ABINGTON TOWNSHIP

OCTOBER 12, 2023

BOARD OF COMMISSIONERS
REGULAR PUBLIC MEETING

TOWNSHIP OF ABINGTON

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

A G E N D A
October 12, 2023
7:00 PM

There are three ways for the public to participate in the meeting: in-person, online or by phone. Residents who wish to attend in person can do so in the Abington Township Board Room located at 1176 Old York Road, Abington, PA 19001, 2nd Floor. Alternative means of public participation are offered for those who do not wish to or are unable to attend the meetings in person. Residents who wish to participate in the meeting remotely can access the meeting online by a computer, iPad, iPhone, or Android at https://us06web.zoom.us/j/88216803878. This link will enable residents to hear the meeting, see presentations, and ask questions. There will be no video interaction capabilities. Residents, who are unable to join online, can listen to and participate in the meeting by calling 1-929-436-2866 and entering the meeting ID number 882-1680-3878 when prompted.

CALL TO ORDER

ROLL CALL, *BRODSKY, ROTHMAN, DIPLACIDO, VAUGHN, BROWNE, WINEGRAD, HENRY, ZAPPONE, CARSWELL, SPIEGELMAN, BOLE, SCHREIBER, BOWMAN, VAHEY, HECKER*

PLEDGE OF ALLEGIANCE

BOARD PRESIDENT ANNOUNCEMENTS

PUBLIC COMMENT ON AGENDA ITEMS

CONSENT AGENDA

a. Motion to approve the Minutes from the Board of Commissioners Regular Meeting of September 14, 2023.

b. BOC-01-101223 Motion to approve an InterMunicipal Agreement with Cheltenham Township and Jenkintown Borough for the maintenance of Traffic Signals and Street Lights and authorize the Township Manager to execute the agreements.

c. BOC-02-101223 Motion to award the printing of the Abington Township 2024 Calendar to Fort Nassau Graphics in the amount of $25,150 to print 22,000 Township calendars.

d. BOC-03-101223 Motion to approve the release of Escrow No. 1 (Final) for Land Development -LD-21-06 - Rydal Park Medical Center Patio located at 1515 The Fairway, Jenkintwon, PA 19048 in the amount of $61,022.78 and accept maintenance security in the amount of $7,721.29 for a total release of $53,301.49.

e. BOC-04-101223 Motion to approve the release of Escrow No. 2 (Final) on the Land Development - LD-19-07 - Abington Terrace, LLC - Abington CHOP & YMCA Project located at 1059, 1067 and 1073 Old York Road in the amount of $280,183.54.

f. BOC-05-101223 Motion to appoint Justin Williams to the Human Relations Commission for a term ending on 12/31/23 as included in Exhibit A.

g. BOC-06-101223 Motion to advertise a Traffic Safety Ordinance amending Chapter 156 - "Vehicle and Traffic," Article II - "Traffic Regulations" Section 14 "Stop Intersections"; Article III - "Parking Regulations" Section 25 - "Parking Prohibited at all Times; No Parking Between Signs; No Parking Here to Corner; Parking Prohibited Except Certain Hours; No Stopping or Standing; Section 27 - Parking Time Limited; and Section 28 - Specialized Parking Zones: to add a Stop Sign Northbound and Southbound on Osbourne Avenue at Phipps Avenue and westbound on Cloverly Avenue at Rodman Avenue; No Parking Here to Corner signs between Limekiln Pike and the driveway of 112 Maple Avenue on the West side and on Rockwell Road 30 ft. from Hamilton Avenue on the East side; 2-Hour Parking signs on the South side of Guernsey Avenue between Eastern property edge of 1912 Guernsey Avenue and Western edge of the driveway apron of 1140 Old York Road; Handicapped Parking sign at 317 N. Easton Road; and to remove the No Parking Here to Corner sign on the West side of Maple Avenue at Limekiln Pike.

h. BOC-07-101223 Motion to appoint candidates ranked 1, 2, 3, 4, 5 and 6 from the Civil Service Eligibility list to the position of Probationary Police Officer provided they successfully complete the background investigation, physical and psychological exams and all entry requirements of the Municipal Police Officer's Education and Training Commission for Act 120 Training effective October 13, 2023.

UNFINISHED BUSINESS

NEW BUSINESS

a. BOC-08-101223 Motion to approve the Final Major Subdivision and Land Development for LD-22-05 - Penn State University (PSU) New Academic Building.

b. BOC-09-101223 Motion to adopt Resolution 23-015 setting reasonable fees for costs incurred by Abington Township in complying with requests for criminal history investigative information pursuant to the Crime Victim Right of Access Subchapter to the Criminal History Record Information Act, as well as setting reasonable fees for costs incurred by Abington Township in complying with requests for disclosure of Police audio and video recordings pursuant to ACT 22 of 2017.

FINANCE COMMITTEE

a. FC-01-101223 Motion to approve the August 2023 expenditures in the amount of $3,005,713.01 and salaries and wages in the amount of $2,287,387.68 and authorizing the proper officials to sign and approve invoices and supporting documentation in payment of bills and contracts as they mature through the month of November 2023. (Click here to view supporting information for expenditures in August 2023)

(Motion & Roll Call)

b. FC-02-101223 Motion to continue with United Healthcare as the retiree medical plan provider effective January 1, 2024.

c. FC-03-101223 Motion to award the contract for the construction of sidewalk and curbing along Rubicam Ave to McCarthy Masonry and Concrete, Inc. in the amount of $258,103.10 and authorize the Township Manager to execute the contract.

PUBLIC COMMENT

ADJOURNMENT

BOARD POLICY ON PUBLIC PARTICIPATION

For Information Purposes Only

The Township shall conduct business in accordance with the Commonwealth of Pennsylvania Laws governing the conduct of public meetings and only establish guidelines that shall govern public participation at meetings consistent with the law.

Each commenter shall:

- Direct their comments to the Presiding Officer;
- Speak from the podium or into a microphone designated by the presiding officer;
- State their name for the record;
- Either orally or in writing provide their address for the record;
- Have a maximum of three minutes to make their comments. Each commenter when speaking to a specific agenda item, is to keep their comments relative to that identified agenda item;
- Speak one time per agenda item;
- When commenting on non-agenda items, the commenter is to keep their comments related to matters of the Township of Abington, Montgomery County, Pennsylvania.
- State a question to the Presiding Officer after all commenters have spoken, and;
- Be seated after speaking or upon the request of the presiding officer;
- Not engage in debate, dialogue or discussion;
- Not disrupt the public meeting, and;
- Exercise restraint and sound judgement in avoiding the use of profane language, and the maligning of others.

The stated meeting of the Board of Commissioners of the Township of Abington was held on Thursday, September 14, 2023, via webinar and in-person at the Township Administration Building, Abington, PA, with President Hecker presiding.

CALL TO ORDER: 7:00 p.m.

ROLL CALL: Present: Commissioners BRODSKY, ROTHMAN, DiPLACIDO, BROWNE, WINEGRAD, HENRY, ZAPPONE, SPIEGELMAN, BOLE, SCHREIBER, BOWMAN, VAHEY, HECKER
Excused: Commissioners VAUGHN, CARSWELL

Also Present: Township Solicitor CLARKE

PLEDGE OF ALLEGIANCE

BOARD PRESIDENT ANNOUNCEMENTS: None.

PUBLIC COMMENT ON AGENDA ITEMS:

Lora Lehmann, resident, expressed concern about additional payments for properties at Old York Road, and she would like to see line items for York and Susquehanna in the budget.

Ms. Wehmeyer replied there are no outstanding payments. The project was grant-funded by PennDOT's multimodal grants.

CONSENT AGENDA:

Vice President Vahey made a MOTION, seconded by Commissioner Spiegelman to approve Items a. – d. as listed under Consent Agenda as follows:

To approve the minutes from the Board of Commissioners Regular Meeting of August 10, 2023.

To approve the payment release #2 (final) in the amount of $15,200.00 for the abatement of existing structure located at 1100 Old York Road.

To approve the escrow request release #1 for LD-19-11 JSF Management, LLC for the properties located at 1538-1546 Easton Road in the amount of $497,795.21.

To appoint Mitchell Gertz to the Environmental Advisory Council for a term ending on 12/31/24 as included in Exhibit A.

President Hecker asked for any comments from Commissioners. There were none.

MOTION was ADOPTED 13-0.

UNFINISHED BUSINESS: None.

NEW BUSINESS:

Item BOC-04-091423:

Vice President Vahey made a MOTION, seconded by Commissioner Schreiber to ratify authorization for Special Counsel, Kathleen Thomas, to file legal action in the Montgomery County Court of Common Please in the matter of Abington Township v. ADA, LLC.

Solicitor Clarke explained that Ms. Thomas is Special Counsel to the Business Tax Office, and following consultation with Treasurer Blumenthal and Mr. Manfredi, we decided that it is necessary to file a lawsuit in the Montgomery County Court of Common Pleas against the business of Carmen's Auto Group owned by ADA, LLC.

The business is located at 1705 Easton Road in Willow Grove, and they have not paid their taxes from 2015 to 2022. They are currently delinquent in the amount of $55,174.00 in which audits have been completed and a lawsuit should be filed to recover delinquent taxes.

President Hecker asked for any comments from Commissioners. There were none.

MOTION was ADOPTED 13-0.

Item BOC-05-091423:

Vice President Vahey made a MOTION, seconded by President Hecker to approve a settlement regarding the appeal of the Zoning Hearing Board decision regarding 974 Leopard Road and authorize the Solicitor to execute the Stipulation of Settlement and take all necessary steps to resolve the appeal.

Solicitor Clarke explained that the Township is currently defending an appeal of the November 15, 2022 decision of the Zoning Hearing Board denying an application regarding the height of a fence in the front yard. The property is a corner lot, and the fence is in the rear yard, and there was no opposition to the application at the hearing and all eleven neighbors submitted letters of support.

The yard contains a pool that the fence will screen and enclose, and we have negotiated a settlement for the property owners to install plantings to soften the impact of the fence height along the side yard for the neighbors.

The property owners will install all eight shrubs and two Hydrangeas to screen each section of the fence and they will also be required to maintain and replace the plantings, as necessary. We are asking for the Board's approval to settle this matter and execute the stipulation settling the matter in the Court of Common Pleas.

President Hecker asked for any comments from Commissioners. There were none.

MOTION was ADOPTED 13-0.

FINANCE COMMITTEE:

Item FC-01-091423:

Commissioner Winegrad made a MOTION, seconded by Commissioner Spiegelman to approve the July 2023 expenditures in the amount of $3,035,171.32 and salaries and wages in the amount of $2,356,789.36 and authorize the proper officials to sign and approve invoices and supporting documentation in payment of bills and contracts as they mature through the month of October 2023.

Roll call resulted in motion being passed 13-0. Commissioners Vaughn and Carswell were absent during roll call.

Item FC-02-091423:

Commissioner Winegrad made a MOTION, seconded by Vice President Vahey to adopt Resolution No. 23-014 recognizing that the Township's minimum municipal funding obligation for the calendar year 2024 with respect to the Municipal Non-Uniformed Employee, Police and Non-Uniformed Employee Defined Contributions Plans, is $923,065.00, $3,584,974.00, and $258,500.00, respectively.

President Hecker asked for any comments from Commissioners. There were none.

MOTION was ADOPTED 13-0.

PENSION COMMITTEE:

Item PC-01-091423:

Commissioner Winegrad made a MOTION, seconded by Commissioner Spiegelman to approve a change in fees for the Defined Contribution Plan participation to $20 per plan member annually, and set the fee schedule as illustrated in Exhibit E.

President Hecker asked for any comments from Commissioners. There were none.

MOTION was ADOPTED 13-0.

PUBLIC COMMENT:

Adele Kubel, resident, commented that she previously submitted a petition regarding blight, and she expressed concern about the development of apartment complexes.

Sue Mozar, Mary Baker, Kimberly Illingworth and Rachel George, residents of the 100 block of Cricket Avenue, said that two houses on their block have been down to the beams for six years, which are ugly, dangerous, and deteriorating, and this past Monday, the shell of a house at 118 Cricket Avenue collapsed after a rainstorm, and the house at 122 Cricket will be next. They expressed concern about safety for the children and the houses have been an eyesore, dangerous, decreases their property value, and need to be demolished.

Commissioner Browne replied he visited the area and took many pictures and Township staff have assessed the situation and are aware that both buildings are in eminent danger. He is committed to and will be working with Commissioner Vahey and Township officials making sure this will be addressed in an expeditious manner.

Ms. Mozar asked for a timeframe.

Vice President Vahey replied he does not have a date for when demolition will take place; however, it will happen soon.

Fran Early, resident, commented that the houses will be leveled by the end of next week.

Charles Baus, resident, commented that he previously appeared before the Board regarding rampant speeding and traffic violations occurring daily on the 1100 block of Highland Avenue, which are safety issues that need to be addressed, and he provided data from the police department's traffic survey.

He requested that the Board direct all Township vehicle drivers to obey posted speed limits as well as employees of the school district and hospital. Also, he submitted a non-emergency citizen service request through the Township's website requesting the installation of pedestrian crosswalks at the intersection of Guernsey and Horace Avenues as well as installation of speed cushions.

Commissioner Spiegelman replied he will speak with the Township Manager about it.

Mike Tobin, resident, asked for the list of qualifications for the EDCs Executive Director, and what will take place first, the budget, appointing the Board of Directors, or hiring the Executive Director?

Vice President Vahey replied that nothing will happen until the EDC Board is appointed.

Lora Lehmann, resident, expressed concern about blight, the approval of Nifty Fifty's and the amount of parking space, and the Future Land Use chapter.

Richard Veith, resident, commented that he sent an email along with photos about access to Overlook from his side of Rt. 63, and he filed a complaint about the removal of trees resulting in weeds growing at 1747 Edge Hill Road.

President Hecker replied he will follow up on both matters.

ADJOURNMENT: 7:44 p.m.

Respectfully submitted,

Liz Vile, Minutes Secretary

Resolution No. 23-014 was adopted by the Board of Commissioners on September 14, 2023.

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-01-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Public Works		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Abington Township and Cheltenham Township - Street Light and Traffic Signal Maintenance - InterMunicipal Cooperation Agreement
Abington Township and Jenkintown Borough - Street Light and Traffic Signal Maintenance - InterMunicipal Cooperation Agreement

EXECUTIVE SUMMARY:

Abington and Cheltenham first entered into this agreement on March 9, 2017 for 5 years with the option to extend for an additional year and Abington and Jenkintown Borough on April 18, 2017. We are at the end of both agreements and need to enter into an new agreements with both municipalities for the maintenance of shared intersections and street lights. The agreements have worked out well for all Municipalities enabling us to maintain our critical corridors more efficiently and help to offset our costs for maintenance and repairs of border lights and traffic signals.

PREVIOUS BOARD ACTIONS:

The Board reviewed the Cheltenham agreement at committee on March 1, 2017 and approved by the full board on March 9, 2017 and the Board reviewed the Jenkintown agreement at committee on April 5, 2017 and approve by the full board on April 13, 2017.

RECOMMENDED BOARD ACTIONS:

Motion to approve an InterMunicipal Agreement with Cheltenham Township and Jenkintown Borough for the maintenance of Traffic Signals and Street Lights and authorize the Township Manager to execute

the agreements.

INTERMUNICIPAL COOPERATION AGREEMENT FOR TRAFFIC SIGNAL MAINTENANCE SERVICES

THIS INTERMUNICIPAL COOPERATION AGREEMENT (this "Agreement"), is effective this _____ day of _____, 2023 (the "Effective Date", as defined hereinafter), by and between the **TOWNSHIP OF ABINGTON** ("*Abington*"), a Pennsylvania Township of the First Class with offices at 1176 Old York Road, Abington, Pennsylvania 19001, and **CHELTENHAM TOWNSHIP** ("*Cheltenham*"), a Pennsylvania Township of the First Class, with offices at 8230 Old York Road, Elkins Park, Pennsylvania 19027.

BACKGROUND

WHEREAS, Abington and Cheltenham are contiguous municipalities; and

WHEREAS, Abington has provided traffic signal maintenance services (the "*Services*") to Cheltenham for traffic signal improvements shared by the two municipalities, pursuant to a certain Traffic Signal Maintenance Contract dated on about February 1, 2017 (the "*Prior Agreement*"); and

WHEREAS, Abington and Cheltenham (hereafter sometimes referred to as the "*Parties*") desire to renew the Prior Agreement by entering into an intergovernmental cooperation agreement for the provision of the Services by Abington; and

WHEREAS, the Pennsylvania Intergovernmental Cooperation Law permits two or more local governments in the Commonwealth to enter into agreements to jointly cooperate in the exercise or performance of governmental functions, powers and responsibilities (53 Pa. C.S. §2303).

NOW, THEREFORE, in consideration of the mutual covenants contained in this Agreement and intending to be legally bound, the Parties and their respective successors and assigns, hereby agree as follows:

TERMS AND CONDITIONS

I. SCOPE OF SERVICES

Abington shall provide the Services for the benefit of Cheltenham for the traffic signal improvements identified in Exhibit "A" attached hereto and incorporated herein by reference.

II. TERM OF AGREEMENT

1. This Agreement shall commence upon the execution by both parties hereto ("*Effective Date*") and shall terminate on December 31, 2024, unless extended for additional one-year periods by written consent of the parties, up to three (3) additional one-year periods. The parties shall determine on or before December 1st of each year whether they desire to extend the terms of the Agreement for the subsequent year and shall thereafter communicate in writing their final determination.

2. If either party wishes to terminate its participation in this Agreement it must do so in writing at least thirty (30) days prior to the then-applicable date of termination. Upon such termination,

the parties hereto shall have no further liabilities, obligations or responsibilities to each other under this Agreement; provided, however, any such termination shall not affect Cheltenham's obligation to pay Abington for all costs incurred before such termination and for all costs to be incurred after termination arising as a result of actions taken by Abington pursuant to this Agreement.

III. COMPENSATION

1. The compensation to be paid to Abington pursuant to this Agreement shall be on a Time and Material Basis, by submission of an invoice to Cheltenham for each service call initiated by Cheltenham. The amount of compensation for any service call shall be determined by the specific location (a "*Location*") receiving the Services and whether the location is designated as owned by Abington or Cheltenham, as set forth in Exhibit "B" attached hereto and incorporated herein by reference.

2. The rates set forth for labor costs are subject to annual review by Abington and shall be adjusted in the event of renewal of this Agreement for any extended one-year term.

3. While the parties acknowledge that intermittent problems on solid state equipment may be difficult to diagnose, billing will be governed by the following criteria:

a. Cheltenham shall be billed for the initial request for Services.

b. Cheltenham shall not be billed for subsequent calls for the same problem if the problem is not resolved in response to previous call(s), unless the Services require that parts be ordered.

c. If the problem is resolved, and after the initial call additional material or labor is required, Abington will bill Cheltenham for the additional costs.

d. If the problem persists, and is not subject to resolution to the satisfaction of Abington, Abington will notify Cheltenham in writing and recommend replacement of equipment. In the event Cheltenham fails to respond to Abington's written recommendation within ten (10) days, all subsequent calls will be billed at normal billing rates, in accordance with Exhibit "B.".

IV. MAINTENANCE DUTIES OF ABINGTON TOWNSHIP

1. Abington shall perform the following maintenance Services upon request;

a. Respond in a timely manner; if an emergency, respond within three (3) hours;

b. Perform Services in a safe and accurate manner, on a Time and Material basis.

c. Issue invoice to Cheltenham for material at the cost at the time of purchase, and for labor and equipment at the rate(s) set forth in Exhibit "B."

d. Use certified ISMA technicians to perform the Services.

V. DUTIES OF CHELTENHAM TOWNSHIP

1. Cheltenham agrees to, and shall be responsible for, the following:

a. Notify Abington immediately of any malfunction or other problem at any Location requiring a response by Abington.

b. Advise Abington of any change in the condition diagram for the Location.

c. Maintain the installation at each Location in property operating condition and in conformance with the PennDOT permit and the condition diagram.

d. Remit payment to Abington promptly, within thirty (30) days of the invoice, without regard to any third party claim, unless agreed to by the parties.

VI. BREACH OF AGREEMENT

In the event of a breach of this Agreement, the non-breaching party shall notify the breaching party of any such breach in writing. The breaching party shall immediately remedy any such breach to the satisfaction of the non-breaching party. If said breach is not sufficiently cured within thirty (30) days of the date of the notice of the breach, the non-breaching party may terminate this Agreement in writing to the breaching party. In the event that, by nature of the default, such default cannot be cured within the 30-day period, the breaching party shall have an additional period of time, not to exceed thirty (30) days, to complete the cure, so long as the breaching party has commenced such cure within the original 30-day period and, in the opinion of the non-breaching party, is diligently pursing the curing of such default.

VI. MISCELLANEOUS

1. Background. The Background recitals referenced at the beginning of this Agreement are incorporated in this Agreement by reference as if fully set forth at length.

2. Assignment. This Agreement shall not be assignable by any party to this Agreement except upon the written consent of all Parties hereto, which consent shall not be unreasonably withheld.

3. Modification. This Agreement may be modified, amended, or supplemented only by the written agreement of all the Parties hereto.

4. Mutual Cooperation. Abington and Cheltenham agree to execute all documents and to take all action necessary to effectuate the terms and conditions of this Agreement. Including, but not limited to adopting the appropriate resolution required by the Intergovernmental Cooperation Act.

5. Captions. The captions in this Agreement are for convenience only and are not part of the Agreement. The captions do not in any way define, limit, describe or amplify the provisions of this Agreement or the scope or intent thereof.

6. Entire Agreement. This Agreement represents the entire agreement of the Parties hereto and there are no collateral or oral agreements or understandings. This Agreement may be amended or modified only in writing signed by Abington and Cheltenham

7. Severability. In the event any provision hereof is held illegal or invalid, no other provision of this Agreement shall be affected, and this Agreement shall then continue in full force as if such illegal or invalid provision had not been contained herein.

8. Notices. All notices, payments, and communications required to be given in writing under this Agreement shall be sent by certified United States mail, postage prepaid and by email communication or delivered by hand delivery with receipt obtained, to the addresses below or at other such addresses as the Parties may designate in writing from time to time:

If to Abington:
Abington Township
Attention: Township Manager
1176 Old York Road
Abington, PA 19001

If to Cheltenham:
Cheltenham Township
Attention: Township Manager
8230 Old York Road
Elkins Park, PA 19027

Any party may designate a different address by written notice to the other party. Notices shall be effective on the date received or rejected by recipient.

9. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same Agreement. Each counterpart Agreement that is signed by a party shall indicate the date that the counterpart was approved and signed.

10. This Agreement shall only become effective upon approval, as evidenced below, by the authorized officials of the respective parties and shall continue in full force and effect until terminated.

11. Cheltenham agrees, to the extent permitted by law, to protect, indemnify, defend and hold harmless Abington and all of its officials, agents and employees from and against any claims, demands, liabilities, costs and expenses (including attorney's fees) arising out of any disputes whatsoever associated with the Services, except to the extent such claims arise out of Abington's negligence or Abington's failure to perform its duties or obligations under this Agreement, which failure is not caused by Cheltenham's failure to perform its duties or obligations under this Agreement.

12. Without limiting the foregoing paragraphs, Abington and Cheltenham will comply with all applicable statutes, regulations, ordinances and/or requirements of the Commonwealth of

Pennsylvania, the County of Montgomery, and any and all other governmental and/or regulatory agencies with jurisdiction over any aspect of the Services.

21. This Agreement shall be interpreted and construed in accordance with, and governed by, the laws of the Commonwealth of Pennsylvania. Venue for any and all disputes arising out of or relating to this Agreement shall be the Court of Common Pleas of Montgomery County, Pennsylvania.

IN WITNESS WHEREOF, the parties hereto, being authorized to do so, set their hand and seals below, as of the date written.

ABINGTON TOWNSHIP

ATTEST:

By: _____**(SEAL)**
Thomas Hecker, President

_____
Richard J. Manfredi,
Township Manager & Secretary

CHELTENHAM TOWNSHIP

ATTEST:

By: _____**(SEAL)**

_____

INTERMUNICIPAL COOPERATION AGREEMENT FOR TRAFFIC SIGNAL MAINTENANCE SERVICES

THIS INTERMUNICIPAL COOPERATION AGREEMENT (this "Agreement"), is effective this _____ day of _____, 2023 (the "Effective Date", as defined hereinafter), by and between the **TOWNSHIP OF ABINGTON** ("*Abington*"), a Pennsylvania Township of the First Class with offices at 1176 Old York Road, Abington, Pennsylvania 19001, and **BOROUGH OF JENKINTOWN** ("*Jenkintown*"), a Pennsylvania borough, with offices at 700 Summit Avenue, Jenkintown, Pennsylvania 19046.

BACKGROUND

WHEREAS, Abington and Jenkintown are contiguous municipalities; and

WHEREAS, Abington has provided traffic signal maintenance services (the "*Services*") to Jenkintown for traffic signal improvements shared by the two municipalities, pursuant to a certain Traffic Signal Maintenance Contract dated on about _____, 2017 (the "*Prior Agreement*"); and

WHEREAS, Abington and Jenkintown (hereafter sometimes referred to as the "*Parties*") desire to renew the Prior Agreement by entering into an intergovernmental cooperation agreement for the provision of the Services by Abington; and

WHEREAS, the Pennsylvania Intergovernmental Cooperation Law permits two or more local governments in the Commonwealth to enter into agreements to jointly cooperate in the exercise or performance of governmental functions, powers and responsibilities (53 Pa. C.S. §2303).

NOW, THEREFORE, in consideration of the mutual covenants contained in this Agreement and intending to be legally bound, the Parties and their respective successors and assigns, hereby agree as follows:

TERMS AND CONDITIONS

I. SCOPE OF SERVICES

Abington shall provide the Services for the benefit of Jenkintown for the traffic signal improvements identified in Exhibit "A" attached hereto and incorporated herein by reference.

II. TERM OF AGREEMENT

1. This Agreement shall commence upon the execution by both parties hereto ("*Effective Date*") and shall terminate on December 31, 2024, unless extended for additional one-year periods by written consent of the parties, up to three (3) additional one-year periods. The parties shall determine on or before December 1st of each year whether they desire to extend the terms of the Agreement for the subsequent year and shall thereafter communicate in writing their final determination.

2. If either party wishes to terminate its participation in this Agreement it must do so in writing at least thirty (30) days prior to the then-applicable date of termination. Upon such termination,

the parties hereto shall have no further liabilities, obligations or responsibilities to each other under this Agreement; provided, however, any such termination shall not affect Jenkintown's obligation to pay Abington for all costs incurred before such termination and for all costs to be incurred after termination arising as a result of actions taken by Abington pursuant to this Agreement.

III. COMPENSATION

1. The compensation to be paid to Abington pursuant to this Agreement shall be on a Time and Material Basis, by submission of an invoice to Jenkintown for each service call initiated by Jenkintown. The amount of compensation for any service call shall be determined by the specific location (a "*Location*") receiving the Services and whether the location is designated as owned by Abington or Jenkintown, as set forth in Exhibit "B" attached hereto and incorporated herein by reference.

2. The rates set forth for labor costs are subject to annual review by Abington and shall be adjusted in the event of renewal of this Agreement for any extended one-year term.

3. While the parties acknowledge that intermittent problems on solid state equipment may be difficult to diagnose, billing will be governed by the following criteria:

a. Jenkintown shall be billed for the initial request for Services.

b. Jenkintown shall not be billed for subsequent calls for the same problem if the problem is not resolved in response to previous call(s), unless the Services require that parts be ordered.

c. If the problem is resolved, and after the initial call additional material or labor is required, Abington will bill Jenkintown for the additional costs.

d. If the problem persists, and is not subject to resolution to the satisfaction of Abington, Abington will notify Jenkintown in writing and recommend replacement of equipment. In the event Jenkintown fails to respond to Abington's written recommendation within ten (10) days, all subsequent calls will be billed at normal billing rates, in accordance with Exhibit "B."

IV. MAINTENANCE DUTIES OF ABINGTON TOWNSHIP

1. Abington shall perform the following maintenance Services upon request;

a. Respond in a timely manner; if an emergency, respond within three (3) hours;

b. Perform Services in a safe and accurate manner, on a Time and Material basis.

c. Issue invoice to Jenkintown for material at the cost at the time of purchase, and for labor and equipment at the rate(s) set forth in Exhibit "B."

d. Use certified ISMA technicians to perform the Services.

V. DUTIES OF JENKINTOWN BOROUGH

1. Jenkintown agrees to, and shall be responsible for, the following:

a. Notify Abington immediately of any malfunction or other problem at any Location requiring a response by Abington.

b. Advise Abington of any change in the condition diagram for the Location.

c. Maintain the installation at each Location in property operating condition and in conformance with the PennDOT permit and the condition diagram.

d. Remit payment to Abington promptly, within thirty (30) days of the invoice, without regard to any third party claim, unless agreed to by the parties.

VI. BREACH OF AGREEMENT

In the event of a breach of this Agreement, the non-breaching party shall notify the breaching party of any such breach in writing. The breaching party shall immediately remedy any such breach to the satisfaction of the non-breaching party. If said breach is not sufficiently cured within thirty (30) days of the date of the notice of the breach, the non-breaching party may terminate this Agreement in writing to the breaching party. In the event that, by nature of the default, such default cannot be cured within the 30-day period, the breaching party shall have an additional period of time, not to exceed thirty (30) days, to complete the cure, so long as the breaching party has commenced such cure within the original 30-day period and, in the opinion of the non-breaching party, is diligently pursing the curing of such default.

VI. MISCELLANEOUS

1. Background. The Background recitals referenced at the beginning of this Agreement are incorporated in this Agreement by reference as if fully set forth at length.

2. Assignment. This Agreement shall not be assignable by any party to this Agreement except upon the written consent of all Parties hereto, which consent shall not be unreasonably withheld.

3. Modification. This Agreement may be modified, amended, or supplemented only by the written agreement of all the Parties hereto.

4. Mutual Cooperation. Abington and Jenkintown agree to execute all documents and to take all action necessary to effectuate the terms and conditions of this Agreement. Including, but not limited to adopting the appropriate resolution required by the Intergovernmental Cooperation Act.

5. Captions. The captions in this Agreement are for convenience only and are not part of the Agreement. The captions do not in any way define, limit, describe or amplify the provisions of this Agreement or the scope or intent thereof.

6. Entire Agreement. This Agreement represents the entire agreement of the Parties hereto and there are no collateral or oral agreements or understandings. This Agreement may be amended or modified only in writing signed by Abington and Jenkintown.

7. Severability. In the event any provision hereof is held illegal or invalid, no other provision of this Agreement shall be affected, and this Agreement shall then continue in full force as if such illegal or invalid provision had not been contained herein.

8. Notices. All notices, payments, and communications required to be given in writing under this Agreement shall be sent by certified United States mail, postage prepaid and by email communication or delivered by hand delivery with receipt obtained, to the addresses below or at other such addresses as the Parties may designate in writing from time to time:

If to Abington:
Abington Township
Attention: Township Manager
1176 Old York Road
Abington, PA 19001

If to Jenkintown:
Borough of Jenkintown
Attention: Borough Manager
700 Summit Avenue
Jenkintown, PA 19046

Any party may designate a different address by written notice to the other party. Notices shall be effective on the date received or rejected by recipient.

9. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same Agreement. Each counterpart Agreement that is signed by a party shall indicate the date that the counterpart was approved and signed.

10. This Agreement shall only become effective upon approval, as evidenced below, by the authorized officials of the respective parties and shall continue in full force and effect until terminated.

11. Jenkintown agrees, to the extent permitted by law, to protect, indemnify, defend and hold harmless Abington and all of its officials, agents and employees from and against any claims, demands, liabilities, costs and expenses (including attorney's fees) arising out of any disputes whatsoever associated with the Services, except to the extent such claims arise out of Abington's negligence or Abington's failure to perform its duties or obligations under this Agreement, which failure is not caused by Jenkintown's failure to perform its duties or obligations under this Agreement.

12. Without limiting the foregoing paragraphs, Abington and Jenkintown will comply with all applicable statutes, regulations, ordinances and/or requirements of the Commonwealth of Pennsylvania, the County of Montgomery, and any and all other governmental and/or regulatory agencies with jurisdiction over any aspect of the Services.

21. This Agreement shall be interpreted and construed in accordance with, and governed by, the laws of the Commonwealth of Pennsylvania. Venue for any and all disputes arising out of or relating to this Agreement shall be the Court of Common Pleas of Montgomery County, Pennsylvania.

IN WITNESS WHEREOF, the parties hereto, being authorized to do so, set their hand and seals below, as of the date written.

ABINGTON TOWNSHIP

ATTEST:

By: _____**(SEAL)**
Thomas Hecker, President

_____
Richard J. Manfredi,
Township Manager & Secretary

BOROUGH OF JENKINTOWN

ATTEST:

By: _____**(SEAL)**

_____

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-02-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Administration		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

2024 Abington Township Calendar

EXECUTIVE SUMMARY:

Each year the Township request quotes from printing companies for the printing of the Township calendar. The Township prints 22,000 calendars for distribution to Township residents. Fort Nassau Graphics was the lowest respondent at $25,150 on the request for quotes. The Township received one other comparable proposal for a cost of $32,420.00.

PREVIOUS BOARD ACTIONS:

This contract is awarded annually.

RECOMMENDED BOARD ACTIONS:

Motion to award the printing of the Abington Township 2024 Calendar to Fort Nassau Graphics in the amount of $25,150 to print 22,000 Township calendars.

FY 2024 Calendar Request for Proposal Results

	Homer Option 1	Homer Option 2	Fort Nassau Graphics Option 1	Fort Nassau Graphics Option 2	Fort Nassau Graphics Option 2 No EDDM	2023 Calendar Costs
FY 2024 RFP Results						
22k Color 11 x 8.5	$ 33,520.00	$ 32,420.00	$ 28,990.00	$ 26,115.00	$ 25,150.00	$ 29,650.00
Page substituted after proof inspection	$ 50.00	$ 50.00	N/A	N/A	N/A	-
AA Charges	$ 95.00	$ 95.00	N/A	N/A	N/A	-
Price Per Scan	$ 15.00	$ 15.00	N/A	N/A	N/A	-
Pre-Press Hourly Rate	$ 95.00	$ 95.00	N/A	N/A	N/A	-
USPS EDDM Service Processing	No bid	No bid	Included in Price	Included in Price	No bid	-
Estimated Printed Costs Total	$ 33,520.00	$ 32,420.00	$ 28,990.00	$ 26,115.00	$ 25,150.00	$ 29,650.00
Additional Costs						
Mailing (Red Sky Marketing)	$ 3,080.00	$ 3,080.00	$ 3,080.00	$ 3,080.00	$ 3,080.00	$ 2,950.00
Postage	$ 6,461.00	$ 6,461.00	$ 6,461.00	$ 6,461.00	$ 6,461.00	$ 5,148.88
ESTIMATED COSTS	**$ 43,061.00**	**$ 41,961.00**	**$ 38,531.00**	**$ 35,656.00**	**$ 34,691.00**	**$ 37,748.88**

Thomas Hecker, *Board President*
Matthew Vahey, *Board Vice-President*
Richard J. Manfredi, *Township Manager*

TOWNSHIP OF ABINGTON

TOWNSHIP OF ABINGTON REQUEST FOR QUOTE

From: Grace Sekelewski
267.536.1000 ext. 1227
gsekelewski@abingtonpa.gov

Date: August 17, 2023

Subject: Abington Township 2024 Calendar

Would you please provide a quote for the following job by Thursday, September 7, 2023?
Please do not hesitate to contact me with questions.

Thank you!

REQUEST FOR QUOTATION

Quotes for furnishing by offset printing process twenty-two thousand (22,000) copies of the 2024 Abington Township Calendar are requested by

Thursday, September 7, 2023.

Quotes must be submitted on forms furnished by the Township.

Richard J. Manfredi

Township Manager

By Order of the Board of Commissioners Township of Abington

Township of Abington
1176 Old York Road, Abington, PA 19001
Grace Sekelewski
Telephone: 267-536-1000 ext. 1227, Fax: 215-884-8271
E-mail: gsekelewski@abingtonpa.gov

GENERAL CONDITIONS

Right to Know Law. As of January 1, 2009 certain changes to the Pennsylvania Right-to- Know Law took effect. In essence, the law provides for the access of government public records to legal residents of the United States. If you submit a quote, please be aware that under the Right-to- Know Law all submitted documents will be subject to disclosure upon a request. If you are the successful contractor, documents in your possession which directly relate to the governmental function of Abington Township and are not otherwise exempt under the Right-to-Know Law may be considered a public record and may be subject to disclosure.

Schedule. Submit proposal on forms supplied by the Township of Abington by Thursday, September 7, 2023. To view the current Township Calendar, for information purposes only, see the following link: https://www.abingtonpa.gov/home/showdocument?id=17531&t=638066957756601294

Selection. Abington Township will, in its sole discretion, award a contract for the Township Calendar 2024 based upon the proposals submitted pursuant to Option 1 or 2 as set forth herein below. The Township will only select one of the two printing options listed as "Option 1" and "Option 2" below. The Township reserves the right to reject any and all proposals and to make such award as appears most advantageous to the Township.

Press Run. 22,000 via offset process. Sheet fed, no web process. Do not under-run or over-run. The entire project must be completed by the printer "in-house" and "under one roof".

Performance Guarantee. The Vendor must furnish a form of 100% surety in the full amount of liability under the contract to guarantee performance of the contract, within ten (10) days of issuance by Abington Township of a Notice of Intent to award the contract. Upon failure to furnish 100% surety within such time, the Township will reject the contract. Abington Township will accept one of three acceptable forms of surety in the full amount of the contract, at the Vendor's option. The first is a performance bond issued by an approved surety company authorized to transact business within Pennsylvania, with proof of same, including agent's power of attorney evidencing agent's authority to execute the bond and bearing the seal of the surety company, in the form included with this RFQ. The second is an irrevocable letter of credit from a bank authorized to transact business within Pennsylvania, in form satisfactory to the Township's Solicitor, guaranteeing that the full amount of the contract remains in an account until the successful publication of the annual report and calendar. The third is a certified check for the full amount of the contract, which the Township will return after the successful completion of the project.

AA's. Any printer's error found by the Township will be corrected by the printer without cost to the Township. All corrections made by the Township must be authorized in writing by initials of the editor **during production.** The Township will pay legitimate AA charges when each is previously authorized by said party and when charges are itemized by printer.

PROJECT DEADLINES

Production Schedule without packaging and mailing. Materials furnished by the Township of Abington as described below to be delivered to Contractor on or before **November 13, 2023.** Finished product as determined per terms of quotation to be complete on or before **December 1, 2023** and delivered to receiving destination (Red Sky Marketing Group, 2641 Mt. Carmel Ave., Glenside PA, 215-576-5874) on or before **December 1, 2023.**

Production Schedule with packaging and mailing. Materials furnished by the Township of Abington as described below to be delivered to Contractor on or before **November 13, 2023.** Finished product as determined per terms of quotation to be complete, packaged and delivered to the United States Postal Service (USPS) offices as needed by the USPS Every Door Direct Mail (EDDM), otherwise referred to as Carrier Routes services, on or before **December 13, 2023** to ensure timely delivery by mail.

Production Time. Prior to final presswork, printer must supply a color proof within four days after receipt of mechanicals from Township. PRINTER MUST SCHEDULE PRESS RUN AND BINDERY OPERATION SO IT COMMENCES PROMPTLY UPON RECEIPT OF APPROVAL OF FINAL COLOR PROOF FROM TOWNSHIP. Total time of printing, folding, and binding should not exceed ten (10) working days. **The absolute deadline for delivery to Red Sky Marketing Group is Friday, December 1, 2023 if vendor is not packaging and mailing order. The absolute deadline for delivery to the USPS offices for delivery to resident addresses as needed by the USPS EDDM services is by December 13, 2023, if vendor is contracted to package and mail order.**

WORK AND MATERIALS PERFORMED /FURNISHED BY TOWNSHIP

1. **All materials to be returned to Township**
2. Delivery Format. The Township will supply copy by digital file
3. Printer will be responsible for sizing, scanning, and placing various types of artwork.

Preparation and Presswork. Usual and customary proofs and plates. Two-sided offset printing for all pages including cover in:

1. 2 PMS ink colors; Soy ink is mandatory.
2. Full color cover, colored images and logos.

No web process only sheet fed.

White Stock Option 1. Forty four (40) text pages - 11" x 8.5" (ten sheets, 11" x 17") 80-lb Rolland Opaque Text, Bright White, Smooth (FSC Certified); four-page cover (one sheet, 11" x 17"), Montauk 80-lb Gloss Cover (FSC

Certified). The calendar is a total of 44 pages. **Stock samples must accompany quote.**

White Stock Option 2. Forty four (40) text pages - 11" x 8.5" (ten sheets, 11" x 17") 80-lb Silk Text Stock, Bright White (FSC Certified); four-page cover (one sheet, 11" x 17"), Montauk 80-lb Gloss Cover (FSC Certified). The calendar is a total of 44 pages. **Stock samples must accompany quote.**

Note: FSC Certified Logo may not appear in the address area. No additional gloss should be added to the address area.

Finish. Suitable for self-mailing with new postal regulations. All sheets collated and folded to page size 11" x 8.5," saddle stitch binding, and 0.25" diameter hole centered at least 0.5" from opposite edge and trim as necessary **(Note: Hole should not cover any print).**

Packing and Delivery. By Vendor's carrier: Finished product to be packed with same number of pieces (multiple of 25) per carton and delivered to Red Sky Marketing Group, 2641 Mt. Carmel Avenue, Glenside, PA 19038, 215-576-5874. Cartons should be packed on skids.

Note: Lift gate is required on receiving end- no loading dock available.

OPTION 1: SERVICES DESCRIBED ABOVE **WITH WHITE STOCK OPTION 1**	**COST**
1. 22,000 (as described above) 2 PMS Soy Ink colors with full color on front cover and colored images such as photos and logos.	$
OPTION 1: POSSIBLE ADDITIONAL COSTS AND/OR ADD-ONS TO TOWNSHIP	**COST**
1. Page Substituted after Proof Inspection	**$**
2. AA Charges	**$**
3. Price per Scan	**$**
4. Pre-Press Hourly Rate	**$**
5. Packaging, labeling, and bundling of the calendar to approximately 21,000 Abington Township households and delivery of sacks to USPS postal offices for distribution. This price should include all steps needed for final delivery of item through USPS EDDM service. (This price should not include the discounted postage rate.)	**$**

OPTION 2: SERVICES DESCRIBED ABOVE **WITH WHITE STOCK OPTION 2**	**COST**
1. 22,000 (as described above) 2 PMS Soy Ink colors with full color on front cover and colored images such as photos and logos.	$
OPTION 2: POSSIBLE ADDITIONAL COSTS AND/OR ADD-ONS TO TOWNSHIP	**COST**
1. Page Substituted after Proof Inspection	**$**
2. AA Charges	**$**
3. Price per Scan	**$**
4. Pre-Press Hourly Rate	**$**
5. Packaging, labeling, and bundling of the calendar to approximately 21,000 Abington Township households and delivery of sacks to USPS postal offices for distribution. This price should include all steps needed for final delivery of item through USPS EDDM service. (This price should not include the discounted postage rate.)	**$**

ABINGTON TOWNSHIP 2024 CALENDAR

CERTIFICATION

We understand the importance of the 2024 Calendar to the residents, elected officials, and management of the Township of Abington and that nothing less than top-quality work will be accepted from us as printers.

We further understand and agree that the Township of Abington is not obligated to accept the lowest or any quotation, and that if we are the successful contractor, and if we fail to perform the contract as required, we will forfeit the performance bond, letter of credit or certified check in the amount of the contract as awarded by the Township.

Name of Company: _____

Street Address: _____

City:_____ State:_____ Zip: _____

Telephone #: (_____) - _____ Fax #: _____

Signature: _____Date: _____

Title: _____

Contact Person: _____

ABINGTON TOWNSHIP 2024 CALENDAR

AFFIDAVIT

(This Affidavit is part of the Proposal)

State of _____ §

County of _____

_____

(Typed Name)

being duly sworn, deposes and says that he or she reside at:

_____

(Street, City, State, Zip)

that he or she is the _____ who signed the above proposal,

(Title)

that he or she is duly authorized to sign, and that the quote is the true offer of the printing company; that the seal attached is the seal of the printing company, and that all the declarations and statements contained in the quote are true to the best of his or her knowledge and belief.

Sworn to and Subscribed to before me this _____day of _____, 2023.

(SEAL)

_____

Signature Notary Public

_____

My Commission Expires:

NON-COLLUSION AFFIDAVIT

Job Title _____

State of_____

§

County of _____

I state that I am_____of_____

(Name and Title) (Name of Firm)

and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this quote.

I state that:

1. The price(s) and amount of this quote have been arrived at independently and without consultation, communication or agreement with any other contractor, contractor or potential contractor.

2. Neither the price(s) nor the amount of this quote and neither the approximate price(s) nor approximate amount of this quote, have been disclosed to any other firm or person who is a contractor or potential contractor, and they will not be disclosed before opening.

3. No attempt has been made or will be made to induce any firm or person to refrain from quoting on this contract, or to submit a quote higher than this quote, or to submit any intentionally high or noncompetitive quote or other form of complementary quote.

4. The quote of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive quote.

5. _____its affiliates, subsidiaries, officers,
(Name of Firm)
directors and employees are not currently under investigation by any government agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to quoting on any public contract, except as follows:

ABINGTON TOWNSHIP 2024 CALENDAR

I state that_____, understands and
(Name of Firm)
acknowledges the above representations are material and important, and will be relied on by

Abington Township in awarding the contract(s) for which this quote is submitted. I
(Entity)

understand and my firm understands that any misstatement in this affidavit is and shall be treated

as fraudulent concealment from Abington Township of the true facts
(Name of Public Entity)

relating to the submission of quotes for this contract.

_____
Signature

_____
(Typed Name and Title)

Sworn to and subscribed to before me this _____day of_____, 2023.

(SEAL)

_____
Signature of Notary Public

_____
My Commission Expires

PERFORMANCE BOND

Know all men by these presents that we _____, as Principal (the "Principal"),

and _____, a corporation

organized and existing under the Laws of the State of Pennsylvania as Surety (the "Surety"), are held and firmly bound unto **Abington Township Montgomery County, Pennsylvania** as Obligee (the "Obligee"), as hereinafter set forth in the full and just sum of
_____ Dollars ($_____)

Lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has by written agreement dated _____, 2023 (The "Proposal"), to perform certain work for the Obligee, pursuant to Plans, Specifications, and other related documents constituting the Contract Documents, which are incorporated into the Proposal by reference (the "Contract Documents"); and

Whereas, the Contract Documents require that, before an award shall be made to the Principal by the Obligee in accordance with the Proposal, the Principal shall furnish the Bond to the Obligee, with this Bond to become binding, upon the award of a contract to the Principal by the Obligee in accordance with the Proposal; and

Whereas, under the Contract Documents, it is provided, inter alia, that if the Principal shall furnish this Bond to the Obligee, and if the Obligee shall make an Award to the Principal in accordance with the Proposal, then the Principal and the Obligee shall enter into an agreement with respect to performance of such work (the "Agreement"), the form of which Agreement is set forth in the Contract documents.

Now, therefore, the terms and conditions of the Bond are and shall be that if; the Principal will, truly and faithfully shall comply with and shall perform the Agreement in accordance with the Contract Documents, at the time and in the manner provided in the Agreement and in the Contract Documents, and if the Principal shall satisfy all claims and demands incurred in or related to the performance of the Agreement by the Principal, or growing out of the performance of the Agreement by the Principal, and if the Principal shall indemnify completely and shall save harmless the Obligee and all of its officers, agents and employees from an damages, loss or

injury, costs, charges, expenses, additional architectural charges and attorney's charges or engineering expenses which the Obligee and all of its officers, agents and employees may sustain or suffer by reason for the failure of the principal to do so, and if the Principal shall reimburse completely and shall pay to the Obligee any and all costs and expenses which the Obligee and all of its officers, agents and employees may incur by reason of any such default or failure of the Principal; and (b) if the Principal shall remedy without cost to the Obligee, all defects which may develop during the period of one (1) year from the date of completion by the Principal and acceptance of the Obligee of the work to be performed under the Agreement, in accordance with the Contract Documents, which defects, in the sole judgment of the Obligee or its legal successors in interest, shall be caused by or shall result from defective or inferior materials or workmanship, then this Bond shall be void; otherwise, this Bond shall be and shall remain in force and effect.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the work to be performed under the Agreement in accordance with the Contract Documents, and/or any alterations, changes and/or additions to the Agreement, and/or giving by the Obligee of any extensions of time for the performance of the Agreement in accordance with the Contract Documents, and/or any work of forbearance of either the Principal or the Obligee toward the other with respect to the Contract Documents and the Agreement, and/or the reduction of any percentage to be retained by the Obligee as permitted by the contract Documents and by the Agreement, shall not release, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors, and assigns, from liability and obligations under this bond; and the Surety, for value received, does not waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

Signed and Sealed This _____ Day of _____ A.D., 2023

_____ (SEAL)

Principal

In the presence of:

_____

Title

_____

Witness

_____

Witness

_____

Surety

_____

Title

CONSENT OF SURETY

_____

Name of Insurance Company

_____

Address

duly qualified to transact business in the State of Pennsylvania, hereby agrees that if

_____

is the successful Contractor for

_____

as surety will provide the Contractor with such bonds in such amounts as are required in the advertisement and in the specifications.

Signed, sealed, and dated this _____ day of _____ 2023.

_____

Name of Insurance Company

_____

By (Title)

Note: Be sure to attach proof of power of attorney of current date.

Thomas Hecker, *Board President*
Matthew Vahey, *Board Vice-President*
Richard J. Manfredi, *Township Manager*

TOWNSHIP OF ABINGTON

TOWNSHIP OF ABINGTON REQUEST FOR QUOTE

From: Grace Sekelewski
267.536.1000 ext. 1227
gsekelewski@abingtonpa.gov

Date: August 17, 2023

Subject: Abington Township 2024 Calendar

Would you please provide a quote for the following job by Thursday, September 7, 2023? Please do not hesitate to contact me with questions.

Thank you!

REQUEST FOR QUOTATION

Quotes for furnishing by offset printing process twenty-two thousand (22,000) copies of the 2024 Abington Township Calendar are requested by

Thursday, September 7, 2023.

Quotes must be submitted on forms furnished by the Township.

Richard J. Manfredi

Township Manager

By Order of the Board of Commissioners Township of Abington

Township of Abington
1176 Old York Road, Abington, PA 19001
Grace Sekelewski
Telephone: 267-536-1000 ext. 1227, Fax: 215-884-8271
E-mail: gsekelewski@abingtonpa.gov

GENERAL CONDITIONS

Right to Know Law. As of January 1, 2009 certain changes to the Pennsylvania Right-to- Know Law took effect. In essence, the law provides for the access of government public records to legal residents of the United States. If you submit a quote, please be aware that under the Right-to- Know Law all submitted documents will be subject to disclosure upon a request. If you are the successful contractor, documents in your possession which directly relate to the governmental function of Abington Township and are not otherwise exempt under the Right-to-Know Law may be considered a public record and may be subject to disclosure.

Schedule. Submit proposal on forms supplied by the Township of Abington by Thursday, September 7, 2023. To view the current Township Calendar, for information purposes only, see the following link: https://www.abingtonpa.gov/home/showdocument?id=17531&t=638066957756601294

Selection. Abington Township will, in its sole discretion, award a contract for the Township Calendar 2024 based upon the proposals submitted pursuant to Option 1 or 2 as set forth herein below. The Township will only select one of the two printing options listed as "Option 1" and "Option 2" below. The Township reserves the right to reject any and all proposals and to make such award as appears most advantageous to the Township.

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PROJECT DEADLINES

Production Schedule without packaging and mailing. Materials furnished by the Township of Abington as described below to be delivered to Contractor on or before **November 13, 2023.** Finished product as determined per terms of quotation to be complete on or before **December 1, 2023** and delivered to receiving destination (Red Sky Marketing Group, 2641 Mt. Carmel Ave., Glenside PA, 215-576-5874) on or before **December 1, 2023.**

Production Schedule with packaging and mailing. Materials furnished by the Township of Abington as described below to be delivered to Contractor on or before **November 13, 2023.** Finished product as determined per terms of quotation to be complete, packaged and delivered to the United States Postal Service (USPS) offices as needed by the USPS Every Door Direct Mail (EDDM), otherwise referred to as Carrier Routes services, on or before **December 13, 2023** to ensure timely delivery by mail.

Production Time. Prior to final presswork, printer must supply a color proof within four days after receipt of mechanicals from Township. PRINTER MUST SCHEDULE PRESS RUN AND BINDERY OPERATION SO IT COMMENCES PROMPTLY UPON RECEIPT OF APPROVAL OF FINAL COLOR PROOF FROM TOWNSHIP. Total time of printing, folding, and binding should not exceed ten (10) working days. **The absolute deadline for delivery to Red Sky Marketing Group is Friday, December 1, 2023 if vendor is not packaging and mailing order. The absolute deadline for delivery to the USPS offices for delivery to resident addresses as needed by the USPS EDDM services is by December 13, 2023, if vendor is contracted to package and mail order.**

WORK AND MATERIALS PERFORMED /FURNISHED BY TOWNSHIP

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2. Delivery Format. The Township will supply copy by digital file
3. Printer will be responsible for sizing, scanning, and placing various types of artwork.

Preparation and Presswork. Usual and customary proofs and plates. Two-sided offset printing for all pages including cover in:

1. 2 PMS ink colors; Soy ink is mandatory.
2. Full color cover, colored images and logos.

No web process only sheet fed.

White Stock Option 1. Forty four (40) text pages - 11" x 8.5" (ten sheets, 11" x 17") 80-lb Rolland Opaque Text, Bright White, Smooth (FSC Certified); four-page cover (one sheet, 11" x 17"), Montauk 80-lb Gloss Cover (FSC

Certified). The calendar is a total of 44 pages. **Stock samples must accompany quote.**

White Stock Option 2. Forty four (40) text pages - 11" x 8.5" (ten sheets, 11" x 17") 80-lb Silk Text Stock, Bright White (FSC Certified); four-page cover (one sheet, 11" x 17"), Montauk 80-lb Gloss Cover (FSC Certified). The calendar is a total of 44 pages. **Stock samples must accompany quote.**

Note: FSC Certified Logo may not appear in the address area. No additional gloss should be added to the address area.

Finish. Suitable for self-mailing with new postal regulations. All sheets collated and folded to page size 11" x 8.5," saddle stitch binding, and 0.25" diameter hole centered at least 0.5" from opposite edge and trim as necessary **(Note: Hole should not cover any print).**

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Note: Lift gate is required on receiving end- no loading dock available.

OPTION 1: SERVICES DESCRIBED ABOVE **WITH WHITE STOCK OPTION 1**	COST
1. 22,000 (as described above) 2 PMS Soy Ink colors with full color on front cover and colored images such as photos and logos.	~~Option 1 $ 26,115.00~~ $ Option 2 $ 28,990.00
OPTION 1: POSSIBLE ADDITIONAL COSTS AND/OR ADD-ONS TO TOWNSHIP	COST N/A
1. Page Substituted after Proof Inspection	$ N/A
2. AA Charges	$ N/A
3. Price per Scan	$ N/A
4. Pre-Press Hourly Rate	$ N/A
5. Packaging, labeling, and bundling of the calendar to approximately 21,000 Abington Township households and delivery of sacks to USPS postal offices for distribution. This price should include all steps needed for final delivery of item through USPS EDDM service. (This price should not include the discounted postage rate.)	Included in Price

OPTION 2: SERVICES DESCRIBED ABOVE WITH WHITE STOCK OPTION 2	COST
1. 22,000 (as described above) 2 ~~PMS~~ 4/c Soy Ink colors with full color on front cover and colored images such as photos and logos.	$ 26,115.00
OPTION 2: POSSIBLE ADDITIONAL COSTS AND/OR ADD-ONS TO TOWNSHIP	**COST**
1. Page Substituted after Proof Inspection	$ N/A
2. AA Charges	$ N/A
3. Price per Scan	$ N/A
4. Pre-Press Hourly Rate	$ N/A
5. Packaging, labeling, and bundling of the calendar to approximately 21,000 Abington Township households and delivery of sacks to USPS postal offices for distribution. This price should include all steps needed for final delivery of item through USPS EDDM service. (This price should not include the discounted postage rate.)	Included in price

ABINGTON TOWNSHIP 2024 CALENDAR

CERTIFICATION

We understand the importance of the 2024 Calendar to the residents, elected officials, and management of the Township of Abington and that nothing less than top-quality work will be accepted from us as printers.

We further understand and agree that the Township of Abington is not obligated to accept the lowest or any quotation, and that if we are the successful contractor, and if we fail to perform the contract as required, we will forfeit the performance bond, letter of credit or certified check in the amount of the contract as awarded by the Township.

Name of Company: Fort Nassau Graphics

Street Address: 1757 Imperial Way

City: West Deptford State: New Jersey Zip: 08066-1818

Telephone #: (856) 853-2800 Fax #: 856-853-2929

Signature: Steven F. Copley Date: 9/6/2023

Title: Sec/Treas

Contact Person: Dave Palmer

ABINGTON TOWNSHIP 2024 CALENDAR

NON-COLLUSION AFFIDAVIT

Job Title Secretary / Treasurer Co-owner

State of NJ

§

County of Gloucester

I state that I am Jenai F. Cipolone, Sec/Treas. of Publishers, Inc. T/A Fort Nassau Graphics
(Name and Title) (Name of Firm)

and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this quote.

I state that:

1. The price(s) and amount of this quote have been arrived at independently and without consultation, communication or agreement with any other contractor, contractor or potential contractor.

2. Neither the price(s) nor the amount of this quote and neither the approximate price(s) nor approximate amount of this quote, have been disclosed to any other firm or person who is a contractor or potential contractor, and they will not be disclosed before opening.

3. No attempt has been made or will be made to induce any firm or person to refrain from quoting on this contract, or to submit a quote higher than this quote, or to submit any intentionally high or noncompetitive quote or other form of complementary quote.

4. The quote of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive quote.

5. Publishers, Inc. T/A Fort Nassau Graphics its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any government agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to quoting on any public contract, except as follows:
(Name of Firm)

ABINGTON TOWNSHIP 2024 CALENDAR

AFFIDAVIT

(This Affidavit is part of the Proposal)

State of New Jersey §

County of Camden

Jenai F. Cipolone
(Typed Name)

being duly sworn, deposes and says that he or she reside at: 1 Chestnutwood Pl., Gibbsboro, NJ

(Street, City, State, Zip)

that he or she is the Sec/Treasurer who signed the above proposal,
(Title)

that he or she is duly authorized to sign, and that the quote is the true offer of the printing company; that the seal attached is the seal of the printing company, and that all the declarations and statements contained in the quote are true to the best of his or her knowledge and belief.

Sworn to and Subscribed to before me this 06 day of Wednesday September, 2023.

(SEAL)

CARLOS A LAURIANO PLAZA
Comm. Exp. October 25, 2026
NOTARY PUBLIC
Comm. #50175955
NEW JERSEY

Signature Notary Public

My Commission Expires:
10/25/26

ABINGTON TOWNSHIP 2024 CALENDAR

I state that Publishers, Inc. T/A Fort Nassau Graphics understands and
(Name of Firm)
acknowledges the above representations are material and important, and will be relied on by

Abington Township in awarding the contract(s) for which this quote is submitted. I
(Entity)

understand and my firm understands that any misstatement in this affidavit is and shall be treated

as fraudulent concealment from Abington Township of the true facts
(Name of Public Entity)

relating to the submission of quotes for this contract.

Signature

Jenai F. Cipolone, Sec./Treas.
(Typed Name and Title)

Sworn to and subscribed to before me this 6th day of September, 2023.

CARLOS A LAURIANO PLAZA
Comm. Exp. October 25, 2026
NOTARY PUBLIC
Comm. #50175955
NEW JERSEY

(SEAL)

Signature of Notary Public

10/25/26
My Commission Expires

ABINGTON TOWNSHIP 2024 CALENDAR

PERFORMANCE BOND

Know all men by these presents that we _____, as Principal (the "Principal"),

and _____, a corporation

organized and existing under the Laws of the State of Pennsylvania as Surety (the "Surety"), are held and firmly bound unto **Abington Township Montgomery County, Pennsylvania** as Obligee (the "Obligee"), as hereinafter set forth in the full and just sum of
_____ Dollars ($_____)

Lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has by written agreement dated _____, 2023 (The "Proposal"), to perform certain work for the Obligee, pursuant to Plans, Specifications, and other related documents constituting the Contract Documents, which are incorporated into the Proposal by reference (the "Contract Documents"); and

Whereas, the Contract Documents require that, before an award shall be made to the Principal by the Obligee in accordance with the Proposal, the Principal shall furnish the Bond to the Obligee, with this Bond to become binding, upon the award of a contract to the Principal by the Obligee in accordance with the Proposal; and

Whereas, under the Contract Documents, it is provided, inter alia, that if the Principal shall furnish this Bond to the Obligee, and if the Obligee shall make an Award to the Principal in accordance with the Proposal, then the Principal and the Obligee shall enter into an agreement with respect to performance of such work (the "Agreement"), the form of which Agreement is set forth in the Contract documents.

Now, therefore, the terms and conditions of the Bond are and shall be that if; the Principal will, truly and faithfully shall comply with and shall perform the Agreement in accordance with the Contract Documents, at the time and in the manner provided in the Agreement and in the Contract Documents, and if the Principal shall satisfy all claims and demands incurred in or related to the performance of the Agreement by the Principal, or growing out of the performance of the Agreement by the Principal, and if the Principal shall indemnify completely and shall save harmless the Obligee and all of its officers, agents and employees from an damages, loss or

injury, costs, charges, expenses, additional architectural charges and attorney's charges or engineering expenses which the Obligee and all of its officers, agents and employees may sustain or suffer by reason for the failure of the principal to do so, and if the Principal shall reimburse completely and shall pay to the Obligee any and all costs and expenses which the Obligee and all of its officers, agents and employees may incur by reason of any such default or failure of the Principal; and (b) if the Principal shall remedy without cost to the Obligee, all defects which may develop during the period of one (1) year from the date of completion by the Principal and acceptance of the Obligee of the work to be performed under the Agreement, in accordance with the Contract Documents, which defects, in the sole judgment of the Obligee or its legal successors in interest, shall be caused by or shall result from defective or inferior materials or workmanship, then this Bond shall be void; otherwise, this Bond shall be and shall remain in force and effect.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the work to be performed under the Agreement in accordance with the Contract Documents, and/or any alterations, changes and/or additions to the Agreement, and/or giving by the Obligee of any extensions of time for the performance of the Agreement in accordance with the Contract Documents, and/or any work of forbearance of either the Principal or the Obligee toward the other with respect to the Contract Documents and the Agreement, and/or the reduction of any percentage to be retained by the Obligee as permitted by the contract Documents and by the Agreement, shall not release, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors, and assigns, from liability and obligations under this bond; and the Surety, for value received, does not waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

Signed and Sealed This _____ Day of _____ A.D., 2023

(SEAL)

Principal

In the presence of:

Title

Witness

Witness

Surety

Title

ABINGTON TOWNSHIP 2024 CALENDAR

CONSENT OF SURETY

Name of Insurance Company

Address

duly qualified to transact business in the State of Pennsylvania, hereby agrees that if

is the successful Contractor for

_____

as surety will provide the Contractor with such bonds in such amounts as are required in the advertisement and in the specifications.

Signed, sealed, and dated this _____ day of _____ 2023.

Name of Insurance Company

_____

By (Title)

Note: Be sure to attach proof of power of attorney of current date.

Fort Nassau Graphics

1757 Imperial Way
West Deptford, NJ 08066-1818
Phone: (856) 853-2800
Fax: (856) 853-2929
Email: estimating@fortnassaugraphics.com
http://www.fortnassaugraphics.com

Quotation E118158

To:

Township of Abington
1176 Old York Road
Abington, PA 19001
Phone: (267) 536-1000
Fax: (215) 884-8271

Date	9/5/23
Salesperson	**Dave Palmer**
Estimator	**Brian Francis**

Dear Township of Abington

We are pleased to submit the following estimate.

Please call or e-mail if you have questions or need to make changes.

Description	40+C Calendar (Silk)
Prepress	File supplied - Make Color Proof
Pages	40 Pages + 4 Page Cover Final Size : 8.5 x 11
Paper	80.0 lb Gloss Cover 80.0 lb Silk Text
Ink	4/4 Process
Finishing	Score cover, fold, stitch and trim. Punch 1 hole.
Mailing	Prepare for EDDM mailing. Deliver to post office.

Shipping Deliver 1,000 to Abington

Prices*

Quantity	Prices
22,000	$26,115.00

Thank you for your consideration. THIS IS AN ESTIMATE ONLY. A final invoice will be provided when the job is complete.

*PRICES ARE BASED ON CURRENT PAPER PRICING AND AVAILABILITY. PRICING MAY HAVE TO BE ADJUSTED WHEN PAPER IS PURCHASED IF PRICING OR AVAILABILITY CHANGES.

Files should include all fonts and high res images in place. Any alterations required to customer files will be charged in addition to the estimated price.

A 3.5% processing fee will be applied for payment by credit card.

Fort Nassau Graphics

1757 Imperial Way
West Deptford, NJ 08066-1818
Phone: (856) 853-2800
Fax: (856) 853-2929
Email: estimating@fortnassaugraphics.com
http://www.fortnassaugraphics.com

Quotation E118152

To:

Township of Abington
1176 Old York Road
Abington, PA 19001
Phone: (267) 536-1000
Fax: (215) 884-8271

Date	9/5/23
Salesperson	**Dave Palmer**
Estimator	**Brian Francis**

Dear Township of Abington

We are pleased to submit the following estimate.

Please call or e-mail if you have questions or need to make changes.

Description	40+C Calendar (Rolland)
Prepress	File supplied - Make Color Proof
Pages	40 Pages + 4 Page Cover Final Size : 8.5 x 11
Paper	80.0 lb Gloss Cover 80.0 lb Rolland Opaque Text
Ink	4/4 Process
Finishing	Score cover, fold, stitch and trim. Punch 1 hole.
Mailing	Prepare for EEDM mailing. Deliver to post office.

Shipping Prices* Deliver 1,000 to Abington

Quantity	Prices
22,000	$28,990.00

Thank you for your consideration. THIS IS AN ESTIMATE ONLY. A final invoice will be provided when the job is complete.

*PRICES ARE BASED ON CURRENT PAPER PRICING AND AVAILABILITY. PRICING MAY HAVE TO BE ADJUSTED WHEN PAPER IS PURCHASED IF PRICING OR AVAILABILITY CHANGES.

Files should include all fonts and high res images in place. Any alterations required to customer files will be charged in addition to the estimated price.

A 3.5% processing fee will be applied for payment by credit card.

Fort Nassau Graphics

1757 Imperial Way
West Deptford, NJ 08066-1818
Phone: (856) 853-2800
Fax: (856) 853-2929
Email: estimating@fortnassaugraphics.com
http://www.fortnassaugraphics.com

Quotation
E118158

To:

Township of Abington
1176 Old York Road
Abington, PA 19001
Phone: (267) 536-1000
Fax: (215) 884-8271

Date	9/5/23
Salesperson	**Dave Palmer**
Estimator	**Brian Francis**

Dear Township of Abington

We are pleased to submit the following estimate.

Please call or e-mail if you have questions or need to make changes.

Description	40+C Calendar (Silk)
Prepress	File supplied - Make Color Proof
Pages	40 Pages + 4 Page Cover
	Final Size : 8.5 x 11
Paper	80.0 lb Gloss Cover
	80.0 lb Silk Text
Ink	4/4 Process
Finishing	Score cover, fold, stitch and trim. Punch 1 hole.

Shipping Deliver 1,000 to Abington & 21,000 to Red Sky

Prices*

Quantity	Prices
22,000	$25,150.00

Thank you for your consideration. THIS IS AN ESTIMATE ONLY. A final invoice will be provided when the job is complete.

*PRICES ARE BASED ON CURRENT PAPER PRICING AND AVAILABILITY. PRICING MAY HAVE TO BE ADJUSTED WHEN PAPER IS PURCHASED IF PRICING OR AVAILABILITY CHANGES.

Files should include all fonts and high res images in place. Any alterations required to customer files will be charged in addition to the estimated price.

A 3.5% processing fee will be applied for payment by credit card.

Received via email 9/6/23

Thomas Hecker, *Board President*
Matthew Vahey, *Board Vice-President*
Richard J. Manfredi, *Township Manager*

TOWNSHIP OF ABINGTON

TOWNSHIP OF ABINGTON REQUEST FOR QUOTE

From: Grace Sekelewski
267.536.1000 ext. 1227
gsekelewski@abingtonpa.gov

Date: August 17, 2023

Subject: Abington Township 2024 Calendar

Would you please provide a quote for the following job by Thursday, September 7, 2023? Please do not hesitate to contact me with questions.

Thank you!

REQUEST FOR QUOTATION

Quotes for furnishing by offset printing process twenty-two thousand (22,000) copies of the 2024 Abington Township Calendar are requested by

Thursday, September 7, 2023.

Quotes must be submitted on forms furnished by the Township.

Richard J. Manfredi

Township Manager

By Order of the Board of Commissioners Township of Abington

Township of Abington
1176 Old York Road, Abington, PA 19001
Grace Sekelewski
Telephone: 267-536-1000 ext. 1227, Fax: 215-884-8271
E-mail: gsekelewski@abingtonpa.gov

GENERAL CONDITIONS

Right to Know Law. As of January 1, 2009 certain changes to the Pennsylvania Right-to- Know Law took effect. In essence, the law provides for the access of government public records to legal residents of the United States. If you submit a quote, please be aware that under the Right-to- Know Law all submitted documents will be subject to disclosure upon a request. If you are the successful contractor, documents in your possession which directly relate to the governmental function of Abington Township and are not otherwise exempt under the Right-to-Know Law may be considered a public record and may be subject to disclosure.

Schedule. Submit proposal on forms supplied by the Township of Abington by Thursday, September 7, 2023. To view the current Township Calendar, for information purposes only, see the following link: https://www.abingtonpa.gov/home/showdocument?id=17531&t=638066957756601294

Selection. Abington Township will, in its sole discretion, award a contract for the Township Calendar 2024 based upon the proposals submitted pursuant to Option 1 or 2 as set forth herein below. The Township will only select one of the two printing options listed as "Option 1" and "Option 2" below. The Township reserves the right to reject any and all proposals and to make such award as appears most advantageous to the Township.

Press Run. 22,000 via offset process. Sheet fed, no web process. Do not under-run or over-run. The entire project must be completed by the printer "in-house" and "under one roof".

Performance Guarantee. The Vendor must furnish a form of 100% surety in the full amount of liability under the contract to guarantee performance of the contract, within ten (10) days of issuance by Abington Township of a Notice of Intent to award the contract. Upon failure to furnish 100% surety within such time, the Township will reject the contract. Abington Township will accept one of three acceptable forms of surety in the full amount of the contract, at the Vendor's option. The first is a performance bond issued by an approved surety company authorized to transact business within Pennsylvania, with proof of same, including agent's power of attorney evidencing agent's authority to execute the bond and bearing the seal of the surety company, in the form included with this RFQ. The second is an irrevocable letter of credit from a bank authorized to transact business within Pennsylvania, in form satisfactory to the Township's Solicitor, guaranteeing that the full amount of the contract remains in an account until the successful publication of the annual report and calendar. The third is a certified check for the full amount of the contract, which the Township will return after the successful completion of the project.

AA's. Any printer's error found by the Township will be corrected by the printer without cost to the Township. All corrections made by the Township must be authorized in writing by initials of the editor **during production.** The Township will pay legitimate AA charges when each is previously authorized by said party and when charges are itemized by printer.

PROJECT DEADLINES

Production Schedule without packaging and mailing. Materials furnished by the Township of Abington as described below to be delivered to Contractor on or before **November 13, 2023.** Finished product as determined per terms of quotation to be complete on or before **December 1, 2023** and delivered to receiving destination (Red Sky Marketing Group, 2641 Mt. Carmel Ave., Glenside PA, 215-576-5874) on or before **December 1, 2023.**

Production Schedule with packaging and mailing. Materials furnished by the Township of Abington as described below to be delivered to Contractor on or before **November 13, 2023.** Finished product as determined per terms of quotation to be complete, packaged and delivered to the United States Postal Service (USPS) offices as needed by the USPS Every Door Direct Mail (EDDM), otherwise referred to as Carrier Routes services, on or before **December 13, 2023** to ensure timely delivery by mail.

Production Time. Prior to final presswork, printer must supply a color proof within four days after receipt of mechanicals from Township. PRINTER MUST SCHEDULE PRESS RUN AND BINDERY OPERATION SO IT COMMENCES PROMPTLY UPON RECEIPT OF APPROVAL OF FINAL COLOR PROOF FROM TOWNSHIP. Total time of printing, folding, and binding should not exceed ten (10) working days. **The absolute deadline for delivery to Red Sky Marketing Group is Friday, December 1, 2023 if vendor is not packaging and mailing order. The absolute deadline for delivery to the USPS offices for delivery to resident addresses as needed by the USPS EDDM services is by December 13, 2023, if vendor is contracted to package and mail order.**

WORK AND MATERIALS PERFORMED /FURNISHED BY TOWNSHIP

1. **All materials to be returned to Township**
2. Delivery Format. The Township will supply copy by digital file
3. Printer will be responsible for sizing, scanning, and placing various types of artwork.

N/A. ELECTRONIC FILES SUPPLIED AS PRINT YEARS. SEE #2 ABOVE. DH.

Preparation and Presswork. Usual and customary proofs and plates. Two-sided offset printing for all pages including cover in:

1. 2 PMS ink colors; Soy ink is mandatory.
2. Full color cover, colored images and logos.

No web process only sheet fed.

White Stock Option 1. Forty four (40) text pages - 11" x 8.5" (ten sheets, 11" x 17") 80-lb Rolland Opaque Text, Bright White, Smooth (FSC Certified); four-page cover (one sheet, 11" x 17"), Montauk 80-lb Gloss Cover (FSC

Certified). The calendar is a total of 44 pages. **Stock samples must accompany quote.**

White Stock Option 2. Forty four (40) text pages - 11" x 8.5" (ten sheets, 11" x 17") 80-lb Silk Text Stock, Bright White (FSC Certified); four-page cover (one sheet, 11" x 17"), Montauk 80-lb Gloss Cover (FSC Certified). The calendar is a total of 44 pages. **Stock samples must accompany quote.**

Note: FSC Certified Logo may not appear in the address area. No additional gloss should be added to the address area.

Finish. Suitable for self-mailing with new postal regulations. All sheets collated and folded to page size 11" x 8.5," saddle stitch binding, and 0.25" diameter hole centered at least 0.5" from opposite edge and trim as necessary **(Note: Hole should not cover any print).**

Packing and Delivery. By Vendor's carrier: Finished product to be packed with same number of pieces (multiple of 25) per carton and delivered to Red Sky Marketing Group, 2641 Mt. Carmel Avenue, Glenside, PA 19038, 215-576-5874. Cartons should be packed on skids.

Note: Lift gate is required on receiving end- no loading dock available.

OPTION 1: SERVICES DESCRIBED ABOVE **WITH WHITE STOCK OPTION 1**	**COST**
1. 22,000 (as described above) 2 PMS Soy Ink colors with full color on front cover and colored images such as photos and logos.	$ 33,520.00
OPTION 1: POSSIBLE ADDITIONAL COSTS AND/OR ADD-ONS TO TOWNSHIP	**COST**
1. Page Substituted after Proof Inspection	$ 50.00
2. AA Charges	$ 95.00
3. Price per Scan	$ 1.50
4. Pre-Press Hourly Rate	$ 95.00
5. Packaging, labeling, and bundling of the calendar to approximately 21,000 Abington Township households and delivery of sacks to USPS postal offices for distribution. This price should include all steps needed for final delivery of item through USPS EDDM service. (This price should not include the discounted postage rate.)	DOES NOT $ QUALIFY FOR EDDM SERVICE

DUE TO PAPER PRICING AND AVAILABILITY, THE ABOVE PRICE IS GUARANTEED FOR 30 DAYS ONLY AND WILL BE REVIEWED PRIOR TO ACCEPTANCE OF CONTRACT.

OPTION 2: SERVICES DESCRIBED ABOVE **WITH WHITE STOCK OPTION 2**	**COST**
1. 22,000 (as described above) 2 PMS Soy Ink colors with full color on front cover and colored images such as photos and logos.	$ 32420 ea
OPTION 2: POSSIBLE ADDITIONAL COSTS AND/OR ADD-ONS TO TOWNSHIP	**COST**
1. Page Substituted after Proof Inspection	$ 50 ea
2. AA Charges	$ 95 ea
3. Price per Scan	$ 15 ea
4. Pre-Press Hourly Rate	$ 95 ea
5. Packaging, labeling, and bundling of the calendar to approximately 21,000 Abington Township households and delivery of sacks to USPS postal offices for distribution. This price should include all steps needed for final delivery of item through USPS EDDM service. (This price should not include the discounted postage rate.)	$ DOES NOT QUALIFY FOR EDDM SERVICE

DUE TO PAPER PRICING AND AVAILABILITY, THE ABOVE PRICE IS GUARANTEED FOR 30 DAYS ONLY AND WILL BE REVIEWED PRIOR TO ACCEPTANCE OF CONTRACT.

ABINGTON TOWNSHIP 2024 CALENDAR

CERTIFICATION

We understand the importance of the 2024 Calendar to the residents, elected officials, and management of the Township of Abington and that nothing less than top-quality work will be accepted from us as printers.

We further understand and agree that the Township of Abington is not obligated to accept the lowest or any quotation, and that if we are the successful contractor, and if we fail to perform the contract as required, we will forfeit the performance bond, letter of credit or certified check in the amount of the contract as awarded by the Township.

Name of Company: THE HOMER GROUP

Street Address: 46 OF EGYPT RD

City: TROOPER State: PA Zip: 19403

Telephone #: (610) - 539 - 8400 Fax #: 610-539-8812

Signature: Guy Homer Date: 9/5/2023

Title: PRESIDENT

Contact Person: GUY HOMER

ABINGTON TOWNSHIP 2024 CALENDAR

AFFIDAVIT

(This Affidavit is part of the Proposal)

State of PA §

County of MONTGOMERY

THE HOMER GROUP, INC
(Typed Name)

being duly sworn, deposes and says that he or she reside at:

2605 EGYPT RD TRAPPER PA 19403
(Street, City, State, Zip)

that he or she is the PRESIDENT who signed the above proposal,
(Title)

that he or she is duly authorized to sign, and that the quote is the true offer of the printing company; that the seal attached is the seal of the printing company, and that all the declarations and statements contained in the quote are true to the best of his or her knowledge and belief.

Sworn to and Subscribed to before me this 5 day of September, 2023.

Commonwealth of Pennsylvania - Notary Seal
James E. Roberts, Notary Public
Montgomery County
My commission expires January 19, 2024
Commission number 1266659
Member, Pennsylvania Association of Notaries
(SEAL)

Signature Notary Public

1/19/24
My Commission Expires:

ABINGTON TOWNSHIP 2024 CALENDAR

NON-COLLUSION AFFIDAVIT

Job Title PRESIDENT

State of PA

§

County of MONTGOMERY

I state that I am GUY HOMER - PRESIDENT of THE HOMER GROUP
(Name and Title) (Name of Firm)

and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this quote.

I state that:

1. The price(s) and amount of this quote have been arrived at independently and without consultation, communication or agreement with any other contractor, contractor or potential contractor.

2. Neither the price(s) nor the amount of this quote and neither the approximate price(s) nor approximate amount of this quote, have been disclosed to any other firm or person who is a contractor or potential contractor, and they will not be disclosed before opening.

3. No attempt has been made or will be made to induce any firm or person to refrain from quoting on this contract, or to submit a quote higher than this quote, or to submit any intentionally high or noncompetitive quote or other form of complementary quote.

4. The quote of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive quote.

5. THE HOMER GROUP its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any government agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to quoting on any public contract, except as follows:
(Name of Firm)

ABINGTON TOWNSHIP 2024 CALENDAR

I state that THE HOMER GROUP, understands and
(Name of Firm)
acknowledges the above representations are material and important, and will be relied on by

Abington Township in awarding the contract(s) for which this quote is submitted. I
(Entity)

understand and my firm understands that any misstatement in this affidavit is and shall be treated

as fraudulent concealment from Abington Township of the true facts
(Name of Public Entity)

relating to the submission of quotes for this contract.

Signature

GUY HOMER - PRESIDENT
(Typed Name and Title)

Sworn to and subscribed to before me this 5 day of September, 2023.

Commonwealth of Pennsylvania - Notary Seal
James E. Roberts, Notary Public
Montgomery County
My commission expires January 19, 2024
Commission number 1266659
Member, Pennsylvania Association of Notaries

(SEAL)

Signature of Notary Public

1/19/24
My Commission Expires

ABINGTON TOWNSHIP 2024 CALENDAR

PERFORMANCE BOND

Know all men by these presents that we GUY HOMER, as Principal (the "Principal"), and THE HOMER GROUP, INC, a corporation organized and existing under the Laws of the State of Pennsylvania as Surety (the "Surety"), are held and firmly bound unto **Abington Township Montgomery County, Pennsylvania** as Obligee (the "Obligee"), as hereinafter set forth in the full and just sum of _____ Dollars ($_____)

Lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has by written agreement dated _____, 2023 (The "Proposal"), to perform certain work for the Obligee, pursuant to Plans, Specifications, and other related documents constituting the Contract Documents, which are incorporated into the Proposal by reference (the "Contract Documents"); and

Whereas, the Contract Documents require that, before an award shall be made to the Principal by the Obligee in accordance with the Proposal, the Principal shall furnish the Bond to the Obligee, with this Bond to become binding, upon the award of a contract to the Principal by the Obligee in accordance with the Proposal; and

Whereas, under the Contract Documents, it is provided, inter alia, that if the Principal shall furnish this Bond to the Obligee, and if the Obligee shall make an Award to the Principal in accordance with the Proposal, then the Principal and the Obligee shall enter into an agreement with respect to performance of such work (the "Agreement"), the form of which Agreement is set forth in the Contract documents.

Now, therefore, the terms and conditions of the Bond are and shall be that if; the Principal will, truly and faithfully shall comply with and shall perform the Agreement in accordance with the Contract Documents, at the time and in the manner provided in the Agreement and in the Contract Documents, and if the Principal shall satisfy all claims and demands incurred in or related to the performance of the Agreement by the Principal, or growing out of the performance of the Agreement by the Principal, and if the Principal shall indemnify completely and shall save harmless the Obligee and all of its officers, agents and employees from an damages, loss or

* CERTIFIED CHECK TO BE PROVIDED UPON ACCEPTANCE OF CONTRACT LIKE PRIOR YEARS.

injury, costs, charges, expenses, additional architectural charges and attorney's charges or engineering expenses which the Obligee and all of its officers, agents and employees may sustain or suffer by reason for the failure of the principal to do so, and if the Principal shall reimburse completely and shall pay to the Obligee any and all costs and expenses which the Obligee and all of its officers, agents and employees may incur by reason of any such default or failure of the Principal; and (b) if the Principal shall remedy without cost to the Obligee, all defects which may develop during the period of one (1) year from the date of completion by the Principal and acceptance of the Obligee of the work to be performed under the Agreement, in accordance with the Contract Documents, which defects, in the sole judgment of the Obligee or its legal successors in interest, shall be caused by or shall result from defective or inferior materials or workmanship, then this Bond shall be void; otherwise, this Bond shall be and shall remain in force and effect.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the work to be performed under the Agreement in accordance with the Contract Documents, and/or any alterations, changes and/or additions to the Agreement, and/or giving by the Obligee of any extensions of time for the performance of the Agreement in accordance with the Contract Documents, and/or any work of forbearance of either the Principal or the Obligee toward the other with respect to the Contract Documents and the Agreement, and/or the reduction of any percentage to be retained by the Obligee as permitted by the contract Documents and by the Agreement, shall not release, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors, and assigns, from liability and obligations under this bond; and the Surety, for value received, does not waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

Signed and Sealed This _____ Day of _____ A.D., 2023

_____ (SEAL)

Principal

In the presence of:

_____

Title

_____

Witness

_____

Witness

_____

Surety

_____

Title

ABINGTON TOWNSHIP 2024 CALENDAR

CONSENT OF SURETY

_____

Name of Insurance Company

_____

Address

duly qualified to transact business in the State of Pennsylvania, hereby agrees that if

_____

is the successful Contractor for

_____

as surety will provide the Contractor with such bonds in such amounts as are required in the advertisement and in the specifications.

Signed, sealed, and dated this _____ day of _____ 2023.

_____

Name of Insurance Company

_____

By (Title)

Note: Be sure to attach proof of power of attorney of current date.

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-03-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Administration		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

LD-21-06 - Rydal Park Medical Center Patio Final Escrow Release #1

EXECUTIVE SUMMARY:

The Land Development project has been satisfactorily completed and the developer is requesting a final escrow payment in the amount of $61,022.78. The developer is responsible for posting maintenance security in the amount of $7,721.29. The developer has requested that the maintenance security amount be deducted from the final escrow release of $61,022.78 and placed in a maintenance security account. Subsequently, the total released at this time will be $53,301.49.

PREVIOUS BOARD ACTIONS:

9-9-2021 - Land Development application was approved by the Board of Commissioners.

RECOMMENDED BOARD ACTIONS:

Motion to approve the release of Escrow No. 1 (Final) for Land Development -LD-21-06 - Rydal Park Medical Center Patio located at 1515 The Fairway, Jenkintwon, PA 19048 in the amount of $61,022.78 and accept maintenance security in the amount of $7,721.29 for a total release of $53,301.49.

Pennoni

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

www.pennoni.com

August 28, 2023

ABINT1600.21

Mr. Richard J. Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-21-06 – Rydal Park Medical Center Patio
Maintenance Security Review

Dear Mr. Manfredi,

We are in receipt of the Escrow release request dated August 17, 2023. This escrow release is for an escrow release request #1 (Final).

This project included improvements which will require a maintenance security at the completion of the project. Pursuant to the provisions of the Abington Township SALDO, Section 146-22.C.(1)-(4), for Maintenance Security, a fifteen percent (15%) maintenance security of the actual cost of installation for an eighteen (18)-month period following completion of the development is required by the developer.

Please find below the required fifteen percent (15%) maintenance security for site improvements for the above referenced project. Attached is a spreadsheet listing the site improvement escrow items that shall be included in the maintenance security.

Improvement Costs	Total Escrow Amount
$51,475.25	$7,721.29

Prior to the final release requested by the developer, this maintenance security must be posted for the eighteen (18)-month period beginning on August 17, 2023 through February 17, 2025.

If you have any questions or require any additional information, please do not hesitate to contact me.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

w/attachment

U:\ACCOUNTS\ABINT\ABINT1600 - ABINGTON SITE INSPECTIONS\ADMIN\PHASE 21 - LD-21-06 - RYDAL PARK MEDICAL CTR PATIO ADDITION\MAINTENANCE BOND\LD-21-06-RYDALPARKMEDICALCENTERPATIO.DOCX

Pennoni

DATE: 8/24/2023

LD-21-06 - RYDAL PARK MEDICAL CENTER PATIO		
Item	Description	Cost Estimate
A	1. Nyoplast Water Quality Drain Basin	$ 6,310.00
	2. 8" PVC (perforated) with stone and fabric	$ 9,050.00
B	1. Blue Fortune Anise Hyssop	$ 225.00
	2. Low Scape Mound Aronia	$ 8,352.00
	3. Blonde Ambition Blue Gamma	$ 208.50
	4. Snow Flurry Camelia	$ 1,320.00
	5. Ivory Sedge (24" - 30")	$ 1,251.00
	6. Eastern Redbud (7" - 8")	$ 2,655.00
	7. Blue Shadow Fothergilla	$ 2,025.00
	8. Common Rush	$ 417.00
	9. Emerald Centinel Red Cedar (7' - 8')*	$ 3,025.00
	10. Pocomoke Crepe Myrtle (24" - 30")	$ 1,764.00
	11. Rasberry Wine Eastern Beebalm	$ 450.00
	12. Vanderwolfs Pyramid Limber Pine (7' - 8')*	$ 3,258.75
	13. Tara Prairie Dropseed	$ 9,000.00
	14. Highbush Blueberry (30" - 36")	$ 564.00
	15. Topsoil	$ 600.00
	16. Seeding and Straw	$ 1,000.00

Total	$	**51,475.25**
15% MAINTENANCE BOND	$	**7,721.29**

* 4 Emerald Centenial Red Cedar (JVC) and 3 Vanderwolf's Pyramid Limber Pine (PVP) substituted with 3 Oak (2" - 2.5" Cal.), 3 Redbud (3" - 3.5" Cal.), and 3 Dogwood (3" - 3.5" Cal.) located elsewhere on Property

Pennoni

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

www.pennoni.com

August 28, 2023

ABINT1600.21

Mr. Richard J. Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-21-06 – Rydal Park Medical Center Patio
Escrow Release #1 (Final)

Dear Mr. Manfredi,

We have received an escrow release request dated August 17, 2023, last revised on August 22, 2023 for a reduction of escrow funds relating to the above referenced project. This is the first and final escrow release received under this land development project.

Under this Land Development application, the Applicant is proposing to remove approximately 650 SF of existing concrete sidewalk and construct a 2,600 SF patio and a water feature. As part of the construction of the patio and water feature, the Applicant is also proposing outdoor seating and outdoor grill/kitchen island. Stormwater management BMPs in the form of drain basins with water quality inserts and landscaping are also being provided.

Based on our field visit completed on July 14, 2023 and correspondences with the Applicant, we recommend the following release:

Original Construction Escrow Total	$	61,022.78
Construction Escrow Released Prior to this Request	$	0.00
Balance Prior to This Release	$	61,022.78
Recommended Amount This Release	**$**	**61,022.78**
Total Construction Escrow Balance Remaining After This Release	$	0.00

Enclosed, you will find the Summary of Construction Cost Breakdown. Please note that this escrow release is contingent upon the Applicant meeting its full payment obligations for all outstanding invoices and posting of the maintenance security amount as required by the land development agreement.

Should you have any questions, please feel free to contact me at (610) 422-2499.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

U:\ACCOUNTS\ABINT\ABINT1600 - ABINGTON SITE INSPECTIONS\ADMIN\PHASE 21 - LD-21-06 - RYDAL PARK MEDICAL CTR PATIO ADDITION\ESCROW RELEASES\RELEASE #1\1- COVER LETTER EX.DOCX

LD-21-06 - Rydal Park Medical Center Patio
Abington Township, Montgomery County, Pennsylvania

RELEASE NO.: 1 (Final)
REQUEST DATE: 8/17/2023
REVISED DATE: 8/24/2023

CONSTRUCTION TOTAL: $ 55,475.25
10% CONTINGENCY: $ 5,547.53
ESCROW TOTAL: $ 61,022.78

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST	CURRENT RELEASE QUANTITY	CURRENT RELEASE COST	RELEASED TO DATE (INCL. CURRENT RELEASE) QUANTITY	RELEASED TO DATE (INCL. CURRENT RELEASE) COST	ESCROW REMAINING QUANTITY	ESCROW REMAINING COST	PERCENT COMPLETE
STORM SEWER											
Nyoplast Water Quality Drain Basin	5	EA	$ 1,262.00	$ 6,310.00	5	$ 6,310.00	5	$ 6,310.00	-	$ -	100%
8" PVC (perforated) with stone and fabric	50	LF	$ 181.00	$ 9,050.00	50	$ 9,050.00	50	$ 9,050.00	-	$ -	100%
			Subtotal:	**$ 15,360.00**		**$ 15,360.00**		**$ 15,360.00**		$ -	100%
LANDSCAPE											
Blue Fortune Anise Hyssop	10	EA	$ 22.50	$ 225.00	10	$ 225.00	10	$ 225.00	-	$ -	100%
Low Scape Mound Aronia	58	EA	$ 144.00	$ 8,352.00	58	$ 8,352.00	58	$ 8,352.00	-	$ -	100%
Blonde Ambition Blue Gamma	10	EA	$ 20.85	$ 208.50	10	$ 208.50	10	$ 208.50	-	$ -	100%
Snow Flurry Camelia	4	EA	$ 330.00	$ 1,320.00	4	$ 1,320.00	4	$ 1,320.00	-	$ -	100%
Ivory Sedge (24" - 30")	60	EA	$ 20.85	$ 1,251.00	60	$ 1,251.00	60	$ 1,251.00	-	$ -	100%
Eastern Redbud (7" - 8")	3	EA	$ 885.00	$ 2,655.00	3	$ 2,655.00	3	$ 2,655.00	-	$ -	100%
Blue Shadow Fothergilla	15	EA	$ 135.00	$ 2,025.00	15	$ 2,025.00	15	$ 2,025.00	-	$ -	100%
Common Rush	20	EA	$ 20.85	$ 417.00	20	$ 417.00	20	$ 417.00	-	$ -	100%
Emerald Centenial Red Cedar (7' - 8')*	4	EA	$ 756.25	$ 3,025.00	4	$ 3,025.00	4	$ 3,025.00	-	$ -	100%
Pocomoke Crepe Myrtle (24" - 30")	14	EA	$ 126.00	$ 1,764.00	14	$ 1,764.00	14	$ 1,764.00	-	$ -	100%
Rasberry Wine Eastern Beebalm	20	EA	$ 22.50	$ 450.00	20	$ 450.00	20	$ 450.00	-	$ -	100%
Vanderwolfs Pyramid Limber Pine (7' - 8')*	3	EA	$ 1,086.25	$ 3,258.75	3	$ 3,258.75	3	$ 3,258.75	-	$ -	100%
Tara Prairie Dropseed	400	EA	$ 22.50	$ 9,000.00	400	$ 9,000.00	400	$ 9,000.00	-	$ -	100%
Highblush Blueberry (30" - 36")	6	EA	$ 94.00	$ 564.00	6	$ 564.00	6	$ 564.00	-	$ -	100%
Topsoil	20	CY	$ 30.00	$ 600.00	20	$ 600.00	20	$ 600.00	-	$ -	100%
Seeding and Straw	1	LS	$ 1,000.00	$ 1,000.00	1	$ 1,000.00	1	$ 1,000.00	-	$ -	100%
			Subtotal:	**$ 36,115.25**		**$ 36,115.25**		**$ 36,115.25**		$ -	100%
MISCELLANEOUS											
As-Built Plan	1	LS	$ 4,000.00	$ 4,000.00	1	$ 4,000.00	1	$ 4,000.00	-	$ -	100%
			Subtotal:	**$ 4,000.00**		**$ 4,000.00**		**$ 4,000.00**		$ -	100%
			SUBTOTAL:	**$ 55,475.25**		**$ 55,475.25**		**$ 55,475.25**		$ -	100%
			10% CONTINGENCY:	**$ 5,547.53**		**$ 5,547.53**		**$ 5,547.53**		$ -	100%
			GRAND TOTAL ESCROWED:	**$ 61,022.78**		**$ 61,022.78**		**$ 61,022.78**		$ -	100%

* 4 Emerald Centenial Red Cedar (JVC) and 3 Vanderwolf's Pyramid Limber Pine (PVP) substituted with 3 Oak (2" - 2.5" Cal.), 3 Redbud (3" - 3.5" Cal.), and 3 Dogwood (3" - 3.5" Cal.) located elsewhere on Property

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-04-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Administration		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Abington Terrace, LLC - Abington CHOP & YMCA Final Escrow Release No. 2

EXECUTIVE SUMMARY:

The Land Development project has been satisfactorily completed and the developer is requesting a final escrow payment in the amount of $280,183.54. A maintenance security bond was posted in the amount of $104,241.72 on September 19, 2023.

PREVIOUS BOARD ACTIONS:

07-11-19 - LD-19-07 approved by the Board of Commissioners
09-09-21 - Release of Escrow No 1 approved by the Board of Commissioners

RECOMMENDED BOARD ACTIONS:

Motion to approve the release of Escrow No. 2 (Final) on the Land Development - LD-19-07 - Abington Terrace, LLC - Abington CHOP & YMCA Project located at 1059, 1067 and 1073 Old York Road in the amount of $280,183.54.

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

www.pennoni.com

September 19, 2023

ABINT1600.02

Mr. Richard J. Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-19-07 – Abington Terrace, LLC – Abington CHOP & YMCA
1059, 1067 & 1073 Old York Road
Escrow Release No. 2 (FINAL)

Dear Mr. Manfredi,

We have received an escrow release request No. 2 (FINAL) on September 5, 2023 for a reduction of escrowed funds relating to the above referenced project.

Based on our field visits on May 3, 2023 and August 31, 2023, and correspondences with the contractor and Township staff, we recommend the following release:

Original Construction Escrow Total	$ 1,822,678.52
Construction Escrow Released Prior to this Request	$ 1,542,494.98
Balance Prior to This Release	$280,183.54
Recommended Amount This Release	**$ 280,183.54**
Total Construction Escrow Balance Remaining After This Release	$ 0.00

Enclosed, you will find the Summary of Construction Cost Breakdown. Please note that this escrow release is contingent upon the Applicant meeting its full payment obligations for all outstanding invoices and posting of the maintenance security amount as required by the land development agreement.

Should you have any questions, please feel free to contact me at (610) 422-2499.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

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ESCROW STATUS REPORT

PROJECT NAME: Abington Terrace - CHOP Abington

PROJECT NUMBER: LD-19-07 - ABINT1600.02

PROJECT SPONSOR: Abington Terrace, LLC

MUNICIPALITY: Abington Township

ESCROW AGENT:

TYPE OF SECURITY:

AGREEMENT DATE:

SUMMARY OF ESCROW ACCOUNT

TOTAL CONSTRUCTION (100%) =	$	1,584,937.84
CONTINGENCY (10%) =	$	158,493.78
INSPECTION & ADMINISTRATION (5%) =	$	79,246.89
GRAND TOTAL ESCROWED =	**$**	**1,822,678.52**

RELEASE NO.: 2 (FINAL)

REQUEST DATE: 9/1/2023

AMOUNT OF CURRENT CONST. RELEASE =	$ 115,895.00
AMOUNT OF CONTINGENCY RELEASE =	$ 158,493.78
AMOUNT OF INSPECTION AND ADMINISTRATION RELEASE =	$ 5,794.75
AMOUNT OF CURRENT TOTAL RELEASE =	$ 280,183.54
TOTAL OF CONST. RELEASES TO DATE =	$ 1,584,937.84
CONSTRUCTION ESCROW REMAINING =	$ -
TOTAL SURETY AMOUNT REMAINING =	$ -
CONSTRUCTION COMPLETION =	100%

ESCROW TABULATION					CURRENT ESCROW RELEASE		ESCROW RELEASED TO DATE (INCL. CURRENT REQUEST)		ESCROW REMAINING (AFTER CURRENT REQUEST)		PERCENT (%) COMPLETE
CONSTRUCTION ITEMS / ITEM DESCRIPTION	U.M.	QTY	UNIT PRICE	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	%
I. EROSION & SEDIMENT CONTROL											
ROCK CONSTRUCTION ENTRANCE	SY	150	$ 17.06	$ 2,559.00		$ -	150	$ 2,559.00	0	$ -	100%
24" CONCRETE WASHOUT	LF	40	$ 57.19	$ 2,287.60		$ -	40	$ 2,287.60	0	$ -	100%
18" DIAMETER SILT SOCK	LF	1,090	$ 8.00	$ 8,720.00		$ -	1,090	$ 8,720.00	0	$ -	100%
24" DIAMETER SILT SOCK	LF	453	$ 12.00	$ 5,436.00		$ -	453	$ 5,436.00	0	$ -	100%
EROSION CONTROL BLANKET - SC 150	SF	15,600	$ 0.35	$ 5,460.00		$ -	15,600	$ 5,460.00	0	$ -	100%
EROSION CONTROL BLANKET - SC 250	LF	408	$ 1.00	$ 408.00		$ -	408	$ 408.00	0	$ -	100%
INLET PROTECTION	EA	12	$ 141.70	$ 1,700.40		$ -	12	$ 1,700.40	0	$ -	100%
INLET CAP	EA	5	$ 527.28	$ 2,636.40		$ -	5	$ 2,636.40	0	$ -	100%
TEMPORARY BASIN RISERS	EA	2	$ 3,376.42	$ 6,752.84		$ -	2	$ 6,752.84	0	$ -	100%
BAFFLE WALLS	LF	150	$ 19.55	$ 2,932.50		$ -	150	$ 2,932.50	0	$ -	100%
TEMPORARY 12" HDPE	LF	35	$ 28.23	$ 988.05		$ -	35	$ 988.05	0	$ -	100%
TEMPORARILY STABILIZE SITE STOCKPILE	LS	1	$ 1,700.00	$ 1,700.00		$ -	1	$ 1,700.00	0	$ -	100%
TEMPORARILY STABILIZE GREEN SPACE	SF	70,000	$ 0.05	$ 3,500.00		$ -	70,000	$ 3,500.00	0	$ -	100%
E&S REMOVAL	LS	1	$ 7,610.99	$ 7,610.99		$ -	1	$ 7,610.99	0	$ -	100%
RIPRAP WITH STONE GEO-FABRIC	EA	4	$ 750.00	$ 3,000.00		$ -	4	$ 3,000.00	0	$ -	100%
INLET SNOUT	EA	3	$ 800.00	$ 2,400.00		$ -	3	$ 2,400.00	0	$ -	100%
SUBTOTAL ITEM I				**$ 58,091.78**		**$ -**		**$ 58,091.78**		**$ -**	100%
II. SITE CLEARING AND DEMOLITION											
TREE AND STUMP REMOVAL	LS	1	$ 25,875.00	$ 25,875.00		$ -	1	$ 25,875.00	0	$ -	100%
DEMO EXISTING MASONRY BUILDINGS	LS	1	$ 30,000.00	$ 30,000.00		$ -	1	$ 30,000.00	0	$ -	100%
REMOVE CONCRETE CURB	LF	2,621	$ 2.00	$ 5,242.00		$ -	2,621	$ 5,242.00	0	$ -	100%
REMOVE FENCE	LF	725	$ 5.00	$ 3,625.00		$ -	725	$ 3,625.00	0	$ -	100%
REMOVE STONE WALL	LS	1	$ 5,000.00	$ 5,000.00		$ -	1	$ 5,000.00	0	$ -	100%
REMOVE ASPHALT PAVEMENT	SF	66,000	$ 0.50	$ 33,000.00		$ -	66,000	$ 33,000.00	0	$ -	100%
REMOVE LIGHT FIXTURES	EA	11	$ 250.00	$ 2,750.00		$ -	11	$ 2,750.00	0	$ -	100%
REMOVE STONE/PAVER WALKWAY	SF	1,751	$ 0.50	$ 875.50		$ -	1,751	$ 875.50	0	$ -	100%
REMOVE SITE SIGNAGE	LS	1	$ 500.00	$ 500.00		$ -	1	$ 500.00	0	$ -	100%

ESCROW STATUS REPORT

PROJECT NAME: Abington Terrace - CHOP Abington

PROJECT NUMBER: LD-19-07 - ABINT1600.02

PROJECT SPONSOR: Abington Terrace, LLC

MUNICIPALITY: Abington Township

ESCROW AGENT:

TYPE OF SECURITY:

AGREEMENT DATE:

SUMMARY OF ESCROW ACCOUNT

TOTAL CONSTRUCTION (100%) =	$	1,584,937.84
CONTINGENCY (10%) =	$	158,493.78
INSPECTION & ADMINISTRATION (5%) =	$	79,246.89
GRAND TOTAL ESCROWED =	**$**	**1,822,678.52**

RELEASE NO.: 2 (FINAL)

REQUEST DATE: 9/1/2023

AMOUNT OF CURRENT CONST. RELEASE =	$	115,895.00
AMOUNT OF CONTINGENCY RELEASE =	$	158,493.78
AMOUNT OF INSPECTION AND ADMINISTRATION RELEASE =	$	5,794.75
AMOUNT OF CURRENT TOTAL RELEASE =	$	280,183.54
TOTAL OF CONST. RELEASES TO DATE =	$	1,584,937.84
CONSTRUCTION ESCROW REMAINING =	$	-
TOTAL SURETY AMOUNT REMAINING =	$	-
CONSTRUCTION COMPLETION =		100%

ESCROW TABULATION					CURRENT ESCROW RELEASE		ESCROW RELEASED TO DATE (INCL. CURRENT REQUEST)		ESCROW REMAINING (AFTER CURRENT REQUEST)		PERCENT (%) COMPLETE
CONSTRUCTION ITEMS / ITEM DESCRIPTION	U.M.	QTY	UNIT PRICE	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	%
REMOVE UNDERGROUND UTILITIES	LS	1	$ 10,000.00	$ 10,000.00		$ -	1	$ 10,000.00	0	$ -	100%
SITE GRADING, CUT/FILL	LS	1	$ 20,000.00	$ 20,000.00		$ -	1	$ 20,000.00	0	$ -	100%
SUBTOTAL ITEM II				**$ 136,867.50**		**$ -**		**$ 136,867.50**		**$ -**	100%
III. SANITARY SEWER											
6" PVC (6'-10' DEEP)	LF	267	$ 52.00	$ 13,884.00		$ -	267	$ 13,884.00	0	$ -	100%
8" PVC (6'-10' DEEP)	LF	713	$ 57.00	$ 40,641.00		$ -	713	$ 40,641.00	0	$ -	100%
4' DIAMETER MANHOLE (0'-8' DEEP)	EA	2	$ 2,650.00	$ 5,300.00		$ -	2	$ 5,300.00	0	$ -	100%
4' DIAMETER MANHOLE (8'-12' DEEP)	EA	2	$ 3,100.00	$ 6,200.00		$ -	2	$ 6,200.00	0	$ -	100%
CLEANOUT	EA	2	$ 419.61	$ 839.22		$ -	2	$ 839.22	0	$ -	100%
CORE DRILL/TIE INTO EXISTING MANHOLE COMPLETE	EA	1	$ 4,365.85	$ 4,365.85		$ -	1	$ 4,365.85	0	$ -	100%
SEWER TESTING	LS	1	$ 2,500.00	$ 2,500.00		$ -	1	$ 2,500.00	0	$ -	100%
SUB-TOTAL ITEM III				**$ 73,730.07**		**$ -**		**$ 73,730.07**		**$ -**	100%
IV. STORM SEWER											
12" HDPE (0-6' DEEP)	LF	33	$ 28.23	$ 931.59		$ -	33	$ 931.59	0	$ -	100%
15" HDPE (0-6' DEEP)	LF	128	$ 33.04	$ 4,229.12		$ -	128	$ 4,229.12	0	$ -	100%
15" HDPE (6'-10' DEEP)	LF	403	$ 35.04	$ 14,121.12		$ -	403	$ 14,121.12	0	$ -	100%
15" HDPE (10'-15' DEEP)	LF	466	$ 43.04	$ 20,056.64		$ -	466	$ 20,056.64	0	$ -	100%
15" RCP (0-6' DEEP)	LF	24	$ 44.44	$ 1,066.56		$ -	24	$ 1,066.56	0	$ -	100%
15" RCP (6'-10' DEEP)	LF	73	$ 46.44	$ 3,390.12		$ -	73	$ 3,390.12	0	$ -	100%
STORM MANHOLES (0-6' DEEP)	EA	1	$ 2,334.60	$ 2,334.60		$ -	1	$ 2,334.60	0	$ -	100%
STORM MANHOLES (6'-10' DEEP)	EA	3	$ 2,834.60	$ 8,503.80		$ -	3	$ 8,503.80	0	$ -	100%
STORM MANHOLES (10'-15' DEEP)	EA	4	$ 3,609.60	$ 14,438.40		$ -	4	$ 14,438.40	0	$ -	100%
C INLETS (0-6' DEEP)	EA	3	$ 2,123.11	$ 6,369.33		$ -	3	$ 6,369.33	0	$ -	100%
C INLETS (6'-10' DEEP)	EA	2	$ 2,773.11	$ 5,546.22		$ -	2	$ 5,546.22	0	$ -	100%
M INLETS (0-6' DEEP)	EA	2	$ 2,148.11	$ 4,296.22		$ -	2	$ 4,296.22	0	$ -	100%
M INLETS (6'-10' DEEP)	EA	1	$ 2,798.11	$ 2,798.11		$ -	1	$ 2,798.11	0	$ -	100%
YARD DRAINS	EA	3	$ 1,704.65	$ 5,113.95		$ -	3	$ 5,113.95	0	$ -	100%
TIE INTO EXISTING INLET/MANHOLE COMPLETE	EA	1	$ 3,182.05	$ 3,182.05		$ -	1	$ 3,182.05	0	$ -	100%
SUB-TOTAL ITEM IV				**$ 96,377.83**		**$ -**		**$ 96,377.83**		**$ -**	100%
V. STORM SEWER MANAGEMENT											
OUTLET STRUCTURES	EA	4	$ 4,938.73	$ 19,754.92		$ -	4	$ 19,754.92	0	$ -	100%
ANTI SEEP COLLARS	EA	6	$ 714.67	$ 4,288.02		$ -	6	$ 4,288.02	0	$ -	100%
4" PVC	LF	46	$ 22.00	$ 1,012.00		$ -	46	$ 1,012.00	0	$ -	100%
8" PVC	LF	120	$ 29.25	$ 3,510.00		$ -	120	$ 3,510.00	0	$ -	100%
15" CONCRETE HEADWALL	EA	1	$ 1,524.33	$ 1,524.33		$ -	1	$ 1,524.33	0	$ -	100%
UNDERGROUND BASIN #1	LS	1	$ 146,096.75	$ 146,096.75		$ -	1	$ 146,096.75	0	$ -	100%
UNDERGROUND BASIN #2	LS	1	$ 89,071.83	$ 89,071.83		$ -	1	$ 89,071.83	0	$ -	100%
SUB-TOTAL ITEM V				**$ 265,257.85**		**$ -**		**$ 265,257.85**		**$ -**	**100%**

ESCROW STATUS REPORT

PROJECT NAME: Abington Terrace - CHOP Abington

PROJECT NUMBER: LD-19-07 - ABINT1600.02

PROJECT SPONSOR: Abington Terrace, LLC

MUNICIPALITY: Abington Township

ESCROW AGENT:

TYPE OF SECURITY:

AGREEMENT DATE:

SUMMARY OF ESCROW ACCOUNT

TOTAL CONSTRUCTION (100%) =	$	1,584,937.84
CONTINGENCY (10%) =	$	158,493.78
INSPECTION & ADMINISTRATION (5%) =	$	79,246.89
GRAND TOTAL ESCROWED =	**$**	**1,822,678.52**

RELEASE NO.: 2 (FINAL)

REQUEST DATE: 9/1/2023

AMOUNT OF CURRENT CONST. RELEASE =	$	115,895.00
AMOUNT OF CONTINGENCY RELEASE =	$	158,493.78
AMOUNT OF INSPECTION AND ADMINISTRATION RELEASE =	$	5,794.75
AMOUNT OF CURRENT TOTAL RELEASE =	$	280,183.54
TOTAL OF CONST. RELEASES TO DATE =	$	1,584,937.84
CONSTRUCTION ESCROW REMAINING =	$	-
TOTAL SURETY AMOUNT REMAINING =	$	-
CONSTRUCTION COMPLETION =		100%

ESCROW TABULATION					CURRENT ESCROW RELEASE		ESCROW RELEASED TO DATE (INCL. CURRENT REQUEST)		ESCROW REMAINING (AFTER CURRENT REQUEST)		PERCENT (%) COMPLETE
CONSTRUCTION ITEMS / ITEM DESCRIPTION	U.M.	QTY	UNIT PRICE	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	%
VI. SEDIMENT TRAP CONVERSION											
DEWATER	LS	1	$ 5,394.28	$ 5,394.28		$ -	1	$ 5,394.28	0	$ -	100%
DESILT	CY	180	$ 54.38	$ 9,788.40		$ -	180	$ 9,788.40	0	$ -	100%
EXCAVATE TO RG BOTTOM (-2')	CY	960	$ 37.50	$ 36,000.00		$ -	960	$ 36,000.00	0	$ -	100%
4" UNDERDRAIN	LF	300	$ 24.84	$ 7,452.00		$ -	300	$ 7,452.00	0	$ -	100%
DECOMPACT RG BOTTOMS	SF	13,000	$ 0.12	$ 1,560.00		$ -	13,000	$ 1,560.00	0	$ -	100%
INSTALL RG MIX	CY	600	$ 67.18	$ 40,308.00		$ -	600	$ 40,308.00	0	$ -	100%
ROUGH GRADE RG	SF	13,000	$ 0.13	$ 1,690.00		$ -	13,000	$ 1,690.00	0	$ -	100%
INSTALL RIP RAP R-4 CHANNELS	TON	132	$ 56.04	$ 7,397.28		$ -	132	$ 7,397.28	0	$ -	100%
TEMPORARY STABILIZATION	LS	1	$ 1,380.00	$ 1,380.00		$ -	1	$ 1,380.00	0	$ -	100%
REMOVE TEMPORARY E&S MEASURES	LS	1	$ 1,787.68	$ 1,787.68		$ -	1	$ 1,787.68	0	$ -	100%
MODIFY OUTLET STRUCTURES	EA	2	$ 816.79	$ 1,633.58		$ -	2	$ 1,633.58	0	$ -	100%
SUB-TOTAL ITEM VI				**$ 114,391.22**		**$ -**		**$ 114,391.22**		**$ -**	**100%**
VII. CONCRETE CURB											
CONCRETE CURB	LF	4,028	$ 17.10	$ 68,878.80		$ -	4,028	$ 68,878.80	0	$ -	100%
DEPRESSED CURB	LF	18	$ 10.00	$ 180.00		$ -	18	$ 180.00	0	$ -	100%
SUB-TOTAL ITEM VII				**$ 69,058.80**		**$ -**		**$ 69,058.80**		**$ -**	**100%**
VIII. PAVING											
1.5" WEARING COURSE	SY	8,554	$ 9.29	$ 79,466.66		$ -	8,554	$ 79,466.66	0	$ -	100%
2.5" BINDER COURSE	SY	8,554	$ 14.50	$ 124,033.00		$ -	8,554	$ 124,033.00	0	$ -	100%
6" 2A PADOT STONE SUBBASE	SY	8,554	$ 12.00	$ 102,648.00		$ -	8,554	$ 102,648.00	0	$ -	100%
CLEAN AND TACK	SY	8,554	$ 0.75	$ 6,415.50		$ -	8,554	$ 6,415.50	0	$ -	100%
SEAL CURBLINES	LF	4,028	$ 0.70	$ 2,819.60		$ -	4,028	$ 2,819.60	0	$ -	100%
SUB-TOTAL ITEM VIII				**$ 315,382.76**		**$ -**		**$ 315,382.76**		**$ -**	**100%**
IX. STRIPING AND SIGNAGE											
4" EPOXY STRIPING	LF	3,899	$ 0.35	$ 1,364.65		$ -	3,899	$ 1,364.65	0	$ -	100%
24" WIDE THERMOPLASTIC STRIPING	LF	275	$ 2.00	$ 550.00		$ -	275	$ 550.00	0	$ -	100%
PAINTED STOP BARS	EA	9	$ 100.00	$ 900.00		$ -	9	$ 900.00	0	$ -	100%
PAINTED HANDICAP SYMBOLS	EA	8	$ 125.00	$ 1,000.00		$ -	8	$ 1,000.00	0	$ -	100%
HANDICAP PARKING SIGNS	EA	8	$ 225.00	$ 1,800.00		$ -	8	$ 1,800.00	0	$ -	100%
TRAFFIC CONTROL SIGNS	EA	30	$ 230.00	$ 6,900.00		$ -	30	$ 6,900.00	0	$ -	100%
SUB-TOTAL ITEM IX				**$ 12,514.65**		**$ -**		**$ 12,514.65**		**$ -**	**100%**

ESCROW STATUS REPORT

PROJECT NAME: Abington Terrace - CHOP Abington

PROJECT NUMBER: LD-19-07 - ABINT1600.02

PROJECT SPONSOR: Abington Terrace, LLC

MUNICIPALITY: Abington Township

ESCROW AGENT:

TYPE OF SECURITY:

AGREEMENT DATE:

SUMMARY OF ESCROW ACCOUNT

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CONTINGENCY (10%) =	$	158,493.78
INSPECTION & ADMINISTRATION (5%) =	$	79,246.89
GRAND TOTAL ESCROWED =	**$**	**1,822,678.52**

RELEASE NO.: 2 (FINAL)

REQUEST DATE: 9/1/2023

AMOUNT OF CURRENT CONST. RELEASE =	$	115,895.00
AMOUNT OF CONTINGENCY RELEASE =	$	158,493.78
AMOUNT OF INSPECTION AND ADMINISTRATION RELEASE =	$	5,794.75
AMOUNT OF CURRENT TOTAL RELEASE =	$	280,183.54
TOTAL OF CONST. RELEASES TO DATE =	$	1,584,937.84
CONSTRUCTION ESCROW REMAINING =	$	-
TOTAL SURETY AMOUNT REMAINING =	$	-
CONSTRUCTION COMPLETION =		100%

ESCROW TABULATION					CURRENT ESCROW RELEASE		ESCROW RELEASED TO DATE (INCL. CURRENT REQUEST)		ESCROW REMAINING (AFTER CURRENT REQUEST)		PERCENT (%) COMPLETE
CONSTRUCTION ITEMS / ITEM DESCRIPTION	U.M.	QTY	UNIT PRICE	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	QTY	TOTAL AMOUNT	%
X. LANDSCAPING											
SHADE TREE (2 1/2" - 3" CALIPER)	EA	124	$ 400.00	$ 49,600.00	124	$ 49,600.00	124	$ 49,600.00	0	$ -	100%
EVERGREEN TREE (7'-8')	EA	77	$ 350.00	$ 26,950.00	77	$ 26,950.00	77	$ 26,950.00	0	$ -	100%
ORNAMENTAL TREE (2" - 2 1/2" CALIPER OR 8-10')	EA	39	$ 350.00	$ 13,650.00	39	$ 13,650.00	39	$ 13,650.00	0	$ -	100%
EVERGREEN SHRUBS DECIDUOUS SHRUBS (24" - 30")	EA	178	$ 65.00	$ 11,570.00	178	$ 11,570.00	178	$ 11,570.00	0	$ -	100%
EVERGREEN SHRUBS DECIDUOUS SHRUBS (30" - 36")	EA	27	$ 70.00	$ 1,890.00	27	$ 1,890.00	27	$ 1,890.00	0	$ -	100%
EVERGREEN SHRUBS DECIDUOUS SHRUBS (2' - 4')	EA	74	$ 85.00	$ 6,290.00	74	$ 6,290.00	74	$ 6,290.00	0	$ -	100%
GROUNDCOVER SHRUBS (15" - 18" SPREAD)	EA	27	$ 35.00	$ 945.00	27	$ 945.00	27	$ 945.00	0	$ -	100%
TOPSOIL, SEED, AND MULCH	LS	1	$ 5,000.00	$ 5,000.00	1	$ 5,000.00	1	$ 5,000.00	0	$ -	100%
SUB-TOTAL ITEM X				**$ 115,895.00**		**$ 115,895.00**		**$ 115,895.00**		**$ -**	**100%**
XI. LIGHTING											
SINGLE LED SETUP W/ 30" EXPOSED FOUNDATION (25' MOUNTING)	TONS	23	$ 3,400.00	$ 78,200.00		$ -	23	$ 78,200.00	0	$ -	100%
DOUBLE LED SETUP W/ 30" EXPOSED FOUNDATION (25' MOUNTING)	LF	2	$ 4,600.00	$ 9,200.00		$ -	2	$ 9,200.00	0	$ -	100%
SUB-TOTAL ITEM XI				**$ 87,400.00**		**$ -**		**$ 87,400.00**		**$ -**	**100%**
XII. MISCELLANEOUS											
CONCRETE BOLLARDS	EA	29	$ 747.50	$ 21,677.50		$ -	29	$ 21,677.50	0	$ -	100%
RETAINING WALL	SF	277	$ 35.00	$ 9,695.00		$ -	277	$ 9,695.00	0	$ -	100%
HANDICAP RAMPS	EA	8	$ 400.00	$ 3,200.00		$ -	8	$ 3,200.00	0	$ -	100%
HANDICAP RAILINGS	LF	142	$ 12.00	$ 1,704.00		$ -	142	$ 1,704.00	0	$ -	100%
4" CONCRETE SIDEWALK	SF	10,855	$ 12.00	$ 130,260.00		$ -	10,855	$ 130,260.00	0	$ -	100%
6" CONCRETE APRONS	SF	1,348	$ 15.00	$ 20,220.00		$ -	1,348	$ 20,220.00	0	$ -	100%
SPEED TABLE	EA	2	$ 3,200.00	$ 6,400.00		$ -	2	$ 6,400.00	0	$ -	100%
4' HIGH BLACK ALUMINUM FENCE	LF	337	$ 63.71	$ 21,470.27		$ -	337	$ 21,470.27	0	$ -	100%
4' VINYL SPLIT RAIL FENCE	LF	673	$ 20.57	$ 13,843.61		$ -	673	$ 13,843.61	0	$ -	100%
CONCRETE MONUMENT	EA	6	$ 250.00	$ 1,500.00		$ -	6	$ 1,500.00	0	$ -	100%
AS-BUILT SURVEY & PLANS	LS	1	$ 10,000.00	$ 10,000.00		$ -	1	$ 10,000.00	0	$ -	100%
SUB-TOTAL ITEM XII				**$ 239,970.38**		**$ -**		**$ 239,970.38**		**$ -**	**100%**
TOTAL IMPROVEMENTS (SUB-TOTAL ITEMS I - XII)				**$ 1,584,937.84**		**$ 115,895.00**		**$ 1,584,937.84**		**$ -**	**100%**
CONTINGENCY (10%)				$ 158,493.78		$ 158,493.78		$ 158,493.78		$ -	100%
INSPECTION AND ADMINISTRATION (5%)				$ 79,246.89		$ 5,794.75		$ 79,246.89		$ -	100%
TOTAL SURETY AMOUNT				**$ 1,822,678.52**		**$ 280,183.54**		**$ 1,822,678.52**		**$ -**	**100%**

SUBMITTED: MM OWNER/DEVELOPER 9/5/23 DATE

RECOMMENDED FOR RELEASE: Khaled Hassan PENNONI ASSOCIATES, INC. 9/19/23 DATE

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

www.pennoni.com

September 19, 2023

ABINT1600.02

Mr. Richard J. Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-19-07 – CHOP Abington (Abington Terrace, LLC)
1059, 1067 & 1073 Old York Road
Maintenance Security Review

Dear Mr. Manfredi,

We are in receipt of the Escrow release request dated September 1, 2023, and received on September 5, 2023. This escrow release is for an escrow release request #2(Final) totaling $280,183.54.

This project included improvements which will require a maintenance security at the completion of the project. Pursuant to the provisions of the Abington Township SALDO, Section 146-22.C.(1)-(4), for Maintenance Security, a fifteen percent (15%) maintenance security of the actual cost of installation for an eighteen (18)-month period following completion of the development is required by the developer.

Please find below the required fifteen percent (15%) maintenance security for site improvements for the above referenced project. Attached is a spreadsheet listing the site improvement escrow items that shall be included in the maintenance security.

Public Improvement Costs	Total Escrow Amount
$694,944.81	$104,241.72

Prior to the final release requested by the developer, this maintenance security must be posted for the eighteen (18)-month period beginning on August 30, 2023 through April 30, 2025.

If you have any questions or require any additional information, please do not hesitate to contact me.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

w/attachment

Pennoni

DATE: 9/15/2023

LD-19-07 - ABINGTON CHOP MAINTENANCE SECURITY CALCULATION	
Description	Cost Estimate
III. SANITARY SEWER	
8" PVC (6'-10' DEEP)	$ 456.00
CORE DRILL/ TIE INTO EXISTING MANHOLE COMPLETE	$ 4,365.85
IV. STORM SEWER	
12" HDPE (0-6' DEEP)	$ 931.59
15" HDPE (0-6' DEEP)	$ 4,229.12
15" HDPE (6'-10' DEEP)	$ 14,121.12
15" HDPE (10'-15' DEEP)	$ 20,056.64
15" RCP (0-6' DEEP)	$ 1,066.56
15" RCP (6'-10' DEEP)	$ 3,390.12
STORM MANHOLES (0-6' DEEP)	$ 2,334.60
STORM MANHOLES (6'-10' DEEP)	$ 8,503.80
STORM MANHOLES (10'-15' DEEP)	$ 14,438.40
C INLETS (0-6' DEEP)	$ 6,369.33
C INLETS (6'-10' DEEP)	$ 5,546.22
M INLETS (0-6' DEEP)	$ 4,296.22
M INLETS (6'-10' DEEP)	$ 2,798.11
YARD RAINS	$ 5,113.95
TIE INTO EXISTING INLET/MANHOLE COMPLETE	$ 3,182.05
V. STORM SEWER MANAGEMENT	
OUTLET STRUCTURES	$ 19,754.92
ANTI SEEP COLLARS	$ 4,288.02
4" PV	$ 1,012.00
8" PVC (6'-10' DEEP)	$ 3,510.00
15" CONCRETE HEADWALL	$ 1,524.33
UNDERGROUND BASIN#1	$ 146,096.75
UNDERGROUND BASIN#2	$ 89,071.83
VI. SEDIMENT TRAP CONVERSION	
4" UNDERDRAIN	$ 7,452.00
INSTALL RG MIX	$ 40,308.00
INSTALL RIP RAP R-4 CHANNELS	$ 7,397.28
VII. CONCRETE CURB	
CONCRETE CURB	$ 11,000.00
DEPRESSED CURB	$ 180.00
VIII. PAVING	
1.5" WEARING COURSE	$ 5,000.00
2.5" BINDER COURSE	$ 7,800.00
6" 2A PADOT STONE SUBBASE	$ 6,500.00
CLEAN AND TACK	$ 405.00
SEAL CURBLINES	$ 450.00
X. LANDSCAPING	
SHADE TREE (2 1/2"-3" CALIPER)	$ 49,600.00
EVERGREEN TREE (7'-8')	$ 26,950.00
ORNAMENTAL TREE (2"-2 1/2" CALIPER OR 8-10')	$ 13,650.00
EVERGREEN SHRUBS DECIDUOUS SHRUBS (24"-30")	$ 11,570.00
EVERGREEN SHRUBS DECIDUOUS SHRUBS (30"-36")	$ 1,890.00
EVERGREEN SHRUBS DECIDUOUS SHRUBS (2'-4')	$ 6,290.00
GROUNDCOVER SHRUBS (15"-18" SPREAD)	$ 945.00
TOPSOIL, SEED AND MULCH	$ 5,000.00

Pennoni

DATE: 9/15/2023

LD-19-07 - ABINGTON CHOP MAINTENANCE SECURITY CALCULATION		
Description	Cost Estimate	
XI. LIGHTING		
SINGLE LED SETUP W/30" EXPOSED FOUNDATION (25' MOUNTING)	$	78,200.00
DOUBLE LED SETUP W/30" EXPOSED FOUNDATION (25' MOUNTING)	$	9,200.00
XII. MISCELLANEOUS		
HANDICAP RAMPS	$	1,600.00
4" CONCRETE SIDEWALK	$	30,600.00
6" CONCRETE APRONS	$	5,000.00
CONCRETE MONUMENT	$	1,500.00

Total	$	**694,944.81**
15% MAINTENANCE SECURITY	$	**104,241.72**

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-05-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000 Yes ☐ No ☐
Administration		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100 Yes ☐ No ☐

AGENDA ITEM:

APPOINTMENTS BCCC - 2023

EXECUTIVE SUMMARY:

The Township Board of Commissioners actively engages citizens to serve on our volunteer Boards, Commissions, Committees and Councils. After reviewing and considering citizens who expressed their interest to serve, the attached Exhibit A presents the slate of individuals to be considered for appointment to the various positions as listed.

PREVIOUS BOARD ACTIONS:

n/a

RECOMMENDED BOARD ACTIONS:

Motion to appoint Justin Williams to the Human Relations Commission for a term ending on 12/31/23 as included in Exhibit A.

2023 Boards, Commissions, Committees and Councils Slate				
Board, Commission, Committee or Council	First Name	Last Name	Appointed	Term Expiress
Human Relations Commission	Justin	William	10/12/2023	12/31/2023

Justin R Williams
2849 Rossiter Ave
Abington, PA
JustinRWilliams00@gmail.com

8/3/23

Dear Members of the Abington Human Relations Commission,

I am writing to express my interest in the vacant seat on your esteemed commission. As an experienced community leader and advocate, I am excited by the opportunity to contribute my skills, expertise, and passion to enhance the lives of the residents of Abington.

Over the years, my career has been marked by a deep commitment to human welfare, especially towards children, families, and students in underserved communities. I am fortunate to have had diverse roles that have given me an invaluable perspective on the issues affecting our communities. My work as Director of Community Placement Programs with the Public Health Management Corporation allowed me to engage with key stakeholders to ensure the delivery of efficient and effective services to those in need.

In the past two years, I've had the privilege of presenting at the Family Focused Treatment Association Conference on the topic of Critical Race Theory. My discussions aimed to explore how the implementation of this theory can be a catalyst for driving equity and inclusion within our communities. I'm passionate about this subject, as I believe it is vital for fostering a society where every individual can thrive, regardless of their racial or ethnic background.

Outside of my professional life, my hobbies and interests align with my commitment to fostering a stronger community. I am an active member of my local church, where I participate in community outreach and charity drives. Additionally, I enjoy reading, watching movies, attending marching band competitions, and spending time with my wife and son.

My role as a Student Assistance Program Counselor at Cheltenham High School solidified my commitment to mental health and substance abuse prevention, helping young people cultivate emotional regulation and positive coping skills. Furthermore, as a Family Teacher Coach Leader at Agora Cyber Charter School, I had the opportunity to manage student cases, provide comprehensive staff training, and facilitate a supportive and empowering learning environment.

I am enthusiastic about the prospect of working with the Abington Human Relations Commission to bring about meaningful change. I believe my background in public health management, education, behavioral health, and my extensive involvement in community-based initiatives make me an ideal candidate for the vacant seat.

Thank you for considering my application. I look forward to the possibility of contributing to your team and working towards creating a more equitable and inclusive Abington community.

Best regards,

Justin R. Williams

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-06-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Police		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Traffic Safety Ordinance No. XXXX

EXECUTIVE SUMMARY:

Over the last several months the Traffic Safety Unit has received the following requests:

Stop Sign On	Direction of Travel	At Intersection of
Osbourne Avenue	Northbound and Southbound	Phipps Avenue
Cloverly Avenue	Westbound	Rodman Avenue

2-Hour Parking Signs	Side	Location
Guernsey Avenue	South Side	Between eastern property edge of 1912 Guernsey Avenue and western edge of the driveway apron of 1140 Old York Road

Handicapped Parking Sign

Name of Highway	Authorized Purpose of Vehicle	Location

Easton Road	Handicapped Parking	317 N. Easton Road
No Parking Here to Corner Signs	**Side**	**Location**
Maple Avenue	West Side	Limekiln Pike

PREVIOUS BOARD ACTIONS:

N/A

RECOMMENDED BOARD ACTIONS:

Motion to advertise a Traffic Safety Ordinance amending Chapter 156 -"Vehicle and Traffic," Article II - "Traffic Regulations" Section 14 "Stop Intersections"; Article III - "Parking Regulations" Section 25 - "Parking Prohibited at all Times; No Parking Between Signs; No Parking Here to Corner; Parking Prohibited Except Certain Hours; No Stopping or Standing; Section 27 - Parking Time Limited; and Section 28 - Specialized Parking Zones: to add a Stop Sign Northbound and Southbound on Osbourne Avenue at Phipps Avenue and westbound on Cloverly Avenue at Rodman Avenue; No Parking Here to Corner signs between Limekiln Pike and the driveway of 112 Maple Avenue on the West side and on Rockwell Road 30 ft. from Hamilton Avenue on the East side; 2-Hour Parking signs on the South side of Guernsey Avenue between Eastern property edge of 1912 Guernsey Avenue and Western edge of the driveway apron of 1140 Old York Road; Handicapped Parking sign at 317 N. Easton Road; and to remove the No Parking Here to Corner sign on the West side of Maple Avenue at Limekiln Pike.

TOWNSHIP OF ABINGTON
MONTGOMERY COUNTY, PENNSYLVANIA

ORDINANCE NO. XXXX

AN ORDINANCE AMENDING
CHAPTER 156 – "VEHICLES AND TRAFFIC,"
ARTICLE II – "TRAFFIC REGULATIONS"
SECTION 14 – "STOP INTERSECTIONS";
ARTICLE III – "PARKING REGULATIONS"
SECTION 25 – "PARKING PROHIBITED AT ALL TIMES; NO PARKING BETWEEN SIGNS; NO PARKING HERE TO CORNER; PARKING PROHIBITED EXCEPT CERTAIN HOURS; NO STOPPING OR STANDING";
SECTION 27 – PARKING TIME LIMITED; AND
SECTION 28 – SPECIALIZED PARKING ZONES

WHEREAS, the Township of Abington is a Township of the First Class, duly organized and existing pursuant to the applicable laws of the Commonwealth of Pennsylvania; and

WHEREAS, pursuant to section 1502.20 of the First Class Township Code of the Commonwealth of Pennsylvania, 53 P.S. §56579.20, the Board of Commissioners has the authority to enact and amend provisions of the Abington Township Code ("Code") at any time it deems necessary for the health, safety, morals, general welfare, cleanliness, beauty, convenience and comfort of the Township and the inhabitants thereof; and

WHEREAS, pursuant to section 1502.6 of the First Class Township Code of the Commonwealth of Pennsylvania, 53 P.S. §56579.6, the Board of Commissioners has the authority to take all needful means for securing the safety of persons or property within the Township; and

WHEREAS, pursuant to section 1502.49 of the First Class Township Code of the Commonwealth of Pennsylvania, 53 P.S. §56579.24, the Board of Commissioners has the authority to regulate traffic and parking; and

WHEREAS, the Board of Commissioners of the Township of Abington has determined that the Code of Ordinances of the Township of Abington shall be amended at Chapter 156 - "Vehicles and Traffic," Article II – "Traffic Regulations," at Section 14 – "Stop Intersections," Article III – "Parking Regulations," at Section 25 – "Parking Prohibited at All Times; No Parking Between Signs; No Parking Here to Corner, Parking Prohibited Except Certain Hours, No Stopping and Standing," Section 27 – "Parking Time Limited," and Section 28 – "Special Purpose Parking Zones" should be amended for the health, safety, morals, general welfare, cleanliness, beauty, convenience and comfort of the Township and the inhabitants thereof.

NOW, THEREFORE, the Board of Commissioners of the Township of Abington does hereby **ENACT** and **ORDAIN** as follows:

1. The Code of the Township of Abington is amended at Chapter 156 - "Vehicles and Traffic," Article II – "Traffic Regulations," at Section 14 – "Stop Intersections," to **add** the following restrictions:

Stop Sign On	Direction of Travel Northbound and	At Intersection of
Osbourne Avenue	Southbound	Phipps Avenue
Cloverly Avenue	Westbound	Rodman Avenue

2. Chapter 156 - "Vehicles and Traffic," Article III – "Parking Regulations," at Section 25 – "Parking Prohibited at All Times; No Parking Between Signs; No Parking Here to Corner, Parking Prohibited Except Certain Hours, No Stopping or Standing" to **add** the following restrictions:

No Parking Here to Corner	Side	Location
Maple Avenue	West Side	Between Limekiln Pike and the driveway of 112 Maple Avenue
Rockwell Road	East Side	30ft from Hamilton Avenue

3. The Code of the Township of Abington is amended at Chapter 156 - "Vehicles and Traffic," Article III – "Parking Regulations," at Section 27 – "Parking Time Limited," to **add** the following restrictions:

2-Hour Parking	Side	Location
Guernsey Avenue	South Side	Between eastern property edge of 1912 Guernsey Avenue and western edge of the driveway apron of 1140 Old York Road

4. Chapter 156 – "Vehicles and Traffic," Article III, "Parking Regulations," Section 28 – "Special Purpose Parking Zones" shall be amended to **add** the following restrictions:

Name of Highway	Authorized Purpose of Vehicle	Location
Easton Road	Handicapped Parking	317 N. Easton Road

5. Chapter 156 - "Vehicles and Traffic," Article III – "Parking Regulations," at Section 25 – "Parking Prohibited at All Times; No Parking Between Signs; No Parking Here to Corner, Parking Prohibited Except Certain Hours, No Stopping or Standing" to **remove** the following restrictions:

No Parking Here to Corner	Side	Location
Maple Avenue	West Side	Limekiln Pike

6. All other ordinances, portions of ordinances, or any section of the Code inconsistent with this Ordinance are hereby repealed. This Ordinance shall become effective five (5) days after enactment.

ORDAINED AND ENACTED this _____ day of _____, 2023.

TOWNSHIP OF ABINGTON
BOARD OF COMMISSIONERS

Attest:

_____ By: _____

Richard J. Manfredi, Thomas Hecker, President
Township Manager & Secretary

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-07-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Police		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

New Officer Appointments

EXECUTIVE SUMMARY:

The Department has six (6) vacancies amongst its compliment of sworn officers. This is as a result of the departure of Officer Rucker, Officer Armstrong, Sgt. Gillespie, Officer Taormina, and Officer Landes. Also included in this total is Officer Dwyer, who remains assigned full-time at Holy Redeemer Hospital. Holy Redeemer Hospital compensates the Township the full salary and benefits for the duties and responsibilities that Officer Dwyer performs at their Abington locations. In addition to the shortage of personnel, the Department continues to experience staffing challenges with members being absent or limited in their abilities due to injuries. For these reasons, the Department is seeking to appoint six (6) new officers. The written examination for the position of Police Officer was held on July 10-13, 2023. The Physical Agility Test was administered on August 5, 2023. The Oral Interviews were conducted August 31 – September 11, 2023.

PREVIOUS BOARD ACTIONS:

n/a

RECOMMENDED BOARD ACTIONS:

Motion to appoint candidates ranked 1, 2, 3, 4, 5 and 6 from the Civil Service Eligibility list to the position of Probationary Police Officer provided they successfully complete the background investigation, physical and psychological exams and all entry requirements of the Municipal Police Officer's Education and Training Commission for Act 120 Training effective October 13, 2023.

ABINGTON TOWNSHIP CIVIL SERVICE COMMISSION

Edward Nolan, Chairman
Diane Misko, Secretary
Martre Manning

ELIGIBILTY LIST: PATROL OFFICER CANDIDATES

Written Examination: July 10, 11, 12, and 13, 2023

Rank	Last Name	First Name	Written Score	W 40%	Oral Score	Oral 60%	Military	Total
1	Crescenzo	Michael	88.19	35.28	84.00	50.40	10.00	95.68
2	Diaz	Andres	84.68	33.87	85.60	51.36	10.00	95.23
3	Fallon	Peter	87.19	34.88	91.00	54.60	0.00	89.48
4	Lewis	Keri	85.67	34.27	89.00	53.40	0.00	87.67
5	Hunt	Janelle	79.56	31.83	90.60	54.36	0.00	86.19
6	Stasiak	Corey	88.12	35.25	84.66	50.80	0.00	86.04
7	Ahmad	Muhammad	80.71	32.28	89.00	53.40	0.00	85.68
8	Bunn	Vincent	82.31	32.92	87.60	52.56	0.00	85.48
9	Galiczynski	Ryan	86.18	34.47	85.00	51.00	0.00	85.47
10	Cappello	Gage	92.53	37.01	80.00	48.00	0.00	85.01
11	Sweeney	Michael	85.45	34.18	84.60	50.76	0.00	84.94
12	Brady	Andrew	86.45	34.58	83.60	50.16	0.00	84.74
13	Smith	Evan	87.69	35.07	82.30	49.38	0.00	84.45
14	Forlano	Dean	89.73	35.89	79.00	47.40	0.00	83.29
15	Renson	Joseph	86.36	34.54	79.60	47.76	0.00	82.30
16	Daly	Jack	85.18	34.07	80.33	48.20	0.00	82.27
17	O'Connor	Fiona	87.61	35.04	78.30	46.98	0.00	82.02
18	Rocher	Roderic	84.18	33.67	79.30	47.58	0.00	81.25
19	Kaplan	Matthew	88.34	35.34	75.30	45.18	0.00	80.52
20	Figaniak	Anthony	82.85	33.14	78.30	46.98	0.00	80.12
21	Kinnard	Dalton	88.48	35.39	74.30	44.58	0.00	79.97
22	Wilson	Matthew	82.04	32.82	78.00	46.80	0.00	79.62
23	Korecky	Stephen	91.15	36.46	71.60	42.96	0.00	79.42
24	Dundiy	Andrey	87.10	34.84	74.00	44.40	0.00	79.24
25	Hardy Jr	David	87.12	34.85	73.60	44.16	0.00	79.01
26	McCalister	Jacqueline	87.05	34.82	73.00	43.80	0.00	78.62
27	Ragan	Michael	83.21	33.28	73.00	43.80	0.00	77.08
28	Montilla	Omar	84.25	33.70	71.30	42.78	0.00	76.48
29	Del Ricci	Ryan	77.09	30.84	74.60	44.76	0.00	75.60
30	Harvey	Brian	79.4	31.76	71.00	42.60	0.00	74.36
31	McFarland	Doron	63.01	25.20	78.30	46.98	0.00	72.18
32	Staley	Daniel	65.99	26.39	74.60	44.76	0.00	71.15

Date of Written Examination: July 10, 11, 12, and 13, 2023
Date of Physical Agility Test: August 5, 2023
Date of Oral Examination: August 31 - September 11, 2023
Date Eligibility List Adopted: September 20, 2023
Date Eligibility List Expires: September 20, 2024

Edward Nolan, Chairperson | Diane Misko, Secretary | Martre Manning, Member

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-08-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Administration		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

PSU LD-22-05

EXECUTIVE SUMMARY:

This land development application involves the four (4) existing parcels. Under this application, the applicant is proposing the following: Consolidation of the four (4) existing parcels, which will yield a gross area of 2,090,422.72 SF (or 47.99 acres). With the lot consolidation of the four parcels, the entire site will be surrounded by roadways on all sides. Construct a new 3-story 30,688 SF (74,100 GSF) academic building with associated parking areas located adjacent the new building. New curbing, sidewalk and walkways; landscaping; and stormwater management facilities are also proposed as part of this land development.

PREVIOUS BOARD ACTIONS:

July 8, 2021 - The Committee made a motion to move the agenda item to the Planning Commission in July.
July 27, 2021 - The Planning Commission made a motion to continue the discussion to the August Planning Commission meeting.
9/26/21 - The Planning Commission reviewed and approved to move the application in front of the full board.
10/14/21 - The Board approved Ordinance #2186 and #2187
12/8/22 - Received Conditional Use approval from the Board of Commissioners
08/10/23- Working Session - Penn State presented the Preliminary Major Subdivision and Land

Development and was moved to the Regular Business meeting in September.

RECOMMENDED BOARD ACTIONS:

Motion to approve the Final Major Subdivision and Land Development for LD-22-05 - Penn State University (PSU) New Academic Building.

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ENGINEERING & CONSULTING SERVICES

☐ 5100 Tilghman Street, Suite 150 | **Allentown**, PA 18104 | P: 610.366.8064 | F: 610.366.0433
☒ 12 Terry Drive, Suite 205 | **Newtown**, PA 18940 | P: 215.369.3955 | F: 610.968.1829
☐ 65 E. Butler Avenue, Suite 100 | **New Britain**, PA 18901 | P: 215.345.4330 | F: 215.948.9943
☐ 184 W. Main Street, Suite 300 | **Trappe**, PA 19426 | P: 610.489.4949 | F: 610.489.8447
☐ One Penn Center at Suburban Station, 1617 JFK Blvd., Suite 425 | **Philadelphia**, PA 19103 | P: 215.687.4246 | F: 215.564.1780

LETTER OF TRANSMITTAL

Date: 10/02/2023
File No.: 17-12006
Reference: PSU Abington New Academic Building (LD-22-05)

VIA Hand Delivery

Allison Lee
Pennoni
3100 Horizon Drive
King of Prussia, PA 19406

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings/ Submittals ☒ Prints ☒ Plans ☐ Samples ☐ Specifications
☐ Copy of Letter ☐ Change Order ☐ Other

COPIES	DATE	NO.	DESCRIPTION
10	10/02/23	1	Preliminary/Final Major Subdivision and Land Development Plans (24"x36")
3	09/29/22	2	Conditional Use Exhibit (24"x36")
2	10/02/23	3	Preliminary/Final Major Subdivision and Land Development Plans (11"x17")
3	10/02/23	4	Post-Construction Stormwater Management (PCSWM) Report
1	10/02/23	5	Waiver Requests Letter

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit ___ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit ___ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return ___ corrected prints
☒ For review and comment
☐ For BIDS DUE _____ 20 ☐ PRINTS RETURNED AFTER LOAN TO US

If enclosures are not included with this transmittal, kindly contact the office at once

REMARKS:

cc:. _____

Signed: Jennifer Madden

DRAFT

LEGEND

- RIGHT-OF-WAY LINE
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED WATER LINE
- PROPOSED ELECTRIC LINE
- PROPOSED GAS LINE
- PROPOSED TELEPHONE LINE
- PROPOSED SAN. SEWER LINE
- PROJECT SITE BOUNDARY (NPDES PERMIT)
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- APPROXIMATE TREE CANOPY
- PROPOSED BUILDING
- EXISTING BUILDING
- PROPOSED PAVING
- PROPOSED WALKWAY
- EXISTING PAVING
- GREEN AREA
- POND/CREEK
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- ZONE X; 0.2% ANNUAL CHANCE FLOOD HAZARD

WOODLAND ROAD

CLOVERLY LANE

SCHOOL LANE

SEWELL LANE

PROPOSED 3-STORY ACADEMIC BUILDING 30,688 S.F.

PROPOSED TRANSFORMER

PROPOSED DUCTBANK

PROPOSED DUCTBANK

PROPOSED DUCTBANK

TRIBUTARIES TO MEADOW BROOK

CONNECTION TO PECO ELECTRIC SERVICE

THE PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09792-00-6
1577 CLOVERLY LANE
47.24280 ACRES (GROSS)
44.43180 (NET)
DEED BOOK 5065 PAGE 1053

THE PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09816-00-9
1678 CLOVERLY LANE
0.55 ACRES
BOOK 5620 PAGE 2671

THE PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09820-00-5
1684 CLOVERLY LANE
2.61 ACRES
DEED BOOK 5373 PAGE 806

W/F BARBARA AND ROBERT WETZEL
PARCEL 30-00-09784-00-3
1665 CLOVERLY LANE
PARCEL NOT INCLUDED

N80°41'09"E CH=170.35' =017.52' R=550.00' L=6047.24'

S72°31'14"E CH=30.64' =035.47' R=25.00' L=6047.24'

N65°52'53"E CH=142.41' =016.78' R=486.00' L=6047.24'

N64°16'17"E 98.00

S72°11'43"E 74.49

N82°49'18"E CH=128.35' =050.66' R=150.00' L=6047.24'

S72°11'43"E 34.06

S53°33'41"E 358.86

S66°49'39"E CH=113.78' =026.33' R=249.75' L=6047.24'

S66°24'41"E CH=100.39' =012.83' R=449.13' L=6047.24'

S66°24'56"E 94.60

S57°30'42"E CH=123.04' =063.90' R=110.90' L=6047.24'

S56°00'17"W CH=161.17' =162.00' R=2000.00' L=6047.24'

N19°35'17"E 192.72

N28°49'18"E CH=271.19' =016.47' R=845.00' L=6047.24'

N49°12'18"E CH=322.01' =022.10' R=852.58' L=6047.24'

N49°36'18"E CH=202.55' =021.50' R=543.00' L=6047.24'

N28°35'50"E CH=66.75' =016.53' R=213.67' L=6047.24'

N20°20'17"E 212.78

N20°36'47"E 103.08

N36°12'33"W CH=128.38' =021.58' R=1708.39' L=6047.24'

S87°18'06"W 553.73

N60°45'50"W CH=130.40' =067.57' R=111.24' L=6047.24'

N67°21'49"W CH=17.93' =166.69' R=191.38' L=6047.24'

N67°21'49"W CH=17.93' =052.30' R=191.38' L=6047.24'

N53°31'05"W CH=299.00' =021.68' R=765.76' L=6047.24'

S36°01'41"W 690.74

S35°22'08"W 724.96

39.24

80 0 80 160
SCALE IN FEET
1"=80'

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - CONDITIONAL USE.dwg Layout: 1 CAMPUS RIPARIAN CORRIDOR PLAN Plotted By: whelder, on Tue Oct 04, 2022 at 11:04am

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REV.	DESCRIPTION	DATE	BY

CONDITIONAL USE EXHIBIT

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

CAMPUS RIPARIAN CORRIDOR PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 09/29/22

SCALE: 1"=80'

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 1 OF 3

LEGEND

- EXISTING PAVING/BUILDINGS
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- ZONE X; 0.2% ANNUAL CHANCE FLOOD HAZARD

PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE

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REV.	DESCRIPTION	DATE	BY

CONDITIONAL USE EXHIBIT

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

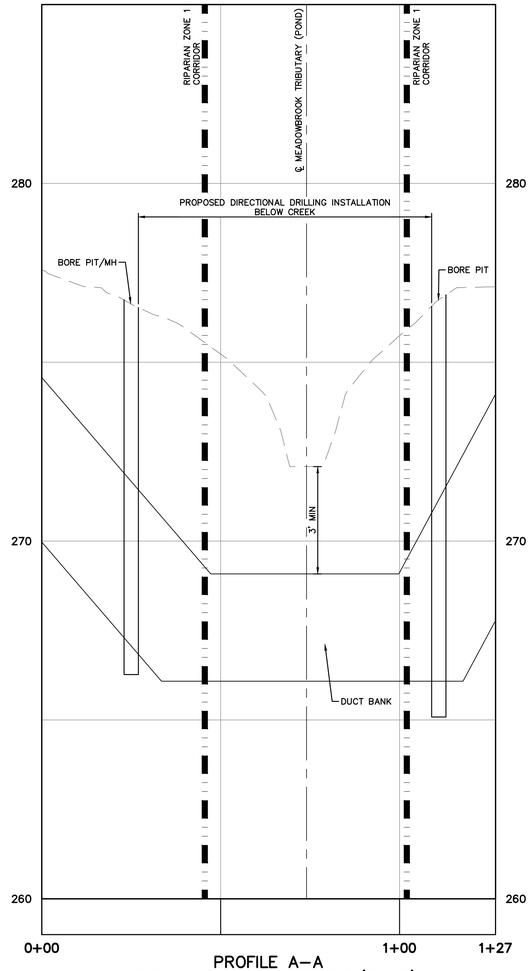
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RIPARIAN UTILITY CROSSING PLAN

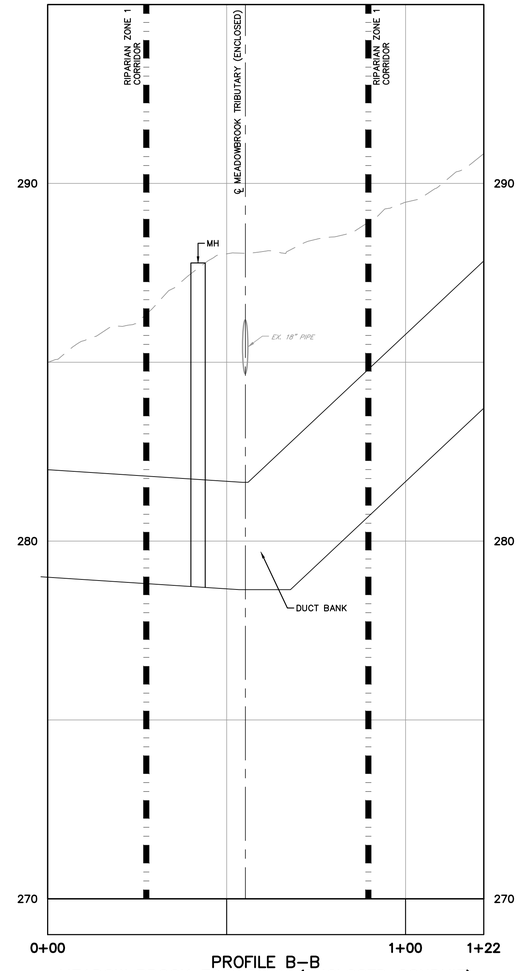
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: ----	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 09/29/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: DAW
SHEET NO.: 2 OF 3	

T:\and design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - STREAM CROSSING.dwg Layout: 2 RIPARIAN UTILITY CROSSING PLAN Plotted By: dwolte, on Thu Sep 29, 2022 at 6:17pm



PROFILE A–A
MEADOW BROOK TRIBUTARY (POND)
STATION 0+00 TO 1+27
SCALE: HORZ 1"=20'
VERT 1"=2'



PROFILE B–B
MEADOW BROOK TRIBUTARY (ENCLOSED CONDUIT)
STATION 0+00 TO 1+22
SCALE: HORZ 1"=20'
VERT 1"=2'

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REV.	DESCRIPTION	DATE	BY

CONDITIONAL USE EXHIBIT

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RIPARIAN ZONE 1 UTILITY PROFILE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814–865–0545	
MUNICIPAL FILE No.:	
TAX MAP PARCEL No.: 30–00–09792–00–6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 09/29/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: DAW
SHEET NO.: 3 OF 3	

T:\land design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN – STREAM CROSSING PROFILES.dwg Layout: 3 RIPARIAN ZONE 1 UTILITY PROFILE PLAN Plotted By: dwaite, on Thu Sep 29, 2022 at 6:18pm

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

FOR

PENNSYLVANIA STATE UNIVERSITY

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

WAIVERS REQUESTED

THE FOLLOWING WAIVERS FROM CHAPTER 146, SUBDIVISION AND LAND DEVELOPMENT AND CHAPTER 142, STORMWATER MANAGEMENT, ARE REQUESTED:

1. §146-9.A – APPLICATION STAGES. A WAIVER IS REQUESTED TO CONSIDER THE CURRENT SUBDIVISION AND LAND DEVELOPMENT SUBMISSION TO BE A COMBINED PRELIMINARY/FINAL APPLICATION.
2. §146-10.A(1) – PLAN SCALE. PARTIAL WAIVER TO ALLOW PLANS THAT DEPICT THE OVERALL SITE TO BE SMALLER THAN 1"=50'. PLANS DEPICTING THE ACADEMIC BUILDING PROJECT AREA ARE DRAWN AT 1" = 40 OR LARGER.
3. §146-11.A(4) – PROPERTY IDENTIFICATION PLANS. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING TRACT BOUNDARIES WITH TAX PARCEL NUMBERS, OWNER'S NAMES, AND APPROXIMATE ACREAGE OF LOTS SURROUNDING ANY PORTION OF THE SITE WITHIN 400 FEET. ABUTTING PROPERTY INFORMATION IS SHOWN ON THE PLANS.
4. §146-11.B(3) – EXISTING FEATURES PLAN. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE PROPERTY LINES AND NAMES OF LANDOWNERS WITHIN 400 FEET OF ANY PART OF THE SITE TO BE SUBDIVIDED OR DEVELOPED. AN AERIAL PHOTOGRAPH PLAN IS PROVIDED WITH ABUTTING PROPERTY INFORMATION SHOWN.
5. §146-11.B(7) – EXISTING UTILITIES. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE LOCATION, SIZE, AND OWNERSHIP OF ALL UNDERGROUND AND ABOVE GROUND PUBLIC OR PRIVATE UTILITIES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
6. §146-24.D(3) – STREETS – CARTWAY WIDTH . A WAIVER IS REQUESTED TO ALLOW THE EXISTING CARTWAY WIDTHS OF THE EXISTING STREETS TO REMAIN. THE EXISTING STREETS ARE WELL-ESTABLISHED. NO ROADWAY WIDENING IS PROPOSED.
7. §146-27 – SIDEWALKS AND CURBS. A WAIVER IS REQUESTED TO PERMIT THE ONSITE WALKWAYS AND PEDESTRIAN ROUTES TO BE CONSIDERED ADEQUATE TO MEET PEDESTRIAN ACCESS REQUIREMENTS. NO NEW ROADWAY SIDEWALKS OR CURBS ARE PROPOSED.
8. §146-27.1 – CURB AND SIDEWALK ESCROW REQUIREMENT. A WAIVER IS REQUESTED FROM THE TWO-YEAR FEE-IN-LIEU ESCROW REQUIREMENT. NO NEW ROADWAY SIDEWALKS OR CURBS ARE PROPOSED.
9. §146-33.D – STORM DRAIN DIAMETER. A WAIVER IS REQUESTED TO ALLOW ON-SITE PRIVATE STORM SEWER PIPE TO BE LESS THAN 15 INCHES IN DIAMETER.
10. §146-43.C(3)(A) – EXCAVATIONS AND FILLS. A WAIVER IS REQUESTED TO ALLOW CUT AND FILL SLOPES IN EXCESS OF 15% CONDITIONED UPON TOWNSHIP ENGINEER APPROVAL OF DESIGN.
11. §142-302.B(2)(B)[5] – SWM SITE PLAN REQUIREMENTS. A WAIVER IS REQUESTED FROM THE REQUIREMENT TO SHOW THE LOCATIONS OF ALL EXISTING AND PROPOSED UTILITIES, SANITARY SEWERS, AND WATER LINES WITHIN FIFTY (50) FEET OF THE PROPERTY LINES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
12. §142-409.A – RATE CONTROL STANDARDS FOR PENNYPACK CREEK WATERSHED. A PARTIAL WAIVER IS REQUESTED FROM RATE CONTROL REQUIREMENTS OF THIS SECTION FOR LIMITED AREAS OF THE PROJECT THAT ARE:
    a. PROPOSED TO RECEIVE REPLACEMENT PAVEMENTS IN KIND;
    b. TO RECEIVE A REDUCTION IN PAVEMENT AREA AND NOT OTHERWISE IMPROVED;
    c. OUTSIDE OF BULK-GRADING AREAS THAT ARE PROPOSED TO BE DISTURBED AND RESTORED TO EXISTING CONDITION FOR INSTALLATION OF UTILITY CONDUITS ONLY.

    DUE TO GROUND SLOPE OF THE CAMPUS ALONG THE EASTERN LIMIT OF PROPOSED WORK, RUNOFF FROM THESE AREAS ARE NOT ABLE TO BE CAPTURED WITHOUT CAUSING ADDITIONAL DISTURBANCE. TO THE EXTENT THAT THESE RELATIVELY SMALL AREAS OF PAVEMENT REPLACEMENT, PAVEMENT REDUCTION OR GROUND SURFACE RESTORATION ARE NOT NEGATIVELY AFFECTING THE EXISTING DRAINAGE CONDITION, THE APPLICANT REQUESTS THAT THIS WAIVER BE CONSIDERED.

GENERAL NOTES

1. VERTICAL DATUM IS NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.
2. CONVERSION TO ABINGTON TOWNSHIP SANITARY SEWER DATUM (TSSD): NAVD88 = TSSD + _____'
3. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.
4. ■ – CONCRETE MONUMENT TO BE SET □ – CONCRETE MONUMENT FOUND
   ● – R.R. SPIKE OR IRON PIN TO BE SET O – IRON PIN FOUND
5. THIS PLAN PREPARED UNDER THE FOLLOWING ORDINANCES:
   a. ZONING ORDINANCE – OF 2013, UPDATED 01-07-2019
   b. SUBDIVISION & LAND DEVELOPMENT ORDINANCE – 10-21-2019
   c. STORMWATER MANAGEMENT ORDINANCE – 05-24-2011
6. THE BURYING OF TREES AND OTHER CONSTRUCTION DEBRIS ON THE SITE IS PROHIBITED.
7. THE PROPOSED SANITARY SERVICE TO BE SUBJECT TO THE APPROVAL OF ABINGTON TOWNSHIP SEWER AUTHORITY.
8. THE PROPOSED WATER SERVICE AND FIRE PROTECTION SERVICE ARE TO BE SUPPLIED BY THE EXISTING AQUA PA MAIN LOCATED WITHIN CLOVERLY LANE.
9. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) STANDARDS.
10. SHEETS 2 THROUGH 40 INCLUSIVE, ON RECORD AT ABINGTON TOWNSHIP, SHALL BE CONSIDERED A PART OF THE APPROVED FINAL PLAN AS IF RECORDED WITH SAME.
11. NO STRUCTURES, FENCE, PLANTING, OR OTHER OBSTRUCTION SHALL BE MAINTAINED BETWEEN A VERTICAL PLANE TWO FEET ABOVE STREET LEVEL AND A PLANE SEVEN FEET ABOVE STREET LEVEL SO AS TO INTERFERE WITH TRAFFIC VISIBILITY WITHIN THE CLEAR SIGHT TRIANGLES SHOWN AT ALL INTERSECTIONS. AT EACH POINT WHERE A DRIVEWAY INTERSECTS A STREET A CLEAR SIGHT TRIANGLE OF TEN (10) FEET MEASURED FROM THE POINT OF INTERSECTION OF THE STREET LINE AND THE EDGE OF THE ACCESS WAY SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN TWO FEET ABOVE THE STREET GRADE.
12. THIS PROJECT IS LOCATED WITHIN THE WATERSHED OF AN UNNAMED TRIBUTARY TO MEADOW BROOK. MEADOW BROOK IS DESIGNATED **TSF** IN CHAPTER 93. MEADOW BROOK IS PART OF THE PENNYPACK WATERSHED.
13. PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF PROPOSED STORMWATER MANAGEMENT FACILITIES LOCATED ON THEIR LOT. SEE PCSWM PLANS AND DETAILS FOR INFORMATION ON MAINTENANCE REQUIREMENTS AND SCHEDULE.
14. ALL DEVELOPMENT ACTIVITIES, SUCH AS CLEARING, GRADING, REGRADING, DRIVEWAYS, ROADS, BUILDINGS, SEPTIC SYSTEMS, RETENTION/DETENTION BASINS, AND UTILITY EASEMENTS SHALL BE LIMITED TO THE NATURAL RESOURCE PROTECTION STANDARDS AS SPECIFIED IN THE SOLEBURY TOWNSHIP ZONING ORDINANCE AS LAST AMENDED. THE REMAINING RESOURCES SHALL REMAIN IN THEIR NATURAL CONDITION INCLUDING THE NATURAL FOREST GROUND COVER WITH THE EXCEPTION OF THE REMOVAL OF INVASIVE EXOTIC SPECIES SUCH AS JAPANESE HONEYSUCKLE AND BITTERSWEET OR POISON IVY AND OTHER NOXIOUS WEEDS NOT MENTIONED. THIS RESTRICTION SHALL RUN WITH THE LAND AND BE BINDING ON THE PRESENT AND ALL FUTURE OWNERS AND/OR LESSEES.
15. THE AREA BETWEEN THE ULTIMATE RIGHT-OF-WAY ALONG SCHOOL LANE AND WOODLAND ROAD AND THE TITLE LINE IS OFFERED FOR DEDICATION TO ABINGTON TOWNSHIP.
16. ALL NEW UTILITIES MUSH BE AS-BUILT SURVEYED BY THE CONTRACTOR. ALL AS-BUILT SURVEYS MUST BE PROVIDED DIGITALLY IN AUTOCAD FORMAT THE ARCHITECT AND ENGINEER OF RECORD FOR PUNCHLIST REVIEW. FINAL DIGITAL AUTOCAD VERSIONS OF ALL AS-BUILT PLANS SHALL BE PROVIDE TO PENN STATE UNIVERSITY PRIOR TO FINAL PAYMENT. PSU CONTACT FOR SENDING AUTOCAD DRAWING IS KAELEN ROBB, (kmr16@psu.edu) – GIS ANALYST, (814) 865-2792.
17. THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM OF THE TOWNSHIP OF ABINGTON, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLANS BY THE OWNERS OF THOSE LANDS ON WHICH THE STRUCTURES ARE LOCATED. THE TOWNSHIP OF SOLEBURY AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID STORMWATER MANAGEMENT FACILITIES IN ORDER TO DETERMINE THAT THE DESIGN INTEGRITY IS BEING MAINTAINED BY THE OWNER(S). A BLANKET EASEMENT FOR ACCESS TO THE FACILITIES IS HEREBY GRANTED TO ABINGTON TOWNSHIP.

LOCATION MAP

XX 00 XX XX
SCALE IN FEET

SELECT A SCALE

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – JAMES D. McEWEN – LAND SURVEYOR – 3000475R

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – ERIC S. CLASE – ENGINEER – 55713-E

PENNSYLVANIA – CENTRA MARIA CONSTANTINE – REGISTRATION NUMBER LA002342

PENNSYLVANIA – CHRISTOPHER A. GREEN – REGISTRATION NUMBER LA002327

OWNER/APPLICANT:

PENNSYLVANIA STATE UNIVERSITY
C/O ANDREW D. GUTBERLET, P.E., LEED AP – MANAGER OF ENGINEERING SERVICES
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

PROJECT LOCATION:

1600 WOODLAND ROAD
ABINGTON, PA 19001
ABINGTON TOWNSHIP,
MONTGOMERY COUNTY,
PENNSYLVANIA

TAX PARCEL:

30-00-09792-00-6

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1	COVER – RECORD PLAN 1 OF 4
2	RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN 2 OF 4
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4	SITE PLAN
5	EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL
6	EXISTING FEATURES PLAN – OVERALL
7	EXISTING FEATURES AND DEMOLITION PLAN
8	GRADING PLAN
9	GRADING DETAIL PLAN 1
10	GRADING DETAIL PLAN 2
11	EROSION & SEDIMENT CONTROL PLAN
12	EROSION & SEDIMENT CONTROL DETALS & NOTES – 1
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38	PROFILES – 3
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40	TRUCK TURNING PLAN

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2017-12006 PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05) – OCTOBER 2, 2023

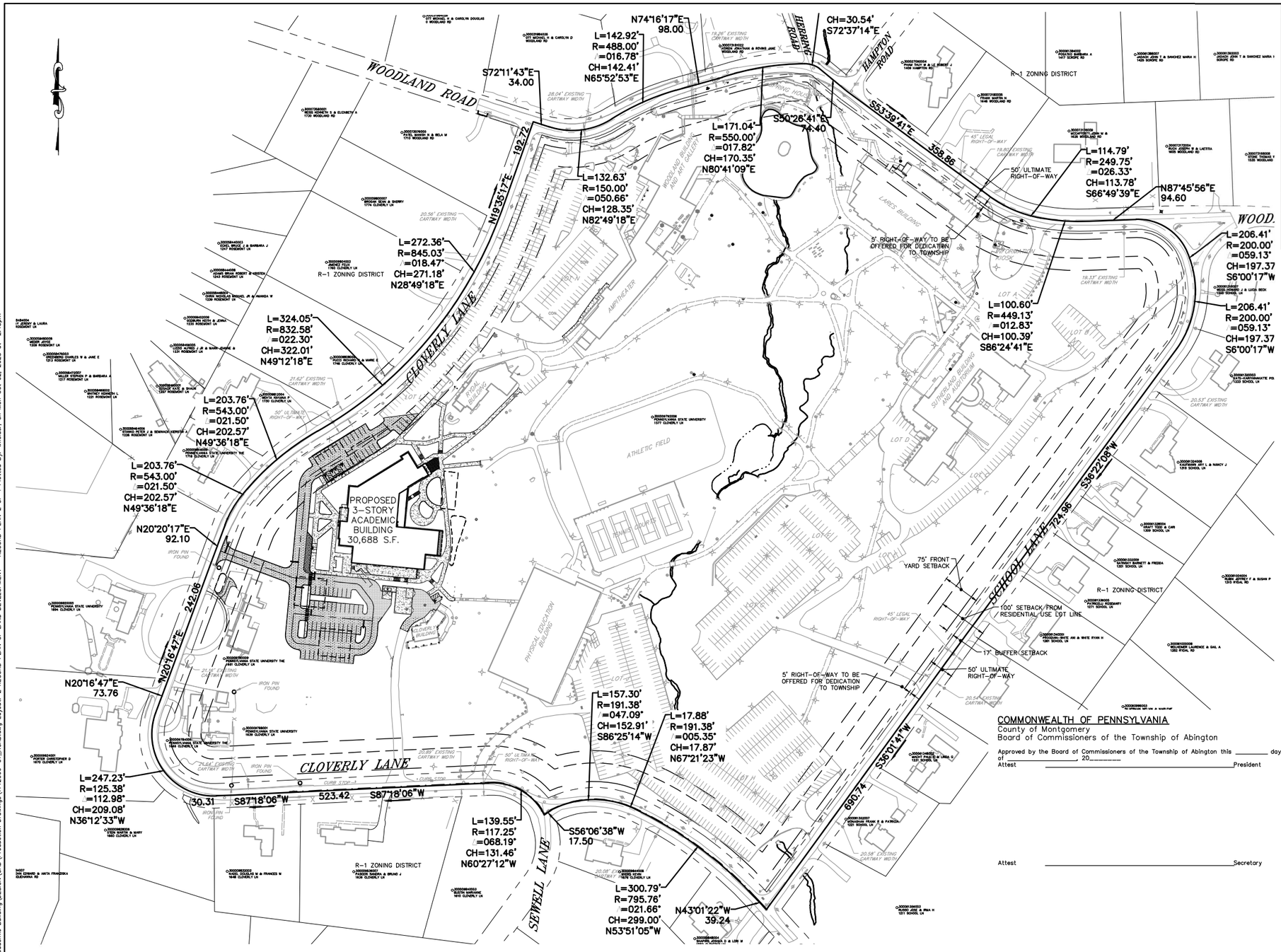
PLAN DATE: 06/06/22

LAST REVISED: October 2, 2023

SHEET NO.: 1 OF 40

NOT TO BE RECORDED

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_COVER.dwg Layout: 1 COVER – RECORD PLAN 1 OF 4 Plotted By: wheider, on Mon Oct 02, 2023 at 11:30am



LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED PAVEMENT

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN
2 OF 4

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West Mifflin, Pennsylvania
15122 – 1078

811

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

NOTARY PUBLIC
Commonwealth of Pennsylvania
County of Montgomery

On the _____ day of _____, A.D. 20_____ , before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____, personally appeared _____ (name of officer of the corporation), who acknowledged (himself/herself) to be the (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded..

_____
Notary Public

_____
My Commission Expires

COMMONWEALTH OF PENNSYLVANIA
County of Montgomery
Board of Commissioners of the Township of Abington

Approved by the Board of Commissioners of the Township of Abington this _____ day of _____, 20_____
Attest _____ President

Attest _____ Secretary

Attest _____ Engineer

Certified by the Montgomery County Planning Commission this _____ day of _____, 19_____ File No. _____
Attest _____ Secretary

COUNTY RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK _____, PAGE_____ ON THE _____ DAY OF _____, 20_____.

COUNTY RECORDER OF DEEDS

MCPC No. _____

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date_____

_____
For the Director

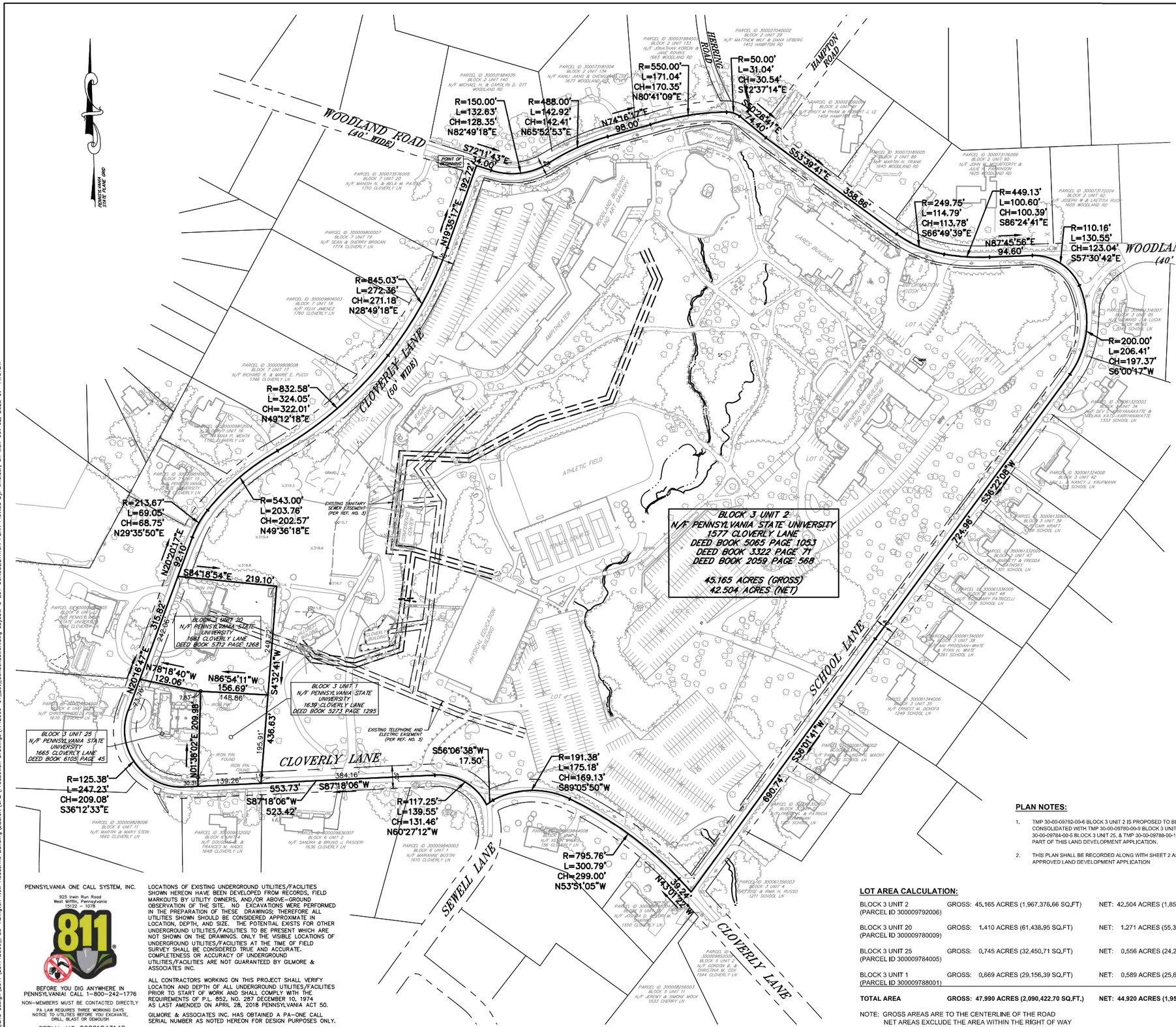
Montgomery County Planning Commission

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: ----	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 2 OF 40	

SCALE: 1"=100'

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17206-01_RCRD.dwg Layout: 2 RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN 2 OF 4 Plotted By: wheider, on Mon Oct 02, 2023 at 2:13pm



LOCATION MAP

SCALE: 1"=1000'

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GENERAL SURVEY NOTES:

1. PROPERTY KNOWN AS BLOCK 3, UNITS 1, 2, 20 & 25 AS SHOWN OF THE TAX MAP OF THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN MARCH 2022 AND THE REFERENCED INFORMATION LISTED HEREON. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
3. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
4. HORIZONTAL DATUM IS BASED ON 1983 STATE PLANE COORDINATE SYSTEM AND AS NOTED IN REFERENCE PLAN # 3.
5. THE ROAD RIGHT OF WAY WIDTHS LABELED ARE AS NOTED IN THE REFERENCED DEEDS.
6. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE FROM REFERENCED PLAN NUMBER 3 AND FIELD UPDATED IN CERTAIN AREAS BY GILMORE & ASSOCIATES, INC. BASED ON VISIBLE OBSERVATIONS AND MARKOUTS BY GROUND PENETRATING RADAR SYSTEMS, LLC THROUGH MARCH 2022.

REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS, TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA., FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., AND RECORDED IN THE MONTGOMERY COUNTY RECORDE OF DEEDS ON FEBRUARY 7, 1995 IN BOOK 3, PAGES 50, 51 AND 52.
3. PLAN ENTITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201 - V0102O1, THE PENNSYLVANIA STATE UNIVERSITY, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA", PREPARED BY PENNONI ASSOCIATES, INC., DATED 10/12/2017 AND REVISED TO 10/24/2017.
4. DEEDS AS NOTED

PLAN NOTES:

1. TMP 30-00-09792-00-6 BLOCK 3 UNIT 2 IS PROPOSED TO BE CONSOLIDATED WITH TMP 30-00-09780-00-9 BLOCK 3 UNIT 20, TMP 30-00-09784-00-5 BLOCK 3 UNIT 25, & TMP 30-00-09788-00-1 BLOCK 3 UNIT 1 AS PART OF THIS LAND DEVELOPMENT APPLICATION.
2. THIS PLAN SHALL BE RECORDED ALONG WITH SHEET 2 AS PART OF THE APPROVED LAND DEVELOPMENT APPLICATION

LOT AREA CALCULATION:

BLOCK 3 UNIT 2 (PARCEL ID 300009792006)	GROSS: 45.165 ACRES (1,967,376.66 SQ.FT)	NET: 42.504 ACRES (1,851,472.71 SQ.FT)
BLOCK 3 UNIT 20 (PARCEL ID 300009780009)	GROSS: 1.410 ACRES (61,438.95 SQ.FT)	NET: 1.271 ACRES (55,353.30 SQ.FT.)
BLOCK 3 UNIT 25 (PARCEL ID 300009784005)	GROSS: 0.745 ACRES (32,450.71 SQ.FT)	NET: 0.556 ACRES (24,213.54 SQ.FT.)
BLOCK 3 UNIT 1 (PARCEL ID 300009788001)	GROSS: 0.669 ACRES (29,156.39 SQ.FT)	NET: 0.589 ACRES (25,658.78 SQ.FT.)
TOTAL AREA	**GROSS: 47.990 ACRES (2,090,422.70 SQ.FT.)**	**NET: 44.920 ACRES (1,956,698.33 SQ.FT.)**

NOTE: GROSS AREAS ARE TO THE CENTERLINE OF THE ROAD
NET AREAS EXCLUDE THE AREA WITHIN THE RIGHT OF WAY

100 0 100 200
SCALE IN FEET
1"=100'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES D. McEWEN
LAND SURVEYOR
SU036750

BY	DATE	REV.
JM	10/02/23	4
JM	06/05/22	3
DAW	09/09/22	2
DAW	07/20/22	1
BY	DATE	

REVISED PER TWP ENGINEER LETTER
REVISED PER TOWNSHIP COMMENTS
75% CD SUBMISSION
50% CD SUBMISSION
DESCRIPTION

LOT CONSOLIDATION PLAN
PENNSYLVANIA STATE UNIVERSITY
ABINGTON CAMPUS
BLOCK 3, UNITS 1, 2, 20 & 25

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

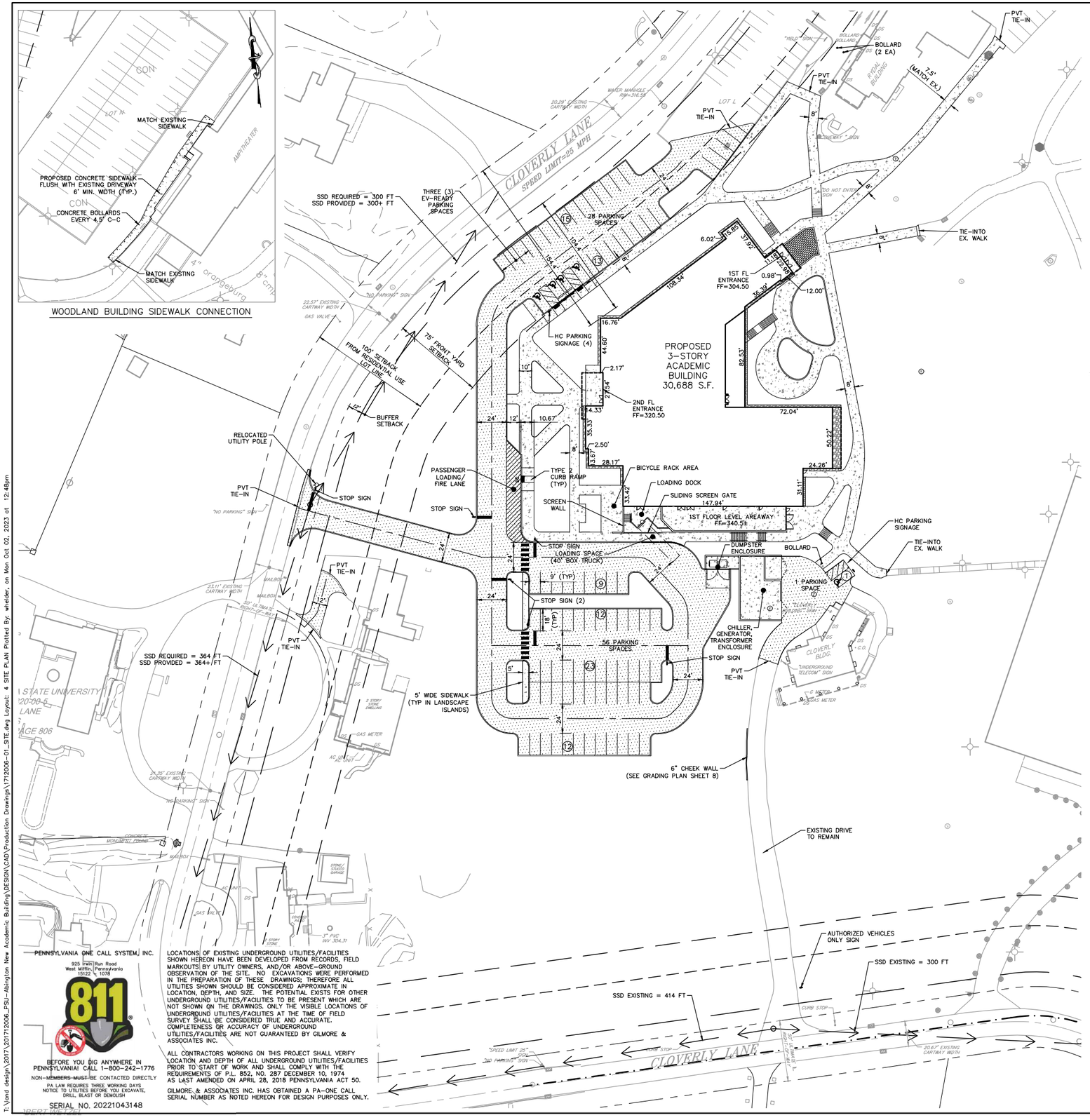
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 1712006-01	
TAX MAP PARCEL No.: BLOCK 3, UNITS 1, 2, 20 & 25	
TOTAL AREA: 47.990 AC.	TOTAL LOTS: 4
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: KRN	CHECKED BY: JDM

SHEET NO.: 3 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_Lot_Consolidation.dwg Layout: 3 LOT CONSOLIDATION PLAN Plotted By: atwilder, on Mon Oct 02, 2023 at 11:31am

WOODLAND BUILDING SIDEWALK CONNECTION



LOCATION MAP

SCALE: 1"=800'

PROJECT INFORMATION:

ZONING DISTRICT: CS – COMMUNITY SERVICE DISTRICT [1]

SITE USE: E-18 UNIVERSITY CAMPUS [1]

CS – COMMUNITY SERVICE DISTRICT DIMENSIONAL REQUIREMENTS

	REQUIRED	PROVIDED
LOT AREA (MIN)	5 AC.	44.574 AC.[2]
LOT WIDTH (MIN)	400 FT.	>400 FT.
LOT DEPTH (MIN)	400 FT.	>400 FT.
SETBACK FROM RESIDENTIAL USE(MIN FROM A RESIDENTIAL USE LOT LINE)	100 FT.	154.4 FT.
YARD SETBACK, FRONT,(MIN)	75 FT	104.4 FT
YARD SETBACK, SIDE,(MIN)	50 FT.	N/A FT.
YARD SETBACK, REAR,(MIN)	50 FT.	N/A FT.
BUILDING COVERAGE (MAX)	25%	8.4 %
IMPERVIOUS COVERAGE (MAX)	45%	40.2 %
GREEN AREA (MIN)	55%	61.2 %
BUILDING HEIGHT[3]	45 FT.[3]	47.83 FT.
BUILDINGS SEPARATION (MIN)	30 FT.	>30 FT
PARKING SPACES	1,222[4]	1,288[4]

[1] ZONING DESIGNATION, ZONING DIMENSIONAL REQUIREMENTS, AND INCORPORATION OF USE E-18 SHOWN ON THIS PLAN ARE BASED ON TEXT AND MAP AMENDMENTS ADOPTED BY THE ABINGTON TOWNSHIP BOARD OF COMMISSIONERS ON NOVEMBER 10, 2021 (ORDINANCE NO. 2186 AND ORDINANCE NO. 2187).

[2] LOT AREA TO BE UTILIZED FOR ZONING COMPUTATIONS AS SHOWN IN THIS PLAN IS BASED ON CONSOLIDATED LOT AREA MINUS AREA TO THE ULTIMATE RIGHT-OF-WAY LINE OF ALL STREETS.

[3] BUILDING HEIGHT MAY BE INCREASED TO 55 FEET SUBJECT TO THE EXCEPTION SET FORTH IN SECTION 2601.G, "HEIGHT EXCEPTIONS".

[4] PARKING COMPUTATIONS:

REQUIRED PARKING

1 SPACE PER CLASSROOM (88 CLASSROOMS): 1 SP * 88 =	88 SP
1 SPACE PER 2.5 STUDENTS (3600 STUDENTS): 3600/2.5 SP =	1440
1 SPACE PER 10 AUDITORIUM SEATS (510 SEATS): 510/10 =	51
1 SPACE PER 300 S.F. GROSS OFFICE FLOOR SPACE: [EX = 40,415 S.F.; NEW ACADEMIC OFFICE = 10,000 S.F.]	
1 SP * 50,416 S.F./300 =	168 SP
TOTAL REQUIRED PARKING	1747 SP
PARKING SPACES REQUIRED WITH 30% REDUCTION [UNIVERSITY SHALL PROVIDE: REGULARLY SCHEDULED SHUTTLE SERVICE; RIDE-SHARE PROGRAM; AND CAR-SHARE/ BIKE-SHARE SERVICES]	1223 SP

PARKING PROVIDED

EXISTING OFF-CAMPUS SPACES	129 SP
EXISTING ONSITE SPACES	1118
SPACES REMOVED FOR PROJECT	[44]
PARKING SPACES ADDED FOR PROJECT (INCLUDING 5 ACCESSIBLE SPACES)	85 SP
TOTAL PARKING PROVIDED	1288 SP

IMPERVIOUS COVERAGE CALCULATIONS

EXISTING LOT AREA	= 1,836,428 S.F.
PROPOSED LOT AREA	= 1,941,654 S.F.
EXISTING BUILDING	= 140,537 S.F.
EXISTING PAVEMENT/CONCRETE	= 581,452 S.F.
TOTAL EXISTING IMPERVIOUS	= 721,989 S.F. (39.3%)
PROPOSED BUILDING	= 162,219 S.F.
PROPOSED PAVEMENT/CONCRETE	= 617,741 S.F.
TOTAL PROPOSED IMPERVIOUS	= 779,960 S.F. (40.2%)

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED CONCRETE
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED LANDSCAPE STRIP
- PROPOSED SIGN

EXISTING UTILITY LEGEND

- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Fern Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

SCALE: 1"=800'

40 0 40 80
SCALE IN FEET
1"=40'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
504 CORPORATE DRIVE WEST • EXTON, CHESTER COUNTY, PA 19341 • 610-903-0055 • www.gilmore-assoc.com

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NOT TO BE RECORDED

REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E
COMMONWEALTH OF PENNSYLVANIA

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

SITE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1

DATE:	SCALE:
06/06/22	1"=40'

DRAWN BY:	CHECKED BY:
WMH	JM

SHEET NO.: 4 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_SITE.dwg Layout: 4 SITE PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 12:48pm

PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE

LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- # EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

NATURAL RESOURCE CALCULATIONS

NATURAL RESOURCE	RESOURCE PROTECTION REQUIRED (%)	TOTAL AREA OF RESOURCE (S.F.)	AREA DISTURBED (CURRENT PROJECT)	DISTURBED % (CURRENT PROJECT)	AREA PRESERVED (CURRENT PROJECT)	PRESERVED % (CURRENT PROJECT)
ZONE X		89,123	0	0.0%	89,123	100.0%
RIPARIAN CORRIDOR ZONE 1		78,266	0	0.0%	78,266	100.0%
RIPARIAN CORRIDOR ZONE 2		134,617	0	0.0%	134,617	100.0%
VEGETATION – FORESTED/WOODED		740,549	43,531	5.9%	697,018	94.1%
CLASS I SLOPES (8%–15% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS II SLOPES (15%–25% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS III SLOPES (>25% SLOPES)	N/A	0	0	0.0%	0	0.0%

NOTE: BASED ON THE DEFINITION OF STEEP SLOPES FROM THE TOWNSHIP OF ABINGTON ZONING ORDINANCE, STEEP SLOPES ARE NOT PRESENT ON THE PROJECT SITE

100 0 100 200
SCALE IN FEET
1"=100'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 5 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ERSAP.dwg Layout: 5 EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL Plotted By: wheider, on Mon Oct 02, 2023 at 11:32am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE 1"=100' (100 0 100 200 FEET)

GILMORE & ASSOCIATES, INC.
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LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ERIC S. CLASE — 55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

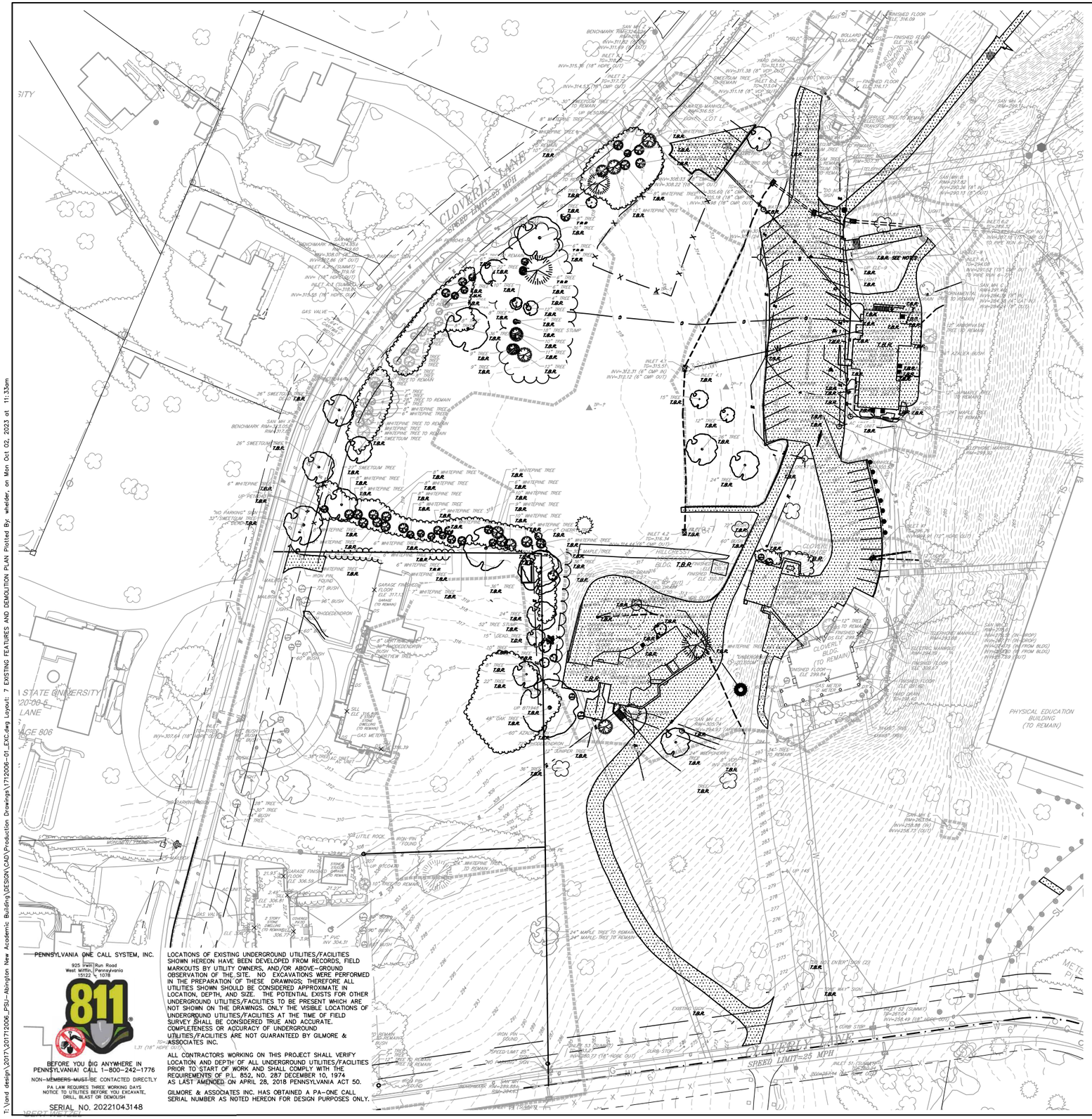
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 6 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_AERIAL.dwg Layout: 6 EXISTING FEATURES PLAN – OVERALL Plotted By: whelder, on Mon Oct 02, 2023 at 11:32am



REFERENCE PLANS:

1. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., DATED APRIL 18, 1984, SHEETS 1, 6 & 7 OF 12. RECORDED IN PLAN BOOK I-3 PAGE 50.
2. TOPOGRAPHIC AND PLANIMETRIC INFORMATION TAKEN FROM AN AUTOCAD PLAN PREPARED BY QUANTUM SPATIAL, "ABINGTON SITE".

GENERAL NOTES:

1. SURVEY INFORMATION PROVIDED ON THIS PLAN IS BASED ON THE FOLLOWING:
   - 1.A. A BOUNDARY AND PARTIAL SITE SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN DECEMBER 2019 AND MARCH 2022.
   - 1.B. TOPOGRAPHY AND EXISTING ABOVE-GROUND FEATURES FROM A PLAN TITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS - 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201-V0201" PREPARED FOR THE PENNSYLVANIA STATE UNIVERSITY BY PENNONI ASSOCIATES, INC. AND DATED 10/12-2017.
   - 1.C. EXISTING UTILITIES INFORMATION FROM A CAD FILE PROVIDED BY PENNSYLVANIA STATE UNIVERSITY ON 5/22/2019 NAMED "ABINGTON UTILITIES 031717.DWG". (NOTE: UTILITY INFORMATION VERIFIED THROUGH THE G&A PARTIAL SITE SURVEY SUPERSEDES INFORMATION PROVIDED BY THIS FILE)
2. DEVIATIONS FROM REFERENCED INFORMATION PROVIDED BY OTHERS INCLUDE THE FOLLOWING:
   - 2.A. CAD FILES USED TO CREATE THE PLAN REFERENCED IN 1A ABOVE WERE PROVIDED BY PENNONI ASSOCIATES, INC. THE TOPOGRAPHY FROM THIS FILE WAS RAISED 0.43' TO MEET THE VERTICAL DATUM FROM THE 2019 G&A SURVEY.
3. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. OTHER RIGHTS TO PROPERTY MAY EXIST.
4. ADJACENT PARCEL LINES WERE OBTAINED FROM COUNTY GIS MAPPING FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA. PARCEL LINES ARE APPROXIMATE AND ARE NOT ADJUSTED TO PHYSICAL EVIDENCE FOUND.
5. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
6. VERTICAL DATUM NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA TATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.

LOCATION MAP

SCALE: 1"=800'

DEMOLITION PLAN NOTES

1. REMOVE ALL EXISTING CAMPUS WAYFINDING SIGNAGE WITHIN THE PROJECT AREA AND STORE FOR REUSE ONSITE AS DIRECTED BY THE ABINGTON CAMPUS DIRECTOR OF BUSINESS OPERATIONS.
2. ALL TREES WITH A 10-INCH CALIPER OR GREATER ON THE SUBJECT PROPERTIES ARE TO REMAIN UNLESS LABELED AS TO BE REMOVED (T.B.R.).

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PIPE TO BE REMOVED
- TREES TO BE REMOVED
- BUILDINGS & PAVEMENT TO BE REMOVED

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- EXISTING TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1"=40'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
504 CORPORATE DRIVE WEST • CANONSBURG, PA 15317 • P: 724-873-8855 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
4	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
3	75% CD SUBMISSION	09/09/22	DAW
2	50% CD SUBMISSION	07/20/22	DAW
1	DESCRIPTION	DATE	BY
REV.			

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MmontgomERY COUNTY, PENNSYLVANIA

EXISTING FEATURES AND DEMOLITION PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT NO.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

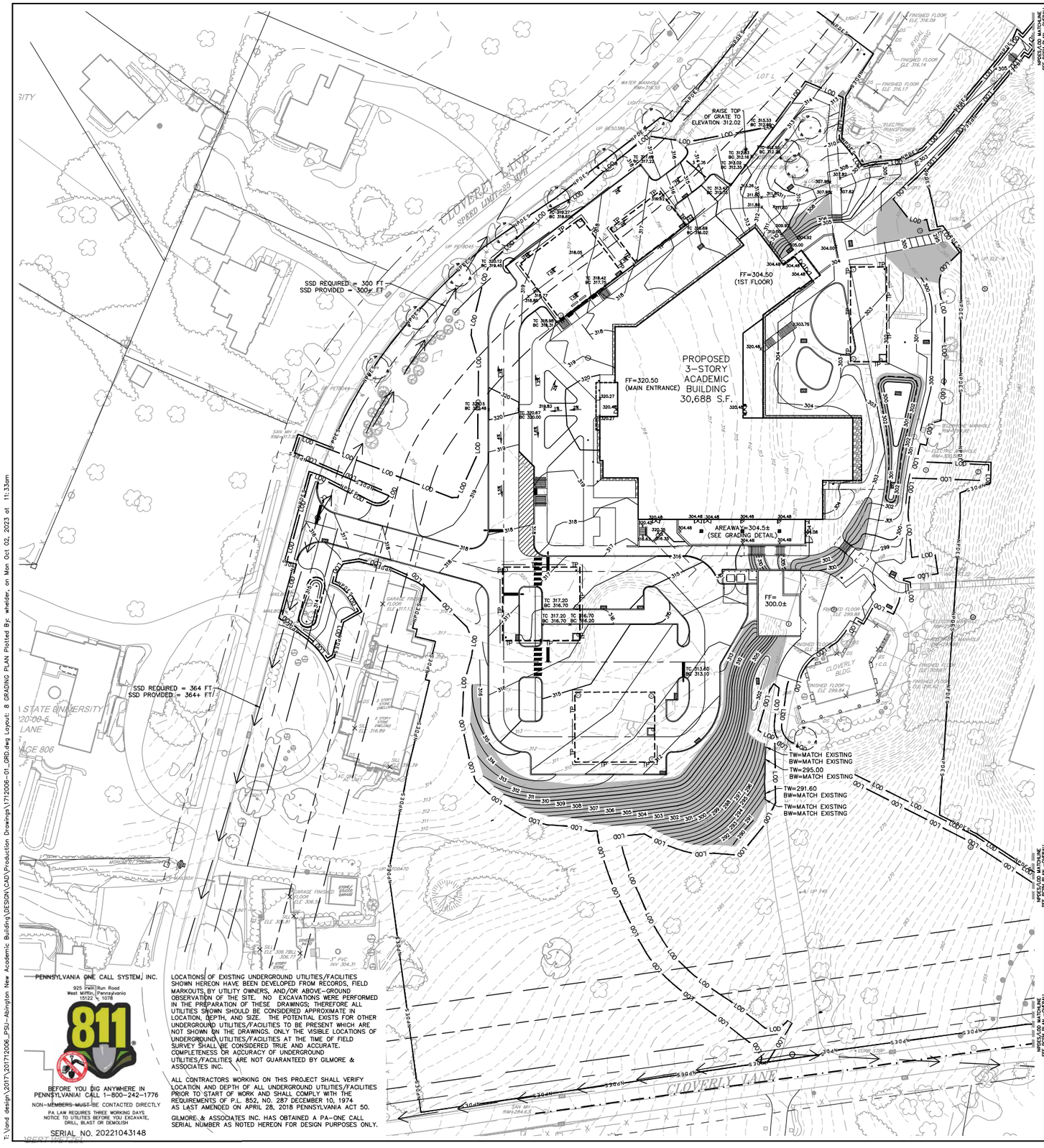
MUNICIPAL FILE NO.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 7 OF 40

T:\Land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_EXC.dwg Layout: 7 EXISTING FEATURES AND DEMOLITION PLAN Plotted By: whelder, on Mon Oct 02, 2023 at 11:33am



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NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS, BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- MPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK - SIZE
- TP TREE PROTECTION
- STEEP SLOPES (15% OR GREATER)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

GENERAL NOTES:

1. ABINGTON TOWNSHIP SEWER DATUM BENCHMARK HAS BEEN OBTAINED FROM A PLAN ENTITLED "ABINGTON TOWNSHIP, MONTGOMERY COUNTY, A - SANITARY SEWER PROJECT, CLOVERLY LANE STA 12+00 TO STA 23+66. THIS DATUM DIFFERS FROM THE FIELD SURVEY BY BEING 5.25± FEET LOWER. ELEVATIONS SHOWN ON THIS PLAN SHOULD BE ADJUSTED TO CONFORM TO THIS DATUM.

REFER TO GRADING DETAIL PLANS, PCSM PLAN, EROSION CONTROL PLAN AND PLAN DETAILS FOR ADDITIONAL INFORMATION ON WORK REQUIRED FOR SITE GRADING OPERATIONS.

SCALE: 1"=40'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.			

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0448

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 8 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 8 GRADING PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:33am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
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- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN 1"=10' FEET

GILMORE & ASSOCIATES, INC.
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
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UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

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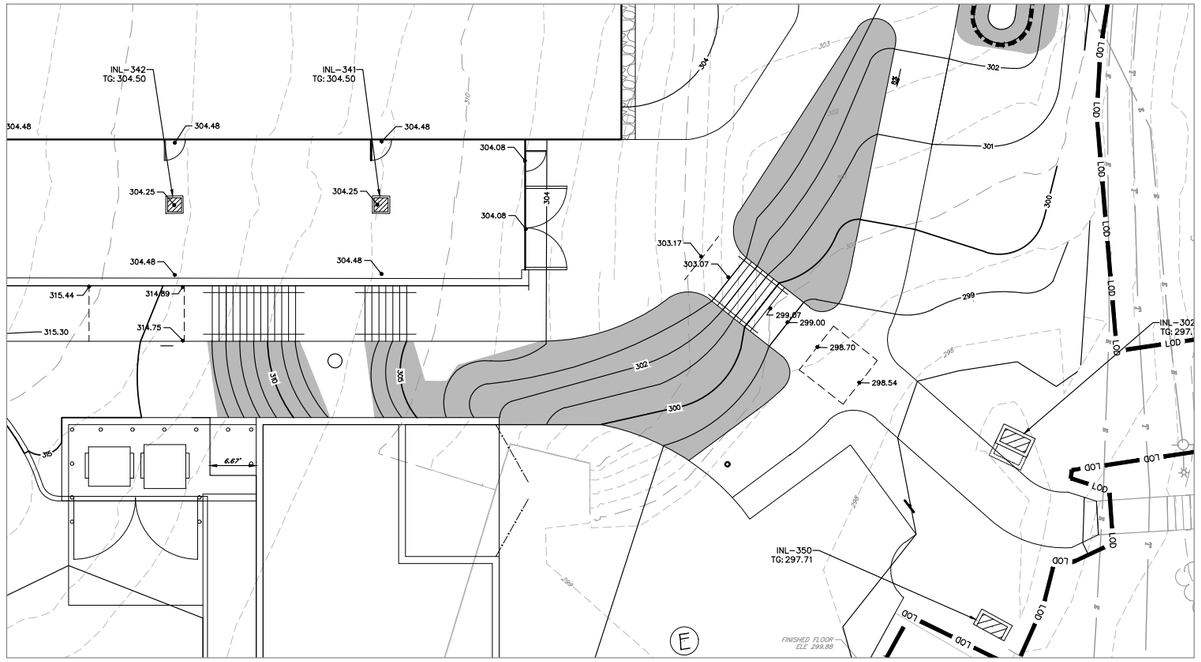
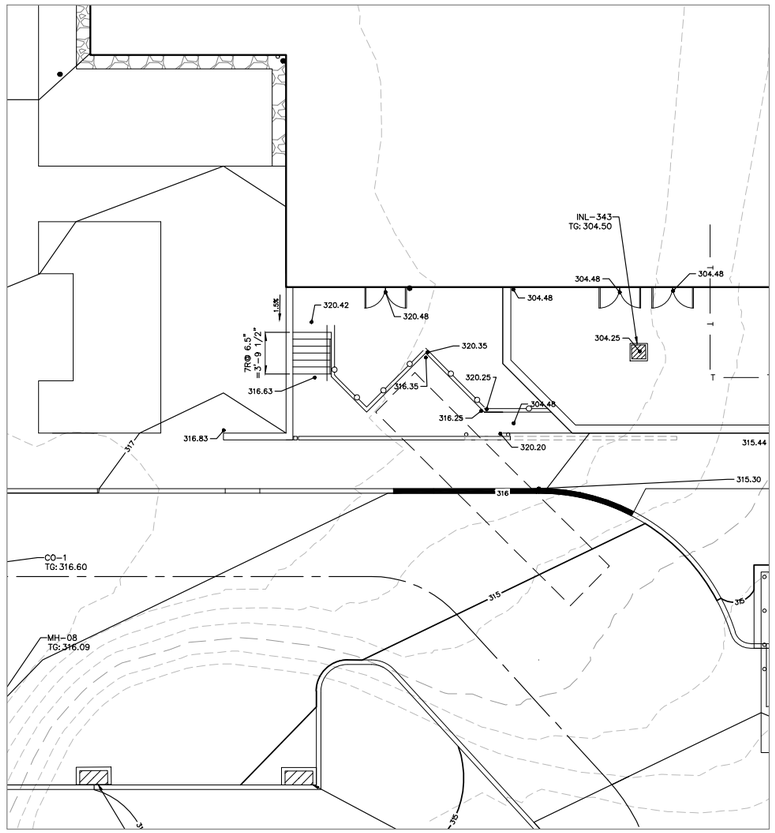
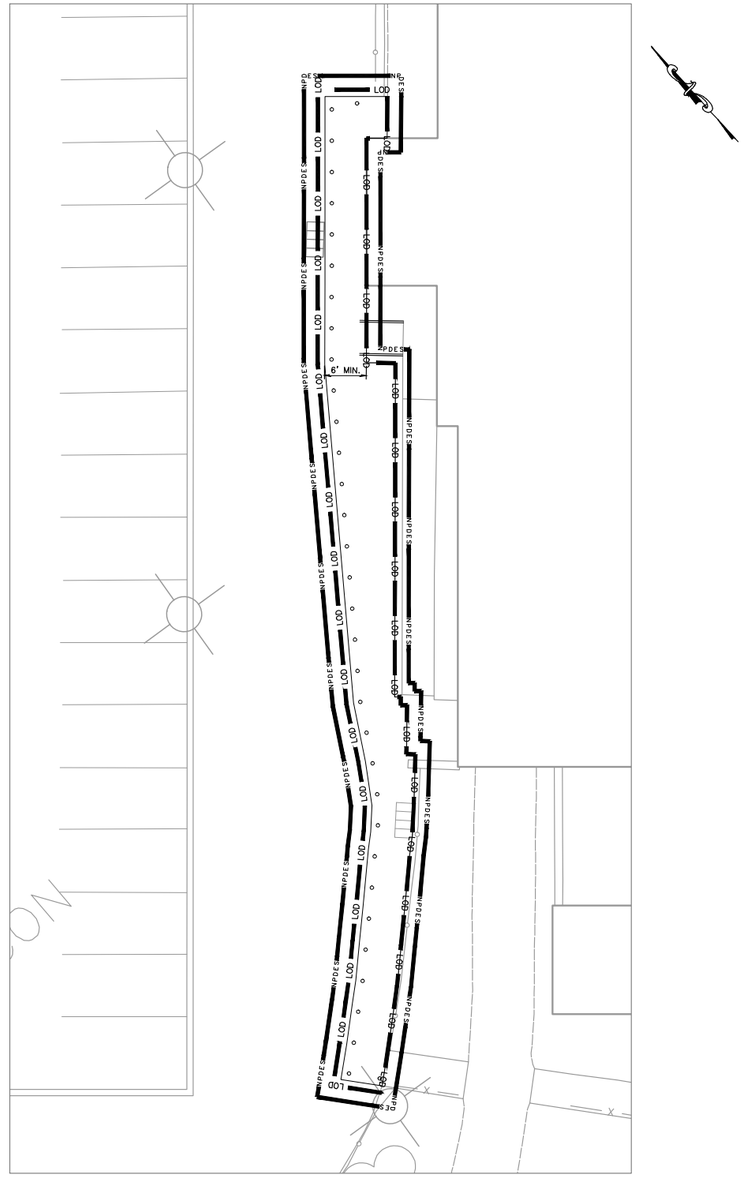
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 9 OF 40

T:\land design\2017\2017712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 9 GRADING DETAIL PLAN 1 Plotted By: wheisler, on Mon Oct 02, 2023 at 11:33am







WOODLAND BUILDING SIDEWALK CONNECTION DETAIL

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
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- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
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- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
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- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN 1"=10' FEET

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ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

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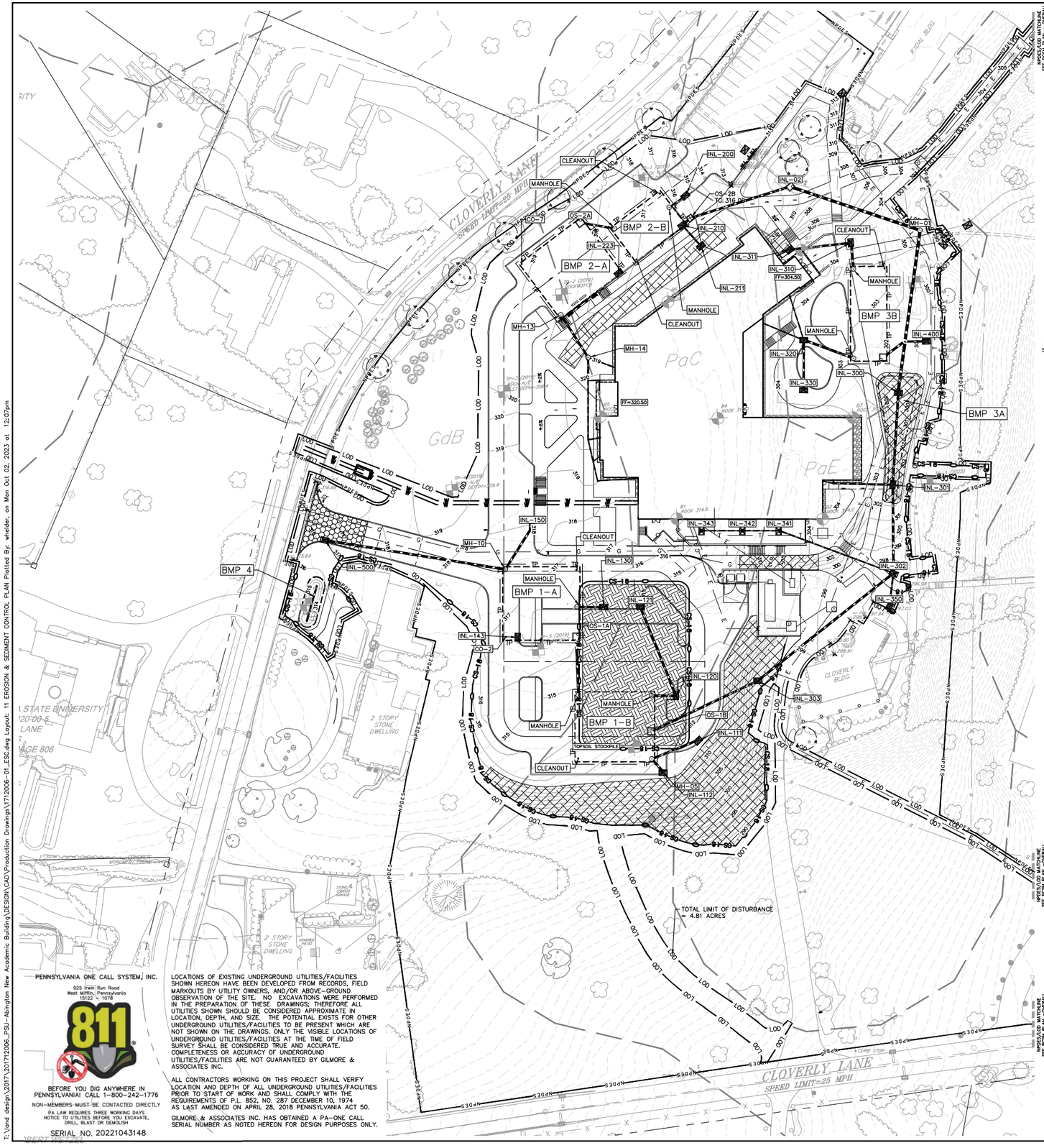
DATE: 06/06/22	SCALE: 1"=10'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 10 OF 40

T:\land design\2017\2017712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 10 GRADING DETAIL PLAN 2 Plotted By: wheidler, on Mon Oct 02, 2023 at 12:33pm



LOCATION MAP

SCALE: 1"=800'

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XIII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMPS FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

LEGEND

EXISTING		PROPOSED
318	2FT CONTOURS	120
	TREE LINE	
	100YR FLOODPLAIN	
	DELINEATED WETLANDS	
CbA	SOIL TYPE BOUNDARY & LABEL	
	UTILITY POLE	
	TRAFFIC SIGN	
G G	GAS LINES	G G
ECT ECT	ELECTRIC, TELEPHONE, CABLE	ECT ECT
S S	SANITARY SEWER MAIN	S S
SL SL	SANITARY LATERAL/CLEANOUT	SL CO SL
W	WATER MAIN/SIZE	BW BW
	WATER LATERAL/CURB STOP	WL CS WL
	STORM SEWER/INLET	
	ROOF DRAIN COLLECTOR	RL RL RL
	ENERGY DISSIPATOR	
	ROCK CONSTRUCTION ENTRANCE	RCE
	EROSION CONTROL MATS: NAG SC-150	
	EROSION CONTROL MATS: NAG SC-150	
	COMPOST SOCK w/ SIZE	CS-18
TP TP	RESOURCE PROTECTION FENCE	TP TP
	LIMIT OF DISTURBANCE:	
	PROJECT SITE BOUNDARY	NPDES
	INLET PROTECTION	
	TEST PIT	
	BORING	

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
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SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	60"-118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	60'-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

PROJECT SITE AREA: 8.71 ACRES
AREA OF DISTURBANCE: 4.81 ACRES

SCALE: 1"=40'

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL PLAN

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T:\and design\2017\20171200\6_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\171200\6-01_ESC.dwg Layout: 11 EROSION & SEDIMENT CONTROL PLAN Plotted By: whieter, on Mon Oct 02, 2023 at 12:07pm

EROSION & SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, STABILIZED AND FUNCTIONAL PRIOR TO EARTH DISTURBANCE WITHIN THE TRIBUTARY AREA TO SAID E&S MEASURE.
2. LOCAL ROADS ARE TO REMAIN FREE OF SEDIMENT AND CONSTRUCTION VEHICLES AND EQUIPMENT.
3. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION AS PER SEEDING AND MULCHING SCHEDULE.
4. SILT FENCING MAY BE REMOVED WHEN THE SITE IS PERMANENTLY STABILIZED. ACCUMULATED SEDIMENT MAY BE SPREAD AT THE SITE IN AREAS NOT SUBJECT TO EROSION.
5. THE TREE PROTECTION FENCING SHALL NOT BE REMOVED UNTIL ALL DEVELOPMENT AREAS ARE STABILIZED AND WRITTEN CONFIRMATION IS RECEIVED FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
7. DISTURBED AREAS THAT AREA AT A FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
8. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE 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.
9. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE CONTRACTOR SHALL RECEIVE APPROVAL OF THE REVISIONS FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
10. THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, 'EROSION CONTROL RULES AND REGULATIONS,' TITLE 25, PART 1, DEPT. OF ENVIRONMENTAL PROTECTION, SUBPART C-PROTECTION OF NATURAL RESOURCES, ARTICLE III-WATER RESOURCES, CHAPTER 102-EROSION CONTROL AND WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" BY THE COMMONWEALTH OF PA., DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2000 OR LATEST EDITION.
11. TECHNICAL ADVICE FOR THE IMPLEMENTATION OF THIS PROGRAM MAY BE OBTAINED BY CONTACTING THE MONTGOMERY COUNTY CONSERVATION DISTRICT AT (610)489-4506.
12. COPIES OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION.
13. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.

A. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE FOR ALL IMPORTED MATERIAL IN DETERMINING THAT FILL IS CLEAN.

B. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

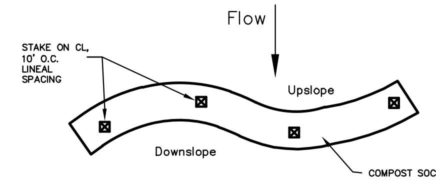
14. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
15. NO CHANGE SHALL BE MADE TO THE CONTOUR OF THE AND NOR SHALL GRADING, EXCAVATING, REMOVAL, OR DESTRUCTION OF THE TOPSOIL, TREES, OR OTHER VEGETATIVE COVER OF THE LAND CAN BE COMMENCED UNTIL SUCH A TIME THAT A GRADING PERMIT IS APPLIED FOR AND APPROVED.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

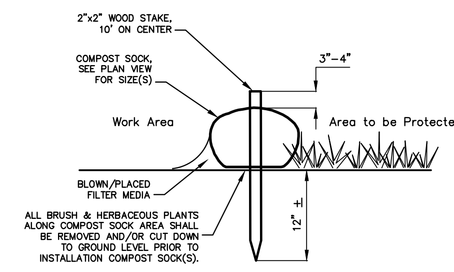
1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

NOTES ON TEMPORARY CONTROL MEASURES:

1. EXISTING TREES AND OTHER EXISTING VEGETATION WILL BE DISRUPTED AS LITTLE AS POSSIBLE.
2. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY HAS CEASED, ALL AREAS SHALL BE STABILIZED. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE STABILIZED WITH TEMPORARY VEGETATION. AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL RECEIVE PERMANENT STABILIZATION. (SEE SEEDING AND MULCHING TABLE FOR DETAILS)
3. ALL TOPSOIL FROM THE OVERALL SITE PREPARATIONS WILL BE STOCKPILED AND REDISTRIBUTED UNIFORMLY AT THE TIME OF FINAL GRADING. ALL STOCKPILES SHALL HAVE PERIMETER SILT FENCE INSTALLED AND BE SEEDED AND MULCHED IMMEDIATELY. STOCKPILE(S) SHALL HAVE A SIDE SLOPE OF 2:1 OR FLATTER AND SHALL HAVE A HEIGHT NOT GREATER THAN 35 FEET. SEE PLAN FOR LOCATION OF TOPSOIL STOCKPILES.
4. GRADE ALL CUT AND FILL SLOPES TO 3 FOOT HORIZONTAL FOR EVERY 1 FOOT VERTICAL OR FLATTER, AND APPLY SEEDING AND MULCH. AREAS WITH GRADES GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEED MIX AND PERMANENT TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #C350 OR EQUAL
5. RIP-RAP WILL BE APPLIED TO ALL AREAS WHERE HEAVY CONCENTRATIONS OF DRAINAGE ARE PREVALENT (GREATER THAN 3.5 cfs). THIS WOULD BE AT CULVERT OUTLETS, WHERE WATER IS IN TRANSITION FROM AN OPEN CHANNEL INTO A CULVERT, OR AS SPECIFIED.
6. SIGNIFICANT STANDS OF TREES, DESIGNATED TO REMAIN, WILL BE PROTECTED WITH FENCING, SEE DETAIL. INSTALL ALONG THE DRIP LINE OF THE TREE BRANCHES.
7. EROSION CONTROL FACILITIES MUST DISCHARGE INTO ADEQUATE STORM SEWERS, NATURAL WATERWAYS, OR STABLE EROSION RESISTANT AREAS.
8. CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS OF DELIVERY VEHICLES. NO WASH WATER FROM THESE VEHICLES SHALL BE ALLOWED TO ENTER ANY SURFACE WATERS. WASHOUT FACILITIES SHALL NOT BE LOCATED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES INFILTRATION FACILITIES OR SURFACE WATERS.
9. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAY MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
10. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE/PROPERTY WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF BUCKS COUNTY CONSERVATION DISTRICT. ANY INLETS WHICH DO NOT DIRECT FLOW TO A SEDIMENT BASIN MUST BE PROTECTED WITH INLET PROTECTION.
11. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A FILTER BAG, DISCHARGING OVER UNDISTURBED AREAS.
12. ABSOLUTELY NO EARTHMOVING, PLACEMENT OF FILL MATERIAL OR THE ENTRY OF SEDIMENT LADEN WATER MUST TAKE PLACE IN WETLANDS. ALL WETLANDS SHALL BE PROTECTED FROM ENCROACHMENT WITH FENCING.
13. ROCK FILTER OUTLETS MUST BE PROVIDED IMMEDIATELY WHERE SILT FENCING HAS BEEN UNDERMINED OR OVERTOPPED.
14. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE BUCKS COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE, GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
15. IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
16. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. IMMEDIATELY STABILIZE REPLACED SOILS WITH SEED & MULCH OR DEPOSIT IN SOIL STOCKPILES AND STABILIZE.
17. THE CONTRACTOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.



PLAN VIEW: SLOPE PROTECTION (SILT FENCE)



SECTION VIEW: COMPOST SOCK INSTALLATION

NOTES:

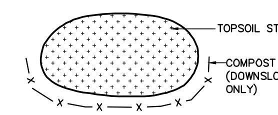
1. COMPOST SOCK SHALL BE "SILTSOXX" AS SUPPLIED BY MCS INC. (1971 N. BLACK HORSE PIKE, WILLIAMSTOWN, NJ 08094, 856-629-1044, www.mcsnjinc.com) OR EQUAL PRODUCT BY OTHER MANUFACTURER.
2. FOR INSTALLATIONS ON EXISTING PAVEMENT, CINDER BLOCKS ON DOWNSTREAM SIDE MAY BE USED IN LIEU OF WOOD STAKES TO ANCHOR THE SOCKS.
3. UPON COMPLETION OF THE PROJECT, COMPOST MATERIAL SHALL BE MIXED WITH ONSITE SOIL/TOPSOIL AND SPREAD ON THE SITE AS DETAILED IN SEEDING AND MULCHING SCHEDULE.
4. SOCK FABRIC SHALL BE 5mil PHOTO-DEGRADABLE, HDPE FOR INSTALLATIONS LESS THAN 9 MONTHS. FOR PROJECTS WITH LONGER DURATIONS, SOCKS SHALL BE MULTI-FILAMENT POLYPROPYLENE FABRIC.
5. INFILL MATERIAL SHALL BE WEED FREE COMPOST DERIVED FROM WELL-DECOMPOSED ORGANIC MATTER. COMPOST SHALL BE PRODUCED USING AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS. COMPOST MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

ORGANIC MATTER CONTENT	25% – 100%
ORGANIC PORTION	FIBROUS & ELONGATED
pH	5.5 – 8.5
MOISTURE CONTENT	30% – 60%
PARTICLE SIZE	30–50% PASS 3/8" SIEVE
SOLUBLE SALT	5.0 dS/m MAXIMUM

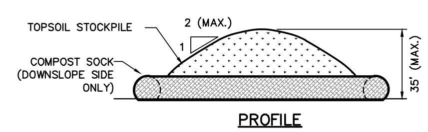
6. COMPOST SOCKS SHALL BE PLACED AT LEVEL GRADE AND BOTH ENDS EXTENDED 8' MIN. UP SLOPE AT 45° ANGLE.
7. ACCUMULATED SEDIMENT SHALL BE REMOVED WHENIT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED OF IN APPROVED UPLAND AREA.

COMPOST SOCK "SILT FENCE" DETAIL

NOT TO SCALE



PLAN VIEW

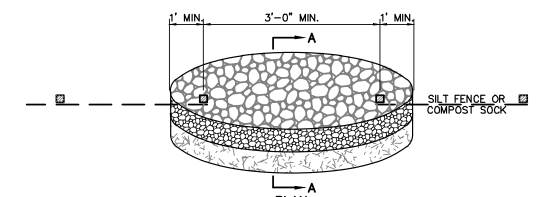


PROFILE

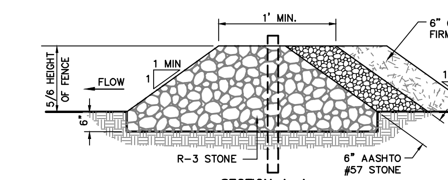
SEDIMENT BARRIER MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING & MULCH TO ALL STOCKPILES.

TOPSOIL STOCKPILE AREA DETAIL

NOT TO SCALE



PLAN



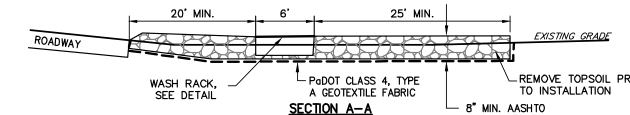
SECTION A–A

ROCK FILTER OUTLET DETAIL

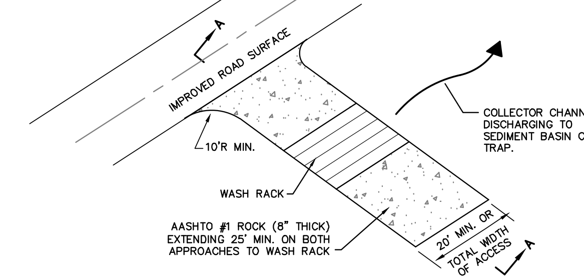
NOT TO SCALE

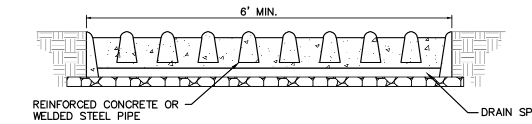
NOTES:

1. ROCK FILTER OUTLETS TO BE PROVIDED AT ALL EXISTING OR PROPOSED LOW POINTS AND ALL AREAS OF CONCENTRATED FLOWS.
2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLETS.
3. COMPOST LAYER IS REQUIRED IN ALL HQ AND EV WATERSHEDS.



SECTION A–A





WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK.

AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROAD DITCHES, SEWERS, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

TEMPORARY CONSTRUCTION ENTRANCE W/ WASH RACK

NOT TO SCALE

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROPOSED WORK SHALL UTILIZE THE PARCELS ALONG RTE 202 PRESERVING THE UNDEVELOPED PORTION TO THE REAR WITH THE EXCEPTION OF THE TOWNSHIP CONNECTOR ROAD STUB.
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– ALTHOUGH OFFSITE, THE WATERS OF THE US CROSSING THROUGH THE PECO R.O.W HAS BEEN PROVIDED WITH A 75FT BUFFER.
	MINIMIZE SOIL COMPACTION	– ALL GRASS AND MEADOW AREAS SHALL BE SCARIFIED AND AMENDED WITH COMPOST DURING STABILIZATION TO REDUCE COMPACTION.
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SITE TESTED WELL FOR INFILTRATION PRACTICES WHICH WILL BE INTEGRATED INTO ALL PCSM FACILITIES.
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PCSM FACILITIES FOCUS ON INFILTRATION PRACTICES TO MITIGATE THERMAL IMPACTS FROM REDEVELOPMENT OF THE FRONT PARCELS.
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THE STREAM IS LOCATED WITHIN THE PECO R.O.W. WHICH WILL NOT ALLOW INSTALLATION OF TREES. REFORESTATION WILL FOCUS ON THE REAR PARCEL BEING DEDICATED TO SOLEBURY TOWNSHIP.
ANTI-DEGRADATION ANALYSIS		– THE MAJORITY OF THE PROPOSED DEVELOPMENT IS CAPTURED BY PCSM FACILITIES WHICH MEET OR EXCEED THE VOLUME AND WATER QUALITY REQUIREMENTS FOR THE SITE PER THE 'DEP PCSM SPREADSHEET.'

SEQUENCE OF CONSTRUCTION:

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

AT LEAST 7 DAYS PRIOR TO START OF WORK OR EARTH DISTURBANCE ACTIVITIES, A PRECONSTRUCTION MEETING SHALL BE HELD INCLUDING THE OWNER, SITE CONTRACTOR, TOWNSHIP ENGINEER, COUNTY CONSERVATION DISTRICT, THE PLAN DESIGNER, AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF PCSWM INSTALLATION.

1. USING EXISTING SITE ACCESSES, INSTALL COMPOST SOCKS AND TREE PROTECTION FENCES AS SHOWN ON PLAN.
2. COMPLETE DEMOLITION OF EXISTING STRUCTURES AND PAVEMENT IN ACCORDANCE WITH PLANS. CLEAR & GRUB VEGETATION AS NOTED. INSTALL TEMPORARY STONE TIRE CLEANER AT NEW ENTRANCE DRIVE LOCATION AS DETAILED ON PLANS PRIOR TO REMOVAL OF EXISTING PAVED DRIVEWAYS.
3. STRIP AND STOCKPILE TOPSOIL. SURROUND STOCKPILE WITH COMPOST SOCK AND STABILIZE WITH TEMPORARY SEED.
4. COMPLETE BUILDING FOOTINGS, FOUNDATIONS AND BUILDING SLAB BASE STONE.
5. INSTALL BUILDING UTILITIES.
6. INSTALL STORMWATER MANAGEMENT FACILITIES.
7. AS STORM SEWERS ARE INSTALLED, INLETS SHALL BE PROVIDED WITH INLET PROTECTION DEVICES IN ACCORDANCE WITH PLANS & DETAILS.
8. ROUGH GRADE NEW ACCESS DRIVE AND PARKING AREA. STABILIZE WITH STONE BASE COURSE AS SOON FEASIBLE.
9. ROUGH GRADE SITE.
10. REMAINING IMPROVEMENTS AS PER STANDARD CONSTRUCTION TECHNIQUES.
11. INSTALL RAINGARDEN BMPS AND ALL PLANTINGS.
12. AS LAWN AREAS ARE BROUGHT TO GRADE, THEY SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 5–12" THEN PROVIDED WITH A MINIMUM OF 8" TOPSOIL AND SEEDED IMMEDIATELY. ALL VEGETATED AREAS SHALL BE STABILIZED WITH VEGETATION AND MULCH AS SOON AS POSSIBLE.
13. AFTER THE SITE HAS BEEN STABILIZED, ALL TEMPORARY E&S CONTROLS SHALL BE REMOVED.
14. ALL ACCUMULATED SEDIMENTS SHALL BE DISPOSED OF IN APPROVED UPLAND AREAS.
15. STABILIZATION SHALL BE CONSIDERED THE PLACEMENT OF BASE COURSE IN PAVED AREAS OR BY 75% OR MORE VEGETATION, UNIFORM COVERAGE, IN LAWN AREAS OR BY OTHER PERMANENT MEANS WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
16. AREAS DISTURBED DURING THE REMOVAL OF BMPS SHALL BE STABILIZED IMMEDIATELY.
17. NOTICE OF TERMINATION AND ASSOCIATED PAPERWORK SHALL BE FILED WITH CONSERVATION DISTRICT.

* ALL SEQUENCE STEPS RELATED TO THE IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (PCSM BMPS) ARE CONSIDERED THE CRITICAL STAGES FOR NPDES PERMITTING REQUIREMENTS. A LICENSED PROFESSIONAL SHOULD BE PRESENT ON-SITE TO VERIFY THAT THE FOLLOWING ITEMS MEET CERTAIN DESIGN REQUIREMENTS: BOTTOM OF BASIN INVERT ELEVATIONS; LINING OF STORMWATER BMPS FOR CARBONATE GEOLOGOGY PROTECTION; FOOTPRINT OF STONE BEDS; TOP OF STONE ELEVATION; OUTLET STRUCTURE INVERTS; AND OUTLET PIPING TO EXISTING FACILITIES. THE CONTRACTOR AND SURVEYOR SHALL DOCUMENT CONSTRUCTION OF THE BASINS WITH PHOTOGRAPHS AND AS-BUILT PLANS.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)

   ADDITIONAL SEED MIXES WITH ASSOCIATED SEEDING RATES MAY BE PROVIDED ON LANDSCAPE PLANS.
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. SLOPES OF 3:1 SHALL BE ANCHORED WITH MULCH CONTROL NETTING.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE: 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS, CONSIDERED SLOPES GREATER THAN 3:1, SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ERIC S. CLASE — ENGINEER 55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

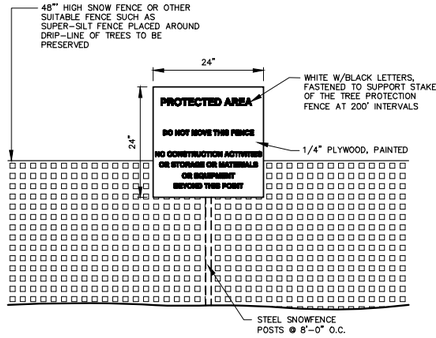
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETALS & NOTES – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: ----	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 12 OF 40	

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 12 EROSION & SEDIMENT CONTROL DETALS & NOTES - 1 Plotted By: whelder, on Mon Oct 02, 2023 at 11:34am



TREE PROTECTION/NOTIFICATION DETAIL

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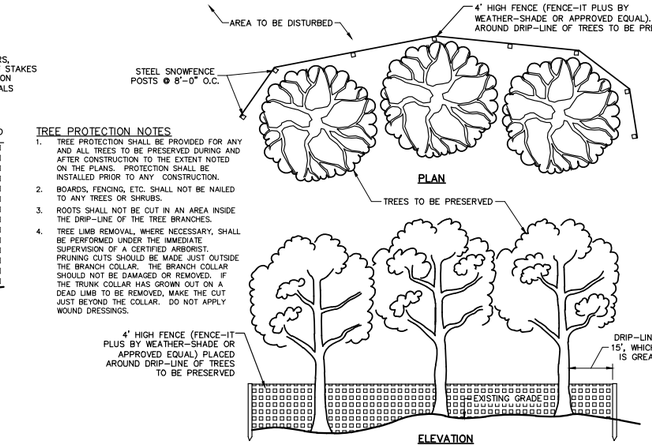

TREE PROTECTION NOTES

1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION TO THE EXTENT NOTED ON THE PLANS. PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION.
2. BOARDS, FENCING, ETC. SHALL NOT BE NAILED TO ANY TREES OR SHRUBS.
3. ROOTS SHALL NOT BE CUT IN AN AREA INSIDE THE DRIP-LINE OF THE TREE BRANCHES.
4. TREE LIMB REMOVAL, WHERE NECESSARY, SHALL BE PERFORMED UNDER THE IMMEDIATE SUPERVISION OF A CERTIFIED ARBORIST. PRUNING CUTS SHOULD BE MADE JUST OUTSIDE THE BRANCH COLLAR. THE BRANCH COLLAR SHOULD NOT BE DAMAGED OR REMOVED. IF THE TRUNK COLLAR HAS GROWN OUT ON A DEAD LIMB TO BE REMOVED, MAKE THE CUT JUST BEYOND THE COLLAR. DO NOT APPLY WOUND DRESSINGS.

TREE PROTECTION DETAIL

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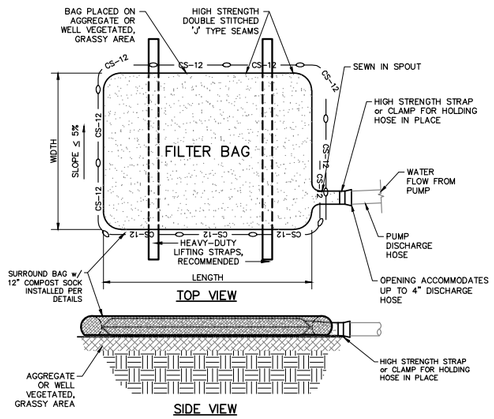


FILTER BAG TO BE USED WHEN/IF WATER PONDS IN EXCAVATIONS.

1. LOW VOLUME FILTER BAGS SHALL BE MADE OF NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES MEETING THE FOLLOWING STANDARDS:

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

2. PLACE FILTER BAGS ON STABLE OR WELL-VEGETATED AREAS WHICH ARE FLATTER THAN 5% SLOPE AND SHALL DISCHARGE ONTO STABLE, EROSION RESISTANT GROUND. WHERE THIS IS NOT POSSIBLE, GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED.
3. PUMP DISCHARGE HOSE SHALL BE INSERTED INTO BAG IN MANNER SPECIFIED BY MANUFACTURER AND SECURELY CLAMPED INTO FILTER BAG. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
4. LIMIT PUMPING TO 750 GPM OR 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE, WHICHEVER IS LESS. PUMP INTAKE SHALL BE FLOATING AND SCREENED.
5. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL PROBLEM IS CORRECTED.
6. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY IS REQUIRED FOR DISPOSAL PURPOSES. WHEN SEDIMENT FILLS 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE AND REPLACE WITH NEW BAG IMMEDIATELY. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.
7. THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE.

SEDIMENT FILTER BAG FOR PUMPED WATER

NOT TO SCALE

MAINTENANCE OF FACILITIES

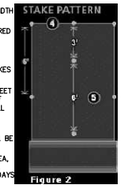
1. COMPOST SOCKS SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT OF MORE THAN 1/4" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE TO THE BUCKS COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF THE ABOVE NOTED INSPECTION AND MAINTENANCE.
4. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE.
5. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
6. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
7. ALL DRAINAGE SWALES SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF SWALES ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
8. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
9. AFTER THE STORM CONVEYANCE SYSTEM IS CONSTRUCTED, MONTHLY INSPECTIONS FOR EACH DEVICE WILL BE MADE. AN INSPECTION OF ALL FACILITIES WILL BE MADE AFTER EVERY STORM TO DETERMINE THEIR RESISTANCE TO DRIVING RAINS AND ACCUMULATED RUNOFF.
10. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
11. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.

INSTALLATION INSTRUCTIONS:

ADDITIONAL ITEMS NEEDED FOR INSTALLATION:
GRASS SEED
FERTILIZER
RUBBER MALLET
SCISSORS OR SHEARS
SAFETY GLASSES/GOGGLES

CAUTION: ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION OF BIOSTAKES.

1. PREPARE THE AREA TO BE PROTECTED BY RAKING THE SOIL TO A DEPTH OF 1-2 INCHES AND REMOVING LARGE DIRT CLODS, STICKS AND OTHER OBSTRUCTIONS. APPLY SEED AND FERTILIZER AND LIGHTLY RAKE INTO THE SOIL. (NOTE: THIS PRODUCT DOES NOT INCLUDE SEED OR FERTILIZER. FOR SEEDING AND FERTILIZER SEE THE SEEDING & MULCHING SCHEDULE.)
2. BEGIN INSTALLATION AT THE TOP OF THE SWALE, ANCHORING THE BLANKET IN A 6"x6" TRENCH. STAKE THE FABRIC INTO THE BOTTOM OF THE TRENCH WITH BIODEGRADABLE PLASTIC BIOSTAKES AT 12" INTERVAL. BACKFILL AND COMPACT THE TRENCH.
3. ROLL CENTER BLANKET OVER THE PREPARED BOTTOM OF THE SWALE IN THE DIRECTION OF WATER FLOW. SECURE BLANKET WITH BIOSTAKES IN APPROPRIATE PATTERN PER FIGURE 2 OR USING DOT SYSTEM PROVIDED ON BLANKET BY MANUFACTURER. A RUBBER MALLET IS RECOMMENDED FOR DRIVING THE BIOSTAKES INTO THE GROUND. **CAUTION!** BIOSTAKES MAY SHATTER IF BROKEN, THEREFORE, ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION.
4. PLACE SUBSEQUENT BLANKETS END OVER END, SHINGLE STYLE, WITH MINIMUM 6" OVERLAP. SECURE WITH DOUBLE ROW OF STAPLES/STAKES, 4" APART AND 6" ON CENTER ACROSS FULL WIDTH OF BLANKET.
5. FULL LENGTH OF BLANKET ALONG SIDE SLOPES SHALL BE ANCHORED WITH STAPLES/STAKES AT 12" INTERVALS IN 6"x6" TRENCH. BACKFILL AND COMPACT TRENCH.
6. ADJACENT BLANKETS ON SIDE SLOPES, IF NEEDED, SHALL BE OVERLAPPED A MINIMUM OF 6" AND SECURED WITH STAPLES/STAKES AT 12" INTERVALS.
7. IN HIGH FLOW CHANNELS, CHECK SLOT SHALL BE INSTALLED 30 FEET ON CENTER ALONG CHANNEL. SLOT SHALL BE A DOUBLE ROW OF STAPLES/STAKES 4" APART AND 6" ON CENTER ACROSS THE FULL WIDTH OF THE CHANNEL.
8. TERMINAL END OF THE BLANKET SHALL BE ANCHORED IN 6"x6" TRENCH WITH STAPLES/STAKES AT 12" INTERVAL. TRENCH SHALL BE BACKFILLED AND COMPACTED AFTER ANCHORING.
9. IMMEDIATELY FOLLOWING INSTALLATION, GENTLY WATER ENTIRE AREA, THOROUGHLY WETTING BOTH THE BLANKET AND UNDERLYING SOIL. FOR BEST RESULTS, KEEP SOIL MOIST FOR THE FIRST 30 TO 60 DAYS OR UNTIL UNIFORM GRASS ESTABLISHMENT IS ACHIEVED.



NORTH AMERICAN GREEN SWALE INSTALLATION

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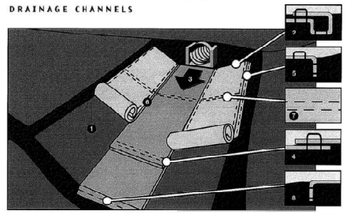
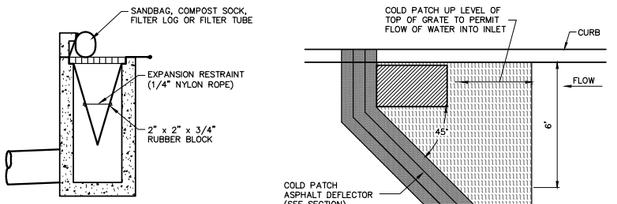
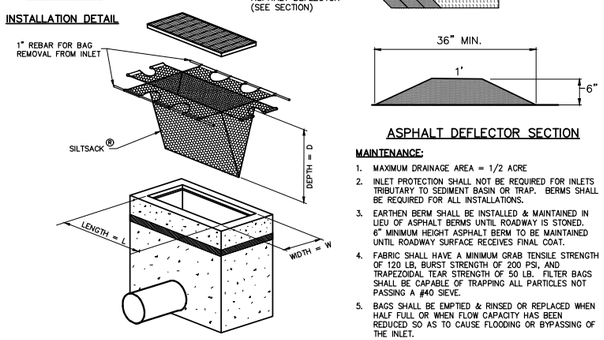


CONTRACTOR SHALL USE NORTH AMERICAN GREEN (OR EQUAL) EROSION CONTROL FABRICS WITH THE MANUFACTURER'S RECOMMENDED STAPLE PATTERN. CLASS OF FABRIC SHALL BE AS NOTED ELSEWHERE IN THE PLANS.



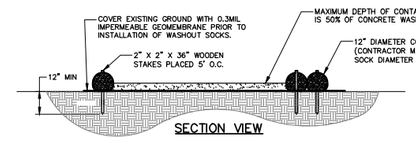


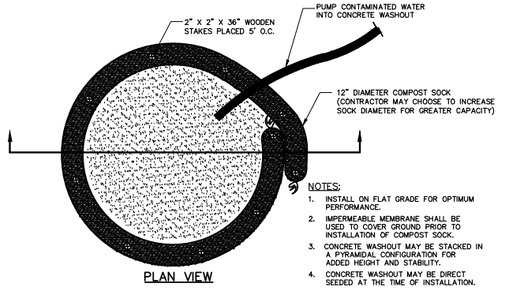
MAINTENANCE:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. EARTHEN BERM SHALL BE INSTALLED & MAINTAINED IN LIEU OF ASPHALT BERMS UNTIL ROADWAY IS STONED. 6" MINIMUM HEIGHT ASPHALT BERM TO BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LB, BURST STRENGTH OF 200 PSI, AND TRAPEZOIDAL TEAR STRENGTH OF 50 LB. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A #40 SIEVE.
5. BAGS SHALL BE EMPTIED & RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
6. DAMAGED OR CLOGGED BAGS SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.

SILTSACK TYPE 'C' INLET PROTECTION DETAIL

NOT TO SCALE





NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. IMPERMEABLE MEMBRANE SHALL BE USED TO COVER GROUND PRIOR TO INSTALLATION OF COMPOST SOCK.
3. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
4. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.

COMPOST SOCK CONCRETE WASHOUT DETAIL

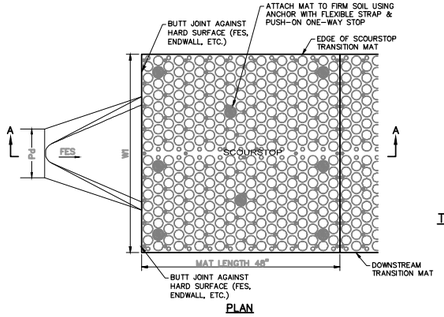
NOT TO SCALE

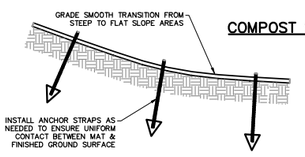
SCOUR STOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

1. INTENDED AS A BIOTECHNICAL REPLACEMENT FOR RIP-RAP OR HARD ARMOR. PROVIDES TRANSITION FROM SMOOTH CONCRETE OR OTHER HARD SURFACE TO TURF REINFORCEMENT MATS (TRMs), SOD, REINFORCED SOD, OR BARE GROUND.
2. SCOURSTOP STANDARD SIZE IS 4' X 4' X 4" X 3" SHEET WITH MULTIPLE VOIDS FOR VEGETATION GROWTH, PROVIDING SOIL PROTECTION FOR THE SUSCEPTIBLE, EROSIVE AREA DIRECTLY BELOW OUTLETS UNTIL SHEAR FORCE HAS DISSIPATED THROUGH DOWNSTREAM AREA EXPANSION AND FOR SHORELINE AND STREAMBANK PROTECTION.
3. UTILIZATION OF VEGETATIVE METHOD RESULTS IN LOWER THERMAL IMPACTS, REDUCED LONG TERM MAINTENANCE, AESTHETICALLY PLEASING MOWABLE GRASS SURFACE, AND IMPROVED SAFETY THROUGH ABSENCE OF JAGGED ROCKS AND TRAPPED DEBRIS.

MANUFACTURER'S INSTALLATION SPECIFICATIONS

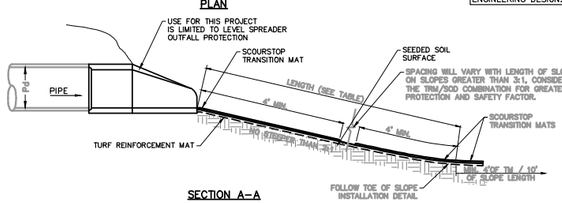
1. SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS SHALL EXTEND DOWNSTREAM TO LIMITS SHOWN ON PLANS.
2. REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRENCH FLOWS, IF DISCOVERED, SHOULD BE CAPTURED WITH A SUB-SURFACE DRAIN.
3. FOR A PIPE OUTLET WITH NO APRON, TRANSITION MAT SHOULD BE INSTALLED DIRECTLY ABUTTING THE END OF PIPE.
4. PIPE OUTLET FOOTINGS SHOULD NOT EXTEND PAST THE END OF PIPE. HEADWALL OR FLARED END SECTION. TRANSITION MAT SHALL ABUT DIRECTLY AGAINST THE PIPE OUTLET, FES, ENDWALL OR OTHER END TREATMENT.
5. AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL SLOPES. GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
6. INSTALL AT LEAST ONE 4" MAT LENGTH FOR EVERY 9" OF PIPE DIAMETER. PANELS MAY BE SHINGLED AS SHOWN. MATS SHALL NOT BE INSTALLED IN PARTIAL LENGTHS.
7. CONSTRUCT SCOUR APRON DEEP WITH NOT LESS THAN 5 TIMES THE PIPE DIAMETER, WITH A SLOPE NO STEEPER THAN 3:1. DISCHARGE AREA WIDTH SHOULD BE AS LEVEL AS POSSIBLE TO AVOID WATER CONCENTRATION AND RILLING.
8. FOR INSTALLATIONS ON SLOPES GREATER THAN 10% ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
9. PRIOR TO INSTALLATION, SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (GREATER THAN 2.5"Ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL.
10. FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE USED UNLESS NOTED OTHERWISE.
11. TYPE "A" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES LESS THAN 4% INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION.
    - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSIVE VELOCITIES HAVE DISSIPATED.
    - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM'S MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
    - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
12. TYPE "B" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES GREATER THAN 4%. INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD.
    - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE. THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA.
    - TRIM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
13. TYPE "C" INSTALLATION INSTRUCTIONS: CONSTRUCTION PHASE. STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID CONDITIONS. TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMACE TRM.
    - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR.
    - LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED.
    - FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48"Ø OR LARGER, PROVIDE AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET).
14. TYPE "D" STREAMBANK AND SHORELINE APPLICATIONS: USE A 20 OUNCE GEOTEXTILE UNDER TRANSITION MATS 3' BELOW AND 6" ABOVE THE NORMAL WATER LINE. A HYBRID GEOTEXTILE / TRM COMPOSITE MAY ALSO BE USED





TRANSITION MAT AT TOE OF SLOPE INSTALLATION

MAXIMUM FLOW FROM PROPOSED LEVEL SPREADER IS 1.0 CFS/LF, OR 4 CFS PER SCOUR STOP MAT. TURF REINFORCEMENT MAT IS REQUIRED. NOT FOR USE ON SLOPES OF GREATER THAN 5% WITHOUT ADDITIONAL ENGINEERING DESIGN.



SCOUR-STOP AT PIPE DISCHARGE

NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
4	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
3	75% CD SUBMISSION	09/09/22	DAW
2	50% CD SUBMISSION	07/20/22	DAW
1	DESCRIPTION	DATE	BY
REV.			

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 13 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_PCSM_PLAN_OVERALL.dwg Layout: 14 PCSM PLAN - OVERALL (RECORD PLAN 3 OF 4) Plotted By: wheider, on Mon Oct 02, 2023 at 11:35am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
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- EXISTING SIGN
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- LIMIT OF DISTURBANCE
- CS-18 — COMPOST SOCK – SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
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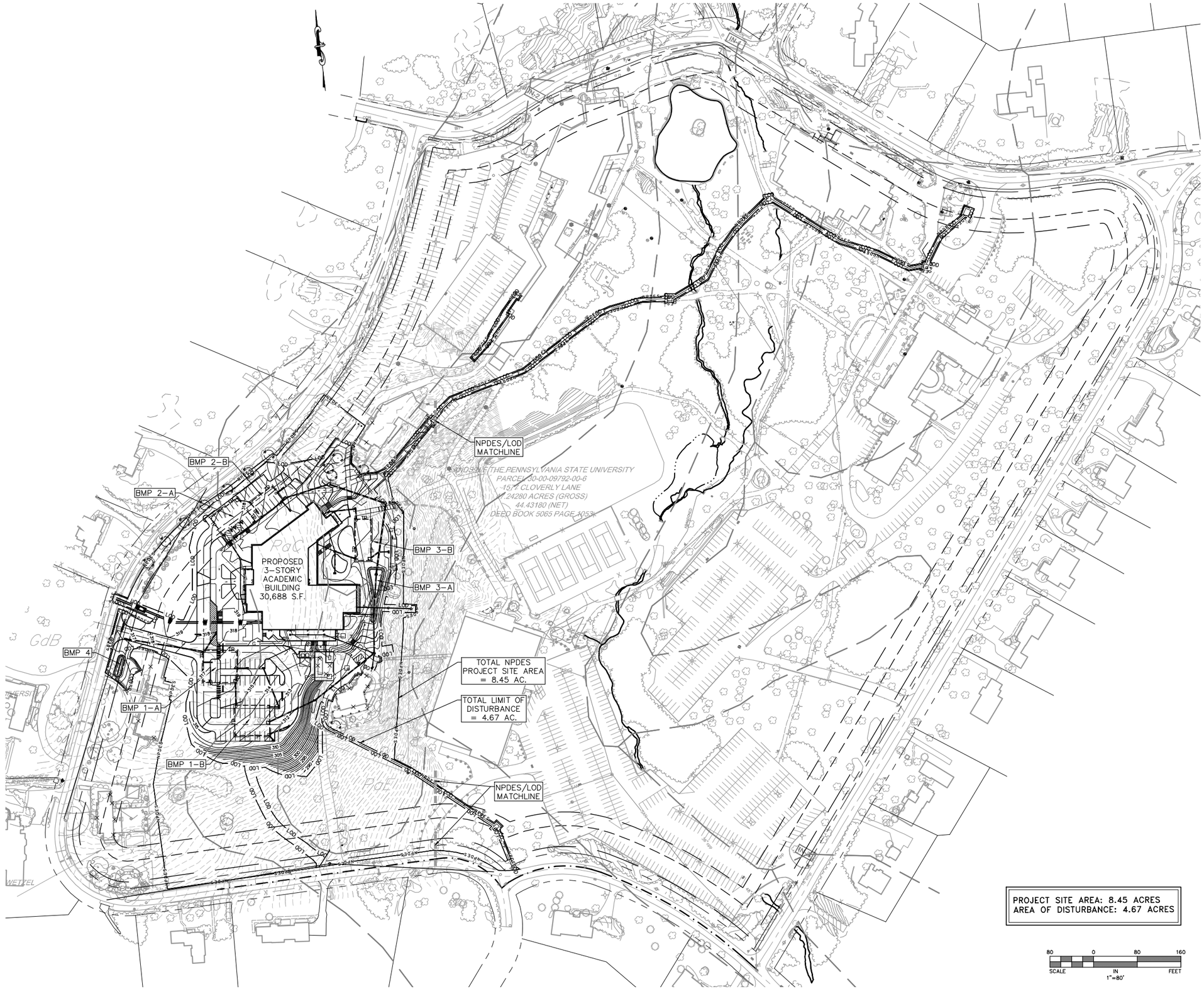
- EXISTING TREES



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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ———

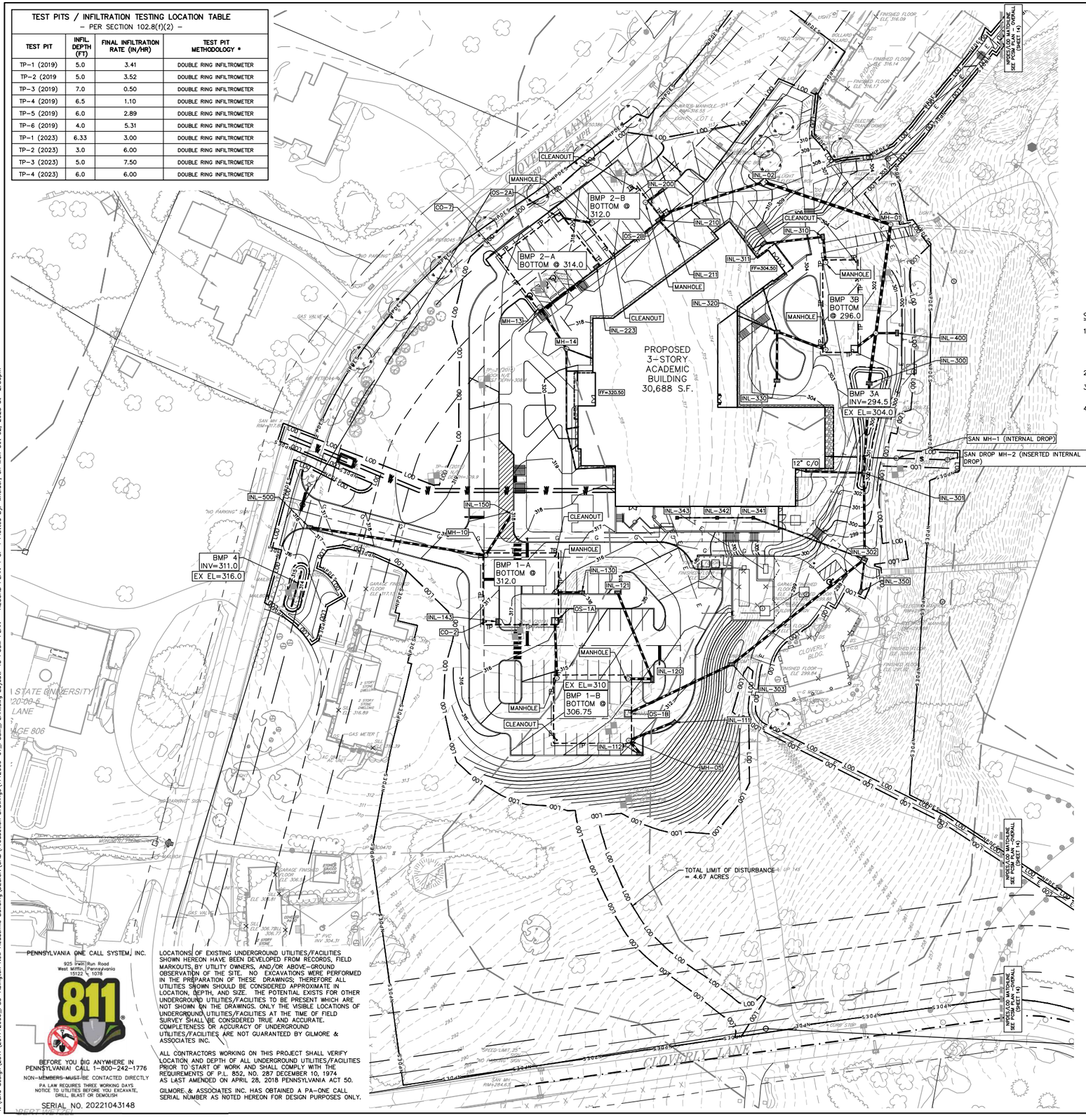
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE:	SCALE:
06/06/22	1"=80'
DRAWN BY:	CHECKED BY:
WMH	JM

SHEET NO.: 14 OF 40

TEST PIT	INFIL. DEPTH (FT)	FINAL INFILTRATION RATE (IN/HR)	TEST PIT METHODOLOGY *
TP-1 (2019)	5.0	3.41	DOUBLE RING INFILTROMETER
TP-2 (2019	5.0	3.52	DOUBLE RING INFILTROMETER
TP-3 (2019)	7.0	0.50	DOUBLE RING INFILTROMETER
TP-4 (2019)	6.5	1.10	DOUBLE RING INFILTROMETER
TP-5 (2019)	6.0	2.89	DOUBLE RING INFILTROMETER
TP-6 (2019)	4.0	5.31	DOUBLE RING INFILTROMETER
TP-1 (2023)	6.33	3.00	DOUBLE RING INFILTROMETER
TP-2 (2023)	3.0	6.00	DOUBLE RING INFILTROMETER
TP-3 (2023)	5.0	7.50	DOUBLE RING INFILTROMETER
TP-4 (2023)	6.0	6.00	DOUBLE RING INFILTROMETER

TEST PITS / INFILTRATION TESTING LOCATION TABLE
– PER SECTION 102.8(f)(2) –



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West Mifflin, Pennsylvania
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NON-MEMBERS MUST BE CONTACTED DIRECTLY
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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

LOCATION MAP
SCALE: 1"=800'

STORMWATER MANAGEMENT NOTES:

1. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEYS IN AUTOCAD FORMAT OF ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING BUT NOT LIMITED TO, SURFACE PONDS, UNDERGROUND DETENTION FACILITIES, BMPS, AN CONVEYANCE PIPES. AS BUILT PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND TO SATISFY THE CONDITIONS OF NPDES NOTICE OF TERMINATION (N.O.T.) PERMIT CLOSEOUT. FINAL AS-BUILT SURVEYS SHALL BE PROVIDED DIRECTLY TO PENN STATE UNIVERSITY ENGINEERING SERVICES PRIOR TO FINAL PAYMENT.
2. ALL CONSTRUCTION SHALL MEET PENNDOT ROADWAY CONSTRUCTION STANDARDS AND PUBLICATION 408 STANDARDS.
3. ALL STORM DRAIN STRUCTURES INCLUDING MANHOLES AND INLETS DEEPER THAN FOUR (4) FEET SHALL HAVE ACCESS STEPS PER PENNDOT STANDARDS.
4. ABINGTON TOWNSHIP AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON THESE LANDS FROM TIME TO TIME FOR THE INSPECTION OF SAID FACILITIES IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY IS BEING MAINTAINED BY THE PARTY RESPONSIBLE FOR PERPETUAL OPERATION AND MAINTENANCE OF STORMWATER BEST MANAGEMENT PRACTICES, AND THE PROPER OPERATION AND MAINTENANCE ARE BEING CONDUCTED. THIS RIGHT AND PRIVILEGE SHALL BE IN THE FORM OF A BLANKET EASEMENT GRANTED TO ABINGTON TOWNSHIP

I, _____ (APPLICANT), ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MUNICIPALITY OR CONSERVATION DISTRICT FOR APPROVAL.

_____ (MUNICIPAL OFFICIAL OR DESIGNEE), ON THIS DATE _____, HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICPAL ORDINANCE NO. _____.

I, _____ (DESIGN ENGINEER), ON THIS DATE _____ HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS'S (DEP'S) REGULATIONS AND THIS CHAPTER.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.67 ACRES

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- E EXISTING ELECTRIC LINE
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- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
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- EXISTING LIGHT FIXTURE
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- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK – SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
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- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

400 0 400 800
SCALE IN FEET
1"=400'

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ENGINEERING & CONSULTING SERVICES
304 CORPORATE DRIVE WEST • EXTON, CHESTER COUNTY, PA 19341 • (610) 903-0055 • www.gilmore-assoc.com

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PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN – RECORD PLAN 4 OF 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
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MUNICIPAL FILE No.: ____

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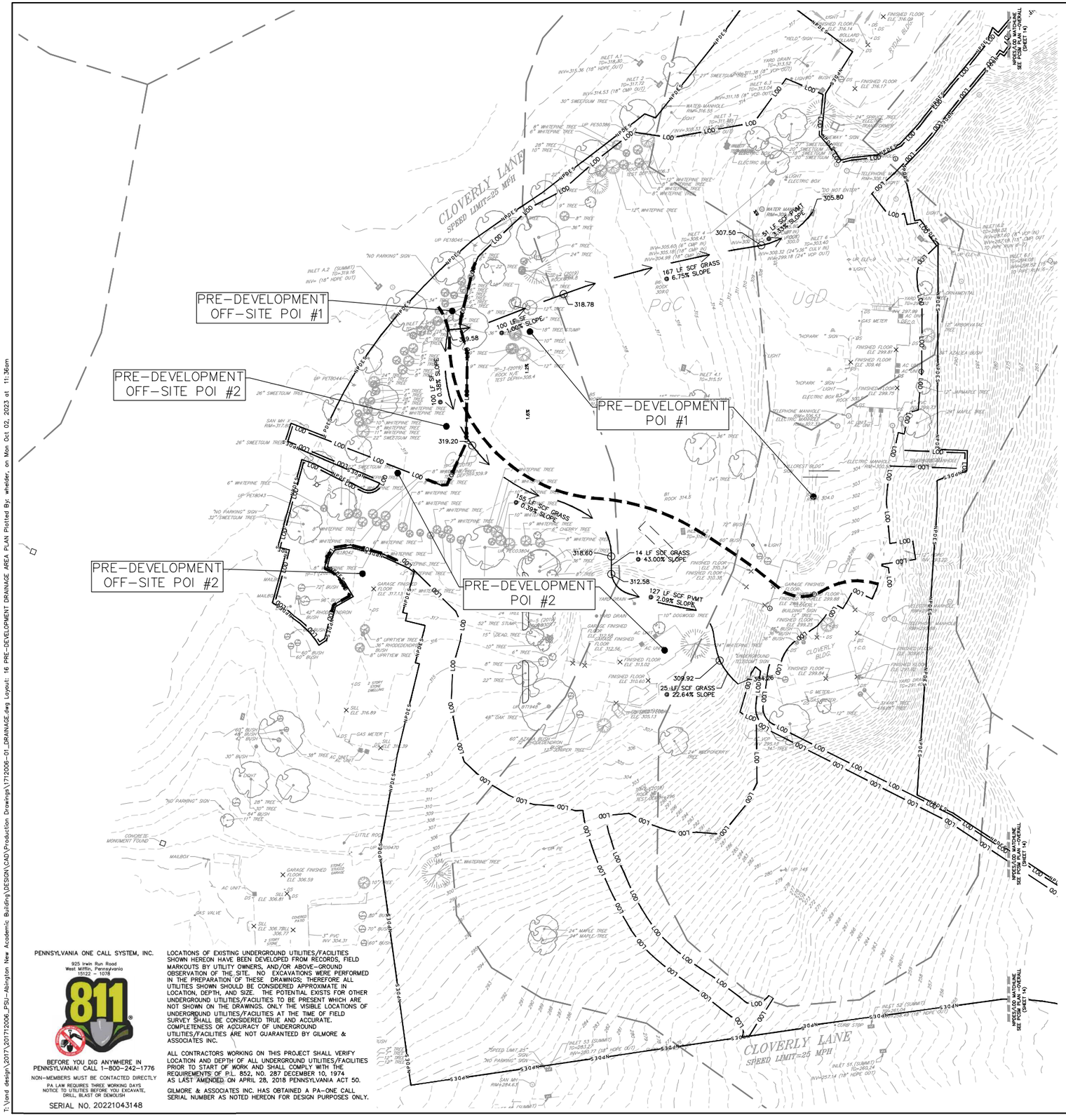
T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17006-01_PCSM_PLAN.dwg Layout: 15 PCSM PLAN – RECORD PLAN 4 OF 4 Plotted By: wheller, on Mon Oct 02, 2023 at 2:30pm



LOCATION MAP

SCALE: 1"=800'

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 – 1078

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776

NON-MEMBERS MUST BE CONTACTED DIRECTLY

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SERIAL NO. 20221043148

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G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80
SCALE IN FEET
1"=40'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PRE-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ____-____

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

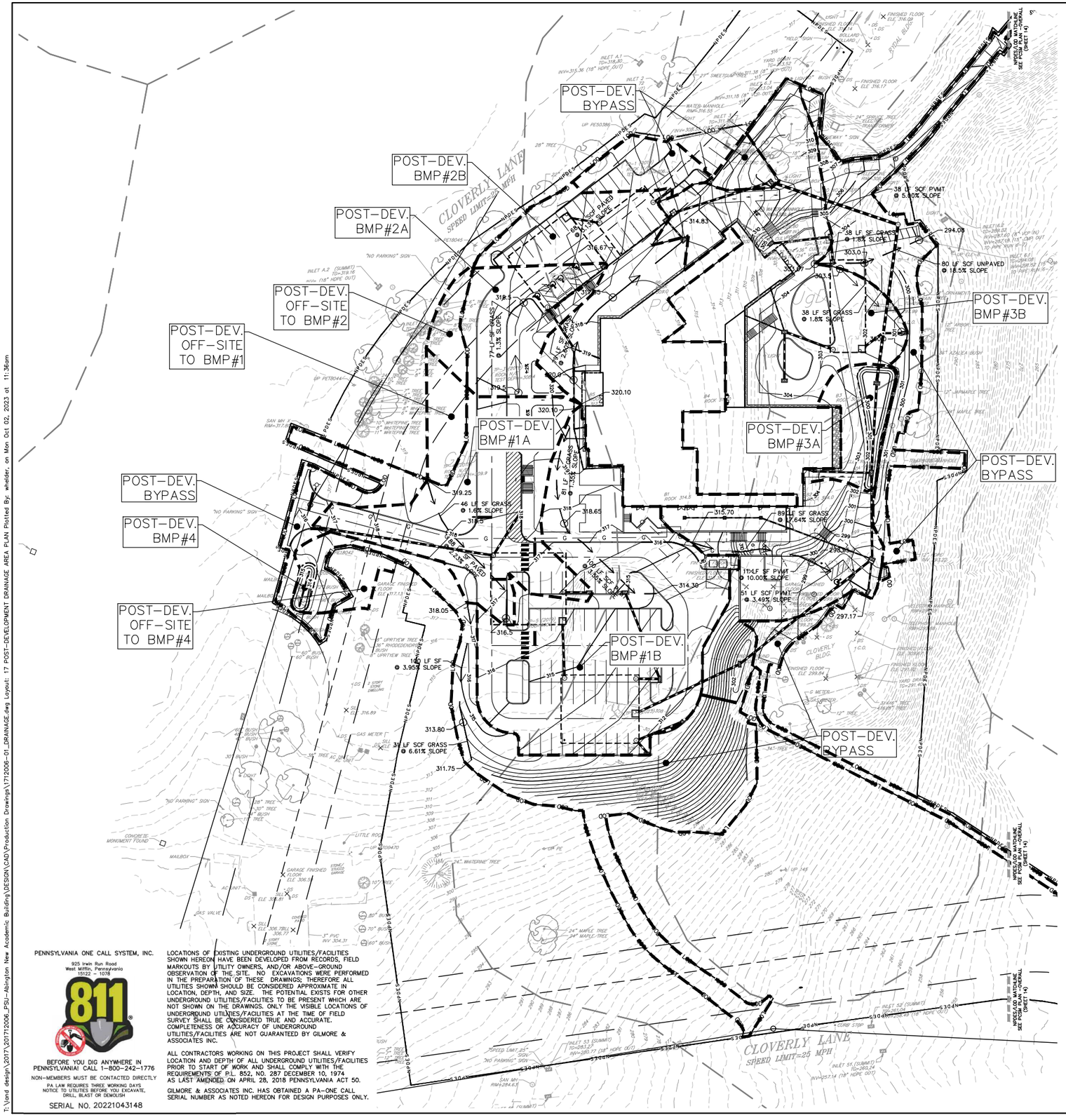
SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 16 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17120\06-01_DRAINAGE.dwg Layout: 16 PRE-DEVELOPMENT DRAINAGE AREA Plotted By: whelder, on Mon Oct 02, 2023 at 11:36am



LOCATION MAP

SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B).

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED).

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

   BMP 1B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=304.00';

   BMP 2A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=311.83';

   BMP 2B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE – NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=310.00';

   BMP 3A – RAIN GARDEN WITH AMENDED SOIL TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW CONCRETE THAT DISCHARGE TOWARD THE REAR OF THE PROPOSED BUILDING;

   BMP 3B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 30" HDPE PIPE – NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=294.00';

   BMP 4 – RAIN GARDEN WITH AMENDED SOIL TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- E EXISTING ELECTRIC LINE
- G EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- TIME OF CONCENTRATION PATH

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABILTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
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UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80
SCALE IN FEET
1"=40'

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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

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1	DESCRIPTION	DATE	BY
REV.			

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

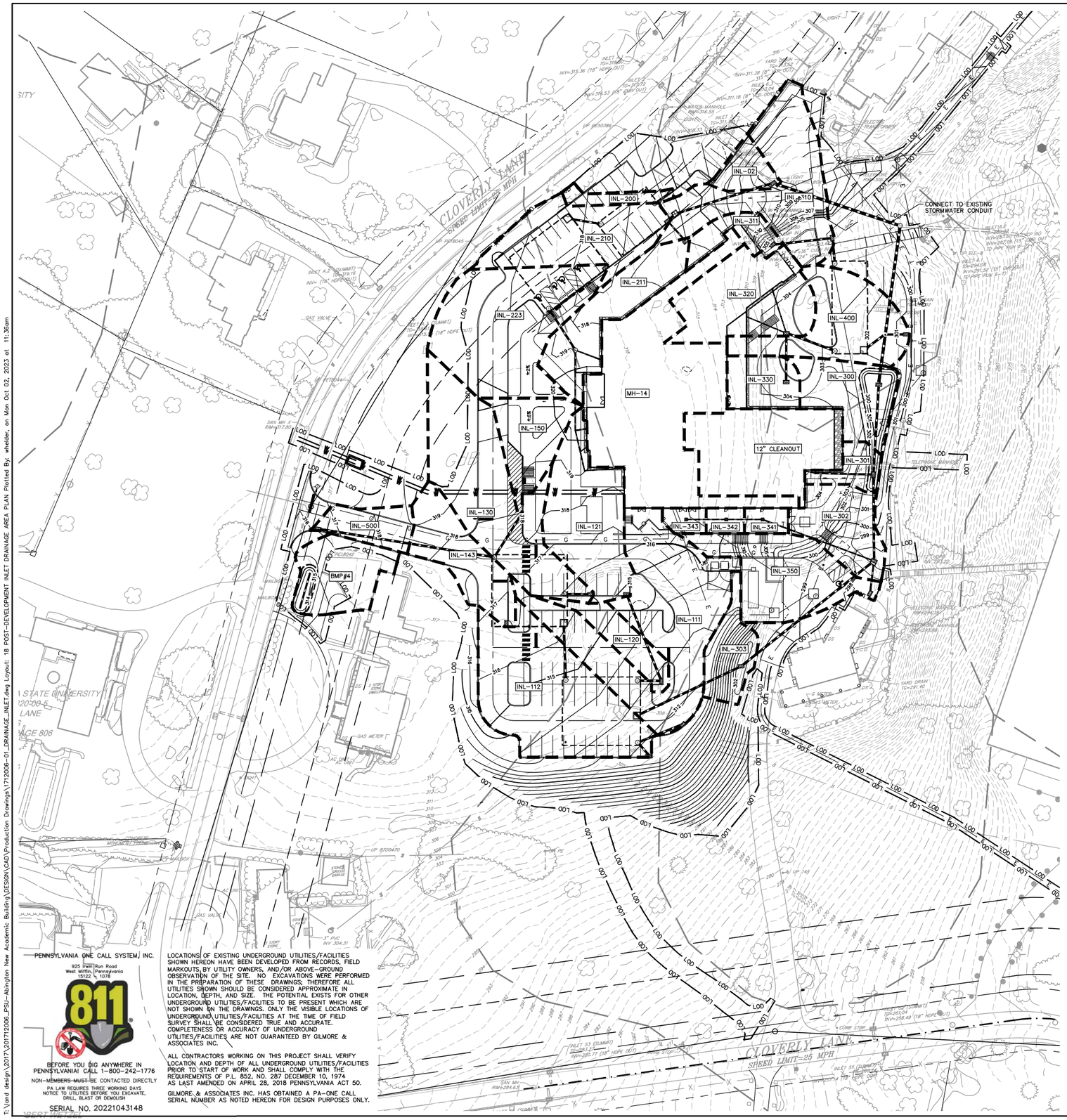
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE:	SCALE:
06/06/22	1"=40'
DRAWN BY:	CHECKED BY:
WMH	JM

SHEET NO.: 17 OF 40

T:\land design\2017\2017712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17120095-01_DRAINAGE.dwg Layout: 17 POST-DEVELOPMENT DRAINAGE AREA PLAN Plotted By: whetzler, on Mon Oct 02, 2023 at 11:36am



LOCATION MAP

SCALE: 1"=800'

SCALE 800 0 800 1600 IN FEET

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- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

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SCALE 40 0 40 80 IN 1"=40' FEET

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811

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SERIAL NO. 20221043148

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2	75% CD SUBMISSION	09/09/22	DAW
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REV.		DATE	BY

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MmontgomeryCOUNTY, PENNSYLVANIA

POST-DEVELOPMENT INLET DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 18 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17006-01_DRAINAGE_INLET.dwg Layout: 18 POST-DEVELOPMENT INLET DRAINAGE AREA PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:36am

MONTGOMERY COUNTY CONSERVATION DISTRICT STANDARD EROSION & SEDIMENT CONTROL NOTES:

1. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.
2. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
3. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE PERMITTEE AND COPERMITTEE SHALL ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES AND SHALL INCLUDE COMPLETE, WRITTEN LOGS OF THOSE INSPECTIONS WHICH SHALL BE MADE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGARDING, RESEEDING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.
4. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
5. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
6. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE APPROPRIATE CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
7. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
8. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
10. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE PROJECT SITE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE BMP'S. EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S.
11. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
12. THE PERMITTEE OR CO-PERMITTEE SHALL CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AT LEAST SEVEN DAYS BEFORE CONSTRUCTION IS TO BEGIN TO DETERMINE IF A PRECONSTRUCTION CONFERENCE IS REQUIRED. THE PERMITTEE, CO-PERMITTEE, AND OTHERS UNDERTAKING THE EARTH DISTURBANCE ACTIVITY MUST ATTEND A PRECONSTRUCTION CONFERENCE WHEN REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE PERMITTEE OR CO-PERMITTEE MUST BRING A COPY OF THEIR NPDES PERMIT, A COPY OF THE STAMPED PLAN FROM THE CONSERVATION DISTRICT, AND ALL ASSOCIATED DEPARTMENT APPROVALS/PERMITS WHICH MUST BE AVAILABLE AT THE CONFERENCE UPON REQUEST. ALSO, AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.
13. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
14. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE ARE DESCRIBED IN EACH STAGE.
15. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE OR SHOULD A TEMPORARY CESSATION OF ACTIVITY OCCUR WHICH WILL LAST LONGER THAN 4 DAYS, 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 ONE 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 ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
16. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
17. PERMITTEES AND CO-PERMITTEES ARE RESPONSIBLE FOR ENSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF BMPS IDENTIFIED IN THE PCSM PLAN PRIOR TO THE SUBMISSION OF THE NOTICE OF TERMINATION FOR THIS PERMIT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE BMPS IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN. THE INSTALLATION SCHEDULE OF PCSM BMPS AND MAINTENANCE REQUIREMENTS CONTAINED WITHIN THE APPROVED PCSM PLAN MUST BE FOLLOWED; AND FAILURE TO COMPLY WITH THE INSTALLATION SCHEDULE IS A VIOLATION OF THIS PERMIT, THE CLEAN STREAMS LAW, AND THE CLEAN WATER ACT.

SEDIMENT BASINS

1. APPROVAL OF THE USE OF SKIMMERS DOES NOT APPROVE USE OF ANY SKIMMERS IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.
2. BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.
3. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION SHALL BE DONE BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED.
4. SEDIMENT BASINS MUST BE STRUCTURALLY SOUND AND PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.

OTHER BMP'S

1. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
2. AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.

MATERIAL RECYCLING/DISPOSAL REQUIREMENTS:

1. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.
2. THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
3. THE FOLLOWING MATERIALS ARE ANTICIPATED TO BE CONSTRUCTION WASTE: ASPHALT PAVING, CONCRETE PAVING/SPOILS, STEEL/IRON PIPING, AND PLASTIC PIPING.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.
   - 1.1. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE IN DETERMINING THAT FILL IS CLEAN.
   - 1.2. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.
2. FOR PROJECTS THAT REQUIRE **NPDES PERMIT,** LANDOWNER OR HIS DESIGNATED REPRESENTATIVE SHALL MAINTAIN, AND MAKE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT, COMPLETE, WRITTEN INSPECTION LOGS OF THE INSPECTION AND MAINTENANCE OF ALL EROSION-SEDIMENT CONTROL BMPS.
3. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE NOTED UNDER TEMPORARY AND PERMANENT STABILIZATION.
4. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAYS MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
5. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF MONTGOMERY COUNTY CONSERVATION DISTRICT. ANY PUMPED WATER MUST BE DIRECTED TO A FILTER BAG DEVICE DISCHARGING OVER NON-DISTURBED AREAS.
6. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
   - 6.1. THE APPLICANT AND HIS DESIGNATED REPRESENTATIVE ARE RESPONSIBLE FOR INSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF STORMWATER BMPs IDENTIFIED IN THESE PLANS (IF ANY) PRIOR TO SUBMISSION OF A 'NOTICE OF TERMINATION' FOR THE PROJECT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE STORMWATER BMPs IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN.
   - 6.2. THE INSTALLATION SCHEDULE AND MAINTENANCE REQUIREMENTS FOR ANY AND ALL IDENTIFIED STORMWATER MANAGEMENT BMPs INCLUDED IN THESE PLANS MUST BE FOLLOWED. FAILURE TO COMPLY WITH PLAN SPECIFICATIONS IS A VIOLATION OF THE CLEAN STREAM LAW AND CLEAN WATER ACT.
7. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. REPLACED SOILS SHALL BE SEEDED AND MULCHED IMMEDIATELY.
8. UPON COMPLETION OR ANY TEMPORARY CESSATION LONGER THAN 4 DAYS OF THE EARTH DISTURBANCE ACTIVITY, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO. 363-2134-008, MARCH 2012, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMPS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BMPS ARE OPERATIONAL.
9. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

MAINTENANCE OF FACILITIES:

1. SILT FENCE SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS 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 E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
4. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
5. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
6. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
7. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
8. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES.

TYPICAL UTILITY TRENCHING NOTES:

1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION, AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM WORK CREWS FOR CLEARING-GRUBBING AND SITE RESTORATION-STABILIZATION OPERATIONS.
3. PLACE FILTER FENCE OR COMPOST SOCK DOWN-SLOPE OF THE PROPOSED TRENCHING ACTIVITIES. PLACE EXCAVATED MATERIALS ON THE UP-SLOPE SIDE OF THE TRENCH.
4. TOPSOIL SHALL BE REMOVED AND STOCKPILED SEPARATELY FROM BACKFILL SOILS. TOPSOIL SHALL BE REPLACED UPON FINAL GRADING FOR STABILIZATION.
5. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
6. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
7. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND STABILIZED IMMEDIATELY IN ACCORDANCE WITH 'SEEDING & MULCHING SCHEDULE'.
8. REMOVE FILTER FENCE AND OTHER ESC MEASURES AFTER AREA IS STABILIZED. ANY AREAS DISTURBED DURING THE REMOVAL OF ESC MEASURES SHALL BE RESTABILIZED IMMEDIATELY.

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE AND SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE – 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER – 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS

THE PERMITTEE / CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RUNOFF EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOTICE OF TERMINATION BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

1. A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP IMPLEMENTATION AND MAINTENANCE, AND COMPLIANCE ACTIONS; AND
2. THE DATE, TIME, NAME, AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

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

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

REDUCTION, LOSS, OR FAILURE OF THE BMPS

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

TERMINATION OF COVERAGE

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE OF THE FACILITY MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE N.O.T. MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE N.O.T., THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE N.O.T. IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROJECT SPECIFIC INFORMATION
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– PROJECT SPECIFIC INFORMATION
	MINIMIZE SOIL COMPACTION	– PROJECT SPECIFIC INFORMATION
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THERE ARE NO STREAMS OR WETLANDS ON THE PROPERTY; THIS REQUIREMENT DOES NOT APPLY.
ANTI-DEGRADATION ANALYSIS		– DOES NOT APPLY. CHAPTER 93 = ---, MF THEREFORE IT IS NOT SPECIAL PROTECTION WATERSHED.

PCSM SHORT AND LONG-TERM OPERATION AND MAINTENANCE REQUIREMENTS:

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED A WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE DURING THE SHORT TERM FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMP'S AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER 102.7(B)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON, INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION, OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

BMPs SHOULD BE INSPECTED AT LEAST ONE (1) TIME PER YEAR AND AFTER RUNOFF EVENTS.

THE PCSM BMPs MUST BE INSPECTED AND MAINTAINED AS NOTED UNDER THE INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN NOTES, AND THE INDIVIDUAL OPERATION AND MAINTENANCE NOTES AS INDICATED ON THE PLANS. THIS INCLUDES REPAIRS AND REPLACEMENT IF REQUIRED TO ENSURE THEY FUNCTION/OPERATE PROPERLY.

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE COMPLETED AND MADE AVAILABLE FOR DEP OR BCCD STAFF FOR REVIEW.

LONG TERM – P.C.S.M. BMP INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN

BMP TYPE	MAINTENANCE ACTIVITY	SCHEDULE
BMP 5.6.2 MINIMZE SOIL COMPACTION	MINIMUM SOIL COMPACTION AREAS MAY NEED SOIL AMENDMENT SINCE COMPACTION MAY OCCUR BY USE AND/OR SETTLING. VEGETATION SHOULD BE MAINTAINED IN GOOD CONDITION AND ANY BARE SPOTS RE-VEGETATED AS SOON AS POSSIBLE. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE MINIMUM SOIL COMPACTION AREAS. MOW AS APPROPRIATE. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS AND REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.3 – SUBSURFACE INFILTRATION BASIN	BI-ANNUALLY (AFTER FIRST YEAR OF INSPECTING EACH EVENT) AND AFTER LARGE STORM EVENTS (0.5-INCHES OR GREATER), INSPECT ACCESS MANHOLES, INFLOW AND OUTFLOW POINTS INCLUDING PIPES, OUTLET STRUCTURE, INLETS AND MANHOLES, AND THE DISCHARGE/DAYLIGHT POINT FROM THE BASIN. IDENTIFY AND REPORT SEDIMENT AND DEBRIS ACCUMULATION, SYSTEM BACK UP, AND CHANGES IN FLOW RATES. DETERMINE IF MAINTENANCE IS REQUIRED. IF REQUIRED, USE A VACUUM PUMP TRUCK TO EVACUATE DEBRIS FROM INFLOW AND OUTFLOW POINTS. FLUSH THE SYSTEM WITH CLEAN WATER FORCING DEBRIS FROM THE SYSTEM, TAKING CARE TO AVOID EXTREME DIRECT WATER PRESSURE. SUBSURFACE INFILTRATION BASINS/BMPs ARE DESIGNED TO DE-WATER IN 72 HOURS, IF INFILTRATION BASINS/BMPs DO NOT DE-WATER WITHIN 72 HOURS PERFORM REMEDIATION MEASURES TO CORRECT THE PROBLEM. CLEAR DEBRIS FROM OUTLET STRUCTURE AND ASSOCIATED INLET AND OUTLET PIPES. IF INFILTRATION BASIN CONTINUES TO FAIL OVERTIME BY NOT DRAINING PROPERLY, COMPLETE REPLACEMENT OF SYSTEM MAY BE REQUIRED. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS FOR STORMWATER BMP INSPECTION REQUIREMENTS. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.5 – RAIN GARDEN	BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC. DURING PERIODS OF EXTENDED DROUGHT. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON. MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY 2 TO 3 YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.BIORETENTION AREAS MAY REQUIRE WATERING. TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY. AFTER EACH RAINFALL EVENT OF 0.5-IN OR GREATER DURING THE FIRST YEAR
BMP 6.7.2 LANDSCAPE RESTORATION	VISUALLY INSPECT OF TREES TO DETERMINE THE HEALTH OF TRUNK, BRANCHES, AND LEAVES/VEGETATION. MONITOR GROWTH AND REMOVE WEED GROWTH AS NECESSARY. DEAD TREES SHALL BE REPLACED WITH A TREE OF THE SAME SPECIES NO LATER THAN THE NEXT PLANTING TIME PER THE OPERATION AND MAINTENANCE PLANTING DAY REQUIREMENTS. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS REPAIRS AND REPLACEMENTS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.

*THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PROPOSED BMPs.

GENERAL PCSM PLANNING AND DESIGN
§102.8(B)

THE FOLLOWING MEASURES WERE TAKEN TO PRESERVE THE INTEGRITY OF STREAM CHANNELS AND TO MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM:
- DIRECT RUNOFF FROM IMPERVIOUS SURFACES TO BMPs.
- USE NATIVE SPECIES, WHICH REQUIRE LESS FERTILIZATION AND CHEMICAL APPLICATION THAN NON-NATIVE SPECIES.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO PREVENT AN INCREASE IN THE RATE OF STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS WHICH WILL CONTROL RUNOFF RATES.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE ANY INCREASE IN STORM WATER RUNOFF VOLUME:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, WHICH WILL CONTROL RUNOFF VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE IMPERVIOUS AREAS:
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- PROPOSED BMPs SUCH AS THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, RE-VEGETATION OF DISTURBED AREAS, AND WATER QUALITY FILTERS WILL TREAT RUNOFF PRIOR TO LEAVING THE SITE.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE LAND CLEARING AND GRADING:
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.
- AREAS NOT REQUIRED TO BE CLEARED OR GRADED SHALL BE MAINTAINED IN EXISTING CONDITIONS.

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- USE TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS.
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.

THE FOLLOWING MEASURES WERE TAKEN TO UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS TO CONTROL RUNOFF RATES AND VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

RECEIVING SURFACE WATERS
§102.8(F)(5)

THE SITE RUNOFF DRAINS TO A TRIBUTARY TO THE MEADOWBROOK CREEK WHICH HAS A CHAPTER 93 CLASSIFICATION OF TROUT STOCKING FISHES, MIGRATORY FISHES (TSF,MF).

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LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
ERIC S. CLASE
55713-E
Eric S. Clase

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM NOTES

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: N.T.S.
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 19 OF 40

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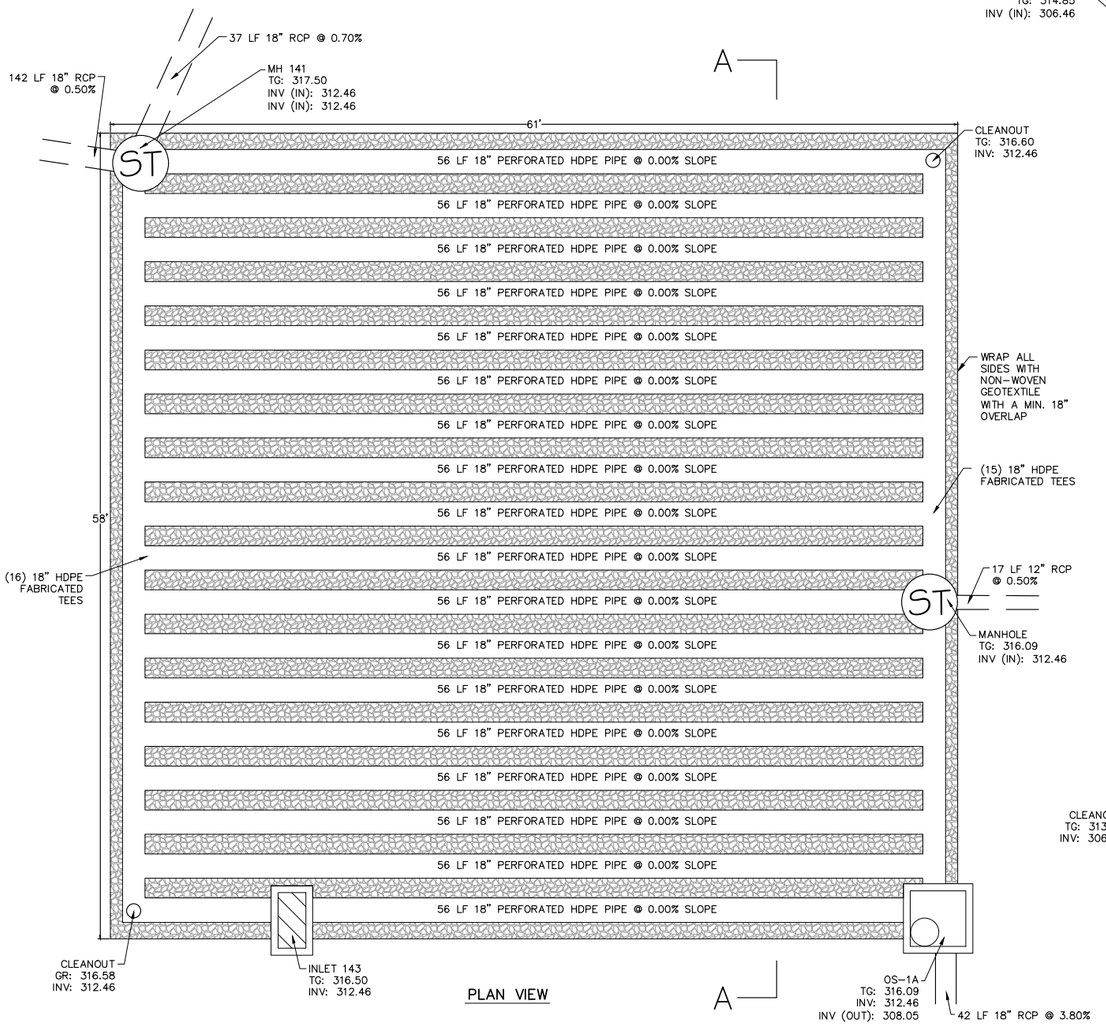
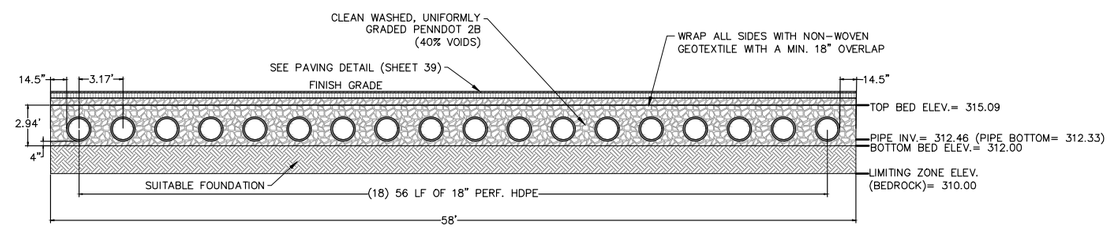


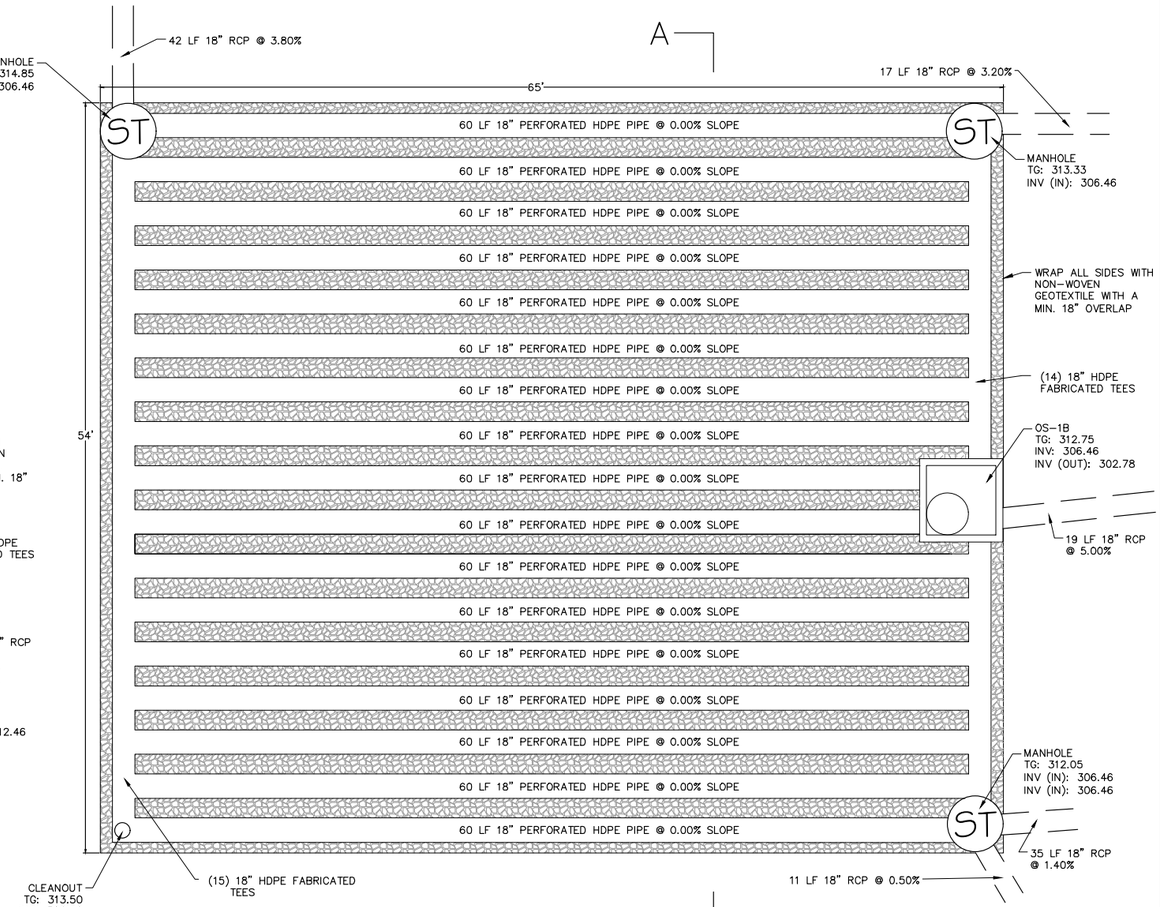
PLAN VIEW



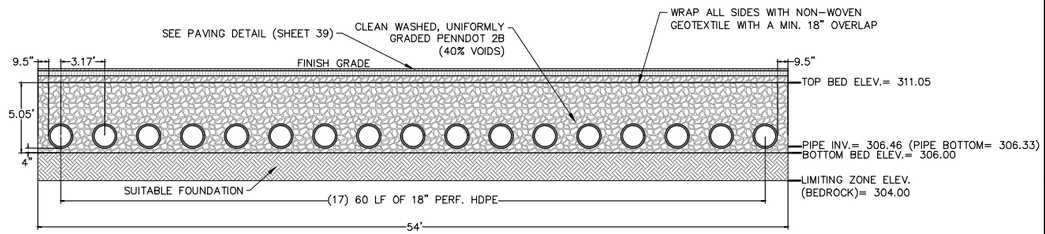
CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1A DETAIL

SCALE: 1"=5'



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1B DETAIL

SCALE: 1"=5'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 20 OF 40

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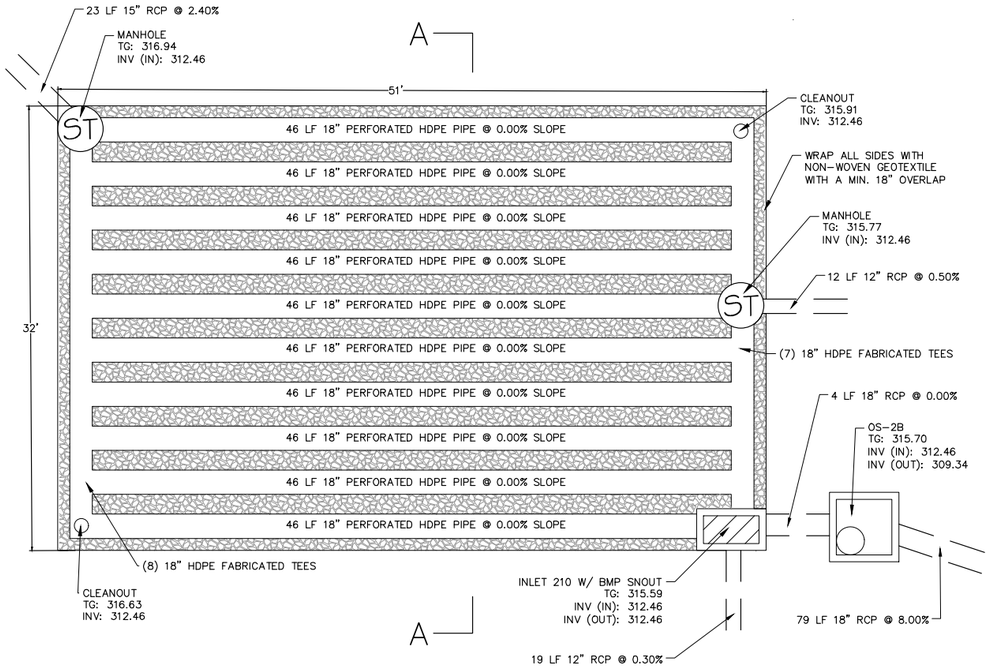
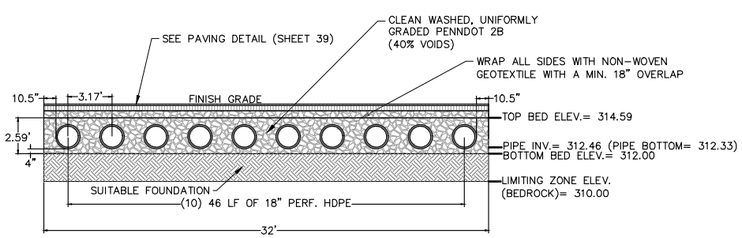


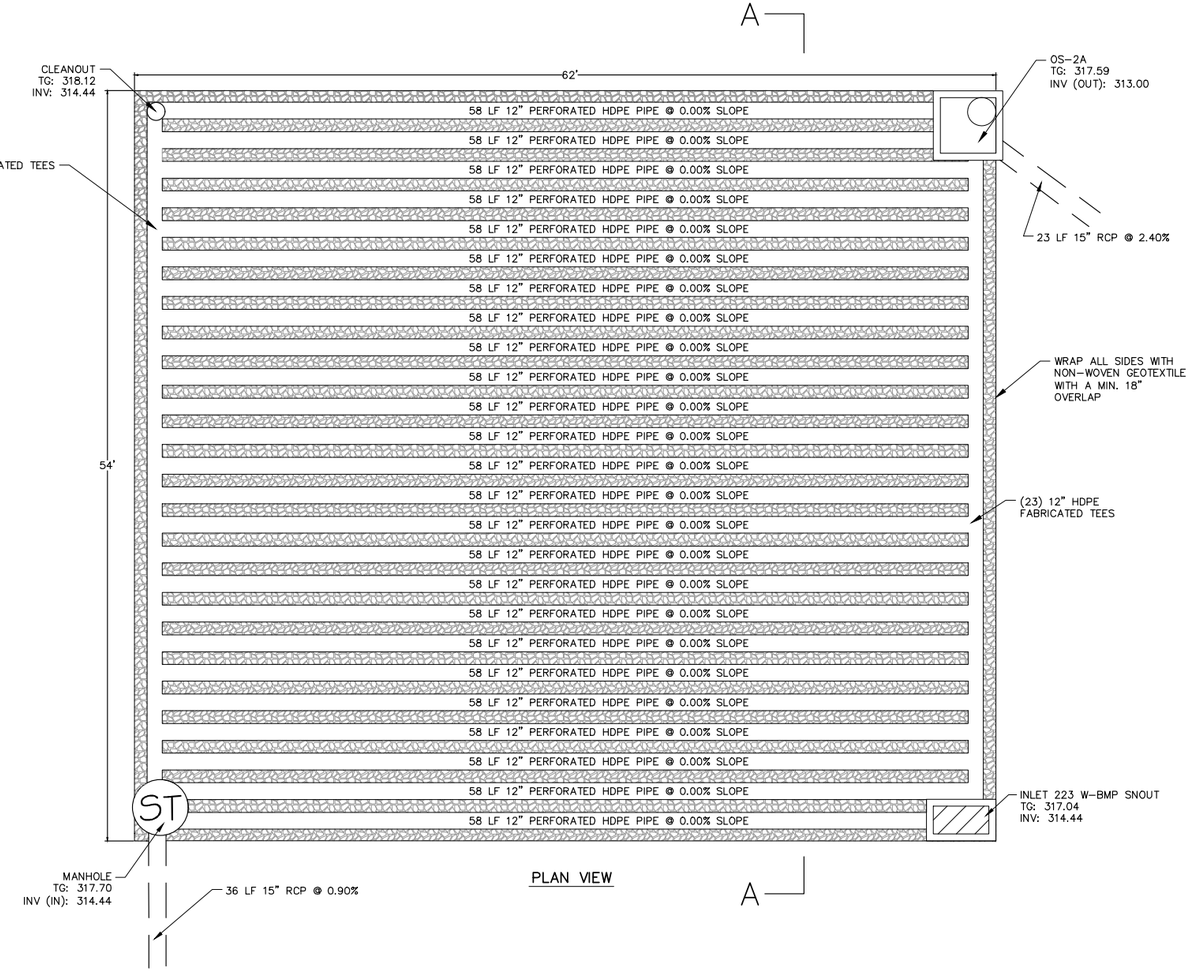
PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 2B DETAIL

SCALE: 1"=5'



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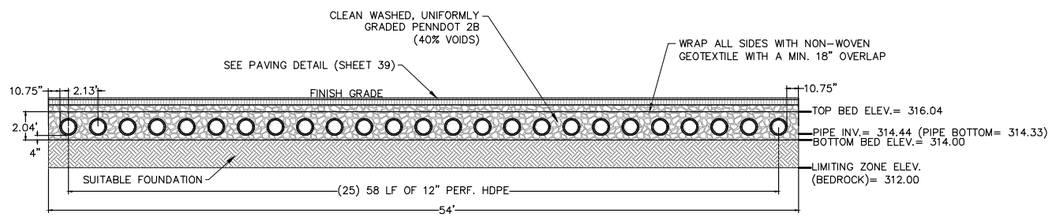

CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 2A DETAIL

SCALE: 1"=5'

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REV.	DESCRIPTION	DATE	BY
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

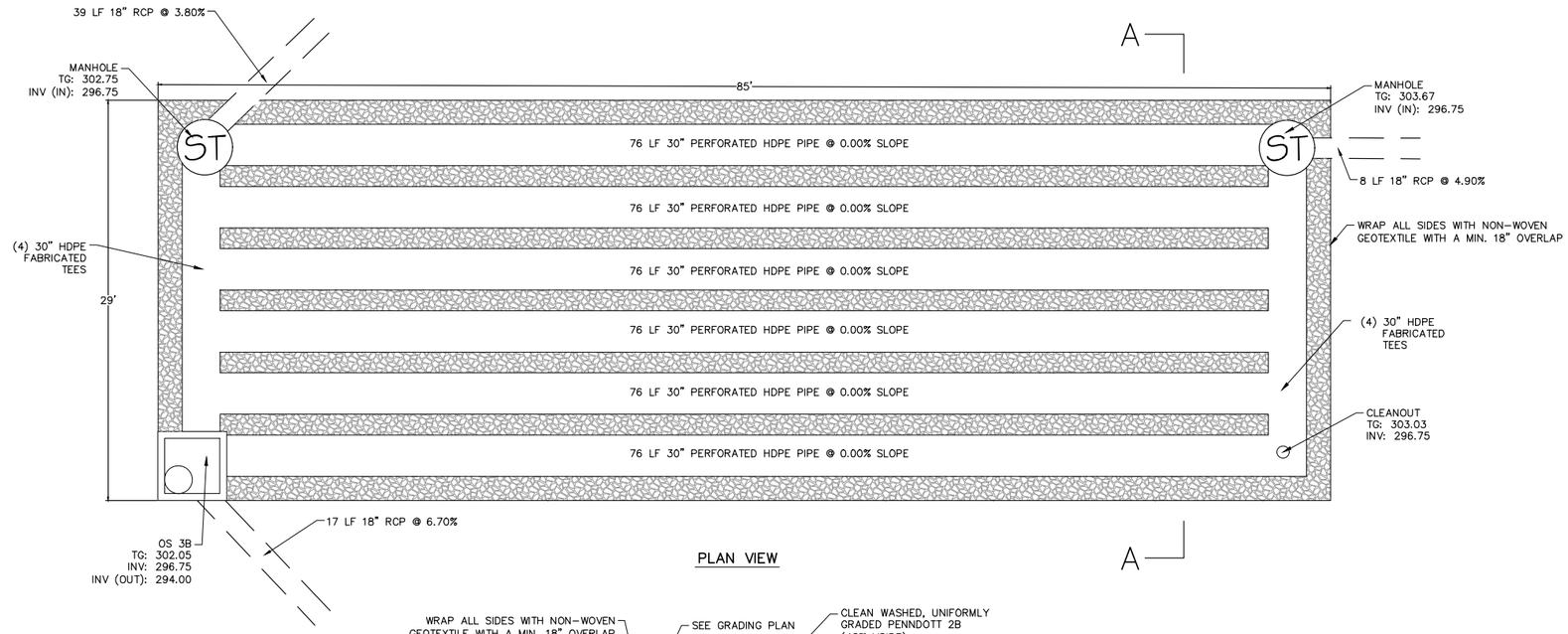
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 2

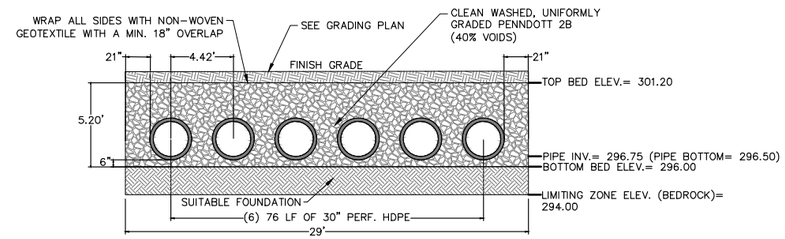
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.:	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 21 OF 40



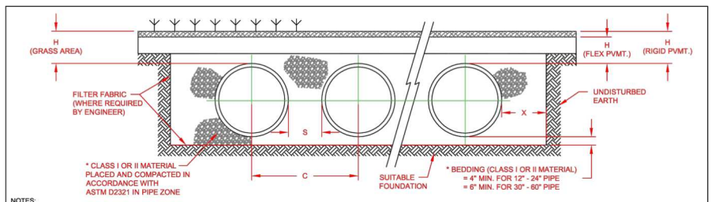
PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 3B DETAIL

SCALE: 1"=5'



NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	NOMINAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29.0" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	17.0" (432mm)	38.0" (965mm)	9" (229mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	14.0" (356mm)	41.5" (1054mm)	10" (254mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	18" (457mm)	53.0" (1346mm)	18" (457mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	22" (559mm)	63.0" (1600mm)	18" (457mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	24" (610mm)	72.0" (1829mm)	18" (457mm)	12" (305mm)	24" (610mm)
48" (1200mm)	54" (1372mm)	25" (635mm)	78.5" (1994mm)	18" (457mm)	12" (305mm)	24" (610mm)
60" (1500mm)	67" (1702mm)	24" (610mm)	89" (2286mm)	18" (457mm)	12" (305mm)	24" (610mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

REV	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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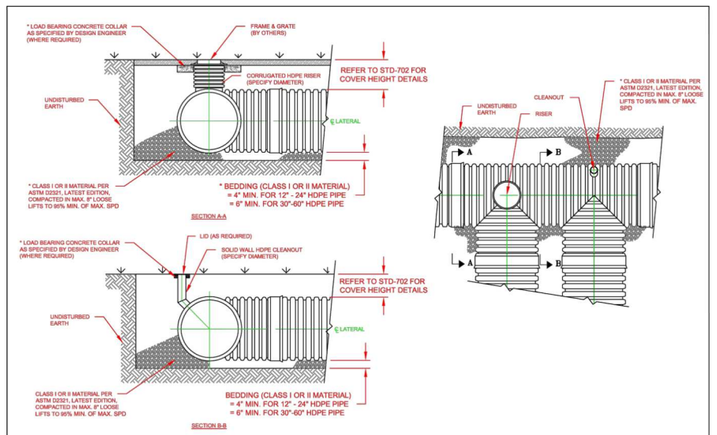
RETENTION-DETENTION SYSTEM (CROSS-SECTION)

DRAWING NUMBER: STD-702

ADS Advanced Drainage Systems, Inc. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DRN BY: WMW
DATE: 07.25.06
SCALE: NTS
SHT OF



* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS

* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.

REV	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

RETENTION-DETENTION SYSTEM (RISER AND CLEANOUT)

DRAWING NUMBER: STD-703

ADS Advanced Drainage Systems, Inc. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DRN BY: CRM
DATE: 10/23/08
SCALE: NTS
SHT OF

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
565 CORPORATE DRIVE WEST LANSDOWNE, PA 19050 • 215.396.8055 • www.gilmoreassoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ERIC S. CLASE ENGINEER 55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

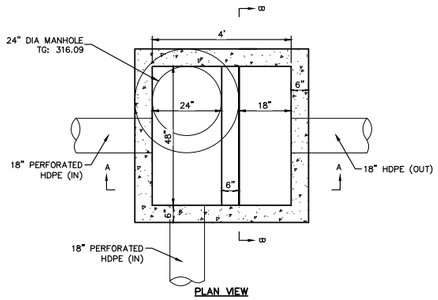
SCALE: AS NOTED

DRAWN BY: WMH

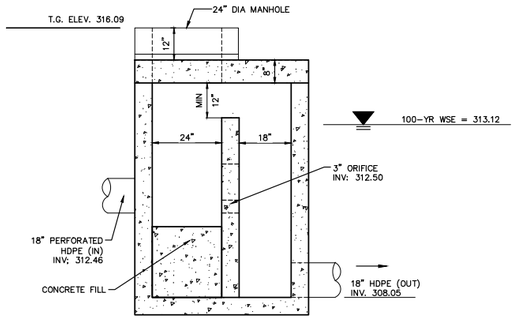
CHECKED BY: JM

SHEET NO.: 22 OF 40

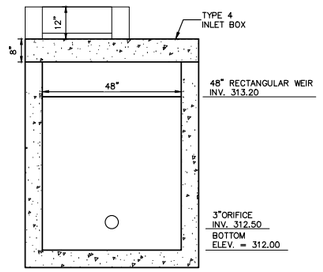
T:\and design\2017\2017012006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 22 PCSM DETAILS - 3 Plotted By: wheidler, on Mon Oct 02, 2023 at 11:38am



PLAN VIEW



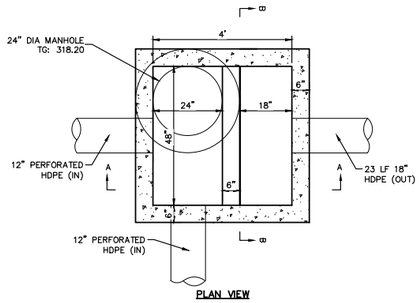
SECTION A–A



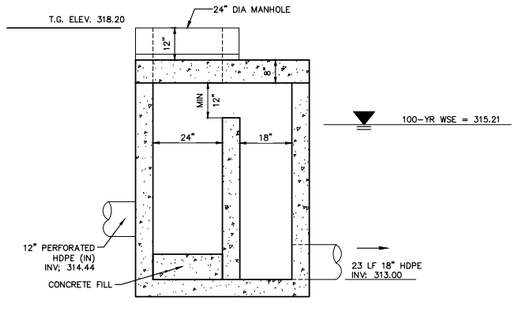
SECTION B–B

OS–1A OUTLET STRUCTURE DETAIL

NOT TO SCALE



PLAN VIEW



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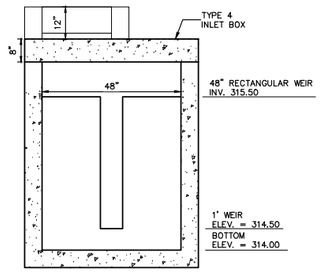

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OS–2A OUTLET STRUCTURE DETAIL

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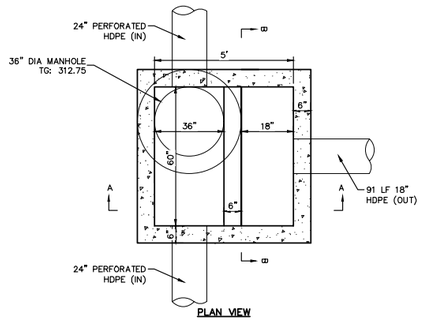
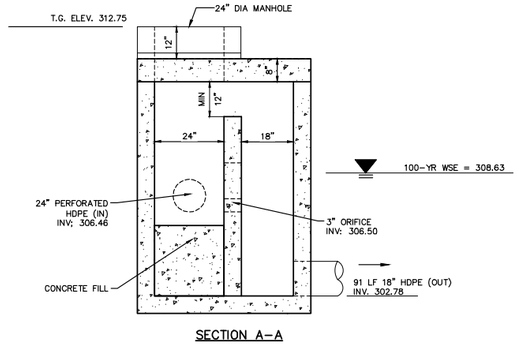


PLAN VIEW



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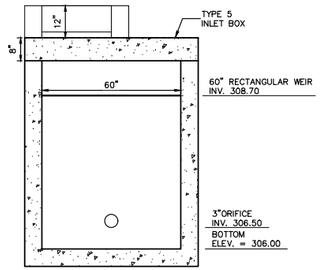
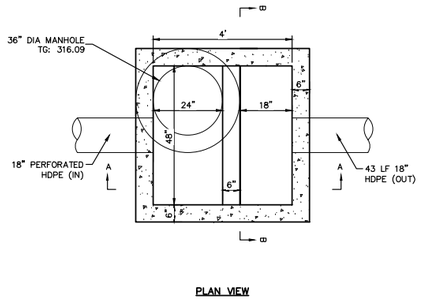


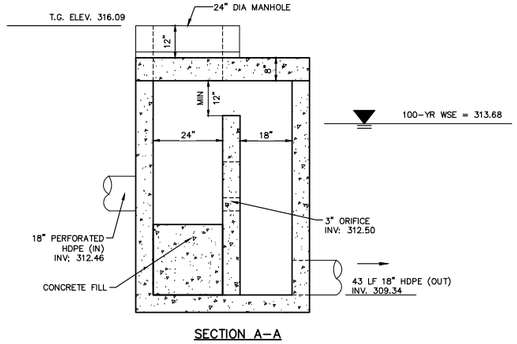
SECTION B–B

OS–1B OUTLET STRUCTURE DETAIL

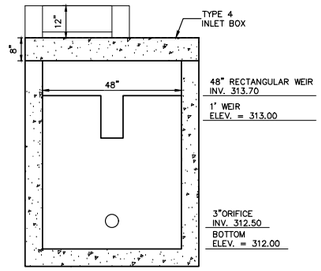
NOT TO SCALE



PLAN VIEW



SECTION A–A



SECTION B–B

OS–2B OUTLET STRUCTURE DETAIL

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

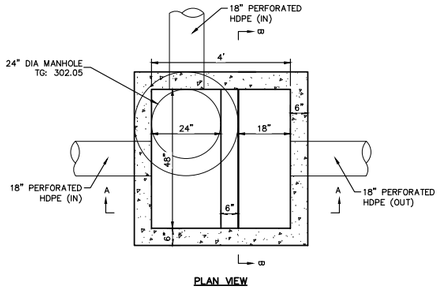
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

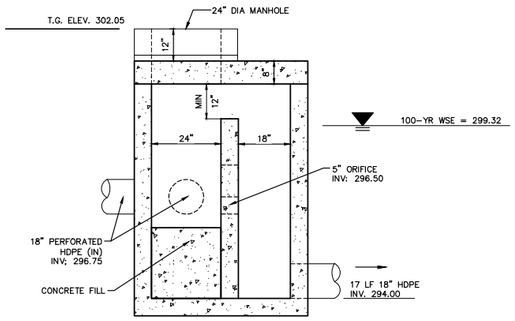
DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 23 OF 40

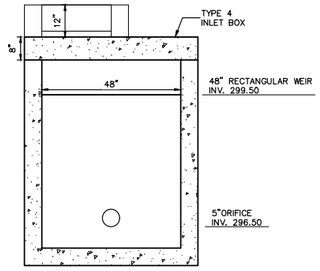
T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 23 PCSM DETAILS – 4 Plotted By: wheller, on Mon Oct 02, 2023 at 12:46pm



PLAN VIEW



SECTION A–A



SECTION B–B

OS–3B OUTLET STRUCTURE DETAIL

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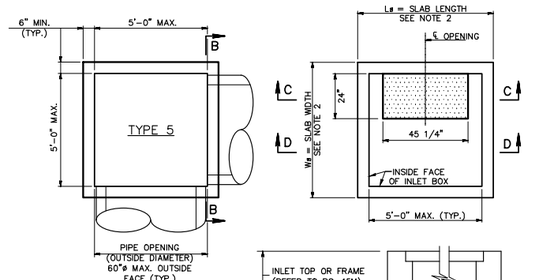
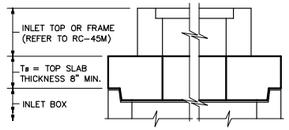
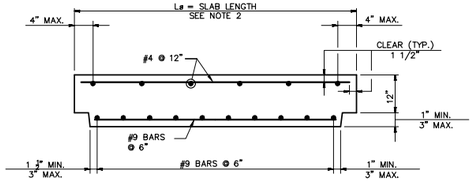


NOTE:
1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.



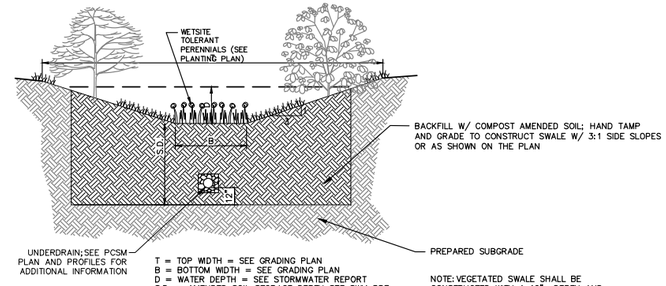
SECTION C–C w/ SHIPLAP JOINT
NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN



SECTION D–D w/ SHIPLAP JOINT
(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

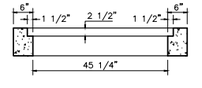
PRECAST CONCRETE INLET BOX–TYPE 5

NOT TO SCALE

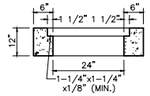


RAINGARDEN AND VEGETATED SWALE DETAIL

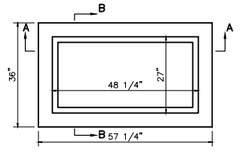
NOT TO SCALE



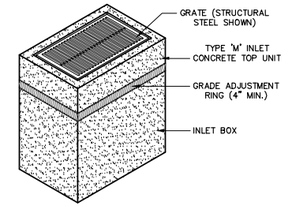
SECTION A–A



SECTION B–B



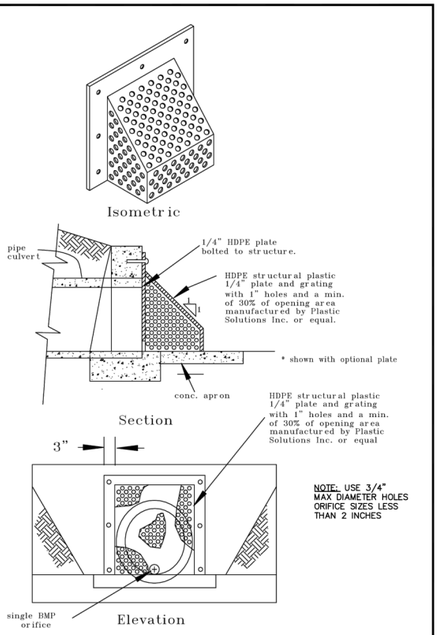
PLAN VIEW



NOTE:
REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET CONSTRUCTION.

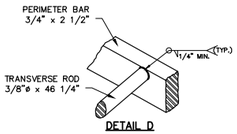
TYPE 'M' INLET DETAIL

NOT TO SCALE

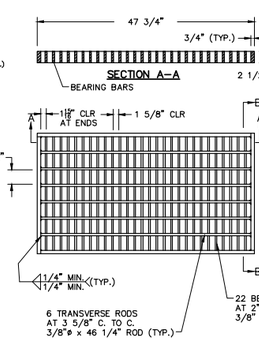


BMP TRASH RACK

PLASTIC SOLUTIONS INC.
P.O. Box 4386
Winchester VA 22604
877–877–5727
www.plastic–solution.com



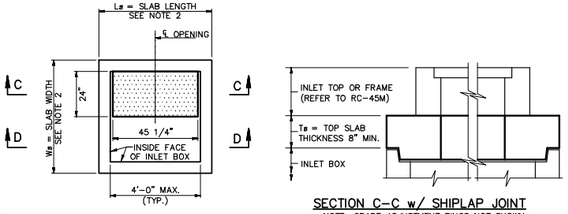
DETAIL D



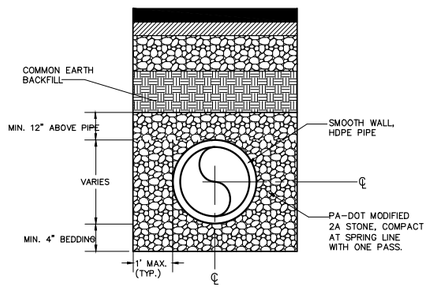
DETAIL E

STRUCTURAL STEEL GRATE BICYCLE SAFE

NOT TO SCALE

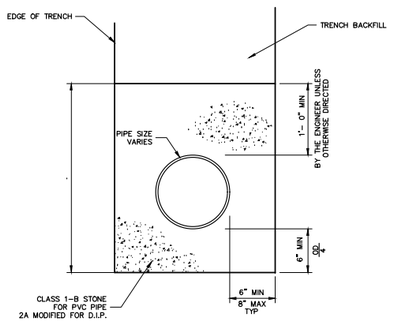


SECTION C–C w/ SHIPLAP JOINT
NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN



HDPE BACKFILL DETAIL

NOT TO SCALE



STANDARD PIPE BEDDING

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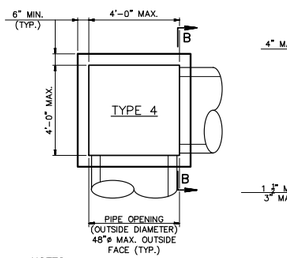

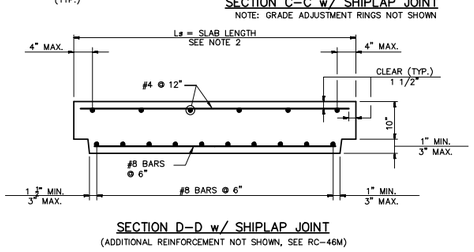

SECTION D–D w/ SHIPLAP JOINT
(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

NOTES:
1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.

PRECAST CONCRETE INLET BOX–TYPE 4

NOT TO SCALE

BOX SHALL BE PROVIDED WITH OVER–SIZED FRAME AND GRATE TO MAXIMIZE INLET CAPACITY. OMIT TOP SLAB TO ACCOMMODATE FRAME.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
305 CORPORATE DRIVE WEST EXTON, PA 19341 • (610) 363-3955 • www.gilmoreassoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 5

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

MUNICIPAL FILE No.: ——

TAX MAP PARCEL No.: 30–00–09792–00–6

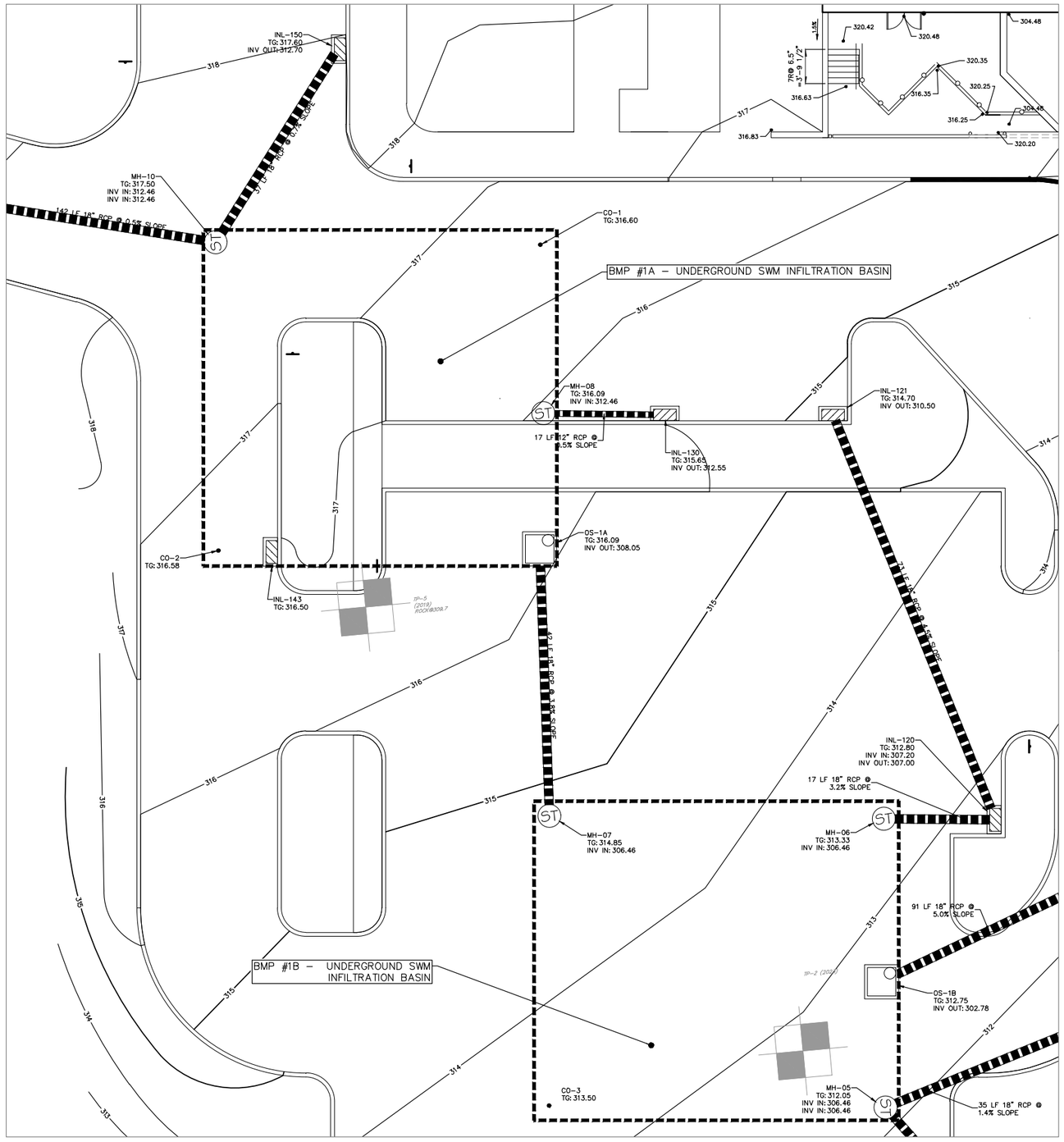
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 24 OF 40

T:\land design\2017\2017006_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 24 PCSM DETAILS – 5 Plotted By: wheider, on Mon Oct 02, 2023 at 12:46pm



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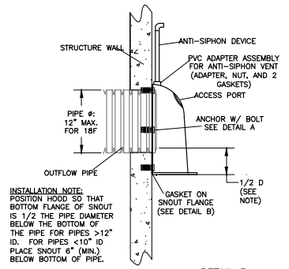
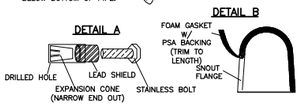
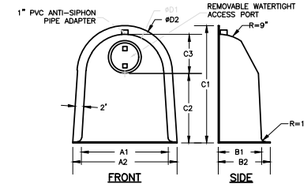
SCALE: 1"=10'



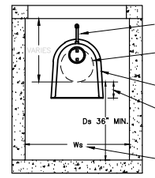




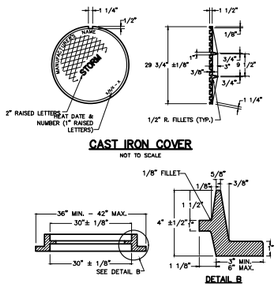
SNOUT DIMENSION												
SIZE	A1	A2	B1	B2	C1	C2	C3	D1	D2	PORT ø	R1	R2
LARGE 24"	45°	90°	11"	15"	18"	14"	5"	14"	22"	8.5"	10"	12"
SMALL 18"	33°	124°	10"	12"	13"	10"	3"	10"	22"	8.5"	10"	12"

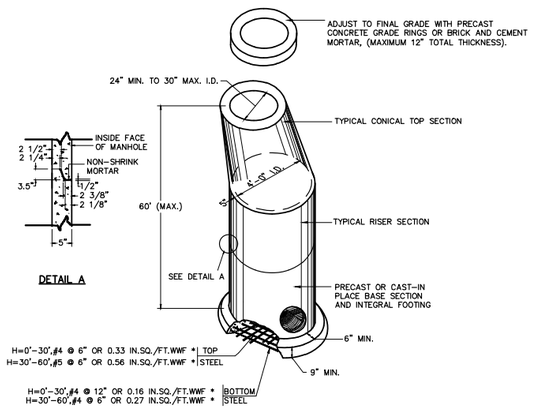
WATER QUALITY SNOUT INLET INSERT DETAIL
NOT TO SCALE

DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT



1. SELECT THE SNOUT OIL & DEBRIS STOP OF SIZE AND CONFIGURATION TO FIT APPLICATION. SEE TABLE.
2. CENTER THE SNOUT DIRECTLY OVER THE EXIT PIPE SO THAT THE ENTIRE PIPE IS COVERED AND SO THAT THE LOWER EDGE OF THE HOOD IS AT LEAST 1/2 THE PIPE DIAMETER BELOW THE LOWEST INSIDE POINT OF THE PIPE.
3. DRILL EQUALLY SPACED 7/16" HOLES THROUGH THE SNOUT FLANGE. (NUMBER OF HOLES MAY VARY WITH SIZE OF SNOUT.)
4. MARK AND DRILL CATCH BASIN AND INSTALL THE TAMP-IN LEAD ANCHORS:
   A) DRILL A 3/4" HOLE INTO THE BASE MATERIAL TO THE REQUIRED DEPTH.
   B) BLOW THE HOLE CLEAN OF DUST AND OTHER MATERIAL.
   C) INSERT THE ANCHOR INTO THE HOLE (LEAD SHIELD OUT).
   D) POSITION THE SETTING TOOL IN THE ANCHOR. THE OUTER RIM OF THE TOOL SHOULD SEAT ONTO THE LEAD SHIELD RIM.
   E) USING THE TOOL, SET THE ANCHOR BY DRIVING THE LEAD SLEEVE OVER THE CONE USING SEVERAL SHARP HAMMER BLOWS. BE SURE THE ANCHOR IS AT THE REQUIRED EMBEDMENT DEPTH.
5. ATTACH THE VENT PIPE ADAPTER IN THE PREDRILLED HOLE IN THE TOP OF THE SNOUT USING THE 2 FLAT O-RING GASKETS AND PVC LOCK-NUT SUPPLIED IN KIT. INSTALL WITH THE FEMALE SLIP ADAPTER UP AND A WASHER ON EACH SIDE OF THE SNOUT SHELL. TIGHTEN LOCK-NUT HAND TIGHT.
6. REMOVE PSA BACKING AND WITH FIRM PRESSURE, ATTACH GASKET STRIP TO BACK OF FLANGE AND TRIM EXCESS.
7. ATTACH THE SNOUT TO THE CATCH BASIN WALL WITH 3/8" DIAMETER STAINLESS STEEL BOLTS DO NOT OVER TIGHTEN: 10 to 15 FOOT POUNDS SHOULD BE SUFFICIENT.
8. CUT THE ANTI-SIPHON VENT STACK TO LENGTH AND ATTACH TO HOOD WITH PVC CEMENT.
9. ATTACH 90 DEGREE FITTING TO VENT STACK WITH PVC CEMENT. INSURE THAT FITTING OPENING IS ACCESSIBLE FOR MAINTENANCE AND INSPECTION.





NOTES:

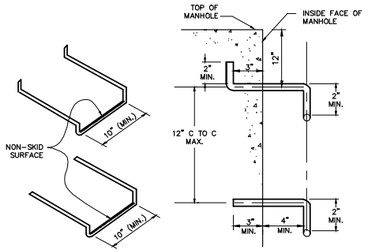
PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 714, MAY BE SUBSTITUTED FOR STANDARD CAST-IN-PLACE MANHOLE.

REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC-39, SHEET 3 of 5, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST MANHOLE CONSTRUCTION.

* PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 709.3.

MANHOLE STEPS SHALL BE PROVIDED IN ANY CASE WHERE THE STRUCTURE IS 5 FEET OR GREATER IN DEPTH.

PRECAST STORMWATER MANHOLE
NOT TO SCALE



MANHOLE AND INLET STEPS
NOT TO SCALE

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ENGINEERING & CONSULTING SERVICES
305 CORPORATE DRIVE WEST EXTON, PA 19341 • (610) 363-3555 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, Mmontgomery COUNTY, PENNSYLVANIA

PCSM DETAILS - 6

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

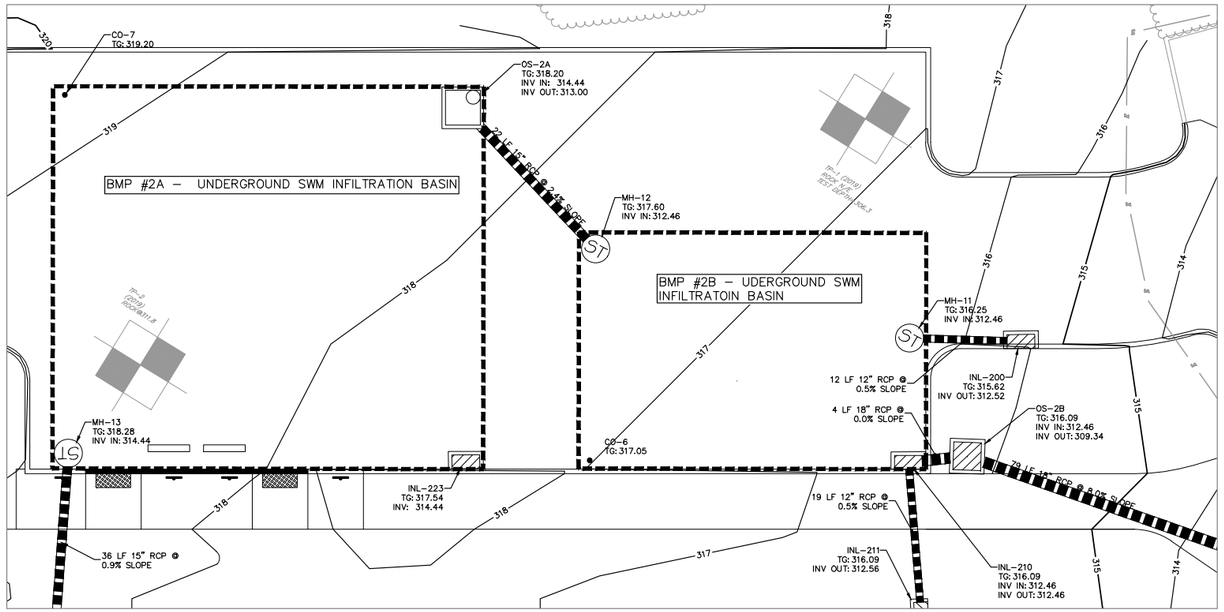
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 25 OF 40

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS - 6.dwg Layout: 25 PCSM DETAILS - 6 Plotted By: wheider, on Mon Oct 02, 2023 at 11:38am



BMP #2A/2B – DETAIL
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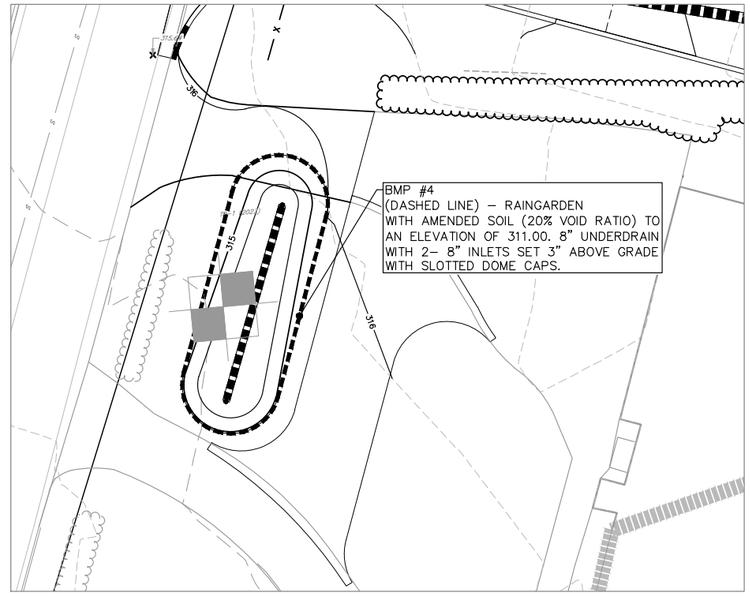

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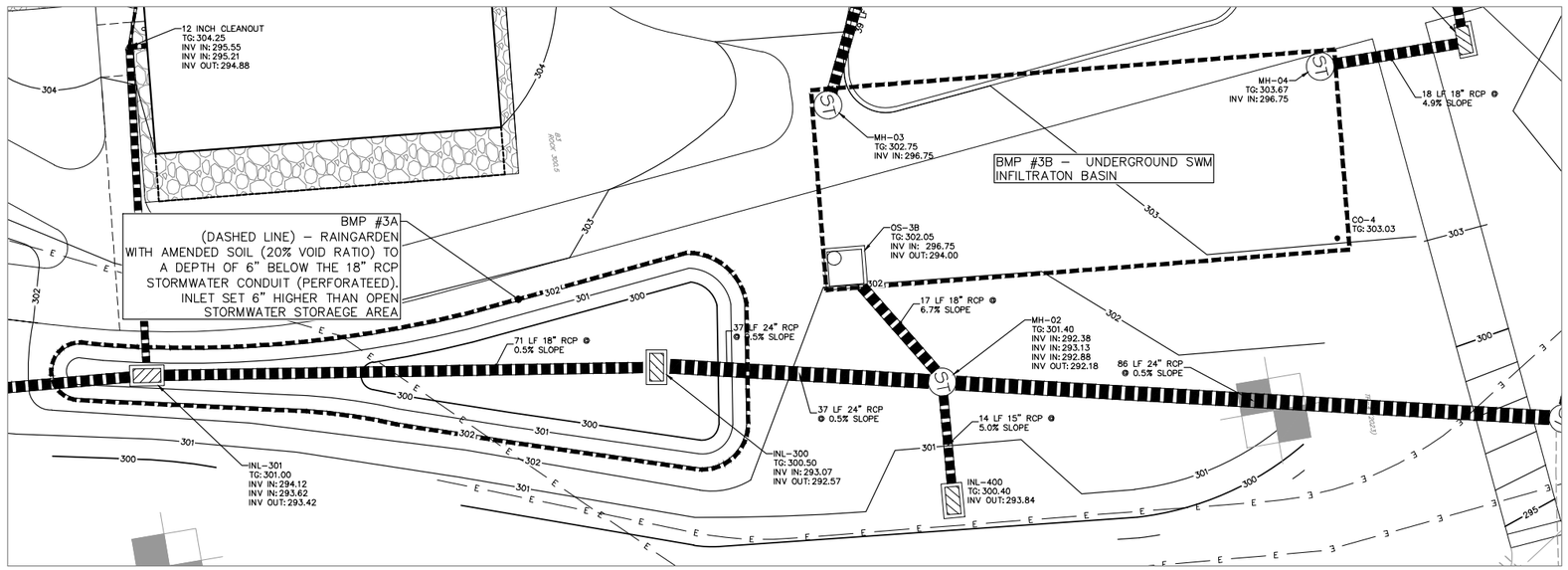

BMP #3A/AB– DETAIL
SCALE: 1"=10'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 7

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ———

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 26 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS – 6.dwg Layout: 26 PCSM DETAILS – 7 Plotted By: wheider, on Mon Oct 02, 2023 at 11:38am

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - OVERALL.dwg Layout: 27 UTILITY PLAN - OVERALL Plotted By: whelder, on Mon Oct 02, 2023 at 11:39am

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN - OVERALL

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ERIC S. CLASK — 52134E

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES

PROJECT: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0541

MUNICIPAL FILE Nos.:

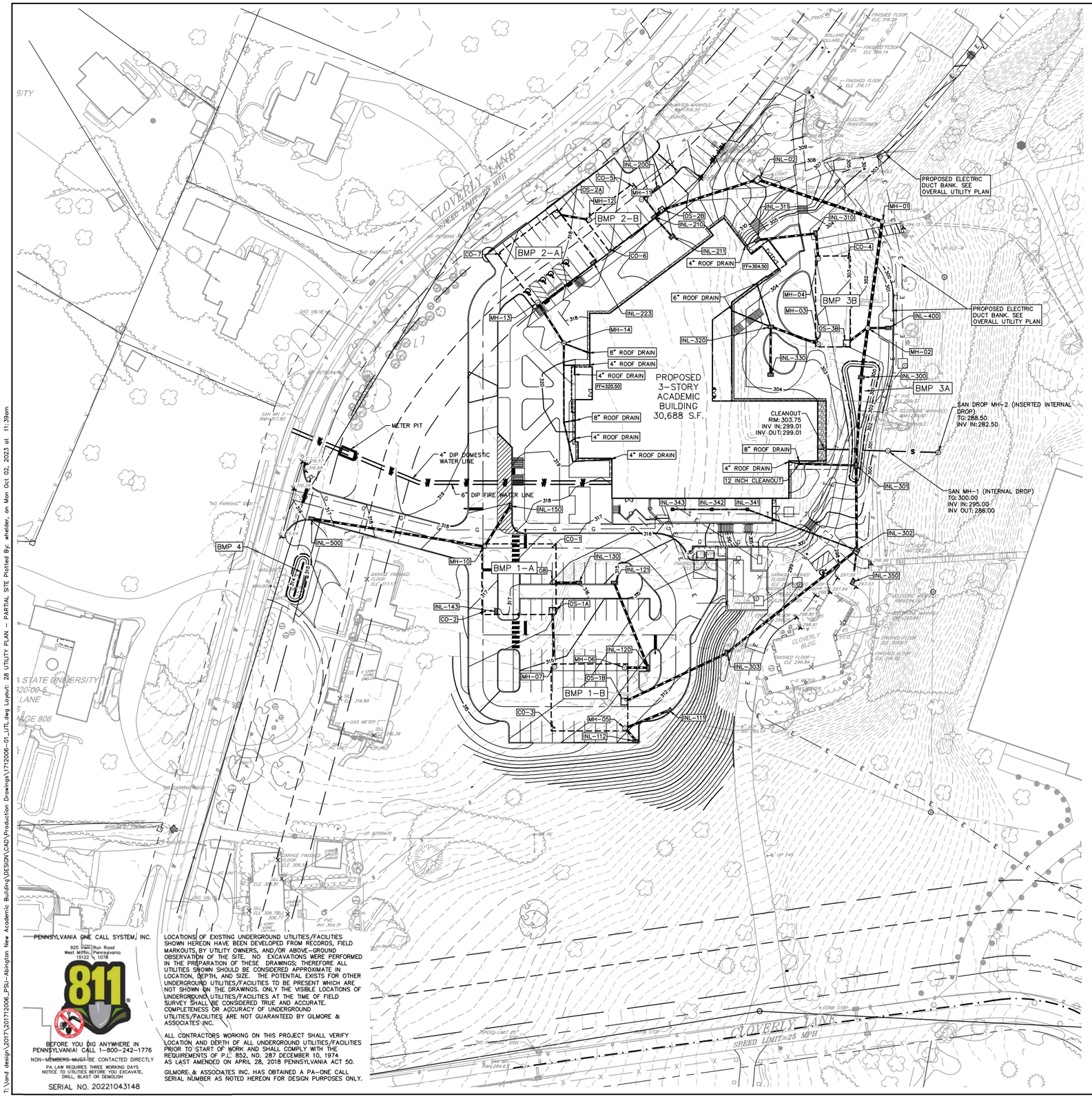
TAX MAP PARCEL Nos.:
30-00-09792-00-6

TOTAL AREA: 47.989 AC. TOTAL LOTS: 1

DATE: 06/06/22
SCALE: 1"=80'
DRAWN BY: JM
CHECKED BY: JM

SHEET NO.: 27 OF 40

NOT TO BE RECORDED



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

GENERAL NOTES:

1. ALL SANITARY SEWER WASTE SHALL COMPLY WITH PENN STATE UNIVERSITY'S SAFETY POLICY SY40 - DISPOSAL OF POLLUTANTS IN UNIVERSITY SANITARY SYSTEM SY40.
2. ALL UTILITY SYSTEMS SHALL BE IN ACCORDANCE WITH PENN STATE DESIGN AND CONSTRUCTION STANDARDS.
3. ADJUSTMENT OF EXISTING UTILITY STRUCTURES - ADJUST THE ELEVATION OF ALL EXISTING MANHOLE COVERS, VALVE BOXES, JUNCTION BOXES AND OTHER SIMILAR UTILITY STRUCTURES TO BE 1/8 INCH BELOW NEW FINISHED GRADE WHICH SHOULD BE LOCATED 1/2 TO 1 INCH BELOW FINISHED PAVED SURFACES. ALL ADJUSTMENTS TO EXISTING UTILITY STRUCTURES SHALL BE CONDUCTED IN COORDINATION WITH PENN STATE OFFICE OF PHYSICAL PLAN UTILITY SERVICES. ALL ADJUSTMENTS SHALL BE COMPLETED IN ACCORDANCE WITH PSU DESIGN AND CONSTRUCTION STANDARDS.
4. ALL PIPED UTILITIES SHALL INCLUDE A CONTINUOUS #10 WIRE INSTALLED WITH THE UTILITY LINE TO BE USED FOR FUTURE LOCATES.
5. ONCE-THRU COOLING USING POTABLE WATER IS NOT PERMITTED ON ANY EQUIPMENT.
6. THE WATER SERVICE WILL NOT BE ACTIVATED UNTIL THE HYDROSTATIC TESTING AND INSPECTION, DISINFECTION, BACTERIOLOGICAL TESTING, WATER METER INSPECTION, AND BACKFLOW PREVENTION DEVICE(S) INSPECTION AND TESTING HAS BEEN PROPERTY PERFORMED AND VERIFIED BY WATER SERVICES. ANY DEFICIENCIES TO THE WATER SYSTEM'S INSTALLATION MUST BE CORRECTED PRIOR TO THE ACTIVATION OF THE WATER SERVICE.
7. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE DURING CONSTRUCTION.
8. ALL WATER LINE WORK MUST BE COORDINATED WITH PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD, P.E. PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU. ONLY PENN STATE PERSONNEL MAY OPERATE WATERLINES AND VALVES.
9. ALL PIPE JOINTS SHALL BE FULLY RESTRAINED EITHER BY MECHANICAL JOINT (MEGALUGS STYLE RESTRAINT) OR PUSH-ON JOINT TYPE WITH GASKET CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST VERSION) AND SHALL BE AMERICAN PIPE FLEX-RING/FIELD-LOC, FAST-GRIP GASKET OR EQUAL AS APPROVED BY ENGINEERING SERVICES. ALL DUCTILE IRON PIPE MUST BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 (LATEST VERSION).
10. ALL WATER LINE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE UNIVERSITY'S (PSU) DESIGN AND CONSTRUCTION STANDARDS, AND PA DEP'S RULES AND REGULATIONS.
11. ALL WATER LINE MATERIALS AND EQUIPMENT SUBMITTALS MUST BE REVIEWED AND APPROVED BY PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD P.E., PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU AND MAILING ADDRESS IS 209 WATER TREATMENT PLANT, UNIVERSITY PARK, PA 16802.
12. PROPOSED PVC SEWER PIPE SHALL BE GRADE SDR-26 OR BETTER.
13. ALL PROPOSED UTILITIES ARE TO BE PLACED UNDERGROUND.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS
- W — PROPOSED WATER LINE
- E — E — PROPOSED ELECTRIC LINE
- G — PROPOSED GAS LINE
- T — PROPOSED TELEPHONE LINE
- S — PROPOSED SAN. SEWER LINE

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

40 0 40 80
SCALE IN FEET
1"=40'

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925 Fern Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS, BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
504 CORPORATE DRIVE WEST • CANONSBURG, PA 15317 • P: 724-746-3055 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN - PARTIAL SITE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 28 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\7120206-01_UTL.dwg Layout: 28 UTILITY PLAN - PARTIAL SITE Plotted By: wheider, on Mon Oct 02, 2023 at 11:39am

PROFILE B–B
BP: 0+00.00
(SEE CONDITIONAL USE EXHIBIT SHEET 3 OF 3)

PROFILE B–B
EP: 1+21.88
(SEE CONDITIONAL USE EXHIBIT SHEET 3 OF 3)

DIRECTIONAL DRILLED DUCTBANK INSTALLATION

PROFILE A–A
EP: 1+26.83
(SEE CONDITIONAL USE EXHIBIT SHEET 3 OF 3)

BORE PIT FOR DIRECTIONAL DRILLING UNDER ZONE 1

PROPOSED DUCTBANK ROUTE

PROFILE A–A
BP: 0+00.00
(SEE CONDITIONAL USE EXHIBIT SHEET 3 OF 3)

BORE PIT FOR DIRECTIONAL DRILLING UNDER ZONE 1

PROPOSED DUCTBANK ROUTE

50'

25'

PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE

G&A LEGEND

- RIGHT–OF–WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED WATER LINE
- PROPOSED ELECTRIC LINE
- PROPOSED GAS LINE
- PROPOSED TELEPHONE LINE
- PROPOSED SAN. SEWER LINE
- PROJECT SITE BOUNDARY (NPDES PERMIT)
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- EXISTING PAVING

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

40 0 40 80
SCALE IN 1"=40' FEET

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ENGINEERING & CONSULTING SERVICES
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RIPARIAN CORRIDOR EXHIBIT

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

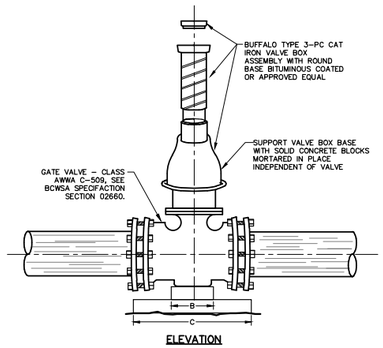
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: JM

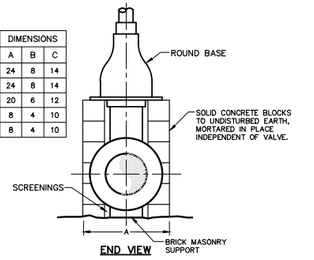
SHEET NO.: 29 OF 40

T:\and design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - STREAM CROSSING.dwg Layout: 29 RIPARIAN CORRIDOR EXHIBIT Plotted By: wheider, on Mon Oct 02, 2023 at 2:14pm



ELEVATION

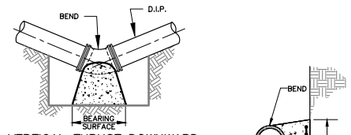
SIZE OF VALVE	DIMENSIONS		
	A	B	C
12"	24	8	14
10"	24	8	14
8"	20	6	12
6"	8	4	10
4"	8	4	10



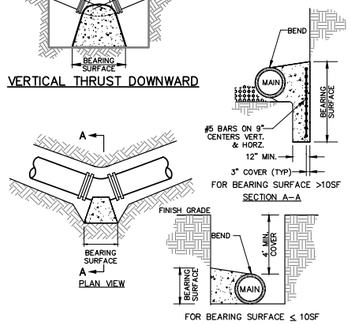
END VIEW

W4 - GATE VALVE WITH VALVE BOX DETAIL

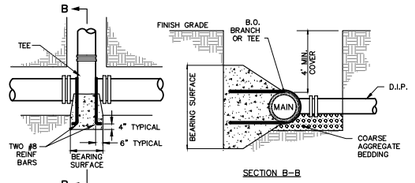
NOT TO SCALE



VERTICAL THRUST DOWNWARD

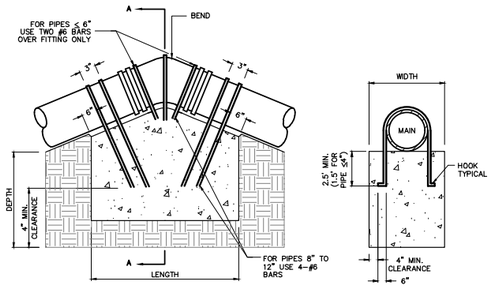


THRUST BLOCKING AT HORIZONTAL BEND



THRUST BLOCKING AT TEE

M3 & M4 - HORIZONTAL & DOWNWARD THRUST BLOCK DETAILS



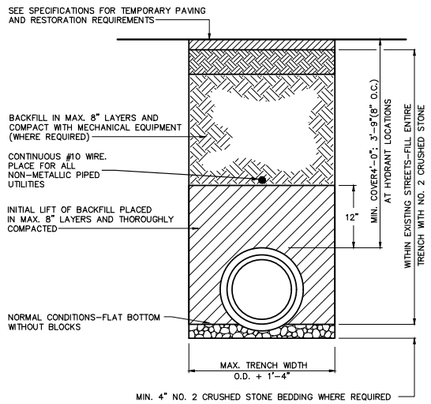
M5 - TYPICAL SECTION VERTICAL THRUST UPWARD SECTION A-A

CONCRETE BLOCKING DIMENSIONS, VERTICAL THRUST UPWARD 100 P.S.I. WORKING PRESSURE

PIPE SIZE	LENGTH			WIDTH			DEPTH		
	11.25°	22.5°	45°	11.25°	22.5°	45°	11.25°	22.5°	45°
4" AND LESS	2'	2'	3'	1.5'	1.5'	2'	2'	2'	2'
6" AND 8"	3'	4'	6'	3'	3'	3'	2'	3'	4'
10" AND 12"	3.5'	4'	7'	4'	4'	4'	2.5'	3'	4'

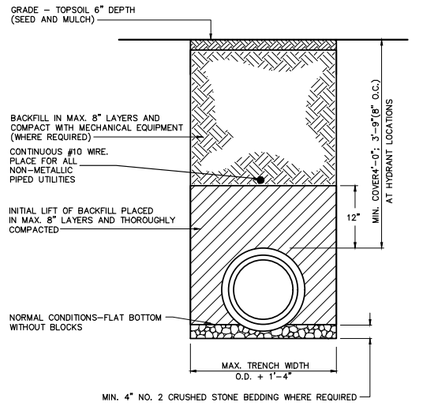
MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD

TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS		6" PIPE						8" PIPE						12" PIPE					
		DEGREE BEND OR DEFLECTION																	
		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END	
SOFT CLAY	1000 PSI	1.1	2.2	4.3	7.9	5.6		1.9	3.8	7.4	13.6	9.6		4.0	8.0	15.7	29.0	20.5	
SILT	1500 PSI	1.0	2.2	2.9	5.3	3.7		1.3	2.5	4.9	9.1	6.4		2.7	5.3	10.5	19.3	13.7	
SANDY SILT	3000 PSI	1.0	1.1	1.4	2.6	1.9		1.0	1.3	2.5	4.5	3.2		1.3	2.7	5.2	9.7	6.8	
SAND	4000 PSI	1.0	1.0	1.1	2.0	1.4		1.0	1.0	1.8	3.4	2.4		1.0	2.0	3.9	7.3	5.1	
SANDY CLAY	6000 PSI	1.0	1.0	1.0	1.3	1.0		1.0	1.0	1.2	2.3	1.6		1.0	1.3	2.6	4.8	3.4	
HARD CLAY	9000 PSI	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5	1.1		1.0	1.0	1.7	3.2	2.3	



WATER TRENCH DETAIL (PAVED AREAS)

NOT TO SCALE



WATER TRENCH DETAIL (NON-PAVED AREAS)

NOT TO SCALE

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65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330 • www.gilmore-assoc.com

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - WATER SERVICE DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: ##/##/22

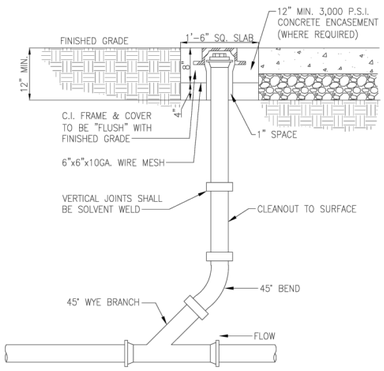
SCALE:

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 30 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 30 UTILITY - WATER SERVICE DETAILS Plotted By: wheiter, on Mon Oct 02, 2023 at 11:40am

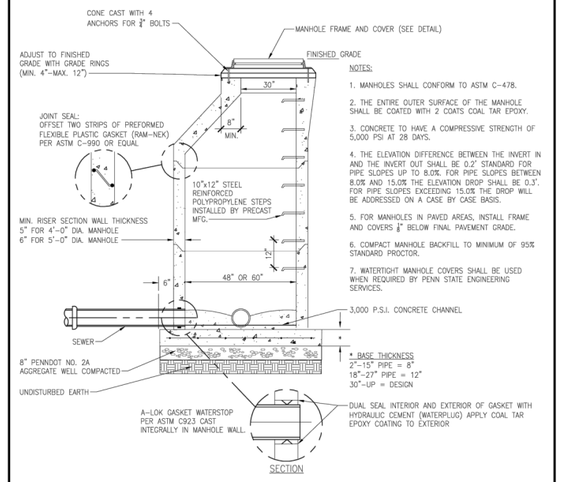


CLEANOUT DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019



NOTES:

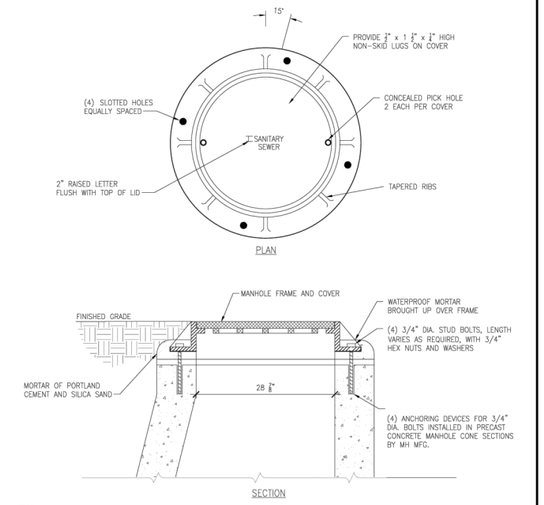
1. MANHOLES SHALL CONFORM TO ASTM C–478.
2. THE ENTIRE OUTER SURFACE OF THE MANHOLE SHALL BE COATED WITH 2 COATS COAL TAR EPOXY.
3. CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
4. THE ELEVATION DIFFERENCE BETWEEN THE INVERT IN AND THE INVERT OUT SHALL BE 0.2' STANDARD FOR PIPE SLOPES UP TO 8.0%. FOR PIPE SLOPES BETWEEN 8.0% AND 15.0% THE ELEVATION DROP SHALL BE 0.3'. FOR PIPE SLOPES EXCEEDING 15.0% THE DROP WILL BE ADDRESSED ON A CASE BY CASE BASIS.
5. FOR MANHOLES IN PAVED AREAS, INSTALL FRAME AND COVERS ¼" BELOW FINAL PAVEMENT GRADE.
6. COMPACT MANHOLE BACKFILL TO MINIMUM OF 95% STANDARD PROCTOR.
7. WATERTIGHT MANHOLE COVERS SHALL BE USED WHEN REQUIRED BY PENN STATE ENGINEERING SERVICES.

PRECAST CONCRETE MANHOLE DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 11.27.2019



NOTES:

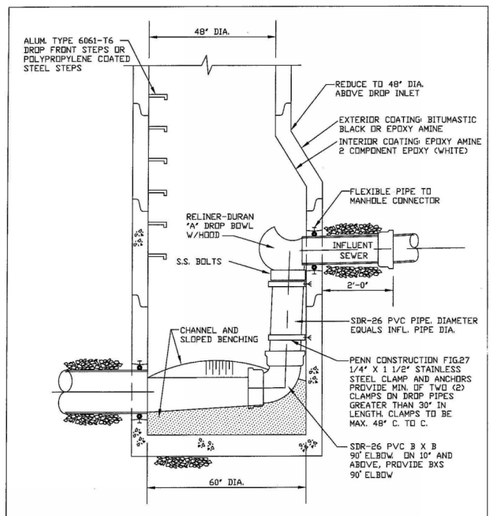
1. THE WORD "SANITARY SEWER" OR "PSU SANITARY" MUST BE ON THE MANHOLE COVER.
2. FRAME SHALL BE MODEL 1965Z AND COVER SHALL BE MODEL 1965A1 AS MANUFACTURED BY EJ GROUP, INC. , OR APPROVED EQUAL.
3. AFTER MORTAR HAS DRIED, COAT OUTTER SURFACE OF MANHOLE WITH COAL TAR EPOXY FROM CONE SECTION UP AROUND EXTERIOR OF FRAME.

STANDARD MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.06.2019

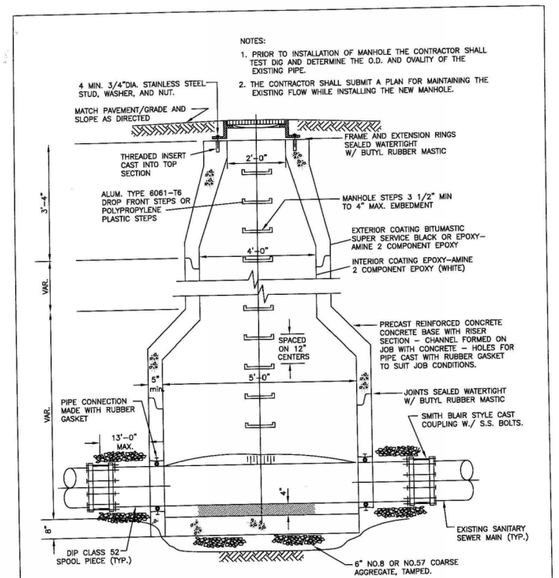


NOTES: 5' DIAMETER MANHOLE TO BE UTILIZED FOR INSIDE DROP MANHOLE
PIPED DROP TO BE USED FOR VERTICAL ELEVATION CHANGE GREATER THAN 2 FT.

Township of Abington
STANDARD DETAIL - SEWER SYSTEM

PRECAST SANITARY MANHOLE INSIDE DROP CONNECTION (8" - 24" SEWERS)

DATE: NOVEMBER 2015
DETAIL: 13

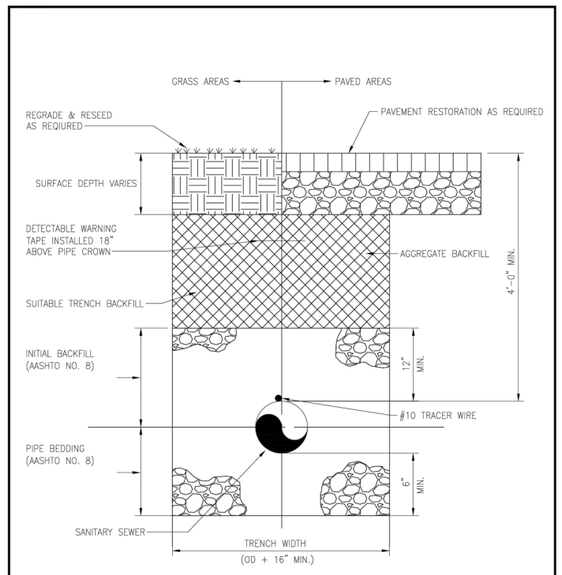


INSERTED MANHOLE WITH INSIDE DROP

Township of Abington
STANDARD DETAIL - SANITARY SEWER SYSTEM

INSERTION OF A PRECAST CONCRETE MANHOLE INTO AN EXISTING SEWER MAIN

DATE: JUNE 2022
DETAIL: 29A



SANITARY SEWER PIPE TRENCH DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY – SANITARY SEWER DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30–00–09792–00–6

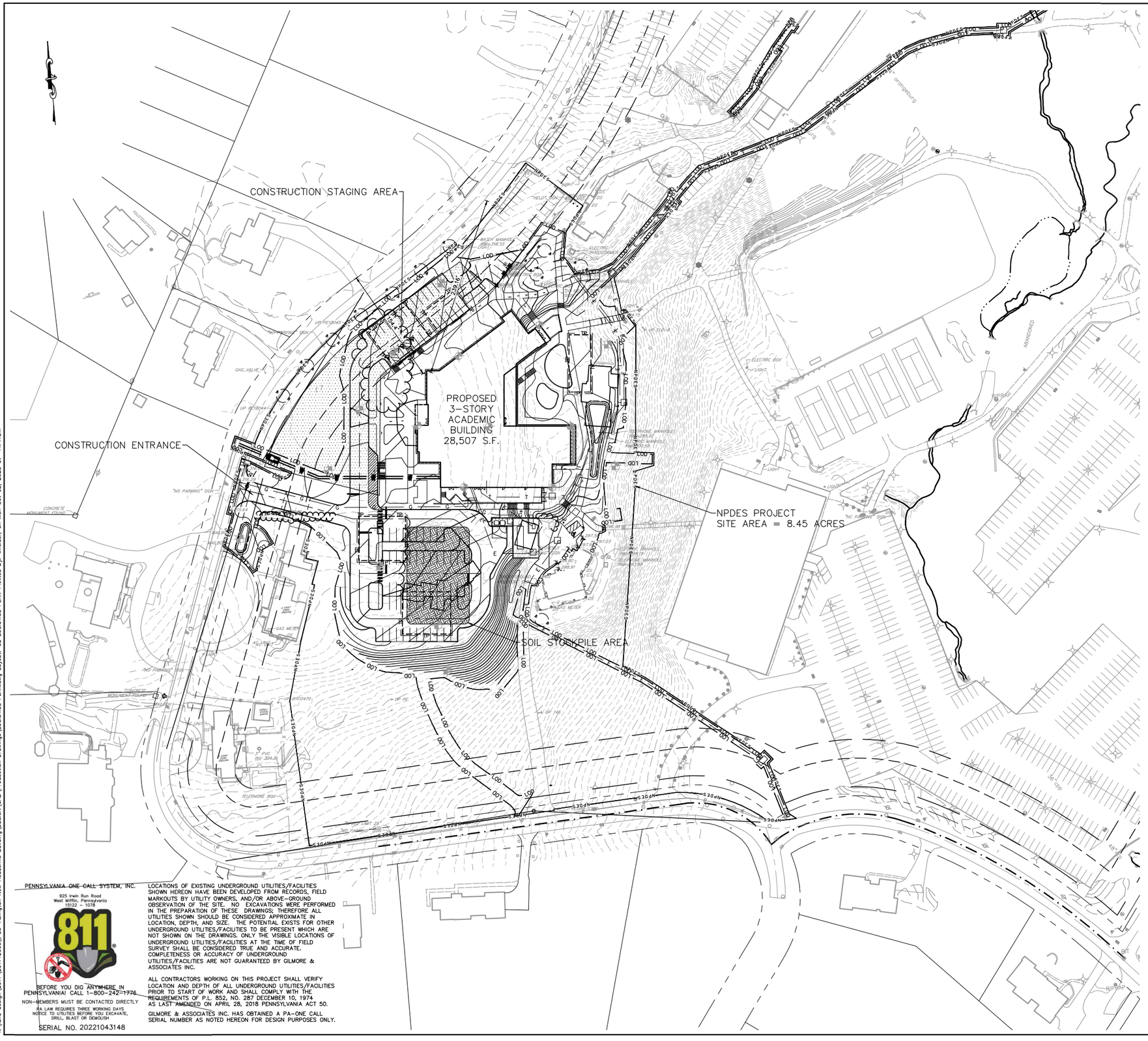
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: ##/##/22
SCALE:

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 31 OF 40

T:\land design\2017\2017120086_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 31 UTILITY – SANITARY SEWER DETAILS Plotted By: wheider, on Mon Oct 02, 2023 at 11:40am



LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

LOGISTICS/CONSTRUCTION SEQENCE NOTES:

[1] INSTALL EROSION CONTROL BMPS. INSTALL CONSTRUCTION ENTRANCE. INSTALL CONSTRUCTION FENCES AND ALL MEANS OF BUFFERING CONSTRUCTION FROM PUBLIC.

[2] CONSTRUCTION STAGING SHALL BE LIMITED TO PROPOSED PARKING AREAS. NOTE: PROTECT AREAS OF PROPOSED UNDERGROUND INFILTRATION FROM OVERCOMPACTION (DELAY EXCAVATION FOR DEEP INFILTRATION FIELDS AND AVOID TRAVEL OVER SHALLOW INFILTRATION AREAS LESS THAN 4 FEET BELOW EXISTING SURFACE)

[3] DEMOLISH AND REMOVE HILLCREST AND CONFERENCE CENTER BUILDINGS. (PSU TO RESOLVE ALTERNATE SPACES FOR THESE USES). DEMOLISH OTHER ITEMS SHOWN ON PLAN TO BE REMOVED. EXISTING PAVEMENTS NOTED FOR DEMOLITION SHALL BE MAINTAINED FOR DURING-CONSTRUCTION PURPOSES AS LONG AS PRACTICAL.

[4] RELOCATE EXISTING UTILITIES THAT CONFLICT WITH BUILDING FOOTING AND 1ST FLOOR EXCAVATION.

[5] EXCAVATE 1ST FLOOR/FOOTINGS FOR NEW BUILDING. STOCKPILE OUTSIDE OF AREAS OF PROPOSED INFILTRATION BMPS.

[6] INSTALL NEW FOOTINGS, STEEL STRUCTURE, BELOW SLAB UTILITIES AND FOUNDATION.

[7] INSTALL SITE STORMWATER BMPS AND STORMWATER MANAGEMENT SYSTEM.

[8] ROUGH GRADE SITE PARKING AREAS AND DRIVES. INSTALL SITE UTILITIES. INSTALL BUILDING RETAINING WALLS.

[9] INSTALL ROAD/PARKING AREA ROAD BASES. FINAL SITE GRADING.

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 – 1078

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

60 0 60 120
SCALE IN FEET
1"=60'

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ENGINEERING & CONSULTING SERVICES
504 CORPORATE DRIVE WEST • CARLISLE, PA 17013 • 717-249-0955 • www.gilmore-assoc.com

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ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LOGISTICS PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ____

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TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

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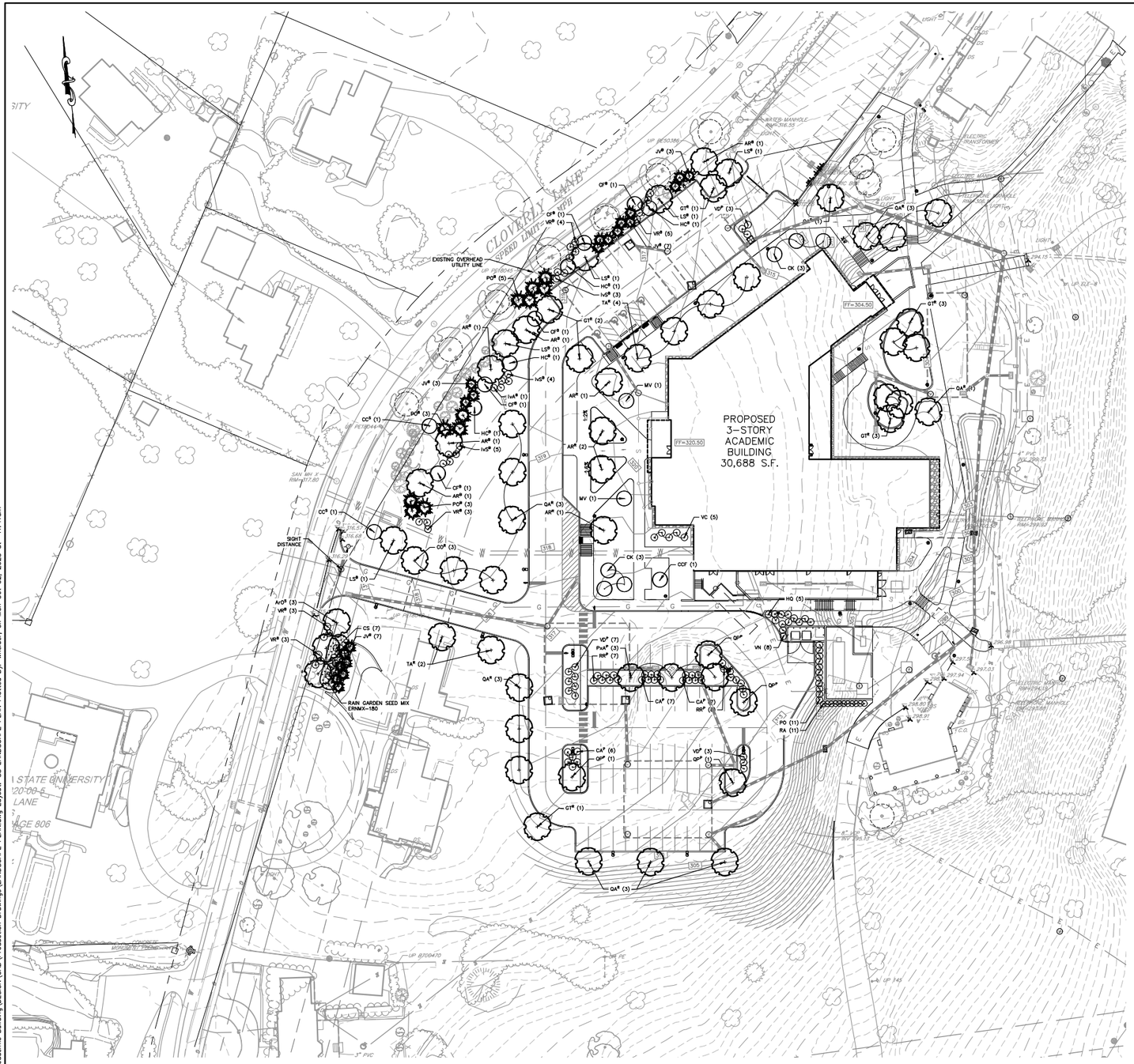
SCALE: 1"=60'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 32 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LOGISTICS PLAN.dwg Layout: 32 LOGISTICS PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am



COMPLIANCE CHART

THE FOLLOWING CHART REPRESENTS THE MINIMUM QUANTITIES OF REQUIRED PLANT MATERIAL ACCORDING TO THE ABINGTON TOWNSHIP ZONING AND SUBDIVISION AND LAND DEVELOPMENT ORDINANCES, AND TO DEMONSTRATE COMPLIANCE WITH THE SAME.

§2401.A.2.d(1)(a) - TREE REPLACEMENT	REQUIRED	EXISTING	PROVIDED	TOTAL
REQUIREMENT: 2 TREES (3 - 3.5" CAL.) PER EACH < 6" CALIPER TREE REMOVED 77 TREES REMOVED *NOTE: 117 TREESTO BE DISBURSED THROUGHOUT THE SITE AND/OR COORDINATED BETWEEN PSU AND ABINGTON TOWNSHIP.	154	0	37	154*
§2402.A.2(a)(4) - PARKING LOT LANDSCAPING				
REQUIREMENT: ONE SHADE TREE (3" CAL.), SHRUBS AND/OR GROUNDCOVER FOR EACH PLANTING ISLAND	YES		YES	
§2402.A.6 - MINIMUM GREEN AREA				
REQUIREMENT: 10% OF PARKING AREA GREATER THAN 15,000 S.F. DEVOTED TO LANDSCAPING (LOWER PARKING AREA = 30,085 S.F. TOTAL)	3,009 S.F.		3,256 S.F.	
§2402.B.2.c - STREET TREES				
REQUIREMENT: 1 TREE PER 40 L.F. (495 L.F.) NOTE: STREET LENGTH DOES NOT INCLUDE WIDTH OF ENTRANCE DRIVE AT R.O.W.	12	7	5	12
§2403.B.4.a(2)(a) - MEDIUM INTENSITY BUFFER PLANTINGS				
REQUIREMENT: OPTION A, PER EACH 100 LINEAR FEET 2 CANOPY TREES (2 - 2 1/2" CAL) 2 UNDERSTORY TREES (1 1/2" CAL.) 5 EVERGREEN TREES (8' HT.) (PLUS 20% MORE PER ZONING AMENDEMENT) 5 SHRUBS (24" HT.) (PLUS 20% MORE PER ZONING AMENDMENT)	10 10 31 31		10 10 31 31	10 10 31 31
§2403.D - BUILDING FOUNDATION PLANTINGS				
REQUIREMENT: ORNAMENTAL OR EVERGREEN TREES AND SHRUBS	YES		YES	
§146-39.B(3)(a)[1] - OFF-STREET PARKING				
REQUIREMENT: 5% INTERIOR LANDSCAPING WITHIN PARKING AREA UPPER PARKING AREA = 7,983 S.F. LOWER PARKING AREA = 30,085 S.F. *NOTE: PARTIAL WAIVER REQUESTED FOR UPPER PARKING AREA	399 S.F. 1,504 S.F.		0 S.F. 3,256 S.F.	0%* 11%
§146-39.B(3)(a)[2] - OFF-STREET PARKING				
REQUIREMENT: 1 TREE (2 1/2" CALIPER) PER 15 PARKING SPACES 85 PARKING SPACES	6	0	7	7

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
STREET TREES						
AO^{S}	3	ACER RUBRUM 'OCTOBER GLORY'	OCTOBERY GLORY MAPLE	2.5" CAL	B&B	
CC^{S}	2	CERCIS CANADENSIS	EASTERN REDBUD	2.5" CAL	B&B	
BUFFER AREA PLANTINGS						
CANOPY TREES						
AR^{M}	5	ACER RUBRUM 'BRANDYWINE'	RED MAPLE	2 - 2.5" CAL	B&B	SEEDLESS
LS^{S}	5	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SWEETGUM	2 - 2.5" CAL	B&B	SEEDLESS
UNDERSTORY TREES						
CF^{S}	5	CORNUS FLORIDA 'RED BEAUTY'	RED BEAUTY DOGWOOD	1.5" CAL	B&B	
HC^{S}	4	HALESIA CAROLINA 'JERSEY BELLE'	CAROLINA SILVERBELL	1.5" CAL	B&B	
EVERGREEN TREES						
JV^{S}	20	JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EMERALD SENTINEL EASTERN REDCEDAR	6' HT MIN	B&B	
PO^{S}	11	PICEA OMORIKA	SERBIAN SPRUCE	6' HT MIN	B&B	
SHRUBS						
IvA^{S}	1	ILEX VERTICILLATA 'APPOLLO'	WINTERBERRY HOLLY	24" MIN	CONT	MALE
IvS^{S}	12	ILEX VERTICILLATA 'SPARKLEBERRY'	WINTERBERRY HOLLY	24" MIN	CONT	FEMALE
VR^{S}	18	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	24" MIN	CONT	
PARKING AREA PLANTINGS						
CANOPY TREES						
PaA^{S}	3	PLATANUS X ACERIFOLIA 'EXCLAMATION'	EXCLAMATION LONDON PLANE TREE	3" CAL	B&B	
QP^{S}	4	QUERCUS PHELLOS	WILLOW OAK	3" CAL	B&B	
SHRUBS						
CA^{S}	20	CLETHRA ALNIFOLIA	SUMMERSWEET	24" MIN	#3 CONT	
RH^{S}	15	ROSA RUGOSA 'RADRAZZ'	KNOCKOUT ROSE	24" MIN	#3 CONT	
VD^{S}	13	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24" MIN	#3 CONT	
OTHER PLANTINGS						
DECIDUOUS TREES						
CCF	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	1.5" CAL	B&B	
CK	6	CORNUS KOUSA 'GREENSLEEVES'	KOUSA DOGWOOD	1.5" CAL	B&B	
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL	B&B	
SHRUBS						
CS	7	CORNUS SERICEA	REDTWIG DOGWOOD	24" MIN	#3 CONT	
HQ	5	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	36" MIN	#5 CONT	
PO	11	PHYSOCARPUS OPULIFOLIUS 'DIABOLO'	DIABOLO NINEBARK	24" MIN	#3 CONT	
RA	11	RHUS AROMATICA 'GRO-LOW'	GRO LOW SUMAC	18" MIN	#1 CONT	
VC	5	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24" MIN	#3 CONT	
VN	8	VIBURNUM NUDUM 'WINTERTHUR'	WINTERTHUR VIBURNUM	36" MIN	#5 CONT	
REPLACEMENT TREE PLANTINGS						
AR^{M}	4	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE (FREEMAN) MAPLE	3 - 3.5" CAL	B&B	SEEDLESS
CO^{S}	3	CARYA OVATA	SHAGBARK HICKORY	3 - 3.5" CAL	B&B	
GT^{S}	10	GLEDITSIA TRIACANTHOS F. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	3 - 3.5" CAL	B&B	THORNLESS
QA^{S}	14	QUERCUS ALBA	WHITE OAK	3 - 3.5" CAL	B&B	

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- EXISTING TREE TO REMAIN
- CANOPY TREE
- UNDERSTORY/ORNAMENTAL TREE
- EVERGREEN TREE
- SHRUB

SCALE: 1" = 40' (40 0 40 80 FEET)

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	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.			

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MmontgomERY COUNTY, PENNSYLVANIA

LANDSCAPE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0444

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 33 OF 40

T:\land design\2017\20170006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 33 LANDSCAPE PLAN Plotted By: wheller, on Mon Oct 02, 2023 at 11:41am

LUMINAIRE SCHEDULE										
Symbol	Label	Manufacturer	Image	Quantity	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
	A	RAB LIGHTING INC.		9	ALED3T78N – RWLED3178N – RWLED3178SFN – WPLED378N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	75.9	Max: 5973cd
	B	RAB LIGHTING INC.		4	ALED3T78N – RWLED3178N – RWLED3178SFN – WPLED378N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	151.8	Max: 5973cd
	C	ARCHITECTURAL AREA LIGHTING		17	PKWM–ANG–Y5HC–32LED––4K–500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4721	0.95	50	Max: 1668cd
	D	ARCHITECTURAL AREA LIGHTING		4	PKWM–ANG–Y2HC–32LED––4K–500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4918	0.95	50	Max: 4285cd

SEE SHEET 35 FOR LUMINAIRE CUT SHEETS AND DETAILS

SITE LIGHTING STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Internal Drive	+	2.8 fc	5.1 fc	1.3 fc	3.9:1	2.2:1
Parking Area 1	+	1.8 fc	5.8 fc	0.7 fc	8.3:1	2.6:1
Parking Area 2	+	2.5 fc	6.4 fc	0.5 fc	12.8:1	5.0:1

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR SITE LIGHTING PURPOSES ONLY. ELECTRICAL ENGINEERING, INCLUDING, BUT NOT LIMITED TO , CIRCUITRY, CONDUIT, WIRING, AND ASSOCIATED SPECIFICATIONS, IS NOT WITHIN THE SCOPE OF THIS DOCUMENT.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.
3. SUBSTITUTION REQUESTS MUST BE APPROVED BY THE TOWNSHIP.
4. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
5. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLAN AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
6. LIGHTING VALUES DEPICTED ON THIS PLAN WERE GENERATED USING VISUAL 2020.2.11.0062 SOFTWARE.
7. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPES OF FIXTURES ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, LAWS AND STATUTES.
8. CONTRACTOR SHALL BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES OR OTHER STRUCTURES.

40 0 40 80
SCALE IN 1"=40' FEET

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SERIAL NO. 20221043148

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REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LIGHTING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 34 OF 40

T:\land design\2017\20172006_PSU_Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 34 LIGHTING PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am

GENERAL LANDSCAPE NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIALS, PLANTS EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, HAVE VIGOROUS ROOT SYSTEMS AND BE FREE OF DEFECTS AND INJURIES.
4. ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE WELFARE OF THE PLANT MATERIAL, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISIONS SHALL BE MADE FOR A GUARANTEE OF 18 MONTHS FOR TREES AND SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE 2014 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN INC., OR LATEST EDITION.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC., SHALL BE USED FOR PLANTING.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. **PLANTING OPERATIONS SHALL OCCUR BETWEEN APRIL 1, THROUGH JUNE 15 AND SEPTEMBER 1 THROUGH NOVEMBER 1 OF EACH CALENDAR YEAR. IF FAVORABLE PLANTING CONDITIONS EXTEND BEYOND DATES INDICATED HEREIN, AN EXTENSION MAY BE GRANTED BY THE LANDSCAPE ARCHITECT RESPONSIBLE FOR THESE PLANS.**
10. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PLANTING PIT.
11. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
12. LANDSCAPING CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF LANDSCAPE MATERIAL. CONTRACTOR SHALL NOT PLACE LANDSCAPING MATERIAL ON TOP OF UTILITY PIPING.
13. PLAN QUANTITIES SUPERSEDE PLANT LIST.
14. **THE LANDSCAPE PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.**

RAIN GARDEN MIX

1. SEED MIX SHALL BE ERNMX-180, AS PROVIDED BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL CONSISTING OF THE FOLLOWING SPECIES, OR AS CURRENTLY FORMULATED, AT 20 LBS PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE:

33.4% SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
23.0% ELYMUS VIRGINICUS	VIRGINIA WILDRYE
7.0% CAREX VULPINOIDEA	FOX SEDGE
5.6% CHASMANTHIUM LATIFOLIUM	RIVER OATS
5.5% ECHINACEA PURPUREA	PURPLE CONEFLOWER
3.0% CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
3.0% COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
3.0% PANICUM RIGIDULUM	REDTOP PANICGRASS
3.0% RUDBECKIA HIRTA	BLACKEYED SUSAN
3.0% VERBENA HASTATA	BLUE VERVAIN
2.0% HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.8% ASCLEPIAS INCARNATA	SWAMP MILKWEED
1.0% CAREX SCOPARIA	BLUNT BROOM SEDGE
1.0% SENNA HEBECARPA	WILD SENNA
0.7% PYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
0.5% ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
0.5% ASTER PRENANTHOIDES	ZIGZAG ASTER
0.5% BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.5% ZIZIA AUREA	GOLDEN ALEXANDERS
0.4% MONARDA FISTULOSA	WILD BERGAMOT
0.3% HELENIUM AUTUMNALE	COMMON SNEEZEWEED
0.3% JUNCUS TENUIS	PATH RUSH
0.2% EUPATORIUM PERFOLIATUM	BONESET
0.2% JUNCUS EFFUSUS	SOFT RUSH
0.2% OENOTHERA FRUTICOSA VAR. FRUTICOSA	SUNDROPS
0.2% SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.2% SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD

SEED MIX ESTABLISHMENT SPECIFICATIONS

INSTALLATION:

SPRAY AREAS TO BE SEEDED WITH A SYSTEMIC HERBICIDE ONE (1) MONTH PRIOR TO THE INSTALLATION OF THE SPECIFIED SEED MIXTURE. AFTER TWO (2) WEEKS OF HERBICIDE APPLICATION, AREAS TO BE SEEDED SHALL BE TREATED AGAIN IF PERSISTENT WEEDS RE-GERMINATE. ONLY AFTER ALL EXISTING VEGETATION TO BE REMOVED IS ERADICATED SHALL THE FOLLOWING SEED INSTALLATION STEPS TAKE PLACE:

1. ALL AREAS TO BE SEEDED SHALL BE CLEARED OF ALL REMAINING DEBRIS AND VEGETATION.
2. TILL ALL AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES, AND ADD ANY SPECIFIED SOIL AMENDMENTS TO THE TILLED AREAS.
3. SPREAD SEED AT RECOMMENDED RATE EVENLY ACROSS THE ENTIRE SITE.
4. FINE RAKE ALL AREAS PREVIOUSLY SEEDED TO ENSURE GOOD SOIL TO SEED CONTACT.
5. SPREAD A THIN COAT OF STRAW, 3 TONS PER ACRE MINIMUM, TO REDUCE EROSION.
6. WATER ENTIRE AREA THOROUGHLY; AVOID OVER WATERING.

FIRST YEAR MAINTENANCE:

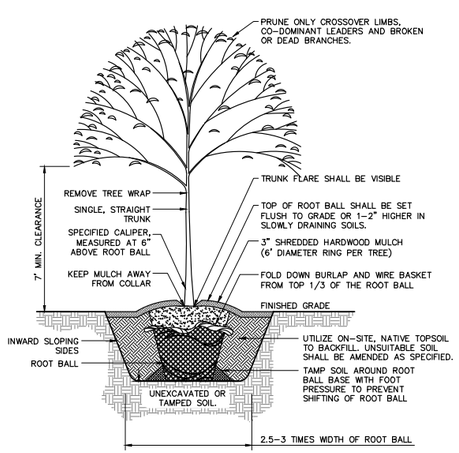
SEED MIXTURE SHALL BE INSPECTED FOR INVASIVE WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA, SPOT TREAT BY PULLING. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT. MOW TO A HEIGHT OF SIX (6) INCHES MINIMUM WITH A WEED EATER.

SECOND YEAR MAINTENANCE:

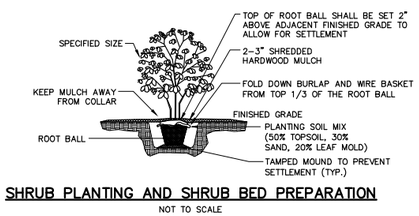
MOW ONCE IN SPRING (PRIOR TO APRIL 1) AS CLOSE TO GROUND AS POSSIBLE ALLOW PLANTS TO GROW TO FULL HEIGHT.

CONSECUTIVE FOLLOWING YEARS:

MOW EVERY YEAR AND SPOT TREAT INVASIVE PLANT SPECIES. MOWING SHALL TAKE PLACE IN EARLY SPRING PRIOR TO APRIL 1. MOWING SHALL NOT TAKE PLACE BETWEEN APRIL 1 AND JUNE 20 TO AVOID DISRUPTION OF GROUND NESTING BIRDS.



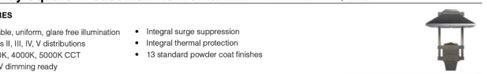
TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING AND SHRUB BED PREPARATION
NOT TO SCALE

Parkway Square® Pedestrian Horizontal LED – PKWM

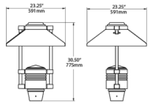
TYPE LUMINAIRES C & D



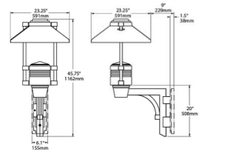
FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- Integral thermal protection
- 13 standard powder coat finishes

SPECIFICATIONS

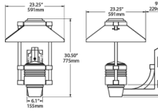


POST TOP
WT: 57 lbs. EPA: 2.35



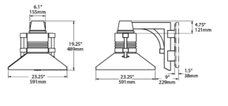
PSA-TU
(Top of Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TU
(Top of Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



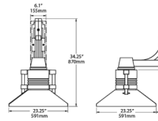
PSA-TD
(Top of Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TD
(Top of Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



PSA-BU
(Below Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BU
Below Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 2.76



PSA-BD
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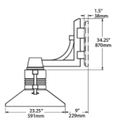
WT: 65 lbs. EPA: 2.54



PSWM-BD
(Below Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 2.76

3000K and warmer CCTs only

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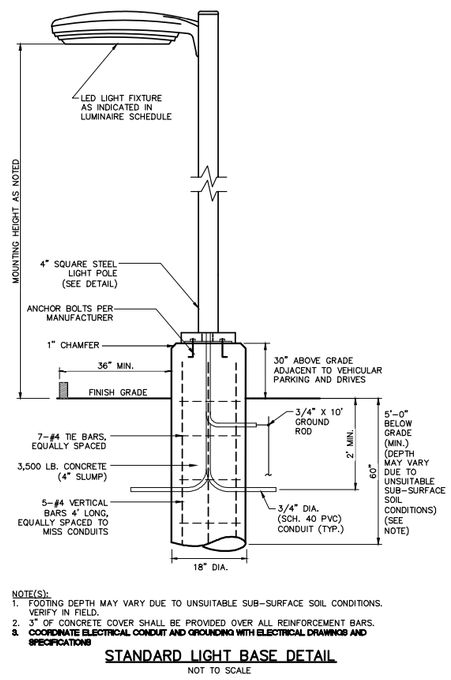

NOTE(S):
1. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS. VERIFY IN FIELD.
2. 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
3. **COORDINATE ELECTRICAL CONDUIT AND GROUNDING WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS**

STANDARD LIGHT BASE DETAIL
NOT TO SCALE

ALED3T78N

RAB

Color: Bronze
Weight: 35.3 lbs

Project:	Type:
PSU	A
Prepared By:	**Date:**

Driver Info

Type	Constant Current
120V	0.66A
208V	0.41A
240V	0.35A
277V	0.30A
Input Watts	73.9W

LED Info

Watts	78W
Color Temp	4000K (Neutral)
Color Accuracy	72 CRI
L70 Lifespan	100,000 Hours
Lumens	8,941
Efficacy	117.8 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations as a downlight

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000179U

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:
The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Thermal Management:
Superior heat sinking with external Air-Flow fins

Lens:
Tempered glass lens

Housing:
Die-cast aluminum housing, lens frame and mounting arm

IP Rating:
Ingress protection rating of IP66 for dust and water

Mounting:
Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High-temperature silicone gaskets

Need help? Tech help line: **(888) 722-1000** Email: **sales@rablighting.com** Website: **www.rablighting.com**
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ALED5S78N/D10/PCT

RAB

High output LED pole top area light with IES type V square distribution. Wide and uniform 360 degree pattern ideal for large outdoor areas such as parking lots, corporate parks, and retail settings.

Color: Bronze
Weight: 33.1 lbs

Project:	Type:
PSU	B
Prepared By:	**Date:**

Driver Info

Type	Constant Current
120V	0.56A
208V	0.34A
240V	0.33A
277V	0.26A
Input Watts	65W

LED Info

Watts	78W
Color Temp	4000K (Neutral)
Color Accuracy	73 CRI
L70 Lifespan	100,000 Hours
Lumens	9,587
Efficacy	147.5 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:
Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: P9KFA9GA

LED Characteristics

LEDs:
Long-life, high-efficacy, surface-mount LEDs

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Optical

BUG Rating:
B3 U1 G2

Optics:
Square, Type V distribution

Construction

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Thermal Management:
Superior thermal management with external air-flow fins

Need help? Tech help line: **(888) 722-1000** Email: **sales@rablighting.com** Website: **www.rablighting.com**
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304 CORPORATE DRIVE WEST • EXTON, CHESTER COUNTY, PA 19341 • 610.903.0855 • www.gilmore-assoc.com

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PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT
REGISTRATION NUMBER LA001356

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE & LIGHTING DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

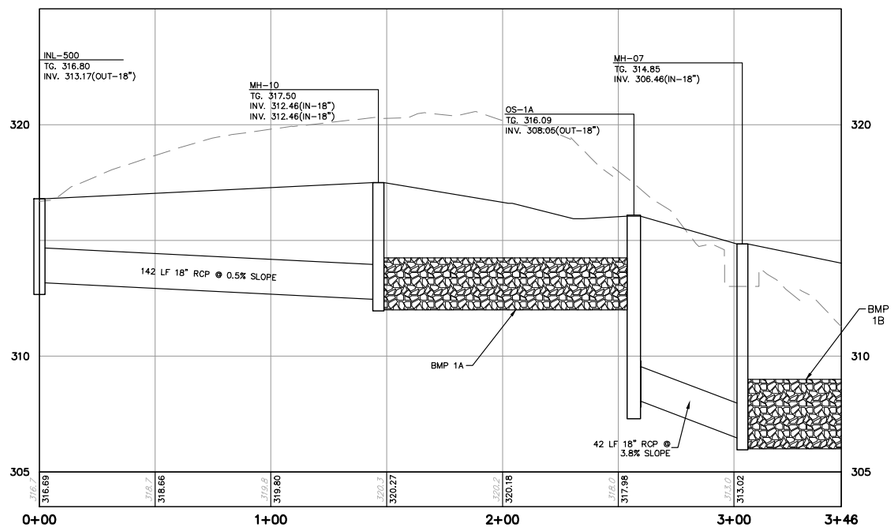
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 35 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 35 LANDSCAPE & LIGHTING DETAILS Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am



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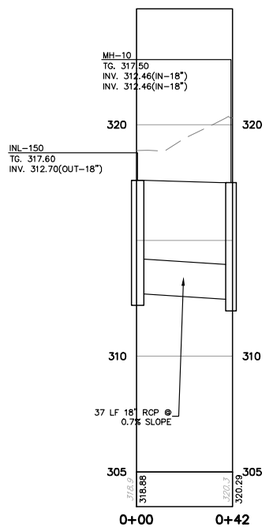
VERT 1"=3'



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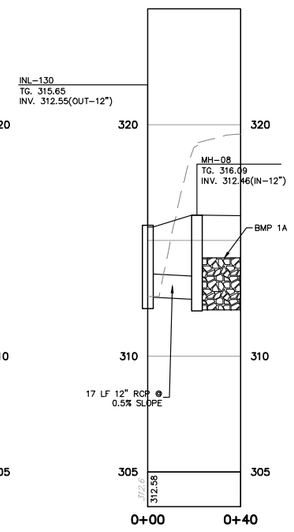
VERT 1"=3'



INL-130 TO BMP 1-A
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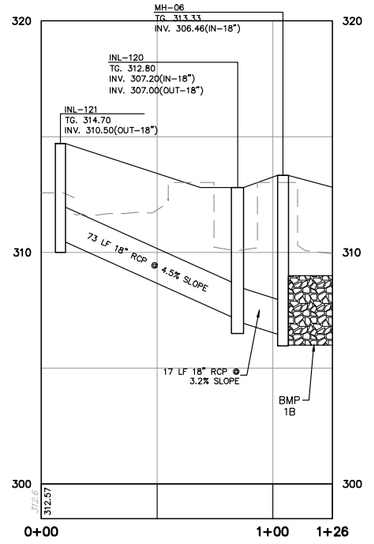

INL-121 TO BMP 1-B
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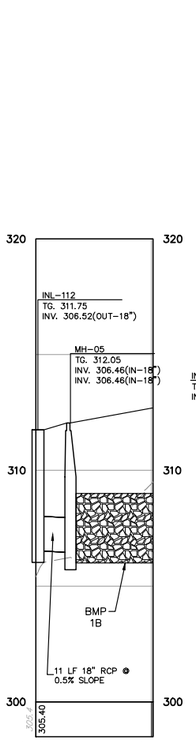

INL-112 TO BMP 1-B
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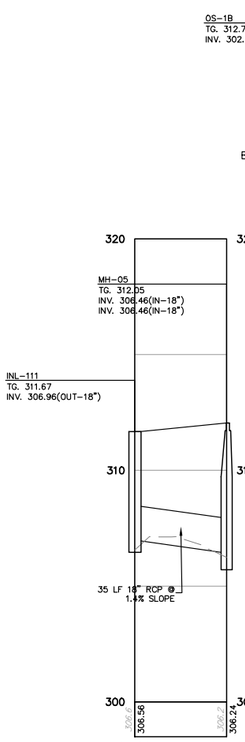

INL-111 TO MH-05
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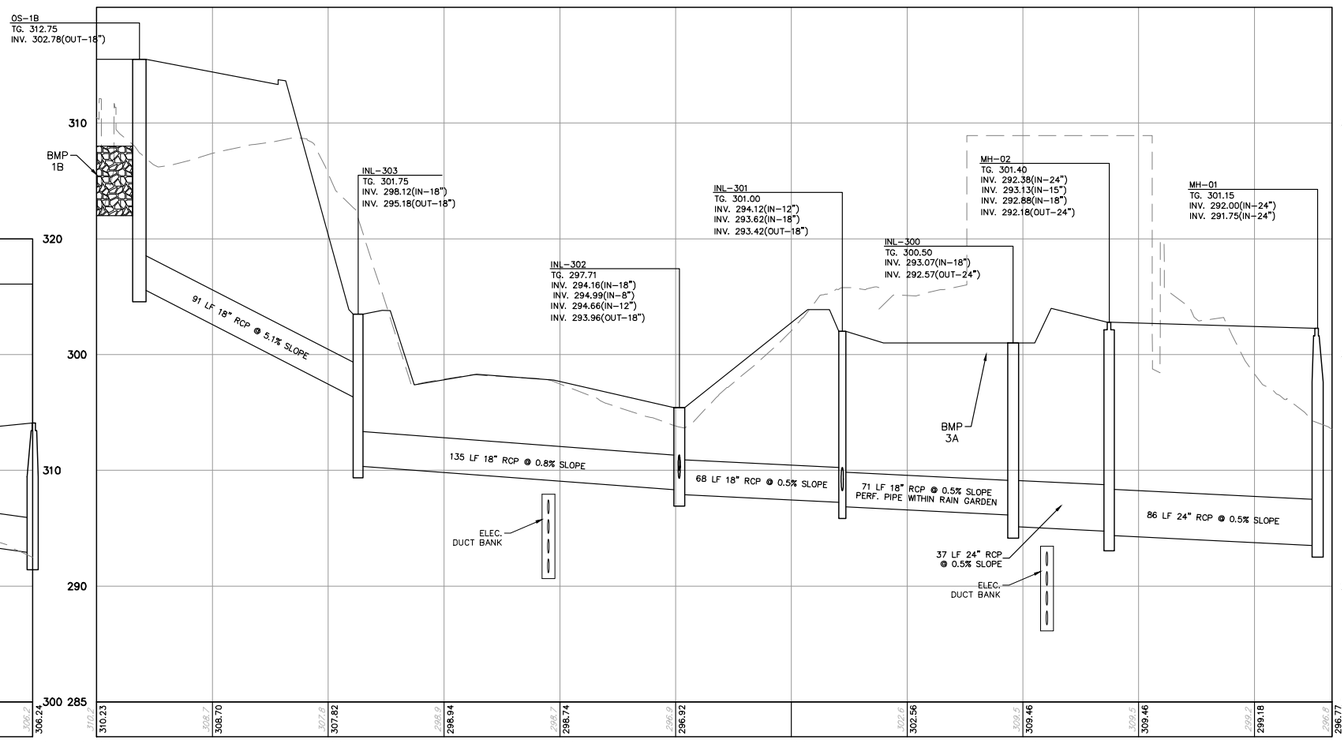
VERT 1"=3'



BMP 1-B TO MH-01
STATION 0+00 TO 5+33
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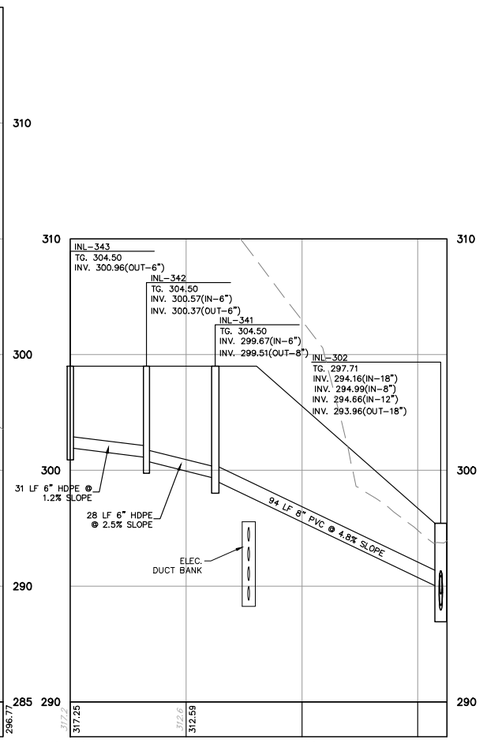

INL-343 TO INL-302
STATION 0+00 TO 1+63
SCALE: HORZ 1"=30'
VERT 1"=3'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 36 OF 40

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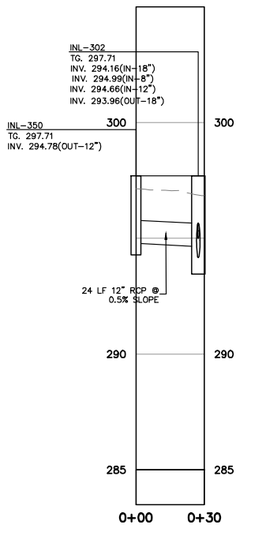

INL-350 TO INL-302

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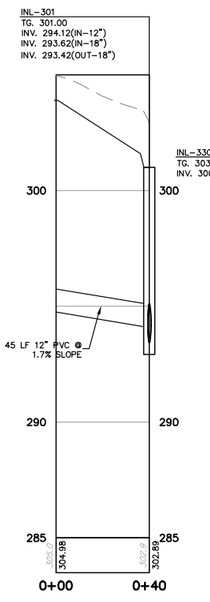

CLEANOUT TO INL-301

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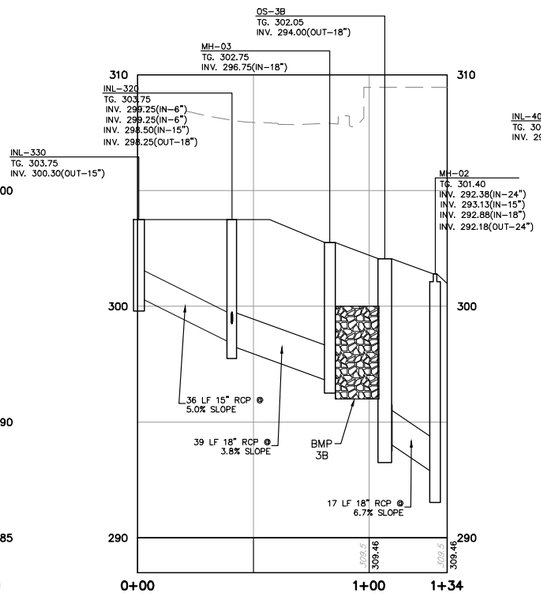

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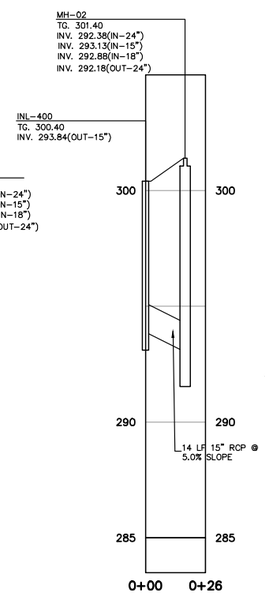

INL-400 TO MH-02

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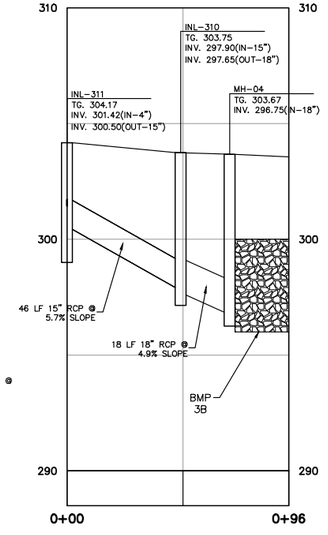

INL-311 TO BMP 3

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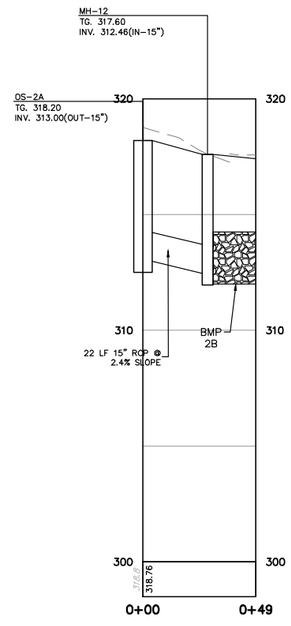

OS 2-A TO BMP 2-B

STATION 0+00 TO 0+49
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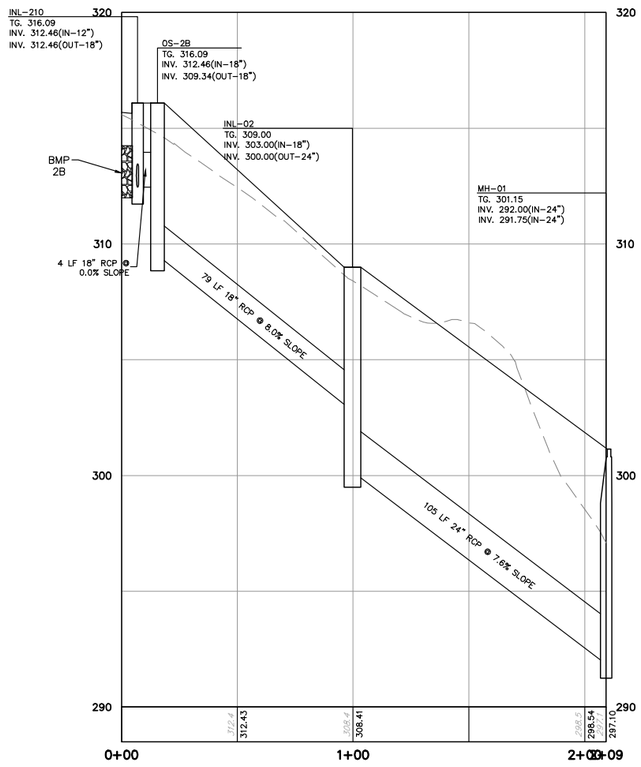

BMP 2-B TO MH-01

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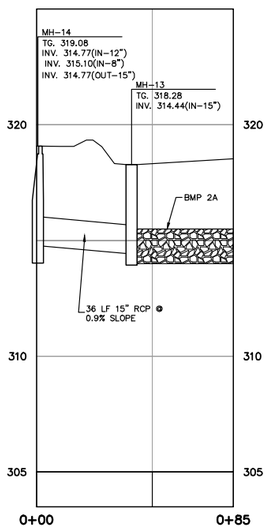

MH-14 TO BMP 2-A

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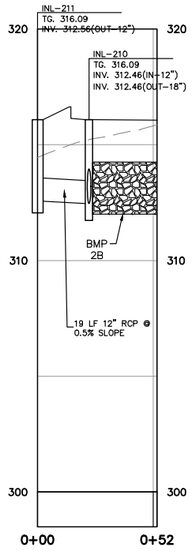
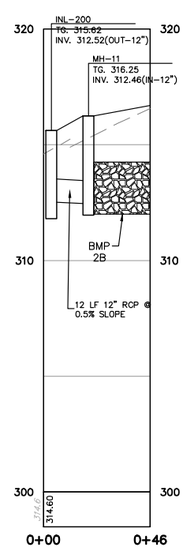
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-211 TO BMP 2-B

STATION 0+00 TO 0+52
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-200 TO BMP 2-B

STATION 0+00 TO 0+46
SCALE: HORZ 1"=30'
VERT 1"=3'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

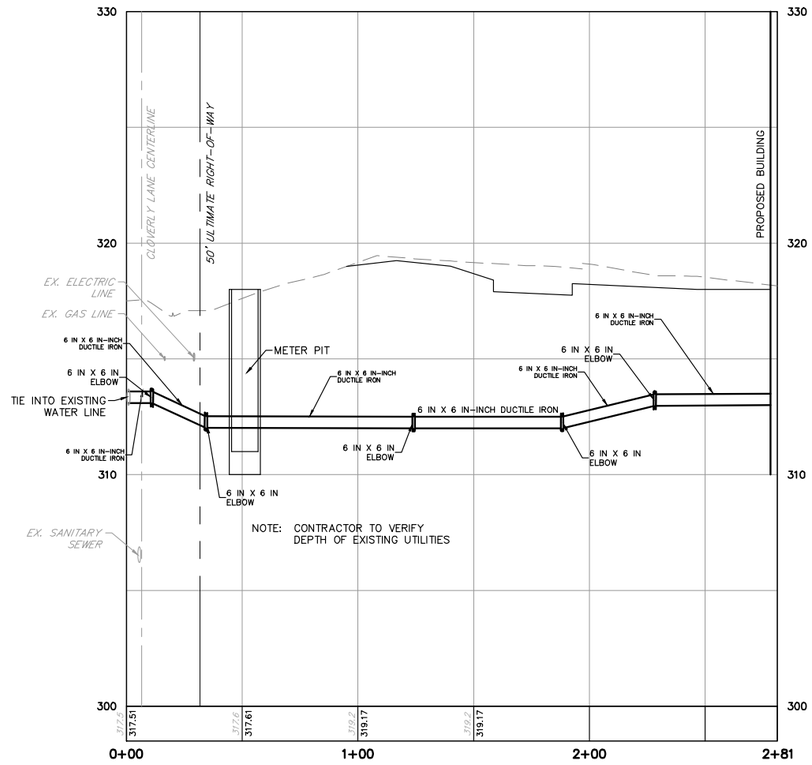
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

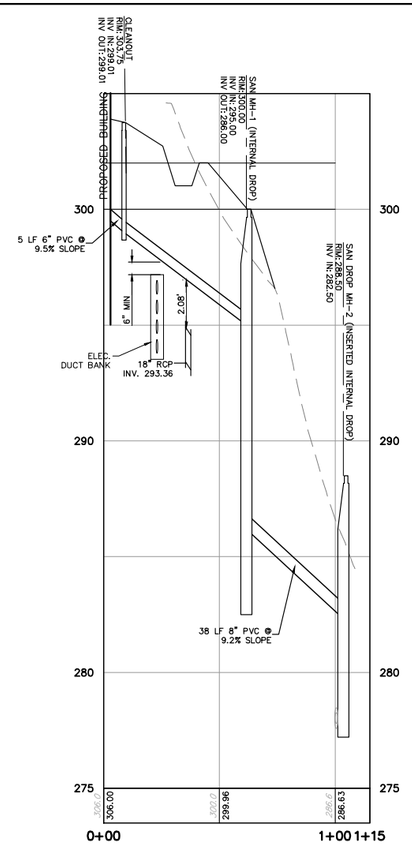
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 37 OF 40

T:\land design\2017\2017712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 37 PROFILES - 2 Plotted By: wheidler, on Mon Oct 02, 2023 at 11:42am



EXISTING WATER MAIN TO PROPOSED BUILDING
STATION 0+00 TO 2+81
SCALE: HORZ 1"=30'
VERT 1"=3'



PROPOSED BUILDING TO SAN DROP MH-2
STATION 0+00 TO 1+15
SCALE: HORZ 1"=30'
VERT 1"=3'

T:\land design\2017\20171200G_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 3B PROFILES - 3 Plotted By: whelder, on Mon Oct 02, 2023 at 11:42am

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ERIC S. CLASE
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55713-E

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MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

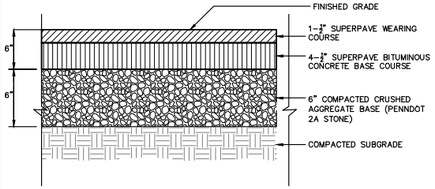
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

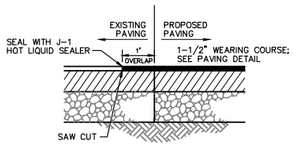
DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 38 OF 40



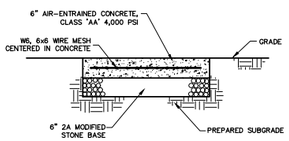
DRIVE & FULL-DEPTH PARKING LOT TYPICAL PAVING DETAIL

NOT TO SCALE



PAVEMENT TIE-IN DETAIL

NOT TO SCALE

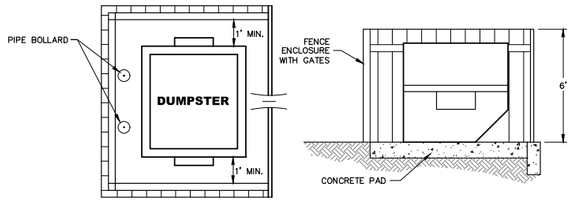


CONCRETE PAVEMENT DETAIL

NOT TO SCALE

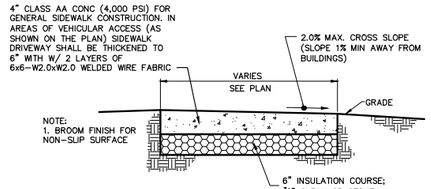
NOTES:

1. CONCRETE PAVEMENT SHALL BE SCORED INTO 24" SQUARES AT A 45° ANGLE TO THE BUILDING. SCORING SHALL BE AT LEAST 1/4 THE THICKNESS OF THE CONCRETE SLAB.
2. FULL THICKNESS EXPANSION JOINTS SHALL BE INSTALLED AT A MINIMUM OF EVERY 24 FEET.



DUMPSTER ENCLOSURE DETAIL

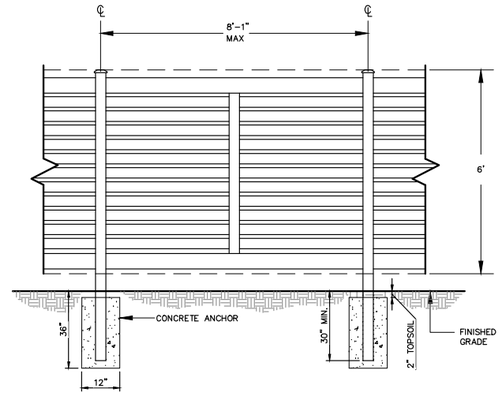
NOT TO SCALE



NOTE: DOWEL SIDEWALK TO CURBS WITH #4 REBAR DOWELS @ 5'-0" cc WHERE SIDEWALK IS ADJACENT TO NEW OR EXISTING CURB.

