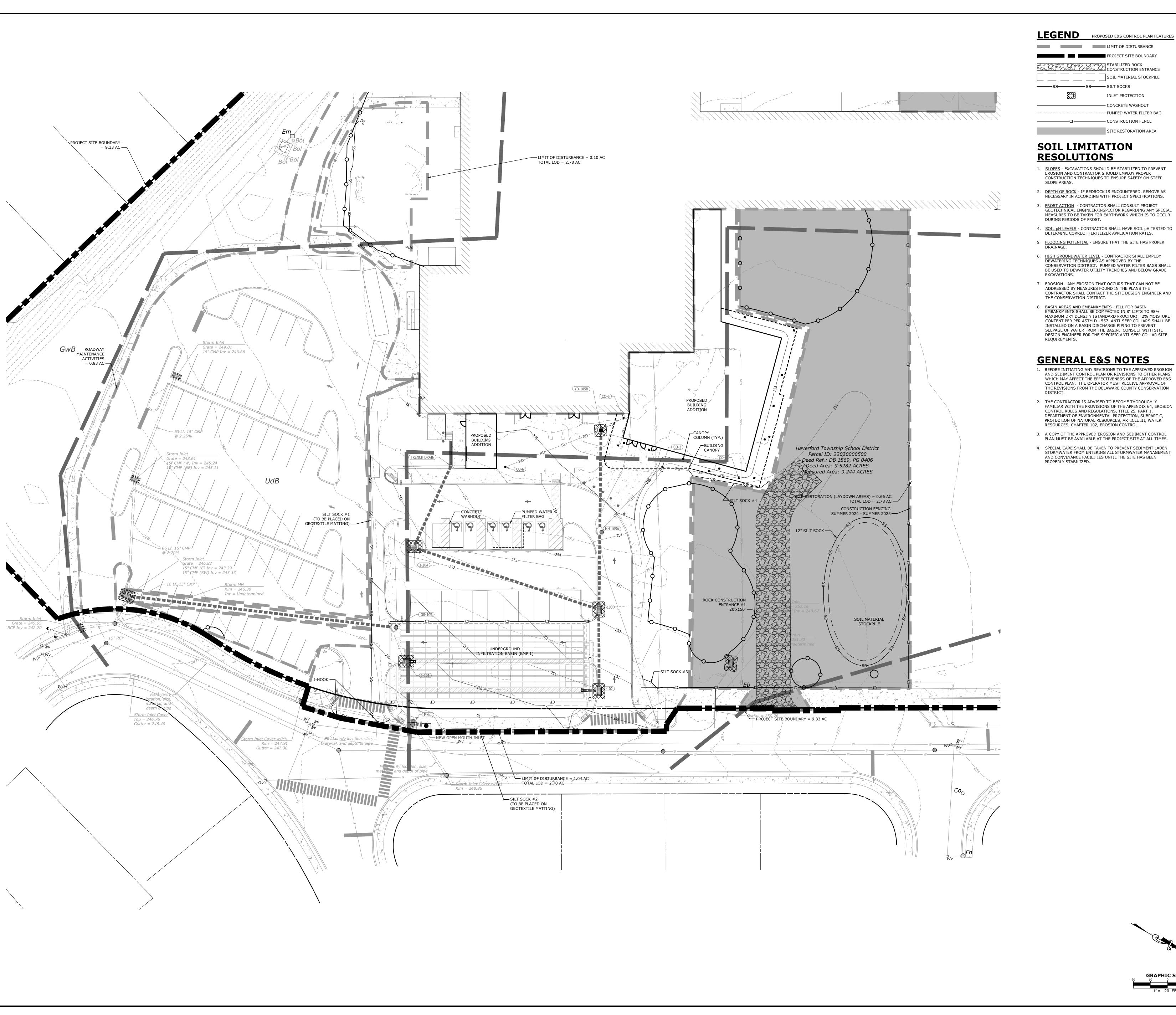
J. MARC KUROWSKI

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**OVERALL E&S** AS SHOWN

MAY 7, 2024

**PROJECT** C-701



LEGEND PROPOSED E&S CONTROL PLAN FEATURES LIMIT OF DISTURBANCE PROJECT SITE BOUNDARY

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**E&S PLAN** AS SHOWN

MAY 7, 2024

ROHF HILL ROAD A 17055

REVISIONS

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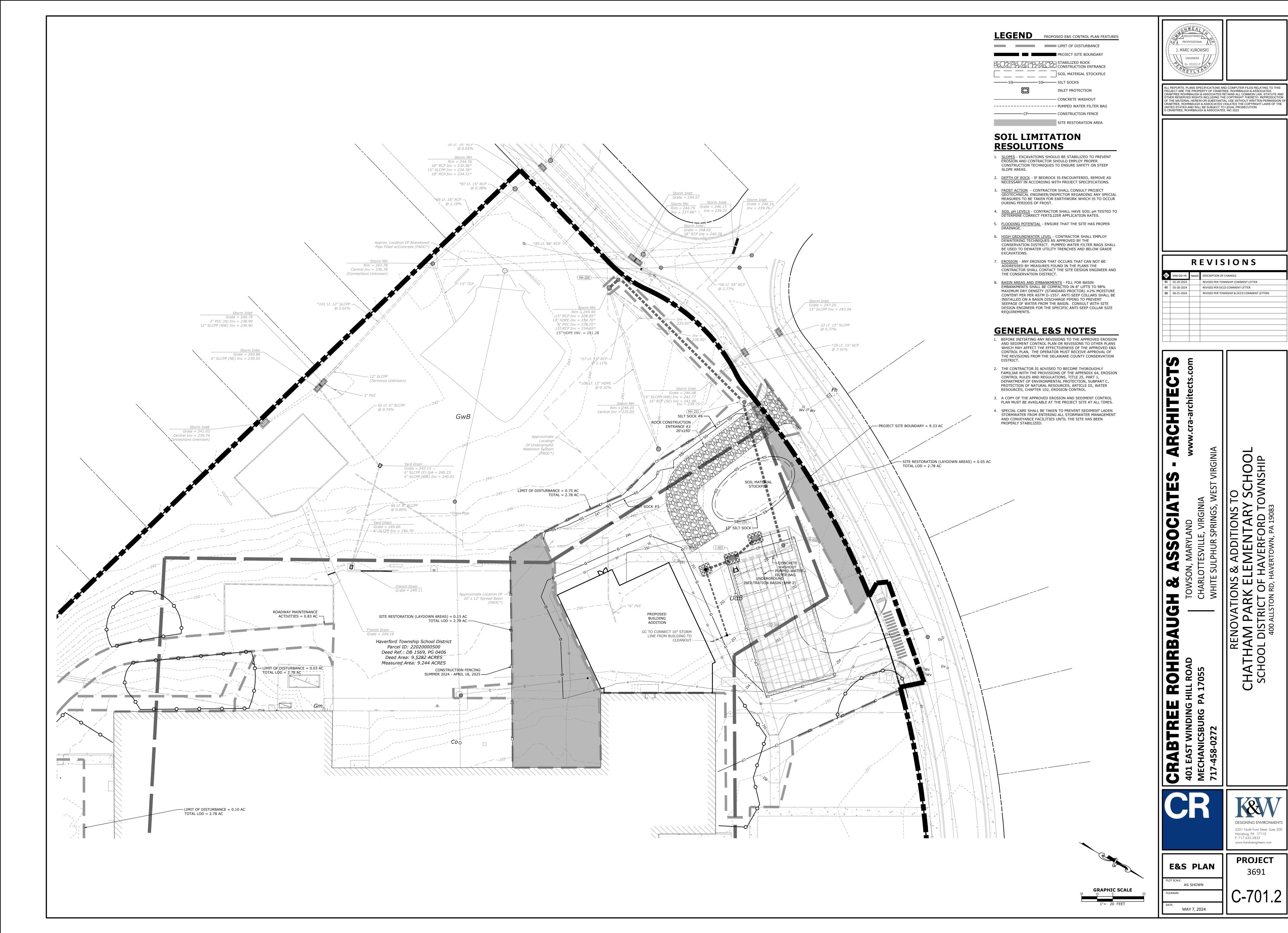
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REVISED PER DCCD COMMENT LETTER

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

03 06-21-2024



# **ALTERNATIVE CONSTRUCTION DETAIL** PUMPED WATER FILTER BAG

MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED. IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED. TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED.