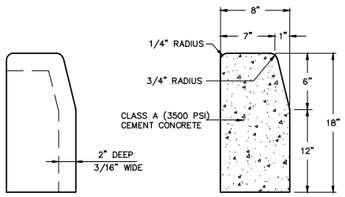
SIDEWALK DETAIL

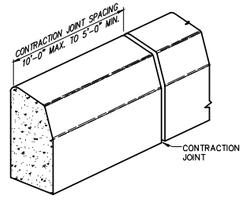
NOT TO SCALE



PRIVACY/DUMPSTER ENCLOSURE FENCE DETAIL

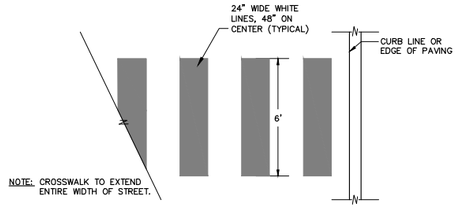
NOT TO SCALE





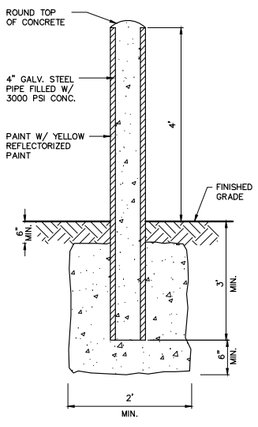
PLAIN CEMENT CONCRETE CURB

NOT TO SCALE



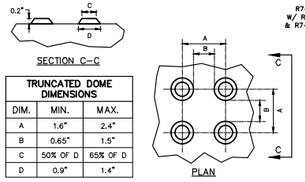
CROSSWALK DETAIL

NOT TO SCALE



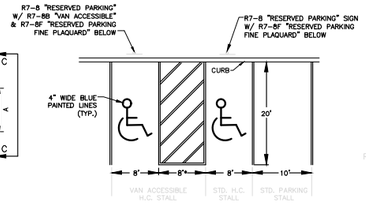
BOLLARD DETAIL

NOT TO SCALE



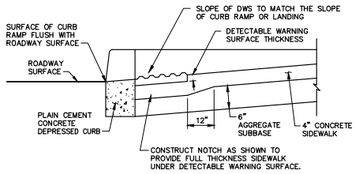
TRUNCATED DOME DIMENSIONS		
DIM.	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% OF D	65% OF D
D	0.9"	1.4"

DETECTABLE WARNING TRUNCATED DOME DETAIL



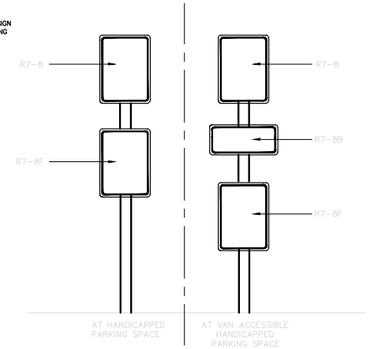
PARKING LOT & HANDICAPPED STALL STRIPING DETAIL

NOT TO SCALE



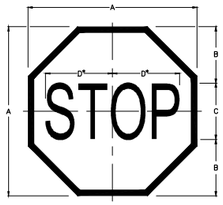
DETECTABLE WARNING SURFACE EMBEDDING

NOT TO SCALE



HANDICAPPED PARKING SIGN ELEVATION DETAIL

NOT TO SCALE



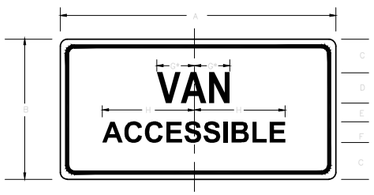
DIMENSIONS – mm (IN)						
SIGN SIZE A x A	B	C	D	BORDER	BLANK STD.	
600 x 600 (24" x 24")	200 (8)	200C (8C)	254 (10)	15 (0.6)	B1–600 (B1–24)	
750 x 750 (30" x 30")	250 (10)	250C (10C)	318 (12.6)	20 (0.8)	B1–750 (B1–30)	
900 x 900 (36" x 36")	300 (12)	300C (12C)	381 (15)	20 (0.8)	B1–900 (B1–36)	
1200 x 1200 (48" x 48")	400 (16)	400C (16C)	508 (20)	30 (1.2)	B1–1200 (B1–48)	

* REDUCE SPACING 40%

COLOR: LEGEND AND BORDER: (REFLECTORIZED) WHITE
BACKGROUND: RED (REFLECTORIZED)

STOP SIGN (R1-1)

NOT TO SCALE



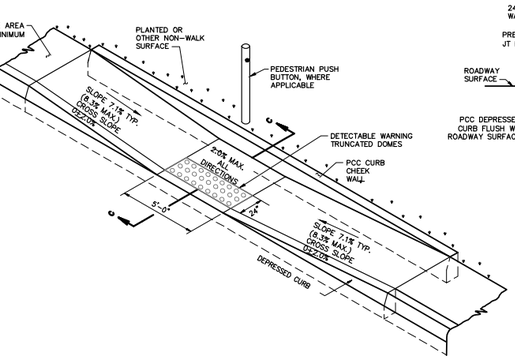
DIMENSIONS – mm (IN)										
SIGN SIZE A x B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD.	
300 x 150 (12" x 6")	35 (1.4)	400 (1.6D)	15 (0.6)	25D (1D)	54 (2.1)	102 (4)	10 (0.4)	10 (0.4)	B5–300150 (B5–1206)	

* INCREASE SPACING 50%

COLOR: LEGEND AND BORDER: WHITE (NON-REFLECTORIZED)
BACKGROUND: BLUE (REFLECTORIZED)

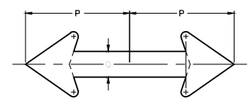
VAN ACCESSIBLE SIGN (R7-8B)

NOT TO SCALE



HANDICAP CURB RAMP–TYPE 2: PARALLEL TO PAVING

NOT TO SCALE



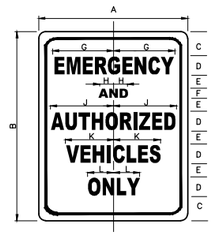
COLOR: LEGEND, ARROW AND BORDER: (REFLECTORIZED) GREEN
BACKGROUND AND SYMBOL: (REFLECTORIZED) WHITE
SYMBOL BACKGROUND: (REFLECTORIZED) BLUE

DIMENSIONS – mm (IN)															
SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	N	P	Q	MARGIN	BORDER	BLANK STD.
300 x 450 (12" x 18")	50 (2)	50C (2C)	25 (1)	150 (6)	40 (1.6)	60 (2.4)	126 (4.9)	109 (4.3)	759 (3)	10 (0.4)	100 (4)	95 (3.8)	20 (0.8)	10 (0.4)	10 (0.4)	B5–300450 (B5–1218)

* REDUCE SPACING 50% ** REDUCE SPACING 33%

RESERVED PARKING SIGN (R7-8)

NOT TO SCALE



DIMENSIONS – mm (IN)							
SIGN SIZE A x B	C	D	E	F	G	H	
600 x 750 (24" x 30")	80 (3.2)	75C (3C)	60 (2.4)	50C (2C)	244 (9.6)	54 (2.1)	
J	K	L	MARGIN	BORDER	BLANK STD.		
258 (10.2)	197 (7.8)	105 (4.1)	10 (0.4)	10 (0.4)	B5–750600 (B5–3024)		

COLOR:
LEGEND & BORDER: RED (NON-REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESTRICTED ACCESS SIGN R5-3-6 DETAIL

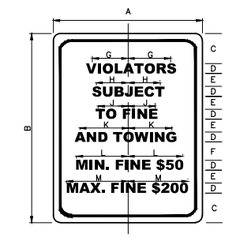
NOT TO SCALE

COLOR:
LEGEND, BORDER: RED (REFLECTORIZED)
CIRCLE, DIAGONAL: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)
"P": BLACK (NON-REFLECTORIZED)

DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H	J	
300 x 450 (12" x 18")	75 (3)	150E(M) (6E(M))	47 (1.9)	21 (0.8)	50B (2B)	20 (0.8)	37 (1.5)	
K	L	M		MARGIN	BORDER	BLANK STD.		
122 (4.9)	25 (1)	56 (2.2)		10 (0.4)	10 (0.4)	B5–300450 (B5–1218)		

NO PARKING–FIRE LANE SIGN (R7-2B)

NOT TO SCALE

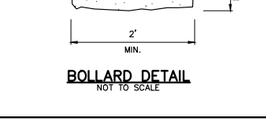


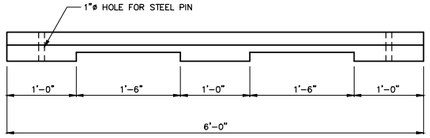
DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H		
300 x 450 (12" x 18")	75 (3)	25C (1C)	25 (1)	50 (2)	75 (3)	61 (2.4)		
J	K	L	M	MARGIN	BORDER	BLANK STD.		
58 (2.3)	90 (3.6)	101 (4)	117 (4.6)	10 (0.4)	10 (0.4)	B5–300450 (B5–1218)		

COLOR:
LEGEND & BORDER: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESERVED PARKING PENALTIES SIGN (R7-8F)

NOT TO SCALE





ANCHOR WHEEL STOP TO ROAD SURFACE WITH 2–#6 BARS x 12" LG. MIN.

TYPICAL CONCRETE WHEEL STOP DETAIL

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
565 CORPORATE DRIVE WEST LANSDOWNE, PA 19050 • 610-565-3855 • www.gilmore-assoc.com

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ERIC S. CLASE
ENGINEER
55713-E

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2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

CONSTRUCTION DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

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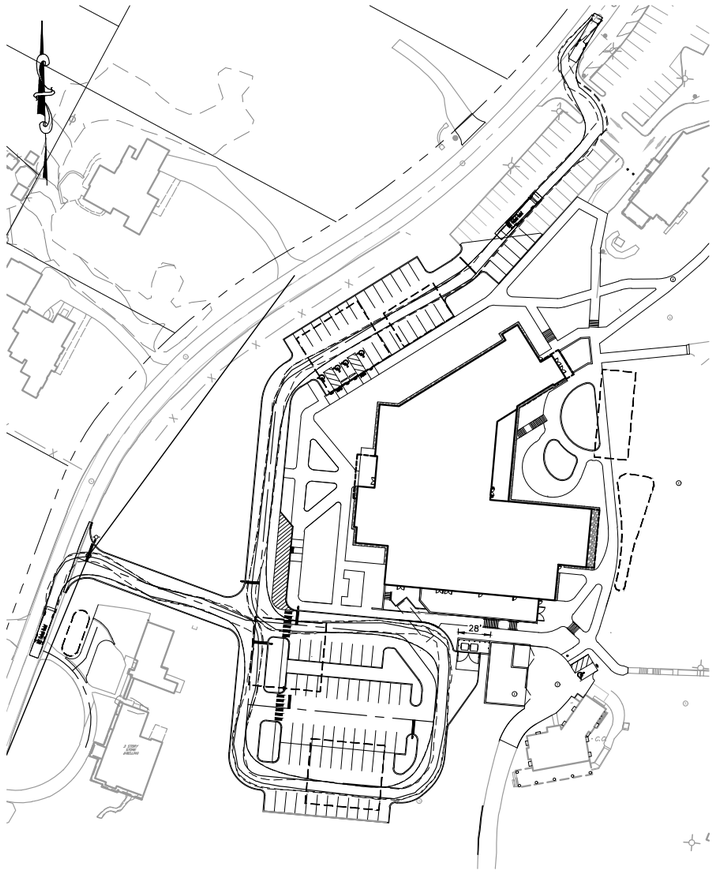
DATE: 06/06/22 | SCALE: AS NOTED

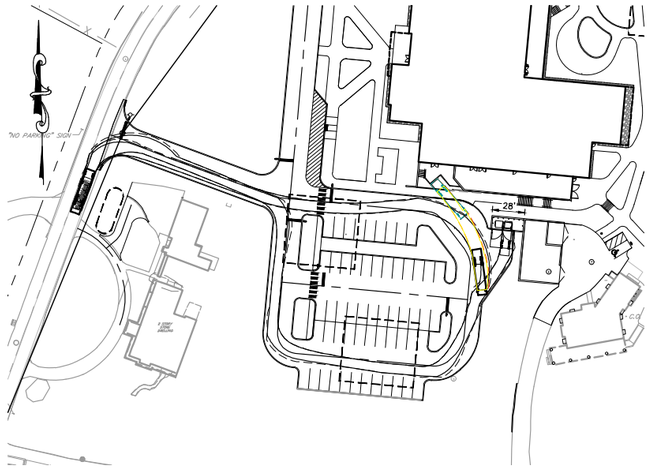
DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 39 OF 40

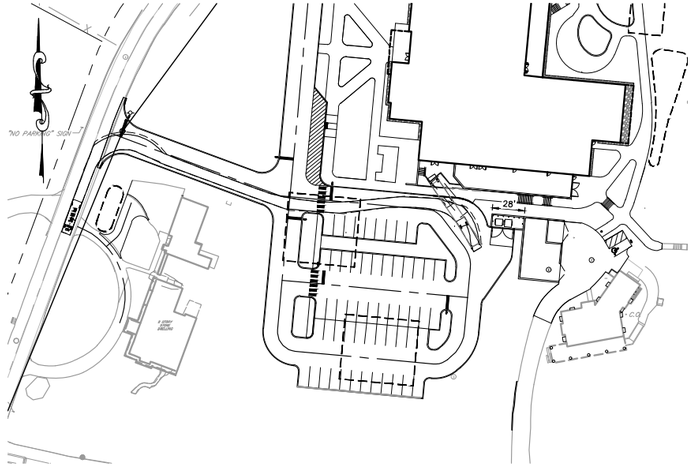
T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\CONSTRUCTION DETAILS - 1.dwg Layout: 39 CONSTRUCTION DETAILS Plotted By: wheidler, on Mon Oct 02, 2023 at 11:42am



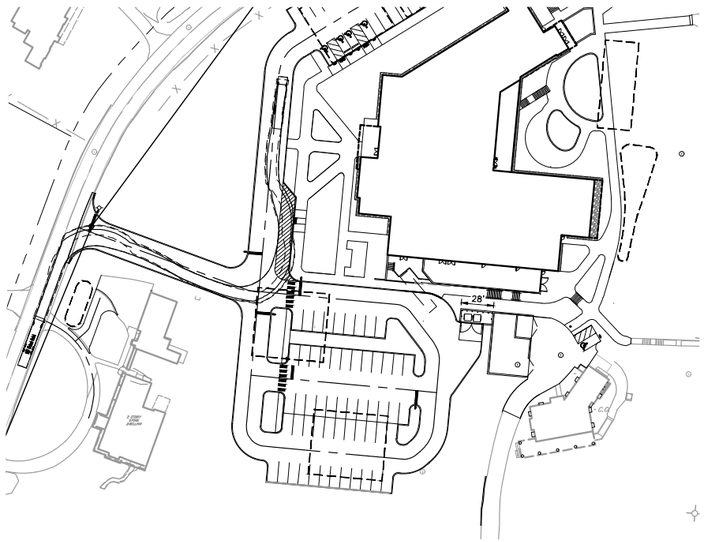
FIRE TRUCK TURNING PLAN – 1



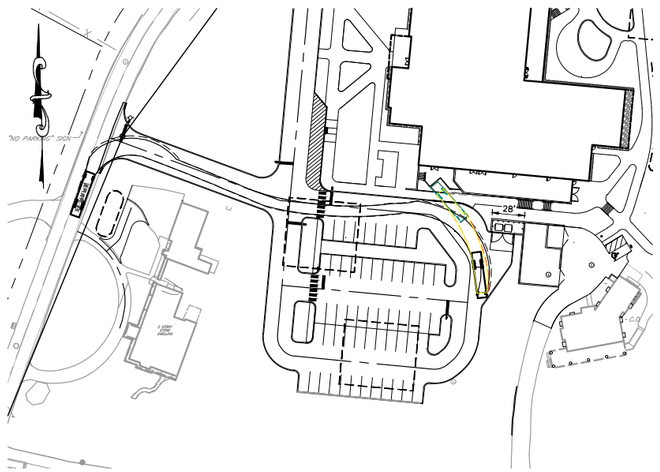
GARBAGE TRUCK TURNING PLAN



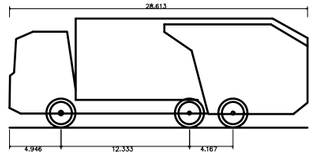
SU–30 TRUCK TURNING PLAN



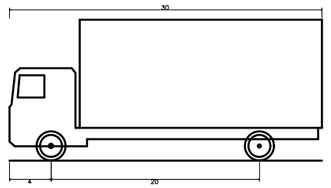
FIRE TRUCK TURNING PLAN – 2



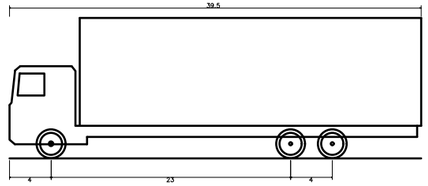
SU–40 TRUCK TURNING PLAN



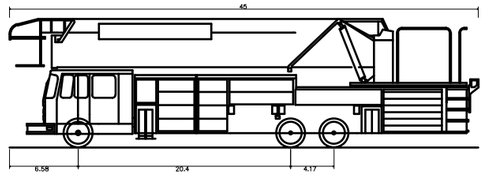
Mack TerraPro Cabover 6x4 MRU613 + Wayne Curbtender 31cu yd
Overall Length 28.613ft
Overall Width 8.167ft
Overall Body Height 11.417ft
Min Body Ground Clearance 1.115ft
Track Width 8.000ft
Lock-to-Lock time 6.000s
Curb to Curb Turning Radius 33.500ft



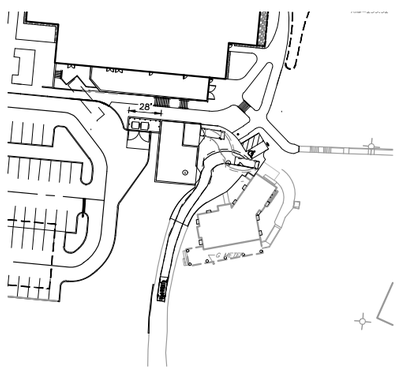
SU–30 – Single Unit Truck
Overall Length 30.000ft
Overall Width 8.500ft
Overall Body Height 11.417ft
Min Body Ground Clearance 1.115ft
Track Width 8.000ft
Lock-to-Lock time 6.000s
Max Steering Angle (Virtual) 31.80°



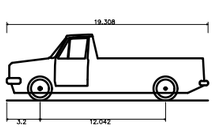
SU–40 – Single Unit Truck
Overall Length 39.500ft
Overall Width 8.500ft
Overall Body Height 11.417ft
Min Body Ground Clearance 1.115ft
Track Width 8.000ft
Lock-to-Lock time 6.000s
Max Steering Angle (Virtual) 31.80°



NHDF Firetruck–Bucket
Overall Length 45.000ft
Overall Width 8.500ft
Overall Body Height 11.417ft
Min Body Ground Clearance 1.115ft
Track Width 8.000ft
Lock-to-Lock time 6.000s
Max Steering Angle (Virtual) 40.00°



CREW CAB TRUCK TURNING PLAN



F–150 SuperCrew 4x4 STYLESIDE 5.5' Box
Overall Length 19.308ft
Overall Width 6.521ft
Overall Body Height 6.250ft
Min Body Ground Clearance 0.521ft
Track Width 6.521ft
Lock-to-Lock time 6.00s
Curb to Curb Turning Radius 23.500ft

60 0 60 120
SCALE IN FEET
1"=60'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- # EXISTING ELECTRIC LINE
- G G EXISTING GAS LINE
- T T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

TRUCK TURNING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=60'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 40 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\TRUCK TURNING PLAN.dwg Layout: 40 TRUCK TURNING PLAN Plotted By: whelder, on Mon Oct 02, 2023 at 11:43am

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

FOR

PENNSYLVANIA STATE UNIVERSITY

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

WAIVERS REQUESTED

THE FOLLOWING WAIVERS FROM CHAPTER 146, SUBDIVISION AND LAND DEVELOPMENT AND CHAPTER 142, STORMWATER MANAGEMENT, ARE REQUESTED:

1. §146-9.A – APPLICATION STAGES. A WAIVER IS REQUESTED TO CONSIDER THE CURRENT SUBDIVISION AND LAND DEVELOPMENT SUBMISSION TO BE A COMBINED PRELIMINARY/FINAL APPLICATION.
2. §146-10.A(1) – PLAN SCALE. PARTIAL WAIVER TO ALLOW PLANS THAT DEPICT THE OVERALL SITE TO BE SMALLER THAN 1"=50'. PLANS DEPICTING THE ACADEMIC BUILDING PROJECT AREA ARE DRAWN AT 1" = 40 OR LARGER.
3. §146-11.A(4) – PROPERTY IDENTIFICATION PLANS. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING TRACT BOUNDARIES WITH TAX PARCEL NUMBERS, OWNER'S NAMES, AND APPROXIMATE ACREAGE OF LOTS SURROUNDING ANY PORTION OF THE SITE WITHIN 400 FEET. ABUTTING PROPERTY INFORMATION IS SHOWN ON THE PLANS.
4. §146-11.B(3) – EXISTING FEATURES PLAN. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE PROPERTY LINES AND NAMES OF LANDOWNERS WITHIN 400 FEET OF ANY PART OF THE SITE TO BE SUBDIVIDED OR DEVELOPED. AN AERIAL PHOTOGRAPH PLAN IS PROVIDED WITH ABUTTING PROPERTY INFORMATION SHOWN.
5. §146-11.B(7) – EXISTING UTILITIES. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE LOCATION, SIZE, AND OWNERSHIP OF ALL UNDERGROUND AND ABOVE GROUND PUBLIC OR PRIVATE UTILITIES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
6. §146-24.D(3) – STREETS – CARTWAY WIDTH . A WAIVER IS REQUESTED TO ALLOW THE EXISTING CARTWAY WIDTHS OF THE EXISTING STREETS TO REMAIN. THE EXISTING STREETS ARE WELL-ESTABLISHED. NO ROADWAY WIDENING IS PROPOSED.
7. §146-27 – SIDEWALKS AND CURBS. A WAIVER IS REQUESTED TO PERMIT THE ONSITE WALKWAYS AND PEDESTRIAN ROUTES TO BE CONSIDERED ADEQUATE TO MEET PEDESTRIAN ACCESS REQUIREMENTS. NO NEW ROADWAY SIDEWALKS OR CURBS ARE PROPOSED.
8. §146-27.1 – CURB AND SIDEWALK ESCROW REQUIREMENT. A WAIVER IS REQUESTED FROM THE TWO-YEAR FEE-IN-LIEU ESCROW REQUIREMENT. NO NEW ROADWAY SIDEWALKS OR CURBS ARE PROPOSED.
9. §146-33.D – STORM DRAIN DIAMETER. A WAIVER IS REQUESTED TO ALLOW ON-SITE PRIVATE STORM SEWER PIPE TO BE LESS THAN 15 INCHES IN DIAMETER.
10. §146-43.C(3)(A) – EXCAVATIONS AND FILLS. A WAIVER IS REQUESTED TO ALLOW CUT AND FILL SLOPES IN EXCESS OF 15% CONDITIONED UPON TOWNSHIP ENGINEER APPROVAL OF DESIGN.
11. §142-302.B(2)(B)[5] – SWM SITE PLAN REQUIREMENTS. A WAIVER IS REQUESTED FROM THE REQUIREMENT TO SHOW THE LOCATIONS OF ALL EXISTING AND PROPOSED UTILITIES, SANITARY SEWERS, AND WATER LINES WITHIN FIFTY (50) FEET OF THE PROPERTY LINES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
12. §142-409.A – RATE CONTROL STANDARDS FOR PENNYPACK CREEK WATERSHED. A PARTIAL WAIVER IS REQUESTED FROM RATE CONTROL REQUIREMENTS OF THIS SECTION FOR LIMITED AREAS OF THE PROJECT THAT ARE:
    a. PROPOSED TO RECEIVE REPLACEMENT PAVEMENTS IN KIND;
    b. TO RECEIVE A REDUCTION IN PAVEMENT AREA AND NOT OTHERWISE IMPROVED;
    c. OUTSIDE OF BULK-GRADING AREAS THAT ARE PROPOSED TO BE DISTURBED AND RESTORED TO EXISTING CONDITION FOR INSTALLATION OF UTILITY CONDUITS ONLY.

    DUE TO GROUND SLOPE OF THE CAMPUS ALONG THE EASTERN LIMIT OF PROPOSED WORK, RUNOFF FROM THESE AREAS ARE NOT ABLE TO BE CAPTURED WITHOUT CAUSING ADDITIONAL DISTURBANCE. TO THE EXTENT THAT THESE RELATIVELY SMALL AREAS OF PAVEMENT REPLACEMENT, PAVEMENT REDUCTION OR GROUND SURFACE RESTORATION ARE NOT NEGATIVELY AFFECTING THE EXISTING DRAINAGE CONDITION, THE APPLICANT REQUESTS THAT THIS WAIVER BE CONSIDERED.

GENERAL NOTES

1. VERTICAL DATUM IS NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.
2. CONVERSION TO ABINGTON TOWNSHIP SANITARY SEWER DATUM (TSSD): NAVD88 = TSSD + ———.
3. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.
4. ■ – CONCRETE MONUMENT TO BE SET □ – CONCRETE MONUMENT FOUND
   ● – R.R. SPIKE OR IRON PIN TO BE SET ○ – IRON PIN FOUND
5. THIS PLAN PREPARED UNDER THE FOLLOWING ORDINANCES:
   a. ZONING ORDINANCE – OF 2013, UPDATED 01-07-2019
   b. SUBDIVISION & LAND DEVELOPMENT ORDINANCE – 10-21-2019
   c. STORMWATER MANAGEMENT ORDINANCE – 05-24-2011
6. THE BURYING OF TREES AND OTHER CONSTRUCTION DEBRIS ON THE SITE IS PROHIBITED.
7. THE PROPOSED SANITARY SERVICE TO BE SUBJECT TO THE APPROVAL OF ABINGTON TOWNSHIP SEWER AUTHORITY.
8. THE PROPOSED WATER SERVICE AND FIRE PROTECTION SERVICE ARE TO BE SUPPLIED BY THE EXISTING AQUA PA MAIN LOCATED WITHIN CLOVERLY LANE.
9. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) STANDARDS.
10. SHEETS 2 THROUGH 40 INCLUSIVE, ON RECORD AT ABINGTON TOWNSHIP, SHALL BE CONSIDERED A PART OF THE APPROVED FINAL PLAN AS IF RECORDED WITH SAME.
11. NO STRUCTURES, FENCE, PLANTING, OR OTHER OBSTRUCTION SHALL BE MAINTAINED BETWEEN A VERTICAL PLANE TWO FEET ABOVE STREET LEVEL AND A PLANE SEVEN FEET ABOVE STREET LEVEL SO AS TO INTERFERE WITH TRAFFIC VISIBILITY WITHIN THE CLEAR SIGHT TRIANGLES SHOWN AT ALL INTERSECTIONS. AT EACH POINT WHERE A DRIVEWAY INTERSECTS A STREET A CLEAR SIGHT TRIANGLE OF TEN (10) FEET MEASURED FROM THE POINT OF INTERSECTION OF THE STREET LINE AND THE EDGE OF THE ACCESS WAY SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN TWO FEET ABOVE THE STREET GRADE.
12. THIS PROJECT IS LOCATED WITHIN THE WATERSHED OF AN UNNAMED TRIBUTARY TO MEADOW BROOK. MEADOW BROOK IS DESIGNATED **TSF** IN CHAPTER 93. MEADOW BROOK IS PART OF THE PENNYPACK WATERSHED.
13. PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF PROPOSED STORMWATER MANAGEMENT FACILITIES LOCATED ON THEIR LOT. SEE PCSWM PLANS AND DETAILS FOR INFORMATION ON MAINTENANCE REQUIREMENTS AND SCHEDULE.
14. ALL DEVELOPMENT ACTIVITIES, SUCH AS CLEARING, GRADING, REGRADING, DRIVEWAYS, ROADS, BUILDINGS, SEPTIC SYSTEMS, RETENTION/DETENTION BASINS, AND UTILITY EASEMENTS SHALL BE LIMITED TO THE NATURAL RESOURCE PROTECTION STANDARDS AS SPECIFIED IN THE SOLEBURY TOWNSHIP ZONING ORDINANCE AS LAST AMENDED. THE REMAINING RESOURCES SHALL REMAIN IN THEIR NATURAL CONDITION INCLUDING THE NATURAL FOREST GROUND COVER WITH THE EXCEPTION OF THE REMOVAL OF INVASIVE EXOTIC SPECIES SUCH AS JAPANESE HONEYSUCKLE AND BITTERSWEET OR POISON IVY AND OTHER NOXIOUS WEEDS NOT MENTIONED. THIS RESTRICTION SHALL RUN WITH THE LAND AND BE BINDING ON THE PRESENT AND ALL FUTURE OWNERS AND/OR LESSEES.
15. THE AREA BETWEEN THE ULTIMATE RIGHT-OF-WAY ALONG SCHOOL LANE AND WOODLAND ROAD AND THE TITLE LINE IS OFFERED FOR DEDICATION TO ABINGTON TOWNSHIP.
16. ALL NEW UTILITIES MUSH BE AS-BUILT SURVEYED BY THE CONTRACTOR. ALL AS-BUILT SURVEYS MUST BE PROVIDED DIGITALLY IN AUTOCAD FORMAT THE ARCHITECT AND ENGINEER OF RECORD FOR PUNCHLIST REVIEW. FINAL DIGITAL AUTOCAD VERSIONS OF ALL AS-BUILT PLANS SHALL BE PROVIDE TO PENN STATE UNIVERSITY PRIOR TO FINAL PAYMENT. PSU CONTACT FOR SENDING AUTOCAD DRAWING IS KAELEN ROBB, (kmr16@psu.edu) – GIS ANALYST, (814) 865-2792.
17. THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM OF THE TOWNSHIP OF ABINGTON, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLANS BY THE OWNERS OF THOSE LANDS ON WHICH THE STRUCTURES ARE LOCATED. THE TOWNSHIP OF SOLEBURY AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID STORMWATER MANAGEMENT FACILITIES IN ORDER TO DETERMINE THAT THE DESIGN INTEGRITY IS BEING MAINTAINED BY THE OWNER(S). A BLANKET EASEMENT FOR ACCESS TO THE FACILITIES IS HEREBY GRANTED TO ABINGTON TOWNSHIP.

LOCATION MAP

XX 00 XX XX
SCALE IN FEET

SELECT A SCALE

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – JAMES D. McEWEN – LAND SURVEYOR SU036750E

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – ERIC S. CLASE – ENGINEER 55713-E

PENNSYLVANIA – CYNTHIA MARIE CLASE – REGISTRATION NUMBER LA003364

PENNSYLVANIA – CHRISTOPHER E. CRAIG – REGISTRATION NUMBER LA002522

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ENGINEERING & CONSULTING SERVICES
184 WEST MAIN STREET, SUITE 300, TRAPPE, PA 19426 • (610) 489-4949 • www.gilmore-assoc.com

OWNER/APPLICANT:

PENNSYLVANIA STATE UNIVERSITY
C/O ANDREW D. GUTBERLET, P.E., LEED AP – MANAGER OF ENGINEERING SERVICES
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

PROJECT LOCATION:

1600 WOODLAND ROAD
ABINGTON, PA 19001
ABINGTON TOWNSHIP,
MONTGOMERY COUNTY,
PENNSYLVANIA

TAX PARCEL:

30-00-09792-00-6

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4	SITE PLAN
5	EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL
6	EXISTING FEATURES PLAN – OVERALL
7	EXISTING FEATURES AND DEMOLITION PLAN
8	GRADING PLAN
9	GRADING DETAIL PLAN 1
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11	EROSION & SEDIMENT CONTROL PLAN
12	EROSION & SEDIMENT CONTROL DETAILS & NOTES – 1
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18	POST-DEVELOPMENT INLET DRAINAGE AREA PLAN
19	PCSM NOTES
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40	TRUCK TURNING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
2017-12006 PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05) – OCTOBER 2, 2023

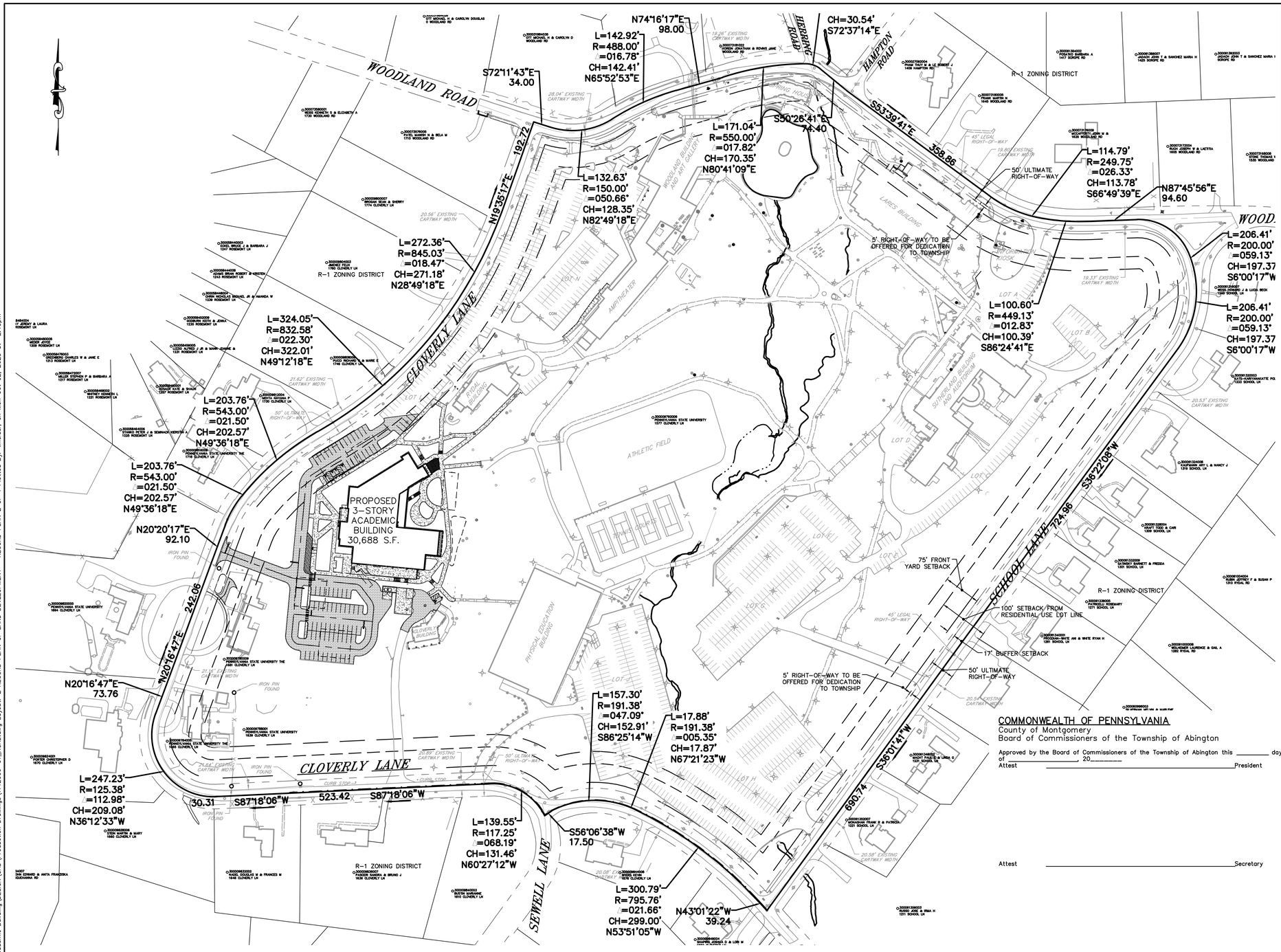
PLAN DATE: 06/06/22
LAST REVISED: October 2, 2023

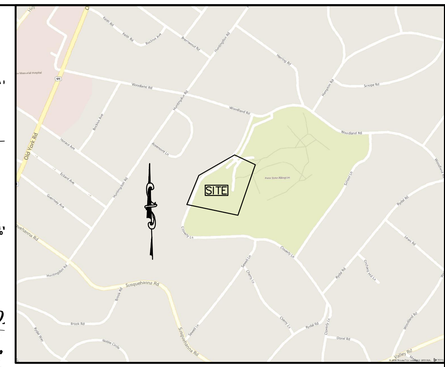
SHEET NO.: 1 OF 40

NOT TO BE RECORDED

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_COVER.dwg Layout: 1 COVER – RECORD PLAN 1 OF 4 Plotted By: whelder, on Mon Oct 02, 2023 at 11:30am

NOT TO BE RECORDED





LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
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- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED PAVEMENT

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-06)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN
2 OF 4

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West Mifflin, Pennsylvania
15122 – 1078

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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

NOTARY PUBLIC

Commonwealth of Pennsylvania
County of Montgomery

On the _____ day of _____ A.D. 20_____ , before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____ personally appeared _____ (name of officer of the corporation), who acknowledged (himself/herself) to be the (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded..

_____
Notary Public

_____
My Commission Expires

COMMONWEALTH OF PENNSYLVANIA

County of Montgomery
Board of Commissioners of the Township of Abington

Approved by the Board of Commissioners of the Township of Abington this _____ day of _____, 20_____
Attest _____ President

Attest _____ Secretary

Attest _____ Engineer

Certified by the Montgomery County Planning Commission this _____ day of _____, 19_____ File No. _____
Attest _____ Secretary

COUNTY RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK_____, PAGE_____ON THE _____ DAY OF _____, 20_____

COUNTY RECORDER OF DEEDS

MCPC No. _____

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date_____

_____
For the Director

Montgomery County Planning Commission

100 0 100 200
SCALE IN FEET
1"=100'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

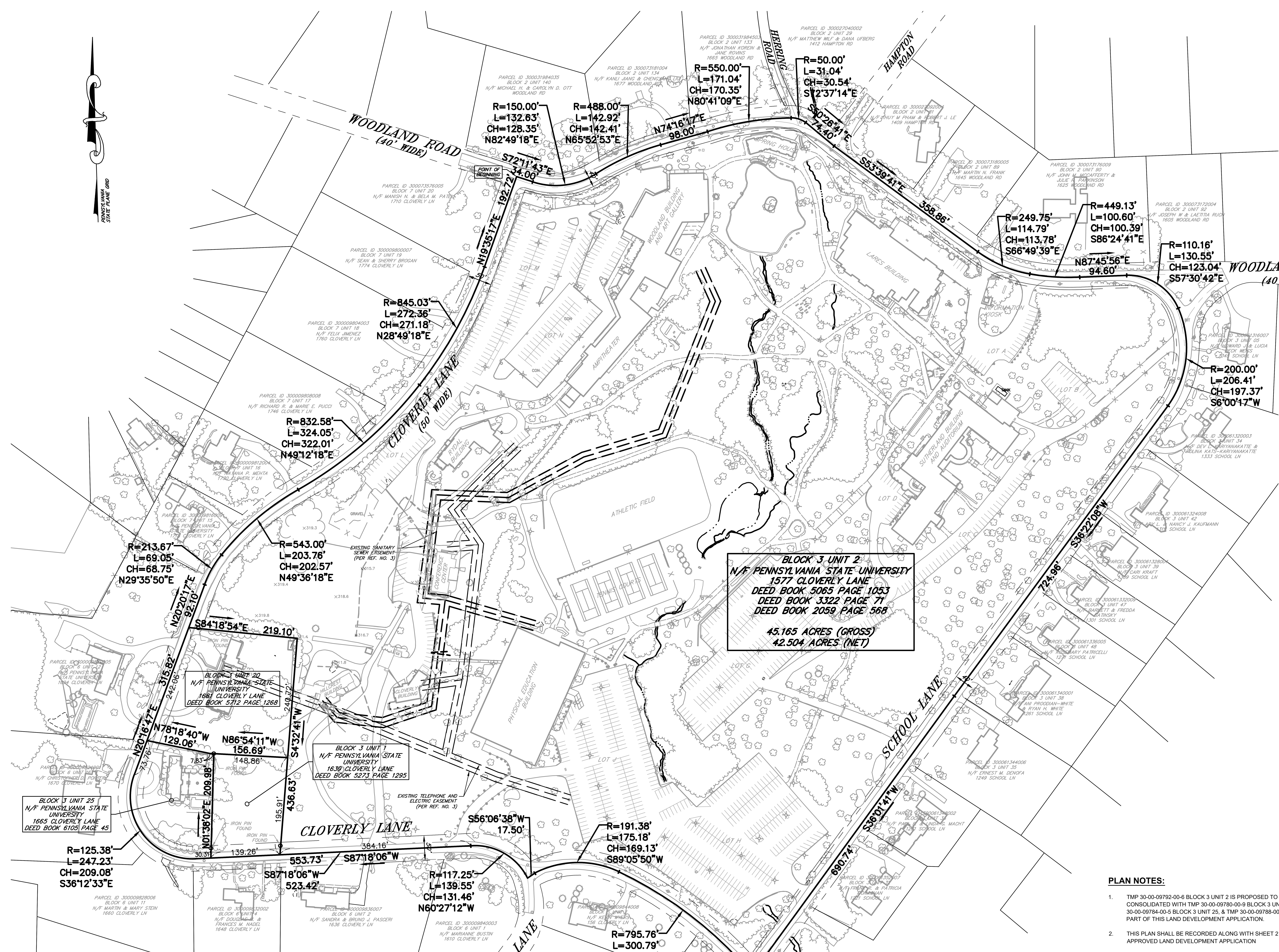
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

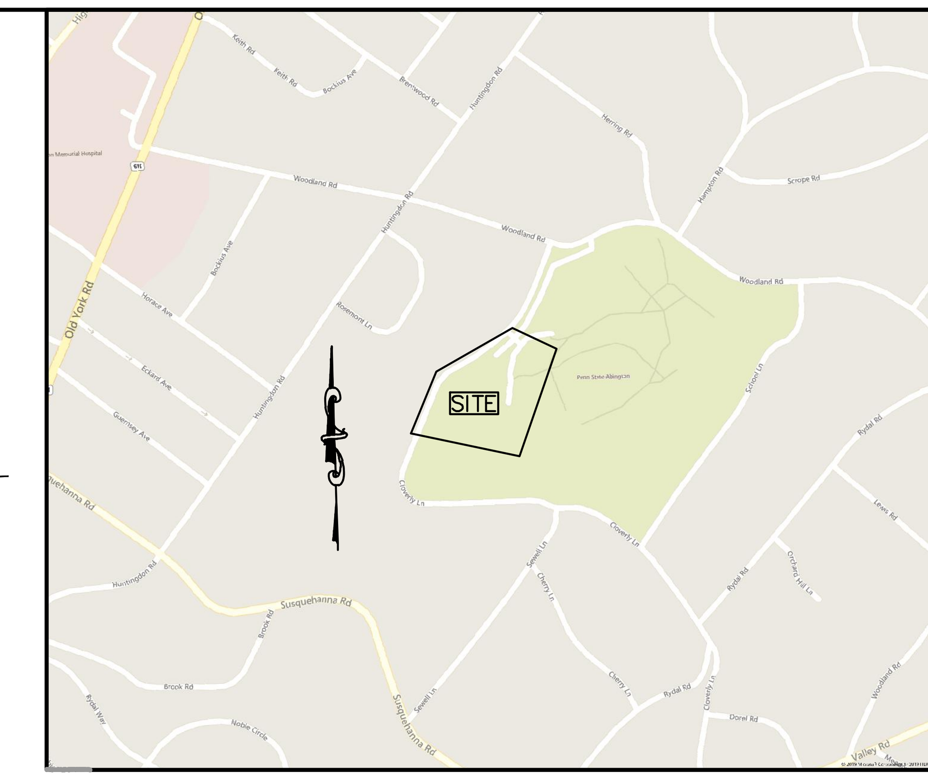
DATE: 06/06/22
SCALE: 1"=100'

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 2 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_RCRD.dwg Layout: 2 RECORD PLAN OF LAND DEVELOPMENT - RECORD PLAN 2 OF 4 Plotted By: whelder, on Mon Oct 02, 2023 at 2:13pm





LOCATION MAP

SCALE: 1"=1000'

GENERAL SURVEY NOTES:

1. PROPERTY KNOWN AS BLOCK 3, UNITS 1, 2, 20 & 25 AS SHOWN OF THE TAX MAP OF THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN MARCH 2022 AND THE REFERENCED INFORMATION LISTED HEREON. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
3. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
4. HORIZONTAL DATUM IS BASED ON 1983 STATE PLANE COORDINATE SYSTEM AND AS NOTED IN REFERENCE PLAN # 3.
5. THE ROAD RIGHT OF WAY WIDTHS LABELED ARE AS NOTED IN THE REFERENCED DEEDS.
6. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE FROM REFERENCED PLAN NUMBER 3 AND FIELD UPDATED IN CERTAIN AREAS BY GILMORE & ASSOCIATES, INC. BASED ON VISIBLE OBSERVATIONS AND MARKOUTS BY GROUND PENETRATING RADAR SYSTEMS, LLC THROUGH MARCH 2022.

REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS, TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA., FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., AND RECORDED IN THE MONTGOMERY COUNTY RECORDE OF DEEDS ON FEBRUARY 7, 1995 IN BOOK 3, PAGES 50, 51 AND 52.
3. PLAN ENTITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201 - V010201, THE PENNSYLVANIA STATE UNVERSITY, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA", PREPARED BY PENNONI ASSOCIATES, INC., DATED 10/12/2017 AND REVISED TO 10/24/2017.
4. DEEDS AS NOTED

PLAN NOTES:

1. TMP 30-00-09792-00-6 BLOCK 3 UNIT 2 IS PROPOSED TO BE CONSOLIDATED WITH TMP 30-00-09780-00-9 BLOCK 3 UNIT 20, TMP 30-00-09784-00-5 BLOCK 3 UNIT 25, & TMP 30-00-09788-00-1 BLOCK 3 UNIT 1 AS PART OF THIS LAND DEVELOPMENT APPLICATION.
2. THIS PLAN SHALL BE RECORDED ALONG WITH SHEET 2 AS PART OF THE APPROVED LAND DEVELOPMENT APPLICATION

LOT AREA CALCULATION:

BLOCK 3 UNIT 2 (PARCEL ID 300009792006)	GROSS: 45.165 ACRES (1,967,376.66 SQ.FT)	NET: 42.504 ACRES (1,851,472.71 SQ.FT)
BLOCK 3 UNIT 20 (PARCEL ID 300009780009)	GROSS: 1.410 ACRES (61,438.95 SQ.FT)	NET: 1.271 ACRES (55,353.30 SQ.FT.)
BLOCK 3 UNIT 25 (PARCEL ID 300009784005)	GROSS: 0.745 ACRES (32,450.71 SQ.FT)	NET: 0.556 ACRES (24,213.54 SQ.FT.)
BLOCK 3 UNIT 1 (PARCEL ID 300009788001)	GROSS: 0.669 ACRES (29,156.39 SQ.FT)	NET: 0.589 ACRES (25,658.78 SQ.FT.)
TOTAL AREA	**GROSS: 47.990 ACRES (2,090,422.70 SQ.FT.)**	**NET: 44.920 ACRES (1,956,698.33 SQ.FT.)**

NOTE: GROSS AREAS ARE TO THE CENTERLINE OF THE ROAD
NET AREAS EXCLUDE THE AREA WITHIN THE RIGHT OF WAY

SCALE 1"=100' FEET

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West Mifflin, Pennsylvania
15122 – 1078

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SERIAL NO. 20221043148

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T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_Lot_Consolidation.dwg Layout: 3 LOT CONSOLIDATION PLAN Plotted By: whelder, on Mon Oct 02, 2023 at 11:31am

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CORPORATE HEADQUARTERS
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JAMES D. McEWEN — LAND SURVEYOR — SU038752R

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

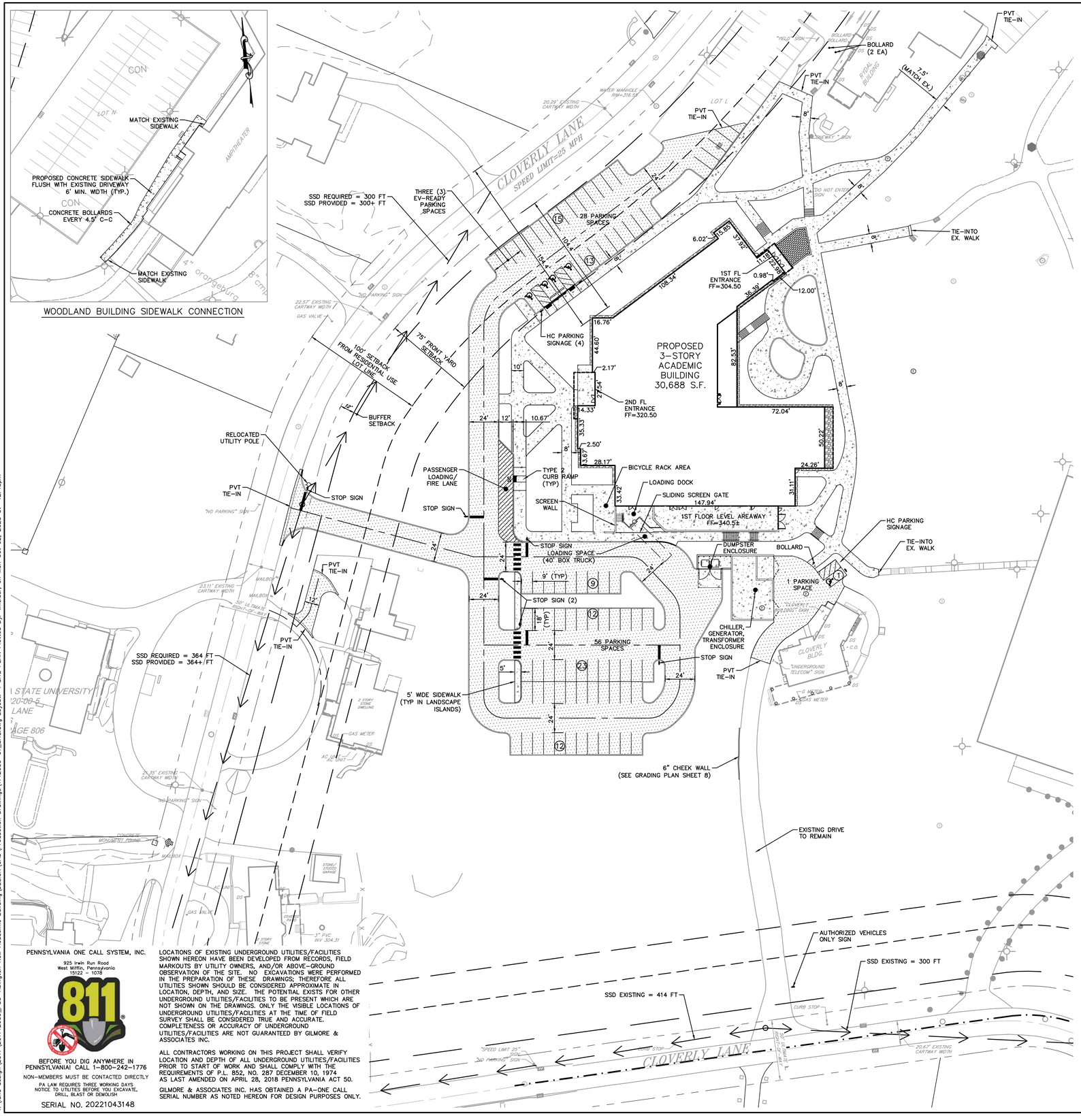
LOT CONSOLIDATION PLAN
PENNSYLVANIA STATE UNIVERSITY ABINGTON CAMPUS
BLOCK 3, UNITS 1, 2, 20 & 25
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

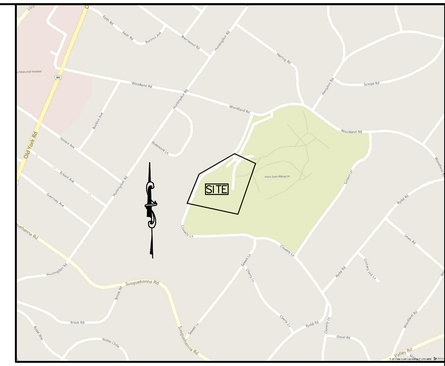
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 1712006–01	
TAX MAP PARCEL No.: BLOCK 3, UNITS 1, 2, 20 & 25	
TOTAL AREA: 47.990 AC.	TOTAL LOTS: 4
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: KRN	CHECKED BY: JDM
SHEET NO.: 3 OF 40	

NOT TO BE RECORDED

WOODLAND BUILDING SIDEWALK CONNECTION





LOCATION MAP

SCALE: 1"=800'

PROJECT INFORMATION:

ZONING DISTRICT: CS – COMMUNITY SERVICE DISTRICT [1]

SITE USE: E-18 UNIVERSITY CAMPUS [1]

CS – COMMUNITY SERVICE DISTRICT DIMENSIONAL REQUIREMENTS

	REQUIRED	PROVIDED
LOT AREA (MIN)	5 AC.	44.574 AC.[2]
LOT WIDTH (MIN)	400 FT.	>400 FT.
LOT DEPTH (MIN)	400 FT.	>400 FT.
SETBACK FROM RESIDENTIAL USE(MIN FROM A RESIDENTIAL USE LOT LINE)	100 FT.	154.4 FT.
YARD SETBACK, FRONT,(MIN)	75 FT	104.4 FT
YARD SETBACK, SIDE,(MIN)	50 FT.	N/A FT.
YARD SETBACK, REAR,(MIN)	50 FT.	N/A FT.
BUILDING COVERAGE (MAX)	25%	8.4 %
IMPERVIOUS COVERAGE (MAX)	45%	40.2 %
GREEN AREA (MIN)	55%	61.2 %
BUILDING HEIGHT[3]	45 FT.[3]	47.83 FT.
BUILDINGS SEPARATION (MIN)	30 FT.	>30 FT
PARKING SPACES	1,222[4]	1,288[4]

[1] ZONING DESIGNATION, ZONING DIMENSIONAL REQUIREMENTS, AND INCORPORATION OF USE E-18 SHOWN ON THIS PLAN ARE BASED ON TEXT AND MAP AMENDMENTS ADOPTED BY THE ABINGTON TOWNSHIP BOARD OF COMMISSIONERS ON NOVEMBER 10, 2021 (ORDINANCE NO. 2186 AND ORDINANCE NO. 2187).

[2] LOT AREA TO BE UTILIZED FOR ZONING COMPUTATIONS AS SHOWN IN THIS PLAN IS BASED ON CONSOLIDATED LOT AREA MINUS AREA TO THE ULTIMATE RIGHT-OF-WAY LINE OF ALL STREETS.

[3] BUILDING HEIGHT MAY BE INCREASED TO 55 FEET SUBJECT TO THE EXCEPTION SET FORTH IN SECTION 2601.G, "HEIGHT EXCEPTIONS".

[4] PARKING COMPUTATIONS:

REQUIRED PARKING

1 SPACE PER CLASSROOM (88 CLASSROOMS): 1 SP * 88 =	88 SP
1 SPACE PER 2.5 STUDENTS (3600 STUDENTS): 3600/2.5 SP =	1440
1 SPACE PER 10 AUDITORIUM SEATS (510 SEATS): 510/10 =	51
1 SPACE PER 300 S.F. GROSS OFFICE FLOOR SPACE: [EX = 40,415 S.F.; NEW ACADEMIC OFFICE = 10,000 S.F.] 1 SP * 50,416 S.F./300 =	168 SP
TOTAL REQUIRED PARKING	1747 SP
PARKING SPACES REQUIRED WITH 30% REDUCTION [UNIVERSITY SHALL PROVIDE: REGULARLY SCHEDULED SHUTTLE SERVICE; RIDE-SHARE PROGRAM; AND CAR-SHARE/ BIKE-SHARE SERVICES]	1223 SP

PARKING PROVIDED

EXISTING OFF-CAMPUS SPACES	129 SP
EXISTING ONSITE SPACES	1118
SPACES REMOVED FOR PROJECT	[44]
PARKING SPACES ADDED FOR PROJECT (INCLUDING 5 ACCESSIBLE SPACES)	85 SP
TOTAL PARKING PROVIDED	1288 SP

IMPERVIOUS COVERAGE CALCULATIONS

EXISTING LOT AREA	= 1,836,428 S.F.
PROPOSED LOT AREA	= 1,941,654 S.F.
EXISTING BUILDING	= 140,537 S.F.
EXISTING PAVEMENT/CONCRETE	= 581,452 S.F.
TOTAL EXISTING IMPERVIOUS	= 721,989 S.F. (39.3%)
PROPOSED BUILDING	= 162,219 S.F.
PROPOSED PAVEMENT/CONCRETE	= 617,741 S.F.
TOTAL PROPOSED IMPERVIOUS	= 779,960 S.F. (40.2%)

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED CONCRETE
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED LANDSCAPE STRIP
- PROPOSED SIGN

EXISTING UTILITY LEGEND

- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET

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15122 - 1078

811

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SERIAL NO. 20221043148

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

SITE PLAN

SCALE: 1"=40'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

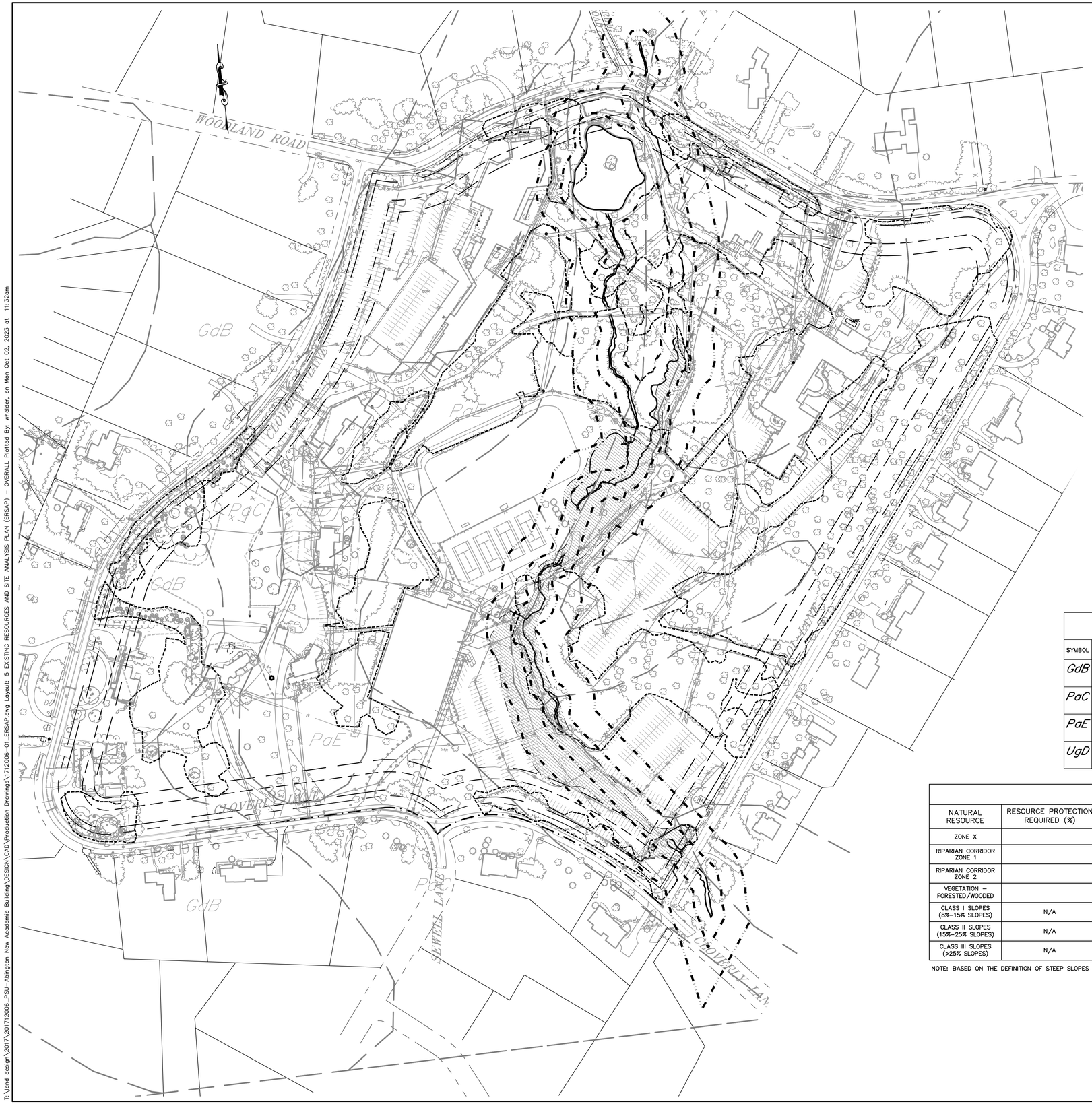
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: JM

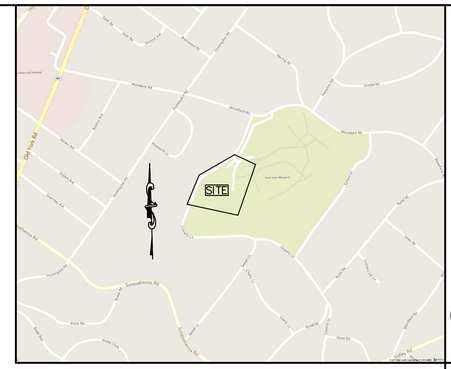
SHEET NO.: 4 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_SITE.dwg Layout: 4 SITE PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 12:48pm



PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- # EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
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- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60'–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

NATURAL RESOURCE CALCULATIONS

NATURAL RESOURCE	RESOURCE PROTECTION REQUIRED (%)	TOTAL AREA OF RESOURCE (S.F.)	AREA DISTURBED (CURRENT PROJECT)	DISTURBED % (CURRENT PROJECT)	AREA PRESERVED (CURRENT PROJECT)	PRESERVED % (CURRENT PROJECT)
ZONE X		89,123	0	0.0%	89,123	100.0%
RIPARIAN CORRIDOR ZONE 1		78,266	0	0.0%	78,266	100.0%
RIPARIAN CORRIDOR ZONE 2		134,617	0	0.0%	134,617	100.0%
VEGETATION – FORESTED/WOODED		740,549	43,531	5.9%	697,018	94.1%
CLASS I SLOPES (8%–15% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS II SLOPES (15%–25% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS III SLOPES (>25% SLOPES)	N/A	0	0	0.0%	0	0.0%

NOTE: BASED ON THE DEFINITION OF STEEP SLOPES FROM THE TOWNSHIP OF ABINGTON ZONING ORDINANCE, STEEP SLOPES ARE NOT PRESENT ON THE PROJECT SITE

100 0 100 200
SCALE IN FEET
1"=100'

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ERIC S. CLASE
ENGINEER
55713-E

NO.	DESCRIPTION	REV.	DATE	BY
4	REVISED PER TWP ENGINEER LETTER		10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS		06/05/22	JM
2	75% CD SUBMISSION		09/09/22	DAW
1	50% CD SUBMISSION		07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-06)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) — OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 5 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ERSAP.dwg Layout: 5 EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) — OVERALL Plotted By: whelder, on Mon Oct 02, 2023 at 11:32am

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_AERIAL.dwg Layout: 6 EXISTING FEATURES PLAN – OVERALL Plotted By: whelder, on Mon Oct 02, 2023 at 11:32am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST – EXISTING STORM SEWER LINE
- G – EXISTING GAS LINE
- E – EXISTING ELECTRIC LINE
- W – EXISTING WATER LINE
- SAN – EXISTING SAN. SEWER LINE
- T – TELEPHONE LINE
- SL – EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

100 0 100 200
SCALE IN FEET
1"=100'

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ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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ERIC S. CLASE
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1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

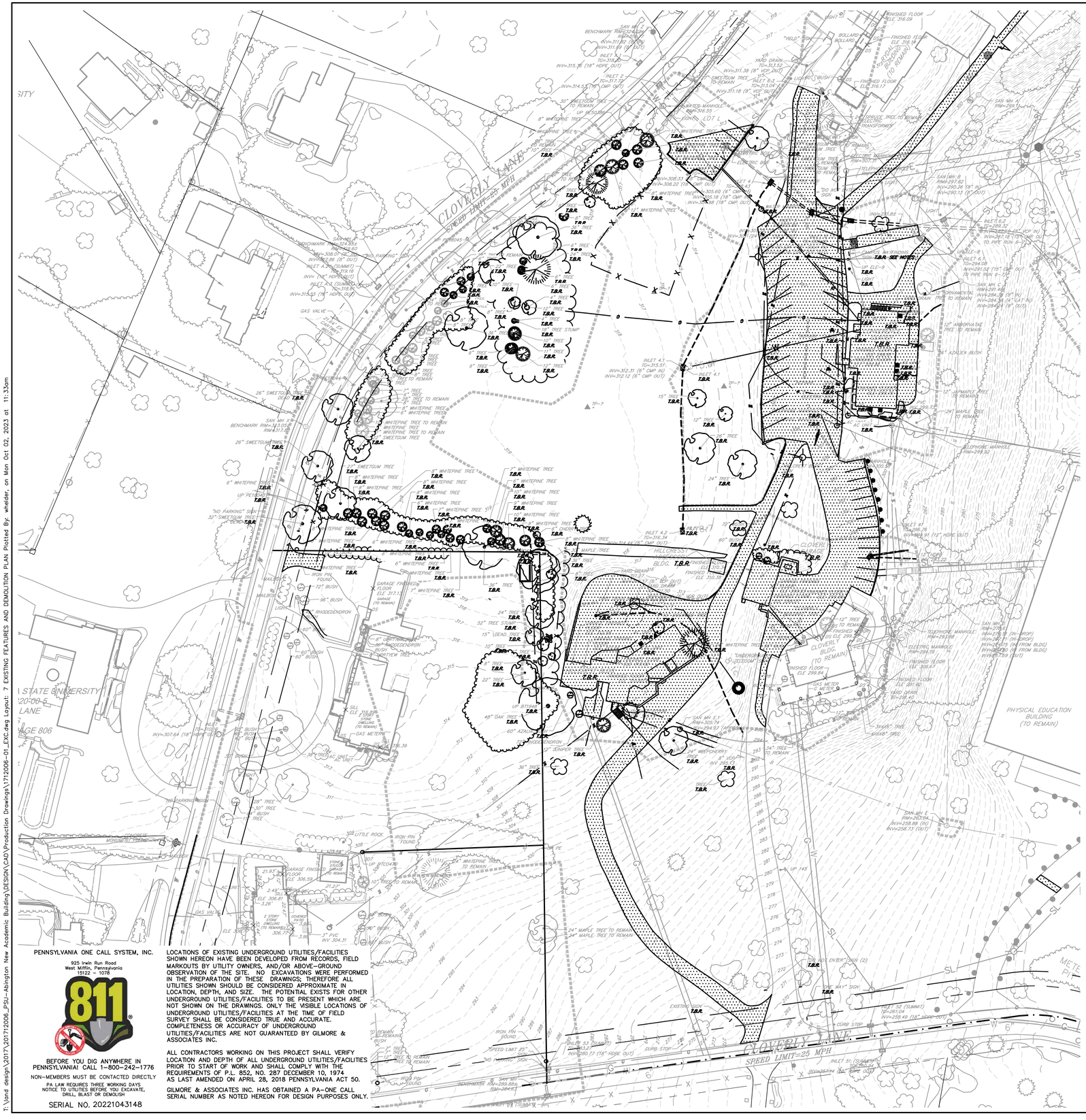
OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 6 OF 40



REFERENCE PLANS:

1. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., DATED APRIL 18, 1984, SHEETS 1, 6 & 7 OF 12. RECORDED IN PLAN BOOK L-3 PAGE 50.

2. TOPOGRAPHIC AND PLANIMETRIC INFORMATION TAKEN FROM AN AUTOCAD PLAN PREPARED BY QUANTUM SPATIAL, "ABINGTON SITE".

GENERAL NOTES:

1. SURVEY INFORMATION PROVIDED ON THIS PLAN IS BASED ON THE FOLLOWING:

   1.A. A BOUNDARY AND PARTIAL SITE SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN DECEMBER 2019 AND MARCH 2022.

   1.B. TOPOGRAPHY AND EXISTING ABOVE-GROUND FEATURES FROM A PLAN TITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS - 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201-V0201" PREPARED FOR THE PENNSYLVANIA STATE UNIVERSITY BY PENNONI ASSOCIATES, INC. AND DATED 10/12-2017.

   1.C. EXISTING UTILITIES INFORMATION FROM A CAD FILE PROVIDED BY PENNSYLVANIA STATE UNIVERSITY ON 5/22/2019 NAMED "ABINGTON UTILITIES 031717.DWG". (NOTE: UTILITY INFORMATION VERIFIED THROUGH THE G&A PARTIAL SITE SURVEY SUPERSEDES INFORMATION PROVIDED BY THIS FILE)

2. DEVIATIONS FROM REFERENCED INFORMATION PROVIDED BY OTHERS INCLUDE THE FOLLOWING:

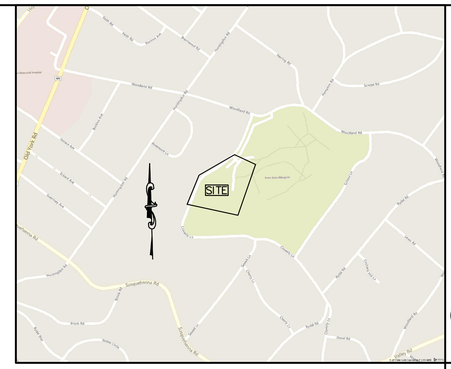
   2.A. CAD FILES USED TO CREATE THE PLAN REFERENCED IN 1A ABOVE WERE PROVIDED BY PENNONI ASSOCIATES, INC. THE TOPOGRAPHY FROM THIS FILE WAS RAISED 0.43' TO MEET THE VERTICAL DATUM FROM THE 2019 G&A SURVEY.

3. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. OTHER RIGHTS TO PROPERTY MAY EXIST.

4. ADJACENT PARCEL LINES WERE OBTAINED FROM COUNTY GIS MAPPING FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA. PARCEL LINES ARE APPROXIMATE AND ARE NOT ADJUSTED TO PHYSICAL EVIDENCE FOUND.

5. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.

6. VERTICAL DATUM NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA TATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

DEMOLITION PLAN NOTES

1. REMOVE ALL EXISTING CAMPUS WAYFINDING SIGNAGE WITHIN THE PROJECT AREA AND STORE FOR REUSE ONSITE AS DIRECTED BY THE ABINGTON CAMPUS DIRECTOR OF BUSINESS OPERATIONS.

2. ALL TREES WITH A 10-INCH CALIPER OR GREATER ON THE SUBJECT PROPERTIES ARE TO REMAIN UNLESS LABELED AS TO BE REMOVED (T.B.R.).

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
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15122 - 1078

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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PIPE TO BE REMOVED
- TREES TO BE REMOVED
- BUILDINGS & PAVEMENT TO BE REMOVED

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

40 0 40 80
SCALE IN FEET
1"=40'

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NO.	REVISION	BY	DATE
4	REVISED PER TWP ENGINEER LETTER	JM	10/02/23
3	REVISED PER TOWNSHIP COMMENTS	JM	06/05/22
2	75% CD SUBMISSION	DAW	09/09/22
1	50% CD SUBMISSION	DAW	07/20/22

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES AND DEMOLITION PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

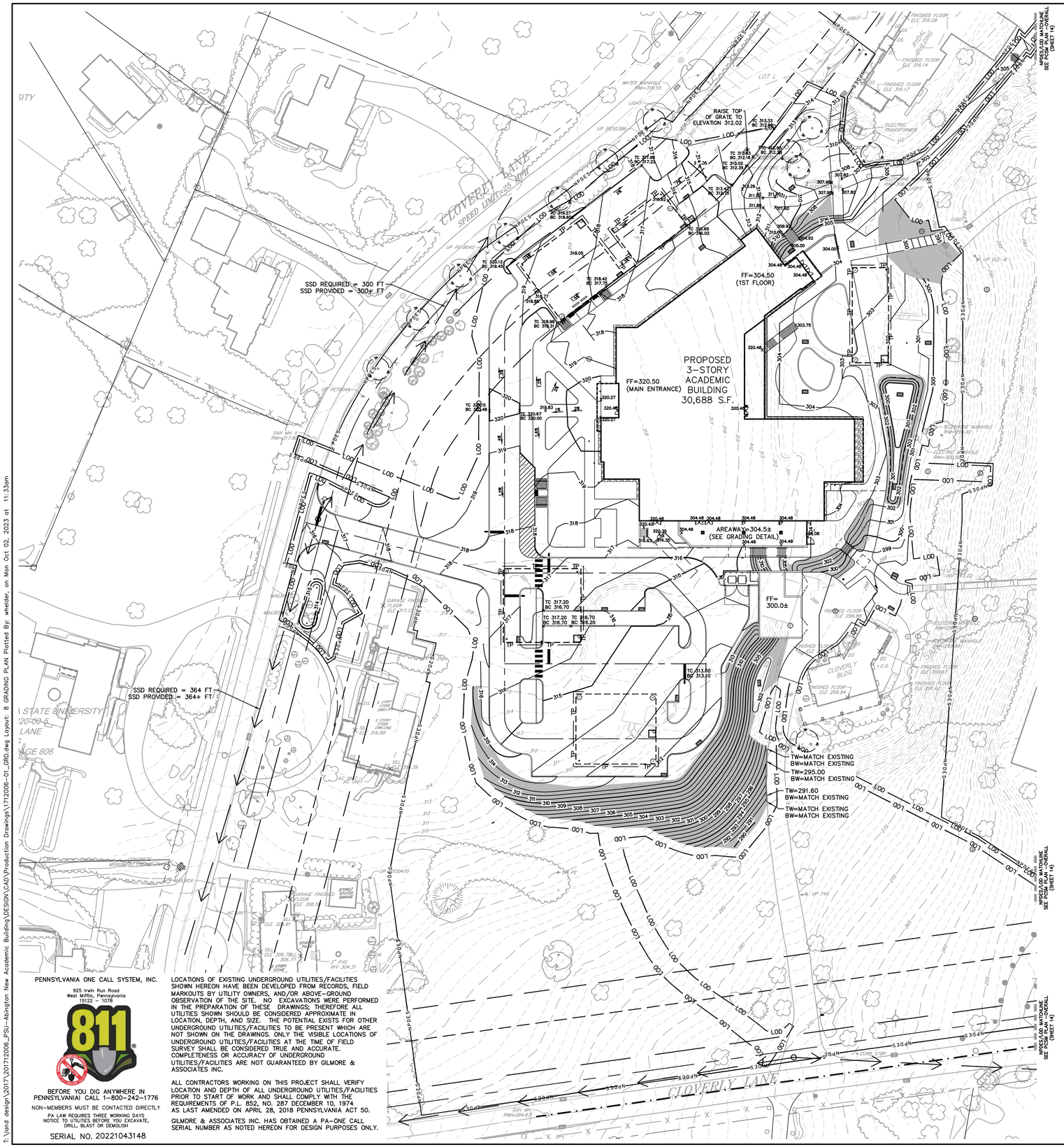
MUNICIPAL FILE No.: ----

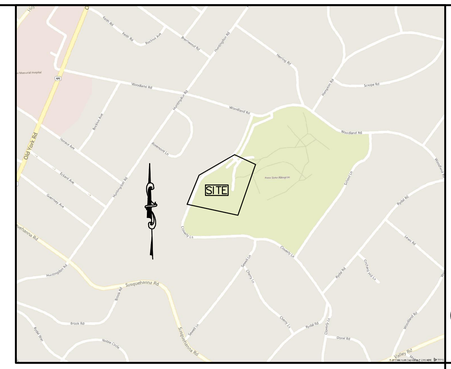
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 7 OF 40

T:\and design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_EXC.dwg Layout: 7 EXISTING FEATURES AND DEMOLITION PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:33am





LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK – SIZE
- TP TREE PROTECTION
- STEEP SLOPES (15% OR GREATER)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T EXISTING TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

GENERAL NOTES:

1. ABINGTON TOWNSHIP SEWER DATUM BENCHMARK HAS BEEN OBTAINED FROM A PLAN ENTITLED "ABINGTON TOWNSHIP, MONTGOMERY COUNTY, A - SANITARY SEWER PROJECT, CLOVERLY LANE STA 12+00 TO STA 23+66. THIS DATUM DIFFERS FROM THE FIELD SURVEY BY BEING 5.25± FEET LOWER. ELEVATIONS SHOWN ON THIS PLAN SHOULD BE ADJUSTED TO CONFORM TO THIS DATUM.

REFER TO GRADING DETAIL PLANS, PCSM PLAN, EROSION CONTROL PLAN AND PLAN DETAILS FOR ADDITIONAL INFORMATION ON WORK REQUIRED FOR SITE GRADING OPERATIONS.

40 0 40 80
SCALE IN FEET
1"=40'

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15122 – 1076

811

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SERIAL NO. 20221043148

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

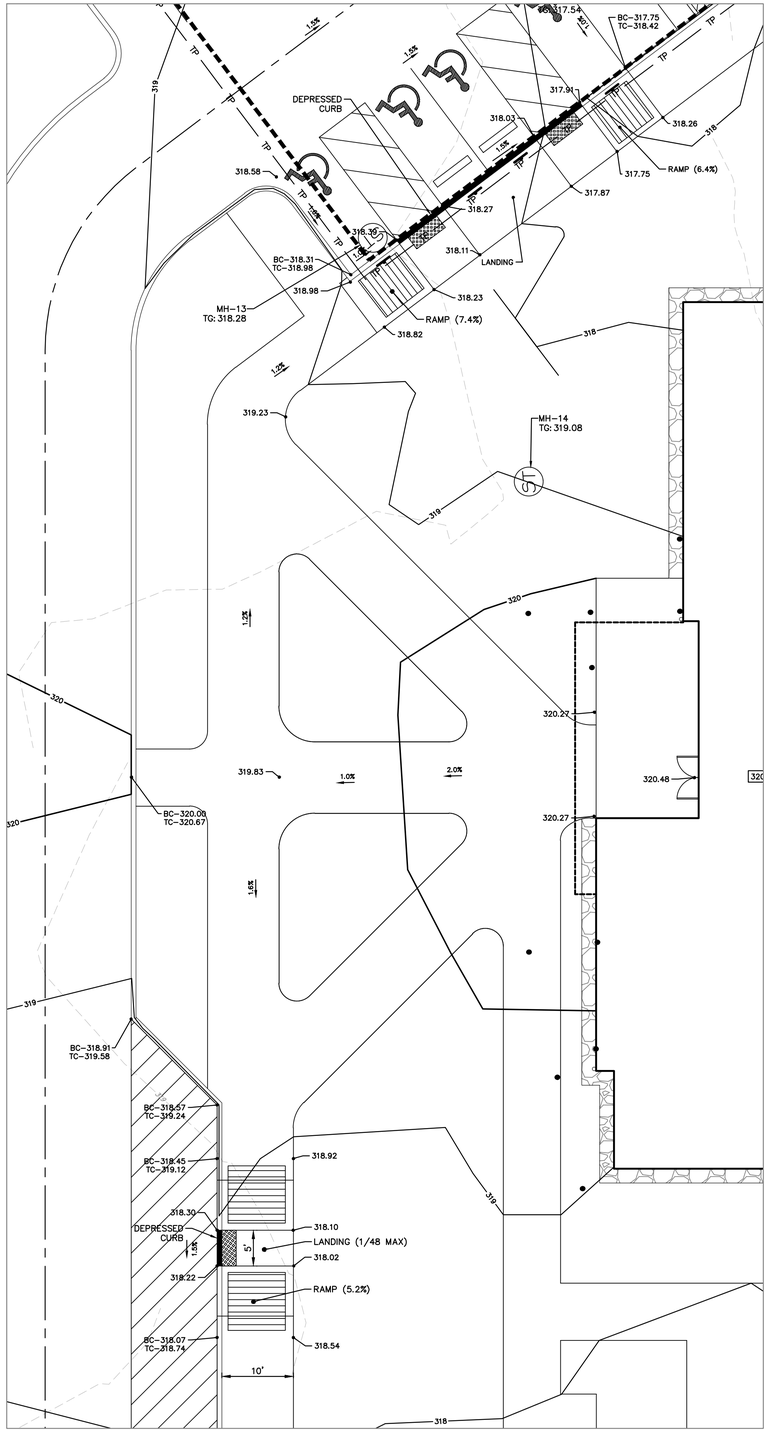
MUNICIPAL FILE No.: ---

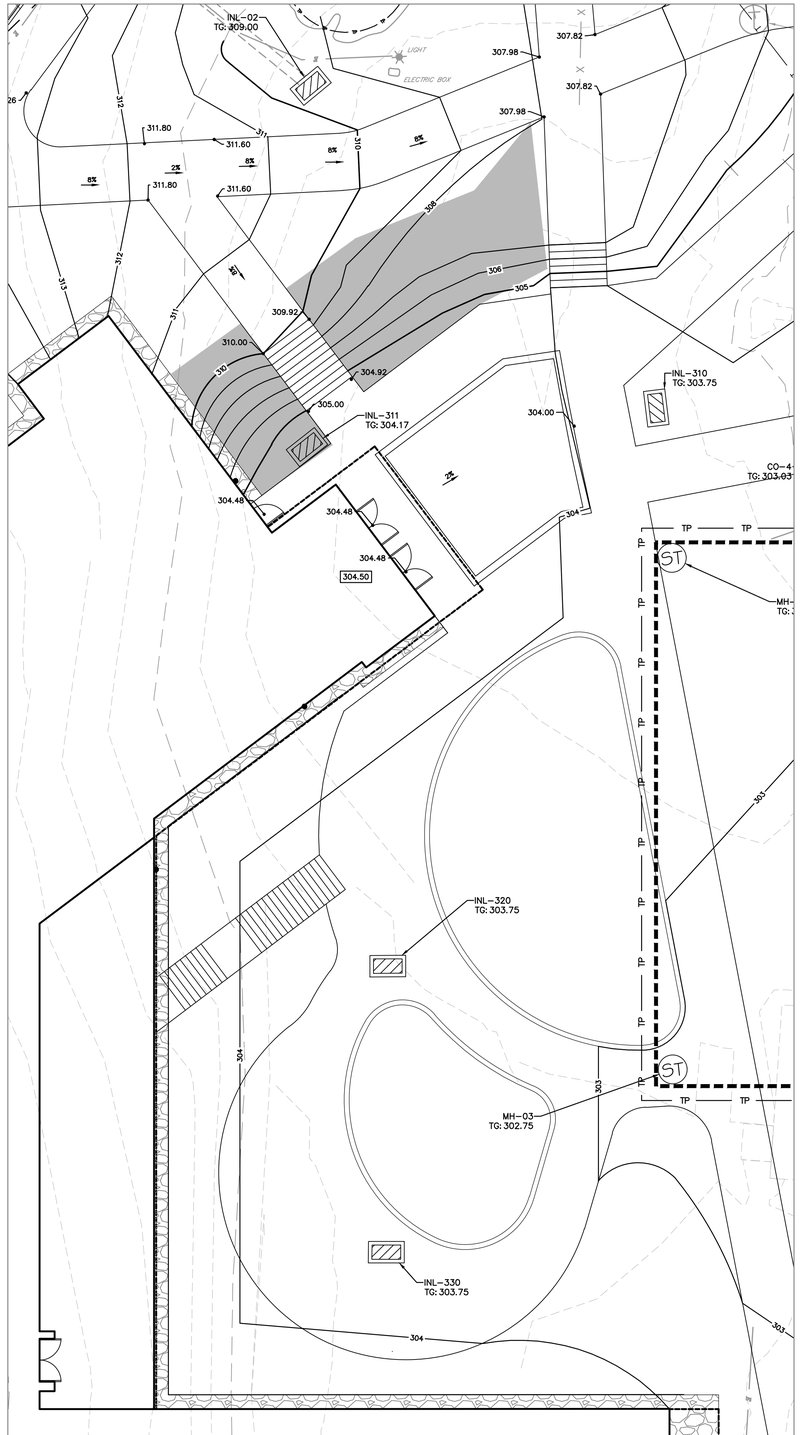
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 8 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 8 GRADING PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:33am





G&A LEGEND

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- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
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- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN FEET
1"=10'

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1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

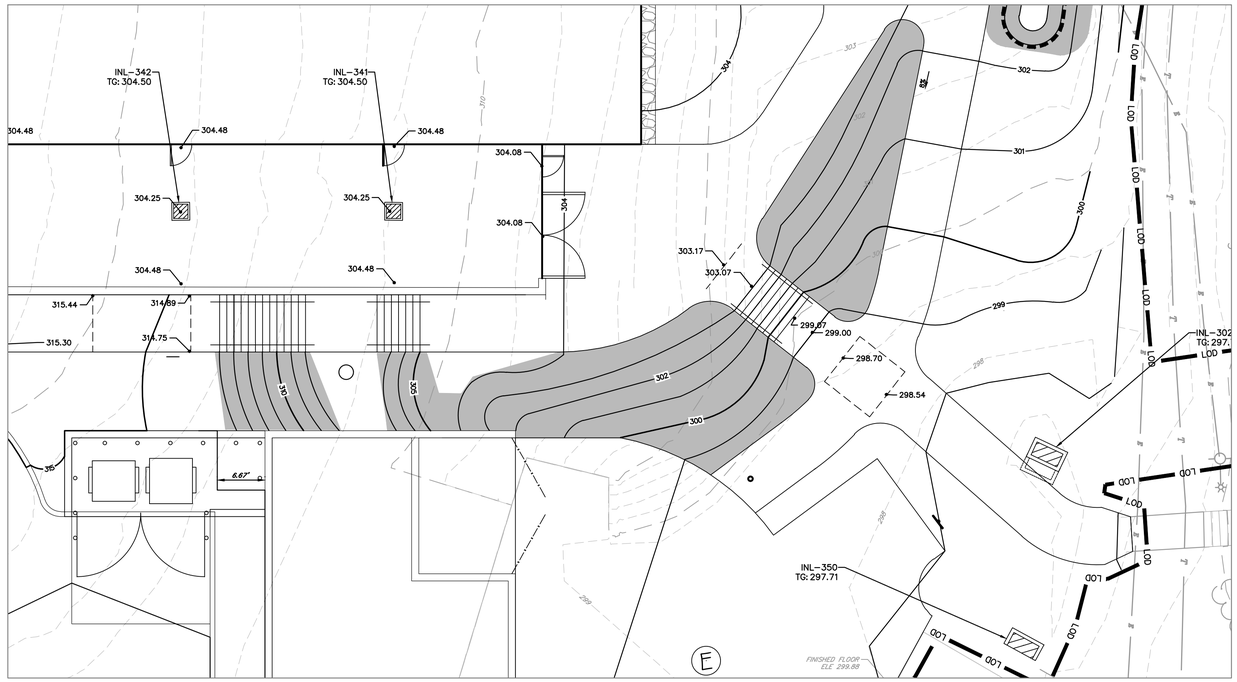
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

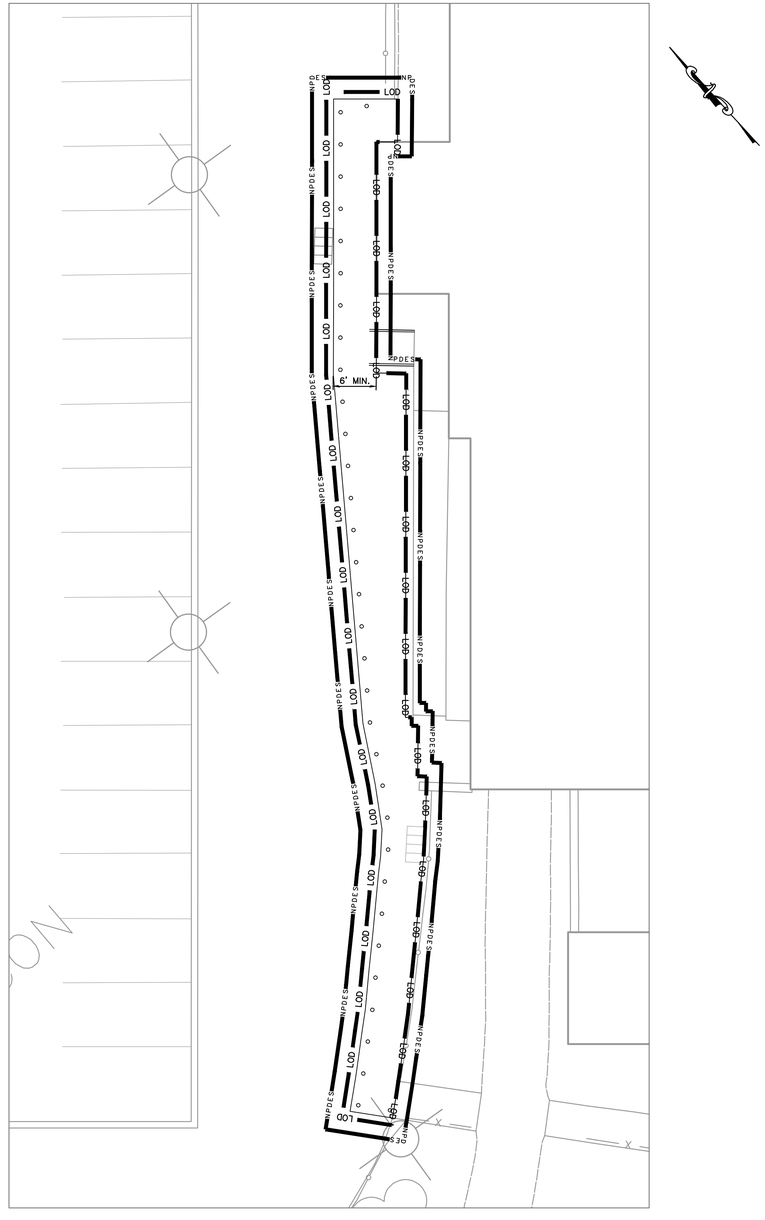
DATE: 06/06/22
SCALE: 1"=10'

DRAWN BY: WMH
CHECKED BY: JM

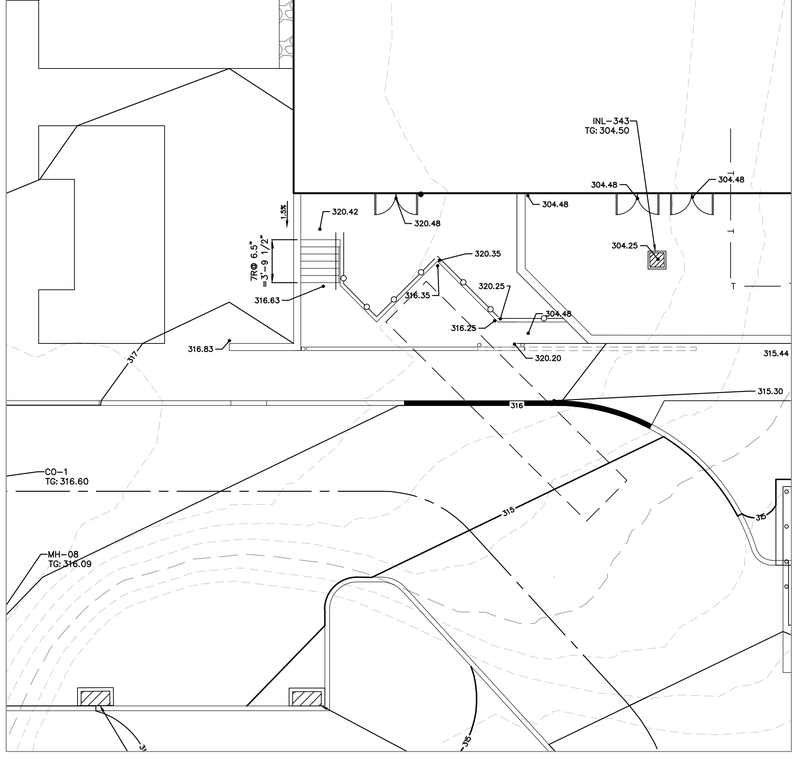
SHEET NO.: 9 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 9 GRADING DETAIL PLAN 1 Plotted By: wheider, on Mon Oct 02, 2023 at 11:33am





WOODLAND BUILDING SIDEWALK CONNECTION DETAIL



G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN FEET
1"=10'

NOT TO BE RECORDED

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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	REV.
JM	10/02/23	4
JM	06/05/22	3
DAW	09/09/22	2
DAW	07/20/22	1

DESCRIPTION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.:
2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

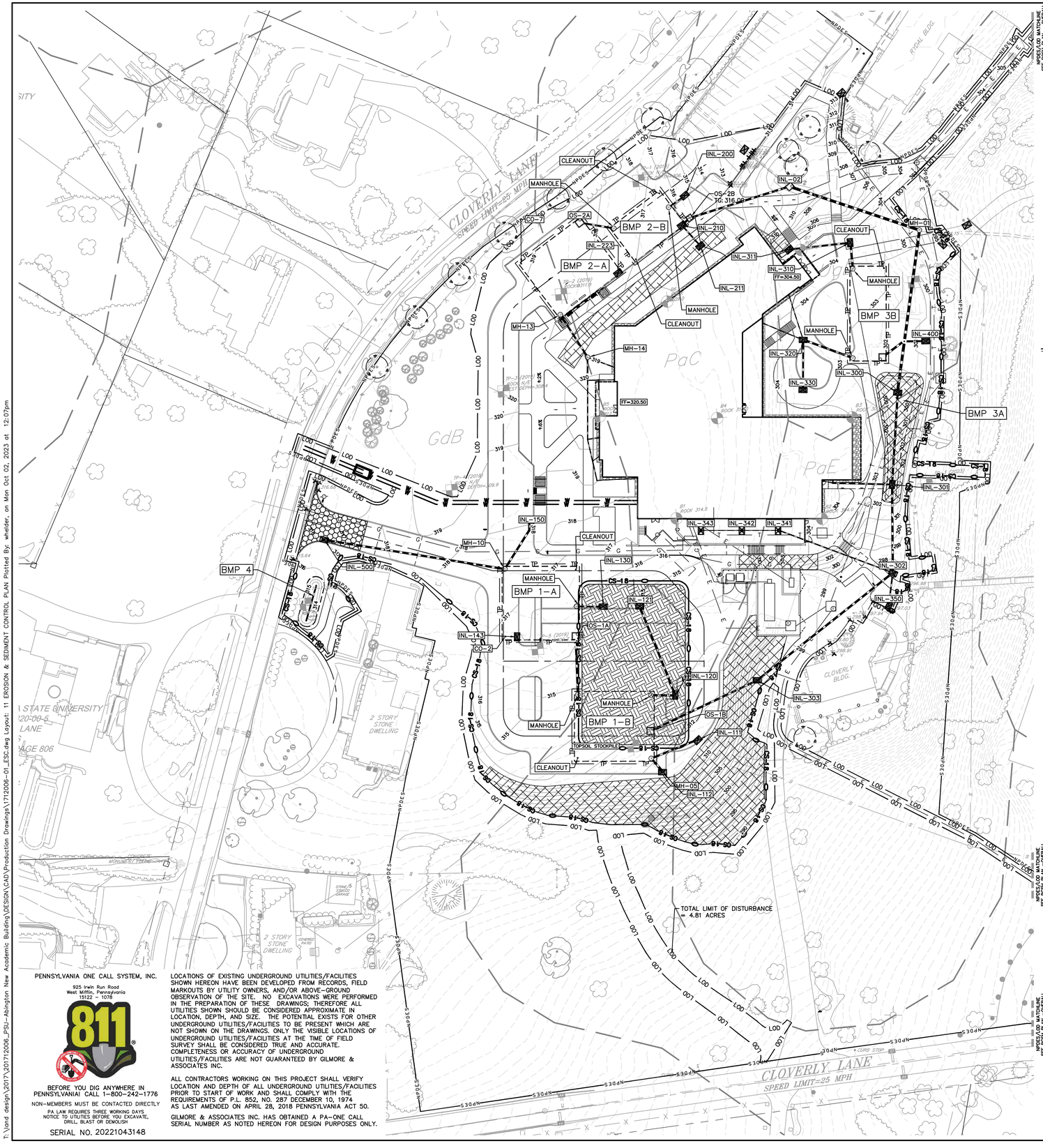
MUNICIPAL FILE No.:

TAX MAP PARCEL No.:
30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=10'
DRAWN BY: WMH	CHECKED BY: JM

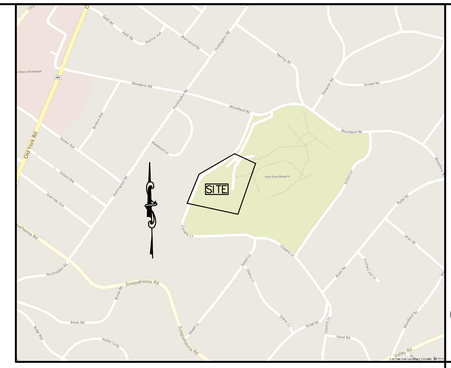
SHEET NO.:
10 OF 40

T:\and design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 10 GRADING DETAIL PLAN 2 Plotted By: wheider, on Mon Oct 02, 2023 at 12:33pm



E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
    - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
    - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
    - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
    - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.



LOCATION MAP

SCALE: 1"=800'

LEGEND

EXISTING		PROPOSED
	2FT CONTOURS	
	TREE LINE	
	100YR FLOODPLAIN	
	DELINEATED WETLANDS	
CbA	SOIL TYPE BOUNDARY & LABEL	
	UTILITY POLE	
	TRAFFIC SIGN	
G G	GAS LINES	G G
ECT ECT	ELECTRIC, TELEPHONE, CABLE	ECT ECT
S S	SANITARY SEWER MAIN	S S
S S	SANITARY LATERAL/CLEANOUT	SL CO SL
W	WATER MAIN/SIZE	8W 8W
	WATER LATERAL/CURB STOP	WL CS WL
	STORM SEWER/INLET	
	ROOF DRAIN COLLECTOR	RL RL RL
	ENERGY DISSIPATOR	
	ROCK CONSTRUCTION ENTRANCE	RCE
	EROSION CONTROL MATS: NAG SC-150	
	EROSION CONTROL MATS: NAG SC-150	
	COMPOST SOCK w/ SIZE	CS-18
	RESOURCE PROTECTION FENCE	TP TP
	LIMIT OF DISTURBANCE:	
	PROJECT SITE BOUNDARY	NPDES
	INLET PROTECTION	
	TEST PIT	
	BORING	

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	60"-118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	60"-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

PROJECT SITE AREA: 8.71 ACRES
AREA OF DISTURBANCE: 4.81 ACRES

SCALE: 1"=40'

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1076

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: 1"=40'

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 11 OF 40

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC.dwg Layout: 11 EROSION & SEDIMENT CONTROL PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 12:07pm

EROSION & SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, STABILIZED AND FUNCTIONAL PRIOR TO EARTH DISTURBANCE WITHIN THE TRIBUTARY AREA TO SAID E&S MEASURE.
2. LOCAL ROADS ARE TO REMAIN FREE OF SEDIMENT AND CONSTRUCTION VEHICLES AND EQUIPMENT.
3. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION AS PER SEEDING AND MULCHING SCHEDULE.
4. SILT FENCING MAY BE REMOVED WHEN THE SITE IS PERMANENTLY STABILIZED. ACCUMULATED SEDIMENT MAY BE SPREAD AT THE SITE IN AREAS NOT SUBJECT TO EROSION.
5. THE TREE PROTECTION FENCING SHALL NOT BE REMOVED UNTIL ALL DEVELOPMENT AREAS ARE STABILIZED AND WRITTEN CONFIRMATION IS RECEIVED FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
7. DISTURBED AREAS THAT AREA AT A FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
8. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE 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.
9. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE CONTRACTOR SHALL RECEIVE APPROVAL OF THE REVISIONS FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
10. THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, 'EROSION CONTROL RULES AND REGULATIONS,' TITLE 25, PART 1, DEPT. OF ENVIRONMENTAL PROTECTION, SUBPART C-PROTECTION OF NATURAL RESOURCES, ARTICLE III-WATER RESOURCES, CHAPTER 102-EROSION CONTROL AND WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" BY THE COMMONWEALTH OF PA., DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2000 OR LATEST EDITION.
11. TECHNICAL ADVICE FOR THE IMPLEMENTATION OF THIS PROGRAM MAY BE OBTAINED BY CONTACTING THE MONTGOMERY COUNTY CONSERVATION DISTRICT AT (610)489-4506.
12. COPIES OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION.
13. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.

A. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE FOR ALL IMPORTED MATERIAL IN DETERMINING THAT FILL IS CLEAN.

B. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

14. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
15. NO CHANGE SHALL BE MADE TO THE CONTOUR OF THE AND NOR SHALL GRADING, EXCAVATING, REMOVAL, OR DESTRUCTION OF THE TOPSOIL, TREES, OR OTHER VEGETATIVE COVER OF THE LAND CAN BE COMMENCED UNTIL SUCH A TIME THAT A GRADING PERMIT IS APPLIED FOR AND APPROVED.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
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10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
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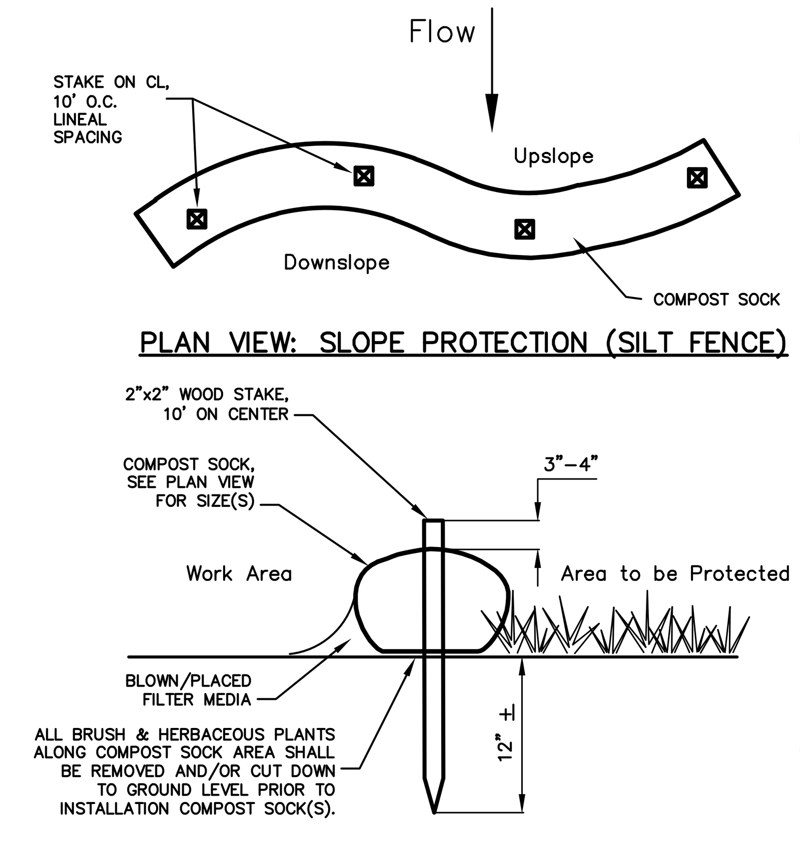
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

NOTES ON TEMPORARY CONTROL MEASURES:

1. EXISTING TREES AND OTHER EXISTING VEGETATION WILL BE DISRUPTED AS LITTLE AS POSSIBLE.
2. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY HAS CEASED, ALL AREAS SHALL BE STABILIZED. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE STABILIZED WITH TEMPORARY VEGETATION. AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL RECEIVE PERMANENT STABILIZATION. (SEE SEEDING AND MULCHING TABLE FOR DETAILS)
3. ALL TOPSOIL FROM THE OVERALL SITE PREPARATIONS WILL BE STOCKPILED AND REDISTRIBUTED UNIFORMLY AT THE TIME OF FINAL GRADING. ALL STOCKPILES SHALL HAVE PERIMETER SILT FENCE INSTALLED AND BE SEEDED AND MULCHED IMMEDIATELY. STOCKPILE(S) SHALL HAVE A SIDE SLOPE OF 2:1 OR FLATTER AND SHALL HAVE A HEIGHT NOT GREATER THAN 35 FEET. SEE PLAN FOR LOCATION OF TOPSOIL STOCKPILES.
4. GRADE ALL CUT AND FILL SLOPES TO 3 FOOT HORIZONTAL FOR EVERY 1 FOOT VERTICAL OR FLATTER, AND APPLY SEEDING AND MULCH. AREAS WITH GRADES GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEED MIX AND PERMANENT TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #C350 OR EQUAL
5. RIP-RAP WILL BE APPLIED TO ALL AREAS WHERE HEAVY CONCENTRATIONS OF DRAINAGE ARE PREVALENT (GREATER THAN 3.5 cfs). THIS WOULD BE AT CULVERT OUTLETS, WHERE WATER IS IN TRANSITION FROM AN OPEN CHANNEL INTO A CULVERT, OR AS SPECIFIED.
6. SIGNIFICANT STANDS OF TREES, DESIGNATED TO REMAIN, WILL BE PROTECTED WITH FENCING, SEE DETAIL. INSTALL ALONG THE DRIP LINE OF THE TREE BRANCHES.
7. EROSION CONTROL FACILITIES MUST DISCHARGE INTO ADEQUATE STORM SEWERS, NATURAL WATERWAYS, OR STABLE EROSION RESISTANT AREAS.
8. CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS OF DELIVERY VEHICLES. NO WASH WATER FROM THESE VEHICLES SHALL BE ALLOWED TO ENTER ANY SURFACE WATERS. WASHOUT FACILITIES SHALL NOT BE LOCATED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES INFILTRATION FACILITIES OR SURFACE WATERS.
9. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAY MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
10. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE/PROPERTY WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF BUCKS COUNTY CONSERVATION DISTRICT. ANY INLETS WHICH DO NOT DIRECT FLOW TO A SEDIMENT BASIN MUST BE PROTECTED WITH INLET PROTECTION.
11. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A FILTER BAG, DISCHARGING OVER UNDISTURBED AREAS.
12. ABSOLUTELY NO EARTHMOVING, PLACEMENT OF FILL MATERIAL OR THE ENTRY OF SEDIMENT LADEN WATER MUST TAKE PLACE IN WETLANDS. ALL WETLANDS SHALL BE PROTECTED FROM ENCROACHMENT WITH FENCING.
13. ROCK FILTER OUTLETS MUST BE PROVIDED IMMEDIATELY WHERE SILT FENCING HAS BEEN UNDERMINED OR OVERTOPPED.
14. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE BUCKS COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE, GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
15. IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
16. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. IMMEDIATELY STABILIZE REPLACED SOILS WITH SEED & MULCH OR DEPOSIT IN SOIL STOCKPILES AND STABILIZE.
17. THE CONTRACTOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.



NOTES:

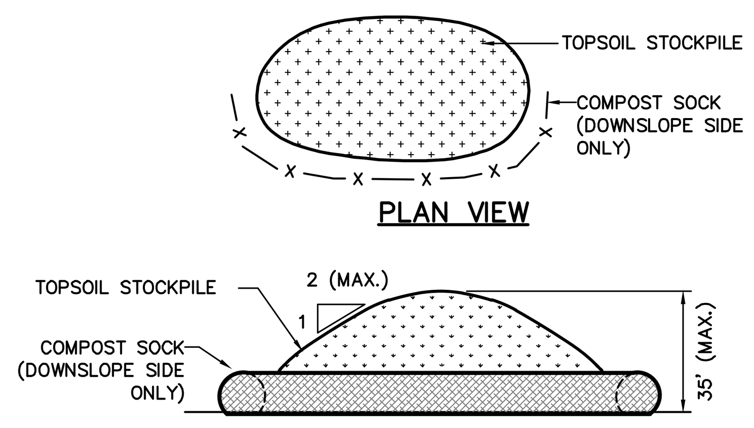
1. COMPOST SOCK SHALL BE "SILTSOXX" AS SUPPLIED BY MCS INC. (1971 N. BLACK HORSE PIKE, WILLIAMSTOWN, NJ 08094, 856-629-1044, www.mcsnjinc.com) OR EQUAL PRODUCT BY OTHER MANUFACTURER.
2. FOR INSTALLATIONS ON EXISTING PAVEMENT, CINDER BLOCKS ON DOWNSTREAM SIDE MAY BE USED IN LIEU OF WOOD STAKES TO ANCHOR THE SOCKS.
3. UPON COMPLETION OF THE PROJECT, COMPOST MATERIAL SHALL BE MIXED WITH ONSITE SOIL/TOPSOIL AND SPREAD ON THE SITE AS DETAILED IN SEEDING AND MULCHING SCHEDULE.
4. SOCK FABRIC SHALL BE 5mil PHOTO-DEGRADABLE, HDPE FOR INSTALLATIONS LESS THAN 9 MONTHS. FOR PROJECTS WITH LONGER DURATIONS, SOCKS SHALL BE MULTI-FILAMENT POLYPROPYLENE FABRIC.
5. INFILL MATERIAL SHALL BE WEED FREE COMPOST DERIVED FROM WELL-DECOMPOSED ORGANIC MATTER. COMPOST SHALL BE PRODUCED USING AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS. COMPOST MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

ORGANIC MATTER CONTENT	25% – 100%
ORGANIC PORTION	FIBROUS & ELONGATED
pH	5.5 – 8.5
MOISTURE CONTENT	30% – 60%
PARTICLE SIZE	30–50% PASS 3/8" SIEVE
SOLUBLE SALT	5.0 dS/m MAXIMUM

6. COMPOST SOCKS SHALL BE PLACED AT LEVEL GRADE AND BOTH ENDS EXTENDED 8' MIN. UP SLOPE AT 45° ANGLE.
7. ACCUMULATED SEDIMENT SHALL BE REMOVED WHENIT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED OF IN APPROVED UPLAND AREA.

COMPOST SOCK "SILT FENCE" DETAIL

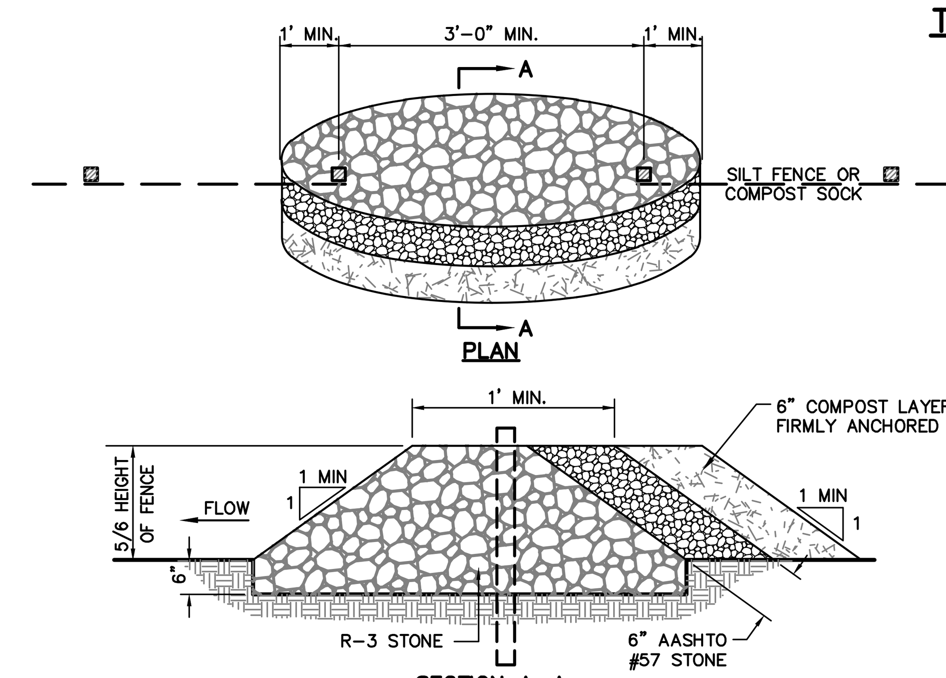
NOT TO SCALE



SEDIMENT BARRIER MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING & MULCH TO ALL STOCKPILES.

TOPSOIL STOCKPILE AREA DETAIL

NOT TO SCALE

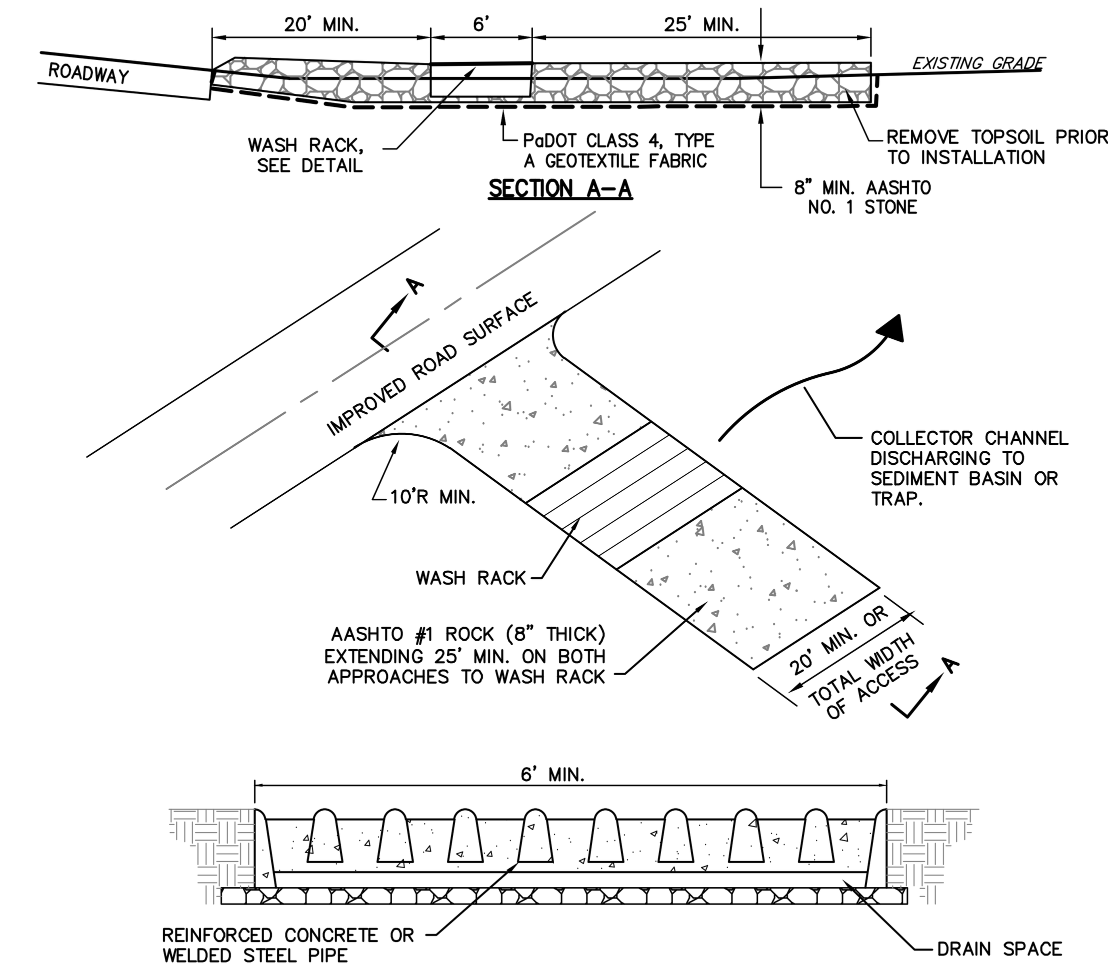


ROCK FILTER OUTLET DETAIL

NOT TO SCALE

NOTES:

1. ROCK FILTER OUTLETS TO BE PROVIDED AT ALL EXISTING OR PROPOSED LOW POINTS AND ALL AREAS OF CONCENTRATED FLOWS.
2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLETS.
3. COMPOST LAYER IS REQUIRED IN ALL HQ AND EV WATERSHEDS.



WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK.

AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROAD DITCHES, SEWERS, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

TEMPORARY CONSTRUCTION ENTRANCE W/ WASH RACK

NOT TO SCALE

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROPOSED WORK SHALL UTILIZE THE PARCELS ALONG RTE 202 PRESERVING THE UNDEVELOPED PORTION TO THE REAR WITH THE EXCEPTION OF THE TOWNSHIP CONNECTOR ROAD STUB.
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– ALTHOUGH OFFSITE, THE WATERS OF THE US CROSSING THROUGH THE PECO R.O.W HAS BEEN PROVIDED WITH A 75FT BUFFER.
	MINIMIZE SOIL COMPACTION	– ALL GRASS AND MEADOW AREAS SHALL BE SCARIFIED AND AMENDED WITH COMPOST DURING STABILIZATION TO REDUCE COMPACTION.
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SITE TESTED WELL FOR INFILTRATION PRACTICES WHICH WILL BE INTEGRATED INTO ALL PCSM FACILITIES.
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PCSM FACILITIES FOCUS ON INFILTRATION PRACTICES TO MITIGATE THERMAL IMPACTS FROM REDEVELOPMENT OF THE FRONT PARCELS.
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THE STREAM IS LOCATED WITHIN THE PECO R.O.W. WHICH WILL NOT ALLOW INSTALLATION OF TREES. REFORESTATION WILL FOCUS ON THE REAR PARCEL BEING DEDICATED TO SOLEBURY TOWNSHIP.
ANTI-DEGRADATION ANALYSIS		– THE MAJORITY OF THE PROPOSED DEVELOPMENT IS CAPTURED BY PCSM FACILITIES WHICH MEET OR EXCEED THE VOLUME AND WATER QUALITY REQUIREMENTS FOR THE SITE PER THE 'DEP PCSM SPREADSHEET.'

SEQUENCE OF CONSTRUCTION:

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

AT LEAST 7 DAYS PRIOR TO START OF WORK OR EARTH DISTURBANCE ACTIVITIES, A PRECONSTRUCTION MEETING SHALL BE HELD INCLUDING THE OWNER, SITE CONTRACTOR, TOWNSHIP ENGINEER, COUNTY CONSERVATION DISTRICT, THE PLAN DESIGNER, AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF PCSWM INSTALLATION.

1. USING EXISTING SITE ACCESSES, INSTALL COMPOST SOCKS AND TREE PROTECTION FENCES AS SHOWN ON PLAN.
2. COMPLETE DEMOLITION OF EXISTING STRUCTURES AND PAVEMENT IN ACCORDANCE WITH PLANS. CLEAR & GRUB VEGETATION AS NOTED. INSTALL TEMPORARY STONE TIRE CLEANER AT NEW ENTRANCE DRIVE LOCATION AS DETAILED ON PLANS PRIOR TO REMOVAL OF EXISTING PAVED DRIVEWAYS.
3. STRIP AND STOCKPILE TOPSOIL. SURROUND STOCKPILE WITH COMPOST SOCK AND STABILIZE WITH TEMPORARY SEED.
4. COMPLETE BUILDING FOOTINGS, FOUNDATIONS AND BUILDING SLAB BASE STONE.
5. INSTALL BUILDING UTILITIES.
6. INSTALL STORMWATER MANAGEMENT FACILITIES.
7. AS STORM SEWERS ARE INSTALLED, INLETS SHALL BE PROVIDED WITH INLET PROTECTION DEVICES IN ACCORDANCE WITH PLANS & DETAILS.
8. ROUGH GRADE NEW ACCESS DRIVE AND PARKING AREA. STABILIZE WITH STONE BASE COURSE AS SOON FEASIBLE.
9. ROUGH GRADE SITE.
10. REMAINING IMPROVEMENTS AS PER STANDARD CONSTRUCTION TECHNIQUES.
11. INSTALL RAINGARDEN BMPS AND ALL PLANTINGS.
12. AS LAWN AREAS ARE BROUGHT TO GRADE, THEY SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 5-12" THEN PROVIDED WITH A MINIMUM OF 8" TOPSOIL AND SEEDED IMMEDIATELY. ALL VEGETATED AREAS SHALL BE STABILIZED WITH VEGETATION AND MULCH AS SOON AS POSSIBLE.
13. AFTER THE SITE HAS BEEN STABILIZED, ALL TEMPORARY E&S CONTROLS SHALL BE REMOVED.
14. ALL ACCUMULATED SEDIMENTS SHALL BE DISPOSED OF IN APPROVED UPLAND AREAS.
15. STABILIZATION SHALL BE CONSIDERED THE PLACEMENT OF BASE COURSE IN PAVED AREAS OR BY 75% OR MORE VEGETATION, UNIFORM COVERAGE, IN LAWN AREAS OR BY OTHER PERMANENT MEANS WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
16. AREAS DISTURBED DURING THE REMOVAL OF BMPS SHALL BE STABILIZED IMMEDIATELY.
17. NOTICE OF TERMINATION AND ASSOCIATED PAPERWORK SHALL BE FILED WITH CONSERVATION DISTRICT.

* ALL SEQUENCE STEPS RELATED TO THE IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (PCSM BMPS) ARE CONSIDERED THE CRITICAL STAGES FOR NPDES PERMITTING REQUIREMENTS. A LICENSED PROFESSIONAL SHOULD BE PRESENT ON-SITE TO VERIFY THAT THE FOLLOWING ITEMS MEET CERTAIN DESIGN REQUIREMENTS: BOTTOM OF BASIN INVERT ELEVATIONS; LINING OF STORMWATER BMPS FOR CARBONATE GEOLOGOGY PROTECTION; FOOTPRINT OF STONE BEDS; TOP OF STONE ELEVATION; OUTLET STRUCTURE INVERTS; AND OUTLET PIPING TO EXISTING FACILITIES. THE CONTRACTOR AND SURVEYOR SHALL DOCUMENT CONSTRUCTION OF THE BASINS WITH PHOTOGRAPHS AND AS-BUILT PLANS.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)

   ADDITIONAL SEED MIXES WITH ASSOCIATED SEEDING RATES MAY BE PROVIDED ON LANDSCAPE PLANS.
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. SLOPES OF 3:1 SHALL BE ANCHORED WITH MULCH CONTROL NETTING.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE: 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS, CONSIDERED SLOPES GREATER THAN 3:1, SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETALS & NOTES – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

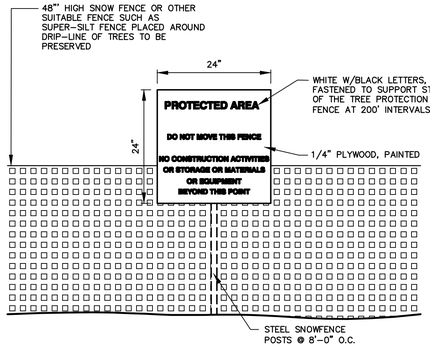
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 12 OF 40

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 12 EROSION & SEDIMENT CONTROL DETALS & NOTES - 1 Plotted By: whelder, on Mon Oct 02, 2023 at 11:34am

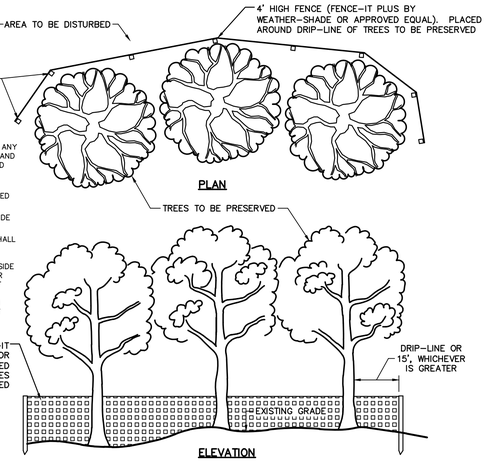


TREE PROTECTION/NOTIFICATION DETAIL

NOT TO SCALE

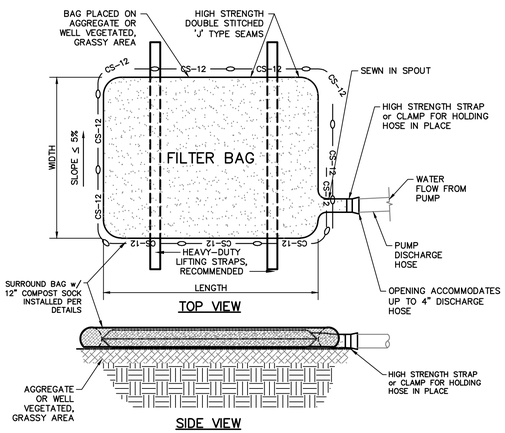
TREE PROTECTION NOTES

1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION TO THE EXTENT NOTED ON THE PLANS. PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION.
2. BOARDS, FENCING, ETC. SHALL NOT BE NAILED TO ANY TREES OR SHRUBS.
3. ROOTS SHALL NOT BE CUT IN AN AREA INSIDE THE DRIP-LINE OF THE TREE BRANCHES.
4. TREE LIMB REMOVAL, WHERE NECESSARY, SHALL BE PERFORMED UNDER THE IMMEDIATE SUPERVISION OF A CERTIFIED ARBORIST. PRUNING CUTS SHOULD BE MADE JUST OUTSIDE THE BRANCH COLLAR. THE BRANCH COLLAR SHOULD NOT BE DAMAGED OR REMOVED. IF THE TRUNK COLLAR HAS GROWN OUT ON A DEAD LIMB TO BE REMOVED, MAKE THE CUT JUST BEYOND THE COLLAR. DO NOT APPLY WOUND DRESSINGS.



TREE PROTECTION DETAIL

NOT TO SCALE



FILTER BAG TO BE USED WHEN/IF WATER PONDS IN EXCAVATIONS.

1. LOW VOLUME FILTER BAGS SHALL BE MADE OF NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES MEETING THE FOLLOWING STANDARDS:

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

2. PLACE FILTER BAGS ON STABLE OR WELL-VEGETATED AREAS WHICH ARE FLATTER THAN 5% SLOPE AND SHALL DISCHARGE ONTO STABLE, EROSION RESISTANT GROUND. WHERE THIS IS NOT POSSIBLE, GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED.
3. PUMP DISCHARGE HOSE SHALL BE INSERTED INTO BAG IN MANNER SPECIFIED BY MANUFACTURER AND SECURELY CLAMPED INTO FILTER BAG. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
4. LIMIT PUMPING TO 750 GPM OR 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE, WHICHEVER IS LESS. PUMP INTAKE SHALL BE FLOATING AND SCREENED.
5. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL PROBLEM IS CORRECTED.
6. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY IS REQUIRED FOR DISPOSAL PURPOSES. WHEN SEDIMENT FILLS 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE AND REPLACE WITH NEW BAG IMMEDIATELY. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.
7. THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE.

SEDIMENT FILTER BAG FOR PUMPED WATER

NOT TO SCALE

MAINTENANCE OF FACILITIES

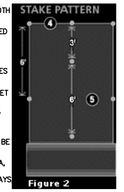
1. COMPOST SOCKS SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT OF MORE THAN 1/4" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND REMETTING MUST BE PERFORMED IMMEDIATELY. IF E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE TO THE BUCKS COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF THE ABOVE NOTED INSPECTION AND MAINTENANCE.
4. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE.
5. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
6. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
7. ALL DRAINAGE SWALES SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF SWALES ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
8. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
9. AFTER THE STORM CONVEYANCE SYSTEM IS CONSTRUCTED, MONTHLY INSPECTIONS FOR EACH DEVICE WILL BE MADE. AN INSPECTION OF ALL FACILITIES WILL BE MADE AFTER EVERY STORM TO DETERMINE THEIR RESISTANCE TO DRIVING RAINS AND ACCUMULATED RUNOFF.
10. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
11. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.

INSTALLATION INSTRUCTIONS:

ADDITIONAL ITEMS NEEDED FOR INSTALLATION:
GRASS SEED
FERTILIZER
RUBBER MALLET
SCISSORS OR SHEARS
SAFETY GLASSES/GOGGLES

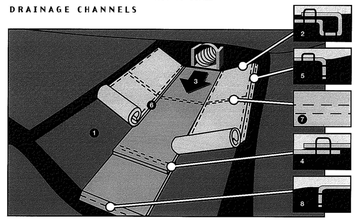
CAUTION: ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION OF BIOSTAKES.

1. PREPARE THE AREA TO BE PROTECTED BY RAKING THE SOIL TO A DEPTH OF 1-2 INCHES AND REMOVING LARGE DIRT CLODS, STICKS AND OTHER OBSTRUCTIONS. APPLY SEED AND FERTILIZER AND LIGHTLY RAKE INTO THE SOIL. (NOTE: THIS PRODUCT DOES NOT INCLUDE SEED OR FERTILIZER. FOR SEEDING AND FERTILIZER SEE THE SEEDING & MULCHING SCHEDULE.)
2. BEGIN INSTALLATION AT THE TOP OF THE SWALE, ANCHORING THE BLANKET IN A 6"x6" TRENCH. STAKE THE FABRIC INTO THE BOTTOM OF THE TRENCH WITH BIODEGRADABLE PLASTIC BIOSTAKES AT 12" INTERVAL. BACKFILL AND COMPACT THE TRENCH.
3. ROLL CENTER BLANKET OVER THE PREPARED BOTTOM OF THE SWALE IN THE DIRECTION OF WATER FLOW. SECURE BLANKET WITH BIOSTAKES IN APPROPRIATE PATTERN PER FIGURE 2 OR USING DOT SYSTEM PROVIDED ON BLANKET BY MANUFACTURER. A RUBBER MALLET IS RECOMMENDED FOR DRIVING THE BIOSTAKES INTO THE GROUND. **CAUTION!** BIOSTAKES MAY SHATTER IF BROKEN, THEREFORE, ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION.
4. PLACE SUBSEQUENT BLANKETS END OVER END, SHINGLE STYLE, WITH MINIMUM 6" OVERLAP. SECURE WITH DOUBLE ROW OF STAPLES/STAKES, 4" APART AND 6" ON CENTER ACROSS FULL WIDTH OF BLANKET.
5. FULL LENGTH OF BLANKET ALONG SIDE SLOPES SHALL BE ANCHORED WITH STAPLES/STAKES AT 12" INTERVALS IN 6"x6" TRENCH. BACKFILL AND COMPACT TRENCH.
6. ADJACENT BLANKETS ON SIDE SLOPES, IF NEEDED, SHALL BE OVERLAPPED A MINIMUM OF 6" AND SECURED WITH STAPLES/STAKES AT 12" INTERVALS.
7. IN HIGH FLOW CHANNELS, CHECK SLOT SHALL BE INSTALLED 30 FEET ON CENTER ALONG CHANNEL. SLOT SHALL BE A DOUBLE ROW OF STAPLES/STAKES 4" APART AND 6" ON CENTER ACROSS THE FULL WIDTH OF THE CHANNEL.
8. TERMINAL END OF THE BLANKET SHALL BE ANCHORED IN 6"x6" TRENCH WITH STAPLES/STAKES AT 12" INTERVAL. TRENCH SHALL BE BACKFILLED AND COMPACTED AFTER ANCHORING.
9. IMMEDIATELY FOLLOWING INSTALLATION, GENTLY WATER ENTIRE AREA, THOROUGHLY WETTING BOTH THE BLANKET AND UNDERLYING SOIL. FOR BEST RESULTS, KEEP SOIL MOIST FOR THE FIRST 30 TO 60 DAYS OR UNTIL UNIFORM GRASS ESTABLISHMENT IS ACHIEVED.

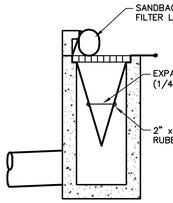


NORTH AMERICAN GREEN SWALE INSTALLATION

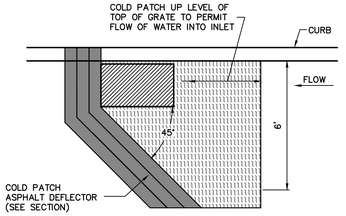
NOT TO SCALE

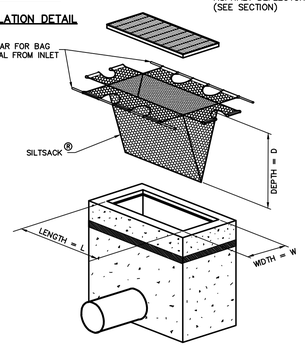


CONTRACTOR SHALL USE NORTH AMERICAN GREEN (OR EQUAL) EROSION CONTROL FABRICS WITH THE MANUFACTURER'S RECOMMENDED STAPLE PATTERN. CLASS OF FABRIC SHALL BE AS NOTED ELSEWHERE IN THE PLANS.

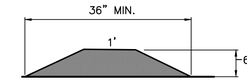


INSTALLATION DETAIL





ISOMETRIC VIEW



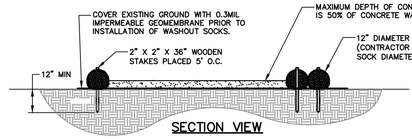
ASPHALT DEFLECTOR SECTION

MAINTENANCE:

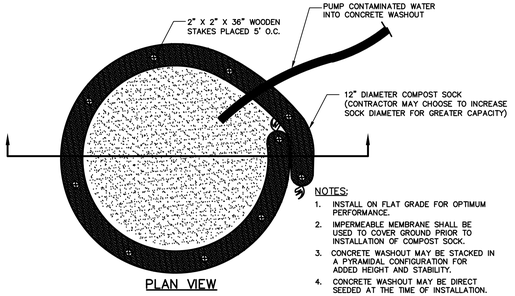
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. EARTHEN BERM SHALL BE INSTALLED & MAINTAINED IN LIEU OF ASPHALT BERMS UNTIL ROADWAY IS STONED. 6" MINIMUM HEIGHT ASPHALT BERM TO BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LB, BURST STRENGTH OF 200 PSI, AND TRAPEZOIDAL TEAR STRENGTH OF 50 LB. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A #40 SIEVE.
5. BAGS SHALL BE EMPTIED & RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
6. DAMAGED OR CLOGGED BAGS SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.

SILTSACK TYPE 'C' INLET PROTECTION DETAIL

NOT TO SCALE



SECTION VIEW



PLAN VIEW

NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. IMPERMEABLE MEMBRANE SHALL BE USED TO COVER GROUND PRIOR TO INSTALLATION OF COMPOST SOCK.
3. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
4. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.

COMPOST SOCK CONCRETE WASHOUT DETAIL

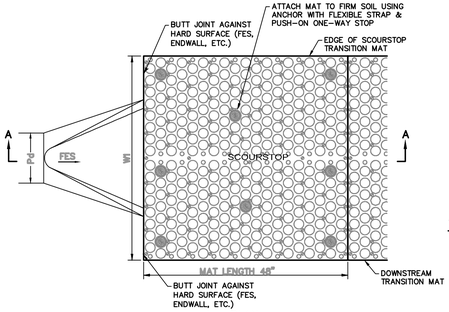
NOT TO SCALE

SCOUR STOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

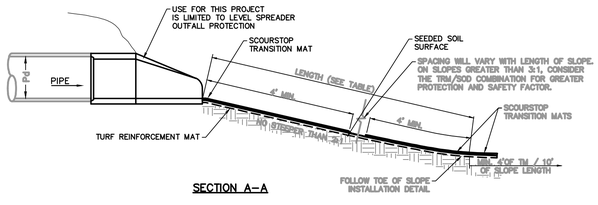
1. INTENDED AS A BIOTECHNICAL REPLACEMENT FOR RIP-RAP OR HARD ARMOR. PROVIDES TRANSITION FROM SMOOTH CONCRETE OR OTHER HARD SURFACE TO TURF REINFORCEMENT MATS (TRMs), SOD, REINFORCED SOD, OR BARE GROUND.
2. SCOURSTOP STANDARD SIZE IS 4' X 4' X 3" SHEET WITH MULTIPLE VOIDS FOR VEGETATION GROWTH, PROVIDING SOIL PROTECTION FOR THE SUSCEPTIBLE, EROSIVE AREA DIRECTLY BELOW OUTLETS UNTIL SHEAR FORCE HAS DISSIPATED THROUGH DOWNSTREAM AREA EXPANSION AND FOR SHORELINE AND STREAMBANK PROTECTION.
3. UTILIZATION OF VEGETATIVE METHOD RESULTS IN LOWER THERMAL IMPACTS, REDUCED LONG TERM MAINTENANCE, AESTHETICALLY PLEASING MOWABLE GRASS SURFACE, AND IMPROVED SAFETY THROUGH ABSENCE OF JAGGED ROCKS AND TRAPPED DEBRIS.

MANUFACTURER'S INSTALLATION SPECIFICATIONS

1. SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS SHALL EXTEND DOWNSTREAM TO LIMITS SHOWN ON PLANS.
2. REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRICKLE FLOWS, IF DISCOVERED, SHOULD BE CAPTURED WITH A SUB-SURFACE DRAIN.
3. FOR A PIPE OUTLET WITH NO APRON, TRANSITION MAT SHOULD BE INSTALLED DIRECTLY ABUTTING THE END OF PIPE.
4. PIPE OUTLET FOOTINGS SHOULD NOT EXTEND PAST THE END OF PIPE, HEADWALL OR FLARED END SECTION. TRANSITION MAT SHALL ABUT DIRECTLY AGAINST THE PIPE OUTLET, FES, ENDWALL OR OTHER END TREATMENT.
5. AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL SLOPES. GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
6. INSTALL AT LEAST ONE 4' MAT LENGTH FOR EVERY 9" OF PIPE DIAMETER. PANELS MAY BE SHINGLED AS SHOWN. MATS SHALL NOT BE INSTALLED IN PARTIAL LENGTHS.
7. CONSTRUCT SCOUR AREA WIDTH NOT LESS THAN 5 TIMES THE PIPE DIAMETER, WITH A SLOPE NO STEEPER THAN 3:1. DISCHARGE AREA WIDTH SHOULD BE AS LEVEL AS POSSIBLE TO AVOID WATER CONCENTRATION AND RILLING.
8. FOR INSTALLATIONS ON SLOPES GREATER THAN 10% ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
9. PRIOR TO INSTALLATION, SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (GREATER THAN 2.5"ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL. FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE USED UNLESS NOTED OTHERWISE.
10. TYPE "A" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES LESS THAN 4% INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION.
    - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSIVE VELOCITIES HAVE DISSIPATED.
    - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM's MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
    - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
11. TYPE "B" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES GREATER THAN 4%. INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD.
    - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA.
    - TRM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
12. TYPE "C" INSTALLATION INSTRUCTIONS: CONSTRUCTION PHASE, STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID CONDITIONS. TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMACE TRM.
    - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR.
    - LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED.
    - FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48"ø OR LARGER, PROVIDE AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET).
13. TYPE "D" STREAMBANK AND SHORELINE APPLICATIONS: USE A 20 OUNCE GEOTEXTILE UNDER TRANSITION MATS 3' BELOW AND 6" ABOVE THE NORMAL WATER LINE. A HYBRID GEOTEXTILE / TRM COMPOSITE MAY ALSO BE USED



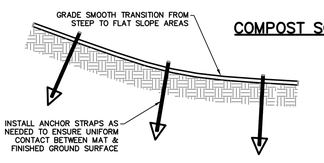
PLAN



SECTION A-A

SCOUR-STOP AT PIPE DISCHARGE

NOT TO SCALE



TRANSITION MAT AT TOE OF SLOPE INSTALLATION

MAXIMUM FLOW FROM PROPOSED LEVEL SPREADER IS 1.0 CFS/LF, OR 4 CFS PER SCOUR STOP MAT. TURF REINFORCEMENT MAT IS REQUIRED. NOT FOR USE ON SLOPES OF GREATER THAN 5% WITHOUT ADDITIONAL ENGINEERING DESIGN.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST · LANGHORNE, PA 19047 · (215) 369-3055 · www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TWP ENGINEER LETTER	DATE	BY
4		10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 13 OF 40

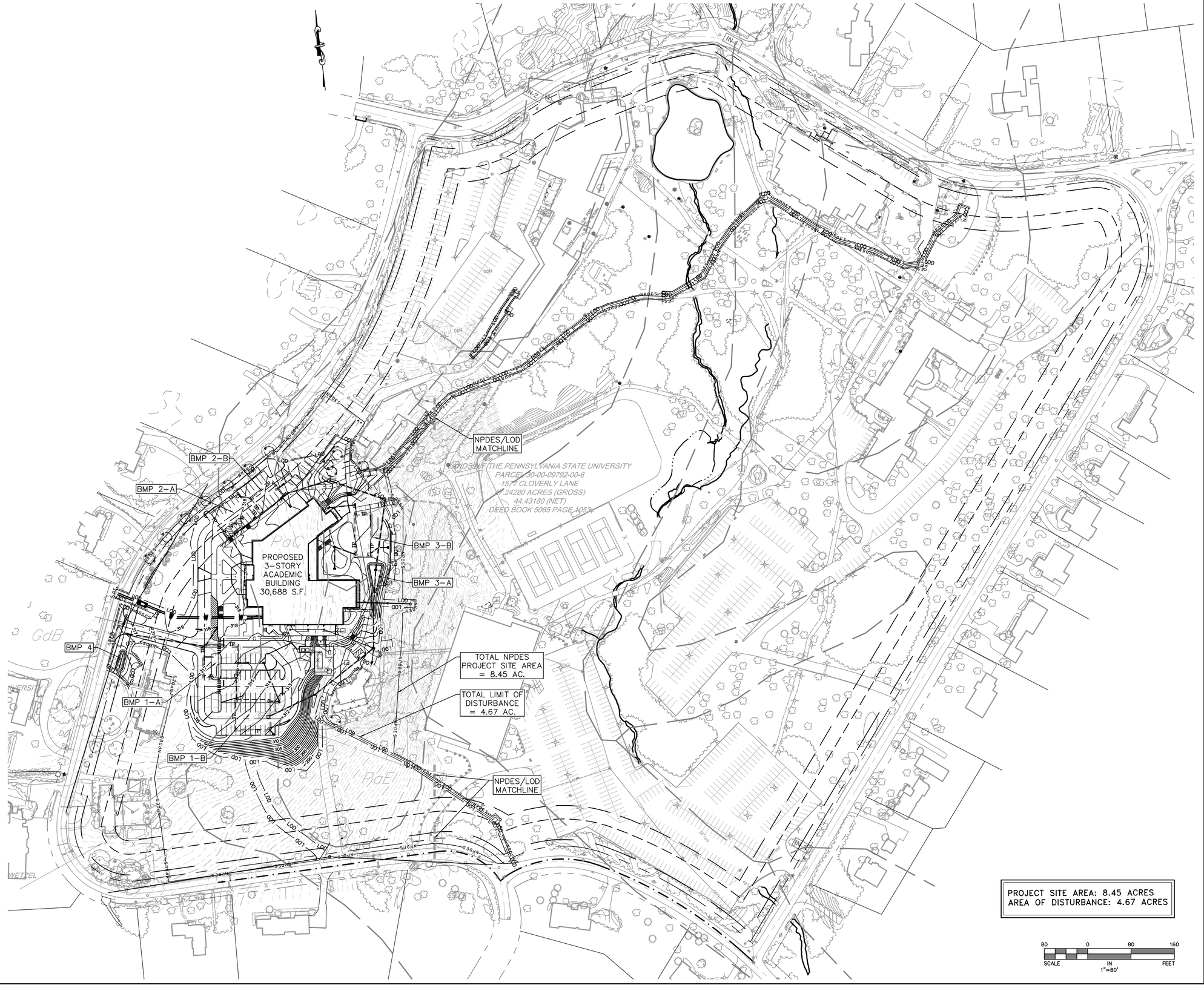
T:\and design\2017\2017012006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 13 EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2 Plotted By: whelder, on Mon Oct 02, 2023 at 11:34am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK - SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES



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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

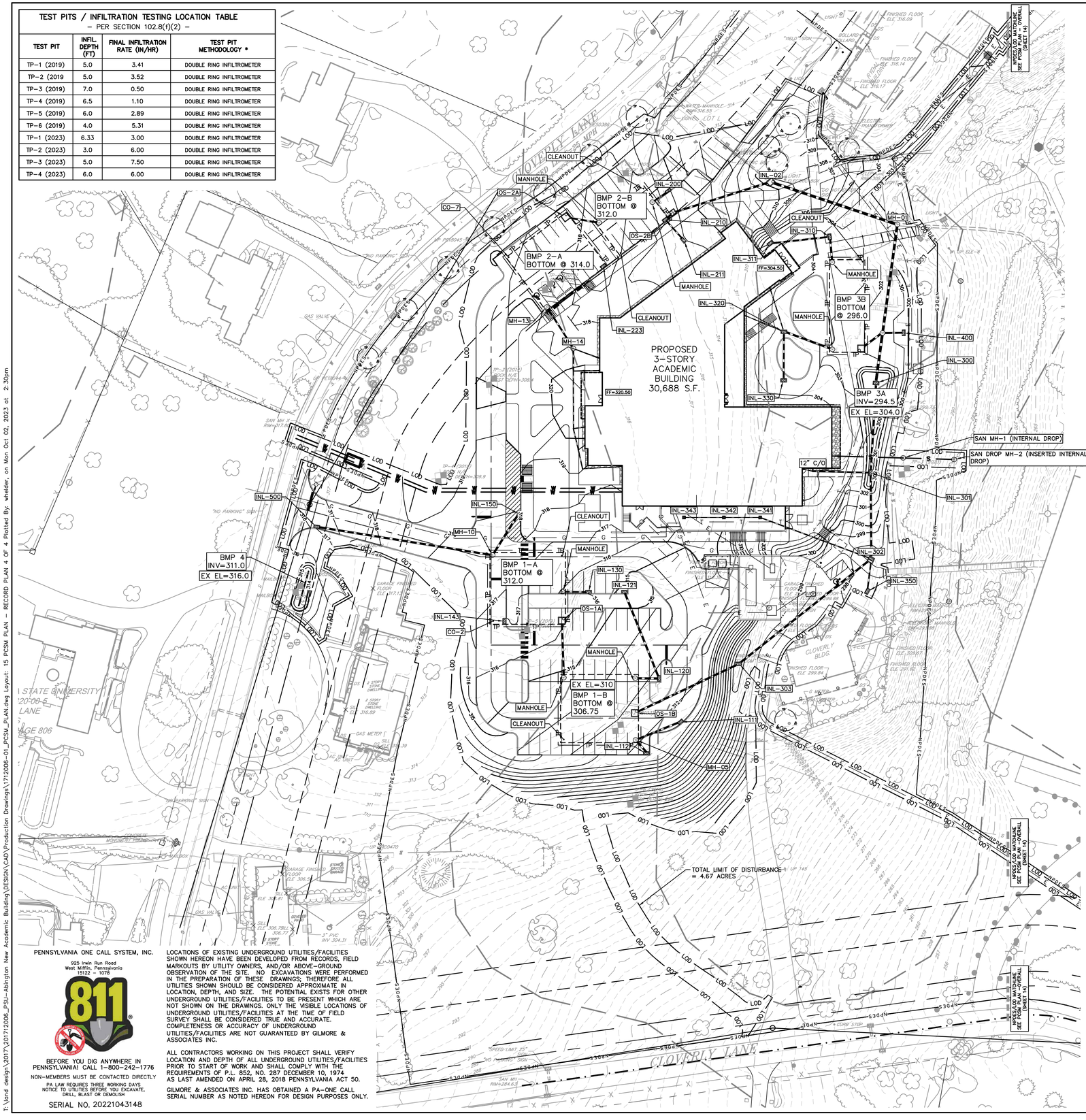
DATE: 06/06/22 | SCALE: 1"=80'

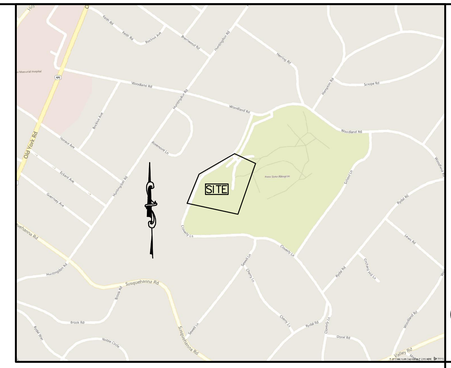
DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 14 OF 40

TEST PITS / INFILTRATION TESTING LOCATION TABLE
– PER SECTION 102.8(f)(2) –

TEST PIT	INFIL. DEPTH (FT)	FINAL INFILTRATION RATE (IN/HR)	TEST PIT METHODOLOGY *
TP–1 (2019)	5.0	3.41	DOUBLE RING INFILTROMETER
TP–2 (2019	5.0	3.52	DOUBLE RING INFILTROMETER
TP–3 (2019)	7.0	0.50	DOUBLE RING INFILTROMETER
TP–4 (2019)	6.5	1.10	DOUBLE RING INFILTROMETER
TP–5 (2019)	6.0	2.89	DOUBLE RING INFILTROMETER
TP–6 (2019)	4.0	5.31	DOUBLE RING INFILTROMETER
TP–1 (2023)	6.33	3.00	DOUBLE RING INFILTROMETER
TP–2 (2023)	3.0	6.00	DOUBLE RING INFILTROMETER
TP–3 (2023)	5.0	7.50	DOUBLE RING INFILTROMETER
TP–4 (2023)	6.0	6.00	DOUBLE RING INFILTROMETER





LOCATION MAP

SCALE: 1"=800'

STORMWATER MANAGEMENT NOTES:

1. CONTRACTOR SHALL PROVIDE AS–BUILT SURVEYS IN AUTOCAD FORMAT OF ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING BUT NOT LIMITED TO, SURFACE PONDS, UNDERGROUND DETENTION FACILITIES, BMPS, AN CONVEYANCE PIPES. AS BUILT PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND TO SATISFY THE CONDITIONS OF NPDES NOTICE OF TERMINATION (N.O.T.) PERMIT CLOSEOUT. FINAL AS–BUILT SURVEYS SHALL BE PROVIDED DIRECTLY TO PENN STATE UNIVERSITY ENGINEERING SERVICES PRIOR TO FINAL PAYMENT.
2. ALL CONSTRUCTION SHALL MEET PENNDOT ROADWAY CONSTRUCTION STANDARDS AND PUBLICATION 408 STANDARDS.
3. ALL STORM DRAIN STRUCTURES INCLUDING MANHOLES AND INLETS DEEPER THAN FOUR (4) FEET SHALL HAVE ACCESS STEPS PER PENNDOT STANDARDS.
4. ABINGTON TOWNSHIP AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON THESE LANDS FROM TIME TO TIME FOR THE INSPECTION OF SAID FACILITIES IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY IS BEING MAINTAINED BY THE PARTY RESPONSIBLE FOR PERPETUAL OPERATION AND MAINTENANCE OF STORMWATER BEST MANAGEMENT PRACTICES, AND THE PROPER OPERATION AND MAINTENANCE ARE BEING CONDUCTED. THIS RIGHT AND PRIVILEGE SHALL BE IN THE FORM OF A BLANKET EASEMENT GRANTED TO ABINGTON TOWNSHIP

I, _____ (APPLICANT), ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MUNICIPALITY OR CONSERVATION DISTRICT FOR APPROVAL.

I, _____ (DESIGN ENGINEER), ON THIS DATE _____, HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS'S (DEP'S) REGULATIONS AND THIS CHAPTER.

_____ (MUNICIPAL OFFICIAL OR DESIGNEE), ON THIS DATE _____, HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICPAL ORDINANCE NO. _____

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON–DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON–DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.67 ACRES

G&A LEGEND

- RIGHT–OF–WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS–18 COMPOST SOCK – SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

400 0 400 800
SCALE IN FEET
1"=400'

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE–GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

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ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	10/02/23	REVISED PER TWP ENGINEER LETTER
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MmontgomeryCOUNTY, PENNSYLVANIA

PCSM PLAN – RECORD PLAN 4 OF 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814–865–0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30–00–09792–00–6

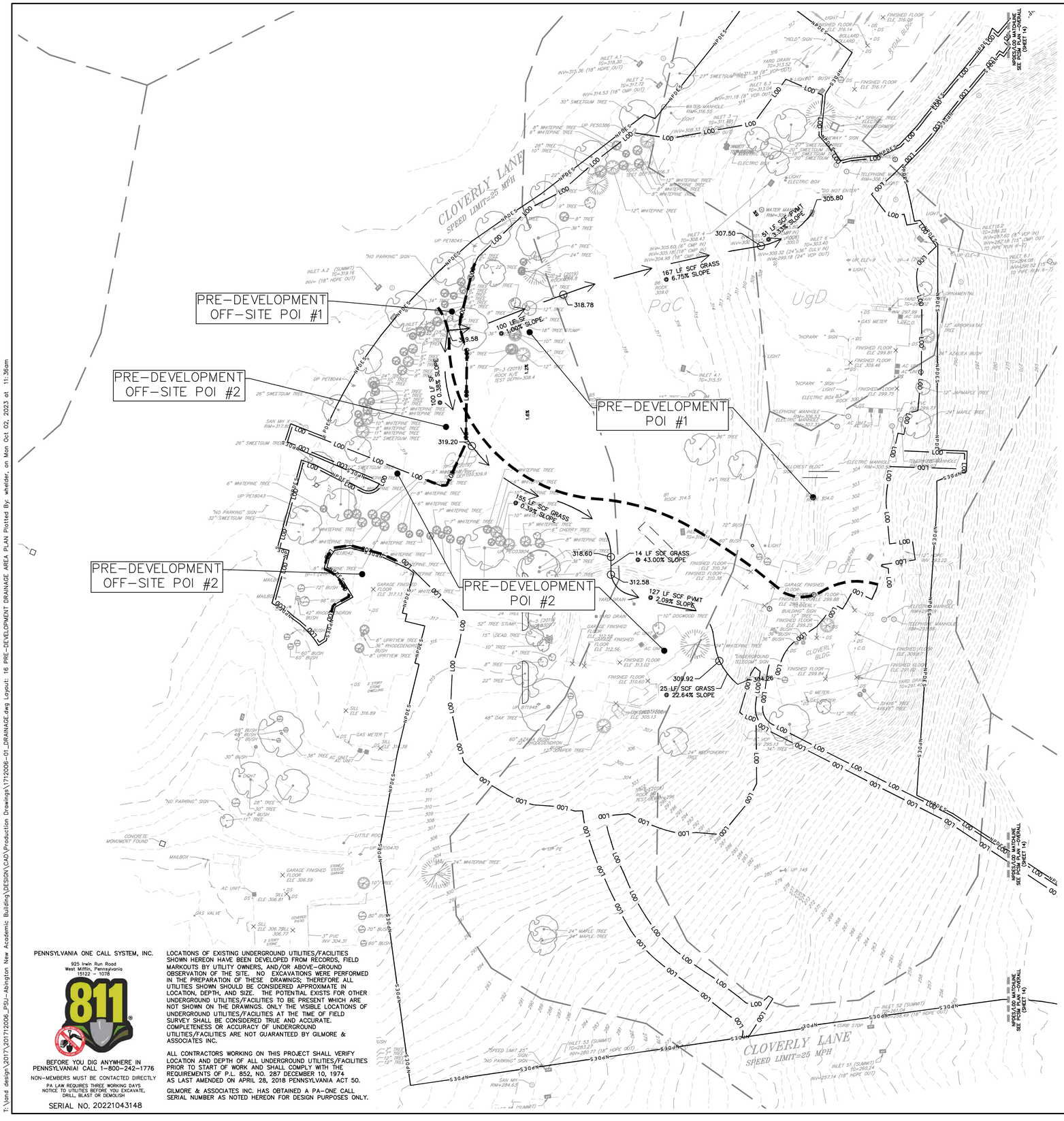
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

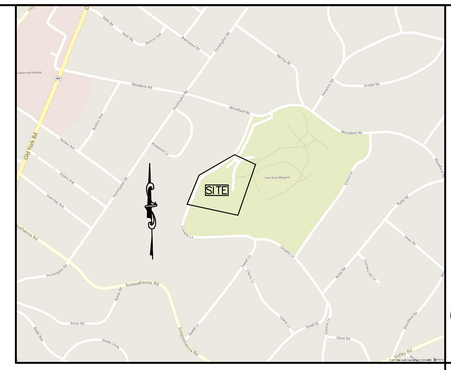
DATE: 06/06/22 | SCALE: 1"=400'

DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 15 OF 40

T:\land design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_PCSM_PLAN.dwg Layout: 15 PCSM PLAN – RECORD PLAN 4 OF 4 Plotted By: wheider, on Mon Oct 02, 2023 at 2:30pm





LOCATION MAP

SCALE 800 00 800 1600 IN FEET

SCALE: 1"=800'

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PRE-DEVELOPMENT DRAINAGE AREA PLAN

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80 SCALE IN FEET 1"=40'

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SERIAL NO. 20221043148

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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ---

TAX MAP PARCEL No.: 30-00-09792-00-6

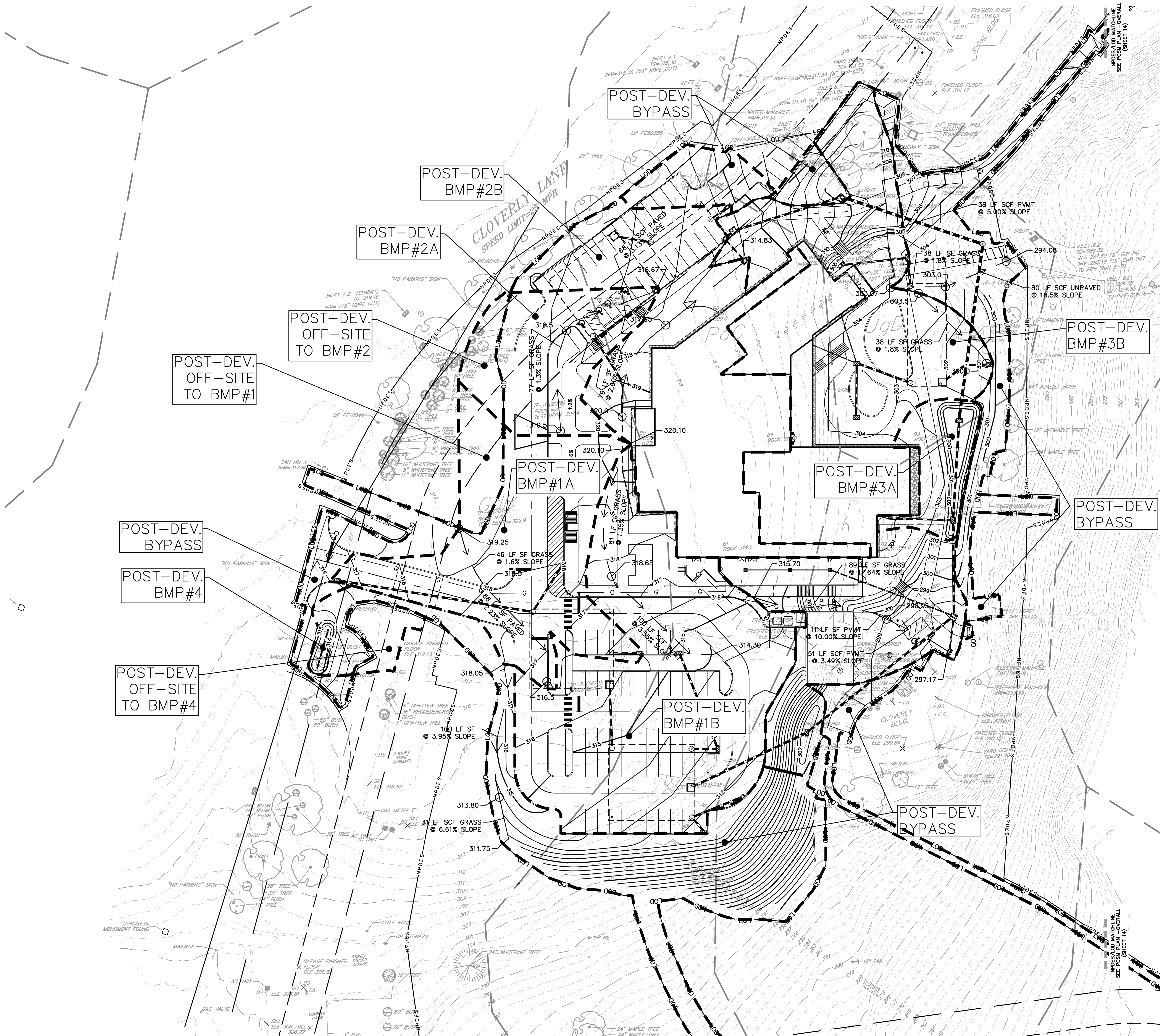
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 16 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_DRAINAGE.dwg Layout: 16 PRE-DEVELOPMENT DRAINAGE AREA Plotted By: whelder, on Mon Oct 02, 2023 at 11:36am



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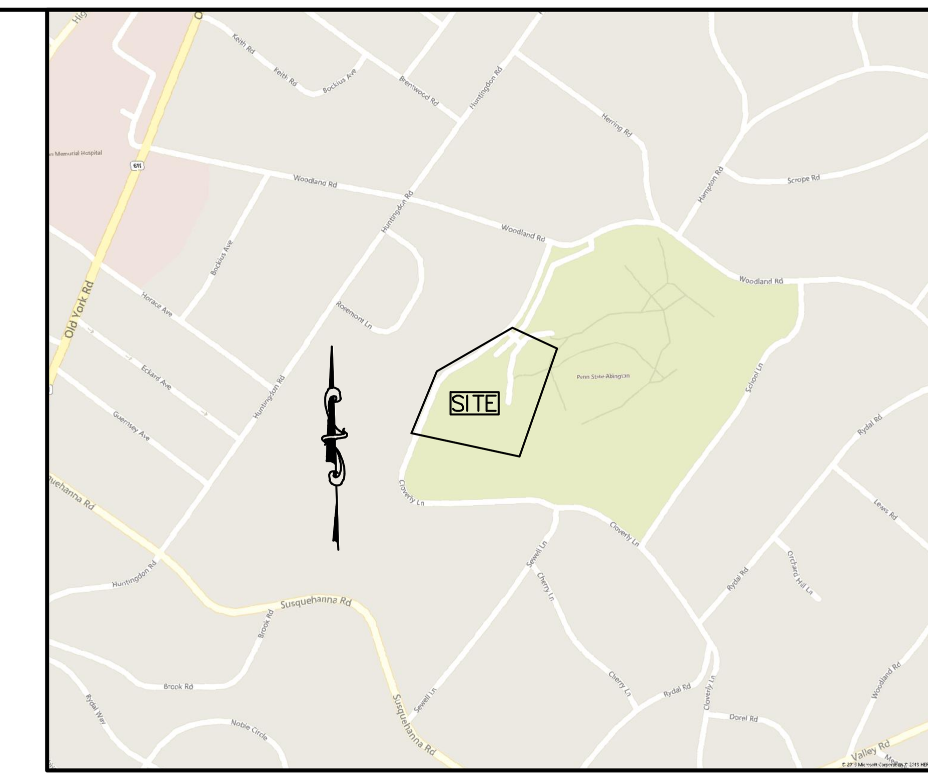

LOCATION MAP

800 00 800 1600
SCALE IN FEET
SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B).

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON–SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED).

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

   BMP 1B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=304.00';

   BMP 2A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=311.83';

   BMP 2B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE – NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=310.00';

   BMP 3A – RAIN GARDEN WITH AMENDED SOIL TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW CONCRETE THAT DISCHARGE TOWARD THE REAR OF THE PROPOSED BUILDING;

   BMP 3B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 30" HDPE PIPE – NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=294.00';

   BMP 4 – RAIN GARDEN WITH AMENDED SOIL TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE.

G&A LEGEND

- RIGHT–OF–WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- TIME OF CONCENTRATION PATH

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
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PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60'–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80
SCALE IN FEET
1"=40'

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ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST–DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

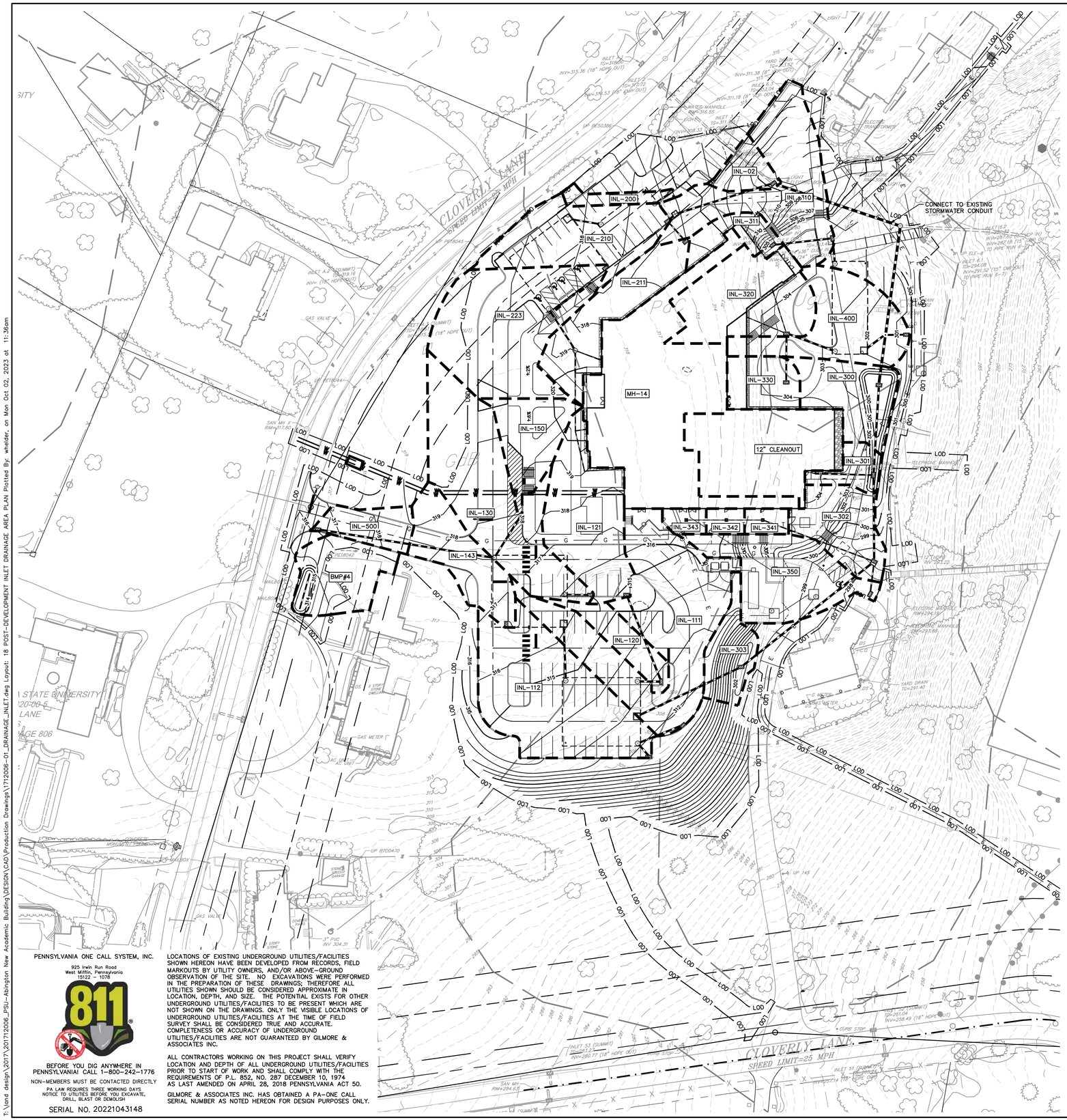
MUNICIPAL FILE No.: ––––

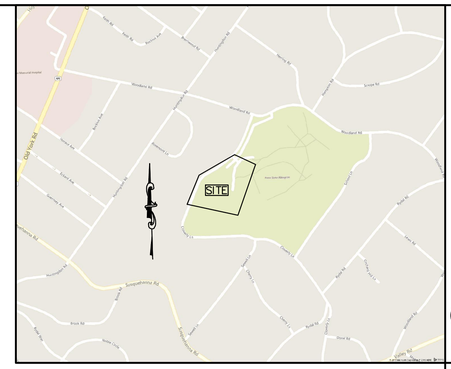
TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 17 OF 40

T:\land design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_DRAINAGE.dwg Layout: 17 POST–DEVELOPMENT DRAINAGE AREA PLAN Plotted By: whelder, on Mon Oct 02, 2023 at 11:36am





LOCATION MAP

SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B).

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED).

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

   BMP 1B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=304.00';

   BMP 2A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" HDPE PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=311.83';

   BMP 2B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 18" HDPE PIPE – NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=310.00';

   BMP 3A – RAIN GARDEN WITH AMENDED SOIL TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW CONCRETE THAT DISCHARGE TOWARD THE REAR OF THE PROPOSED BUILDING;

   BMP 3B – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 30" HDPE PIPE – NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=294.00';

   BMP 4 – RAIN GARDEN WITH AMENDED SOIL TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1"=40'

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60'–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA–ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT INLET DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: – – – –

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 18 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_DRAINAGE_INLET.dwg Layout: 18 POST-DEVELOPMENT INLET DRAINAGE AREA PLAN Plotted By: whelder, on Mon Oct 02, 2023 at 11:36am

MONTGOMERY COUNTY CONSERVATION DISTRICT STANDARD EROSION & SEDIMENT CONTROL NOTES:

1. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.
2. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
3. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE PERMITTEE AND COPERMITTEE SHALL ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES AND SHALL INCLUDE COMPLETE, WRITTEN LOGS OF THOSE INSPECTIONS WHICH SHALL BE MADE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGARDING, RESEEDING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.
4. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
5. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
6. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE APPROPRIATE CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
7. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
8. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
10. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE PROJECT SITE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE BMP'S. EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S.
11. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
12. THE PERMITTEE OR CO-PERMITTEE SHALL CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AT LEAST SEVEN DAYS BEFORE CONSTRUCTION IS TO BEGIN TO DETERMINE IF A PRECONSTRUCTION CONFERENCE IS REQUIRED. THE PERMITTEE, CO-PERMITTEE, AND OTHERS UNDERTAKING THE EARTH DISTURBANCE ACTIVITY MUST ATTEND A PRECONSTRUCTION CONFERENCE WHEN REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE PERMITTEE OR CO-PERMITTEE MUST BRING A COPY OF THEIR NPDES PERMIT, A COPY OF THE STAMPED PLAN FROM THE CONSERVATION DISTRICT, AND ALL ASSOCIATED DEPARTMENT APPROVALS/PERMITS WHICH MUST BE AVAILABLE AT THE CONFERENCE UPON REQUEST. ALSO, AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.
13. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
14. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE ARE DESCRIBED IN EACH STAGE.
15. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE OR SHOULD A TEMPORARY CESSATION OF ACTIVITY OCCUR WHICH WILL LAST LONGER THAN 4 DAYS, 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 ONE 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 ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
16. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
17. PERMITTEES AND CO-PERMITTEES ARE RESPONSIBLE FOR ENSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF BMPS IDENTIFIED IN THE PCSM PLAN PRIOR TO THE SUBMISSION OF THE NOTICE OF TERMINATION FOR THIS PERMIT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE BMPS IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN. THE INSTALLATION SCHEDULE OF PCSM BMPS AND MAINTENANCE REQUIREMENTS CONTAINED WITHIN THE APPROVED PCSM PLAN MUST BE FOLLOWED; AND FAILURE TO COMPLY WITH THE INSTALLATION SCHEDULE IS A VIOLATION OF THIS PERMIT, THE CLEAN STREAMS LAW, AND THE CLEAN WATER ACT.

SEDIMENT BASINS

1. APPROVAL OF THE USE OF SKIMMERS DOES NOT APPROVE USE OF ANY SKIMMERS IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.
2. BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.
3. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION SHALL BE DONE BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED.
4. SEDIMENT BASINS MUST BE STRUCTURALLY SOUND AND PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.

OTHER BMP'S

1. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
2. AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.

MATERIAL RECYCLING/DISPOSAL REQUIREMENTS:

1. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.
2. THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
3. THE FOLLOWING MATERIALS ARE ANTICIPATED TO BE CONSTRUCTION WASTE: ASPHALT PAVING, CONCRETE PAVING/SPOILS, STEEL/IRON PIPING, AND PLASTIC PIPING.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.
   1.1. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE IN DETERMINING THAT FILL IS CLEAN.
   1.2. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.
2. FOR PROJECTS THAT REQUIRE **NPDES PERMIT,** LANDOWNER OR HIS DESIGNATED REPRESENTATIVE SHALL MAINTAIN, AND MAKE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT, COMPLETE, WRITTEN INSPECTION LOGS OF THE INSPECTION AND MAINTENANCE OF ALL EROSION-SEDIMENT CONTROL BMPS.
3. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE NOTED UNDER TEMPORARY AND PERMANENT STABILIZATION.
4. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAYS MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
5. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF MONTGOMERY COUNTY CONSERVATION DISTRICT. ANY PUMPED WATER MUST BE DIRECTED TO A FILTER BAG DEVICE DISCHARGING OVER NON-DISTURBED AREAS.
6. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
   6.1. THE APPLICANT AND HIS DESIGNATED REPRESENTATIVE ARE RESPONSIBLE FOR INSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF STORMWATER BMPs IDENTIFIED IN THESE PLANS (IF ANY) PRIOR TO SUBMISSION OF A 'NOTICE OF TERMINATION' FOR THE PROJECT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE STORMWATER BMPs IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN.
   6.2. THE INSTALLATION SCHEDULE AND MAINTENANCE REQUIREMENTS FOR ANY AND ALL IDENTIFIED STORMWATER MANAGEMENT BMPs INCLUDED IN THESE PLANS MUST BE FOLLOWED. FAILURE TO COMPLY WITH PLAN SPECIFICATIONS IS A VIOLATION OF THE CLEAN STREAM LAW AND CLEAN WATER ACT.
7. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. REPLACED SOILS SHALL BE SEEDED AND MULCHED IMMEDIATELY.
8. UPON COMPLETION OR ANY TEMPORARY CESSATION LONGER THAN 4 DAYS OF THE EARTH DISTURBANCE ACTIVITY, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO. 363-2134-008, MARCH 2012, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMPS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BMPS ARE OPERATIONAL.
9. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

MAINTENANCE OF FACILITIES:

1. SILT FENCE SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS 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 E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
4. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
5. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
6. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
7. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
8. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES.

TYPICAL UTILITY TRENCHING NOTES:

1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION, AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM WORK CREWS FOR CLEARING-GRUBBING AND SITE RESTORATION-STABILIZATION OPERATIONS.
3. PLACE FILTER FENCE OR COMPOST SOCK DOWN-SLOPE OF THE PROPOSED TRENCHING ACTIVITIES. PLACE EXCAVATED MATERIALS ON THE UP-SLOPE SIDE OF THE TRENCH.
4. TOPSOIL SHALL BE REMOVED AND STOCKPILED SEPARATELY FROM BACKFILL SOILS. TOPSOIL SHALL BE REPLACED UPON FINAL GRADING FOR STABILIZATION.
5. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
6. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
7. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND STABILIZED IMMEDIATELY IN ACCORDANCE WITH 'SEEDING & MULCHING SCHEDULE'.
8. REMOVE FILTER FENCE AND OTHER ESC MEASURES AFTER AREA IS STABILIZED. ANY AREAS DISTURBED DURING THE REMOVAL OF ESC MEASURES SHALL BE RESTABILIZED IMMEDIATELY.

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)

2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE AND SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE – 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER – 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.

4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS

THE PERMITTEE / CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RUNOFF EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOTICE OF TERMINATION BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

1. A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP IMPLEMENTATION AND MAINTENANCE, AND COMPLIANCE ACTIONS; AND
2. THE DATE, TIME, NAME, AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

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

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

REDUCTION, LOSS, OR FAILURE OF THE BMPS

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

TERMINATION OF COVERAGE

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE OF THE FACILITY MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE N.O.T. MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE N.O.T., THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE N.O.T. IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROJECT SPECIFIC INFORMATION
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– PROJECT SPECIFIC INFORMATION
	MINIMIZE SOIL COMPACTION	– PROJECT SPECIFIC INFORMATION
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THERE ARE NO STREAMS OR WETLANDS ON THE PROPERTY; THIS REQUIREMENT DOES NOT APPLY.
ANTI-DEGRADATION ANALYSIS		– DOES NOT APPLY. CHAPTER 93 = ---, MF THEREFORE IT IS NOT SPECIAL PROTECTION WATERSHED.

PCSM SHORT AND LONG-TERM OPERATION AND MAINTENANCE REQUIREMENTS:

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED A WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE DURING THE SHORT TERM FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMP'S AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER 102.7(B)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON, INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION, OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

BMPs SHOULD BE INSPECTED AT LEAST ONE (1) TIME PER YEAR AND AFTER RUNOFF EVENTS.

THE PCSM BMPs MUST BE INSPECTED AND MAINTAINED AS NOTED UNDER THE INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN NOTES, AND THE INDIVIDUAL OPERATION AND MAINTENANCE NOTES AS INDICATED ON THE PLANS. THIS INCLUDES REPAIRS AND REPLACEMENT IF REQUIRED TO ENSURE THEY FUNCTION/OPERATE PROPERLY.

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE COMPLETED AND MADE AVAILABLE FOR DEP OR BCCD STAFF FOR REVIEW.

LONG TERM – P.C.S.M. BMP INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN

BMP TYPE	MAINTENANCE ACTIVITY	SCHEDULE
BMP 5.6.2 MINIMZE SOIL COMPACTION	MINIMUM SOIL COMPACTION AREAS MAY NEED SOIL AMENDMENT SINCE COMPACTION MAY OCCUR BY USE AND/OR SETTLING. VEGETATION SHOULD BE MAINTAINED IN GOOD CONDITION AND ANY BARE SPOTS RE-VEGETATED AS SOON AS POSSIBLE. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE MINIMUM SOIL COMPACTION AREAS. MOW AS APPROPRIATE. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS AND REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.3 – SUBSURFACE INFILTRATION BASIN	BI-ANNUALLY (AFTER FIRST YEAR OF INSPECTING EACH EVENT) AND AFTER LARGE STORM EVENTS (0.5-INCHES OR GREATER), INSPECT ACCESS MANHOLES, INFLOW AND OUTFLOW POINTS INCLUDING PIPES, OUTLET STRUCTURE, INLETS AND MANHOLES, AND THE DISCHARGE/DAYLIGHT POINT FROM THE BASIN. IDENTIFY AND REPORT SEDIMENT AND DEBRIS ACCUMULATION, SYSTEM BACK UP, AND CHANGES IN FLOW RATES. DETERMINE IF MAINTENANCE IS REQUIRED. IF REQUIRED, USE A VACUUM PUMP TRUCK TO EVACUATE DEBRIS FROM INFLOW AND OUTFLOW POINTS. FLUSH THE SYSTEM WITH CLEAN WATER FORCING DEBRIS FROM THE SYSTEM, TAKING CARE TO AVOID EXTREME DIRECT WATER PRESSURE. SUBSURFACE INFILTRATION BASINS/BMPs ARE DESIGNED TO DE-WATER IN 72 HOURS, IF INFILTRATION BASINS/BMPs DO NOT DE-WATER WITHIN 72 HOURS PERFORM REMEDIATION MEASURES TO CORRECT THE PROBLEM. CLEAR DEBRIS FROM OUTLET STRUCTURE AND ASSOCIATED INLET AND OUTLET PIPES. IF INFILTRATION BASIN CONTINUES TO FAIL OVERTIME BY NOT DRAINING PROPERLY, COMPLETE REPLACEMENT OF SYSTEM MAY BE REQUIRED. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS FOR STORMWATER BMP INSPECTION REQUIREMENTS. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.5 – RAIN GARDEN	BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC. DURING PERIODS OF EXTENDED DROUGHT. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON. MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY 2 TO 3 YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.BIORETENTION AREAS MAY REQUIRE WATERING. TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY. AFTER EACH RAINFALL EVENT OF 0.5-IN OR GREATER DURING THE FIRST YEAR
BMP 6.7.2 LANDSCAPE RESTORATION	VISUALLY INSPECT OF TREES TO DETERMINE THE HEALTH OF TRUNK, BRANCHES, AND LEAVES/VEGETATION. MONITOR GROWTH AND REMOVE WEED GROWTH AS NECESSARY. DEAD TREES SHALL BE REPLACED WITH A TREE OF THE SAME SPECIES NO LATER THAN THE NEXT PLANTING TIME PER THE OPERATION AND MAINTENANCE PLANTING DAY REQUIREMENTS. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS REPAIRS AND REPLACEMENTS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.

*THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PROPOSED BMPs.

GENERAL PCSM PLANNING AND DESIGN
§102.8(B)

THE FOLLOWING MEASURES WERE TAKEN TO PRESERVE THE INTEGRITY OF STREAM CHANNELS AND TO MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM:
- DIRECT RUNOFF FROM IMPERVIOUS SURFACES TO BMPs.
- USE NATIVE SPECIES, WHICH REQUIRE LESS FERTILIZATION AND CHEMICAL APPLICATION THAN NON-NATIVE SPECIES.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO PREVENT AN INCREASE IN THE RATE OF STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS WHICH WILL CONTROL RUNOFF RATES.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE ANY INCREASE IN STORM WATER RUNOFF VOLUME:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, WHICH WILL CONTROL RUNOFF VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE IMPERVIOUS AREAS:
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- PROPOSED BMPs SUCH AS THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, RE-VEGETATION OF DISTURBED AREAS, AND WATER QUALITY FILTERS WILL TREAT RUNOFF PRIOR TO LEAVING THE SITE.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE LAND CLEARING AND GRADING:
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.
- AREAS NOT REQUIRED TO BE CLEARED OR GRADED SHALL BE MAINTAINED IN EXISTING CONDITIONS.

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- USE TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS.
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.

THE FOLLOWING MEASURES WERE TAKEN TO UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS TO CONTROL RUNOFF RATES AND VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

RECEIVING SURFACE WATERS
§102.8(F)(5)

THE SITE RUNOFF DRAINS TO A TRIBUTARY TO THE MEADOWBROOK CREEK WHICH HAS A CHAPTER 93 CLASSIFICATION OF TROUT STOCKING FISHES, MIGRATORY FISHES (TSF,MF).

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM NOTES

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

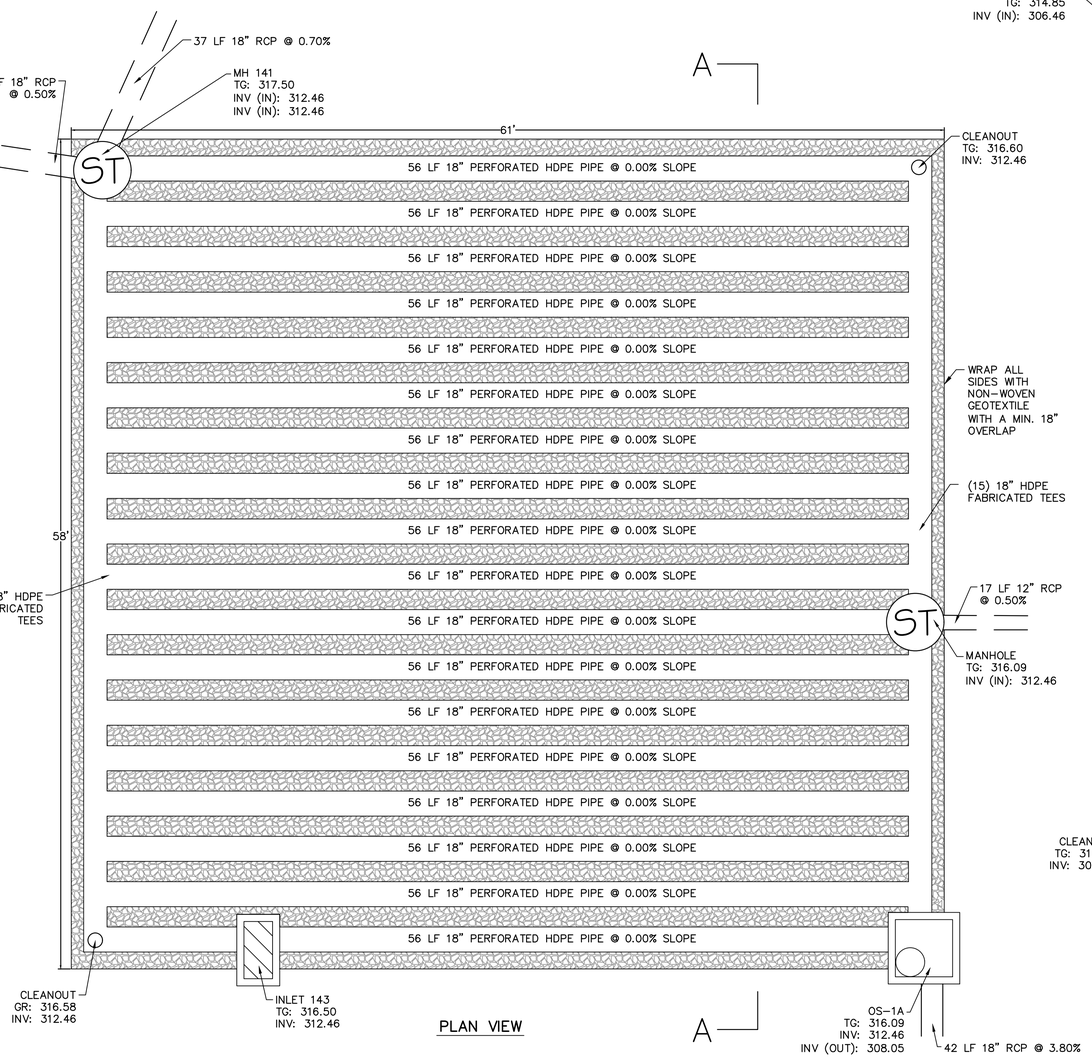
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

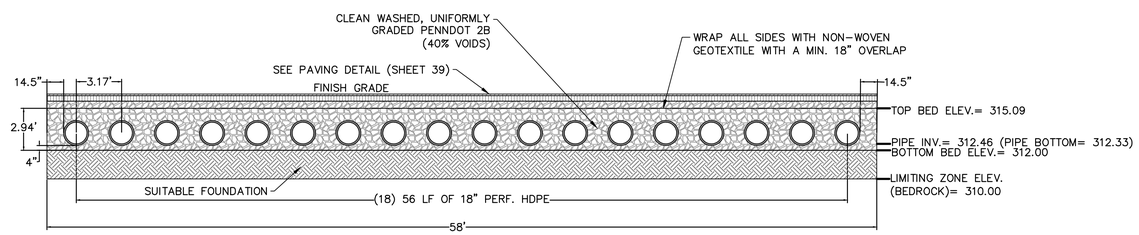
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: N.T.S.
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 19 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 19 PCSM NOTES Plotted By: whelder, on Mon Oct 02, 2023 at 11:37am



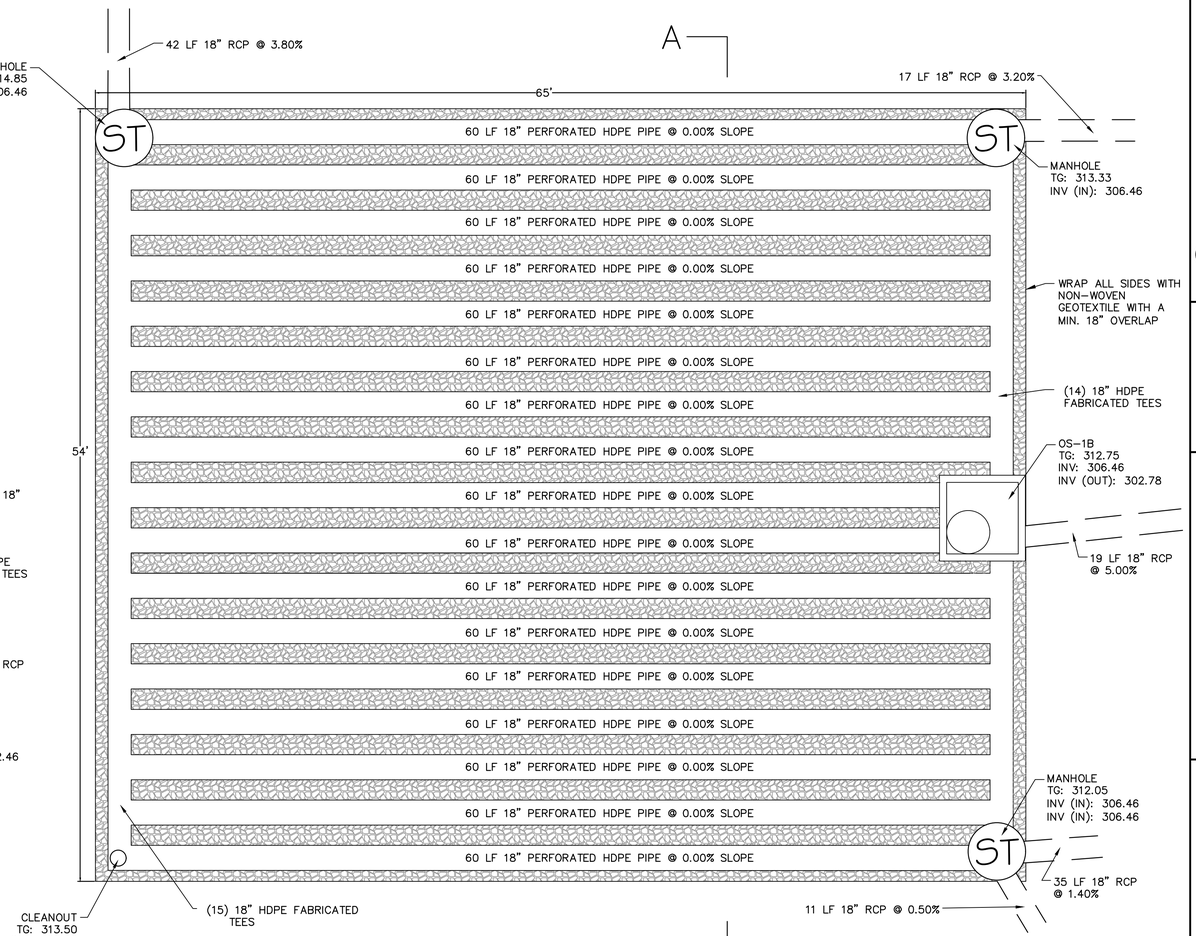
PLAN VIEW



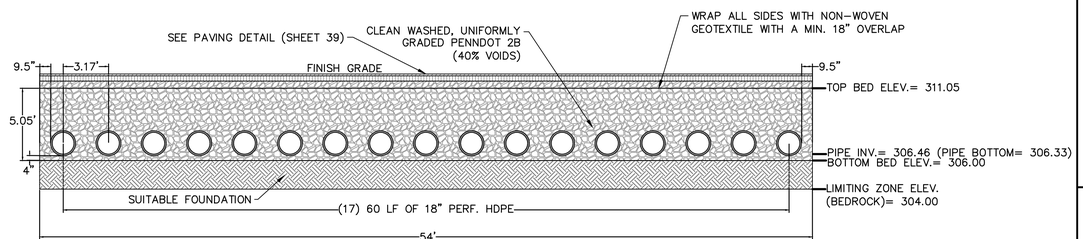
CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1A DETAIL

SCALE: 1"=5'



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1B DETAIL

SCALE: 1"=5'

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 20 OF 40

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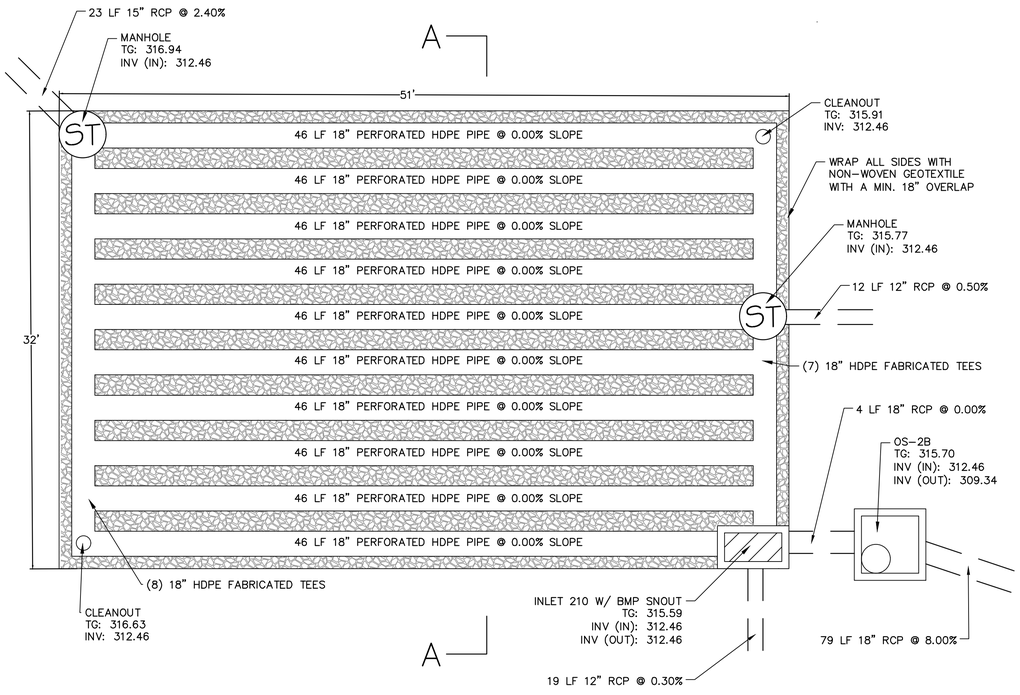
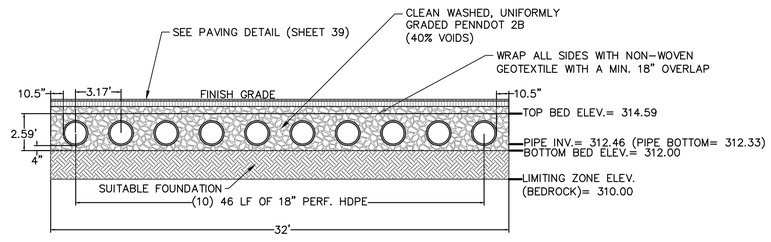


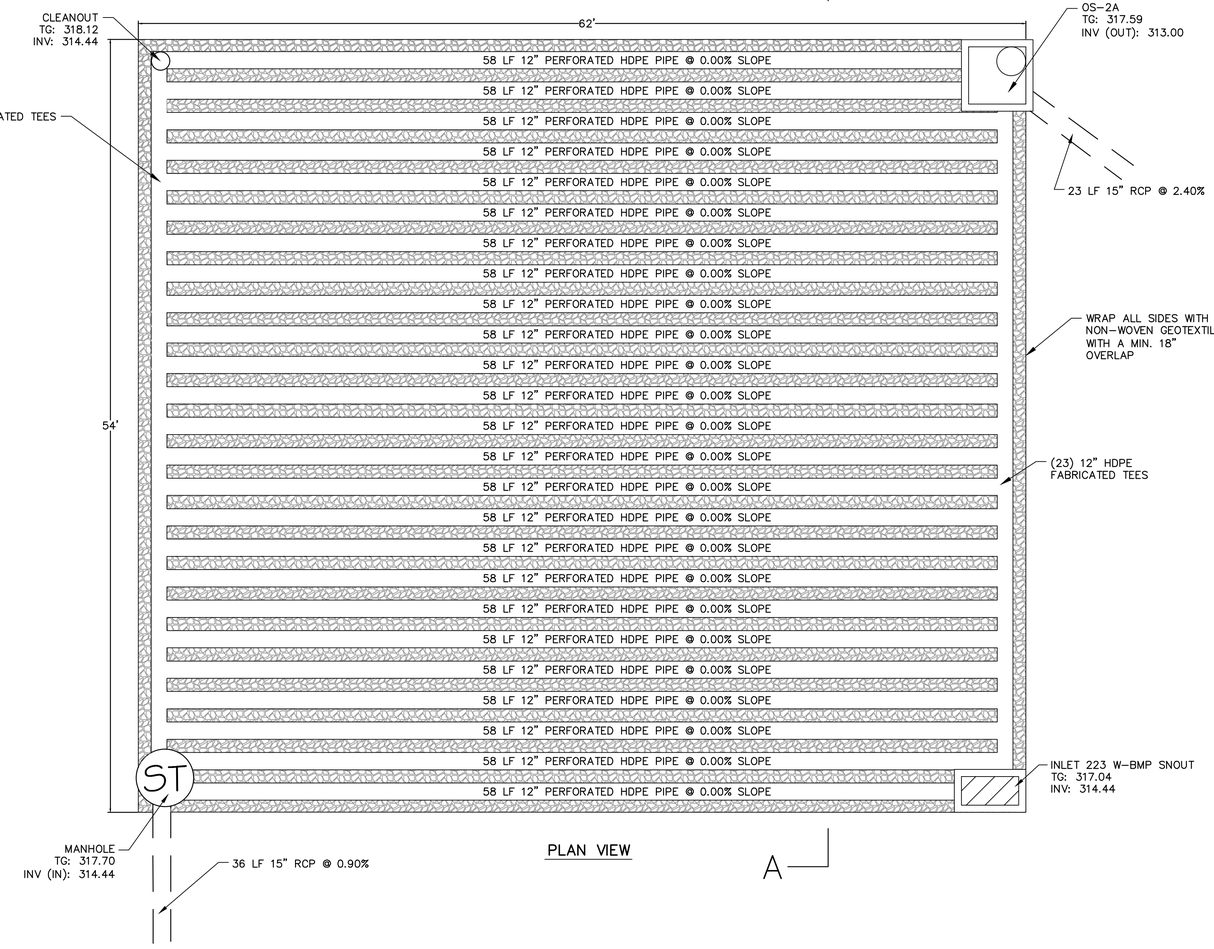
PLAN VIEW



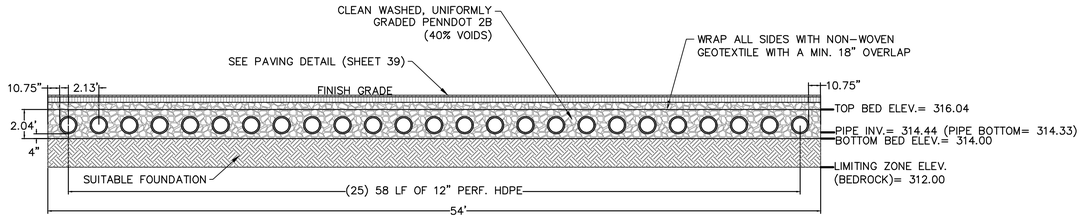
CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 2B DETAIL

SCALE: 1"=5'



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 2A DETAIL

SCALE: 1"=5'

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION	REV.
JM	10/02/23	REVISED PER TWP ENGINEER LETTER	4
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS	3
DAW	09/09/22	75% CD SUBMISSION	2
DAW	07/20/22	50% CD SUBMISSION	1

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0546

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 21 OF 40

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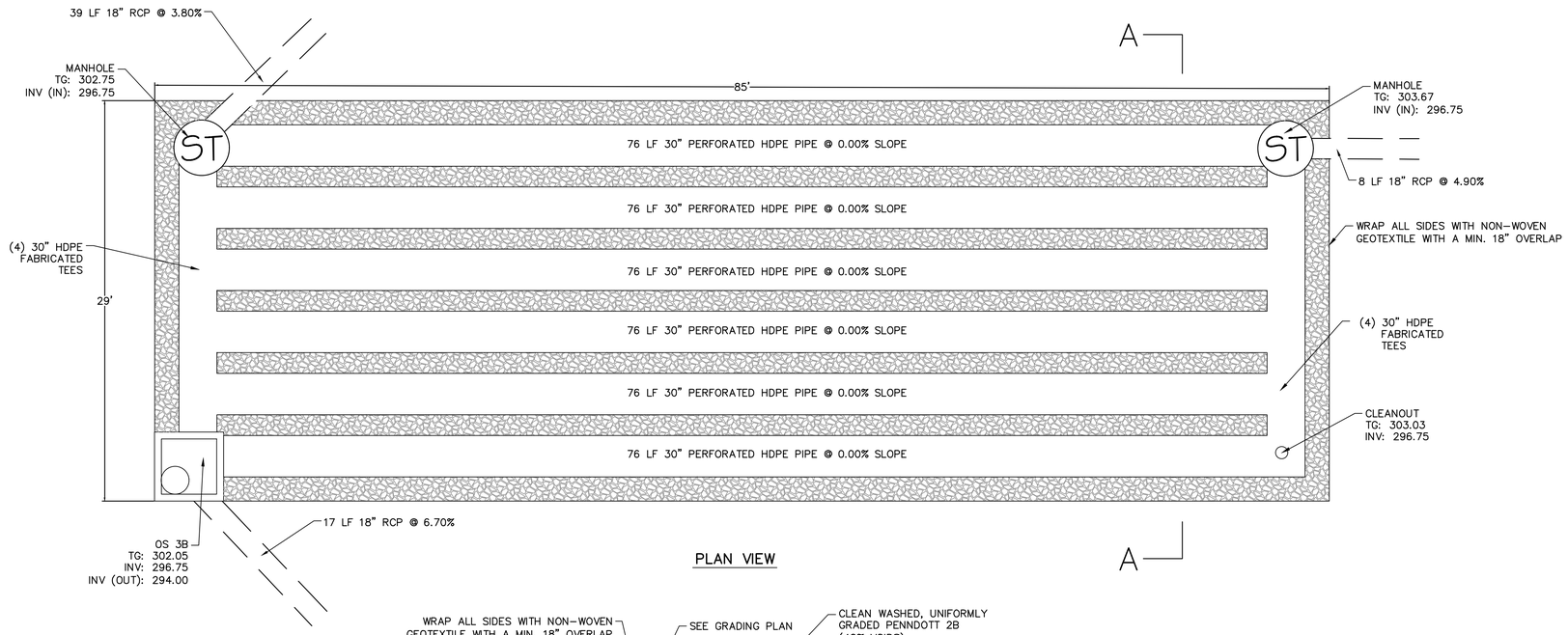
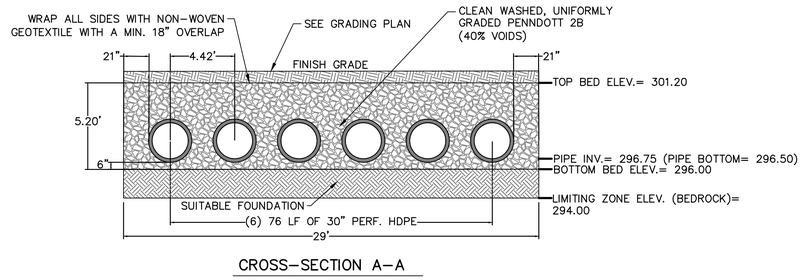


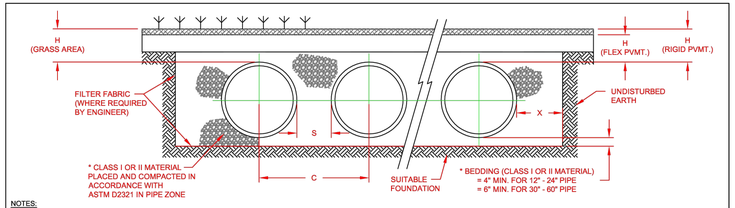
PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 3B DETAIL

SCALE: 1"=5'



NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	NOMINAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29.0" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	17.0" (432mm)	38.0" (965mm)	9" (229mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	14.0" (356mm)	41.5" (1054mm)	10" (254mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	18" (457mm)	53.0" (1346mm)	18" (457mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	22" (559mm)	63.0" (1600mm)	18" (457mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	24" (610mm)	72.0" (1829mm)	18" (457mm)	12" (305mm)	24" (610mm)
48" (1200mm)	54" (1372mm)	25" (635mm)	78.5" (1994mm)	18" (457mm)	12" (305mm)	24" (610mm)
60" (1500mm)	67" (1702mm)	24" (610mm)	90" (2286mm)	18" (457mm)	12" (305mm)	24" (610mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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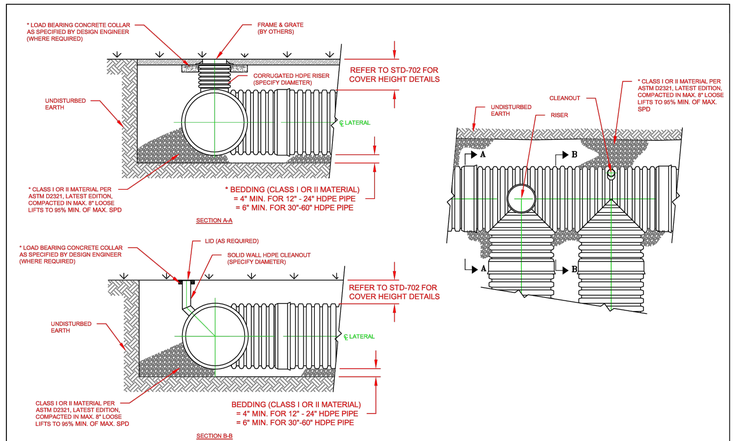
RETENTION-DETENTION SYSTEM (CROSS-SECTION)		ADS Advanced Drainage Systems, Inc. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026	DRAWN BY: AMM
DRAWING NUMBER:	STD-702		DATE: 07.25.06
			SCALE: NTS
			SHEET OF



* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS

* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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RETENTION-DETENTION SYSTEM (INSIDE AND CLEANOUT)		ADS Advanced Drainage Systems, Inc. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026	DRAWN BY: CRM
DRAWING NUMBER:	STD-703		DATE: 10/23/06
			SCALE: NTS
			SHEET OF

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 22 OF 40

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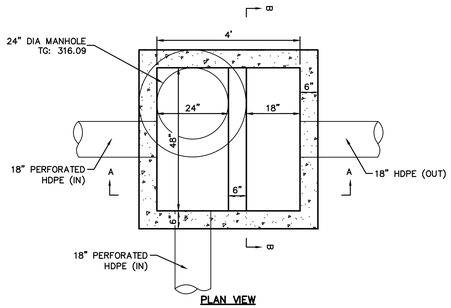
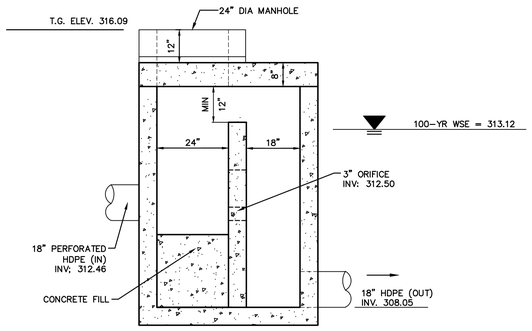
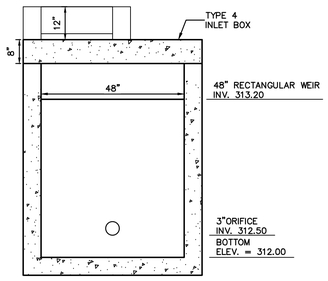


PLAN VIEW



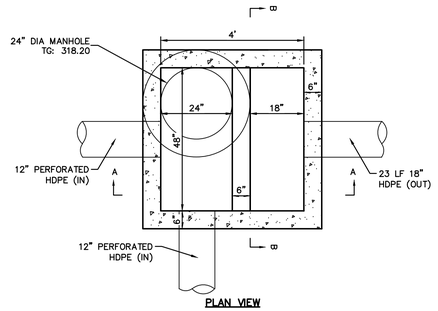
SECTION A–A



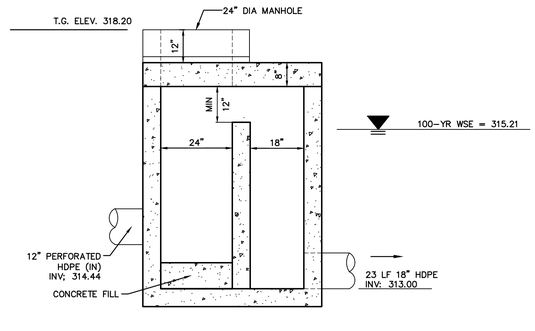
SECTION B–B

OS–1A OUTLET STRUCTURE DETAIL

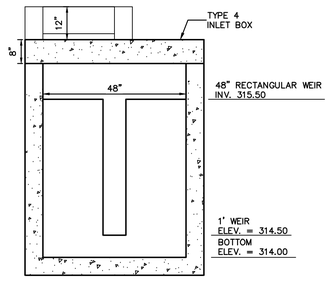
NOT TO SCALE



PLAN VIEW



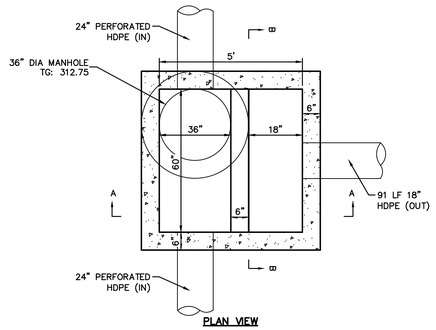
SECTION A–A



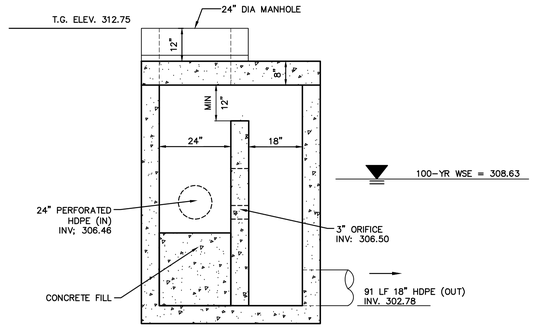
SECTION B–B

OS–2A OUTLET STRUCTURE DETAIL

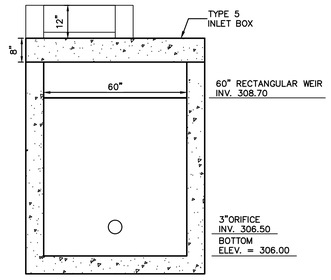
NOT TO SCALE



PLAN VIEW



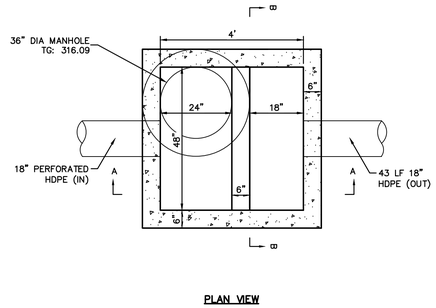
SECTION A–A



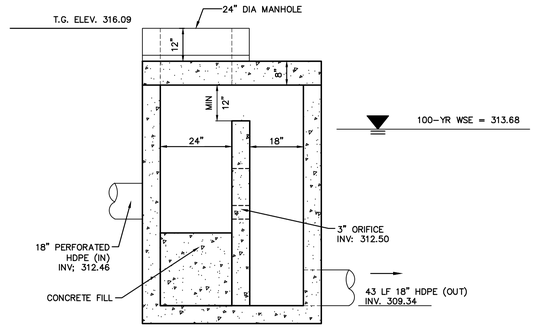
SECTION B–B

OS–1B OUTLET STRUCTURE DETAIL

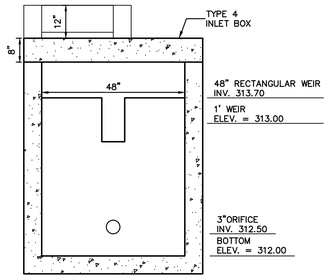
NOT TO SCALE



PLAN VIEW



SECTION A–A



SECTION B–B

OS–2B OUTLET STRUCTURE DETAIL

NOT TO SCALE

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

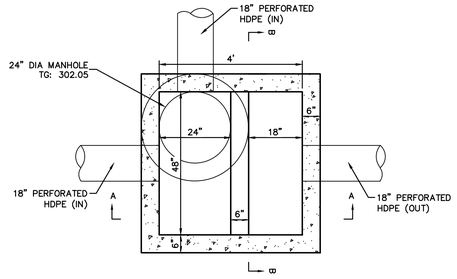
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

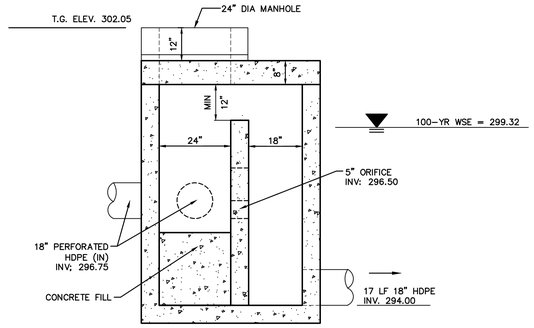
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

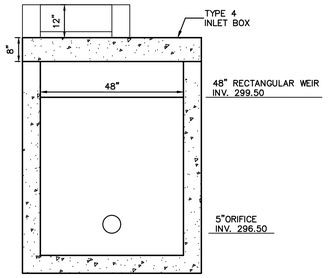
SHEET NO.: 23 OF 40



PLAN VIEW



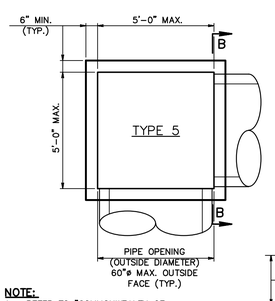
SECTION A–A

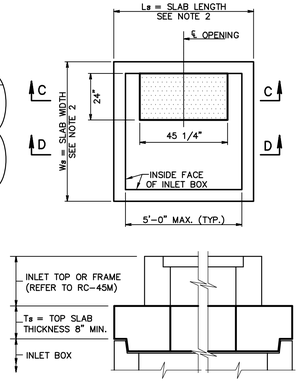


SECTION B–B

OS–3B OUTLET STRUCTURE DETAIL

NOT TO SCALE



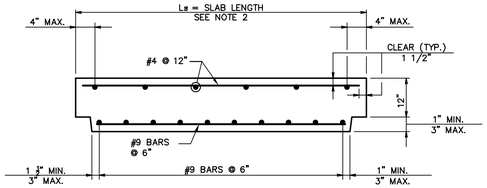


SECTION C–C w/ SHIPLAP JOINT

NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN

NOTE:

1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.

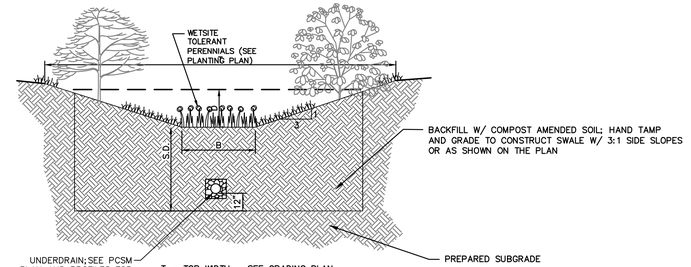


SECTION D–D w/ SHIPLAP JOINT

(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

PRECAST CONCRETE INLET BOX–TYPE 5

NOT TO SCALE

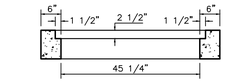


T = TOP WIDTH = SEE GRADING PLAN
B = BOTTOM WIDTH = SEE GRADING PLAN
D = WATER DEPTH = SEE STORMWATER REPORT
S.D. = AMENDED SOIL STORAGE DEPTH SEE SWM RPT.

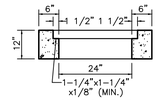
NOTE: VEGETATED SWALE SHALL BE CONSTRUCTED WITH A 12" DEPTH AND 2'V:1'H SIDE SLOPES

RAINGARDEN AND VEGETATED SWALE DETAIL

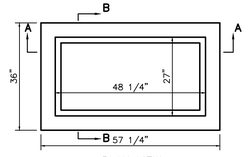
NOT TO SCALE



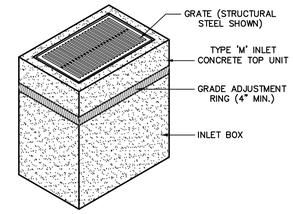
SECTION A–A



SECTION B–B



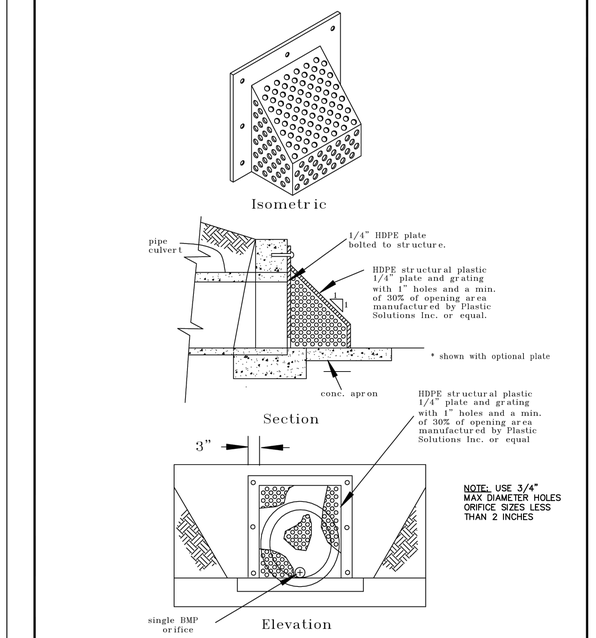
PLAN VIEW



NOTE:
REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET CONSTRUCTION.

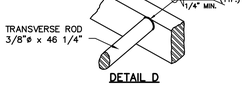
TYPE 'M' INLET DETAIL

NOT TO SCALE

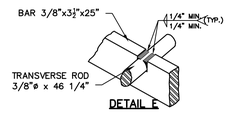


BMP TRASH RACK

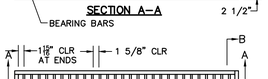
PLASTIC SOLUTIONS INC.
P.O. Box 4386
Winchester VA 22604
877-877-5727
www.plastic-solution.com



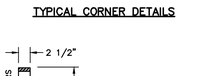
DETAIL D



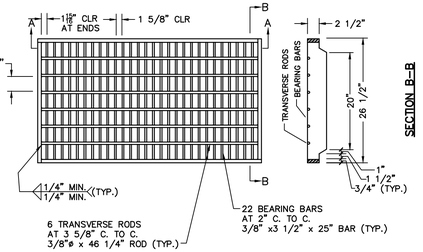
DETAIL E



SECTION A–A



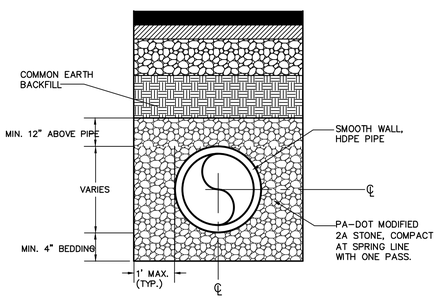
TYPICAL CORNER DETAILS



SECTION B–B

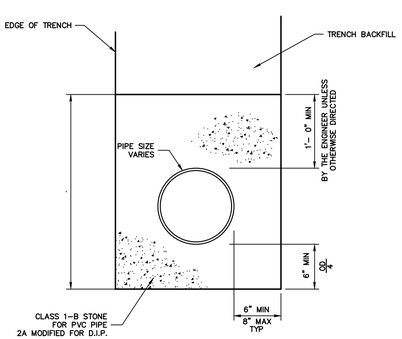
STRUCTURAL STEEL GRATE BICYCLE SAFE

NOT TO SCALE



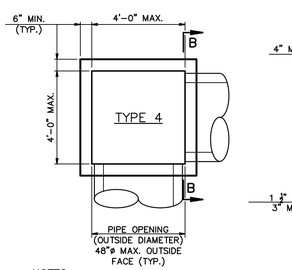
HDPE BACKFILL DETAIL

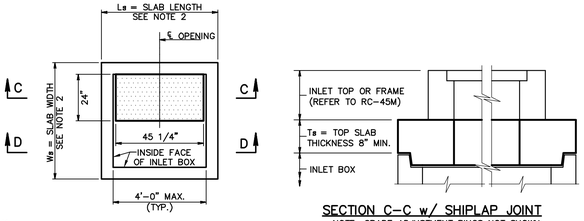
NOT TO SCALE



STANDARD PIPE BEDDING

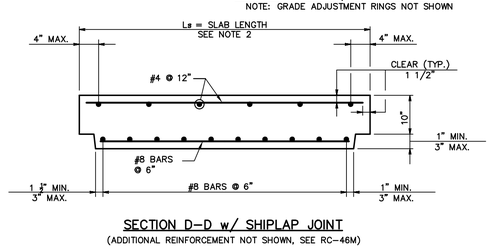
NOT TO SCALE





SECTION C–C w/ SHIPLAP JOINT

NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN



SECTION D–D w/ SHIPLAP JOINT

(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

NOTES:

1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.

PRECAST CONCRETE INLET BOX–TYPE 4

NOT TO SCALE

BOX SHALL BE PROVIDED WITH OVER–SIZED FRAME AND GRATE TO MAXIMIZE INLET CAPACITY. OMIT TOP SLAB TO ACCOMMODATE FRAME.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3555 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION	REV.
JM	10/02/23	REVISED PER TWP ENGINEER LETTER	4
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS	3
DAW	09/09/22	75% CD SUBMISSION	2
DAW	07/20/22	50% CD SUBMISSION	1

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 5

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814–865–0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

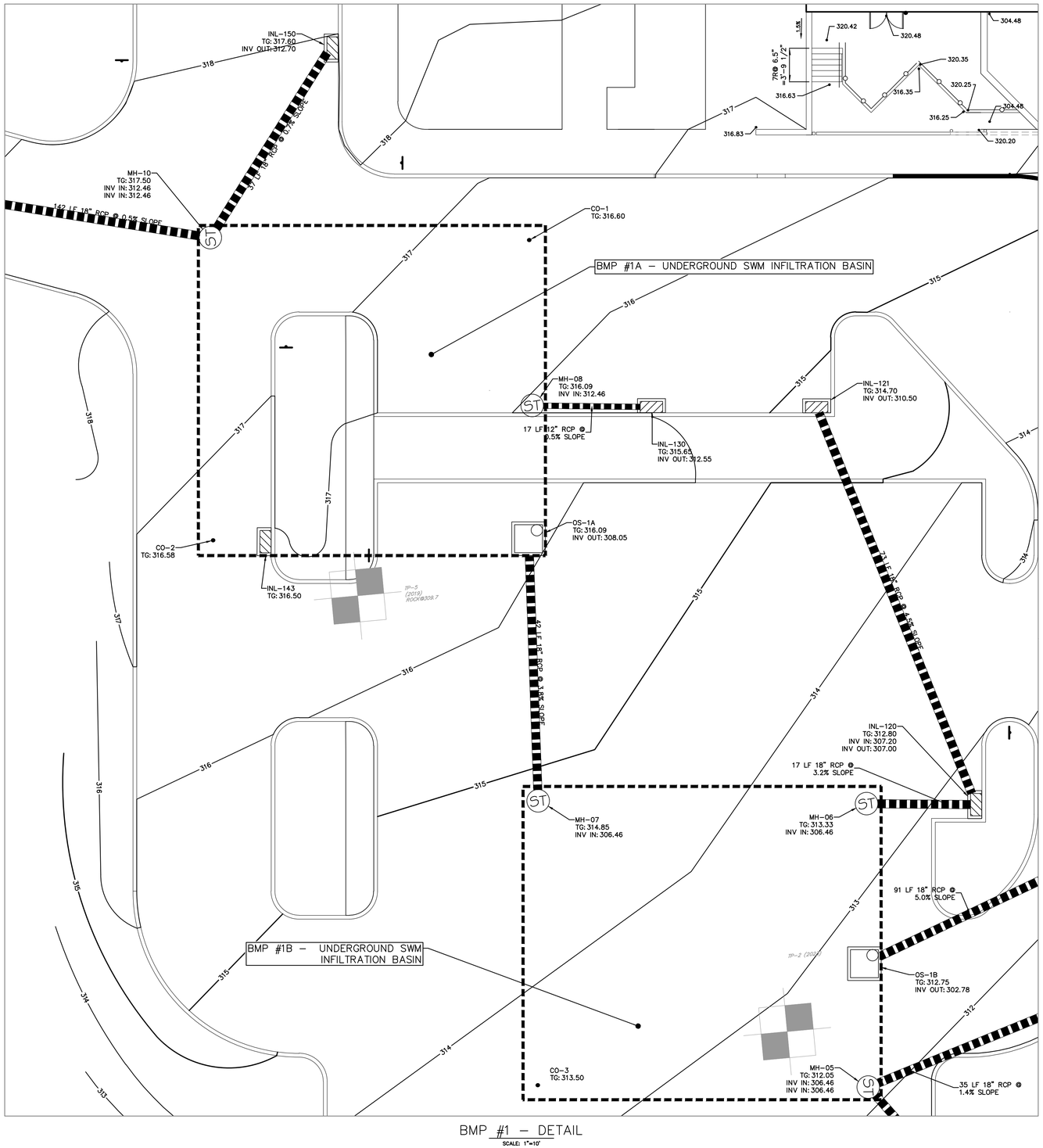
SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: JM

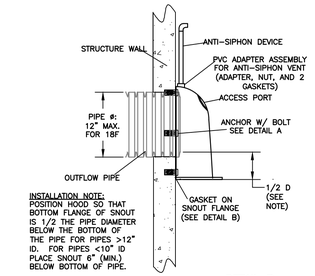
SHEET NO.: 24 OF 40

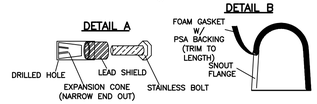
T:\and design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 24 PCSM DETAILS – 5 Plotted By: whelder, on Mon Oct 02, 2023 at 12:46pm

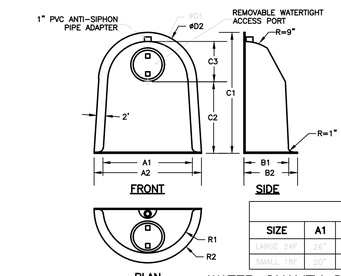


BMP #1 – DETAIL
SCALE: 1"=10'

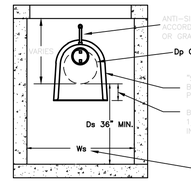
T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS - 6.dwg Layout: 25 PCSM DETAILS - 6 Plotted By: whelder, on Mon Oct 02, 2023 at 11:38am







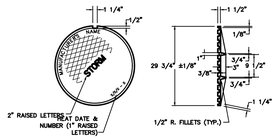
DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT



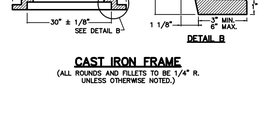
1. SELECT THE SNOUT OIL & DEBRIS STOP OF SIZE AND CONFIGURATION TO FIT APPLICATION. SEE TABLE.
2. CENTER THE SNOUT DIRECTLY OVER THE EXIT PIPE SO THAT THE ENTIRE PIPE IS COVERED AND SO THAT THE LOWER EDGE OF THE HOOD IS AT LEAST 1/2 THE PIPE DIAMETER BELOW THE LOWEST INSIDE POINT OF THE PIPE.
3. DRILL EQUALLY SPACED 7/16" HOLES THROUGH THE SNOUT FLANGE. (NUMBER OF HOLES MAY VARY WITH SIZE OF SNOUT.)
4. MARK AND DRILL CATCH BASIN AND INSTALL THE TAMP–IN LEAD ANCHORS:
   A) DRILL A 3/4" HOLE INTO THE BASE MATERIAL TO THE REQUIRED DEPTH.
   B) BLOW THE HOLE CLEAN OF DUST AND OTHER MATERIAL.
   C) INSERT THE ANCHOR INTO THE HOLE (LEAD SHIELD OUT).
   D) POSITION THE SETTING TOOL IN THE ANCHOR. THE OUTER RIM OF THE TOOL SHOULD SEAT ONTO THE LEAD SHIELD RIM.
   E) USING THE TOOL, SET THE ANCHOR BY DRIVING THE LEAD SLEEVE OVER THE CONE USING SEVERAL SHARP HAMMER BLOWS. BE SURE THE ANCHOR IS AT THE REQUIRED EMBEDMENT DEPTH.
5. ATTACH THE VENT PIPE ADAPTER IN THE PREDRILLED HOLE IN THE TOP OF THE SNOUT USING THE 2 FLAT O–RING GASKETS AND PVC LOCK–NUT SUPPLIED IN KIT. INSTALL WITH THE FEMALE SLIP ADAPTER UP AND A WASHER ON EACH SIDE OF THE SNOUT SHELL. TIGHTEN LOCK–NUT HAND TIGHT.
6. REMOVE PSA BACKING AND WITH FIRM PRESSURE, ATTACH GASKET STRIP TO BACK OF FLANGE AND TRIM EXCESS.
7. ATTACH THE SNOUT TO THE CATCH BASIN WALL WITH 3/8" DIAMETER STAINLESS STEEL BOLTS DO NOT OVER TIGHTEN: 10 to 15 FOOT POUNDS SHOULD BE SUFFICIENT.
8. CUT THE ANTI–SIPHON VENT STACK TO LENGTH AND ATTACH TO HOOD WITH PVC CEMENT.
9. ATTACH 90 DEGREE FITTING TO VENT STACK WITH PVC CEMENT. INSURE THAT FITTING OPENING IS ACCESSIBLE FOR MAINTENANCE AND INSPECTION.

SNOUT DIMENSION												
SIZE	A1	A2	B1	B2	C1	C2	C3	D1	D2	PORT ø	R1	R2
LARGE 24ø	26"	30"	13"	15"	34"	20"	12"	24"	28"	10"	13"	15"
SMALL 18ø	20"	24"	10"	12"	27"	16"	9"	18"	22"	6.5"	10"	12"

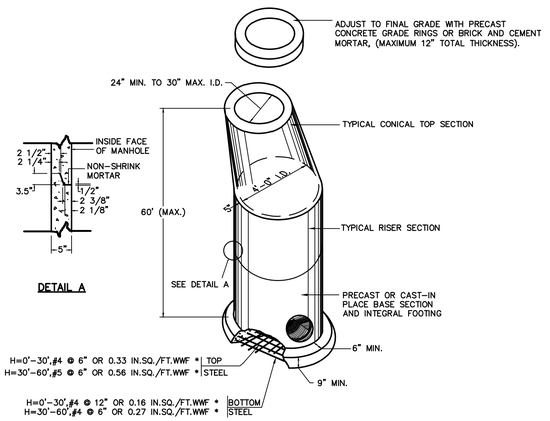
WATER QUALITY SNOUT INLET INSERT DETAIL
NOT TO SCALE



CAST IRON COVER
NOT TO SCALE



CAST IRON FRAME
(ALL ROUNDS AND FILLETS TO BE 1/4" R. UNLESS OTHERWISE NOTED.)



NOTES:

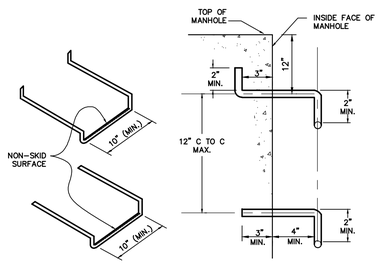
PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 714, MAY BE SUBSTITUTED FOR STANDARD CAST–IN–PLACE MANHOLE.

REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–39, SHEET 3 of 5, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST MANHOLE CONSTRUCTION.

* PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 709.3.

MANHOLE STEPS SHALL BE PROVIDED IN ANY CASE WHERE THE STRUCTURE IS 5 FEET OR GREATER IN DEPTH.

PRECAST STORMWATER MANHOLE
NOT TO SCALE



MANHOLE AND INLET STEPS
NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST · LANGHORNE, PA 19047 · (215) 369-3055 · www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD–22–05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 6

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

MUNICIPAL FILE No.: ____

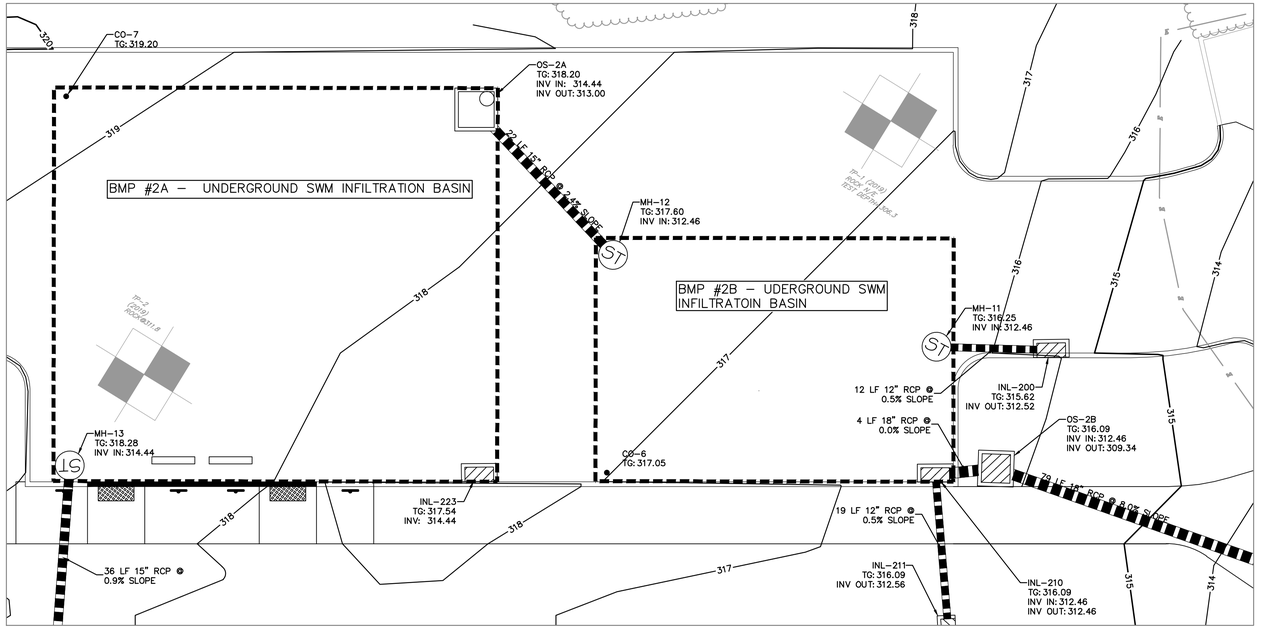
TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

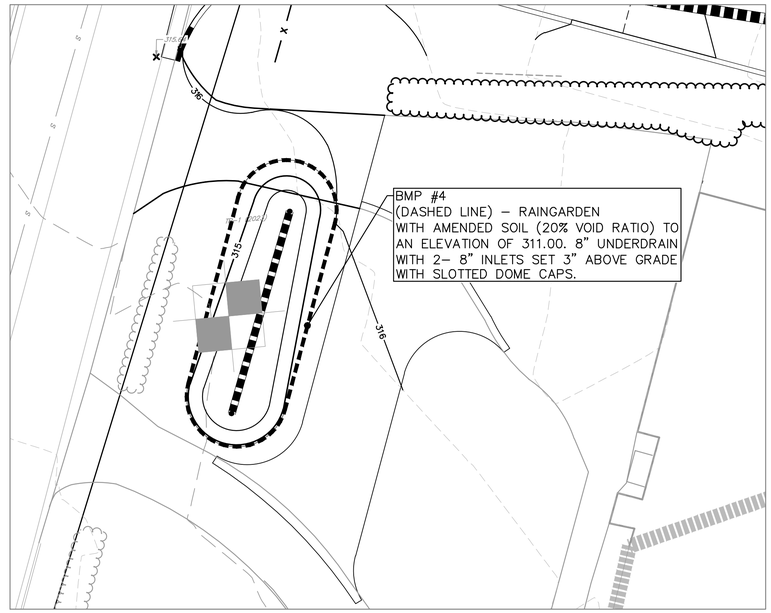
DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 25 OF 40



BMP #2A/2B – DETAIL
SCALE: 1"=10'



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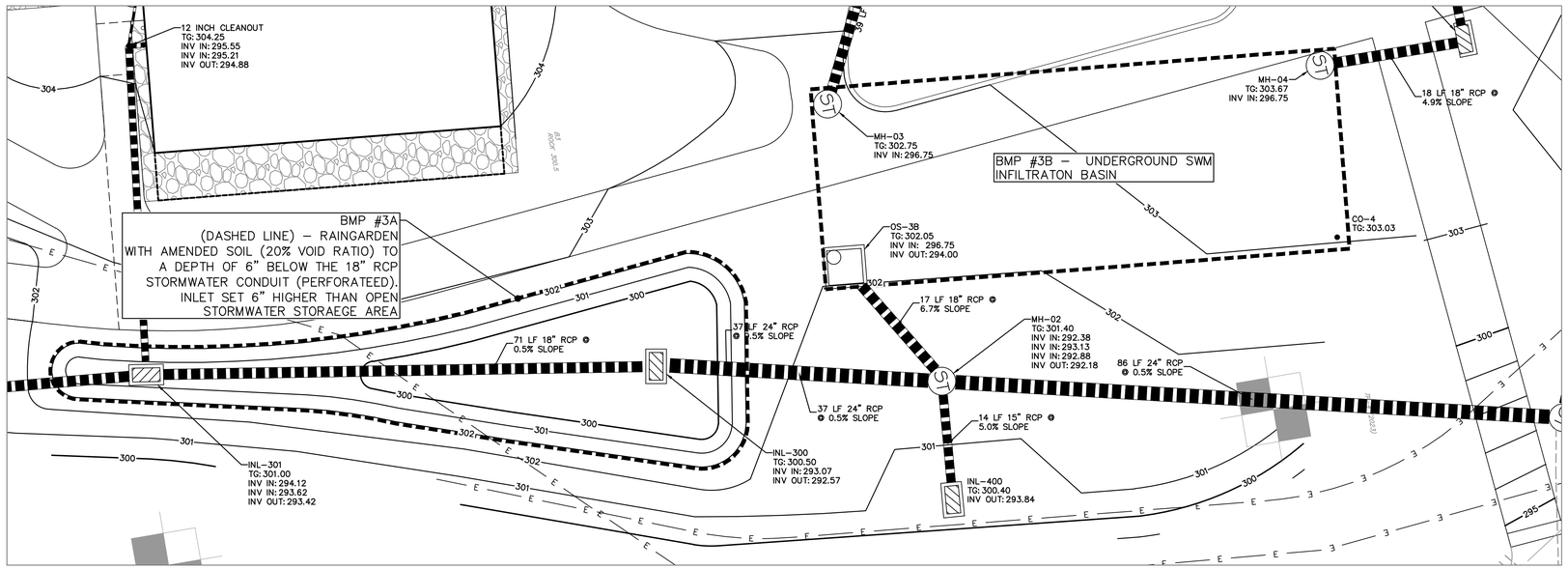

BMP #3A/AB– DETAIL
SCALE: 1"=10'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	REV.	DESCRIPTION
JM	10/02/23	4	REVISED PER TWP ENGINEER LETTER
JM	06/05/22	3	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	2	75% CD SUBMISSION
DAW	07/20/22	1	50% CD SUBMISSION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 7

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 26 OF 40

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS – 6.dwg Layout: 26 PCSM DETAILS – 7 Plotted By: wheider, on Mon Oct 02, 2023 at 11:38am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS
- W — PROPOSED WATER LINE
- E — E — PROPOSED ELECTRIC LINE
- G — PROPOSED GAS LINE
- T — PROPOSED TELEPHONE LINE
- S — PROPOSED SAN. SEWER LINE
- NPDES — PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING FIRE HYDRANT LOCATION

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

PROPOSED 3-STORY ACADEMIC BUILDING 30,688 S.F.

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

EXISTING FIRE HYDRANT LOCATION

EXISTING FIRE HYDRANT LOCATION

WOODLAND ROAD

CLOVERLY LANE

SEWELL LANE

SCHOOL LANE

PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09792-00-6
1577 CLOVERLY LANE
47.24280 ACRES (GROSS)
44.43180 (NET)
DEED BOOK 5065 PAGE 1053

PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09820-00-5
1684 CLOVERLY LANE
2.61 ACRES
DEED BOOK 5373 PAGE 806

W/F BARBARA AND ROBERT WETZEL
PARCEL 30-00-09784-00-3
1665 CLOVERLY LANE
PARCEL NOT INCLUDED

PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09816-00-9
1678 CLOVERLY LANE
0.55 ACRES
DEED BOOK 5620 PAGE 2671

80 0 80 160
SCALE IN 1"=80' FEET

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - OVERALL.dwg Layout: 27 UTILITY PLAN - OVERALL Plotted By: whelder, on Mon Oct 02, 2023 at 11:39am

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

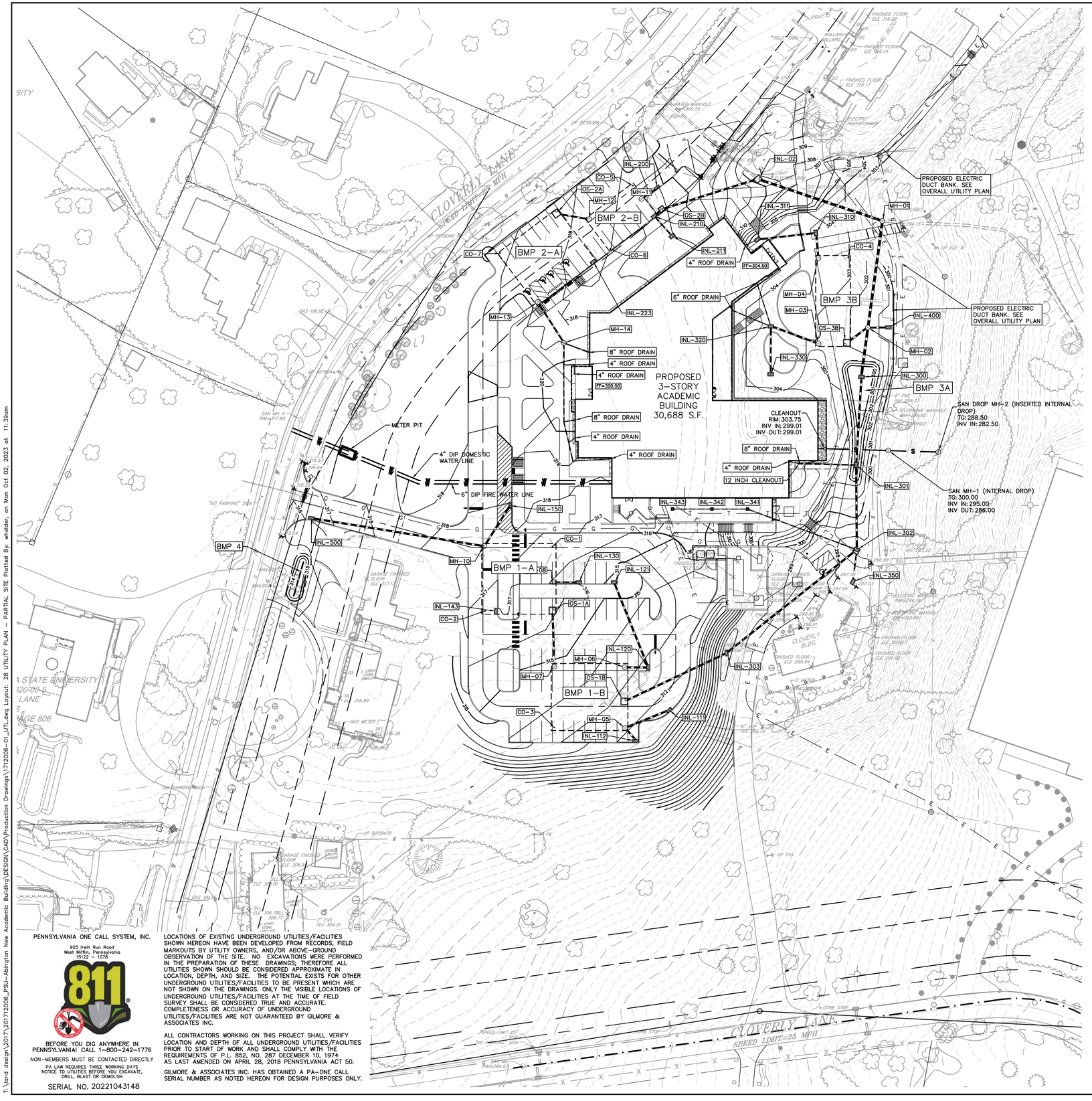
OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

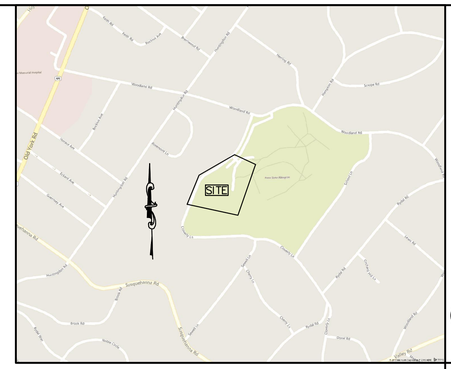
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=80'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 27 OF 40





LOCATION MAP

SCALE: 1"=800'

GENERAL NOTES:

1. ALL SANITARY SEWER WASTE SHALL COMPLY WITH PENN STATE UNIVERSITY'S SAFETY POLICY SY40 - DISPOSAL OF POLLUTANTS IN UNIVERSITY SANITARY SYSTEM SY40.
2. ALL UTILITY SYSTEMS SHALL BE IN ACCORDANCE WITH PENN STATE DESIGN AND CONSTRUCTION STANDARDS.
3. ADJUSTMENT OF EXISTING UTILITY STRUCTURES - ADJUST THE ELEVATION OF ALL EXISTING MANHOLE COVERS, VALVE BOXES, JUNCTION BOXES AND OTHER SIMILAR UTILITY STRUCTURES TO BE 1/8 INCH BELOW NEW FINISHED GRADE WHICH SHOULD BE LOCATED 1/2 TO 1 INCH BELOW FINISHED PAVED SURFACES. ALL ADJUSTMENTS TO EXISTING UTILITY STRUCTURES SHALL BE CONDUCTED IN COORDINATION WITH PENN STATE OFFICE OF PHYSICAL PLAN UTILITY SERVICES. ALL ADJUSTMENTS SHALL BE COMPLETED IN ACCORDANCE WITH PSU DESIGN AND CONSTRUCTION STANDARDS.
4. ALL PIPED UTILITIES SHALL INCLUDE A CONTINUOUS #10 WIRE INSTALLED WITH THE UTILITY LINE TO BE USED FOR FUTURE LOCATES.
5. ONCE-THRU COOLING USING POTABLE WATER IS NOT PERMITTED ON ANY EQUIPMENT.
6. THE WATER SERVICE WILL NOT BE ACTIVATED UNTIL THE HYDROSTATIC TESTING AND INSPECTION, DISINFECTION, BACTERIOLOGICAL TESTING, WATER METER INSPECTION, AND BACKFLOW PREVENTION DEVICE(S) INSPECTION AND TESTING HAS BEEN PROPERTY PERFORMED AND VERIFIED BY WATER SERVICES. ANY DEFICIENCIES TO THE WATER SYSTEM'S INSTALLATION MUST BE CORRECTED PRIOR TO THE ACTIVATION OF THE WATER SERVICE.
7. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE DURING CONSTRUCTION.
8. ALL WATER LINE WORK MUST BE COORDINATED WITH PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD, P.E. PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU. ONLY PENN STATE PERSONNEL MAY OPERATE WATERLINES AND VALVES.
9. ALL PIPE JOINTS SHALL BE FULLY RESTRAINED EITHER BY MECHANICAL JOINT (MEGALUGS STYLE RESTRAINT) OR PUSH-ON JOINT TYPE WITH GASKET CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST VERSION) AND SHALL BE AMERICAN PIPE FLEX-RING/FIELD-LOC, FAST-GRIP GASKET OR EQUAL AS APPROVED BY ENGINEERING SERVICES. ALL DUCTILE IRON PIPE MUST BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 (LATEST VERSION).
10. ALL WATER LINE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE UNIVERSITY'S (PSU) DESIGN AND CONSTRUCTION STANDARDS, AND PA DEP'S RULES AND REGULATIONS.
11. ALL WATER LINE MATERIALS AND EQUIPMENT SUBMITTALS MUST BE REVIEWED AND APPROVED BY PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD P.E., PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU AND MAILING ADDRESS IS 209 WATER TREATMENT PLANT, UNIVERSITY PARK, PA 16802.
12. PROPOSED PVC SEWER PIPE SHALL BE GRADE SDR-26 OR BETTER.
13. ALL PROPOSED UTILITIES ARE TO BE PLACED UNDERGROUND.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED WATER LINE
- PROPOSED ELECTRIC LINE
- PROPOSED GAS LINE
- PROPOSED TELEPHONE LINE
- PROPOSED SAN. SEWER LINE

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1"=40'

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776

NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION	REV.
JM	10/02/23	REVISED PER TWP ENGINEER LETTER	4
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS	3
DAW	09/09/22	75% CD SUBMISSION	2
DAW	07/20/22	50% CD SUBMISSION	1

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN - PARTIAL SITE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ---

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 28 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_UTL.dwg Layout: 28 UTILITY PLAN - PARTIAL SITE Plotted By: whelder, on Mon Oct 02, 2023 at 11:39am

PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED WATER LINE
- PROPOSED ELECTRIC LINE
- PROPOSED GAS LINE
- PROPOSED TELEPHONE LINE
- PROPOSED SAN. SEWER LINE
- PROJECT SITE BOUNDARY (NPDES PERMIT)
- ZONE X; 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- EXISTING PAVING

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- EXISTING TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

40 0 40 80
SCALE IN FEET
1"=40'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	REV.
JM	10/02/23	4
JM	06/05/22	3
DAW	09/09/22	2
DAW	07/20/22	1

REVISED PER TWP ENGINEER LETTER
REVISED PER TOWNSHIP COMMENTS
75% CD SUBMISSION
50% CD SUBMISSION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RIPARIAN CORRIDOR EXHIBIT

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

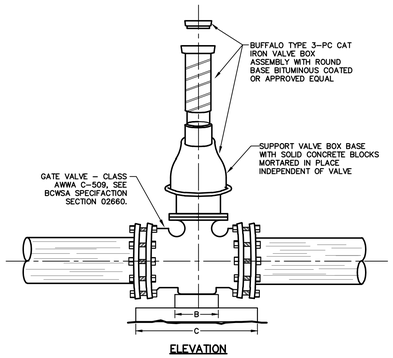
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: 1"=40'

DRAWN BY: WMH
CHECKED BY: JM

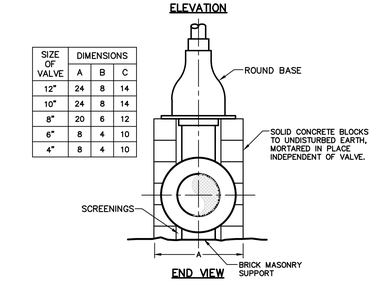
SHEET NO.: 29 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - STREAM CROSSING.dwg Layout: 29 RIPARIAN CORRIDOR EXHIBIT Plotted By: wheider, on Mon Oct 02, 2023 at 2:14pm



ELEVATION

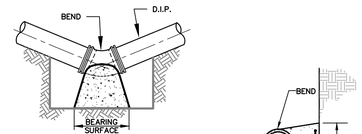
SIZE OF VALVE	DIMENSIONS		
	A	B	C
12"	24	8	14
10"	24	8	14
8"	20	6	12
6"	8	4	10
4"	8	4	10



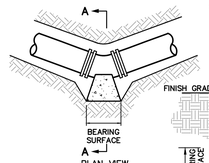
END VIEW

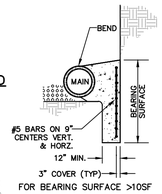
W4 - GATE VALVE WITH VALVE BOX DETAIL

NOT TO SCALE



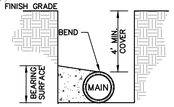
VERTICAL THRUST DOWNWARD





FOR BEARING SURFACE >10SF

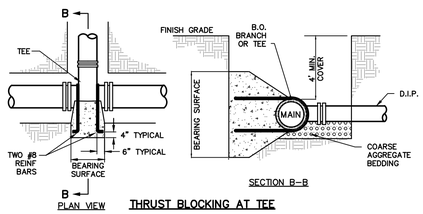
SECTION A-A



FOR BEARING SURFACE ≤ 10SF

SECTION A-A

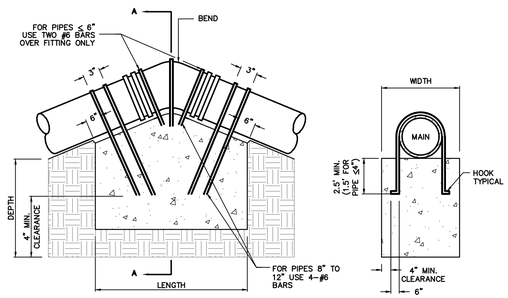
THRUST BLOCKING AT HORIZONTAL BEND



SECTION B-B

THRUST BLOCKING AT TEE

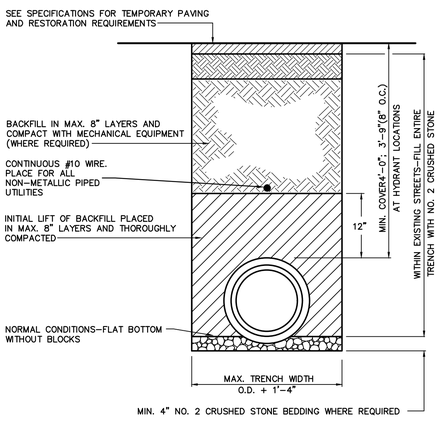
M3 & M4 - HORIZONTAL & DOWNWARD THRUST BLOCK DETAILS



M5 - TYPICAL SECTION VERTICAL THRUST UPWARD SECTION A-A

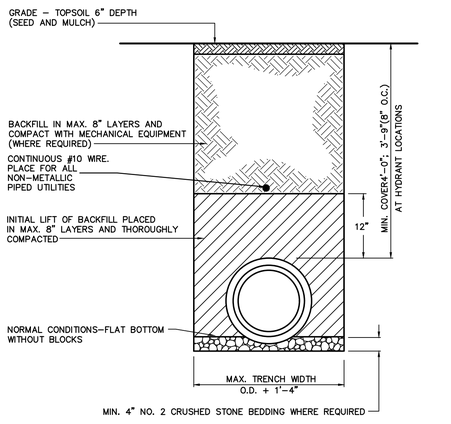
CONCRETE BLOCKING DIMENSIONS, VERTICAL THRUST UPWARD 100 P.S.I. WORKING PRESSURE									
PIPE SIZE	LENGTH			WIDTH			DEPTH		
	11.25°	22.5°	45°	11.25°	22.5°	45°	11.25°	22.5°	45°
4" AND LESS	2'	2'	3'	1.5'	1.5'	2'	2'	2'	2'
6" AND 8"	3'	4'	6'	3'	3'	3'	2'	3'	4'
10" AND 12"	3.5'	4'	7'	4'	4'	4'	2.5'	3'	4'

MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD																
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS		6" PIPE						8" PIPE						12" PIPE					
		DEGREE BEND OR DEFLECTION																	
		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END	
SOFT CLAY	1000 PSI	1.1	2.2	4.3	7.9	5.6		1.9	3.8	7.4	13.6	9.6		4.0	8.0	15.7	29.0	20.5	
SILT	1500 PSI	1.0	2.2	2.9	5.3	3.7		1.3	2.5	4.9	9.1	6.4		2.7	5.3	10.5	19.3	13.7	
SANDY SILT	3000 PSI	1.0	1.1	1.4	2.6	1.9		1.0	1.3	2.5	4.5	3.2		1.3	2.7	5.2	9.7	6.8	
SAND	4000 PSI	1.0	1.0	1.1	2.0	1.4		1.0	1.0	1.8	3.4	2.4		1.0	2.0	3.9	7.3	5.1	
SANDY CLAY	6000 PSI	1.0	1.0	1.0	1.3	1.0		1.0	1.0	1.2	2.3	1.6		1.0	1.3	2.6	4.8	3.4	
HARD CLAY	9000 PSI	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5	1.1		1.0	1.0	1.7	3.2	2.3	



WATER TRENCH DETAIL (PAVED AREAS)

NOT TO SCALE



WATER TRENCH DETAIL (NON-PAVED AREAS)

NOT TO SCALE

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CORPORATE HEADQUARTERS
65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MmontgomERY COUNTY, PENNSYLVANIA

UTILITY - WATER SERVICE DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0546

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

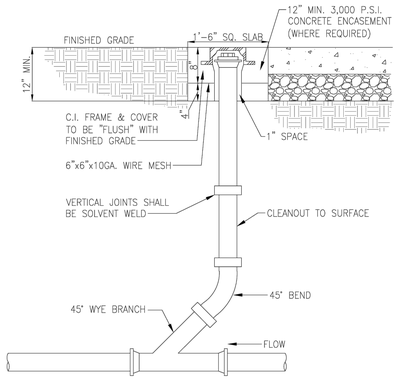
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: ##/##/22 | SCALE:

DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 30 OF 40

T:\land design\2017\2017120G6_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 30 UTILITY - WATER SERVICE DETAILS Plotted By: whelder, on Mon Oct 02, 2023 at 11:40am

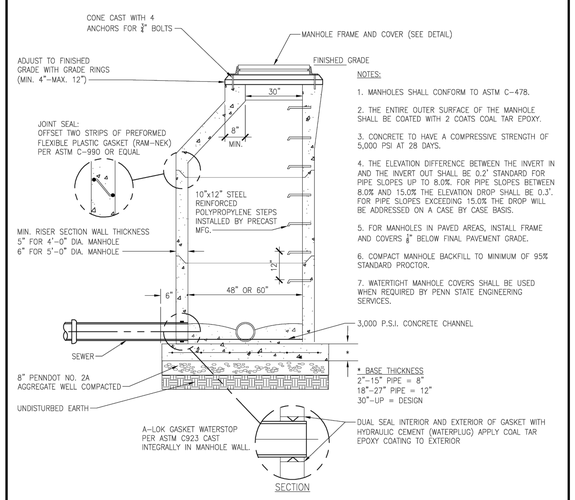


CLEANOUT DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019



NOTES:

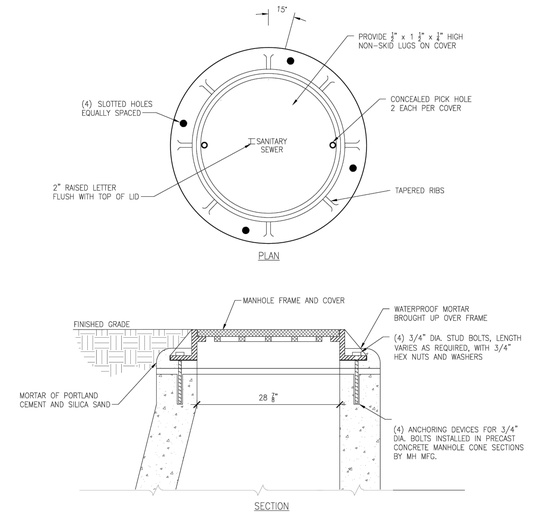
1. MANHOLES SHALL CONFORM TO ASTM C-478.
2. THE ENTIRE OUTER SURFACE OF THE MANHOLE SHALL BE COATED WITH 2 COATS COAL TAR EPOXY.
3. CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
4. THE ELEVATION DIFFERENCE BETWEEN THE INVERT IN AND THE INVERT OUT SHALL BE 0.2' STANDARD FOR PIPE SLOPES UP TO 8.0%. FOR PIPE SLOPES BETWEEN 8.0% AND 15.0% THE ELEVATION DROP SHALL BE 0.3'. FOR PIPE SLOPES EXCEEDING 15.0% THE DROP WILL BE ADDRESSED ON A CASE BY CASE BASIS.
5. FOR MANHOLES IN PAVED AREAS, INSTALL FRAME AND COVERS ¼" BELOW FINAL PAVEMENT GRADE.
6. COMPACT MANHOLE BACKFILL TO MINIMUM OF 95% STANDARD PROCTOR.
7. WATERTIGHT MANHOLE COVERS SHALL BE USED WHEN REQUIRED BY PENN STATE ENGINEERING SERVICES.

PRECAST CONCRETE MANHOLE DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 11.27.2019



NOTES:

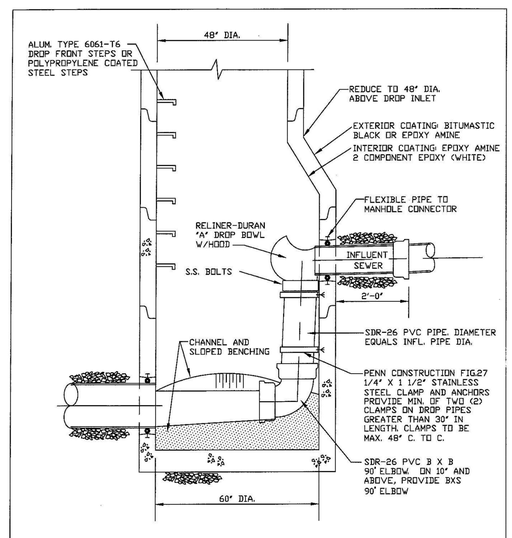
1. THE WORD "SANITARY SEWER" OR "PSU SANITARY" MUST BE ON THE MANHOLE COVER.
2. FRAME SHALL BE MODEL 1965Z AND COVER SHALL BE MODEL 1965A1 AS MANUFACTURED BY EJ GROUP, INC. , OR APPROVED EQUAL.
3. AFTER MORTAR HAS DRIED, COAT OUTTER SURFACE OF MANHOLE WITH COAL TAR EPOXY FROM CONE SECTION UP AROUND EXTERIOR OF FRAME.

STANDARD MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.06.2019

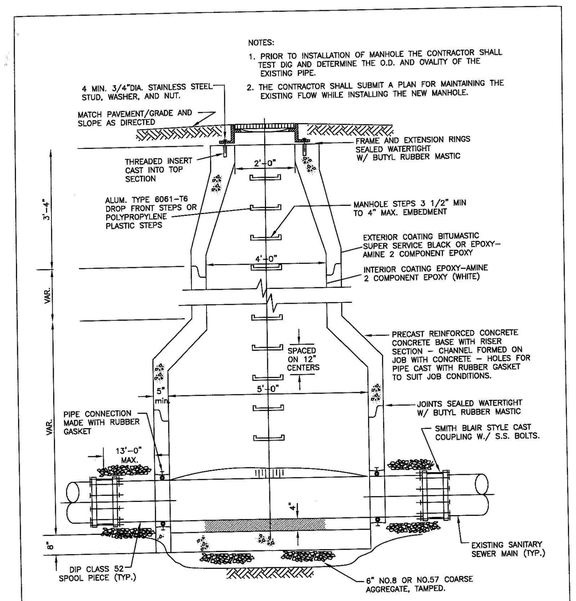


NOTES: 5' DIAMETER MANHOLE TO BE UTILIZED FOR INSIDE DROP MANHOLE
PIPED DROP TO BE USED FOR VERTICAL ELEVATION CHANGE GREATER THAN 2 FT.

Township of Abington
STANDARD DETAIL - SEWER SYSTEM

PRECAST SANITARY MANHOLE INSIDE DROP CONNECTION (8" - 24" SEWERS)

DATE: NOVEMBER 2015
DETAIL: 13

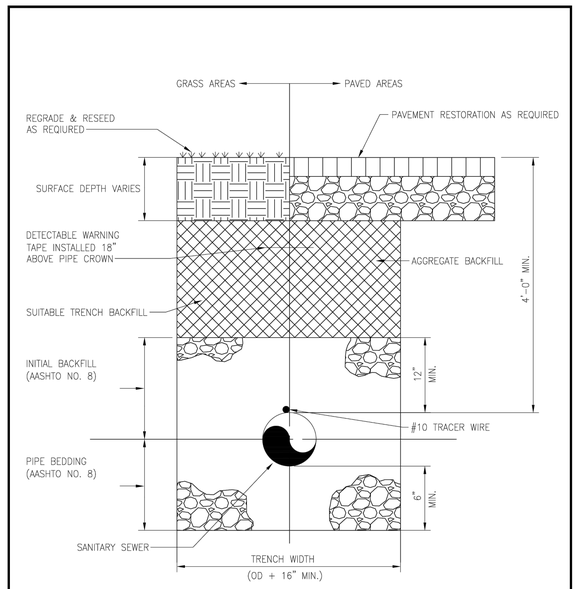


INSERTED MANHOLE WITH INSIDE DROP

Township of Abington
STANDARD DETAIL - SANITARY SEWER SYSTEM

INSERTION OF A PRECAST CONCRETE MANHOLE INTO AN EXISTING SEWER MAIN

DATE: JUNE 2022
DETAIL: 29A



SANITARY SEWER PIPE TRENCH DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
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2	75% CD SUBMISSION	09/09/22	DAW
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - SANITARY SEWER DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

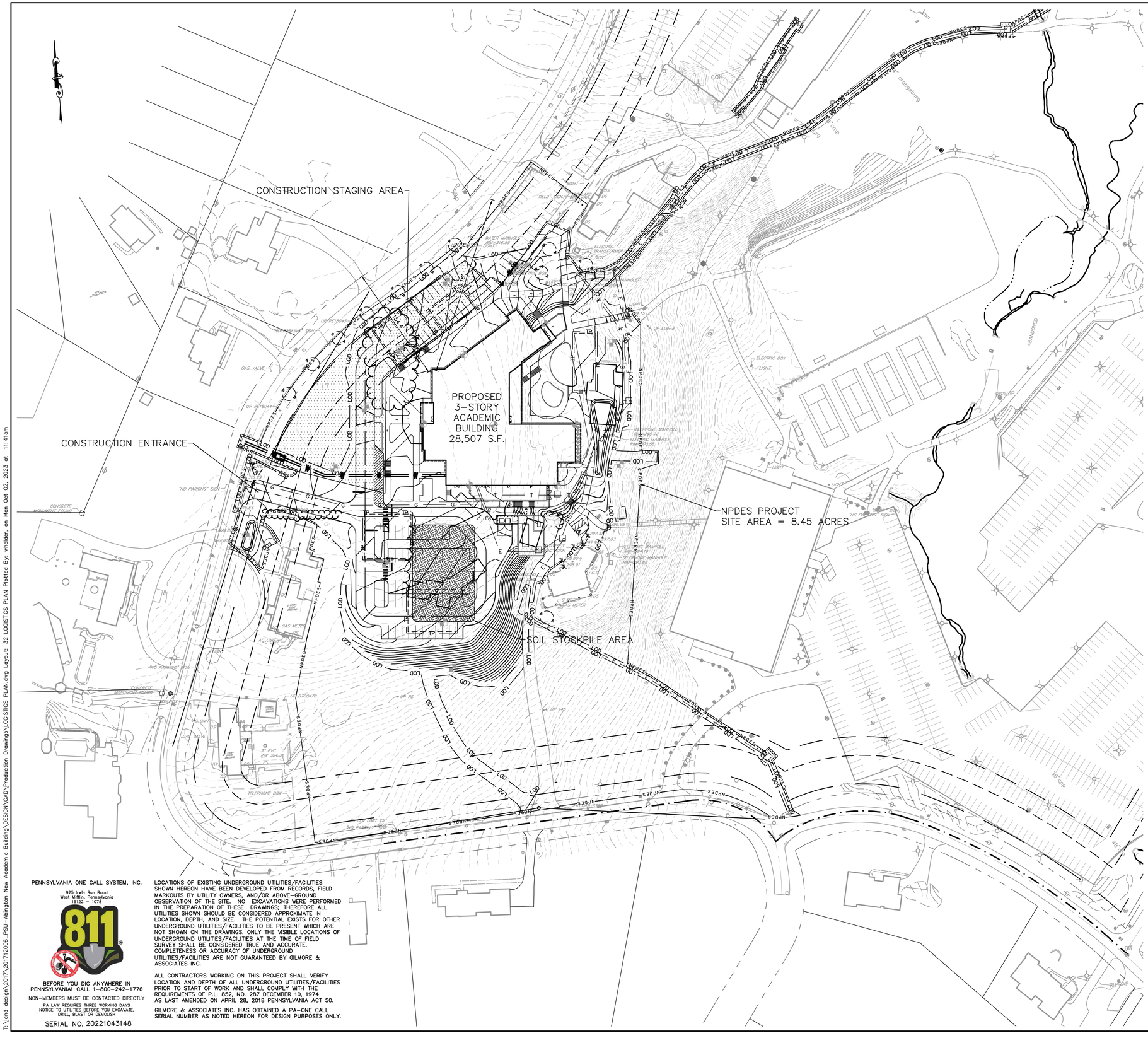
MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: ##/##/22	SCALE:
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 31 OF 40

T:\land design\2017\2017120O6_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 31 UTILITY - SANITARY SEWER DETAILS Plotted By: whelder, on Mon Oct 02, 2023 at 11:40am



LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

LOGISTICS/CONSTRUCTION SEQENCE NOTES:

[1] INSTALL EROSION CONTROL BMPS. INSTALL CONSTRUCTION ENTRANCE. INSTALL CONSTRUCTION FENCES AND ALL MEANS OF BUFFERING CONSTRUCTION FROM PUBLIC.
CONSTRUCTION STAGING SHALL BE LIMITED TO PROPOSED PARKING AREAS.

[2] NOTE: PROTECT AREAS OF PROPOSED UNDERGROUND INFILTRATION FROM OVERCOMPACTION (DELAY EXCAVATION FOR DEEP INFILTRATION FIELDS AND AVOID TRAVEL OVER SHALLOW INFILTRATION AREAS LESS THAN 4 FEET BELOW EXISTING SURFACE)

[3] DEMOLISH AND REMOVE HILLCREST AND CONFERENCE CENTER BUILDINGS. (PSU TO RESOLVE ALTERNATE SPACES FOR THESE USES). DEMOLISH OTHER ITEMS SHOWN ON PLAN TO BE REMOVED. EXISTING PAVEMENTS NOTED FOR DEMOLITION SHALL BE MAINTAINED FOR DURING-CONSTRUCTION PURPOSES AS LONG AS PRACTICAL.

[4] RELOCATE EXISTING UTILITIES THAT CONFLICT WITH BUILDING FOOTING AND 1ST FLOOR EXCAVATION.

[5] EXCAVATE 1ST FLOOR/FOOTINGS FOR NEW BUILDING. STOCKPILE OUTSIDE OF AREAS OF PROPOSED INFILTRATION BMPS.

[6] INSTALL NEW FOOTINGS, STEEL STRUCTURE, BELOW SLAB UTILITIES AND FOUNDATION.

[7] INSTALL SITE STORMWATER BMPS AND STORMWATER MANAGEMENT SYSTEM.

[8] ROUGH GRADE SITE PARKING AREAS AND DRIVES. INSTALL SITE UTILITIES. INSTALL BUILDING RETAINING WALLS.

[9] INSTALL ROAD/PARKING AREA ROAD BASES. FINAL SITE GRADING.

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

SCALE: 1"=60'

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ERIC S. CLASE
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3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
	75% CD SUBMISSION	09/09/22	DAW
2	50% CD SUBMISSION	07/20/22	DAW
1			

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LOGISTICS PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ---

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

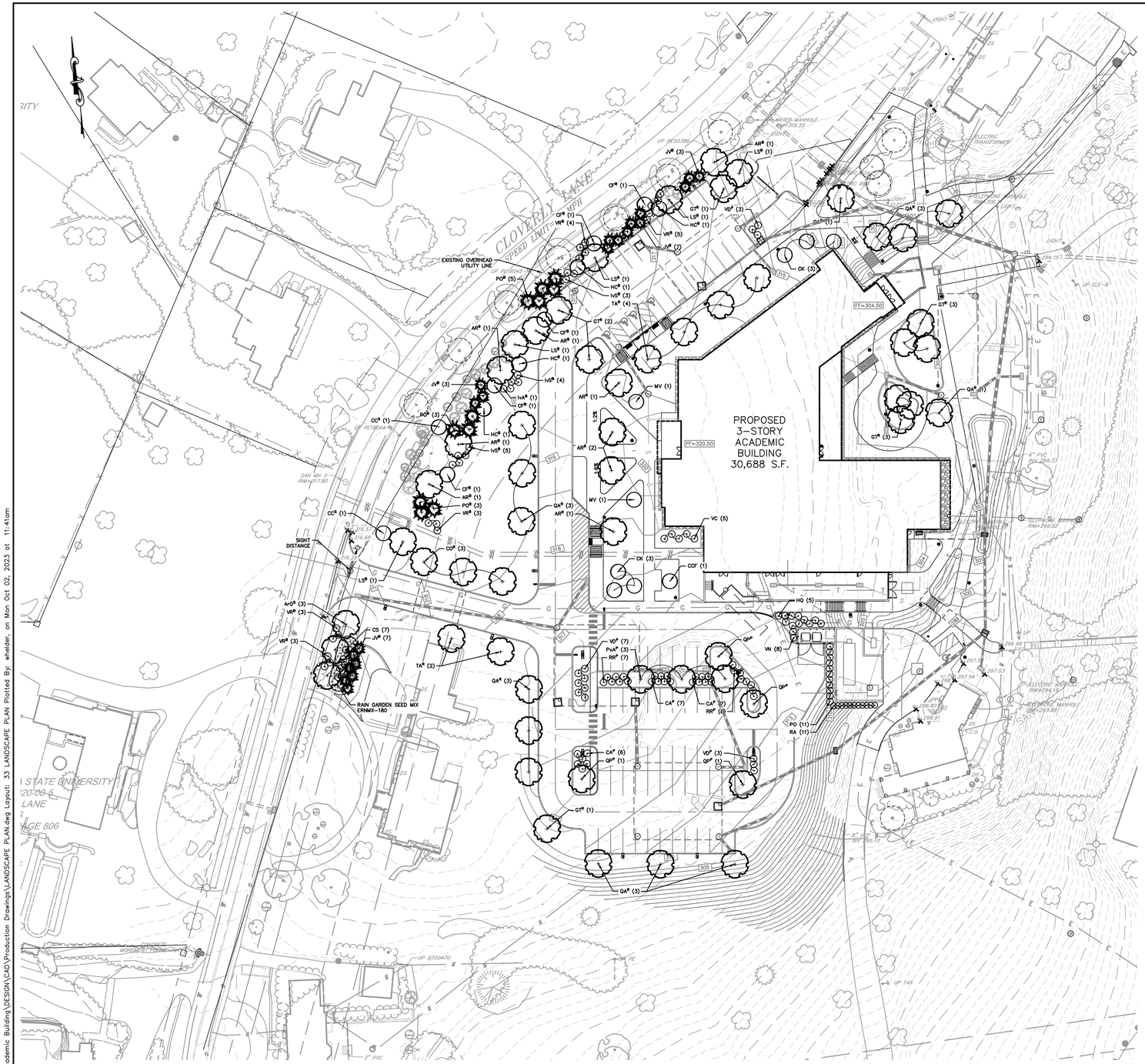
SCALE: 1"=60'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 32 OF 40

T:\and design\2017\2017012006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LOGISTICS PLAN.dwg Layout: 32 LOGISTICS PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am



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SERIAL NO. 20221043148

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GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

G&A LEGEND

- RIGHT-OF-WAY LINE
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- EXISTING MINOR CONTOURS
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- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
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- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
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- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- EXISTING TREE TO REMAIN
- CANOPY TREE
- UNDERSTORY/ORNAMENTAL TREE
- EVERGREEN TREE
- SHRUB

SCALE 40 0 40 80 IN 1"=40' FEET

COMPLIANCE CHART

THE FOLLOWING CHART REPRESENTS THE MINIMUM QUANTITIES OF REQUIRED PLANT MATERIAL ACCORDING TO THE ABINGTON TOWNSHIP ZONING AND SUBDIVISION AND LAND DEVELOPMENT ORDINANCES, AND TO DEMONSTRATE COMPLIANCE WITH THE SAME.

§2401.A.2.d(1)(a) - TREE REPLACEMENT	REQUIRED	EXISTING	PROVIDED	TOTAL
REQUIREMENT: 2 TREES (3 - 3.5" CAL.) PER EACH < 6" CALIPER TREE REMOVED 77 TREES REMOVED *NOTE: 117 TREESTO BE DISBURSED THROUGHOUT THE SITE AND/OR COORDINATED BETWEEN PSU AND ABINGTON TOWNSHIP.	154	0	37	154*
§2401.A.2(a)(4) - PARKING LOT LANDSCAPING				
REQUIREMENT: ONE SHADE TREE (3" CAL.), SHRUBS AND/OR GROUNDCOVER FOR EACH PLANTING ISLAND	YES		YES	
§2402.A.6 - MINIMUM GREEN AREA				
REQUIREMENT: 10% OF PARKING AREA GREATER THAN 15,000 S.F. DEVOTED TO LANDSCAPING (LOWER PARKING AREA = 30,085 S.F. TOTAL)	3,009 S.F.		3,256 S.F.	
§2402.B.2.c - STREET TREES				
REQUIREMENT: 1 TREE PER 40 L.F. (495 L.F.) NOTE: STREET LENGTH DOES NOT INCLUDE WIDTH OF ENTRANCE DRIVE AT R.O.W.	12	7	5	12
§2403.B.4.a(2)(a) - MEDIUM INTENSITY BUFFER PLANTINGS				
REQUIREMENT: OPTION A, PER EACH 100 LINEAR FEET 2 CANOPY TREES (2 - 2 1/2" CAL.) 2 UNDERSTORY TREES (1 1/2" CAL.) 5 EVERGREEN TREES (6' HT.) (PLUS 20% MORE PER ZONING AMENDEMENT) 5 SHRUBS (24" HT.) (PLUS 20% MORE PER ZONING AMENDMENT)	10 10 31 31		10 10 31 31	10 10 31 31
§2403.D - BUILDING FOUNDATION PLANTINGS				
REQUIREMENT: ORNAMENTAL OR EVERGREEN TREES AND SHRUBS	YES		YES	
§146-39.B(3)(a)[1] - OFF-STREET PARKING				
REQUIREMENT: 5% INTERIOR LANDSCAPING WITHIN PARKING AREA UPPER PARKING AREA = 7,983 S.F. LOWER PARKING AREA = 30,085 S.F. *NOTE: PARTIAL WAIVER REQUESTED FOR UPPER PARKING AREA	399 S.F. 1,504 S.F.		0 S.F. 3,256 S.F.	0%* 11%
§146-39.B(3)(a)[2] - OFF-STREET PARKING				
REQUIREMENT: 1 TREE (2 1/2" CALIPER) PER 15 PARKING SPACES 85 PARKING SPACES	6	0	7	7

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
STREET TREES						
AO^S	3	ACER RUBRUM 'OCTOBER GLORY'	OCTOBERY GLORY MAPLE	2.5" CAL	B&B	
CC^S	2	CERCIS CANADENSIS	EASTERN REDBUD	2.5" CAL	B&B	
BUFFER AREA PLANTINGS						
CANOPY TREES						
AR^B	5	ACER RUBRUM 'BRANDYWINE'	RED MAPLE	2 - 2.5" CAL	B&B	SEEDLESS
LS^B	5	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SWEETGUM	2 - 2.5" CAL	B&B	SEEDLESS
UNERSTORY TREES						
CF^B	5	CORNUS FLORIDA 'RED BEAUTY'	RED BEAUTY DOGWOOD	1.5" CAL	B&B	
HC^B	4	HALESIA CAROLINA 'JERSEY BELLE'	CAROLINA SILVERBELL	1.5" CAL	B&B	
EVERGREEN TREES						
JV^E	20	JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EMERALD SENTINEL EASTERN REDCEDAR	6' HT MIN	B&B	
PO^B	11	PICEA OMORIKA	SERBIAN SPRUCE	6' HT MIN	B&B	
SHRUBS						
IVA^B	1	ILEX VERTICILLATA 'APPOLLO'	WINTERBERRY HOLLY	24" MIN	CONT	MALE
IVS^B	12	ILEX VERTICILLATA 'SPARKLEBERRY'	WINTERBERRY HOLLY	24" MIN	CONT	FEMALE
VR^B	18	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	24" MIN	CONT	
PARKING AREA PLANTINGS						
CANOPY TREES						
PxA^P	3	PLATANUS X ACERIFOLIA 'EXCLAMATION'	EXCLAMATION LONDON PLANE TREE	3" CAL	B&B	
QP^P	4	QUERCUS PHELLOS	WILLOW OAK	3" CAL	B&B	
SHRUBS						
CA^F	20	CLETHRA ALNIFOLIA	SUMMERSWEET	24" MIN	#3 CONT	
RR^F	15	ROSA RUGOSA 'RADRAZZ'	KNOCKOUT ROSE	24" MIN	#3 CONT	
VD^F	13	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24" MIN	#3 CONT	
OTHER PLANTINGS						
DECIDUOUS TREES						
CCF	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	1.5" CAL	B&B	
CK	6	CORNUS KOUSA 'GREENSLEEVES'	KOUSA DOGWOOD	1.5" CAL	B&B	
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL	B&B	
SHRUBS						
CS	7	CORNUS SERICEA	REDTWIG DOGWOOD	24" MIN	#3 CONT	
HQ	5	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	36" MIN	#5 CONT	
PO	11	PHYSOCARPUS OPULIFOLIUS 'DIABOLO'	DIABOLO NINEBARK	24" MIN	#3 CONT	
RA	11	RHUS AROMATICA 'GRO-LOW'	GRO LOW SUMAC	18" MIN	#1 CONT	
VC	5	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24" MIN	#3 CONT	
VN	8	VIBURNUM NUDUM 'WINTERTHUR'	WINTERTHUR VIBURNUM	36" MIN	#5 CONT	
REPLACEMENT TREE PLANTINGS						
AR^R	4	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE (FREEMAN) MAPLE	3 - 3.5" CAL	B&B	SEEDLESS
CO^R	3	CARYA OVATA	SHAGBARK HICKORY	3 - 3.5" CAL	B&B	
GT^R	10	GLEDITSIA TRIACANTHOS f. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	3 - 3.5" CAL	B&B	THORNLESS
QA^R	14	QUERCUS ALBA	WHITE OAK	3 - 3.5" CAL	B&B	

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LUXEMBOURG CORPORATE CENTER
538 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
CYNTHIA MARIE JOHNSON
REGISTRATION NUMBER LA003364
REGISTERED LANDSCAPE ARCHITECT

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 33 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 33 LANDSCAPE PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am

PENNSYLVANIA ONE CALL SYSTEM, INC.

925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078

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BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776

NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

LUMINAIRE SCHEDULE

Symbol	Label	Manufacturer	Image	Quantity	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
	A	RAB LIGHTING INC.		9	ALED3T78N – RWLED3T78N – RWLED3T78SFN – WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	75.9	Max: 5973cd
	B	RAB LIGHTING INC.		4	ALED3T78N – RWLED3T78N – RWLED3T78SFN – WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	151.8	Max: 5973cd
	C	ARCHITECTURAL AREA LIGHTING		17	PKWM-ANG-Y5HC-52LED-4K-500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4721	0.95	50	Max: 1668cd
	D	ARCHITECTURAL AREA LIGHTING		4	PKWM-ANG-Y2HC-52LED-4K-500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4918	0.95	50	Max: 4285cd

SEE SHEET 35 FOR LUMINAIRE CUT SHEETS AND DETAILS

SITE LIGHTING STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Internal Drive	+	2.8 fc	5.1 fc	1.3 fc	3.9:1	2.2:1
Parking Area 1	+	1.8 fc	5.8 fc	0.7 fc	8.3:1	2.6:1
Parking Area 2	+	2.5 fc	6.4 fc	0.5 fc	12.8:1	5.0:1

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR SITE LIGHTING PURPOSES ONLY. ELECTRICAL ENGINEERING, INCLUDING, BUT NOT LIMITED TO , CIRCUITRY, CONDUIT, WIRING, AND ASSOCIATED SPECIFICATIONS, IS NOT WITHIN THE SCOPE OF THIS DOCUMENT.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.
3. SUBSTITUTION REQUESTS MUST BE APPROVED BY THE TOWNSHIP.
4. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
5. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLAN AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
6. LIGHTING VALUES DEPICTED ON THIS PLAN WERE GENERATED USING VISUAL 2020.2.11.0062 SOFTWARE.
7. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPES OF FIXTURES ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, LAWS AND STATUTES.
8. CONTRACTOR SHALL BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES OR OTHER STRUCTURES.

40 0 40 80
SCALE IN FEET
1"=40'

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PENNSYLVANIA · CHRISTOPHER E. GRAY · REGISTERED NUMBER LA002522 · LANDSCAPE ARCHITECT

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LIGHTING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 34 OF 40

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 34 LIGHTING PLAN Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am

GENERAL LANDSCAPE NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIALS, PLANTS EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, HAVE VIGOROUS ROOT SYSTEMS AND BE FREE OF DEFECTS AND INJURIES.
4. ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE WELFARE OF THE PLANT MATERIAL, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISIONS SHALL BE MADE FOR A GUARANTEE OF 18 MONTHS FOR TREES AND SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE 2014 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN INC., OR LATEST EDITION.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC., SHALL BE USED FOR PLANTING.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN THE WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. **PLANTING OPERATIONS SHALL OCCUR BETWEEN APRIL 1, THROUGH JUNE 15 AND SEPTEMBER 1 THROUGH NOVEMBER 1 OF EACH CALENDAR YEAR. IF FAVORABLE PLANTING CONDITIONS EXTEND BEYOND DATES INDICATED HEREIN, AN EXTENSION MAY BE GRANTED BY THE LANDSCAPE ARCHITECT RESPONSIBLE FOR THESE PLANS.**
10. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PLANTING PIT.
11. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
12. LANDSCAPING CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF LANDSCAPE MATERIAL. CONTRACTOR SHALL NOT PLACE LANDSCAPING MATERIAL ON TOP OF UTILITY PIPING.
13. PLAN QUANTITIES SUPERSEDE PLANT LIST.
14. **THE LANDSCAPE PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.**

RAIN GARDEN MIX

1. SEED MIX SHALL BE ERNMX-180, AS PROVIDED BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL CONSISTING OF THE FOLLOWING SPECIES, OR AS CURRENTLY FORMULATED, AT 20 LBS PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE:

33.4% SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
23.0% ELYMUS VIRGINICUS	VIRGINIA WILDRYE
7.0% CAREX VULPINOIDEA	FOX SEDGE
5.6% CHASMANTHIUM LATIFOLIUM	RIVER OATS
5.5% ECHINACEA PURPUREA	PURPLE CONEFLOWER
3.0% CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
3.0% COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
3.0% PANICUM RIGIDULUM	REDTOP PANICGRASS
3.0% RUDBECKIA HIRTA	BLACKEYED SUSAN
3.0% VERBENA HASTATA	BLUE VERVAIN
2.0% HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.8% ASCLEPIAS INCARNATA	SWAMP MILKWEED
1.0% CAREX SCOPARIA	BLUNT BROOM SEDGE
1.0% SENNA HEBECARPA	WILD SENNA
0.7% PYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
0.5% ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
0.5% ASTER PRENANTHOIDES	ZIGZAG ASTER
0.5% BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.5% ZIZIA AUREA	GOLDEN ALEXANDERS
0.4% MONARDA FISTULOSA	WILD BERGAMOT
0.3% HELENIUM AUTUMNALE	COMMON SNEEZEWEED
0.3% JUNCUS TENUIS	PATH RUSH
0.2% EUPATORIUM PERFOLIATUM	BONESET
0.2% JUNCUS EFFUSUS	SOFT RUSH
0.2% OENOTHERA FRUTICOSA VAR. FRUTICOSA	SUNDROPS
0.2% SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.2% SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD

SEED MIX ESTABLISHMENT SPECIFICATIONS

INSTALLATION:

SPRAY AREAS TO BE SEEDED WITH A SYSTEMIC HERBICIDE ONE (1) MONTH PRIOR TO THE INSTALLATION OF THE SPECIFIED SEED MIXTURE. AFTER TWO (2) WEEKS OF HERBICIDE APPLICATION, AREAS TO BE SEEDED SHALL BE TREATED AGAIN IF PERSISTENT WEEDS RE-GERMINATE. ONLY AFTER ALL EXISTING VEGETATION TO BE REMOVED IS ERADICATED SHALL THE FOLLOWING SEED INSTALLATION STEPS TAKE PLACE:

1. ALL AREAS TO BE SEEDED SHALL BE CLEARED OF ALL REMAINING DEBRIS AND VEGETATION.
2. TILL ALL AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES, AND ADD ANY SPECIFIED SOIL AMENDMENTS TO THE TILLED AREAS.
3. SPREAD SEED AT RECOMMENDED RATE EVENLY ACROSS THE ENTIRE SITE.
4. FINE RAKE ALL AREAS PREVIOUSLY SEEDED TO ENSURE GOOD SOIL TO SEED CONTACT.
5. SPREAD A THIN COAT OF STRAW, 3 TONS PER ACRE MINIMUM, TO REDUCE EROSION.
6. WATER ENTIRE AREA THOROUGHLY; AVOID OVER WATERING.

FIRST YEAR MAINTENANCE:

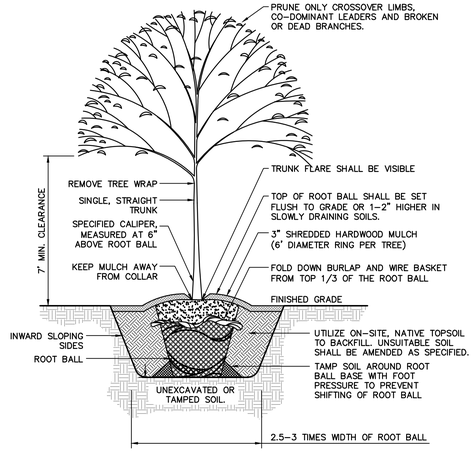
SEED MIXTURE SHALL BE INSPECTED FOR INVASIVE WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA, SPOT TREAT BY PULLING. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT. MOW TO A HEIGHT OF SIX (6) INCHES MINIMUM WITH A WEED EATER.

SECOND YEAR MAINTENANCE:

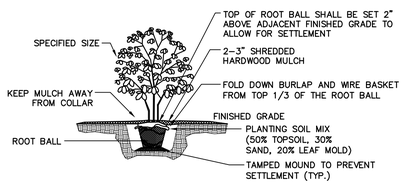
MOW ONCE IN SPRING (PRIOR TO APRIL 1) AS CLOSE TO GROUND AS POSSIBLE ALLOW PLANTS TO GROW TO FULL HEIGHT.

CONSECUTIVE FOLLOWING YEARS:

MOW EVERY YEAR AND SPOT TREAT INVASIVE PLANT SPECIES. MOWING SHALL TAKE PLACE IN EARLY SPRING PRIOR TO APRIL 1. MOWING SHALL NOT TAKE PLACE BETWEEN APRIL 1 AND JUNE 20 TO AVOID DISRUPTION OF GROUND NESTING BIRDS.



TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING AND SHRUB BED PREPARATION
NOT TO SCALE

Parkway Square® Pedestrian Horizontal LED – PKWM

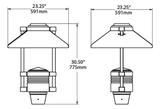
TYPE

LUMINAIRES C & D

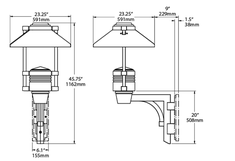
FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- Integral thermal protection
- 13 standard powder coat finishes

SPECIFICATIONS

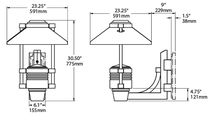


POST TOP
WT: 57 lbs. EPA: 2.35



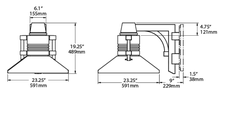
PSA-TU
(Top of Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TU
(Top of Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



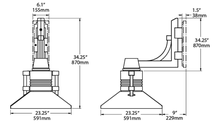
PSA-TD
(Top of Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TD
(Top of Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



PSA-BU
(Below Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BU
Below Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 2.76



PSA-BD
(Below Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BD
(Below Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 2.76

3000K and warmer CCTs only

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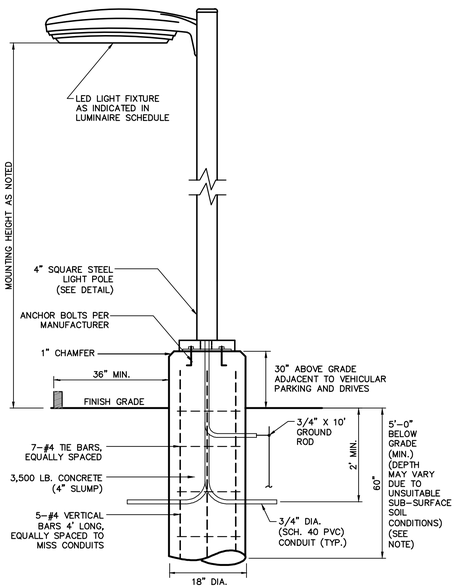
701 Millennium Blvd • Greenville, SC 29607 / Tel: 864.678.1000 / Website www.eal.net

HUBBELL Lighting



NOTE(S):
1. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS. VERIFY IN FIELD.
2. 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
3. **COORDINATE ELECTRICAL CONDUIT AND GROUNDING WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS**

STANDARD LIGHT BASE DETAIL
NOT TO SCALE

ALED3T78N

RAB

Color: Bronze

Weight: 35.3 lbs

Project: PSU | Type: A

Prepared By: | Date:

Driver Info

Type	Constant Current
120V	0.66A
208V	0.41A
240V	0.35A
277V	0.30A
Input Watts	75.9W

LED Info

Watts	78W
Color Temp	4000K (Neutral)
Color Accuracy	72 CRI
L70 Lifespan	100,000 Hours
Lumens	8,941
Efficacy	117.8 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations as a downlight

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000179U

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:
The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Thermal Management:
Superior heat sinking with external Air-Flow fins

Lens:
Tempered glass lens

Housing:
Die-cast aluminum housing, lens frame and mounting arm

IP Rating:
Ingress protection rating of IP66 for dust and water

Mounting:
Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High-temperature silicone gaskets

Need help? Tech help line: **(888) 722-1000** Email: **sales@rablighting.com** Website: **www.rablighting.com**
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ALED5S78N/D10/PCT

RAB

High output LED pole top area light with IES type V square distribution. Wide and uniform 360 degree pattern ideal for large outdoor areas such as parking lots, corporate parks, and retail settings.

Color: Bronze

Weight: 33.1 lbs

Project: PSU | Type: B

Prepared By: | Date:

Driver Info

Type	Constant Current
120V	0.56A
208V	0.34A
240V	0.33A
277V	0.26A
Input Watts	65W

LED Info

Watts	78W
Color Temp	4000K (Neutral)
Color Accuracy	73 CRI
L70 Lifespan	100,000 Hours
Lumens	9,587
Efficacy	147.5 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:
Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: P9KFA9GA

LED Characteristics

LEDs:
Long-life, high-efficacy, surface-mount LEDs

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Optical

BUG Rating:
B3 U1 G2

Optics:
Square, Type V distribution

Construction

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Thermal Management:
Superior thermal management with external air-flow fins

Need help? Tech help line: **(888) 722-1000** Email: **sales@rablighting.com** Website: **www.rablighting.com**
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NOT TO BE RECORDED

BY	DATE	DESCRIPTION
JM	10/02/23	REVISED PER TWP ENGINEER LETTER
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION

4 3 2 1 REV.

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE & LIGHTING DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0541

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

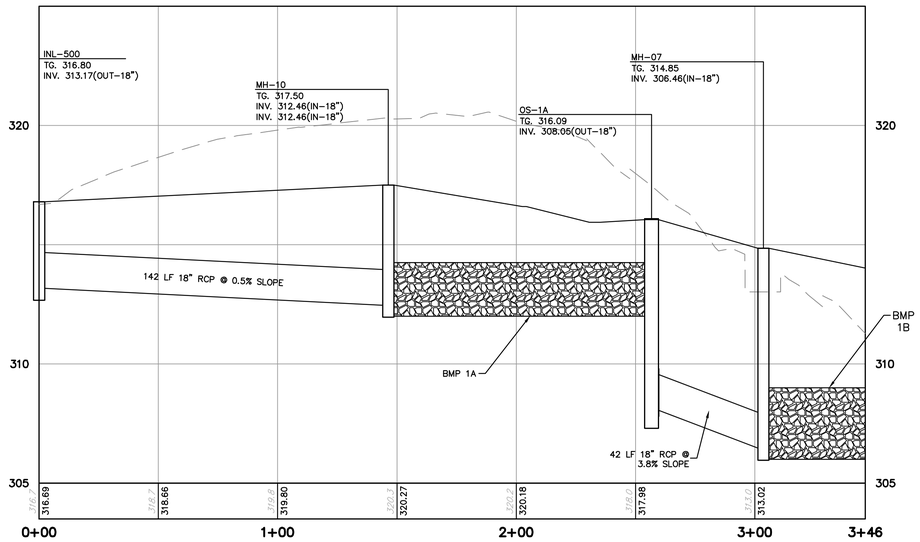
SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: JM

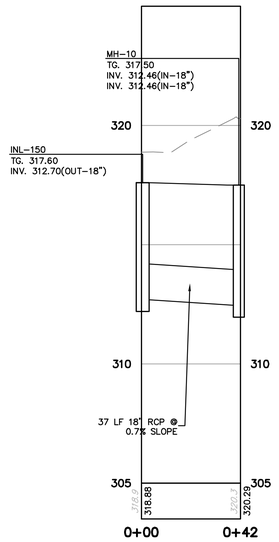
SHEET NO.: 35 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 35 LANDSCAPE & LIGHTING DETAILS Plotted By: wheider, on Mon Oct 02, 2023 at 11:41am



INL-500 TO BMP 1-B

STATION 0+00 TO 3+46
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-150 TO MH-10

STATION 0+00 TO 0+42
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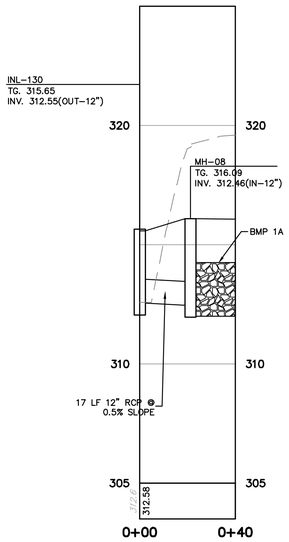
VERT 1"=3'



INL-130 TO BMP 1-A

STATION 0+00 TO 0+40
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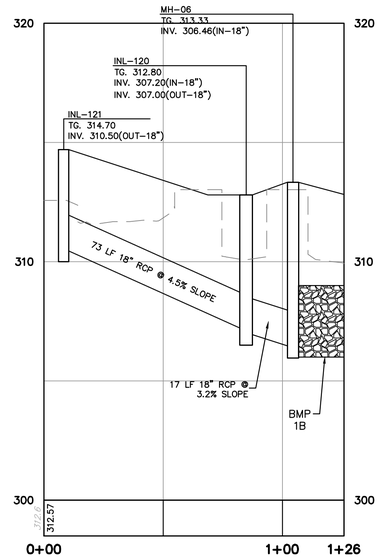
VERT 1"=3'



INL-121 TO BMP 1-B

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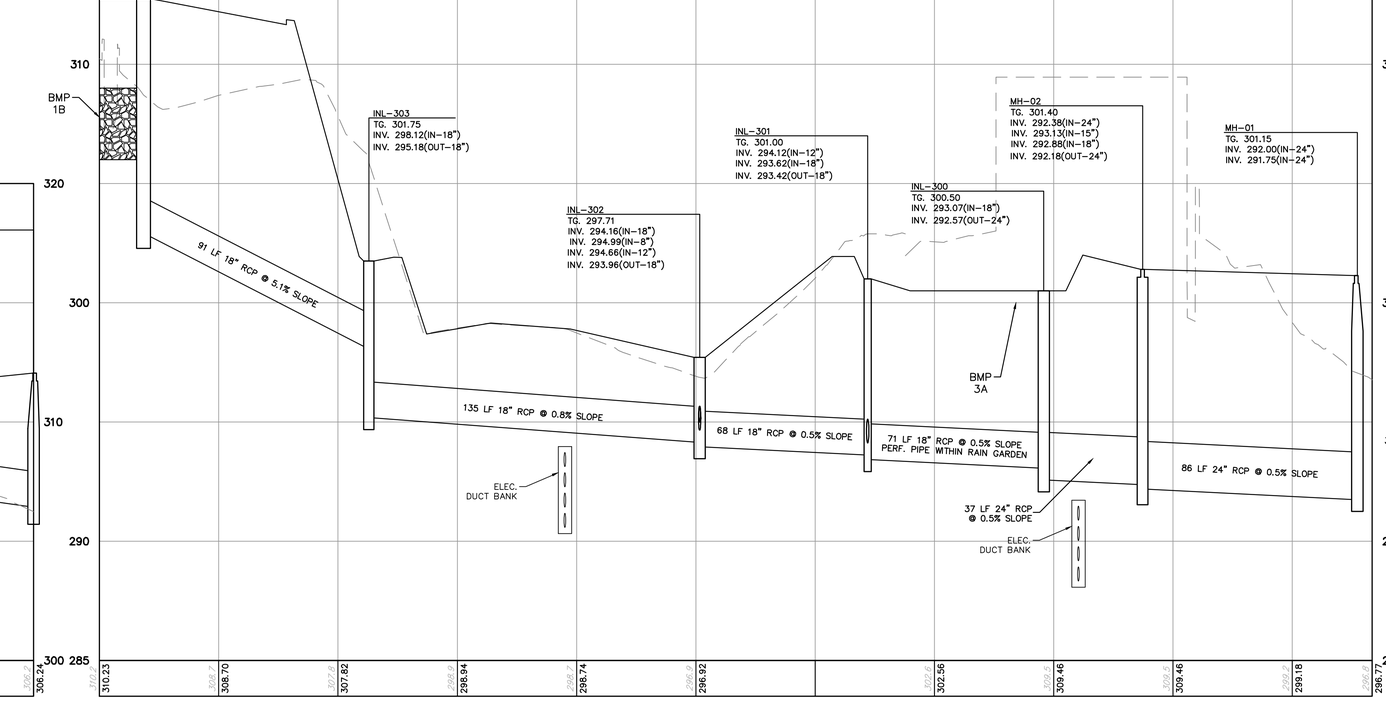
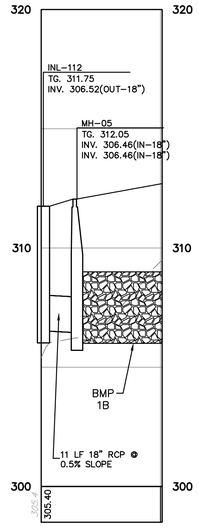
VERT 1"=3'



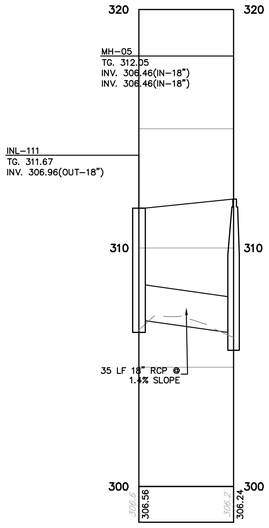
BMP 1-B TO MH-01

STATION 0+00 TO 5+33
SCALE: HORZ 1"=30'
VERT 1"=3'



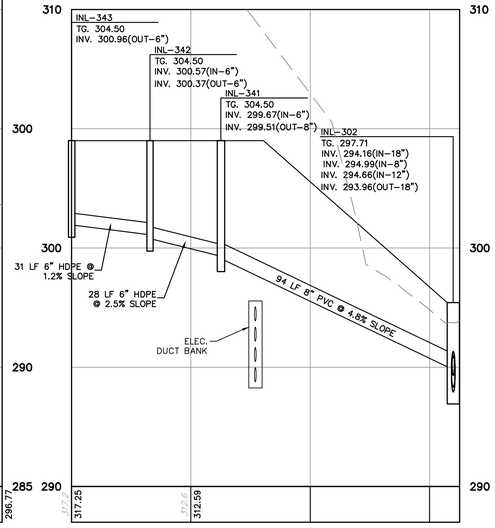
INL-112 TO BMP 1-B

STATION 0+00 TO 0+51
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-111 TO MH-05

STATION 0+00 TO 0+40
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-343 TO INL-302

STATION 0+00 TO 1+63
SCALE: HORZ 1"=30'
VERT 1"=3'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

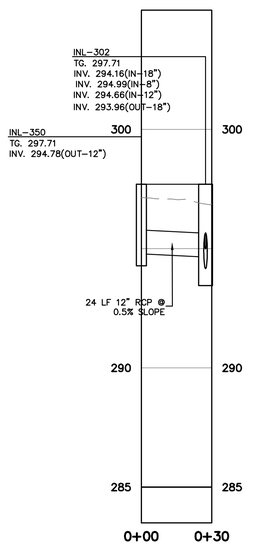
MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

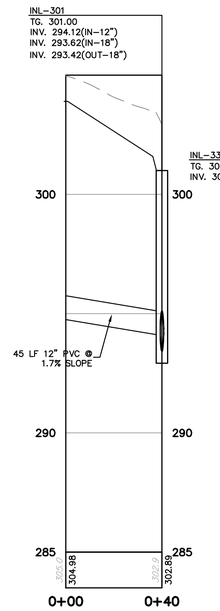
SHEET NO.: 36 OF 40

T:\and design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 36 PROFILES - 1 Plotted By: wheider, on Mon Oct 02, 2023 at 12:07pm



INL-350 TO INL-302

STATION 0+00 TO 0+30
SCALE: HORZ 1"=30'
VERT 1"=3'



CLEANOUT TO INL-301

STATION 0+00 TO 0+40
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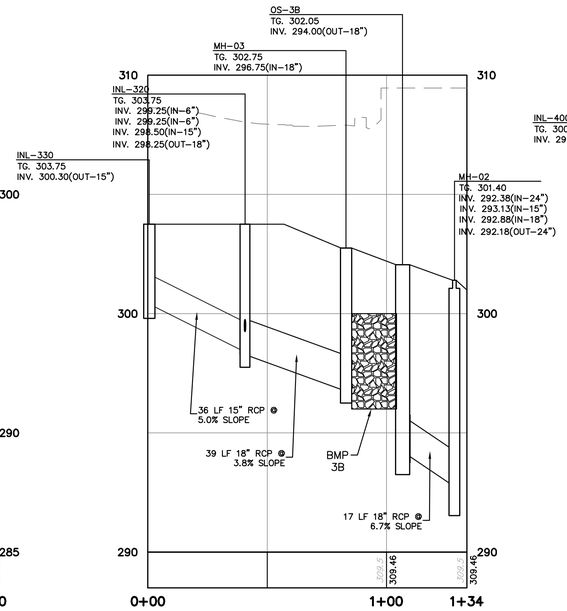
VERT 1"=3'



INL-330 TO MH-02

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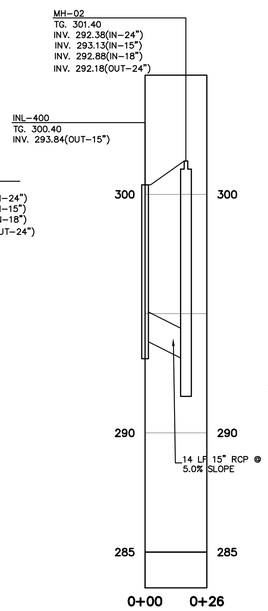
VERT 1"=3'



INL-400 TO MH-02

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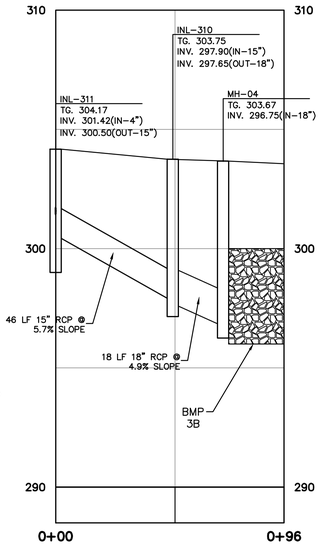

INL-311 TO BMP 3

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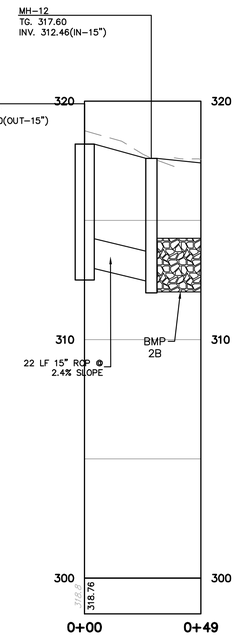

OS 2-A TO BMP 2-B

STATION 0+00 TO 0+49
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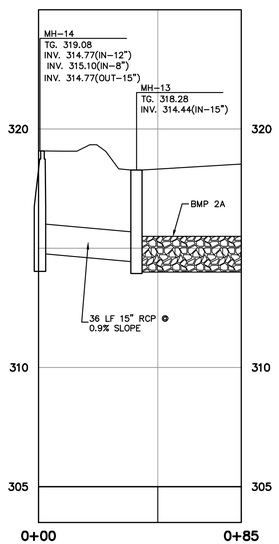
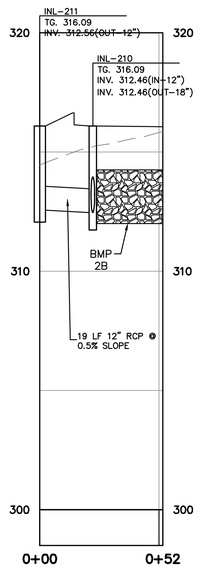


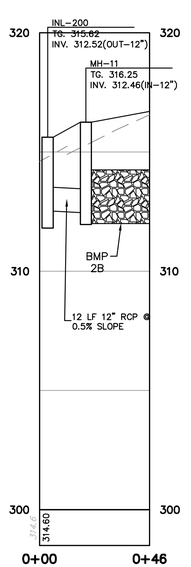
MH-14 TO BMP 2-A

STATION 0+00 TO 0+85
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-211 TO BMP 2-B

STATION 0+00 TO 0+52
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-200 TO BMP 2-B

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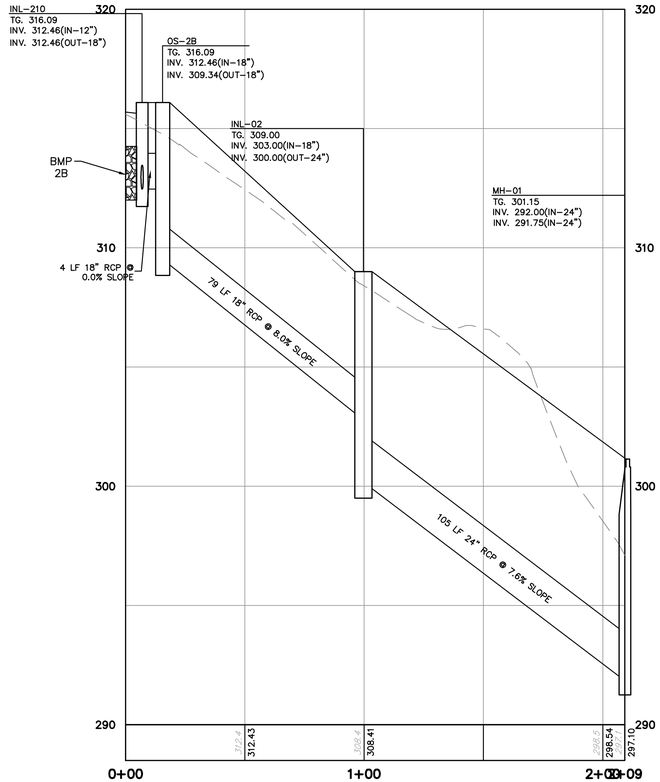

BMP 2-B TO MH-01

STATION 0+00 TO 2+09
SCALE: HORZ 1"=30'
VERT 1"=3'

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 37 PROFILES - 2 Plotted By: whelder, on Mon Oct 02, 2023 at 11:42am

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

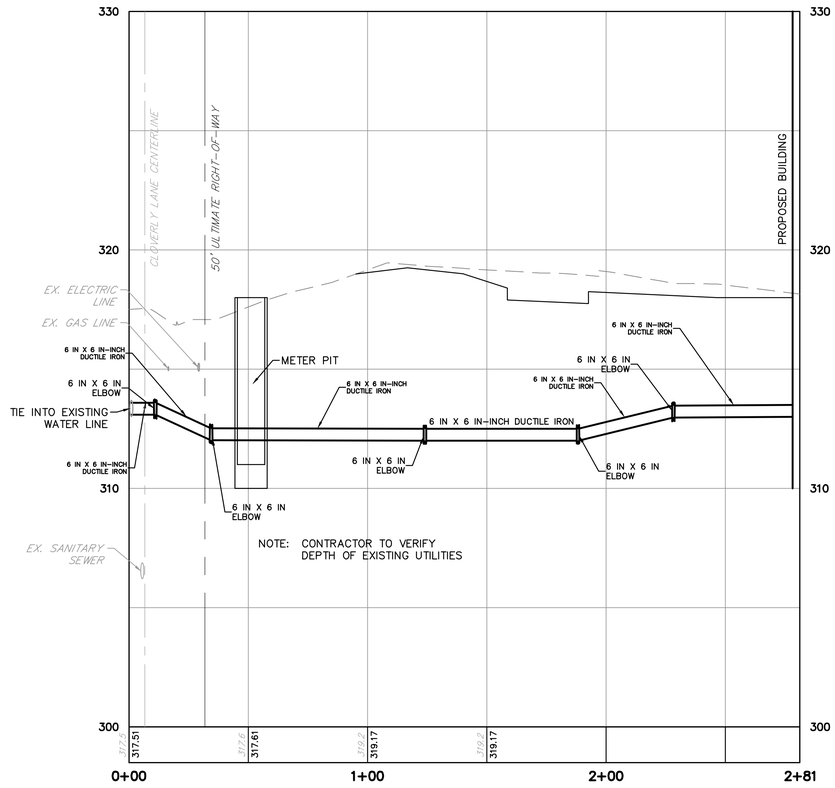
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

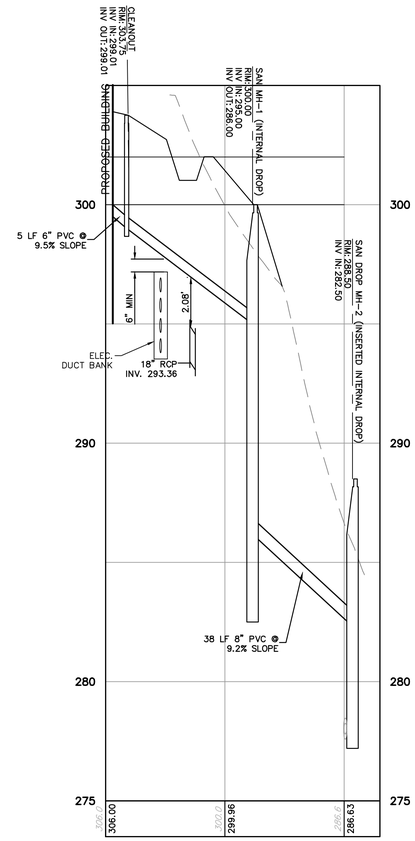
DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 37 OF 40



EXISTING WATER MAIN TO PROPOSED BUILDING

STATION 0+00 TO 2+81
SCALE: HORZ 1"=30'
VERT 1"=3'



PROPOSED BUILDING TO SAN DROP MH-2

STATION 0+00 TO 1+15
SCALE: HORZ 1"=30'
VERT 1"=3'

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 38 PROFILES - 3 Plotted By: whelder, on Mon Oct 02, 2023 at 11:42am

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

	REV.	DESCRIPTION	DATE	BY
4		REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3		REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2		75% CD SUBMISSION	09/09/22	DAW
1		50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

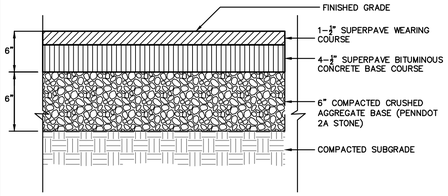
OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

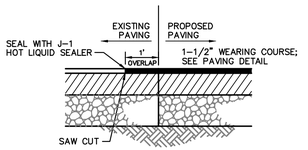
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

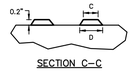
SHEET NO.: 38 OF 40



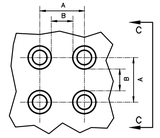
DRIVE & FULL-DEPTH PARKING LOT TYPICAL PAVING DETAIL
NOT TO SCALE



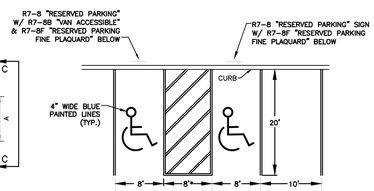
PAVEMENT TIE-IN DETAIL
NOT TO SCALE



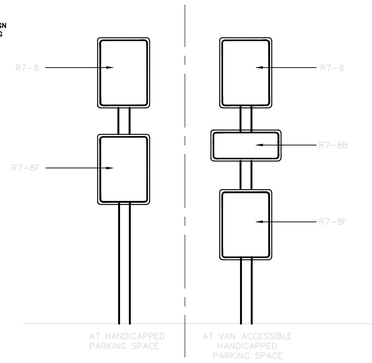
TRUNCATED DOME DIMENSIONS		
DIM.	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% OF D	65% OF D
D	0.9"	1.4"



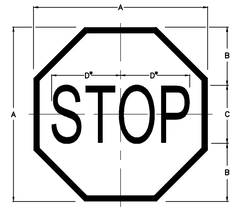
DETECTABLE WARNING TRUNCATED DOME DETAIL



PARKING LOT & HANDICAPPED STALL STRIPING DETAIL
NOT TO SCALE



HANDICAPPED PARKING SIGN ELEVATION DETAIL
NOT TO SCALE

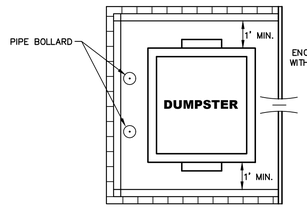


DIMENSIONS – mm (IN)						
SIGN SIZE A x A	B	C	D	BORDER	BLANK STD.
600 x 600 (24" x 24")	200 (8)	200C (8C)	254 (10)	15 (0.6)	B1-600 (B1-24)
750 x 750 (30" x 30")	250 (10)	250C (10C)	318 (12.6)	20 (0.8)	B1-750 (B1-30)
900 x 900 (36" x 36")	300 (12)	300C (12C)	381 (15)	20 (0.8)	B1-900 (B1-36)
1200 x 1200 (48" x 48")	400 (16)	400C (16C)	508 (20)	30 (1.2)	B1-1200 (B1-48)

* REDUCE SPACING 40%

COLOR:
LEGEND AND BORDER (REFLECTORIZED): WHITE
BACKGROUND: RED (REFLECTORIZED)

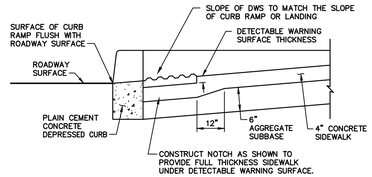
STOP SIGN (R1-1)
NOT TO SCALE



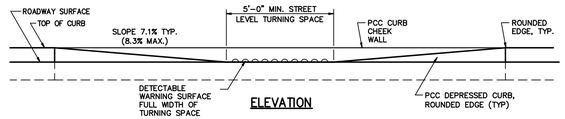
CONCRETE PAVEMENT DETAIL
NOT TO SCALE

NOTES:
1. CONCRETE PAVEMENT SHALL BE SCORED INTO 24" SQUARES AT A 45° ANGLE TO THE BUILDING. SCORING SHALL BE AT LEAST 1/4 THE THICKNESS OF THE CONCRETE SLAB.
2. FULL THICKNESS EXPANSION JOINTS SHALL BE INSTALLED AT A MINIMUM OF EVERY 24 FEET.

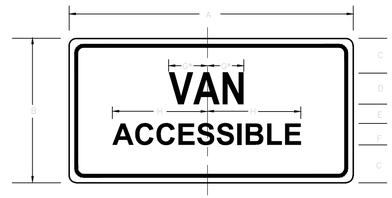
DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



DETECTABLE WARNING SURFACE EMBEDDING
NOT TO SCALE



ELEVATION

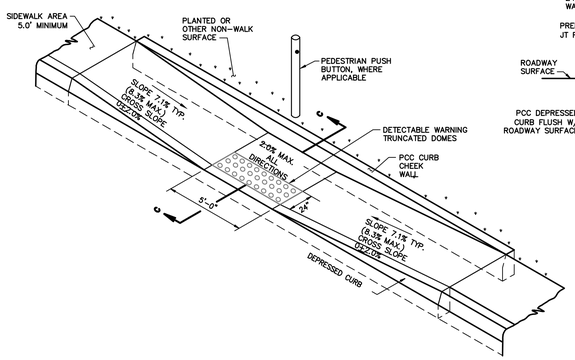


DIMENSIONS – mm (IN)									
SIGN SIZE A x B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD.
300 x 150 (12" x 6")	35 (1.4)	40D (1.6D)	15 (0.6)	25D (1D)	54 (2.1)	102 (4)	10 (0.4)	10 (0.4)	B5-300150 (B5-1206)

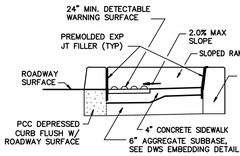
* INCREASE SPACING 50%

COLOR: LEGEND AND BORDER: WHITE (NON-REFLECTORIZED)
BACKGROUND: BLUE (REFLECTORIZED)

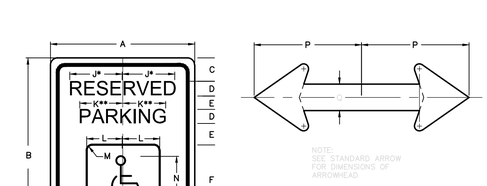
VAN ACCESSIBLE SIGN (R7-8B)
NOT TO SCALE



HANDICAP CURB RAMP-TYPE 2: PARALLEL TO PAVING
NOT TO SCALE



SECTION C-C



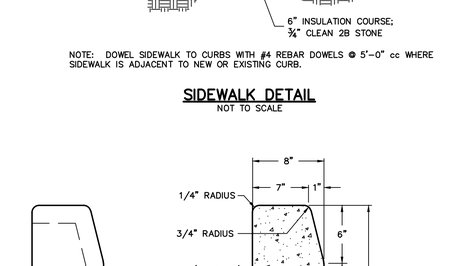
NOTE: SEE STANDARD ARROW FOR DIMENSIONS OF ARROWHEAD

COLOR: LEGEND, ARROW AND BORDER (REFLECTORIZED): GREEN
BACKGROUND AND SYMBOL (REFLECTORIZED): WHITE
SYMBOL BACKGROUND (REFLECTORIZED): BLUE

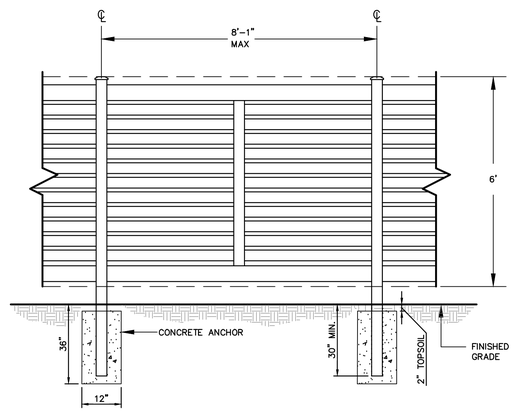
DIMENSIONS – mm (IN)															
SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	N	P	Q	MARGIN	BORDER	BLANK STD.
300 x 450 (12" x 18")	50 (2)	50C (2C)	25 (1)	150 (6)	40 (1.6)	60 (2.4)	126 (4.9)	109 (4.3)	759 (3)	10 (0.4)	100 (4)	95 (3.8)	20 (0.8)	10 (0.4)	10 (0.4)	B5-300450 (B5-1218)

* REDUCE SPACING 50% ** REDUCE SPACING 33%

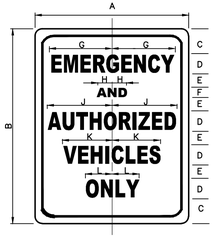
RESERVED PARKING SIGN (R7-8)
NOT TO SCALE



SIDEWALK DETAIL
NOT TO SCALE



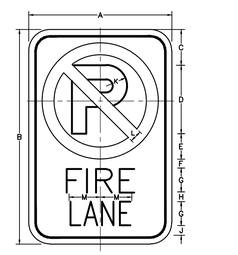
PRIVACY/DUMPSTER ENCLOSURE FENCE DETAIL
NOT TO SCALE



DIMENSIONS – mm (IN)							
SIGN SIZE A x B	C	D	E	F	G	H	
600 x 750 (24" x 30")	80 (3.2)	75C (3C)	60 (2.4)	50C (2C)	244 (9.6)	54 (2.1)	
J	K	L	MARGIN	BORDER	BLANK STD.		
258 (10.2)	197 (7.8)	105 (4.1)	10 (0.4)	10 (0.4)	B5-750600 (B5-3024)		

COLOR:
LEGEND & BORDER: RED (NON-REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

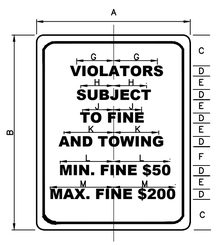
RESTRICTED ACCESS SIGN R5-3-6 DETAIL
NOT TO SCALE



COLOR:
LEGEND, BORDER CIRCLE, DIAGONAL BACKGROUND "P": RED (REFLECTORIZED)
RED (REFLECTORIZED)
WHITE (REFLECTORIZED)
BLACK (NON-REFLECTORIZED)

DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H	J	
300 x 450 (12" x 18")	75 (3)	150E(W) (6E(W))	47 (1.9)	21 (0.8)	50B (2B)	20 (0.8)	37 (1.5)	
K	L	M		MARGIN	BORDER	BLANK STD.		
122 (4.9)	25 (1)	56 (2.2)		10 (0.4)	10 (0.4)	B5-300450 (B5-1218)		

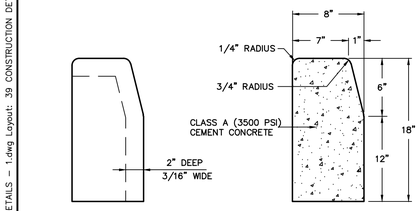
NO PARKING-FIRE LANE SIGN (R7-2B)
NOT TO SCALE



DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H		
300 x 450 (12" x 18")	75 (3)	25C (1C)	25 (1)	50 (2)	75 (3)	61 (2.4)		
J	K	L	M	MARGIN	BORDER	BLANK STD.		
58 (2.3)	90 (3.6)	101 (4)	117 (4.6)	10 (0.4)	10 (0.4)	B5-300450 (B5-1218)		

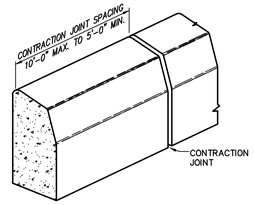
COLOR:
LEGEND & BORDER: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESERVED PARKING PENALTIES SIGN (R7-8F)
NOT TO SCALE

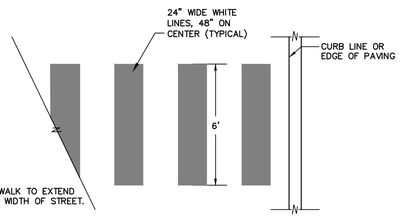


DETAIL A
CONTRACTION JOINT

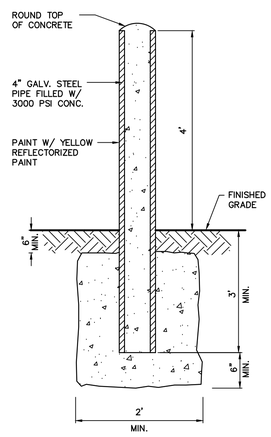
TYPICAL
CROSS SECTION



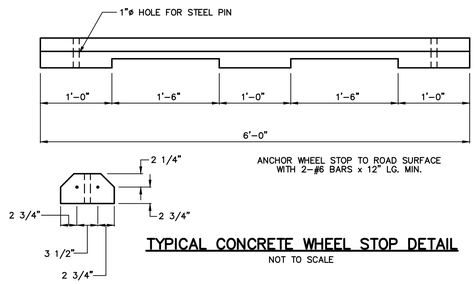
PLAIN CEMENT CONCRETE CURB
NOT TO SCALE



CROSSWALK DETAIL
NOT TO SCALE



BOLLARD DETAIL
NOT TO SCALE



TYPICAL CONCRETE WHEEL STOP DETAIL
NOT TO SCALE

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawing\CONSTRUCTION DETAILS - 1.dwg Layout: 39 CONSTRUCTION DETAILS Plotted By: wheider, on Mon Oct 02, 2023 at 11:42am

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3555 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	DESCRIPTION	DATE	BY
4	REVISED PER TWP ENGINEER LETTER	10/02/23	JM
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

CONSTRUCTION DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ---

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
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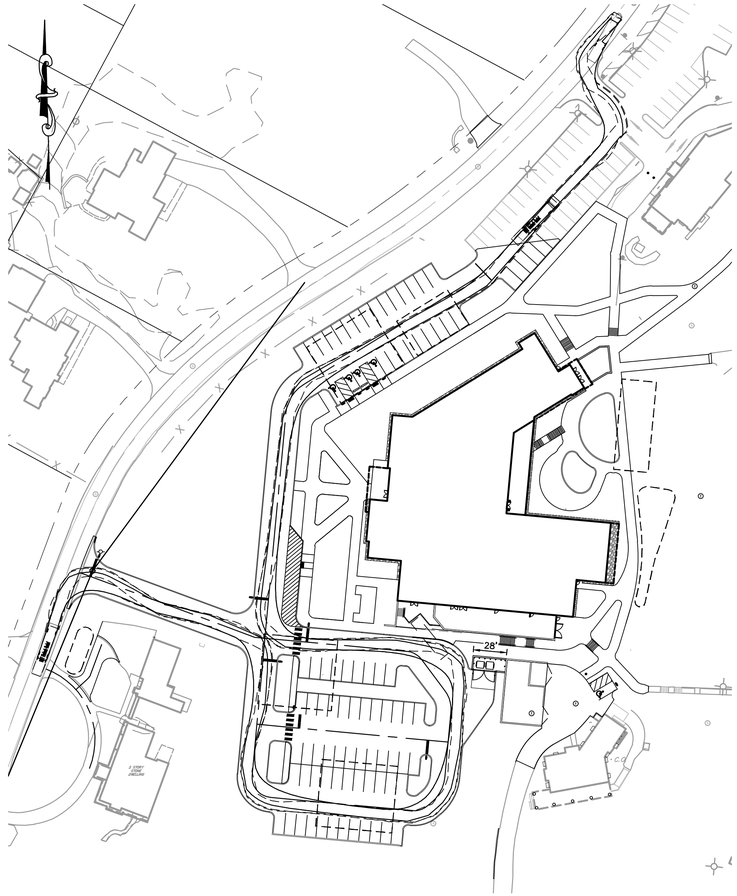
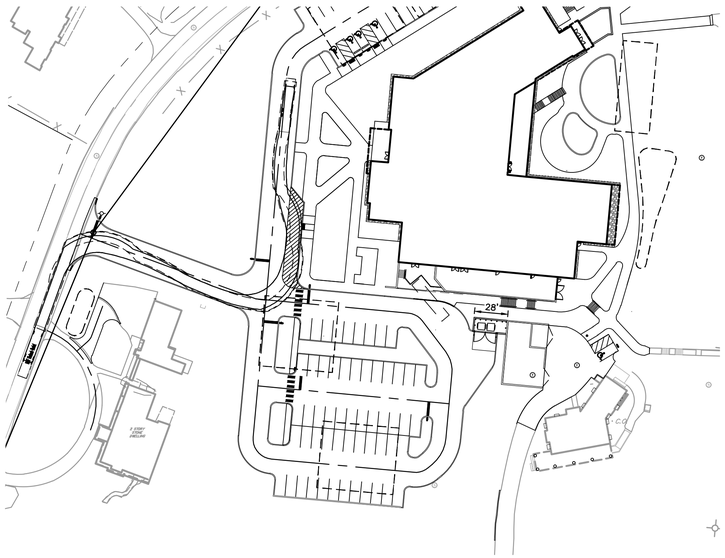
DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

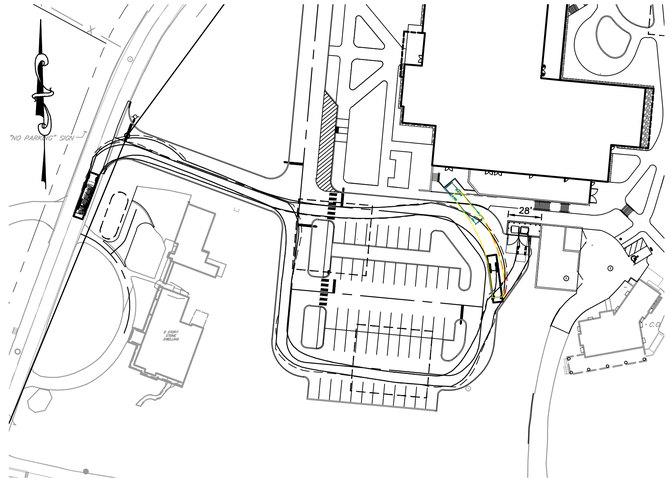
SHEET NO.: 39 OF 40



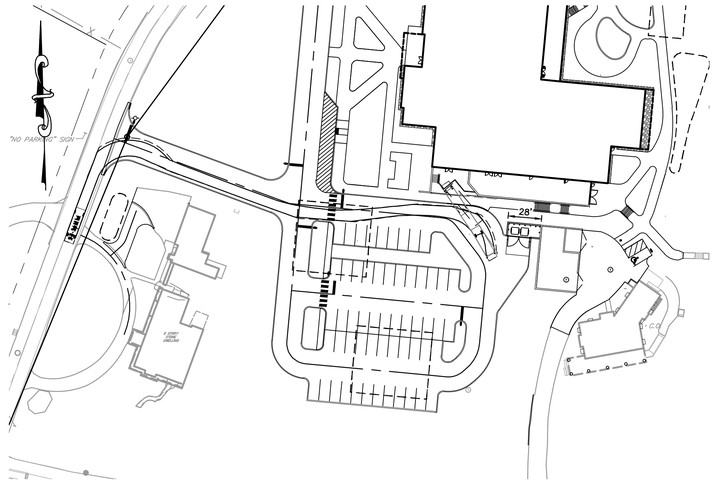
FIRE TRUCK TURNING PLAN – 1



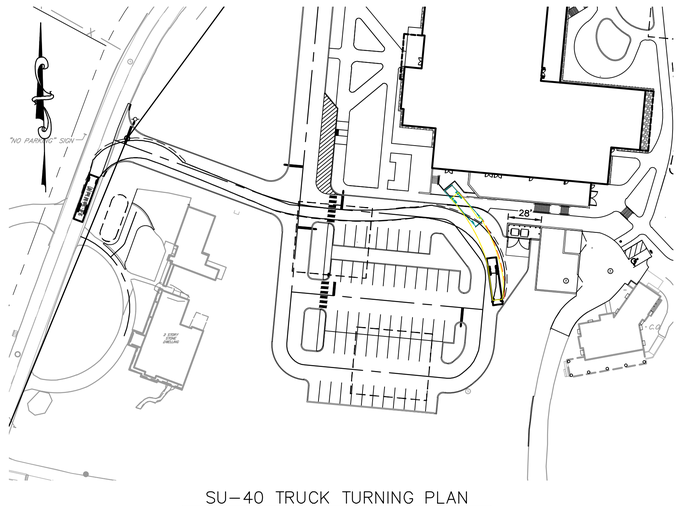
FIRE TRUCK TURNING PLAN – 2



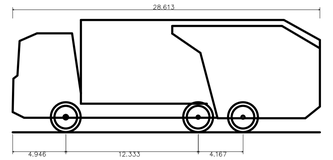
GARBAGE TRUCK TURNING PLAN



SU-30 TRUCK TURNING PLAN

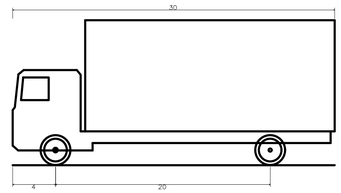


SU-40 TRUCK TURNING PLAN



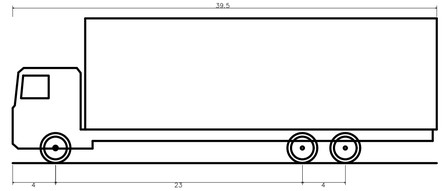
Mack TerraPro Cabover 6x4 MRU613 + Wayne Curbtender 31cu yd

Overall Length	28.613ft
Overall Width	8.333ft
Overall Body Height	12.333ft
Min Body Ground Clearance	1.310ft
Track Width	8.000ft
Lock-to-lock time	6.000s
Curb to Curb Turning Radius	53.150ft



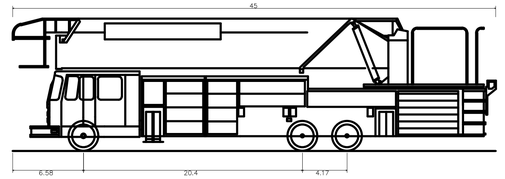
SU-30 – Single Unit Truck

Overall Length	30.000ft
Overall Width	8.333ft
Overall Body Height	12.500ft
Min Body Ground Clearance	1.310ft
Track Width	8.000ft
Lock-to-lock time	6.000s
Max Steering Angle (Virtual)	31.80°



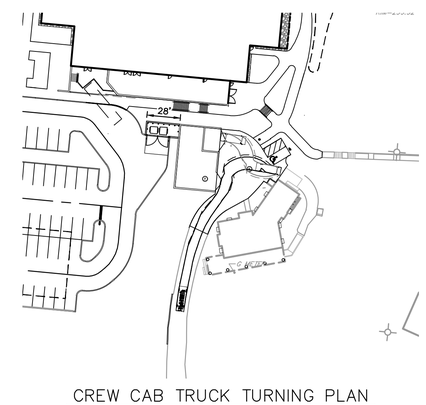
SU-40 – Single Unit Truck

Overall Length	39.500ft
Overall Width	8.333ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.167ft
Track Width	8.000ft
Lock-to-lock time	6.000s
Max Steering Angle (Virtual)	31.80°

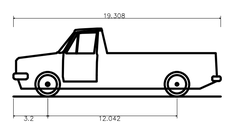


NHEF Firetruck–Bucket

Overall Length	45.000ft
Overall Width	8.333ft
Overall Body Height	11.000ft
Min Body Ground Clearance	0.167ft
Track Width	8.000ft
Lock-to-lock time	10.000
Max Steering Angle (Virtual)	40.00°



CREW CAB TRUCK TURNING PLAN



F-150 SuperCrew 4x4 STYLESIDE 5.5' Box

Overall Length	19.308ft
Overall Width	6.750ft
Overall Body Height	6.167ft
Min Body Ground Clearance	0.750ft
Track Width	6.375ft
Lock-to-lock time	4.000s
Curb to Curb Turning Radius	23.500ft

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- # — EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T — T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

60 0 60 120
SCALE IN FEET
1"=60'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION	REV.
JM	10/02/23	REVISED PER TWP ENGINEER LETTER	4
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS	3
DAW	09/09/22	75% CD SUBMISSION	2
DAW	07/20/22	50% CD SUBMISSION	1

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING (LD-22-05)

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

TRUCK TURNING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ____

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=60'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 40 OF 40

T:\land design\2017\2017120O6_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\TRUCK TURNING PLAN.dwg Layout: 40 TRUCK TURNING PLAN Plotted By: whelder, on Mon Oct 02, 2023 at 11:43am

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

www.pennoni.com

July 14, 2023

ABINT130027

Mr. Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: Executive Summary for LD-22-05-Penn State New Academic Building
PARID: 30-00-09797-00-6 / TMID: 30003 002 (1577 Cloverly Lane)
PARID: 30-00-09788-00-1 / TMID: 30003 001 (1639 Cloverly Lane)
PARID: 30-00-09784-00-5 / TMID: 30003 025 (1665 Cloverly Lane)
PARID: 30-00-09780-00-9 / TMID: 30003 020 (1681 Cloverly Lane)
Preliminary/Final Major Subdivision and Land Development Plans Review (2nd Submission)

Dear Mr. Manfredi:

We have received a copy of the Preliminary/Final Major Subdivision and Land Development Plans consisting of forty (40) sheets dated June 6, 2022 last revised June 5, 2023, and received on June 6, 2023 as prepared by Gilmore & Associates, Inc. located at 184 West Main Street, Suite 300 in Trappe, PA for the above referenced project. The land development applicant was deemed complete for reviews on June 17, 2022.

Executive Summary:
This land development application involves the four (4) existing parcels noted above. Under this application, the applicant is proposing the following:

- Consolidation of the four (4) existing parcels, which will yield a gross area of 2,090,422.72 SF (or 47.99 acres). With the lot consolidation of the four parcels, the entire site will be surrounded by roadways on all sides.
- Construct a new 3-story 30,688 SF (74,100 GSF) academic building with associated parking areas located adjacent the new building.
- New curbing, sidewalk and walkways; landscaping; and stormwater management facilities are also proposed as part of this land development.

The new building addition is proposed to be serviced by public water and sewer.

The parcels consisting of 1639, 1665, and 1681 Cloverly Lane were located within the R-1 Low-Density Residential zoning District; however, based on Ordinance No. 2187, adopted on November 10, 2021, the parcels have been re-zoned to be the same zoning district as the Penn State Abington campus located within the CS Community Service Zoning District. In addition to the re-zoning of these parcels, the Board of Commissioners also adopted Ordinance No. 2186 on November 10, 2021, which is a text amendment to the current Zoning Code to create a new college/university use within the CS Community Service Zoning District.

The site is fronted by Woodland Road (40 FT R/W) to the north; School Lane (40 FT R/W) to the east, and Cloverly Lane (40 FT R/W) to the south and east. Access to/from the campus site will be by way of nine (9) existing entrances, of which three (3) access drives intersect Woodland Road; three (3) access drives intersect School Lane; and three (3) access drives intersect Cloverly Lane. There will be one (1) new entrance that intersects Cloverly Lane proposed for the new academic building. Portions of the existing three (3) buildings located at the

southwest corner of Cloverly Lane and the three (3) buildings along Woodland Road do not meet the minimum 75' front yard setback; and therefore, these existing buildings are considered existing non-conforming.

There is an existing tributary to Meadow Brook, located adjacent the Spring House at the northern portion of the site, and traverses through the center of the tract to flow southeast from the site. In accordance with the FEMA, Flood Insurance Rate Map (FIRM) Panel No. 42091C0076G, effective March 2, 2016, and Panel No. 42091C0401G, effective March 2, 2016, the tributary and adjacent areas are identified by the FEMA FIRM to be located within flood Zone X and are special flood hazard areas subject to inundation by the 0.2% annual chance flood (500-year flood), or areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. The remaining portions of the tract are located within Zone X, which are areas determined by the FEMA FIRM to be located outside the 0.2% annual chance flood and areas of minimal flood hazard. Therefore, based on the FEMA determination, the area of the tract with the proposed site improvements is not located within the Floodplain Conservation Overlay District and is not subject to the floodplain regulations of the Floodplain Conservation Overlay District. However, in accordance with Figure 15.2 - Approximate Location of Riparian Corridor Conservation District, the campus parcel is located within the Riparian Corridor Conservation District and is subject to the regulations of the Riparian Corridor Conservation District.

The Applicant is not requesting any variances as part of this land development project.

Conditional Use Approval:
The Applicant was granted a conditional use approval from the following sections at the Board of Commissioners Working Session meeting held on December 8, 2022:

1. **§1503.B.2.b –** A conditional use to allow for corridor crossings by centralized sewer and water lines, and/or public utility transmission lines, provided that any disturbance is offset by corridor mitigation measures as outlined in §1508. Riparian Management of this chapter, and provided underground utility and pipe crossings are located at least 3 feet below the stream invert.

2. **§1503.B.2.c –** A conditional use to allow centralized sewer and/or water lines and public utility transmission lines running along the corridor, provided that any disturbance is, at a minimum, offset by corridor mitigation measures. These lines shall be located as far from Zone One as practical.

Waivers Requested:
The Applicant is requesting the following waivers as part of this land development:

1. **§146-9.A – Application Stages –** A waiver to consider the current subdivision and land development submission to be a combined Preliminary/Final application.

2. **§146-10.A.(1) – General Requirements, Drafting Standards –** A partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.

3. **§146-11.A.(4) – Property Identification Plans –** A partial waiver is requested from the requirements of providing tract boundaries with tax parcel numbers, owner's names, and approximate acreage of lots surrounding any portion of the site within 400 feet.

4. **§146-11.B.(3) – Existing Features Plan –** A partial waiver is requested from the requirements of providing the property lines and names of landowners within 400 feet of any part of the site to be subdivided or developed.

5. **§146-11.B.(7) – Existing Features Plan –** A partial waiver is requested from the requirements to provide the location, size, and ownership of all underground and above ground public or private utilities. The

proposed plan provides information made available through site survey, historical maps, and information obtained through PA one-call. However, the plans do not show information that was not discovered during project development.

6. **§146-24.D.(3) – Streets, Cartway Width –** A waiver is requested to allow the existing cartway widths of the exiting streets to remain. The existing streets are well-established, and no roadway widening is proposed.

7. **§146-27 – Sidewalks and Curbs –** A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new sidewalks or curbs are proposed within the public right-of-way.

8. **§146-33.C – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to have a cover less than 24 inches in limited areas that are not subject to vehicular traffic.

9. **§146-33.D – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to be less than 15 inches in diameter.

10. **§146-39.B.(3)(a)[1] – Landscaping, Off Street Parking Areas –** A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter.

11. **§146-43.C.(3)(a) – Erosion and Sediment Control –** A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon Township Engineer approval of design.

12. **§146-302.B.(2)(b)[5] – SWM Site Plan Requirements –** A waiver is requested from the requirement to show the locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of the property lines.

13. **§142-409.A – Stormwater Peak Rate Control and Management Districts –** A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:
    a. Proposed to receive replacement pavement in kind;
    b. To receive a reduction in pavement area and not otherwise improved;
    c. Outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

Issues:

The following issues we have identified from our review is as follows:

- Traffic:
    - The Applicant to provide the minimum required and available sight distance for the proposed driveway onto Cloverly Lane.
    - Evaluate feasibility of relocating the driveway further north along the curve to maximize sight distance.
    - Provide appropriate signage to discourage vehicles entering the existing restricted access driveway on the southern end of the site.

- Landscaping:
    - A total of 154 replacement trees each with a caliper of 3-3.5 inches is required for the project. The Applicant is proposing 37 trees to be planted and is requesting a fee-in-lieu for the remaining replacement trees.
    - There are trees that are located closer than 15 ft to the overhead electricity line along Cloverly Lane. These trees shall be relocated to be a minimum of 15 feet from the overhead utility lines.

- Stormwater Management:
  - Applicant to provide NPDES permit.
  - The limiting zone is not shown on the BMP cross sections to ensure a minimum of 24 inches is being provided between the top of the limiting zone and the bottom of the BMP
  - Dewatering calculations shall be provided to ensure the BMPs can be dewatered in a maximum of 72 hours.

Summary:
The Applicant will be eligible for Preliminary/Final Major Subdivision and Land Development Plans approval contingent the Applicant adequately addresses the outstanding traffic and land development review comments.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

U:\ACCOUNTS\ABINT\ABINT130027 - LD-22-05 - PENN STATE NEW ACADEMIC BLDG\ADMIN\LD-22-05-PC MTG EXEC SUMMARY - PENN STATE ACADEMIC BLDG UPDATED 07.14.23.DOCX

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN (LD -22-05)

FOR

PENNSYLVANIA STATE UNIVERSITY

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

WAIVERS REQUESTED

THE FOLLOWING WAIVERS FROM CHAPTER 146, SUBDIVISION AND LAND DEVELOPMENT AND CHAPTER 142, STORMWATER MANAGEMENT, ARE REQUESTED:

1. §146-9.A – APPLICATION STAGES. A WAIVER IS REQUESTED TO CONSIDER THE CURRENT SUBDIVISION AND LAND DEVELOPMENT SUBMISSION TO BE A COMBINED PRELIMINARY/FINAL APPLICATION.
2. §146-10 – PLAN SCALE. PARTIAL WAIVER TO ALLOW PLANS THAT DEPICT THE OVERALL SITE TO BE SMALLER THAN 1"=50'. PLANS DEPICTING THE ACADEMIC BUILDING PROJECT AREA ARE DRAWN AT 1" = 40 OR LARGER.
3. §146-11.A(4) – PROPERTY IDENTIFICATION PLANS. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING TRACT BOUNDARIES WITH TAX PARCEL NUMBERS, OWNER'S NAMES, AND APPROXIMATE ACREAGE OF LOTS SURROUNDING ANY PORTION OF THE SITE WITHIN 400 FEET. ABUTTING PROPERTY INFORMATION IS SHOWN ON THE PLANS.
4. §146-11.B(3) – EXISTING FEATURES PLAN. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE PROPERTY LINES AND NAMES OF LANDOWNERS WITHIN 400 FEET OF ANY PART OF THE SITE TO BE SUBDIVIDED OR DEVELOPED. AN AERIAL PHOTOGRAPH PLAN IS PROVIDED WITH ABUTTING PROPERTY INFORMATION SHOWN.
5. §146-11.B(7) – EXISTING UTILITIES. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE LOCATION, SIZE, AND OWNERSHIP OF ALL UNDERGROUND AND ABOVE GROUND PUBLIC OR PRIVATE UTILITIES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
6. §146-24.D(3) – STREETS – CARTWAY WIDTH . A WAIVER IS REQUESTED TO ALLOW THE EXISTING CARTWAY WIDTHS OF THE EXISTING STREETS TO REMAIN. THE EXISTING STREETS ARE WELL-ESTABLISHED. NO ROADWAY WIDENING IS PROPOSED.
7. §146-27 – SIDEWALKS AND CURBS. A WAIVER IS REQUESTED TO PERMIT THE ONSITE WALKWAYS AND PEDESTRIAN ROUTES TO BE CONSIDERED ADEQUATE TO MEET PEDESTRIAN ACCESS REQUIREMENTS. NO NEW ROADWAY SIDEWALKS OR CURBS ARE PROPOSED.
8. §146-33.C – STORM DRAIN COVER. A WAIVER IS REQUESTED TO ALLOW ON-SITE PRIVATE STORM SEWER PIPE TO HAVE LESS THAN 24 INCHES OF COVER.
9. §146-33.D – STORM DRAIN DIAMETER. A WAIVER IS REQUESTED TO ALLOW ON-SITE PRIVATE STORM SEWER PIPE TO BE LESS THAN 15 INCHES IN DIAMETER.
10. §146-39.B(3)(A)[1] – INTERIOR LANDSCAPING WITHIN PARKING AREA. A PARTIAL WAIVER IS REQUESTED TO ALLOW A PORTION OF THE PROPOSED PARKING AREA LOCATED NORTH OF THE PROPOSED BUILDING TO INCLUDE LESS THAN 5% INTERIOR LANDSCAPING BETWEEN THE OVERALL CURBED PERIMETER. ADDITIONAL LANDSCAPING IS PROVIDED ON THE BUILDING-SIDE OF THE PARKING LOT.
11. §146-43.C(3)(A) – EXCAVATIONS AND FILLS. A WAIVER IS REQUESTED TO ALLOW CUT AND FILL SLOPES IN EXCESS OF 15% CONDITIONED UPON TOWNSHIP ENGINEER APPROVAL OF DESIGN.
12. §142-302.B(2)(B)[5] – SWM SITE PLAN REQUIREMENTS. A WAIVER IS REQUESTED FROM THE REQUIREMENT TO SHOW THE LOCATIONS OF ALL EXISTING AND PROPOSED UTILITIES, SANITARY SEWERS, AND WATER LINES WITHIN FIFTY (50) FEET OF THE PROPERTY LINES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
13. §142-409.A – RATE CONTROL STANDARDS FOR PENNYPACK CREEK WATERSHED. A PARTIAL WAIVER IS REQUESTED FROM RATE CONTROL REQUIREMENTS OF THIS SECTION FOR LIMITED AREAS OF THE PROJECT THAT ARE:
    a. PROPOSED TO RECEIVE REPLACEMENT PAVEMENTS IN KIND;
    b. TO RECEIVE A REDUCTION IN PAVEMENT AREA AND NOT OTHERWISE IMPROVED;
    c. OUTSIDE OF BULK-GRADING AREAS THAT ARE PROPOSED TO BE DISTURBED AND RESTORED TO EXISTING CONDITION FOR INSTALLATION OF UTILITY CONDUITS ONLY.

    DUE TO GROUND SLOPE OF THE CAMPUS ALONG THE EASTERN LIMIT OF PROPOSED WORK, RUNOFF FROM THESE AREAS ARE NOT ABLE TO BE CAPTURED WITHOUT CAUSING ADDITIONAL DISTURBANCE. TO THE EXTENT THAT THESE RELATIVELY SMALL AREAS OF PAVEMENT REPLACEMENT, PAVEMENT REDUCTION OR GROUND SURFACE RESTORATION ARE NOT NEGATIVELY AFFECTING THE EXISTING DRAINAGE CONDITION, THE APPLICANT REQUESTS THAT THIS WAIVER BE CONSIDERED.

GENERAL NOTES

1. VERTICAL DATUM IS NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.
2. CONVERSION TO ABINGTON TOWNSHIP SANITARY SEWER DATUM (TSSD): NAVD88 = TSSD + ———'
3. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.
4. ■ – CONCRETE MONUMENT TO BE SET □ – CONCRETE MONUMENT FOUND
   ● – R.R. SPIKE OR IRON PIN TO BE SET ○ – IRON PIN FOUND
5. THIS PLAN PREPARED UNDER THE FOLLOWING ORDINANCES:
   a. ZONING ORDINANCE – OF 2013, UPDATED 01-07-2019
   b. SUBDIVISION & LAND DEVELOPMENT ORDINANCE – 10-21-2019
   c. STORMWATER MANAGEMENT ORDINANCE – 05-24-2011
6. THE BURYING OF TREES AND OTHER CONSTRUCTION DEBRIS ON THE SITE IS PROHIBITED.
7. THE PROPOSED SANITARY SERVICE TO BE SUBJECT TO THE APPROVAL OF ABINGTON TOWNSHIP SEWER AUTHORITY.
8. THE PROPOSED WATER SERVICE AND FIRE PROTECTION SERVICE ARE TO BE SUPPLIED BY THE EXISTING AQUA PA MAIN LOCATED WITHIN CLOVERLY LANE.
9. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) STANDARDS.
10. SHEETS 2 THROUGH 40 INCLUSIVE, ON RECORD AT ABINGTON TOWNSHIP, SHALL BE CONSIDERED A PART OF THE APPROVED FINAL PLAN AS IF RECORDED WITH SAME.
11. NO STRUCTURES, FENCE, PLANTING, OR OTHER OBSTRUCTION SHALL BE MAINTAINED BETWEEN A VERTICAL PLANE TWO FEET ABOVE STREET LEVEL AND A PLANE SEVEN FEET ABOVE STREET LEVEL SO AS TO INTERFERE WITH TRAFFIC VISIBILITY WITHIN THE CLEAR SIGHT TRIANGLES SHOWN AT ALL INTERSECTIONS. AT EACH POINT WHERE A DRIVEWAY INTERSECTS A STREET A CLEAR SIGHT TRIANGLE OF TEN (10) FEET MEASURED FROM THE POINT OF INTERSECTION OF THE STREET LINE AND THE EDGE OF THE ACCESS WAY SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN TWO FEET ABOVE THE STREET GRADE.
12. THIS PROJECT IS LOCATED WITHIN THE WATERSHED OF AN UNNAMED TRIBUTARY TO MEADOW BROOK: MEADOW BROOK IS DESIGNATED **TSF** IN CHAPTER 93. MEADOW BROOK IS PART OF THE PENNYPACK WATERSHED.
13. PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF PROPOSED STORMWATER MANAGEMENT FACILITIES LOCATED ON THEIR LOT. SEE PCSWM PLANS AND DETAILS FOR INFORMATION ON MAINTENANCE REQUIREMENTS AND SCHEDULE.
14. ALL DEVELOPMENT ACTIVITIES, SUCH AS CLEARING, GRADING, REGRADING, DRIVEWAYS, ROADS, BUILDINGS, SEPTIC SYSTEMS, RETENTION/DETENTION BASINS, AND UTILITY EASEMENTS SHALL BE LIMITED TO THE NATURAL RESOURCE PROTECTION STANDARDS AS SPECIFIED IN THE SOLEBURY TOWNSHIP ZONING ORDINANCE AS LAST AMENDED. THE REMAINING RESOURCES SHALL REMAIN IN THEIR NATURAL CONDITION INCLUDING THE NATURAL FOREST GROUND COVER WITH THE EXCEPTION OF THE REMOVAL OF INVASIVE EXOTIC SPECIES SUCH AS JAPANESE HONEYSUCKLE AND BITTERSWEET OR POISON IVY AND OTHER NOXIOUS WEEDS NOT MENTIONED. THIS RESTRICTION SHALL RUN WITH THE LAND AND BE BINDING ON THE PRESENT AND ALL FUTURE OWNERS AND/OR LESSEES.
15. THE AREA BETWEEN THE ULTIMATE RIGHT-OF-WAY ALONG SCHOOL LANE AND WOODLAND ROAD AND THE TITLE LINE IS OFFERED FOR DEDICATION TO ABINGTON TOWNSHIP.
16. ALL NEW UTILITIES MUSH BE AS-BUILT SURVEYED BY THE CONTRACTOR. ALL AS-BUILT SURVEYS MUST BE PROVIDED DIGITALLY IN AUTOCAD FORMAT THE ARCHITECT AND ENGINEER OF RECORD FOR PUNCHLIST REVIEW. FINAL DIGITAL AUTOCAD VERSIONS OF ALL AS-BUILT PLANS SHALL BE PROVIDE TO PENN STATE UNIVERSITY PRIOR TO FINAL PAYMENT. PSU CONTACT FOR SENDING AUTOCAD DRAWING IS KAELEN ROBB, (kmr16@psu.edu) – GIS ANALYST, (814) 865-2792.
17. THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM OF THE TOWNSHIP OF ABINGTON, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLANS BY THE OWNERS OF THOSE LANDS ON WHICH THE STRUCTURES ARE LOCATED. THE TOWNSHIP OF SOLEBURY AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID STORMWATER MANAGEMENT FACILITIES IN ORDER TO DETERMINE THAT THE DESIGN INTEGRITY IS BEING MAINTAINED BY THE OWNER(S). A BLANKET EASEMENT FOR ACCESS TO THE FACILITIES IS HEREBY GRANTED TO ABINGTON TOWNSHIP.

LOCATION MAP

XX OO XX XX
SCALE IN FEET

SELECT A SCALE

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – JAMES D. McEWEN – LAND SURVEYOR – SU039759E

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – ERIC S. CLASE – ENGINEER – 55713-E

PENNSYLVANIA – CYNTHIA MARIE [illegible] – REGISTRATION NUMBER LA003364

PENNSYLVANIA – CHRISTOPHER E. [illegible] – REGISTRATION NUMBER LA002522

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
184 WEST MAIN STREET, SUITE 300, TRAPPE, PA 19426 • (610) 489-4949 • www.gilmore-assoc.com

OWNER/APPLICANT:

PENNSYLVANIA STATE UNIVERSITY
C/O ANDREW D. GUTBERLET, P.E., LEED AP – MANAGER OF ENGINEERING SERVICES
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

PROJECT LOCATION:

1600 WOODLAND ROAD
ABINGTON, PA 19001
ABINGTON TOWNSHIP,
MONTGOMERY COUNTY,
PENNSYLVANIA

TAX PARCEL:

30-00-09792-00-6

MUNICIPAL FILE No.:

LD-22-05

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4	SITE PLAN
5	EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL
6	EXISTING FEATURES PLAN – OVERALL
7	EXISTING FEATURES AND DEMOLITION PLAN
8	GRADING PLAN
9	GRADING DETAIL PLAN 1
10	GRADING DETAIL PLAN 2
11	EROSION & SEDIMENT CONTROL PLAN
12	EROSION & SEDIMENT CONTROL DETAILS & NOTES – 1
13	EROSION & SEDIMENT CONTROL DETAILS & NOTES – 2
14	PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4)
15	PCSM PLAN – RECORD PLAN 4 OF 4
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19	PCSM NOTES
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27	UTILITY PLAN – OVERALL
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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
2017-12006 PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING – JUNE 5, 2023

PLAN DATE: 06/06/22
LAST REVISED: June 5, 2023

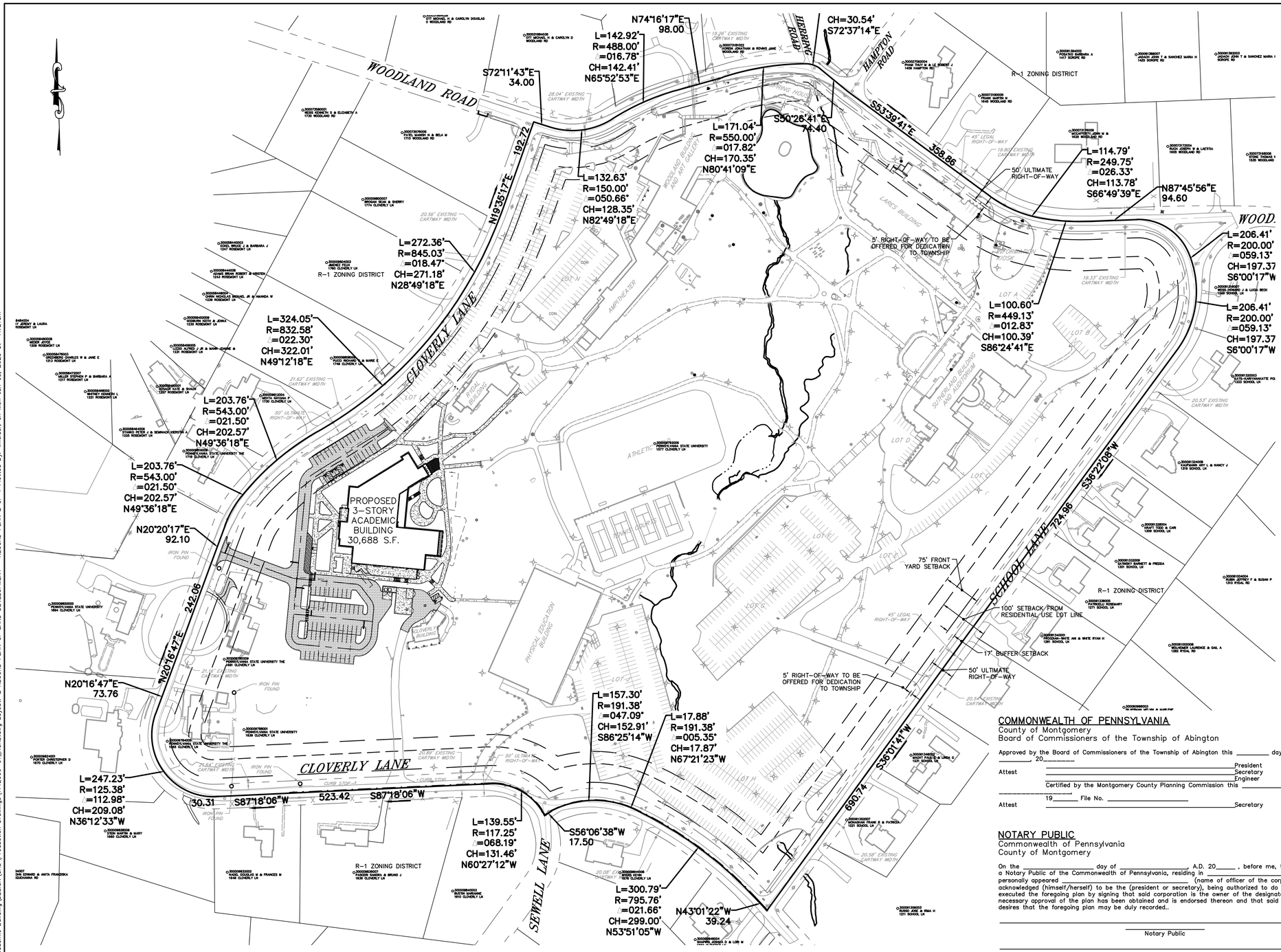
SHEET NO.: 1 OF 40

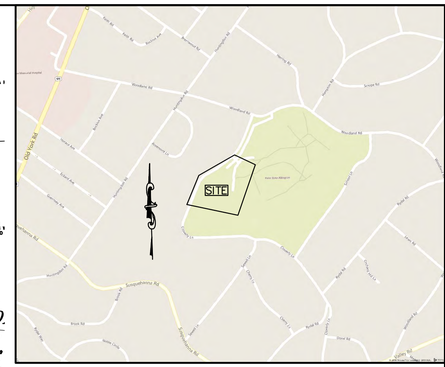
NOT TO BE RECORDED

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_COVER.dwg Layout: 1 COVER – RECORD PLAN 1 OF 4 Plotted By: whelder, on Tue Jun 06, 2023 at 11:58am

NOT TO BE RECORDED

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\171206-01_RCRD.dwg Layout: 2 RECORD PLAN OF LAND DEVELOPMENT - RECORD PLAN 2 OF 4 Plotted By: whelder, on Mon Jun 05, 2023 at 11:21am





LOCATION MAP

SCALE: 1"=800'

800 00 800 1600
SCALE IN FEET

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
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- LIMIT OF 2019/2022 G&A SURVEY
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- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED PAVEMENT

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN
2 OF 4

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West Mifflin, Pennsylvania
15122 – 1078

811

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

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GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

COMMONWEALTH OF PENNSYLVANIA

County of Montgomery
Board of Commissioners of the Township of Abington

Approved by the Board of Commissioners of the Township of Abington this _____ day of _____, 20_____

Attest _____ President
_____ Secretary
_____ Engineer

Certified by the Montgomery County Planning Commission this _____ day of _____, 19_____ File No. _____

Attest _____ Secretary

NOTARY PUBLIC

Commonwealth of Pennsylvania
County of Montgomery

On the _____ day of _____, A.D. 20_____, before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____, personally appeared _____ (name of officer of the corporation), who acknowledged (himself/herself) to be the (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded..

_____
Notary Public

_____
My Commission Expires

COUNTY RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK_____, PAGE_____ON THE _____ DAY OF _____, 20_____.

COUNTY RECORDER OF DEEDS

MCPC No. _____.

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date_____.

_____.
For the Director

Montgomery County Planning Commission

100 0 100 200
SCALE IN FEET
1"=100'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

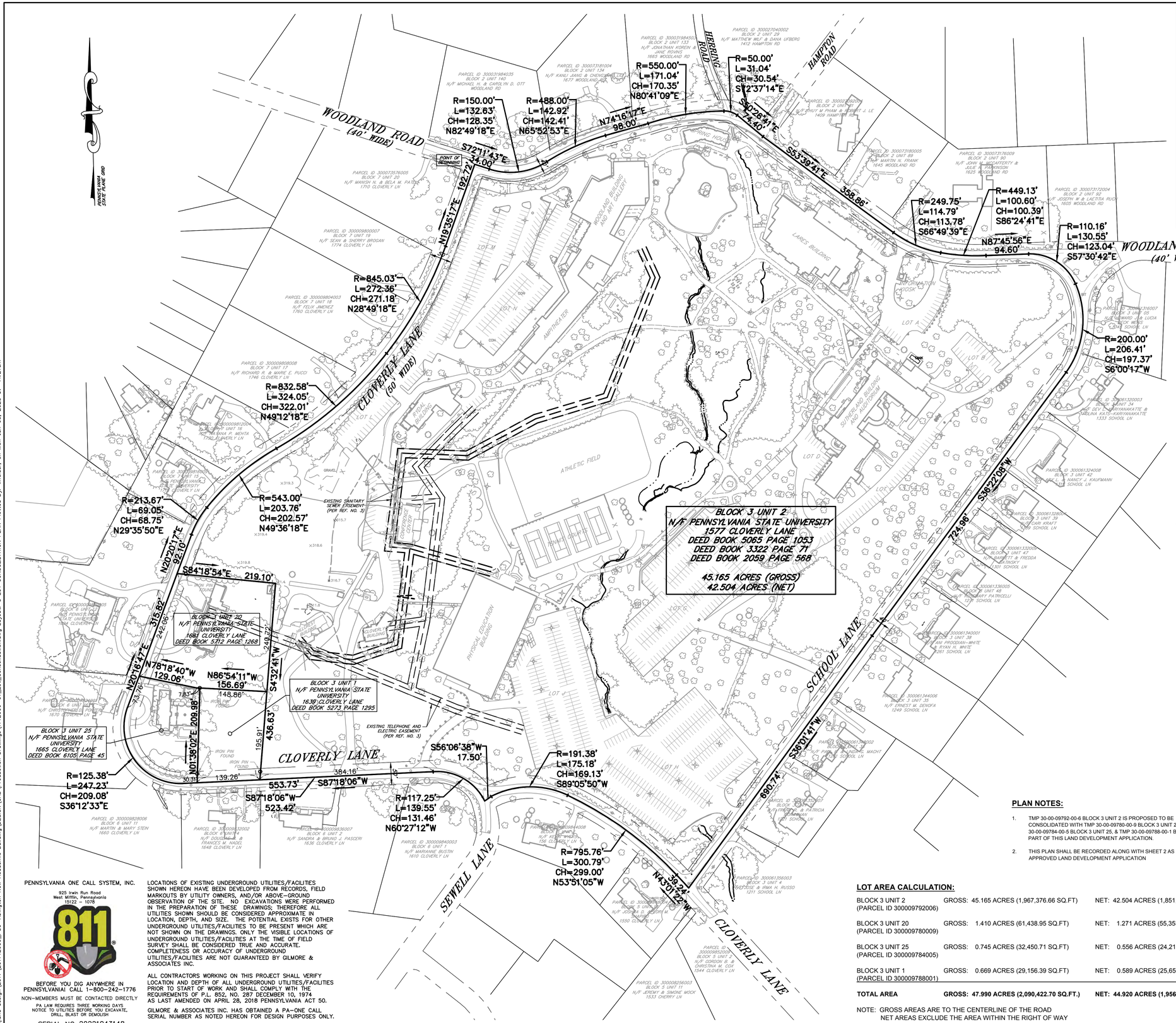
DATE: 06/06/22
SCALE: 1"=100'

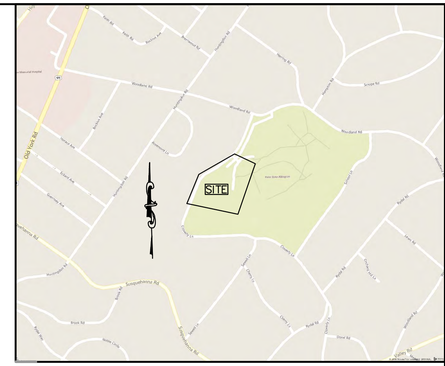
DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 2 OF 40

NOT TO BE RECORDED

T:\land design\2017\2017106_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_Lot_Consolidation.dwg Layout: 3 LOT CONSOLIDATION PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:21am





LOCATION MAP

SCALE: 1"=1000'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
CORPORATE HEADQUARTERS
65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES D. McEWEN
LAND SURVEYOR
SU038752R

NO.	REVISION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

LOT CONSOLIDATION PLAN
PENNSYLVANIA STATE UNIVERSITY
ABINGTON CAMPUS
BLOCK 3, UNITS 1, 2, 20 & 25
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GENERAL SURVEY NOTES:

1. PROPERTY KNOWN AS BLOCK 3, UNITS 1, 2, 20 & 25 AS SHOWN OF THE TAX MAP OF THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN MARCH 2022 AND THE REFERENCED INFORMATION LISTED HEREON. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
3. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
4. HORIZONTAL DATUM IS BASED ON 1983 STATE PLANE COORDINATE SYSTEM AND AS NOTED IN REFERENCE PLAN # 3.
5. THE ROAD RIGHT OF WAY WIDTHS LABELED ARE AS NOTED IN THE REFERENCED DEEDS.
6. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE FROM REFERENCED PLAN NUMBER 3 AND FIELD UPDATED IN CERTAIN AREAS BY GILMORE & ASSOCIATES, INC. BASED ON VISIBLE OBSERVATIONS AND MARKOUTS BY GROUND PENETRATING RADAR SYSTEMS, LLC THROUGH MARCH 2022.

REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS, TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA., FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., AND RECORDED IN THE MONTGOMERY COUNTY RECORDE OF DEEDS ON FEBRUARY 7, 1995 IN BOOK 3, PAGES 50, 51 AND 52.
3. PLAN ENTITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201 - V010201, THE PENNSYLVANIA STATE UNIVERSITY, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA", PREPARED BY PENNONI ASSOCIATES, INC., DATED 10/12/2017 AND REVISED TO 10/24/2017.
4. DEEDS AS NOTED

PLAN NOTES:

1. TMP 30-00-09792-00-6 BLOCK 3 UNIT 2 IS PROPOSED TO BE CONSOLIDATED WITH TMP 30-00-09780-00-9 BLOCK 3 UNIT 20, TMP 30-00-09784-00-5 BLOCK 3 UNIT 25, & TMP 30-00-09788-00-1 BLOCK 3 UNIT 1 AS PART OF THIS LAND DEVELOPMENT APPLICATION.
2. THIS PLAN SHALL BE RECORDED ALONG WITH SHEET 2 AS PART OF THE APPROVED LAND DEVELOPMENT APPLICATION

LOT AREA CALCULATION:

BLOCK 3 UNIT 2 (PARCEL ID 300009792006)	GROSS: 45.165 ACRES (1,967,376.66 SQ.FT)	NET: 42.504 ACRES (1,851,472.71 SQ.FT)
BLOCK 3 UNIT 20 (PARCEL ID 300009780009)	GROSS: 1.410 ACRES (61,438.95 SQ.FT)	NET: 1.271 ACRES (55,353.30 SQ.FT.)
BLOCK 3 UNIT 25 (PARCEL ID 300009784005)	GROSS: 0.745 ACRES (32,450.71 SQ.FT)	NET: 0.556 ACRES (24,213.54 SQ.FT.)
BLOCK 3 UNIT 1 (PARCEL ID 300009788001)	GROSS: 0.669 ACRES (29,156.39 SQ.FT)	NET: 0.589 ACRES (25,658.78 SQ.FT.)
TOTAL AREA	**GROSS: 47.990 ACRES (2,090,422.70 SQ.FT.)**	**NET: 44.920 ACRES (1,956,698.33 SQ.FT.)**

NOTE: GROSS AREAS ARE TO THE CENTERLINE OF THE ROAD
NET AREAS EXCLUDE THE AREA WITHIN THE RIGHT OF WAY

100 0 100 200
SCALE IN 1"=100' FEET

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811

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SERIAL NO. 20221043148

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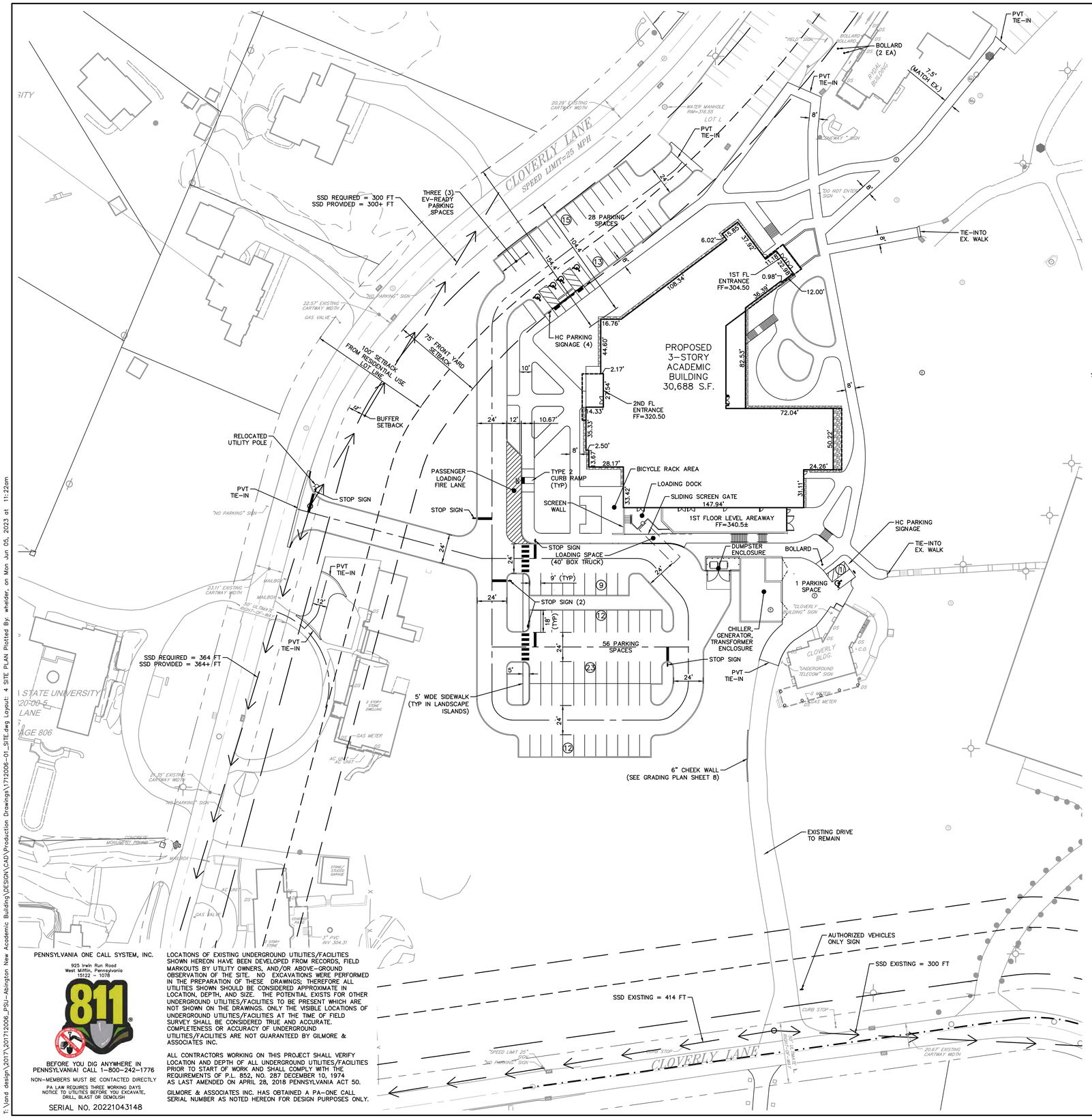
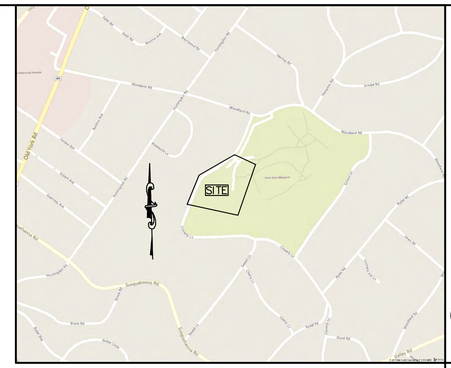
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 1712006-01	
TAX MAP PARCEL No.: BLOCK 3, UNITS 1, 2, 20 & 25	
TOTAL AREA: 47.990 AC.	TOTAL LOTS: 4
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: KRN	CHECKED BY: JDM

SHEET NO.:
3 OF 40

NOT TO BE RECORDED





LOCATION MAP

SCALE: 1"=800'

PROJECT INFORMATION:

ZONING DISTRICT: CS – COMMUNITY SERVICE DISTRICT [1]

SITE USE: E-18 UNIVERSITY CAMPUS [1]

CS – COMMUNITY SERVICE DISTRICT DIMENSIONAL REQUIREMENTS

	REQUIRED	PROVIDED
LOT AREA (MIN)	5 AC.	44.574 AC.[2]
LOT WIDTH (MIN)	400 FT.	>400 FT.
LOT DEPTH (MIN)	400 FT.	>400 FT.
SETBACK FROM RESIDENTIAL USE(MIN FROM A RESIDENTIAL USE LOT LINE)	100 FT.	154.4 FT.
YARD SETBACK, FRONT,(MIN)	75 FT	104.4 FT
YARD SETBACK, SIDE,(MIN)	50 FT.	N/A FT.
YARD SETBACK, REAR,(MIN)	50 FT.	N/A FT.
BUILDING COVERAGE (MAX)	25%	8.4 %
IMPERVIOUS COVERAGE (MAX)	45%	40.2 %
GREEN AREA (MIN)	55%	61.2 %
BUILDING HEIGHT[3]	45 FT.[3]	47.83 FT.
BUILDINGS SEPARATION (MIN)	30 FT.	>30 FT
PARKING SPACES	1,222[4]	1,288[4]

[1] ZONING DESIGNATION, ZONING DIMENSIONAL REQUIREMENTS, AND INCORPORATION OF USE E-18 SHOWN ON THIS PLAN ARE BASED ON TEXT AND MAP AMENDMENTS ADOPTED BY THE ABINGTON TOWNSHIP BOARD OF COMMISSIONERS ON NOVEMBER 10, 2021 (ORDINANCE NO. 2186 AND ORDINANCE NO. 2187).

[2] LOT AREA TO BE UTILIZED FOR ZONING COMPUTATIONS AS SHOWN IN THIS PLAN IS BASED ON CONSOLIDATED LOT AREA MINUS AREA TO THE ULTIMATE RIGHT-OF-WAY LINE OF ALL STREETS.

[3] BUILDING HEIGHT MAY BE INCREASED TO 55 FEET SUBJECT TO THE EXCEPTION SET FORTH IN SECTION 2601.G, "HEIGHT EXCEPTIONS".

[4] PARKING COMPUTATIONS:

REQUIRED PARKING

1 SPACE PER CLASSROOM (88 CLASSROOMS): 1 SP * 88 =	88 SP
1 SPACE PER 2.5 STUDENTS (3600 STUDENTS): 3600/2.5 SP =	1440
1 SPACE PER 10 AUDITORIUM SEATS (510 SEATS): 510/10 =	51
1 SPACE PER 300 S.F. GROSS OFFICE FLOOR SPACE: [EX = 40,415 S.F.; NEW ACADEMIC OFFICE = 10,000 S.F.] 1 SP * 50,416 S.F./300 =	168 SP
TOTAL REQUIRED PARKING	1747 SP
PARKING SPACES REQUIRED WITH 30% REDUCTION [UNIVERSITY SHALL PROVIDE: REGULARLY SCHEDULED SHUTTLE SERVICE; RIDE-SHARE PROGRAM; AND CAR-SHARE/ BIKE-SHARE SERVICES]	1223 SP

PARKING PROVIDED

EXISTING OFF-CAMPUS SPACES	129 SP
EXISTING ONSITE SPACES	1118
SPACES REMOVED FOR PROJECT	[44]
PARKING SPACES ADDED FOR PROJECT (INCLUDING 4 ACCESSIBLE SPACES)	85 SP
TOTAL PARKING PROVIDED	1288 SP

IMPERVIOUS COVERAGE CALCULATIONS

EXISTING LOT AREA	= 1,836,428 S.F.
PROPOSED LOT AREA	= 1,941,654 S.F.
EXISTING BUILDING	= 140,537 S.F.
EXISTING PAVEMENT/CONCRETE	= 581,452 S.F.
TOTAL EXISTING IMPERVIOUS	= 721,989 S.F. (39.3%)
PROPOSED BUILDING	= 162,219 S.F.
PROPOSED PAVEMENT/CONCRETE	= 617,741 S.F.
TOTAL PROPOSED IMPERVIOUS	= 779,960 S.F. (40.2%)

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
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- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
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- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED CONCRETE
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED LANDSCAPE STRIP
- PROPOSED SIGN

EXISTING UTILITY LEGEND

- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET

SCALE: 1"=40'

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

SITE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

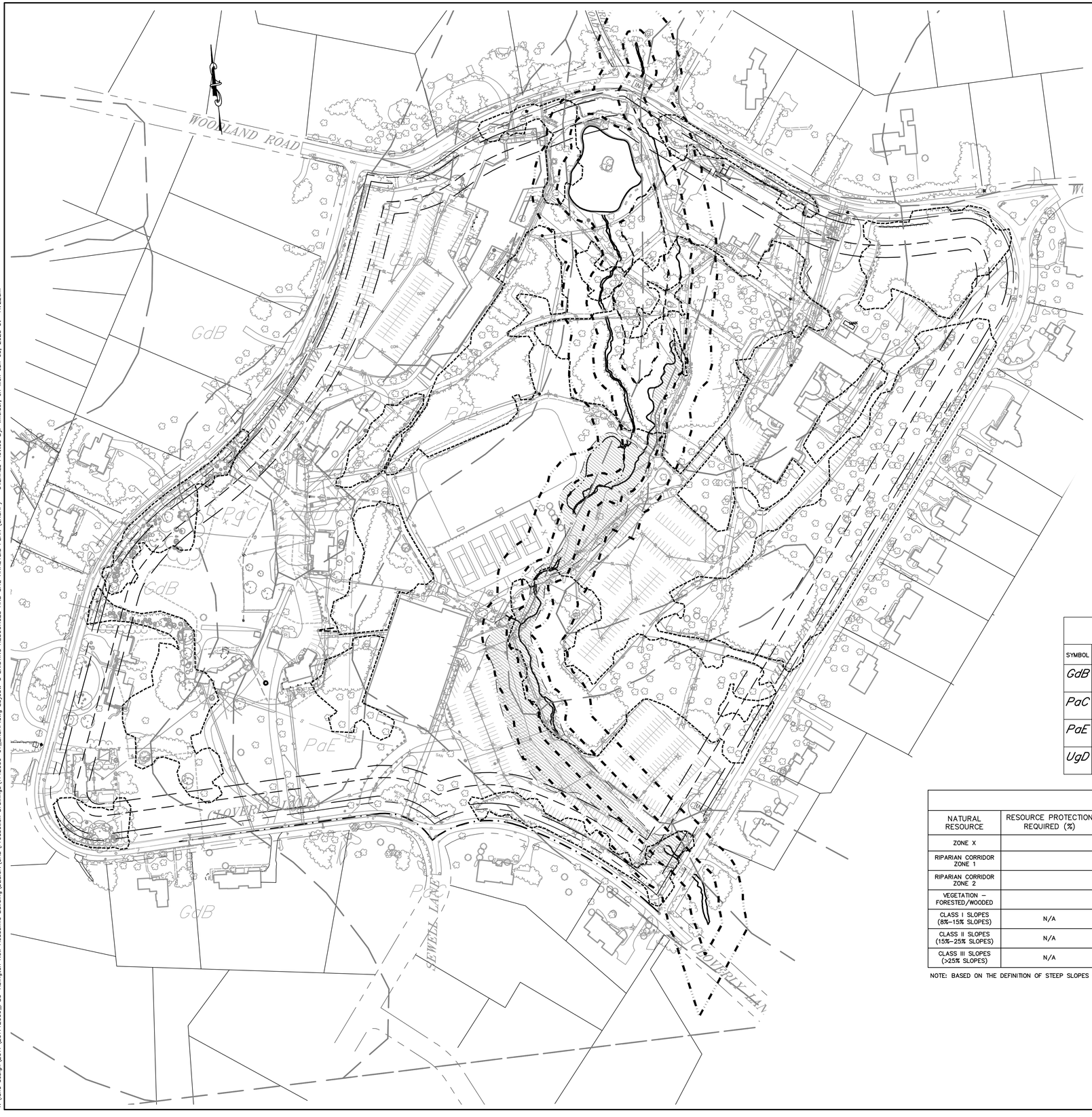
SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

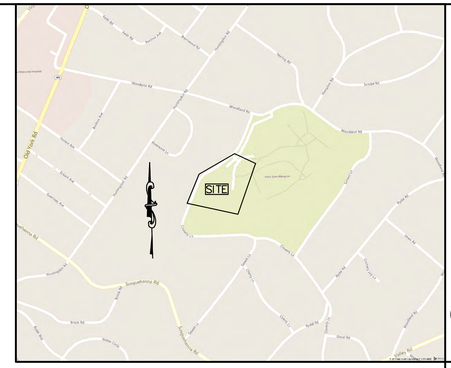
SHEET NO.: 4 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_SITE.dwg Layout: 4 SITE PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:22am



PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
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- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

NATURAL RESOURCE CALCULATIONS

NATURAL RESOURCE	RESOURCE PROTECTION REQUIRED (%)	TOTAL AREA OF RESOURCE (S.F.)	AREA DISTURBED (CURRENT PROJECT)	DISTURBED % (CURRENT PROJECT)	AREA PRESERVED (CURRENT PROJECT)	PRESERVED % (CURRENT PROJECT)
ZONE X		89,123	0	0.0%	89,123	100.0%
RIPARIAN CORRIDOR ZONE 1		78,266	0	0.0%	78,266	100.0%
RIPARIAN CORRIDOR ZONE 2		134,617	0	0.0%	134,617	100.0%
VEGETATION – FORESTED/WOODED		740,549	43,531	5.9%	697,018	94.1%
CLASS I SLOPES (8%–15% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS II SLOPES (15%–25% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS III SLOPES (>25% SLOPES)	N/A	0	0	0.0%	0	0.0%

NOTE: BASED ON THE DEFINITION OF STEEP SLOPES FROM THE TOWNSHIP OF ABINGTON ZONING ORDINANCE, STEEP SLOPES ARE NOT PRESENT ON THE PROJECT SITE

100 0 100 200
SCALE IN FEET
1"=100'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
3		06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS FOR

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) — OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: 1"=100'

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 5 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ERSAP.dwg Layout: 5 EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL Plotted By: whelder, on Mon Jun 05, 2023 at 11:22am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — G — EXISTING GAS LINE
- T — T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

WOODLAND ROAD
CLOVERLY LANE
SCHOOL LANE
SEWELL LANE
ATHLETIC BLDG.
ARTHUR BLDG.
STONELAND BLDG.
LAKES BLDG.
WOODLAND ROAD
N74°16'17"E 98.00'
S72°11'43"E 34.00'
N19°39'17"E 192.72'
S50°26'41"E 74.40'
S53°39'41"E 358.95'
N87°45'56"E 94.60'
S55°27'05"W
N39°24'10"W 201.29'
S56°06'38"W 17.50'
S87°18'06"W 523.42'
N87°18'06"E 30.31'
N2°20'17"E 192.10'
N0°16'47"E 242.09'
N1°38'02"E 209.98'
S39°05'50"W 206.41'
L=132.63' R=150.00' =050.66' CH=128.35' N82°49'18"E
L=272.36' R=845.03' =018.47' CH=271.18' N28°49'18"E
L=324.05' R=832.58' =022.30' CH=322.01' N49°21'18"E
L=203.76' R=543.00' =021.50' CH=202.57' N49°36'18"E
L=69.05' R=213.67' =018.52' CH=68.75' N29°35'50"E
L=247.23' R=125.38' =112.98' CH=209.08' S36°12'33"E
L=142.92' R=488.00' =016.78' CH=142.41' N65°52'53"E
L=171.04' R=550.00' =017.82' CH=170.35' N80°41'09"E
L=31.04' R=50.00' =035.57' CH=30.54' S72°37'14"E
L=114.79' R=249.75' =026.33' CH=113.78' S66°49'39"E
L=100.60' R=449.13' =012.83' CH=100.39' S86°24'41"E
L=130.55' R=110.16' =067.90' CH=123.04' S57°30'42"E
L=206.41' R=200.00' =059.13' CH=197.37' S6°00'17"W
L=175.18' R=191.38' =052.45' CH=169.13' S89°05'50"W
L=139.55' R=117.25' =068.19' CH=131.46' N60°27'12"W
L=300.79' R=795.76' =021.66' CH=299.00' N53°51'05"W
19.26' EXISTING CARTWAY WIDTH
28.04' EXISTING CARTWAY WIDTH
20.56' EXISTING CARTWAY WIDTH
21.62' EXISTING CARTWAY WIDTH
21.16' EXISTING CARTWAY WIDTH
21.64' EXISTING CARTWAY WIDTH
20.89' EXISTING CARTWAY WIDTH
19.80' EXISTING CARTWAY WIDTH
18.33' EXISTING CARTWAY WIDTH
20.53' EXISTING CARTWAY WIDTH
20.54' EXISTING CARTWAY WIDTH
20.08' EXISTING CARTWAY WIDTH
20.58' EXISTING CARTWAY WIDTH
45' LEGAL RIGHT-OF-WAY
50' ULTIMATE RIGHT-OF-WAY
5' RIGHT-OF-WAY TO BE OFFERED FOR DEDICATION TO TOWNSHIP
100 0 100 200
SCALE IN FEET
1"=100'

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ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TOWNSHIP COMMENTS	BY	DATE
3		JM	06/05/22
2	75% CD SUBMISSION	DAW	09/09/22
1	50% CD SUBMISSION	DAW	07/20/22
REV.	DESCRIPTION	BY	DATE

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

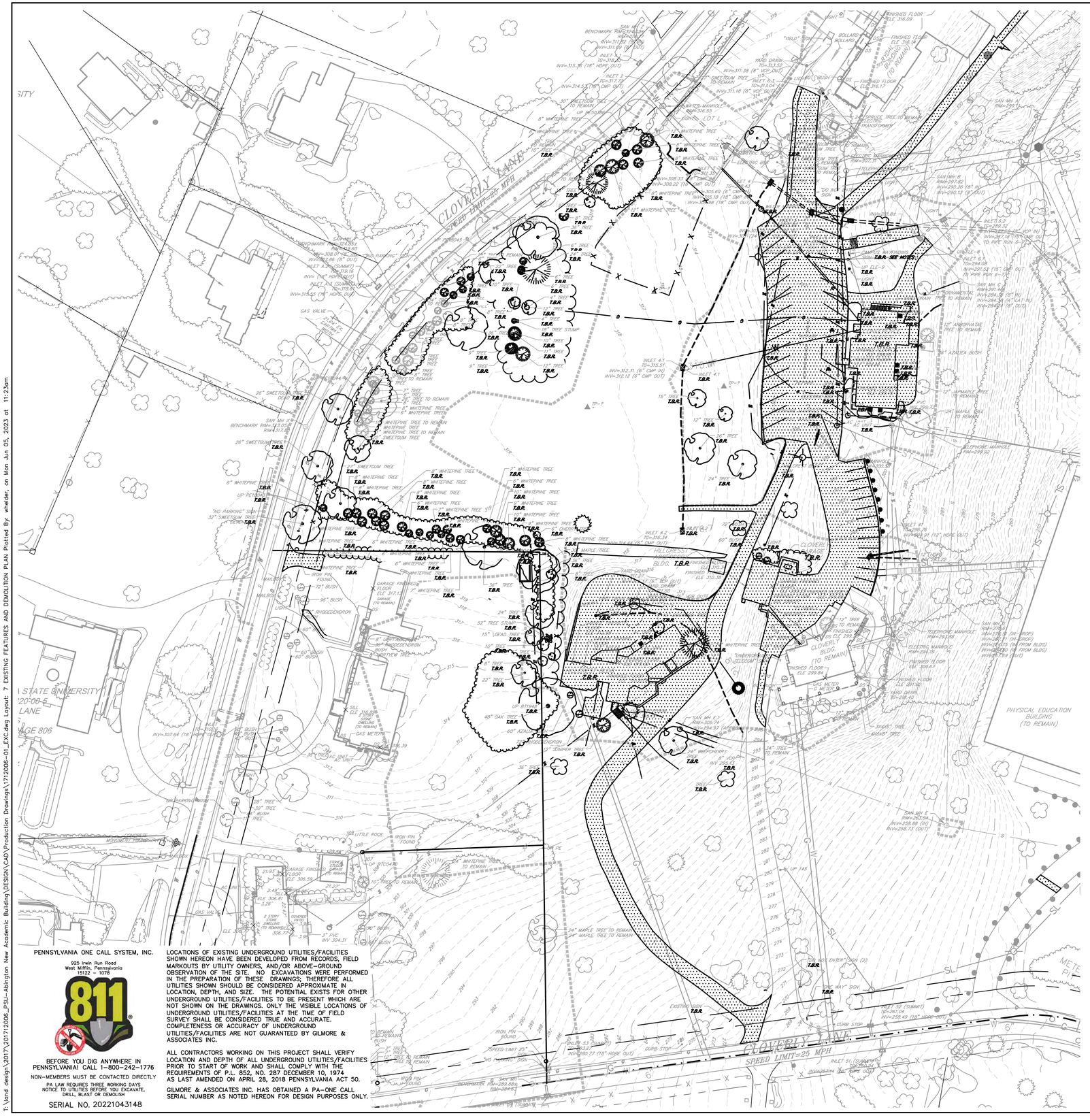
MUNICIPAL FILE No.: LD-22-05

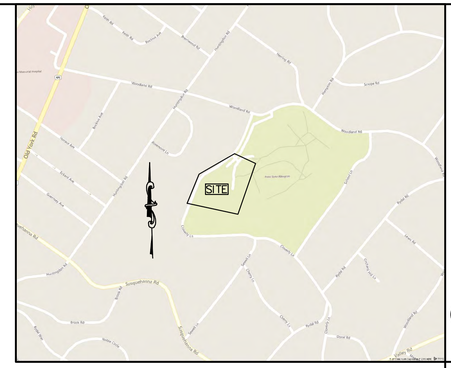
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 6 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_AERIAL.dwg Layout: 6 EXISTING FEATURES PLAN – OVERALL Plotted By: whelder, on Mon Jun 05, 2023 at 11:23am





LOCATION MAP

SCALE: 1"=800'

REFERENCE PLANS:

1. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., DATED APRIL 18, 1984, SHEETS 1, 6 & 7 OF 12. RECORDED IN PLAN BOOK L-3 PAGE 50.
2. TOPOGRAPHIC AND PLANIMETRIC INFORMATION TAKEN FROM AN AUTOCAD PLAN PREPARED BY QUANTUM SPATIAL, "ABINGTON SITE".

GENERAL NOTES:

1. SURVEY INFORMATION PROVIDED ON THIS PLAN IS BASED ON THE FOLLOWING:
   - 1.A. A BOUNDARY AND PARTIAL SITE SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN DECEMBER 2019 AND MARCH 2022.
   - 1.B. TOPOGRAPHY AND EXISTING ABOVE-GROUND FEATURES FROM A PLAN TITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS - 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201-V0201" PREPARED FOR THE PENNSYLVANIA STATE UNIVERSITY BY PENNONI ASSOCIATES, INC. AND DATED 10/12-2017.
   - 1.C. EXISTING UTILITIES INFORMATION FROM A CAD FILE PROVIDED BY PENNSYLVANIA STATE UNIVERSITY ON 5/22/2019 NAMED "ABINGTON UTILITIES 031717.DWG". (NOTE: UTILITY INFORMATION VERIFIED THROUGH THE G&A PARTIAL SITE SURVEY SUPERSEDES INFORMATION PROVIDED BY THIS FILE)
2. DEVIATIONS FROM REFERENCED INFORMATION PROVIDED BY OTHERS INCLUDE THE FOLLOWING:
   - 2.A. CAD FILES USED TO CREATE THE PLAN REFERENCED IN 1A ABOVE WERE PROVIDED BY PENNONI ASSOCIATES, INC. THE TOPOGRAPHY FROM THIS FILE WAS RAISED 0.43' TO MEET THE VERTICAL DATUM FROM THE 2019 G&A SURVEY.
3. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. OTHER RIGHTS TO PROPERTY MAY EXIST.
4. ADJACENT PARCEL LINES WERE OBTAINED FROM COUNTY GIS MAPPING FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA. PARCEL LINES ARE APPROXIMATE AND ARE NOT ADJUSTED TO PHYSICAL EVIDENCE FOUND.
5. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
6. VERTICAL DATUM NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA TATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.

DEMOLITION PLAN NOTES

1. REMOVE ALL EXISTING CAMPUS WAYFINDING SIGNAGE WITHIN THE PROJECT AREA AND STORE FOR REUSE ONSITE AS DIRECTED BY THE ABINGTON CAMPUS DIRECTOR OF BUSINESS OPERATIONS.
2. ALL TREES WITH A 10-INCH CALIPER OR GREATER ON THE SUBJECT PROPERTIES ARE TO REMAIN UNLESS LABELED AS TO BE REMOVED (T.B.R.).

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PIPE TO BE REMOVED
- TREES TO BE REMOVED
- BUILDINGS & PAVEMENT TO BE REMOVED

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1"=40'

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West Mifflin, Pennsylvania
15122 - 1078

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NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

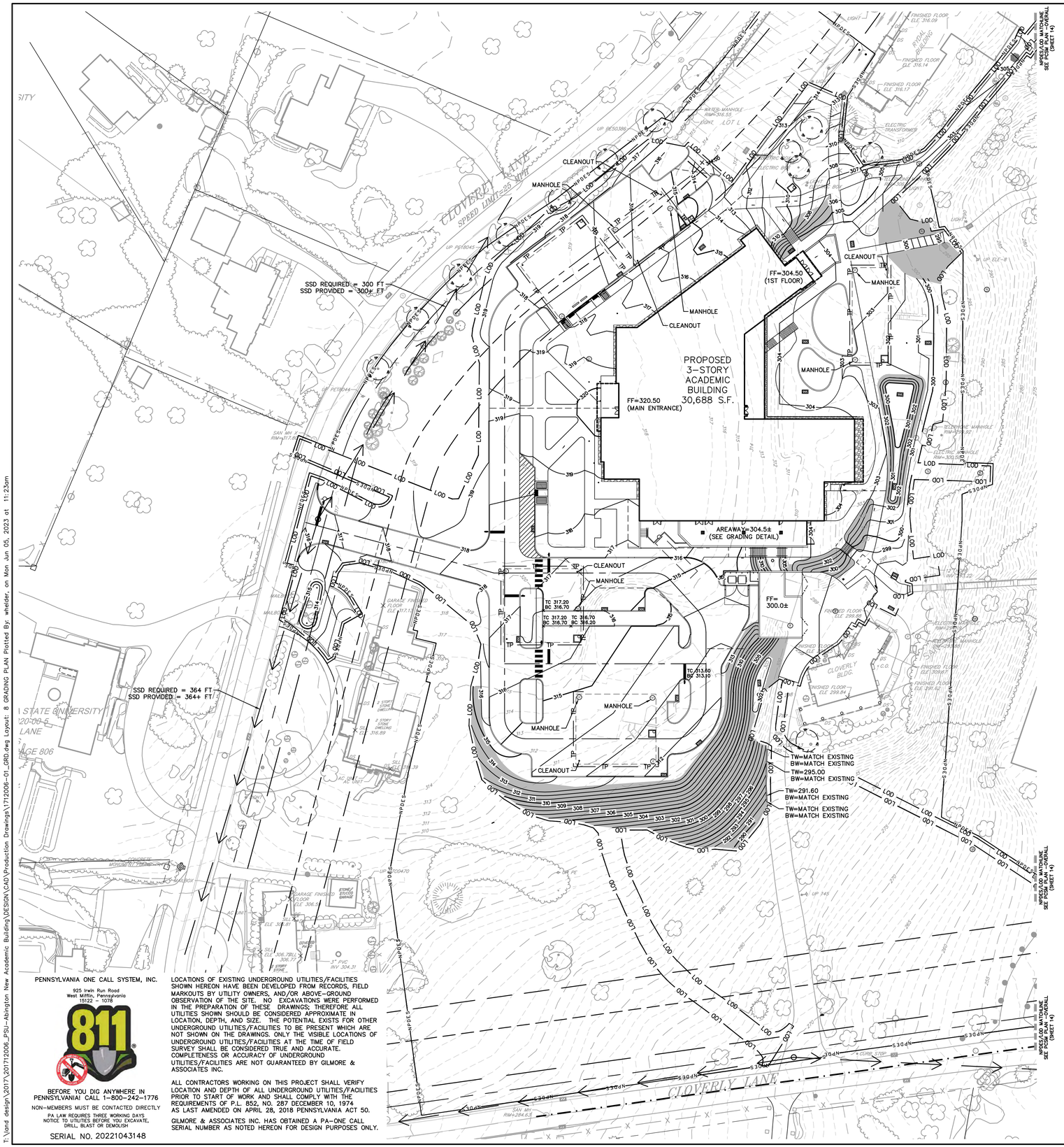
EXISTING FEATURES AND DEMOLITION PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 7 OF 40

T:\and design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_EXC.dwg Layout: 7 EXISTING FEATURES AND DEMOLITION PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:23am



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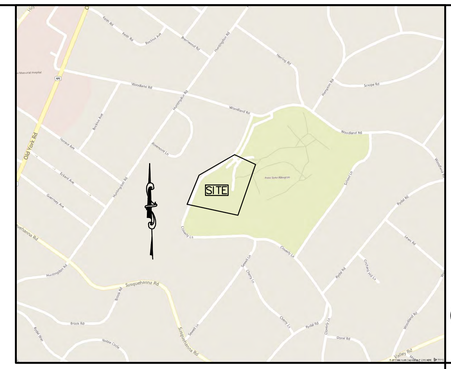
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK – SIZE
- TP TREE PROTECTION
- STEEP SLOPES (15% OR GREATER)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

GENERAL NOTES:

1. ABINGTON TOWNSHIP SEWER DATUM BENCHMARK HAS BEEN OBTAINED FROM A PLAN ENTITLED "ABINGTON TOWNSHIP, MONTGOMERY COUNTY, A - SANITARY SEWER PROJECT, CLOVERLY LANE STA 12+00 TO STA 23+66. THIS DATUM DIFFERS FROM THE FIELD SURVEY BY BEING 5.25± FEET LOWER. ELEVATIONS SHOWN ON THIS PLAN SHOULD BE ADJUSTED TO CONFORM TO THIS DATUM.

REFER TO GRADING DETAIL PLANS, PCSM PLAN, EROSION CONTROL PLAN AND PLAN DETAILS FOR ADDITIONAL INFORMATION ON WORK REQUIRED FOR SITE GRADING OPERATIONS.

40 0 40 80
SCALE IN 1"=40' FEET

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

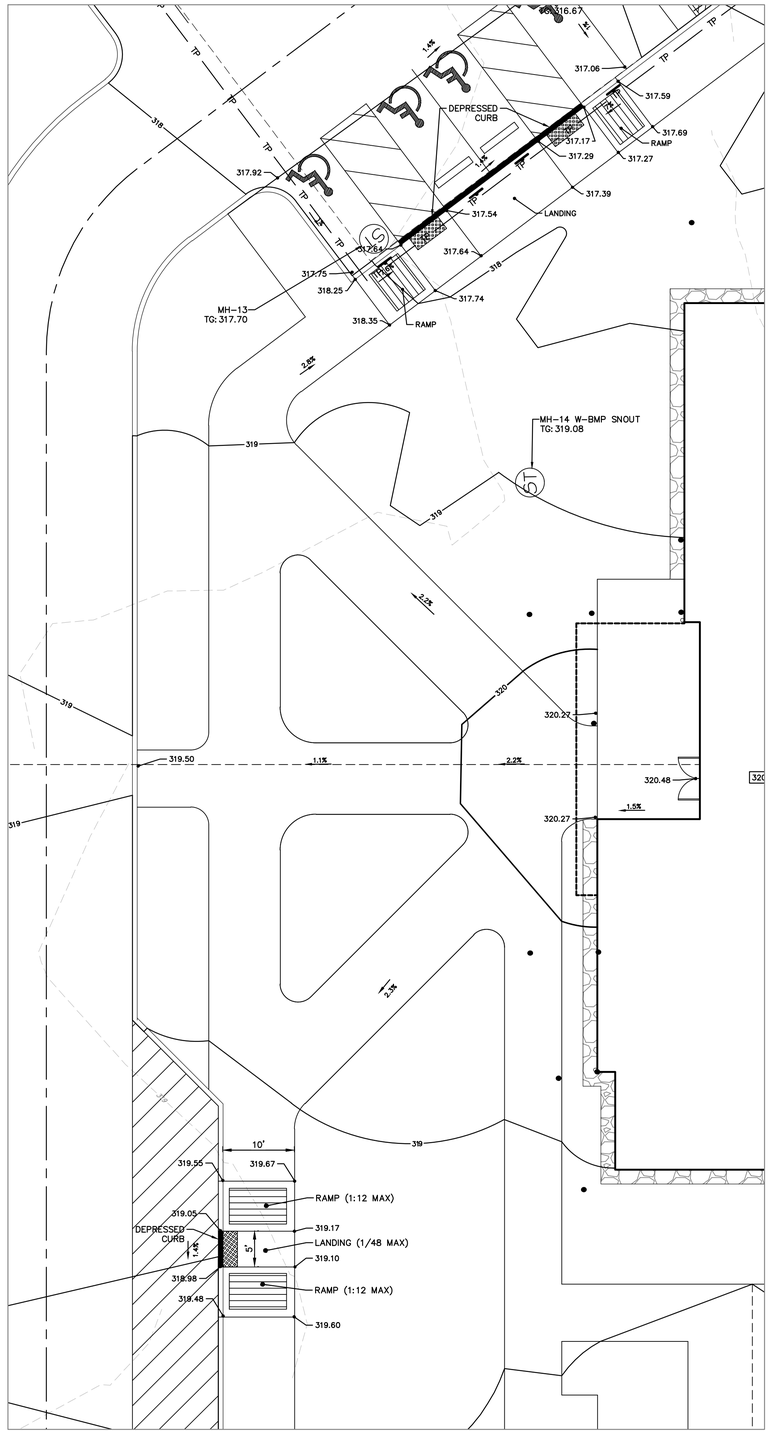
SCALE: 1"=40'

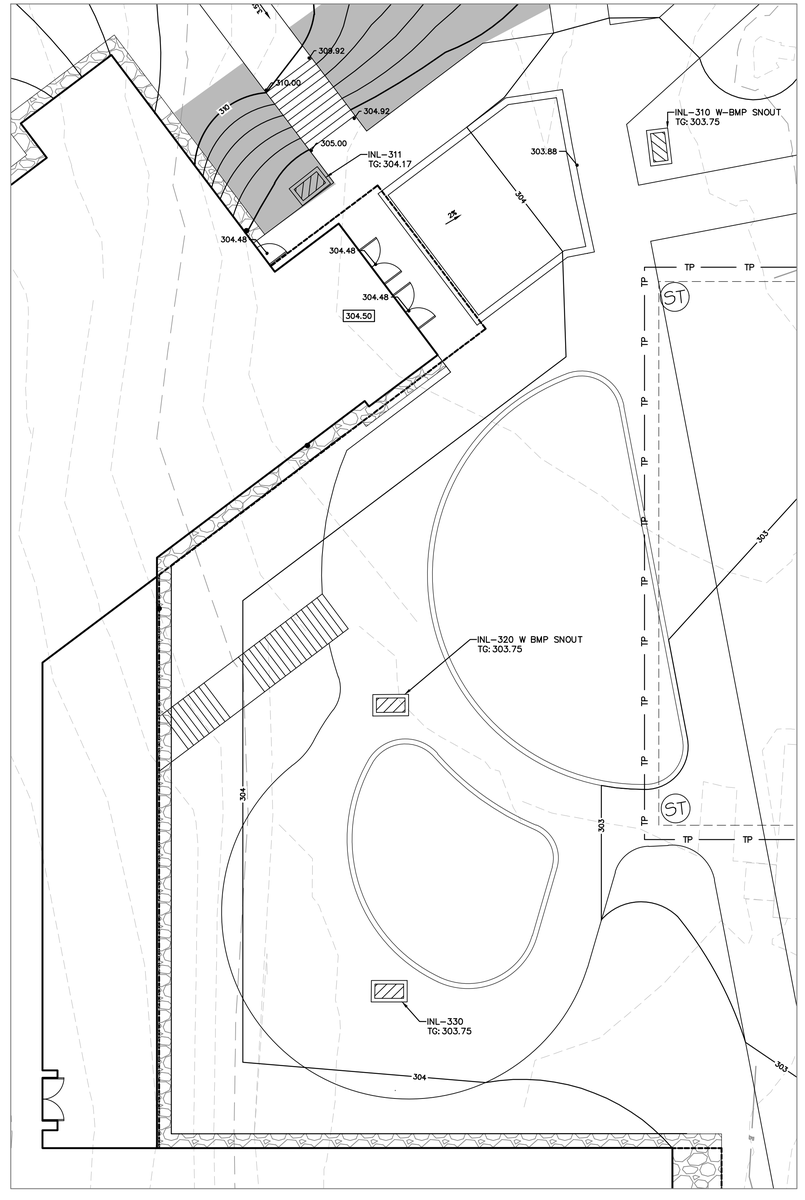
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 8 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 8 GRADING PLAN Plotted By: whelder on Mon Jun 05, 2023 at 11:23am





G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- EXISTING TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN FEET
1"=10'

NOT TO BE RECORDED

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
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ERIC S. CLASE
ENGINEER
55713-E

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1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

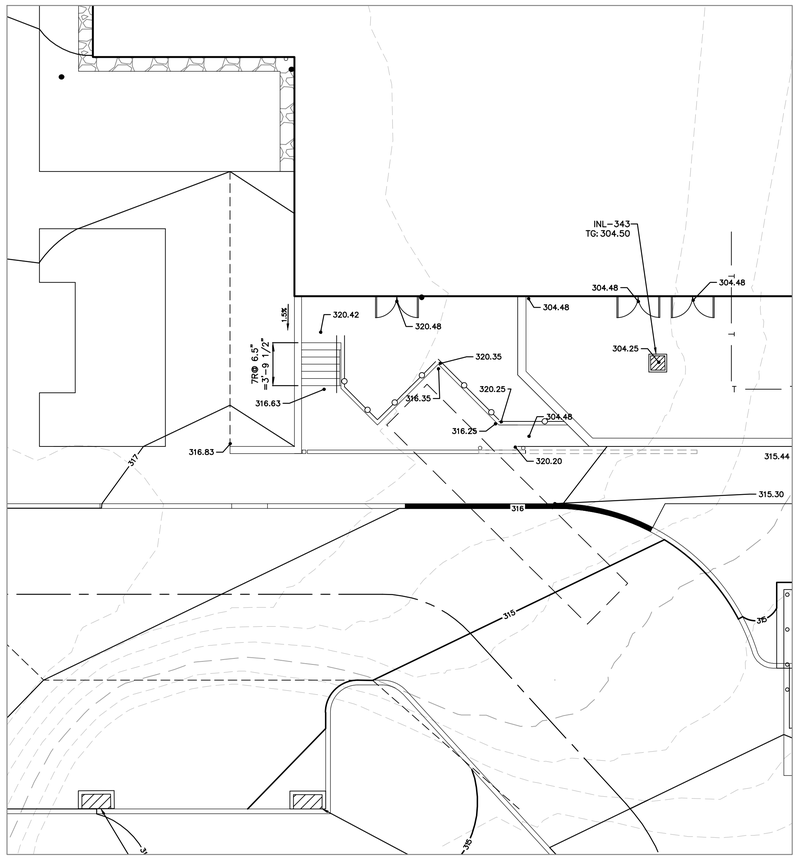
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=10'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 9 OF 40

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 9 GRADING DETAIL PLAN 1 Plotted By: wheider, on Mon Jun 05, 2023 at 11:24am



G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — G — EXISTING GAS LINE
- T — T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN 1"=10' FEET

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, Mmontgomery COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=10'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 10 OF 40

NOT TO BE RECORDED

196

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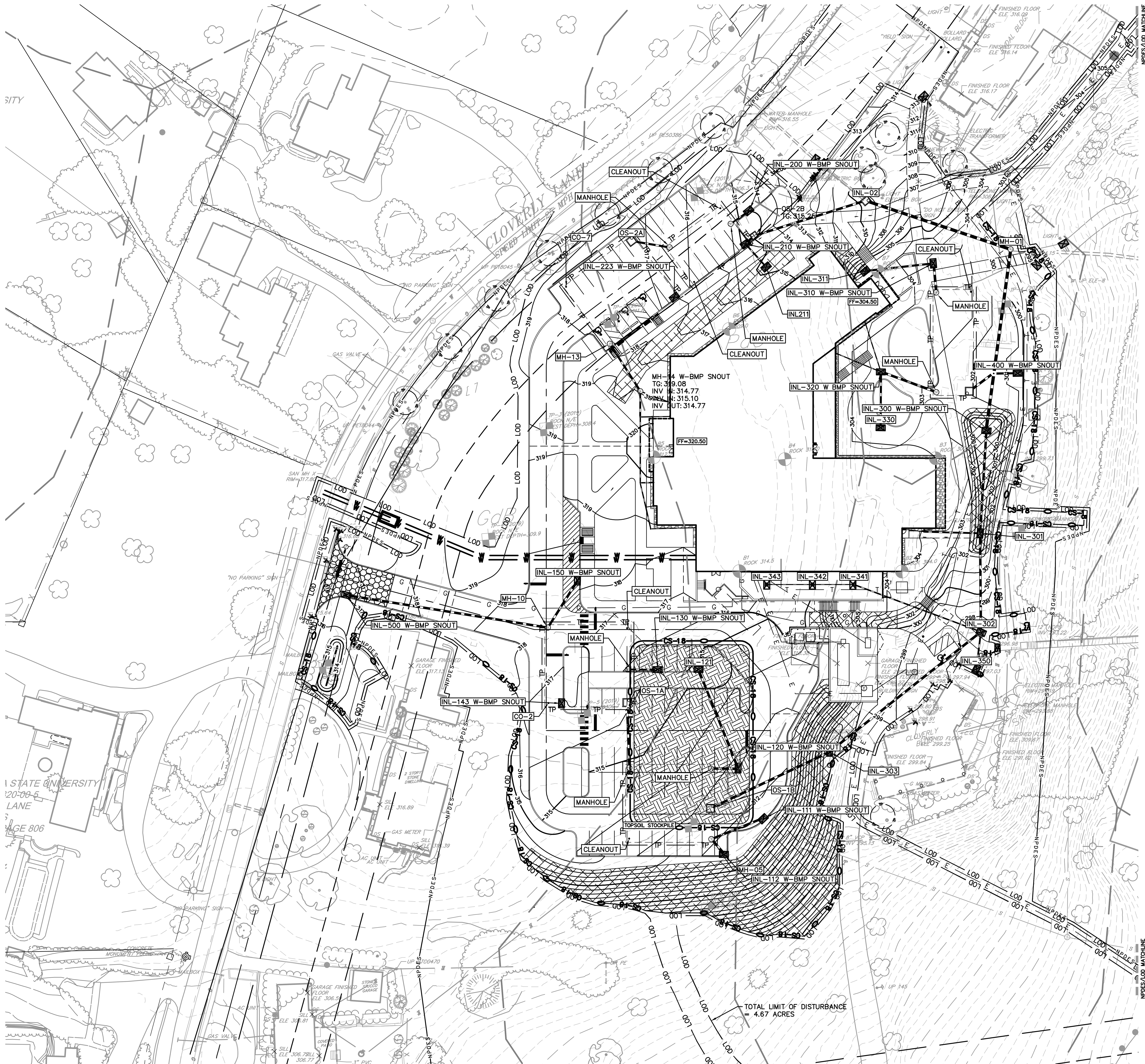

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SERIAL NO. 20221043148

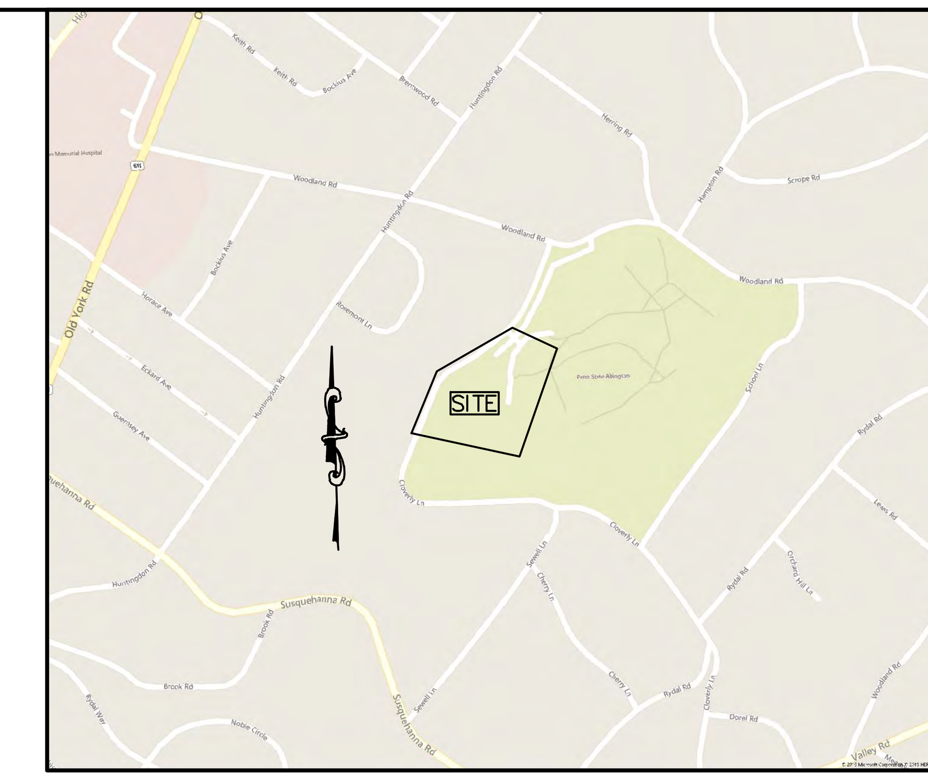
LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.



LOCATION MAP

800 00 800 1600
SCALE IN FEET
SCALE: 1"=800'

LEGEND

EXISTING		PROPOSED
250	2FT CONTOURS	120
	TREE LINE	
	100YR FLOODPLAIN	
	DELINEATED WETLANDS	
CbA	SOIL TYPE BOUNDARY & LABEL	
	UTILITY POLE	
	TRAFFIC SIGN	
G G	GAS LINES	G G
	ELECTRIC, TELEPHONE, CABLE	ECT ECT
S S	SANITARY SEWER MAIN	S S
S S	SANITARY LATERAL/CLEANOUT	SL CO SL
W	WATER MAIN/SIZE	8W 8W
	WATER LATERAL/CURB STOP	WL CS WL
	STORM SEWER/INLET	
	ROOF DRAIN COLLECTOR	RL RL RL
	ENERGY DISSIPATOR	
	ROCK CONSTRUCTION ENTRANCE	RCE
	EROSION CONTROL MATS: NAG SC-150	
	COMPOST SOCK w/ SIZE	CS-18
	RESOURCE PROTECTION FENCE	TP TP
	LIMIT OF DISTURBANCE:	
	PROJECT SITE BOUNDARY	NPDES
	INLET PROTECTION	
	TEST PIT	
	BORING	

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60'–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.67 ACRES

40 0 40 80
SCALE IN FEET
1"=40'

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PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

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DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 11 OF 40

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC.dwg Layout: 11 EROSION & SEDIMENT CONTROL PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:25am

EROSION & SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, STABILIZED AND FUNCTIONAL PRIOR TO EARTH DISTURBANCE WITHIN THE TRIBUTARY AREA TO SAID E&S MEASURE.
2. LOCAL ROADS ARE TO REMAIN FREE OF SEDIMENT AND CONSTRUCTION VEHICLES AND EQUIPMENT.
3. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION AS PER SEEDING AND MULCHING SCHEDULE.
4. SILT FENCING MAY BE REMOVED WHEN THE SITE IS PERMANENTLY STABILIZED. ACCUMULATED SEDIMENT MAY BE SPREAD AT THE SITE IN AREAS NOT SUBJECT TO EROSION.
5. THE TREE PROTECTION FENCING SHALL NOT BE REMOVED UNTIL ALL DEVELOPMENT AREAS ARE STABILIZED AND WRITTEN CONFIRMATION IS RECEIVED FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
7. DISTURBED AREAS THAT AREA AT A FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
8. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE 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.
9. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE CONTRACTOR SHALL RECEIVE APPROVAL OF THE REVISIONS FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
10. THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, 'EROSION CONTROL RULES AND REGULATIONS,' TITLE 25, PART 1, DEPT. OF ENVIRONMENTAL PROTECTION, SUBPART C-PROTECTION OF NATURAL RESOURCES, ARTICLE III-WATER RESOURCES, CHAPTER 102-EROSION CONTROL AND WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" BY THE COMMONWEALTH OF PA., DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2000 OR LATEST EDITION.
11. TECHNICAL ADVICE FOR THE IMPLEMENTATION OF THIS PROGRAM MAY BE OBTAINED BY CONTACTING THE MONTGOMERY COUNTY CONSERVATION DISTRICT AT (610)489-4506.
12. COPIES OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION.
13. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.

A. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE FOR ALL IMPORTED MATERIAL IN DETERMINING THAT FILL IS CLEAN.

B. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

14. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
15. NO CHANGE SHALL BE MADE TO THE CONTOUR OF THE AND NOR SHALL GRADING, EXCAVATING, REMOVAL, OR DESTRUCTION OF THE TOPSOIL, TREES, OR OTHER VEGETATIVE COVER OF THE LAND CAN BE COMMENCED UNTIL SUCH A TIME THAT A GRADING PERMIT IS APPLIED FOR AND APPROVED.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
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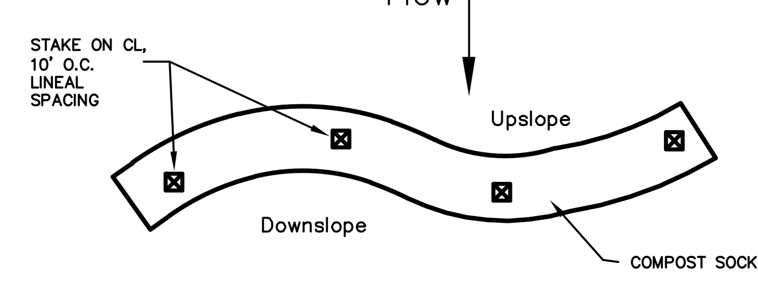
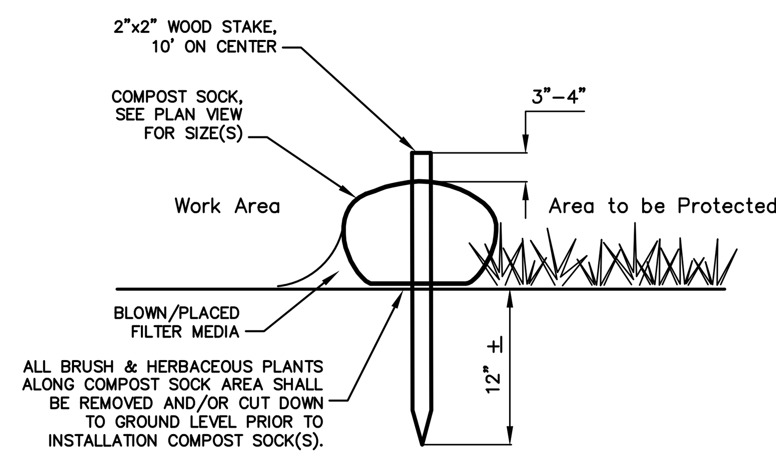
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

NOTES ON TEMPORARY CONTROL MEASURES:

1. EXISTING TREES AND OTHER EXISTING VEGETATION WILL BE DISRUPTED AS LITTLE AS POSSIBLE.
2. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY HAS CEASED, ALL AREAS SHALL BE STABILIZED. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE STABILIZED WITH TEMPORARY VEGETATION. AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL RECEIVE PERMANENT STABILIZATION. (SEE SEEDING AND MULCHING TABLE FOR DETAILS)
3. ALL TOPSOIL FROM THE OVERALL SITE PREPARATIONS WILL BE STOCKPILED AND REDISTRIBUTED UNIFORMLY AT THE TIME OF FINAL GRADING. ALL STOCKPILES SHALL HAVE PERIMETER SILT FENCE INSTALLED AND BE SEEDED AND MULCHED IMMEDIATELY. STOCKPILE(S) SHALL HAVE A SIDE SLOPE OF 2:1 OR FLATTER AND SHALL HAVE A HEIGHT NOT GREATER THAN 35 FEET. SEE PLAN FOR LOCATION OF TOPSOIL STOCKPILES.
4. GRADE ALL CUT AND FILL SLOPES TO 3 FOOT HORIZONTAL FOR EVERY 1 FOOT VERTICAL OR FLATTER, AND APPLY SEEDING AND MULCH. AREAS WITH GRADES GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEED MIX AND PERMANENT TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #C350 OR EQUAL
5. RIP-RAP WILL BE APPLIED TO ALL AREAS WHERE HEAVY CONCENTRATIONS OF DRAINAGE ARE PREVALENT (GREATER THAN 3.5 cfs). THIS WOULD BE AT CULVERT OUTLETS, WHERE WATER IS IN TRANSITION FROM AN OPEN CHANNEL INTO A CULVERT, OR AS SPECIFIED.
6. SIGNIFICANT STANDS OF TREES, DESIGNATED TO REMAIN, WILL BE PROTECTED WITH FENCING, SEE DETAIL. INSTALL ALONG THE DRIP LINE OF THE TREE BRANCHES.
7. EROSION CONTROL FACILITIES MUST DISCHARGE INTO ADEQUATE STORM SEWERS, NATURAL WATERWAYS, OR STABLE EROSION RESISTANT AREAS.
8. CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS OF DELIVERY VEHICLES. NO WASH WATER FROM THESE VEHICLES SHALL BE ALLOWED TO ENTER ANY SURFACE WATERS. WASHOUT FACILITIES SHALL NOT BE LOCATED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES INFILTRATION FACILITIES OR SURFACE WATERS.
9. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAY MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
10. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE/PROPERTY WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF BUCKS COUNTY CONSERVATION DISTRICT. ANY INLETS WHICH DO NOT DIRECT FLOW TO A SEDIMENT BASIN MUST BE PROTECTED WITH INLET PROTECTION.
11. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A FILTER BAG, DISCHARGING OVER UNDISTURBED AREAS.
12. ABSOLUTELY NO EARTHMOVING, PLACEMENT OF FILL MATERIAL OR THE ENTRY OF SEDIMENT LADEN WATER MUST TAKE PLACE IN WETLANDS. ALL WETLANDS SHALL BE PROTECTED FROM ENCROACHMENT WITH FENCING.
13. ROCK FILTER OUTLETS MUST BE PROVIDED IMMEDIATELY WHERE SILT FENCING HAS BEEN UNDERMINED OR OVERTOPPED.
14. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE BUCKS COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE, GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
15. IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
16. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. IMMEDIATELY STABILIZE REPLACED SOILS WITH SEED & MULCH OR DEPOSIT IN SOIL STOCKPILES AND STABILIZE.
17. THE CONTRACTOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.



PLAN VIEW: SLOPE PROTECTION (SILT FENCE)



SECTION VIEW: COMPOST SOCK INSTALLATION

NOTES:

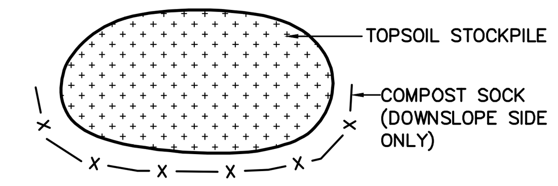
1. COMPOST SOCK SHALL BE "SILTSOXX" AS SUPPLIED BY MCS INC. (1971 N. BLACK HORSE PIKE, WILLIAMSTOWN, NJ 08094, 856-629-1044, www.mcsnjinc.com) OR EQUAL PRODUCT BY OTHER MANUFACTURER.
2. FOR INSTALLATIONS ON EXISTING PAVEMENT, CINDER BLOCKS ON DOWNSTREAM SIDE MAY BE USED IN LIEU OF WOOD STAKES TO ANCHOR THE SOCKS.
3. UPON COMPLETION OF THE PROJECT, COMPOST MATERIAL SHALL BE MIXED WITH ONSITE SOIL/TOPSOIL AND SPREAD ON THE SITE AS DETAILED IN SEEDING AND MULCHING SCHEDULE.
4. SOCK FABRIC SHALL BE 5mil PHOTO-DEGRADABLE, HDPE FOR INSTALLATIONS LESS THAN 9 MONTHS. FOR PROJECTS WITH LONGER DURATIONS, SOCKS SHALL BE MULTI-FILAMENT POLYPROPYLENE FABRIC.
5. INFILL MATERIAL SHALL BE WEED FREE COMPOST DERIVED FROM WELL-DECOMPOSED ORGANIC MATTER. COMPOST SHALL BE PRODUCED USING AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS. COMPOST MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

ORGANIC MATTER CONTENT	25% - 100%
ORGANIC PORTION	FIBROUS & ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30-50% PASS 3/8" SIEVE
SOLUBLE SALT	5.0 dS/m MAXIMUM

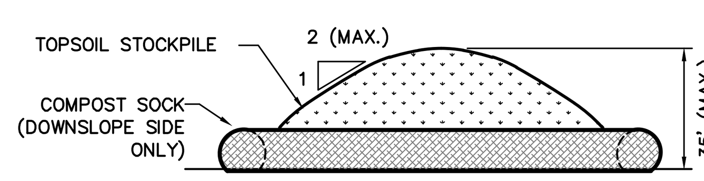
6. COMPOST SOCKS SHALL BE PLACED AT LEVEL GRADE AND BOTH ENDS EXTENDED 8' MIN. UP SLOPE AT 45° ANGLE.
7. ACCUMULATED SEDIMENT SHALL BE REMOVED WHENIT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED OF IN APPROVED UPLAND AREA.

COMPOST SOCK "SILT FENCE" DETAIL

NOT TO SCALE



PLAN VIEW

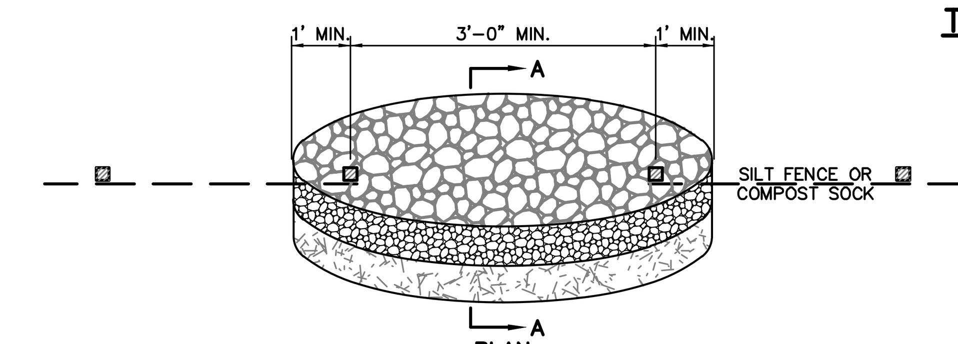


PROFILE

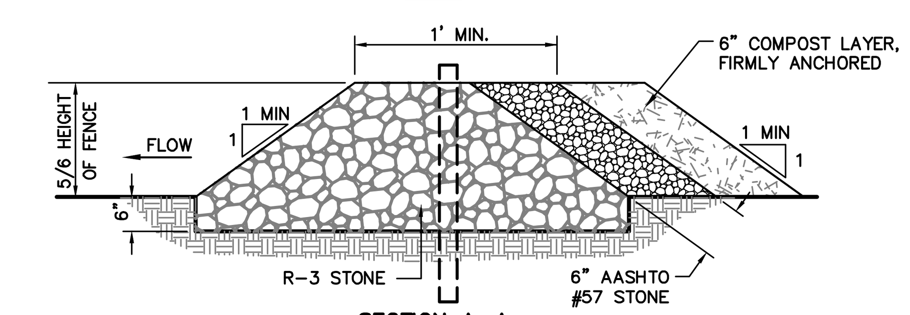
SEDIMENT BARRIER MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING & MULCH TO ALL STOCKPILES.

TOPSOIL STOCKPILE AREA DETAIL

NOT TO SCALE



PLAN



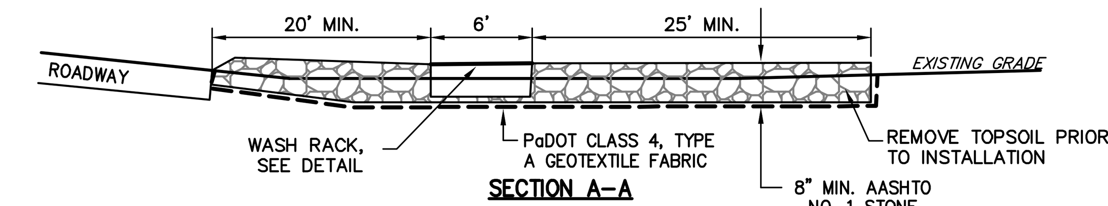
SECTION A-A

ROCK FILTER OUTLET DETAIL

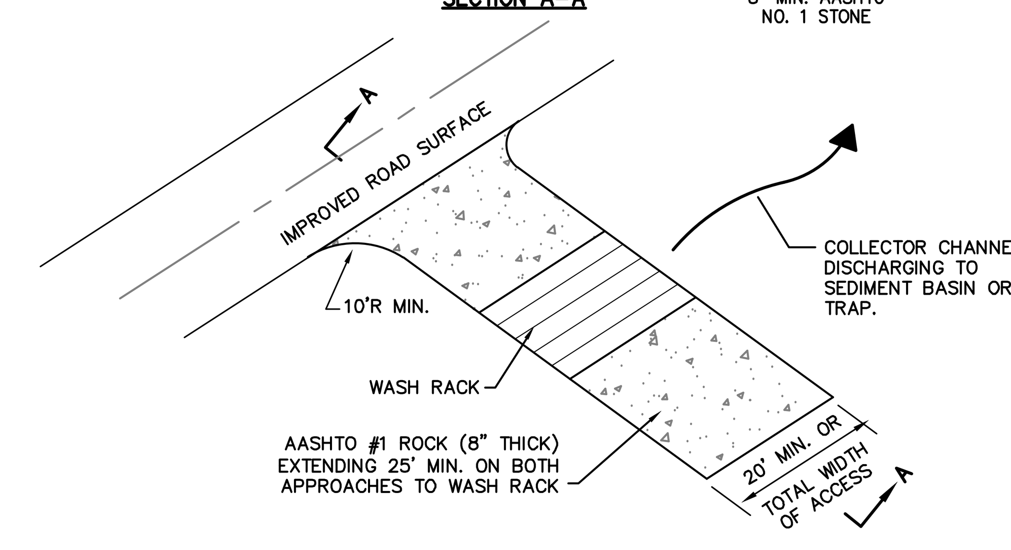
NOT TO SCALE

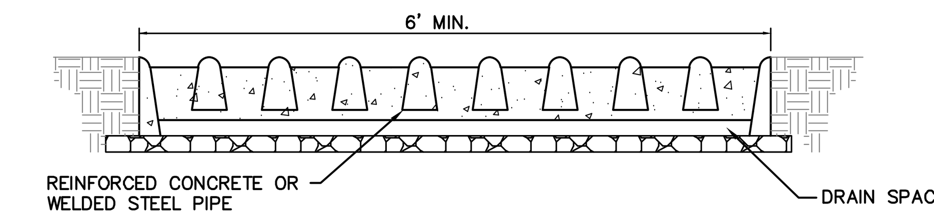
NOTES:

1. ROCK FILTER OUTLETS TO BE PROVIDED AT ALL EXISTING OR PROPOSED LOW POINTS AND ALL AREAS OF CONCENTRATED FLOWS.
2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLETS.
3. COMPOST LAYER IS REQUIRED IN ALL HQ AND EV WATERSHEDS.



SECTION A-A





WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK.

AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROAD DITCHES, SEWERS, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

TEMPORARY CONSTRUCTION ENTRANCE W/ WASH RACK

NOT TO SCALE

NPDES CHECKLIST COMPLIANCE - ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	- PROPOSED WORK SHALL UTILIZE THE PARCELS ALONG RTE 202 PRESERVING THE UNDEVELOPED PORTION TO THE REAR WITH THE EXCEPTION OF THE TOWNSHIP CONNECTOR ROAD STUB.
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	- ALTHOUGH OFFSITE, THE WATERS OF THE US CROSSING THROUGH THE PECO R.O.W HAS BEEN PROVIDED WITH A 75FT BUFFER.
	MINIMIZE SOIL COMPACTION	- ALL GRASS AND MEADOW AREAS SHALL BE SCARIFIED AND AMENDED WITH COMPOST DURING STABILIZATION TO REDUCE COMPACTION.
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	- PROJECT SITE TESTED WELL FOR INFILTRATION PRACTICES WHICH WILL BE INTEGRATED INTO ALL PCSM FACILITIES.
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	- THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	- PCSM FACILITIES FOCUS ON INFILTRATION PRACTICES TO MITIGATE THERMAL IMPACTS FROM REDEVELOPMENT OF THE FRONT PARCELS.
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	- THE STREAM IS LOCATED WITHIN THE PECO R.O.W. WHICH WILL NOT ALLOW INSTALLATION OF TREES. REFORESTATION WILL FOCUS ON THE REAR PARCEL BEING DEDICATED TO SOLEBURY TOWNSHIP.
ANTI-DEGRADATION ANALYSIS		- THE MAJORITY OF THE PROPOSED DEVELOPMENT IS CAPTURED BY PCSM FACILITIES WHICH MEET OR EXCEED THE VOLUME AND WATER QUALITY REQUIREMENTS FOR THE SITE PER THE 'DEP PCSM SPREADSHEET.'

SEQUENCE OF CONSTRUCTION:

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

AT LEAST 7 DAYS PRIOR TO START OF WORK OR EARTH DISTURBANCE ACTIVITIES, A PRECONSTRUCTION MEETING SHALL BE HELD INCLUDING THE OWNER, SITE CONTRACTOR, TOWNSHIP ENGINEER, COUNTY CONSERVATION DISTRICT, THE PLAN DESIGNER, AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF PCSWM INSTALLATION.

1. USING EXISTING SITE ACCESSES, INSTALL COMPOST SOCKS AND TREE PROTECTION FENCES AS SHOWN ON PLAN.
2. COMPLETE DEMOLITION OF EXISTING STRUCTURES AND PAVEMENT IN ACCORDANCE WITH PLANS. CLEAR & GRUB VEGETATION AS NOTED. INSTALL TEMPORARY STONE TIRE CLEANER AT NEW ENTRANCE DRIVE LOCATION AS DETAILED ON PLANS PRIOR TO REMOVAL OF EXISTING PAVED DRIVEWAYS.
3. STRIP AND STOCKPILE TOPSOIL. SURROUND STOCKPILE WITH COMPOST SOCK AND STABILIZE WITH TEMPORARY SEED.
4. COMPLETE BUILDING FOOTINGS, FOUNDATIONS AND BUILDING SLAB BASE STONE.
5. INSTALL BUILDING UTILITIES.
6. INSTALL STORMWATER MANAGEMENT FACILITIES.
7. AS STORM SEWERS ARE INSTALLED, INLETS SHALL BE PROVIDED WITH INLET PROTECTION DEVICES IN ACCORDANCE WITH PLANS & DETAILS.
8. ROUGH GRADE NEW ACCESS DRIVE AND PARKING AREA. STABILIZE WITH STONE BASE COURSE AS SOON FEASIBLE.
9. ROUGH GRADE SITE.
10. REMAINING IMPROVEMENTS AS PER STANDARD CONSTRUCTION TECHNIQUES.
11. INSTALL RAINGARDEN BMPS AND ALL PLANTINGS.
12. AS LAWN AREAS ARE BROUGHT TO GRADE, THEY SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 5-12" THEN PROVIDED WITH A MINIMUM OF 8" TOPSOIL AND SEEDED IMMEDIATELY. ALL VEGETATED AREAS SHALL BE STABILIZED WITH VEGETATION AND MULCH AS SOON AS POSSIBLE.
13. AFTER THE SITE HAS BEEN STABILIZED, ALL TEMPORARY E&S CONTROLS SHALL BE REMOVED.
14. ALL ACCUMULATED SEDIMENTS SHALL BE DISPOSED OF IN APPROVED UPLAND AREAS.
15. STABILIZATION SHALL BE CONSIDERED THE PLACEMENT OF BASE COURSE IN PAVED AREAS OR BY 75% OR MORE VEGETATION, UNIFORM COVERAGE, IN LAWN AREAS OR BY OTHER PERMANENT MEANS WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
16. AREAS DISTURBED DURING THE REMOVAL OF BMPS SHALL BE STABILIZED IMMEDIATELY.
17. NOTICE OF TERMINATION AND ASSOCIATED PAPERWORK SHALL BE FILED WITH CONSERVATION DISTRICT.

* ALL SEQUENCE STEPS RELATED TO THE IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (PCSM BMPS) ARE CONSIDERED THE CRITICAL STAGES FOR NPDES PERMITTING REQUIREMENTS. A LICENSED PROFESSIONAL SHOULD BE PRESENT ON-SITE TO VERIFY THAT THE FOLLOWING ITEMS MEET CERTAIN DESIGN REQUIREMENTS: BOTTOM OF BASIN INVERT ELEVATIONS; LINING OF STORMWATER BMPS FOR CARBONATE GEOLOGOGY PROTECTION; FOOTPRINT OF STONE BEDS; TOP OF STONE ELEVATION; OUTLET STRUCTURE INVERTS; AND OUTLET PIPING TO EXISTING FACILITIES. THE CONTRACTOR AND SURVEYOR SHALL DOCUMENT CONSTRUCTION OF THE BASINS WITH PHOTOGRAPHS AND AS-BUILT PLANS.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E - ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B -
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W -
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)

   ADDITIONAL SEED MIXES WITH ASSOCIATED SEEDING RATES MAY BE PROVIDED ON LANDSCAPE PLANS.
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. SLOPES OF 3:1 SHALL BE ANCHORED WITH MULCH CONTROL NETTING.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE: 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS, CONSIDERED SLOPES GREATER THAN 3:1, SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

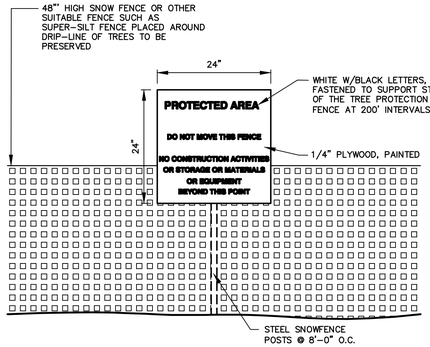
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETALS & NOTES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 12 OF 40	

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 12 EROSION & SEDIMENT CONTROL DETALS & NOTES - 1 Plotted By: whelder, on Mon Jun 05, 2023 at 11:25am

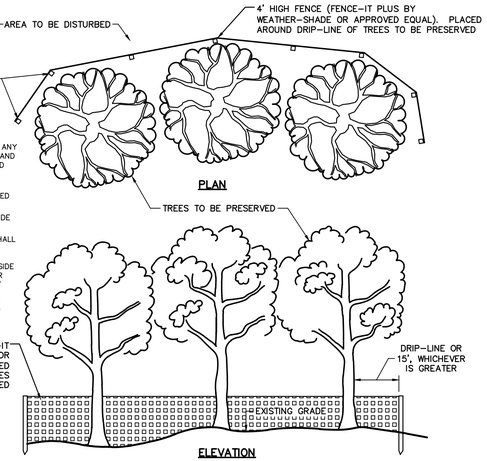


TREE PROTECTION/NOTIFICATION DETAIL

NOT TO SCALE

TREE PROTECTION NOTES

1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION TO THE EXTENT NOTED ON THE PLANS. PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION.
2. BOARDS, FENCING, ETC. SHALL NOT BE NAILED TO ANY TREES OR SHRUBS.
3. ROOTS SHALL NOT BE CUT IN AN AREA INSIDE THE DRIP-LINE OF THE TREE BRANCHES.
4. TREE LIMB REMOVAL, WHERE NECESSARY, SHALL BE PERFORMED UNDER THE IMMEDIATE SUPERVISION OF A CERTIFIED ARBORIST. PRUNING CUTS SHOULD BE MADE JUST OUTSIDE THE BRANCH COLLAR. THE BRANCH COLLAR SHOULD NOT BE DAMAGED OR REMOVED. IF THE TRUNK COLLAR HAS GROWN OUT ON A DEAD LIMB TO BE REMOVED, MAKE THE CUT JUST BEYOND THE COLLAR. DO NOT APPLY WOUND DRESSINGS.



TREE PROTECTION DETAIL

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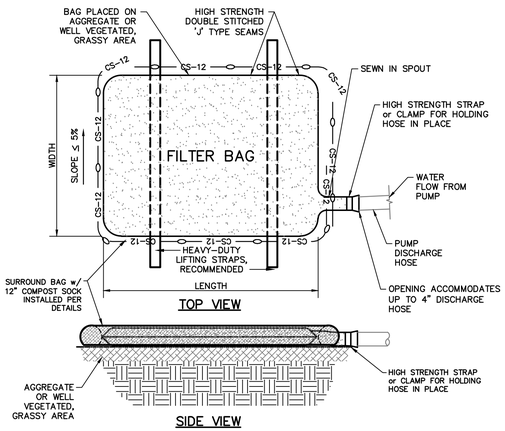


FILTER BAG TO BE USED WHEN/IF WATER PONDS IN EXCAVATIONS.

1. LOW VOLUME FILTER BAGS SHALL BE MADE OF NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES MEETING THE FOLLOWING STANDARDS:

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

2. PLACE FILTER BAGS ON STABLE OR WELL-VEGETATED AREAS WHICH ARE FLATTER THAN 5% SLOPE AND SHALL DISCHARGE ONTO STABLE, EROSION RESISTANT GROUND. WHERE THIS IS NOT POSSIBLE, GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED.
3. PUMP DISCHARGE HOSE SHALL BE INSERTED INTO BAG IN MANNER SPECIFIED BY MANUFACTURER AND SECURELY CLAMPED INTO FILTER BAG. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
4. LIMIT PUMPING TO 750 GPM OR 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE, WHICHEVER IS LESS. PUMP INTAKE SHALL BE FLOATING AND SCREENED.
5. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL PROBLEM IS CORRECTED.
6. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY IS REQUIRED FOR DISPOSAL PURPOSES. WHEN SEDIMENT FILLS 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE AND REPLACE WITH NEW BAG IMMEDIATELY. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.
7. THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE.

SEDIMENT FILTER BAG FOR PUMPED WATER

NOT TO SCALE

MAINTENANCE OF FACILITIES

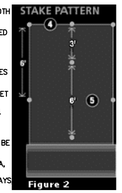
1. COMPOST SOCKS SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT OF MORE THAN 1/4" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND REMETTING MUST BE PERFORMED IMMEDIATELY. IF E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE TO THE BUCKS COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF THE ABOVE NOTED INSPECTION AND MAINTENANCE.
4. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE.
5. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
6. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
7. ALL DRAINAGE SWALES SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF SWALES ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
8. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
9. AFTER THE STORM CONVEYANCE SYSTEM IS CONSTRUCTED, MONTHLY INSPECTIONS FOR EACH DEVICE WILL BE MADE. AN INSPECTION OF ALL FACILITIES WILL BE MADE AFTER EVERY STORM TO DETERMINE THEIR RESISTANCE TO DRIVING RAINS AND ACCUMULATED RUNOFF.
10. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
11. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.

INSTALLATION INSTRUCTIONS:

ADDITIONAL ITEMS NEEDED FOR INSTALLATION:
- GRASS SEED
- FERTILIZER
- RUBBER MALLET
- SCISSORS OR SHEARS
- SAFETY GLASSES/GOGGLES

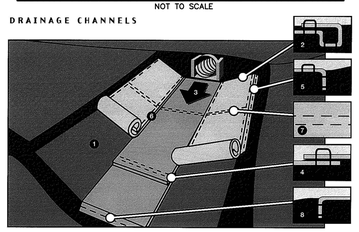
CAUTION: ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION OF BIOSTAKES.

1. PREPARE THE AREA TO BE PROTECTED BY RAKING THE SOIL TO A DEPTH OF 1-2 INCHES AND REMOVING LARGE DIRT CLODS, STICKS AND OTHER OBSTRUCTIONS. APPLY SEED AND FERTILIZER AND LIGHTLY RAKE INTO THE SOIL. (NOTE: THIS PRODUCT DOES NOT INCLUDE SEED OR FERTILIZER. FOR SEEDING AND FERTILIZER SEE THE SEEDING & MULCHING SCHEDULE.)
2. BEGIN INSTALLATION AT THE TOP OF THE SWALE, ANCHORING THE BLANKET IN A 6"x6" TRENCH. STAKE THE FABRIC INTO THE BOTTOM OF THE TRENCH WITH BIODEGRADABLE PLASTIC BIOSTAKES AT 12" INTERVAL. BACKFILL AND COMPACT THE TRENCH.
3. ROLL CENTER BLANKET OVER THE PREPARED BOTTOM OF THE SWALE IN THE DIRECTION OF WATER FLOW. SECURE BLANKET WITH BIOSTAKES IN APPROPRIATE PATTERN PER FIGURE 2 OR USING DOT SYSTEM PROVIDED ON BLANKET BY MANUFACTURER. A RUBBER MALLET IS RECOMMENDED FOR DRIVING THE BIOSTAKES INTO THE GROUND. **CAUTION!** BIOSTAKES MAY SHATTER IF BROKEN, THEREFORE, ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION.
4. PLACE SUBSEQUENT BLANKETS END OVER END, SHINGLE STYLE, WITH MINIMUM 6" OVERLAP. SECURE WITH DOUBLE ROW OF STAPLES/STAKES, 4" APART AND 6" ON CENTER ACROSS FULL WIDTH OF BLANKET.
5. FULL LENGTH OF BLANKET ALONG SIDE SLOPES SHALL BE ANCHORED WITH STAPLES/STAKES AT 12" INTERVALS IN 6"x6" TRENCH. BACKFILL AND COMPACT TRENCH.
6. ADJACENT BLANKETS ON SIDE SLOPES, IF NEEDED, SHALL BE OVERLAPPED A MINIMUM OF 6" AND SECURED WITH STAPLES/STAKES AT 12" INTERVALS.
7. IN HIGH FLOW CHANNELS, CHECK SLOT SHALL BE INSTALLED 30 FEET ON CENTER ALONG CHANNEL. SLOT SHALL BE A DOUBLE ROW OF STAPLES/STAKES 4" APART AND 6" ON CENTER ACROSS THE FULL WIDTH OF THE CHANNEL.
8. TERMINAL END OF THE BLANKET SHALL BE ANCHORED IN 6"x6" TRENCH WITH STAPLES/STAKES AT 12" INTERVAL. TRENCH SHALL BE BACKFILLED AND COMPACTED AFTER ANCHORING.
9. IMMEDIATELY FOLLOWING INSTALLATION, GENTLY WATER ENTIRE AREA, THOROUGHLY WETTING BOTH THE BLANKET AND UNDERLYING SOIL. FOR BEST RESULTS, KEEP SOIL MOIST FOR THE FIRST 30 TO 60 DAYS OR UNTIL UNIFORM GRASS ESTABLISHMENT IS ACHIEVED.

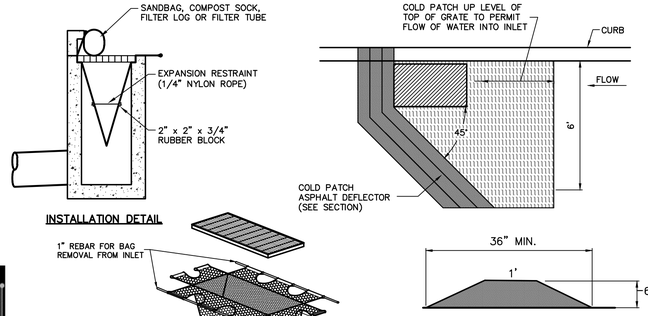


NORTH AMERICAN GREEN SWALE INSTALLATION

NOT TO SCALE



CONTRACTOR SHALL USE NORTH AMERICAN GREEN (OR EQUAL) EROSION CONTROL FABRICS WITH THE MANUFACTURER'S RECOMMENDED STAPLE PATTERN. CLASS OF FABRIC SHALL BE AS NOTED ELSEWHERE IN THE PLANS.



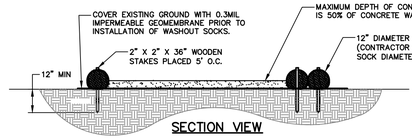
ASPHALT DEFLECTOR SECTION

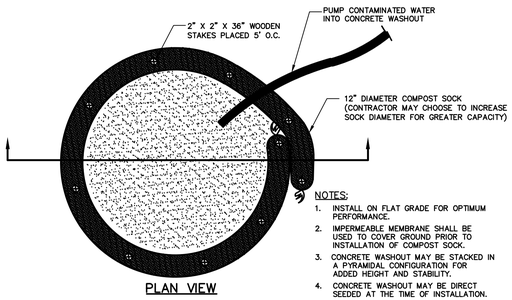
MAINTENANCE:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. EARTHEN BERM SHALL BE INSTALLED & MAINTAINED IN LIEU OF ASPHALT BERMS UNTIL ROADWAY IS STONED. 6" MINIMUM HEIGHT ASPHALT BERM TO BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LB, BURST STRENGTH OF 200 PSI, AND TRAPEZOIDAL TEAR STRENGTH OF 50 LB. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A #40 SIEVE.
5. BAGS SHALL BE EMPTIED & RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
6. DAMAGED OR CLOGGED BAGS SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.

SILTSACK TYPE 'C' INLET PROTECTION DETAIL

NOT TO SCALE





NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. IMPERMEABLE MEMBRANE SHALL BE USED TO COVER GROUND PRIOR TO INSTALLATION OF COMPOST SOCK.
3. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
4. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.

COMPOST SOCK CONCRETE WASHOUT DETAIL

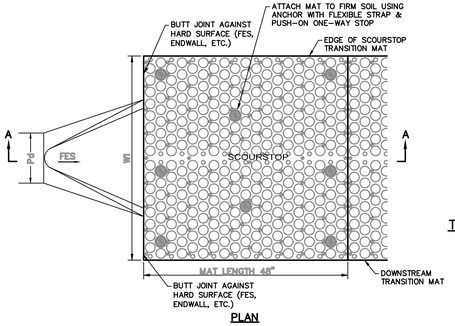
NOT TO SCALE

SCOUR STOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

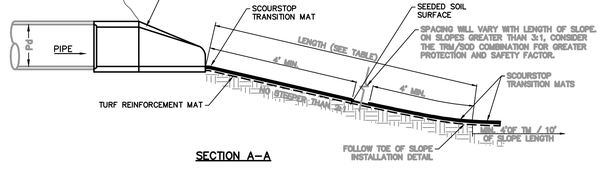
1. INTENDED AS A BIOTECHNICAL REPLACEMENT FOR RIP-RAP OR HARD ARMOR. PROVIDES TRANSITION FROM SMOOTH CONCRETE OR OTHER HARD SURFACE TO TURF REINFORCEMENT MATS (TRMs), SOD, REINFORCED SOD, OR BARE GROUND.
2. SCOURSTOP STANDARD SIZE IS 4' X 4' X 3" SHEET WITH MULTIPLE VOIDS FOR VEGETATION GROWTH, PROVIDING SOIL PROTECTION FOR THE SUSCEPTIBLE, EROSIVE AREA DIRECTLY BELOW OUTLETS UNTIL SHEAR FORCE HAS DISSIPATED THROUGH DOWNSTREAM AREA EXPANSION AND FOR SHORELINE AND STREAMBANK PROTECTION.
3. UTILIZATION OF VEGETATIVE METHOD RESULTS IN LOWER THERMAL IMPACTS, REDUCED LONG TERM MAINTENANCE, AESTHETICALLY PLEASING MOWABLE GRASS SURFACE, AND IMPROVED SAFETY THROUGH ABSENCE OF JAGGED ROCKS AND TRAPPED DEBRIS.

MANUFACTURER'S INSTALLATION SPECIFICATIONS

1. SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS SHALL EXTEND DOWNSTREAM TO LIMITS SHOWN ON PLANS.
2. REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRICKLE FLOWS, IF DISCOVERED, SHOULD BE CAPTURED WITH A SUB-SURFACE DRAIN.
3. FOR A PIPE OUTLET WITH NO APRON, TRANSITION MAT SHOULD BE INSTALLED DIRECTLY ABUTTING THE END OF PIPE.
4. PIPE OUTLET FOOTINGS SHOULD NOT EXTEND PAST THE END OF PIPE, HEADWALL OR FLARED END SECTION. TRANSITION MAT SHALL ABUT DIRECTLY AGAINST THE PIPE OUTLET, FES, ENDWALL OR OTHER END TREATMENT.
5. AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL SLOPES. GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
6. INSTALL AT LEAST ONE 4' MAT LENGTH FOR EVERY 9" OF PIPE DIAMETER. PANELS MAY BE SHINGLED AS SHOWN. MATS SHALL NOT BE INSTALLED IN PARTIAL LENGTHS.
7. CONSTRUCT SCOUR AREA WIDTH NOT LESS THAN 5 TIMES THE PIPE DIAMETER, WITH A SLOPE NO STEEPER THAN 3:1. DISCHARGE AREA WIDTH SHOULD BE AS LEVEL AS POSSIBLE TO AVOID WATER CONCENTRATION AND RILLING.
8. FOR INSTALLATIONS ON SLOPES GREATER THAN 10% ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
9. PRIOR TO INSTALLATION, SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (GREATER THAN 2.5"ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL.
10. TYPE "A" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES LESS THAN 4% INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION.
    - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSIVE VELOCITIES HAVE DISSIPATED.
    - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM's MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
    - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
11. TYPE "B" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES GREATER THAN 4%. INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD.
    - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA.
    - TRIM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
12. TYPE "C" INSTALLATION INSTRUCTIONS: CONSTRUCTION PHASE, STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID CONDITIONS. TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMACE TRM.
    - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR.
    - LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED.
    - FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48"ø OR LARGER, PROVIDE AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET).
13. TYPE "D" STREAMBANK AND SHORELINE APPLICATIONS: USE A 20 OUNCE GEOTEXTILE UNDER TRANSITION MATS 3' BELOW AND 6" ABOVE THE NORMAL WATER LINE. A HYBRID GEOTEXTILE / TRM COMPOSITE MAY ALSO BE USED FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE USED UNLESS NOTED OTHERWISE.

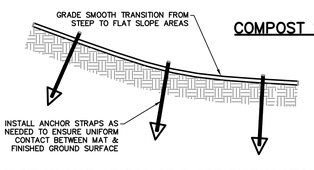


MAXIMUM FLOW FROM PROPOSED LEVEL SPREADER IS 1.0 CFS/LF, OR 4 CFS PER SCOUR STOP MAT. TURF REINFORCEMENT MAT IS REQUIRED. NOT FOR USE ON SLOPES OF GREATER THAN 5% WITHOUT ADDITIONAL ENGINEERING DESIGN.



SCOUR-STOP AT PIPE DISCHARGE

NOT TO SCALE



TRANSITION MAT AT TOE OF SLOPE INSTALLATION

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

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DRAWN BY: WMH | CHECKED BY: JM

SHEET NO.: 13 OF 40

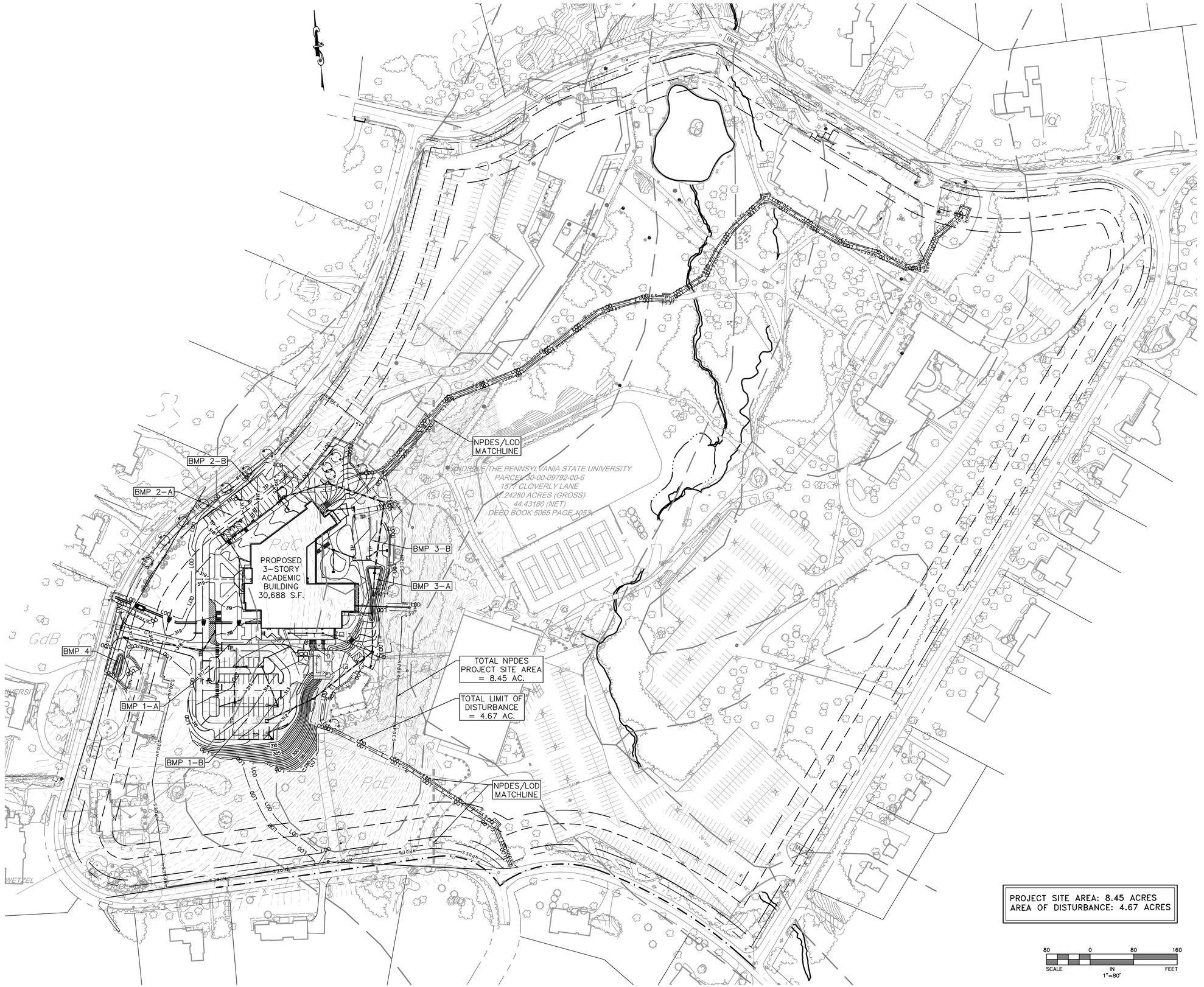
T:\and design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 13 EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2 Plotted By: whelder, on Mon Jun 05, 2023 at 11:25am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-16 COMPOST SOCK - SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES



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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MmontgomeRY COUNTY, PENNSYLVANIA

PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=80'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 14 OF 40

T:\and design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\171206-01_PCSM_PLAN_OVERALL.dwg Layout: 14 PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4) Plotted By: wheider, on Mon Jun 05, 2023 at 11:25am

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ENGINEERING & CONSULTING SERVICES
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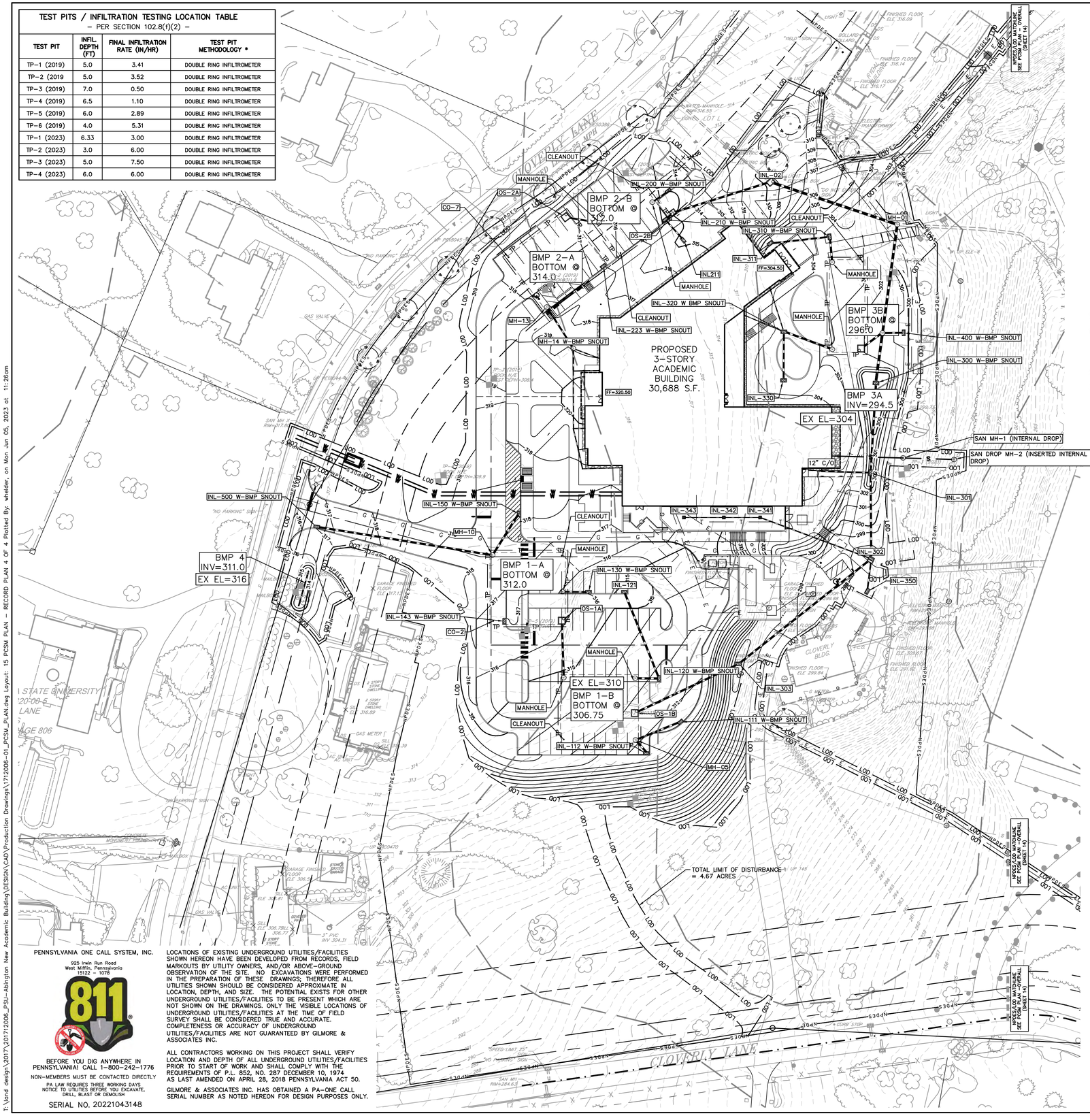
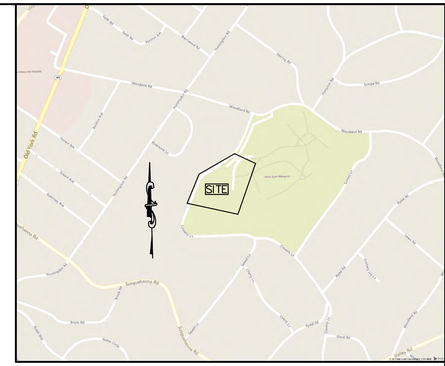
TEST PITS / INFILTRATION TESTING LOCATION TABLE
– PER SECTION 102.8(f)(2) –

TEST PIT	INFIL. DEPTH (FT)	FINAL INFILTRATION RATE (IN/HR)	TEST PIT METHODOLOGY *
TP–1 (2019)	5.0	3.41	DOUBLE RING INFILTROMETER
TP–2 (2019	5.0	3.52	DOUBLE RING INFILTROMETER
TP–3 (2019)	7.0	0.50	DOUBLE RING INFILTROMETER
TP–4 (2019)	6.5	1.10	DOUBLE RING INFILTROMETER
TP–5 (2019)	6.0	2.89	DOUBLE RING INFILTROMETER
TP–6 (2019)	4.0	5.31	DOUBLE RING INFILTROMETER
TP–1 (2023)	6.33	3.00	DOUBLE RING INFILTROMETER
TP–2 (2023)	3.0	6.00	DOUBLE RING INFILTROMETER
TP–3 (2023)	5.0	7.50	DOUBLE RING INFILTROMETER
TP–4 (2023)	6.0	6.00	DOUBLE RING INFILTROMETER





LOCATION MAP

SCALE: 1"=800'

STORMWATER MANAGEMENT NOTES:

1. CONTRACTOR SHALL PROVIDE AS–BUILT SURVEYS IN AUTOCAD FORMAT OF ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING BUT NOT LIMITED TO, SURFACE PONDS, UNDERGROUND DETENTION FACILITIES, BMPS, AN CONVEYANCE PIPES. AS BUILT PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND TO SATISFY THE CONDITIONS OF NPDES NOTICE OF TERMINATION (N.O.T.) PERMIT CLOSEOUT. FINAL AS–BUILT SURVEYS SHALL BE PROVIDED DIRECTLY TO PENN STATE UNIVERSITY ENGINEERING SERVICES PRIOR TO FINAL PAYMENT.
2. ALL CONSTRUCTION SHALL MEET PENNDOT ROADWAY CONSTRUCTION STANDARDS AND PUBLICATION 408 STANDARDS.
3. ALL STORM DRAIN STRUCTURES INCLUDING MANHOLES AND INLETS DEEPER THAN FOUR (4) FEET SHALL HAVE ACCESS STEPS PER PENNDOT STANDARDS.

I, _____ (APPLICANT), ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MUNICIPALITY OR CONSERVATION DISTRICT FOR APPROVAL.

I, _____ (DESIGN ENGINEER), ON THIS DATE _____ HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS'S (DEP'S) REGULATIONS AND THIS CHAPTER.

_____ (MUNICIPAL OFFICIAL OR DESIGNEE), ON THIS DATE _____ HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICPAL ORDINANCE NO. _____.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDING AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON–DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON–DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

G&A LEGEND

- RIGHT–OF–WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- # EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS–1 8 COMPOST SOCK – SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.67 ACRES

400 0 400 800
SCALE IN FEET
1"=400'

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE–GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA–ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION
		DESCRIPTION
3		
2		
1		
REV.		

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN – RECORD PLAN 4 OF 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814–865–0545

MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

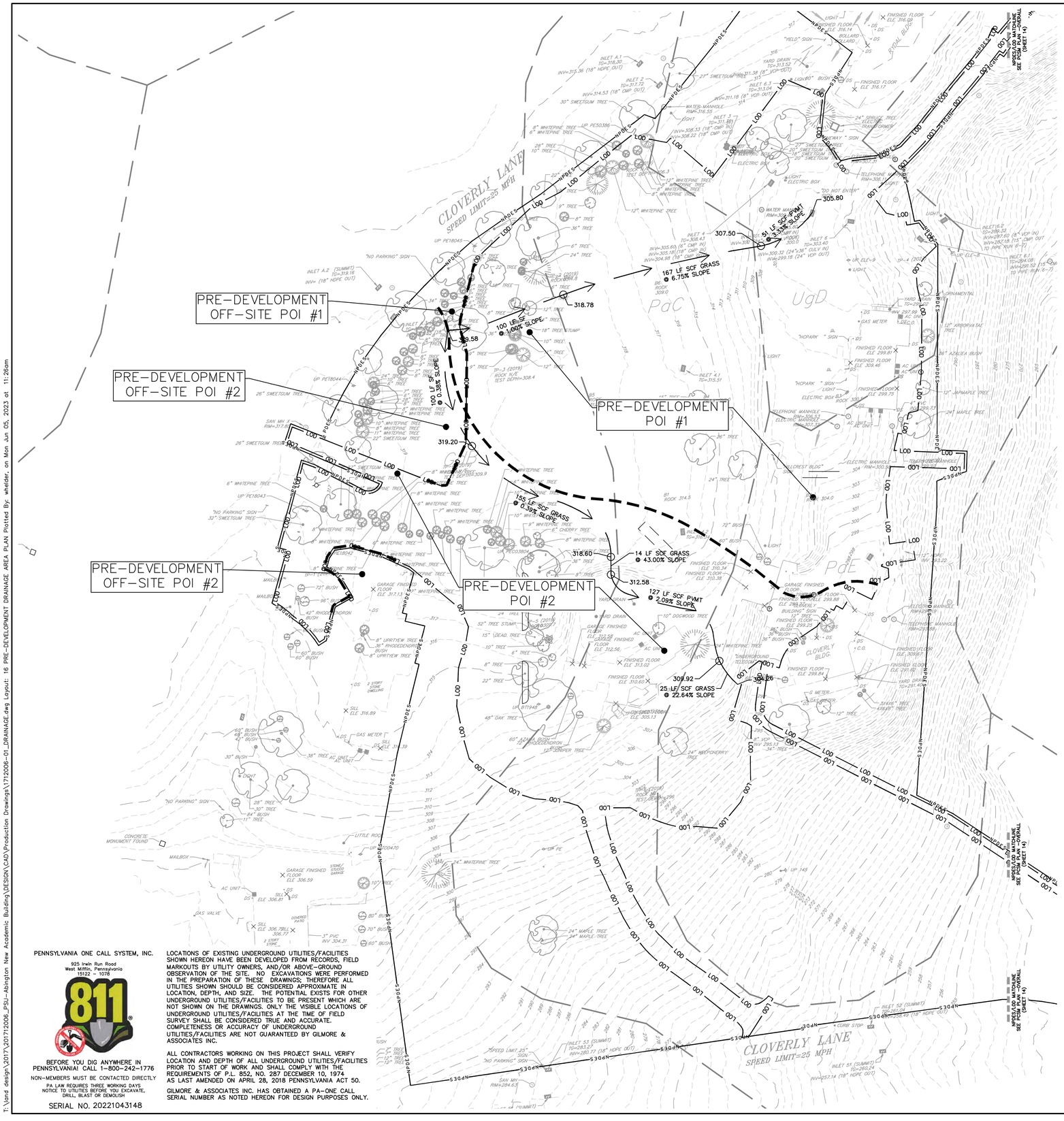
SCALE: 1"=400'

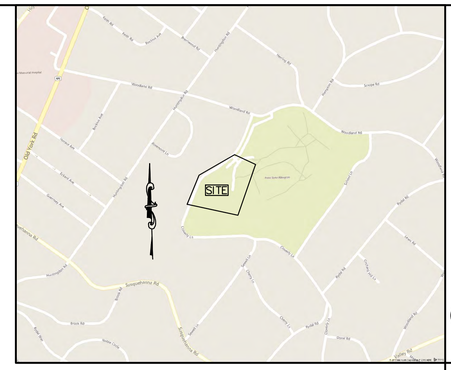
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 15 OF 40

T:\land design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_PCSM_PLAN.dwg Layout: 15 PCSM PLAN – RECORD PLAN 4 OF 4 Plotted By: whelder, on Mon Jun 05, 2023 at 11:26am





LOCATION MAP

SCALE 800 0 800 1600 IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60'–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

SCALE 40 0 40 80 IN FEET 1"=40'

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE–GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

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LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PRE-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

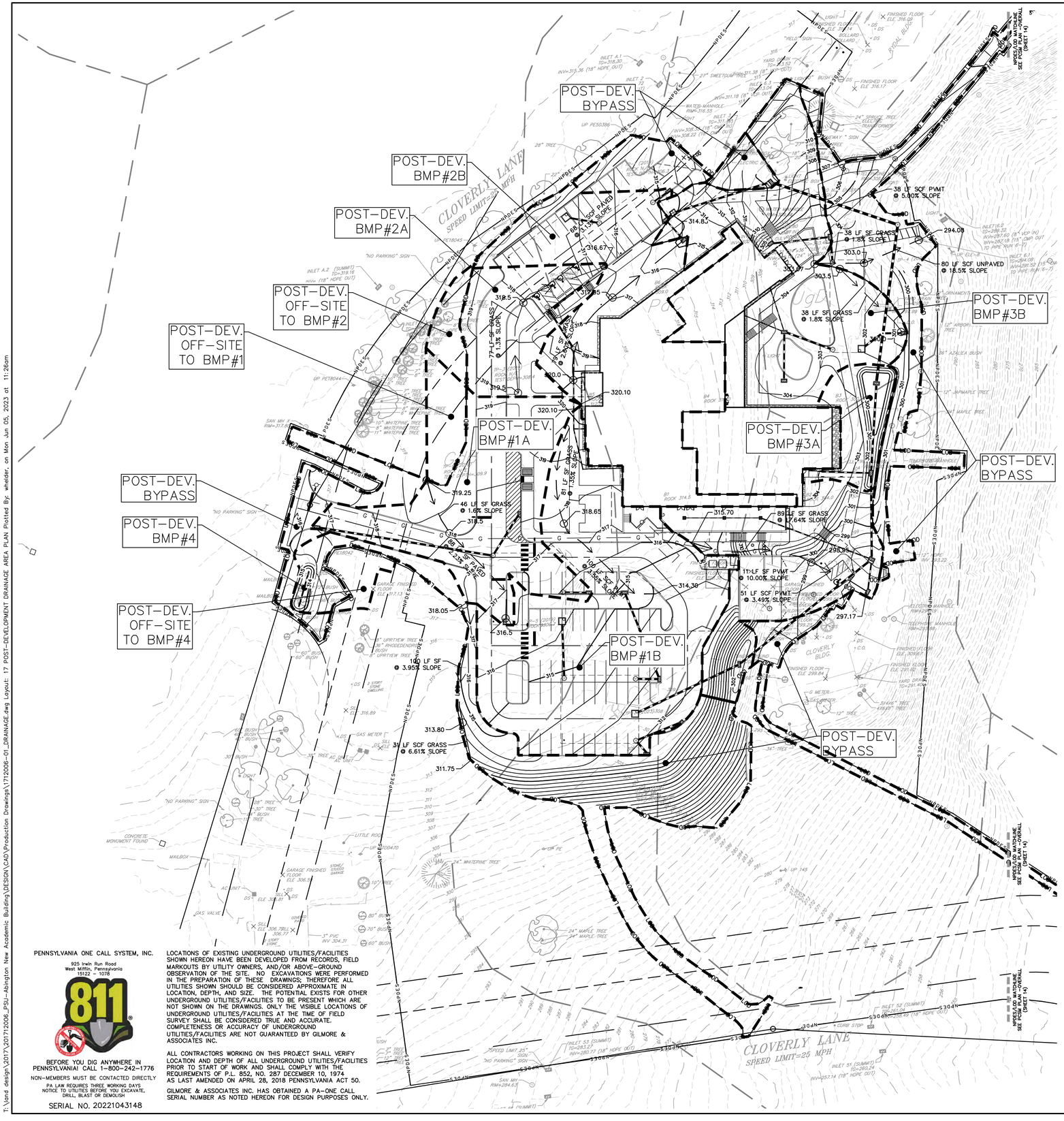
SCALE: 1"=40'

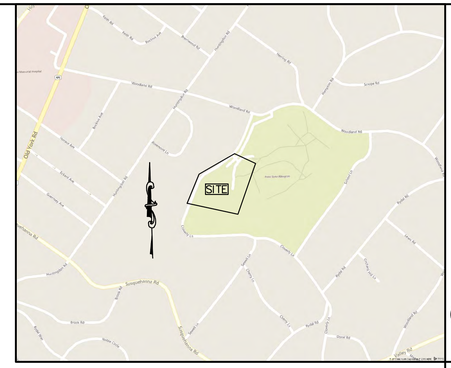
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 16 OF 40

T:\land design\2017\2017120006_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_DRAINAGE.dwg Layout: 16 PRE–DEVELOPMENT DRAINAGE AREA PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:26am





LOCATION MAP

SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B).

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED).

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

   BMP 1B – UNDERGROUND CONCRETE VAULT DETENTION. CONSPAN 24X5 UNITS CURRENTLY SHOWN INSTALLED AT HILLCREST BASEMENT ELEVATION OF 305.5'. NO INFILTRATION IS ANTICIPATED FOR THIS SYSTEM;

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   BMP 2B – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL = 307.00'
   INSTALL W/ FOOTINGS AND UTILIZE INFILTRATION BETWEEN FOOTINGS;

   BMP 3 – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL =292.00'

   BMP 4 – VEGETATED SWALE TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE.

G&A LEGEND	
	RIGHT-OF-WAY LINE
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	SOIL BOUNDARY
	EXISTING PAVEMENT EDGE
	EXISTING CURB
X	EXISTING FENCE
W	EXISTING WATER LINE
E	EXISTING ELECTRIC LINE
G G	EXISTING GAS LINE
T T	EXISTING TELEPHONE LINE
S	EXISTING SAN. SEWER LINE
	ZONING BOUNDARY
	LIMIT OF 2019/2022 G&A SURVEY
	EXISTING UTILITY POLE
	EXISTING LIGHT FIXTURE
	EXISTING SIGN
	EXISTING BOLLARD
	EXISTING ELECTRIC METER
	EXISTING WATER VALVE
	EXISTING STORM INLET
	EXISTING CONCRETE MONUMENT
	PROPOSED CURB
320	PROPOSED MAJOR CONTOURS
319	PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND	
ST	EXISTING STORM SEWER LINE
G	EXISTING GAS LINE
E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
SAN	EXISTING SAN. SEWER LINE
T	TELEPHONE LINE
SL	EXISTING SIGHT LIGHTING
	EXISTING UTILITY POLE
	EXISTING LIGHT FIXTURE
	EXISTING SIGN
	EXISTING BOLLARD
	EXISTING STORM INLET
	EXISTING PLANT MASS
	EXISTING TREES
	TIME OF CONCENTRATION PATH

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PoC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PoE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60'–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80
SCALE IN 1"=40' FEET

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 – 1078

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776

NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
3		06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS FOR
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

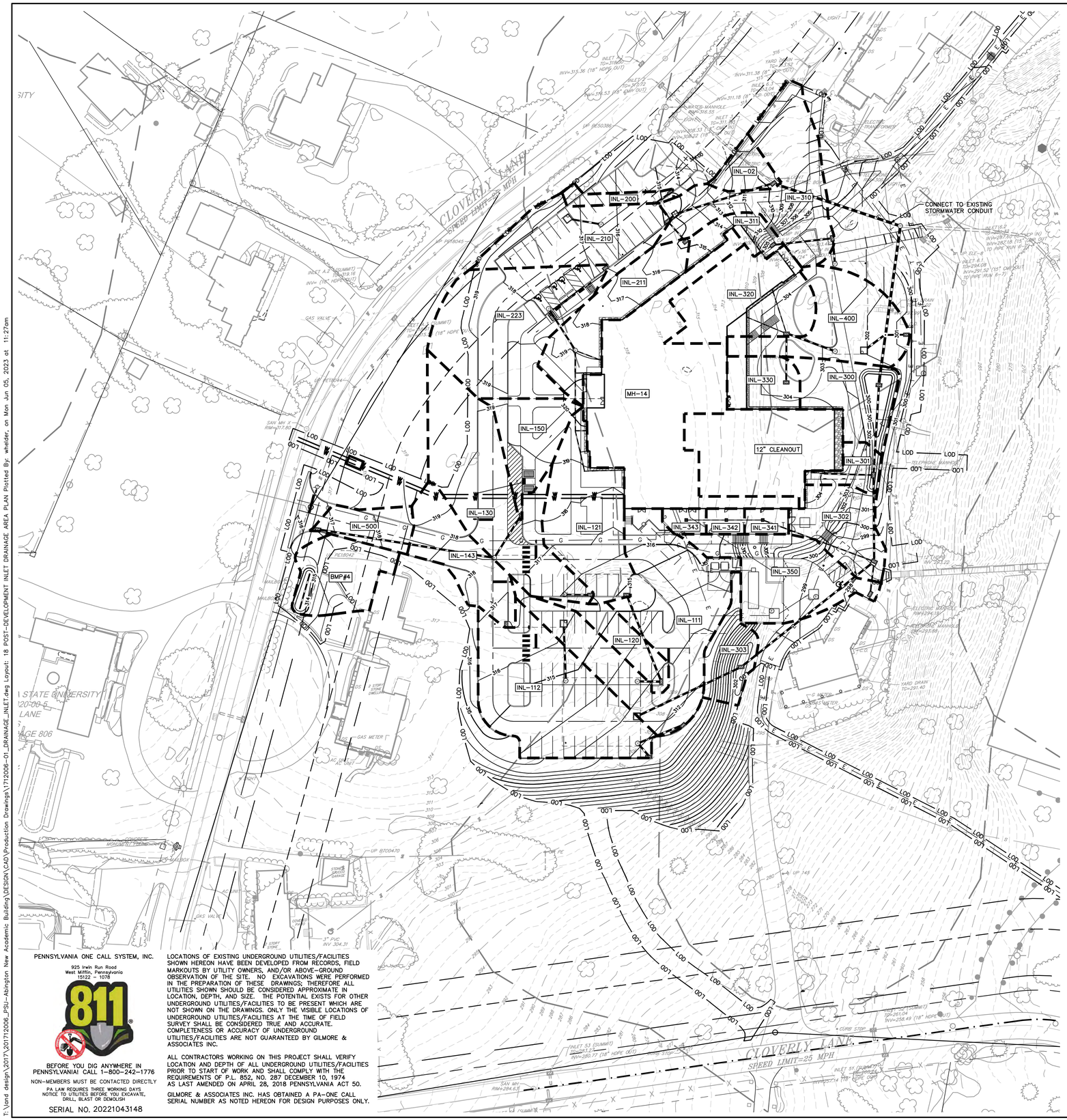
SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 17 OF 40

T:\and design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_DRAINAGE.dwg Layout: 17 POST-DEVELOPMENT DRAINAGE AREA PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:26am



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SERIAL NO. 20221043148

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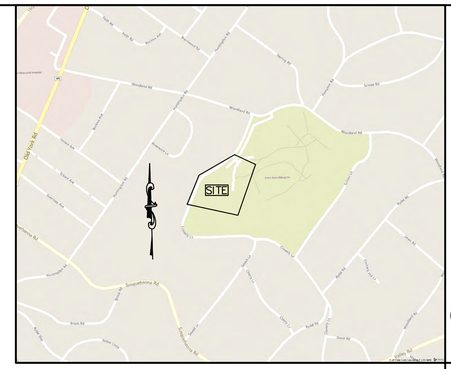

LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B).

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED).

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

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G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
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40 0 40 80
SCALE IN 1"=40' FEET

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NO.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
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2	50% CD SUBMISSION	07/20/22	DAW
1	DESCRIPTION	06/05/22	JM
REV.			

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT INLET DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 18 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_DRAINAGE_INLET.dwg Layout: 18 POST-DEVELOPMENT INLET DRAINAGE AREA PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:27am

MONTGOMERY COUNTY CONSERVATION DISTRICT STANDARD EROSION & SEDIMENT CONTROL NOTES:

1. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.
2. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
3. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE PERMITTEE AND COPERMITTEE SHALL ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES AND SHALL INCLUDE COMPLETE, WRITTEN LOGS OF THOSE INSPECTIONS WHICH SHALL BE MADE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGARDING, RESEEDING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.
4. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
5. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
6. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE APPROPRIATE CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
7. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON–DISTURBED AREAS.
8. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
10. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE PROJECT SITE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE BMP'S. EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S.
11. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
12. THE PERMITTEE OR CO–PERMITTEE SHALL CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AT LEAST SEVEN DAYS BEFORE CONSTRUCTION IS TO BEGIN TO DETERMINE IF A PRECONSTRUCTION CONFERENCE IS REQUIRED. THE PERMITTEE, CO–PERMITTEE, AND OTHERS UNDERTAKING THE EARTH DISTURBANCE ACTIVITY MUST ATTEND A PRECONSTRUCTION CONFERENCE WHEN REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE PERMITTEE OR CO–PERMITTEE MUST BRING A COPY OF THEIR NPDES PERMIT, A COPY OF THE STAMPED PLAN FROM THE CONSERVATION DISTRICT, AND ALL ASSOCIATED DEPARTMENT APPROVALS/PERMITS WHICH MUST BE AVAILABLE AT THE CONFERENCE UPON REQUEST. ALSO, AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1–800–242–1776 FOR BURIED UTILITIES LOCATIONS.
13. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO–PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
14. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE ARE DESCRIBED IN EACH STAGE.
15. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE OR SHOULD A TEMPORARY CESSATION OF ACTIVITY OCCUR WHICH WILL LAST LONGER THAN 4 DAYS, 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 ONE 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 ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
16. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON–VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
17. PERMITTEES AND CO–PERMITTEES ARE RESPONSIBLE FOR ENSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF BMPS IDENTIFIED IN THE PCSM PLAN PRIOR TO THE SUBMISSION OF THE NOTICE OF TERMINATION FOR THIS PERMIT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE BMPS IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN. THE INSTALLATION SCHEDULE OF PCSM BMPS AND MAINTENANCE REQUIREMENTS CONTAINED WITHIN THE APPROVED PCSM PLAN MUST BE FOLLOWED; AND FAILURE TO COMPLY WITH THE INSTALLATION SCHEDULE IS A VIOLATION OF THIS PERMIT, THE CLEAN STREAMS LAW, AND THE CLEAN WATER ACT.

SEDIMENT BASINS

1. APPROVAL OF THE USE OF SKIMMERS DOES NOT APPROVE USE OF ANY SKIMMERS IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.
2. BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.
3. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION SHALL BE DONE BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED.
4. SEDIMENT BASINS MUST BE STRUCTURALLY SOUND AND PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.

OTHER BMP'S

1. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
2. AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.

MATERIAL RECYCLING/DISPOSAL REQUIREMENTS:

1. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.
2. THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
3. THE FOLLOWING MATERIALS ARE ANTICIPATED TO BE CONSTRUCTION WASTE: ASPHALT PAVING, CONCRETE PAVING/SPOILS, STEEL/IRON PIPING, AND PLASTIC PIPING.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.
   1.1. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE IN DETERMINING THAT FILL IS CLEAN.
   1.2. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.
2. FOR PROJECTS THAT REQUIRE **NPDES PERMIT,** LANDOWNER OR HIS DESIGNATED REPRESENTATIVE SHALL MAINTAIN, AND MAKE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT, COMPLETE, WRITTEN INSPECTION LOGS OF THE INSPECTION AND MAINTENANCE OF ALL EROSION–SEDIMENT CONTROL BMPS.
3. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE NOTED UNDER TEMPORARY AND PERMANENT STABILIZATION.
4. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAYS MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
5. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF MONTGOMERY COUNTY CONSERVATION DISTRICT. ANY PUMPED WATER MUST BE DIRECTED TO A FILTER BAG DEVICE DISCHARGING OVER NON–DISTURBED AREAS.
6. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
   6.1. THE APPLICANT AND HIS DESIGNATED REPRESENTATIVE ARE RESPONSIBLE FOR INSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF STORMWATER BMPs IDENTIFIED IN THESE PLANS (IF ANY) PRIOR TO SUBMISSION OF A 'NOTICE OF TERMINATION' FOR THE PROJECT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE STORMWATER BMPs IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN.
   6.2. THE INSTALLATION SCHEDULE AND MAINTENANCE REQUIREMENTS FOR ANY AND ALL IDENTIFIED STORMWATER MANAGEMENT BMPs INCLUDED IN THESE PLANS MUST BE FOLLOWED. FAILURE TO COMPLY WITH PLAN SPECIFICATIONS IS A VIOLATION OF THE CLEAN STREAM LAW AND CLEAN WATER ACT.
7. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. REPLACED SOILS SHALL BE SEEDED AND MULCHED IMMEDIATELY.
8. UPON COMPLETION OR ANY TEMPORARY CESSATION LONGER THAN 4 DAYS OF THE EARTH DISTURBANCE ACTIVITY, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO. 363–2134–008, MARCH 2012, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMPS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BMPS ARE OPERATIONAL.
9. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP–1A AND FP–1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP–001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP–001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

MAINTENANCE OF FACILITIES:

1. SILT FENCE SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS 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 E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
4. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
5. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
6. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
7. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
8. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES.

TYPICAL UTILITY TRENCHING NOTES:

1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION, AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM WORK CREWS FOR CLEARING–GRUBBING AND SITE RESTORATION–STABILIZATION OPERATIONS.
3. PLACE FILTER FENCE OR COMPOST SOCK DOWN–SLOPE OF THE PROPOSED TRENCHING ACTIVITIES. PLACE EXCAVATED MATERIALS ON THE UP–SLOPE SIDE OF THE TRENCH.
4. TOPSOIL SHALL BE REMOVED AND STOCKPILED SEPARATELY FROM BACKFILL SOILS. TOPSOIL SHALL BE REPLACED UPON FINAL GRADING FOR STABILIZATION.
5. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
6. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
7. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND STABILIZED IMMEDIATELY IN ACCORDANCE WITH 'SEEDING & MULCHING SCHEDULE'.
8. REMOVE FILTER FENCE AND OTHER ESC MEASURES AFTER AREA IS STABILIZED. ANY AREAS DISTURBED DURING THE REMOVAL OF ESC MEASURES SHALL BE RESTABILIZED IMMEDIATELY.

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE AND SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE – 90 LBS/1,000 SF
   10–20–20 ANALYSIS COMMERCIAL FERTILIZER – 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS

THE PERMITTEE / CO–PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RUNOFF EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOTICE OF TERMINATION BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

1. A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP IMPLEMENTATION AND MAINTENANCE, AND COMPLIANCE ACTIONS; AND
2. THE DATE, TIME, NAME, AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

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

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

REDUCTION, LOSS, OR FAILURE OF THE BMPS

UPON REDUCTION, LOSS, OR FAILURE OF THE BMPS, THE PERMITTEE / CO–PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPS OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPS OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPS.

TERMINATION OF COVERAGE

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO–PERMITTEE OF THE FACILITY MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE N.O.T. MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE N.O.T., THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE N.O.T. IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROJECT SPECIFIC INFORMATION
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– PROJECT SPECIFIC INFORMATION
	MINIMIZE SOIL COMPACTION	– PROJECT SPECIFIC INFORMATION
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THERE ARE NO STREAMS OR WETLANDS ON THE PROPERTY; THIS REQUIREMENT DOES NOT APPLY.
ANTI–DEGRADATION ANALYSIS		– DOES NOT APPLY. CHAPTER 93 = –––, MF THEREFORE IT IS NOT SPECIAL PROTECTION WATERSHED.

PCSM SHORT AND LONG–TERM OPERATION AND MAINTENANCE REQUIREMENTS:

UNTIL THE PERMITTEE OR CO–PERMITTEE HAS RECEIVED A WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO–PERMITTEE WILL REMAIN RESPONSIBLE DURING THE SHORT TERM FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG–TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO–PERMITTEE SHALL BE RESPONSIBLE FOR LONG–TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG–TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO–PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG–TERM OPERATION AND MAINTENANCE FOR PCSM BMP'S AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG–TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER 102.7(B)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG–TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON, INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION, OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG–TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

A PERMITTEE OR CO–PERMITTEE THAT FAILS TO TRANSFER LONG–TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG–TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

BMPs SHOULD BE INSPECTED AT LEAST ONE (1) TIME PER YEAR AND AFTER RUNOFF EVENTS.

THE PCSM BMPs MUST BE INSPECTED AND MAINTAINED AS NOTED UNDER THE INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN NOTES, AND THE INDIVIDUAL OPERATION AND MAINTENANCE NOTES AS INDICATED ON THE PLANS. THIS INCLUDES REPAIRS AND REPLACEMENT IF REQUIRED TO ENSURE THEY FUNCTION/OPERATE PROPERLY.

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE COMPLETED AND MADE AVAILABLE FOR DEP OR BCCD STAFF FOR REVIEW.

LONG TERM – P.C.S.M. BMP INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN

BMP TYPE	MAINTENANCE ACTIVITY	SCHEDULE
BMP 5.6.2 MINIMZE SOIL COMPACTION	MINIMUM SOIL COMPACTION AREAS MAY NEED SOIL AMENDMENT SINCE COMPACTION MAY OCCUR BY USE AND/OR SETTLING. VEGETATION SHOULD BE MAINTAINED IN GOOD CONDITION AND ANY BARE SPOTS RE–VEGETATED AS SOON AS POSSIBLE. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE MINIMUM SOIL COMPACTION AREAS. MOW AS APPROPRIATE. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS AND REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI–ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.3 – SUBSURFACE INFILTRATION BASIN	BI–ANNUALLY (AFTER FIRST YEAR OF INSPECTING EACH EVENT) AND AFTER LARGE STORM EVENTS (0.5–INCHES OR GREATER), INSPECT ACCESS MANHOLES, INFLOW AND OUTFLOW POINTS INCLUDING PIPES, OUTLET STRUCTURE, INLETS AND MANHOLES, AND THE DISCHARGE/DAYLIGHT POINT FROM THE BASIN. IDENTIFY AND REPORT SEDIMENT AND DEBRIS ACCUMULATION, SYSTEM BACK UP, AND CHANGES IN FLOW RATES. DETERMINE IF MAINTENANCE IS REQUIRED. IF REQUIRED, USE A VACUUM PUMP TRUCK TO EVACUATE DEBRIS FROM INFLOW AND OUTFLOW POINTS. FLUSH THE SYSTEM WITH CLEAN WATER FORCING DEBRIS FROM THE SYSTEM, TAKING CARE TO AVOID EXTREME DIRECT WATER PRESSURE. SUBSURFACE INFILTRATION BASINS/BMPs ARE DESIGNED TO DE–WATER IN 72 HOURS, IF INFILTRATION BASINS/BMPs DO NOT DE–WATER WITHIN 72 HOURS PERFORM REMEDIATION MEASURES TO CORRECT THE PROBLEM. CLEAR DEBRIS FROM OUTLET STRUCTURE AND ASSOCIATED INLET AND OUTLET PIPES. IF INFILTRATION BASIN CONTINUES TO FAIL OVERTIME BY NOT DRAINING PROPERLY, COMPLETE REPLACEMENT OF SYSTEM MAY BE REQUIRED. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS FOR STORMWATER BMP INSPECTION REQUIREMENTS. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI–ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.5 – RAIN GARDEN	BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC. DURING PERIODS OF EXTENDED DROUGHT. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON. MULCH SHOULD BE RE–SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY 2 TO 3 YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.BIORETENTION AREAS MAY REQUIRE WATERING. TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI–ANNUALLY OR MORE FREQUENTLY, AS NECESSARY. AFTER EACH RAINFALL EVENT OF 0.5–IN OR GREATER DURING THE FIRST YEAR
BMP 6.6.4 WATER QUALITY FILTER INSERTS/SNOUTS	REMOVE ACCUMULATED TRASH AND SEDIMENT FROM THE ABOVE GROUND PORTION OF THE INLET STRUCTURE. FOLLOW THE MANUFACTURER'S GUIDELINES FOR MAINTENANCE, AND INLETS SHOULD BE INSPECTED WEEKLY DURING CONSTRUCTION. POST CONSTRUCTION, THE WATER QUALITY INSERTS SHALL BE CLEANED OF SEDIMENT AND DEBRIS WHEN THEY ARE HALF FULL AND CLEANED AT LEAST TWICE A YEAR. STORM DRAINS SHALL BE KEPT FREE OF DEBRIS. RIP–RAP APRONS AT OUTLETS SHALL BE INSPECTED TO ENSURE PROPER EROSION PROTECTION IS IN PLACE. IF EROSION OCCURS AT APRONS, THE RIP–RAP SHALL BE REPAIRED TO ORIGINAL DESIGN SPECIFICATIONS. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS AND REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI–ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.7.2 LANDSCAPE RESTORATION	VISUALLY INSPECT OF TREES TO DETERMINE THE HEALTH OF TRUNK, BRANCHES, AND LEAVES/VEGETATION. MONITOR GROWTH AND REMOVE WEED GROWTH AS NECESSARY. DEAD TREES SHALL BE REPLACED WITH A TREE OF THE SAME SPECIES NO LATER THAN THE NEXT PLANTING TIME PER THE OPERATION AND MAINTENANCE PLANTING DAY REQUIREMENTS. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS REPAIRS AND REPLACEMENTS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI–ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.

*THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PROPOSED BMPs.

GENERAL PCSM PLANNING AND DESIGN
§102.8(B)

THE FOLLOWING MEASURES WERE TAKEN TO PRESERVE THE INTEGRITY OF STREAM CHANNELS AND TO MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM:
- DIRECT RUNOFF FROM IMPERVIOUS SURFACES TO BMPs.
- USE NATIVE SPECIES, WHICH REQUIRE LESS FERTILIZATION AND CHEMICAL APPLICATION THAN NON–NATIVE SPECIES.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO PREVENT AN INCREASE IN THE RATE OF STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS WHICH WILL CONTROL RUNOFF RATES.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE ANY INCREASE IN STORM WATER RUNOFF VOLUME:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, WHICH WILL CONTROL RUNOFF VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE IMPERVIOUS AREAS:
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- PROPOSED BMPs SUCH AS THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, RE–VEGETATION OF DISTURBED AREAS, AND WATER QUALITY FILTERS WILL TREAT RUNOFF PRIOR TO LEAVING THE SITE.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE LAND CLEARING AND GRADING:
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.
- AREAS NOT REQUIRED TO BE CLEARED OR GRADED SHALL BE MAINTAINED IN EXISTING CONDITIONS.

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- USE TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS.
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.

THE FOLLOWING MEASURES WERE TAKEN TO UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS TO CONTROL RUNOFF RATES AND VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

RECEIVING SURFACE WATERS
§102.8(F)(5)

THE SITE RUNOFF DRAINS TO A TRIBUTARY TO THE MEADOWBROOK CREEK WHICH HAS A CHAPTER 93 CLASSIFICATION OF TROUT STOCKING FISHES, MIGRATORY FISHES (TSF,MF).

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

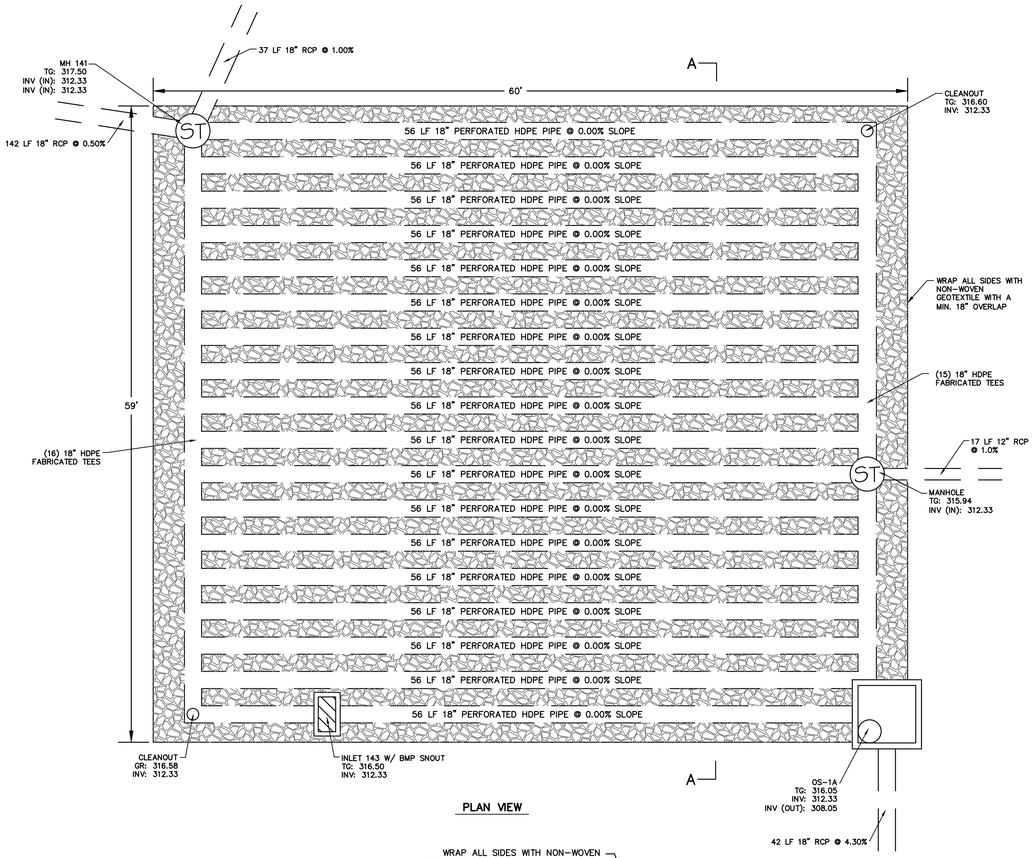
PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM NOTES

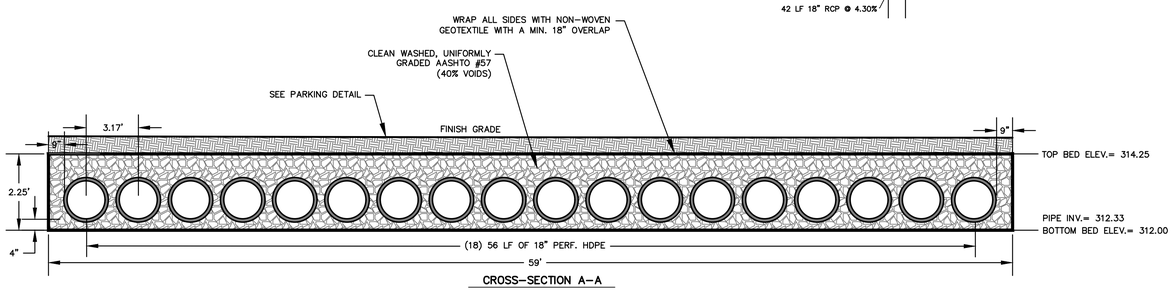
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814–865–0545	
MUNICIPAL FILE No.: LD–22–05	
TAX MAP PARCEL No.: 30–00–09792–00–6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: N.T.S.
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 19 OF 40	

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 19 PCSM NOTES Plotted By: whelder, on Mon Jun 05, 2023 at 11:27am



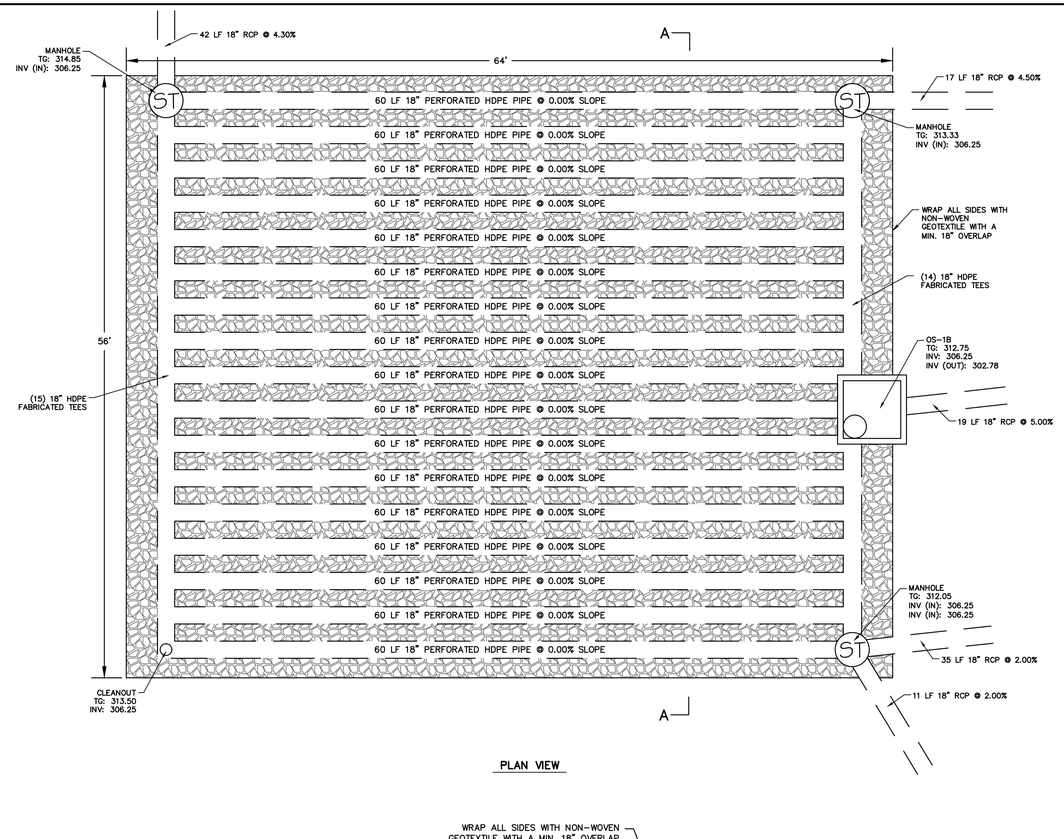
PLAN VIEW



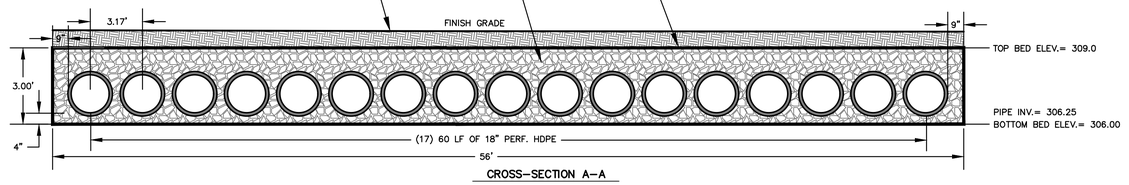
CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1A DETAIL

NOT TO SCALE



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1B DETAIL

NOT TO SCALE

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 20 OF 40

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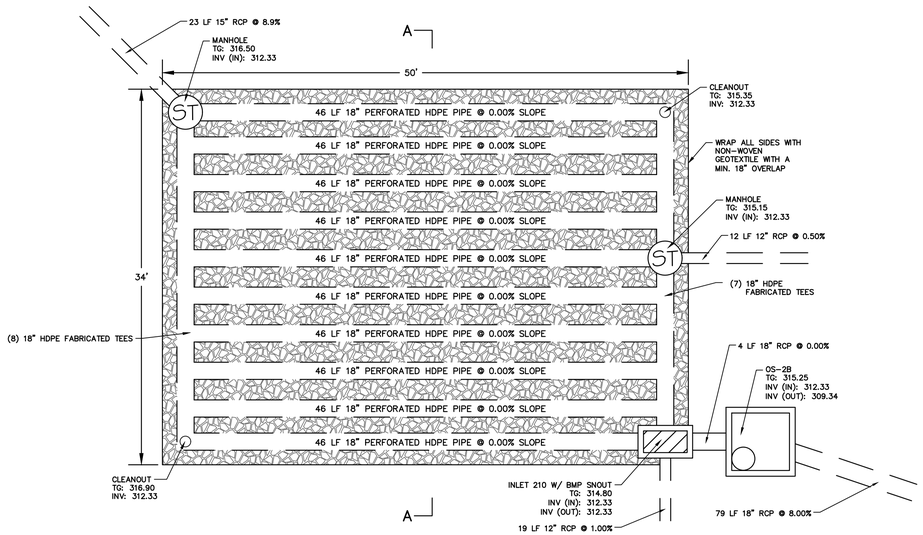
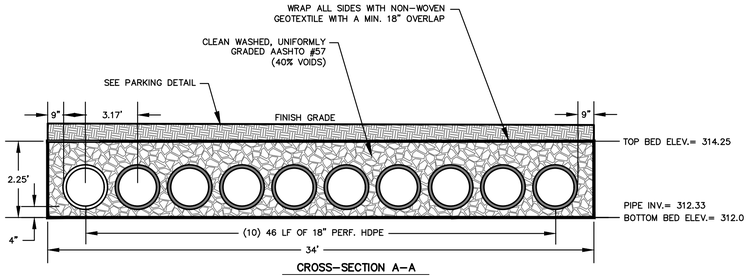
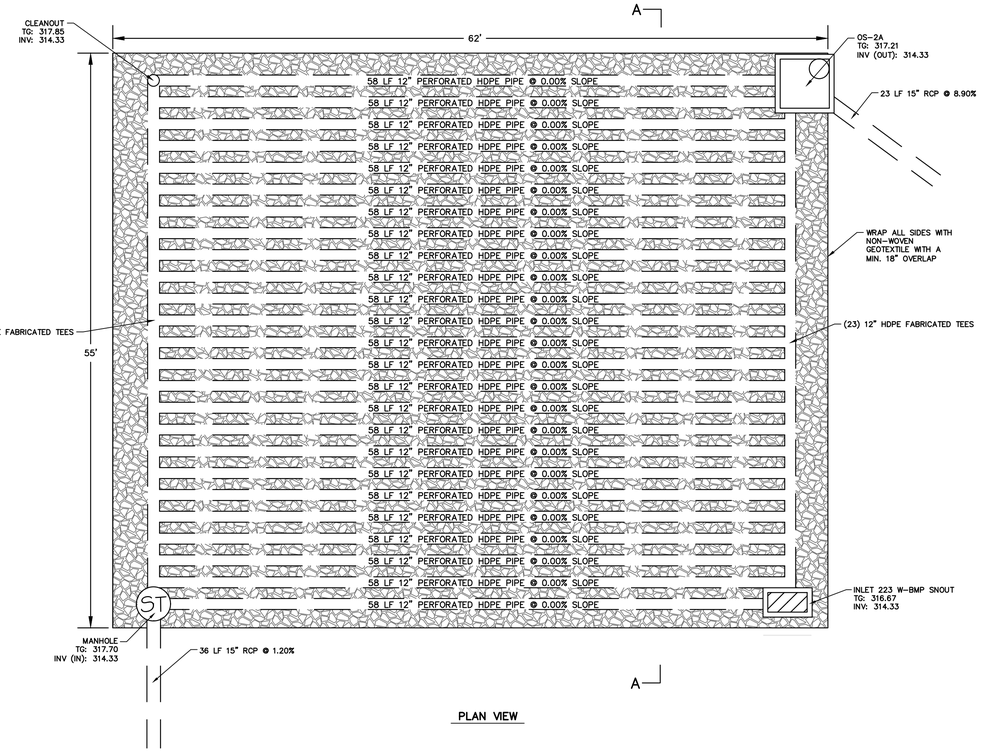


PLAN VIEW

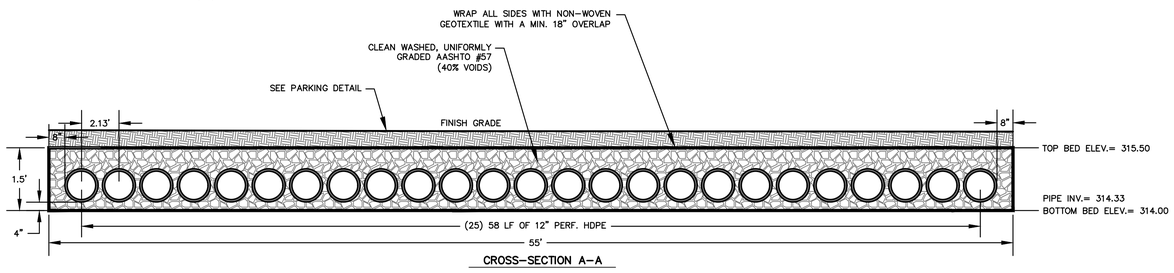


UNDERGROUND SWM INFILTRATION BASIN 2B DETAIL

NOT TO SCALE



PLAN VIEW



UNDERGROUND SWM INFILTRATION BASIN 2A DETAIL

NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION
BY	DATE	DESCRIPTION
3		
2		
1		
REV.		

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-99792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 21 OF 40

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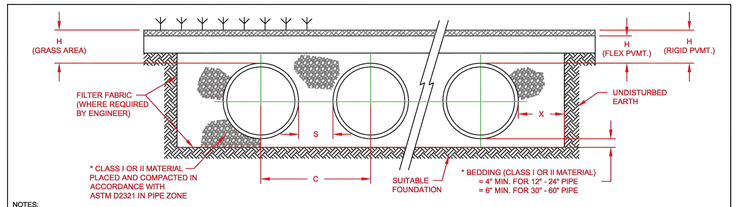

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	NOMINAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29.0" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	17.0" (432mm)	38.0" (965mm)	9" (229mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	14.0" (356mm)	41.5" (1054mm)	10" (254mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	18" (457mm)	53.0" (1346mm)	18" (457mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	22" (559mm)	63.0" (1600mm)	18" (457mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	24" (610mm)	72.0" (1829mm)	18" (457mm)	12" (305mm)	24" (610mm)
48" (1200mm)	54" (1372mm)	25" (635mm)	78.5" (1994mm)	18" (457mm)	12" (305mm)	24" (610mm)
60" (1500mm)	67" (1702mm)	24" (610mm)	90" (2286mm)	18" (457mm)	12" (305mm)	24" (610mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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RETENTION-DETENTION SYSTEM (CROSS-SECTION)

DRAWING NUMBER: STD-702

ADS Advanced Drainage Systems, Inc. — 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DRAWN BY: AWM
DATE: 07.25.06
DETAIL
SCALE: NTS
SHEET OF

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS

* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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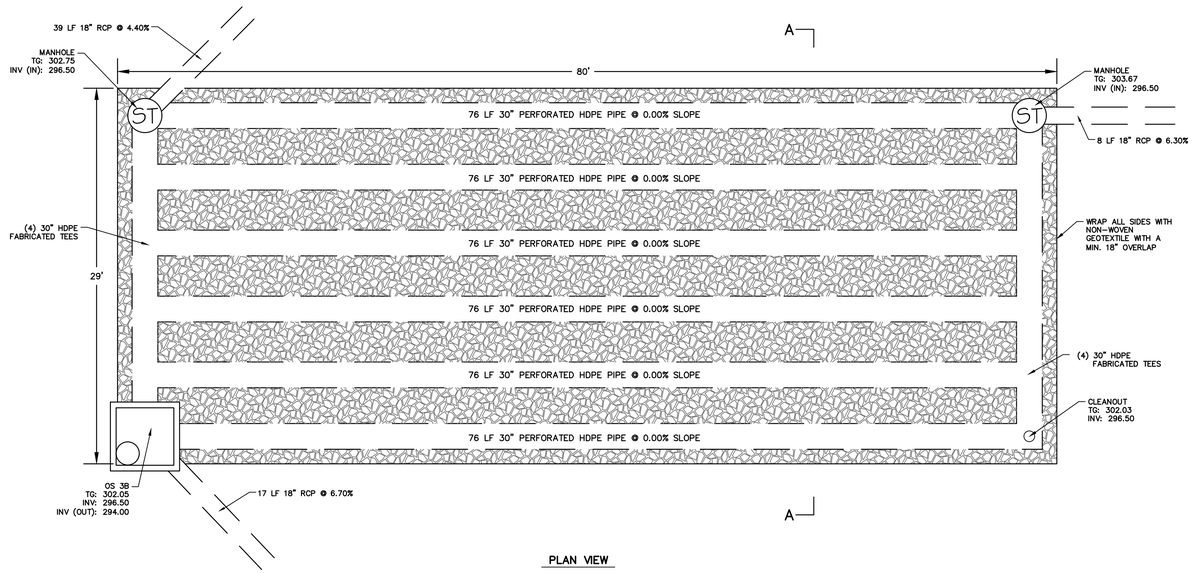
RETENTION-DETENTION SYSTEM (RISER AND CLEANOUT)

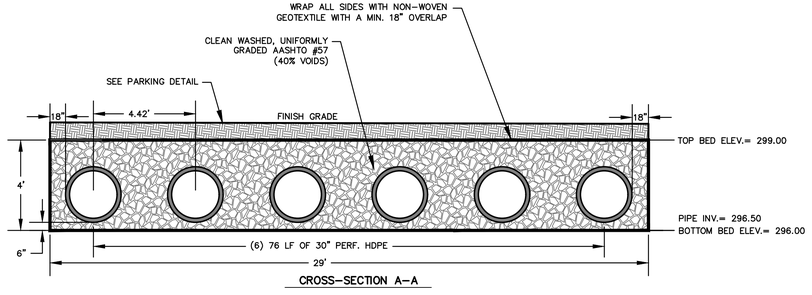
DRAWING NUMBER: STD-703

ADS Advanced Drainage Systems, Inc. — 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DRAWN BY: CRM
DATE: 10/23/06
DETAIL
SCALE: NTS
SHEET OF



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 3B DETAIL

NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	BY
3	REVISED PER TOWNSHIP COMMENTS	JM
2	75% CD SUBMISSION	DAW
1	50% CD SUBMISSION	DAW
REV.	DESCRIPTION	BY
DATE	06/05/22	
	09/09/22	
	07/20/22	

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

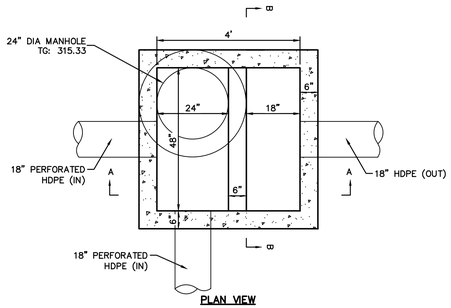
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

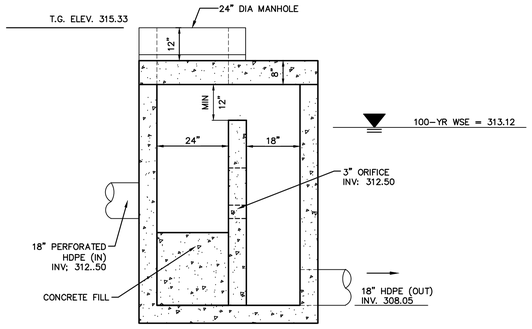
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 22 OF 40

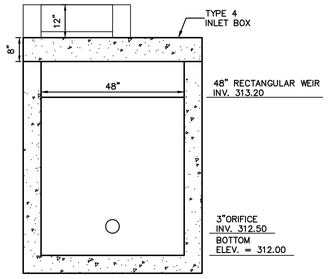
T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 22 PCSM DETAILS - 3 Plotted By: whelder, on Mon Jun 05, 2023 at 11:27am



PLAN VIEW



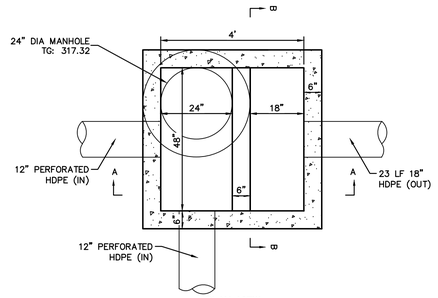
SECTION A–A



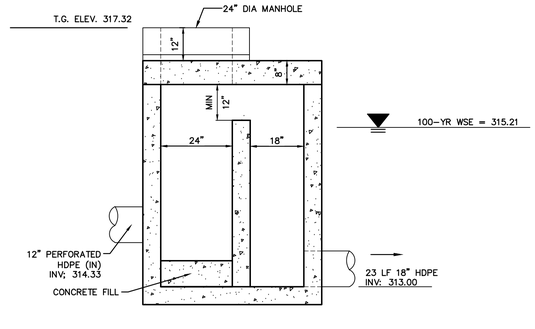
SECTION B–B

OS–1A OUTLET STRUCTURE DETAIL

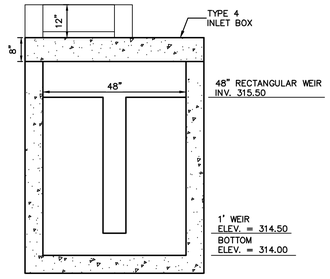
NOT TO SCALE



PLAN VIEW



SECTION A–A



SECTION B–B

OS–2A OUTLET STRUCTURE DETAIL

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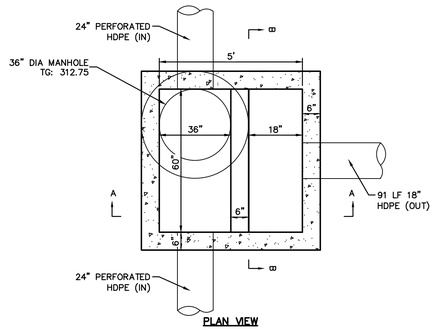
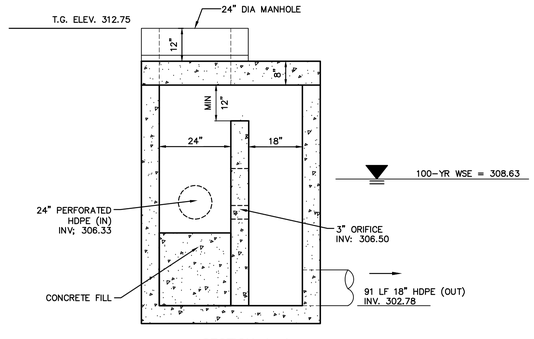


PLAN VIEW



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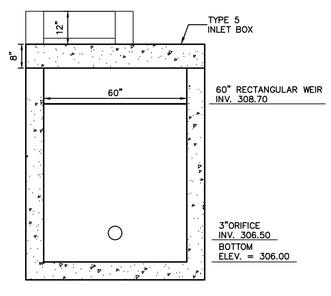
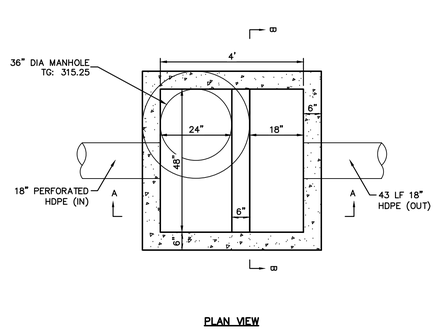


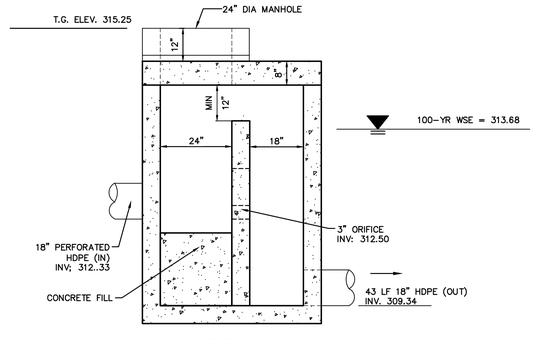
SECTION B–B

OS–1B OUTLET STRUCTURE DETAIL

NOT TO SCALE



PLAN VIEW



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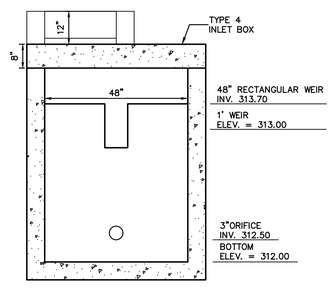

SECTION B–B

OS–2B OUTLET STRUCTURE DETAIL

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, Mmontgomery COUNTY, PENNSYLVANIA

PCSM DETAILS – 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

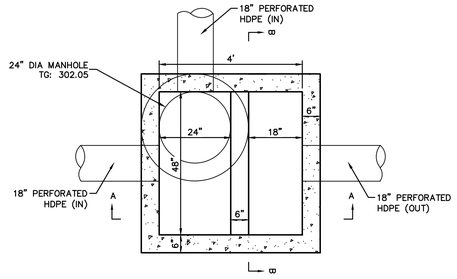
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

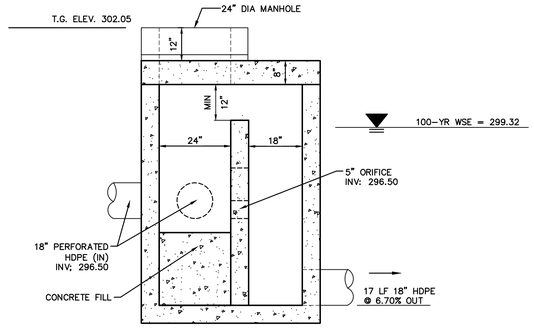
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 23 OF 40

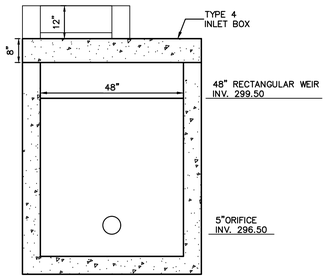
T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 23 PCSM DETAILS – 4 Plotted By: wheider, on Mon Jun 05, 2023 at 11:28am



PLAN VIEW



SECTION A–A



SECTION B–B

OS–3B OUTLET STRUCTURE DETAIL

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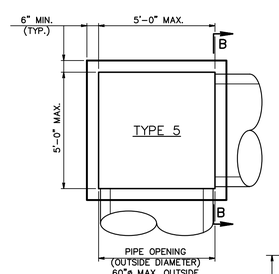
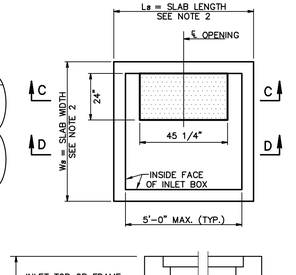
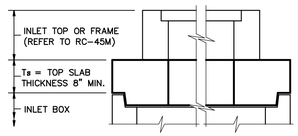




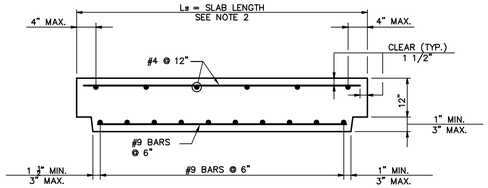
NOTE:

1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.



SECTION C–C w/ SHIPLAP JOINT

NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN

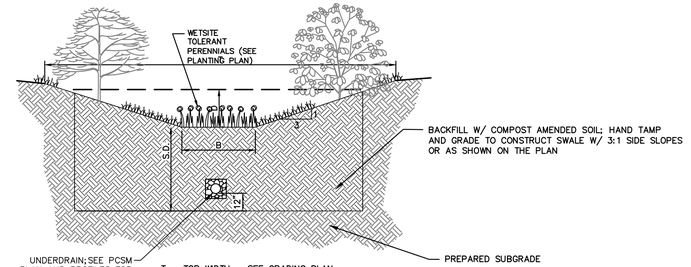


SECTION D–D w/ SHIPLAP JOINT

(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

PRECAST CONCRETE INLET BOX–TYPE 5

NOT TO SCALE

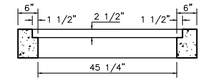


T = TOP WIDTH = SEE GRADING PLAN
B = BOTTOM WIDTH = SEE GRADING PLAN
D = WATER DEPTH = SEE STORMWATER REPORT
S.D. = AMENDED SOIL STORAGE DEPTH SEE SWM RPT.

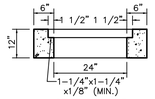
NOTE: VEGETATED SWALE SHALL BE CONSTRUCTED WITH A 12" DEPTH AND 2'V:1'H SIDE SLOPES

RAINGARDEN AND VEGETATED SWALE DETAIL

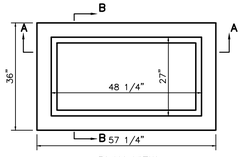
NOT TO SCALE



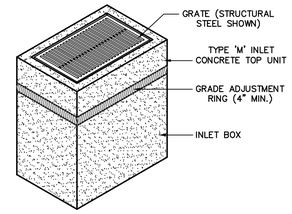
SECTION A–A



SECTION B–B



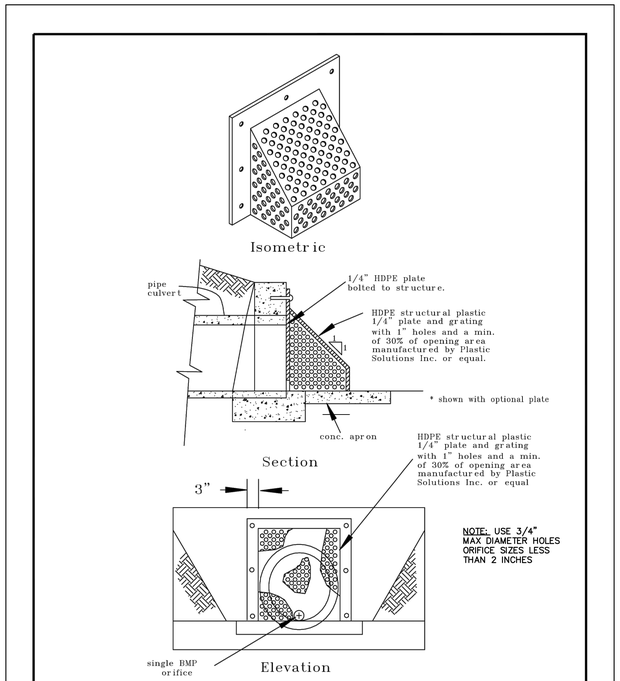
PLAN VIEW



NOTE:
REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET CONSTRUCTION.

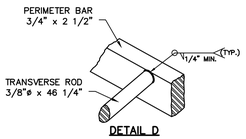
TYPE 'M' INLET DETAIL

NOT TO SCALE



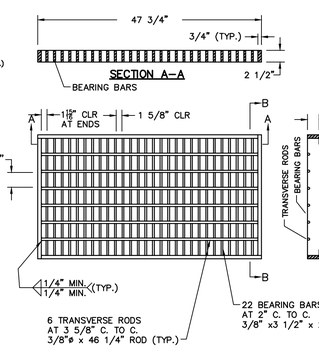
BMP TRASH RACK

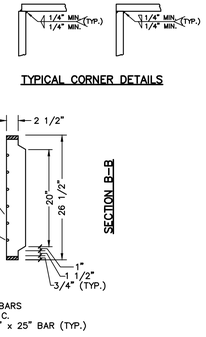
PLASTIC SOLUTIONS INC.
P.O. Box 4386
Winchester VA 22604
877-877-5727
www.plastic-solution.com



DETAIL D

DETAIL E

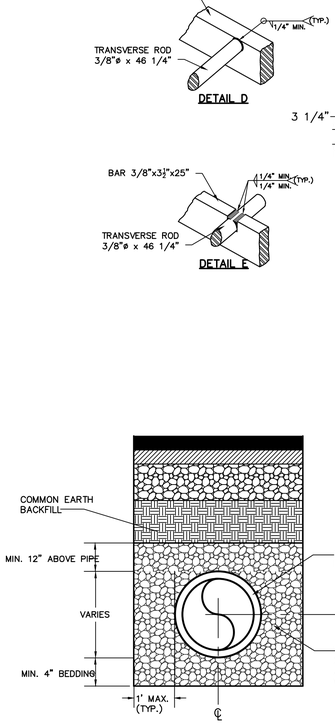




SECTION B–B

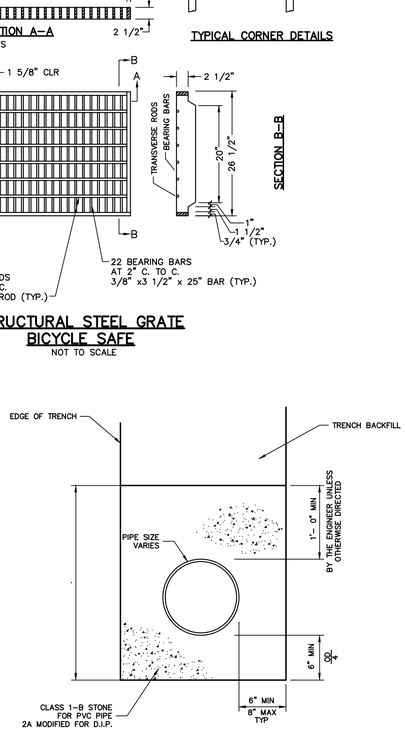
STRUCTURAL STEEL GRATE BICYCLE SAFE

NOT TO SCALE



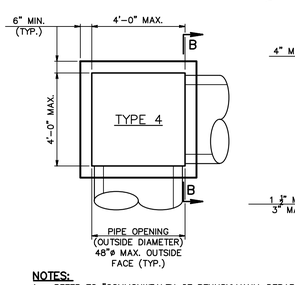
HDPE BACKFILL DETAIL

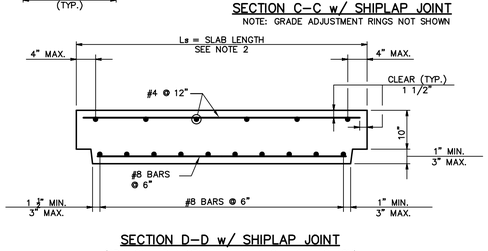
NOT TO SCALE



STANDARD PIPE BEDDING

NOT TO SCALE





SECTION D–D w/ SHIPLAP JOINT

(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

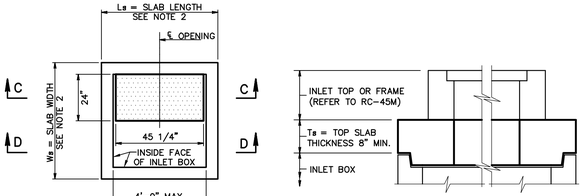
NOTES:

1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.

PRECAST CONCRETE INLET BOX–TYPE 4

NOT TO SCALE

BOX SHALL BE PROVIDED WITH OVER–SIZED FRAME AND GRATE TO MAXIMIZE INLET CAPACITY. OMIT TOP SLAB TO ACCOMMODATE FRAME.



SECTION C–C w/ SHIPLAP JOINT

NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3555 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION	REV.
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS	3
DAW	09/09/22	75% CD SUBMISSION	2
DAW	07/20/22	50% CD SUBMISSION	1

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 5

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814–865–0545

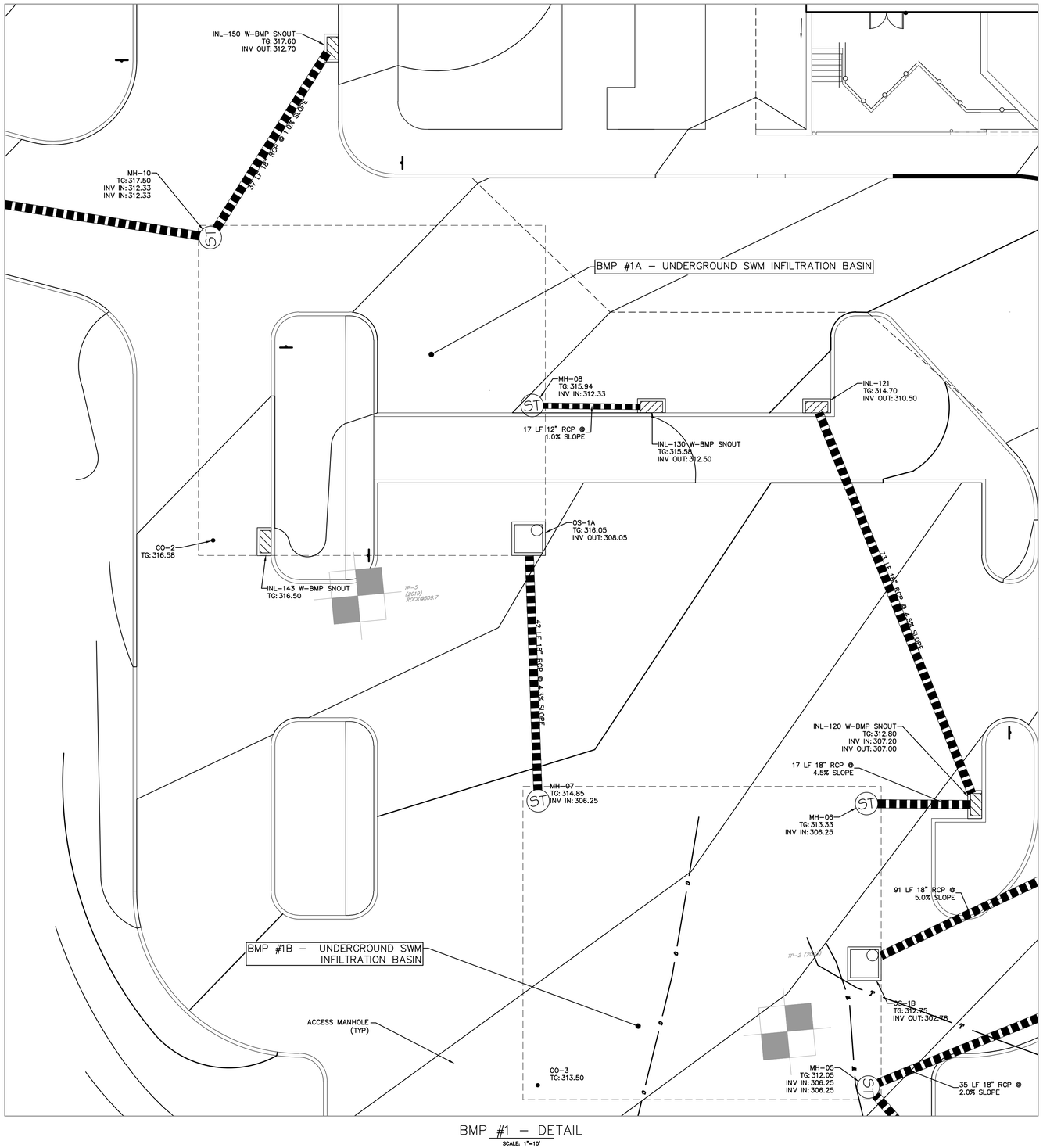
MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

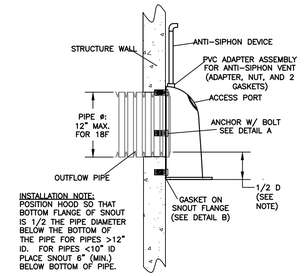
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

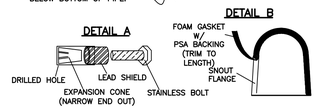
SHEET NO.: 24 OF 40

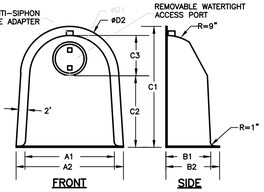
T:\and design\2017\20171200G_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 24 PCSM DETAILS – 5 Plotted By: whelder, on Mon Jun 05, 2023 at 11:28am



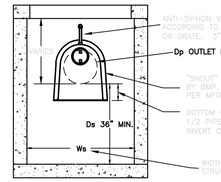
BMP #1 – DETAIL
SCALE: 1"=10'







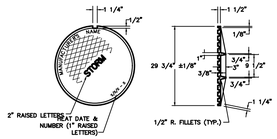
DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT



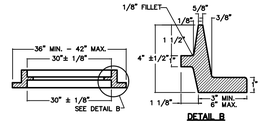
1. SELECT THE SNOUT OIL & DEBRIS STOP OF SIZE AND CONFIGURATION TO FIT APPLICATION. SEE TABLE.
2. CENTER THE SNOUT DIRECTLY OVER THE EXIT PIPE SO THAT THE ENTIRE PIPE IS COVERED AND SO THAT THE LOWER EDGE OF THE HOOD IS AT LEAST 1/2 THE PIPE DIAMETER BELOW THE LOWEST INSIDE POINT OF THE PIPE.
3. DRILL EQUALLY SPACED 7/16" HOLES THROUGH THE SNOUT FLANGE. (NUMBER OF HOLES MAY VARY WITH SIZE OF SNOUT.)
4. MARK AND DRILL CATCH BASIN AND INSTALL THE TAMP-IN LEAD ANCHORS:
   A) DRILL A 3/4" HOLE INTO THE BASE MATERIAL TO THE REQUIRED DEPTH.
   B) BLOW THE HOLE CLEAN OF DUST AND OTHER MATERIAL.
   C) INSERT THE ANCHOR INTO THE HOLE (LEAD SHIELD OUT).
   D) POSITION THE SETTING TOOL IN THE ANCHOR. THE OUTER RIM OF THE TOOL SHOULD SEAT ONTO THE LEAD SHIELD RIM.
   E) USING THE TOOL, SET THE ANCHOR BY DRIVING THE LEAD SLEEVE OVER THE CONE USING SEVERAL SHARP HAMMER BLOWS. BE SURE THE ANCHOR IS AT THE REQUIRED EMBEDMENT DEPTH.
5. ATTACH THE VENT PIPE ADAPTER IN THE PREDRILLED HOLE IN THE TOP OF THE SNOUT USING THE 2 FLAT O-RING GASKETS AND PVC LOCK-NUT SUPPLIED IN KIT. INSTALL WITH THE FEMALE SLIP ADAPTER UP AND A WASHER ON EACH SIDE OF THE SNOUT SHELL. TIGHTEN LOCK-NUT HAND TIGHT.
6. REMOVE PSA BACKING AND WITH FIRM PRESSURE, ATTACH GASKET STRIP TO BACK OF FLANGE AND TRIM EXCESS.
7. ATTACH THE SNOUT TO THE CATCH BASIN WALL WITH 3/8" DIAMETER STAINLESS STEEL BOLTS DO NOT OVER TIGHTEN: 10 to 15 FOOT POUNDS SHOULD BE SUFFICIENT.
8. CUT THE ANTI-SIPHON VENT STACK TO LENGTH AND ATTACH TO HOOD WITH PVC CEMENT.
9. ATTACH 90 DEGREE FITTING TO VENT STACK WITH PVC CEMENT. INSURE THAT FITTING OPENING IS ACCESSIBLE FOR MAINTENANCE AND INSPECTION.

SNOUT DIMENSION											
SIZE	A1	A2	B1	B2	C1	C2	C3	D1	D2	PORT ø	R1	R2
LARGE 24"	26"	20"	13"	15"	34"	20"	12"	24"	28"	10"	13"	15"
SMALL 18"	20"	24"	10"	12"	27"	16"	9"	18"	22"	6.5"	10"	12"

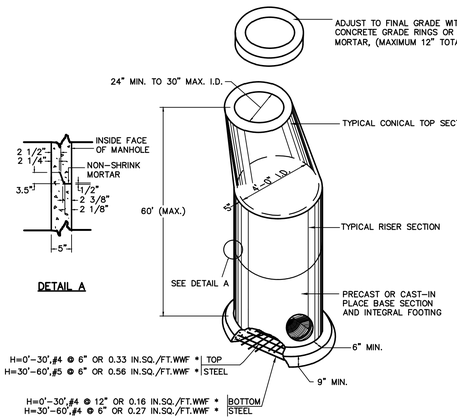
WATER QUALITY SNOUT INLET INSERT DETAIL
NOT TO SCALE



CAST IRON COVER
NOT TO SCALE



CAST IRON FRAME
(ALL ROUNDS AND FILLETS TO BE 1/4" R. UNLESS OTHERWISE NOTED.)



NOTES:

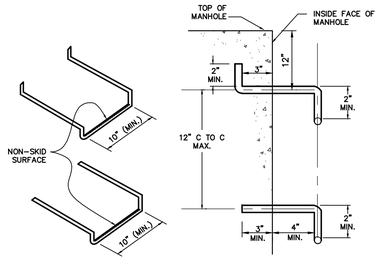
PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 714, MAY BE SUBSTITUTED FOR STANDARD CAST-IN-PLACE MANHOLE.

REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC-39, SHEET 3 of 5, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST MANHOLE CONSTRUCTION.

* PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 709.3.

MANHOLE STEPS SHALL BE PROVIDED IN ANY CASE WHERE THE STRUCTURE IS 5 FEET OR GREATER IN DEPTH.

PRECAST STORMWATER MANHOLE
NOT TO SCALE



MANHOLE AND INLET STEPS
NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION
REV.		
3		
2		
1		

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 6

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

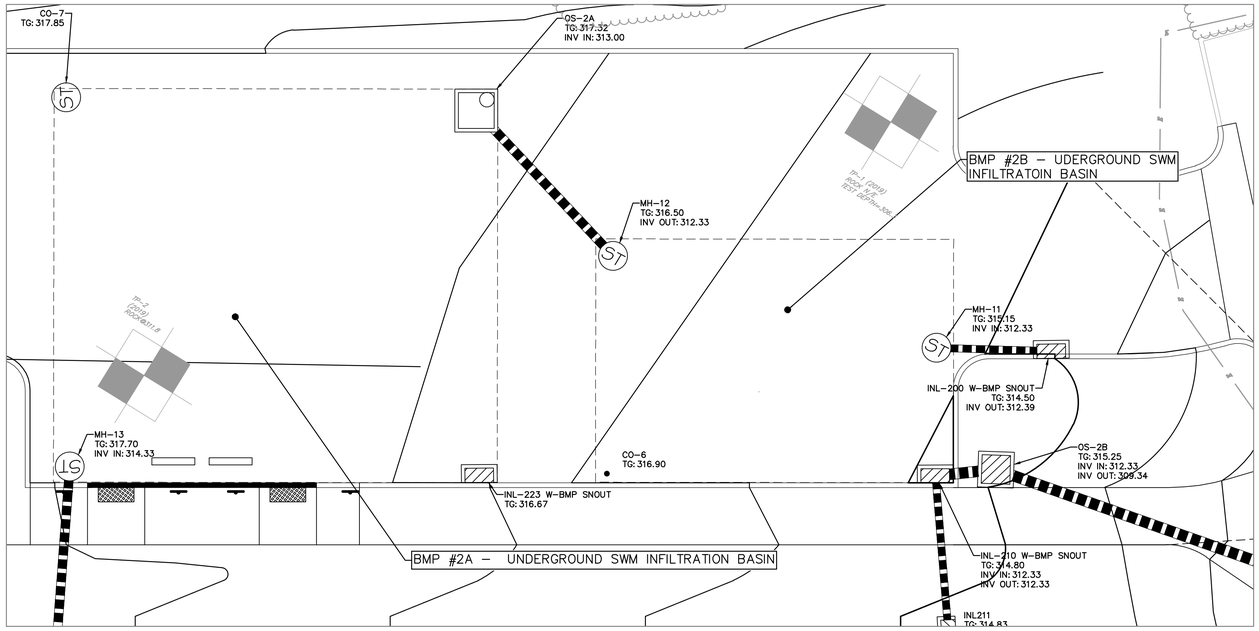
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

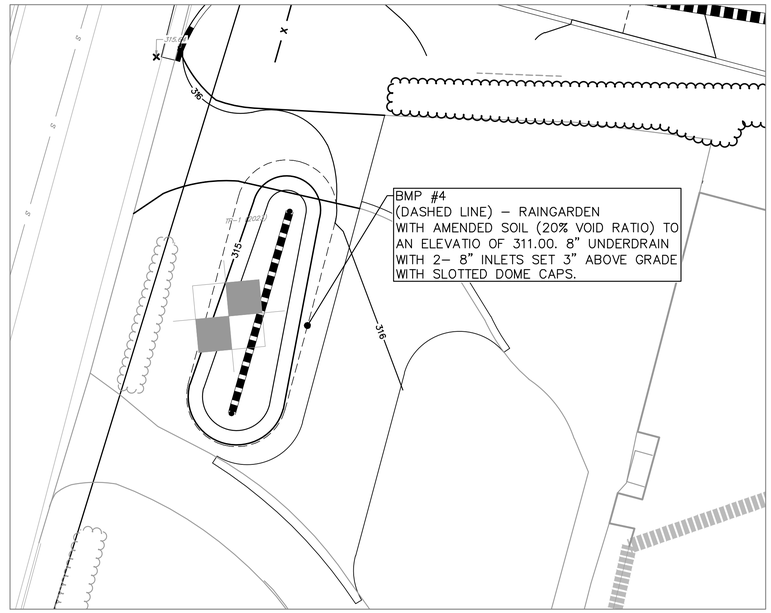
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 25 OF 40

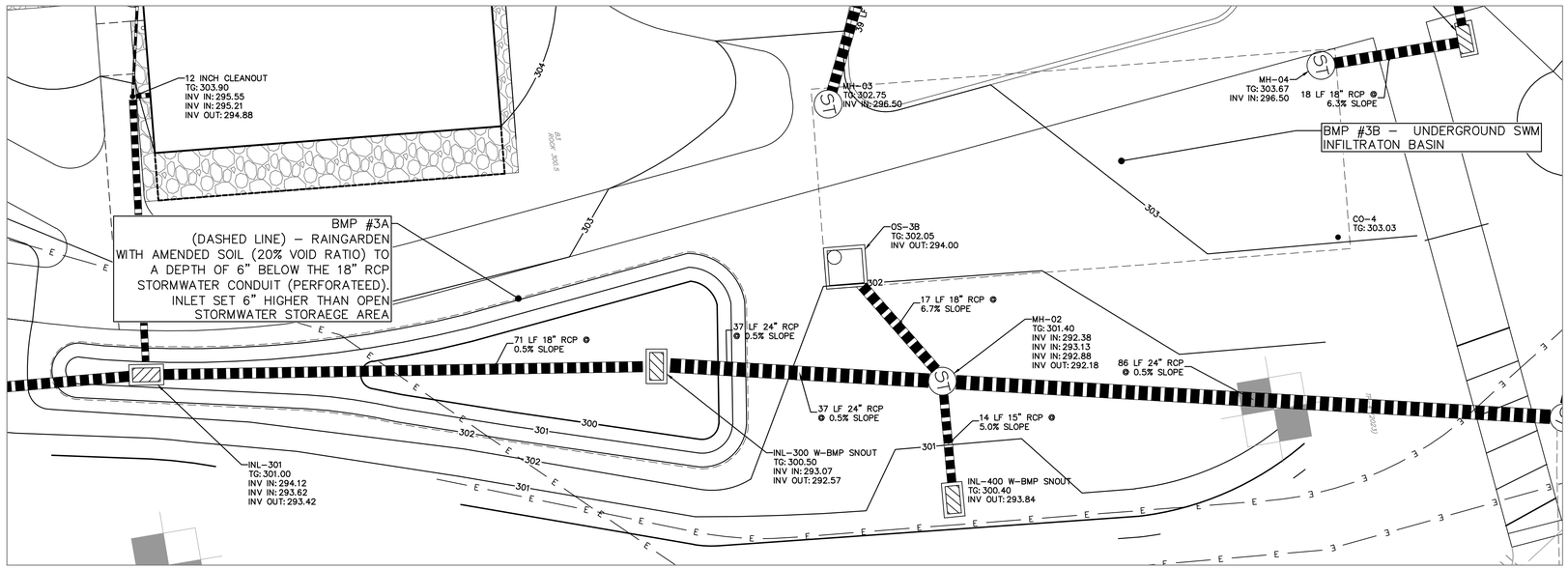
T:\land design\2017\20171200G_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS - 6.dwg Layout: 25 PCSM DETAILS - 6 Plotted By: whelder, on Mon Jun 05, 2023 at 11:28am



BMP #2A/2B – DETAIL
SCALE: 1"=10'



BMP #4– DETAIL
SCALE: 1"=10'



BMP #3A/AB– DETAIL
SCALE: 1"=10'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 7

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 26 OF 40

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS – 6.dwg Layout: 26 PCSM DETAILS – 7 Plotted By: wheider, on Mon Jun 05, 2023 at 11:28am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS
- W — PROPOSED WATER LINE
- E — E — PROPOSED ELECTRIC LINE
- G — PROPOSED GAS LINE
- T — PROPOSED TELEPHONE LINE
- S — PROPOSED SAN. SEWER LINE
- NPDES — PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING FIRE HYDRANT LOCATION

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

PROPOSED 3-STORY ACADEMIC BUILDING 30,688 S.F.

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

EXISTING FIRE HYDRANT LOCATION

EXISTING FIRE HYDRANT LOCATION

W/F BARBARA AND ROBERT WETZEL
PARCEL 30-00-09784-00-3
1665 CLOVERLY LANE
PARCEL NOT INCLUDED

E PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09820-00-5
1684 CLOVERLY LANE
2.61 ACRES
DEED BOOK 5373 PAGE 806

PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09816-00-9
1668 CLOVERLY LANE
0.55 ACRES
DEED BOOK 5620 PAGE 2671

OF THE PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09792-00-6
1577 CLOVERLY LANE
47.24280 ACRES (GROSS)
44.43180 (NET)
DEED BOOK 5065 PAGE 1053

CLOVERLY LANE

SEWELL LANE

WOODLAND ROAD

SCHOOL LANE

SCALE: 1" = 80' (80 0 80 160 FEET)

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - OVERALL.dwg Layout: 27 UTILITY PLAN - OVERALL Plotted By: wheider, on Mon Jun 05, 2023 at 11:29am

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

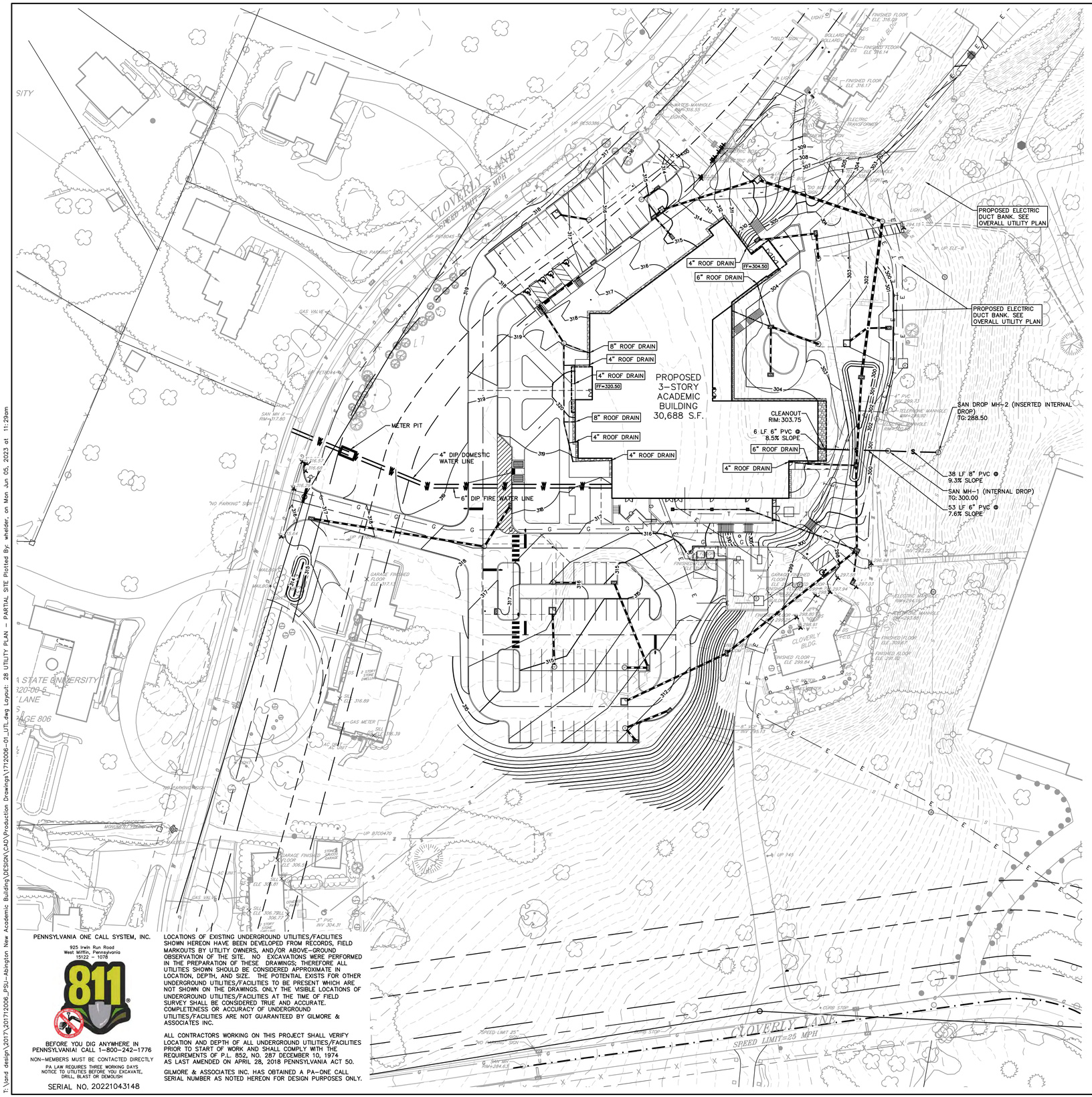
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

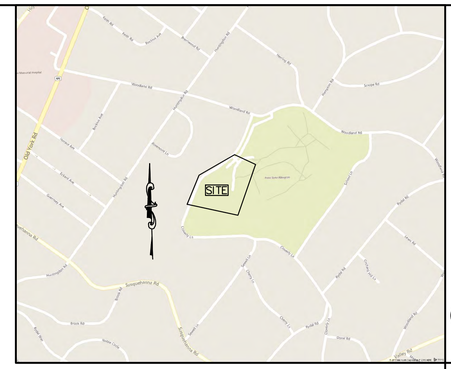
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=80'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 27 OF 40





LOCATION MAP

SCALE: 1"=800'

GENERAL NOTES:

1. ALL SANITARY SEWER WASTE SHALL COMPLY WITH PENN STATE UNIVERSITY'S SAFETY POLICY SY40 - DISPOSAL OF POLLUTANTS IN UNIVERSITY SANITARY SYSTEM SY40.
2. ALL UTILITY SYSTEMS SHALL BE IN ACCORDANCE WITH PSU ENGINEERING STANDARDS.
3. ADJUSTMENT OF EXISTING UTILITY STRUCTURES - ADJUST THE ELEVATION OF ALL EXISTING MANHOLE COVERS, VALVE BOXES, JUNCTION BOXES AND OTHER SIMILAR UTILITY STRUCTURES TO BE 1/8 INCH BELOW NEW FINISHED GRADE WHICH SHOULD BE LOCATED 1/2 TO 1 INCH BELOW FINISHED PAVED SURFACES. ALL ADJUSTMENTS TO EXISTING UTILITY STRUCTURES SHALL BE CONDUCTED IN COORDINATION WITH PENN STATE OFFICE OF PHYSICAL PLAN UTILITY SERVICES. ALL ADJUSTMENTS SHALL BE COMPLETED IN ACCORDANCE WITH PSU DESIGN AND CONSTRUCTION STANDARDS.
4. ALL PIPED UTILITIES SHALL INCLUDE A CONTINUOUS #10 WIRE INSTALLED WITH THE UTILITY LINE TO BE USED FOR FUTURE LOCATES.
5. ONCE-THRU COOLING USING POTABLE WATER IS NOT PERMITTED ON ANY EQUIPMENT.
6. THE WATER SERVICE WILL NOT BE ACTIVATED UNTIL THE HYDROSTATIC TESTING AND INSPECTION, DISINFECTION, BACTERIOLOGICAL TESTING, WATER METER INSPECTION, AND BACKFLOW PREVENTION DEVICE(S) INSPECTION AND TESTING HAS BEEN PROPERTY PERFORMED AND VERIFIED BY WATER SERVICES. ANY DEFICIENCIES TO THE WATER SYSTEM'S INSTALLATION MUST BE CORRECTED PRIOR TO THE ACTIVATION OF THE WATER SERVICE.
7. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE DURING CONSTRUCTION.
8. ALL WATER LINE WORK MUST BE COORDINATED WITH PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD, P.E. PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU. ONLY PENN STATE PERSONNEL MAY OPERATE WATERLINES AND VALVES.
9. ALL PIPE JOINTS SHALL BE FULLY RESTRAINED EITHER BY MECHANICAL JOINT (MEGALUGS STYLE RESTRAINT) OR PUSH-ON JOINT TYPE WITH GASKET CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST VERSION) AND SHALL BE AMERICAN PIPE FLEX-RING/FIELD-LOC, FAST-GRIP GASKET OR EQUAL AS APPROVED BY ENGINEERING SERVICES. ALL DUCTILE IRON PIPE MUST BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 (LATEST VERSION).
10. ALL WATER LINE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE UNIVERSITY'S (PSU) DESIGN AND CONSTRUCTION STANDARDS, AND PA DEP'S RULES AND REGULATIONS.
11. ALL WATER LINE MATERIALS AND EQUIPMENT SUBMITTALS MUST BE REVIEWED AND APPROVED BY PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD P.E., PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU AND MAILING ADDRESS IS 209 WATER TREATMENT PLANT, UNIVERSITY PARK, PA 16802.
12. PROPOSED PVC SEWER PIPE SHALL BE GRADE SDR-26 OR BETTER.
13. ALL PROPOSED UTILITIES ARE TO BE PLACED UNDERGROUND.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- # — EXISTING ELECTRIC LINE
- G — G — EXISTING GAS LINE
- T — T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS
- W — PROPOSED WATER LINE
- E — E — PROPOSED ELECTRIC LINE
- G — PROPOSED GAS LINE
- T — PROPOSED TELEPHONE LINE
- S — PROPOSED SAN. SEWER LINE

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1"=40'

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West Mifflin, Pennsylvania
15122 - 1078

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – PARTIAL SITE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 28 OF 40

T:\land design\2017\2017206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_UTL.dwg Layout: 28 UTILITY PLAN - PARTIAL SITE Plotted By: wheider, on Mon Jun 05, 2023 at 11:29am

PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED WATER LINE
- PROPOSED ELECTRIC LINE
- PROPOSED GAS LINE
- PROPOSED TELEPHONE LINE
- PROPOSED SAN. SEWER LINE
- PROJECT SITE BOUNDARY (NPDES PERMIT)
- ZONE X; 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- EXISTING PAVING

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE 1"=40': 40 0 40 80

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508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

	REV.	DESCRIPTION	DATE	BY
	3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
	2	75% CD SUBMISSION	09/09/22	DAW
	1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RIPARIAN CORRIDOR EXHIBIT

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

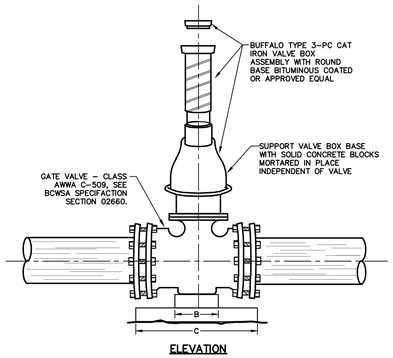
SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

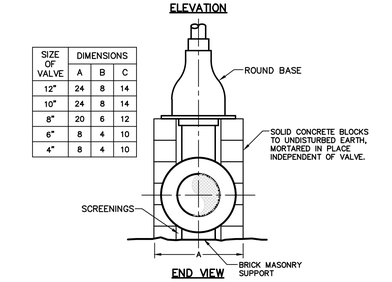
SHEET NO.: 29 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - STREAM CROSSING.dwg Layout: 29 RIPARIAN CORRIDOR EXHIBIT Plotted By: whelder, on Mon Jun 05, 2023 at 11:29am



ELEVATION

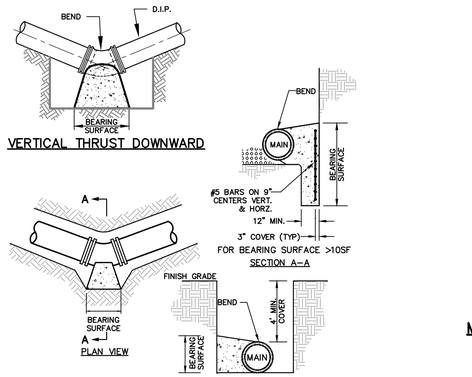
SIZE OF VALVE	DIMENSIONS		
	A	B	C
12"	24	8	14
10"	24	8	14
8"	20	6	12
6"	8	4	10
4"	8	4	10



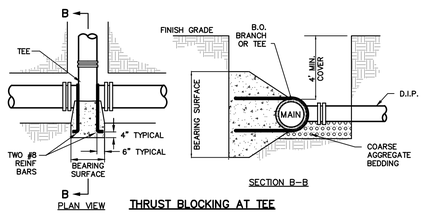
END VIEW

W4 - GATE VALVE WITH VALVE BOX DETAIL

NOT TO SCALE

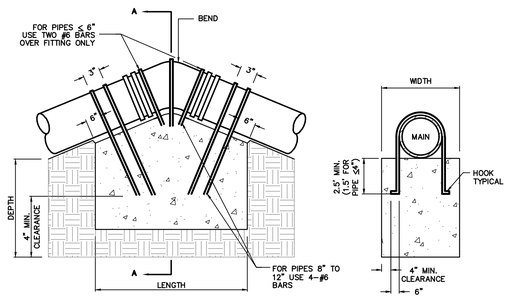


THRUST BLOCKING AT HORIZONTAL BEND



THRUST BLOCKING AT TEE

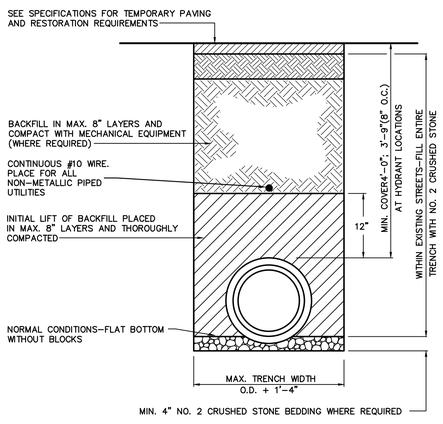
M3 & M4 - HORIZONTAL & DOWNWARD THRUST BLOCK DETAILS



M5 - TYPICAL SECTION VERTICAL THRUST UPWARD SECTION A-A

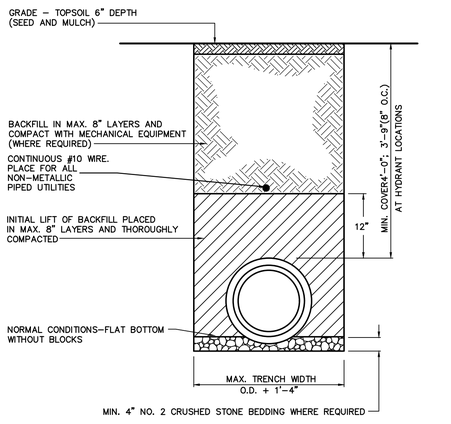
CONCRETE BLOCKING DIMENSIONS, VERTICAL THRUST UPWARD 100 P.S.I. WORKING PRESSURE									
PIPE SIZE	LENGTH			WIDTH			DEPTH		
	11.25°	22.5°	45°	11.25°	22.5°	45°	11.25°	22.5°	45°
4" AND LESS	2'	2'	3'	1.5'	1.5'	2'	2'	2'	2'
6" AND 8"	3'	4'	6'	3'	3'	3'	2'	3'	4'
10" AND 12"	3.5'	4'	7'	4'	4'	4'	2.5'	3'	4'

MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD															
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS		6" PIPE						8" PIPE						12" PIPE					
		DEGREE BEND OR DEFLECTION																	
		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END	
SOFT CLAY	1000 PSI	1.1	2.2	4.3	7.9	5.6		1.9	3.8	7.4	13.6	9.6		4.0	8.0	15.7	29.0	20.5	
SILT	1500 PSI	1.0	2.2	2.9	5.3	3.7		1.3	2.5	4.9	9.1	6.4		2.7	5.3	10.5	19.3	13.7	
SANDY SILT	3000 PSI	1.0	1.1	1.4	2.6	1.9		1.0	1.3	2.5	4.5	3.2		1.3	2.7	5.2	9.7	6.8	
SAND	4000 PSI	1.0	1.0	1.1	2.0	1.4		1.0	1.0	1.8	3.4	2.4		1.0	2.0	3.9	7.3	5.1	
SANDY CLAY	6000 PSI	1.0	1.0	1.0	1.3	1.0		1.0	1.0	1.2	2.3	1.6		1.0	1.3	2.6	4.8	3.4	
HARD CLAY	9000 PSI	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5	1.1		1.0	1.0	1.7	3.2	2.3	



WATER TRENCH DETAIL (PAVED AREAS)

NOT TO SCALE



WATER TRENCH DETAIL (NON-PAVED AREAS)

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
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CORPORATE HEADQUARTERS
65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MmontgomERY COUNTY, PENNSYLVANIA

UTILITY - WATER SERVICE DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0546

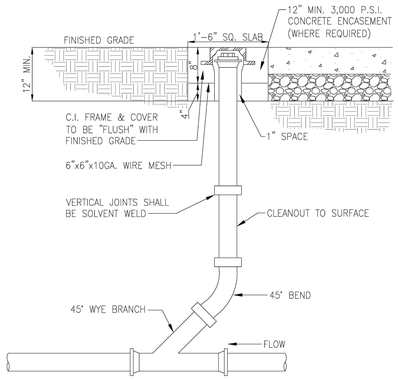
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: ##/##/22	SCALE:
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 30 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 3D UTILITY - WATER SERVICE DETAILS Plotted By: whelder, on Mon Jun 05, 2023 at 11:30am

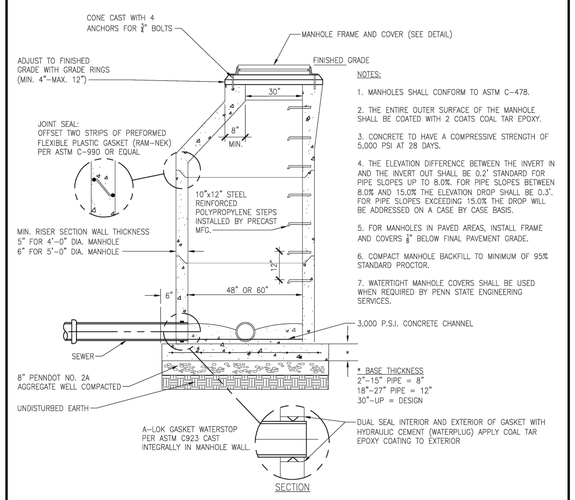


CLEANOUT DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019



NOTES:

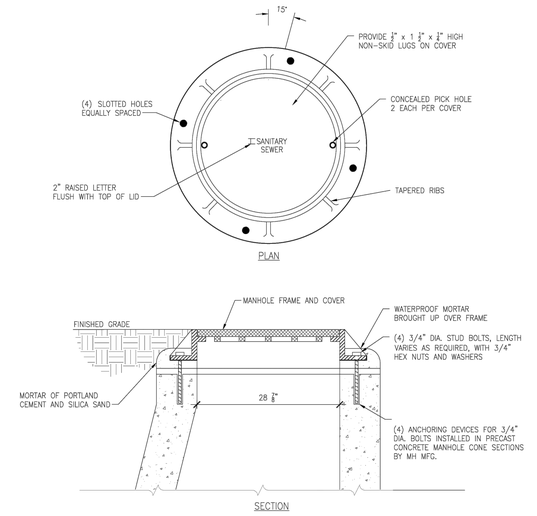
1. MANHOLES SHALL CONFORM TO ASTM C-478.
2. THE ENTIRE OUTER SURFACE OF THE MANHOLE SHALL BE COATED WITH 2 COATS COAL TAR EPOXY.
3. CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
4. THE ELEVATION DIFFERENCE BETWEEN THE INVERT IN AND THE INVERT OUT SHALL BE 0.2' STANDARD FOR PIPE SLOPES UP TO 8.0%. FOR PIPE SLOPES BETWEEN 8.0% AND 15.0% THE ELEVATION DROP SHALL BE 0.3'. FOR PIPE SLOPES EXCEEDING 15.0% THE DROP WILL BE ADDRESSED ON A CASE BY CASE BASIS.
5. FOR MANHOLES IN PAVED AREAS, INSTALL FRAME AND COVERS ½" BELOW FINAL PAVEMENT GRADE.
6. COMPACT MANHOLE BACKFILL TO MINIMUM OF 95% STANDARD PROCTOR.
7. WATERTIGHT MANHOLE COVERS SHALL BE USED WHEN REQUIRED BY PENN STATE ENGINEERING SERVICES.

PRECAST CONCRETE MANHOLE DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 11.27.2019



NOTES:

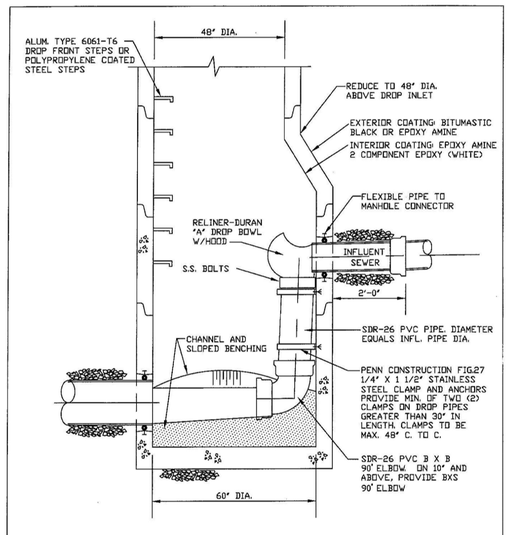
1. THE WORD "SANITARY SEWER" OR "PSU SANITARY" MUST BE ON THE MANHOLE COVER.
2. FRAME SHALL BE MODEL 1965Z AND COVER SHALL BE MODEL 1965A1 AS MANUFACTURED BY EJ GROUP, INC. , OR APPROVED EQUAL.
3. AFTER MORTAR HAS DRIED, COAT OUTTER SURFACE OF MANHOLE WITH COAL TAR EPOXY FROM CONE SECTION UP AROUND EXTERIOR OF FRAME.

STANDARD MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.06.2019

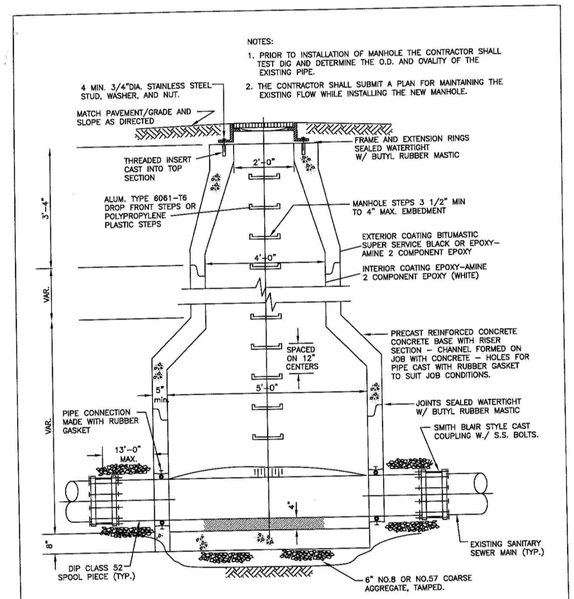


NOTES: 5' DIAMETER MANHOLE TO BE UTILIZED FOR INSIDE DROP MANHOLE
PIPED DROP TO BE USED FOR VERTICAL ELEVATION CHANGE GREATER THAN 2 FT.

Township of Abington
STANDARD DETAIL - SEWER SYSTEM

PRECAST SANITARY MANHOLE INSIDE DROP CONNECTION (8" - 24" SEWERS)

DATE: NOVEMBER 2015
DETAIL: 13

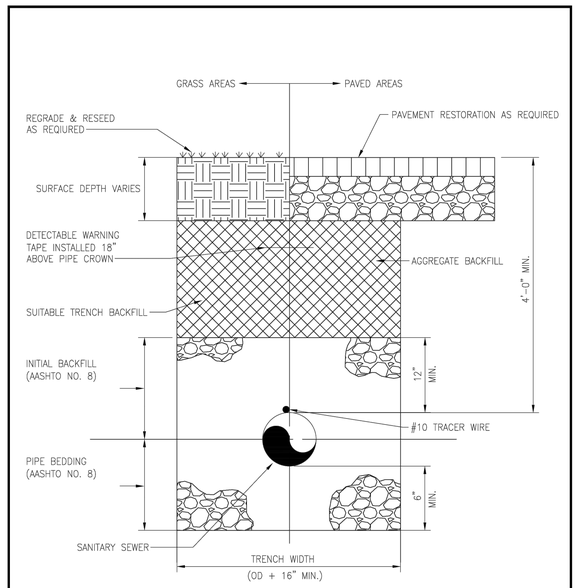


INSERTED MANHOLE WITH INSIDE DROP

Township of Abington
STANDARD DETAIL - SANITARY SEWER SYSTEM

INSERTION OF A PRECAST CONCRETE MANHOLE INTO AN EXISTING SEWER MAIN

DATE: JUNE 2022
DETAIL: 29A



SANITARY SEWER PIPE TRENCH DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - SANITARY SEWER DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

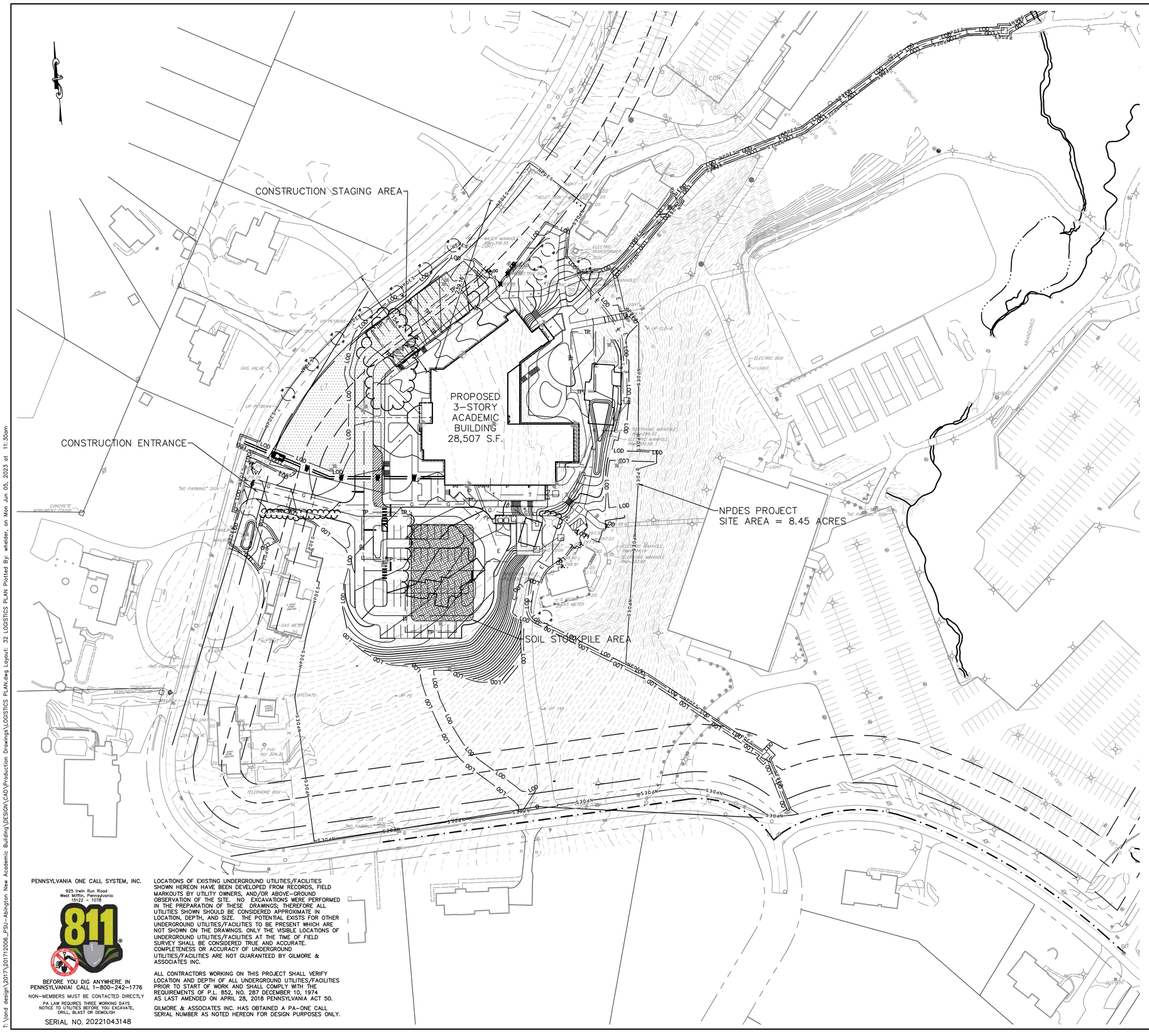
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

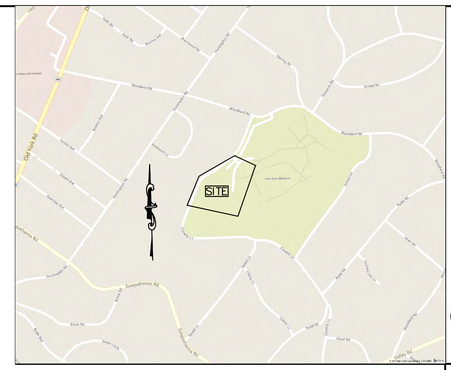
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: ##/##/22	SCALE:
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 31 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 31 UTILITY - SANITARY SEWER DETAILS Plotted By: whelder, on Mon Jun 05, 2023 at 11:30am



LOCATION MAP



800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T EXISTING TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

LOGISTICS/CONSTRUCTION SEQENCE NOTES:

[1] INSTALL EROSION CONTROL BMPS. INSTALL CONSTRUCTION ENTRANCE. INSTALL CONSTRUCTION FENCES AND ALL MEANS OF BUFFERING CONSTRUCTION FROM PUBLIC.
CONSTRUCTION STAGING SHALL BE LIMITED TO PROPOSED PARKING AREAS.

[2] NOTE: PROTECT AREAS OF PROPOSED UNDERGROUND INFILTRATION FROM OVERCOMPACTION (DELAY EXCAVATION FOR DEEP INFILTRATION FIELDS AND AVOID TRAVEL OVER SHALLOW INFILTRATION AREAS LESS THAN 4 FEET BELOW EXISTING SURFACE)

[3] DEMOLISH AND REMOVE HILLCREST AND CONFERENCE CENTER BUILDINGS. (PSU TO RESOLVE ALTERNATE SPACES FOR THESE USES). DEMOLISH OTHER ITEMS SHOWN ON PLAN TO BE REMOVED. EXISTING PAVEMENTS NOTED FOR DEMOLITION SHALL BE MAINTAINED FOR DURING-CONSTRUCTION PURPOSES AS LONG AS PRACTICAL.

[4] RELOCATE EXISTING UTILITIES THAT CONFLICT WITH BUILDING FOOTING AND 1ST FLOOR EXCAVATION.

[5] EXCAVATE 1ST FLOOR/FOOTINGS FOR NEW BUILDING. STOCKPILE OUTSIDE OF AREAS OF PROPOSED INFILTRATION BMPS.

[6] INSTALL NEW FOOTINGS, STEEL STRUCTURE, BELOW SLAB UTILITIES AND FOUNDATION.

[7] INSTALL SITE STORMWATER BMPS AND STORMWATER MANAGEMENT SYSTEM.

[8] ROUGH GRADE SITE PARKING AREAS AND DRIVES. INSTALL SITE UTILITIES. INSTALL BUILDING RETAINING WALLS.

[9] INSTALL ROAD/PARKING AREA ROAD BASES. FINAL SITE GRADING.

60 0 60 120
SCALE IN FEET
1"=60'

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LOGISTICS PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

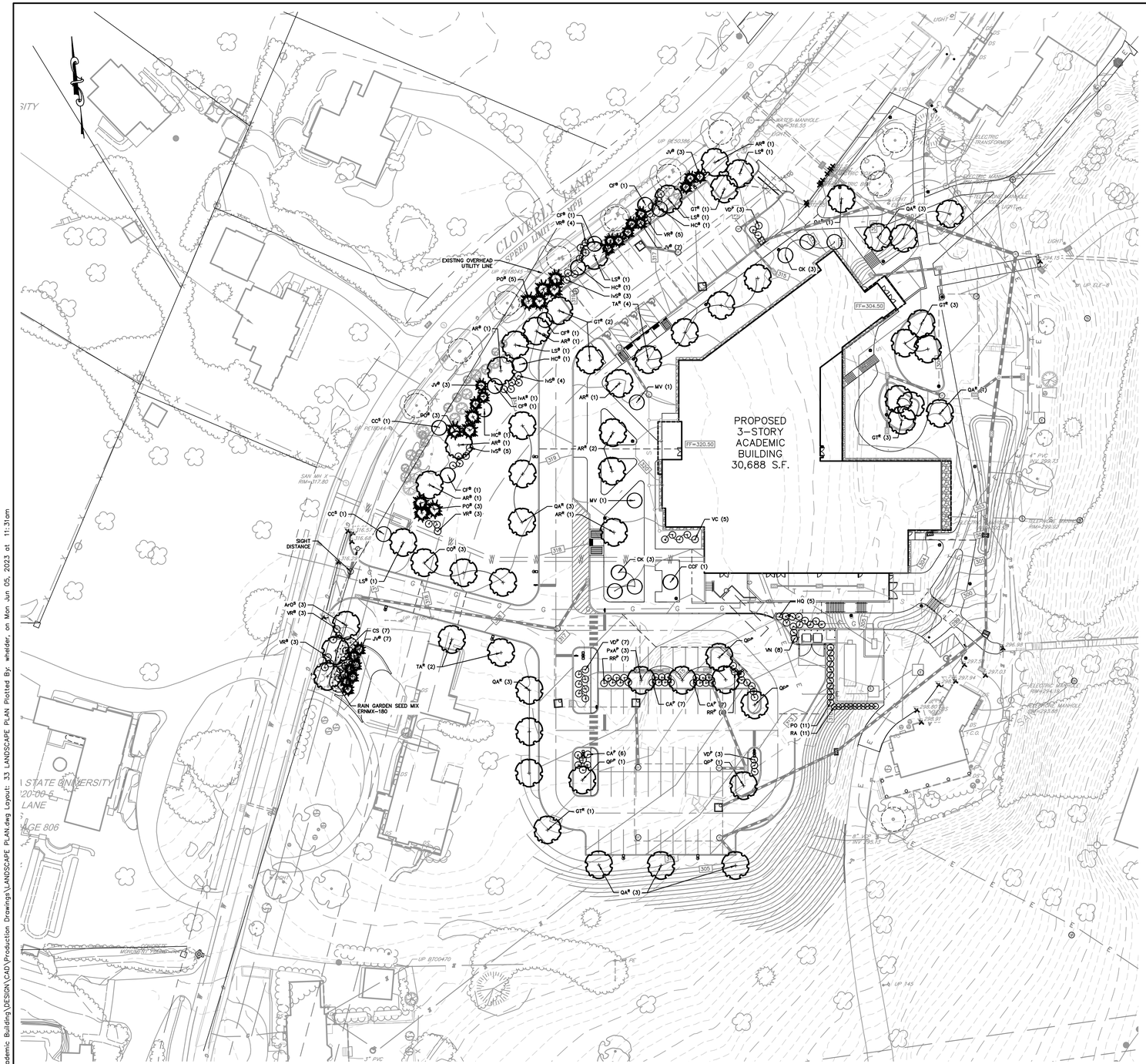
SCALE: 1"=60'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 32 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LOGISTICS PLAN.dwg Layout: 32 LOGISTICS PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:30am



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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- EXISTING TREE TO REMAIN
- CANOPY TREE
- UNDERSTORY/ORNAMENTAL TREE
- EVERGREEN TREE
- SHRUB

SCALE 1" = 40' (40 0 40 80 FEET)

COMPLIANCE CHART

THE FOLLOWING CHART REPRESENTS THE MINIMUM QUANTITIES OF REQUIRED PLANT MATERIAL ACCORDING TO THE ABINGTON TOWNSHIP ZONING AND SUBDIVISION AND LAND DEVELOPMENT ORDINANCES, AND TO DEMONSTRATE COMPLIANCE WITH THE SAME.

§2401.A.2.d(1)(a) - TREE REPLACEMENT	REQUIRED	EXISTING	PROVIDED	TOTAL
REQUIREMENT: 2 TREES (3 - 3.5" CAL.) PER EACH < 6" CALIPER TREE REMOVED 77 TREES REMOVED *NOTE: 117 TREESTO BE DISBURSED THROUGHOUT THE SITE AND/OR COORDINATED BETWEEN PSU AND ABINGTON TOWNSHIP.	154	0	37	154*
§2401.A.2.a)(4) - PARKING LOT LANDSCAPING				
REQUIREMENT: ONE SHADE TREE (3" CAL.), SHRUBS AND/OR GROUNDCOVER FOR EACH PLANTING ISLAND	YES		YES	
§2402.A.6 - MINIMUM GREEN AREA				
REQUIREMENT: 10% OF PARKING AREA GREATER THAN 15,000 S.F. DEVOTED TO LANDSCAPING (LOWER PARKING AREA = 30,085 S.F. TOTAL)	3,009 S.F.		3,256 S.F.	
§2402.B.2.c - STREET TREES				
REQUIREMENT: 1 TREE PER 40 L.F. (495 L.F.) NOTE: STREET LENGTH DOES NOT INCLUDE WIDTH OF ENTRANCE DRIVE AT R.O.W.	12	7	5	12
§2403.B.4.a(2)(a) - MEDIUM INTENSITY BUFFER PLANTINGS				
REQUIREMENT: OPTION A, PER EACH 100 LINEAR FEET 2 CANOPY TREES (2 - 2 1/2" CAL.) 2 UNDERSTORY TREES (1 1/2" CAL.) 5 EVERGREEN TREES (6' HT.) (PLUS 20% MORE PER ZONING AMENDEMENT) 5 SHRUBS (24" HT.) (PLUS 20% MORE PER ZONING AMENDMENT)	10 10 31 31		10 10 31 31	10 10 31 31
§2403.D - BUILDING FOUNDATION PLANTINGS				
REQUIREMENT: ORNAMENTAL OR EVERGREEN TREES AND SHRUBS	YES		YES	
§146-39.B(3)(a)[1] - OFF-STREET PARKING				
REQUIREMENT: 5% INTERIOR LANDSCAPING WITHIN PARKING AREA UPPER PARKING AREA = 7,983 S.F. LOWER PARKING AREA = 30,085 S.F. *NOTE: PARTIAL WAIVER REQUESTED FOR UPPER PARKING AREA	399 S.F. 1,504 S.F.		0 S.F. 3,256 S.F.	0%* 11%
§146-39.B(3)(a)[2] - OFF-STREET PARKING				
REQUIREMENT: 1 TREE (2 1/2" CALIPER) PER 15 PARKING SPACES 85 PARKING SPACES	6	0	7	7

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
STREET TREES						
ARO	3	ACER RUBRUM 'OCTOBER GLORY'	OCTOBERY GLORY MAPLE	2.5" CAL	B&B	
CCO	2	CERCIS CANADENSIS	EASTERN REDBUD	2.5" CAL	B&B	
BUFFER AREA PLANTINGS						
CANOPY TREES						
ARB	5	ACER RUBRUM 'BRANDYWINE'	RED MAPLE	2 - 2.5" CAL	B&B	SEEDLESS
LSB	5	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SWEETGUM	2 - 2.5" CAL	B&B	SEEDLESS
UNERSTORY TREES						
CFB	5	CORNUS FLORIDA 'RED BEAUTY'	RED BEAUTY DOGWOOD	1.5" CAL	B&B	
HCB	4	HALESIA CAROLINA 'JERSEY BELLE'	CAROLINA SILVERBELL	1.5" CAL	B&B	
EVERGREEN TREES						
JV	20	JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EMERALD SENTINEL EASTERN REDCEDAR	6' HT MIN	B&B	
POB	11	PICEA OMORIKA	SERBIAN SPRUCE	6' HT MIN	B&B	
SHRUBS						
IVB	1	ILEX VERTICILLATA 'APPOLLO'	WINTERBERRY HOLLY	24" MIN	CONT	MALE
IVS	12	ILEX VERTICILLATA 'SPARKLEBERRY'	WINTERBERRY HOLLY	24" MIN	CONT	FEMALE
VRB	18	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	24" MIN	CONT	
PARKING AREA PLANTINGS						
CANOPY TREES						
PXA	3	PLATANUS X ACERIFOLIA 'EXCLAMATION'	EXCLAMATION LONDON PLANE TREE	3" CAL	B&B	
QPP	4	QUERCUS PHELLOS	WILLOW OAK	3" CAL	B&B	
SHRUBS						
CAP	20	CLETHRA ALNIFOLIA	SUMMERSWEET	24" MIN	#3 CONT	
RRP	15	ROSA RUGOSA 'RADRAZZ'	KNOCKOUT ROSE	24" MIN	#3 CONT	
VDP	13	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24" MIN	#3 CONT	
OTHER PLANTINGS						
DECIDUOUS TREES						
CCF	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	1.5" CAL	B&B	
CK	6	CORNUS KOUSA 'GREENSLEEVES'	KOUSA DOGWOOD	1.5" CAL	B&B	
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL	B&B	
SHRUBS						
CS	7	CORNUS SERICEA	REDTWIG DOGWOOD	24" MIN	#3 CONT	
HQ	5	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	36" MIN	#5 CONT	
PO	11	PHYSOCARPUS OPULIFOLIUS 'DIABOLO'	DIABOLO NINEBARK	24" MIN	#3 CONT	
RA	11	RHUS AROMATICA 'GRO-LOW'	GRO LOW SUMAC	18" MIN	#1 CONT	
VC	5	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24" MIN	#3 CONT	
VN	8	VIBURNUM NUDUM 'WINTERTHUR'	WINTERTHUR VIBURNUM	36" MIN	#5 CONT	
REPLACEMENT TREE PLANTINGS						
ARR	4	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE (FREEMAN) MAPLE	3 - 3.5" CAL	B&B	SEEDLESS
COR	3	CARYA OVATA	SHAGBARK HICKORY	3 - 3.5" CAL	B&B	
GTR	10	GLEDITSIA TRIACANTHOS f. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	3 - 3.5" CAL	B&B	THORNLESS
QAR	14	QUERCUS ALBA	WHITE OAK	3 - 3.5" CAL	B&B	

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PENNSYLVANIA — CYNTHIA MARIE JOHNSON — REGISTRATION NUMBER LA003364 — LANDSCAPE ARCHITECT

REV.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
3	75% CD SUBMISSION	09/09/22	DAW
2	50% CD SUBMISSION	07/20/22	DAW
1		06/05/22	JM

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 33 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 33 LANDSCAPE PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:31am

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 34 LIGHTING PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:31am

LUMINAIRE SCHEDULE

Symbol	Label	Manufacturer	Image	Quantity	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
	A	RAB LIGHTING INC.		9	ALED3T78N – RWLED3T78N – RWLED3T78SFN – WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	75.9	Max: 5973cd
	B	RAB LIGHTING INC.		4	ALED3T78N – RWLED3T78N – RWLED3T78SFN – WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	151.8	Max: 5973cd
	C	ARCHITECTURAL AREA LIGHTING		17	PKWM-ANG-Y5HC-52LED--4K-500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4721	0.95	50	Max: 1668cd
	D	ARCHITECTURAL AREA LIGHTING		4	PKWM-ANG-Y2HC-32LED--4K-500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4918	0.95	50	Max: 4285cd

SEE SHEET 35 FOR LUMINAIRE CUT SHEETS AND DETAILS

SITE LIGHTING STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Internal Drive	+	2.8 fc	5.1 fc	1.3 fc	3.9:1	2.2:1
Parking Area 1	+	1.8 fc	5.8 fc	0.7 fc	8.3:1	2.6:1
Parking Area 2	+	2.5 fc	6.4 fc	0.5 fc	12.8:1	5.0:1

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR SITE LIGHTING PURPOSES ONLY. ELECTRICAL ENGINEERING, INCLUDING, BUT NOT LIMITED TO , CIRCUITRY, CONDUIT, WIRING, AND ASSOCIATED SPECIFICATIONS, IS NOT WITHIN THE SCOPE OF THIS DOCUMENT.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.
3. SUBSTITUTION REQUESTS MUST BE APPROVED BY THE TOWNSHIP.
4. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
5. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLAN AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
6. LIGHTING VALUES DEPICTED ON THIS PLAN WERE GENERATED USING VISUAL 2020.2.11.0062 SOFTWARE.
7. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPES OF FIXTURES ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, LAWS AND STATUTES.
8. CONTRACTOR SHALL BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES OR OTHER STRUCTURES.

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SERIAL NO. 20221043148

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ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

SCALE 40 0 40 80 IN FEET
1"=40'

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PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT CHRISTOPHER E. GRAY REGISTRATION NUMBER LA002522

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LIGHTING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 34 OF 40

GENERAL LANDSCAPE NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIALS, PLANTS EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, HAVE VIGOROUS ROOT SYSTEMS AND BE FREE OF DEFECTS AND INJURIES.
4. ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE WELFARE OF THE PLANT MATERIAL, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISIONS SHALL BE MADE FOR A GUARANTEE OF 18 MONTHS FOR TREES AND SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE 2014 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN INC., OR LATEST EDITION.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC., SHALL BE USED FOR PLANTING.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN THE WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. **PLANTING OPERATIONS SHALL OCCUR BETWEEN APRIL 1, THROUGH JUNE 15 AND SEPTEMBER 1 THROUGH NOVEMBER 1 OF EACH CALENDAR YEAR. IF FAVORABLE PLANTING CONDITIONS EXTEND BEYOND DATES INDICATED HEREIN, AN EXTENSION MAY BE GRANTED BY THE LANDSCAPE ARCHITECT RESPONSIBLE FOR THESE PLANS.**
10. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PLANTING PIT.
11. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
12. LANDSCAPING CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF LANDSCAPE MATERIAL. CONTRACTOR SHALL NOT PLACE LANDSCAPING MATERIAL ON TOP OF UTILITY PIPING.
13. PLAN QUANTITIES SUPERSEDE PLANT LIST.
14. **THE LANDSCAPE PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.**

RAIN GARDEN MIX

1. SEED MIX SHALL BE ERNMX-180, AS PROVIDED BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL CONSISTING OF THE FOLLOWING SPECIES, OR AS CURRENTLY FORMULATED, AT 20 LBS PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE:

33.4% SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
23.0% ELYMUS VIRGINICUS	VIRGINIA WILDRYE
7.0% CAREX VULPINOIDEA	FOX SEDGE
5.6% CHASMANTHIUM LATIFOLIUM	RIVER OATS
5.5% ECHINACEA PURPUREA	PURPLE CONEFLOWER
3.0% CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
3.0% COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
3.0% PANICUM RIGIDULUM	REDTOP PANICGRASS
3.0% RUDBECKIA HIRTA	BLACKEYED SUSAN
3.0% VERBENA HASTATA	BLUE VERVAIN
2.0% HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.8% ASCLEPIAS INCARNATA	SWAMP MILKWEED
1.0% CAREX SCOPARIA	BLUNT BROOM SEDGE
1.0% SENNA HEBECARPA	WILD SENNA
0.7% PYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
0.5% ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
0.5% ASTER PRENANTHOIDES	ZIGZAG ASTER
0.5% BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.5% ZIZIA AUREA	GOLDEN ALEXANDERS
0.4% MONARDA FISTULOSA	WILD BERGAMOT
0.3% HELENIUM AUTUMNALE	COMMON SNEEZEWEED
0.3% JUNCUS TENUIS	PATH RUSH
0.2% EUPATORIUM PERFOLIATUM	BONESET
0.2% JUNCUS EFFUSUS	SOFT RUSH
0.2% OENOTHERA FRUTICOSA VAR. FRUTICOSA	SUNDROPS
0.2% SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.2% SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD

SEED MIX ESTABLISHMENT SPECIFICATIONS

INSTALLATION:

SPRAY AREAS TO BE SEEDED WITH A SYSTEMIC HERBICIDE ONE (1) MONTH PRIOR TO THE INSTALLATION OF THE SPECIFIED SEED MIXTURE. AFTER TWO (2) WEEKS OF HERBICIDE APPLICATION, AREAS TO BE SEEDED SHALL BE TREATED AGAIN IF PERSISTENT WEEDS RE-GERMINATE. ONLY AFTER ALL EXISTING VEGETATION TO BE REMOVED IS ERADICATED SHALL THE FOLLOWING SEED INSTALLATION STEPS TAKE PLACE:

1. ALL AREAS TO BE SEEDED SHALL BE CLEARED OF ALL REMAINING DEBRIS AND VEGETATION.
2. TILL ALL AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES, AND ADD ANY SPECIFIED SOIL AMENDMENTS TO THE TILLED AREAS.
3. SPREAD SEED AT RECOMMENDED RATE EVENLY ACROSS THE ENTIRE SITE.
4. FINE RAKE ALL AREAS PREVIOUSLY SEEDED TO ENSURE GOOD SOIL TO SEED CONTACT.
5. SPREAD A THIN COAT OF STRAW, 3 TONS PER ACRE MINIMUM, TO REDUCE EROSION.
6. WATER ENTIRE AREA THOROUGHLY; AVOID OVER WATERING.

FIRST YEAR MAINTENANCE:

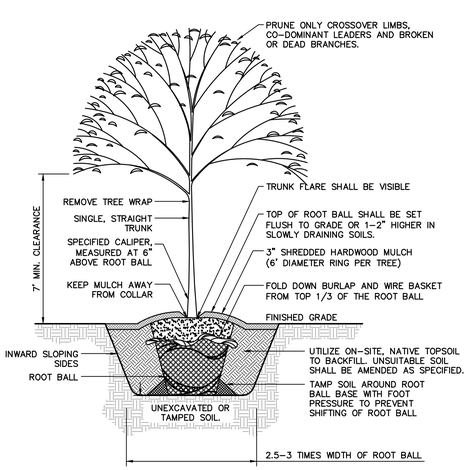
SEED MIXTURE SHALL BE INSPECTED FOR INVASIVE WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA, SPOT TREAT BY PULLING. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT. MOW TO A HEIGHT OF SIX (6) INCHES MINIMUM WITH A WEED EATER.

SECOND YEAR MAINTENANCE:

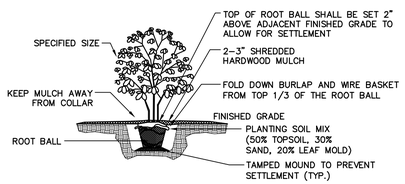
MOW ONCE IN SPRING (PRIOR TO APRIL 1) AS CLOSE TO GROUND AS POSSIBLE ALLOW PLANTS TO GROW TO FULL HEIGHT.

CONSECUTIVE FOLLOWING YEARS:

MOW EVERY YEAR AND SPOT TREAT INVASIVE PLANT SPECIES. MOWING SHALL TAKE PLACE IN EARLY SPRING PRIOR TO APRIL 1. MOWING SHALL NOT TAKE PLACE BETWEEN APRIL 1 AND JUNE 20 TO AVOID DISRUPTION OF GROUND NESTING BIRDS.



TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING AND SHRUB BED PREPARATION
NOT TO SCALE

Parkway Square® Pedestrian Horizontal LED – PKWM

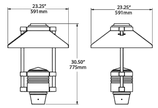
TYPE

LUMINAIRES C & D

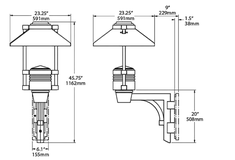
FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- Integral thermal protection
- 13 standard powder coat finishes

SPECIFICATIONS

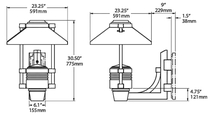


POST TOP
WT: 57 lbs. EPA: 2.35



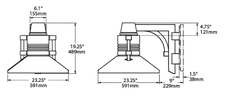
PSA-TU
(Top of Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TU
(Top of Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



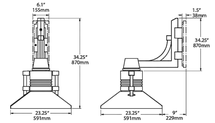
PSA-TD
(Top of Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TD
(Top of Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



PSA-BU
(Below Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BU
Below Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 2.76



PSA-BD
(Below Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BD
(Below Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 2.76

3000K and warmer CCTs only

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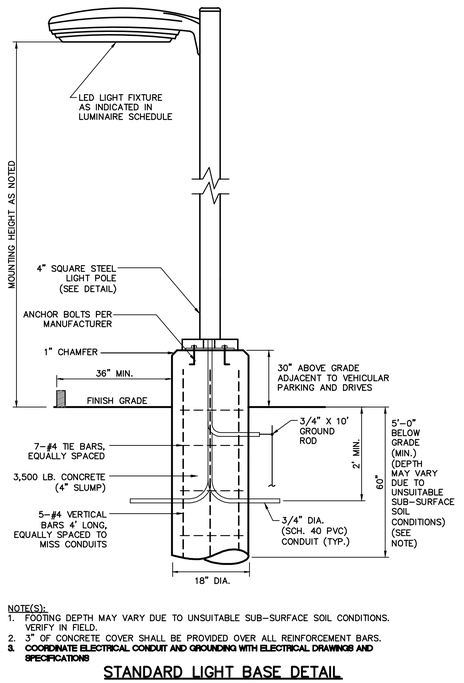
HUBBELL Lighting



NOTE(S):
1. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS. VERIFY IN FIELD.
2. 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
3. **COORDINATE ELECTRICAL CONDUIT AND GROUNDING WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS**

STANDARD LIGHT BASE DETAIL
NOT TO SCALE

ALED3T78N

RAB

Color: Bronze

Weight: 35.3 lbs

Project: PSU
Type: A
Prepared By:
Date:

Driver Info		LED Info	
Type	Constant Current	Watts	78W
120V	0.66A	Color Temp	4000K (Neutral)
208V	0.41A	Color Accuracy	72 CRI
240V	0.35A	L70 Lifespan	100,000 Hours
277V	0.30A	Lumens	8,941
Input Watts	75.9W	Efficacy	117.8 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations as a downlight

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000179U

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:
The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Thermal Management:
Superior heat sinking with external Air-Flow fins

Lens:
Tempered glass lens

Housing:
Die-cast aluminum housing, lens frame and mounting arm

IP Rating:
Ingress protection rating of IP66 for dust and water

Mounting:
Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High-temperature silicone gaskets

Need help? Tech help line: **(888) 722-1000** Email: **sales@rablighting.com** Website: **www.rablighting.com**
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ALED5S78N/D10/PCT

RAB

High output LED pole top area light with IES type V square distribution. Wide and uniform 360 degree pattern ideal for large outdoor areas such as parking lots, corporate parks, and retail settings.

Color: Bronze

Weight: 33.1 lbs

Project: PSU
Type: B
Prepared By:
Date:

Driver Info		LED Info	
Type	Constant Current	Watts	78W
120V	0.56A	Color Temp	4000K (Neutral)
208V	0.34A	Color Accuracy	73 CRI
240V	0.33A	L70 Lifespan	100,000 Hours
277V	0.26A	Lumens	9,587
Input Watts	65W	Efficacy	147.5 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:
Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: P9KFA9GA

LED Characteristics

LEDs:
Long-life, high-efficacy, surface-mount LEDs

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Optical

BUG Rating:
B3 U1 G2

Optics:
Square, Type V distribution

Construction

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Thermal Management:
Superior thermal management with external air-flow fins

Need help? Tech help line: **(888) 722-1000** Email: **sales@rablighting.com** Website: **www.rablighting.com**
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NOT TO BE RECORDED

PENNSYLVANIA CYNTHIA MARIE GILMORE VEGETATION MANAGER LAN003464

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, Mmontgomery COUNTY, PENNSYLVANIA

LANDSCAPE & LIGHTING DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

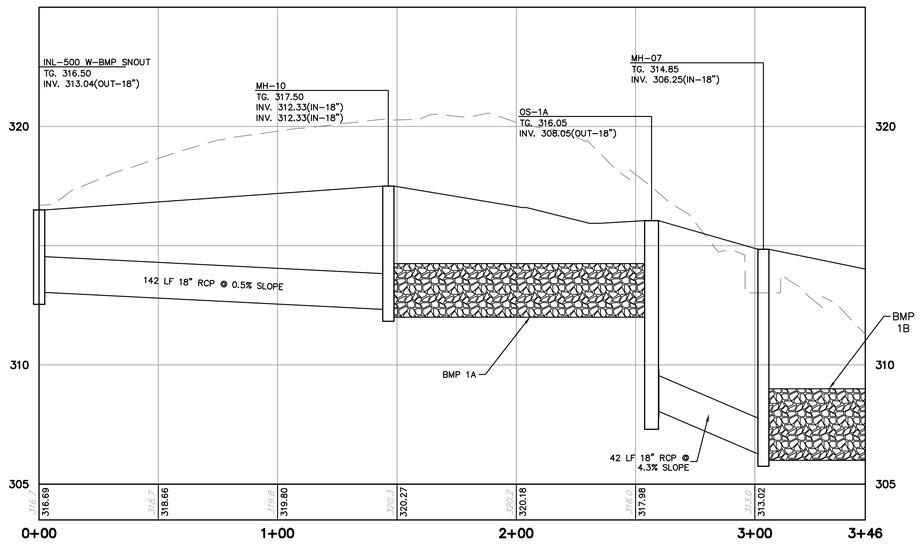
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

DRAWN BY: WMH | CHECKED BY: JM

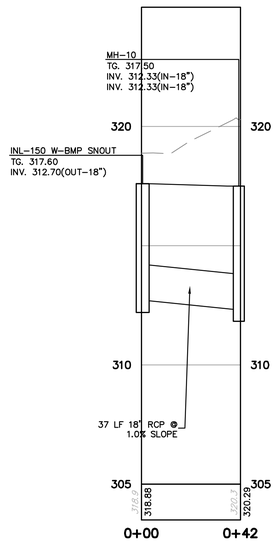
SHEET NO.: 35 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 35 LANDSCAPE & LIGHTING DETAILS Plotted By: whelder, on Mon Jun 05, 2023 at 11:31am



INL-500 TO BMP 1-B

STATION 0+00 TO 3+46
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-150 TO MH-10

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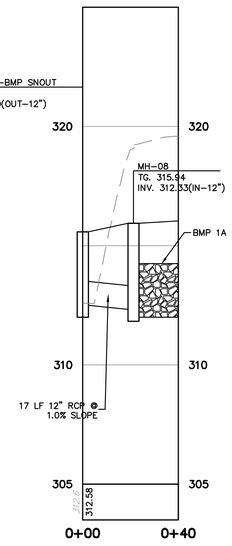
VERT 1"=3'



INL-130 TO BMP 1-A

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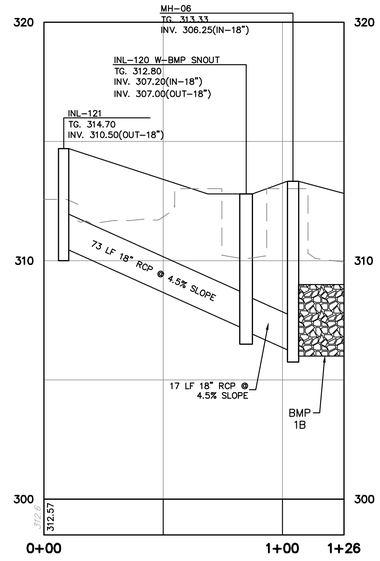
VERT 1"=3'



INL-121 TO BMP 1-B

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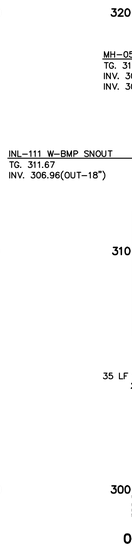

INL-112 TO BMP 1-B

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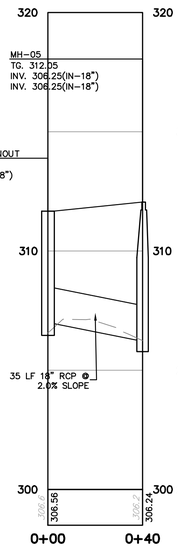
VERT 1"=3'



INL-111 TO MH-05

STATION 0+00 TO 0+40
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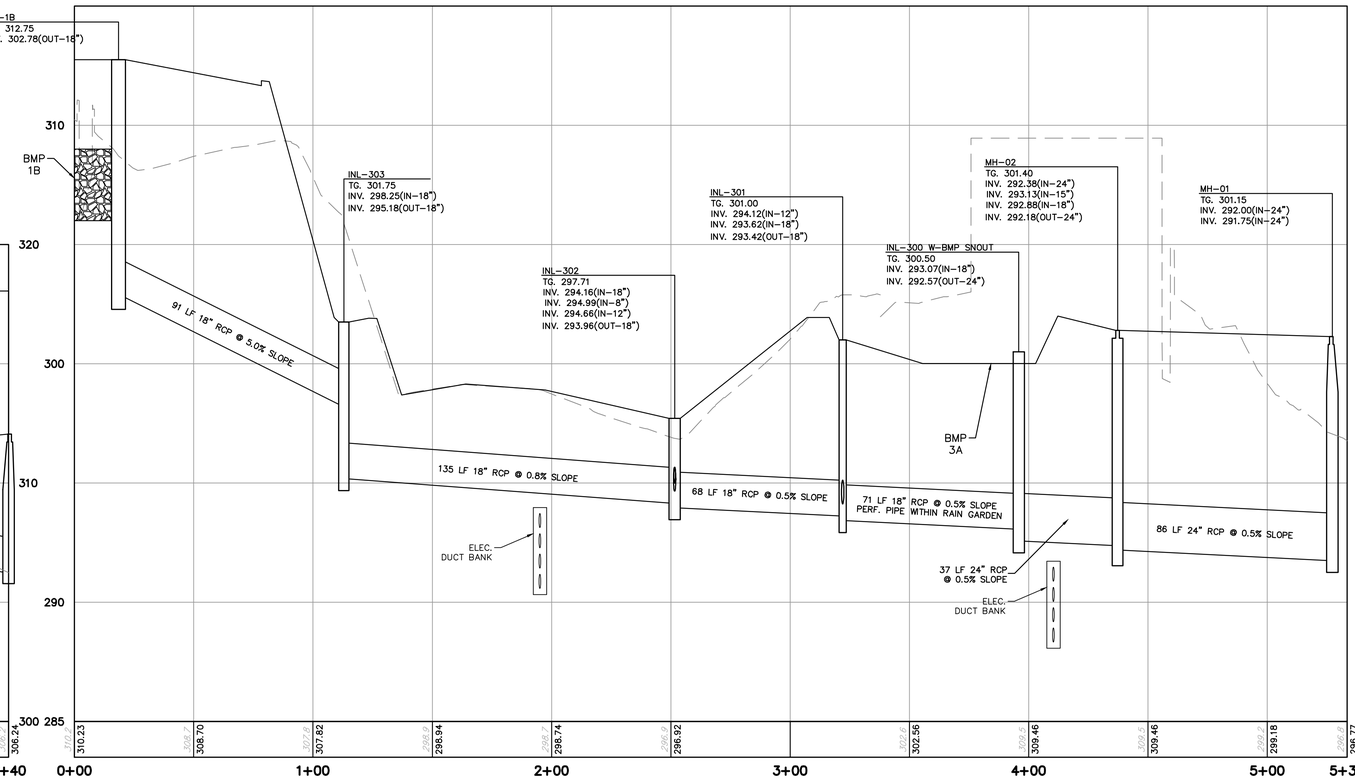
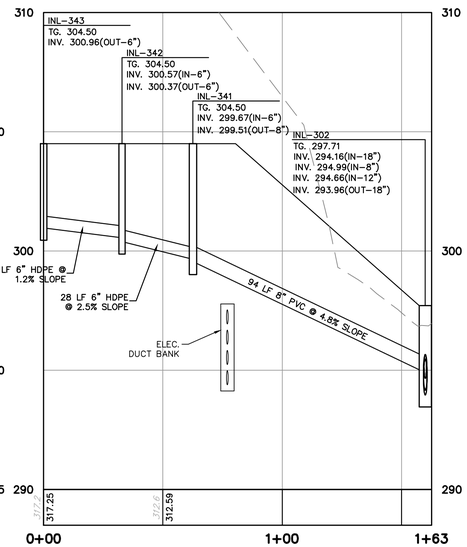
VERT 1"=3'



BMP 1-B TO MH-01

STATION 0+00 TO 5+33
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-343 TO INL-302

STATION 0+00 TO 1+63
SCALE: HORZ 1"=30'
VERT 1"=3'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	REV.	DESCRIPTION
JM	06/05/22	3	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	2	75% CD SUBMISSION
DAW	07/20/22	1	50% CD SUBMISSION

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 36 OF 40

NOT TO BE RECORDED

222

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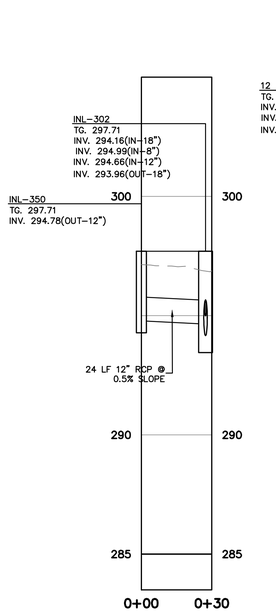

INL-350 TO INL-302

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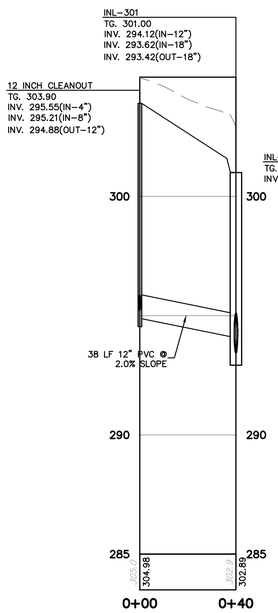
VERT 1"=3'



CLEANOUT TO INL-301

STATION 0+00 TO 0+40
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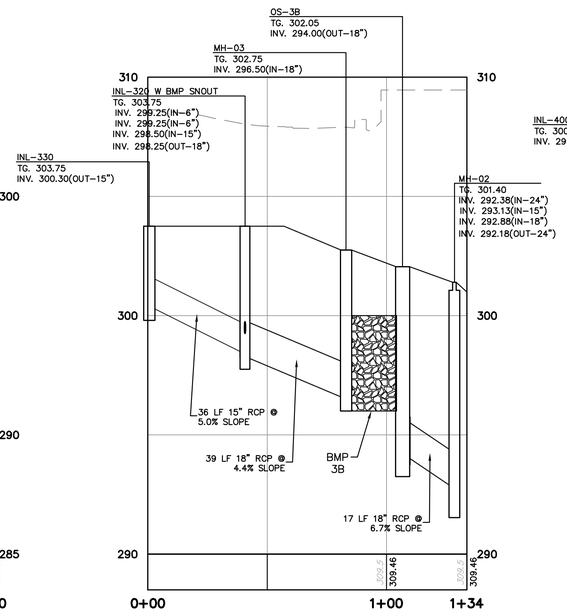

INL-330 TO MH-02

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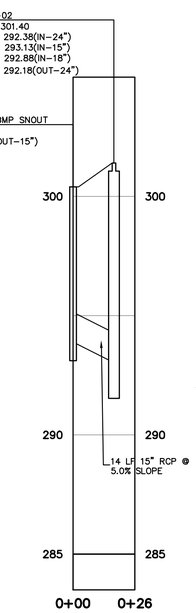

INL-400 TO MH-02

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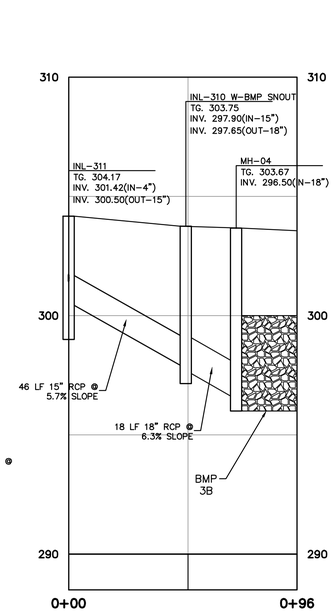

INL-311 TO BMP 3

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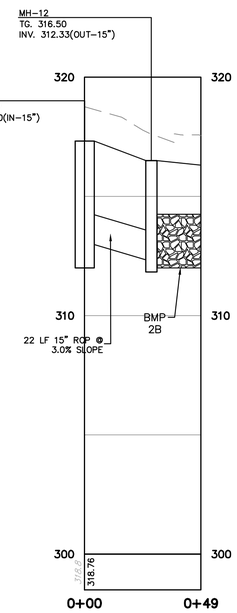

OS 2-A TO BMP 2-B

STATION 0+00 TO 0+49
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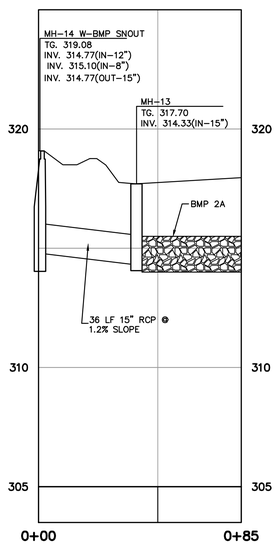
VERT 1"=3'



MH-14 TO BMP 2-A

STATION 0+00 TO 0+85
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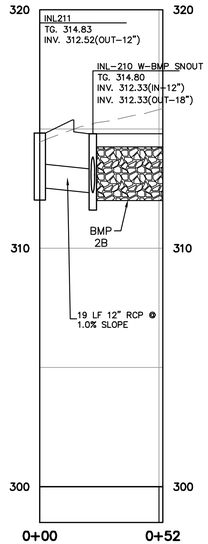

INL-211 TO BMP 2-B

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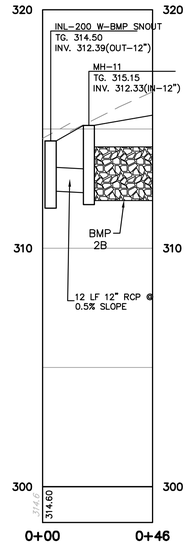

INL-200 TO BMP 2-B

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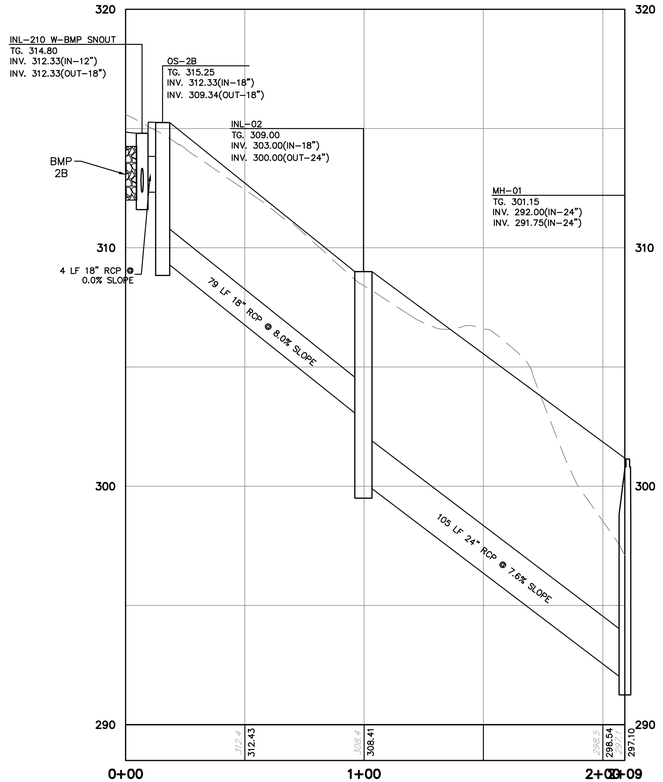

BMP 2-B TO MH-01

STATION 0+00 TO 2+09
SCALE: HORZ 1"=30'
VERT 1"=3'

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 37 PROFILES - 2 Plotted By: wheider, on Mon Jun 05, 2023 at 11:32am

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST - LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

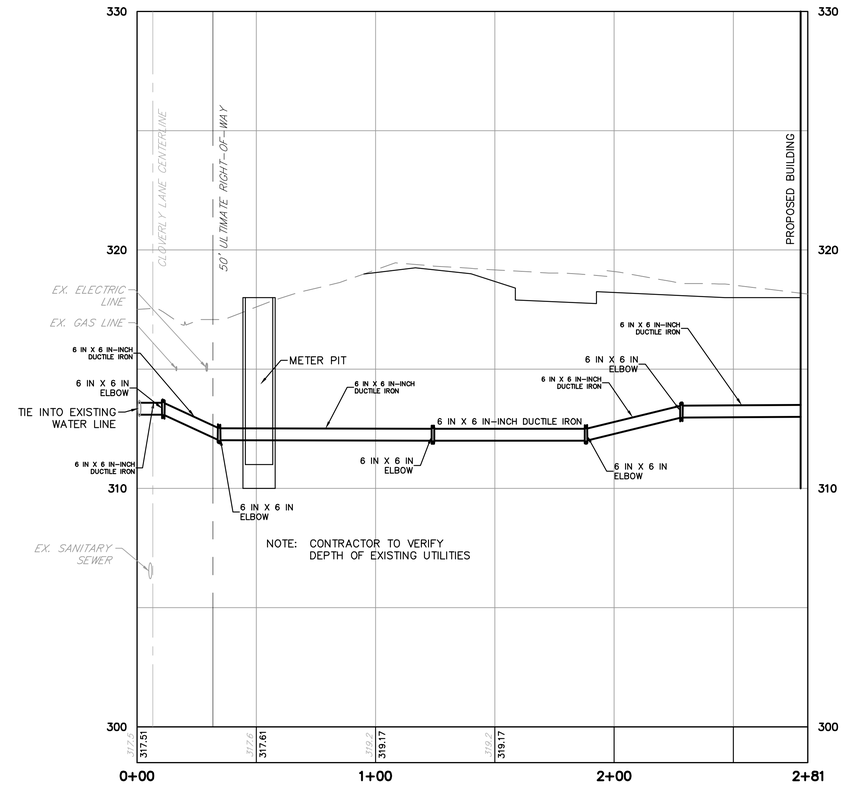
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

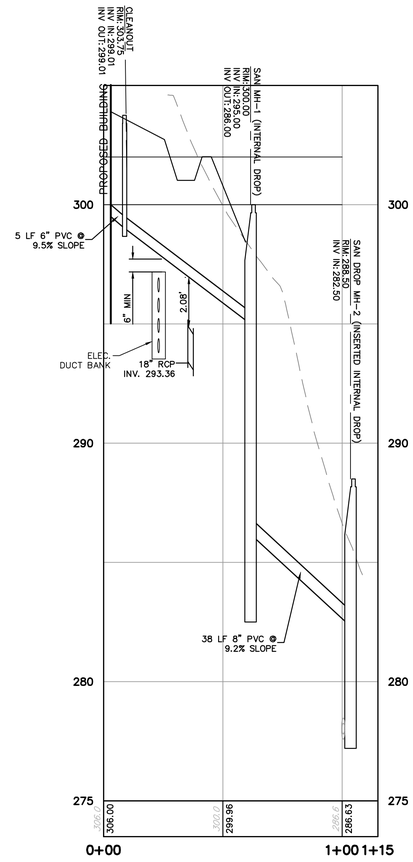
DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 37 OF 40



EXISTING WATER MAIN TO PROPOSED BUILDING

STATION 0+00 TO 2+81
SCALE: HORZ 1"=30'
VERT 1"=3'



PROPOSED BUILDING TO SAN DROP MH-2

STATION 0+00 TO 1+15
SCALE: HORZ 1"=30'
VERT 1"=3'

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REV.	DESCRIPTION	DATE	BY
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1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

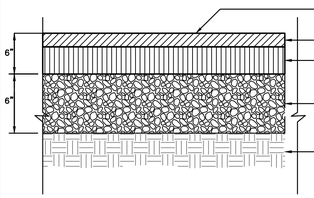
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

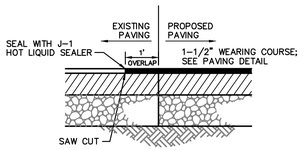
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 38 OF 40

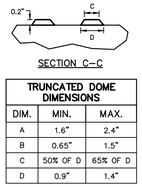
T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 38 PROFILES - 3 Plotted By: whelder, on Mon Jun 05, 2023 at 11:50am



DRIVE & FULL-DEPTH PARKING LOT TYPICAL PAVING DETAIL
NOT TO SCALE

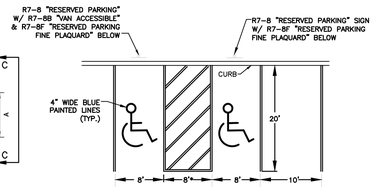


PAVEMENT TIE-IN DETAIL
NOT TO SCALE

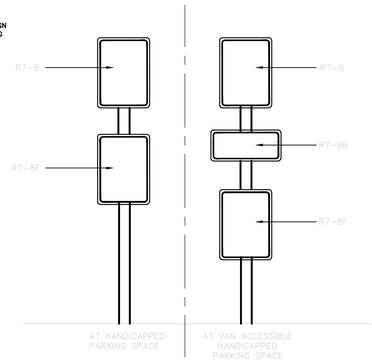


TRUNCATED DOME DIMENSIONS		
DIM.	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% OF D	65% OF D
D	0.9"	1.4"

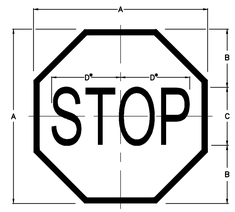
DETECTABLE WARNING TRUNCATED DOME DETAIL



PARKING LOT & HANDICAPPED STALL STRIPING DETAIL
NOT TO SCALE



HANDICAPPED PARKING SIGN ELEVATION DETAIL
NOT TO SCALE

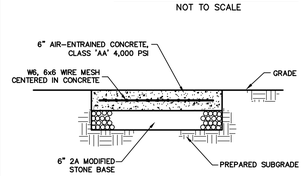


DIMENSIONS – mm (IN)					
SIGN SIZE A x A	B	C	D	BORDER	BLANK STD.
600 x 600 (24" x 24")	200 (8)	200C (8C)	254 (10)	15 (0.6)	B1-600 (B1-24)
750 x 750 (30" x 30")	250 (10)	250C (10C)	318 (12.6)	20 (0.8)	B1-750 (B1-30)
900 x 900 (36" x 36")	300 (12)	300C (12C)	381 (15)	20 (0.8)	B1-900 (B1-36)
1200 x 1200 (48" x 48")	400 (16)	400C (16C)	508 (20)	30 (1.2)	B1-1200 (B1-48)

* REDUCE SPACING 40%

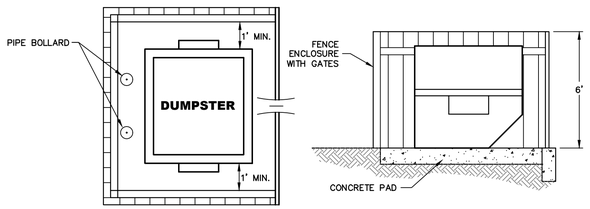
COLOR:
LEGEND AND BORDER (REFLECTORIZED): WHITE
BACKGROUND: RED (REFLECTORIZED)

STOP SIGN (R1-1)
NOT TO SCALE

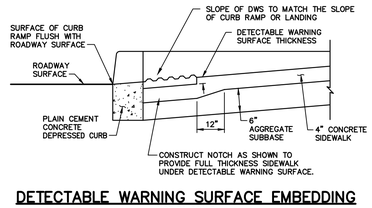


CONCRETE PAVEMENT DETAIL
NOT TO SCALE

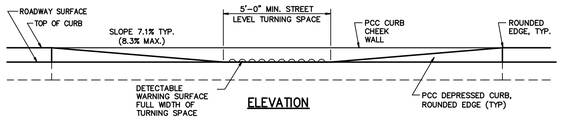
NOTES:
1. CONCRETE PAVEMENT SHALL BE SCORED INTO 24" SQUARES AT A 45° ANGLE TO THE BUILDING. SCORING SHALL BE AT LEAST 1/4 THE THICKNESS OF THE CONCRETE SLAB.
2. FULL THICKNESS EXPANSION JOINTS SHALL BE INSTALLED AT A MINIMUM OF EVERY 24 FEET.