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 FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, FROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE

ASTM D-4833 MULLEN BURS ASTM D-3786 UV RESISTANCI ASTM D-4355 AOS % RETAINED A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS

WELL VEGETATED, GRASSY AREA STRENGTH, DOUBLE STITCHED "I" TYPE SEAMS, THEY SHALL BE CAPABLE OF TRAPPING PARTICLES. THAT MEET THE FOLLOWING STANDARDS:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES

HEAVY DUTY LIFTING STRAPS (RECOMMENDED) -DISCHARGE HOSE 12" COMPOST FILTER SOCK -

12" COMPOST FILTER SOCK -WELL VEGETATED, GRASSY AREA DISCHARGE HOSE -

TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED. STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION - TYPE C INLET

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

INLET PROTECTION SHALL NOT BE REQUIRED 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 IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT 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 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

GEOTEXTILE -

COMPACTED PENNDOT 2RC

PLAN VIEW

\* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

AGGREGATE OVER 4"

AASHTO #1 AGGREGATE -

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO

THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS

PURPOSE, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE

CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON

ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL

CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE

DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT

TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND

**ALTERNATIVE CONSTRUCTION DETAIL** 

**ROCK CONSTRUCTION ENTRANCE** 

COMPOST SOCK, OR FILTER

EXPANSION RESTRAIN  $(\frac{1}{4}$  IN. NYLON ROPE)

-2 IN X 2 IN. X 3/4 IN RUBBER BLOCK

INSTALLATION DETAIL

SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO

COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED

EXISTING

GROUND

MIN. 8" AASHTO #1

FULL WIDTH OF ENTRANCE.

NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

AGGREGATE —

ENTERING ROCK CONSTRUCTION ENTRANCE.

APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

ORANGE CONSTRUCTION

FENCE (IF NOT IN CUT/FILL) \_

 MOUNTABLE BERM AS NECESSARY WHEN ACCESS SLOPES TOWARD ROAD

- PIPE AND GEOTEXTILE

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

ISOMETRIC VIE

SECTION VIEW

TEMPORARY OR PERMANENT VEGETATION

BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS. ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 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 RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALI ED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE 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. TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED. STANDARD CONSTRUCTION DETAIL #4-16

FILTER BAG INLET PROTECTION - TYPE M INLET

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP.

(1/4 IN. NYLON ROPE)

2 IN X 2 IN. X 3/4 IN.

PLAN VIEW

**INSTALLATION DETAIL** 

TYPICAL COMPOST SOCK WASHOUT **INSTALLATION** 

WOOD STAKES

PACED 5' O.C.

**FIGURE 3.18** 

2" X 2" X 36" -

NOTES:

WOOD STAKES

PACED 5' O.C.

DIRECT CONCRETE

WASHOUT WATER

INTO FILTER RING

12" SILTSOXX —

<u>PLAN</u>

COMPOST FILTER SOCK STARTING AT TOP OF SLOPE. MAXIMUM DEPTH OF CONCRETE DIRECTION OF WATER FLOW WASHOUT WATER IS 50% OF FILTER RING HEIGHT (INCLUDING APPLICATION OF LIME FERTILIZER AND SEED) PRIOR TO BLANKET INSTALLATION 24" DIAMETER COMPOST FILTER SOCK. 4" MIN. OVERLAP ON UPSLOPE SIDE OF FILTER RING INSTALL ON FLAT GRADE FOR OPTIMUM THE BLANKET SHOULD — OVERLAP BLANKET ENDS 6 IN. MIN. REFER TO MANUF. RECOMMENDED PERFORMANCE MUST MAINTAIN GOOD THE DOWNSLOPE BLANKET (SHINGLE AND LENGTH OF SLOPE BEING 2. 18" DIAMETER SOCK MAY BE STAKED ONTO STYLE). STAPLE SECURELY. DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT. A SUITABLE IMPERVIOUS GEOMEMBRANE SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS

COMPOST FILTER SOCK —

DISTURBED AREA

BLOWN/PLACED FILTER MEDIA -

AND OVERLAPPED

(4 IN. MIN.)

24" DIAMETER

SOIL/AGGREGATE STOCKPILE OF EXISTING

NEW MATERIAL TO BE INSTALLED IN THE WORK

DIRECTION OF

RUN-OFF FLOW (TYP.)

— SITE MATERIAL TO BE REUSED AND/OR

1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN

3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND

THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND

2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE

**TEMPORARY TOPSOIL STOCKPILE** 

PROPERLY DISPOSED OF.