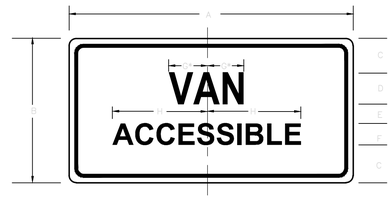
DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



DETECTABLE WARNING SURFACE EMBEDDING
NOT TO SCALE



ELEVATION

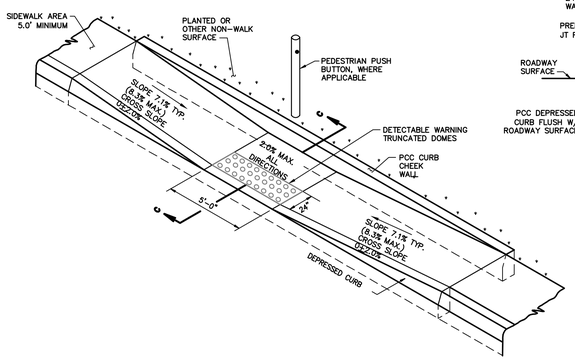


DIMENSIONS – mm (IN)									
SIGN SIZE A x B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD.
300 x 150 (12" x 6")	35 (1.4)	40D (1.6D)	15 (0.6)	25D (1D)	54 (2.1)	102 (4)	10 (0.4)	10 (0.4)	B5-300150 (B5-1206)

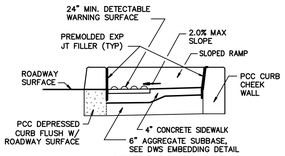
* INCREASE SPACING 50%

COLOR: LEGEND AND BORDER: WHITE (NON-REFLECTORIZED)
BACKGROUND: BLUE (REFLECTORIZED)

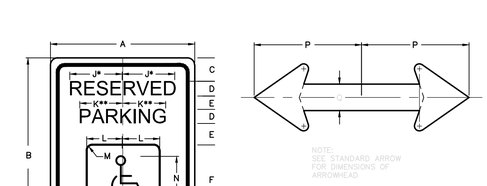
VAN ACCESSIBLE SIGN (R7-8B)
NOT TO SCALE



HANDICAP CURB RAMP-TYPE 2: PARALLEL TO PAVING
NOT TO SCALE



SECTION C-C



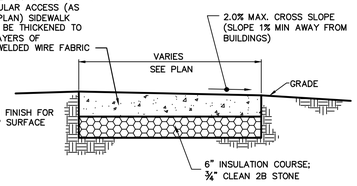
COLOR: LEGEND, ARROW AND BORDER (REFLECTORIZED): GREEN
BACKGROUND AND SYMBOL (REFLECTORIZED): WHITE
SYMBOL BACKGROUND (REFLECTORIZED): BLUE

DIMENSIONS – mm (IN)															
SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	N	P	Q	MARGIN	BORDER	BLANK STD.
300 x 450 (12" x 18")	50 (2)	50C (2C)	25 (1)	150 (6)	40 (1.6)	60 (2.4)	126 (4.9)	109 (4.3)	759 (3)	10 (0.4)	100 (4)	95 (3.8)	20 (0.8)	10 (0.4)	10 (0.4)	B5-300450 (B5-1218)

* REDUCE SPACING 50% ** REDUCE SPACING 33%

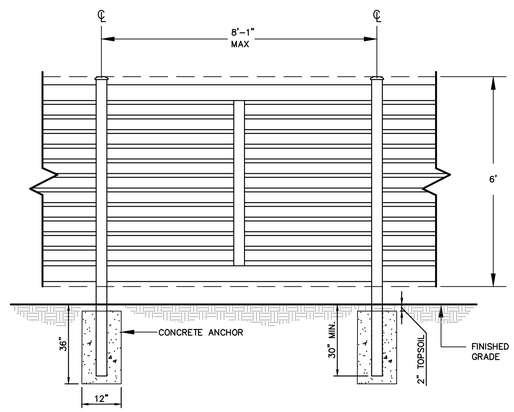
RESERVED PARKING SIGN (R7-8)
NOT TO SCALE

4" CLASS AA CONC (4,000 PSI) FOR GENERAL SIDEWALK CONSTRUCTION. IN AREAS OF VEHICULAR ACCESS (AS SHOWN ON THE PLAN) SIDEWALK DRIVEWAY SHALL BE THICKENED TO 6" WITH W/ 2 LAYERS OF 6x6-W2.0xW2.0 WELDED WIRE FABRIC

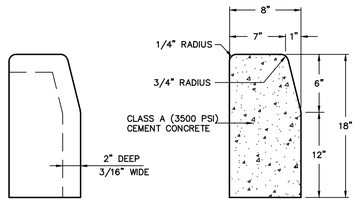


NOTE: DOWEL SIDEWALK TO CURBS WITH #4 REBAR DOWELS @ 5'-0" cc WHERE SIDEWALK IS ADJACENT TO NEW OR EXISTING CURB.

SIDEWALK DETAIL
NOT TO SCALE

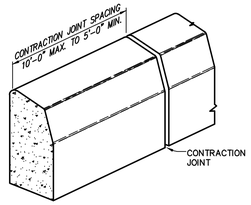


PRIVACY/DUMPSTER ENCLOSURE FENCE DETAIL
NOT TO SCALE

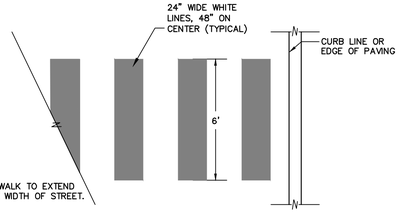


DETAIL A
CONTRACTION JOINT

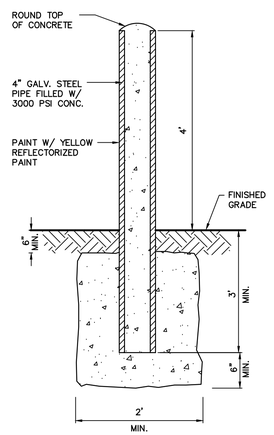
TYPICAL
CROSS SECTION



PLAIN CEMENT CONCRETE CURB
NOT TO SCALE



CROSSWALK DETAIL
NOT TO SCALE

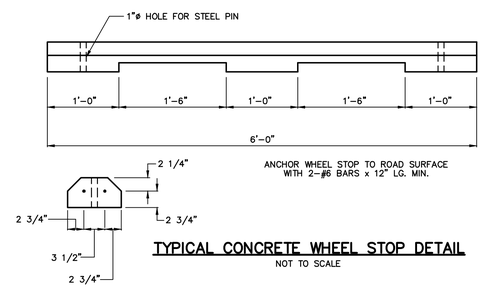


BOLLARD DETAIL
NOT TO SCALE

DIMENSIONS – mm (IN)							
SIGN SIZE A x B	C	D	E	F	G	H	
600 x 750 (24" x 30")	80 (3.2)	75C (3C)	60 (2.4)	50C (2C)	244 (9.6)	54 (2.1)	
J	K	L	MARGIN	BORDER		BLANK STD.	
258 (10.2)	197 (7.8)	105 (4.1)	10 (0.4)	10 (0.4)		B5-750600 (B5-3024)	

COLOR:
LEGEND & BORDER: RED (NON-REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESTRICTED ACCESS SIGN R5-3-6 DETAIL
NOT TO SCALE

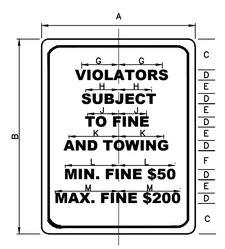


TYPICAL CONCRETE WHEEL STOP DETAIL
NOT TO SCALE

COLOR:
LEGEND, BORDER: RED (REFLECTORIZED)
CIRCLE, DIAGONAL: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)
"P": BLACK (NON-REFLECTORIZED)

DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H	J	
300 x 450 (12" x 18")	75 (3)	150E(W) (6E(W))	47 (1.9)	21 (0.8)	50B (2B)	20 (0.8)	37 (1.5)	
K	L	M		MARGIN	BORDER	BLANK STD.		
122 (4.9)	25 (1)	56 (2.2)		10 (0.4)	10 (0.4)	B5-300450 (B5-1218)		

NO PARKING-FIRE LANE SIGN (R7-2B)
NOT TO SCALE



DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H		
300 x 450 (12" x 18")	75 (3)	25C (1C)	25 (1)	50 (2)	75 (3)	61 (2.4)		
J	K	L	M	MARGIN	BORDER	BLANK STD.		
58 (2.3)	90 (3.6)	101 (4)	117 (4.6)	10 (0.4)	10 (0.4)	B5-300450 (B5-1218)		

COLOR:
LEGEND & BORDER: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESERVED PARKING PENALTIES SIGN (R7-8F)
NOT TO SCALE

GILMORE & ASSOCIATES, INC.
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LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3555 • www.gilmore-assoc.com

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ENGINEER
55713-E

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1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

CONSTRUCTION DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

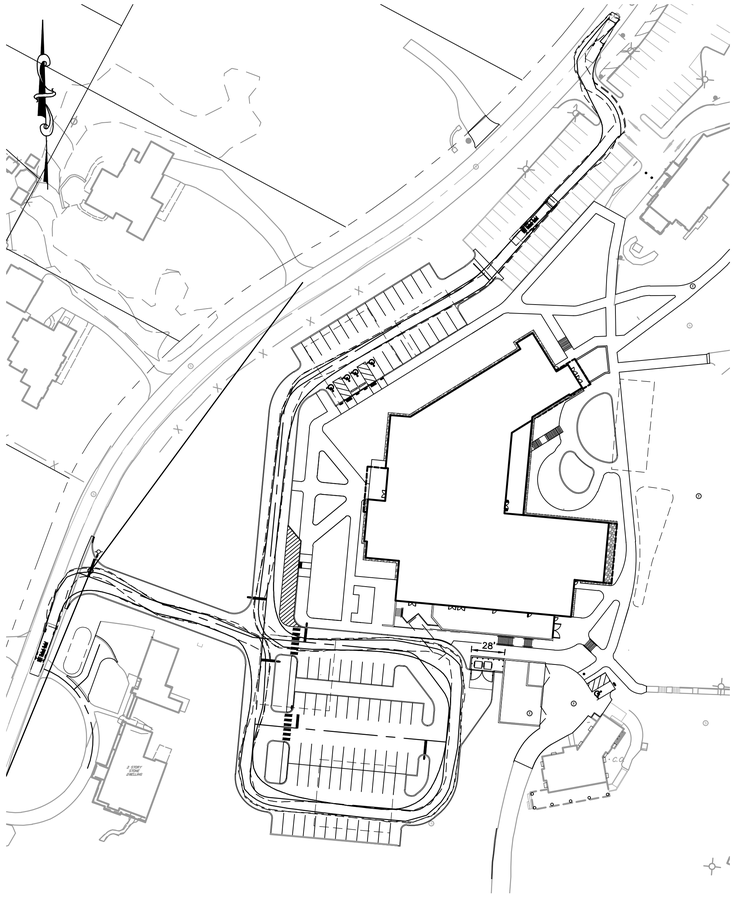
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

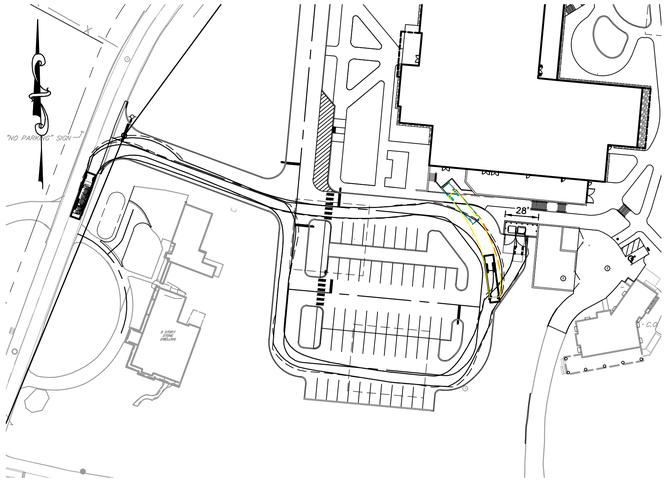
DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 39 OF 40

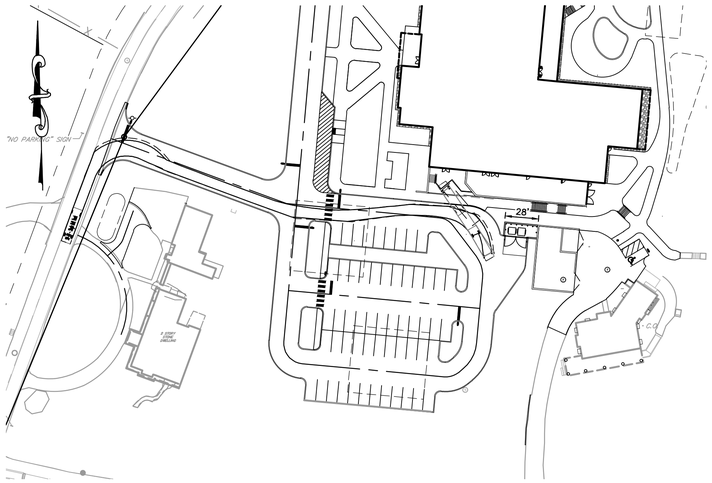
T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawing\CONSTRUCTION DETAILS - 1.dwg Layout: 39 CONSTRUCTION DETAILS Plotted By: wheider, on Mon Jun 05, 2023 at 11:32am



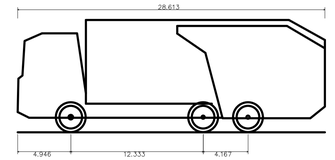
FIRE TRUCK TURNING PLAN – 1



GARBAGE TRUCK TURNING PLAN

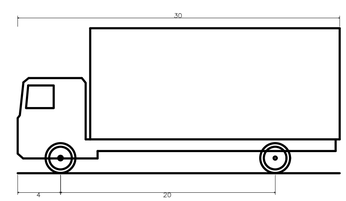


SU-30 TRUCK TURNING PLAN



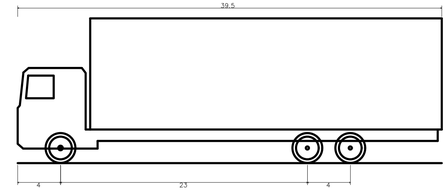
Mack TerraPro Cabover 6x4 MRU613 + Wayne Curbtender 31cu yd

Overall Length	28.613ft
Overall Width	8.000ft
Overall Body Height	11.250ft
Min Body Ground Clearance	1.313ft
Track Width	8.000ft
Lock-to-lock time	6.0s
Curb to Curb Turning Radius	53.500ft



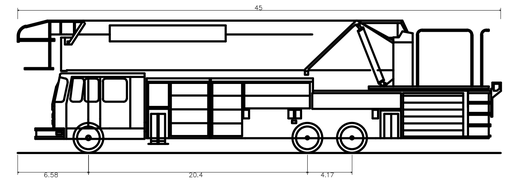
SU-30 - Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	11.250ft
Min Body Ground Clearance	1.313ft
Track Width	8.000ft
Lock-to-lock time	6.0s
Max Steering Angle (Virtual)	31.80°



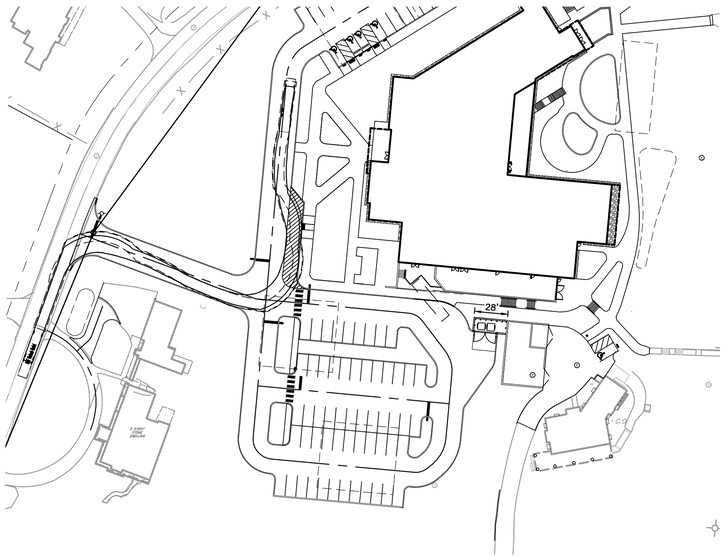
SU-40 - Single Unit Truck

Overall Length	39.500ft
Overall Width	8.000ft
Overall Body Height	13.250ft
Min Body Ground Clearance	1.167ft
Track Width	8.000ft
Lock-to-lock time	6.0s
Max Steering Angle (Virtual)	31.80°



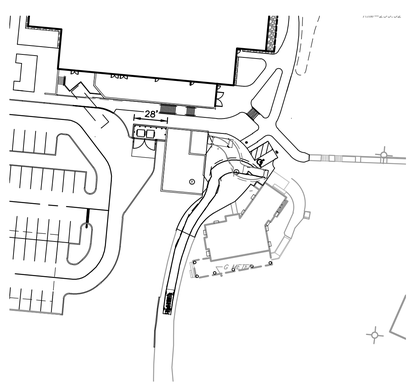
NHEF Firetruck-Bucket

Overall Length	45.000ft
Overall Width	8.000ft
Overall Body Height	11.167ft
Min Body Ground Clearance	1.167ft
Track Width	8.000ft
Lock-to-lock time	10.000
Max Steering Angle (Virtual)	40.00°

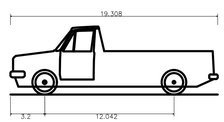


FIRE TRUCK TURNING PLAN – 2

SU-40 TRUCK TURNING PLAN



CREW CAB TRUCK TURNING PLAN



F-150 SuperCrew 4x4 STYLESIDE 5.5' Box

Overall Length	19.308ft
Overall Width	6.750ft
Overall Body Height	6.167ft
Min Body Ground Clearance	0.750ft
Track Width	6.875ft
Lock-to-lock time	6.0s
Curb to Curb Turning Radius	23.500ft

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- # — EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T — T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

60 0 60 120
SCALE IN 1"=60' FEET

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

TRUCK TURNING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=60'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 40 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\TRUCK TURNING PLAN.dwg Layout: 40 TRUCK TURNING PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:33am

APPLICATION FOR SUBDIVISION/LAND DEVELOPMENT

PROJECT NAME: Penn State Abington Campus - New Academic building

APPLICANT NAME: Pennsylvania State University

TO BE COMPLETED BY THE TOWNSHIP
Submission Information:

Application Number: LD-22-05
Project Title: Penn State Abington New Academic Bldg
File Date: 06/06/2022
Date Complete: 06/17/2022
90 Day Date: 09/17/2022
Ward No.: 1

REQUIRED MATERIAL FOR ALL SUBDIVISION/LAND DEVELOPMENT APPLICATIONS:

1. This form **MUST** be completed and submitted.
2. A Subdivision/ Land Development Application MUST include all of the items listed in the application checklist in Section V to be considered complete.
3. Incomplete application will **NOT** be placed on the Planning Commission agenda. Incomplete applications will be returned to the applicant.
4. Complete applications must be received at least 45 DAYS (see schedule) prior to the Planning Commission meeting at which it will be heard.
5. Ten (10) full size paper copies, and one (1) 11x17 reduced copy of the plans, plus three (3) copies of each report or study are to be submitted in the initial submission of the complete application. A digital copy of all submitted documents must be included with the application.

   ***It is highly encouraged to submit applications in a digital format**

I. CONTACT INFORMATION

Applicant Information

Pennsylvania State University
c/o Andrew D. Gutberlet, P.E., LEED AP - Manager of Engineering Services
Name

139J Physical Plant Building, University Park, PA 16802
Address

814-865-0545 _____
Phone Fax

Andrew.gutberlet@psu.edu
Email Address

Property Owners Information (if different than applicant)

_____
Name

_____
Address

_____ _____
Phone Fax

_____
Email Address

Architect/ Planner

KCBA Architects c/o Stacy Thomas, AIA, LEED AP BC+C
Name

8 E. Broad St. Hatfield, PA 19440
Address

215-368-5806 x106 _____
Phone Fax

stacy.thomas@kcba-architects.com
Email Address

Engineer/ Surveyor	Gilmore & Associates, Inc. c/o Douglas Waite, PE, CFM Name 508 Corporate Drive West, Langhorne, PA 19047 Address
Engineer/ Surveyor Cont'd	215-369-3955 Phone Fax dwaite@gilmore-assoc.com Email Address
Attorney	Eastburn and Gray, PC c/o Marc D. Jonas Name 470 Norristown Road, Suite 302, Blue Bell, PA 19422 Address 215-542-9345 Phone Fax MJonas@eastburngray.com Email Address

II. PROJECT INFORMATION

Application Type:

____Minor Subdivision	____Minor Land Develop.	__X__Preliminary Major SD & LD
____Preliminary Major Subdivision	____Prelim. Major Land Develop.	__X__Final Major SD & LD
____Final Major Subdivision	____Final Major Land Develop.	

Full street address of the property: 1600 Woodland Road, Abington, PA 19001

Tax Parcel No.: 30-00-09792-00-6 County Deed Book No.: 5065 Page No.: 1053

Description of Proposed Work: Construction of new 3-story Academic Building with 74,100 GSF floor area with associated parking, drives, and utilities.

Total Tract Acreage: 44.574 Project Acreage: 5.0

Zoning District: CS Existing Number of Lots: 4 Proposed Number of Lots: 1

Existing Sewer Flows: 10,920 gal/day Proposed Sewer Flows: 10,920 gal/day

Proposed Land Use:

____Single Family Detached	____Single Family Attached	____Single Family Semi-Detached	
____Multi-Family	____Commercial	____Office	____Industrial
__X__Other (Describe):	E-18 University		

III. REVIEW

Please complete the following section by circling a response:

• Have you met with the Zoning Officer regarding this plan?	Yes	(No)
• Are there known variances/any zoning relief necessary for this project?*	Yes	(No)
• If YES, have you submitted an application to the Zoning Hearing Board?	Yes	No
• Has this plan been heard by the Zoning Hearing Board?	Yes	(No)
• Has this plan been submitted to, considered by, or received any formal action by the Planning Commission or Board of Commissioners in the past?	Yes	(No)

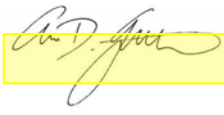
*Please be advised that if any variances are found to be necessary during the course of the review of this plan, you will be required to go to the Zoning Hearing Board prior to proceeding to the Planning Commission. In addition, you will be requested to grant the Township a waiver to the 90-day action period or an immediate denial of this application will be made, and you will be required to resubmit the application.

It is recommended that ALL Land Development and Major Subdivision applications have a pre-submission meeting to discuss the project prior to full application submittal.

Minor Subdivision applications may request a pre-submission meeting; if one is desired.

Meetings are typically held the fourth Tuesday of each month at the Township Administrative Offices.

Applicants assume responsibility of any fees associated with this meeting.

Applicant signature  6/6/2022

Date

To schedule a pre-submission meeting, please contact the Office of the Township Manager at 267-536-1003 or email TCastorina@abingtonpa.gov

IV. WAIVERS

List of Requested Waivers: Attach separate sheet if required.

Section/Requirement:	Relief Requested:
Waiver requests are provided on separate document	

V. SUBMISSION

APPLICATION CHECKLIST

The applicant is responsible for the submission of a complete application. This checklist will aid both the applicant and staff in ensuring that all applications are complete. The following is a per item submission checklist for all Subdivision, Land Development and Conditional Use Applications for the Township of Abington.

X ___ Application Form: completed and signed by the owner/applicant

X ___ 10 (ten) copies of the proposed plan, folded to legal file size. Plan should not be smaller than 1" = 50' and not exceed a sheet size of 24"x 36"

X ___ One (1) reduced copy of the proposed plan, no larger than 11"x17"

X ___ Two (2) sets of tentative architectural plans for all applications proposing construction or land development

N/A ___ One (1) copy of the Recreation Facilities Plan (if required by §146-40)

N/A* Letter of Sanitary Sewer availability from the Township Wastewater Treatment Department

*Note: Sewer is on site

X ___ Two (2) copies of Sewage Facilities Planning Module Applications

X ___ Letter of Water availability from AQUA PA

___ One (1) copy of any previous Zoning Hearing Board decisions related to the subject property

X ___ One (1) digital copy of all submitted documents

X ___ Application Fee: Check made payable to the Township of Abington

X ___ Escrow Fee: Check made payable to the Township of Abington. Separate check from application fee

VI. SIGNATURE

The undersigned represents that to the best of his/her knowledge and belief, all the above statements are true, correct, and complete.

Signature of Applicant — Date: 6/6/2022

Signature of Property Owner (if different than applicant) — Date

THE FOLLOWING IS FOR INTERNAL USE ONLY:

PAYMENT

____ Application Fee Amount: $_____ Check No.: #_____

____ Review Escrow Fee Amount: $_____ Check No.: #_____

DECISION INFORMATION

Approval _____ Denial_____ Decision Date: _____

Comments/Conditions:_____

_____

_____

_____

_____

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

Land Development Plan for Penn State Abington Campus Academic Building

Abington Township, Montgomery County, PA

List of Requested Waivers (Submitted for Land Development approval on June 7, 2022)

In accordance with Section 146-8.3 of the Abington Township Subdivision/Land Development Ordinance, the following Ordinance waiver requests are anticipated to be requested for the current land development application:

1. §146-9.A - *Application Stages*. A waiver is requested to consider the current subdivision and land development submission to be a combined Preliminary/Final application.

2. §146-10 - *Plan Scale*. partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1" = 40 or larger.

3. §146-11.B(7) - *Existing Utilities*. A partial waiver is requested from the requirements of providing the location, size, and ownership of all underground and above ground public or private utilities. The proposed plan provides information made available through site survey, historical maps, and information obtained through Pa One-Call. However, the plans do not show information that was not discovered during project development.

4. §146-11.D(4) – *Grading Plan Datum*. A waiver is requested from the requirement to provide contour lines based on Abington Township sanitary sewer datum. The parcel includes FEMA mapped areas and correlation with FEMA datum is required for coordination.

5. §146-24.D(3) - *Streets – Cartway Width* . A waiver is requested to allow the existing cartway widths of the existing streets to remain. The existing streets are well-established. No roadway widening is proposed.

6. §146-27 - *Sidewalks and Curbs.* A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new roadway sidewalks or curbs are proposed.

7. §146-28.(A) - *Off-street Parking Areas.* A waiver is requested to provide parking stall sizes in accordance with Ordinance No. 2186 in lieu of 10 feet wide by 20 feet long spaces.

8. §146-33.C – *Storm Drain Cover*. A waiver is requested to allow on-site private storm sewer pipe to have less than 24 inches of cover in limited areas that are not subject to vehicular traffic.

9. §146-33.D – *Storm Drain Diameter.* A waiver is requested to allow on-site private storm sewer pipe to be less than 15 inches in diameter.

10. §146-39.B(3)(a)[1] – *Interior Landscaping within Parking Area*. A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. Additional landscaping is provided on the building-side of the parking lot.

11. §146-43.C(3) – *Excavations and Fills*. A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon township engineer approval of design.

12. §142-409.A – *Rate Control Standards for PennyPack Creek Watershed*. A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:

    a. proposed to receive replacement pavements in kind;
    b. to receive a reduction in pavement area and not otherwise improved;
    c. outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

    Due ground slope of the campus along the eastern limit of proposed work, runoff from these areas are not able to be captured without causing additional disturbance . To the extent that these relatively small areas of pavement replacement, pavement reduction or ground surface restoration are not negatively affecting the existing drainage condition, the applicant requests that this waiver be considered.

PLANNING PROCESS EXTENSION AGREEMENT

FOR

Penn State L.D.

PROJECT NAME

The Pennsylvania Municipality Planning Code (MPC) and the Abington Township Subdivision and Land Development Ordinance state that action must be taken by the Township within ninety (90) days after a complete application is filed with the Township. In the Township, complicated, unique, and community impactful projects have or may require additional time in order to complete a thorough review before being considered for approval. As such, an applicant may voluntarily waive the timing requirement at any time, but is encouraged to submit this waiver with the completed application.

I, the applicant, hereby voluntarily ~~waive~~ grants a 60-day extension of the timing requirement as set forth in the MPC (Section 53 P.S. 10508) and the Abington Township Subdivision and Land Development Ordinance (Section 146-13). ~~Applicant acknowledges that this waiver can be revoked at any time upon written notice to the Township Manager. The time limitations set forth in 53 P.S. 10508 and Section 146-13 of the Abington Township Code shall be calculated from the date that the written revocation is received by the Township Manager.~~

Signed: Marc D'Amico, Esq. Attorney for Applicant

Date: 9/13/22

Received: _____

Township

Date: _____

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN (LD -22-05)

FOR

PENNSYLVANIA STATE UNIVERSITY

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

WAIVERS REQUESTED

THE FOLLOWING WAIVERS FROM CHAPTER 146, SUBDIVISION AND LAND DEVELOPMENT AND CHAPTER 142, STORMWATER MANAGEMENT, ARE REQUESTED:

1. §146-9.A – APPLICATION STAGES. A WAIVER IS REQUESTED TO CONSIDER THE CURRENT SUBDIVISION AND LAND DEVELOPMENT SUBMISSION TO BE A COMBINED PRELIMINARY/FINAL APPLICATION.
2. §146-10 – PLAN SCALE. PARTIAL WAIVER TO ALLOW PLANS THAT DEPICT THE OVERALL SITE TO BE SMALLER THAN 1"=50'. PLANS DEPICTING THE ACADEMIC BUILDING PROJECT AREA ARE DRAWN AT 1" = 40 OR LARGER.
3. §146-11.A(4) – PROPERTY IDENTIFICATION PLANS. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING TRACT BOUNDARIES WITH TAX PARCEL NUMBERS, OWNER'S NAMES, AND APPROXIMATE ACREAGE OF LOTS SURROUNDING ANY PORTION OF THE SITE WITHIN 400 FEET. ABUTTING PROPERTY INFORMATION IS SHOWN ON THE PLANS.
4. §146-11.B(3) – EXISTING FEATURES PLAN. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE PROPERTY LINES AND NAMES OF LANDOWNERS WITHIN 400 FEET OF ANY PART OF THE SITE TO BE SUBDIVIDED OR DEVELOPED. AN AERIAL PHOTOGRAPH PLAN IS PROVIDED WITH ABUTTING PROPERTY INFORMATION SHOWN.
5. §146-11.B(7) – EXISTING UTILITIES. A PARTIAL WAIVER IS REQUESTED FROM THE REQUIREMENTS OF PROVIDING THE LOCATION, SIZE, AND OWNERSHIP OF ALL UNDERGROUND AND ABOVE GROUND PUBLIC OR PRIVATE UTILITIES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
6. §146-24.D(3) – STREETS – CARTWAY WIDTH . A WAIVER IS REQUESTED TO ALLOW THE EXISTING CARTWAY WIDTHS OF THE EXISTING STREETS TO REMAIN. THE EXISTING STREETS ARE WELL-ESTABLISHED. NO ROADWAY WIDENING IS PROPOSED.
7. §146-27 – SIDEWALKS AND CURBS. A WAIVER IS REQUESTED TO PERMIT THE ONSITE WALKWAYS AND PEDESTRIAN ROUTES TO BE CONSIDERED ADEQUATE TO MEET PEDESTRIAN ACCESS REQUIREMENTS. NO NEW ROADWAY SIDEWALKS OR CURBS ARE PROPOSED.
8. §146-33.C – STORM DRAIN COVER. A WAIVER IS REQUESTED TO ALLOW ON-SITE PRIVATE STORM SEWER PIPE TO HAVE LESS THAN 24 INCHES OF COVER.
9. §146-33.D – STORM DRAIN DIAMETER. A WAIVER IS REQUESTED TO ALLOW ON-SITE PRIVATE STORM SEWER PIPE TO BE LESS THAN 15 INCHES IN DIAMETER.
10. §146-39.B(3)(A)[1] – INTERIOR LANDSCAPING WITHIN PARKING AREA. A PARTIAL WAIVER IS REQUESTED TO ALLOW A PORTION OF THE PROPOSED PARKING AREA LOCATED NORTH OF THE PROPOSED BUILDING TO INCLUDE LESS THAN 5% INTERIOR LANDSCAPING BETWEEN THE OVERALL CURBED PERIMETER. ADDITIONAL LANDSCAPING IS PROVIDED ON THE BUILDING-SIDE OF THE PARKING LOT.
11. §146-43.C(3)(A) – EXCAVATIONS AND FILLS. A WAIVER IS REQUESTED TO ALLOW CUT AND FILL SLOPES IN EXCESS OF 15% CONDITIONED UPON TOWNSHIP ENGINEER APPROVAL OF DESIGN.
12. §142-302.B(2)(B)[5] – SWM SITE PLAN REQUIREMENTS. A WAIVER IS REQUESTED FROM THE REQUIREMENT TO SHOW THE LOCATIONS OF ALL EXISTING AND PROPOSED UTILITIES, SANITARY SEWERS, AND WATER LINES WITHIN FIFTY (50) FEET OF THE PROPERTY LINES. THE PROPOSED PLAN PROVIDES INFORMATION MADE AVAILABLE THROUGH SITE SURVEY, HISTORICAL MAPS, AND INFORMATION OBTAINED THROUGH PA ONE-CALL. HOWEVER, THE PLANS DO NOT SHOW INFORMATION THAT WAS NOT DISCOVERED DURING PROJECT DEVELOPMENT.
13. §142-409.A – RATE CONTROL STANDARDS FOR PENNYPACK CREEK WATERSHED. A PARTIAL WAIVER IS REQUESTED FROM RATE CONTROL REQUIREMENTS OF THIS SECTION FOR LIMITED AREAS OF THE PROJECT THAT ARE:
    a. PROPOSED TO RECEIVE REPLACEMENT PAVEMENTS IN KIND;
    b. TO RECEIVE A REDUCTION IN PAVEMENT AREA AND NOT OTHERWISE IMPROVED;
    c. OUTSIDE OF BULK-GRADING AREAS THAT ARE PROPOSED TO BE DISTURBED AND RESTORED TO EXISTING CONDITION FOR INSTALLATION OF UTILITY CONDUITS ONLY.

    DUE TO GROUND SLOPE OF THE CAMPUS ALONG THE EASTERN LIMIT OF PROPOSED WORK, RUNOFF FROM THESE AREAS ARE NOT ABLE TO BE CAPTURED WITHOUT CAUSING ADDITIONAL DISTURBANCE. TO THE EXTENT THAT THESE RELATIVELY SMALL AREAS OF PAVEMENT REPLACEMENT, PAVEMENT REDUCTION OR GROUND SURFACE RESTORATION ARE NOT NEGATIVELY AFFECTING THE EXISTING DRAINAGE CONDITION, THE APPLICANT REQUESTS THAT THIS WAIVER BE CONSIDERED.

GENERAL NOTES

1. VERTICAL DATUM IS NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.
2. CONVERSION TO ABINGTON TOWNSHIP SANITARY SEWER DATUM (TSSD): NAVD88 = TSSD + ———'
3. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.
4. ■ – CONCRETE MONUMENT TO BE SET □ – CONCRETE MONUMENT FOUND
   ● – R.R. SPIKE OR IRON PIN TO BE SET ○ – IRON PIN FOUND
5. THIS PLAN PREPARED UNDER THE FOLLOWING ORDINANCES:
   a. ZONING ORDINANCE – OF 2013, UPDATED 01-07-2019
   b. SUBDIVISION & LAND DEVELOPMENT ORDINANCE – 10-21-2019
   c. STORMWATER MANAGEMENT ORDINANCE – 05-24-2011
6. THE BURYING OF TREES AND OTHER CONSTRUCTION DEBRIS ON THE SITE IS PROHIBITED.
7. THE PROPOSED SANITARY SERVICE TO BE SUBJECT TO THE APPROVAL OF ABINGTON TOWNSHIP SEWER AUTHORITY.
8. THE PROPOSED WATER SERVICE AND FIRE PROTECTION SERVICE ARE TO BE SUPPLIED BY THE EXISTING AQUA PA MAIN LOCATED WITHIN CLOVERLY LANE.
9. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) STANDARDS.
10. SHEETS 2 THROUGH 40 INCLUSIVE, ON RECORD AT ABINGTON TOWNSHIP, SHALL BE CONSIDERED A PART OF THE APPROVED FINAL PLAN AS IF RECORDED WITH SAME.
11. NO STRUCTURES, FENCE, PLANTING, OR OTHER OBSTRUCTION SHALL BE MAINTAINED BETWEEN A VERTICAL PLANE TWO FEET ABOVE STREET LEVEL AND A PLANE SEVEN FEET ABOVE STREET LEVEL SO AS TO INTERFERE WITH TRAFFIC VISIBILITY WITHIN THE CLEAR SIGHT TRIANGLES SHOWN AT ALL INTERSECTIONS. AT EACH POINT WHERE A DRIVEWAY INTERSECTS A STREET A CLEAR SIGHT TRIANGLE OF TEN (10) FEET MEASURED FROM THE POINT OF INTERSECTION OF THE STREET LINE AND THE EDGE OF THE ACCESS WAY SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN TWO FEET ABOVE THE STREET GRADE.
12. THIS PROJECT IS LOCATED WITHIN THE WATERSHED OF AN UNNAMED TRIBUTARY TO MEADOW BROOK: MEADOW BROOK IS DESIGNATED **TSF** IN CHAPTER 93. MEADOW BROOK IS PART OF THE PENNYPACK WATERSHED.
13. PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF PROPOSED STORMWATER MANAGEMENT FACILITIES LOCATED ON THEIR LOT. SEE PCSWM PLANS AND DETAILS FOR INFORMATION ON MAINTENANCE REQUIREMENTS AND SCHEDULE.
14. ALL DEVELOPMENT ACTIVITIES, SUCH AS CLEARING, GRADING, REGRADING, DRIVEWAYS, ROADS, BUILDINGS, SEPTIC SYSTEMS, RETENTION/DETENTION BASINS, AND UTILITY EASEMENTS SHALL BE LIMITED TO THE NATURAL RESOURCE PROTECTION STANDARDS AS SPECIFIED IN THE SOLEBURY TOWNSHIP ZONING ORDINANCE AS LAST AMENDED. THE REMAINING RESOURCES SHALL REMAIN IN THEIR NATURAL CONDITION INCLUDING THE NATURAL FOREST GROUND COVER WITH THE EXCEPTION OF THE REMOVAL OF INVASIVE EXOTIC SPECIES SUCH AS JAPANESE HONEYSUCKLE AND BITTERSWEET OR POISON IVY AND OTHER NOXIOUS WEEDS NOT MENTIONED. THIS RESTRICTION SHALL RUN WITH THE LAND AND BE BINDING ON THE PRESENT AND ALL FUTURE OWNERS AND/OR LESSEES.
15. THE AREA BETWEEN THE ULTIMATE RIGHT-OF-WAY ALONG SCHOOL LANE AND WOODLAND ROAD AND THE TITLE LINE IS OFFERED FOR DEDICATION TO ABINGTON TOWNSHIP.
16. ALL NEW UTILITIES MUSH BE AS-BUILT SURVEYED BY THE CONTRACTOR. ALL AS-BUILT SURVEYS MUST BE PROVIDED DIGITALLY IN AUTOCAD FORMAT THE ARCHITECT AND ENGINEER OF RECORD FOR PUNCHLIST REVIEW. FINAL DIGITAL AUTOCAD VERSIONS OF ALL AS-BUILT PLANS SHALL BE PROVIDE TO PENN STATE UNIVERSITY PRIOR TO FINAL PAYMENT. PSU CONTACT FOR SENDING AUTOCAD DRAWING IS KAELEN ROBB, (kmr16@psu.edu) – GIS ANALYST, (814) 865-2792.
17. THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM OF THE TOWNSHIP OF ABINGTON, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLANS BY THE OWNERS OF THOSE LANDS ON WHICH THE STRUCTURES ARE LOCATED. THE TOWNSHIP OF SOLEBURY AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID STORMWATER MANAGEMENT FACILITIES IN ORDER TO DETERMINE THAT THE DESIGN INTEGRITY IS BEING MAINTAINED BY THE OWNER(S). A BLANKET EASEMENT FOR ACCESS TO THE FACILITIES IS HEREBY GRANTED TO ABINGTON TOWNSHIP.

LOCATION MAP

XX OO XX XX
SCALE IN FEET

SELECT A SCALE

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – JAMES D. McEWEN – LAND SURVEYOR SU036750E

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – ERIC S. CLASE – ENGINEER 55713-E

PENNSYLVANIA – CYNTHIA MARIE [illegible] – REGISTRATION NUMBER LA003364

PENNSYLVANIA – CHRISTOPHER E. [illegible] – REGISTRATION NUMBER LA002522

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
184 WEST MAIN STREET, SUITE 300, TRAPPE, PA 19426 • (610) 489-4949 • www.gilmore-assoc.com

OWNER/APPLICANT:

PENNSYLVANIA STATE UNIVERSITY
C/O ANDREW D. GUTBERLET, P.E., LEED AP – MANAGER OF ENGINEERING SERVICES
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

PROJECT LOCATION:

1600 WOODLAND ROAD
ABINGTON, PA 19001
ABINGTON TOWNSHIP,
MONTGOMERY COUNTY,
PENNSYLVANIA

TAX PARCEL:

30-00-09792-00-6

MUNICIPAL FILE No.:

LD-22-05

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4	SITE PLAN
5	EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL
6	EXISTING FEATURES PLAN – OVERALL
7	EXISTING FEATURES AND DEMOLITION PLAN
8	GRADING PLAN
9	GRADING DETAIL PLAN 1
10	GRADING DETAIL PLAN 2
11	EROSION & SEDIMENT CONTROL PLAN
12	EROSION & SEDIMENT CONTROL DETAILS & NOTES – 1
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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
2017-12006 PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING – JUNE 5, 2023

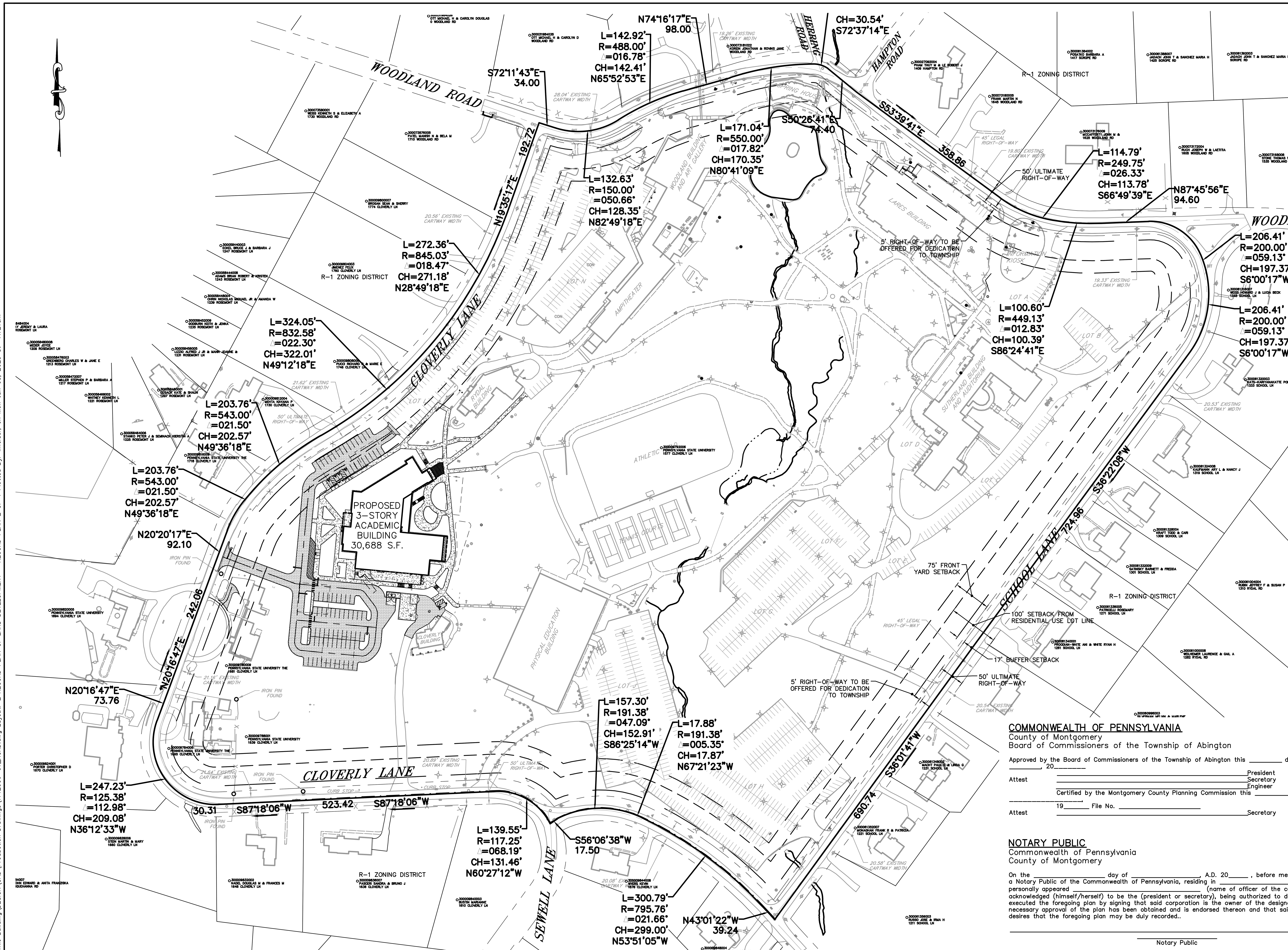
PLAN DATE: 06/06/22
LAST REVISED: June 5, 2023

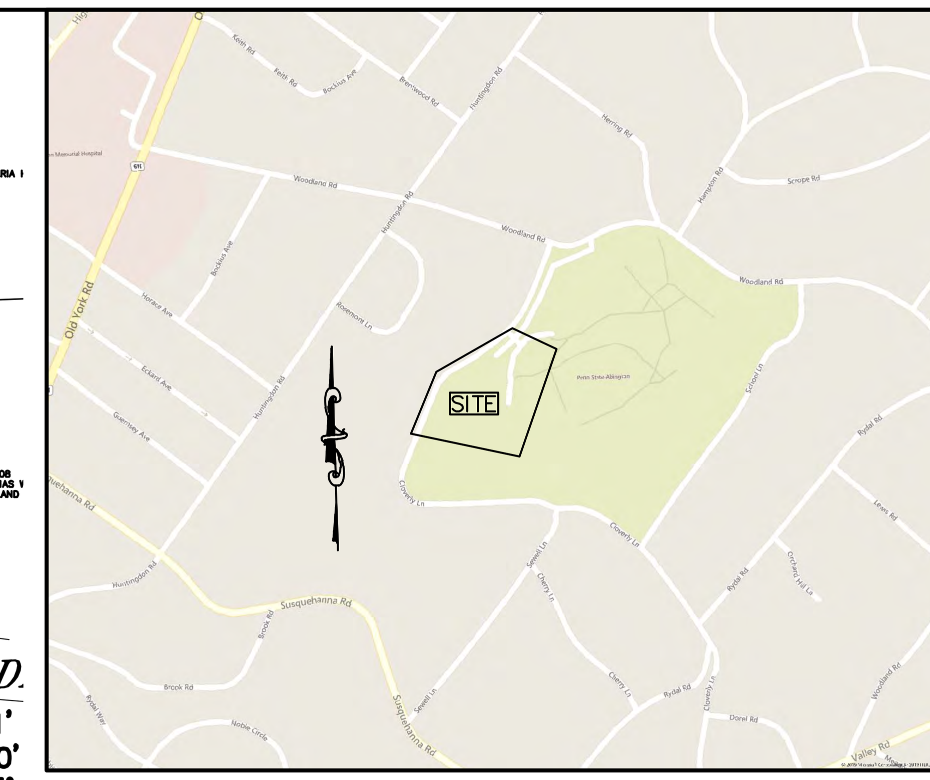
SHEET NO.: 1 OF 40

NOT TO BE RECORDED

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_COVER.dwg Layout: 1 COVER – RECORD PLAN 1 OF 4 Plotted By: whelder, on Tue Jun 06, 2023 at 11:58am

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_RCRD.dwg Layout: 2 RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN 2 OF 4 Plotted By: whelder, on Mon Jun 05, 2023 at 11:21am





LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED PAVEMENT

COMMONWEALTH OF PENNSYLVANIA

County of Montgomery
Board of Commissioners of the Township of Abington

Approved by the Board of Commissioners of the Township of Abington this ________ day of __________ ________, 20________

Attest ____________________ President
____________________ Secretary
____________________ Engineer

Certified by the Montgomery County Planning Commission this __________ day of __________________, 19________ File No. ________________

Attest ____________________ Secretary

NOTARY PUBLIC

Commonwealth of Pennsylvania
County of Montgomery

On the ________________ day of ________________, A.D. 20______ , before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in ________________________, personally appeared ________________________ (name of officer of the corporation), who acknowledged (himself/herself) to be the (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded..

____
Notary Public

____
My Commission Expires

COUNTY RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK________, PAGE____________ON THE __________________ DAY OF __________________, 20_______.

COUNTY RECORDER OF DEEDS

MCPC No. ____________________.

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date____________________.

____
For the Director

Montgomery County Planning Commission

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

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SCALE 1"=100'

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LUXEMBOURG CORPORATE CENTER
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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL ENGINEER – ERIC S. CLASE – 55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

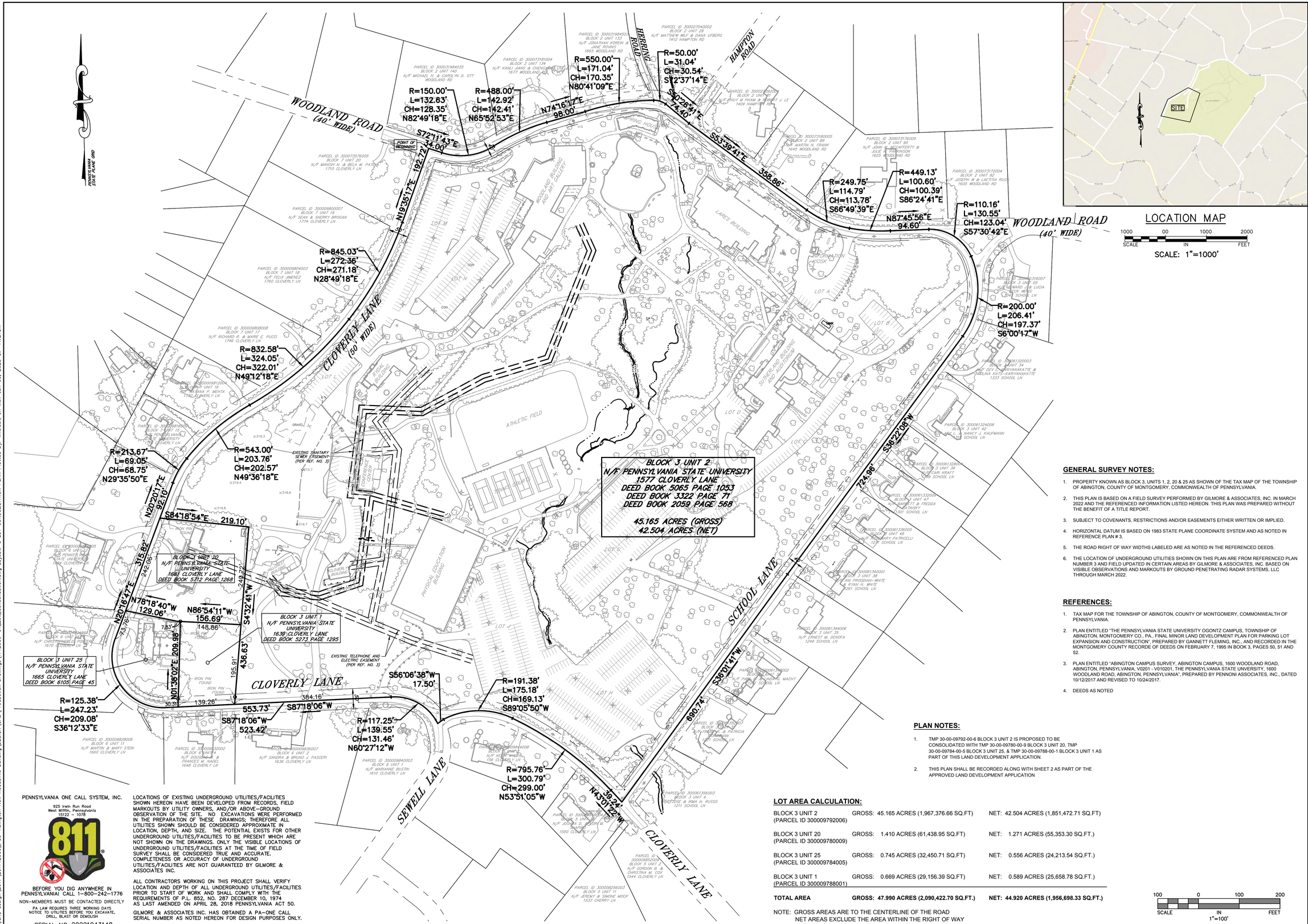
RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN 2 OF 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 2 OF 40	

NOT TO BE RECORDED

T:\land design\2017\2017106_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_Lot_Consolidation.dwg Layout: 3 LOT CONSOLIDATION PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:21am



LOCATION MAP

1000 00 1000 2000
SCALE IN FEET

SCALE: 1"=1000'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
CORPORATE HEADQUARTERS
65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES D. McEWEN
LAND SURVEYOR
SU038752R

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

LOT CONSOLIDATION PLAN
PENNSYLVANIA STATE UNIVERSITY
ABINGTON CAMPUS
BLOCK 3, UNITS 1, 2, 20 & 25
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GENERAL SURVEY NOTES:

1. PROPERTY KNOWN AS BLOCK 3, UNITS 1, 2, 20 & 25 AS SHOWN OF THE TAX MAP OF THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN MARCH 2022 AND THE REFERENCED INFORMATION LISTED HEREON. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
3. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
4. HORIZONTAL DATUM IS BASED ON 1983 STATE PLANE COORDINATE SYSTEM AND AS NOTED IN REFERENCE PLAN # 3.
5. THE ROAD RIGHT OF WAY WIDTHS LABELED ARE AS NOTED IN THE REFERENCED DEEDS.
6. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE FROM REFERENCED PLAN NUMBER 3 AND FIELD UPDATED IN CERTAIN AREAS BY GILMORE & ASSOCIATES, INC. BASED ON VISIBLE OBSERVATIONS AND MARKOUTS BY GROUND PENETRATING RADAR SYSTEMS, LLC THROUGH MARCH 2022.

REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA.
2. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS, TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA., FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., AND RECORDED IN THE MONTGOMERY COUNTY RECORDE OF DEEDS ON FEBRUARY 7, 1995 IN BOOK 3, PAGES 50, 51 AND 52.
3. PLAN ENTITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201 - V010201, THE PENNSYLVANIA STATE UNIVERSITY, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA", PREPARED BY PENNONI ASSOCIATES, INC., DATED 10/12/2017 AND REVISED TO 10/24/2017.
4. DEEDS AS NOTED

PLAN NOTES:

1. TMP 30-00-09792-00-6 BLOCK 3 UNIT 2 IS PROPOSED TO BE CONSOLIDATED WITH TMP 30-00-09780-00-9 BLOCK 3 UNIT 20, TMP 30-00-09784-00-5 BLOCK 3 UNIT 25, & TMP 30-00-09788-00-1 BLOCK 3 UNIT 1 AS PART OF THIS LAND DEVELOPMENT APPLICATION.
2. THIS PLAN SHALL BE RECORDED ALONG WITH SHEET 2 AS PART OF THE APPROVED LAND DEVELOPMENT APPLICATION

LOT AREA CALCULATION:

BLOCK 3 UNIT 2 (PARCEL ID 300009792006)	GROSS: 45.165 ACRES (1,967,376.66 SQ.FT)	NET: 42.504 ACRES (1,851,472.71 SQ.FT)
BLOCK 3 UNIT 20 (PARCEL ID 300009780009)	GROSS: 1.410 ACRES (61,438.95 SQ.FT)	NET: 1.271 ACRES (55,353.30 SQ.FT.)
BLOCK 3 UNIT 25 (PARCEL ID 300009784005)	GROSS: 0.745 ACRES (32,450.71 SQ.FT)	NET: 0.556 ACRES (24,213.54 SQ.FT.)
BLOCK 3 UNIT 1 (PARCEL ID 300009788001)	GROSS: 0.669 ACRES (29,156.39 SQ.FT)	NET: 0.589 ACRES (25,658.78 SQ.FT.)
TOTAL AREA	**GROSS: 47.990 ACRES (2,090,422.70 SQ.FT.)**	**NET: 44.920 ACRES (1,956,698.33 SQ.FT.)**

NOTE: GROSS AREAS ARE TO THE CENTERLINE OF THE ROAD
NET AREAS EXCLUDE THE AREA WITHIN THE RIGHT OF WAY

100 0 100 200
SCALE IN 1"=100' FEET

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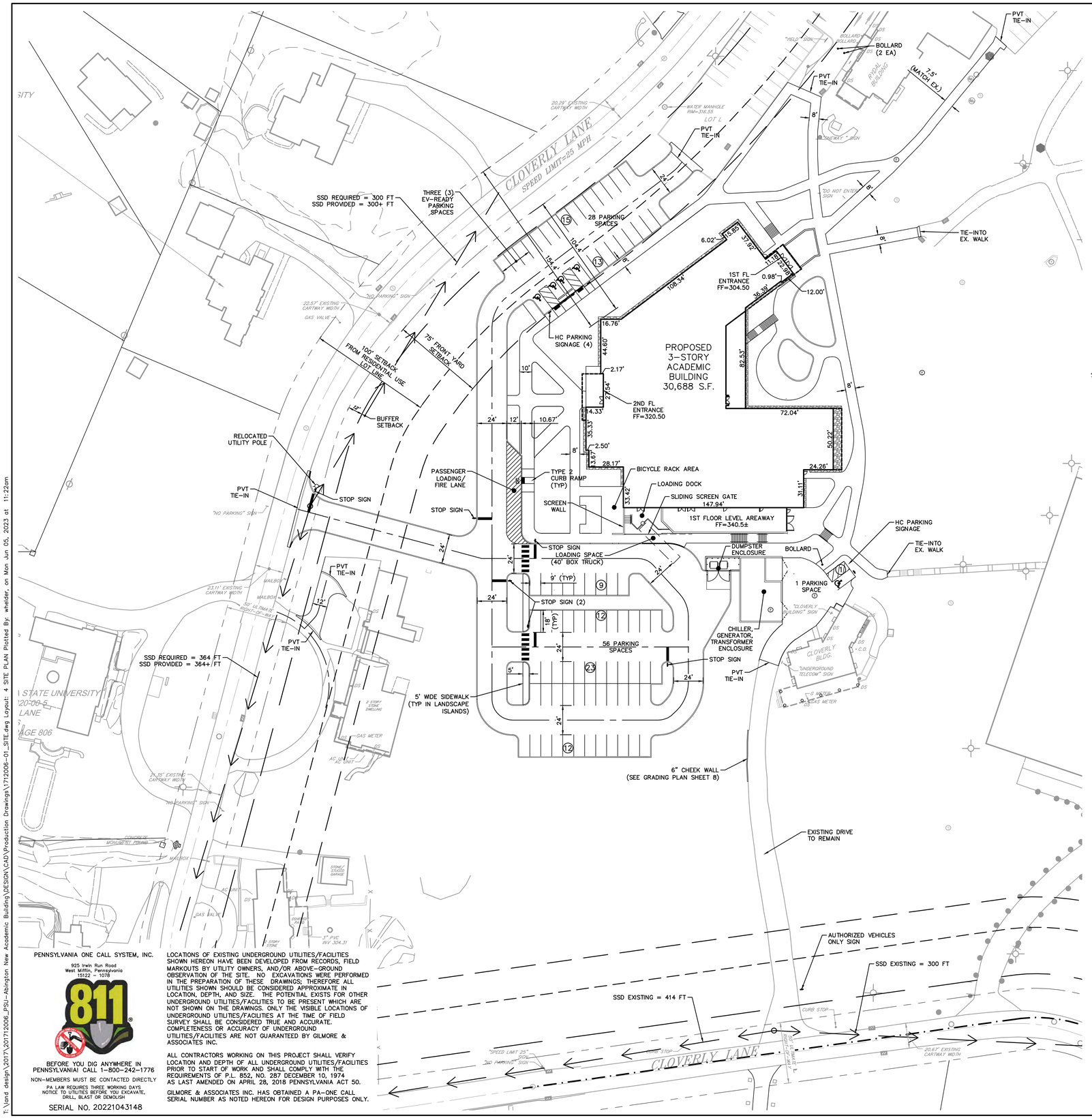
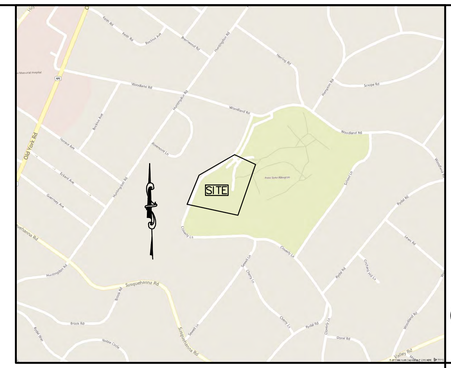
GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.:	1712006-01
TAX MAP PARCEL No.:	BLOCK 3, UNITS 1, 2, 20 & 25
TOTAL AREA: 47.990 AC.	TOTAL LOTS: 4
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: KRN	CHECKED BY: JDM

SHEET NO.:
3 OF 40





LOCATION MAP

SCALE: 1"=800'

PROJECT INFORMATION:

ZONING DISTRICT: CS – COMMUNITY SERVICE DISTRICT [1]

SITE USE: E-18 UNIVERSITY CAMPUS [1]

CS – COMMUNITY SERVICE DISTRICT DIMENSIONAL REQUIREMENTS

	REQUIRED	PROVIDED
LOT AREA (MIN)	5 AC.	44.574 AC.[2]
LOT WIDTH (MIN)	400 FT.	>400 FT.
LOT DEPTH (MIN)	400 FT.	>400 FT.
SETBACK FROM RESIDENTIAL USE(MIN FROM A RESIDENTIAL USE LOT LINE)	100 FT.	154.4 FT.
YARD SETBACK, FRONT,(MIN)	75 FT	104.4 FT
YARD SETBACK, SIDE,(MIN)	50 FT.	N/A FT.
YARD SETBACK, REAR,(MIN)	50 FT.	N/A FT.
BUILDING COVERAGE (MAX)	25%	8.4 %
IMPERVIOUS COVERAGE (MAX)	45%	40.2 %
GREEN AREA (MIN)	55%	61.2 %
BUILDING HEIGHT[3]	45 FT.[3]	47.83 FT.
BUILDINGS SEPARATION (MIN)	30 FT.	>30 FT
PARKING SPACES	1,222[4]	1,288[4]

[1] ZONING DESIGNATION, ZONING DIMENSIONAL REQUIREMENTS, AND INCORPORATION OF USE E-18 SHOWN ON THIS PLAN ARE BASED ON TEXT AND MAP AMENDMENTS ADOPTED BY THE ABINGTON TOWNSHIP BOARD OF COMMISSIONERS ON NOVEMBER 10, 2021 (ORDINANCE NO. 2186 AND ORDINANCE NO. 2187).

[2] LOT AREA TO BE UTILIZED FOR ZONING COMPUTATIONS AS SHOWN IN THIS PLAN IS BASED ON CONSOLIDATED LOT AREA MINUS AREA TO THE ULTIMATE RIGHT-OF-WAY LINE OF ALL STREETS.

[3] BUILDING HEIGHT MAY BE INCREASED TO 55 FEET SUBJECT TO THE EXCEPTION SET FORTH IN SECTION 2601.G, "HEIGHT EXCEPTIONS".

[4] PARKING COMPUTATIONS:

REQUIRED PARKING

1 SPACE PER CLASSROOM (88 CLASSROOMS): 1 SP * 88 =	88 SP
1 SPACE PER 2.5 STUDENTS (3600 STUDENTS): 3600/2.5 SP =	1440
1 SPACE PER 10 AUDITORIUM SEATS (510 SEATS): 510/10 =	51
1 SPACE PER 300 S.F. GROSS OFFICE FLOOR SPACE: [EX = 40,415 S.F.; NEW ACADEMIC OFFICE = 10,000 S.F.] 1 SP * 50,416 S.F./300 =	168 SP
TOTAL REQUIRED PARKING	1747 SP
PARKING SPACES REQUIRED WITH 30% REDUCTION [UNIVERSITY SHALL PROVIDE: REGULARLY SCHEDULED SHUTTLE SERVICE; RIDE-SHARE PROGRAM; AND CAR-SHARE/ BIKE-SHARE SERVICES]	1223 SP

PARKING PROVIDED

EXISTING OFF-CAMPUS SPACES	129 SP
EXISTING ONSITE SPACES	1118
SPACES REMOVED FOR PROJECT	[44]
PARKING SPACES ADDED FOR PROJECT (INCLUDING 4 ACCESSIBLE SPACES)	85 SP
TOTAL PARKING PROVIDED	1288 SP

IMPERVIOUS COVERAGE CALCULATIONS

EXISTING LOT AREA	= 1,836,428 S.F.
PROPOSED LOT AREA	= 1,941,654 S.F.
EXISTING BUILDING	= 140,537 S.F.
EXISTING PAVEMENT/CONCRETE	= 581,452 S.F.
TOTAL EXISTING IMPERVIOUS	= 721,989 S.F. (39.3%)
PROPOSED BUILDING	= 162,219 S.F.
PROPOSED PAVEMENT/CONCRETE	= 617,741 S.F.
TOTAL PROPOSED IMPERVIOUS	= 779,960 S.F. (40.2%)

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED CONCRETE
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED LANDSCAPE STRIP
- PROPOSED SIGN

EXISTING UTILITY LEGEND

- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET

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811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

SCALE: 1"=40'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, Mmontgomery COUNTY, PENNSYLVANIA

SITE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

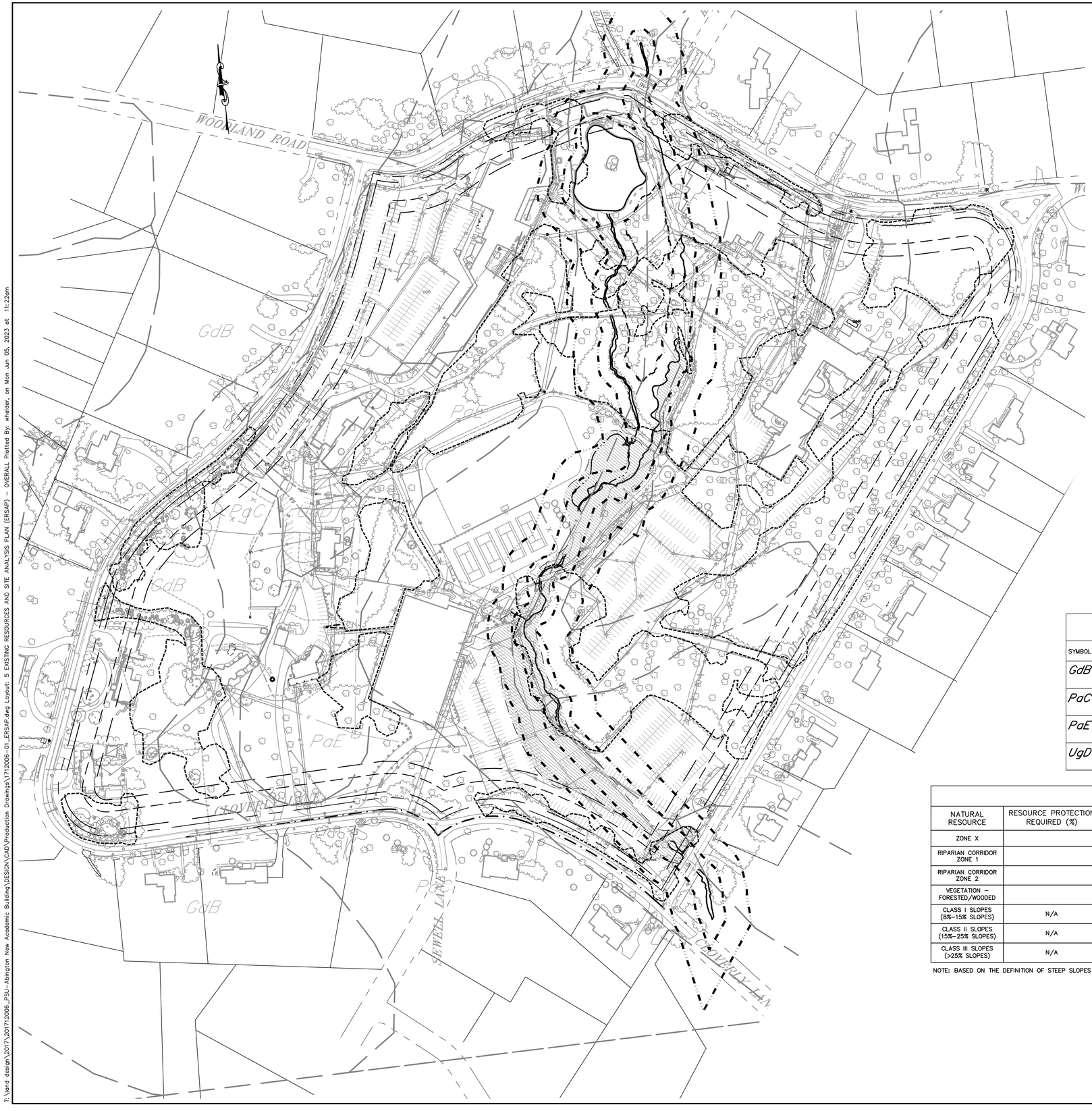
SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

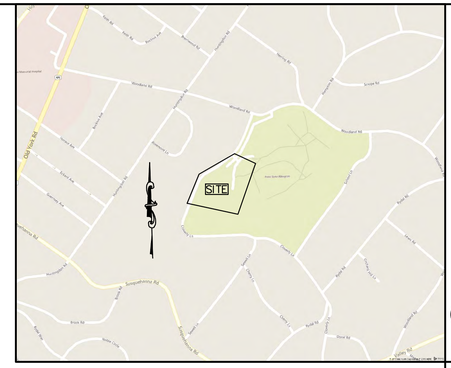
SHEET NO.: 4 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_SITE.dwg Layout: 4 SITE PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:22am



PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

NATURAL RESOURCE CALCULATIONS

NATURAL RESOURCE	RESOURCE PROTECTION REQUIRED (%)	TOTAL AREA OF RESOURCE (S.F.)	AREA DISTURBED (CURRENT PROJECT)	DISTURBED % (CURRENT PROJECT)	AREA PRESERVED (CURRENT PROJECT)	PRESERVED % (CURRENT PROJECT)
ZONE X		89,123	0	0.0%	89,123	100.0%
RIPARIAN CORRIDOR ZONE 1		78,266	0	0.0%	78,266	100.0%
RIPARIAN CORRIDOR ZONE 2		134,617	0	0.0%	134,617	100.0%
VEGETATION – FORESTED/WOODED		740,549	43,531	5.9%	697,018	94.1%
CLASS I SLOPES (8%–15% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS II SLOPES (15%–25% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS III SLOPES (>25% SLOPES)	N/A	0	0	0.0%	0	0.0%

NOTE: BASED ON THE DEFINITION OF STEEP SLOPES FROM THE TOWNSHIP OF ABINGTON ZONING ORDINANCE, STEEP SLOPES ARE NOT PRESENT ON THE PROJECT SITE

100 0 100 200
SCALE IN FEET
1"=100'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
3		06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS FOR

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) — OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: 1"=100'

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 5 OF 40

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17120006-01_ERSAP.dwg Layout: 5 EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL Plotted By: whelder, on Mon Jun 05, 2023 at 11:22am

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_AERIAL.dwg Layout: 6 EXISTING FEATURES PLAN - OVERALL Plotted By: whelder, on Mon Jun 05, 2023 at 11:23am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

100 0 100 200
SCALE IN FEET 1"=100'

NOT TO BE RECORDED

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ERIC S. CLASE — 55713-E

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES PLAN - OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

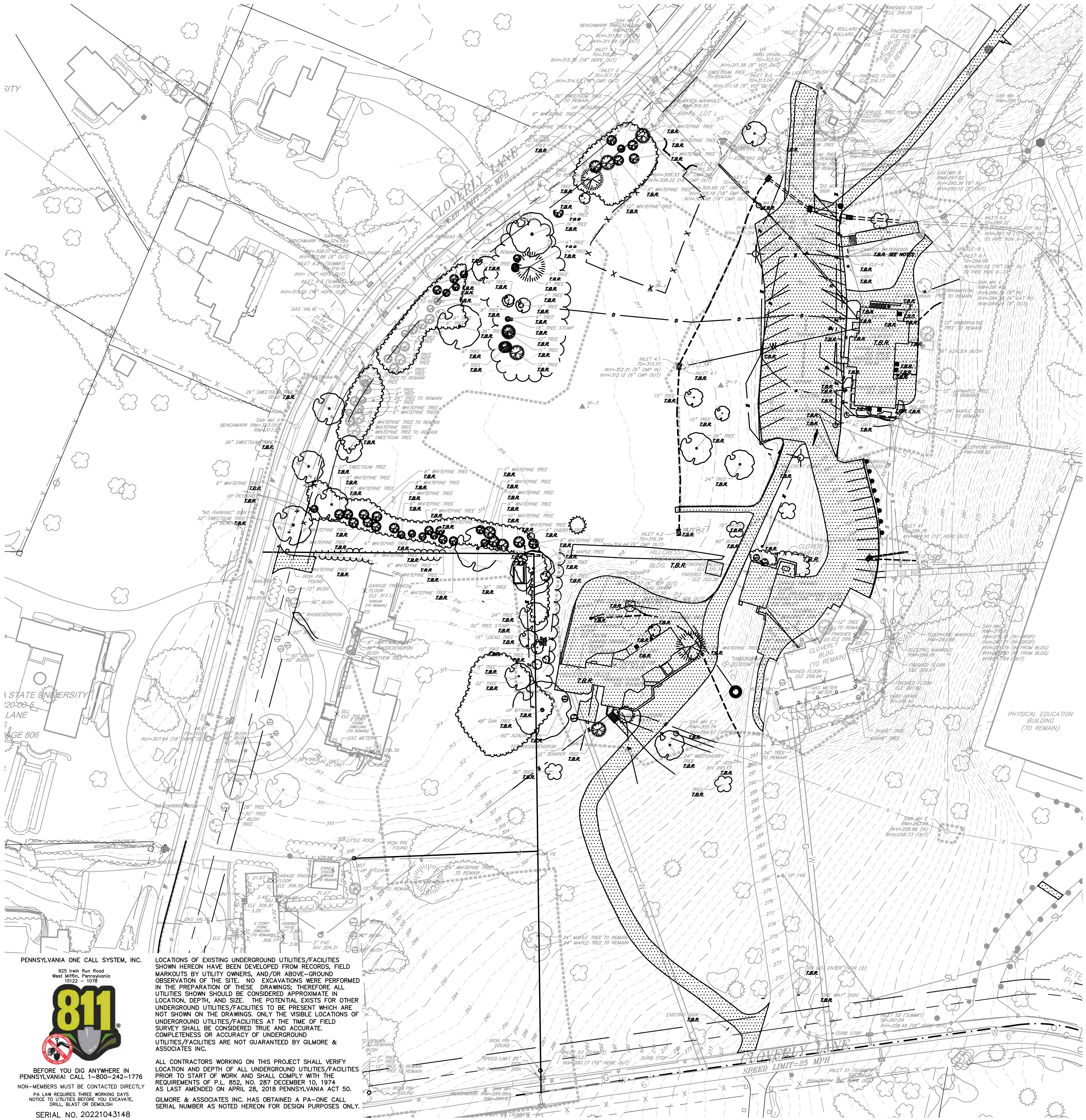
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 6 OF 40

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_EXC.dwg Layout: 7 EXISTING FEATURES AND DEMOLITION PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:23am



PENNSYLVANIA ONE CALL SYSTEM, INC.

925 Irwin Run Road
West Mifflin, Pennsylvania
15122 – 1078

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SERIAL NO. 20221043148

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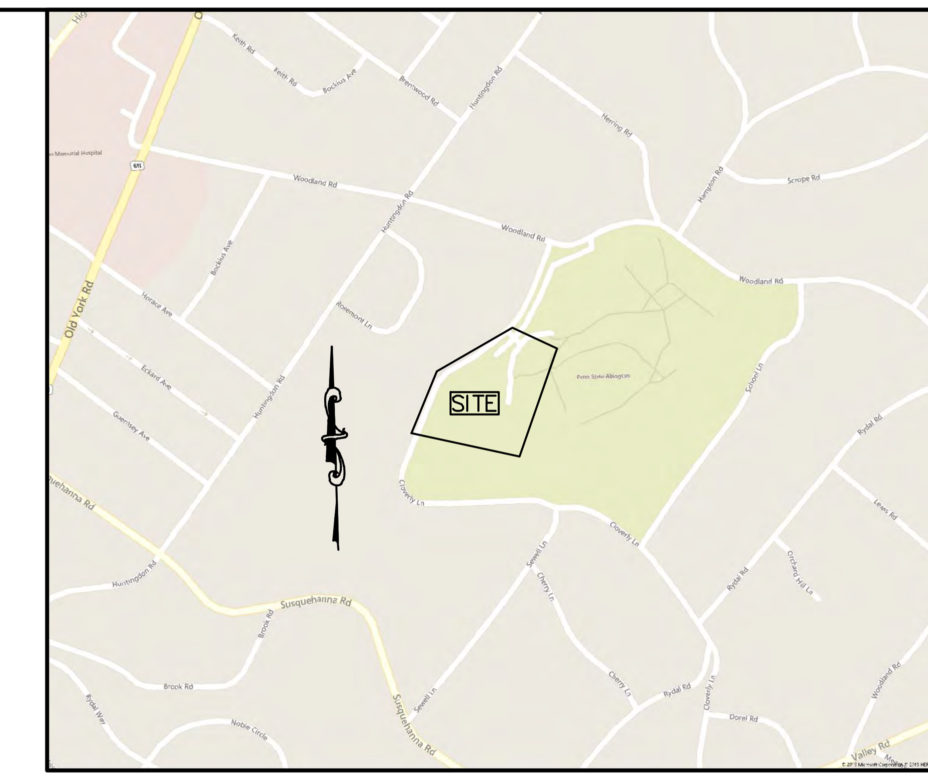
GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

REFERENCE PLANS:

1. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING, INC., DATED APRIL 18, 1984, SHEETS 1, 6 & 7 OF 12. RECORDED IN PLAN BOOK L-3 PAGE 50.
2. TOPOGRAPHIC AND PLANIMETRIC INFORMATION TAKEN FROM AN AUTOCAD PLAN PREPARED BY QUANTUM SPATIAL, "ABINGTON SITE".

GENERAL NOTES:

1. SURVEY INFORMATION PROVIDED ON THIS PLAN IS BASED ON THE FOLLOWING:
   - 1.A. A BOUNDARY AND PARTIAL SITE SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN DECEMBER 2019 AND MARCH 2022.
   - 1.B. TOPOGRAPHY AND EXISTING ABOVE-GROUND FEATURES FROM A PLAN TITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS - 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V0201-V0201" PREPARED FOR THE PENNSYLVANIA STATE UNIVERSITY BY PENNONI ASSOCIATES, INC. AND DATED 10/12-2017.
   - 1.C. EXISTING UTILITIES INFORMATION FROM A CAD FILE PROVIDED BY PENNSYLVANIA STATE UNIVERSITY ON 5/22/2019 NAMED "ABINGTON UTILITIES 031717.DWG". (NOTE: UTILITY INFORMATION VERIFIED THROUGH THE G&A PARTIAL SITE SURVEY SUPERSEDES INFORMATION PROVIDED BY THIS FILE)
2. DEVIATIONS FROM REFERENCED INFORMATION PROVIDED BY OTHERS INCLUDE THE FOLLOWING:
   - 2.A. CAD FILES USED TO CREATE THE PLAN REFERENCED IN 1A ABOVE WERE PROVIDED BY PENNONI ASSOCIATES, INC. THE TOPOGRAPHY FROM THIS FILE WAS RAISED 0.43' TO MEET THE VERTICAL DATUM FROM THE 2019 G&A SURVEY.
3. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. OTHER RIGHTS TO PROPERTY MAY EXIST.
4. ADJACENT PARCEL LINES WERE OBTAINED FROM COUNTY GIS MAPPING FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA. PARCEL LINES ARE APPROXIMATE AND ARE NOT ADJUSTED TO PHYSICAL EVIDENCE FOUND.
5. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
6. VERTICAL DATUM NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA TATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.



LOCATION MAP

800 00 800 1600
SCALE IN FEET
SCALE: 1"=800'

DEMOLITION PLAN NOTES

1. REMOVE ALL EXISTING CAMPUS WAYFINDING SIGNAGE WITHIN THE PROJECT AREA AND STORE FOR REUSE ONSITE AS DIRECTED BY THE ABINGTON CAMPUS DIRECTOR OF BUSINESS OPERATIONS.
2. ALL TREES WITH A 10-INCH CALIPER OR GREATER ON THE SUBJECT PROPERTIES ARE TO REMAIN UNLESS LABELED AS TO BE REMOVED (T.B.R.).

G&A LEGEND	
	RIGHT-OF-WAY LINE
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	SOIL BOUNDARY
	EXISTING ROAD CENTERLINE
	EXISTING PAVEMENT EDGE
	EXISTING CURB
X	EXISTING FENCE
W	EXISTING WATER LINE
E	EXISTING ELECTRIC LINE
G	EXISTING GAS LINE
T	EXISTING TELEPHONE LINE
S	EXISTING SAN. SEWER LINE
	ZONING BOUNDARY
	LIMIT OF 2019/2022 G&A SURVEY
	EXISTING UTILITY POLE
	EXISTING LIGHT FIXTURE
	EXISTING SIGN
	EXISTING BOLLARD
	EXISTING ELECTRIC METER
	EXISTING WATER VALVE
	EXISTING STORM INLET
	EXISTING CONCRETE MONUMENT/IRON PIN
	PIPE TO BE REMOVED
	TREES TO BE REMOVED
	BUILDINGS & PAVEMENT TO BE REMOVED

EXISTING UTILITY LEGEND	
ST	EXISTING STORM SEWER LINE
G	EXISTING GAS LINE
E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
SAN	EXISTING SAN. SEWER LINE
T	TELEPHONE LINE
SL	EXISTING SIGHT LIGHTING
	EXISTING UTILITY POLE
	EXISTING LIGHT FIXTURE
	EXISTING SIGN
	EXISTING BOLLARD
	EXISTING STORM INLET
	EXISTING PLANT MASS
	EXISTING TREES

40 0 40 80
SCALE IN FEET
1"=40'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

Eric S. Clase

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1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

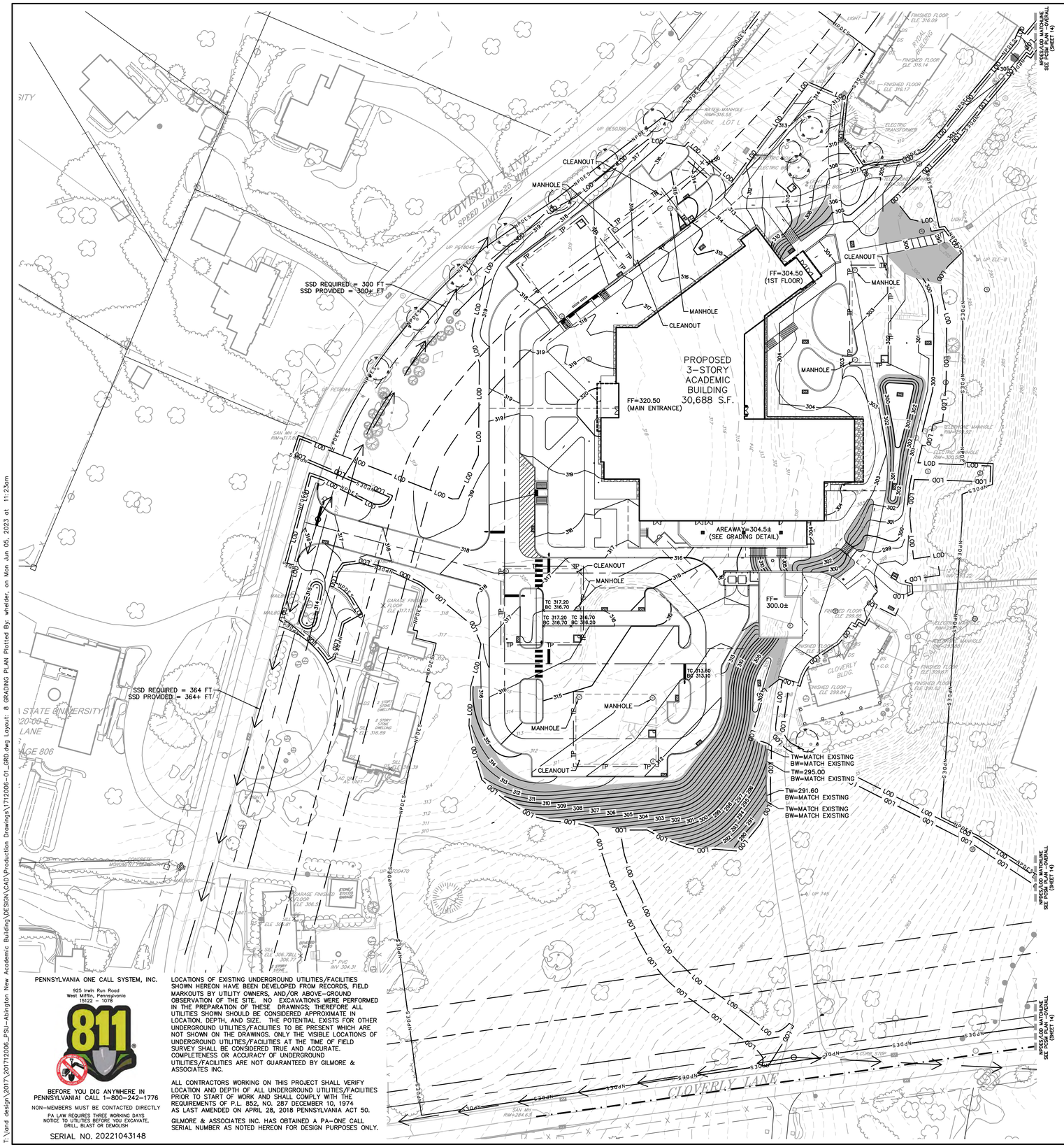
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

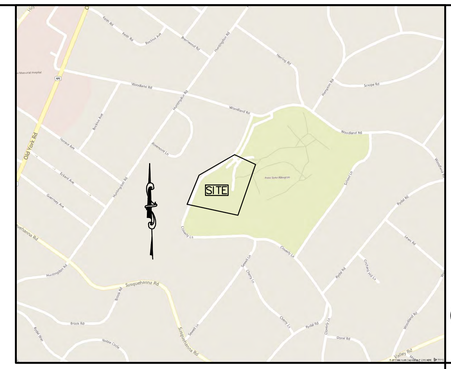
EXISTING FEATURES AND DEMOLITION PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 7 OF 40	

NOT TO BE RECORDED





LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
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- EXISTING ELECTRIC LINE
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- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK – SIZE
- TP TREE PROTECTION
- STEEP SLOPES (15% OR GREATER)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

GENERAL NOTES:

1. ABINGTON TOWNSHIP SEWER DATUM BENCHMARK HAS BEEN OBTAINED FROM A PLAN ENTITLED "ABINGTON TOWNSHIP, MONTGOMERY COUNTY, A - SANITARY SEWER PROJECT, CLOVERLY LANE STA 12+00 TO STA 23+66. THIS DATUM DIFFERS FROM THE FIELD SURVEY BY BEING 5.25± FEET LOWER. ELEVATIONS SHOWN ON THIS PLAN SHOULD BE ADJUSTED TO CONFORM TO THIS DATUM.

REFER TO GRADING DETAIL PLANS, PCSM PLAN, EROSION CONTROL PLAN AND PLAN DETAILS FOR ADDITIONAL INFORMATION ON WORK REQUIRED FOR SITE GRADING OPERATIONS.

40 0 40 80
SCALE IN FEET
1"=40'

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925 Irwin Run Road
West Mifflin, Pennsylvania
15122 – 1076

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
3	75% CD SUBMISSION	06/05/22	JM
2	50% CD SUBMISSION	09/09/22	DAW
1		07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

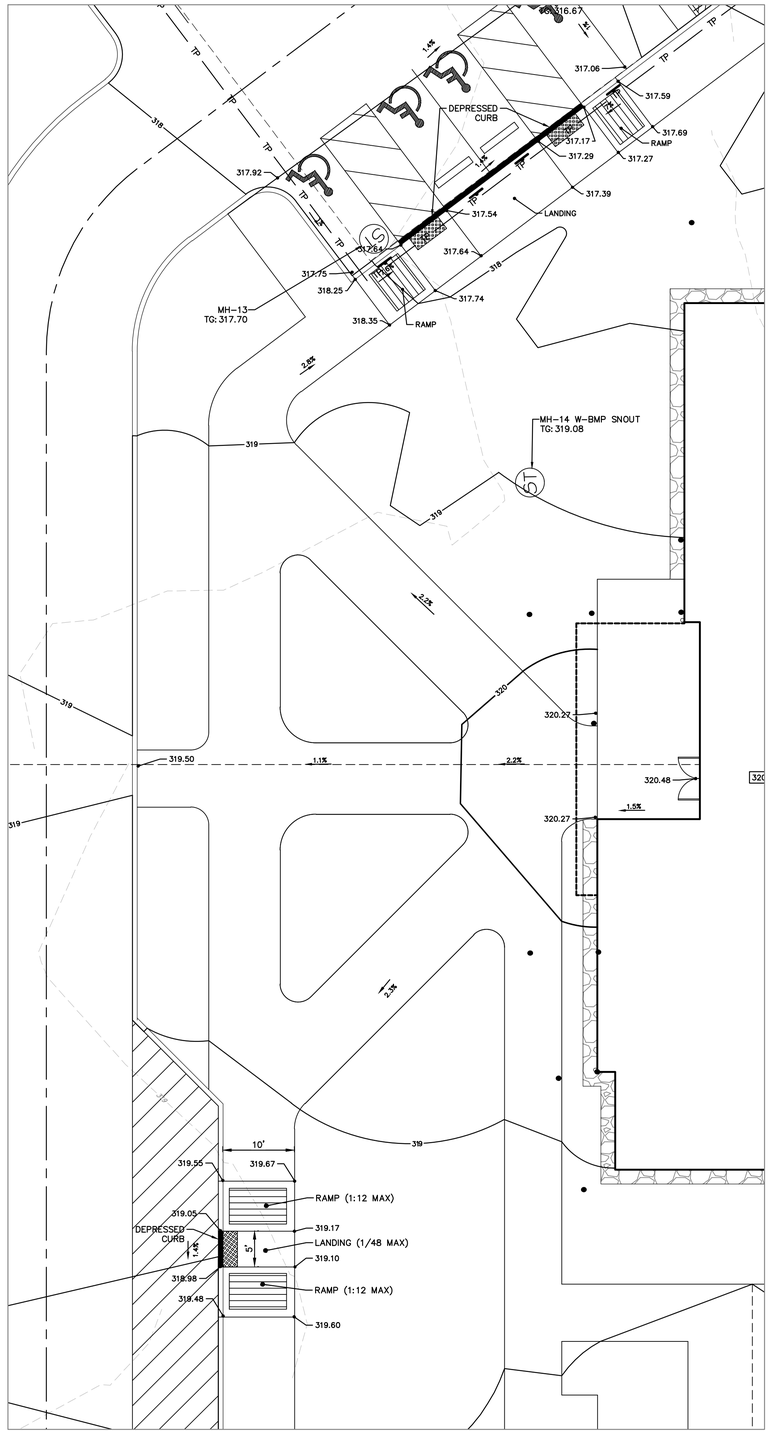
SCALE: 1"=40'

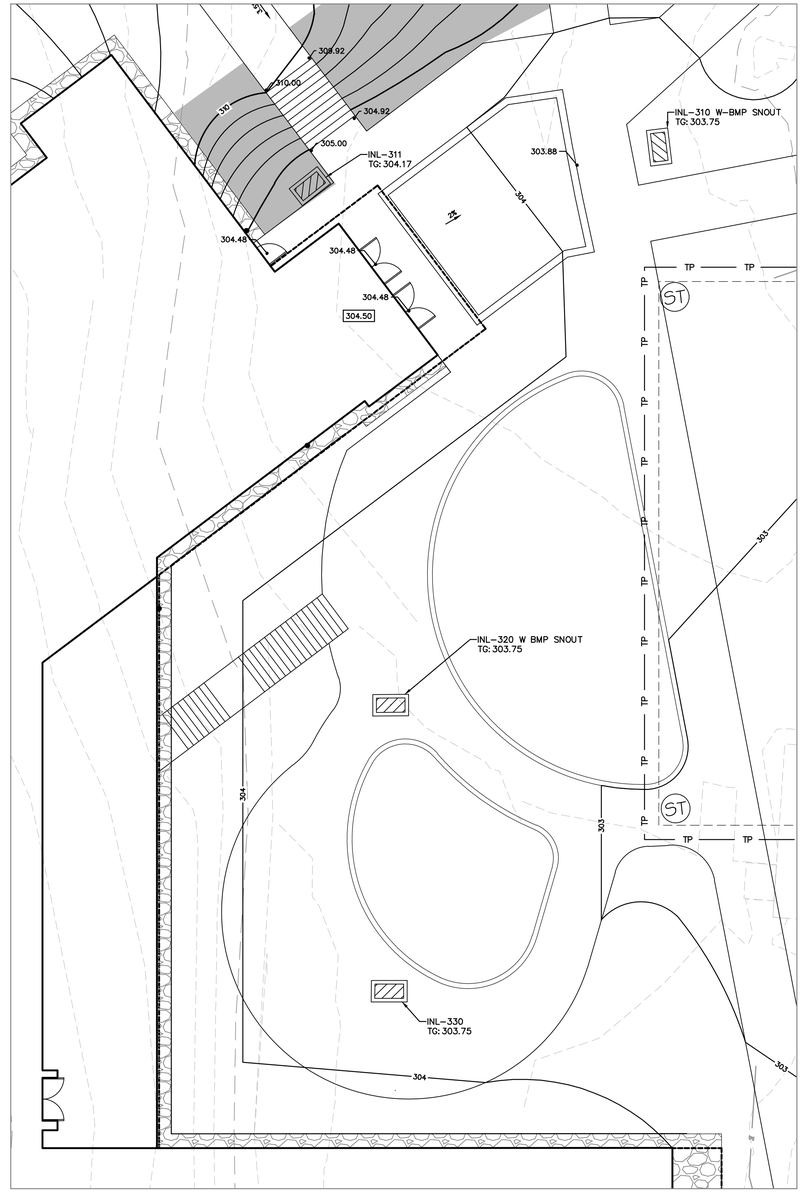
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 8 OF 40

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 8 GRADING PLAN Plotted By: whelder on Mon Jun 05, 2023 at 11:23am





G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- EXISTING TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN FEET
1"=10'

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
3			
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MmontgomeryCOUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.:
2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

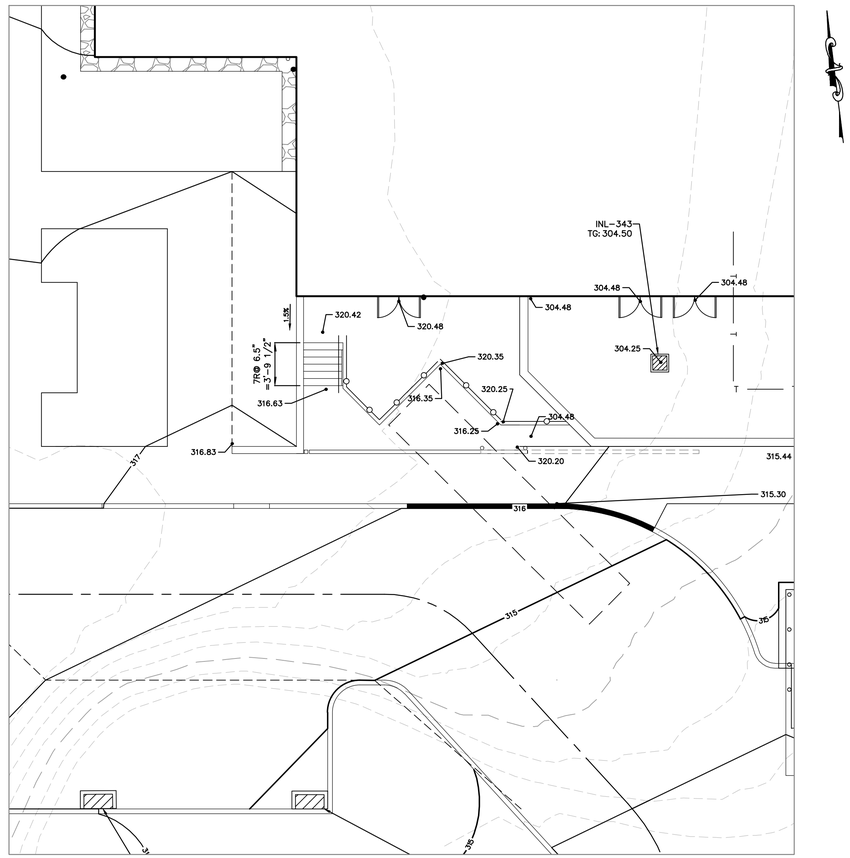
MUNICIPAL FILE No.:
LD-22-05

TAX MAP PARCEL No.:
30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=10'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.:
9 OF 40

T:\land design\2017\2017120\2006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_GRD.dwg Layout: 9 GRADING DETAIL PLAN 1 Plotted By: wheider, on Mon Jun 05, 2023 at 11:24am



G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — G — EXISTING GAS LINE
- T — T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

10 0 10 20
SCALE IN 1"=10' FEET

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2	75% CD SUBMISSION	09/09/22	DAW
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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=10'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 10 OF 40

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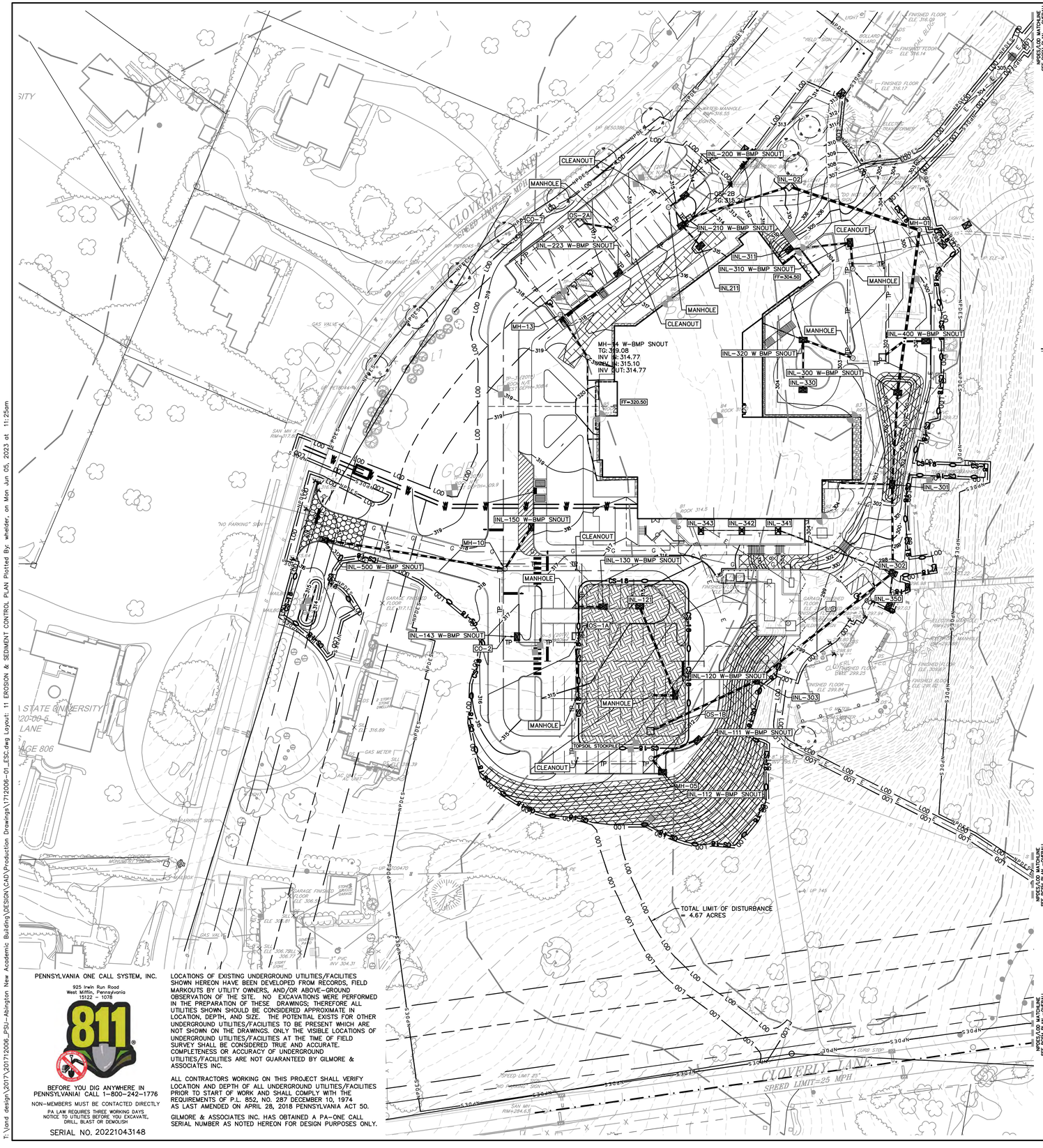

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SERIAL NO. 20221043148

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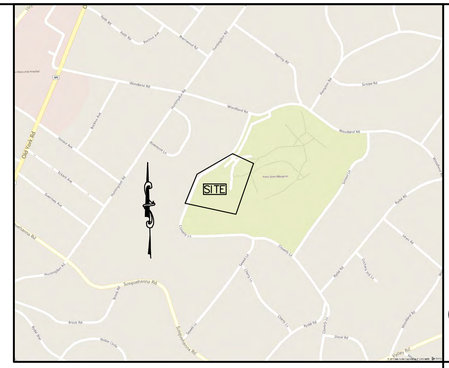
E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.



LOCATION MAP

SCALE: 1"=800'

LEGEND

EXISTING		PROPOSED
250	2FT CONTOURS	1220
	TREE LINE	
	100YR FLOODPLAIN	
	DELINEATED WETLANDS	
CbA	SOIL TYPE BOUNDARY & LABEL	
	UTILITY POLE	
	TRAFFIC SIGN	
G G	GAS LINES	G G
	ELECTRIC, TELEPHONE, CABLE	ECT ECT
S S	SANITARY SEWER MAIN	S S
S S	SANITARY LATERAL/CLEANOUT	SL CO SL
W	WATER MAIN/SIZE	8W 8W
	WATER LATERAL/CURB STOP	WL CS WL
	STORM SEWER/INLET	
	ROOF DRAIN COLLECTOR	RL RL RL
	ENERGY DISSIPATOR	
	ROCK CONSTRUCTION ENTRANCE	RCE
	EROSION CONTROL MATS: NAG SC-150	
	COMPOST SOCK w/ SIZE	CS-18
	RESOURCE PROTECTION FENCE	TP TP
	LIMIT OF DISTURBANCE:	
	PROJECT SITE BOUNDARY	NPDES
	INLET PROTECTION	
	TEST PIT	
	BORING	

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	60"-118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	60"-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.67 ACRES

SCALE: 1"=40'

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ENGINEER
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REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 11 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC.dwg Layout: 11 EROSION & SEDIMENT CONTROL PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:25am

EROSION & SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, STABILIZED AND FUNCTIONAL PRIOR TO EARTH DISTURBANCE WITHIN THE TRIBUTARY AREA TO SAID E&S MEASURE.
2. LOCAL ROADS ARE TO REMAIN FREE OF SEDIMENT AND CONSTRUCTION VEHICLES AND EQUIPMENT.
3. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION AS PER SEEDING AND MULCHING SCHEDULE.
4. SILT FENCING MAY BE REMOVED WHEN THE SITE IS PERMANENTLY STABILIZED. ACCUMULATED SEDIMENT MAY BE SPREAD AT THE SITE IN AREAS NOT SUBJECT TO EROSION.
5. THE TREE PROTECTION FENCING SHALL NOT BE REMOVED UNTIL ALL DEVELOPMENT AREAS ARE STABILIZED AND WRITTEN CONFIRMATION IS RECEIVED FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
7. DISTURBED AREAS THAT AREA AT A FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
8. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE 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.
9. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE CONTRACTOR SHALL RECEIVE APPROVAL OF THE REVISIONS FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
10. THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, 'EROSION CONTROL RULES AND REGULATIONS,' TITLE 25, PART 1, DEPT. OF ENVIRONMENTAL PROTECTION, SUBPART C-PROTECTION OF NATURAL RESOURCES, ARTICLE III-WATER RESOURCES, CHAPTER 102-EROSION CONTROL AND WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" BY THE COMMONWEALTH OF PA., DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2000 OR LATEST EDITION.
11. TECHNICAL ADVICE FOR THE IMPLEMENTATION OF THIS PROGRAM MAY BE OBTAINED BY CONTACTING THE MONTGOMERY COUNTY CONSERVATION DISTRICT AT (610)489-4506.
12. COPIES OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION.
13. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.

A. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE FOR ALL IMPORTED MATERIAL IN DETERMINING THAT FILL IS CLEAN.

B. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

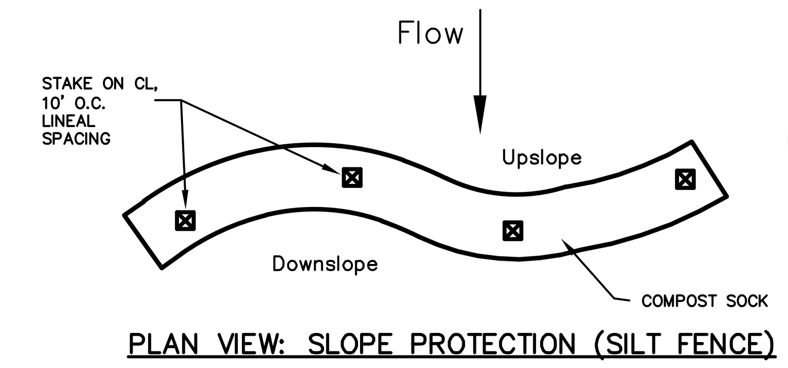
14. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
15. NO CHANGE SHALL BE MADE TO THE CONTOUR OF THE AND NOR SHALL GRADING, EXCAVATING, REMOVAL, OR DESTRUCTION OF THE TOPSOIL, TREES, OR OTHER VEGETATIVE COVER OF THE LAND CAN BE COMMENCED UNTIL SUCH A TIME THAT A GRADING PERMIT IS APPLIED FOR AND APPROVED.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

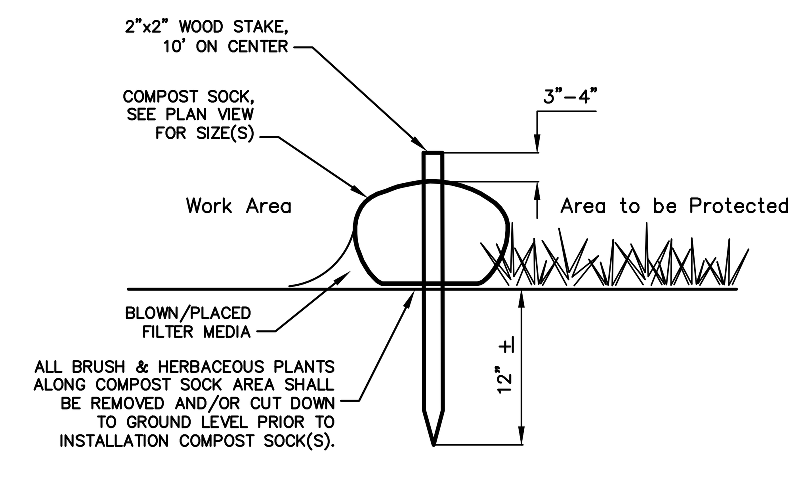
1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
    - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
    - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
    - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
    - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

NOTES ON TEMPORARY CONTROL MEASURES:

1. EXISTING TREES AND OTHER EXISTING VEGETATION WILL BE DISRUPTED AS LITTLE AS POSSIBLE.
2. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY HAS CEASED, ALL AREAS SHALL BE STABILIZED. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE STABILIZED WITH TEMPORARY VEGETATION. AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL RECEIVE PERMANENT STABILIZATION. (SEE SEEDING AND MULCHING TABLE FOR DETAILS)
3. ALL TOPSOIL FROM THE OVERALL SITE PREPARATIONS WILL BE STOCKPILED AND REDISTRIBUTED UNIFORMLY AT THE TIME OF FINAL GRADING. ALL STOCKPILES SHALL HAVE PERIMETER SILT FENCE INSTALLED AND BE SEEDED AND MULCHED IMMEDIATELY. STOCKPILE(S) SHALL HAVE A SIDE SLOPE OF 2:1 OR FLATTER AND SHALL HAVE A HEIGHT NOT GREATER THAN 35 FEET. SEE PLAN FOR LOCATION OF TOPSOIL STOCKPILES.
4. GRADE ALL CUT AND FILL SLOPES TO 3 FOOT HORIZONTAL FOR EVERY 1 FOOT VERTICAL OR FLATTER, AND APPLY SEEDING AND MULCH. AREAS WITH GRADES GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEED MIX AND PERMANENT TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #C350 OR EQUAL
5. RIP-RAP WILL BE APPLIED TO ALL AREAS WHERE HEAVY CONCENTRATIONS OF DRAINAGE ARE PREVALENT (GREATER THAN 3.5 cfs). THIS WOULD BE AT CULVERT OUTLETS, WHERE WATER IS IN TRANSITION FROM AN OPEN CHANNEL INTO A CULVERT, OR AS SPECIFIED.
6. SIGNIFICANT STANDS OF TREES, DESIGNATED TO REMAIN, WILL BE PROTECTED WITH FENCING, SEE DETAIL. INSTALL ALONG THE DRIP LINE OF THE TREE BRANCHES.
7. EROSION CONTROL FACILITIES MUST DISCHARGE INTO ADEQUATE STORM SEWERS, NATURAL WATERWAYS, OR STABLE EROSION RESISTANT AREAS.
8. CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS OF DELIVERY VEHICLES. NO WASH WATER FROM THESE VEHICLES SHALL BE ALLOWED TO ENTER ANY SURFACE WATERS. WASHOUT FACILITIES SHALL NOT BE LOCATED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES INFILTRATION FACILITIES OR SURFACE WATERS.
9. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAY MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
10. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE/PROPERTY WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF BUCKS COUNTY CONSERVATION DISTRICT. ANY INLETS WHICH DO NOT DIRECT FLOW TO A SEDIMENT BASIN MUST BE PROTECTED WITH INLET PROTECTION.
11. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A FILTER BAG, DISCHARGING OVER UNDISTURBED AREAS.
12. ABSOLUTELY NO EARTHMOVING, PLACEMENT OF FILL MATERIAL OR THE ENTRY OF SEDIMENT LADEN WATER MUST TAKE PLACE IN WETLANDS. ALL WETLANDS SHALL BE PROTECTED FROM ENCROACHMENT WITH FENCING.
13. ROCK FILTER OUTLETS MUST BE PROVIDED IMMEDIATELY WHERE SILT FENCING HAS BEEN UNDERMINED OR OVERTOPPED.
14. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE BUCKS COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE, GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
15. IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
16. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. IMMEDIATELY STABILIZE REPLACED SOILS WITH SEED & MULCH OR DEPOSIT IN SOIL STOCKPILES AND STABILIZE.
17. THE CONTRACTOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.



PLAN VIEW: SLOPE PROTECTION (SILT FENCE)



SECTION VIEW: COMPOST SOCK INSTALLATION

NOTES:

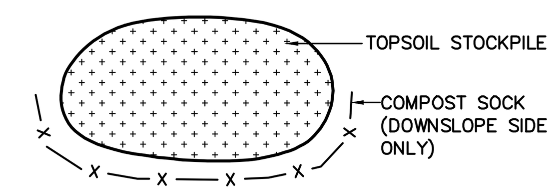
1. COMPOST SOCK SHALL BE "SILTSOXX" AS SUPPLIED BY MCS INC. (1971 N. BLACK HORSE PIKE, WILLIAMSTOWN, NJ 08094, 856-629-1044, www.mcsnjinc.com) OR EQUAL PRODUCT BY OTHER MANUFACTURER.
2. FOR INSTALLATIONS ON EXISTING PAVEMENT, CINDER BLOCKS ON DOWNSTREAM SIDE MAY BE USED IN LIEU OF WOOD STAKES TO ANCHOR THE SOCKS.
3. UPON COMPLETION OF THE PROJECT, COMPOST MATERIAL SHALL BE MIXED WITH ONSITE SOIL/TOPSOIL AND SPREAD ON THE SITE AS DETAILED IN SEEDING AND MULCHING SCHEDULE.
4. SOCK FABRIC SHALL BE 5mil PHOTO-DEGRADABLE, HDPE FOR INSTALLATIONS LESS THAN 9 MONTHS. FOR PROJECTS WITH LONGER DURATIONS, SOCKS SHALL BE MULTI-FILAMENT POLYPROPYLENE FABRIC.
5. INFILL MATERIAL SHALL BE WEED FREE COMPOST DERIVED FROM WELL-DECOMPOSED ORGANIC MATTER. COMPOST SHALL BE PRODUCED USING AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS. COMPOST MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

ORGANIC MATTER CONTENT	25% - 100%
ORGANIC PORTION	FIBROUS & ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30-50% PASS 3/8" SIEVE
SOLUBLE SALT	5.0 dS/m MAXIMUM

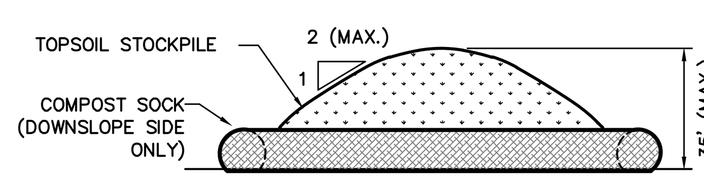
6. COMPOST SOCKS SHALL BE PLACED AT LEVEL GRADE AND BOTH ENDS EXTENDED 8' MIN. UP SLOPE AT 45° ANGLE.
7. ACCUMULATED SEDIMENT SHALL BE REMOVED WHENIT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED OF IN APPROVED UPLAND AREA.

COMPOST SOCK "SILT FENCE" DETAIL

NOT TO SCALE



PLAN VIEW

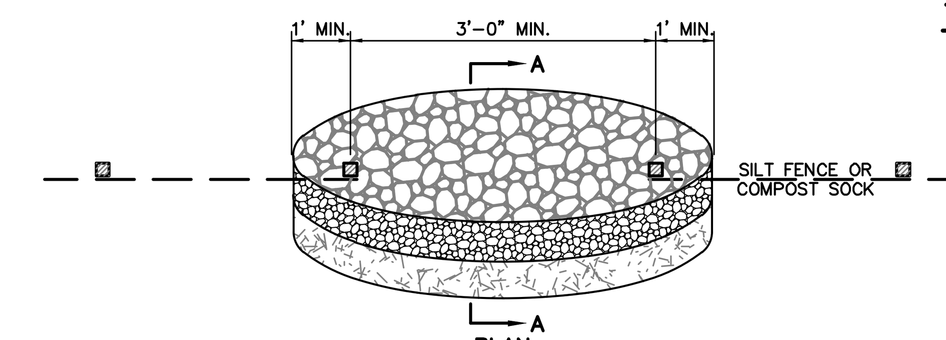


PROFILE

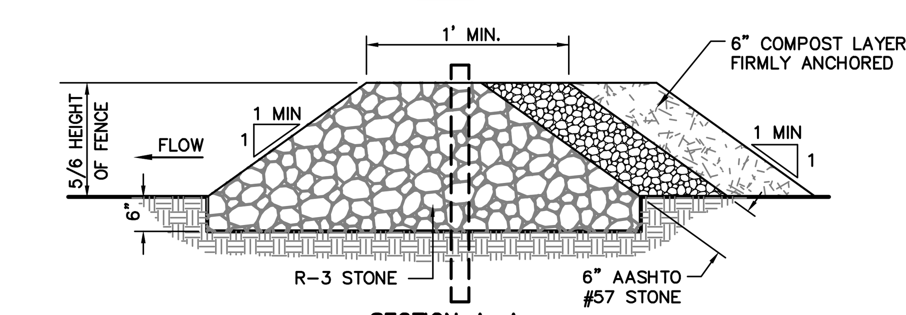
SEDIMENT BARRIER MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING & MULCH TO ALL STOCKPILES.

TOPSOIL STOCKPILE AREA DETAIL

NOT TO SCALE



PLAN



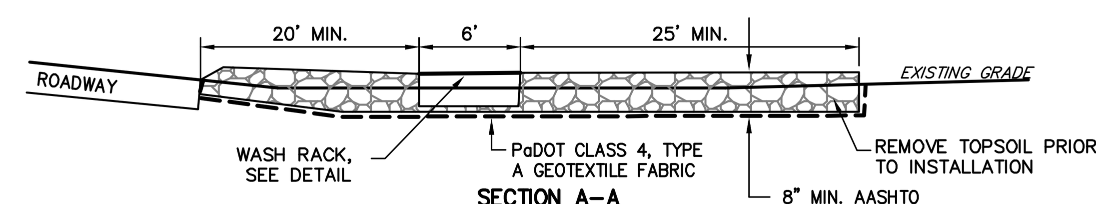
SECTION A-A

ROCK FILTER OUTLET DETAIL

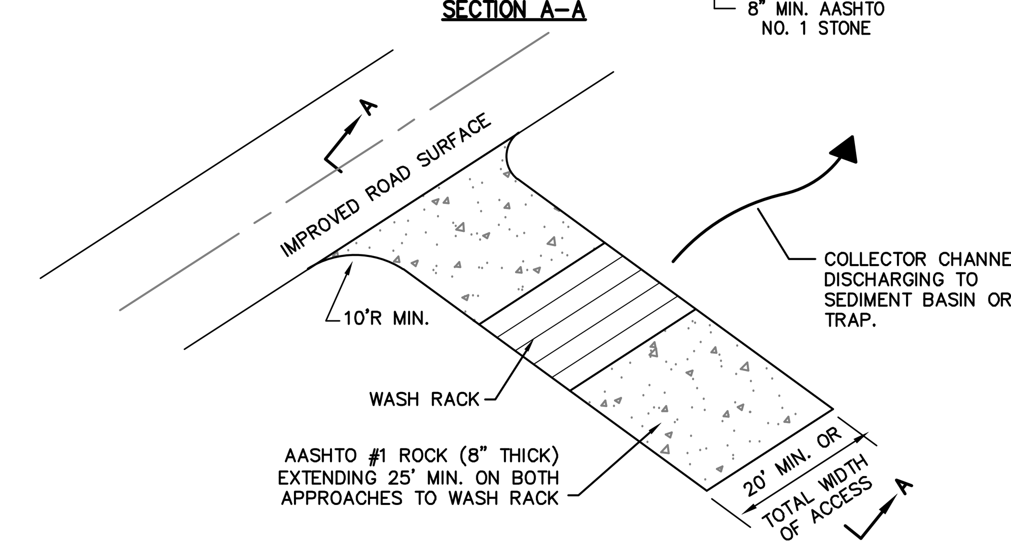
NOT TO SCALE

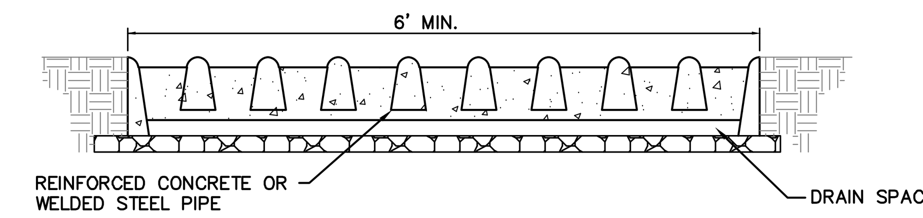
NOTES:

1. ROCK FILTER OUTLETS TO BE PROVIDED AT ALL EXISTING OR PROPOSED LOW POINTS AND ALL AREAS OF CONCENTRATED FLOWS.
2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLETS.
3. COMPOST LAYER IS REQUIRED IN ALL HQ AND EV WATERSHEDS.



SECTION A-A





WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK.

AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROAD DITCHES, SEWERS, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

TEMPORARY CONSTRUCTION ENTRANCE W/ WASH RACK

NOT TO SCALE

NPDES CHECKLIST COMPLIANCE - ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	- PROPOSED WORK SHALL UTILIZE THE PARCELS ALONG RTE 202 PRESERVING THE UNDEVELOPED PORTION TO THE REAR WITH THE EXCEPTION OF THE TOWNSHIP CONNECTOR ROAD STUB.
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	- ALTHOUGH OFFSITE, THE WATERS OF THE US CROSSING THROUGH THE PECO R.O.W HAS BEEN PROVIDED WITH A 75FT BUFFER.
	MINIMIZE SOIL COMPACTION	- ALL GRASS AND MEADOW AREAS SHALL BE SCARIFIED AND AMENDED WITH COMPOST DURING STABILIZATION TO REDUCE COMPACTION.
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	- PROJECT SITE TESTED WELL FOR INFILTRATION PRACTICES WHICH WILL BE INTEGRATED INTO ALL PCSM FACILITIES.
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	- THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	- PCSM FACILITIES FOCUS ON INFILTRATION PRACTICES TO MITIGATE THERMAL IMPACTS FROM REDEVELOPMENT OF THE FRONT PARCELS.
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	- THE STREAM IS LOCATED WITHIN THE PECO R.O.W. WHICH WILL NOT ALLOW INSTALLATION OF TREES. REFORESTATION WILL FOCUS ON THE REAR PARCEL BEING DEDICATED TO SOLEBURY TOWNSHIP.
ANTI-DEGRADATION ANALYSIS		- THE MAJORITY OF THE PROPOSED DEVELOPMENT IS CAPTURED BY PCSM FACILITIES WHICH MEET OR EXCEED THE VOLUME AND WATER QUALITY REQUIREMENTS FOR THE SITE PER THE 'DEP PCSM SPREADSHEET.'

SEQUENCE OF CONSTRUCTION:

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

AT LEAST 7 DAYS PRIOR TO START OF WORK OR EARTH DISTURBANCE ACTIVITIES, A PRECONSTRUCTION MEETING SHALL BE HELD INCLUDING THE OWNER, SITE CONTRACTOR, TOWNSHIP ENGINEER, COUNTY CONSERVATION DISTRICT, THE PLAN DESIGNER, AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF PCSWM INSTALLATION.

1. USING EXISTING SITE ACCESSES, INSTALL COMPOST SOCKS AND TREE PROTECTION FENCES AS SHOWN ON PLAN.
2. COMPLETE DEMOLITION OF EXISTING STRUCTURES AND PAVEMENT IN ACCORDANCE WITH PLANS. CLEAR & GRUB VEGETATION AS NOTED. INSTALL TEMPORARY STONE TIRE CLEANER AT NEW ENTRANCE DRIVE LOCATION AS DETAILED ON PLANS PRIOR TO REMOVAL OF EXISTING PAVED DRIVEWAYS.
3. STRIP AND STOCKPILE TOPSOIL. SURROUND STOCKPILE WITH COMPOST SOCK AND STABILIZE WITH TEMPORARY SEED.
4. COMPLETE BUILDING FOOTINGS, FOUNDATIONS AND BUILDING SLAB BASE STONE.
5. INSTALL BUILDING UTILITIES.
6. INSTALL STORMWATER MANAGEMENT FACILITIES.
7. AS STORM SEWERS ARE INSTALLED, INLETS SHALL BE PROVIDED WITH INLET PROTECTION DEVICES IN ACCORDANCE WITH PLANS & DETAILS.
8. ROUGH GRADE NEW ACCESS DRIVE AND PARKING AREA. STABILIZE WITH STONE BASE COURSE AS SOON FEASIBLE.
9. ROUGH GRADE SITE.
10. REMAINING IMPROVEMENTS AS PER STANDARD CONSTRUCTION TECHNIQUES.
11. INSTALL RAINGARDEN BMPS AND ALL PLANTINGS.
12. AS LAWN AREAS ARE BROUGHT TO GRADE, THEY SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 5-12" THEN PROVIDED WITH A MINIMUM OF 8" TOPSOIL AND SEEDED IMMEDIATELY. ALL VEGETATED AREAS SHALL BE STABILIZED WITH VEGETATION AND MULCH AS SOON AS POSSIBLE.
13. AFTER THE SITE HAS BEEN STABILIZED, ALL TEMPORARY E&S CONTROLS SHALL BE REMOVED.
14. ALL ACCUMULATED SEDIMENTS SHALL BE DISPOSED OF IN APPROVED UPLAND AREAS.
15. STABILIZATION SHALL BE CONSIDERED THE PLACEMENT OF BASE COURSE IN PAVED AREAS OR BY 75% OR MORE VEGETATION, UNIFORM COVERAGE, IN LAWN AREAS OR BY OTHER PERMANENT MEANS WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
16. AREAS DISTURBED DURING THE REMOVAL OF BMPS SHALL BE STABILIZED IMMEDIATELY.
17. NOTICE OF TERMINATION AND ASSOCIATED PAPERWORK SHALL BE FILED WITH CONSERVATION DISTRICT.

* ALL SEQUENCE STEPS RELATED TO THE IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (PCSM BMPS) ARE CONSIDERED THE CRITICAL STAGES FOR NPDES PERMITTING REQUIREMENTS. A LICENSED PROFESSIONAL SHOULD BE PRESENT ON-SITE TO VERIFY THAT THE FOLLOWING ITEMS MEET CERTAIN DESIGN REQUIREMENTS: BOTTOM OF BASIN INVERT ELEVATIONS; LINING OF STORMWATER BMPS FOR CARBONATE GEOLOGOGY PROTECTION; FOOTPRINT OF STONE BEDS; TOP OF STONE ELEVATION; OUTLET STRUCTURE INVERTS; AND OUTLET PIPING TO EXISTING FACILITIES. THE CONTRACTOR AND SURVEYOR SHALL DOCUMENT CONSTRUCTION OF THE BASINS WITH PHOTOGRAPHS AND AS-BUILT PLANS.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E - ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B -
   - 50% KENTUCKY BLUEGRASS MIXTURE
   - 30% PENNLAWN RED FESCUE
   - 20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W -
   - 70% TALL FESCUE
   - 20% BIRDSFOOT TREFOIL MIXTURE
   - 10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   - 10 LBS/1,000 SY FOR TEMPORARY SEEDING
   - 21 LBS/1,000 SY FOR PERMANENT SEEDING
   - 11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)

   ADDITIONAL SEED MIXES WITH ASSOCIATED SEEDING RATES MAY BE PROVIDED ON LANDSCAPE PLANS.
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. SLOPES OF 3:1 SHALL BE ANCHORED WITH MULCH CONTROL NETTING.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE: 90 LBS/1,000 SF

   10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS, CONSIDERED SLOPES GREATER THAN 3:1, SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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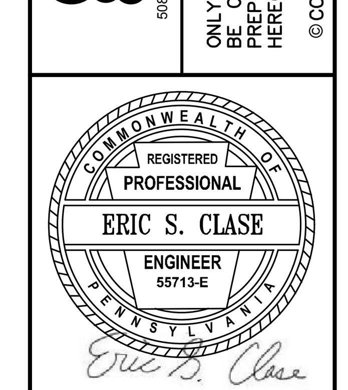


REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

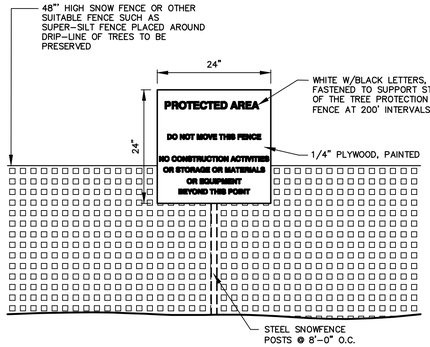
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETALS & NOTES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 12 OF 40	

T:\land design\2017\201712006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 12 EROSION & SEDIMENT CONTROL DETALS & NOTES - 1 Plotted By: whelder, on Mon Jun 05, 2023 at 11:25am

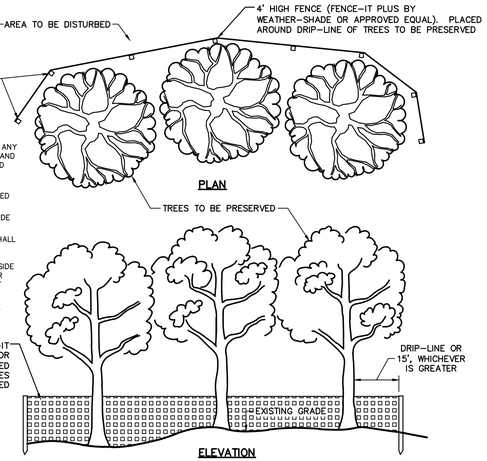


TREE PROTECTION/NOTIFICATION DETAIL

NOT TO SCALE

TREE PROTECTION NOTES

1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION TO THE EXTENT NOTED ON THE PLANS. PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION.
2. BOARDS, FENCING, ETC. SHALL NOT BE NAILED TO ANY TREES OR SHRUBS.
3. ROOTS SHALL NOT BE CUT IN AN AREA INSIDE THE DRIP-LINE OF THE TREE BRANCHES.
4. TREE LIMB REMOVAL, WHERE NECESSARY, SHALL BE PERFORMED UNDER THE IMMEDIATE SUPERVISION OF A CERTIFIED ARBORIST. PRUNING CUTS SHOULD BE MADE JUST OUTSIDE THE BRANCH COLLAR. THE BRANCH COLLAR SHOULD NOT BE DAMAGED OR REMOVED. IF THE TRUNK COLLAR HAS GROWN OUT ON A DEAD LIMB TO BE REMOVED, MAKE THE CUT JUST BEYOND THE COLLAR. DO NOT APPLY WOUND DRESSINGS.



TREE PROTECTION DETAIL

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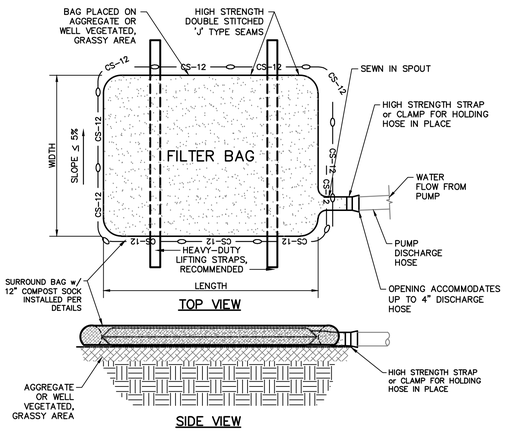


FILTER BAG TO BE USED WHEN/IF WATER PONDS IN EXCAVATIONS.

1. LOW VOLUME FILTER BAGS SHALL BE MADE OF NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES MEETING THE FOLLOWING STANDARDS:

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

2. PLACE FILTER BAGS ON STABLE OR WELL-VEGETATED AREAS WHICH ARE FLATTER THAN 5% SLOPE AND SHALL DISCHARGE ONTO STABLE, EROSION RESISTANT GROUND. WHERE THIS IS NOT POSSIBLE, GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED.
3. PUMP DISCHARGE HOSE SHALL BE INSERTED INTO BAG IN MANNER SPECIFIED BY MANUFACTURER AND SECURELY CLAMPED INTO FILTER BAG. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
4. LIMIT PUMPING TO 750 GPM OR 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE, WHICHEVER IS LESS. PUMP INTAKE SHALL BE FLOATING AND SCREENED.
5. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL PROBLEM IS CORRECTED.
6. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY IS REQUIRED FOR DISPOSAL PURPOSES. WHEN SEDIMENT FILLS 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE AND REPLACE WITH NEW BAG IMMEDIATELY. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.
7. THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE.

SEDIMENT FILTER BAG FOR PUMPED WATER

NOT TO SCALE

MAINTENANCE OF FACILITIES

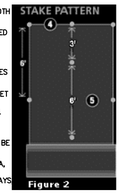
1. COMPOST SOCKS SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT OF MORE THAN 1/4" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND REMETTING MUST BE PERFORMED IMMEDIATELY. IF E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE TO THE BUCKS COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF THE ABOVE NOTED INSPECTION AND MAINTENANCE.
4. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE.
5. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
6. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
7. ALL DRAINAGE SWALES SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF SWALES ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
8. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
9. AFTER THE STORM CONVEYANCE SYSTEM IS CONSTRUCTED, MONTHLY INSPECTIONS FOR EACH DEVICE WILL BE MADE. AN INSPECTION OF ALL FACILITIES WILL BE MADE AFTER EVERY STORM TO DETERMINE THEIR RESISTANCE TO DRIVING RAINS AND ACCUMULATED RUNOFF.
10. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
11. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.

INSTALLATION INSTRUCTIONS:

ADDITIONAL ITEMS NEEDED FOR INSTALLATION:
GRASS SEED
FERTILIZER
RUBBER MALLET
SCISSORS OR SHEARS
SAFETY GLASSES/GOGGLES

CAUTION: ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION OF BIOSTAKES.

1. PREPARE THE AREA TO BE PROTECTED BY RAKING THE SOIL TO A DEPTH OF 1-2 INCHES AND REMOVING LARGE DIRT CLODS, STICKS AND OTHER OBSTRUCTIONS. APPLY SEED AND FERTILIZER AND LIGHTLY RAKE INTO THE SOIL. (NOTE: THIS PRODUCT DOES NOT INCLUDE SEED OR FERTILIZER. FOR SEEDING AND FERTILIZER SEE THE SEEDING & MULCHING SCHEDULE.)
2. BEGIN INSTALLATION AT THE TOP OF THE SWALE, ANCHORING THE BLANKET IN A 6"x6" TRENCH. STAKE THE FABRIC INTO THE BOTTOM OF THE TRENCH WITH BIODEGRADABLE PLASTIC BIOSTAKES AT 12" INTERVAL. BACKFILL AND COMPACT THE TRENCH.
3. ROLL CENTER BLANKET OVER THE PREPARED BOTTOM OF THE SWALE IN THE DIRECTION OF WATER FLOW. SECURE BLANKET WITH BIOSTAKES IN APPROPRIATE PATTERN PER FIGURE 2 OR USING DOT SYSTEM PROVIDED ON BLANKET BY MANUFACTURER. A RUBBER MALLET IS RECOMMENDED FOR DRIVING THE BIOSTAKES INTO THE GROUND. **CAUTION!** BIOSTAKES MAY SHATTER IF BROKEN, THEREFORE, ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION.
4. PLACE SUBSEQUENT BLANKETS END OVER END, SHINGLE STYLE, WITH MINIMUM 6" OVERLAP. SECURE WITH DOUBLE ROW OF STAPLES/STAKES, 4" APART AND 6" ON CENTER ACROSS FULL WIDTH OF BLANKET.
5. FULL LENGTH OF BLANKET ALONG SIDE SLOPES SHALL BE ANCHORED WITH STAPLES/STAKES AT 12" INTERVALS IN 6"x6" TRENCH. BACKFILL AND COMPACT TRENCH.
6. ADJACENT BLANKETS ON SIDE SLOPES, IF NEEDED, SHALL BE OVERLAPPED A MINIMUM OF 6" AND SECURED WITH STAPLES/STAKES AT 12" INTERVALS.
7. IN HIGH FLOW CHANNELS, CHECK SLOT SHALL BE INSTALLED 30 FEET ON CENTER ALONG CHANNEL. SLOT SHALL BE A DOUBLE ROW OF STAPLES/STAKES 4" APART AND 6" ON CENTER ACROSS THE FULL WIDTH OF THE CHANNEL.
8. TERMINAL END OF THE BLANKET SHALL BE ANCHORED IN 6"x6" TRENCH WITH STAPLES/STAKES AT 12" INTERVAL. TRENCH SHALL BE BACKFILLED AND COMPACTED AFTER ANCHORING.
9. IMMEDIATELY FOLLOWING INSTALLATION, GENTLY WATER ENTIRE AREA, THOROUGHLY WETTING BOTH THE BLANKET AND UNDERLYING SOIL. FOR BEST RESULTS, KEEP SOIL MOIST FOR THE FIRST 30 TO 60 DAYS OR UNTIL UNIFORM GRASS ESTABLISHMENT IS ACHIEVED.



NORTH AMERICAN GREEN SWALE INSTALLATION

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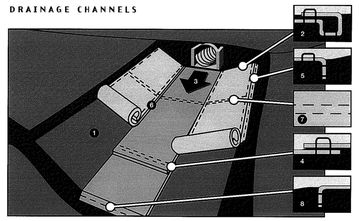


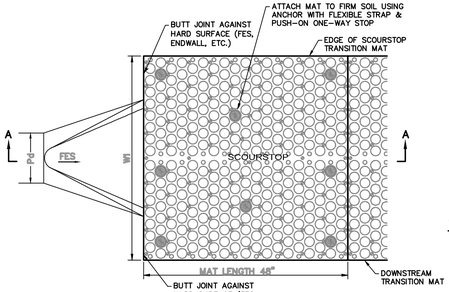
CONTRACTOR SHALL USE NORTH AMERICAN GREEN (OR EQUAL) EROSION CONTROL FABRICS WITH THE MANUFACTURER'S RECOMMENDED STAPLE PATTERN. CLASS OF FABRIC SHALL BE AS NOTED ELSEWHERE IN THE PLANS.

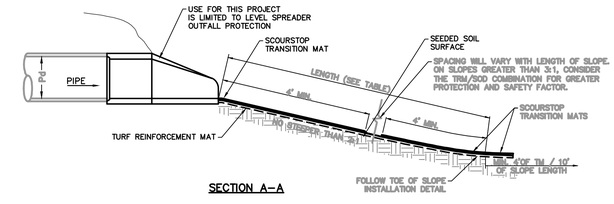
SCOUR STOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

1. INTENDED AS A BIOTECHNICAL REPLACEMENT FOR RIP-RAP OR HARD ARMOR. PROVIDES TRANSITION FROM SMOOTH CONCRETE OR OTHER HARD SURFACE TO TURF REINFORCEMENT MATS (TRMs), SOD, REINFORCED SOD, OR BARE GROUND.
2. SCOURSTOP STANDARD SIZE IS 4' X 4' X 3" SHEET WITH MULTIPLE VOIDS FOR VEGETATION GROWTH, PROVIDING SOIL PROTECTION FOR THE SUSCEPTIBLE, EROSIVE AREA DIRECTLY BELOW OUTLETS UNTIL SHEAR FORCE HAS DISSIPATED THROUGH DOWNSTREAM AREA EXPANSION AND FOR SHORELINE AND STREAMBANK PROTECTION.
3. UTILIZATION OF VEGETATIVE METHOD RESULTS IN LOWER THERMAL IMPACTS, REDUCED LONG TERM MAINTENANCE, AESTHETICALLY PLEASING MOWABLE GRASS SURFACE, AND IMPROVED SAFETY THROUGH ABSENCE OF JAGGED ROCKS AND TRAPPED DEBRIS.

MANUFACTURER'S INSTALLATION SPECIFICATIONS

1. SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS SHALL EXTEND DOWNSTREAM TO LIMITS SHOWN ON PLANS.
2. REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRICKLE FLOWS, IF DISCOVERED, SHOULD BE CAPTURED WITH A SUB-SURFACE DRAIN.
3. FOR A PIPE OUTLET WITH NO APRON, TRANSITION MAT SHOULD BE INSTALLED DIRECTLY ABUTTING THE END OF PIPE.
4. PIPE OUTLET FOOTINGS SHOULD NOT EXTEND PAST THE END OF PIPE, HEADWALL OR FLARED END SECTION. TRANSITION MAT SHALL ABUT DIRECTLY AGAINST THE PIPE OUTLET, FES, ENDWALL OR OTHER END TREATMENT.
5. AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL SLOPES. GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
6. INSTALL AT LEAST ONE 4' MAT LENGTH FOR EVERY 9" OF PIPE DIAMETER. PANELS MAY BE SHINGLED AS SHOWN. MATS SHALL NOT BE INSTALLED IN PARTIAL LENGTHS.
7. CONSTRUCT SCOUR AREA WIDTH NOT LESS THAN 5 TIMES THE PIPE DIAMETER, WITH A SLOPE NO STEEPER THAN 3:1. DISCHARGE AREA WIDTH SHOULD BE AS LEVEL AS POSSIBLE TO AVOID WATER CONCENTRATION AND RILLING.
8. FOR INSTALLATIONS ON SLOPES GREATER THAN 10%, ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
9. PRIOR TO INSTALLATION, SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (GREATER THAN 2.5"ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL. FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE USED UNLESS NOTED OTHERWISE.
10. TYPE "A" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES LESS THAN 4% INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION.
    - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSIVE VELOCITIES HAVE DISSIPATED.
    - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM's MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
    - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
11. TYPE "B" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES GREATER THAN 4%. INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD.
    - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA.
    - TRM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
12. TYPE "C" INSTALLATION INSTRUCTIONS: CONSTRUCTION PHASE, STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID CONDITIONS. TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMACE TRM.
    - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR.
    - LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED.
    - FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48"ø OR LARGER, PROVIDE AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET).
13. TYPE "D" STREAMBANK AND SHORELINE APPLICATIONS: USE A 20 OUNCE GEOTEXTILE UNDER TRANSITION MATS 3' BELOW AND 6" ABOVE THE NORMAL WATER LINE. A HYBRID GEOTEXTILE / TRM COMPOSITE MAY ALSO BE USED





SCOUR-STOP AT PIPE DISCHARGE

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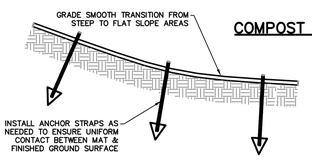
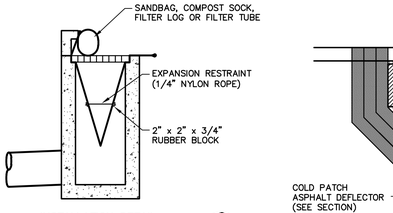
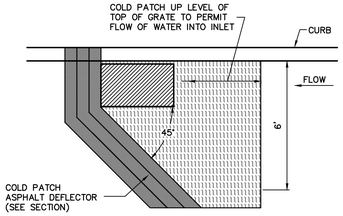
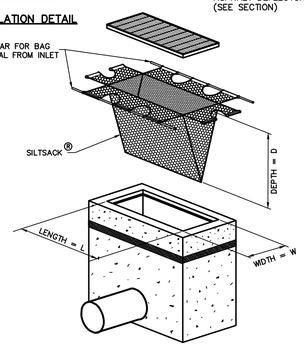


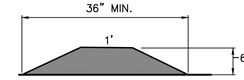
TRANSITION MAT AT TOE OF SLOPE INSTALLATION

MAXIMUM FLOW FROM PROPOSED LEVEL SPREADER IS 1.0 CFS/LF, OR 4 CFS PER SCOUR STOP MAT. TURF REINFORCEMENT MAT IS REQUIRED. NOT FOR USE ON SLOPES OF GREATER THAN 5% WITHOUT ADDITIONAL ENGINEERING DESIGN.









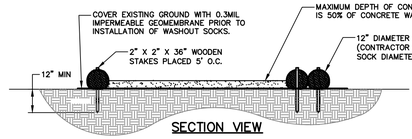
ASPHALT DEFLECTOR SECTION

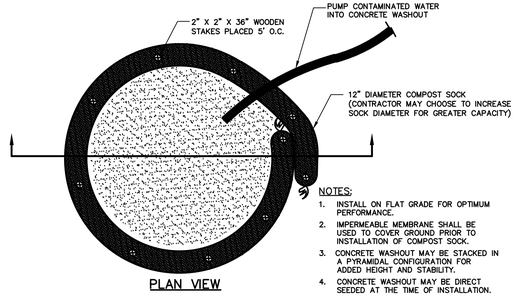
MAINTENANCE:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. EARTHEN BERM SHALL BE INSTALLED & MAINTAINED IN LIEU OF ASPHALT BERMS UNTIL ROADWAY IS STONED. 6" MINIMUM HEIGHT ASPHALT BERM TO BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LB, BURST STRENGTH OF 200 PSI, AND TRAPEZOIDAL TEAR STRENGTH OF 50 LB. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A #40 SIEVE.
5. BAGS SHALL BE EMPTIED & RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
6. DAMAGED OR CLOGGED BAGS SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.

SILTSACK TYPE 'C' INLET PROTECTION DETAIL

NOT TO SCALE





NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. IMPERMEABLE MEMBRANE SHALL BE USED TO COVER GROUND PRIOR TO INSTALLATION OF COMPOST SOCK.
3. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
4. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.

COMPOST SOCK CONCRETE WASHOUT DETAIL

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 13 OF 40

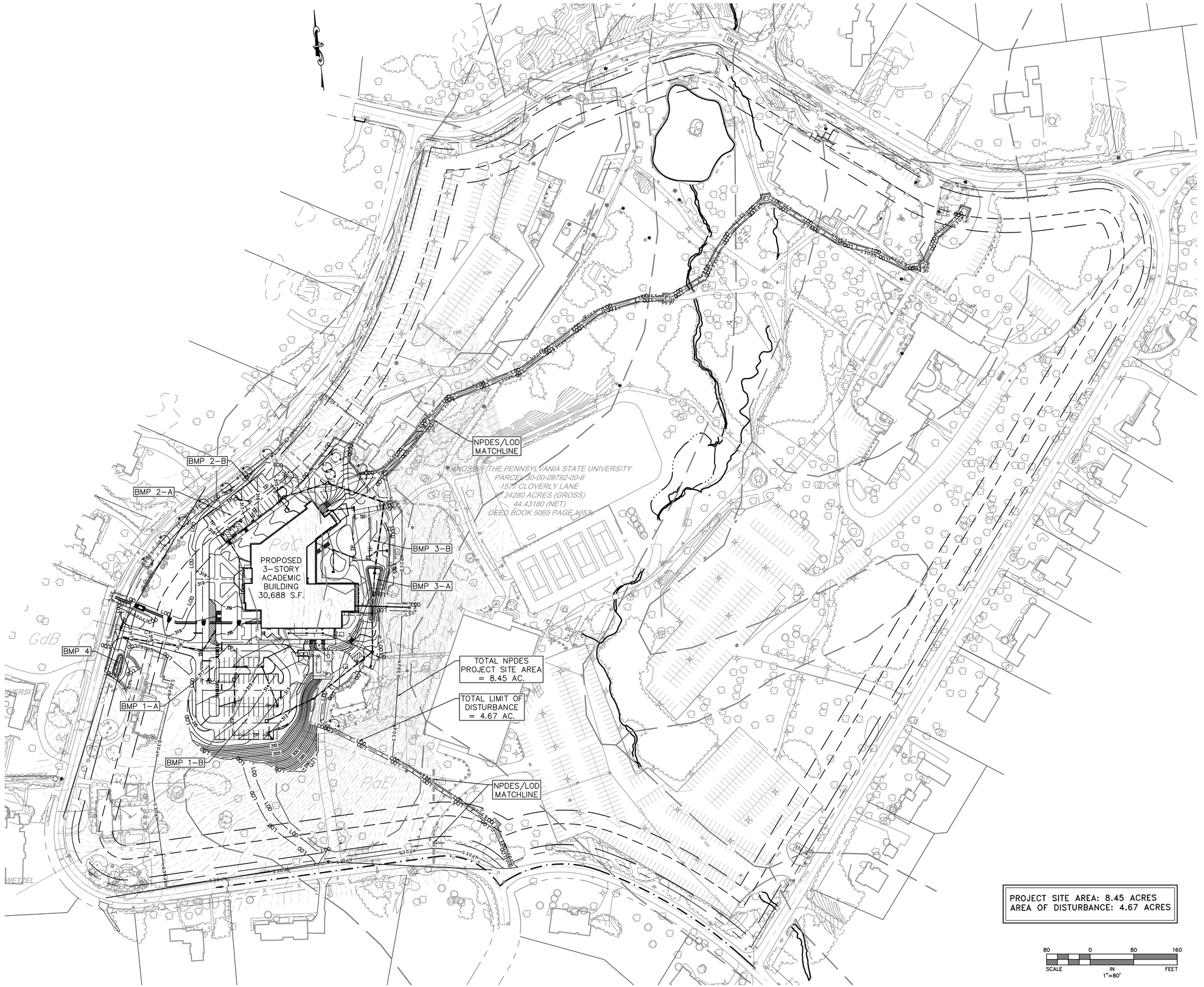
T:\and design\2017\2017126006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 13 EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2 Plotted By: whelder, on Mon Jun 05, 2023 at 11:25am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-16 COMPOST SOCK - SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES



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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=80'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 14 OF 40

T:\and design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\171206-01_PCSM_PLAN_OVERALL.dwg Layout: 14 PCSM PLAN – OVERALL (RECORD PLAN 3 OF 4) Plotted By: wheider, on Mon Jun 05, 2023 at 11:25am

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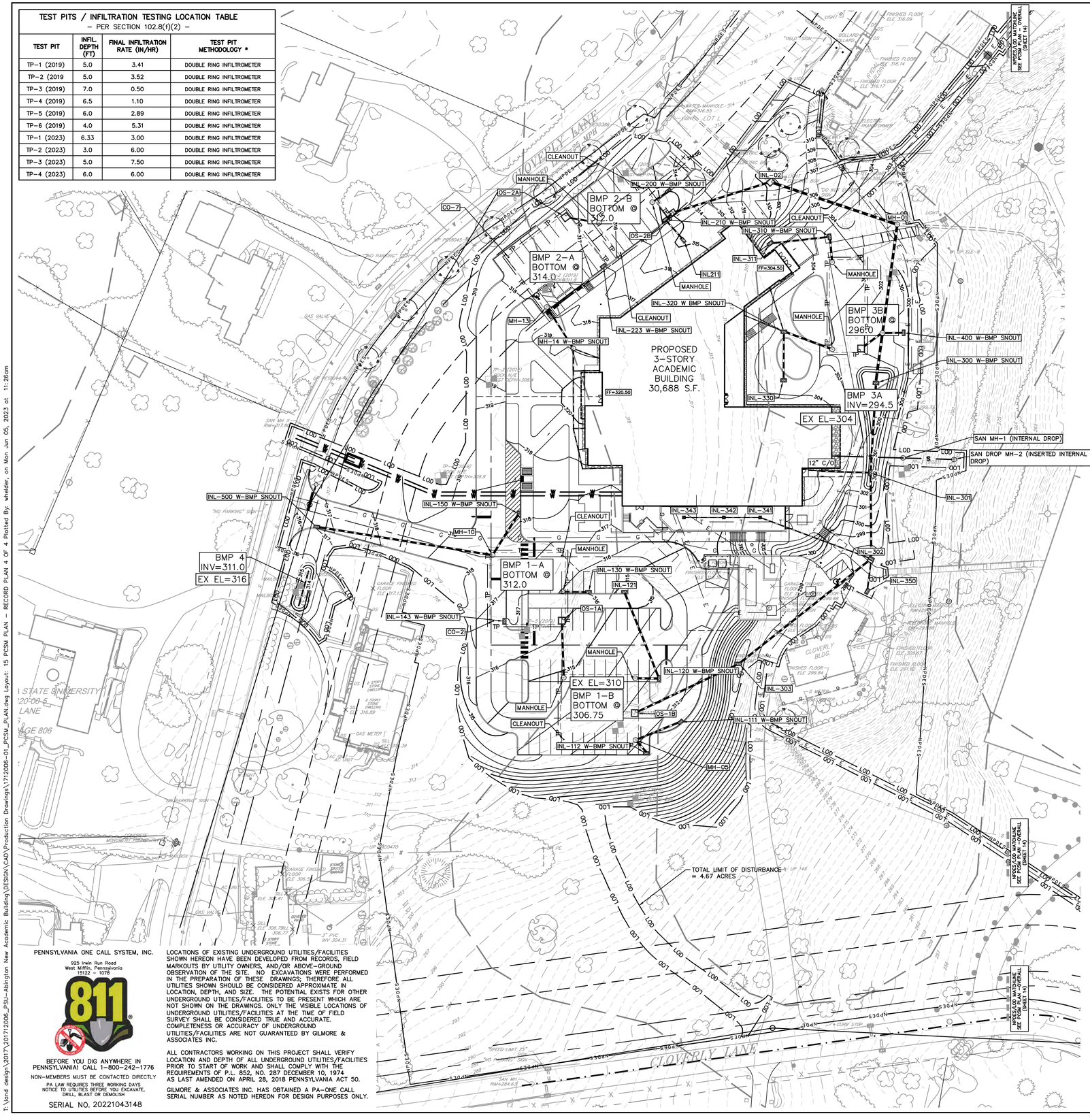
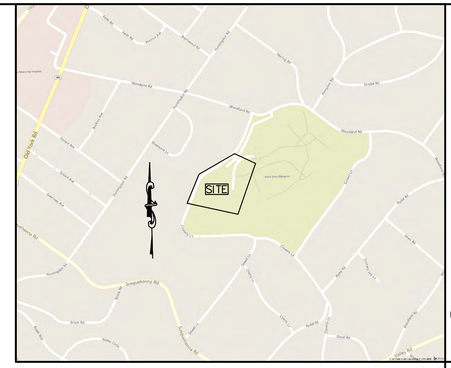
TEST PITS / INFILTRATION TESTING LOCATION TABLE
– PER SECTION 102.8(f)(2) –

TEST PIT	INFIL. DEPTH (FT)	FINAL INFILTRATION RATE (IN/HR)	TEST PIT METHODOLOGY *
TP–1 (2019)	5.0	3.41	DOUBLE RING INFILTROMETER
TP–2 (2019	5.0	3.52	DOUBLE RING INFILTROMETER
TP–3 (2019)	7.0	0.50	DOUBLE RING INFILTROMETER
TP–4 (2019)	6.5	1.10	DOUBLE RING INFILTROMETER
TP–5 (2019)	6.0	2.89	DOUBLE RING INFILTROMETER
TP–6 (2019)	4.0	5.31	DOUBLE RING INFILTROMETER
TP–1 (2023)	6.33	3.00	DOUBLE RING INFILTROMETER
TP–2 (2023)	3.0	6.00	DOUBLE RING INFILTROMETER
TP–3 (2023)	5.0	7.50	DOUBLE RING INFILTROMETER
TP–4 (2023)	6.0	6.00	DOUBLE RING INFILTROMETER





LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

STORMWATER MANAGEMENT NOTES:

1. CONTRACTOR SHALL PROVIDE AS–BUILT SURVEYS IN AUTOCAD FORMAT OF ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING BUT NOT LIMITED TO, SURFACE PONDS, UNDERGROUND DETENTION FACILITIES, BMPS, AN CONVEYANCE PIPES. AS BUILT PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND TO SATISFY THE CONDITIONS OF NPDES NOTICE OF TERMINATION (N.O.T.) PERMIT CLOSEOUT. FINAL AS–BUILT SURVEYS SHALL BE PROVIDED DIRECTLY TO PENN STATE UNIVERSITY ENGINEERING SERVICES PRIOR TO FINAL PAYMENT.
2. ALL CONSTRUCTION SHALL MEET PENNDOT ROADWAY CONSTRUCTION STANDARDS AND PUBLICATION 408 STANDARDS.
3. ALL STORM DRAIN STRUCTURES INCLUDING MANHOLES AND INLETS DEEPER THAN FOUR (4) FEET SHALL HAVE ACCESS STEPS PER PENNDOT STANDARDS.

I, _____ (APPLICANT), ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MUNICIPALITY OR CONSERVATION DISTRICT FOR APPROVAL.

I, _____ (DESIGN ENGINEER), ON THIS DATE _____ HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS'S (DEP'S) REGULATIONS AND THIS CHAPTER.

_____ (MUNICIPAL OFFICIAL OR DESIGNEE), ON THIS DATE _____ HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICPAL ORDINANCE NO. _____.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK. §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)
5. BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN. §102.4(B)(5)(XII)
6. BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION. §102.4(B)(5)(XII)
7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDING AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)
8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
9. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS. §102.4(B)(5)(XIV)
10. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA . §102.4(B)(5)(XV)
11. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON–DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON–DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)
12. THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:
   - THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
   - THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
   - THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
   - THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS MRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

G&A LEGEND

- RIGHT–OF–WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- # EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS–1 8 COMPOST SOCK – SIZE
- TEST PIT
- BORING

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.67 ACRES

400 0 400 800
SCALE IN FEET
1"=400'

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West Mifflin, Pennsylvania
15122 – 1078

811

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE–GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA–ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN – RECORD PLAN 4 OF 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814–865–0545

MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

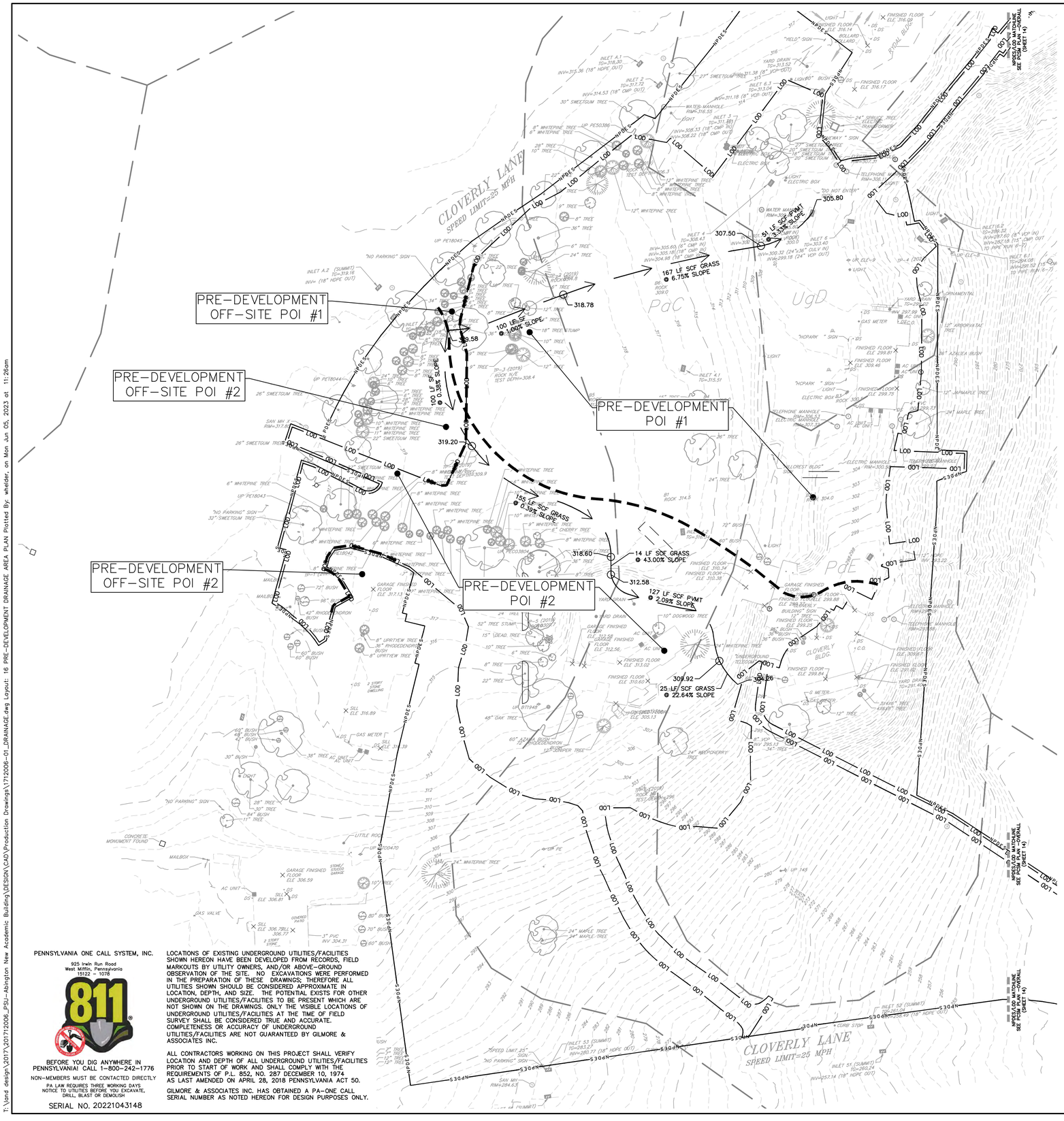
SCALE: 1"=400'

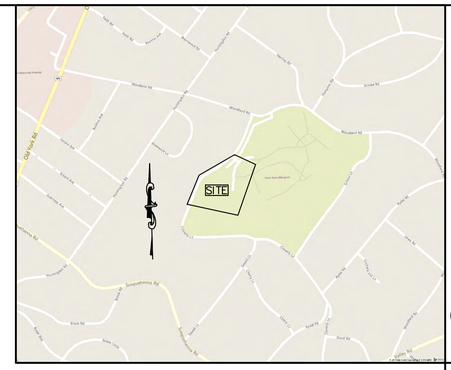
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 15 OF 40

T:\land design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_PCSM_PLAN.dwg Layout: 15 PCSM PLAN – RECORD PLAN 4 OF 4 Plotted By: whelder, on Mon Jun 05, 2023 at 11:26am





LOCATION MAP

SCALE 800 00 800 1600 IN FEET

SCALE: 1"=800'

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PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PRE-DEVELOPMENT DRAINAGE AREA PLAN

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
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- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80 SCALE IN FEET 1"=40'

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE–GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

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GILMORE & ASSOCIATES INC. HAS OBTAINED A PA–ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814–865–0545

MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

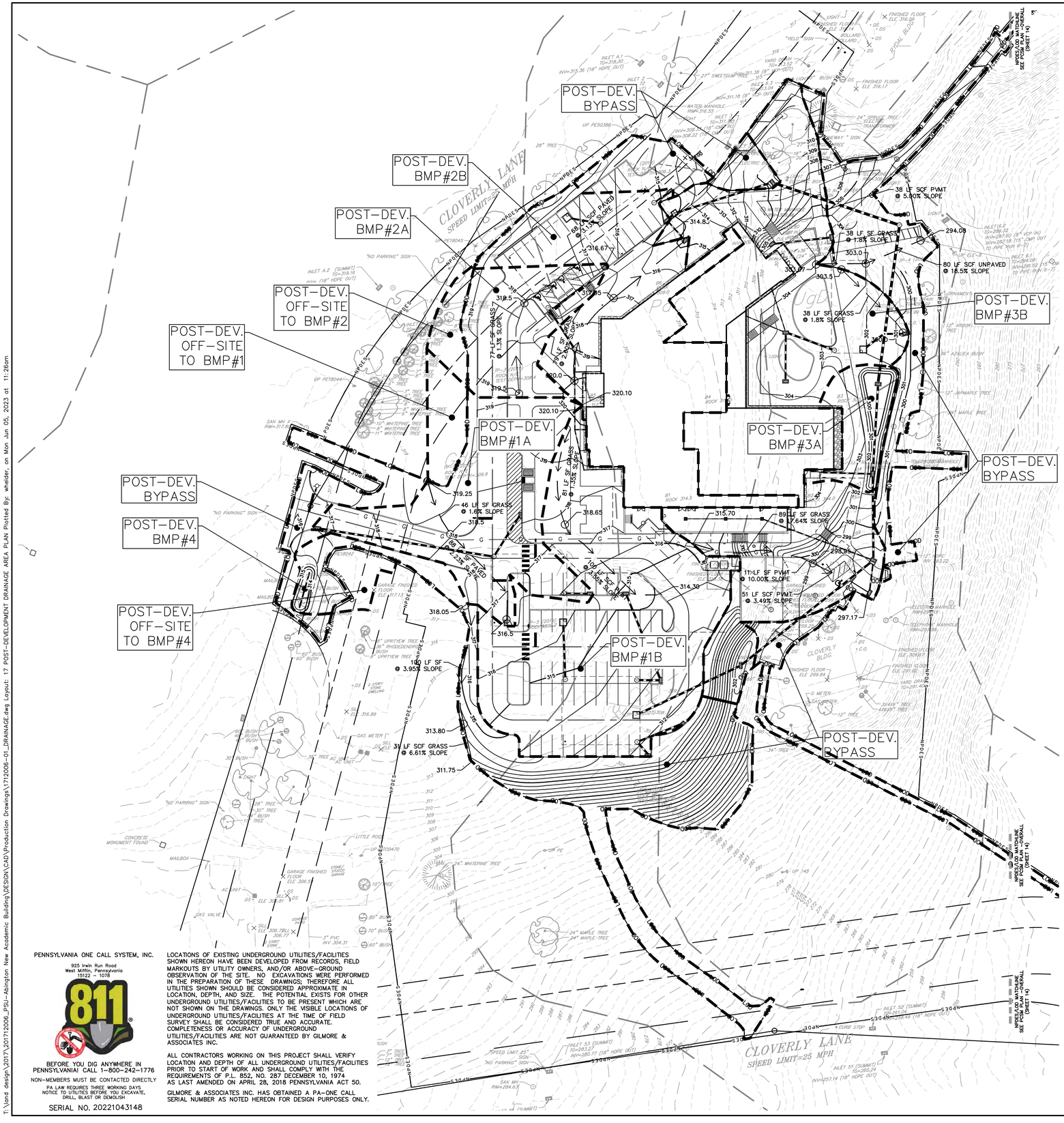
SCALE: 1"=40'

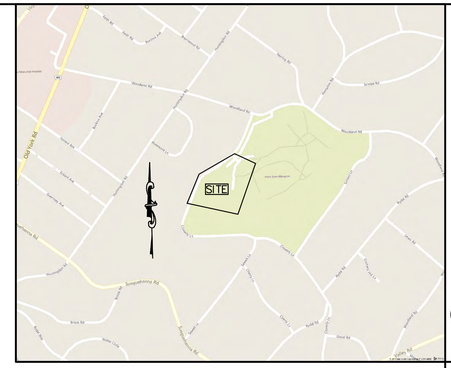
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 16 OF 40

T:\land design\2017\2017120006_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_DRAINAGE.dwg Layout: 16 PRE–DEVELOPMENT DRAINAGE AREA PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:26am





LOCATION MAP

SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B).

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED).

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

   BMP 1B – UNDERGROUND CONCRETE VAULT DETENTION. CONSPAN 24X5 UNITS CURRENTLY SHOWN INSTALLED AT HILLCREST BASEMENT ELEVATION OF 305.5'. NO INFILTRATION IS ANTICIPATED FOR THIS SYSTEM;

   BMP 2A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=311.83';

   BMP 2B – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL = 307.00'
   INSTALL W/ FOOTINGS AND UTILIZE INFILTRATION BETWEEN FOOTINGS;

   BMP 3 – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL =292.00'

   BMP 4 – VEGETATED SWALE TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE.

G&A LEGEND	
	RIGHT-OF-WAY LINE
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	SOIL BOUNDARY
	EXISTING PAVEMENT EDGE
	EXISTING CURB
X	EXISTING FENCE
W	EXISTING WATER LINE
E	EXISTING ELECTRIC LINE
G G	EXISTING GAS LINE
T T	EXISTING TELEPHONE LINE
S	EXISTING SAN. SEWER LINE
	ZONING BOUNDARY
	LIMIT OF 2019/2022 G&A SURVEY
	EXISTING UTILITY POLE
	EXISTING LIGHT FIXTURE
	EXISTING SIGN
	EXISTING BOLLARD
	EXISTING ELECTRIC METER
	EXISTING WATER VALVE
	EXISTING STORM INLET
	EXISTING CONCRETE MONUMENT
	PROPOSED CURB
320	PROPOSED MAJOR CONTOURS
319	PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND	
ST	EXISTING STORM SEWER LINE
G	EXISTING GAS LINE
E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
SAN	EXISTING SAN. SEWER LINE
T	TELEPHONE LINE
SL	EXISTING SIGHT LIGHTING
	EXISTING UTILITY POLE
	EXISTING LIGHT FIXTURE
	EXISTING SIGN
	EXISTING BOLLARD
	EXISTING STORM INLET
	EXISTING PLANT MASS
	EXISTING TREES
	TIME OF CONCENTRATION PATH

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PoC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	60"-118"	>80"	NOT RATED	
PoE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	60'-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

40 0 40 80
SCALE IN 1"=40' FEET

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West Mifflin, Pennsylvania
15122 - 1078

811

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NO.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS FOR

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

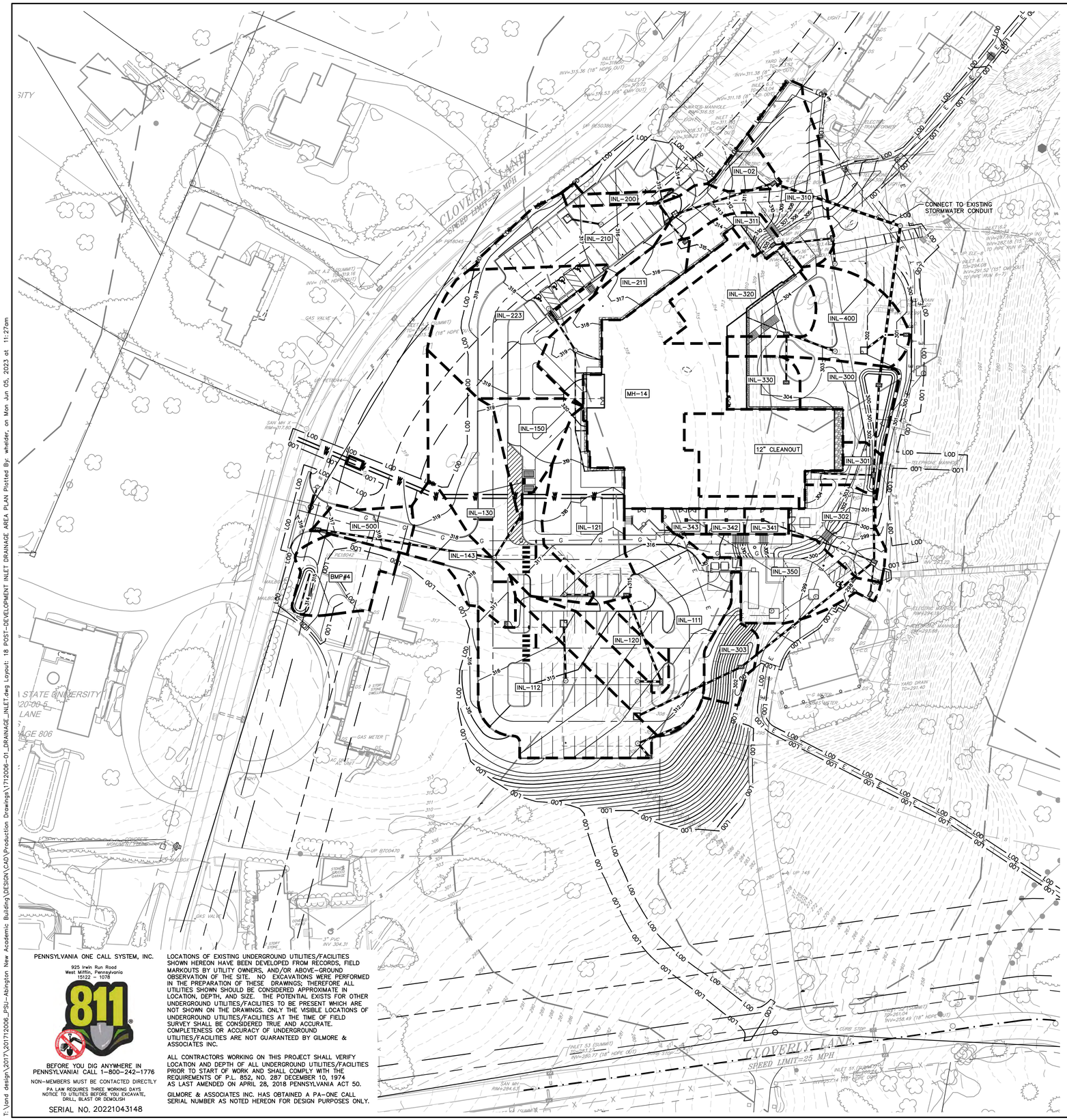
SCALE: 1"=40'

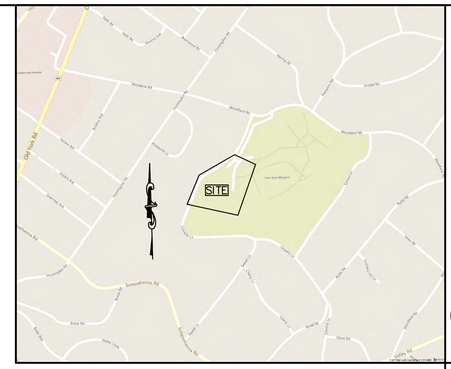
DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 17 OF 40

T:\and design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_DRAINAGE.dwg Layout: 17 POST-DEVELOPMENT DRAINAGE AREA PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:26am





LOCATION MAP

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- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
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- EXISTING BOLLARD
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- EXISTING WATER VALVE
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- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
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- ST EXISTING STORM SEWER LINE
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SCALE 40 0 40 80 FEET — IN 1"=40'

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15122 – 1076

811

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST–DEVELOPMENT INLET DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814–865–0545

MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 18 OF 40

T:\land design\2017\2017120\06_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006–01_DRAINAGE_INLET.dwg Layout: 18 POST–DEVELOPMENT INLET DRAINAGE AREA PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:27am

MONTGOMERY COUNTY CONSERVATION DISTRICT STANDARD EROSION & SEDIMENT CONTROL NOTES:

1. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.
2. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
3. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE PERMITTEE AND COPERMITTEE SHALL ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES AND SHALL INCLUDE COMPLETE, WRITTEN LOGS OF THOSE INSPECTIONS WHICH SHALL BE MADE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGARDING, RESEEDING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.
4. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
5. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
6. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE APPROPRIATE CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
7. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
8. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
10. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE PROJECT SITE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE BMP'S. EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S.
11. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
12. THE PERMITTEE OR CO-PERMITTEE SHALL CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AT LEAST SEVEN DAYS BEFORE CONSTRUCTION IS TO BEGIN TO DETERMINE IF A PRECONSTRUCTION CONFERENCE IS REQUIRED. THE PERMITTEE, CO-PERMITTEE, AND OTHERS UNDERTAKING THE EARTH DISTURBANCE ACTIVITY MUST ATTEND A PRECONSTRUCTION CONFERENCE WHEN REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE PERMITTEE OR CO-PERMITTEE MUST BRING A COPY OF THEIR NPDES PERMIT, A COPY OF THE STAMPED PLAN FROM THE CONSERVATION DISTRICT, AND ALL ASSOCIATED DEPARTMENT APPROVALS/PERMITS WHICH MUST BE AVAILABLE AT THE CONFERENCE UPON REQUEST. ALSO, AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.
13. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
14. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE ARE DESCRIBED IN EACH STAGE.
15. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE OR SHOULD A TEMPORARY CESSATION OF ACTIVITY OCCUR WHICH WILL LAST LONGER THAN 4 DAYS, 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 ONE 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 ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
16. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
17. PERMITTEES AND CO-PERMITTEES ARE RESPONSIBLE FOR ENSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF BMPS IDENTIFIED IN THE PCSM PLAN PRIOR TO THE SUBMISSION OF THE NOTICE OF TERMINATION FOR THIS PERMIT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE BMPS IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN. THE INSTALLATION SCHEDULE OF PCSM BMPS AND MAINTENANCE REQUIREMENTS CONTAINED WITHIN THE APPROVED PCSM PLAN MUST BE FOLLOWED; AND FAILURE TO COMPLY WITH THE INSTALLATION SCHEDULE IS A VIOLATION OF THIS PERMIT, THE CLEAN STREAMS LAW, AND THE CLEAN WATER ACT.

SEDIMENT BASINS

1. APPROVAL OF THE USE OF SKIMMERS DOES NOT APPROVE USE OF ANY SKIMMERS IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.
2. BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.
3. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION SHALL BE DONE BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED.
4. SEDIMENT BASINS MUST BE STRUCTURALLY SOUND AND PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.

OTHER BMP'S

1. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
2. AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.

MATERIAL RECYCLING/DISPOSAL REQUIREMENTS:

1. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.
2. THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
3. THE FOLLOWING MATERIALS ARE ANTICIPATED TO BE CONSTRUCTION WASTE: ASPHALT PAVING, CONCRETE PAVING/SPOILS, STEEL/IRON PIPING, AND PLASTIC PIPING.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.
   - 1.1. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE IN DETERMINING THAT FILL IS CLEAN.
   - 1.2. INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.
2. FOR PROJECTS THAT REQUIRE **NPDES PERMIT,** LANDOWNER OR HIS DESIGNATED REPRESENTATIVE SHALL MAINTAIN, AND MAKE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT, COMPLETE, WRITTEN INSPECTION LOGS OF THE INSPECTION AND MAINTENANCE OF ALL EROSION-SEDIMENT CONTROL BMPS.
3. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE NOTED UNDER TEMPORARY AND PERMANENT STABILIZATION.
4. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAYS MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
5. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF MONTGOMERY COUNTY CONSERVATION DISTRICT. ANY PUMPED WATER MUST BE DIRECTED TO A FILTER BAG DEVICE DISCHARGING OVER NON-DISTURBED AREAS.
6. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
   - 6.1. THE APPLICANT AND HIS DESIGNATED REPRESENTATIVE ARE RESPONSIBLE FOR INSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF STORMWATER BMPs IDENTIFIED IN THESE PLANS (IF ANY) PRIOR TO SUBMISSION OF A 'NOTICE OF TERMINATION' FOR THE PROJECT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE STORMWATER BMPs IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN.
   - 6.2. THE INSTALLATION SCHEDULE AND MAINTENANCE REQUIREMENTS FOR ANY AND ALL IDENTIFIED STORMWATER MANAGEMENT BMPs INCLUDED IN THESE PLANS MUST BE FOLLOWED. FAILURE TO COMPLY WITH PLAN SPECIFICATIONS IS A VIOLATION OF THE CLEAN STREAM LAW AND CLEAN WATER ACT.
7. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. REPLACED SOILS SHALL BE SEEDED AND MULCHED IMMEDIATELY.
8. UPON COMPLETION OR ANY TEMPORARY CESSATION LONGER THAN 4 DAYS OF THE EARTH DISTURBANCE ACTIVITY, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO. 363-2134-008, MARCH 2012, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMPS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BMPS ARE OPERATIONAL.
9. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

MAINTENANCE OF FACILITIES:

1. SILT FENCE SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS 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 E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.
3. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
4. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
5. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
6. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.
7. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
8. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES.

TYPICAL UTILITY TRENCHING NOTES:

1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION, AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM WORK CREWS FOR CLEARING-GRUBBING AND SITE RESTORATION-STABILIZATION OPERATIONS.
3. PLACE FILTER FENCE OR COMPOST SOCK DOWN-SLOPE OF THE PROPOSED TRENCHING ACTIVITIES. PLACE EXCAVATED MATERIALS ON THE UP-SLOPE SIDE OF THE TRENCH.
4. TOPSOIL SHALL BE REMOVED AND STOCKPILED SEPARATELY FROM BACKFILL SOILS. TOPSOIL SHALL BE REPLACED UPON FINAL GRADING FOR STABILIZATION.
5. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
6. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
7. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND STABILIZED IMMEDIATELY IN ACCORDANCE WITH 'SEEDING & MULCHING SCHEDULE'.
8. REMOVE FILTER FENCE AND OTHER ESC MEASURES AFTER AREA IS STABILIZED. ANY AREAS DISTURBED DURING THE REMOVAL OF ESC MEASURES SHALL BE RESTABILIZED IMMEDIATELY.

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION.

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE AND SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE – 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER – 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED.
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH.
5. STEEP SLOPE AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS.

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS

THE PERMITTEE / CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RUNOFF EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOTICE OF TERMINATION BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

1. A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP IMPLEMENTATION AND MAINTENANCE, AND COMPLIANCE ACTIONS; AND
2. THE DATE, TIME, NAME, AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

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

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

REDUCTION, LOSS, OR FAILURE OF THE BMPS

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

TERMINATION OF COVERAGE

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE OF THE FACILITY MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE N.O.T. MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE N.O.T., THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE N.O.T. IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROJECT SPECIFIC INFORMATION
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– PROJECT SPECIFIC INFORMATION
	MINIMIZE SOIL COMPACTION	– PROJECT SPECIFIC INFORMATION
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PROJECT SPECIFIC INFORMATION
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THERE ARE NO STREAMS OR WETLANDS ON THE PROPERTY; THIS REQUIREMENT DOES NOT APPLY.
ANTI-DEGRADATION ANALYSIS		– DOES NOT APPLY. CHAPTER 93 = ---, MF THEREFORE IT IS NOT SPECIAL PROTECTION WATERSHED.

PCSM SHORT AND LONG-TERM OPERATION AND MAINTENANCE REQUIREMENTS:

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED A WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE DURING THE SHORT TERM FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMP'S AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER 102.7(B)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON, INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION, OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

BMPs SHOULD BE INSPECTED AT LEAST ONE (1) TIME PER YEAR AND AFTER RUNOFF EVENTS.

THE PCSM BMPs MUST BE INSPECTED AND MAINTAINED AS NOTED UNDER THE INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN NOTES, AND THE INDIVIDUAL OPERATION AND MAINTENANCE NOTES AS INDICATED ON THE PLANS. THIS INCLUDES REPAIRS AND REPLACEMENT IF REQUIRED TO ENSURE THEY FUNCTION/OPERATE PROPERLY.

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE COMPLETED AND MADE AVAILABLE FOR DEP OR BCCD STAFF FOR REVIEW.

LONG TERM – P.C.S.M. BMP INSPECTION, MAINTENANCE AND/OR REPLACEMENT PLAN

BMP TYPE	MAINTENANCE ACTIVITY	SCHEDULE
BMP 5.6.2 MINIMZE SOIL COMPACTION	MINIMUM SOIL COMPACTION AREAS MAY NEED SOIL AMENDMENT SINCE COMPACTION MAY OCCUR BY USE AND/OR SETTLING. VEGETATION SHOULD BE MAINTAINED IN GOOD CONDITION AND ANY BARE SPOTS RE-VEGETATED AS SOON AS POSSIBLE. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE MINIMUM SOIL COMPACTION AREAS. MOW AS APPROPRIATE. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS AND REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.3 – SUBSURFACE INFILTRATION BASIN	BI-ANNUALLY (AFTER FIRST YEAR OF INSPECTING EACH EVENT) AND AFTER LARGE STORM EVENTS (0.5-INCHES OR GREATER), INSPECT ACCESS MANHOLES, INFLOW AND OUTFLOW POINTS INCLUDING PIPES, OUTLET STRUCTURE, INLETS AND MANHOLES, AND THE DISCHARGE/DAYLIGHT POINT FROM THE BASIN. IDENTIFY AND REPORT SEDIMENT AND DEBRIS ACCUMULATION, SYSTEM BACK UP, AND CHANGES IN FLOW RATES. DETERMINE IF MAINTENANCE IS REQUIRED. IF REQUIRED, USE A VACUUM PUMP TRUCK TO EVACUATE DEBRIS FROM INFLOW AND OUTFLOW POINTS. FLUSH THE SYSTEM WITH CLEAN WATER FORCING DEBRIS FROM THE SYSTEM, TAKING CARE TO AVOID EXTREME DIRECT WATER PRESSURE. SUBSURFACE INFILTRATION BASINS/BMPs ARE DESIGNED TO DE-WATER IN 72 HOURS, IF INFILTRATION BASINS/BMPs DO NOT DE-WATER WITHIN 72 HOURS PERFORM REMEDIATION MEASURES TO CORRECT THE PROBLEM. CLEAR DEBRIS FROM OUTLET STRUCTURE AND ASSOCIATED INLET AND OUTLET PIPES. IF INFILTRATION BASIN CONTINUES TO FAIL OVERTIME BY NOT DRAINING PROPERLY, COMPLETE REPLACEMENT OF SYSTEM MAY BE REQUIRED. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS FOR STORMWATER BMP INSPECTION REQUIREMENTS. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.4.5 – RAIN GARDEN	BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC. DURING PERIODS OF EXTENDED DROUGHT. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON. MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY 2 TO 3 YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.BIORETENTION AREAS MAY REQUIRE WATERING. TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH. ALL INSPECTIONS & REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY. AFTER EACH RAINFALL EVENT OF 0.5-IN OR GREATER DURING THE FIRST YEAR
BMP 6.6.4 WATER QUALITY FILTER INSERTS/SNOUTS	REMOVE ACCUMULATED TRASH AND SEDIMENT FROM THE ABOVE GROUND PORTION OF THE INLET STRUCTURE. FOLLOW THE MANUFACTURER'S GUIDELINES FOR MAINTENANCE, AND INLETS SHOULD BE INSPECTED WEEKLY DURING CONSTRUCTION. POST CONSTRUCTION, THE WATER QUALITY INSERTS SHALL BE CLEANED OF SEDIMENT AND DEBRIS WHEN THEY ARE HALF FULL AND CLEANED AT LEAST TWICE A YEAR. STORM DRAINS SHALL BE KEPT FREE OF DEBRIS. RIP-RAP APRONS AT OUTLETS SHALL BE INSPECTED TO ENSURE PROPER EROSION PROTECTION IS IN PLACE. IF EROSION OCCURS AT APRONS, THE RIP-RAP SHALL BE REPAIRED TO ORIGINAL DESIGN SPECIFICATIONS. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS AND REPAIRS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.
BMP 6.7.2 LANDSCAPE RESTORATION	VISUALLY INSPECT OF TREES TO DETERMINE THE HEALTH OF TRUNK, BRANCHES, AND LEAVES/VEGETATION. MONITOR GROWTH AND REMOVE WEED GROWTH AS NECESSARY. DEAD TREES SHALL BE REPLACED WITH A TREE OF THE SAME SPECIES NO LATER THAN THE NEXT PLANTING TIME PER THE OPERATION AND MAINTENANCE PLANTING DAY REQUIREMENTS. IF BMP OR STRUCTURES ARE FOUND TO BE FAILING BASED ON INTENDED FUNCTIONALITY, FULL REPLACEMENT OF BMP AND/OR STRUCTURES SHALL BE NECESSARY. ALL INSPECTIONS REPAIRS AND REPLACEMENTS SHALL BE DOCUMENTED IN A WRITTEN REPORT.	BI-ANNUALLY OR MORE FREQUENTLY, AS NECESSARY.

*THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PROPOSED BMPs.

GENERAL PCSM PLANNING AND DESIGN
§102.8(B)

THE FOLLOWING MEASURES WERE TAKEN TO PRESERVE THE INTEGRITY OF STREAM CHANNELS AND TO MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM:
- DIRECT RUNOFF FROM IMPERVIOUS SURFACES TO BMPs.
- USE NATIVE SPECIES, WHICH REQUIRE LESS FERTILIZATION AND CHEMICAL APPLICATION THAN NON-NATIVE SPECIES.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO PREVENT AN INCREASE IN THE RATE OF STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS WHICH WILL CONTROL RUNOFF RATES.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.
- MAINTAIN GENERALLY THE SAME DRAINAGE PATTERNS AS IN THE EXISTING CONDITION.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE ANY INCREASE IN STORM WATER RUNOFF VOLUME:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, WHICH WILL CONTROL RUNOFF VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE IMPERVIOUS AREAS:
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- PROPOSED BMPs SUCH AS THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS, RE-VEGETATION OF DISTURBED AREAS, AND WATER QUALITY FILTERS WILL TREAT RUNOFF PRIOR TO LEAVING THE SITE.

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE LAND CLEARING AND GRADING:
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.
- AREAS NOT REQUIRED TO BE CLEARED OR GRADED SHALL BE MAINTAINED IN EXISTING CONDITIONS.

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE.
- USE TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS.
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS.

THE FOLLOWING MEASURES WERE TAKEN TO UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORM WATER RUNOFF:
- DIRECT RUNOFF TO THE PROPOSED RAIN GARDENS AND UNDERGROUND BASINS TO CONTROL RUNOFF RATES AND VOLUME.
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL.

RECEIVING SURFACE WATERS
§102.8(F)(5)

THE SITE RUNOFF DRAINS TO A TRIBUTARY TO THE MEADOWBROOK CREEK WHICH HAS A CHAPTER 93 CLASSIFICATION OF TROUT STOCKING FISHES, MIGRATORY FISHES (TSF,MF).

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM NOTES

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: N.T.S.
DRAWN BY: WMH	CHECKED BY: JM
SHEET NO.: 19 OF 40	

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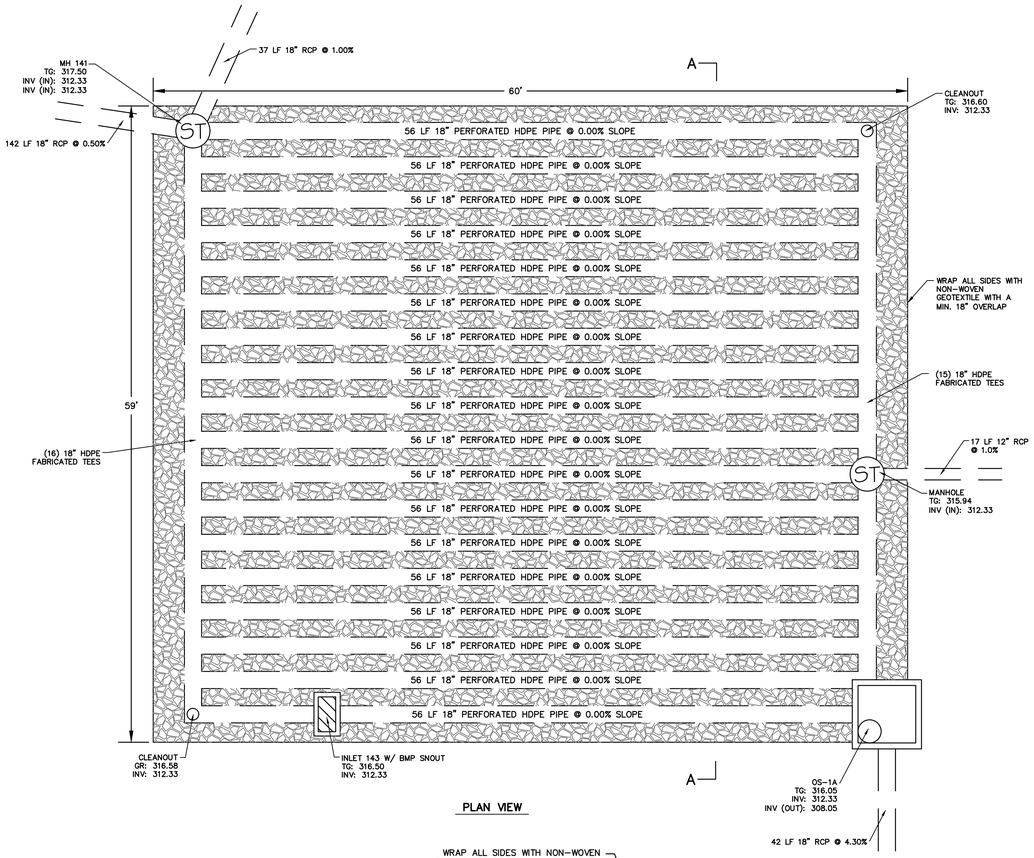
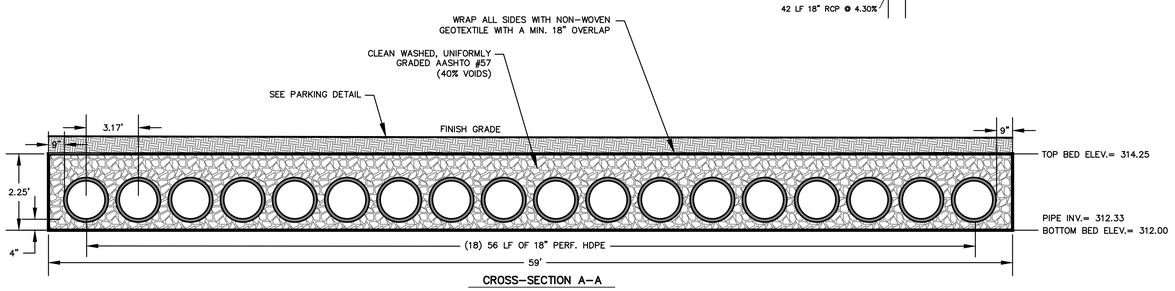


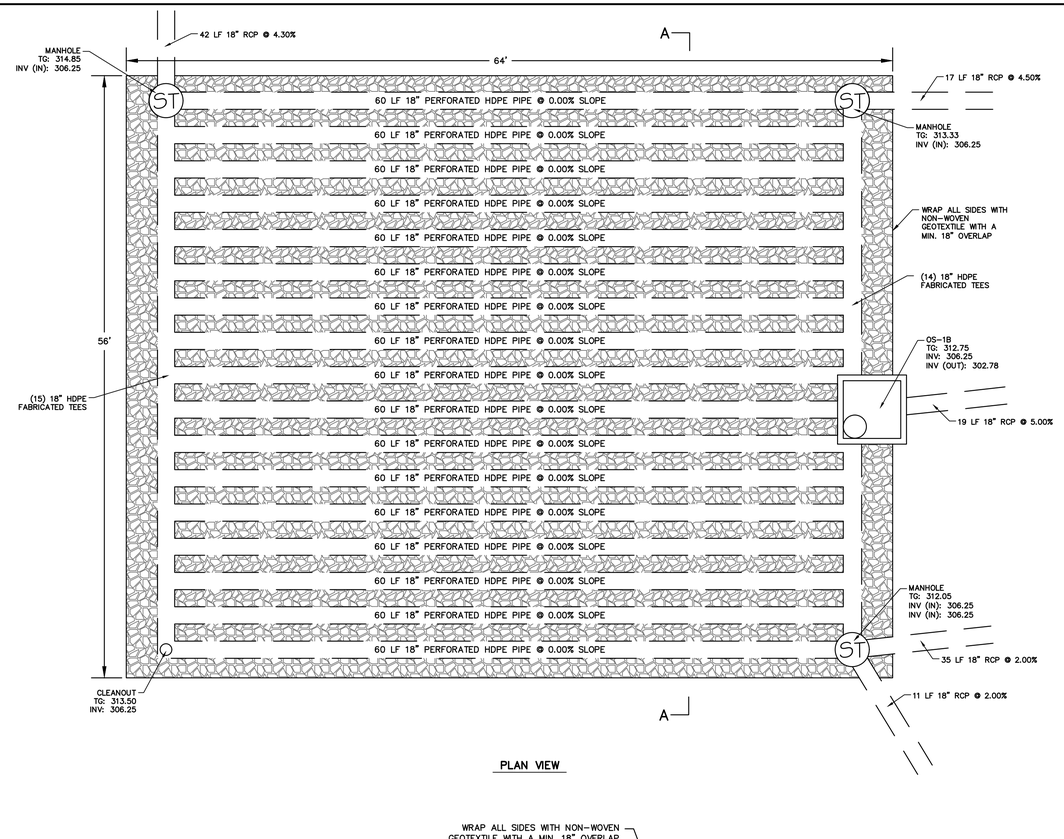
PLAN VIEW



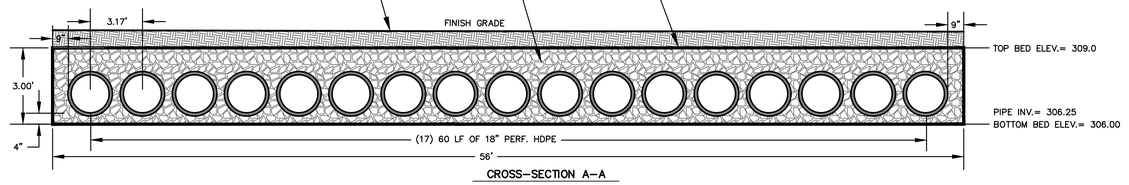
CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1A DETAIL

NOT TO SCALE



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 1B DETAIL

NOT TO SCALE

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 20 OF 40

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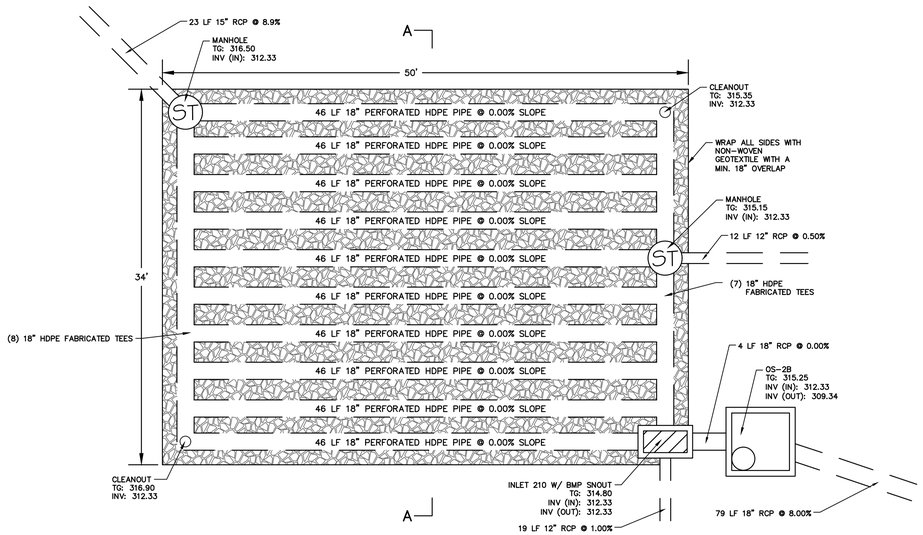
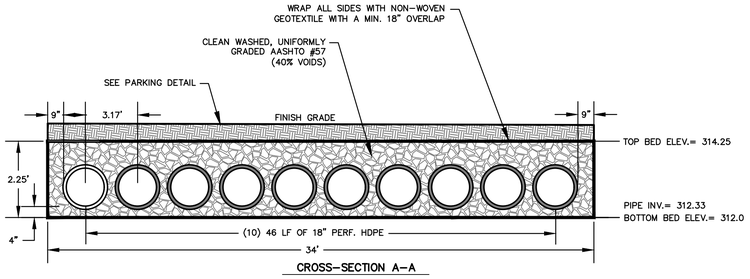
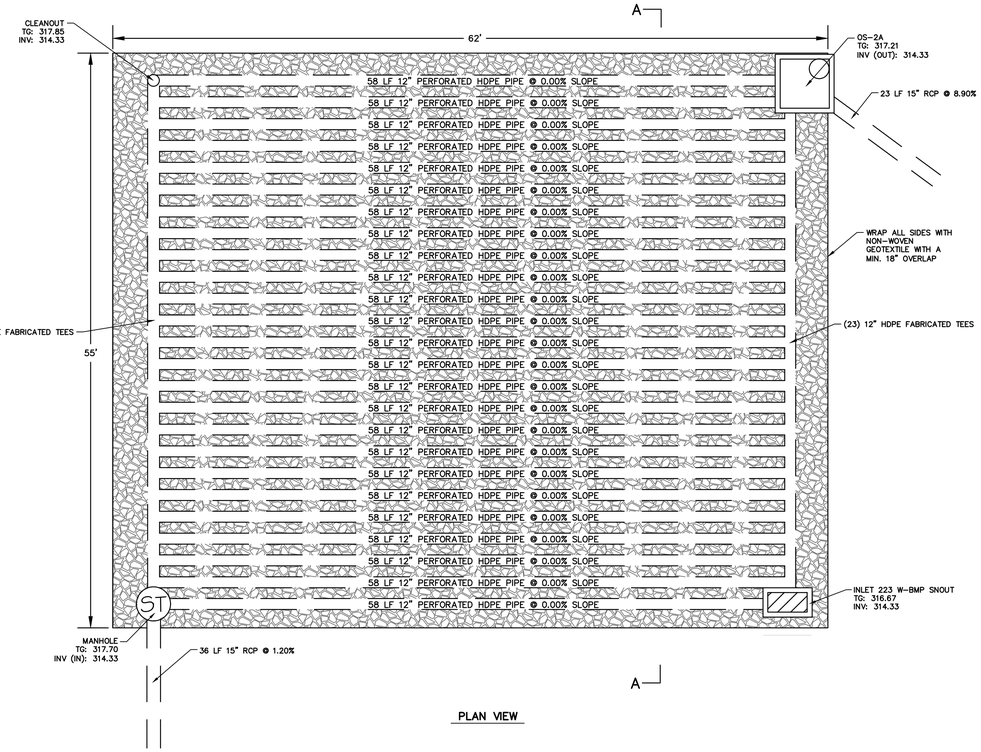


PLAN VIEW

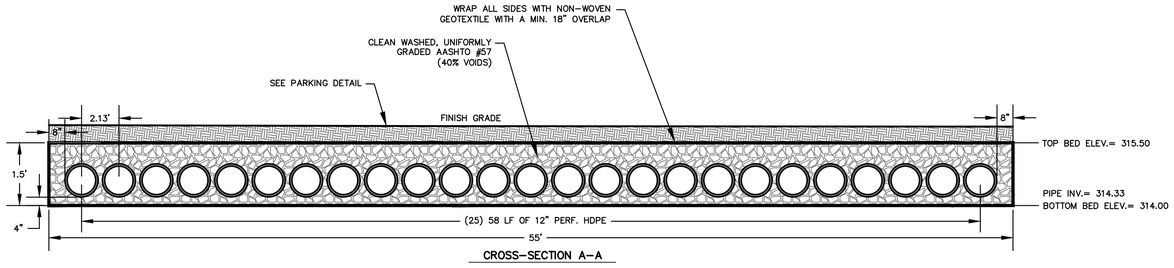


UNDERGROUND SWM INFILTRATION BASIN 2B DETAIL

NOT TO SCALE



PLAN VIEW



UNDERGROUND SWM INFILTRATION BASIN 2A DETAIL

NOT TO SCALE

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-99792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 21 OF 40

258

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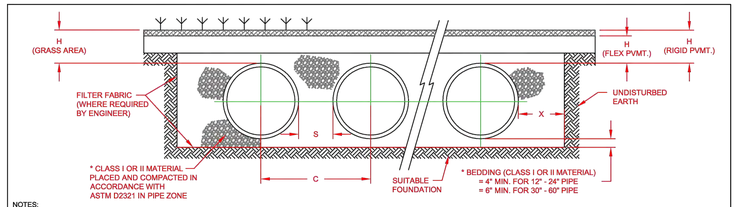

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	NOMINAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29.0" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	17.0" (432mm)	38.0" (965mm)	9" (229mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	14.0" (356mm)	41.5" (1054mm)	10" (254mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	18" (457mm)	53.0" (1346mm)	18" (457mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	22" (559mm)	63.0" (1600mm)	18" (457mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	24" (610mm)	72.0" (1829mm)	18" (457mm)	12" (305mm)	24" (610mm)
48" (1200mm)	54" (1372mm)	25" (635mm)	78.5" (1994mm)	18" (457mm)	12" (305mm)	24" (610mm)
60" (1500mm)	67" (1702mm)	24" (610mm)	90" (2286mm)	18" (457mm)	12" (305mm)	24" (610mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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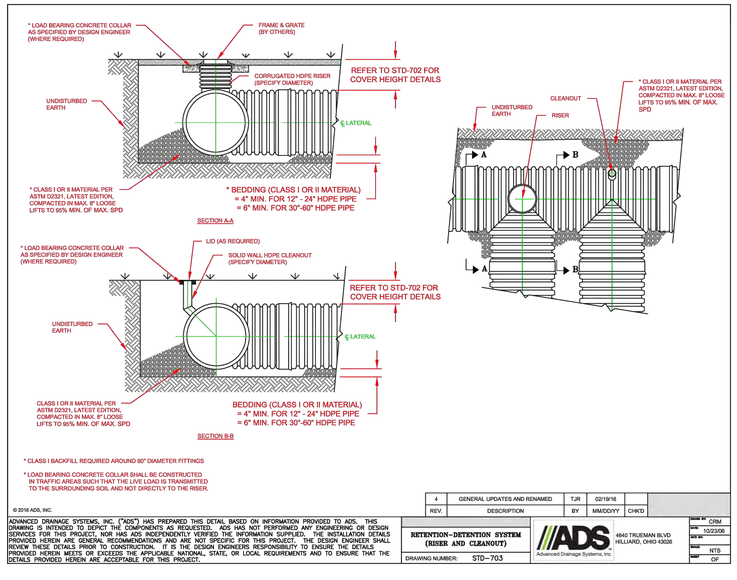
RETENTION-DETENTION SYSTEM (CROSS-SECTION)

DRAWING NUMBER: STD-702

ADS Advanced Drainage Systems, Inc. — 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DESIGNED: AWM
DATE: 07.25.06
DRAWN:
SCALE: NTS
SHEET: OF



* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS

* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
4	GENERAL UPDATES AND RENAMED	TJR	02/19/16	

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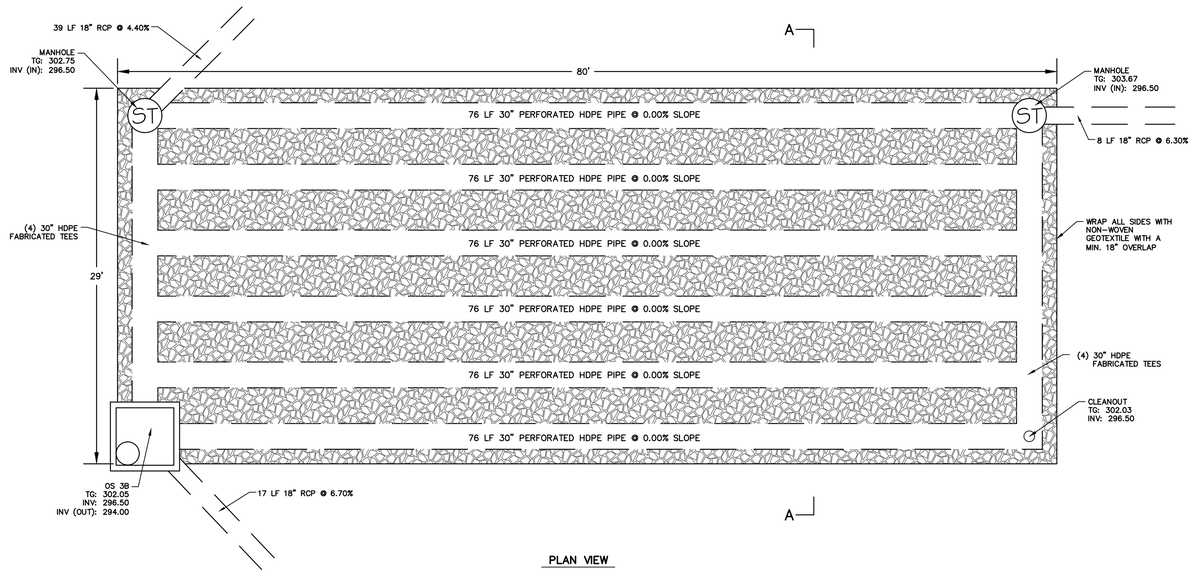
RETENTION-DETENTION SYSTEM (RISER AND CLEANOUT)

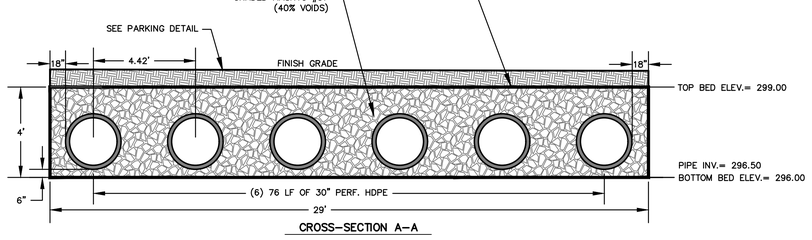
DRAWING NUMBER: STD-703

ADS Advanced Drainage Systems, Inc. — 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DESIGNED: CRM
DATE: 10/23/06
DRAWN:
SCALE: NTS
SHEET: OF



PLAN VIEW



CROSS-SECTION A-A

UNDERGROUND SWM INFILTRATION BASIN 3B DETAIL

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST · LANGHORNE, PA 19047 · (215) 369-3055 · www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	BY
3	REVISED PER TOWNSHIP COMMENTS	JM
2	75% CD SUBMISSION	DAW
1	50% CD SUBMISSION	DAW
	DESCRIPTION	BY
	06/05/22	
	09/09/22	
	07/20/22	
	DATE	

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

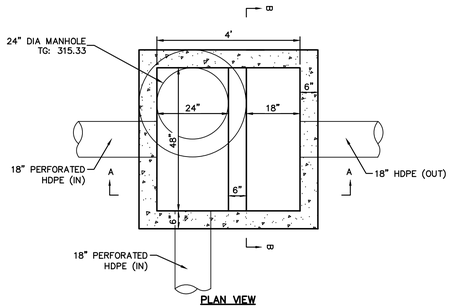
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

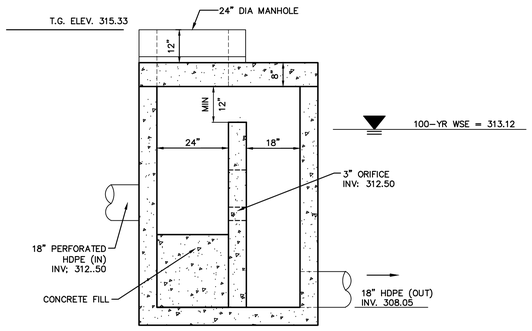
SHEET NO.: 22 OF 40

259

T:\land design\2017\2017012006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 22 PCSM DETAILS - 3 Plotted By: whelder, on Mon Jun 05, 2023 at 11:27am



PLAN VIEW



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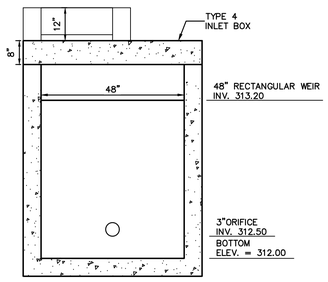
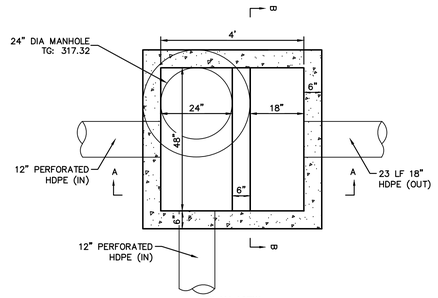


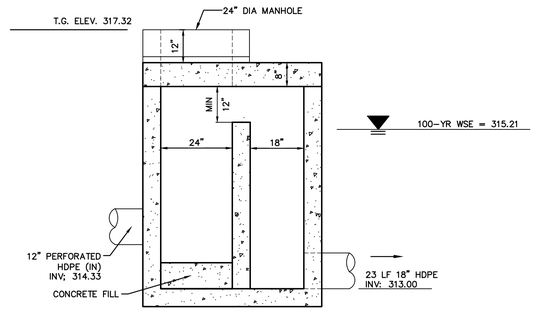
SECTION B–B

OS–1A OUTLET STRUCTURE DETAIL

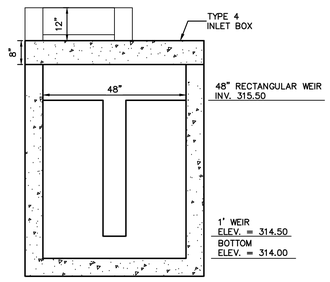
NOT TO SCALE



PLAN VIEW



SECTION A–A



SECTION B–B

OS–2A OUTLET STRUCTURE DETAIL

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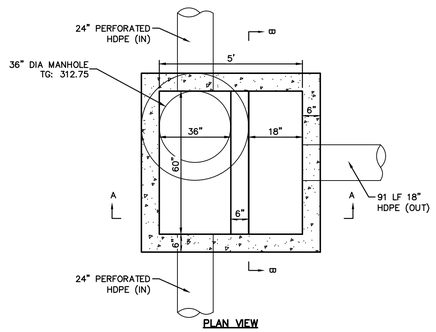
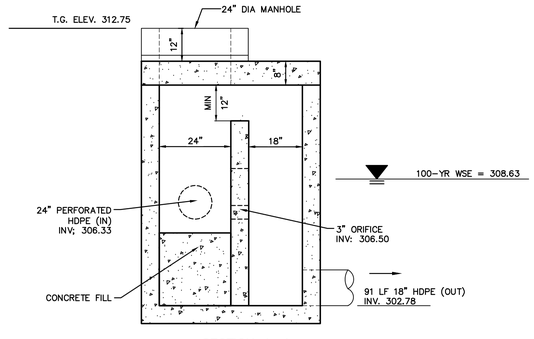


PLAN VIEW



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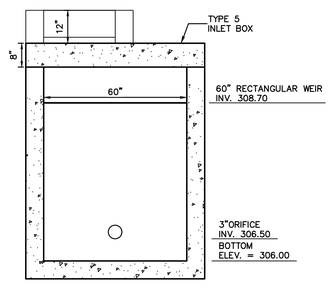

SECTION B–B

OS–1B OUTLET STRUCTURE DETAIL

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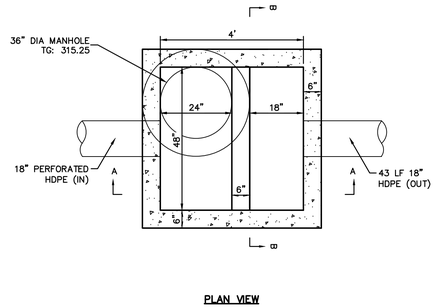
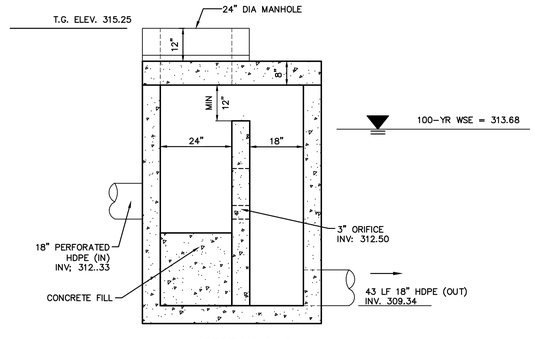


PLAN VIEW



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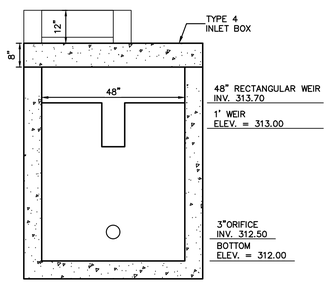

SECTION B–B

OS–2B OUTLET STRUCTURE DETAIL

NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MmontgomERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

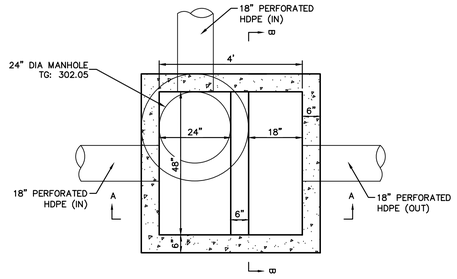
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

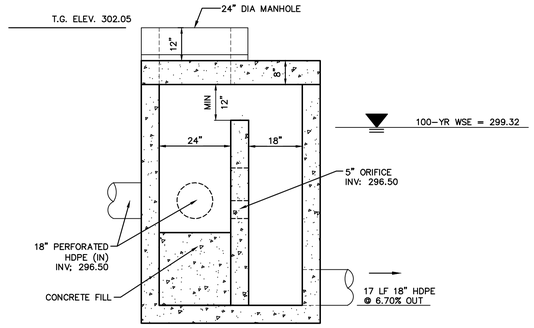
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 23 OF 40

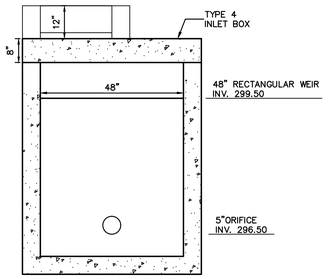
T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 23 PCSM DETAILS – 4 Plotted By: wheider, on Mon Jun 05, 2023 at 11:28am



PLAN VIEW



SECTION A–A



SECTION B–B

OS–3B OUTLET STRUCTURE DETAIL

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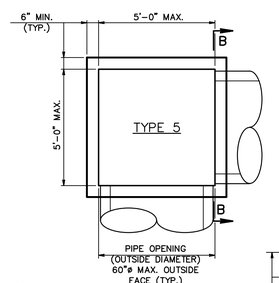
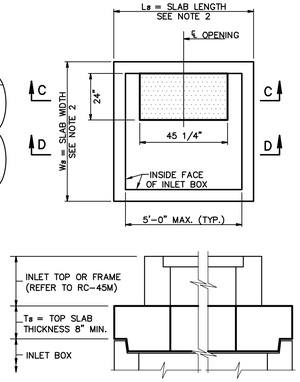
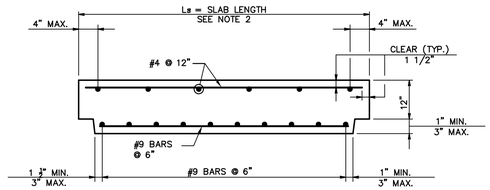




NOTE:
1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.