RESEED AS REQUIRED.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS. TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED. STANDARD CONSTRUCTION DETAIL #11-1

EROSION CONTROL BLANKET INSTALLATION

INSTALL BEGINNING OF ROLL

TRENCH, STAPLE, BACKFILL

IN 6 IN. x 6 IN. ANCHOR

Approved Backfill 1. THE REPAIRS OUTLINED BELOW ARE GENERAL GUIDELINES AND EACH SINKHOLE OCCURRENCE SHOULD BE THOROUGHLY REVIEWED BY THE GEOTECHNICAL ENGINEER OF RECORD FOR AN APPROPRIATE STRUCTURAL AREAS (AREAS WITHIN THE BUILDING FOOTPRINT OR BENEATH PAVEMENT)

Geotextile Filter Fabric -

 ANY AND ALL LOOSE AND/OR SATURATED SOILS WITHIN THE SINKHOLE SHOULD BE EXTENT OF THE EXCAVATION FOLIPMENT IS REACHED NON-STRUCTURAL AREAS (NON-BUILDING/LANDSCAPED AREAS)

 ANY AND ALL LOOSE AND/OR SATURATED SOILS SHOULD BE EXCAVATED FROM THE OR UNTIL THE EXTENT OF THE EXCAVATION EQUIPMENT IS REACHED. • THE EXCAVATION SHOULD BE BACKFILLED WITH AGGREGATE OF DECREASING SIZE AS

DISTURBED AREA 2"X2" WOODEN STAKES UNDISTURBED AREA COMPOST FILTER SOCK— PLACED 10' O.C. PLAN VIEW 1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL. 2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT, MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY 3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS. 4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. 5. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. 6. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. 7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE SUPPLEMENT 8. TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED. REFER TO TABLE 4.1 & 4.2 FOR FABRIC SPECIFICATIONS AND COMPOST STANDARDS. 9. A SUMP AREA MAY BE ADDED TO THE STANDARD COMPOST FILTER SOCK PLACEMENT AT THE DISCRETION OF THE CONTRACTOR. 10. A J-HOOK WITH SUMPED AREA MUST BE INSTALLED WHERE SPACE LIMITATIONS PREVENT THE PLACEMENT OF COMPOST FILTER SOCK AT LEVEL GRADE. TABLE 4.2 **COMPOST STANDARDS** 25% - 100% (DRY WEIGHT BASIS)

ORGANIC PORTION

FIBROUS AND ELONGATED

— 2"X2" WOODEN STAKES

PLACED 10' O.C. BLOWN/PLACED FILTER MEDIA -12" SUMP AREA -DISTURBED AREA FILTER SOCK WITH SUMP SECTION DISTURBED AREA EXISTING -CONTOURS UNDISTURBED AREA SUMP AREA 2"X2" WOODEN STAKES PLACED 10' O.C.

COMPOST FILTER SOCK J-HOOK PLACEMENT COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS 5 MIL HDPE 5 MIL HDPE MULTI-FILAMENT POLYPROPYLENE POLYPROPYLENE (HDMFPP) CHARACTERISTICS | DEGRADABLE | DEGRADABLE | DEGRADABLE **DEGRADABLE DEGRADABLE** MESH OPENING TENSILE STRENGTH 26 PSI 26 PSI 44 PSI 26 PSI ULTRAVIOLET STABILITY % 100% AT 23% AT 23% AT 100% AT ORIGINAL STRENGTH 1000 HR. 1000 HR. 1000 HR. 1000 HR. (ASTM G-155) **FUNCTIONAL** 6 MONTHS 9 MONTHS 6 MONTHS 1 YEAR 2 YEARS LONGEVITY HDPE BIAXIAL NET CONTINUOUSLY WOUND INNER CONTAINMENT NETTING FUSION WELDED JUNCTURES 3/4" X 3/4" MAX. APERTURE SIX

COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE OUTER FILTRATION MESH MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MO. OR LESS

MOISTURE CONTENT PARTICLE SIZE 30% - 50% PASS THROUGH 3/8" SIEVE SOLUBLE SALT CONCENTRATION 5.0 DS/M (MMHOS/CM) MAXIMUM STANDARD CONSTRUCTION DETAIL #4-1 **COMPOST FILTER SOCK** 

# EXCAVATED AND CONTINUE UNTIL STABLE SOILS, A "THROAT" IS IDENTIFIED, OR UNTIL THE • UPON REMOVAL OF THE UNSTABLE SOILS, THE EXCAVATION SHOULD BE BACKFILLED USING HIGH MOBILITY, LOW STRENGTH FLOWABLE FILL (500 PSI) TO FINAL SUBGRADE ELEVATION. SINKHOLE. EXCAVATION SHOULD CONTINUE UNTIL STABLE SOILS, A "THROAT" IS IDENTIFIED, REVISIONS DEPICTED ON THE INVERTED FILTER DETAIL SINKHOLE REPAIR DETAIL MM-DD-YR NAME DESCRIPTION OF CHANGES REVISED PER TOWNSHIP COMMENT LETTER 2 05-30-2024 REVISED PER DCCD COMMENT LETTER **3** 06-21-2024 REVISED PER TOWNSHIP & DCCD COMMENT LETTERS - 2"X2" WOODEN STAKES COMPOST FILTER SOCK — PLACED 10' O.C. COMPOST

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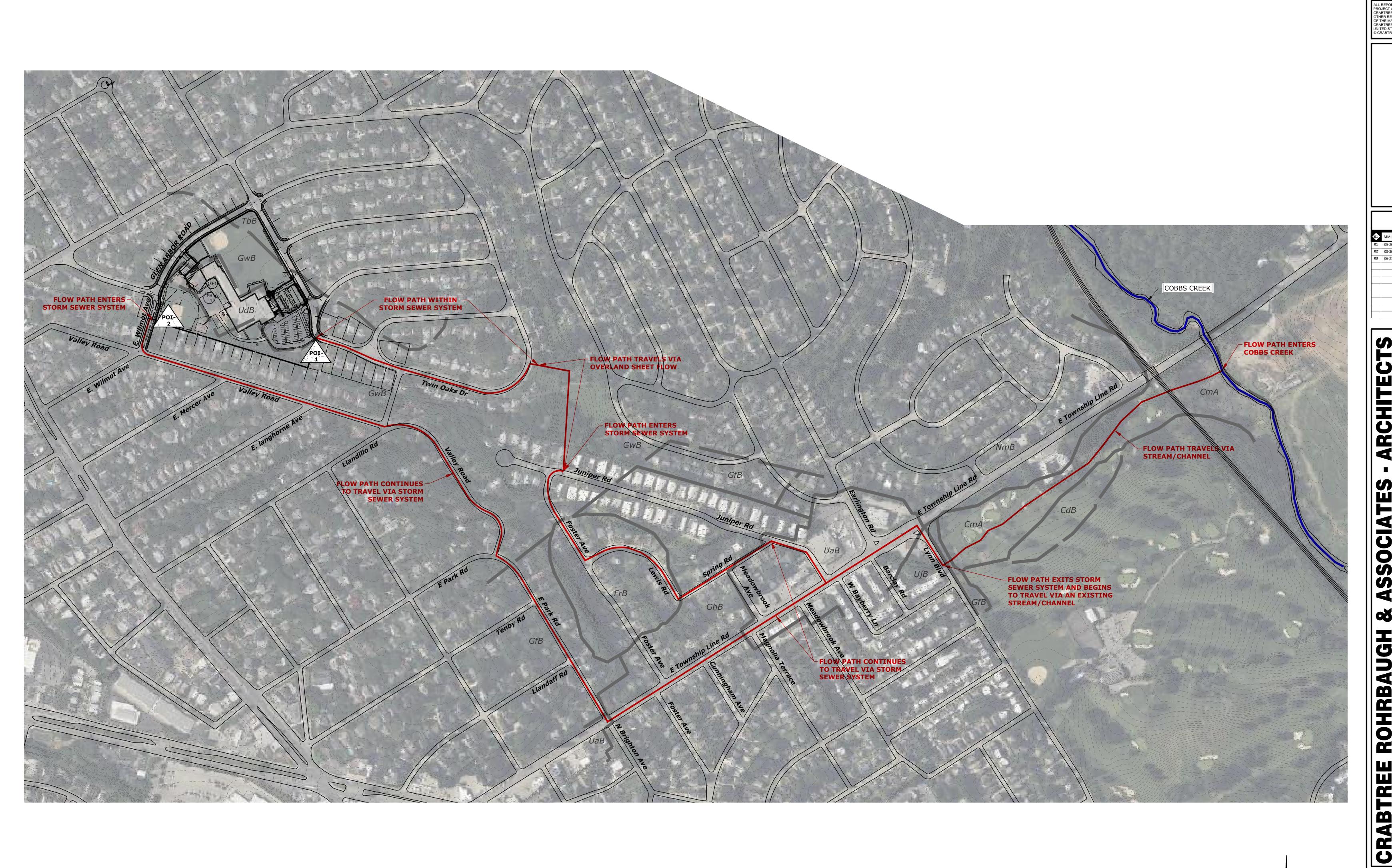
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**PROJECT** 