SECTION C–C w/ SHIPLAP JOINT

NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN

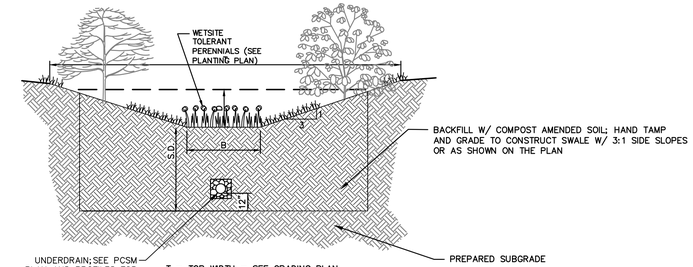


SECTION D–D w/ SHIPLAP JOINT

(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

PRECAST CONCRETE INLET BOX–TYPE 5

NOT TO SCALE

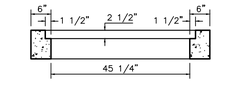


T = TOP WIDTH = SEE GRADING PLAN
B = BOTTOM WIDTH = SEE GRADING PLAN
D = WATER DEPTH = SEE STORMWATER REPORT
S.D. = AMENDED SOIL STORAGE DEPTH SEE SWM RPT.

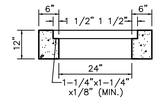
NOTE: VEGETATED SWALE SHALL BE CONSTRUCTED WITH A 12" DEPTH AND 2'V:1'H SIDE SLOPES

RAINGARDEN AND VEGETATED SWALE DETAIL

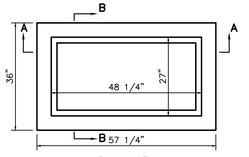
NOT TO SCALE



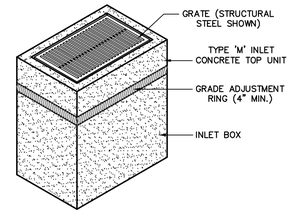
SECTION A–A



SECTION B–B



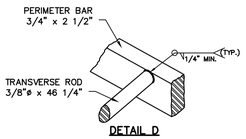
PLAN VIEW



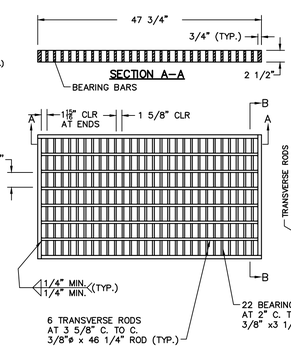
NOTE:
REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET CONSTRUCTION.

TYPE 'M' INLET DETAIL

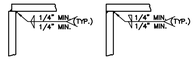
NOT TO SCALE



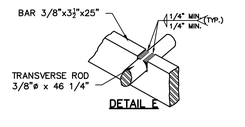
DETAIL D



SECTION A–A



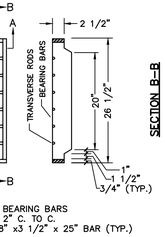
TYPICAL CORNER DETAILS



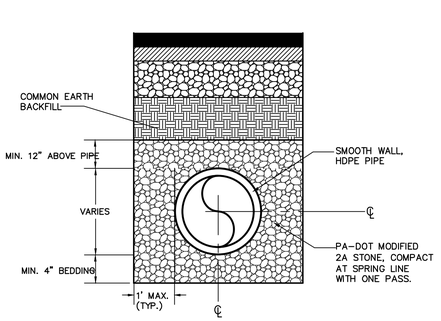
DETAIL E

STRUCTURAL STEEL GRATE BICYCLE SAFE

NOT TO SCALE



SECTION B–B



HDPE BACKFILL DETAIL

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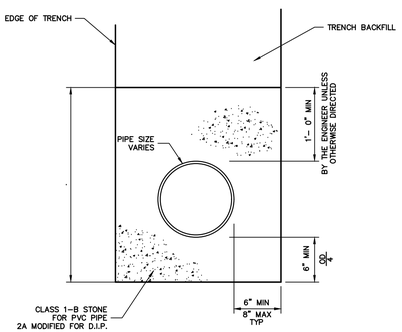

STANDARD PIPE BEDDING

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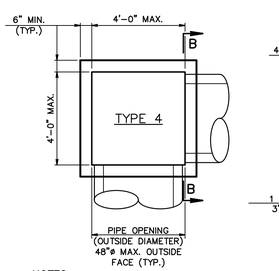
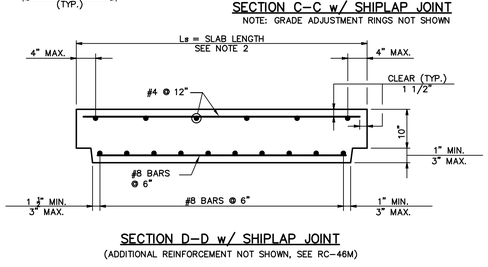




SECTION D–D w/ SHIPLAP JOINT

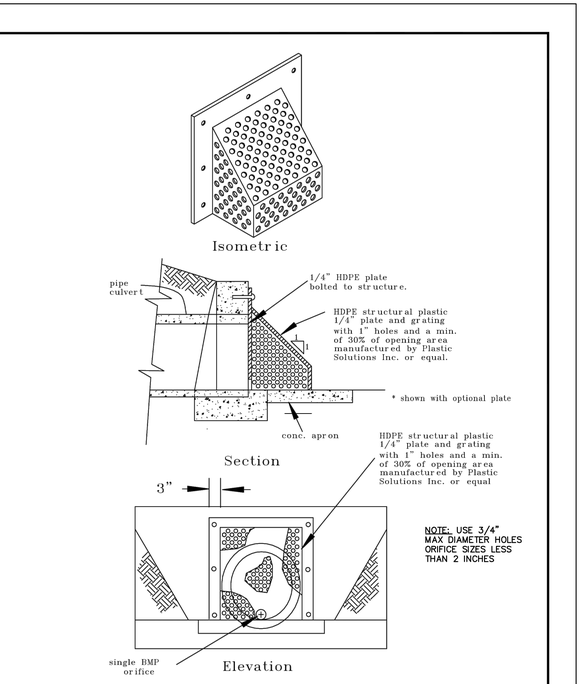
(ADDITIONAL REINFORCEMENT NOT SHOWN, SEE RC–46M)

NOTES:
1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.

PRECAST CONCRETE INLET BOX–TYPE 4

NOT TO SCALE

BOX SHALL BE PROVIDED WITH OVER–SIZED FRAME AND GRATE TO MAXIMIZE INLET CAPACITY. OMIT TOP SLAB TO ACCOMMODATE FRAME.



BMP TRASH RACK

PLASTIC SOLUTIONS INC.
P.O. Box 4386
Winchester VA 22604
877-877-5727
www.plastic-solution.com

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3555 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 5

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814–865–0545

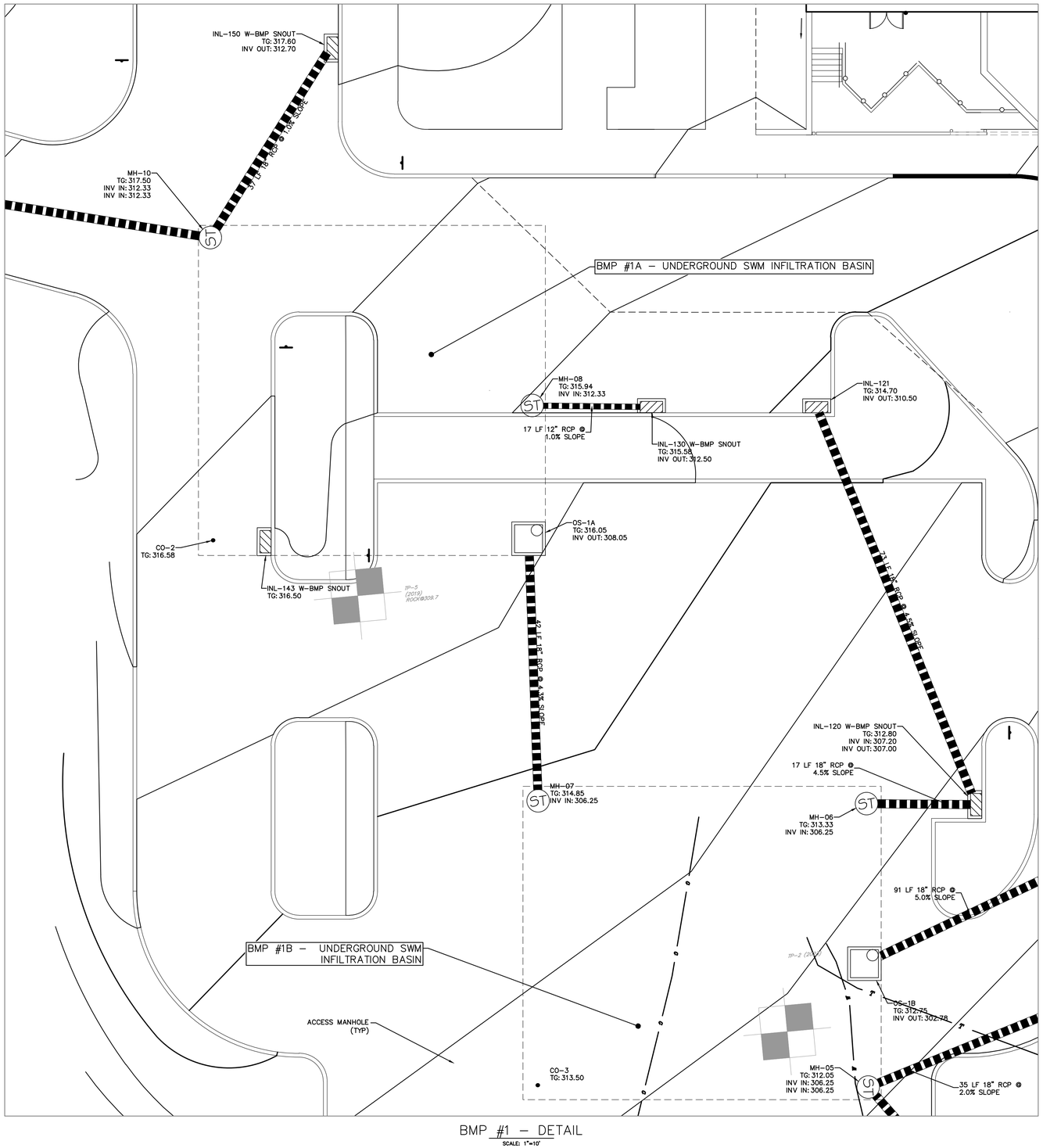
MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

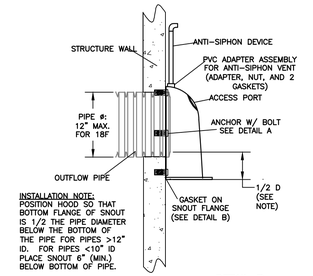
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

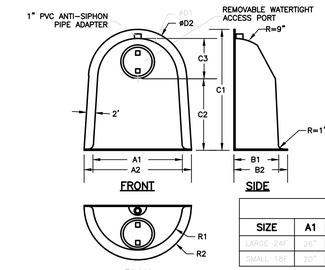
SHEET NO.: 24 OF 40

T:\and design\2017\20171200\6_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 24 PCSM DETAILS – 5 Plotted By: whelder, on Mon Jun 05, 2023 at 11:28am

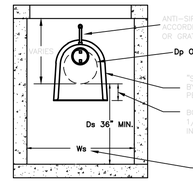


BMP #1 – DETAIL
SCALE: 1"=10'





DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT

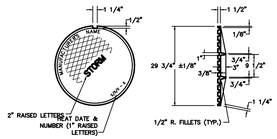


1. SELECT THE SNOUT OIL & DEBRIS STOP OF SIZE AND CONFIGURATION TO FIT APPLICATION. SEE TABLE.
2. CENTER THE SNOUT DIRECTLY OVER THE EXIT PIPE SO THAT THE ENTIRE PIPE IS COVERED AND SO THAT THE LOWER EDGE OF THE HOOD IS AT LEAST 1/2 THE PIPE DIAMETER BELOW THE LOWEST INSIDE POINT OF THE PIPE.
3. DRILL EQUALLY SPACED 7/16" HOLES THROUGH THE SNOUT FLANGE. (NUMBER OF HOLES MAY VARY WITH SIZE OF SNOUT.)
4. MARK AND DRILL CATCH BASIN AND INSTALL THE TAMP-IN LEAD ANCHORS:
   A) DRILL A 3/4" HOLE INTO THE BASE MATERIAL TO THE REQUIRED DEPTH.
   B) BLOW THE HOLE CLEAN OF DUST AND OTHER MATERIAL.
   C) INSERT THE ANCHOR INTO THE HOLE (LEAD SHIELD OUT).
   D) POSITION THE SETTING TOOL IN THE ANCHOR. THE OUTER RIM OF THE TOOL SHOULD SEAT ONTO THE LEAD SHIELD RIM.
   E) USING THE TOOL, SET THE ANCHOR BY DRIVING THE LEAD SLEEVE OVER THE CONE USING SEVERAL SHARP HAMMER BLOWS. BE SURE THE ANCHOR IS AT THE REQUIRED EMBEDMENT DEPTH.
5. ATTACH THE VENT PIPE ADAPTER IN THE PREDRILLED HOLE IN THE TOP OF THE SNOUT USING THE 2 FLAT O-RING GASKETS AND PVC LOCK-NUT SUPPLIED IN KIT. INSTALL WITH THE FEMALE SLIP ADAPTER UP AND A WASHER ON EACH SIDE OF THE SNOUT SHELL. TIGHTEN LOCK-NUT HAND TIGHT.
6. REMOVE PSA BACKING AND WITH FIRM PRESSURE, ATTACH GASKET STRIP TO BACK OF FLANGE AND TRIM EXCESS.
7. ATTACH THE SNOUT TO THE CATCH BASIN WALL WITH 3/8" DIAMETER STAINLESS STEEL BOLTS DO NOT OVER TIGHTEN: 10 to 15 FOOT POUNDS SHOULD BE SUFFICIENT.
8. CUT THE ANTI-SIPHON VENT STACK TO LENGTH AND ATTACH TO HOOD WITH PVC CEMENT.
9. ATTACH 90 DEGREE FITTING TO VENT STACK WITH PVC CEMENT. INSURE THAT FITTING OPENING IS ACCESSIBLE FOR MAINTENANCE AND INSPECTION.

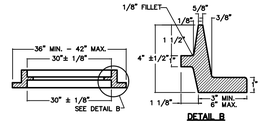
SNOUT DIMENSION

SIZE	A1	A2	B1	B2	C1	C2	C3	D1	D2	PORT ø	R1	R2
LARGE 24B	26"	20"	13"	15"	34"	20"	12"	24"	28"	10"	13"	15"
SMALL 18B	20"	24"	10"	12"	27"	16"	9"	18"	22"	6.5"	10"	12"

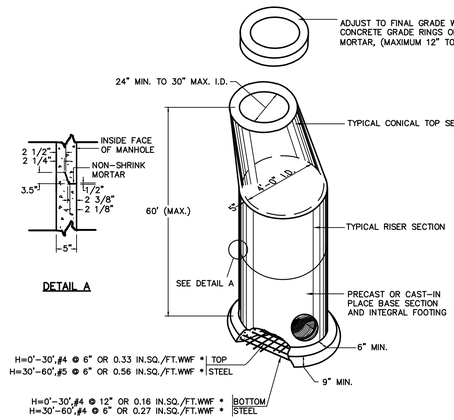
WATER QUALITY SNOUT INLET INSERT DETAIL
NOT TO SCALE



CAST IRON COVER
NOT TO SCALE



CAST IRON FRAME
(ALL ROUNDS AND FILLETS TO BE 1/4" R. UNLESS OTHERWISE NOTED.)



NOTES:

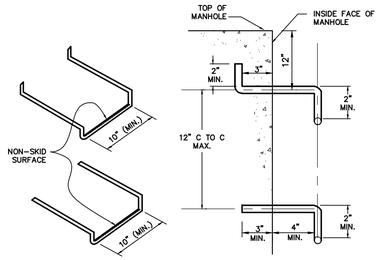
PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 714, MAY BE SUBSTITUTED FOR STANDARD CAST-IN-PLACE MANHOLE.

REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC-39, SHEET 3 of 5, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST MANHOLE CONSTRUCTION.

* PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 709.3.

MANHOLE STEPS SHALL BE PROVIDED IN ANY CASE WHERE THE STRUCTURE IS 5 FEET OR GREATER IN DEPTH.

PRECAST STORMWATER MANHOLE
NOT TO SCALE



MANHOLE AND INLET STEPS
NOT TO SCALE

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION	REV.
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS	3
DAW	09/09/22	75% CD SUBMISSION	2
DAW	07/20/22	50% CD SUBMISSION	1

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 6

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

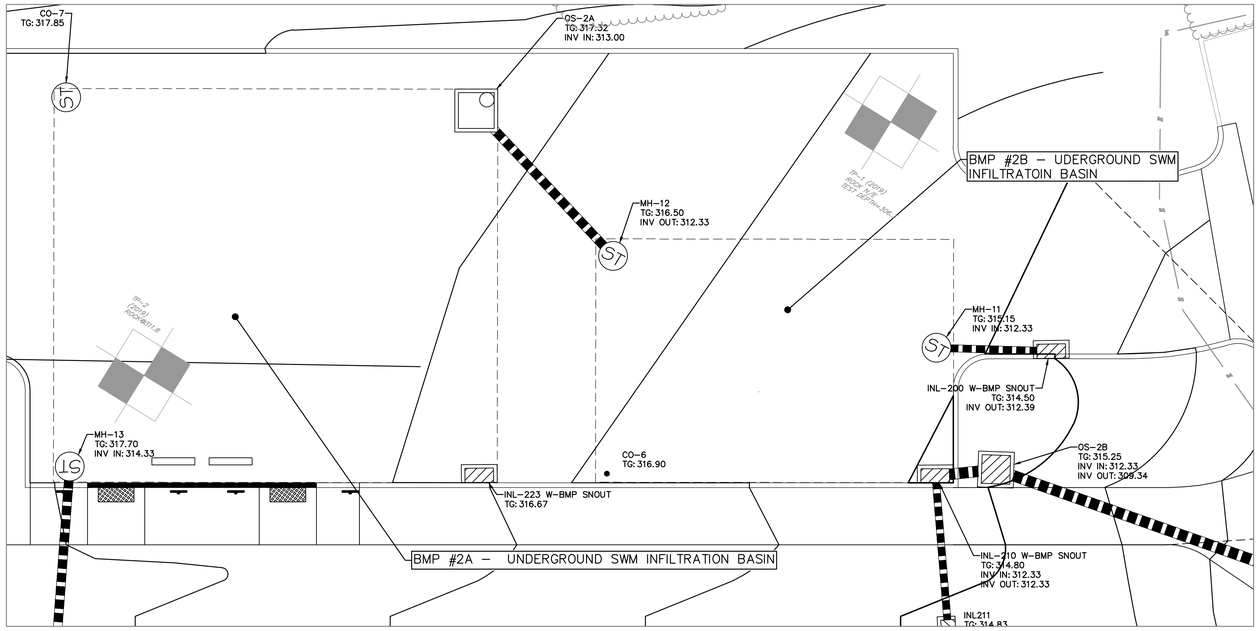
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

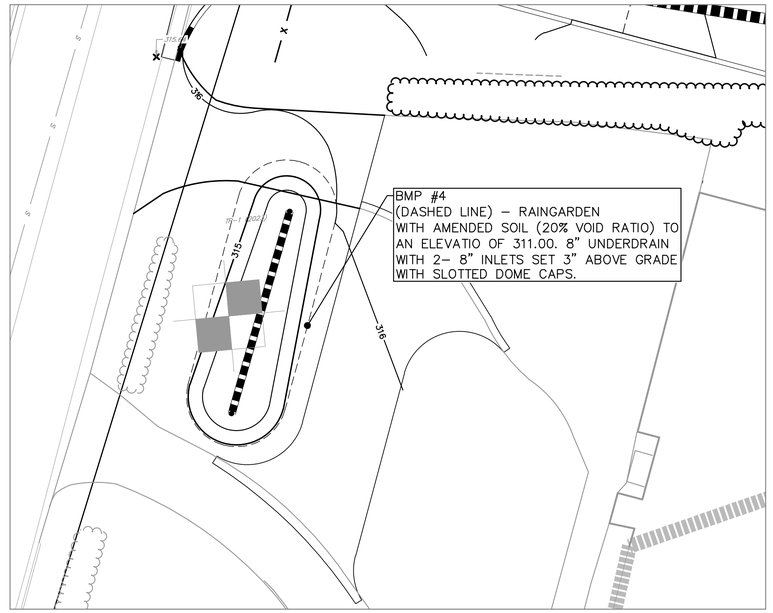
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 25 OF 40

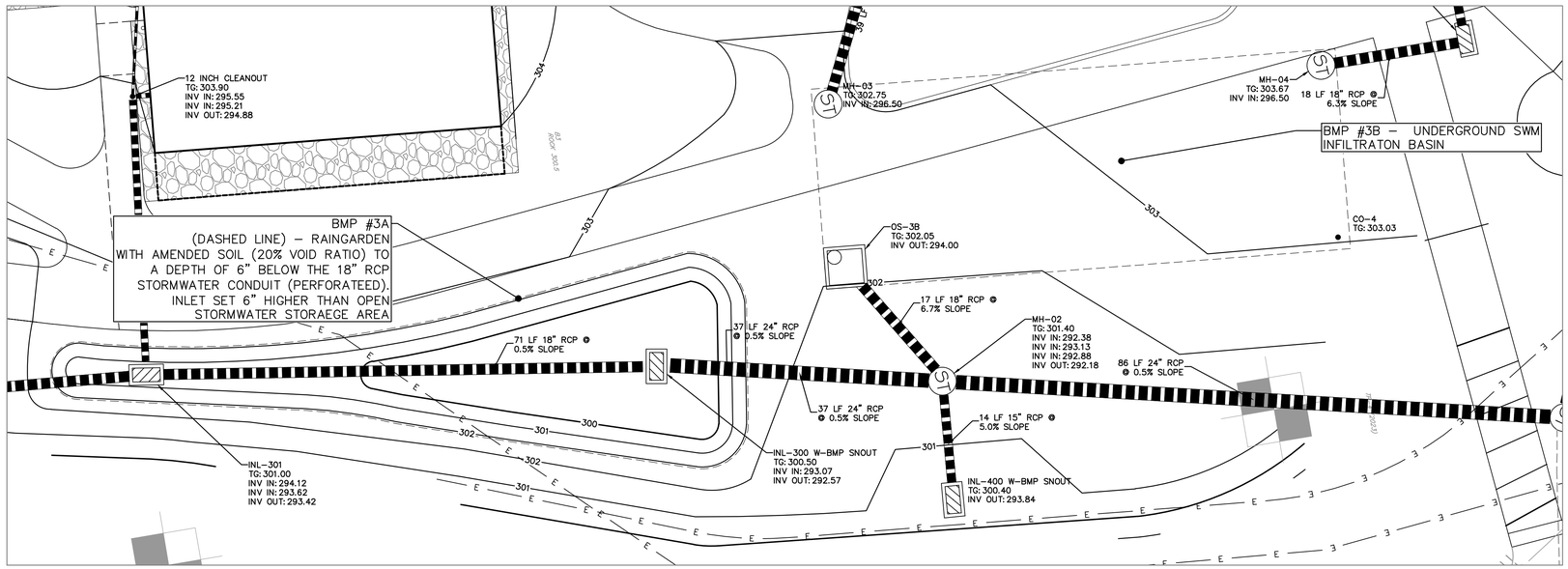
T:\land design\2017\20171200G_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS - 6.dwg Layout: 25 PCSM DETAILS - 6 Plotted By: whelder, on Mon Jun 05, 2023 at 11:28am



BMP #2A/2B – DETAIL
SCALE: 1"=10'



BMP #4– DETAIL
SCALE: 1"=10'



BMP #3A/AB– DETAIL
SCALE: 1"=10'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 7

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 26 OF 40

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS – 6.dwg Layout: 26 PCSM DETAILS – 7 Plotted By: whelder, on Mon Jun 05, 2023 at 11:28am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- S — EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 — PROPOSED MAJOR CONTOURS
- 319 — PROPOSED MINOR CONTOURS
- W — PROPOSED WATER LINE
- E — E — PROPOSED ELECTRIC LINE
- G — PROPOSED GAS LINE
- T — PROPOSED TELEPHONE LINE
- S — PROPOSED SAN. SEWER LINE
- NPDES — PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING FIRE HYDRANT LOCATION

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

PROPOSED 3-STORY ACADEMIC BUILDING 30,688 S.F.

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

EXISTING FIRE HYDRANT LOCATION

EXISTING FIRE HYDRANT LOCATION

W/F BARBARA AND ROBERT WETZEL
PARCEL 30-00-09784-00-3
1665 CLOVERLY LANE
PARCEL NOT INCLUDED

E PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09820-00-5
1684 CLOVERLY LANE
2.61 ACRES
DEED BOOK 5373 PAGE 806

PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09816-00-9
1668 CLOVERLY LANE
0.55 ACRES
BOOK 5620 PAGE 2671

OF THE PENNSYLVANIA STATE UNIVERSITY
PARCEL 30-00-09792-00-6
1577 CLOVERLY LANE
47.24280 ACRES (GROSS)
44.43180 (NET)
DEED BOOK 5065 PAGE 1053

CLOVERLY LANE

SEWELL LANE

WOODLAND ROAD

SCHOOL LANE

80 0 80 160
SCALE IN 1"=80' FEET

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

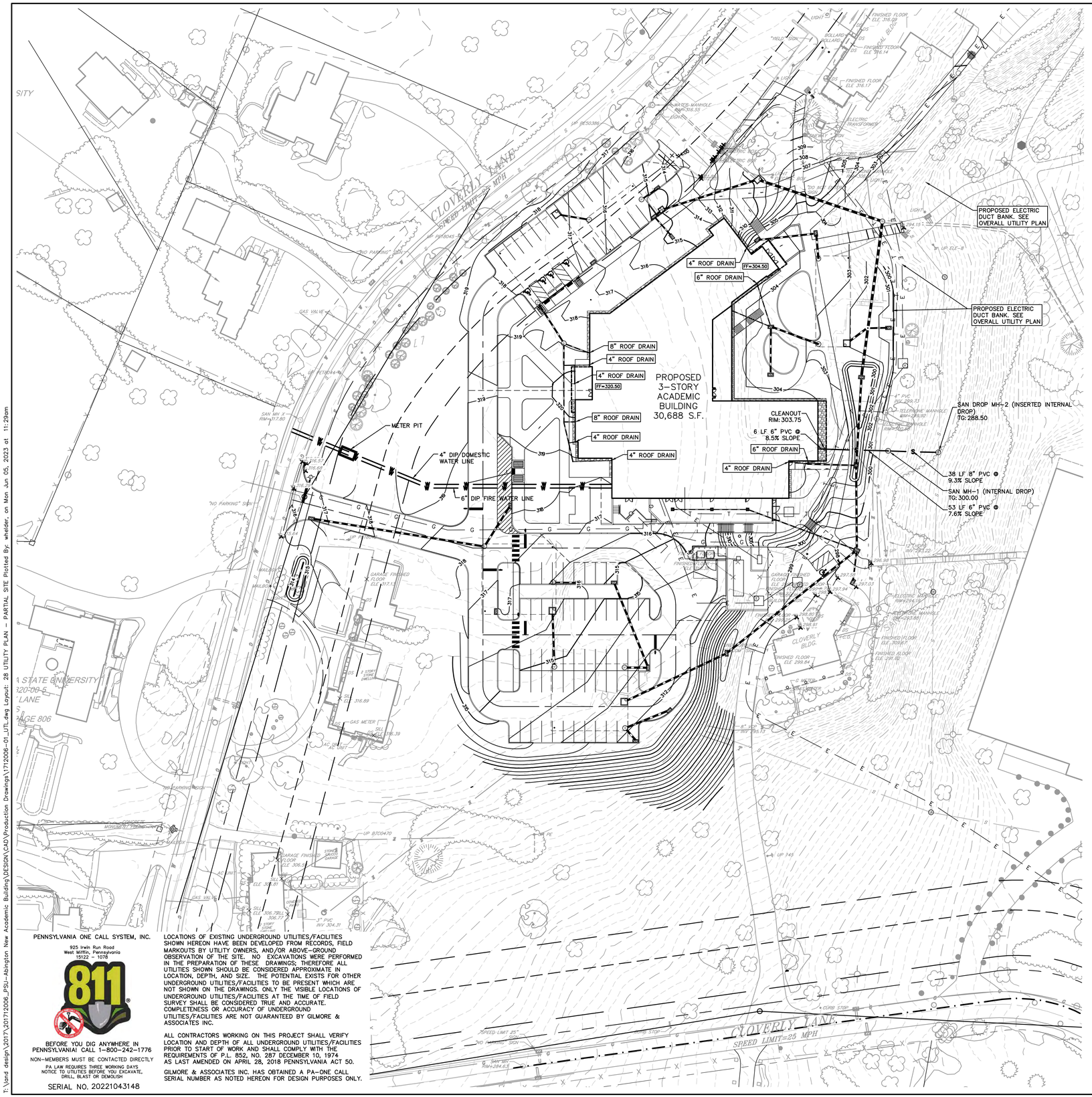
TAX MAP PARCEL No.: 30-00-09792-00-6

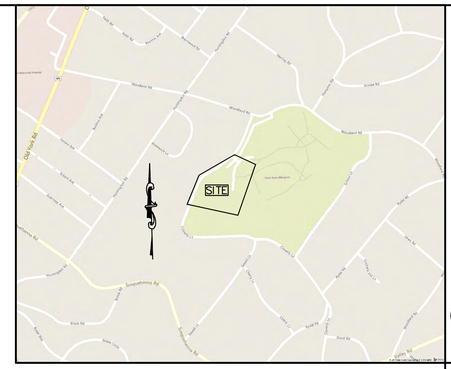
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=80'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 27 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN – OVERALL.dwg Layout: 27 UTILITY PLAN – OVERALL Plotted By: wheider, on Mon Jun 05, 2023 at 11:29am

NOT TO BE RECORDED





LOCATION MAP

SCALE: 1"=800'

GENERAL NOTES:

1. ALL SANITARY SEWER WASTE SHALL COMPLY WITH PENN STATE UNIVERSITY'S SAFETY POLICY SY40 - DISPOSAL OF POLLUTANTS IN UNIVERSITY SANITARY SYSTEM SY40.
2. ALL UTILITY SYSTEMS SHALL BE IN ACCORDANCE WITH PSU DESIGN AND CONSTRUCTION STANDARDS.
3. ADJUSTMENT OF EXISTING UTILITY STRUCTURES - ADJUST THE ELEVATION OF ALL EXISTING MANHOLE COVERS, VALVE BOXES, JUNCTION BOXES AND OTHER SIMILAR UTILITY STRUCTURES TO BE 1/8 INCH BELOW NEW FINISHED GRADE WHICH SHOULD BE LOCATED 1/2 TO 1 INCH BELOW FINISHED PAVED SURFACES. ALL ADJUSTMENTS TO EXISTING UTILITY STRUCTURES SHALL BE CONDUCTED IN COORDINATION WITH PENN STATE OFFICE OF PHYSICAL PLAN UTILITY SERVICES. ALL ADJUSTMENTS SHALL BE COMPLETED IN ACCORDANCE WITH PSU DESIGN AND CONSTRUCTION STANDARDS.
4. ALL PIPED UTILITIES SHALL INCLUDE A CONTINUOUS #10 WIRE INSTALLED WITH THE UTILITY LINE TO BE USED FOR FUTURE LOCATES.
5. ONCE-THRU COOLING USING POTABLE WATER IS NOT PERMITTED ON ANY EQUIPMENT.
6. THE WATER SERVICE WILL NOT BE ACTIVATED UNTIL THE HYDROSTATIC TESTING AND INSPECTION, DISINFECTION, BACTERIOLOGICAL TESTING, WATER METER INSPECTION, AND BACKFLOW PREVENTION DEVICE(S) INSPECTION AND TESTING HAS BEEN PROPERTY PERFORMED AND VERIFIED BY WATER SERVICES. ANY DEFICIENCIES TO THE WATER SYSTEM'S INSTALLATION MUST BE CORRECTED PRIOR TO THE ACTIVATION OF THE WATER SERVICE.
7. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE DURING CONSTRUCTION.
8. ALL WATER LINE WORK MUST BE COORDINATED WITH PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD, P.E. PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU. ONLY PENN STATE PERSONNEL MAY OPERATE WATERLINES AND VALVES.
9. ALL PIPE JOINTS SHALL BE FULLY RESTRAINED EITHER BY MECHANICAL JOINT (MEGALUGS STYLE RESTRAINT) OR PUSH-ON JOINT TYPE WITH GASKET CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST VERSION) AND SHALL BE AMERICAN PIPE FLEX-RING/FIELD-LOC, FAST-GRIP GASKET OR EQUAL AS APPROVED BY ENGINEERING SERVICES. ALL DUCTILE IRON PIPE MUST BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 (LATEST VERSION).
10. ALL WATER LINE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE UNIVERSITY'S (PSU) DESIGN AND CONSTRUCTION STANDARDS, AND PA DEP'S RULES AND REGULATIONS.
11. ALL WATER LINE MATERIALS AND EQUIPMENT SUBMITTALS MUST BE REVIEWED AND APPROVED BY PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD P.E., PSU OPP WATER UTILITY ENGINEER, OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU AND MAILING ADDRESS IS 209 WATER TREATMENT PLANT, UNIVERSITY PARK, PA 16802.
12. PROPOSED PVC SEWER PIPE SHALL BE GRADE SDR-26 OR BETTER.
13. ALL PROPOSED UTILITIES ARE TO BE PLACED UNDERGROUND.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X — EXISTING FENCE
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- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
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EXISTING UTILITY LEGEND

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- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1"=40'

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West Mifflin, Pennsylvania
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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	BY
3	REVISED PER TOWNSHIP COMMENTS	JM
2	75% CD SUBMISSION	DAW
1	50% CD SUBMISSION	DAW
	DATE	06/05/22
		09/09/22
		07/20/22

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – PARTIAL SITE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 28 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_UTL.dwg Layout: 28 UTILITY PLAN - PARTIAL SITE Plotted By: wheider, on Mon Jun 05, 2023 at 11:29am

PLAN NOTES:

1. ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016
2. SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY
3. WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED WATER LINE
- PROPOSED ELECTRIC LINE
- PROPOSED GAS LINE
- PROPOSED TELEPHONE LINE
- PROPOSED SAN. SEWER LINE
- PROJECT SITE BOUNDARY (NPDES PERMIT)
- ZONE X; 0.2% ANNUAL CHANCE FLOOD HAZARD
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- EXISTING PAVING

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE 1"=40': 40 0 40 80

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RIPARIAN CORRIDOR EXHIBIT

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

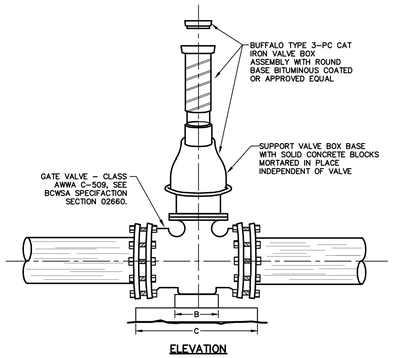
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: JM

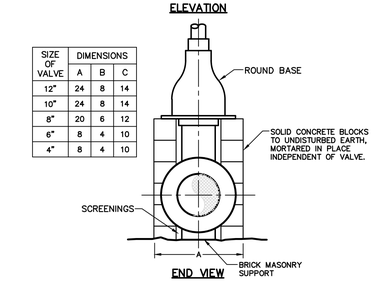
SHEET NO.: 29 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN - STREAM CROSSING.dwg Layout: 29 RIPARIAN CORRIDOR EXHIBIT Plotted By: whelder, on Mon Jun 05, 2023 at 11:29am



ELEVATION

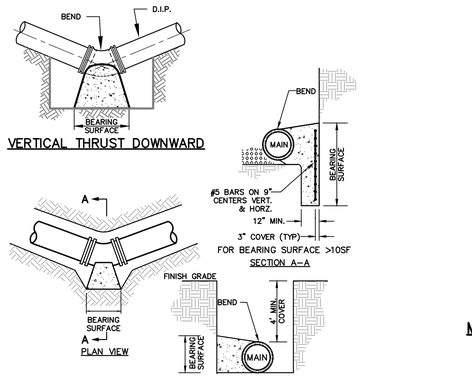
SIZE OF VALVE	DIMENSIONS		
	A	B	C
12"	24	8	14
10"	24	8	14
8"	20	6	12
6"	8	4	10
4"	8	4	10



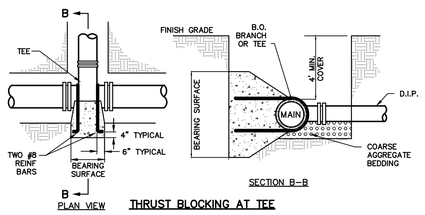
END VIEW

W4 - GATE VALVE WITH VALVE BOX DETAIL

NOT TO SCALE

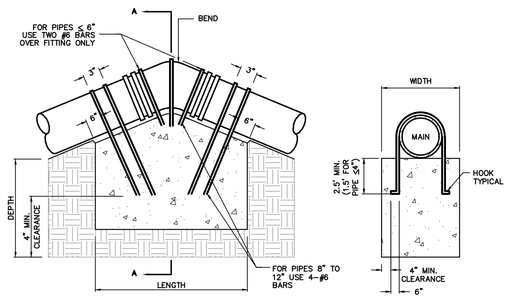


THRUST BLOCKING AT HORIZONTAL BEND



THRUST BLOCKING AT TEE

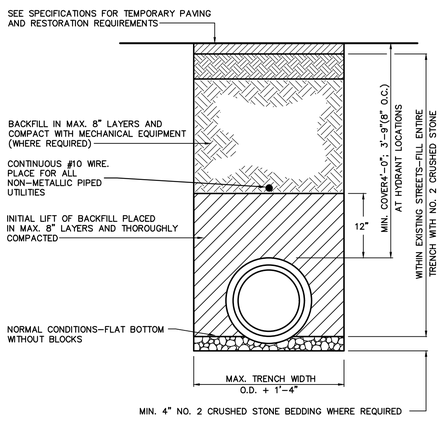
M3 & M4 - HORIZONTAL & DOWNWARD THRUST BLOCK DETAILS



M5 - TYPICAL SECTION VERTICAL THRUST UPWARD SECTION A-A

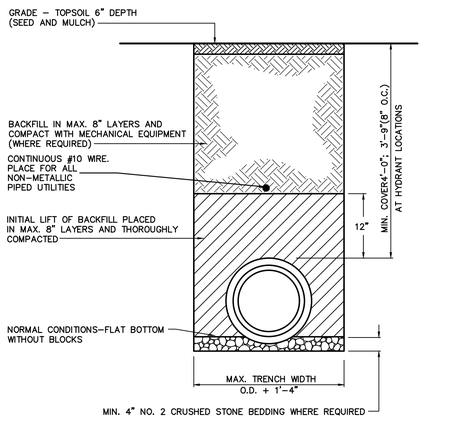
CONCRETE BLOCKING DIMENSIONS, VERTICAL THRUST UPWARD 100 P.S.I. WORKING PRESSURE									
PIPE SIZE	LENGTH			WIDTH			DEPTH		
	11.25°	22.5°	45°	11.25°	22.5°	45°	11.25°	22.5°	45°
4" AND LESS	2'	2'	3'	1.5'	1.5'	2'	2'	2'	2'
6" AND 8"	3'	4'	6'	3'	3'	3'	2'	3'	4'
10" AND 12"	3.5'	4'	7'	4'	4'	4'	2.5'	3'	4'

MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD																
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS		6" PIPE						8" PIPE						12" PIPE					
		DEGREE BEND OR DEFLECTION																	
		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END		11 1/4°	22 1/2°	45°	90°	END	
SOFT CLAY	1000 PSI	1.1	2.2	4.3	7.9	5.6		1.9	3.8	7.4	13.6	9.6		4.0	8.0	15.7	29.0	20.5	
SILT	1500 PSI	1.0	2.2	2.9	5.3	3.7		1.3	2.5	4.9	9.1	6.4		2.7	5.3	10.5	19.3	13.7	
SANDY SILT	3000 PSI	1.0	1.1	1.4	2.6	1.9		1.0	1.3	2.5	4.5	3.2		1.3	2.7	5.2	9.7	6.8	
SAND	4000 PSI	1.0	1.0	1.1	2.0	1.4		1.0	1.0	1.8	3.4	2.4		1.0	2.0	3.9	7.3	5.1	
SANDY CLAY	6000 PSI	1.0	1.0	1.0	1.3	1.0		1.0	1.0	1.2	2.3	1.6		1.0	1.3	2.6	4.8	3.4	
HARD CLAY	9000 PSI	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5	1.1		1.0	1.0	1.7	3.2	2.3	



WATER TRENCH DETAIL (PAVED AREAS)

NOT TO SCALE



WATER TRENCH DETAIL (NON-PAVED AREAS)

NOT TO SCALE

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ERIC S. CLASE
ENGINEER
55713-E

NO.	REVISED PER TOWNSHIP COMMENTS	DATE	BY
3		06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW
REV.	DESCRIPTION	DATE	BY

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - WATER SERVICE DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0546

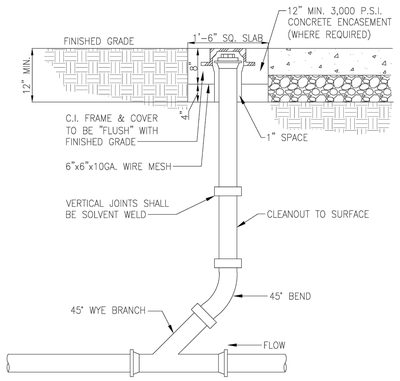
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: ##/##/22	SCALE:
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 30 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 30 UTILITY - WATER SERVICE DETAILS Plotted By: whelder, on Mon Jun 05, 2023 at 11:30am

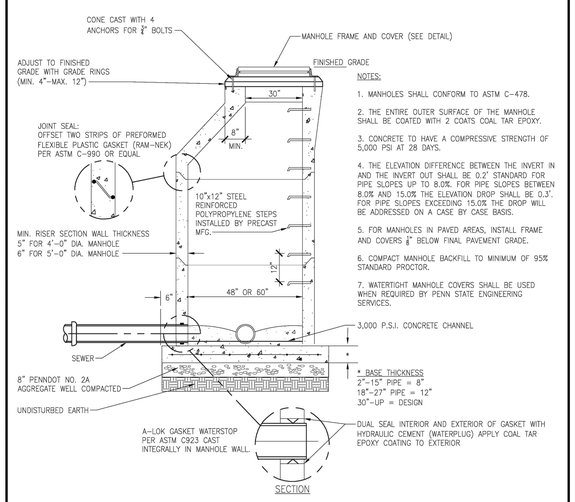


CLEANOUT DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019



NOTES:

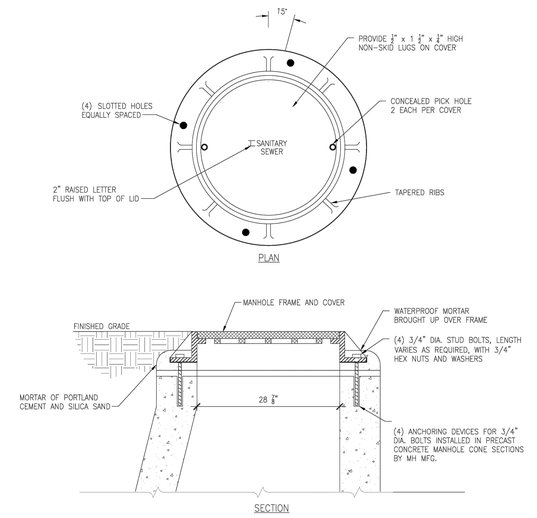
1. MANHOLES SHALL CONFORM TO ASTM C-478.
2. THE ENTIRE OUTER SURFACE OF THE MANHOLE SHALL BE COATED WITH 2 COATS COAL TAR EPOXY.
3. CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
4. THE ELEVATION DIFFERENCE BETWEEN THE INVERT IN AND THE INVERT OUT SHALL BE 0.2' STANDARD FOR PIPE SLOPES UP TO 8.0%. FOR PIPE SLOPES BETWEEN 8.0% AND 15.0% THE ELEVATION DROP SHALL BE 0.3'. FOR PIPE SLOPES EXCEEDING 15.0% THE DROP WILL BE ADDRESSED ON A CASE BY CASE BASIS.
5. FOR MANHOLES IN PAVED AREAS, INSTALL FRAME AND COVERS ¼" BELOW FINAL PAVEMENT GRADE.
6. COMPACT MANHOLE BACKFILL TO MINIMUM OF 95% STANDARD PROCTOR.
7. WATERTIGHT MANHOLE COVERS SHALL BE USED WHEN REQUIRED BY PENN STATE ENGINEERING SERVICES.

PRECAST CONCRETE MANHOLE DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 11.27.2019



NOTES:

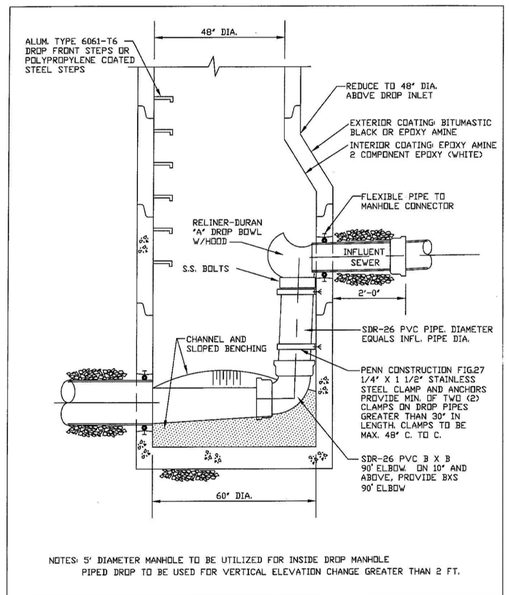
1. THE WORD "SANITARY SEWER" OR "PSU SANITARY" MUST BE ON THE MANHOLE COVER.
2. FRAME SHALL BE MODEL 1965Z AND COVER SHALL BE MODEL 1965A1 AS MANUFACTURED BY EJ GROUP, INC. , OR APPROVED EQUAL.
3. AFTER MORTAR HAS DRIED, COAT OUTTER SURFACE OF MANHOLE WITH COAL TAR EPOXY FROM CONE SECTION UP AROUND EXTERIOR OF FRAME.

STANDARD MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.06.2019

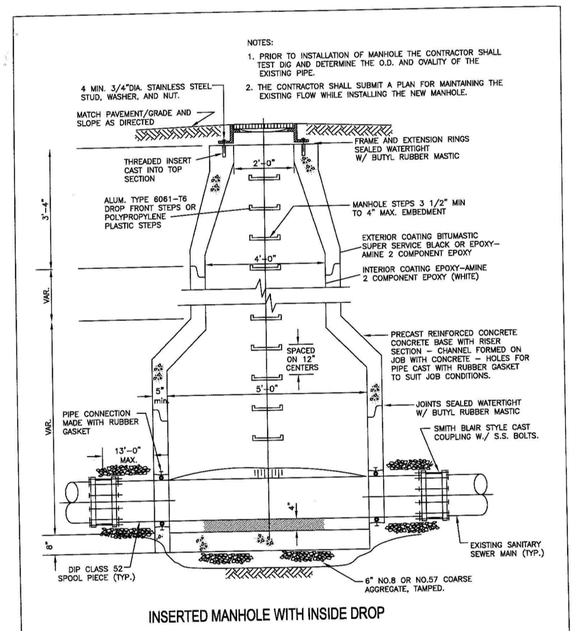


NOTES: 5' DIAMETER MANHOLE TO BE UTILIZED FOR INSIDE DROP MANHOLE
PIPED DROP TO BE USED FOR VERTICAL ELEVATION CHANGE GREATER THAN 2 FT.

Township of Abington
STANDARD DETAIL - SEWER SYSTEM

PRECAST SANITARY MANHOLE INSIDE DROP CONNECTION (8" - 24" SEWERS)

DATE: NOVEMBER 2015
DETAIL: 13

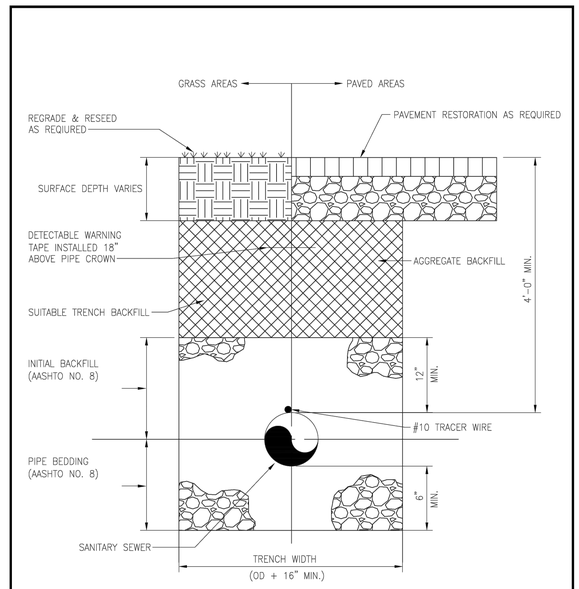


INSERTED MANHOLE WITH INSIDE DROP

Township of Abington
STANDARD DETAIL - SANITARY SEWER SYSTEM

INSERTION OF A PRECAST CONCRETE MANHOLE INTO AN EXISTING SEWER MAIN

DATE: JUNE 2022
DETAIL: 29A



SANITARY SEWER PIPE TRENCH DETAIL

NOT TO SCALE

PENN STATE UNIVERSITY
DESIGN STANDARD

SEC. 33 30 00
SCALE: NONE
DATE: 12.12.2019

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ERIC S. CLASE
ENGINEER
55713-E

BY	DATE	DESCRIPTION
JM	06/05/22	REVISED PER TOWNSHIP COMMENTS
DAW	09/09/22	75% CD SUBMISSION
DAW	07/20/22	50% CD SUBMISSION

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - SANITARY SEWER DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: ##/##/22	SCALE:
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 31 OF 40

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 31 UTILITY - SANITARY SEWER DETAILS Plotted By: whelder, on Mon Jun 05, 2023 at 11:30am

NOT TO BE RECORDED

CONSTRUCTION STAGING AREA

CONSTRUCTION ENTRANCE

PROPOSED 3-STORY ACADEMIC BUILDING 28,507 S.F.

NPDES PROJECT SITE AREA = 8.45 ACRES

SOIL STOCKPILE AREA

LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

LOGISTICS/CONSTRUCTION SEQENCE NOTES:

[1] INSTALL EROSION CONTROL BMPS. INSTALL CONSTRUCTION ENTRANCE. INSTALL CONSTRUCTION FENCES AND ALL MEANS OF BUFFERING CONSTRUCTION FROM PUBLIC.
CONSTRUCTION STAGING SHALL BE LIMITED TO PROPOSED PARKING AREAS.

[2] NOTE: PROTECT AREAS OF PROPOSED UNDERGROUND INFILTRATION FROM OVERCOMPACTION (DELAY EXCAVATION FOR DEEP INFILTRATION FIELDS AND AVOID TRAVEL OVER SHALLOW INFILTRATION AREAS LESS THAN 4 FEET BELOW EXISTING SURFACE)

[3] DEMOLISH AND REMOVE HILLCREST AND CONFERENCE CENTER BUILDINGS. (PSU TO RESOLVE ALTERNATE SPACES FOR THESE USES). DEMOLISH OTHER ITEMS SHOWN ON PLAN TO BE REMOVED. EXISTING PAVEMENTS NOTED FOR DEMOLITION SHALL BE MAINTAINED FOR DURING-CONSTRUCTION PURPOSES AS LONG AS PRACTICAL.

[4] RELOCATE EXISTING UTILITIES THAT CONFLICT WITH BUILDING FOOTING AND 1ST FLOOR EXCAVATION.

[5] EXCAVATE 1ST FLOOR/FOOTINGS FOR NEW BUILDING. STOCKPILE OUTSIDE OF AREAS OF PROPOSED INFILTRATION BMPS.

[6] INSTALL NEW FOOTINGS, STEEL STRUCTURE, BELOW SLAB UTILITIES AND FOUNDATION.

[7] INSTALL SITE STORMWATER BMPS AND STORMWATER MANAGEMENT SYSTEM.

[8] ROUGH GRADE SITE PARKING AREAS AND DRIVES. INSTALL SITE UTILITIES. INSTALL BUILDING RETAINING WALLS.

[9] INSTALL ROAD/PARKING AREA ROAD BASES. FINAL SITE GRADING.

SCALE: 1"=60'

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
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2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LOGISTICS PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

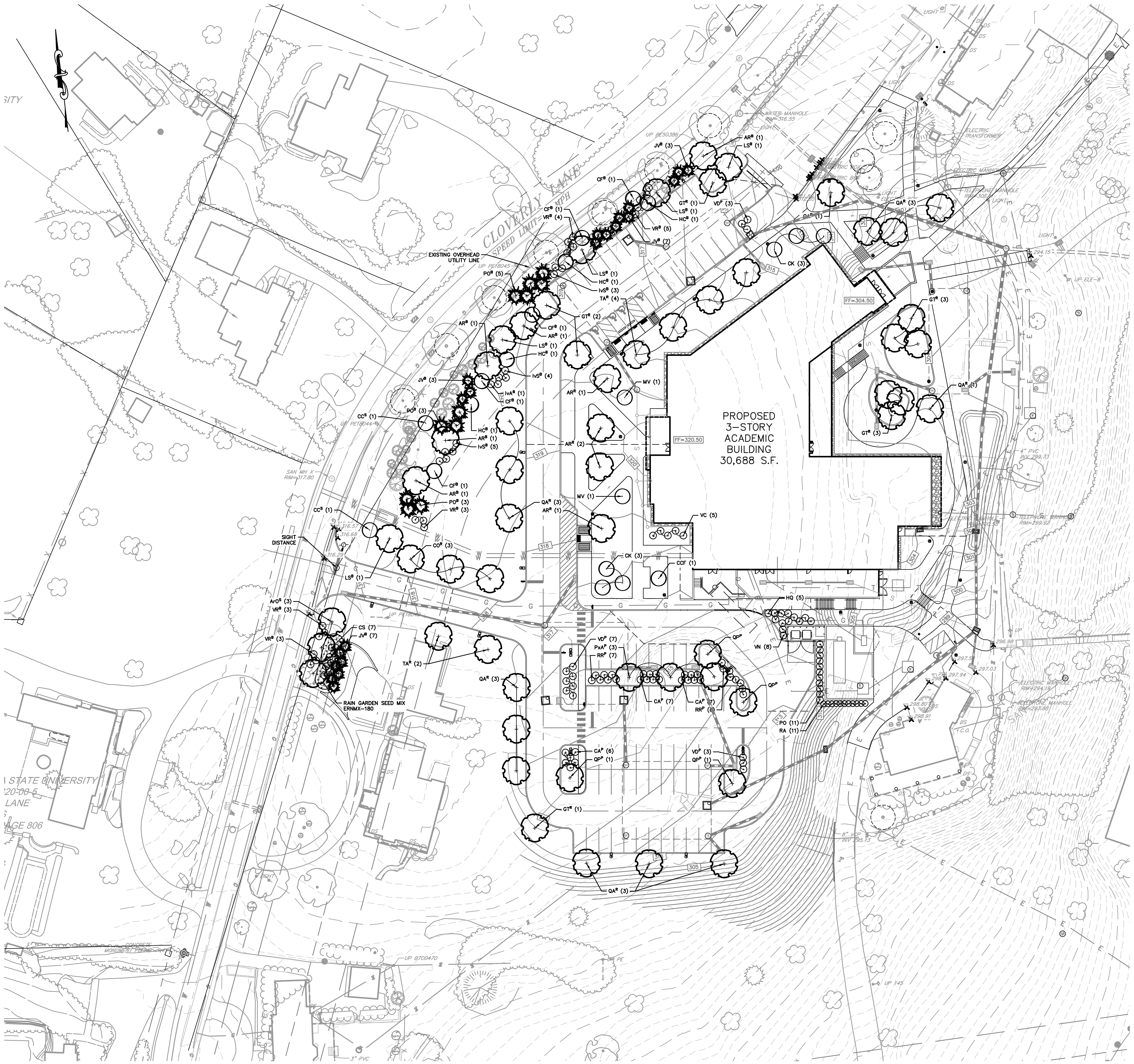
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=60'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 32 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LOGISTICS PLAN.dwg Layout: 32 LOGISTICS PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:30am



COMPLIANCE CHART

THE FOLLOWING CHART REPRESENTS THE MINIMUM QUANTITIES OF REQUIRED PLANT MATERIAL ACCORDING TO THE ABINGTON TOWNSHIP ZONING AND SUBDIVISION AND LAND DEVELOPMENT ORDINANCES, AND TO DEMONSTRATE COMPLIANCE WITH THE SAME.

§2401.A.2.d(1)(a) -TREE REPLACEMENT	REQUIRED	EXISTING	PROVIDED	TOTAL
REQUIREMENT: 2 TREES (3 - 3.5" CAL.) PER EACH < 6" CALIPER TREE REMOVED 77 TREES REMOVED *NOTE: 117 TREESTO BE DISBURSED THROUGHOUT THE SITE AND/OR COORDINATED BETWEEN PSU AND ABINGTON TOWNSHIP.	154	0	37	154*
§2402.A.2(a)(4) - PARKING LOT LANDSCAPING				
REQUIREMENT: ONE SHADE TREE (3" CAL.), SHRUBS AND/OR GROUNDCOVER FOR EACH PLANTING ISLAND	YES		YES	
§2402.A.6 - MINIMUM GREEN AREA				
REQUIREMENT: 10% OF PARKING AREA GREATER THAN 15,000 S.F. DEVOTED TO LANDSCAPING (LOWER PARKING AREA = 30,085 S.F. TOTAL)	3,009 S.F.		3,256 S.F.	
§2402.B.2.c - STREET TREES				
REQUIREMENT: 1 TREE PER 40 L.F. (495 L.F.) NOTE: STREET LENGTH DOES NOT INCLUDE WIDTH OF ENTRANCE DRIVE AT R.O.W.	12	7	5	12
§2403.B.4.a(2)(a) - MEDIUM INTENSITY BUFFER PLANTINGS				
REQUIREMENT: OPTION A, PER EACH 100 LINEAR FEET				
2 CANOPY TREES (2 - 2 1/2" CAL.)	10		10	10
2 UNDERSTORY TREES (1 1/2" CAL.)	10		10	10
5 EVERGREEN TREES (8' HT.) (PLUS 20% MORE PER ZONING AMENDEMENT)	31		31	31
5 SHRUBS (24" HT.) (PLUS 20% MORE PER ZONING AMENDMENT)	31		31	31
§2403.D - BUILDING FOUNDATION PLANTINGS				
REQUIREMENT: ORNAMENTAL OR EVERGREEN TREES AND SHRUBS	YES		YES	
§146-39.B(3)(a)[1] - OFF-STREET PARKING				
REQUIREMENT: 5% INTERIOR LANDSCAPING WITHIN PARKING AREA				
UPPER PARKING AREA = 7,983 S.F.	399 S.F.		0 S.F.	0%*
LOWER PARKING AREA = 30,085 S.F.	1,504 S.F.		3,256 S.F.	11%
*NOTE: PARTIAL WAIVER REQUESTED FOR UPPER PARKING AREA				
§146-39.B(3)(a)[2] - OFF-STREET PARKING				
REQUIREMENT: 1 TREE (2 1/2" CALIPER) PER 15 PARKING SPACES 85 PARKING SPACES	6	0	7	7

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
STREET TREES						
ArO^S	3	ACER RUBRUM 'OCTOBER GLORY'	OCTOBERY GLORY MAPLE	2.5" CAL	B&B	
CC^S	2	CERCIS CANADENSIS	EASTERN REDBUD	2.5" CAL	B&B	
BUFFER AREA PLANTINGS						
CANOPY TREES						
AR^B	5	ACER RUBRUM 'BRANDYWINE'	RED MAPLE	2 - 2.5" CAL	B&B	SEEDLESS
LS^B	5	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SWEETGUM	2 - 2.5" CAL	B&B	SEEDLESS
UNERSTORY TREES						
CF^B	5	CORNUS FLORIDA 'RED BEAUTY'	RED BEAUTY DOGWOOD	1.5" CAL	B&B	
HC^B	4	HALESIA CAROLINA 'JERSEY BELLE'	CAROLINA SILVERBELL	1.5" CAL	B&B	
EVERGREEN TREES						
JV	20	JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EMERALD SENTINEL EASTERN REDCEDAR	6' HT MIN	B&B	
PO^B	11	PICEA OMORIKA	SERBIAN SPRUCE	6' HT MIN	B&B	
SHRUBS						
IvA^B	1	ILEX VERTICILLATA 'APPOLLO'	WINTERBERRY HOLLY	24" MIN	CONT	MALE
IvS^B	12	ILEX VERTICILLATA 'SPARKLEBERRY'	WINTERBERRY HOLLY	24" MIN	CONT	FEMALE
VR^B	18	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	24" MIN	CONT	
PARKING AREA PLANTINGS						
CANOPY TREES						
PxA^P	3	PLATANUS X ACERIFOLIA 'EXCLAMATION'	EXCLAMATION LONDON PLANE TREE	3" CAL	B&B	
QP^P	4	QUERCUS PHELLOS	WILLOW OAK	3" CAL	B&B	
SHRUBS						
CA^P	20	CLETHRA ALNIFOLIA	SUMMERSWEET	24" MIN	#3 CONT	
RR^P	15	ROSA RUGOSA 'RADRAZZ'	KNOCKOUT ROSE	24" MIN	#3 CONT	
VD^P	13	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24" MIN	#3 CONT	
OTHER PLANTINGS						
DECIDUOUS TREES						
CCF	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	1.5" CAL	B&B	
CK	6	CORNUS KOUSA 'GREENSLEEVES'	KOUSA DOGWOOD	1.5" CAL	B&B	
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL	B&B	
SHRUBS						
CS	7	CORNUS SERICEA	REDTWIG DOGWOOD	24" MIN	#3 CONT	
HQ	5	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	36" MIN	#5 CONT	
PO	11	PHYSOCARPUS OPULIFOLIUS 'DIABOLO'	DIABOLO NINEBARK	24" MIN	#3 CONT	
RA	11	RHUS AROMATICA 'GRO-LOW'	GRO LOW SUMAC	18" MIN	#1 CONT	
VC	5	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24" MIN	#3 CONT	
VN	8	VIBURNUM NUDUM 'WINTERTHUR'	WINTERTHUR VIBURNUM	36" MIN	#5 CONT	
REPLACEMENT TREE PLANTINGS						
AR^R	4	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE (FREEMAN) MAPLE	3 - 3.5" CAL	B&B	SEEDLESS
CO^R	3	CARYA OVATA	SHAGBARK HICKORY	3 - 3.5" CAL	B&B	
GT^R	10	GLEDITSIA TRIACANTHOS f. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	3 - 3.5" CAL	B&B	THORNLESS
QA^R	14	QUERCUS ALBA	WHITE OAK	3 - 3.5" CAL	B&B	

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SERIAL NO. 20221043148

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GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- EXISTING TREE TO REMAIN
- CANOPY TREE
- UNDERSTORY/ORNAMENTAL TREE
- EVERGREEN TREE
- SHRUB

SCALE 40 0 40 80 IN FEET 1"=40'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
508 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3955 • www.gilmore-assoc.com

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PENNSYLVANIA CYNTHIA MARIE CULP REGISTERED LANDSCAPE ARCHITECT REGISTRATION NUMBER LA003364

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 33 OF 40

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 33 LANDSCAPE PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:31am

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 34 LIGHTING PLAN Plotted By: wheider, on Mon Jun 05, 2023 at 11:31am

LUMINAIRE SCHEDULE

Symbol	Label	Manufacturer	Image	Quantity	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
	A	RAB LIGHTING INC.		9	ALED3T78N – RWLED3T78N – RWLED3T78SFN – WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	75.9	Max: 5973cd
	B	RAB LIGHTING INC.		4	ALED3T78N – RWLED3T78N – RWLED3T78SFN – WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME.	6	1490	0.95	151.8	Max: 5973cd
	C	ARCHITECTURAL AREA LIGHTING		17	PKWM-ANG-Y5HC-52LED-4K-500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4721	0.95	50	Max: 1668cd
	D	ARCHITECTURAL AREA LIGHTING		4	PKWM-ANG-Y2HC-52LED-4K-500	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS.	1	4918	0.95	50	Max: 4285cd

SEE SHEET 35 FOR LUMINAIRE CUT SHEETS AND DETAILS

SITE LIGHTING STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Internal Drive	+	2.8 fc	5.1 fc	1.3 fc	3.9:1	2.2:1
Parking Area 1	+	1.8 fc	5.8 fc	0.7 fc	8.3:1	2.6:1
Parking Area 2	+	2.5 fc	6.4 fc	0.5 fc	12.8:1	5.0:1

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR SITE LIGHTING PURPOSES ONLY. ELECTRICAL ENGINEERING, INCLUDING, BUT NOT LIMITED TO , CIRCUITRY, CONDUIT, WIRING, AND ASSOCIATED SPECIFICATIONS, IS NOT WITHIN THE SCOPE OF THIS DOCUMENT.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.
3. SUBSTITUTION REQUESTS MUST BE APPROVED BY THE TOWNSHIP.
4. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
5. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLAN AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
6. LIGHTING VALUES DEPICTED ON THIS PLAN WERE GENERATED USING VISUAL 2020.2.11.0062 SOFTWARE.
7. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPES OF FIXTURES ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, LAWS AND STATUTES.
8. CONTRACTOR SHALL BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES OR OTHER STRUCTURES.

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40 0 40 80
SCALE IN FEET
1"=40'

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COMMONWEALTH OF PENNSYLVANIA — CHRISTOPHER E. GRAY — REGISTRATION NUMBER: LA002622

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LIGHTING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006	
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545	
MUNICIPAL FILE No.: LD-22-05	
TAX MAP PARCEL No.: 30-00-09792-00-6	
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 34 OF 40

GENERAL LANDSCAPE NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIALS, PLANTS EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, HAVE VIGOROUS ROOT SYSTEMS AND BE FREE OF DEFECTS AND INJURIES.
4. ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE WELFARE OF THE PLANT MATERIAL, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISIONS SHALL BE MADE FOR A GUARANTEE OF 18 MONTHS FOR TREES AND SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE 2014 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN INC., OR LATEST EDITION.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC., SHALL BE USED FOR PLANTING.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN THE WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. **PLANTING OPERATIONS SHALL OCCUR BETWEEN APRIL 1, THROUGH JUNE 15 AND SEPTEMBER 1 THROUGH NOVEMBER 1 OF EACH CALENDAR YEAR. IF FAVORABLE PLANTING CONDITIONS EXTEND BEYOND DATES INDICATED HEREIN, AN EXTENSION MAY BE GRANTED BY THE LANDSCAPE ARCHITECT RESPONSIBLE FOR THESE PLANS.**
10. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PLANTING PIT.
11. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
12. LANDSCAPING CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF LANDSCAPE MATERIAL. CONTRACTOR SHALL NOT PLACE LANDSCAPING MATERIAL ON TOP OF UTILITY PIPING.
13. PLAN QUANTITIES SUPERSEDE PLANT LIST.
14. **THE LANDSCAPE PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.**

RAIN GARDEN MIX

1. SEED MIX SHALL BE ERNMX-180, AS PROVIDED BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL CONSISTING OF THE FOLLOWING SPECIES, OR AS CURRENTLY FORMULATED, AT 20 LBS PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE:

33.4% SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
23.0% ELYMUS VIRGINICUS	VIRGINIA WILDRYE
7.0% CAREX VULPINOIDEA	FOX SEDGE
5.6% CHASMANTHIUM LATIFOLIUM	RIVER OATS
5.5% ECHINACEA PURPUREA	PURPLE CONEFLOWER
3.0% CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
3.0% COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
3.0% PANICUM RIGIDULUM	REDTOP PANICGRASS
3.0% RUDBECKIA HIRTA	BLACKEYED SUSAN
3.0% VERBENA HASTATA	BLUE VERVAIN
2.0% HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.8% ASCLEPIAS INCARNATA	SWAMP MILKWEED
1.0% CAREX SCOPARIA	BLUNT BROOM SEDGE
1.0% SENNA HEBECARPA	WILD SENNA
0.7% PYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
0.5% ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
0.5% ASTER PRENANTHOIDES	ZIGZAG ASTER
0.5% BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.5% ZIZIA AUREA	GOLDEN ALEXANDERS
0.4% MONARDA FISTULOSA	WILD BERGAMOT
0.3% HELENIUM AUTUMNALE	COMMON SNEEZEWEED
0.3% JUNCUS TENUIS	PATH RUSH
0.2% EUPATORIUM PERFOLIATUM	BONESET
0.2% JUNCUS EFFUSUS	SOFT RUSH
0.2% OENOTHERA FRUTICOSA VAR. FRUTICOSA	SUNDROPS
0.2% SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.2% SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD

SEED MIX ESTABLISHMENT SPECIFICATIONS

INSTALLATION:

SPRAY AREAS TO BE SEEDED WITH A SYSTEMIC HERBICIDE ONE (1) MONTH PRIOR TO THE INSTALLATION OF THE SPECIFIED SEED MIXTURE. AFTER TWO (2) WEEKS OF HERBICIDE APPLICATION, AREAS TO BE SEEDED SHALL BE TREATED AGAIN IF PERSISTENT WEEDS RE-GERMINATE. ONLY AFTER ALL EXISTING VEGETATION TO BE REMOVED IS ERADICATED SHALL THE FOLLOWING SEED INSTALLATION STEPS TAKE PLACE:

1. ALL AREAS TO BE SEEDED SHALL BE CLEARED OF ALL REMAINING DEBRIS AND VEGETATION.
2. TILL ALL AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES, AND ADD ANY SPECIFIED SOIL AMENDMENTS TO THE TILLED AREAS.
3. SPREAD SEED AT RECOMMENDED RATE EVENLY ACROSS THE ENTIRE SITE.
4. FINE RAKE ALL AREAS PREVIOUSLY SEEDED TO ENSURE GOOD SOIL TO SEED CONTACT.
5. SPREAD A THIN COAT OF STRAW, 3 TONS PER ACRE MINIMUM, TO REDUCE EROSION.
6. WATER ENTIRE AREA THOROUGHLY; AVOID OVER WATERING.

FIRST YEAR MAINTENANCE:

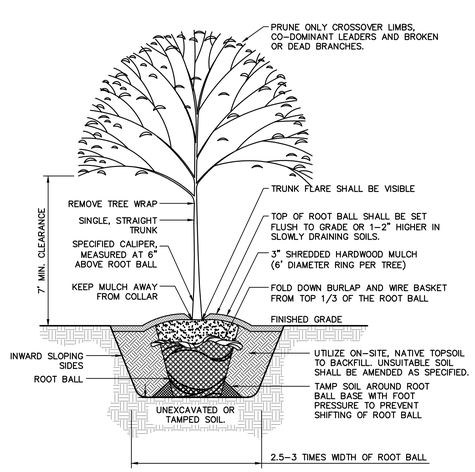
SEED MIXTURE SHALL BE INSPECTED FOR INVASIVE WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA, SPOT TREAT BY PULLING. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT. MOW TO A HEIGHT OF SIX (6) INCHES MINIMUM WITH A WEED EATER.

SECOND YEAR MAINTENANCE:

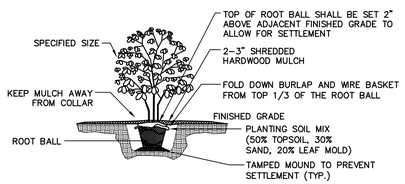
MOW ONCE IN SPRING (PRIOR TO APRIL 1) AS CLOSE TO GROUND AS POSSIBLE ALLOW PLANTS TO GROW TO FULL HEIGHT.

CONSECUTIVE FOLLOWING YEARS:

MOW EVERY YEAR AND SPOT TREAT INVASIVE PLANT SPECIES. MOWING SHALL TAKE PLACE IN EARLY SPRING PRIOR TO APRIL 1. MOWING SHALL NOT TAKE PLACE BETWEEN APRIL 1 AND JUNE 20 TO AVOID DISRUPTION OF GROUND NESTING BIRDS.



TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING AND SHRUB BED PREPARATION
NOT TO SCALE

Parkway Square® Pedestrian Horizontal LED – PKWM

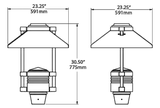
TYPE

LUMINAIRES C & D

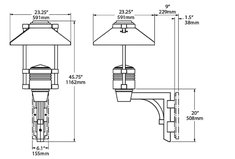
FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- Integral thermal protection
- 13 standard powder coat finishes

SPECIFICATIONS

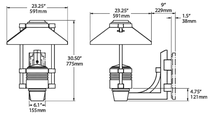


POST TOP
WT: 57 lbs. EPA: 2.35



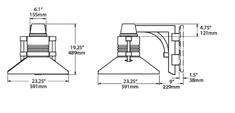
PSA-TU
(Top of Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TU
(Top of Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



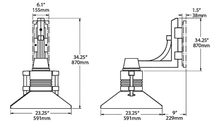
PSA-TD
(Top of Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.83

PSWM-TD
(Top of Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 3.05



PSA-BU
(Below Arm Mounted Luminaire Upward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BU
Below Wall Mounted Luminaire Upward Swept Arm Design)
WT: 69 lbs. EPA: 2.76



PSA-BD
(Below Arm Mounted Luminaire Downward Swept Arm Design)
WT: 65 lbs. EPA: 2.54

PSWM-BD
(Below Wall Mounted Luminaire Downward Swept Arm Design)
WT: 69 lbs. EPA: 2.76

3000K and warmer CCTs only

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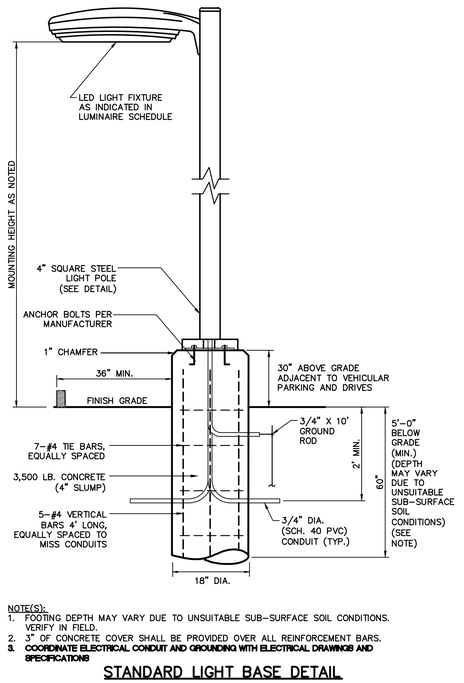
HUBBELL Lighting



NOTE(S):
1. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS. VERIFY IN FIELD.
2. 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
3. **COORDINATE ELECTRICAL CONDUIT AND GROUNDING WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS**

STANDARD LIGHT BASE DETAIL
NOT TO SCALE

ALED3T78N

RAB

Color: Bronze

Weight: 35.3 lbs

Project: PSU
Type: A
Prepared By:
Date:

Driver Info		LED Info	
Type	Constant Current	Watts	78W
120V	0.66A	Color Temp	4000K (Neutral)
208V	0.41A	Color Accuracy	72 CRI
240V	0.35A	L70 Lifespan	100,000 Hours
277V	0.30A	Lumens	8,941
Input Watts	75.9W	Efficacy	117.8 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations as a downlight

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000179U

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:
The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Thermal Management:
Superior heat sinking with external Air-Flow fins

Lens:
Tempered glass lens

Housing:
Die-cast aluminum housing, lens frame and mounting arm

IP Rating:
Ingress protection rating of IP66 for dust and water

Mounting:
Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High-temperature silicone gaskets

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ALED5S78N/D10/PCT

RAB

High output LED pole top area light with IES type V square distribution. Wide and uniform 360 degree pattern ideal for large outdoor areas such as parking lots, corporate parks, and retail settings.

Color: Bronze

Weight: 33.1 lbs

Project: PSU
Type: B
Prepared By:
Date:

Driver Info		LED Info	
Type	Constant Current	Watts	78W
120V	0.56A	Color Temp	4000K (Neutral)
208V	0.34A	Color Accuracy	73 CRI
240V	0.33A	L70 Lifespan	100,000 Hours
277V	0.26A	Lumens	9,587
Input Watts	65W	Efficacy	147.5 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:
Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: P9KFA9GA

LED Characteristics

LEDs:
Long-life, high-efficacy, surface-mount LEDs

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Optical

BUG Rating:
B3 U1 G2

Optics:
Square, Type V distribution

Construction

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Thermal Management:
Superior thermal management with external air-flow fins

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PENNSYLVANIA CYNTHIA MARIE GILMORE VEGETATION NUMBER LA001354

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, Mmontgomery COUNTY, PENNSYLVANIA

LANDSCAPE & LIGHTING DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 35 OF 40

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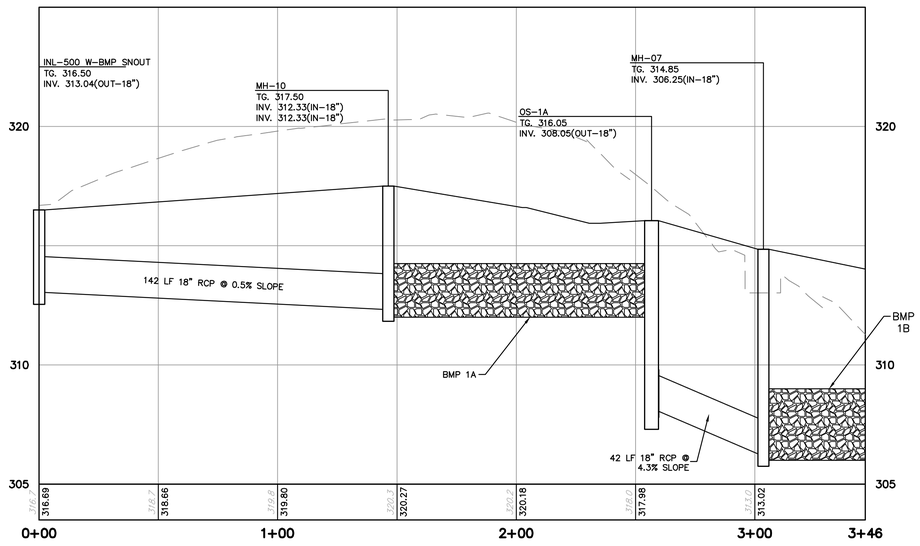

INL-500 TO BMP 1-B

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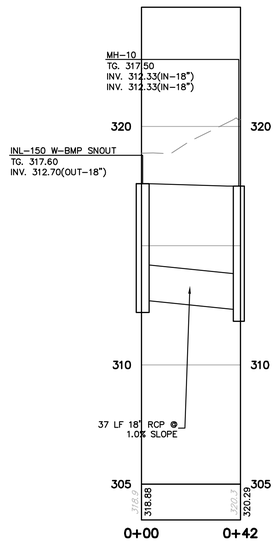
VERT 1"=3'



INL-150 TO MH-10

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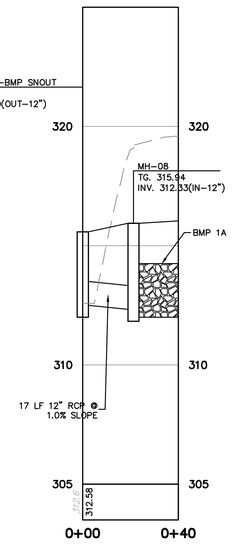

INL-130 TO BMP 1-A

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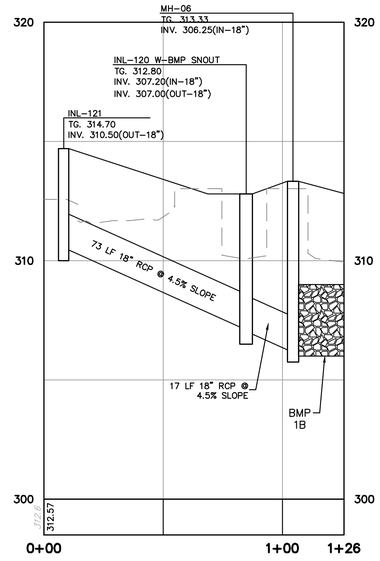

INL-121 TO BMP 1-B

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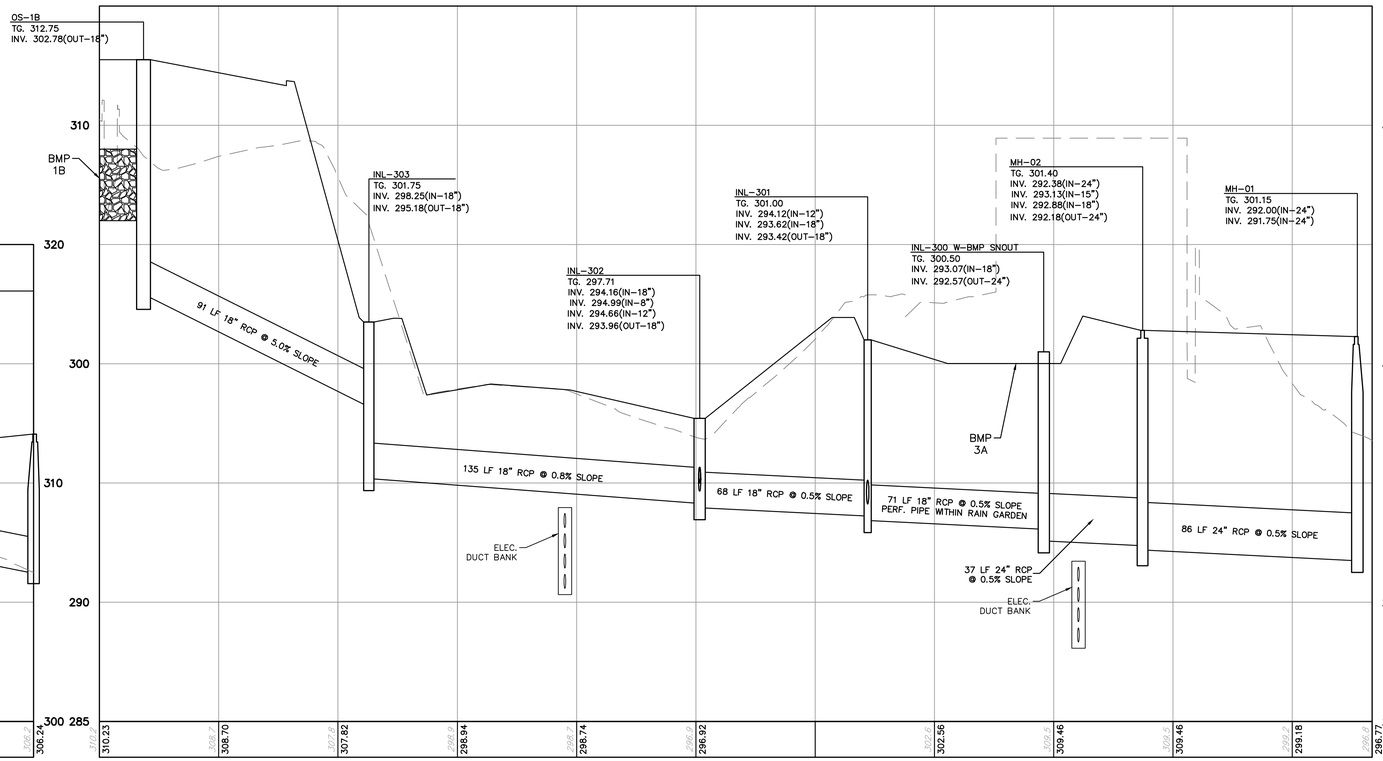

BMP 1-B TO MH-01

STATION 0+00 TO 5+33
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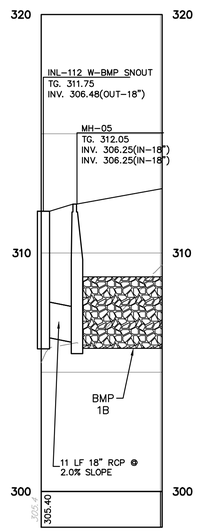

INL-112 TO BMP 1-B

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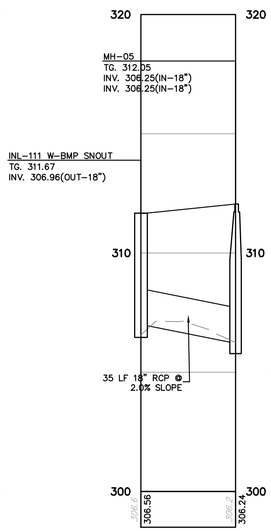

INL-111 TO MH-05

STATION 0+00 TO 0+40
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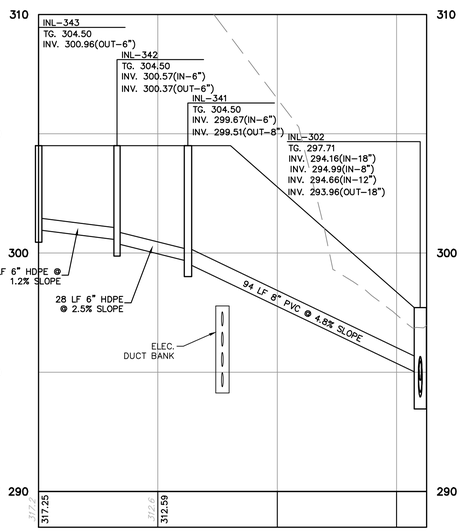
VERT 1"=3'



INL-343 TO INL-302

STATION 0+00 TO 1+63
SCALE: HORZ 1"=30'
VERT 1"=3'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

NOT TO BE RECORDED

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: JM

SHEET NO.: 36 OF 40

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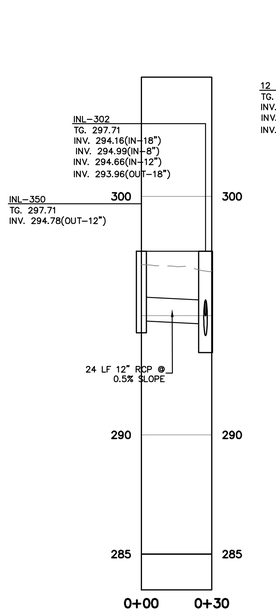

INL-350 TO INL-302

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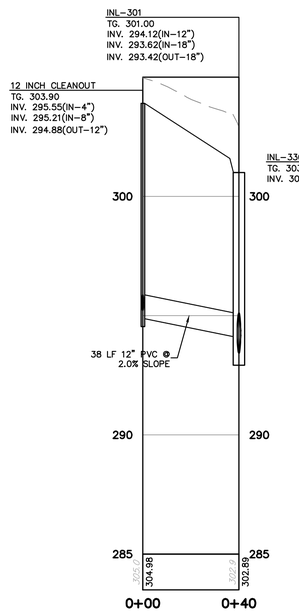

CLEANOUT TO INL-301

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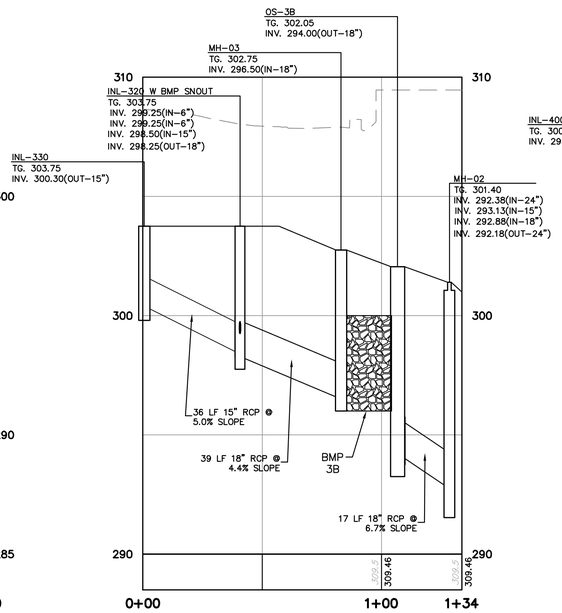

INL-330 TO MH-02

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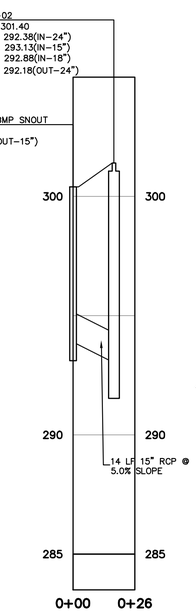

INL-400 TO MH-02

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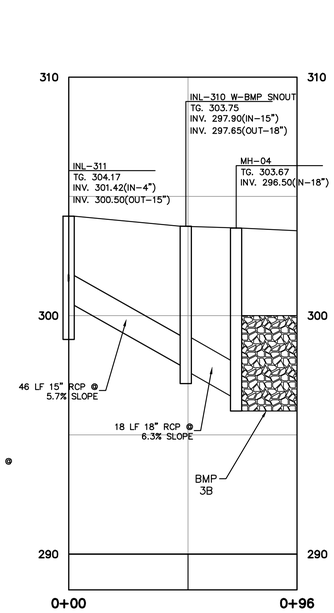

INL-311 TO BMP 3

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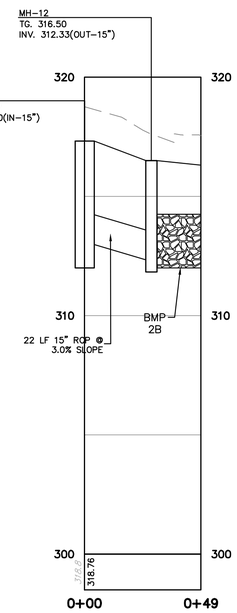

OS 2-A TO BMP 2-B

STATION 0+00 TO 0+49
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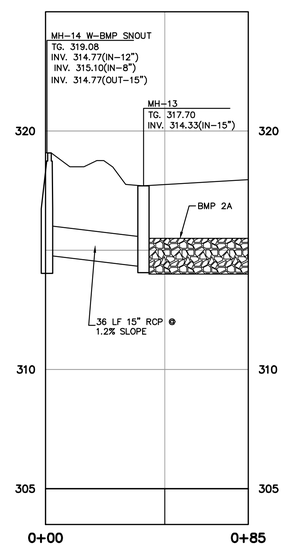

MH-14 TO BMP 2-A

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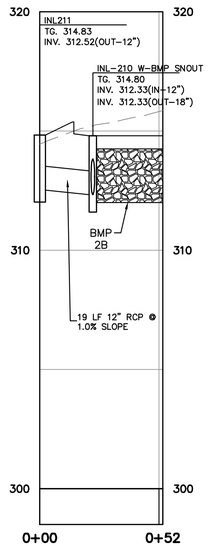

INL-211 TO BMP 2-B

STATION 0+00 TO 0+52
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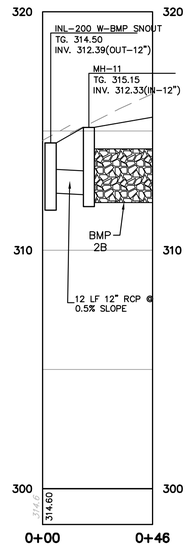
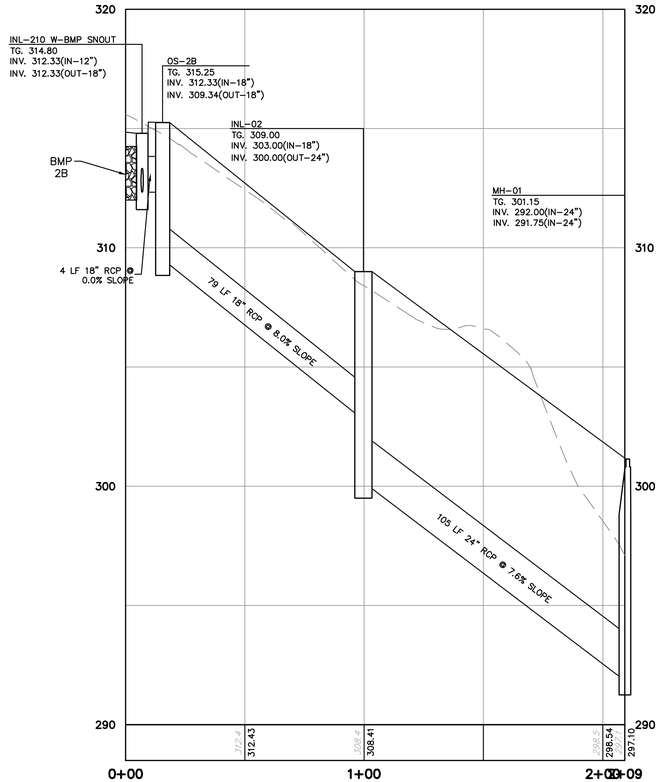


INL-200 TO BMP 2-B

STATION 0+00 TO 0+46
SCALE: HORZ 1"=30'
VERT 1"=3'



BMP 2-B TO MH-01

STATION 0+00 TO 2+09
SCALE: HORZ 1"=30'
VERT 1"=3'

T:\land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 37 PROFILES - 2 Plotted By: wheider, on Mon Jun 05, 2023 at 11:32am

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LUXEMBOURG CORPORATE CENTER
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MmontgomeryCOUNTY, PENNSYLVANIA

PROFILES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

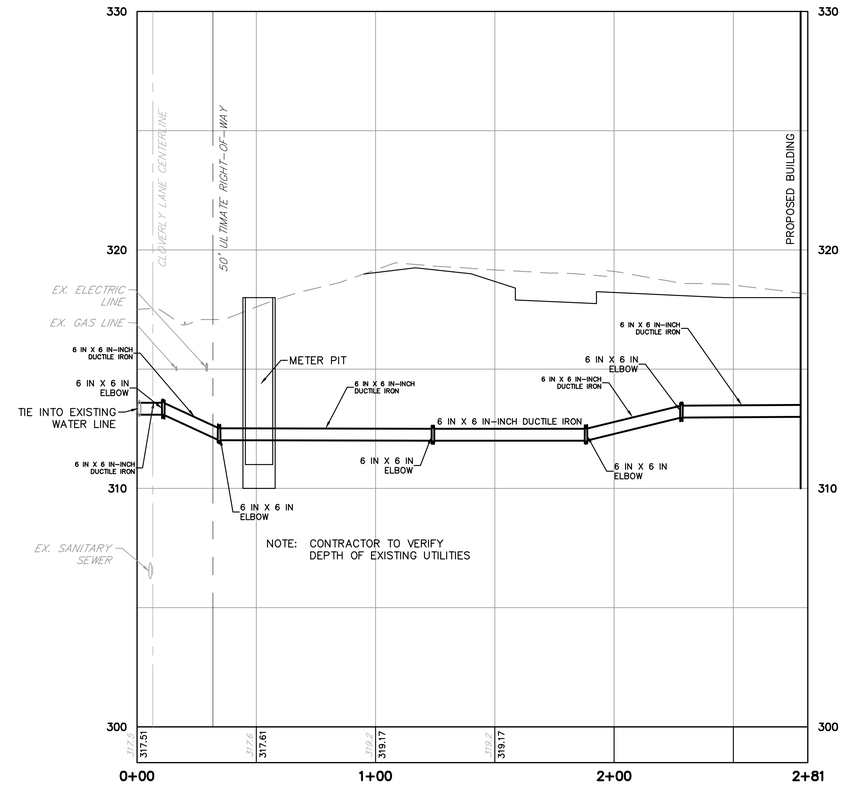
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

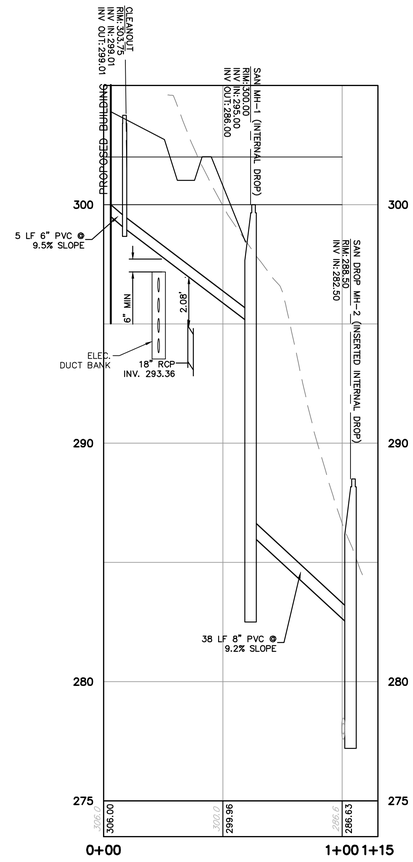
DATE: 06/06/22
SCALE: AS NOTED

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 37 OF 40



EXISTING WATER MAIN TO PROPOSED BUILDING
STATION 0+00 TO 2+81
SCALE: HORZ 1"=30'
VERT 1"=3'



PROPOSED BUILDING TO SAN DROP MH-2
STATION 0+00 TO 1+15
SCALE: HORZ 1"=30'
VERT 1"=3'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
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ERIC S. CLASE
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55713-E

REV.	DESCRIPTION	DATE	BY
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1	50% CD SUBMISSION	07/20/22	DAW

MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

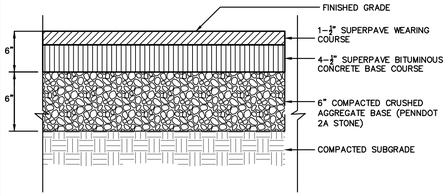
MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

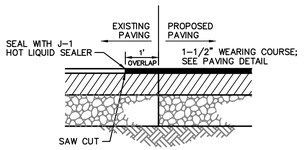
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 38 OF 40

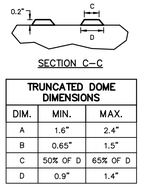
T:\land design\2017\2017012006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 38 PROFILES - 3 Plotted By: whelder, on Mon Jun 05, 2023 at 11:50am



DRIVE & FULL–DEPTH PARKING LOT TYPICAL PAVING DETAIL
NOT TO SCALE

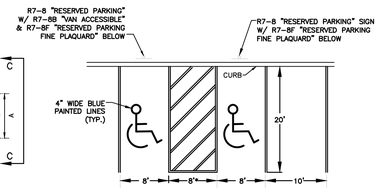


PAVEMENT TIE–IN DETAIL
NOT TO SCALE

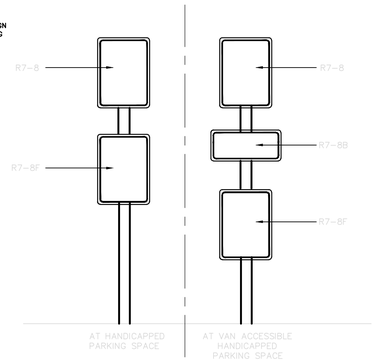


TRUNCATED DOME DIMENSIONS		
DIM.	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% OF D	65% OF D
D	0.9"	1.4"

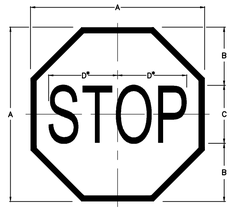
DETECTABLE WARNING TRUNCATED DOME DETAIL



PARKING LOT & HANDICAPPED STALL STRIPING DETAIL
NOT TO SCALE



HANDICAPPED PARKING SIGN ELEVATION DETAIL
NOT TO SCALE

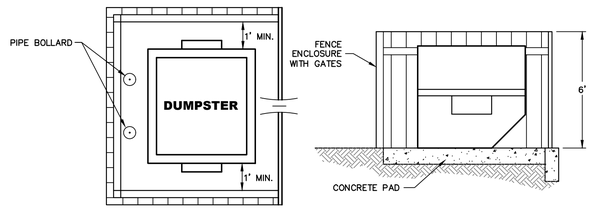


DIMENSIONS – mm (IN)						
SIGN SIZE A x A	B	C	D	BORDER	BLANK STD.
600 x 600 (24" x 24")	200 (8)	200C (8C)	254 (10)	15 (0.6)	B1–600 (B1–24)
750 x 750 (30" x 30")	250 (10)	250C (10C)	318 (12.6)	20 (0.8)	B1–750 (B1–30)
900 x 900 (36" x 36")	300 (12)	300C (12C)	381 (15)	20 (0.8)	B1–900 (B1–36)
1200 x 1200 (48" x 48")	400 (16)	400C (16C)	508 (20)	30 (1.2)	B1–1200 (B1–48)

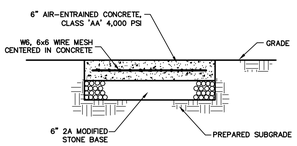
* REDUCE SPACING 40%

COLOR:
LEGEND AND BORDER (REFLECTORIZED): WHITE
BACKGROUND: RED (REFLECTORIZED)

STOP SIGN (R1–1)
NOT TO SCALE

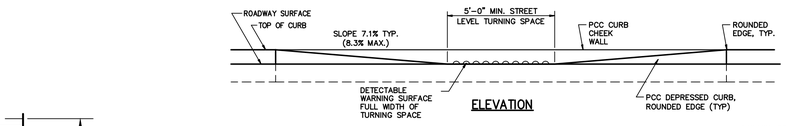


DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



CONCRETE PAVEMENT DETAIL
NOT TO SCALE

NOTES:
1. CONCRETE PAVEMENT SHALL BE SCORED INTO 24" SQUARES AT A 45° ANGLE TO THE BUILDING. SCORING SHALL BE AT LEAST 1/4 THE THICKNESS OF THE CONCRETE SLAB.
2. FULL THICKNESS EXPANSION JOINTS SHALL BE INSTALLED AT A MINIMUM OF EVERY 24 FEET.



ELEVATION

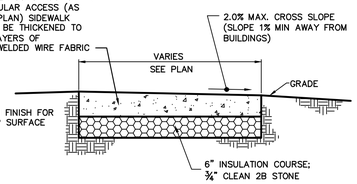
DIMENSIONS – mm (IN)									
SIGN SIZE A x B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD.
300 x 150 (12" x 6")	35 (1.4)	40D (1.6D)	15 (0.6)	25D (1D)	54 (2.1)	102 (4)	10 (0.4)	10 (0.4)	B5–300150 (B5–1206)

* INCREASE SPACING 50%

COLOR: LEGEND AND BORDER: WHITE (NON–REFLECTORIZED)
BACKGROUND: BLUE (REFLECTORIZED)

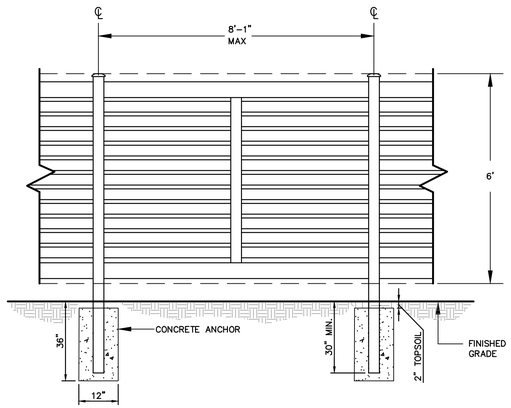
VAN ACCESSIBLE SIGN (R7–8B)
NOT TO SCALE

4" CLASS AA CONC (4,000 PSI) FOR GENERAL SIDEWALK CONSTRUCTION. IN AREAS OF VEHICULAR ACCESS (AS SHOWN ON THE PLAN) SIDEWALK DRIVEWAY SHALL BE THICKENED TO 6" WITH W/ 2 LAYERS OF 6x6–W2.0xW2.0 WELDED WIRE FABRIC

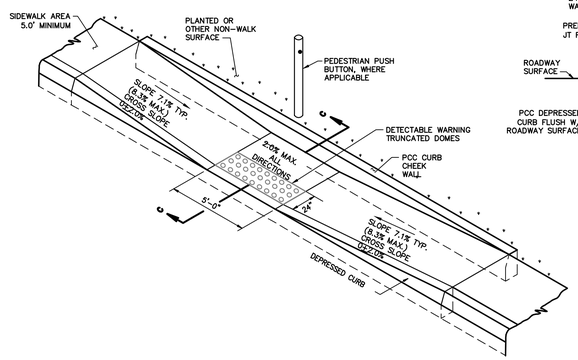


NOTE: DOWEL SIDEWALK TO CURBS WITH #4 REBAR DOWELS @ 5'–0" cc WHERE SIDEWALK IS ADJACENT TO NEW OR EXISTING CURB.

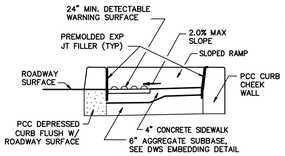
SIDEWALK DETAIL
NOT TO SCALE



PRIVACY/DUMPSTER ENCLOSURE FENCE DETAIL
NOT TO SCALE



HANDICAP CURB RAMP–TYPE 2: PARALLEL TO PAVING
NOT TO SCALE



SECTION C–C

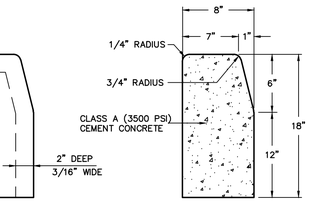
NOTE: SEE STANDARD ARROW FOR DIMENSIONS OF ARROWHEAD

COLOR: LEGEND, ARROW AND BORDER (REFLECTORIZED): GREEN
BACKGROUND AND SYMBOL (REFLECTORIZED): WHITE
SYMBOL BACKGROUND (REFLECTORIZED): BLUE

DIMENSIONS – mm (IN)															
SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	N	P	Q	MARGIN	BORDER	BLANK STD.
300 x 450 (12" x 18")	50 (2)	50C (2C)	25 (1)	150 (6)	40 (1.6)	60 (2.4)	126 (4.9)	109 (4.3)	759 (3)	10 (0.4)	100 (4)	95 (3.8)	20 (0.8)	10 (0.4)	10 (0.4)	B5–300450 (B5–1218)

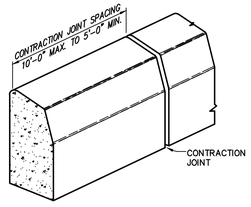
* REDUCE SPACING 50% ** REDUCE SPACING 33%

RESERVED PARKING SIGN (R7–8)
NOT TO SCALE

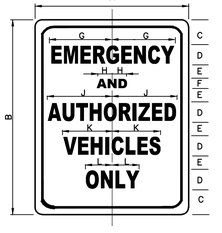


DETAIL A CONTRACTION JOINT

TYPICAL CROSS SECTION



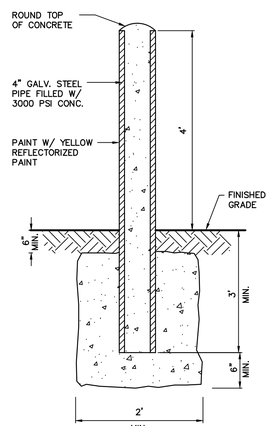
PLAIN CEMENT CONCRETE CURB
NOT TO SCALE



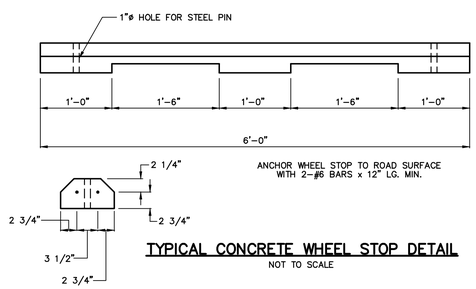
DIMENSIONS – mm (IN)							
SIGN SIZE A x B	C	D	E	F	G	H	
600 x 750 (24" x 30")	80 (3.2)	75C (3C)	60 (2.4)	50C (2C)	244 (9.6)	54 (2.1)	
J	K	L	MARGIN	BORDER	BLANK STD.		
258 (10.2)	197 (7.8)	105 (4.1)	10 (0.4)	10 (0.4)	B5–750600 (B5–3024)		

COLOR:
LEGEND & BORDER: RED (NON–REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

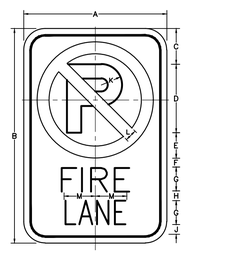
RESTRICTED ACCESS SIGN R5–3–6 DETAIL
NOT TO SCALE



BOLLARD DETAIL
NOT TO SCALE



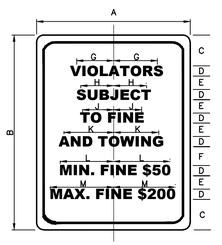
TYPICAL CONCRETE WHEEL STOP DETAIL
NOT TO SCALE



COLOR: LEGEND, BORDER: RED (REFLECTORIZED)
CIRCLE, DIAGONAL: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)
"P": BLACK (NON–REFLECTORIZED)

DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H	J	
300 x 450 (12" x 18")	75 (3)	150E(W) (6E(W))	47 (1.9)	21 (0.8)	50B (2B)	20 (0.8)	37 (1.5)	
K	L	M		MARGIN	BORDER	BLANK STD.		
122 (4.9)	25 (1)	56 (2.2)		10 (0.4)	10 (0.4)	B5–300450 (B5–1218)		

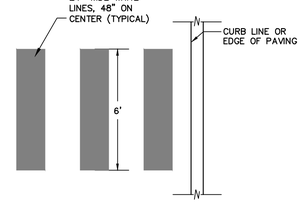
NO PARKING–FIRE LANE SIGN (R7–2B)
NOT TO SCALE



DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H		
300 x 450 (12" x 18")	75 (3)	25C (1C)	25 (1)	50 (2)	75 (3)	61 (2.4)		
J	K	L	M	MARGIN	BORDER	BLANK STD.		
58 (2.3)	90 (3.6)	101 (4)	117 (4.6)	10 (0.4)	10 (0.4)	B5–300450 (B5–1218)		

COLOR:
LEGEND & BORDER: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESERVED PARKING PENALTIES SIGN (R7–8F)
NOT TO SCALE



CROSSWALK DETAIL
NOT TO SCALE

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538 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
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2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

CONSTRUCTION DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

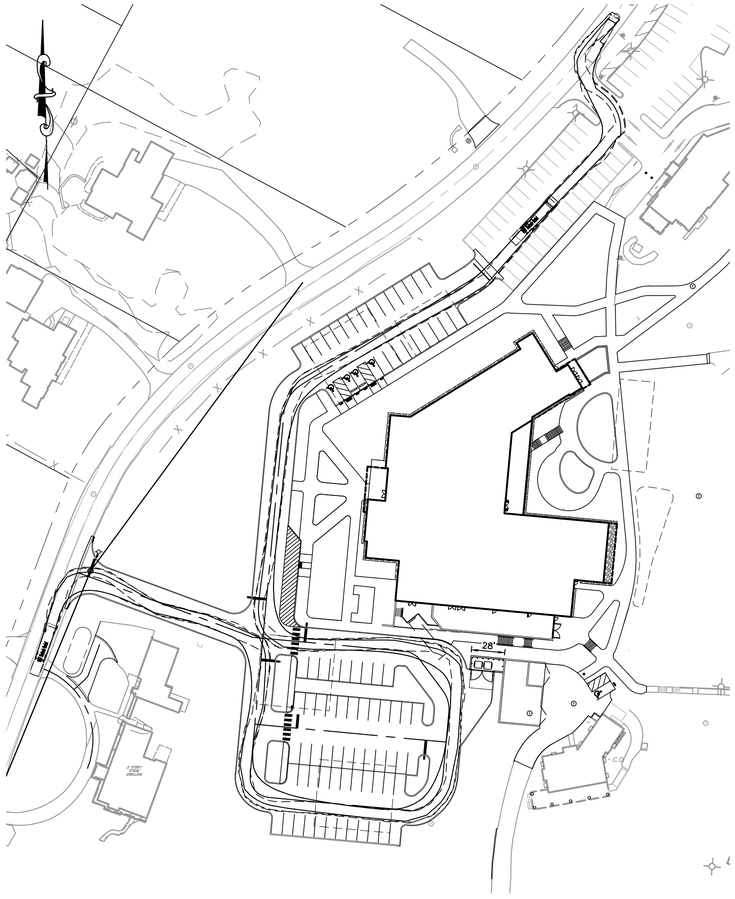
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: AS NOTED

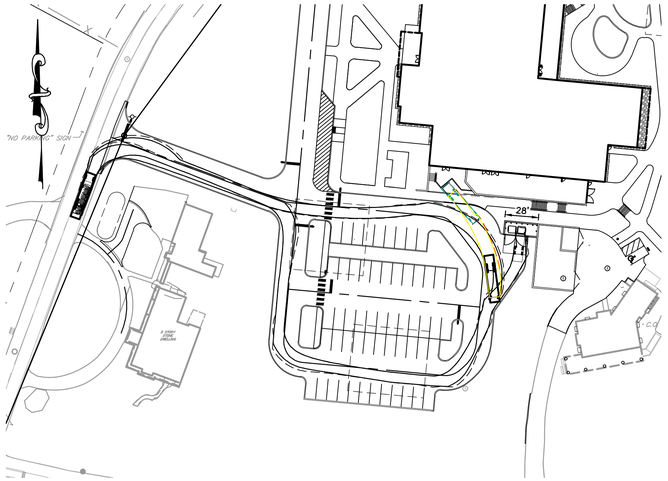
DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 39 OF 40

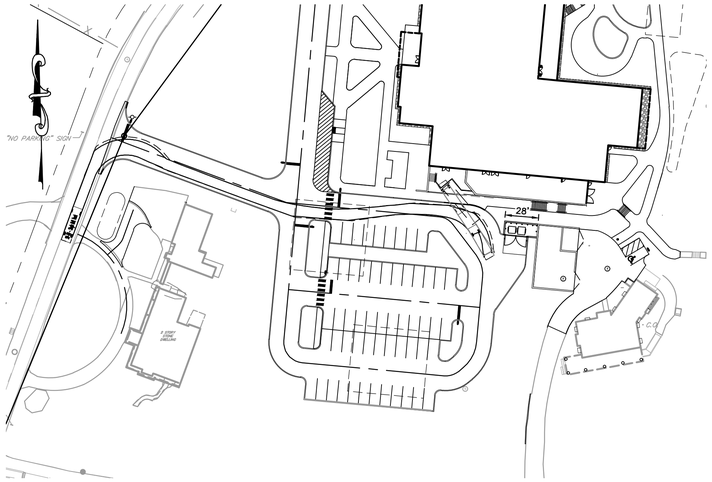
T:\land design\2017\201712006_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawing\CONSTRUCTION DETAILS – 1.dwg Layout: 39 CONSTRUCTION DETAILS Plotted By: wheider, on Mon Jun 05, 2023 at 11:32am



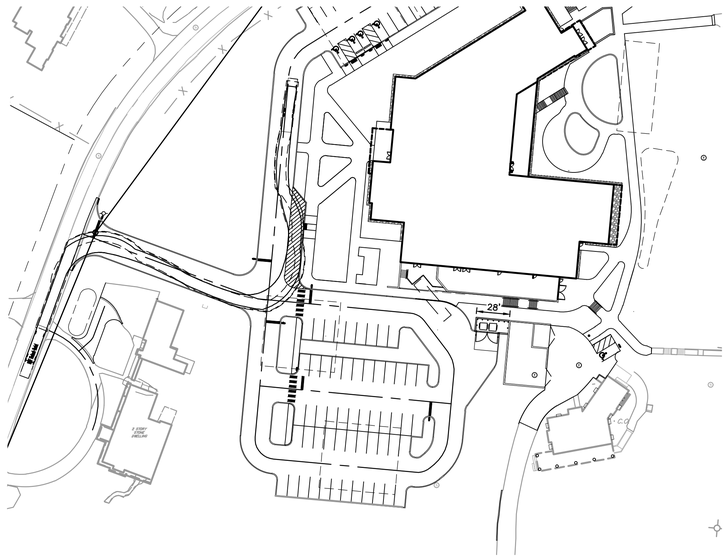
FIRE TRUCK TURNING PLAN – 1



GARBAGE TRUCK TURNING PLAN

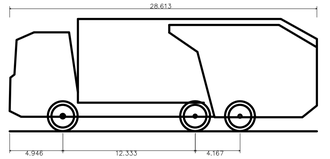


SU–30 TRUCK TURNING PLAN



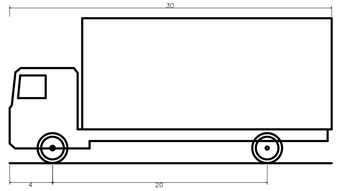
FIRE TRUCK TURNING PLAN – 2

SU–40 TRUCK TURNING PLAN



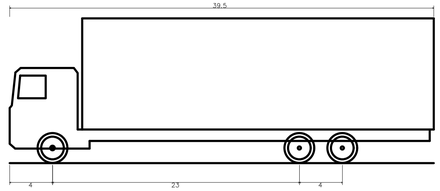
Mack TerraPro Cabover 6x4 MRU613 + Wayne Curbtender 31cu yd

Overall Length	28.613ft
Overall Width	8.000ft
Overall Body Height	11.458ft
Min Body Ground Clearance	1.115ft
Track Width	8.000ft
Lock-to-lock time	6.000s
Curb to Curb Turning Radius	53.500ft



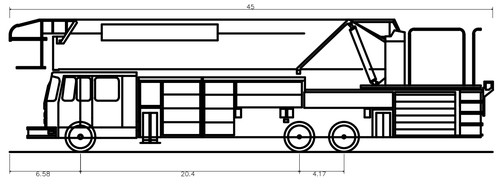
SU–30 – Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	11.458ft
Min Body Ground Clearance	1.115ft
Track Width	8.000ft
Lock-to-lock time	6.000s
Max Steering Angle (Virtual)	31.80°



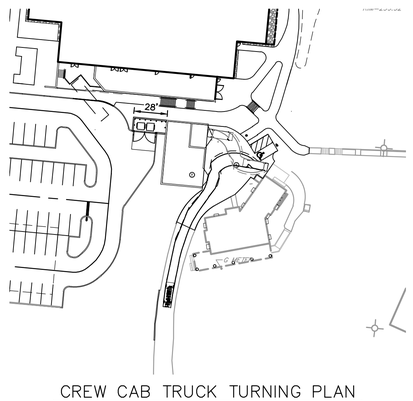
SU–40 – Single Unit Truck

Overall Length	39.500ft
Overall Width	8.000ft
Overall Body Height	11.458ft
Min Body Ground Clearance	1.115ft
Track Width	8.000ft
Lock-to-lock time	6.000s
Max Steering Angle (Virtual)	31.80°

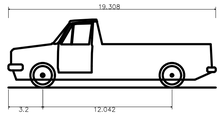


NHEF Firetruck–Bucket

Overall Length	45.000ft
Overall Width	8.000ft
Overall Body Height	11.167ft
Min Body Ground Clearance	1.115ft
Track Width	8.000ft
Lock-to-lock time	10.000s
Max Steering Angle (Virtual)	40.00°



CREW CAB TRUCK TURNING PLAN



F–150 SuperCrew 4x4 STYLESIDE 5.5' Box

Overall Length	19.308ft
Overall Width	6.750ft
Overall Body Height	6.750ft
Min Body Ground Clearance	0.750ft
Track Width	6.750ft
Lock-to-lock time	4.000s
Curb to Curb Turning Radius	23.500ft

60 0 60 120
SCALE IN FEET
1"=60'

G&A LEGEND

- RIGHT–OF–WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- # EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

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LUXEMBOURG CORPORATE CENTER
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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLANS

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

TRUCK TURNING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017–12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

MUNICIPAL FILE No.: LD–22–05

TAX MAP PARCEL No.: 30–00–09792–00–6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=60'
DRAWN BY: WMH	CHECKED BY: JM

SHEET NO.: 40 OF 40

T:\land design\2017\20171206_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\TRUCK TURNING PLAN.dwg Layout: 40 TRUCK TURNING PLAN Plotted By: whelder, on Mon Jun 05, 2023 at 11:33am

LAND DEVELOPMENT PLAN

FOR

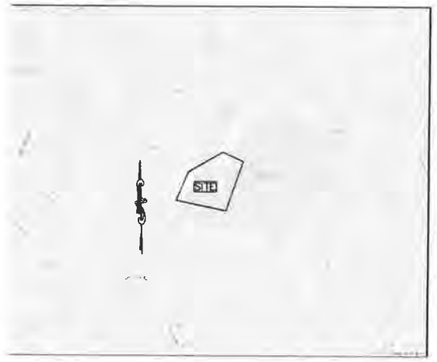
PENNSYLVANIA STATE UNIVERSITY

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GENERAL NOTES

1. VERTICAL DATUM IS NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE KEYNET–GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET–GPS VIRTUAL REFERENCE STATION SYSTEM.
2. CONVERSION TO ABINGTON TOWNSHIP SANITARY SEWER DATUM (TSSD): NAVD88 = TSSD + ____'
3. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.
4. ■ – CONCRETE MONUMENT TO BE SET □ – CONCRETE MONUMENT FOUND
   ● – R.R. SPIKE OR IRON PIN TO BE SET ○ – IRON PIN FOUND
5. THIS PLAN PREPARED UNDER THE FOLLOWING ORDINANCES:
   a. ZONING ORDINANCE – OF 2013, UPDATED 01–07–2019
   b. SUBDIVISION & LAND DEVELOPMENT ORDINANCE – 10–21–2019
   C. STORMWATER MANAGEMENT ORDINANCE – 05–24–2011
8. THE BURYING OF TREES AND OTHER CONSTRUCTION DEBRIS ON THE SITE IS PROHIBITED.
9. THE PROPOSED SANITARY SERVICE TO BE SUBJECT TO THE APPROVAL OF ABINGTON TOWNSHIP SEWER AUTHORITY.
10. THE PROPOSED WATER SERVICE AND FIRE PROTECTION SERVICE ARE TO BE SUPPLIED BY THE EXISTING AQUA PA MAIN LOCATED WITHIN CLOVERLY LANE
11. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) STANDARDS.
12. SHEETS 2 THROUGH 37 INCLUSIVE, ON RECORD AT ABINGTON TOWNSHIP, SHALL BE CONSIDERED A PART OF THE APPROVED FINAL PLAN AS IF RECORDED WITH SAME.
13. NO STRUCTURES, FENCE, PLANTING, OR OTHER OBSTRUCTION SHALL BE MAINTAINED BETWEEN A VERTICAL PLANE TWO FEET ABOVE STREET LEVEL AND A PLANE SEVEN FEET ABOVE STREET LEVEL SO AS TO INTERFERE WITH TRAFFIC VISIBILITY WITHIN THE CLEAR SIGHT TRIANGLES SHOWN AT ALL INTERSECTIONS. AT EACH POINT WHERE A DRIVEWAY INTERSECTS A STREET A CLEAR SIGHT TRIANGLE OF TEN (10) FEET MEASURED FROM THE POINT OF INTERSECTION OF THE STREET LINE AND THE EDGE OF THE ACCESS WAY SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN TWO FEET ABOVE THE STREET GRADE.
14. THIS PROJECT IS LOCATED WITHIN THE WATERSHED OF AN UNNAMED TRIBUTARY TO MEADOW BROOK. MEADOW BROOK IS DESIGNATED TSF IN CHAPTER 93. MEADOW BROOK IS PART OF THE PENNYPACK WATERSHED
15. PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF PROPOSED STORMWATER MANAGEMENT FACILITIES LOCATED ON THEIR LOT. SEE PCSWM PLANS AND DETAILS FOR INFORMATION ON MAINTENANCE REQUIREMENTS AND SCHEDULE
16. ALL DEVELOPMENT ACTIVITIES, SUCH AS CLEARING, GRADING, REGRADING, DRIVEWAYS, ROADS, BUILDINGS, SEPTIC SYSTEMS, RETENTION/DETENTION BASINS, AND UTILITY EASEMENTS SHALL BE LIMITED TO THE NATURAL RESOURCE PROTECTION STANDARDS AS SPECIFIED IN THE SOLEBURY TOWNSHIP ZONING ORDINANCE AS LAST AMENDED. THE REMAINING RESOURCES SHALL REMAIN IN THEIR NATURAL CONDITION INCLUDING THE NATURAL FOREST GROUND COVER WITH THE EXCEPTION OF THE REMOVAL OF INVASIVE EXOTIC SPECIES SUCH AS JAPANESE HONEYSUCKLE AND BITTERSWEET OR POISON IVY AND OTHER NOXIOUS WEEDS NOT MENTIONED. THIS RESTRICTION SHALL RUN WITH THE LAND AND BE BINDING ON THE PRESENT AND ALL FUTURE OWNERS AND/OR LESSEES.
17. THE AREA BETWEEN THE ULTIMATE RIGHT–OF–WAY ALONG SCHOOL LANE AND WOODLAND ROAD AND THE TITLE LINE IS OFFERED FOR DEDICATION TO ABINGTON TOWNSHIP
18. ALL NEW UTILITIES MUSH BE AS–BUILT SURVEYED BY THE CONTRACTOR. ALL AS–BUILT SURVEYS MUST BE PROVIDED DIGITALLY IN AUTOCAD FORMAT THE ARCHITECT AND ENGINEER OF RECORD FOR PUNCHLIST REVIEW. FINAL DIGITAL AUTOCAD VERSIONS OF ALL AS–BUILT PLANS SHALL BE PROVIDE TO PENN STATE UNIVERSITY PRIOR TO FINAL PAYMENT. PSU CONTACT FOR SENDING AUTOCAD DRAWING IS KAELEN ROBB, (kmr166@psu.edu) – GIS ANALYST, (814) 865–2792



LOCATION MAP

XX 00 XX XX
SCALE IN FEET

SELECT A SCALE

OWNER/APPLICANT:

PENNSYLVANIA STATE UNIVERSITY
C/O ANDREW D. GUTBERLET, P.E., LEED AP – MANAGER OF ENGINEERING SERVICES
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814–865–0545

PROJECT LOCATION:

1600 WOODLAND ROAD
ABINGTON, PA 19001
ABINGTON TOWNSHIP,
MONTGOMERY COUNTY,
PENNSYLVANIA

TAX PARCEL:

30–00–09792–00–6

MUNICIPAL FILE No.:

____

Sheet List Table

Sheet Number	Sheet Title
1	COVER
2	RECORD PLAN OF LAND DEVELOPMENT
3	LOT CONSOLIDATION PLAN
4	SITE PLAN
5	EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL
6	EXISTING FEATURES PLAN – OVERALL
7	EXISTING FEATURES AND DEMOLITION PLAN
8	GRADING PLAN
9	GRADING DETAIL PLAN 1
10	GRADING DETAIL PLAN 2
11	EROSION & SEDIMENT CONTROL PLAN
12	EROSION & SEDIMENT CONTROL DETALS & NOTES – 1
13	EROSION & SEDIMENT CONTROL DETAILS & NOTES – 2
14	PCSM PLAN
15	PRE–DEVELOPMENT DRAINAGE AREA PLAN
16	POST–DEVELOPMENT DRAINAGE AREA PLAN
17	POST–DEVELOPMENT INLET DRAINAGE AREA PLAN
18	PCSM NOTES
19	PCSM DETAILS – 1
20	PCSM DETAILS – 2
21	PCSM DETAILS – 3
22	PCSM DETAILS – 4
23	PCSM DETAILS – 5
24	PCSM DETAILS – 6
25	UTILITY PLAN – OVERALL
26	UTILITY PLAN – PARTIAL SITE
27	UTILITY – WATER SERVICE DETAILS
28	UTILITY – SANITARY SEWER DETAILS
29	LOGISTICS PLAN
30	LANDSCAPE PLAN
31	LIGHTING PLAN
32	LANDSCAPE & LIGHTING DETAILS
33	PROFILES – 1
34	PROFILES – 2
35	31 PROFILES 3
36	CONSTRUCTION DETAILS – 1
37	TRUCK TURNING PLAN

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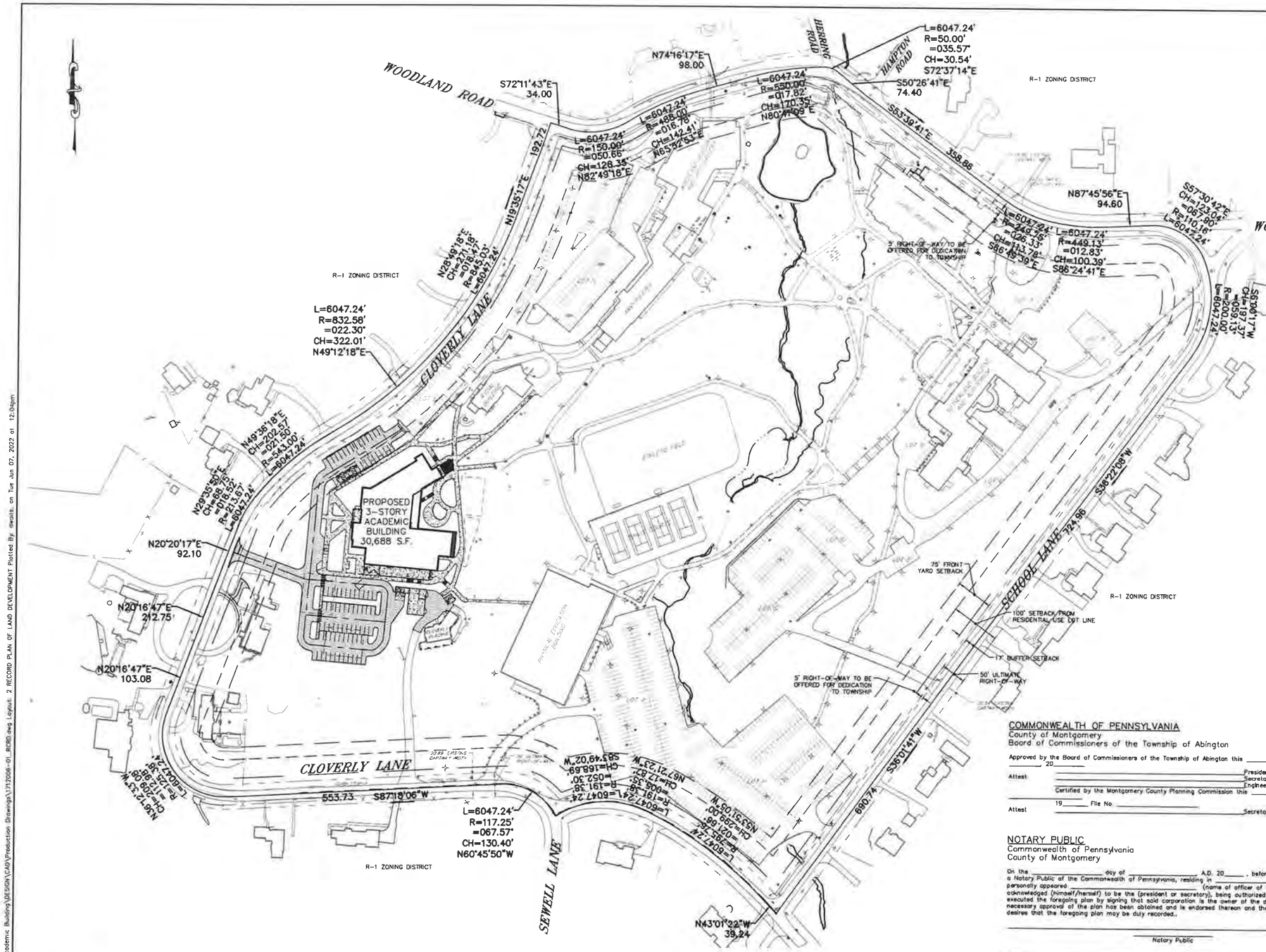
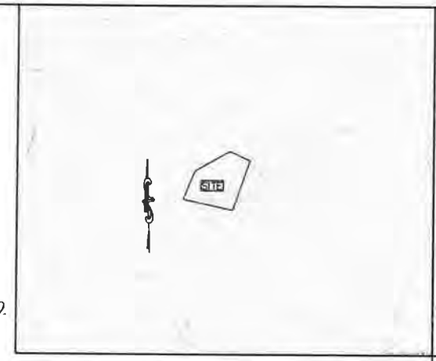
PLAN DATE: 06/06/22
LAST REVISED: June 06, 2022

SHEET NO.: 1 OF 37

J:\Land design\2017\2017006_PSU–Abington New Academic Building\DESIGN\CAD\Production Drawings\2017006–01_COVER.dwg Layout: 1 COVER Plotted By: wheider, on Tue Jun 07, 2022 at 11:48am





LOCATION MAP

SCALE: 1"=800'

COMMONWEALTH OF PENNSYLVANIA
County of Montgomery
Board of Commissioners of the Township of Abington

Approved by the Board of Commissioners of the Township of Abington this _____ day of _____, 20_____

Attest _____ President
_____ Secretary
_____ Engineer

Certified by the Montgomery County Planning Commission this _____ day of _____, 19_____ File No. _____

Attest _____ Secretary

NOTARY PUBLIC
Commonwealth of Pennsylvania
County of Montgomery

On the _____ day of _____ A.D. 20_____, before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____ personally appeared _____ (name of officer of the corporation), who acknowledged (himself/herself) to be the (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded..

_____
Notary Public

_____
My Commission Expires

COUNTY RECORDER OF DEEDS
RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK _____ PAGE _____ ON THE _____ DAY OF _____, 20_____

COUNTY RECORDER OF DEEDS

MCPC No. _____

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date _____

_____
For the Director

Montgomery County Planning Commission

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED PAVEMENT

SCALE: 1"=100'

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811

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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2016 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE059529

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

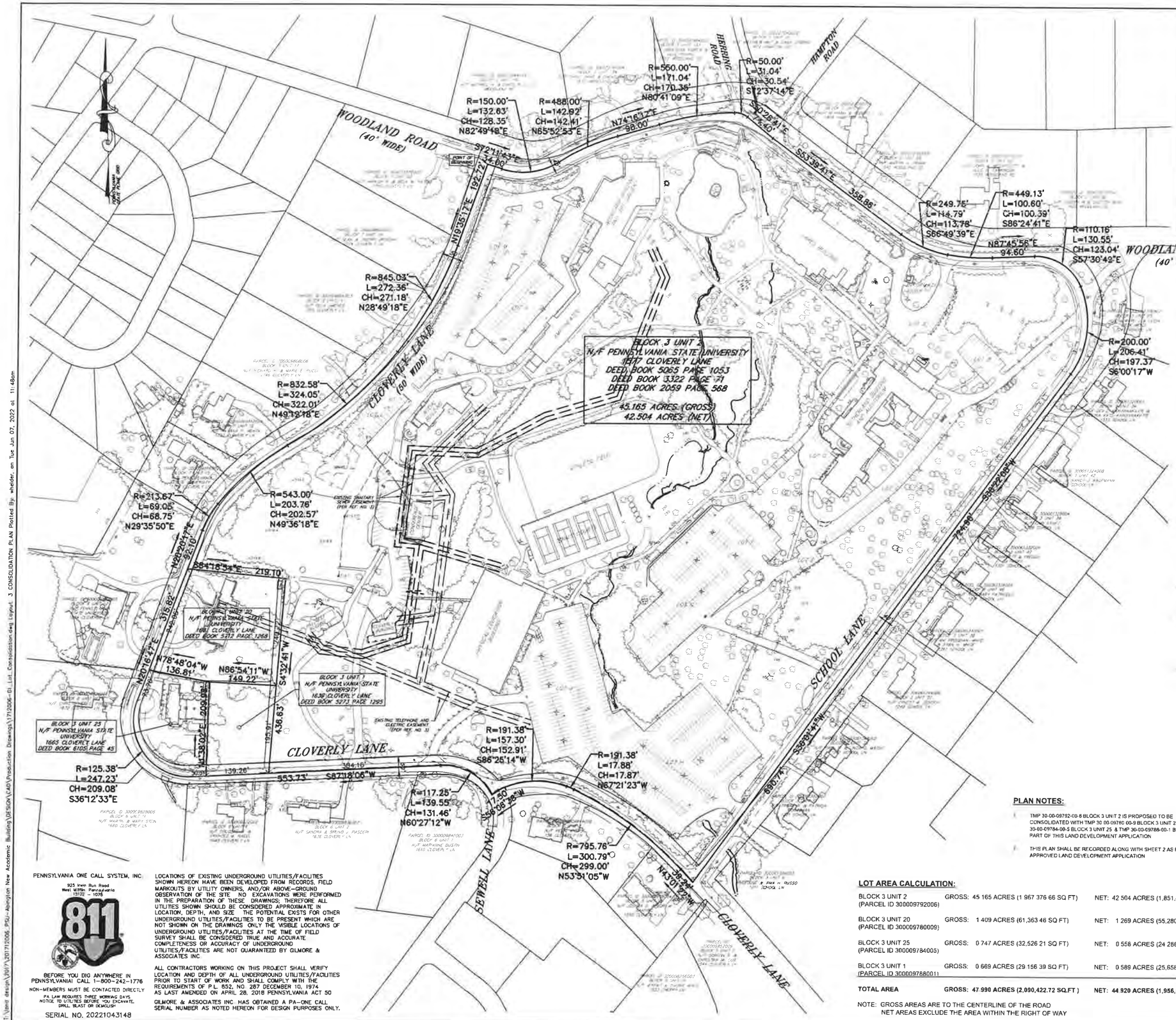
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RECORD PLAN OF LAND DEVELOPMENT

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.:	2017-12006
OWNERS INFO:	PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-6565
MUNICIPAL FILE No.:	
TAX MAP PARCEL No.:	30-00-09792-00-6
TOTAL AREA:	47.989 AC.
TOTAL LOTS:	1
DATE:	06/06/22
SCALE:	1"=100'
DRAWN BY:	WMH
CHECKED BY:	DAW
SHEET NO.:	2 OF 37

T:\Gilmore design\2017\2017006 -PSU- Abington New Academic Building\DESIGN\CAD\Production Drawings\2017006-01_RCRD.dwg Layout: 2 RECORD PLAN OF LAND DEVELOPMENT Plotted By: dwaite, on Tue Jun 07, 2022 at 12:04pm



LOCATION MAP

SCALE: 1"=1000'

GENERAL SURVEY NOTES:

1. PROPERTY KNOWN AS BLOCK 3 UNITS 1, 2, 20 & 25 AS SHOWN ON THE TAX MAP OF THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA
2. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN MARCH 2022 AND THE REFERENCED INFORMATION LISTED HEREON. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
3. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED
4. HORIZONTAL DATUM IS BASED ON 1983 STATE PLANE COORDINATE SYSTEM AND AS NOTED IN REFERENCE PLAN # 3
5. THE ROAD RIGHT OF WAY WIDTHS LABELED ARE AS NOTED IN THE REFERENCED DEEDS
6. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE FROM REFERENCED PLAN NUMBER 3 AND FIELD UPDATED IN CERTAIN AREAS BY GILMORE & ASSOCIATES, INC. BASED ON VISIBLE OBSERVATIONS AND MARKOUTS BY GROUND PENETRATING RADAR SYSTEMS, LLC THROUGH MARCH 2022

REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA
2. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS, TOWNSHIP OF ABINGTON, MONTGOMERY CO., PA., FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION" PREPARED BY GANNETT FLEMING, INC. AND RECORDED IN THE MONTGOMERY COUNTY RECORDE OF DEEDS ON FEBRUARY 7, 1995 IN BOOK 3, PAGES 50, 51 AND 52
3. PLAN ENTITLED "ABINGTON CAMPUS SURVEY, ABINGTON CAMPUS, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA, V2021 - V612021, THE PENNSYLVANIA STATE UNIVERSITY, 1600 WOODLAND ROAD, ABINGTON, PENNSYLVANIA" PREPARED BY PENNONI ASSOCIATES, INC. DATED 10/12/2017 AND REVISED TO 10/24/2017
4. DEEDS AS NOTED

PLAN NOTES:

1. TMP 30-00-09792-00-6 BLOCK 3 UNIT 2 IS PROPOSED TO BE CONSOLIDATED WITH TMP 30-00-09780-00-9 BLOCK 3 UNIT 20, TMP 30-00-09784-00-5 BLOCK 3 UNIT 25, & TMP 30-00-09786-00-1 BLOCK 3 UNIT 1 AS PART OF THIS LAND DEVELOPMENT APPLICATION.
2. THIS PLAN SHALL BE RECORDED ALONG WITH SHEET 2 AS PART OF THE APPROVED LAND DEVELOPMENT APPLICATION

LOT AREA CALCULATION:

BLOCK 3 UNIT 2 (PARCEL ID 300009792006)	GROSS: 45.165 ACRES (1,967,376.66 SQ.FT.)	NET: 42.504 ACRES (1,851,472.71 SQ.FT.)
BLOCK 3 UNIT 20 (PARCEL ID 300009780009)	GROSS: 1.409 ACRES (61,363.46 SQ.FT.)	NET: 1.269 ACRES (55,280.54 SQ.FT.)
BLOCK 3 UNIT 25 (PARCEL ID 300009784005)	GROSS: 0.747 ACRES (32,526.21 SQ.FT.)	NET: 0.558 ACRES (24,286.29 SQ.FT.)
BLOCK 3 UNIT 1 (PARCEL ID 300009786001)	GROSS: 0.669 ACRES (29,156.39 SQ.FT.)	NET: 0.589 ACRES (25,658.78 SQ.FT.)
TOTAL AREA	**GROSS: 47.990 ACRES (2,090,422.72 SQ.FT.)**	**NET: 44.920 ACRES (1,956,698.32 SQ.FT.)**

NOTE: GROSS AREAS ARE TO THE CENTERLINE OF THE ROAD
NET AREAS EXCLUDE THE AREA WITHIN THE RIGHT OF WAY

SCALE: 1"=100'

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West Mifflin, Pennsylvania
15122 - 1076

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES, INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES, INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
(address illegible)

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES D. McEWEN
LAND SURVEYOR
PENNSYLVANIA

REV	DESCRIPTION	DATE	BY

LOT CONSOLIDATION PLAN
PENNSYLVANIA STATE UNIVERSITY
ABINGTON CAMPUS
BLOCK 3, UNITS 1, 2, 20 & 25
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

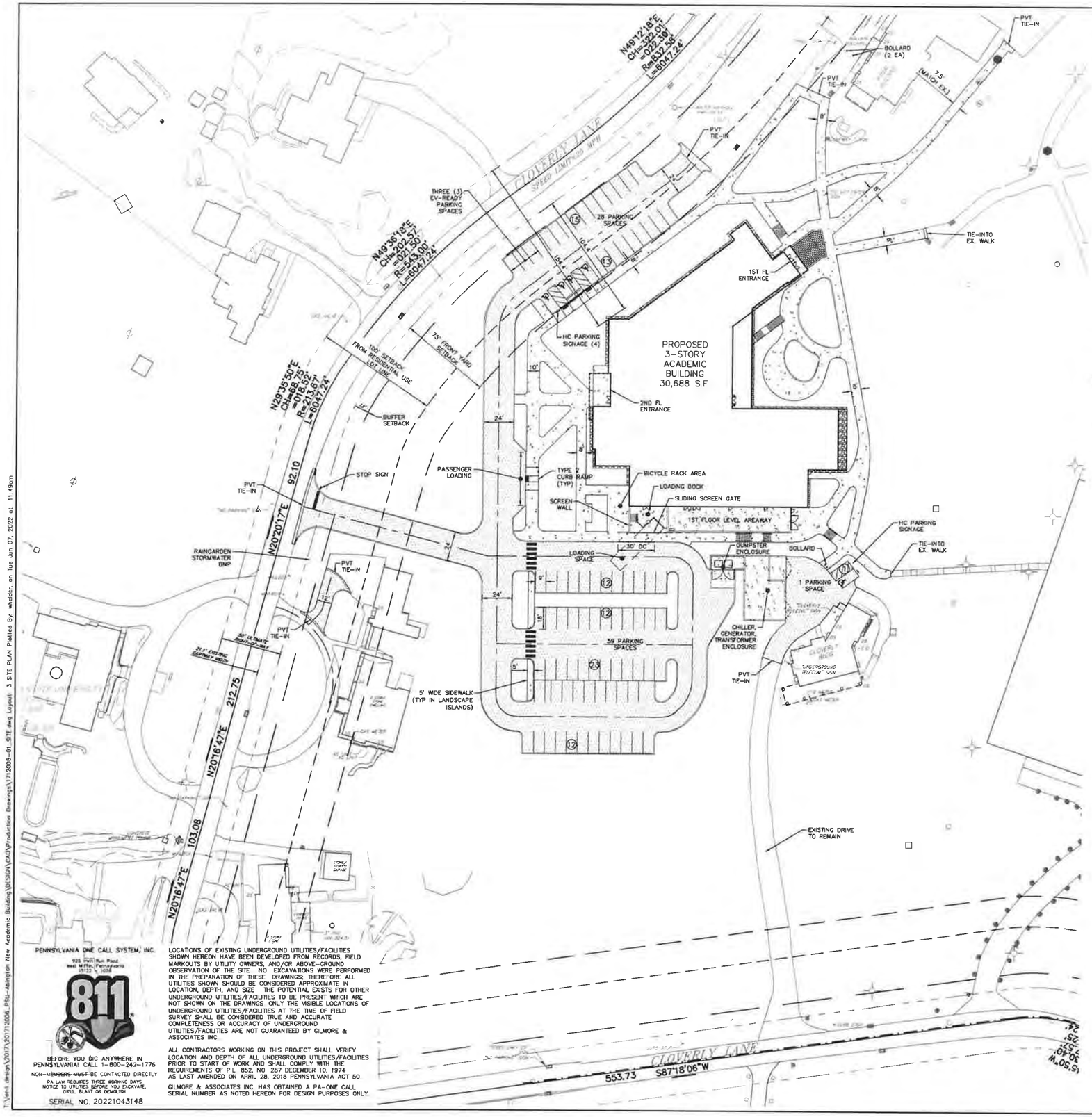
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

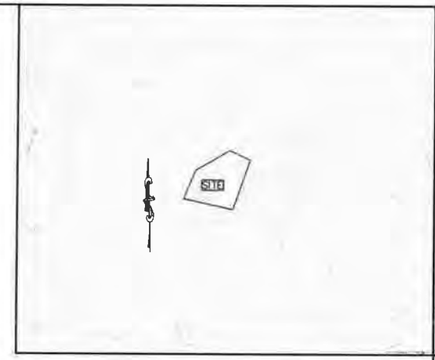
PROJECT No.: 1712006-01	
TAX MAP PARCEL No.: BLOCK 3, UNITS 1, 2, 20 & 25	
TOTAL AREA: 47.990 AC.	TOTAL LOTS: 4
DATE: 06/06/22	SCALE: 1"=100'
DRAWN BY: KRN	CHECKED BY: JDM

SHEET NO.: 3 OF 37

NOT TO BE RECORDED

F:\Land design\2017\2017006_PSU- Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_Lot_Consolidation.dwg, Layout: 3 CONSOLIDATION PLAN, Plotted By: whedder, on Tue Jun 07, 2022 at 11:48am





LOCATION MAP

SCALE: 1"=800'

PROJECT INFORMATION:

ZONING DISTRICT: CS – COMMUNITY SERVICE DISTRICT [1]

SITE USE: E-18 UNIVERSITY CAMPUS [1]

CS – COMMUNITY SERVICE DISTRICT DIMENSIONAL REQUIREMENTS

	REQUIRED	PROVIDED
LOT AREA (MIN)	5 AC	44.574 AC [2]
LOT WIDTH (MIN)	400 FT.	>400 FT.
LOT DEPTH (MIN)	400 FT.	>400 FT.
SETBACK FROM RESIDENTIAL USE(MIN FROM A RESIDENTIAL USE LOT LINE)	100 FT.	154.4 FT.
YARD SETBACK, FRONT,(MIN)	75 FT	104.4 FT.
YARD SETBACK, SIDE,(MIN)	50 FT.	N/A FT.
YARD SETBACK, REAR,(MIN)	50 FT.	N/A FT.
BUILDING COVERAGE (MAX)	25%	8.4 %
IMPERVIOUS COVERAGE (MAX)	45%	38.8 %
GREEN AREA (MIN)	55%	61.2 %
BUILDING HEIGHT[3]	45 FT.[3]	47.83 FT.
BUILDINGS SEPARATION (MIN)	30 FT.	>30 FT.
PARKING SPACES	1,222[4]	1,457[4]

[1] ZONING DESIGNATION, ZONING DIMENSIONAL REQUIREMENTS, AND INCORPORATION OF USE E-18 SHOWN ON THIS PLAN ARE BASED ON TEXT AND MAP AMENDMENTS ADOPTED BY THE ABINGTON TOWNSHIP BOARD OF COMMISSIONERS ON NOVEMBER 10, 2021 (ORDINANCE NO. 2186 AND ORDINANCE NO. 2187).

[2] LOT AREA TO BE UTILIZED FOR ZONING COMPUTATIONS AS SHOWN IN THIS PLAN IS BASED ON CONSOLIDATED LOT AREA MINUS AREA TO THE ULTIMATE RIGHT-OF-WAY LINE OF ALL STREETS

[3] BUILDING HEIGHT MAY BE INCREASED TO 55 FEET SUBJECT TO THE EXCEPTION SET FORTH IN SECTION 2601.G, "HEIGHT EXCEPTIONS".

[4] PARKING COMPUTATIONS:

REQUIRED PARKING

1 SPACE PER CLASSROOM (68 CLASSROOMS): 1 SP * 88 =	88 SP
1 SPACE PER 2.5 STUDENTS (3600 STUDENTS): 3600/2.5 SP =	1440
1 SPACE PER 10 AUDITORIUM SEATS (510 SEATS): 510/10 =	51
1 SPACE PER 300 S.F. GROSS OFFICE FLOOR SPACE: [EX = 40,415 S.F.; NEW ACADEMIC OFFICE = 10,000 S.F.]	
1 SP * 50,416 S.F./300 =	168 SP
TOTAL REQUIRED PARKING	1747 SP
PARKING SPACES REQUIRED WITH 30% REDUCTION [UNIVERSITY SHALL PROVIDE: REGULARLY SCHEDULED SHUTTLE SERVICE; RIDE-SHARE PROGRAM; AND CAR-SHARE/ BIKE-SHARE SERVICES]	1223 SP

PARKING PROVIDED

EXISTING OFF-CAMPUS SPACES	129 SP
EXISTING ONSITE SPACES	1118
SPACES REMOVED FOR PROJECT	(44)
PARKING SPACES ADDED FOR PROJECT (INCLUDING 4 ACCESSIBLE SPACES)	88 SP
TOTAL PARKING PROVIDED	1291 SP

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED CONCRETE
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED LANDSCAPE STRIP
- PROPOSED SIGN

EXISTING UTILITY LEGEND

- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET

SCALE: 1"=40'

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SERIAL NO. 20221043148

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE059695

BY	DATE	DESCRIPTION	REV.

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

SITE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0448

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 4 OF 37

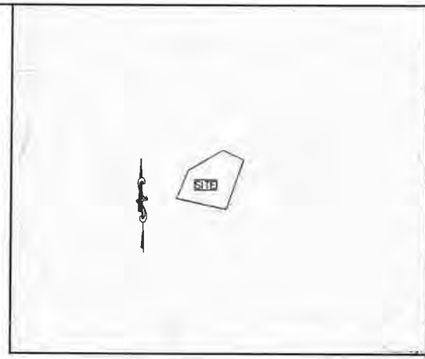
J:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CADD\Production Drawings\17120006-01_SITE.dwg Layout: 3 SITE PLAN Plotted By: wheider, on Tue Jun 07, 2022 at 11:49am

PLAN NOTES:

1 ZONE X FLOOD HAZARD AREA INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP #42091C0401G DATED 03/02/2016

2 SITE SOIL BOUNDARIES AND INFORMATION FROM USDA NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY

3 WOODLANDS DELINEATED FROM AERIAL IMAGERY AND 2019 & 2022 G&A SURVEY INFORMATION WHERE AVAILABLE



LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
- RIPARIAN ZONE 1
- RIPARIAN ZONE 2
- WOODLANDS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABILITY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PoC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	80"–118"	>80"	NOT RATED	
PoE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	80"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

NATURAL RESOURCE CALCULATIONS

NATURAL RESOURCE	RESOURCE PROTECTION REQUIRED (%)	TOTAL AREA OF RESOURCE (S.F.)	AREA DISTURBED (CURRENT PROJECT)	DISTURBED % (CURRENT PROJECT)	AREA PRESERVED (CURRENT PROJECT)	PRESERVED % (CURRENT PROJECT)
ZONE X		89,123	0	0.0%	89,123	100.0%
RIPARIAN CORRIDOR ZONE 1		78,266	0	0.0%	78,266	100.0%
RIPARIAN CORRIDOR ZONE 2		134,617	0	0.0%	134,617	100.0%
VEGETATION – FORESTED/WOODED		740,549	43,531	5.9%	697,018	94.1%
CLASS I SLOPES (8%–15% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS II SLOPES (15%–25% SLOPES)	N/A	0	0	0.0%	0	0.0%
CLASS III SLOPES (>25% SLOPES)	N/A	0	0	0.0%	0	0.0%

NOTE: BASED ON THE DEFINITION OF STEEP SLOPES FROM THE TOWNSHIP OF ABINGTON ZONING ORDINANCE, STEEP SLOPES ARE NOT PRESENT ON THE PROJECT SITE

SCALE: 1"=40'

GILMORE & ASSOCIATES, INC.
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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE035516

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING RESOURCES AND SITE ANALYSIS PLAN (ERSAP) – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: MMH | CHECKED BY: DAW

SHEET NO.: 5 OF 37

T:\Land design\2017\20171206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\171206-01_ERSAP.dwg Layout: 4 ERSAP Plotted By: wheller, on Tue Jun 07, 2022 at 11:49am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
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- EXISTING SAN. SEWER LINE
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- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
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- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

CLOVERLY LANE

SCALE 1"=100' — 100 0 100 200 IN FEET

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DOUGLAS A. WAITE — ENGINEER — PE073559

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC

TOTAL LOTS: 1

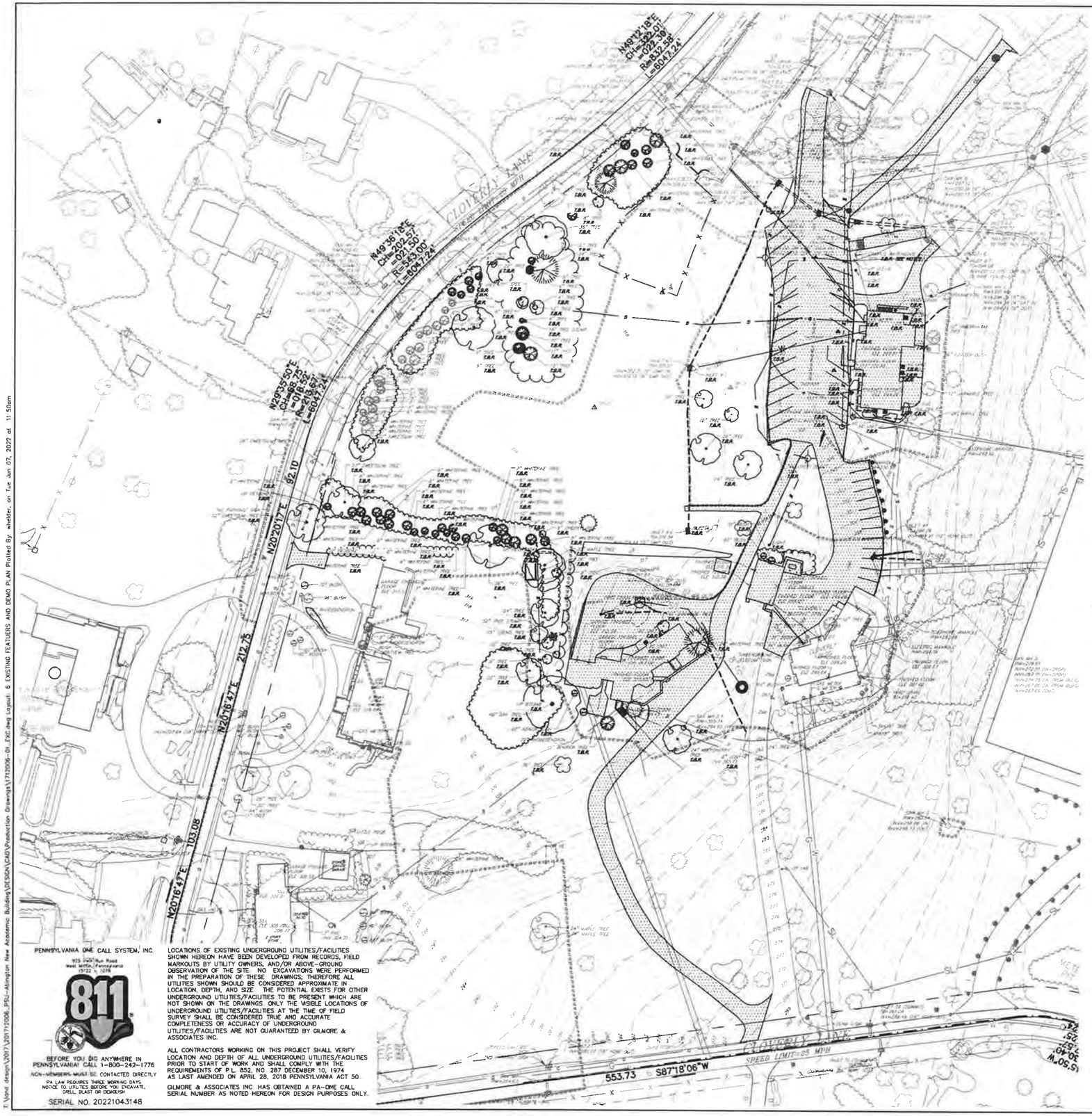
DATE: 06/06/22

SCALE: 1"=100'

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 6 OF 37



REFERENCE PLANS:

1. PLAN ENTITLED "THE PENNSYLVANIA STATE UNIVERSITY OGONTZ CAMPUS TOWNSHIP OF ABINGTON MONTGOMERY CO PA FINAL MINOR LAND DEVELOPMENT PLAN FOR PARKING LOT EXPANSION AND CONSTRUCTION", PREPARED BY GANNETT FLEMING INC DATED APRIL 18 1984 SHEETS 1 6 & 7 OF 12 RECORDED IN PLAN BOOK L 3 PAGE 50
2. TOPOGRAPHIC AND PLANIMETRIC INFORMATION "AKEN FROM AN AUTOCAD PLAN PREPARED BY QUANTUM SPATIAL "ABINGTON SITE"

GENERAL NOTES:

1 SURVEY INFORMATION PROVIDED ON THIS PLAN IS BASED ON THE FOLLOWING:

1 A A BOUNDARY AND PARTIAL SITE SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC IN DECEMBER 2019 AND MARCH 2022

1 B TOPOGRAPHY AND EXISTING ABOVE GROUND FEATURES FROM A PLAN TITLED ABINGTON CAMPUS SURVEY ABINGTON CAMPUS 1600 WOODLAND ROAD ABINGTON PENNSYLVANIA, V0201 V0201 PREPARED FOR "HE PENNSYLVANIA STATE UNIVERSITY BY PENNONI ASSOCIATES INC AND DATED 10/12 2017

1 C EXISTING UTILITIES INFORMATION FROM A CAD FILE PROVIDED BY PENNSYLVANIA STATE UNIVERSITY ON 5/22/2019 NAMED ABINGTON UTILITIES 031717 DWG" (NOTE UTILITY INFORMATION VERIFIED THROUGH THE G&A PARTIAL SITE SURVEY SUPERSEDES INFORMATION PROVIDED BY THIS FILE)

2 DEVIATIONS FROM REFERENCED INFORMATION PROVIDED BY OTHERS INCLUDE THE FOLLOWING

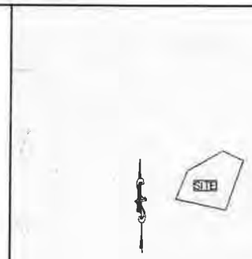
2 A CAD FILES USED TO CREATE THE PLAN REFERENCED IN 1A ABOVE WERE PROVIDED BY PENNONI ASSOCIATES INC THE TOPOGRAPHY FROM THIS FILE WAS RAISED 0 43' TO MEET THE VERTICAL DATUM FROM THE 2019 G&A SURVEY

3 THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OTHER RIGHTS TO PROPERTY MAY EXIST

4 ADJACENT PARCEL LINES WERE OBTAINED FROM COUNTY GIS MAPPING FOR THE TOWNSHIP OF ABINGTON, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA PARCEL LINES ARE APPROXIMATE AND ARE NOT ADJUSTED TO PHYSICAL EVIDENCE FOUND.

5 SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED

6. VERTICAL DATUM NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET GPS VIRTUAL REFERENCE STATION SYSTEM HORIZONTAL DATUM IS BASED ON PENNSYLVANIA TATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET GPS VIRTUAL REFERENCE STATION SYSTEM



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

DEMOLITION PLAN NOTES

1. REMOVE ALL EXISTING CAMPUS WAYFINDING SIGNAGE WITHIN THE PROJECT AREA AND STORE FOR REUSE ONSITE AS DIRECTED BY THE ABINGTON CAMPUS DIRECTOR OF BUSINESS OPERATIONS
2.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
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- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PIPE TO BE REMOVED
- TREES TO BE REMOVED
- BUILDINGS & PAVEMENT TO BE REMOVED

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

40 0 40 80
SCALE IN FEET
1"=40'

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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

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WWW.GILMORE-ASSOC.COM

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE069998

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EXISTING FEATURES AND DEMOLITION PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

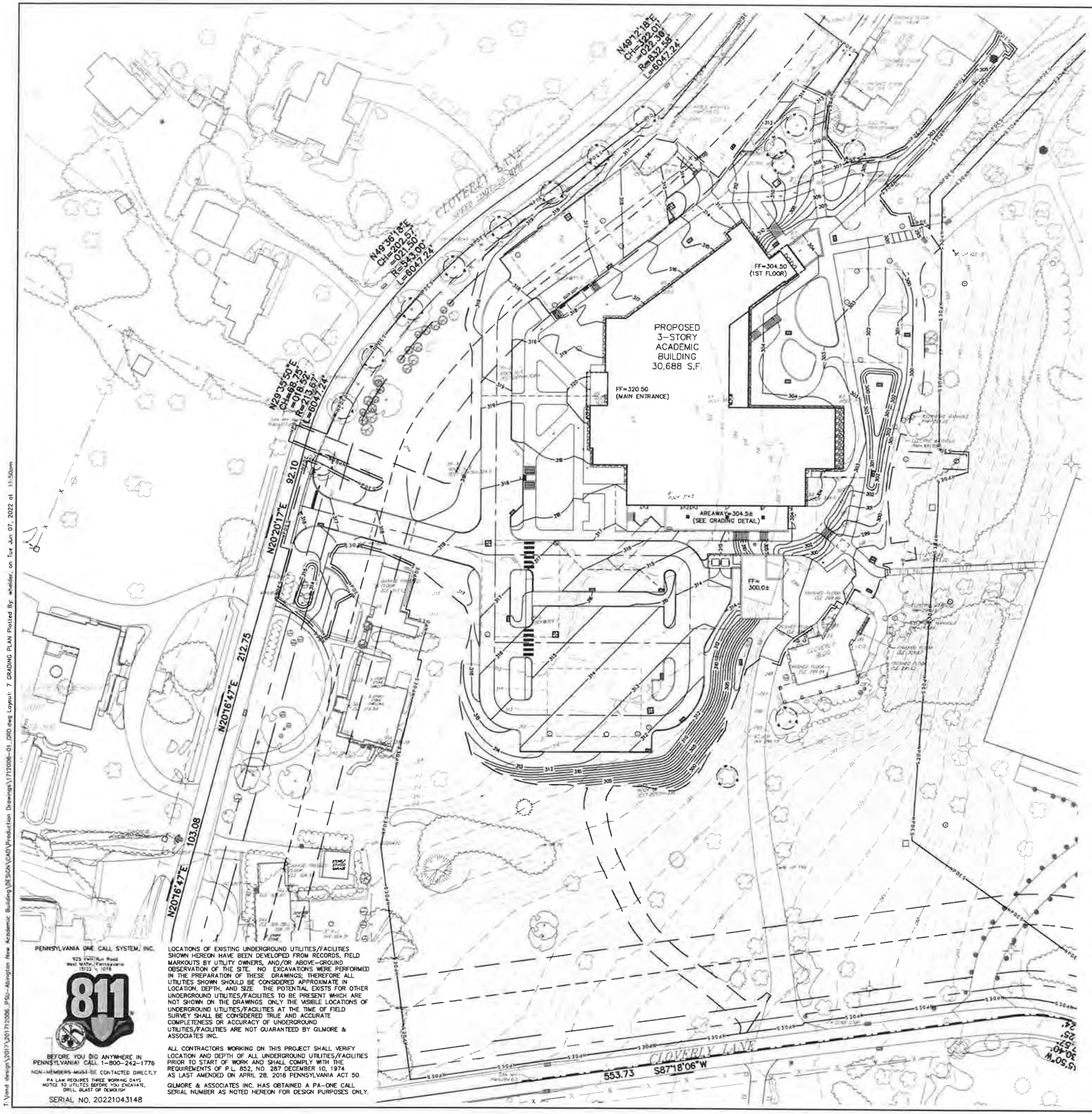
SCALE: 1"=40'

DRAWN BY: MMH

CHECKED BY: DAW

SHEET NO.: 7 OF 37

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17006-01_EXC.dwg Layout: 6 EXISTING FEATURES AND DEMO PLAN Plotted By: whelder, on Tue Jun 07, 2022 at 11:50am



LOCATION MAP

SCALE: 1"=800'

800 0 800 1600
SCALE IN FEET

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2018/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 318 PROPOSED MINOR CONTOURS
- PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-18 COMPOST SOCK – SIZE
- TP TREE PROTECTION

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

REFER TO GRADING DETAIL PLANS, PCSM PLAN, EROSION CONTROL PLAN AND PLAN DETAILS FOR ADDITIONAL INFORMATION ON WORK REQUIRED FOR SITE GRADING OPERATIONS.

40 0 40 80
SCALE IN FEET
1"=40'

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West Mifflin, Pennsylvania
15122 - 1078

811

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SERIAL NO. 20221043148

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE039998

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.959 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 8 OF 37

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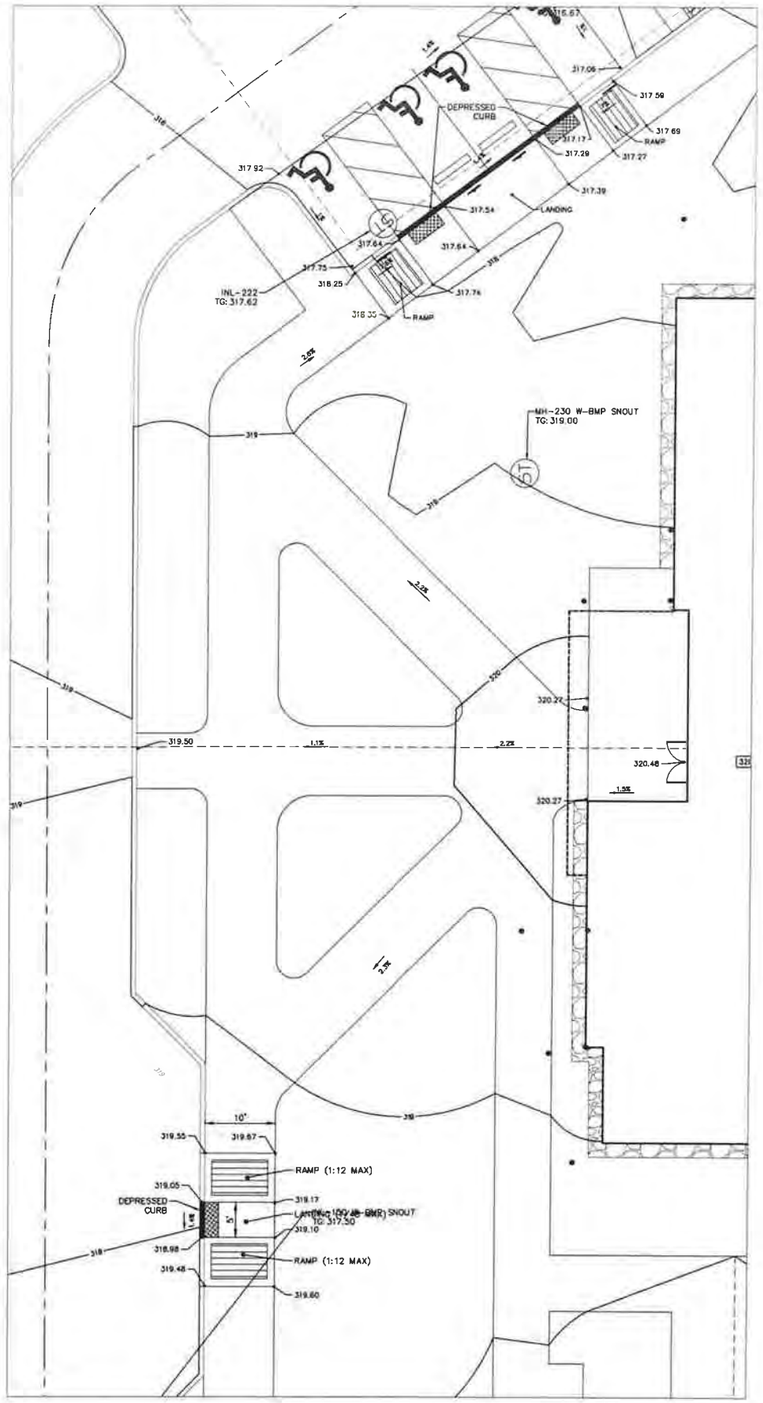

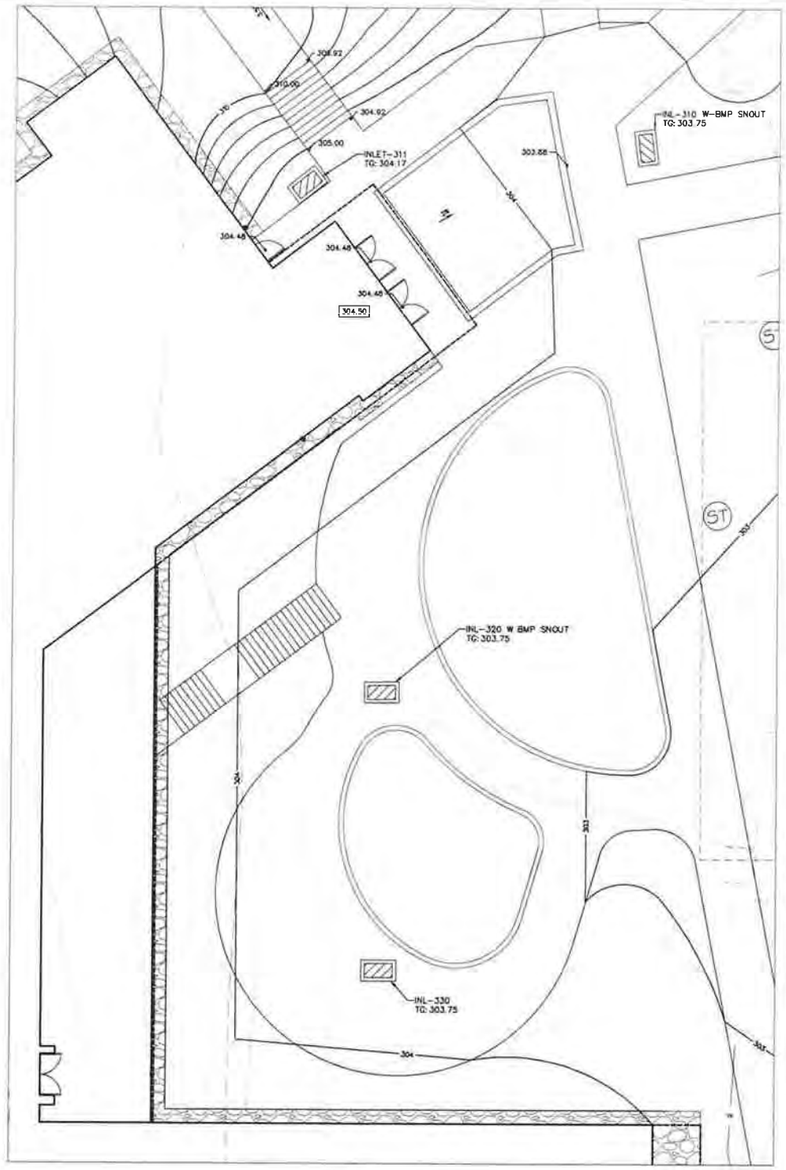

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
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- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE IN 1"=10' FEET (10 0 10 20)

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE035033

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=10'

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 9 OF 37

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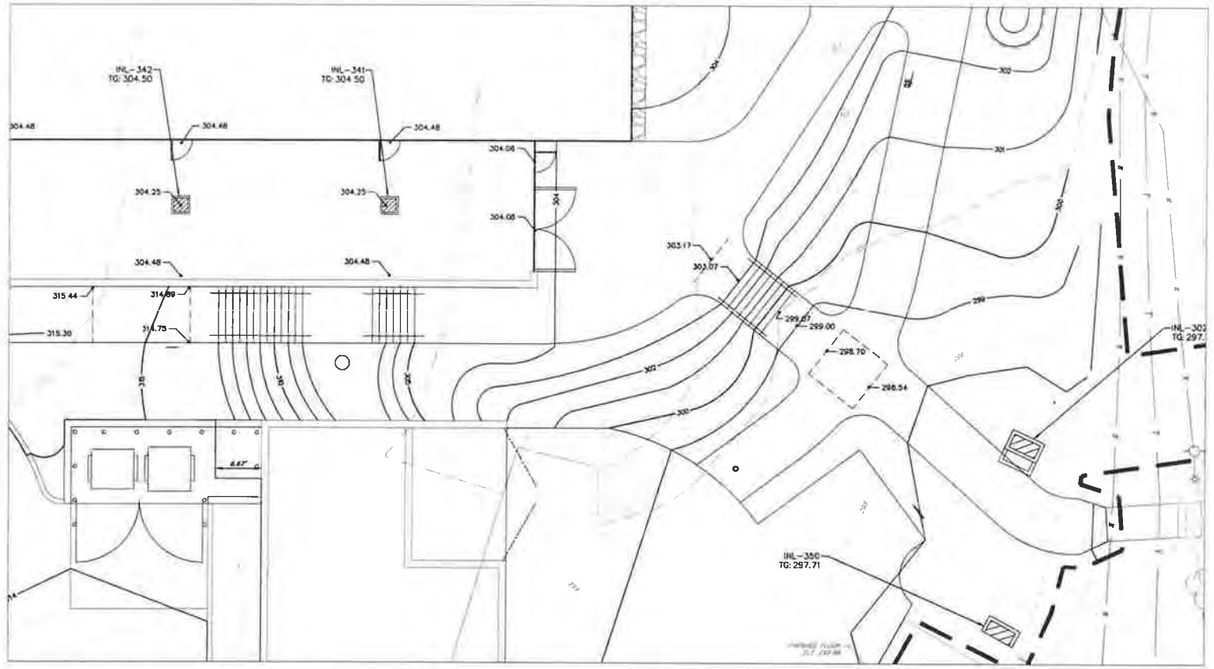

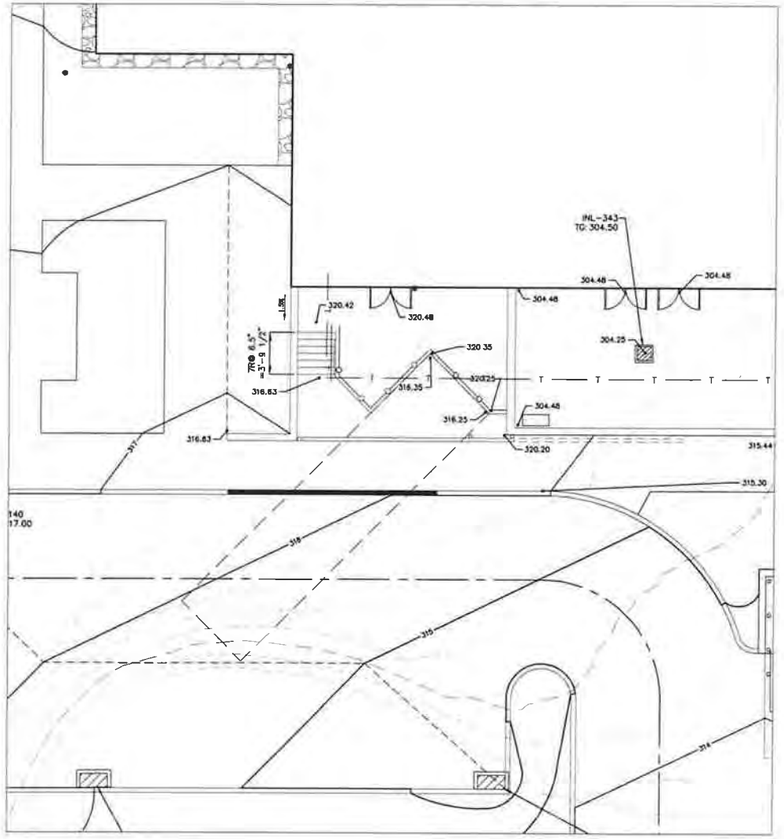

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
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- EXISTING GAS LINE
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- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
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- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
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- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE IN FEET
1"=10'

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PA

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REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GRADING DETAIL PLAN 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

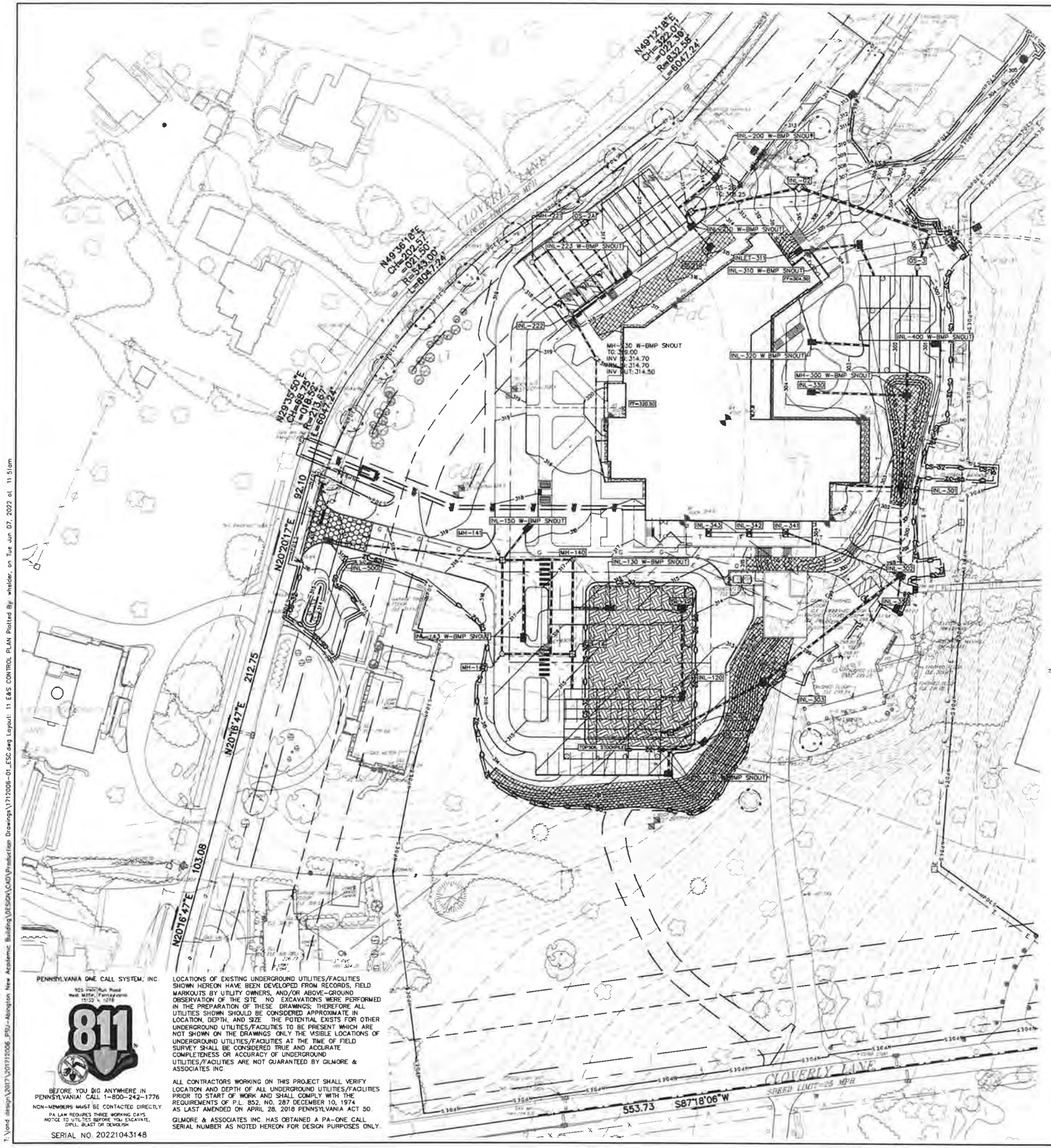
TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1

DATE:	SCALE:
06/06/22	1"=10'

DRAWN BY:	CHECKED BY:
WMH	DAW

SHEET NO.: 10 OF 37

T:\Land design\2017\2017206_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17120006-Bl...GRD.dwg Layout: 10 GRADING DETAIL 2 Plotted By: wwalder, on Tue Jun 07, 2022 at 11:51am



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West Mifflin, Pennsylvania
15122 x 1076

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PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

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E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THE NEAREST SURFACE WATERS IS AN UNNAMED TRIBUTARY TO MEADOW BROOK §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY). §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY FELSIC GNEISS BEDROCK. THIS FORMATION IS COMPOSED OF LIGHT BUFF TO LIGHT PINK, FINE TO MEDIUM GRAINED QUARTZ,MICROCLINE, HORNBLENDE, AND OCCASIONAL EPIDTITE §102.4(B)(5)(XII)
5. INFILTRATION BMPS ARE DESIGN TO PROVIDE WATER QUALITY. §102.4(B)(5)(XII)
6. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS AND CONCRETE CHAMBERS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STORAGE BEDS AND RAINGARDENS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE GRADE. §102.4(B)(5)(XIII)
7. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE §102.4(B)(5)(XIV)
8. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS §102.4(B)(5)(XIV)
9. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS ON THE PROPERTY. §102.4(B)(5)(XV)
10. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSES, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)

NPDES CHECKLIST COMPLIANCE – ESC

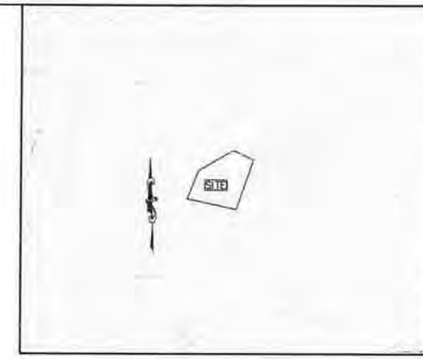
E&S PLAN PLANNING & DESIGN – §102.4(B)(4)

THE EROSION & SEDIMENTATION PLAN AND NARRATIVE WERE PREPARED BY DOUGLAS A. WAITE, P.E. OF GILMORE & ASSOCIATES, INC. MR. WAITE HAS DEVELOPED NUMEROUS EROSION AND SEDIMENT CONTROL PLANS WITHIN BUCKS COUNTY, AND APPROVED BY BCCD EROSION AND SEDIMENT CONTROL PLANS AND PERMIT NUMBERS INCLUDE:

- MOON NURSERIES SUBDIVISION, LOWER MAKEFIELD TOWNSHIP, (PAG02009115045)
- GAYMAN ELEMENTARY SCHOOL, PLUMSTEAD TOWNSHIP, (PAG02000915005)
- NESHAMINY GREENWAY TRAIL, CORE CREEK , MIDDLETOWN TOWNSHIP, (PAC090414)

THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:

- THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
- THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
- THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
- THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS NRCS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.



LOCATION MAP

SCALE: 1"=800'

LEGEND

EXISTING		PROPOSED
	2FT CONTOURS	
	TREE LINE	
	100YR FLOODPLAIN	
	DELINEATED WETLANDS	
CbA	SOIL TYPE BOUNDARY & LABEL	
	UTILITY POLE	
	TRAFFIC SIGN	
G G	GAS LINES	G G
E E	ELECTRIC, TELEPHONE, CABLE	E E
S S	SANITARY SEWER MAIN	S S
S S	SANITARY LATERAL/CLEANOUT	S S
W	WATER MAIN/SIZE	W W
	WATER LATERAL/CURB STOP	W CS
	STORM SEWER/INLET	
	ROOF DRAIN COLLECTOR	
	ENERGY DISSIPATOR	
	ROCK CONSTRUCTION ENTRANCE	RCE
	EROSION CONTROL MATS: NAG SC-150	
	COMPOST SOCK w/ SIZE	CS-32
TP TP	RESOURCE PROTECTION FENCE	
	LIMIT OF DISTURBANCE:	
	PROJECT SITE BOUNDARY	NPDES
	INLET PROTECTION	

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABILTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	80"-118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	80"-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.35 ACRES

SCALE: 1"=40'

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ENGINEERING & CONSULTING SERVICES

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE035179

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-2538

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=40'

DRAWN BY: MMH | CHECKED BY: DAW

SHEET NO.: 11 OF 37

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CADD\Production Drawings\12017006-01_ESC.dwg Layout: 11 E&S CONTROL PLAN Plotted By: mwhaler, on Tue Jun 07, 2022 at 11:51am

T:\land design\2017\2017\12006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_ESC_DTLS.dwg Layout: 12 ESC DETAILS & NOTES - 1 Plotted By: whelder, on Tue Jun 07, 2022 at 11:51am

EROSION & SEDIMENT CONTROL NOTES

1 EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, STABILIZED AND FUNCTIONAL PRIOR TO EARTH DISTURBANCE WITHIN THE TRIBUTARY AREA TO SAID E&S MEASURE

2 LOCAL ROADS ARE TO REMAIN FREE OF SEDIMENT AND CONSTRUCTION VEHICLES AND EQUIPMENT

3 UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION AS PER SEEDING AND MULCHING SCHEDULE

4 SILT FENCING MAY BE REMOVED WHEN THE SITE IS PERMANENTLY STABILIZED ACCUMULATED SEDIMENT MAY BE SPREAD AT THE SITE IN AREAS NOT SUBJECT TO EROSION

5 THE TREE PROTECTION FENCING SHALL NOT BE REMOVED UNTIL ALL DEVELOPMENT AREAS ARE STABILIZED AND WRITTEN CONFIRMATION IS RECEIVED FROM THE BUCKS COUNTY CONSERVATION DISTRICT.

6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN

7 DISTURBED AREAS THAT AREA AT A FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS

8 AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE 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

9 BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE CONTRACTOR SHALL RECEIVE APPROVAL OF THE REVISIONS FROM THE BUCKS COUNTY CONSERVATION DISTRICT.

10 THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, 'EROSION CONTROL RULES AND REGULATIONS,' TITLE 25, PART 1, DEPT. OF ENVIRONMENTAL PROTECTION, SUBPART C-PROTECTION OF NATURAL RESOURCES, ARTICLE III-WATER RESOURCES CHAPTER 102-EROSION CONTROL AND WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" BY THE COMMONWEALTH OF PA., DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2000 OR LATEST EDITION

11 TECHNICAL ADVICE FOR THE IMPLEMENTATION OF THIS PROGRAM MAY BE OBTAINED BY CONTACTING THE MONTGOMERY COUNTY CONSERVATION DISTRICT AT (610)489-4506

12 COPIES OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION.

13 THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.

A. ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE FOR ALL IMPORTED MATERIAL IN DETERMINING THAT FILL IS CLEAN

B INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

12. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1 THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS §102.4(B)(5)(IV)

2 THERE ARE NO SURFACE WATERS ON THE PROJECT AREA. THE NEAREST SURFACE WATERS DOWNSTREAM IS AN UNNAMED TRIBUTARY TO MEADOW BROOK §102.4(B)(5)(V)

3 THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY, MIGRATORY FISHES) §102.4(B)(5)(V)

4 BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY THE STOCKTON FORMATION. THIS FORMATION IS COMPOSED OF BEDS OF RED TO PURPLE SANDSTONE, SHALE, & SILTSTONE ALONG WITH LIGHT GRAY TO BUFF COLORED ARKASIC SANDSTONE. §102.4(B)(5)(XII)

5 BASED ON A REVIEW OF THE WEB SOIL SURVEY, THE SITE SOILS HAVE BEEN MAPPED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND ARE SHOWN ON THE E&S PLAN §102.4(B)(5)(XII)

6 BASED UPON THE AVAILABLE INFORMATION THERE ARE NO KNOWN GEOLOGIC FEATURES OR SOIL CONDITIONS WHICH ARE OF CONCERN TO CAUSE POLLUTION §102.4(B)(5)(XII)

7. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STONE BEDS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE SWALE. §102.4(B)(5)(XIII)

8. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS NEAR THE LIMITS OF DISTURBANCE §102.4(B)(5)(XIV)

9 THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS §102.4(B)(5)(XIV)

10 THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PROJECT AREA §102.4(B)(5)(XV)

11 THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS ON THIS PROPERTY, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM. §102.4(B)(5)(XV)

NOTES ON TEMPORARY CONTROL MEASURES:

1 EXISTING TREES AND OTHER EXISTING VEGETATION WILL BE DISRUPTED AS LITTLE AS POSSIBLE.

2 IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY HAS CEASED, ALL AREAS SHALL BE STABILIZED. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE STABILIZED WITH TEMPORARY VEGETATION. AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL RECEIVE PERMANENT STABILIZATION (SEE SEEDING AND MULCHING TABLE FOR DETAILS)

3. ALL TOPSOIL FROM THE OVERALL SITE PREPARATIONS WILL BE STOCKPILED AND REDISTRIBUTED UNIFORMLY AT THE TIME OF FINAL GRADING. ALL STOCKPILES SHALL HAVE PERIMETER SILT FENCE INSTALLED AND BE SEEDED AND MULCHED IMMEDIATELY. STOCKPILE(S) SHALL HAVE A SIDE SLOPE OF 2:1 OR FLATTER AND SHALL HAVE A HEIGHT NOT GREATER THAN 35 FEET. SEE PLAN FOR LOCATION OF TOPSOIL STOCKPILES.

4. GRADE ALL CUT AND FILL SLOPES TO 3 FOOT HORIZONTAL FOR EVERY 1 FOOT VERTICAL OR FLATTER, AND APPLY SEEDING AND MULCH. AREAS WITH GRADES GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEED MIX AND PERMANENT TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #C350 OR EQUAL

5. RIP-RAP WILL BE APPLIED TO ALL AREAS WHERE HEAVY CONCENTRATIONS OF DRAINAGE ARE PREVALENT (GREATER THAN 3.5 cfs) THIS WOULD BE AT CULVERT OUTLETS, WHERE WATER IS IN TRANSITION FROM AN OPEN CHANNEL INTO A CULVERT, OR AS SPECIFIED

6 SIGNIFICANT STANDS OF TREES, DESIGNATED TO REMAIN, WILL BE PROTECTED WITH FENCING, SEE DETAIL. INSTALL ALONG THE DRIP LINE OF THE TREE BRANCHES

7 EROSION CONTROL FACILITIES MUST DISCHARGE INTO ADEQUATE STORM SEWERS, NATURAL WATERWAYS, OR STABLE EROSION RESISTANT AREAS.

8. CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS OF DELIVERY VEHICLES. NO WASH WATER FROM THESE VEHICLES SHALL BE ALLOWED TO ENTER ANY SURFACE WATERS. WASHOUT FACILITIES SHALL NOT BE LOCATED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES INFILTRATION FACILITIES OR SURFACE WATERS.

9 ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAY MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS

10 NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE/PROPERTY WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF BUCKS COUNTY CONSERVATION DISTRICT. ANY INLETS WHICH DO NOT DIRECT FLOW TO A SEDIMENT BASIN MUST BE PROTECTED WITH INLET PROTECTION

11 ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A FILTER BAG, DISCHARGING OVER UNDISTURBED AREAS.

12 ABSOLUTELY NO EARTHMOVING, PLACEMENT OF FILL MATERIAL OR THE ENTRY OF SEDIMENT LADEN WATER MUST TAKE PLACE IN WETLANDS. ALL WETLANDS SHALL BE PROTECTED FROM ENCROACHMENT WITH FENCING

13 ROCK FILTER OUTLETS MUST BE PROVIDED IMMEDIATELY WHERE SILT FENCING HAS BEEN UNDERMINED OR OVERTOPPED

14 THE SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE BUCKS COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE, GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION

15 IMMEDIATELY UPON DISCOVERING UNFORSEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION

16 ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. IMMEDIATELY STABILIZE REPLACED SOILS WITH SEED & MULCH OR DEPOSIT IN SOIL STOCKPILES AND STABILIZE.

17 THE CONTRACTOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE

NPDES CHECKLIST COMPLIANCE – ESC

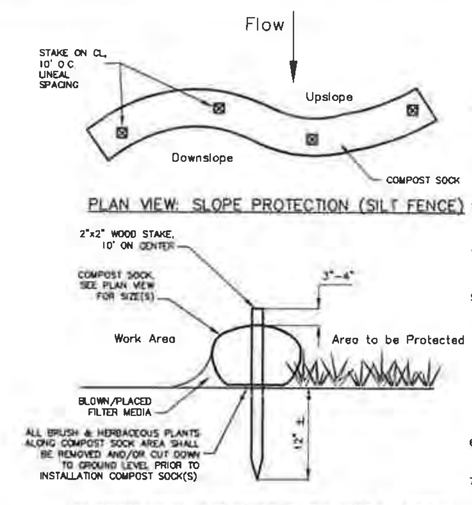
E&S PLAN PLANNING & DESIGN – §102.4(B)(4)

THE EROSION & SEDIMENTATION PLAN AND NARRATIVE WERE PREPARED BY DOUGLAS A. WAITE, P.E. OF GILMORE & ASSOCIATES, INC. MR. WAITE HAS DEVELOPED NUMEROUS EROSION AND SEDIMENT CONTROL PLANS WITHIN BUCKS COUNTY, AND APPROVED BY BCCD. EROSION AND SEDIMENT CONTROL PLANS AND PERMIT NUMBERS INCLUDE:

- MOON NURSERIES SUBDIVISION, LOWER MAKEFIELD TOWNSHIP, (PAG0200915045)
- GAYMAN ELEMENTARY SCHOOL, PLUMSTEAD TOWNSHIP, (PAG02000916005)
- NESHAMINY GREENWAY TRAIL, CORE CREEK, MIDDLETOWN TOWNSHIP, (PAC090414)

THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:

- THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
- THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION. THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES
- THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION.
- THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED TO PREVENT AND INCREASE IN STORMWATER RUNOFF FROM THE SITE.



NOTES:

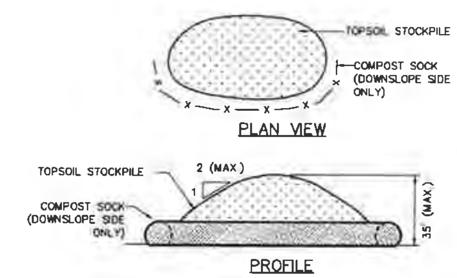
1. COMPOST SOCK SHALL BE "SILTSOXX" AS SUPPLIED BY MCS INC. (1971 N. BLACK HORSE PIKE, WILLIAMSTOWN, NJ 08094, 856-629-1044 www.mcsnjinc.com) OR EQUAL PRODUCT BY OTHER MANUFACTURER.
2. FOR INSTALLATIONS ON EXISTING PAVEMENT, CINDER BLOCKS ON DOWNSTREAM SIDE MAY BE USED IN LIEU OF WOOD STAKES TO ANCHOR THE SOCKS.
3. UPON COMPLETION OF THE PROJECT, COMPOST MATERIAL SHALL BE MIXED WITH ONSITE SOIL/TOPSOIL AND SPREAD ON THE SITE AS DETAILED IN SEEDING AND MULCHING SCHEDULE.
4. SOCK FABRIC SHALL BE 5mil PHOTO-DEGRADABLE, HDPE FOR INSTALLATIONS LESS THAN 9 MONTHS. FOR PROJECTS WITH LONGER DURATIONS, SOCKS SHALL BE MULTI-FILAMENT POLYPROPYLENE FABRIC
5. INFILL MATERIAL SHALL BE WEED FREE COMPOST DERIVED FROM WELL-DECOMPOSED ORGANIC MATTER. COMPOST SHALL BE PRODUCED USING AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS. COMPOST MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

ORGANIC MATTER CONTENT	25% – 100%
ORGANIC PORTION	FIBROUS & ELONGATED
pH	5.5 – 8.5
MOISTURE CONTENT	30% – 60%
PARTICLE SIZE	30-50% PASS 3/8" SIEVE
SOLUBLE SALT	5.0 dS/m MAXIMUM

6. COMPOST SOCKS SHALL BE PLACED AT LEVEL GRADE AND BOTH ENDS EXTENDED 8' MIN. UP SLOPE AT 45° ANGLE
7. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED OF IN APPROVED UPLAND AREA.

COMPOST SOCK "SILT FENCE" DETAIL

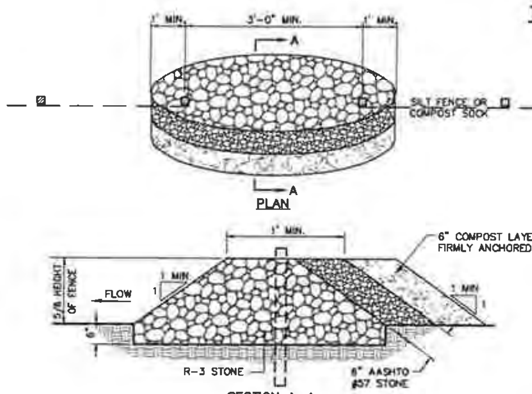
NOT TO SCALE



SEDIMENT BARRIER MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING & MULCH TO ALL STOCKPILES.

TOPSOIL STOCKPILE AREA DETAIL

NOT TO SCALE



ROCK FILTER OUTLET DETAIL

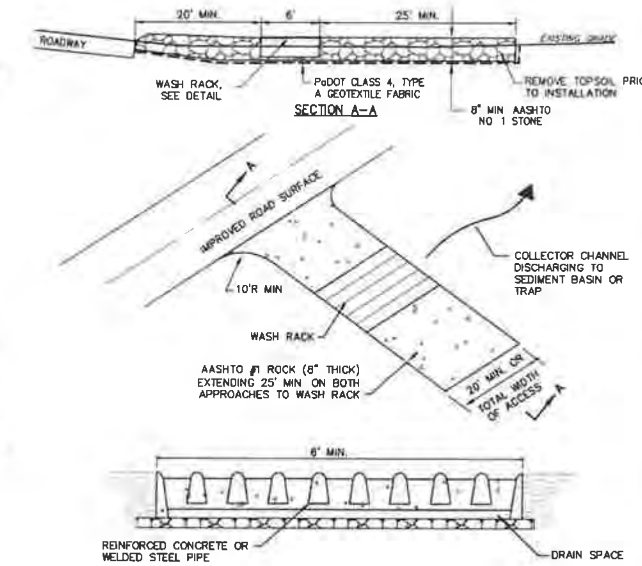
NOT TO SCALE

NOTES:

1 ROCK FILTER OUTLETS TO BE PROVIDED AT ALL EXISTING OR PROPOSED LOW POINTS AND ALL AREAS OF CONCENTRATED FLOWS.

2 SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLETS.

3 COMPOST LAYER IS REQUIRED IN ALL HQ AND EV WATERSHEDS



WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE

DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK

AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROAD DITCHES, SEWERS, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

TEMPORARY CONSTRUCTION ENTRANCE W/ WASH RACK

NOT TO SCALE

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102.4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROPOSED WORK SHALL UTILIZE THE PARCELS ALONG RTE 202 PRESERVING THE UNDEVELOPED PORTION TO THE REAR WITH THE EXCEPTION OF THE TOWNSHIP CONNECTOR ROAD STUB
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– ALTHOUGH OFFSITE, THE WATERS OF THE US CROSSING THROUGH THE PECO R.O.W HAS BEEN PROVIDED WITH A 75FT BUFFER
	MINIMIZE SOIL COMPACTION	– ALL GRASS AND MEADOW AREAS SHALL BE SCARIFIED AND AMENDED WITH COMPOST DURING STABILIZATION TO REDUCE COMPACTION
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SITE TESTED WELL FOR INFILTRATION PRACTICES WHICH WILL BE INTEGRATED INTO ALL PCSM FACILITIES
102.4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN. SEE SOILS TABLE.
102.4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PCSM FACILITIES FOCUS ON INFILTRATION PRACTICES TO MITIGATE THERMAL IMPACTS FROM REDEVELOPMENT OF THE FRONT PARCELS.
102.4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THE STREAM IS LOCATED WITHIN THE PECO R.O.W. WHICH WILL NOT ALLOW INSTALLATION OF TREES. REFORESTATION WILL FOCUS ON THE REAR PARCEL BEING DEDICATED TO SOLEBURY TOWNSHIP
ANTI-DEGRADATION ANALYSIS		– THE MAJORITY OF THE PROPOSED DEVELOPMENT IS CAPTURED BY PCSM FACILITIES WHICH MEET OR EXCEED THE VOLUME AND WATER QUALITY REQUIREMENTS FOR THE SITE PER THE 'DEP PCSM SPREADSHEET.'