**E&S DETAILS** 

AS SHOWN

MAY 7, 2024



OFFSITE DRAINAGE PLAN AS SHOWN MAY 7, 2024

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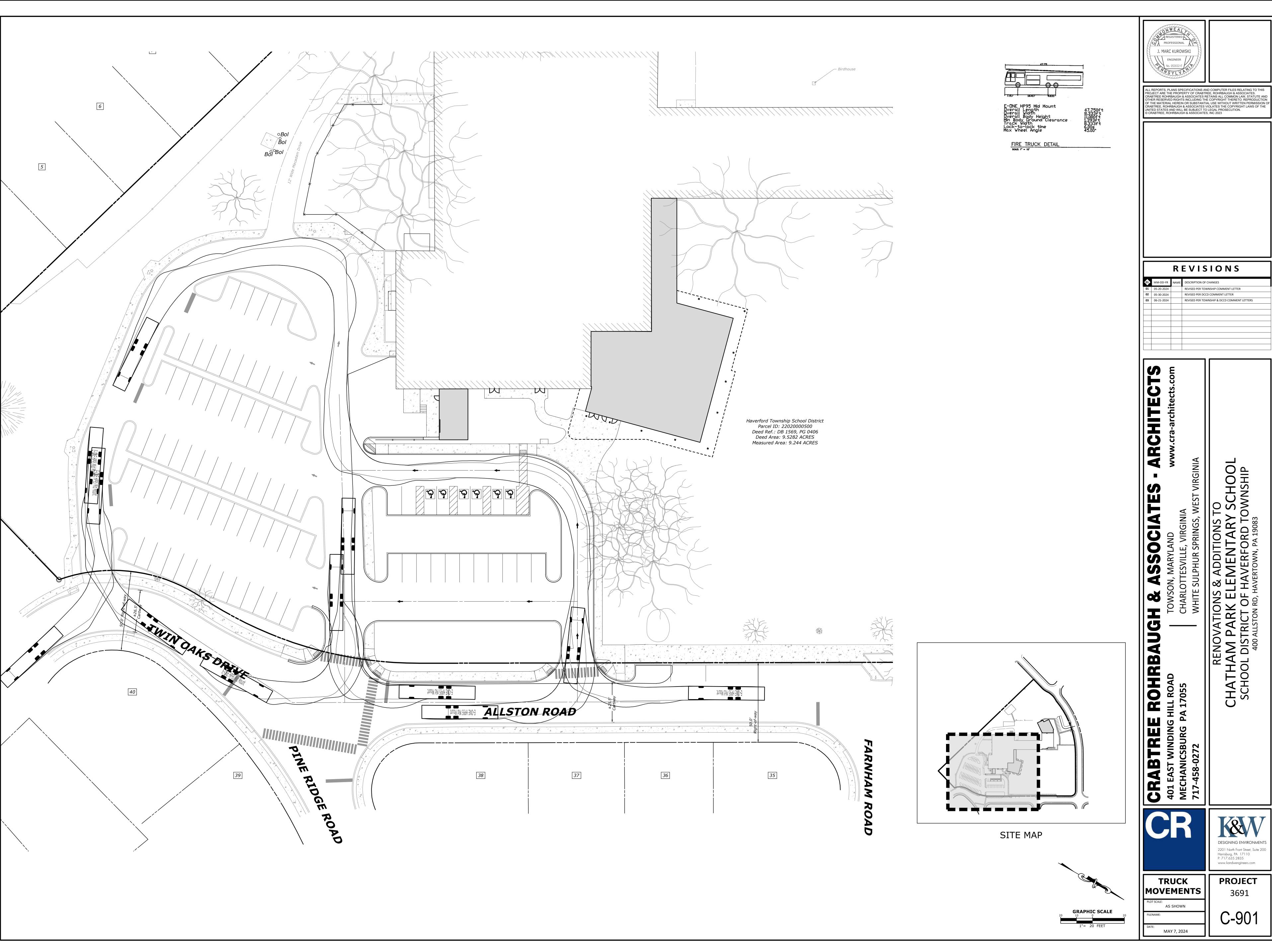
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J. MARC KUROWSKI



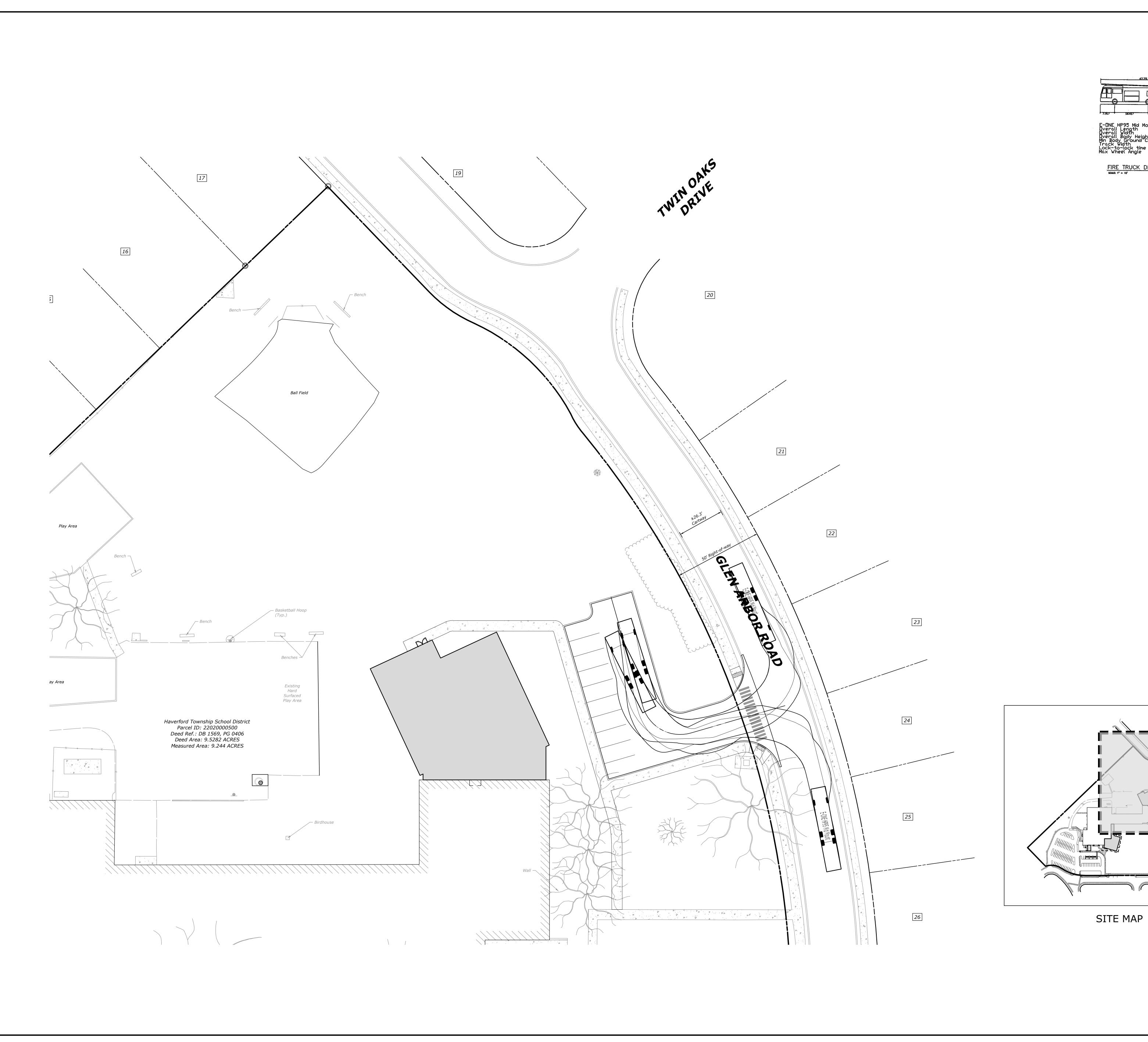
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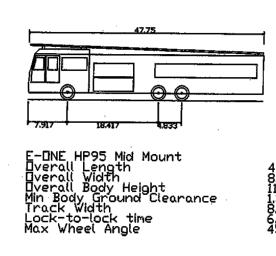
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**PROJECT** 3691





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MECHANICSBURG PA 17055
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REVISIONS

REVISED PER TOWNSHIP COMMENT LETTER

REVISED PER TOWNSHIP & DCCD COMMENT LETTERS

REVISED PER DCCD COMMENT LETTER

01 MM-DD-YR NAME DESCRIPTION OF CHANGES

**02** 05-30-2024

**03** 06-21-2024

2201 North Front Street, Suite 200 Harrisburg, PA 17110 P: 717.635.2835 www.kandwengineers.com

TRUCK MOVEMENT PLOT SCALE:
AS SHOWN

MAY 7, 2024

**PROJECT** 3691



# TOWNSHIP OF HAVERFORD

DELAWARE COUNTY 1014 DARBY ROAD HAVERTOWN, PA 19083-2551 (610) 446-1000

June 27, 2024

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9TH WARD MICHAEL MCCOLLUM

HAVTT 30254

Jaime Jilozian, Director of Community Development Haverford Township 1014 Darby Road Havertown, PA 19083-2251

RE: Preliminary/Final Land Development Plan
Chatham Park Elementary School- 400 Allston Road- 3<sup>rd</sup> Review

Dear Ms. Jilozian:

As requested, we have reviewed the following information prepared by K&W Engineers submitted for the referenced project:

"Preliminary/Final Land Development Plan" (26 sheets) dated May 7,2024, last revised June 21, 2024.

The Applicant, Haverford Township School District, proposes to construct two (2) building additions and two (2) additional parking areas at Chatham Park Elementary School. Two (2) subsurface stormwater management systems are proposed for stormwater management. The property is located within the INS-Institutional Zoning District and is serviced by public water and sanitary sewer.

The Applicant is requesting the following waivers:

- From §160-3.B regarding the requirement for preliminary plan submission.
- From §160-4.E(5)[b] regarding the requirements to indicate property lines, other subdivisions or land developments, and zoning boundaries within 2,000 feet of the site.
- From §160-4.E(5)[e](3) regarding the requirement to show the location, names and widths of streets, curbs and pavement, all property lines and names of owners of tracts or parcels located within 200 feet of the site.
- From §160-4.E(5)[e](4) regarding the requirement to indicate all storm drainage, sanitary sewer and public water supply lines of facilities within 400 feet of the site.
- From §160-4.E(7) regarding the requirement to notify all property owners within 200 feet of the site.
- From §160-4.E(8) regarding the requirement to provide notice by certified mail to all property owners within 200 feet of the site.

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Jaime Jilozian Chatham Park Elementary School

We offer the following comments:

# **ZONING**

- 1. In all Institutional districts, there shall be a front yard landscape strip, planted and landscaped subject to the approval of the Shade Tree Commission. (§182-718.B(1)[c])
- 2. It is unclear if the proposed parking areas will require lighting. Please clarify. (§182-718.F) **Partially addressed.** Lighting plans has been provided. The plans shall be updated to indicate proposed lighting levels and details of the proposed poles and fixtures. (Township Design standards) Partially Addressed. Mounting heights shall be provided to demonstrate conformance with Township design standards. Also, all fixtures shall be compliant with the design standards for full cutoff fixtures and lighting levels after close of business.

## SUBDIVISION AND LAND DEVELOPMENT

- 3. Addressed.
- 4. Addressed.
- 5. A Sewage facilities planning module or exemption will be required (§160-4.E(5[d]).

# STORMWATER MANAGEMENT

- 6. Addressed.
- 7. Addressed.

# **GENERAL**

- 8. Addressed.
- 9. Addressed.
- 10. Evidence of approval from the Delaware County Conservation District is to be provided. (§160-4.F(2)[b])
- 11. If approved, a Grading, Drainage, Soil Erosion and Sedimentation Control Permit will be required.
- 12. A BMP Maintenance Agreement shall be executed and a contribution to the Township Stormwater Control and BMP Operation and Maintenance Fund shall be made (§78-49; §78-51).

## The following comments remain from the previous plan submission:

- 13. Provide turning templates for the largest vehicle, that will utilize the facility and emergency vehicles' that will need to enter the lot to verify the proposed radii at all entrances are adequate to accommodate these vehicles (§160-5.B(3). Confirm with Township Emergency Services that the design vehicle is consistent with the largest emergency vehicle that would need to access the site.
- 14. Addressed.

- 15. It appears the radius associated with the proposed parent drop off driveway will require re-setting or relocation of the existing open mouth inlet at the northwest side. The plan should be updated accordingly, and a detail provided. Partially Addressed. A detail should be provided for the inlet box.
- 16. Addressed.
- 17. Details should be provided for the new connection and sanitary sewer lateral to the proposed building addition at the southwest side of the site (§160-5.B(9). Partially addressed. The sanitary manhole detail should indicate a cast in place flexible pipe gasket in accordance with ASTM C923.
- 18. Addressed.
- 19. Addressed.
- 20. It appears the work within the right-of-way of Allston Road/Twin Oaks Drive may meet the requirements of (§157-30G) regarding restoration following excavation.

Should you have any questions or comments, please feel free to contact the undersigned.

Sincerely,

PENNONI

Charles Faulkner, PE Senior Engineer

Charles Faulhen

CF/brg

cc: Carolyn DuBois, RLA, K&W Engineers (via email)

Maureen Reusche, Haverford Township School District (via email)

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