SEQUENCE OF CONSTRUCTION:

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

AT LEAST 7 DAYS PRIOR TO START OF WORK OR EARTH DISTURBANCE ACTIVITIES, A PRECONSTRUCTION MEETING SHALL BE HELD INCLUDING THE OWNER, SITE CONTRACTOR, TOWNSHIP ENGINEER, COUNTY CONSERVATION DISTRICT, THE PLAN DESIGNER, AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF PCSWM INSTALLATION.

1. USING EXISTING SITE ACCESSES, INSTALL COMPOST SOCKS AND TREE PROTECTION FENCES AS SHOWN ON PLAN.
2. COMPLETE DEMOLITION OF EXISTING STRUCTURES AND PAVEMENT IN ACCORDANCE WITH PLANS. CLEAR & GRUB VEGETATION AS NOTED. INSTALL TEMPORARY STONE TIRE CLEANER AT NEW ENTRANCE DRIVE LOCATION AS DETAILED ON PLANS PRIOR TO REMOVAL OF EXISTING PAVED DRIVEWAYS.
3. STRIP AND STOCKPILE TOPSOIL. SURROUND STOCKPILE WITH COMPOST SOCK AND STABILIZE WITH TEMPORARY SEED
4. COMPLETE BUILDING FOOTINGS, FOUNDATIONS AND BUILDING SLAB BASE STONE.
5. INSTALL BUILDING UTILITIES
6. INSTALL STORMWATER MANAGEMENT FACILITIES.
7. AS STORM SEWERS ARE INSTALLED, INLETS SHALL BE PROVIDED WITH INLET PROTECTION DEVICES IN ACCORDANCE WITH PLANS & DETAILS.
8. ROUGH GRADE NEW ACCESS DRIVE AND PARKING AREA. STABILIZE WITH STONE BASE COURSE AS SOON FEASIBLE
9. ROUGH GRADE SITE
10. REMAINING IMPROVEMENTS AS PER STANDARD CONSTRUCTION TECHNIQUES
11. INSTALL RAINGARDEN BMPS AND ALL PLANTINGS.
12. AS LAWN AREAS ARE BROUGHT TO GRADE, THEY SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 5-12" THEN PROVIDED WITH A MINIMUM OF 8" TOPSOIL AND SEEDED IMMEDIATELY. ALL VEGETATED AREAS SHALL BE STABILIZED WITH VEGETATION AND MULCH AS SOON AS POSSIBLE.
13. AFTER THE SITE HAS BEEN STABILIZED, ALL TEMPORARY E&S CONTROLS SHALL BE REMOVED
14. ALL ACCUMULATED SEDIMENTS SHALL BE DISPOSED OF IN APPROVED UPLAND AREAS.
15. STABILIZATION SHALL BE CONSIDERED THE PLACEMENT OF BASE COURSE IN PAVED AREAS OR BY 75% OR MORE VEGETATION, UNIFORM COVERAGE, IN LAWN AREAS OR BY OTHER PERMANENT MEANS WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
16. AREAS DISTURBED DURING THE REMOVAL OF BMPS SHALL BE STABILIZED IMMEDIATELY.
17. NOTICE OF TERMINATION AND ASSOCIATED PAPERWORK SHALL BE FILED WITH CONSERVATION DISTRICT.

* ALL SEQUENCE STEPS RELATED TO THE IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (PCSM BMPS) ARE CONSIDERED THE CRITICAL STAGES FOR NPDES PERMITTING REQUIREMENTS. A LICENSED PROFESSIONAL SHOULD BE PRESENT ON-SITE TO VERIFY THAT THE FOLLOWING ITEMS MEET CERTAIN DESIGN REQUIREMENTS: BOTTOM OF BASIN INVERT ELEVATIONS; LINING OF STORMWATER BMPS FOR CARBONATE GEOLOGOGY PROTECTION; FOOTPRINT OF STONE BEDS; TOP OF STONE ELEVATION; OUTLET STRUCTURE INVERTS; AND OUTLET PIPING TO EXISTING FACILITIES. THE CONTRACTOR AND SURVEYOR SHALL DOCUMENT CONSTRUCTION OF THE BASINS WITH PHOTOGRAPHS AND AS-BUILT PLANS

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

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

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

SEEDING AND MULCHING SCHEDULE

1 SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION

TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

PERMANENT SEEDING SPECIFICATION FORMULA B –
50% KENTUCKY BLUEGRASS MIXTURE
30% PENNLAWN RED FESCUE
20% PERENNIAL RYEGRASS MIXTURE

STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
70% TALL FESCUE
20% BIRDSFOOT TREFOIL MIXTURE
10% REDTOP

SEEDING RATE FOR THE ABOVE MIXTURES:
10 LBS/1,000 SY FOR TEMPORARY SEEDING
21 LBS/1,000 SY FOR PERMANENT SEEDING
11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)

ADDITIONAL SEED MIXES WITH ASSOCIATED SEEDING RATES MAY BE PROVIDED ON LANDSCAPE PLANS

2 HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN. SLOPES OF 3:1 SHALL BE ANCHORED WITH MULCH CONTROL NETTING

3 PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

PULVERIZED AGRICULTURAL LIMESTONE 90 LBS/1,000 SF
10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 20 LBS/1,000 SF

NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED

4 PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15. IF COMPLETED AT IN OTHER SEASONS AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH

5 STEEP SLOPE AREAS, CONSIDERED SLOPES GREATER THAN 3:1, SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS

FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER

EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – DOUGLAS A. WAITE – ENGINEER – PE059559

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETALS & NOTES – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

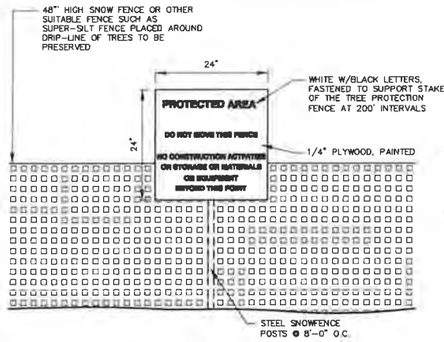
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-8

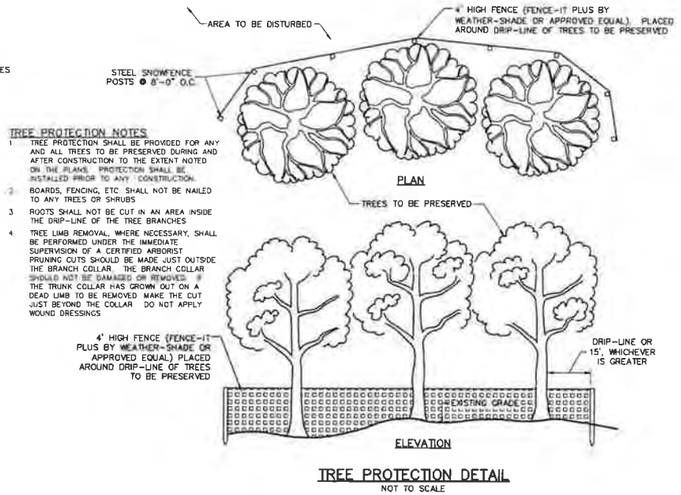
TOTAL AREA: 47.985 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 12 OF 37



TREE PROTECTION/NOTIFICATION DETAIL

NOT TO SCALE

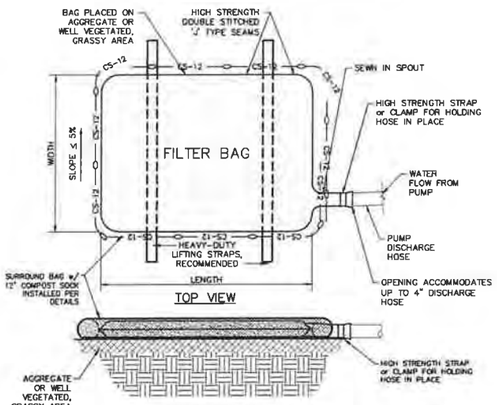


TREE PROTECTION NOTES

1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION TO THE EXTENT NOTED ON THE PLANS. PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION.
2. BOARDS, FENCING, ETC. SHALL NOT BE NAILED TO ANY TREES OR SHRUBS
3. ROOTS SHALL NOT BE CUT IN AN AREA INSIDE THE DRIP-LINE OF THE TREE BRANCHES
4. TREE LIMB REMOVAL, WHERE NECESSARY, SHALL BE PERFORMED UNDER THE IMMEDIATE SUPERVISION OF A CERTIFIED ARBORIST. PRUNING CUTS SHOULD BE MADE JUST OUTSIDE THE BRANCH COLLAR. THE BRANCH COLLAR SHOULD NOT BE DAMAGED OR REMOVED. IF THE TRUNK COLLAR HAS GROWN OUT ON A DEAD LIMB TO BE REMOVED MAKE THE CUT JUST BEYOND THE COLLAR. DO NOT APPLY WOUND DRESSINGS

TREE PROTECTION DETAIL

NOT TO SCALE



FILTER BAG TO BE USED WHEN/IF WATER PONDS IN EXCAVATIONS

1. LOW VOLUME FILTER BAGS SHALL BE MADE OF NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES MEETING THE FOLLOWING STANDARDS:

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

2. PLACE FILTER BAGS ON STABLE OR WELL-VEGETATED AREAS WHICH ARE FLATTER THAN 5% SLOPE AND SHALL DISCHARGE ONTO STABLE EROSION RESISTANT GROUND. WHERE THIS IS NOT POSSIBLE, GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED.
3. PUMP DISCHARGE HOSE SHALL BE INSERTED INTO BAG IN MANNER SPECIFIED BY MANUFACTURER AND SECURELY CLAMPED INTO FILTER BAG. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
4. LIMIT PUMPING TO 750 GPM OR 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE, WHICHEVER IS LESS. PUMP INTAKE SHALL BE FLOATING AND SCREENED.
5. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL PROBLEM IS CORRECTED.
6. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY IS REQUIRED FOR DISPOSAL PURPOSES. WHEN SEDIMENT FILLS 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE AND REPLACE WITH NEW BAG IMMEDIATELY. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.
7. THE DISCHARGE FROM THE FILTER BAG SHOULD NOT PASS THROUGH A DISTURBED AREA OR CAUSE AN EROSION PROBLEM DOWN SLOPE

SEDIMENT FILTER BAG FOR PUMPED WATER

NOT TO SCALE

MAINTENANCE OF FACILITIES

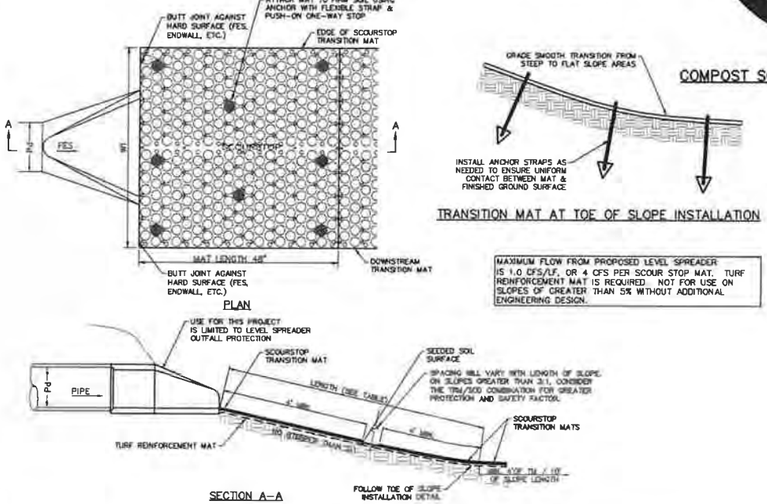
1. COMPOST SOCKS SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT OF MORE THAN 1/4" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED
3. CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE TO THE BUCKS COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF THE ABOVE NOTED INSPECTION AND MAINTENANCE.
4. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE
5. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY.
6. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS
7. ALL DRAINAGE SWALES SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN (OR EQUAL). IF SWALES ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED
8. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED
9. AFTER THE STORM CONVEYANCE SYSTEM IS CONSTRUCTED, MONTHLY INSPECTIONS FOR EACH DEVICE WILL BE MADE. AN INSPECTION OF ALL FACILITIES WILL BE MADE AFTER EVERY STORM TO DETERMINE THEIR RESISTANCE TO DRIVING RAINS AND ACCUMULATED RUNOFF.
10. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
11. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.

SCOUR STOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

1. INTENDED AS A BIOTECHNICAL REPLACEMENT FOR RIP-RAP OR HARD ARMOR. PROVIDES TRANSITION FROM SMOOTH CONCRETE OR OTHER HARD SURFACE TO TURF REINFORCEMENT MATS (TRMs), SOD, REINFORCED SOD, OR BARE GROUND.
2. SCOURSTOP STANDARD SIZE IS 4' X 4' X 1" SHEET WITH MULTIPLE VOIDS FOR VEGETATION GROWTH, PROVIDING SOIL PROTECTION FOR THE SUSCEPTIBLE, EROSIVE AREA DIRECTLY BELOW OUTLETS UNTIL SHEAR FORCE HAS DISSIPATED THROUGH DOWNSTREAM AREA EXPANSION AND FOR SHORELINE AND STREAMBANK PROTECTION
3. UTILIZATION OF VEGETATIVE METHOD RESULTS IN LOWER THERMAL IMPACTS, REDUCED LONG TERM MAINTENANCE, AESTHETICALLY PLEASING MOWABLE GRASS SURFACE, AND IMPROVED SAFETY THROUGH ABSENCE OF JAGGED ROCKS AND TRAPPED DEBRIS

MANUFACTURER'S INSTALLATION SPECIFICATIONS

1. SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS SHALL EXTEND DOWNSTREAM TO LIMITS SHOWN ON PLANS.
2. REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRICKLE FLOWS, IF DISCOVERED, SHOULD BE CAPTURED WITH A SUB-SURFACE DRAIN
3. FOR A PIPE OUTLET WITH NO APRON, TRANSITION MAT SHOULD BE INSTALLED DIRECTLY ABUTTING THE END OF PIPE.
4. PIPE OUTLET FOOTINGS SHOULD NOT EXTEND PAST THE END OF PIPE, HEADWALL OR FLARED END SECTION. TRANSITION MAT SHALL ABUT DIRECTLY AGAINST THE PIPE OUTLET, FES, ENDWALL OR OTHER END TREATMENT.
5. AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL. SLOPES GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
6. INSTALL AT LEAST ONE 4' MAT LENGTH FOR EVERY 9" OF PIPE DIAMETER. PANELS MAY BE SHINGLED AS SHOWN MATS SHALL NOT BE INSTALLED IN PARTIAL LENGTHS
7. CONSTRUCT SCOUR AREA WIDTH NOT LESS THAN 5 TIMES THE PIPE DIAMETER, WITH A SLOPE NO STEEPER THAN 3:1. DISCHARGE AREA WIDTH SHOULD BE AS LEVEL AS POSSIBLE TO AVOID WATER CONCENTRATION AND RILLING
8. FOR INSTALLATIONS ON SLOPES GREATER THAN 10% ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
9. PRIOR TO INSTALLATION, SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (GREATER THAN 2.5"ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL. FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE USED UNLESS NOTED OTHERWISE.
10. TYPE "A" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES LESS THAN 4% INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION
    - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSIVE VELOCITIES HAVE DISSIPATED
    - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM's MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
    - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C WITHIN 4" OF UPSTREAM EDGE OF SOD
11. TYPE "B" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES GREATER THAN 4%. INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD
    - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA
    - TRM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION
    - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C WITHIN 4" OF UPSTREAM EDGE OF SOD
12. TYPE "C" INSTALLATION INSTRUCTIONS: CONSTRUCTION PHASE, STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID CONDITIONS. TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMANCE TRM.
    - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR
    - LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED
    - FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48"ø OR LARGER, PROVIDE AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET)
13. TYPE "D": STREAMBANK AND SHORELINE APPLICATIONS: USE A 20 OUNCE GEOTEXTILE UNDER TRANSITION MATS 3' BELOW AND 6" ABOVE THE NORMAL WATER LINE. A HYBRID GEOTEXTILE / TRM COMPOSITE MAY ALSO BE USED



SCOUR-STOP AT PIPE DISCHARGE

NOT TO SCALE

INSTALLATION INSTRUCTIONS:

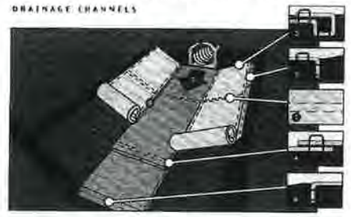
ADDITIONAL ITEMS NEEDED FOR INSTALLATION:
GRASS SEED
FERTILIZER
RUBBER MALLET
SCISSORS OR SHEARS
SAFETY GLASSES/GOGGLES

CAUTION: ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION OF BIOSTAKES.

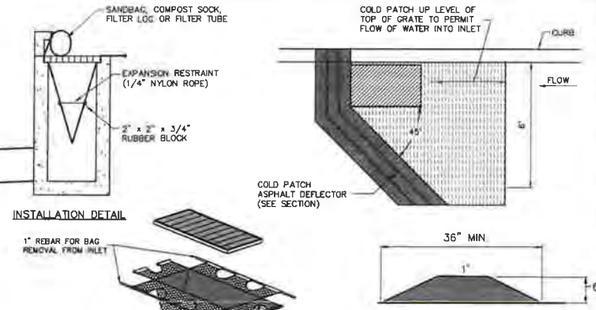
1. PREPARE THE AREA TO BE PROTECTED BY RAKING THE SOIL TO A DEPTH OF 1-2 INCHES AND REMOVING LARGE DIRT CLODS, STICKS AND OTHER OBSTRUCTIONS. APPLY SEED AND FERTILIZER AND LIGHTLY RAKE INTO THE SOIL. (NOTE: THIS PRODUCT DOES NOT INCLUDE SEED OR FERTILIZER. FOR SEEDING AND FERTILIZER SEE THE SEEDING & MULCHING SCHEDULE.)
2. BEGIN INSTALLATION AT THE TOP OF THE SWALE, ANCHORING THE BLANKET IN A 6"x6" TRENCH. STAKE THE FABRIC INTO THE BOTTOM OF THE TRENCH WITH BIODEGRADABLE PLASTIC BIOSTAKES AT 12" INTERVAL. BACKFILL AND COMPACT THE TRENCH
3. ROLL CENTER BLANKET OVER THE PREPARED BOTTOM OF THE SWALE IN THE DIRECTION OF WATER FLOW. SECURE BLANKET WITH BIOSTAKES IN APPROPRIATE PATTERN PER FIGURE 2 OR USING DOT SYSTEM PROVIDED ON BLANKET BY MANUFACTURER. A RUBBER MALLET IS RECOMMENDED FOR DRIVING THE BIOSTAKES INTO THE GROUND. CAUTION! BIOSTAKES MAY SHATTER IF BROKEN, THEREFORE, ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION
4. PLACE SUBSEQUENT BLANKETS END OVER END, SHINGLE STYLE, WITH MINIMUM 6" OVERLAP. SECURE WITH DOUBLE ROW OF STAPLES/STAKES, 4" APART AND 6" ON CENTER ACROSS FULL WIDTH OF BLANKET.
5. FULL LENGTH OF BLANKET ALONG SIDE SLOPES SHALL BE ANCHORED WITH STAPLES/STAKES AT 12" INTERVALS IN 6"x6" TRENCH BACKFILL AND COMPACT TRENCH
6. ADJACENT BLANKETS ON SIDE SLOPES, IF NEEDED, SHALL BE OVERLAPPED A MINIMUM OF 6" AND SECURED WITH STAPLES/STAKES AT 12" INTERVALS.
7. IN HIGH FLOW CHANNELS, CHECK SLOT SHALL BE INSTALLED 30 FEET ON CENTER ALONG CHANNEL. SLOT SHALL BE A DOUBLE ROW OF STAPLES/STAKES 4" APART AND 6" ON CENTER ACROSS THE FULL WIDTH OF THE CHANNEL.
8. TERMINAL END OF THE BLANKET SHALL BE ANCHORED IN 6"x6" TRENCH WITH STAPLES/STAKES AT 12" INTERVAL. TRENCH SHALL BE BACKFILLED AND COMPACTED AFTER ANCHORING.
9. IMMEDIATELY FOLLOWING INSTALLATION, GENTLY WATER ENTIRE AREA, THOROUGHLY WETTING BOTH THE BLANKET AND UNDERLYING SOIL. FOR BEST RESULTS, KEEP SOIL MOIST FOR THE FIRST 30 TO 60 DAYS, OR UNTIL UNIFORM GRASS ESTABLISHMENT IS ACHIEVED.

NORTH AMERICAN GREEN SWALE INSTALLATION

NOT TO SCALE



CONTRACTOR SHALL USE NORTH AMERICAN GREEN (OR EQUAL) EROSION CONTROL FABRICS WITH THE MANUFACTURER'S RECOMMENDED STAPLE PATTERN. CLASS OF FABRIC SHALL BE AS NOTED ELSEWHERE IN THE PLANS.

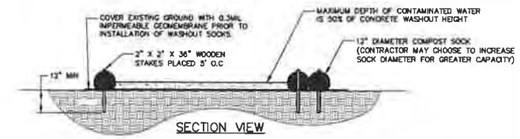


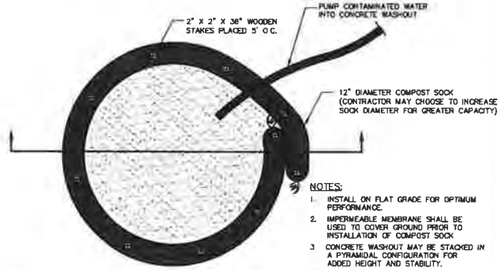
MAINTENANCE:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. EARTHEN BERM SHALL BE INSTALLED & MAINTAINED IN LIEU OF ASPHALT BERMS UNTIL ROADWAY IS STONED. 6" MINIMUM HEIGHT ASPHALT BERM TO BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LB, BURST STRENGTH OF 200 PSI, AND TRAPEZOIDAL TEAR STRENGTH OF 50 LB. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A #40 SIEVE.
5. BAGS SHALL BE EMPTIED & RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
6. DAMAGED OR CLOGGED BAGS SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION

SILTSACK TYPE 'C' INLET PROTECTION DETAIL

NOT TO SCALE





COMPOST SOCK CONCRETE WASHOUT DETAIL

NOT TO SCALE

TRANSITION MAT AT TOE OF SLOPE INSTALLATION

MAXIMUM FLOW FROM PROPOSED LEVEL SPREADER IS 1.0 CFS/LF, OR 4 CFS PER SCOUR STOP MAT. TURF REINFORCEMENT MAT IS REQUIRED. NOT FOR USE ON SLOPES OF GREATER THAN 5% WITHOUT ADDITIONAL ENGINEERING DESIGN.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER PE091605

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EROSION & SEDIMENT CONTROL DETAILS & NOTES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

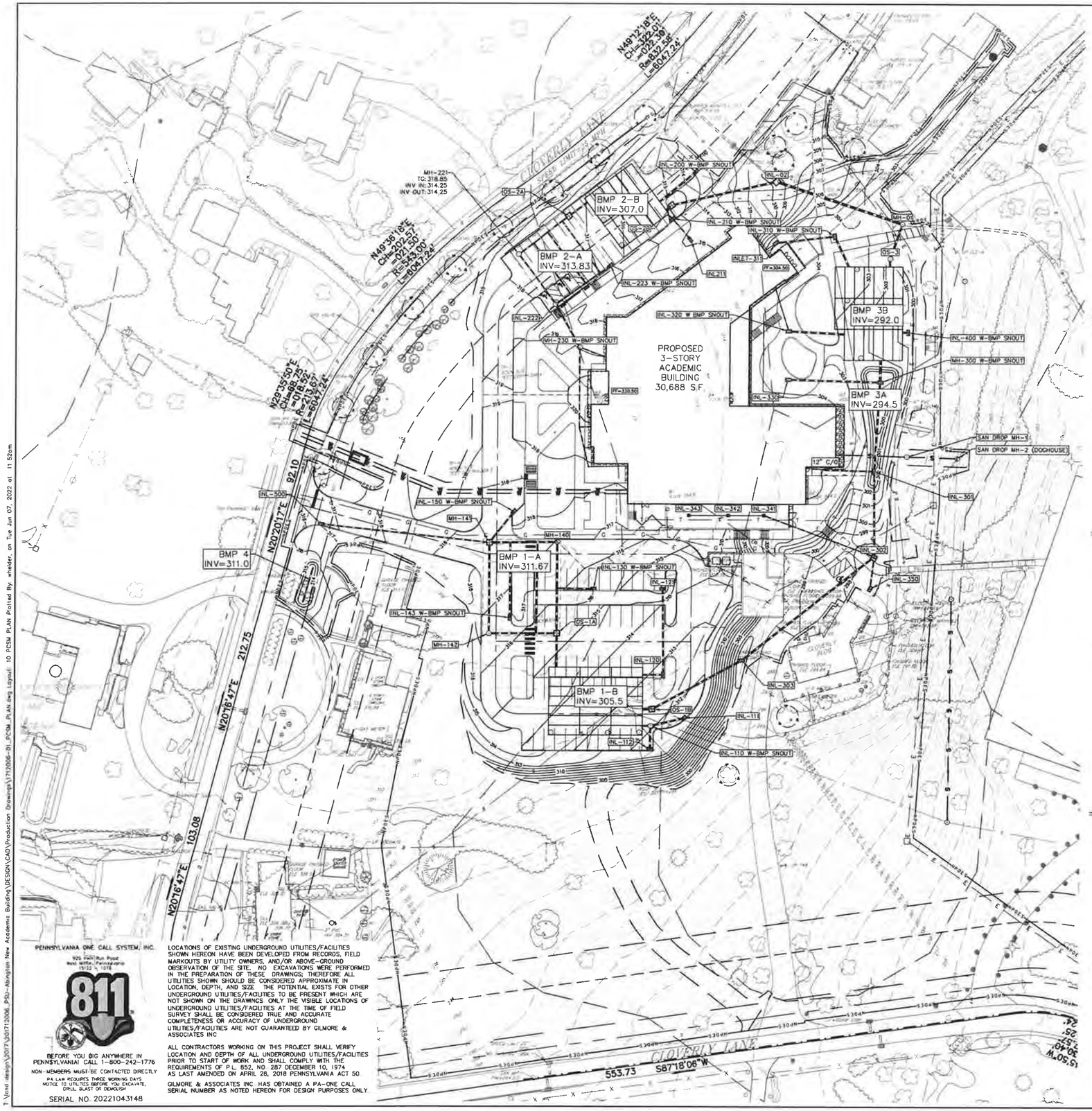
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 13 OF 37

T:\Land design\2017\2017006-PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17006-01_ESC_D15.dwg Layout: 13 ESC DETAILS & NOTES - 2 Plotted By: wheider, on Tue Jun 07, 2022 at 11:51am



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NON-MEMBERS MUST BE CONTACTED DIRECTLY

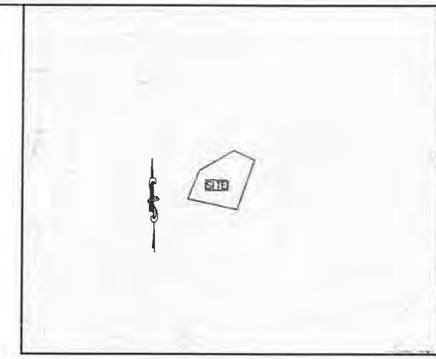
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS, THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.



LOCATION MAP

800 0 800 1600
SCALE IN FEET

SCALE: 1"=800'

STORMWATER MANAGEMENT NOTES:

1. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEYS IN AUTOCAD FORMAT OF ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING BUT NOT LIMITED TO, SURFACE PONDS, UNDERGROUND DETENTION FACILITIES, BMPS, AN CONVEYANCE PIPES. AS BUILT PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND TO SATISFY THE CONDITIONS OF NPDES NOTICE OF TERMINATION (N.O.T.) PERMIT CLOSEOUT. FINAL AS-BUILT SURVEYS SHALL BE PROVIDED DIRECTLY TO PENN STATE UNIVERSITY ENGINEERING SERVICES PRIOR TO FINAL PAYMENT
2. ALL CONSTRUCTION SHALL MEET PENNDOT ROADWAY CONSTRUCTION STANDARDS AND PUBLICATION 408 STANDARDS
3. ALL STORM DRAIN STRUCTURES INCLUDING MANHOLES AND INLETS DEEPER THAN FOUR (4) FEET SHALL HAVE ACCESS STEPS PER PENNDOT STANDARDS.
4. THERE ARE NO

I, _____ (APPLICANT), ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MUNICIPALITY OR CONSERVATION DISTRICT FOR APPROVAL

I, _____ (DESIGN ENGINEER), ON THIS DATE _____ HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS'S (DEP'S) REGULATIONS AND THIS CHAPTER

E&S GENERAL NOTES FOR COMPLIANCE WITH NPDES

1. THERE ARE NO PROPOSED CHANNELS WITHIN THE PROJECT THAT REQUIRE RUNOFF CALCULATIONS. §102.4(B)(5)(IV)
2. THE NEAREST SURFACE WATERS IS THE PRIMROSE CREEK §102.4(B)(5)(V)
3. THE CHAPTER 93 DESIGNATION FOR SURFACE WATERS IS TSF (TROUT STOCKED FISHERY) §102.4(B)(5)(V)
4. BASED ON A REVIEW OF A UNITED STATES GEOLOGIC SURVEY MAP OF PENNSYLVANIA, THE SITE IS UNDERLAIN BY FELSIC GNEISS BEDROCK. THIS FORMATION IS COMPOSED OF LIGHT BUFF TO LIGHT PINK, FINE TO MEDIUM GRAINED QUARTZ, MICROCLINE, HORNBLENDE, AND OCCASIONAL BIOTITE. §102.4(B)(5)(XII)
5. THIS PROJECT INCLUDES INFILTRATION FACILITIES TO MINIMIZE THE INCREASE IN STORMWATER RUNOFF. INFILTRATION TESTING HAS BEEN COMPLETED TO VALIDATE SWM BMP DESIGN §102.4(B)(5)(XIII)
6. THE PROPOSED STORMWATER MANAGEMENT FACILITY, WHICH WAS DESIGNED FOR THE INCREASED IMPERVIOUS COVER, ARE UNDERGROUND STONE BEDS AND CONCRETE CHAMBERS THAT WILL MAINTAIN TEMPERATURES COOLER THAN SURFACE FEATURES. STORMWATER RUNOFF GENERATED FROM THE PROPOSED BUILDINGS AND PARKING EXPANSION WILL FLOW TO THE UNDERGROUND STORAGE BEDS AND RAINGARDENS AND BE DETAINED PRIOR TO RELEASE FROM THE SITE, AND ALLOWING THE RUNOFF TIME TO COOL PRIOR TO DISCHARGE TO THE SURFACE GRADE §102.4(B)(5)(XIII)
7. THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS OUTSIDE THE LIMITS OF DISTURBANCE. §102.4(B)(5)(XIV)
8. THERE ARE NO INFILTRATION BMPS OUTSIDE PROPOSED GRADING AREAS §102.4(B)(5)(XV)
9. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS ON THE PROPERTY. §102.4(B)(5)(XV)
10. THERE ARE NO KNOWN AREAS OF HQ OR EV WATERSHEDS WITHIN THE PROJECT AREA, NOR DOES ANY AREA OF THE PROPERTY FLOW TO AN HQ OR EV WATERSHEDS. THEREFORE IT WILL NOT REQUIRED ANTIDEGRADATION ANALYSIS, EVALUATION OF NON-DISCHARGING ALTERNATIVES, ABACT, OR THE IMPLEMENTATION OF NON-DISCHARGING AND ABACT BMP'S FOR E&S AND PCSM §102.4(B)(5)(XV)

NPDES CHECKLIST COMPLIANCE - ESC

E&S PLAN PLANNING & DESIGN - §102.4(B)(4)

THE EROSION & SEDIMENTATION PLAN AND NARRATIVE WERE PREPARED BY DOUGLAS A. WAITE, P.E. OF GILMORE & ASSOCIATES, INC. MR. WAITE HAS DEVELOPED NUMEROUS EROSION AND SEDIMENT CONTROL PLANS WITHIN BUCKS COUNTY, AND APPROVED BY BCCD EROSION AND SEDIMENT CONTROL PLANS AND PERMIT NUMBERS INCLUDE:

- MOON NURSERIES SUBDIVISION, LOWER MAKEFIELD TOWNSHIP, (PAG02009150451)
- GAYMAN ELEMENTARY SCHOOL, PLUMSTEAD TOWNSHIP, (PAG02000916005)
- NESHAMINY GREENWAY TRAIL, CORE CREEK , MIDDLETOWN TOWNSHIP, (PAC090414)

THE PROJECT WENT THROUGH A PLANNING AND DESIGN PROCESS TO EVALUATE THE PROPOSED IMPROVEMENTS AND THE POTENTIAL IMPACTS. THE PROJECT WAS DESIGNED TO PROVIDE THE FOLLOWING MEASURES TO LIMIT NEGATIVE IMPACTS TO THE ENVIRONMENT:

- THE DESIGN WILL MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE BY ESTABLISHING A LIMIT OF DISTURBANCE (LOD) AND CONSTRUCTION SEQUENCE.
- THE DESIGN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION THE LIMIT OF DISTURBANCE (LOD) LINE IS NOTED ON THE PLANS TO MINIMIZE IMPACT TO EXISTING VEGETATION AND DRAINAGE FEATURES.
- THE DESIGN MINIMIZES SOIL COMPACTION BY LIMITING THE DISTURBANCE BEYOND WHAT IS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND PARKING EXPANSION
- THE DESIGN UTILIZES MEASURES AND CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF UNDERGROUND STORMWATER DETENTION BASINS AND AREAS AMENDED SOILS. THE STORMWATER MANAGEMENT FEATURES ARE DESIGNED AS BMPS TO TO PREVENT INFILTRATION AND TO ATTENUATE THE INCREASE IN STORMWATER RUNOFF FROM THE SITE.

PROJECT SITE AREA: 8.45 ACRES
AREA OF DISTURBANCE: 4.35 ACRES

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- E EXISTING ELECTRIC LINE
- G-G EXISTING GAS LINE
- T-T EXISTING TELEPHONE LINE
- S EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- CS-16 COMPOST SOCK - SIZE

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

400 0 400 800
SCALE IN FEET
1"=400'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE059598

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0548

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-08792-00-6

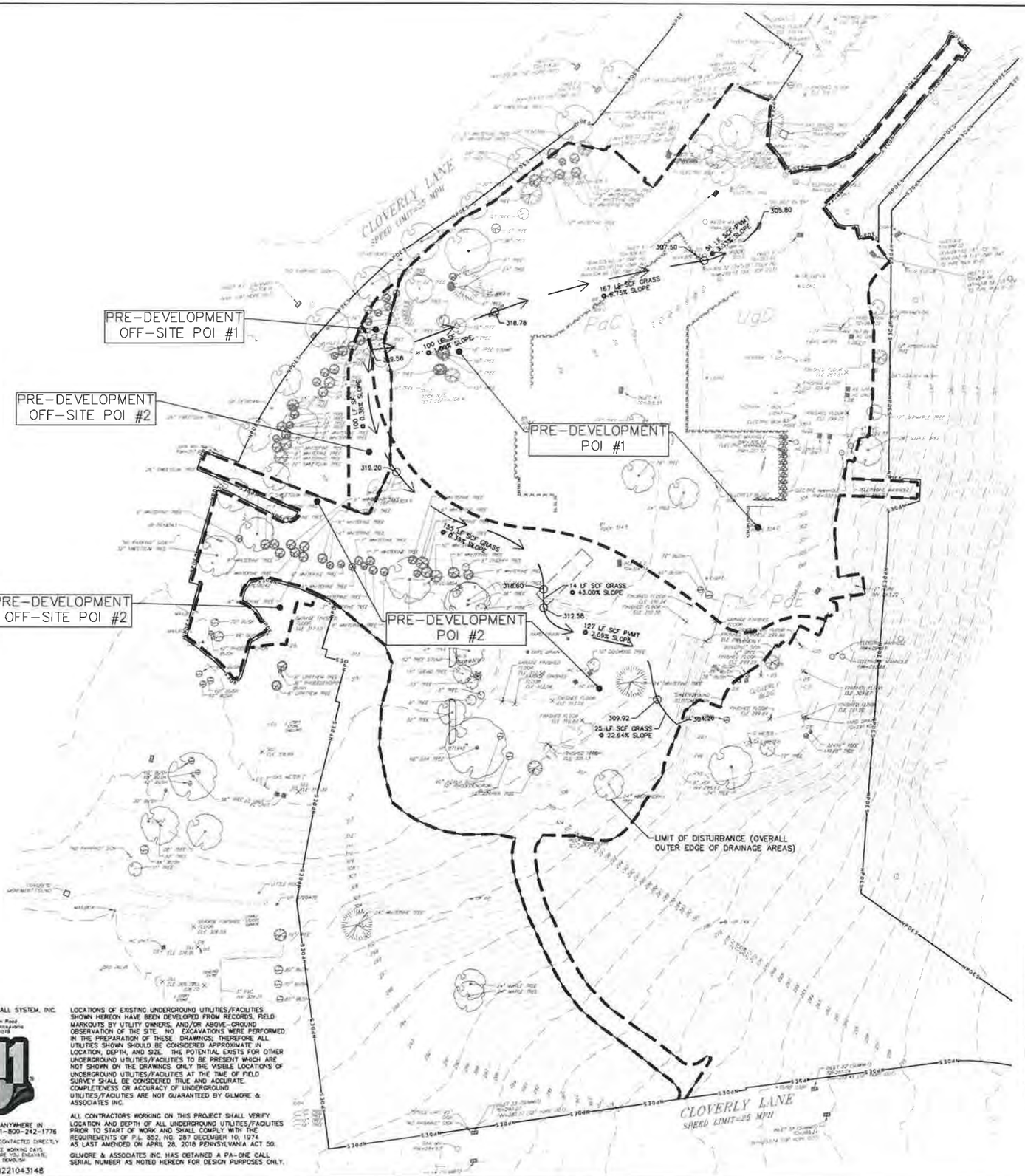
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

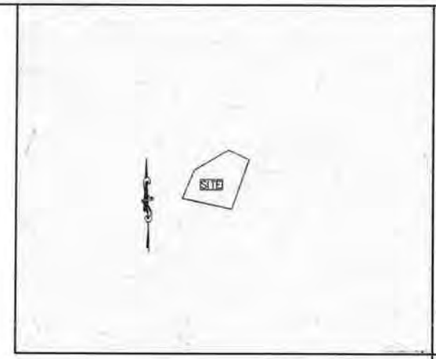
DATE: 06/06/22 | SCALE: 1"=400'

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 14 OF 37

T:\land design\2017\2017120\6_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\12120\6-01_PCSM_PLAN.dwg Layout: 10 PCSM PLAN Plotted By: wheider, on Tue Jun 07, 2022 at 11:52am





LOCATION MAP

SCALE: 1"=800'

G&A LEGEND		EXISTING UTILITY LEGEND	
	RIGHT-OF-WAY LINE	ST	EXISTING STORM SEWER LINE
	EXISTING MAJOR CONTOURS	G	EXISTING GAS LINE
	EXISTING MINOR CONTOURS	E	EXISTING ELECTRIC LINE
	SOIL BOUNDARY	W	EXISTING WATER LINE
	EXISTING PAVEMENT EDGE	SAN	EXISTING SAN. SEWER LINE
	EXISTING CURB	T	TELEPHONE LINE
F	EXISTING FENCE	SL	EXISTING SIGHT LIGHTING
W	EXISTING WATER LINE		EXISTING UTILITY POLE
E	EXISTING ELECTRIC LINE		EXISTING LIGHT FIXTURE
G	EXISTING GAS LINE		EXISTING SIGN
T	EXISTING TELEPHONE LINE		EXISTING BOLLARD
S	EXISTING SAN. SEWER LINE		EXISTING STORM INLET
	ZONING BOUNDARY		EXISTING PLANT MASS
	LIMIT OF 2019/2022 G&A SURVEY		EXISTING TREES
	EXISTING UTILITY POLE		
	EXISTING LIGHT FIXTURE		
	EXISTING SIGN		
	EXISTING BOLLARD		
	EXISTING ELECTRIC METER		
	EXISTING WATER VALVE		
	EXISTING STORM INLET		
	EXISTING CONCRETE MONUMENT		

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABLTY	HYDRIC SOIL	HYDRO GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	60"-118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	60"-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

40 0 40 80
SCALE IN FEET
1"=40'

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SERIAL NO. 20221043148

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE039538

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PRE-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 130J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0565

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/08/22

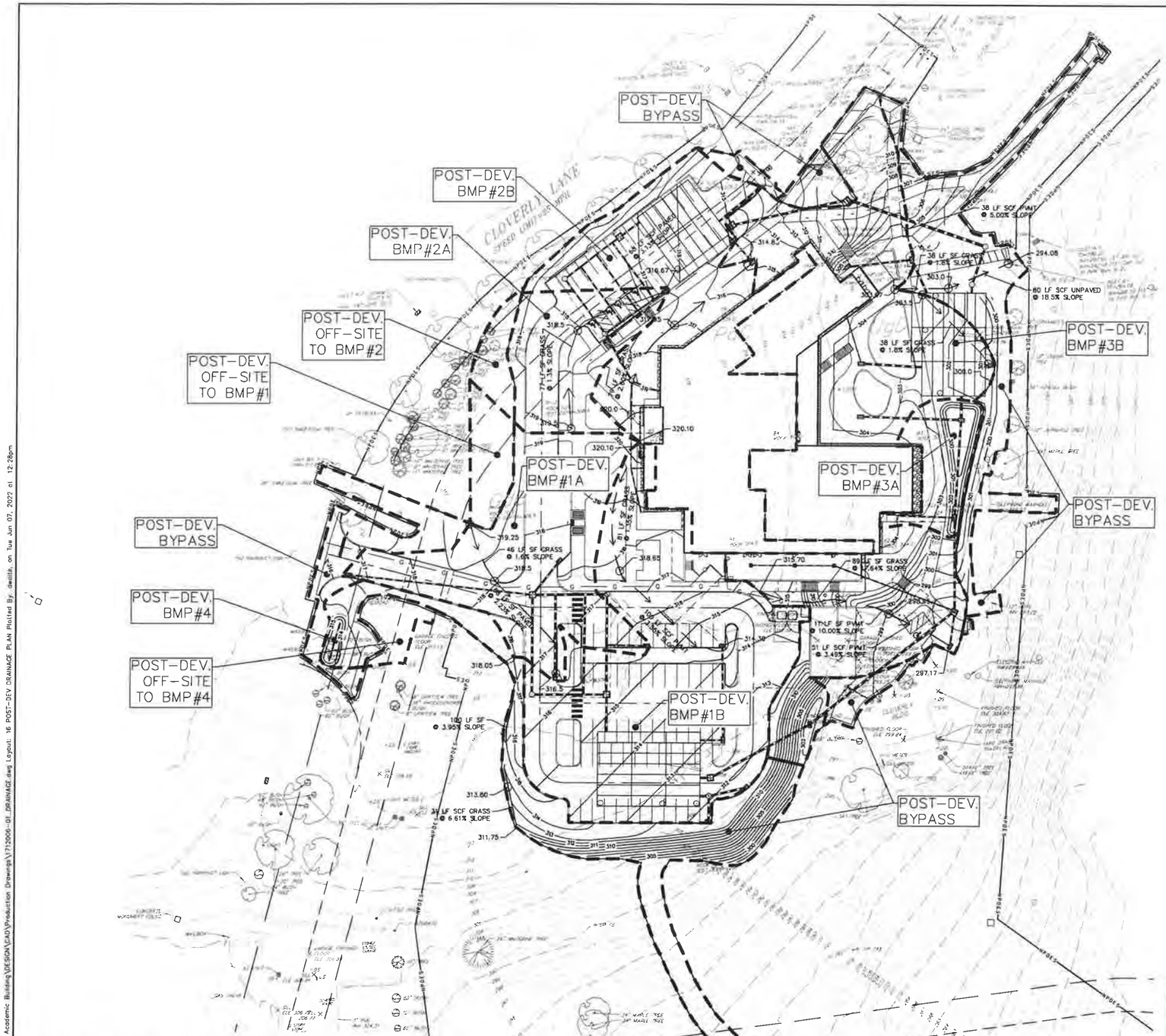
SCALE: 1"=40'

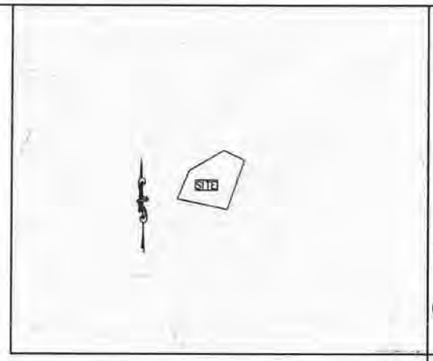
DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 15 OF 37

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17120006-01_DRAINAGE.dwg Layout: 15 PRE-DEV DRAINAGE PLAN Plotted By: wheider, on Tue Jun 07, 2022 at 11:52am





LOCATION MAP

SCALE: 1"=800'

SWM NOTES:

1. BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B)

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED)

   BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

   BMP 1B – UNDERGROUND CONCRETE VAULT DETENTION CONSPAN 24X5 UNITS CURRENTLY SHOWN INSTALLED AT HILLCREST BASEMENT ELEVATION OF 305.5' NO INFILTRATION IS ANTICIPATED FOR THIS SYSTEM;

   BMP 2A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=311.83';

   BMP 2B – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL = 307.00'
   INSTALL W/ FOOTINGS AND UTILIZE INFILTRATION BETWEEN FOOTINGS;

   BMP 3 – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL =292.00'

   BMP 4 – VEGETATED SWALE TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- TIME OF CONCENTRATION PATH

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA-NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABILTY	HYDRIC SOIL	HYDRO GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3-8%	2E	NO	B	60"-80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8-15%	3E	NO	A	60"-118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25-35%	6E	NO	A	60"-118"	>80"	NOT RATED	
UgD	URBAN LAND	8-25%	8S	NO	-	-	-	NOT RATED	

40 0 40 80
SCALE IN 1"=40' FEET

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SERIAL NO. 20221043148

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ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2016 PENNSYLVANIA ACT 50

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER PE039161

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO.: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, ATTN: Mr. Mark Nilsen

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. ±

TOTAL LOTS: 1

DATE: 06/06/22

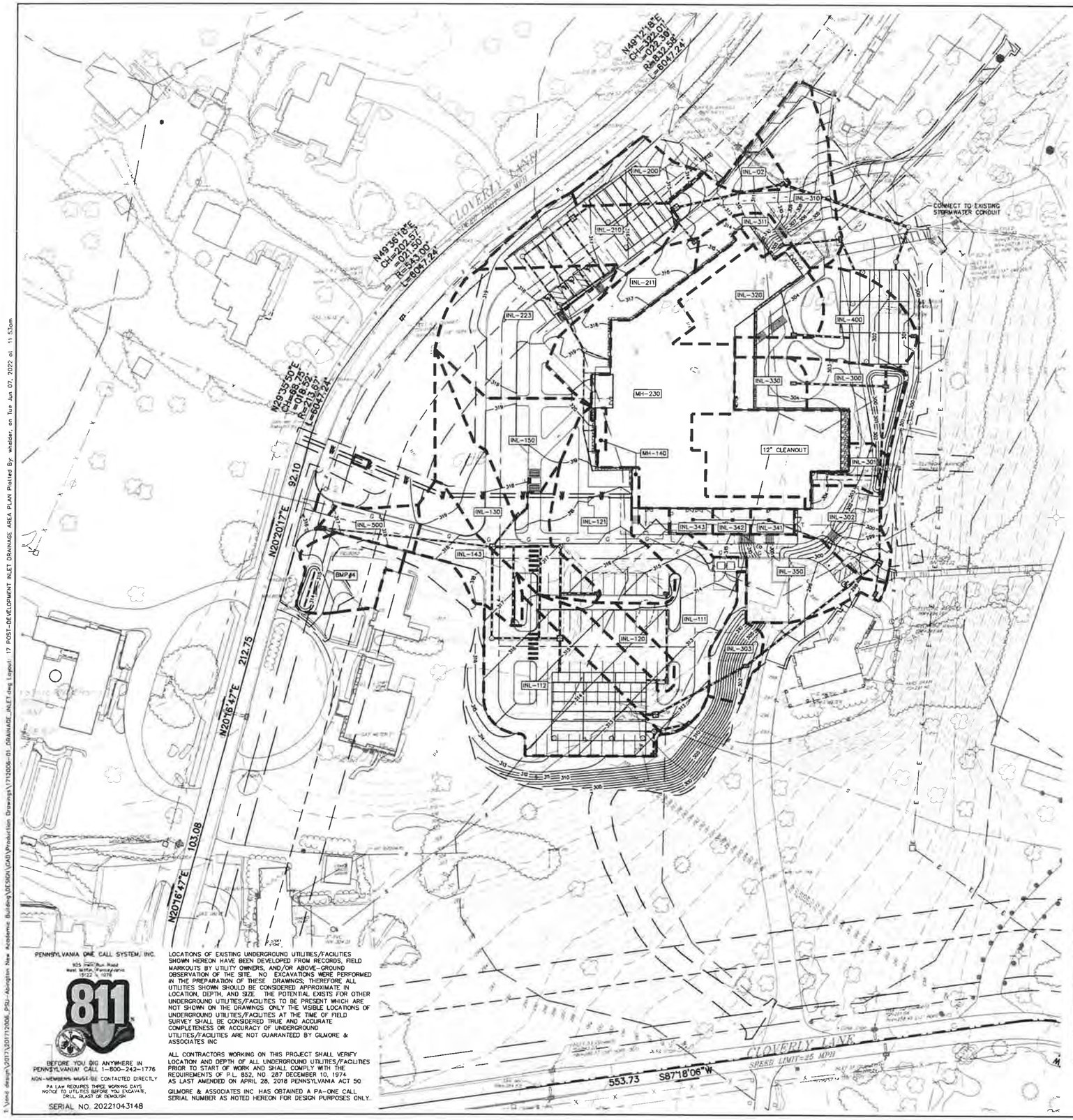
SCALE: 1"=40'

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 16 OF 37

P:\Land design\2017\2017206_PSU-Abington New Academic Building\DESIGN\CADD\Production Drawings\17206-01_DRAINAGE.dwg Layout: 16 POST-DEV DRAINAGE PLAN Plotted By: dwells, on Tue Jun 07, 2022 at 12:28pm



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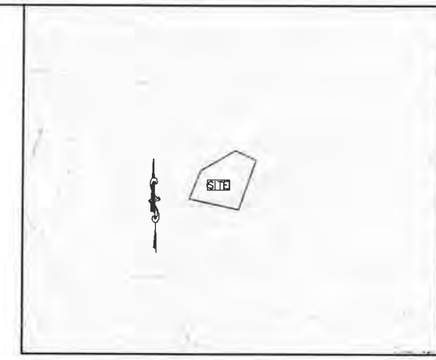
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.



LOCATION MAP

800 00 800 1600
SCALE IN FEET

SCALE: 1"=800'

SWM NOTES:

1 BASED ON ROCK PINNACLES RELATIVELY SHALLOW INFILTRATION AREAS ARE PROPOSED TO THE NORTH AND WEST OF THE PROPOSED BUILDING WITH LARGER STORAGE AREAS IMMEDIATELY DOWNSTREAM (BMP AREAS 1A/1B AND 2A/2B)

2. PROPOSED BMPS – NEARLY ALL NEW IMPERVIOUS WILL DRAIN TO NEW STORMWATER MANAGEMENT MANAGEMENT BMPS. RUNOFF FROM A MAJORITY OF AREAS DISTURBED BY THE PROJECT WILL BE COLLECTED; MANAGED FOR RATE, VOLUME AND WATER QUALITY; AND DISCHARGED AT LOW RATE INTO THE EXISTING ON-SITE STORMWATER SYSTEM, ULTIMATELY DISCHARGING IN TO THE CAMPUS TRIBUTARY OF MEADOW BROOK (PENNYPACK WATERSHED)

BMP 1A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION. NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=309.67';

BMP 1B – UNDERGROUND CONCRETE VAULT DETENTION CONSPAN 24X5 UNITS CURRENTLY SHOWN INSTALLED AT HILLCREST BASEMENT ELEVATION OF 305.5' NO INFILTRATION IS ANTICIPATED FOR THIS SYSTEM;

BMP 2A – UNDERGROUND STONE STORAGE/INFILTRATION BED WITH PERFORATED 12" RCP PIPE DISTRIBUTION NEARBY INFILTRATION TEST INCLUDED ROCK AT EL=311.83';

BMP 2B – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL = 307.00'
INSTALL W/ FOOTINGS AND UTILIZE INFILTRATION BETWEEN FOOTINGS;

BMP 3 – UNDERGROUND CONCRETE VAULT DETENTION – CONSPAN 24X5 UNITS AT INVERT EL =292.00'

BMP 4 – VEGETATED SWALE TO PROVIDE WATER QUALITY, RATE CONTROL AND VOLUME CONTROL FOR AREAS OF NEW DRIVEWAYS THAT DISCHARGE TOWARD CLOVERLY LANE.

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- X EXISTING FENCE
- W EXISTING WATER LINE
- E EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- T EXISTING TELEPHONE LINE
- SAN EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- UNIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS ON USDA–NRCS WEB SOIL SURVEY OF MONTGOMERY COUNTY

SYMBOL	MAPPING UNITS	SLOPE	LAND CAPABILTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO BEDROCK	DEPTH TO WATER TABLE	LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
GdB	GLADSTONE GRAVELLY LOAM	3–8%	2E	NO	B	60"–80"	>80"	NOT RATED	
PaC	PARKER GRAVELLY LOAM	8–15%	3E	NO	A	60"–118"	>80"	NOT RATED	
PaE	PARKER GRAVELLY LOAM	25–35%	6E	NO	A	60"–118"	>80"	NOT RATED	
UgD	URBAN LAND	8–25%	8S	NO	–	–	–	NOT RATED	

40 0 40 80
SCALE IN FEET
1"=40'

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER PE059959

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REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

POST-DEVELOPMENT INLET DRAINAGE AREA PLAN

GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. TOTAL LOTS: 1

DATE: 06/08/22 SCALE: 1"=40'

DRAWN BY: MMH CHECKED BY: DAW

SHEET NO.: 17 OF 37

294

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CADD\Production Drawings\12006-01 DRAINAGE_INLET.dwg Layout: 17 POST-DEVELOPMENT INLET DRAINAGE AREA PLAN Plotted By: wwelder, on Tue Jun 07, 2022 at 11:53am

MONTGOMERY COUNTY CONSERVATION DISTRICT STANDARD EROSION & SEDIMENT CONTROL NOTES:

1. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER
2. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED
3. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, THE PERMITTEE AND COPERMITTEE SHALL ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES AND SHALL INCLUDE COMPLETE, WRITTEN LOGS OF THOSE INSPECTIONS WHICH SHALL BE MADE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGARDING, RESEEDING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.
4. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION
5. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
6. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE APPROPRIATE CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS
7. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS
8. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
10. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE PROJECT SITE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE BMP'S EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S
11. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY
12. THE PERMITTEE OR CO-PERMITTEE SHALL CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AT LEAST SEVEN DAYS BEFORE CONSTRUCTION IS TO BEGIN TO DETERMINE IF A PRECONSTRUCTION CONFERENCE IS REQUIRED THE PERMITTEE, CO-PERMITTEE, AND OTHERS UNDERTAKING THE EARTH DISTURBANCE ACTIVITY MUST ATTEND A PRECONSTRUCTION CONFERENCE WHEN REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE PERMITTEE OR CO-PERMITTEE MUST BRING A COPY OF THEIR NPDES PERMIT, A COPY OF THE STAMPED PLAN FROM THE CONSERVATION DISTRICT, AND ALL ASSOCIATED DEPARTMENT APPROVALS/PERMITS WHICH MUST BE AVAILABLE AT THE CONFERENCE UPON REQUEST. ALSO, AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS
13. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT
14. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE ARE DESCRIBED IN EACH STAGE
15. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE OR SHOULD A TEMPORARY CESSATION OF ACTIVITY OCCUR WHICH WILL LAST LONGER THAN 4 DAYS, 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 ONE 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 ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS
16. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS
17. PERMITTEES AND CO-PERMITTEES ARE RESPONSIBLE FOR ENSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF BMPS IDENTIFIED IN THE PCSM PLAN PRIOR TO THE SUBMISSION OF THE NOTICE OF TERMINATION FOR THIS PERMIT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE BMPS IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN THE INSTALLATION SCHEDULE OF PCSM BMPS AND MAINTENANCE REQUIREMENTS CONTAINED WITHIN THE APPROVED PCSM PLAN MUST BE FOLLOWED; AND FAILURE TO COMPLY WITH THE INSTALLATION SCHEDULE IS A VIOLATION OF THIS PERMIT, THE CLEAN STREAMS LAW, AND THE CLEAN WATER ACT.

SEDIMENT BASINS

1. APPROVAL OF THE USE OF SKIMMERS DOES NOT APPROVE USE OF ANY SKIMMERS IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.
2. BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.
3. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION SHALL BE DONE BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED
4. SEDIMENT BASINS MUST BE STRUCTURALLY SOUND AND PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES

OTHER BMP'S

1. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
2. AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS

MATERIAL RECYCLING/DISPOSAL REQUIREMENTS:

1. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE
2. THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260 1 ET SEQ, 271.1 ET SEQ THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE
3. THE FOLLOWING MATERIALS ARE ANTICIPATED TO BE CONSTRUCTION WASTE: ASPHALT PAVING, CONCRETE PAVING/SPOILS, STEEL/IRON PIPING, AND PLASTIC PIPING

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES
   - 1.1 ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE IN DETERMINING THAT FILL IS CLEAN
   - 1.2 INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS
2. FOR PROJECTS THAT REQUIRE NPDES PERMIT, LANDOWNER OR HIS DESIGNATED REPRESENTATIVE SHALL MAINTAIN, AND MAKE AVAILABLE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT, COMPLETE, WRITTEN INSPECTION LOGS OF THE INSPECTION AND MAINTENANCE OF ALL EROSION-SEDIMENT CONTROL BMPS
3. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE NOTED UNDER TEMPORARY AND PERMANENT STABILIZATION
4. ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAYS MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
5. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF MONTGOMERY COUNTY CONSERVATION DISTRICT. ANY PUMPED WATER MUST BE DIRECTED TO A FILTER BAG DEVICE DISCHARGING OVER NON-DISTURBED AREAS
6. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION
   - 6.1 THE APPLICANT AND HIS DESIGNATED REPRESENTATIVE ARE RESPONSIBLE FOR INSURING THAT A LICENSED PROFESSIONAL HAS OVERSIGHT RESPONSIBILITIES FOR THE DESIGN AND PROPER INSTALLATION OF STORMWATER BMPs IDENTIFIED IN THESE PLANS (IF ANY) PRIOR TO SUBMISSION OF A 'NOTICE OF TERMINATION' FOR THE PROJECT. THE LICENSED PROFESSIONAL SHALL CERTIFY THAT THE STORMWATER BMPs IDENTIFIED IN THE PLAN HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN
   - 6.2 THE INSTALLATION SCHEDULE AND MAINTENANCE REQUIREMENTS FOR ANY AND ALL IDENTIFIED STORMWATER MANAGEMENT BMPs INCLUDED IN THESE PLANS MUST BE FOLLOWED FAILURE TO COMPLY WITH PLAN SPECIFICATIONS IS A VIOLATION OF THE CLEAN STREAM LAW AND CLEAN WATER ACT
7. ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES REPLACED SOILS SHALL BE SEEDED AND MULCHED IMMEDIATELY.
8. UPON COMPLETION OR ANY TEMPORARY CESSATION LONGER THAN 4 DAYS OF THE EARTH DISTURBANCE ACTIVITY, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO 363-2134-008, MARCH 2012, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMPS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BMPS ARE OPERATIONAL.
9. CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT

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

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

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS AS NOTED IN TABLES FP-1A AND FP-1B FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL."

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL

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

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

MAINTENANCE OF FACILITIES:

1. SILT FENCE SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS 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 E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED
3. SHOULD THE TREE PROTECTION FENCING BE DISTURBED AT ANY POINT, IT SHALL BE REPLACED IMMEDIATELY
4. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT
5. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS
6. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 (OR EQUAL) IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED
7. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
8. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES

TYPICAL UTILITY TRENCHING NOTES:

1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION, AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM WORK CREWS FOR CLEARING-GRUBBING AND SITE RESTORATION-STABILIZATION OPERATIONS
3. PLACE FILTER FENCE OR COMPOST SOCK DOWN-SLOPE OF THE PROPOSED TRENCHING ACTIVITIES PLACE EXCAVATED MATERIALS ON THE UP-SLOPE SIDE OF THE TRENCH
4. TOPSOIL SHALL BE REMOVED AND STOCKPILED SEPARATELY FROM BACKFILL SOILS TOPSOIL SHALL BE REPLACED UPON FINAL GRADING FOR STABILIZATION
5. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY
6. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE
7. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND STABILIZED IMMEDIATELY IN ACCORDANCE WITH 'SEEDING & MULCHING SCHEDULE'
8. REMOVE FILTER FENCE AND OTHER ESC MEASURES AFTER AREA IS STABILIZED ANY AREAS DISTURBED DURING THE REMOVAL OF ESC MEASURES SHALL BE RESTABILIZED IMMEDIATELY

SEEDING AND MULCHING SCHEDULE

1. SITE PREPARATION, STABILIZATION AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH PENN STATE UNIVERSITY'S "THE AGRONOMY GUIDE" AND PENNDOT FORM 408 SPECIFICATIONS' MOST RECENT ADDITION

   TEMPORARY SEEDING SPECIFICATION FORMULA E – ANNUAL RYE GRASS

   PERMANENT SEEDING SPECIFICATION FORMULA B –
   50% KENTUCKY BLUEGRASS MIXTURE
   30% PENNLAWN RED FESCUE
   20% PERENNIAL RYEGRASS MIXTURE

   STEEP SLOPE SEEDING SPECIFICATION FORMULA W –
   70% TALL FESCUE
   20% BIRDSFOOT TREFOIL MIXTURE
   10% REDTOP

   SEEDING RATE FOR THE ABOVE MIXTURES:
   10 LBS/1,000 SY FOR TEMPORARY SEEDING
   21 LBS/1,000 SY FOR PERMANENT SEEDING
   11 LBS/1,000 SY FOR STEEP SLOPE SEEDING (SEE NOTE 5)
2. HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATES OF AT LEAST 3.0 TONS PER ACRE AND SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER
3. PULVERIZED AGRICULTURAL LIMESTONE AND COMMERCIAL FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS WHICH ARE TO BE SEEDED EXCEPT FOR TEMPORARY SEED AREAS ARE THE FOLLOWING RATES:

   PULVERIZED AGRICULTURAL LIMESTONE – 90 LBS/1,000 SF
   10-20-20 ANALYSIS COMMERCIAL FERTILIZER – 20 LBS/1,000 SF

   NOTE: APPLICATION OF LIME AND FERTILIZER FOR TEMPORARY SEEDING IS UNNECESSARY AND ONLY SERVES TO CONTRIBUTE TO AN OVERABUNDANCE OF NUTRIENT POLLUTION IN THE WATERSHED
4. PERMANENT SEEDING SHALL TAKE PLACE FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15 IF COMPLETED AT IN OTHER SEASONS, AREAS SHALL RECEIVE TEMPORARY SEEDING AND 3.0 TONS PER ACRE MULCH
5. STEEP SLOPE AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR PARTICULAR METHOD AND SPECIFIC SITE CONDITIONS

   FLEXIBLE GROWTH MEDIUM: SHALL BE HYDRAULICALLY APPLIED COMBINATION OF SEED, MULCH, AND EROSION PROTECTION MATERIAL SIMILAR TO "FLEXTERRA" BY ACF OR EQUAL BY OTHER MANUFACTURER.

   EROSION CONTROL MATTING: SHALL BE TEMPORARY MATTING SIMILAR TO SC350 BY NORTH AMERICAN GREEN OR EQUAL BY OTHER MANUFACTURER

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS

THE PERMITTEE / CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RUNOFF EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOTICE OF TERMINATION BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THE COMMONWEALTH A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

1. A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP IMPLEMENTATION AND MAINTENANCE, AND COMPLIANCE ACTIONS; AND
2. THE DATE, TIME, NAME, AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION

NONCOMPLIANCE REPORTING

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

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

REDUCTION, LOSS, OR FAILURE OF THE BMPS

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

TERMINATION OF COVERAGE

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE OF THE FACILITY MUST SUBMIT A NOTICE OF TERMINATION (N O T) FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1 C, SIGNATORY REQUIREMENTS, OF THIS PERMIT ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT THE N O T. MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE N.O.T., THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE N.O.T. IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS

NPDES CHECKLIST COMPLIANCE – ESC

SECTION	REQUIREMENT	NOTES
102 4(b)(4)	MINIMIZE EXTENT & DURATION OF DISTURBANCES	– PROJECT SPECIFIC INFORMATION
	MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES	– PROJECT SPECIFIC INFORMATION
	MINIMIZE SOIL COMPACTION	– PROJECT SPECIFIC INFORMATION
	UTILIZE OTHER MEASURES TO MINIMIZE INCREASED RUNOFF	– PROJECT SPECIFIC INFORMATION
102 4(b)(5)(xi)	MEASURES TO ADDRESS SOIL LIMITATIONS OR CONDITIONS	– THERE ARE NO SOIL OR GEOLOGIC CONDITIONS OF CONCERN SEE SOILS TABLE.
102 4(b)(5)(xii)	THERMAL IMPACT PROTECTION	– PROJECT SPECIFIC INFORMATION
102 4(b)(5)(xv)	RIPARIAN FOREST BUFFERS	– THERE ARE NO STREAMS OR WETLANDS ON THE PROPERTY; THIS REQUIREMENT DOES NOT APPLY.
ANTI-DEGRADATION ANALYSIS		– DOES NOT APPLY. CHAPTER 93 = ---, MF THEREFORE IT IS NOT SPECIAL PROTECTION WATERSHED

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER PE059559

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM NOTES

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: N.T.S
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 18 OF 37

T:\land design\2017\2017112006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 18 PCSM NOTES Plotted By: whelder, on Tue Jun 07, 2022 at 11:53am

NOTES

GENERAL NOTES:

CONDITIONS. THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR THE STRUCTURE'S SUITABILITY TO THE EXISTING SITE CONDITIONS AND FOR THE HYDRAULIC EVALUATION - INCLUDING CONFIRMATION OF SOIL CONDITIONS.

2. PRIOR TO CONSTRUCTION, CONTRACTOR MUST VERIFY ALL ELEVATIONS SHOWN THROUGH THE ENGINEER.

3. THE CONTRACTOR SHALL PROVIDE ALL THE EQUIPMENT, MATERIALS AND PROCEDURES NECESSARY TO MAY PRODUCE THE STRUCTURE DESIGNED IN ACCORDANCE WITH THESE PLANS.

4. MINIMUM WEIGHT OF PRECAST UNIT SHALL BE XX KIPS.

DESIGN DATA

DESIGN LOADING
VAULT UNITS: H20-44
DESIGN FILL HEIGHT: 1'-0" MIN TO 2'-0" MAX
FROM TOP OF CROWN TO TOP OF PAVEMENT
DESIGN METHOD: LOAD FACTOR PER AASHTO SPEC. SPECIFICATION
ASSUMED NET ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
STORAGE VOLUME PER UNIT: XX CF

FOUNDATION EXCAVATION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THIS PROJECT PREPARED BY EARTH TECH, INC. DATED XX XX, XXXX.

MATERIALS

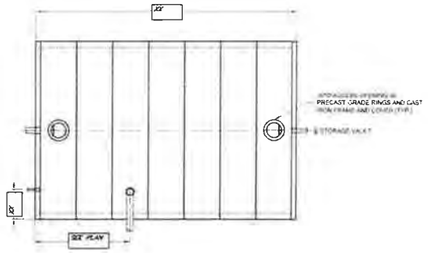
PRECAST UNITS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH CON/SPAN® SPECIFICATIONS.
CONCRETE FOR FOOTINGS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. REINFORCING STEEL FOR FOOTINGS SHALL CONFORM TO ASTM A615 OR A996 GRADE 60.

STORAGE VAULT GENERAL NOTES

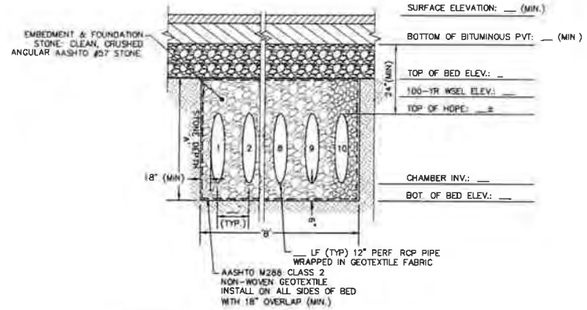
A. ALL PIPE PENETRATIONS SHALL BE CORE DRILLED AND NON-SHRINK GROUT EXACT BLOCKOUT SIZES PER MANUFACTURER SPECIFICATIONS.

B. DIMENSIONS AND ELEVATIONS TO BE FIELD ADJUSTED TO MATCH FINISHED GRADE.

C. MAXIMUM ELEVATION FOR STORAGE VAULT LOCATED AT TYP. INSIDE ARCH: ELEV. XX.X'



LOCATION PLAN
NOT TO SCALE



UNDERGROUND INFILTRATION BED DETAIL

NOT TO SCALE

NOTES:

1. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL. WHEN REQUIRED SEE ASTM D2321
2. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 6"
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 12" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

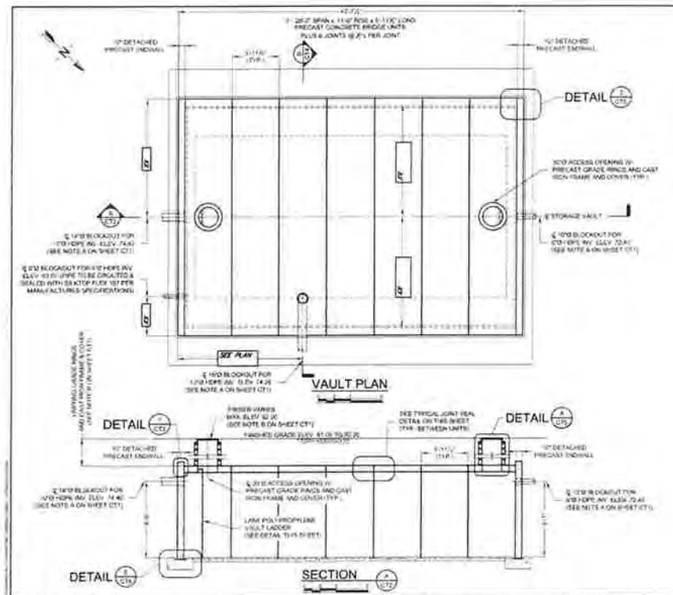
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
3025 Centre Pointe Dr. Suite 400 West Chester OH 45069
800.338.1122 513.645.7000 513.645.7993 FAX

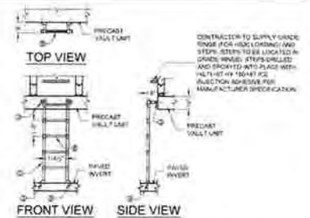
CON/STORM

PROPOSAL

24' SPAN X 5' RISE CON/SPAN DETENTION SYSTEM-000000-001
SAMPLE PROJECT
ANYTOWN, USA
SITE DESIGNATION: URS

CT1 - CT7





LANE POLYPROPYLENE VAULT LADDER

LADDER NOTES:
1. LADDERS AVAILABLE IN 2 RUNG THROUGH 25 RUNG.
2. POLYPROPYLENE CONFORMS TO ASTM D4101. LADDERS MEET ALL ALL ASTM, OSHA AND ANSI REQUIREMENTS AND OSHA 1910.26 AND 1910.27 SPECIFICATIONS.
3. FASTEN LADDER TO FLOOR AND WALL WITH 3/8" x 3" MACHORS. MACHORS TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
4. STANDARD ADJUSTABLE MOUNTING BRACKET - 6" O.C.
5. ALUMINUM REINFORCED COPOLYMER POLYPROPYLENE RAIL - 1-3/4" x 1-3/4".
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE RUNG 1-3/4" x 1-3/4" WITH KNURLED NON-SLIP GRIPS, 12" C.C.
7. LADDERS MANUFACTURED BY LANE INTERNATIONAL CORPORATION P.O. BOX 830, TUALATIN, OREGON 97062-0830

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
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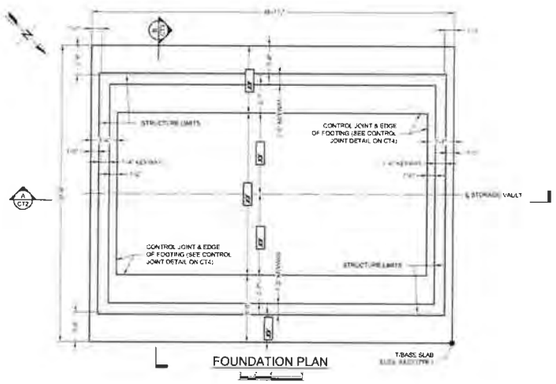
800.338.1122 513.645.7000 513.645.7993 FAX

CON/STORM

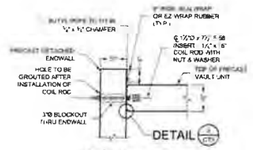
PROPOSAL

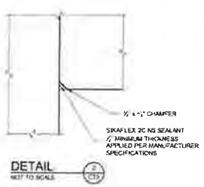
24' SPAN X 5' RISE CON/SPAN DETENTION SYSTEM-000000-001
SAMPLE PROJECT
ANYTOWN, USA
SITE DESIGNATION: URS

CT2 - CT7



FOUNDATION PLAN





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800.338.1122 513.645.7000 513.645.7993 FAX

CON/STORM

PROPOSAL

24' SPAN X 5' RISE CON/SPAN DETENTION SYSTEM-000000-001
SAMPLE PROJECT
ANYTOWN, USA
SITE DESIGNATION: URS

CT3 - CT7

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE035170

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0541

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

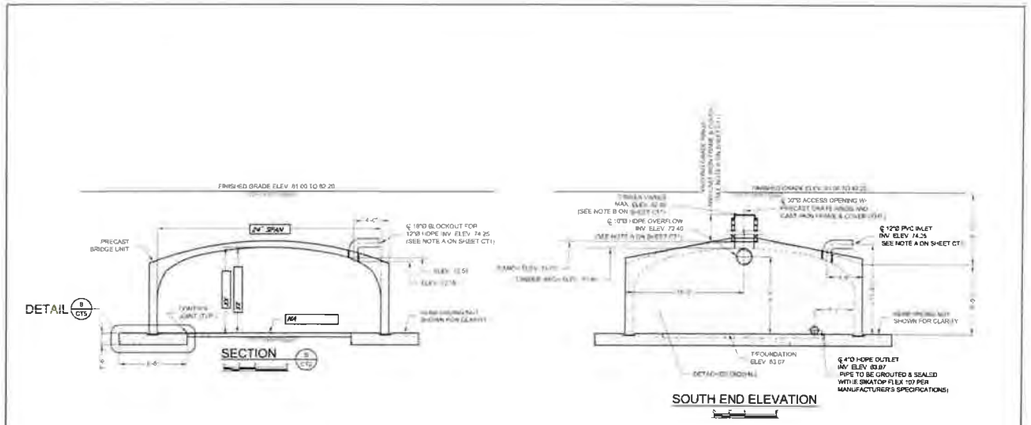
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 19 OF 37

Z:\land design\2017\12006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 19 PCSM DETAILS – 1 Plotted By: whelder on Tue Jun 07, 2022 at 11:53am



CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr. Suite 400 West Chester OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

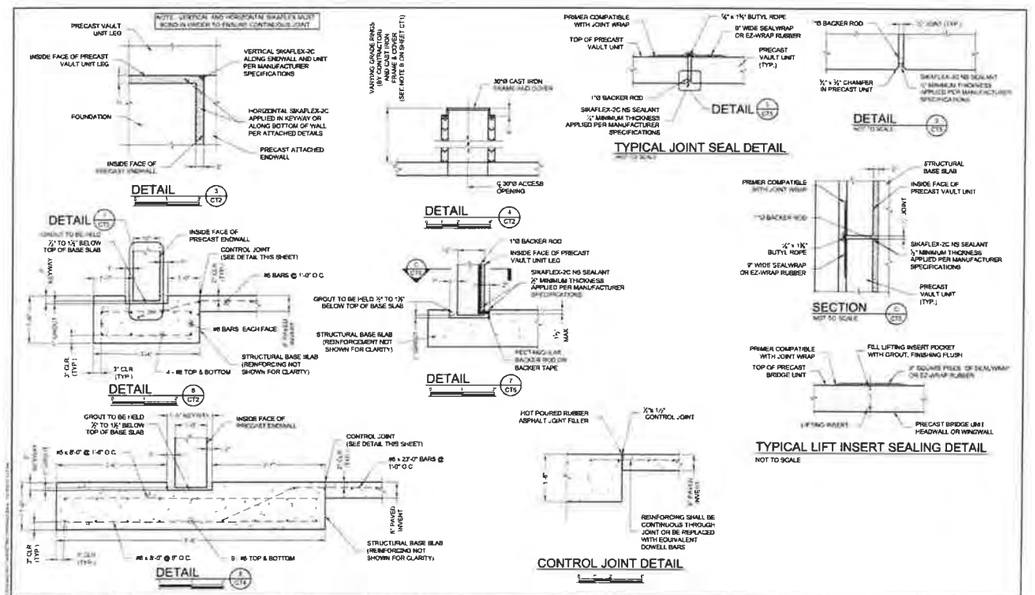
CON/STORM
PROPOSAL

24' SPAN 5' RISE

CON/SPAN DETENTION SYSTEM-000000-001
SAMPLE PROJECT
ANYTOWN, USA
SITE DESIGNATION: URS

10/16/2014

CT4 - CT7



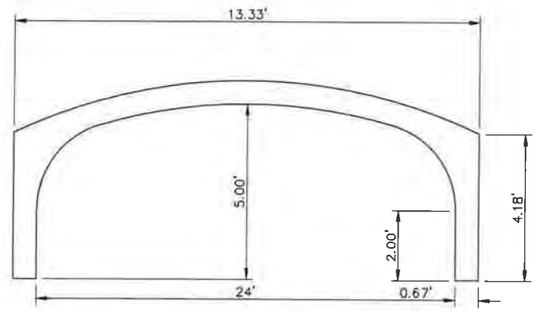
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr. Suite 400 West Chester OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CON/STORM
PROPOSAL

28'-0"SPANx11'-0"RISE CON/SPAN DETENTION SYSTEM-000000-001
SAMPLE PROJECT
ANYTOWN, USA
SITE DESIGNATION: URS

10/16/2014

CT5 - CT7



CONSPAN 24'X5' SECTION
NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

504 CARNEGIE DRIVE WEST LANCASTER, PA 17601 • (717) 291-1555 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE035530

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802

MUNICIPAL FILE No.: ----

TAX MAP PARCEL No.: 30-00-09792-00-6

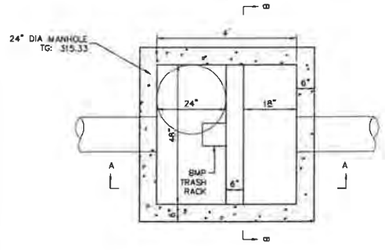
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

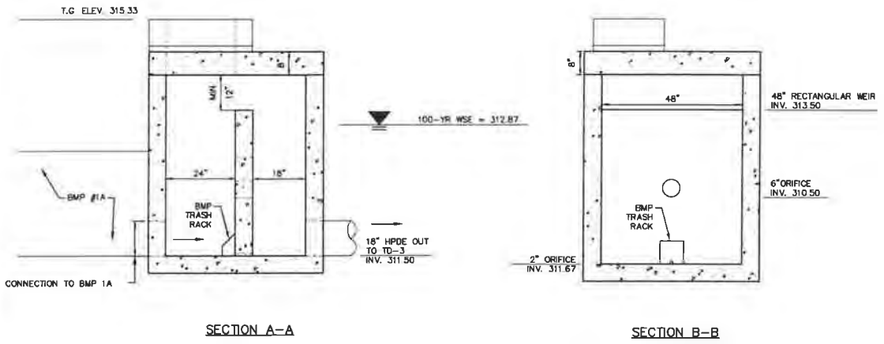
DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 20 OF 37

I:\Data design\2017\2017120\06_PSU-Abington New Academic Building\VE\SIGN\LAD\Production Drawings\PCSM NOTES.dwg Layout: 20 PCSM DETAILS – 2 Plotted By: wheider, on Tue Jun 07, 2022 at 11:53am



PLAN VIEW

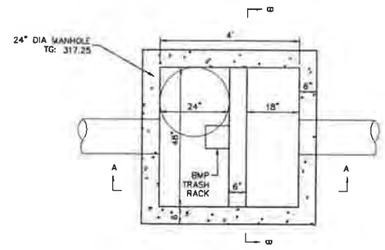


SECTION A–A

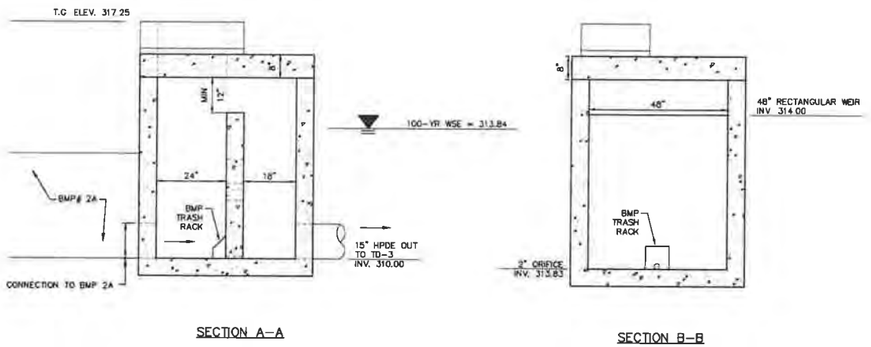
SECTION B–B

OS–1A OUTLET STRUCTURE DETAIL

NOT TO SCALE



PLAN VIEW



SECTION A–A

SECTION B–B

OS–2A OUTLET STRUCTURE DETAIL

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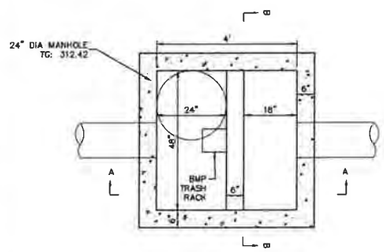

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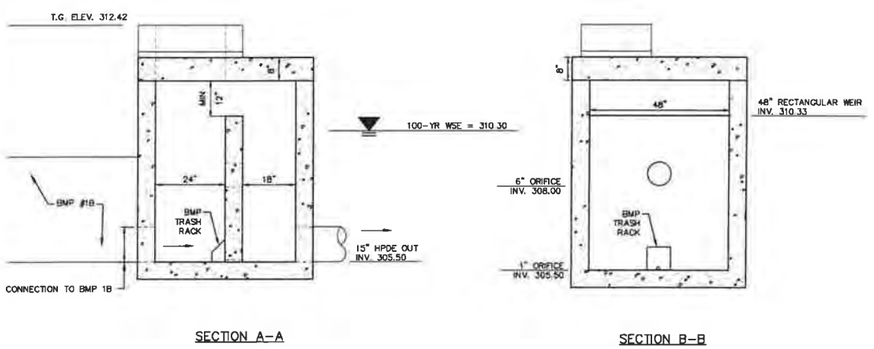

SECTION A–A

SECTION B–B

OS–1B OUTLET STRUCTURE DETAIL

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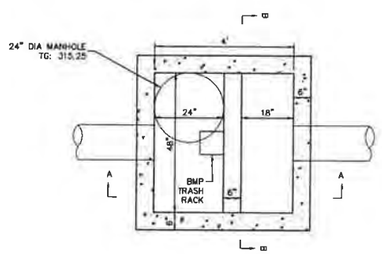

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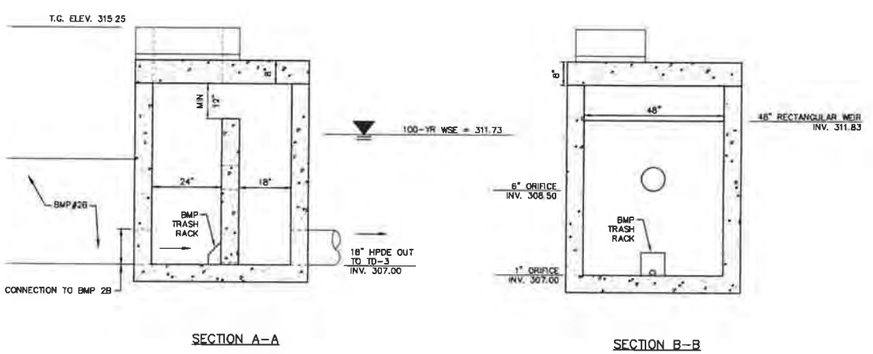

SECTION A–A

SECTION B–B

OS–2B OUTLET STRUCTURE DETAIL

NOT TO SCALE

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE038809

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 21 OF 37

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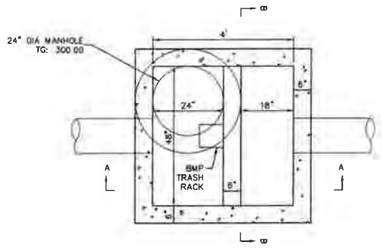

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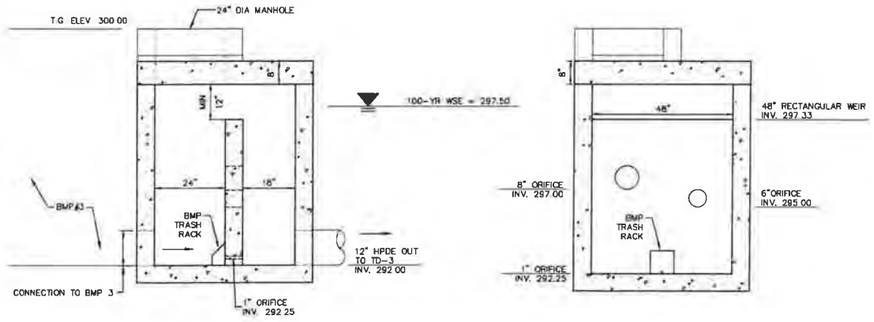

SECTION A–A SECTION B–B

OS–3B OUTLET STRUCTURE DETAIL

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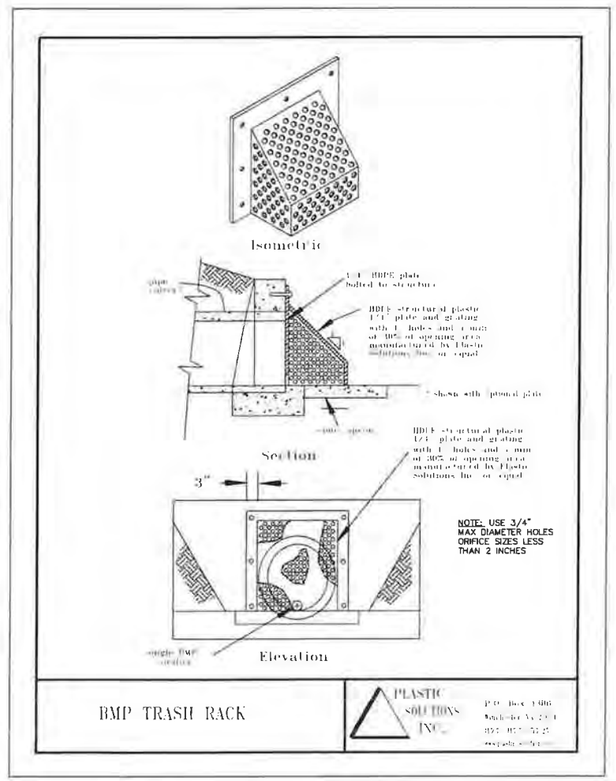
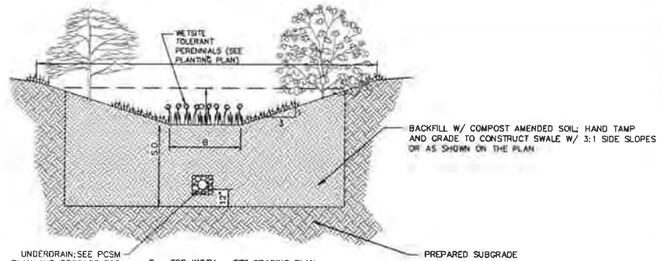
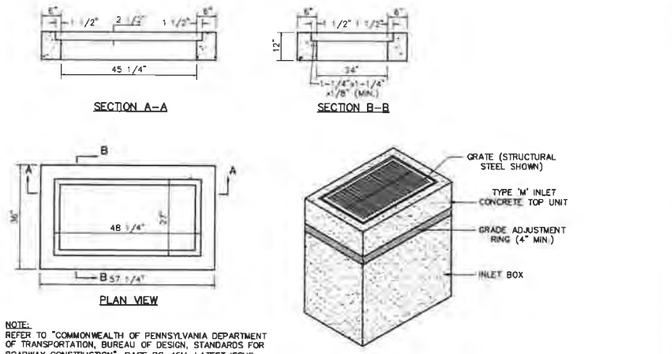




RAINGARDEN AND VEGETATED SWALE DETAIL

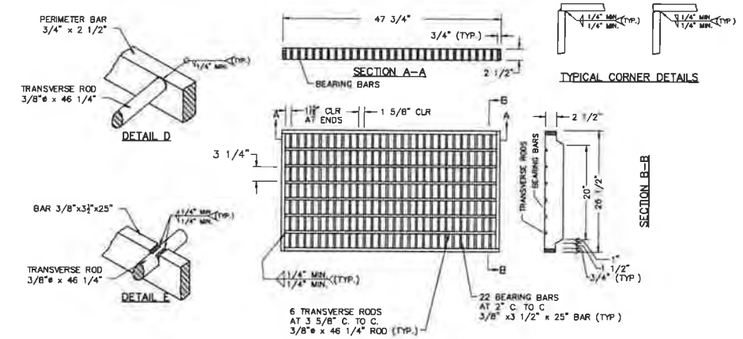
NOT TO SCALE



NOTE:
REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET CONSTRUCTION.

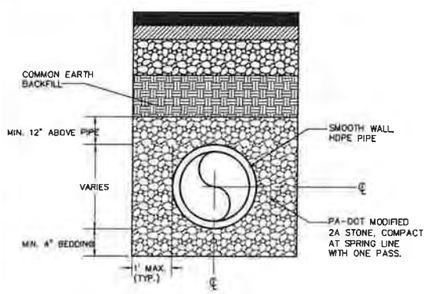
TYPE 'M' INLET DETAIL

NOT TO SCALE



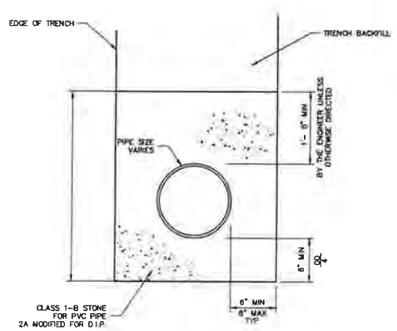
STRUCTURAL STEEL GRATE BICYCLE SAFE

NOT TO SCALE



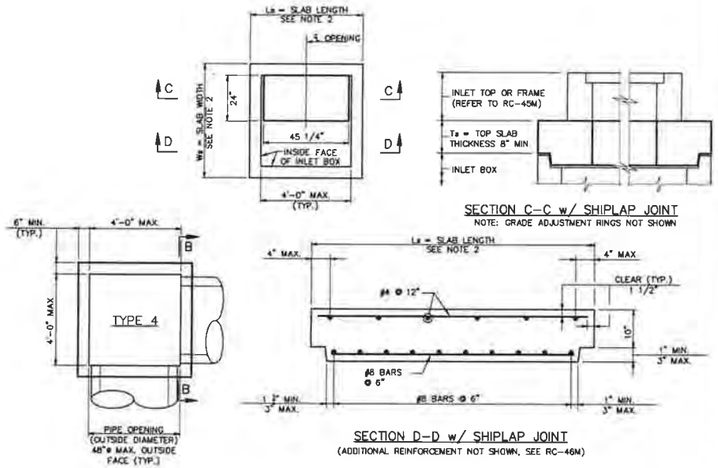
HDPE BACKFILL DETAIL

NOT TO SCALE



STANDARD PIPE BEDDING

NOT TO SCALE



NOTES:
1. REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC–46M, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST INLET BOX CONSTRUCTION
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE

PRECAST CONCRETE INLET BOX–TYPE 4

NOT TO SCALE

BOX SHALL BE PROVIDED WITH OVER–SIZED FRAME AND GRATE TO MAXIMIZE INLET CAPACITY. OMIT TOP SLAB TO ACCOMMODATE FRAME.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.889 AC.

TOTAL LOTS: 1

DATE: 06/06/22

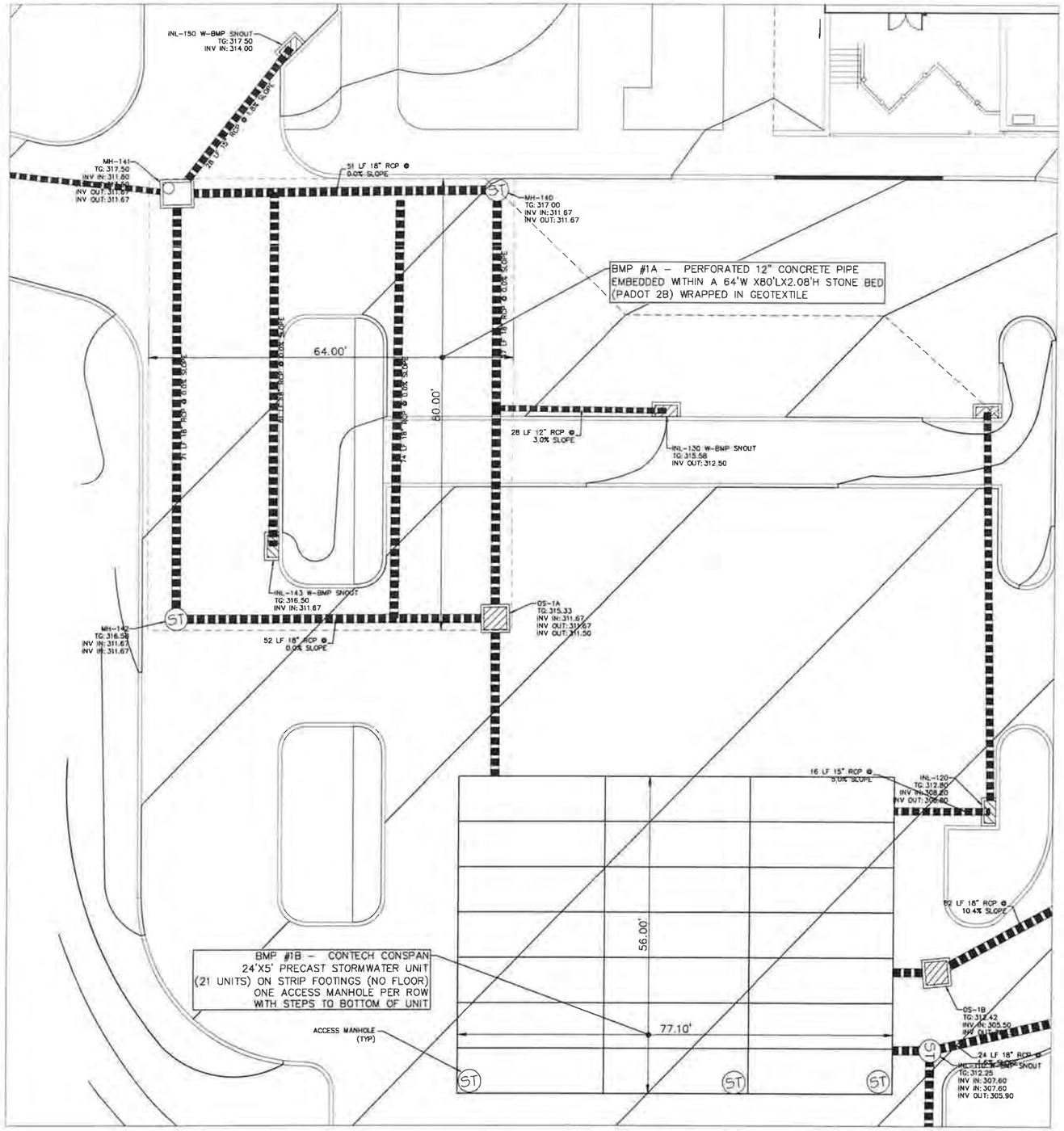
SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 22 OF 37

T:\land design\2017\12006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM NOTES.dwg Layout: 22 PCSM DETAILS – 4 Plotted By: wheider on Tue Jun 07, 2022 at 11:53am



BMP #1 – DETAIL
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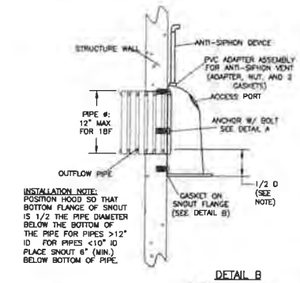
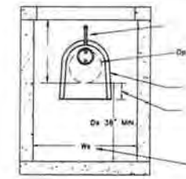


DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT



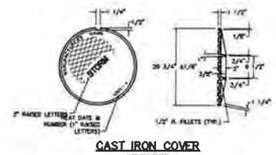
1. SELECT THE SNOUT OIL & DEBRIS STOP OF SIZE AND CONFIGURATION TO FIT APPLICATION SEE TABLE.
2. CENTER THE SNOUT DIRECTLY OVER THE EXIT PIPE SO THAT THE ENTIRE PIPE IS COVERED AND SO THAT THE LOWER EDGE OF THE HOOD IS AT LEAST 1/2 THE PIPE DIAMETER BELOW THE LOWEST INSIDE POINT OF THE PIPE.
3. DRILL EQUALLY SPACED 7/16" HOLES THROUGH THE SNOUT FLANGE (NUMBER OF HOLES MAY VARY WITH SIZE OF SNOUT.)
4. MARK AND DRILL CATCH BASIN AND INSTALL THE TAMP-IN LEAD ANCHORS:
   A) DRILL A 3/4" HOLE INTO THE BASE MATERIAL TO THE REQUIRED DEPTH
   B) BLOW THE HOLE CLEAN OF DUST AND OTHER MATERIAL.
   C) INSERT THE ANCHOR INTO THE HOLE (LEAD SHIELD OUT).
   D) POSITION THE SETTING TOOL IN THE ANCHOR THE OUTER RIM OF THE TOOL SHOULD SEAT ONTO THE LEAD SHIELD RIM
   E) USING THE TOOL, SET THE ANCHOR BY DRIVING THE LEAD SLEEVE OVER THE CONE USING SEVERAL SHARP HAMMER BLOWS BE SURE THE ANCHOR IS AT THE REQUIRED EMBEDMENT DEPTH
5. ATTACH THE VENT PIPE ADAPTER IN THE PREDRILLED HOLE IN THE TOP OF THE SNOUT USING THE 2 FLAT O-RING GASKETS AND PVC LOCK-NUT SUPPLIED IN KIT. INSTALL WITH THE FEMALE SLIP ADAPTER UP AND A WASHER ON EACH SIDE OF THE SNOUT SHELL. TIGHTEN LOCK-NUT HAND TIGHT.
6. REMOVE PSA BACKING AND WITH FIRM PRESSURE, ATTACH GASKET STRIP TO BACK OF FLANGE AND TRIM EXCESS
7. ATTACH THE SNOUT TO THE CATCH BASIN WALL WITH 3/8" DIAMETER STAINLESS STEEL BOLTS DO NOT OVER TIGHTEN: 10 to 15 FOOT POUNDS SHOULD BE SUFFICIENT.
8. CUT THE ANTI-SIPHON VENT STACK TO LENGTH AND ATTACH TO HOOD WITH PVC CEMENT
9. ATTACH 90 DEGREE FITTING TO VENT STACK WITH PVC CEMENT INSURE THAT FITTING OPENING IS ACCESSIBLE FOR MAINTENANCE AND INSPECTION

SNOUT DIMENSION

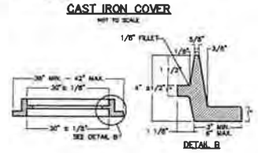
SIZE	A1	A2	B1	B2	C1	C2	C3	D1	D2	PORT ø	R1	R2

WATER QUALITY SNOUT INLET INSERT DETAIL

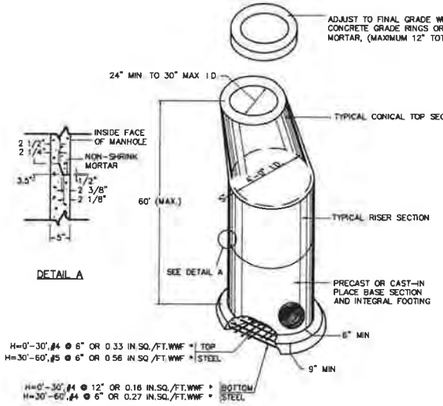
NOT TO SCALE



CAST IRON COVER
NOT TO SCALE



CAST IRON FRAME
(ALL ROUNDS AND FILLETS TO BE 1/4" R. UNLESS OTHERWISE NOTED.)



NOTES:

PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 714, MAY BE SUBSTITUTED FOR STANDARD CAST-IN-PLACE MANHOLE

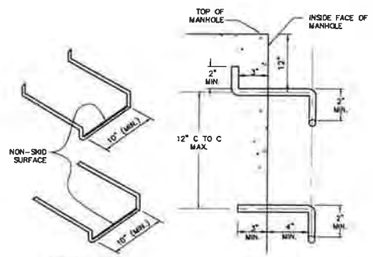
REFER TO "COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION", PAGE RC-39, SHEET 3 of 5, LATEST ISSUE, FOR NOTES AND SPECIFICATIONS REGARDING PRECAST MANHOLE CONSTRUCTION

* PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 709.3

MANHOLE STEPS SHALL BE PROVIDED IN ANY CASE WHERE THE STRUCTURE IS 5 FEET OR GREATER IN DEPTH.

PRECAST STORMWATER MANHOLE

NOT TO SCALE



MANHOLE AND INLET STEPS

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
65 East Butler Avenue, Suite 100, New Britain, PA 18901 (215) 345-4330 www.gilmore-assoc.com

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NOT TO BE RECORDED

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER PE039583

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS' NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 5

GILMORE & ASSOCIATES, INC
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

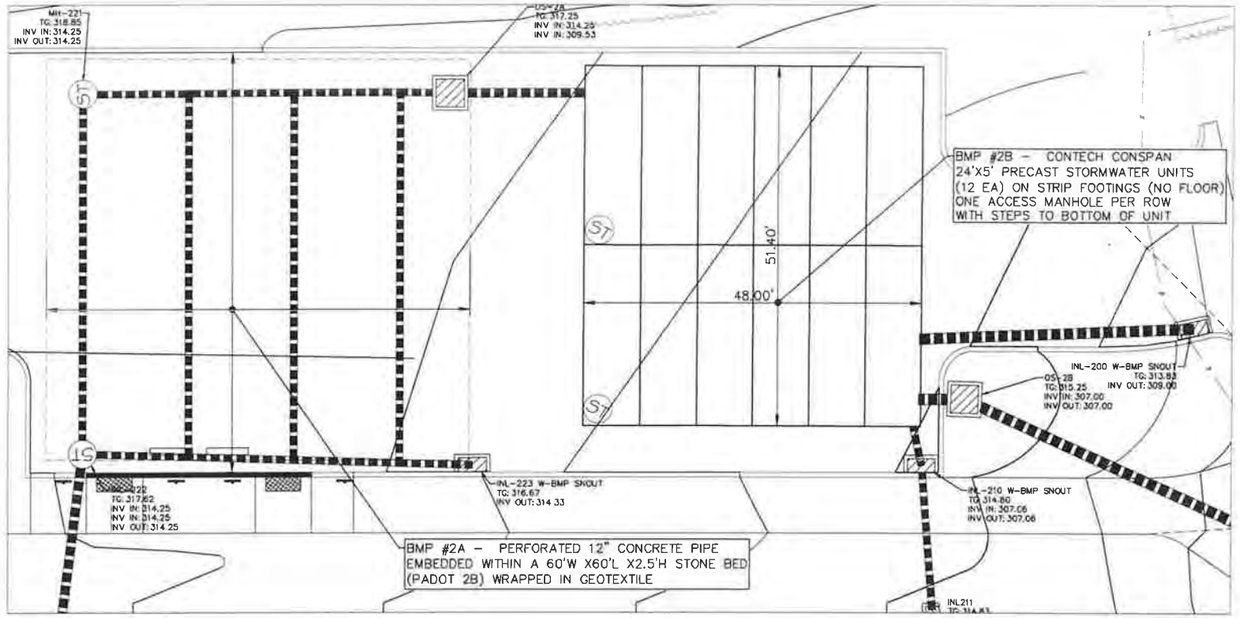
MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: MMH	CHECKED BY: DAW

SHEET NO.: 23 OF 37

F:\Land design\2017\2017012006_PSU-Abington New Academic Building\DESIGN\CAD\Construction Drawings\PCSM DETAILS - 8.dwg, Layout: 23 PCSM DETAILS - 5, Plotted By: wheller, on Tue Jun 07, 2022 at 11:54am



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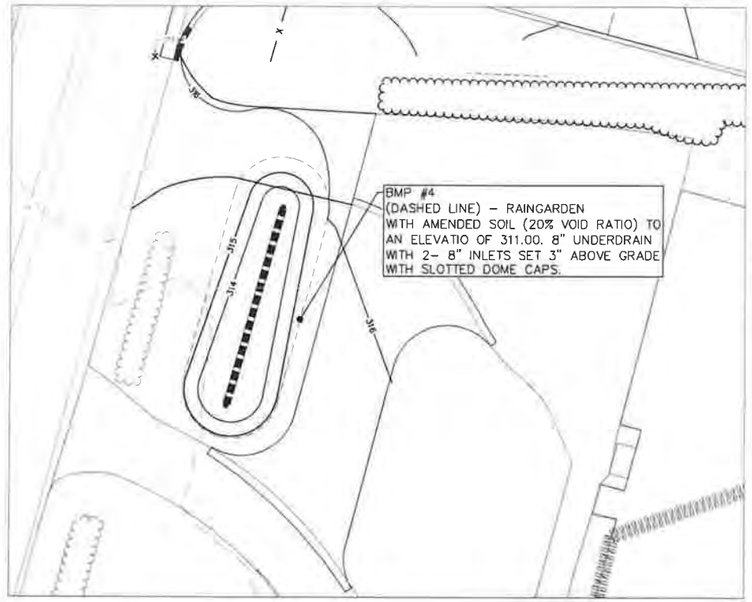
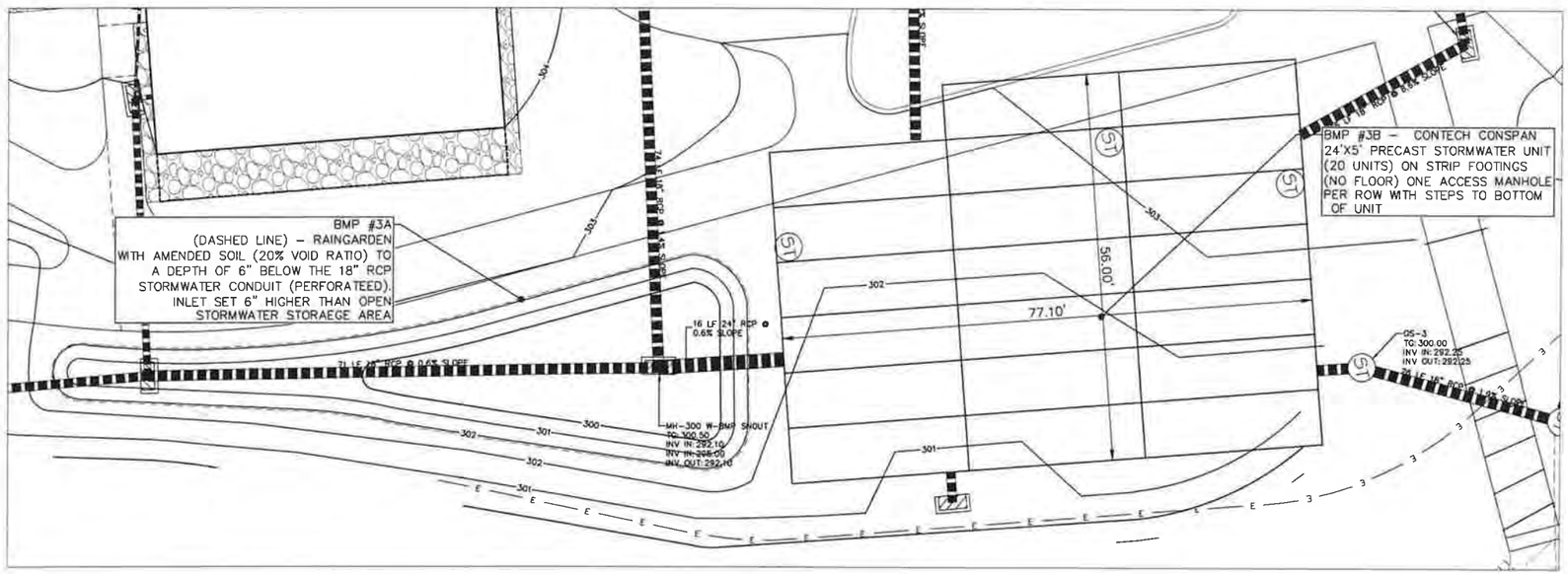


BMP #4– DETAIL
SCALE: 1"=10'



BMP #3A/AB– DETAIL
SCALE: 1"=10'

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE039555

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS' NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PCSM DETAILS – 6

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 24 OF 37

T:\plot design\2017\12006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PCSM DETAILS - 6.dwg, Layout: 24 PCSM DETAILS - 6 Plotted By: wheider, on Tue Jun 07, 2022 at 11:54am

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- W PROPOSED WATER LINE
- E PROPOSED ELECTRIC LINE
- G PROPOSED GAS LINE
- T PROPOSED TELEPHONE LINE
- S PROPOSED SAN. SEWER LINE
- NPDES PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- STM EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

EXISTING FIRE HYDRANT LOCATION

PROPOSED 3-STORY ACADEMIC BUILDING 30,688 S.F.

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

EXISTING FIRE HYDRANT LOCATION

SEE ELECTRIC DESIGN PLANS FOR ADDITIONAL INFORMATION ON CAMPUS POWER

EXISTING FIRE HYDRANT LOCATION

80 0 80 160
SCALE IN FEET
1"=80'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
65 East Butler Avenue, Suite 100 • New Britain, PA 18901 • (215) 345-4330 • www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
REGISTERED

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – OVERALL

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0041

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-8

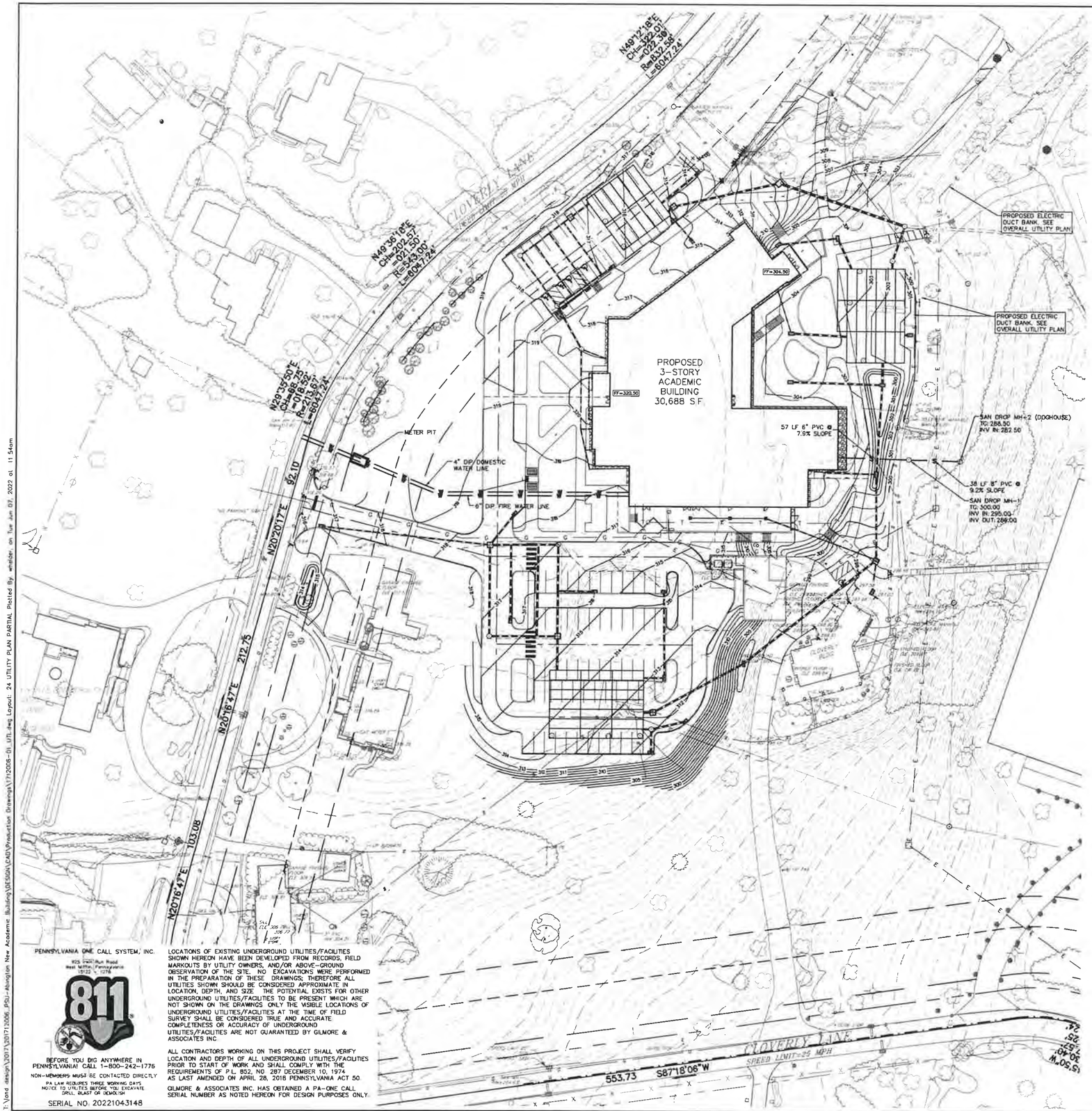
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: 1"=80'

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 25 OF 37

T:\land design\2017\2017120\8_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY PLAN – OVERALL.dwg Layout: 25 UTILITY PLAN – OVERALL Plotted By: wheider, on Tue Jun 07, 2022 at 11:54am



PENNSYLVANIA ONE CALL SYSTEM, INC.

825 Hein Run Road
West Mifflin, Pennsylvania
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NON-MEMBERS MUST BE CONTACTED DIRECTLY

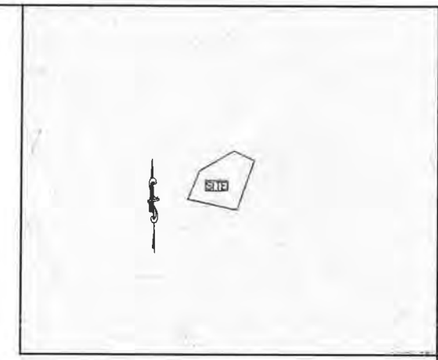
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.



LOCATION MAP

SCALE: 1"=800'

GENERAL NOTES:

1. ALL SANITARY SEWER WASTE SHALL COMPLY WITH PENN STATE UNIVERSITY'S SAFETY POLICY SY40 DISPOSAL OF POLLUTANTS IN UNIVERSITY SANITARY SYSTEM SY40
2. ALL UTILITY SYSTEMS SHALL BE IN ACCORDANCE WITH PENN STATE DESIGN AND CONSTRUCTION STANDARDS
3. ADJUSTMENT OF EXISTING UTILITY STRUCTURES - ADJUST THE ELEVATION OF ALL EXISTING MANHOLE COVERS, VALVE BOXES, JUNCTION BOXES AND OTHER SIMILAR UTILITY STRUCTURES TO BE 1/4 INCH BELOW NEW FINISHED GRADE WHICH SHOULD BE LOCATED 1/2 TO 1 INCH BELOW FINISHED PAVED SURFACES. ALL ADJUSTMENTS TO EXISTING UTILITY STRUCTURES SHALL BE CONDUCTED IN COORDINATION WITH PENN STATE OFFICE OF PHYSICAL PLAN UTILITY SERVICES. ALL ADJUSTMENTS SHALL BE COMPLETED IN ACCORDANCE WITH PSU DESIGN AND CONSTRUCTION STANDARDS
4. ALL PIPED UTILITIES SHALL INCLUDE A CONTINUOUS #10 WIRE INSTALLED WITH THE UTILITY LINE TO BE USED FOR FUTURE LOCATES
5. ONCE-THRU COOLING USING POTABLE WATER IS NOT PERMITTED ON ANY EQUIPMENT
6. THE WATER SERVICE WILL NOT BE ACTIVATED UNTIL THE HYDROSTATIC TESTING AND INSPECTION, DISINFECTION, BACTERIOLOGICAL TESTING, WATER METER INSPECTION, AND BACKFLOW PREVENTION DEVICE(S) INSPECTION AND TESTING HAS BEEN PROPERTY PERFORMED AND VERIFIED BY WATER SERVICES. ANY DEFICIENCIES TO THE WATER SYSTEM'S INSTALLATION MUST BE CORRECTED PRIOR TO THE ACTIVATION OF THE WATER SERVICE
7. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE DURING CONSTRUCTION
8. ALL WATER LINE WORK MUST BE COORDINATED WITH PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD, P.E., PSU OPP WATER UTILITY ENGINEER. OFFICE PHONE 814-863-5536, E-MAIL JKB125@PSU.EDU. ONLY PENN STATE PERSONNEL MAY OPERATE WATERLINES AND VALVES
9. ALL PIPE JOINTS SHALL BE FULLY RESTRAINED EITHER BY MECHANICAL JOINT (MEGALUGS STYLE RESTRAINT) OR PUSH-ON JOINT TYPE WITH GASKET CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST VERSION) AND SHALL BE AMERICAN PIPE FLEX-RING/FIELD-LOC, FAST-GRIP GASKET OR EQUAL AS APPROVED BY ENGINEERING SERVICES. ALL DUCTILE IRON PIPE MUST BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 (LATEST VERSION)
10. ALL WATER LINE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE UNIVERSITY'S (PSU) DESIGN AND CONSTRUCTION STANDARDS AND PA DEP'S RULES AND REGULATIONS
11. ALL WATER LINE MATERIALS AND EQUIPMENT SUBMITTALS MUST BE REVIEWED AND APPROVED BY PSU ENGINEERING SERVICES. THE CONTACT PERSON IS JIM BAIRD, P.E., PSU OPP WATER UTILITY ENGINEER. OFFICE PHONE 814-865-5536, E-MAIL JKB125@PSU.EDU AND MAILING ADDRESS IS 209 WATER TREATMENT PLANT, UNIVERSITY PARK, PA 16802

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
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- LIMIT OF 2019/2022 G&A SURVEY
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- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- W PROPOSED WATER LINE
- E PROPOSED ELECTRIC LINE
- G PROPOSED GAS LINE
- T PROPOSED TELEPHONE LINE
- S PROPOSED SAN. SEWER LINE

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

SCALE: 1" = 400'

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER 082555

REV	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

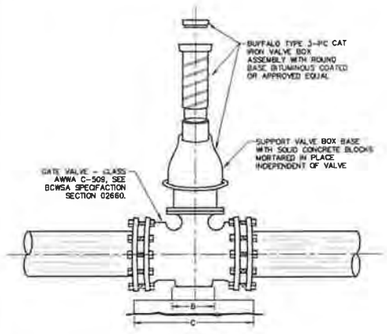
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY PLAN – PARTIAL SITE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

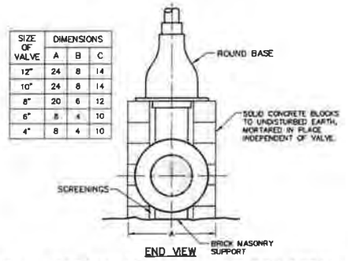
PROJECT No.:	2017-12006
OWNERS INFO:	PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-5536
MUNICIPAL FILE No.:	----
TAX MAP PARCEL No.:	30-00-09792-00-6
TOTAL AREA:	47.989 AC.
TOTAL LOTS:	1
DATE:	06/06/22
SCALE:	1"=400'
DRAWN BY:	WMH
CHECKED BY:	DAW
SHEET NO.:	26 OF 37

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\17I2006-01_UTL.dwg Layout: 24 UTILITY PLAN PARTIAL Plotted By: wheller, on Tue Jun 07, 2022 at 11:54am



ELEVATION

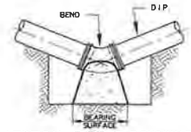
SIZE OF VALVE	DIMENSIONS		
	A	B	C
12"	24	8	14
10"	24	8	14
8"	20	6	12
6"	8	4	10
4"	8	4	10



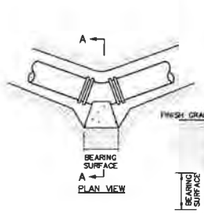
END VIEW

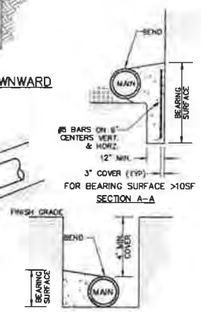
W4 - GATE VALVE WITH VALVE BOX DETAIL

NOT TO SCALE

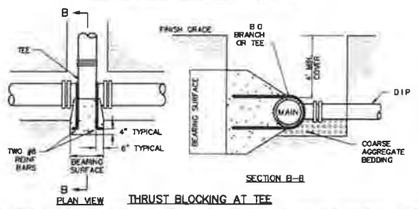


VERTICAL THRUST DOWNWARD



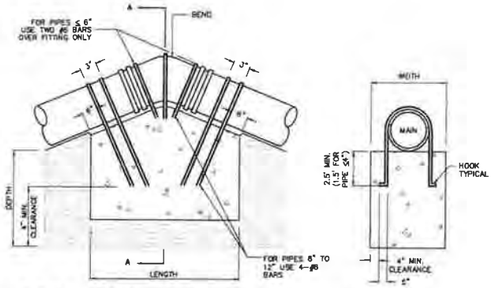


THRUST BLOCKING AT HORIZONTAL BEND



THRUST BLOCKING AT TEE

M3 & M4 - HORIZONTAL & DOWNWARD THRUST BLOCK DETAILS



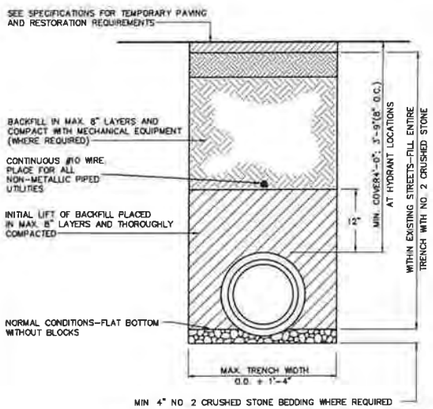
M5 - TYPICAL SECTION VERTICAL THRUST UPWARD SECTION A-A

CONCRETE BLOCKING DIMENSIONS, VERTICAL THRUST UPWARD
100 P.S.I. WORKING PRESSURE

PIPE SIZE	LENGTH			WIDTH			DEPTH		
	11.25°	22.5°	45°	11.25°	22.5°	45°	11.25°	22.5°	45°
4" AND LESS	2'	2'	3'	1.5'	1.5'	2'	2'	2'	2'
6" AND 8"	3'	4'	6'	3'	3'	3'	2'	3'	4'
10" AND 12"	3.5'	4'	7'	4'	4'	4'	2.5'	3'	4'

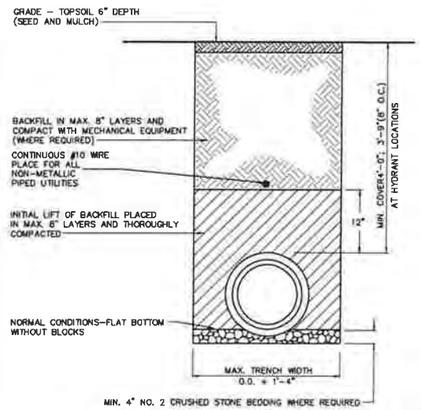
MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD

TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS		6" PIPE					8" PIPE					12" PIPE				
		DEGREE BEND OR DEFLECTION														
		11 1/4°	22 1/2°	45°	90°	END	11 1/4°	22 1/2°	45°	90°	END	11 1/4°	22 1/2°	45°	90°	END
SOFT CLAY	1000 PSI	1.1	2.2	4.3	7.9	5.6	1.9	3.8	7.4	13.6	8.8	4.0	8.0	15.7	29.0	20.5
SILT	1500 PSI	1.0	2.2	2.9	5.3	3.7	1.3	2.5	4.9	9.1	6.4	2.7	5.3	10.5	19.3	13.7
SANDY SILT	3000 PSI	1.0	1.1	1.4	2.6	1.9	1.0	1.3	2.5	4.5	3.2	1.3	2.7	5.2	9.7	6.8
SAND	4000 PSI	1.0	1.0	1.1	2.0	1.4	1.0	1.0	1.8	3.4	2.4	1.0	2.0	3.9	7.3	5.1
SANDY CLAY	6000 PSI	1.0	1.0	1.0	1.3	1.0	1.0	1.0	1.2	2.3	1.6	1.0	1.3	2.6	4.8	3.4
HARD CLAY	9000 PSI	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.1	1.0	1.0	1.7	3.2	2.3



WATER TRENCH DETAIL (PAVED AREAS)

NOT TO SCALE



WATER TRENCH DETAIL (NON-PAVED AREAS)

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
65 E. BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • 215-345-4330 • www.gilmore-assoc.com

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PENNSYLVANIA

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - WATER SERVICE DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

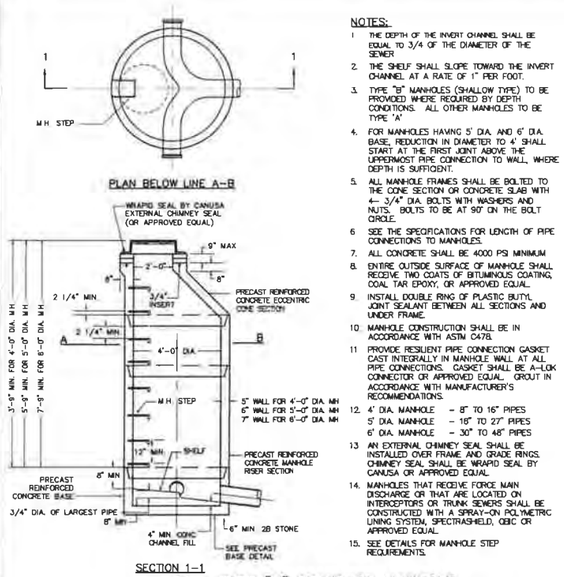
TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/08/22
SCALE:

DRAWN BY: MH
CHECKED BY: DAW

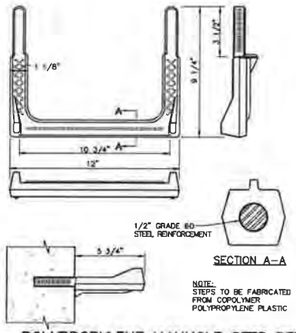
SHEET NO.: 27 OF 37

I:\Land design\2017\2017206E_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\Utility DETAILS.dwg Layout: 27 UTILITY - WATER SERVICE DETAILS Plotted By: whelder, on Tue Jun 07, 2022 at 11:55am



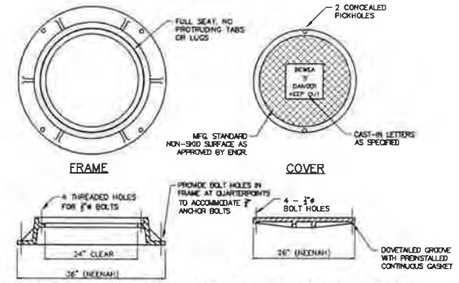
NOTES:

1. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO 3/4 OF THE DIAMETER OF THE SEWER
2. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT.
3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS. ALL OTHER MANHOLES TO BE TYPE 'A'
4. FOR MANHOLES HAVING 5' DIA. AND 6' DIA. BASE, REDUCTION IN DIAMETER TO 4' SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL, WHERE DEPTH IS SUFFICIENT.
5. ALL MANHOLE FRAMES SHALL BE BOLTED TO THE CONE SECTION OR CONCRETE SLAB WITH 4- 3/4" DIA. BOLTS WITH WASHERS AND NUTS. BOLTS TO BE AT 90° ON THE BOLT CIRCLE.
6. SEE THE SPECIFICATIONS FOR LENGTH OF PIPE CONNECTIONS TO MANHOLES.
7. ALL CONCRETE SHALL BE 4000 PSI MINIMUM
8. ENTIRE OUTSIDE SURFACE OF MANHOLE SHALL RECEIVE TWO COATS OF BITUMINOUS COATING, COAL TAR EPOXY, OR APPROVED EQUAL.
9. INSTALL DOUBLE RING OF PLASTIC BUTYL JOINT SEALANT BETWEEN ALL SECTIONS AND UNDER FRAME.
10. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C478.
11. PROVIDE RESILIENT PIPE CONNECTION GASKET CAST INTEGRALLY IN MANHOLE WALL AT ALL PIPE CONNECTIONS. GASKET SHALL BE A-LOK CONNECTOR OR APPROVED EQUAL. GROUT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
12. 4' DIA. MANHOLE - 8" TO 15" PIPES
    5' DIA. MANHOLE - 15" TO 27" PIPES
    6' DIA. MANHOLE - 30" TO 48" PIPES
13. AN EXTERNAL CHIMNEY SEAL SHALL BE INSTALLED OVER FRAME AND GRADE RINGS. CHIMNEY SEAL SHALL BE WRAPID SEAL BY CANUSA OR APPROVED EQUAL.
14. MANHOLES THAT RECEIVE FORCE MAIN DISCHARGE OR THAT ARE LOCATED ON INTERCEPTORS OR TRUNK SEWERS SHALL BE CONSTRUCTED WITH A SPRAY-ON POLYMETRIC LINING SYSTEM, SPECTRASHIELD, OBIC OR APPROVED EQUAL.
15. SEE DETAILS FOR MANHOLE STEP REQUIREMENTS.



NOTE: STEPS TO BE FABRICATED FROM COPOLYMER POLYPROPYLENE PLASTIC

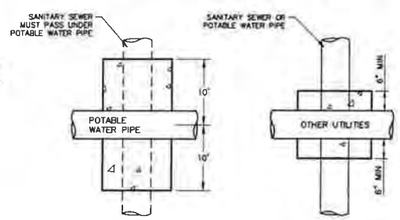
S6 - POLYPROPYLENE MANHOLE STEP DETAIL
NOT TO SCALE

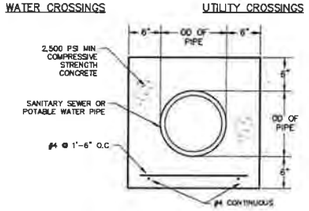


S6 - WATER-TIGHT MANHOLE FRAME & COVER DETAIL
NOT TO SCALE

NOTES:

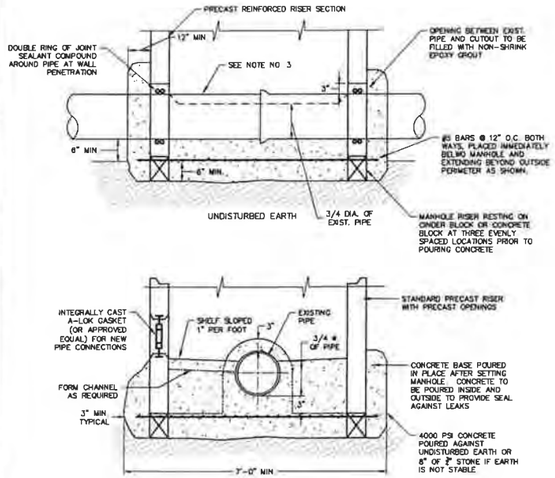
1. MANHOLE FRAME AND COVER SHALL BE NEENAH FOUNDRY COMPANY MODEL R-1916-F OR APPROVED EQUAL.
2. ALL MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, CLASS 35
3. CASTINGS SHALL BE DESIGNED FOR HEAVY DUTY TRAFFIC, AASHTO HIGHWAY LOADING CLASS HS-20
4. BOLT COVER TO FRAME WITH FOUR (4) 1/2" CONUNTERSUNK STAINLESS STEEL BOLTS WHICH MAKE A SEAL WITH A RUBBER 'O' RING GASKET
5. PROVIDE FOUR (4) STAINLESS STEEL ANCHOR BOLTS, 3/4" DIAMETER MINIMUM
6. COVER SHALL HAVE THE WORDS "BCWSA S DANGER KEEP OUT" OR "BCWSA SANITARY SEWER" CAST THEREON IN 2" LETTERS.
7. FRAME AND COVER SHALL BE COATED WITH BLACK ASPHALTIC PAINT.





NOTE: PROVIDE REINFORCEMENT AT UTILITY CROSSINGS OR AS DIRECTED BY THE AUTHORITY'S ENGINEER

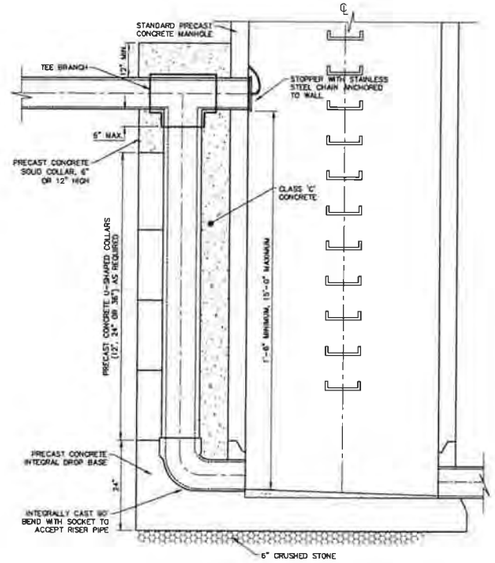
M2 - CONCRETE ENCASEMENT
NOT TO SCALE



NOTES:

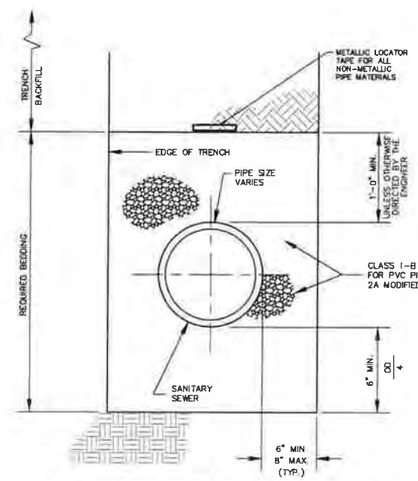
1. MANHOLE CONSTRUCTION SHALL BE THE SAME AS STANDARD MANHOLE EXCEPT AS NOTED.
2. EXISTING PIPE TO REMAIN UNTIL SATISFACTORY COMPLETION OF MANHOLE TESTING.
3. REMOVE CROWN OF EXISTING PIPE FLUSH WITH CONCRETE SHELF.

S3 - DOGHOUSE MANHOLE CONSTRUCTION
NOT TO SCALE



NOTE: CONSTRUCTION TO BE SAME AS TYPE "A" STANDARD MANHOLE EXCEPT AS NOTED.

S4 - DROP MANHOLE CONNECTION
NOT TO SCALE



M1 - SANITARY SEWER STANDARD PIPE BEDDING
NOT TO SCALE

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE069558

REV.	DESCRIPTION	DATE	BY

NOT TO BE RECORDED

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

UTILITY - SANITARY SEWER DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO.: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

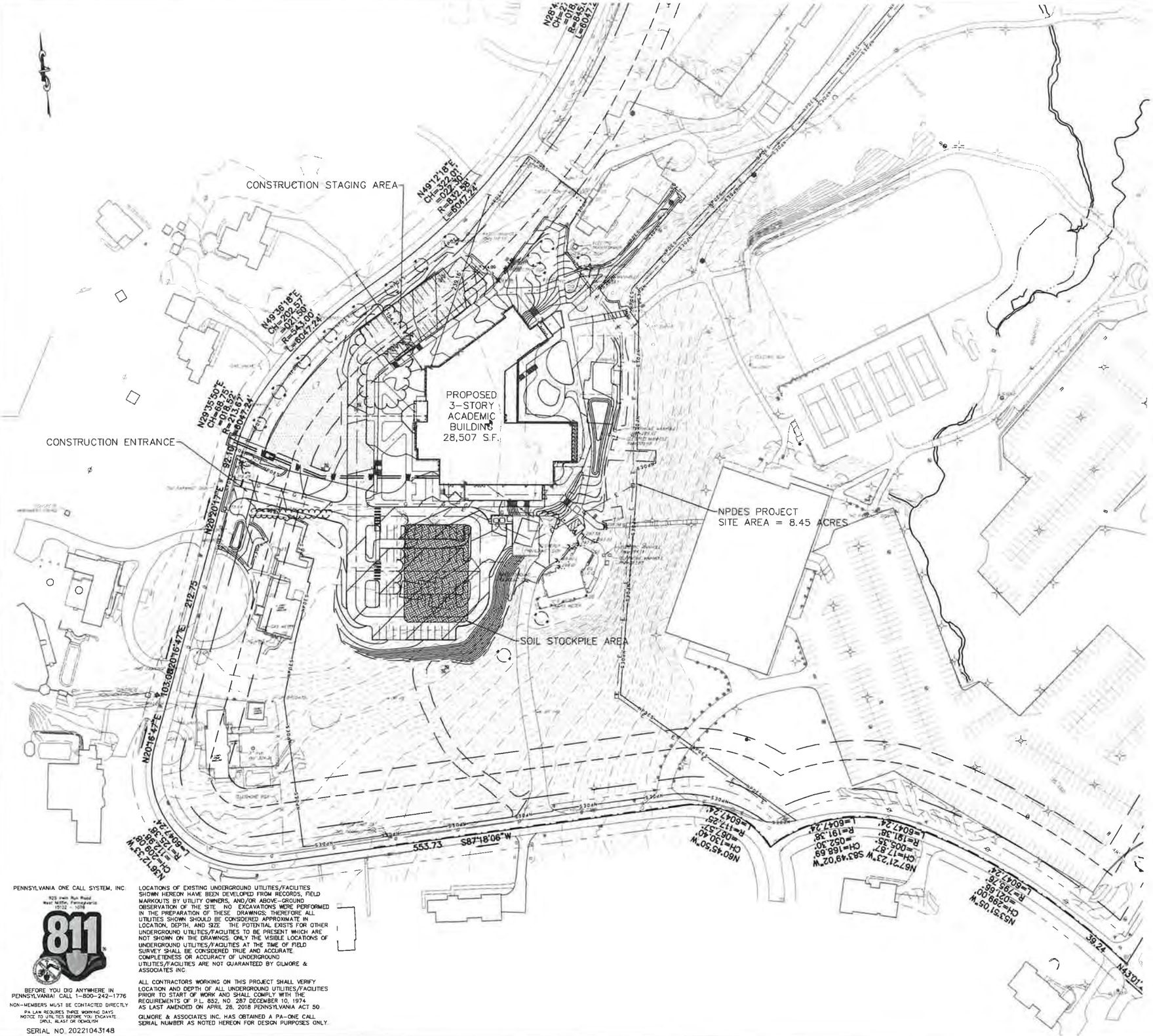
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: ##/##/22 | SCALE:

DRAWN BY: WMH | CHECKED BY: DAW

SHEET NO.: 28 OF 37

F:\Land Design\2017\2017-12006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\UTILITY DETAILS.dwg Layout: 28 UTILITY - SANITARY SEWER DETAILS Plotted By: whelder, on Tue Jun 07, 2022 at 11:55am



LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- 320 PROPOSED MAJOR CONTOURS
- 319 PROPOSED MINOR CONTOURS
- NPDES PROJECT SITE BOUNDARY (NPDES PERMIT)

EXISTING UTILITY LEGEND

- ST EXISTING STORM SEWER LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE
- W EXISTING WATER LINE
- SAN EXISTING SAN. SEWER LINE
- T TELEPHONE LINE
- SL EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

LOGISTICS/CONSTRUCTION SEQENCE NOTES:

[1] INSTALL EROSION CONTROL BMPS INSTALL CONSTRUCTION ENTRANCE INSTALL CONSTRUCTION FENCES AND ALL MEANS OF BUFFERING CONSTRUCTION FROM PUBLIC
CONSTRUCTION STAGING SHALL BE LIMITED TO PROPOSED PARKING AREAS

[2] NOTE: PROTECT AREAS OF PROPOSED UNDERGROUND INFILTRATION FROM OVERCOMPACTION (DELAY EXCAVATION FOR DEEP INFILTRATION FIELDS AND AVOID TRAVEL OVER SHALLOW INFILTRATION AREAS LESS THAN 4 FEET BELOW EXISTING SURFACE)

[3] DEMOLISH AND REMOVE HILLCREST AND CONFERENCE CENTER BUILDINGS (PSU TO RESOLVE ALTERNATE SPACES FOR THESE USES) DEMOLISH OTHER ITEMS SHOWN ON PLAN TO BE REMOVED EXISTING PAVEMENTS NOTED FOR DEMOLITION SHALL BE MAINTAINED FOR DURING-CONSTRUCTION PURPOSES AS LONG AS PRACTICAL

[4] RELOCATE EXISTING UTILITIES THAT CONFLICT WITH BUILDING FOOTING AND 1ST FLOOR EXCAVATION

[5] EXCAVATE 1ST FLOOR/FOOTINGS FOR NEW BUILDING STOCKPILE OUTSIDE OF AREAS OF PROPOSED INFILTRATION BMPS

[6] INSTALL NEW FOOTINGS STEEL STRUCTURE BELOW SLAB UTILITIES AND FOUNDATION

[7] INSTALL SITE STORMWATER BMPS AND STORMWATER MANAGEMENT SYSTEM

[8] ROUGH GRADE SITE PARKING AREAS AND DRIVES INSTALL SITE UTILITIES INSTALL BUILDING RETAINING WALLS

[9] INSTALL ROAD/PARKING AREA ROAD BASES FINAL SITE GRADING

SCALE: 1"=60'

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West Mifflin, Pennsylvania
15122 - 1078

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SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE039909

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LOGISTICS PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0141

MUNICIPAL FILE No.:

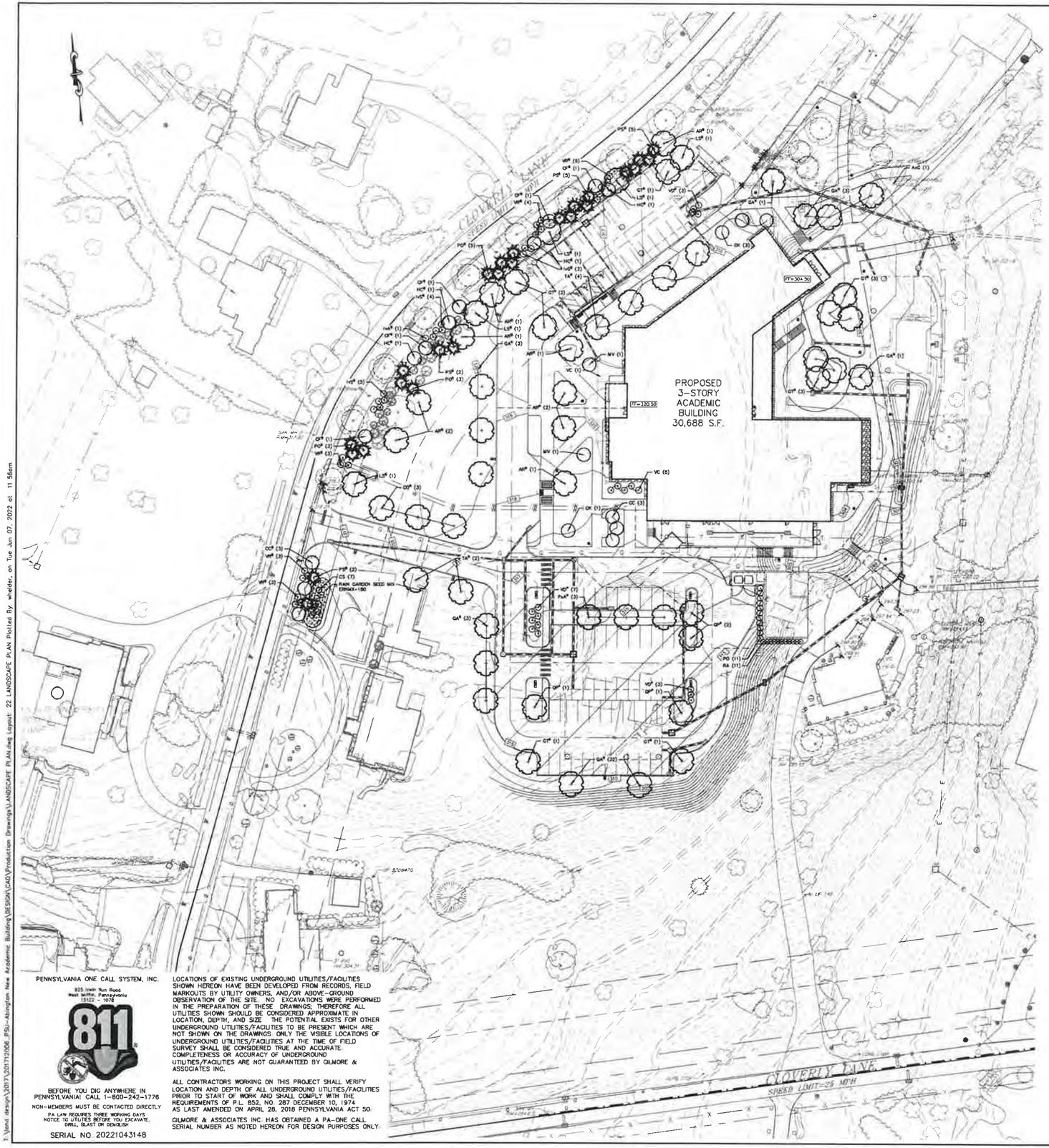
TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: 1"=60'
DRAWN BY: MWH	CHECKED BY: DAW

SHEET NO.: 29 OF 37

306

T:\land design\2017\12006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LOGISTICS PLAN.dwg Layout: 29 LOGISTICS PLAN Plotted By: wheider, on Tue Jun 07, 2022 at 11:55am



COMPLIANCE CHART

THE FOLLOWING CHART REPRESENT THE MINIMUM QUANTITIES OF REQUIRED PLANT MATERIAL ACCORDING TO THE ABINGTON TOWNSHIP ZONING AND SUBDIVISION AND LAND DEVELOPMENT ORDINANCES AND TO DEMONSTRATE COMPLIANCE WITH THE SAME

	REQUIRED	EXISTING	PROVIDED	TOTAL
§2401.A.2.d(1)(a) - TREE REPLACEMENT				
REQUIREMENT 2 TREES (3 - 3.5" CAL.) PER EACH >6" CALIPER TREE REMOVED 76 TREES REMOVED *NOTE: 115 TREES TO BE DISBURSED THROUGHOUT THE SITE AND/OR COORDINATED BETWEEN PSU AND ABINGTON TOWNSHIP	152	0	37	152*
§2402.A.2(a)(4) - PARKING LOT LANDSCAPING				
REQUIREMENT ONE SHADE TREE (3" CAL.) SHRUBS AND/OR GROUNDCOVER FOR EACH PLANTING ISLAND	YES		YES	
§2402.A.6 - MINIMUM GREEN AREA				
REQUIREMENT 10% OF PARKING AREA GREATER THAN 15,000 S.F. DEVOTED TO LANDSCAPING (LOWER PARKING AREA = 30,085 S.F. TOTAL)	3,009 S.F.		3,360 S.F.	
§2402.B.2.e - STREET TREES				
REQUIREMENT 1 TREE PER 40 L.F. (495 L.F.) NOTE: STREET LENGTH DOES NOT INCLUDE WIDTH OF ENTRANCE DRIVE AT R.O.W.	12	9	3	12
§2403.B.4.a(2)(a) - MEDIUM INTENSITY BUFFER PLANTINGS				
REQUIREMENT OPTION A: PER EACH 100 LINEAR FEET 2 CANOPY TREES (2 - 2 1/2" CAL.) 2 UNDERSTORY TREES (1 1/2" CAL.) 5 EVERGREEN TREES (8' HT.) 5 SHRUBS (24" HT.) (PLUS 20% MORE SHRUBS PER ZONING AMENDMENT)	10 10 25 31		10 10 25 31	10 10 25 31
§146-39.B(3)(a)(1) - OFF-STREET PARKING				
REQUIREMENT 5% INTERIOR LANDSCAPING WITHIN PARKING AREA UPPER PARKING AREA = 7,963 S.F. LOWER PARKING AREA = 30,085 S.F. *NOTE: PARTIAL WAIVER REQUESTED FOR UPPER PARKING AREA	399 S.F. 1,504 S.F.		0 S.F. 3,360 S.F.	0%* 11%
§146-39.B(3)(a)(2) - OFF-STREET PARKING				
REQUIREMENT 1 TREE (2 1/2" CALIPER) PER 15 PARKING SPACES 97 PARKING SPACES	6	0	1	1

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
STREET TREES						
CC[S]	3	CERCIS CANADENSIS	EASTERN REDBUD	2.5" CAL.	B&B	
BUFFER AREA PLANTINGS						
CANOPY TREES						
AR[B]	5	ACER RUBRUM 'BRANDYWINE'	RED MAPLE	2 - 2.5" CAL.	B&B	SEEDLESS
LS[B]	5	LIQUIDAMBAR STYRACIFLUA ROTUNDILOBA	SWEETGUM	2 - 2.5" CAL.	B&B	SEEDLESS
UNDERSTORY TREES						
CF[O]	6	CORNUS FLORIDA RED BEAUTY'	RED BEAUTY DOGWOOD	1.5" CAL.	B&B	
HC[E]	4	HALESIA CAROLINA 'JERSEY BELLE'	CAROLINA SILVERBELL	1.5" CAL.	B&B	
EVERGREEN TREES						
PO[P]	11	PICEA OMORIKA	SERBIAN SPRUCE	8' HT MIN.	B&B	
PS[P]	14	PINUS STROBUS	EASTERN WHITE PINE	8' HT MIN.	B&B	
SHRUBS						
IVA[E]	1	ILEX VERTICILLATA 'APPOLLO'	WINTERBERRY HOLLY	24" MIN.	CONT.	MALE
IVS[E]	12	ILEX VERTICILLATA 'SPARKLEBERRY'	WINTERBERRY HOLLY	24" MIN.	CONT.	FEMALE
VR[E]	18	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	24" MIN.	CONT.	
PARKING AREA PLANTINGS						
CANOPY TREES						
PxA[P]	3	PLATANUS X ACERIFOLIA 'EXCLAMATION'	EXCLAMATION LONDON PLANE TREE	3" CAL.	B&B	
QP[P]	4	QUERCUS PHELLOS	WILLOW OAK	3" CAL.	B&B	
SHRUBS						
VD[E]	13	VIBURNUM DENTATUM	VIBURNUM	24" MIN.	#3 CONT.	
OTHER PLANTINGS						
DECIDUOUS TREES						
CC	3	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	1.5" CAL.	B&B	
CK	4	CORNUS KOUSA 'GREENSLEAVES'	KOUSA DOGWOOD	1.5" CAL.	B&B	
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL.	B&B	
SHRUBS						
RA	11	RHUS AROMATICA 'GRO-LOW'	GRO LOW SUMAC	18" MIN.	#1 CONT.	
CS	7	CORNUS SERICEA	REDTWIG DOGWOOD	24" MIN.	#3 CONT.	
PO	11	PHYSOCARPUS OPULIFOLIUS 'DIABOLO'	DIABOLO NINEBARK	24" MIN.	#3 CONT.	
VC	5	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24" MIN.	#3 CONT.	
REPLACEMENT TREE PLANTINGS						
AR[R]	4	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE (FREEMAN) MAPLE	3 - 3.5" CAL.	B&B	SEEDLESS
CO[R]	3	CARYA OVATA	SHAGBARK HICKORY	3 - 3.5" CAL.	B&B	
GT[R]	11	GLEDITSIA TRIACANTHOS F. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	3 - 3.5" CAL.	B&B	THORNLESS
QA[R]	13	QUERCUS ALBA	WHITE OAK	3 - 3.5" CAL.	B&B	
TA[R]	6	TILIA AMERICANA	AMERICAN BASSWOOD	3 - 3.5" CAL.	B&B	

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB
- PROPOSED MAJOR CONTOURS (326)
- PROPOSED MINOR CONTOURS (319)

EXISTING UTILITY LEGEND

- EXISTING STORM SEWER LINE
- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING SAN. SEWER LINE
- TELEPHONE LINE
- EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES
- EXISTING TREE TO REMAIN
- CANOPY TREE
- UNDERSTORY/ORNAMENTAL TREE
- EVERGREEN TREE
- SHRUB

SCALE: 1" = 40' (40 0 40 80 FEET)

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15122 - 1076

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SERIAL NO. 20221043148

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GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

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REV.	DESCRIPTION	DATE	BY

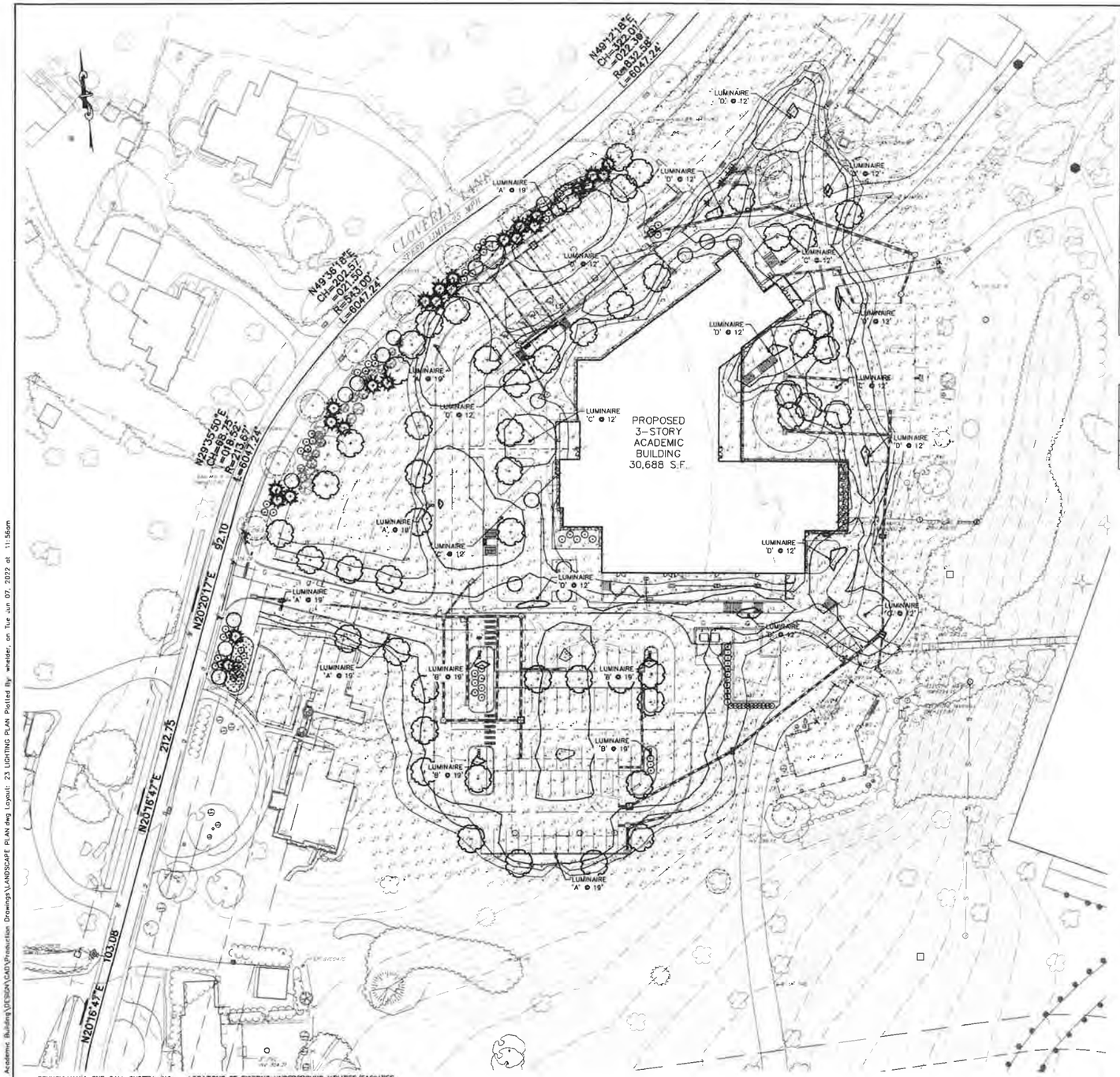
LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006
OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-6145
MUNICIPAL FILE No.:
TAX MAP PARCEL No.: 30-00-09792-00-6
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1
DATE: 06/06/22 | SCALE: 1"=40'
DRAWN BY: WMH | CHECKED BY: DAW
SHEET NO.: 30 OF 37

T:\land design\2017\2017120\06_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 22 LANDSCAPE PLAN Plotted By: whelder, on Tue Jun 07, 2022 at 11:56am



Schedule									
Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Filter
	A		9	RAB LIGHTING INC	ALED3T78N RALED3T78SFN RALED3T78SFN... WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING 6 CRICUIT BOARDS EACH WITH 1 LED MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND APERTURE FOR LED CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME	1	6400	0.95	75.9	
	B		7		ALED3T78N RALED3T78SFN RALED3T78SFN WPLED3T78N (TYPE III)	CAST FINNED METAL HOUSING 6 CRICUIT BOARDS EACH WITH 1 LED MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND APERTURE FOR LED CLEAR FLAT GLASS LENS IN CAST WHITE PAINTED METAL LENS FRAME	1	6400	0.95	151.8	
	C		8	ARCHITECTURAL AREA LIGHTING	PKWW-ANG YSHC-32LED-4K-SQ	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS	1	4721	0.95	50	
	D		14	ARCHITECTURAL AREA LIGHTING	PKWW-ANG Y2HC-32LED-4K-SQ	PARKWAY SQUARE PEDESTRIAN HORIZONTAL LED WITH CLEAR LENS	1	4918	1	50	

SEE SHEET 32 FOR LUMINAIRE CUT SHEETS AND DETAILS

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Internal Drive	+	2.3 fc	5.5 fc	0.7fc	7.9:1	3.3:1
Parking Area 1	+	1.0 fc	4.3 fc	0.3 fc	14.3:1	3.3:1
Parking Area 2	+	2.1 fc	5.6 fc	0.5 fc	11.2:1	4.2:1

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1076

811

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NON-MEMBERS MUST BE CONTACTED DIRECTLY
PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS. THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR SITE LIGHTING PURPOSES ONLY. ELECTRICAL ENGINEERING, INCLUDING, BUT NOT LIMITED TO , CIRCUITRY, CONDUIT, WIRING, AND ASSOCIATED SPECIFICATIONS, IS NOT WITHIN THE SCOPE OF THIS DOCUMENT.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.
3. SUBSTITUTION REQUESTS MUST BE APPROVED BY THE TOWNSHIP.
4. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
5. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLAN AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
6. LIGHTING VALUES DEPICTED ON THIS PLAN WERE GENERATED USING VISUAL 2020.2.11.0062 SOFTWARE.
7. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPES OF FIXTURES ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, LAWS AND STATUTES.
8. CONTRACTOR SHALL BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES OR OTHER STRUCTURES.

SCALE 1"=40' — 40 0 40 80 FEET

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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NOT TO BE RECORDED

DESCRIPTION	DATE	BY	REV.

LAND DEVELOPMENT PLAN
PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LIGHTING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.:	2017-12006
OWNERS INFO:	PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545
MUNICIPAL FILE No.:	
TAX MAP PARCEL No.:	30-00-09792-00-6
TOTAL AREA: 47.989 AC.	TOTAL LOTS: 1
DATE: 06/06/22	SCALE: 1"=40'
DRAWN BY: WMH	CHECKED BY: DAW
SHEET NO.: 31 OF 37	

T:\Land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 23 LIGHTING PLAN Plotted By: wheiter, on Tue Jun 07, 2022 at 11:56am

GENERAL LANDSCAPE NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIALS, PLANTS EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, HAVE VIGOROUS ROOT SYSTEMS AND BE FREE OF DEFECTS AND INJURIES.
4. ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE WELFARE OF THE PLANT MATERIAL, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISIONS SHALL BE MADE FOR A GUARANTEE OF 18 MONTHS FOR TREES AND SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE 2014 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN INC., OR LATEST EDITION.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC., SHALL BE USED FOR PLANTING.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTING OPERATIONS SHALL OCCUR BETWEEN APRIL 1, THROUGH JUNE 15 AND SEPTEMBER 1 THROUGH NOVEMBER 1 OF EACH CALENDAR YEAR. IF FAVORABLE PLANTING CONDITIONS EXTEND BEYOND DATES INDICATED HEREIN, AN EXTENSION MAY BE GRANTED BY THE LANDSCAPE ARCHITECT RESPONSIBLE FOR THESE PLANS.
10. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PLANTING PIT.
11. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
12. LANDSCAPING CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF LANDSCAPE MATERIAL. CONTRACTOR SHALL NOT PLACE LANDSCAPING MATERIAL OR TOP OF UTILITY PIPING.
13. PLAN QUANTITIES SUPERSEDE PLANT LIST.
14. THE LANDSCAPE PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.

RAIN GARDEN MIX

1. SEED MIX SHALL BE ERNMX-180, AS PROVIDED BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL CONSISTING OF THE FOLLOWING SPECIES, OR AS CURRENTLY FORMULATED, AT 20 LBS PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE.

33.4% SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
23.0% ELYMUS VIRGINICUS	VIRGINIA WILDRYE
7.0% CAREX VULPINOIDEA	FOX SEDGE
5.6% CHASMANTHIUM LATIFOLIUM	RIVER OATS
5.5% ECHINACEA PURPUREA	PURPLE CONEFLOWER
3.0% CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
3.0% COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
3.0% PANICUM RIGIDULUM	REDTOP PANICGRASS
3.0% RUDBECKIA HIRTA	BLACKEYED SUSAN
3.0% VERBENA HASTATA	BLUE VERVAIN
2.0% HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1.8% ASCLEPIAS INCARNATA	SWAMP MILKWEED
1.0% CAREX SCOPARIA	BLUNT BROOM SEDGE
1.0% SENNA HEBECARPA	WILD SENNA
0.7% PYCNANTHEMUM TENUIFOLIUM	NARROWLEAF MOUNTAINMINT
0.5% ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
0.5% ASTER PRENANTHOIDES	ZIGZAG ASTER
0.5% BAPTISIA AUSTRALIS	BLUE FALSE INDIGO
0.5% ZIZIA AUREA	GOLDEN ALEXANDERS
0.4% MONARDA FISTULOSA	WILD BERGAMOT
0.3% HELENIUM AUTUMNALE	COMMON SNEEZEWEED
0.3% JUNCUS TENUIS	PATH RUSH
0.2% EUPATORIUM PERFOLIATUM	BONESET
0.2% JUNCUS EFFUSUS	SOFT RUSH
0.2% OENOTHERA FRUTICOSA VAR FRUTICOSA	SUNDROPS
0.2% SOLIDAGO NEMORALIS	GRAY GOLDENROD
0.2% SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD

SEED MIX ESTABLISHMENT SPECIFICATIONS

INSTALLATION:

SPRAY AREAS TO BE SEEDED WITH A SYSTEMIC HERBICIDE ONE (1) MONTH PRIOR TO THE INSTALLATION OF THE SPECIFIED SEED MIXTURE. AFTER TWO (2) WEEKS OF HERBICIDE APPLICATION, AREAS TO BE SEEDED SHALL BE TREATED AGAIN IF PERSISTENT WEEDS RE-GERMINATE. ONLY AFTER ALL EXISTING VEGETATION TO BE REMOVED IS ERADICATED SHALL THE FOLLOWING SEED INSTALLATION STEPS TAKE PLACE:

1. ALL AREAS TO BE SEEDED SHALL BE CLEARED OF ALL REMAINING DEBRIS AND VEGETATION.
2. TILL ALL AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES, AND ADD ANY SPECIFIED SOIL AMENDMENTS TO THE TILLED AREAS.
3. SPREAD SEED AT RECOMMENDED RATE EVENLY ACROSS THE ENTIRE SITE.
4. FINE RAKE ALL AREAS PREVIOUSLY SEEDED TO ENSURE GOOD SOIL TO SEED CONTACT.
5. SPREAD A THIN COAT OF STRAW, 3 TONS PER ACRE MINIMUM, TO REDUCE EROSION.
6. WATER ENTIRE AREA THOROUGHLY; AVOID OVER WATERING.

FIRST YEAR MAINTENANCE:

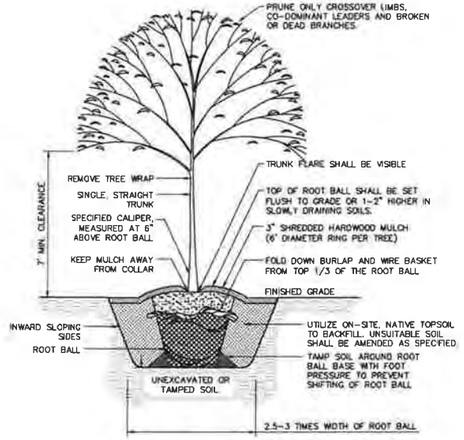
SEED MIXTURE SHALL BE INSPECTED FOR INVASIVE WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA, SPOT TREAT BY PULLING. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT. MOW TO A HEIGHT OF SIX (6) INCHES MINIMUM WITH A WEED EATER.

SECOND YEAR MAINTENANCE:

MOW ONCE IN SPRING (PRIOR TO APRIL 1) AS CLOSE TO GROUND AS POSSIBLE ALLOW PLANTS TO GROW TO FULL HEIGHT.

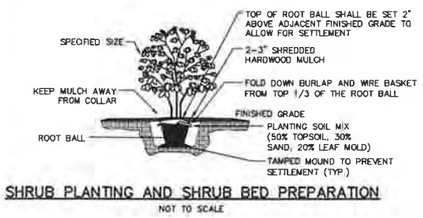
CONSECUTIVE FOLLOWING YEARS:

MOW EVERY YEAR AND SPOT TREAT INVASIVE PLANT SPECIES. MOWING SHALL TAKE PLACE IN EARLY SPRING PRIOR TO APRIL 1. MOWING SHALL NOT TAKE PLACE BETWEEN APRIL 1 AND JUNE 20 TO AVOID DISRUPTION OF GROUND NESTING BIRDS.



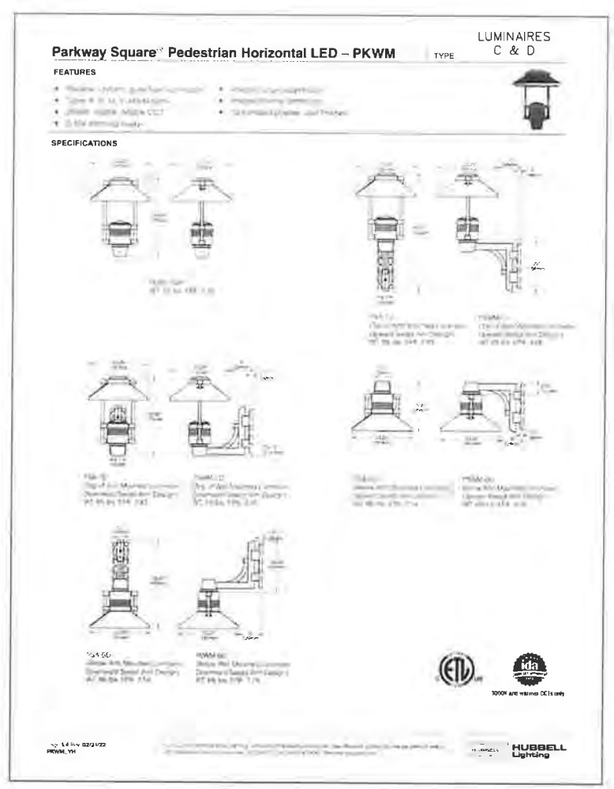
TREE PLANTING DETAIL

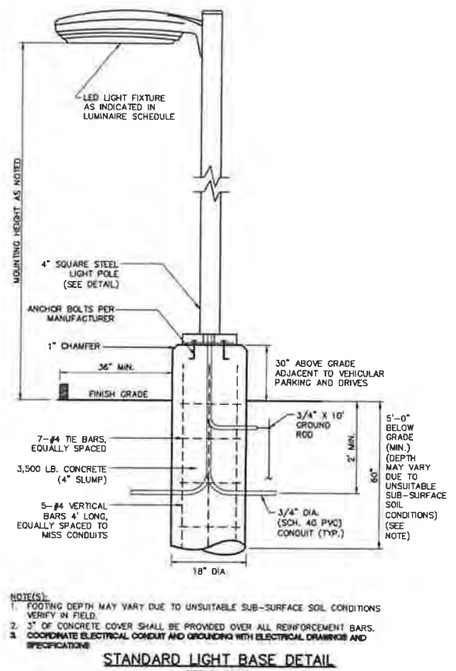
NOT TO SCALE



SHRUB PLANTING AND SHRUB BED PREPARATION

NOT TO SCALE





NOTE(S):
1. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS VERIFY IN FIELD.
2. 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
3. COORDINATE ELECTRICAL CONDUIT AND GROUNDING WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS

STANDARD LIGHT BASE DETAIL

NOT TO SCALE

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
504 CARNEGIE DRIVE, SUITE 201, LANGHORNE, PA 19047 • (215) 750-1100 • www.gilmore-assoc.com

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REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

LANDSCAPE & LIGHTING DETAILS

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY, 139J PHYSICAL PLANT BUILDING, UNIVERSITY PARK, PA 16802, 814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

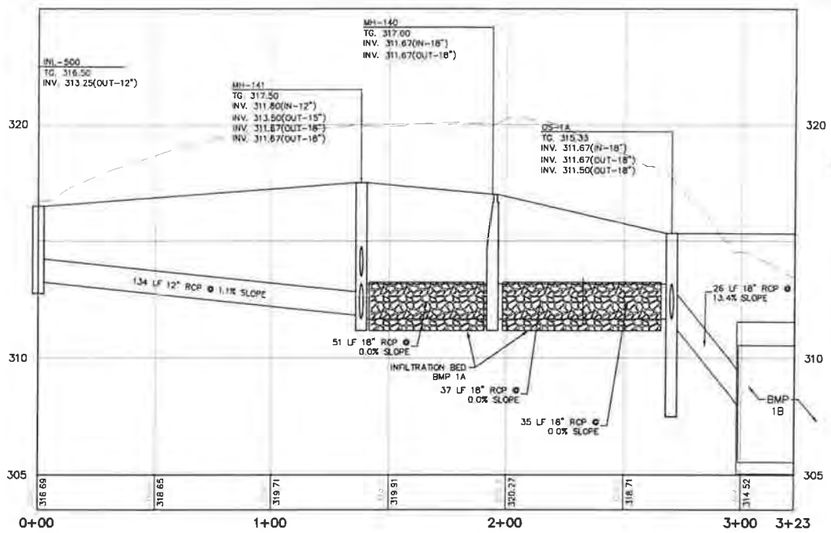
TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

DRAWN BY: WMH | CHECKED BY: DAW

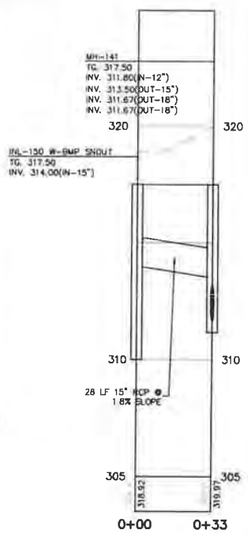
SHEET NO.: 32 OF 37

T:\Land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\LANDSCAPE PLAN.dwg Layout: 24 LANDSCAPE & LIGHTING DETAILS Plotted By: wheider, on Tue Jun 07, 2022 at 11:56am



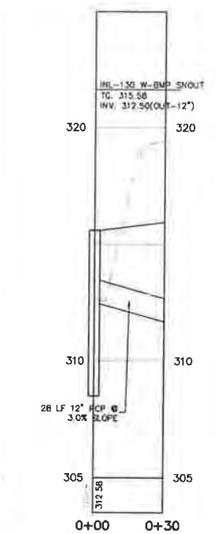
INL-500 TO BMP 1-B

STATION 0+00 TO 3+23
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-150 TO MH-141

STATION 0+00 TO 0+33
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-13 TO BMP 1-A

STATION 0+00 TO 0+30
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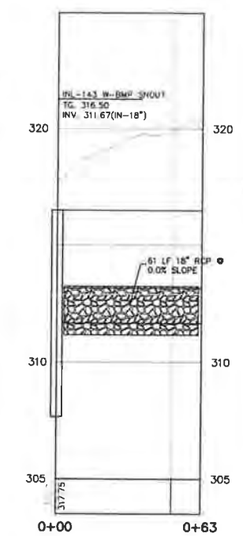

INL-143 TO BMP 1-A

STATION 0+00 TO 0+63
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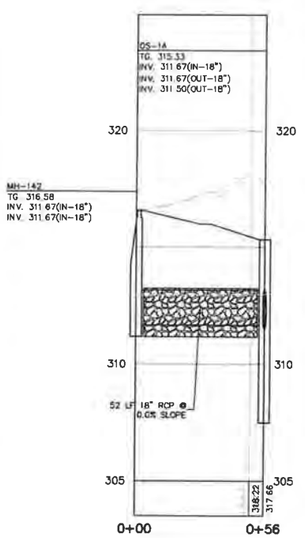

MH-142 TO OS-1A

STATION 0+00 TO 0+56
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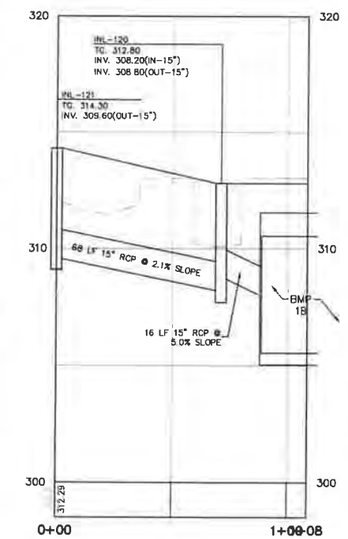
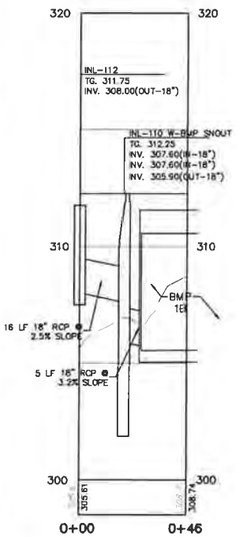


INL-121 TO BMP 1-B

STATION 0+00 TO 1+08
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-112 TO BMP 1-B

STATION 0+00 TO 0+46
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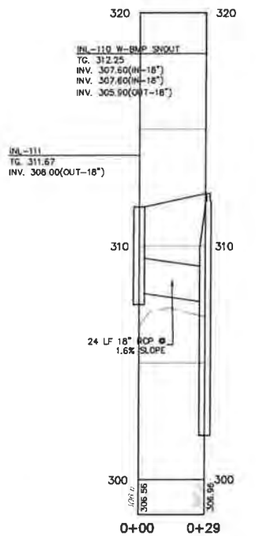
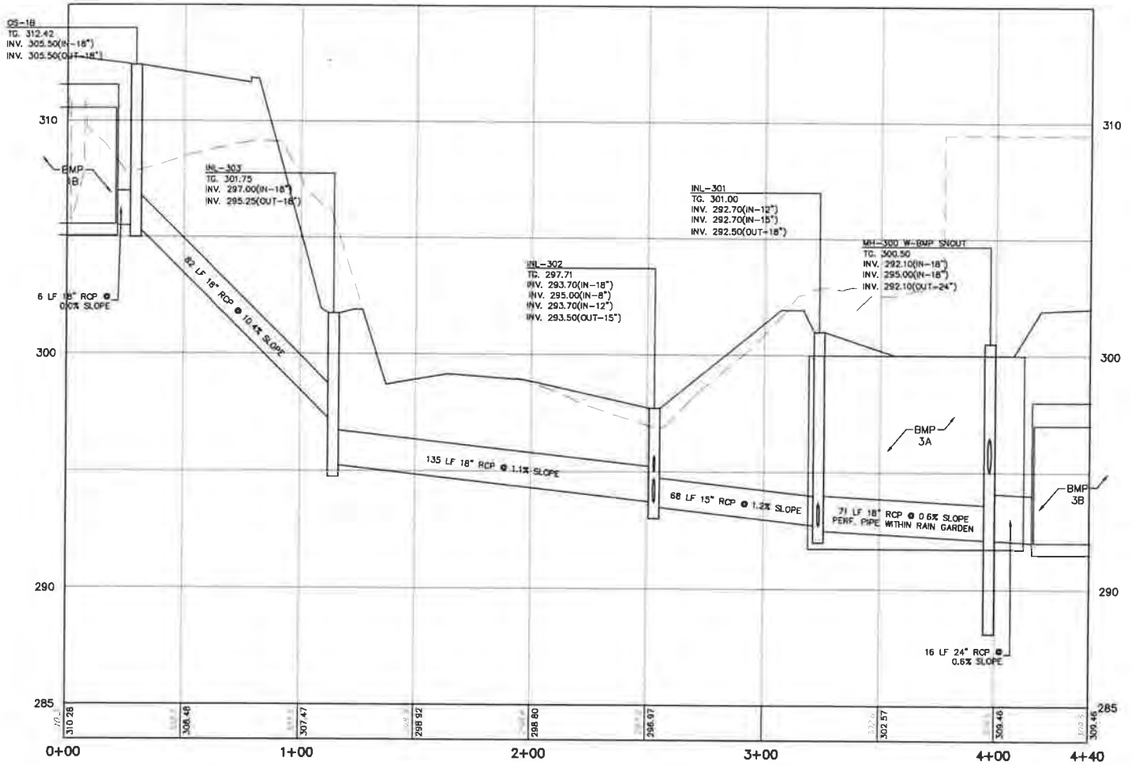


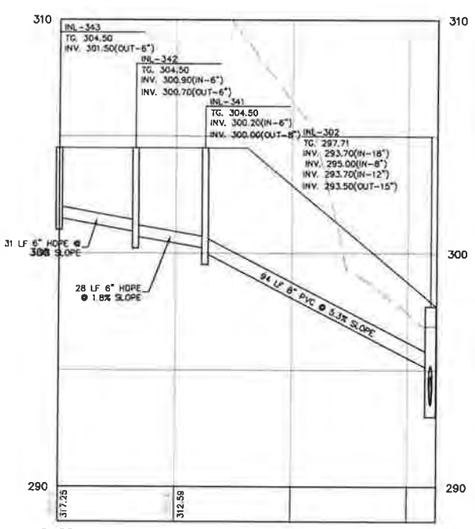
INL-111 TO INL-110

STATION 0+00 TO 0+29
SCALE: HORZ 1"=30'
VERT 1"=3'



BMP 1-B TO BMP 3

STATION 0+00 TO 4+40
SCALE: HORZ 1"=30'
VERT 1"=3'



INL-343 TO INL-302

STATION 0+00 TO 1+63
SCALE: HORZ 1"=30'
VERT 1"=3'

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REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE035959

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

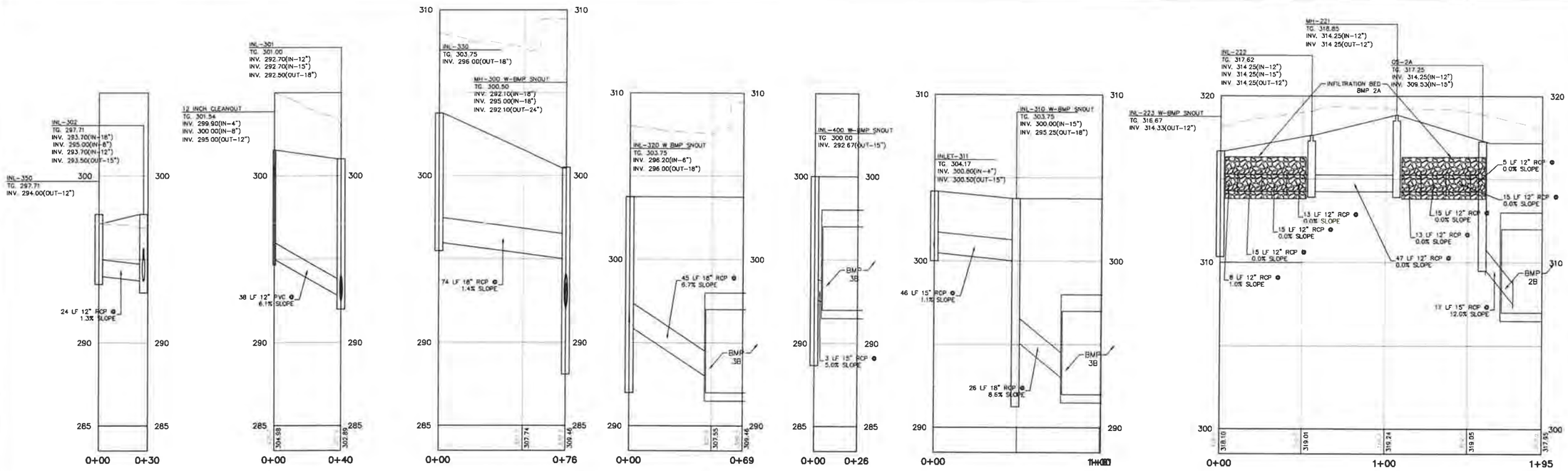
SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 33 OF 37

T:\proj design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 29 PROFILES - 1 Plotted By: wheider, on Tue Jun 07, 2022 at 11:56am



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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE039525

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES - 2

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

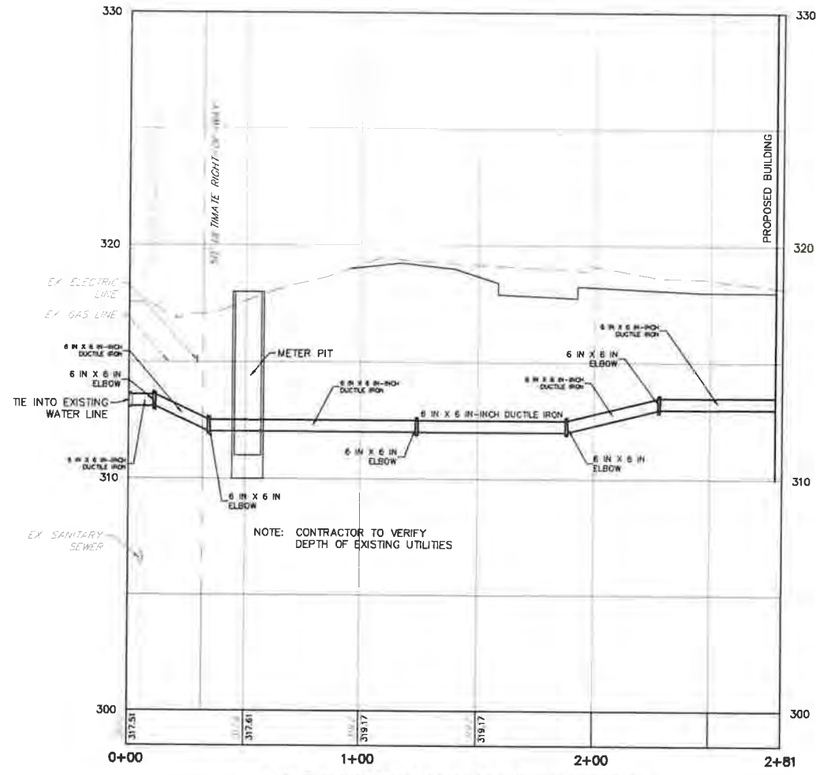
SCALE: AS NOTED

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 34 OF 37

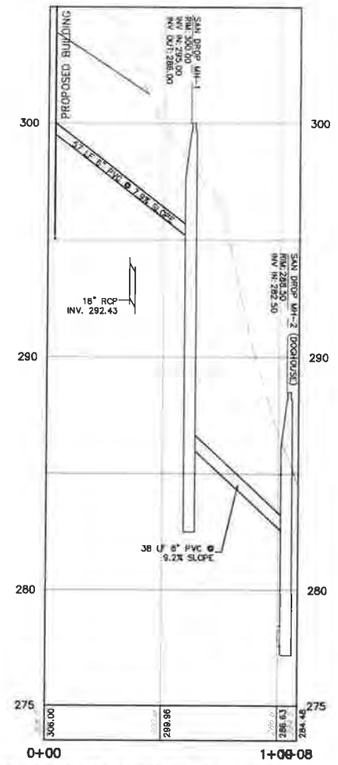
T:\land design\2017\2017200B_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\PROFILES.dwg Layout: 3D PROFILES 2 Plotted By: wheder, on Tue Jun 07, 2022 at 11:57am



NOTE: CONTRACTOR TO VERIFY DEPTH OF EXISTING UTILITIES

EXISTING WATER MAIN TO PROPOSED BUILDING

STATION 0+00 TO 2+81
SCALE: HORZ 1"=30'
VERT 1"=3'



PROPOSED BUILDING TO SAN DROP MH-2

STATION 0+00 TO 1+08
SCALE: HORZ 1"=30'
VERT 1"=3'

NOT TO BE RECORDED

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

565 COPPORATE DRIVE WEST · SUITE 100 · MECHANICSBURG, PA 17055 · PHONE 1-717-232-2500 · www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER
PE059578

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROFILES – 3

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA:	TOTAL LOTS:
47.989 AC.	1
DATE: 06/06/22	SCALE: AS NOTED
DRAWN BY: WMH	CHECKED BY: DAW

SHEET NO.: 35 OF 37

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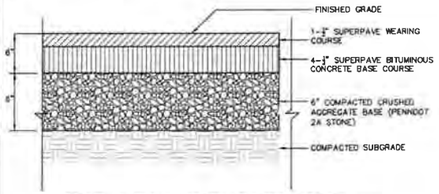
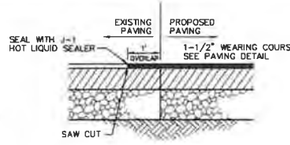


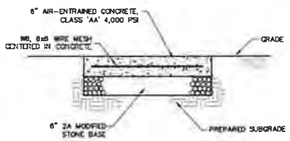
DRIVE & FULL-DEPTH PARKING LOT TYPICAL PAVING DETAIL

NOT TO SCALE



PAVEMENT TIE-IN DETAIL

NOT TO SCALE

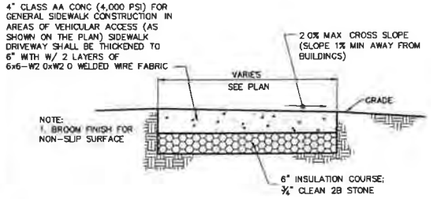


CONCRETE PAVEMENT DETAIL

NOT TO SCALE

NOTES:

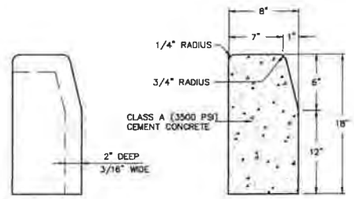
1. CONCRETE PAVEMENT SHALL BE SCORED INTO 24" SQUARES AT A 45° ANGLE TO THE BUILDING. SCORING SHALL BE AT LEAST 1/4 THE THICKNESS OF THE CONCRETE SLAB
2. FULL THICKNESS EXPANSION JOINTS SHALL BE INSTALLED AT A MINIMUM OF EVERY 24 FEET.



NOTE: DOWEL SIDEWALK TO CURBS WITH #4 REBAR DOWELS @ 5'-0" cc WHERE SIDEWALK IS ADJACENT TO NEW OR EXISTING CURB

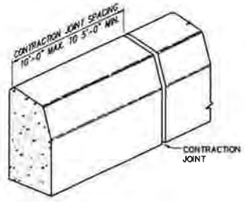
SIDEWALK DETAIL

NOT TO SCALE



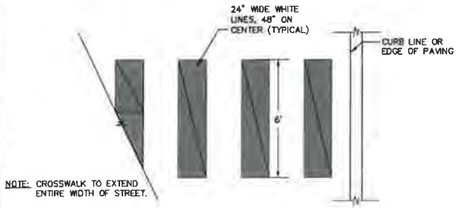
DETAIL A
CONTRACTION JOINT

TYPICAL
CROSS SECTION



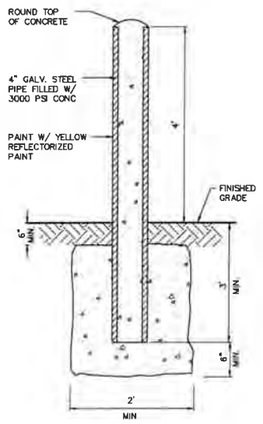
PLAIN CEMENT CONCRETE CURB

NOT TO SCALE



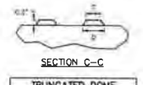
CROSSWALK DETAIL

NOT TO SCALE



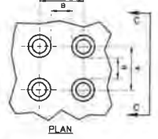
BOLLARD DETAIL

NOT TO SCALE

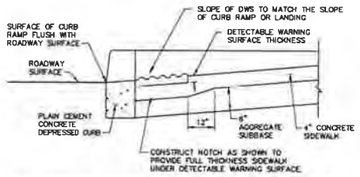


SECTION C-C

TRUNCATED DOME DIMENSIONS		
DIM.	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% OF D	65% OF D
D	0.9"	1.4"

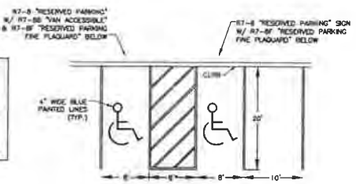


DETECTABLE WARNING TRUNCATED DOME DETAIL



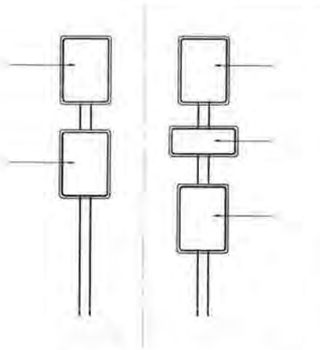
DETECTABLE WARNING SURFACE EMBEDDING

NOT TO SCALE



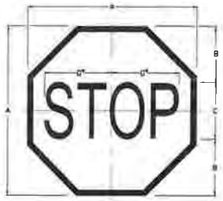
PARKING LOT & HANDICAPPED STALL STRIPING DETAIL

NOT TO SCALE



HANDICAPPED PARKING SIGN ELEVATION DETAIL

NOT TO SCALE



DIMENSIONS – mm (IN)					
SIGN SIZE A x A	B	C	D	BORDER	BLANK STD
600 x 600 (24" x 24")	200 (8)	200C (8C)	254 (10)	15 (0.6)	81-606 (81-24)
750 x 750 (30" x 30")	250 (10)	250C (10C)	318 (12.6)	20 (0.8)	81-750 (81-30)
900 x 900 (36" x 36")	300 (12)	300C (12C)	381 (15)	20 (0.8)	81-900 (81-36)
1200 x 1200 (48" x 48")	400 (16)	400C (16C)	508 (20)	30 (1.2)	81-1200 (81-48)

* REDUCE SPACING 40%

COLOR:
LEGEND AND BORDER: WHITE
(REFLECTORIZED)
BACKGROUND: RED (REFLECTORIZED)

STOP SIGN (R1-1)

NOT TO SCALE

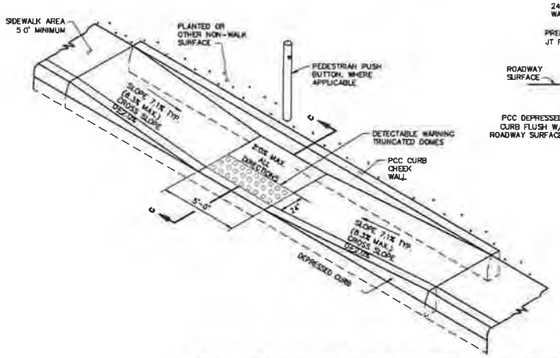
DIMENSIONS – mm (IN)									
SIGN SIZE A x B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD
300 x 150 (12" x 6")	35 (1.4)	400 (1.60)	15 (0.6)	250 (10)	54 (2.1)	102 (4)	10 (0.4)	10 (0.4)	85-300750 (85-1206)

* INCREASE SPACING 50%

COLOR: LEGEND AND BORDER: WHITE (NON-REFLECTORIZED)
BACKGROUND: BLUE (REFLECTORIZED)

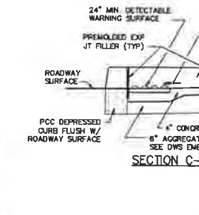
VAN ACCESSIBLE SIGN (R7-8B)

NOT TO SCALE

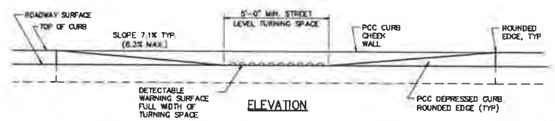


HANDICAP CURB RAMP-TYPE 2: PARALLEL TO PAVING

NOT TO SCALE



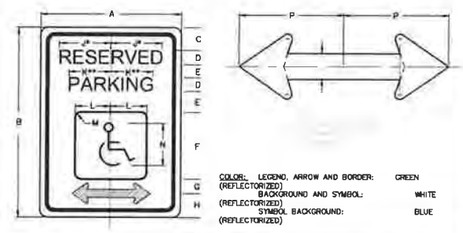
SECTION C-C



ELEVATION

TYPICAL CONCRETE WHEEL STOP DETAIL

NOT TO SCALE

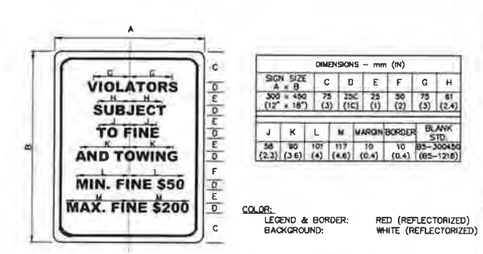


COLOR: LEGEND, ARROW AND BORDER: GREEN (REFLECTORIZED)
BACKGROUND AND SYMBOL: WHITE (REFLECTORIZED)
SYMBOL BACKGROUND: BLUE (REFLECTORIZED)

DIMENSIONS – mm (IN)															
SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	N	P	Q	MARGIN	BORDER	BLANK STD.
300 x 450 (12" x 18")	50 (2)	50C (2C)	25 (1)	150 (6)	40 (1.6)	60 (2.4)	128 (4.9)	109 (4.3)	759 (3)	10 (0.4)	100 (4)	95 (3.8)	20 (0.8)	10 (0.4)	10 (0.4)	85-300450 (85-1218)

* REDUCE SPACING 50% ** REDUCE SPACING 33%

RESERVED PARKING SIGN (R7-8)



DIMENSIONS – mm (IN)						
SIGN SIZE A x B	C	D	E	F	G	H
300 x 450 (12" x 18")	75 (3)	75C (10C)	25 (1)	50 (2)	75 (3)	81 (2.4)

J	K	L	M	MARGIN	BORDER	BLANK STD.
56 (2.3)	90 (3.6)	101 (4)	117 (4.6)	10 (0.4)	10 (0.4)	85-300450 (85-1218)

COLOR:
LEGEND & BORDER: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

RESERVED PARKING PENALTIES SIGN (R7-8F)

COLOR: LEGEND, BORDER CIRCLE, DIAGONAL BACKGROUND "P" — RED (REFLECTORIZED), RED (REFLECTORIZED), WHITE (REFLECTORIZED), BLACK (NON-REFLECTORIZED)

DIMENSIONS – mm (IN)								
SIGN SIZE A x B	C	D	E	F	G	H	J	
300 x 450 (12" x 18")	75 (3)	150C(W) (6EC(W))	47 (1.9)	21 (0.6)	308 (28)	20 (0.8)	37 (1.5)	

K	L	M		MARGIN	BORDER	BLANK STD.
122 (4.8)	25 (1)	56 (2.2)		10 (0.4)	10 (0.4)	85-300450 (85-1218)

NO PARKING-FIRE LANE SIGN (R7-2B)

NOT TO SCALE

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ENGINEERING & CONSULTING SERVICES
www.gilmore-assoc.com

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
DOUGLAS A. WAITE
ENGINEER PE059023

BY	DATE	DESCRIPTION	REV.

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

CONSTRUCTION DETAILS – 1

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.:

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC. | TOTAL LOTS: 1

DATE: 06/06/22 | SCALE: AS NOTED

DRAWN BY: MWH | CHECKED BY: DAW

SHEET NO.: 36 OF 37

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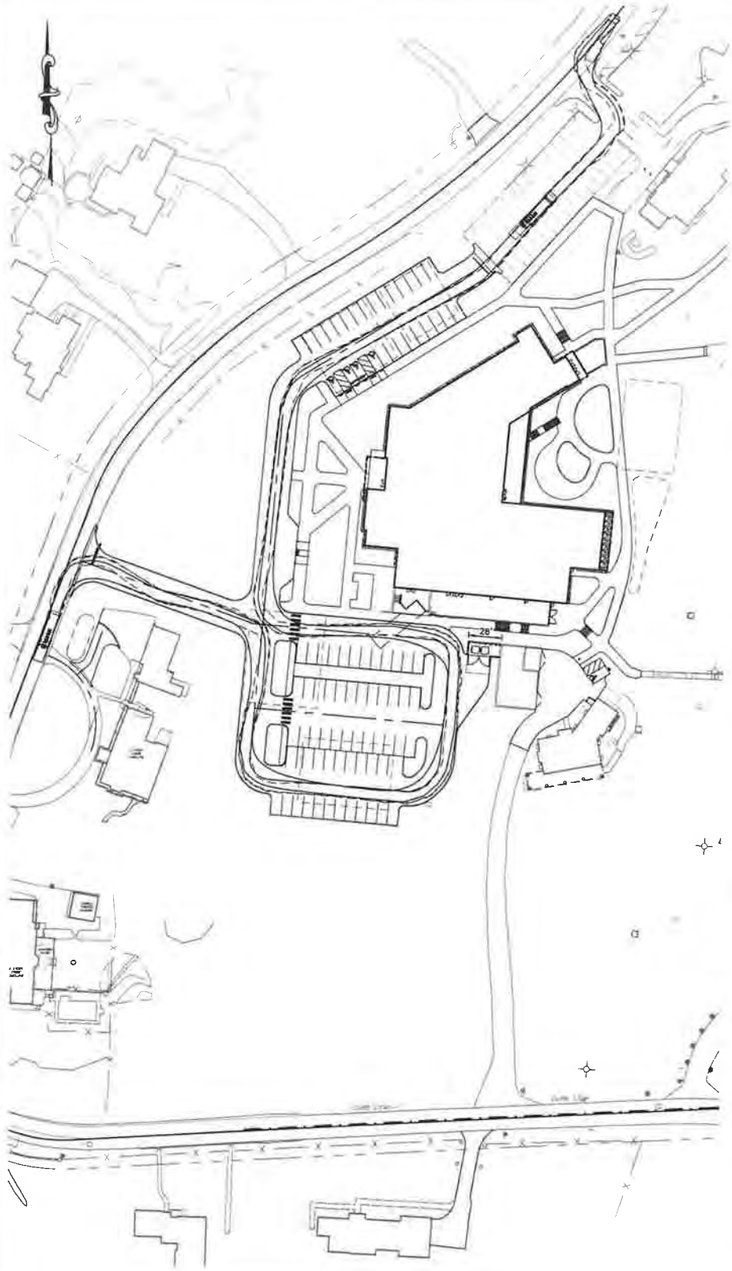
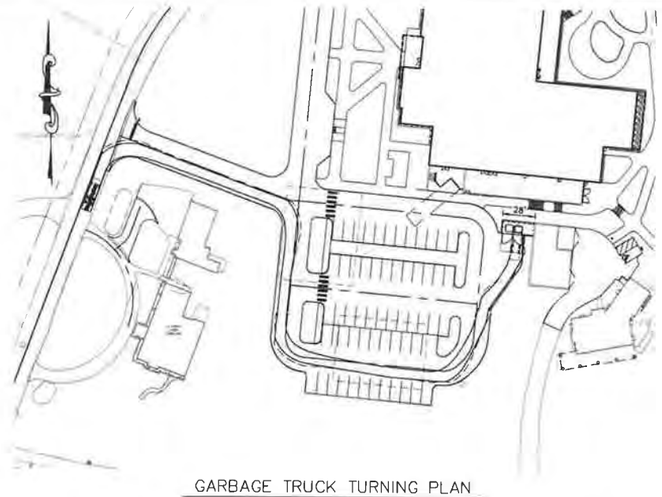
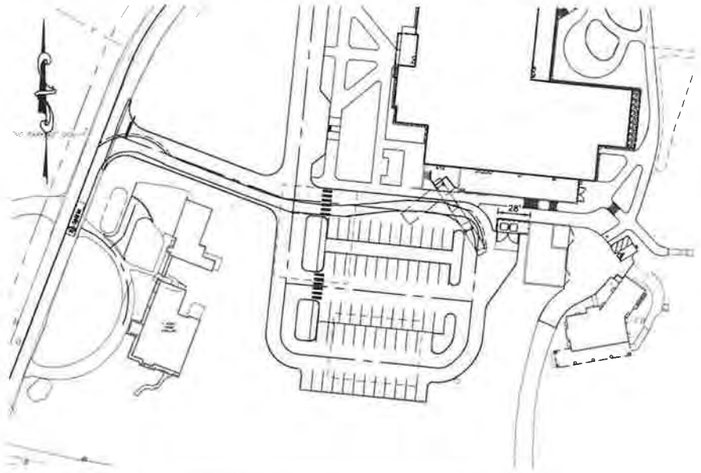


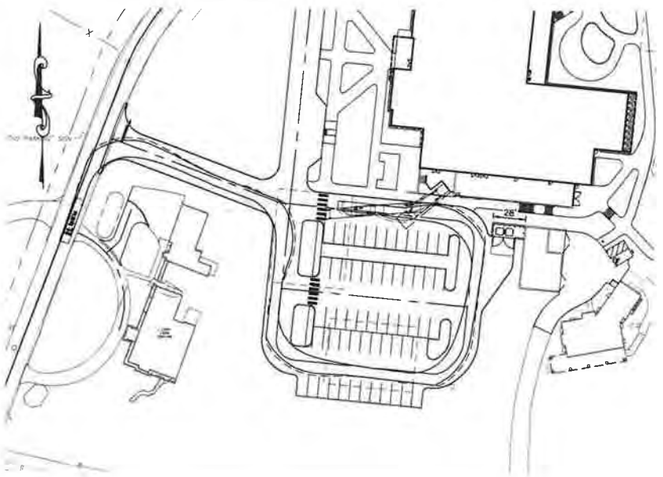
FIRE TRUCK TURNING PLAN



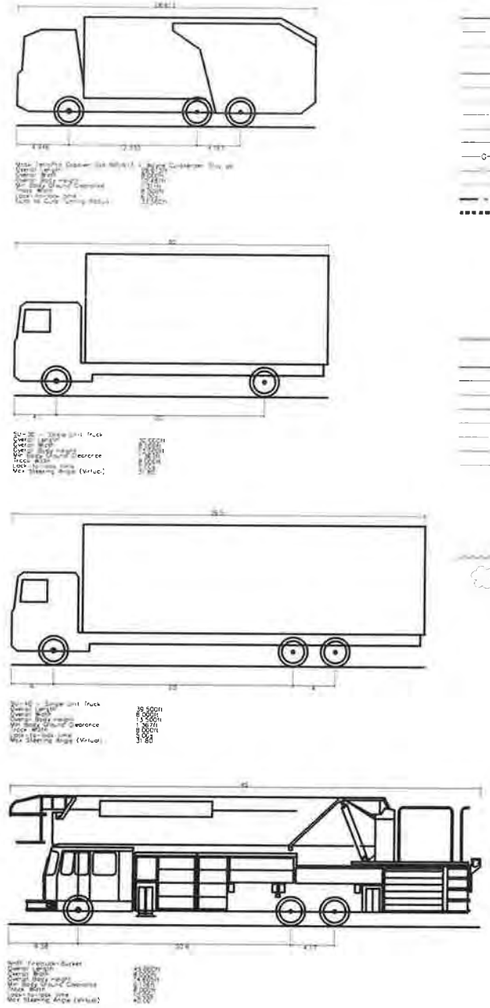
GARBAGE TRUCK TURNING PLAN



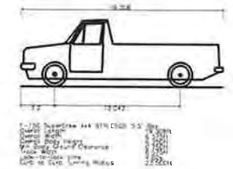
SU-30 TRUCK TURNING PLAN



SU-40 TRUCK TURNING PLAN



CREW CAB TRUCK TURNING PLAN



SCALE 0 60 120 IN FEET 1"=60'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT
- PROPOSED CURB

EXISTING UTILITY LEGEND

- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- E — EXISTING ELECTRIC LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SAN. SEWER LINE
- T — TELEPHONE LINE
- SL — EXISTING SIGHT LIGHTING
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING STORM INLET
- EXISTING PLANT MASS
- EXISTING TREES

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ENGINEERING & CONSULTING SERVICES

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DOUGLAS A. WAITE ENGINEER PE035525

REV.	DESCRIPTION	DATE	BY

LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

TRUCK TURNING PLAN

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO: PENNSYLVANIA STATE UNIVERSITY 139J PHYSICAL PLANT BUILDING UNIVERSITY PARK, PA 16802 814-865-0545

MUNICIPAL FILE No.: ---

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.

TOTAL LOTS: 1

DATE: 06/06/22

SCALE: 1"=50'

DRAWN BY: WMH

CHECKED BY: DAW

SHEET NO.: 37 OF 37

T:\land design\2017\2017006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\TRUCK TURNING PLAN.dwg Layout: 28 TRUCK TURNING PLAN Plotted By: whelder, on Tue Jun 07, 2022 at 11:57am

PennState Abington

PSU Abington - Cloverly Lane Entrance
06.02.2022

kch 315 Architects

PennState Abington

PSU Abington - Cloverly Lane Entrance
06.02.2022

kch Architects

PennState Abington

PSU Abington – North Façade Faculty Wing
06.02.2022

kch Architects

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August 9, 2022
Last Revised August 19, 2022

ABINT130027

Mr. Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-22-05-Penn State New Academic Building
PARID: 30-00-09797-00-6 / TMID: 30003 002 (1577 Cloverly Lane)
PARID: 30-00-09788-00-1 / TMID: 30003 001 (1639 Cloverly Lane)
PARID: 30-00-09784-00-5 / TMID: 30003 025 (1665 Cloverly Lane)
PARID: 30-00-09780-00-9 / TMID: 30003 020 (1681 Cloverly Lane)
Preliminary/Final Major Subdivision and Land Development Plans Review (1st Submission)

Dear Mr. Manfredi:

We have received a copy of the Preliminary/Final Major Subdivision and Land Development Plans consisting of thirty-seven (37) sheets dated June 6, 2022 and received on June 9, 2022 as prepared by Gilmore & Associates, Inc. located at 184 West Main Street, Suite 300 in Trappe, PA for the above referenced project. The land development applicant was deemed complete for reviews on June 17, 2022.

This land development application involves four (4) existing parcels as follows:

- 1577 Cloverly Lane – The main campus parcel of this land development application, comprised of approximately 1,837,796.40 SF (42.19 acres) as surveyed. This parcel consists of multiple academic buildings for the university as well as parking areas, sidewalk, curbing, curb ramps, stairs, athletic fields, and landscaping.

- 1639 Cloverly Lane – An adjoining property located to the southwest of 1577 Cloverly Lane; and is comprised of approximately 29,156.39 SF (0.669 acres) as surveyed. This parcel is currently a vacant tract of land consisting of grass areas and trees.

- 1665 Cloverly Lane – An adjoining corner property located to the west of 1639 Cloverly Lane; and is comprised of approximately 32,526.21 SF (0.747 acres) as surveyed. This parcel consists of single-family detached dwelling and associated garage, driveway, walkways, and landscaping to remain.

- 1681 Cloverly Lane – An adjoining property located between 1665 and 1577 Cloverly Lane; and is comprised of approximately 61,363.46 SF (1.409 acres) as surveyed. This parcel consists of a single-family detached dwelling and associated garage, driveway, walkways, and landscaping to remain.

Under this application, the applicant is proposing the following:

- Consolidation of the four (4) existing parcels, which will yield a gross area of 2,090,422.72 SF (or 47.99 acres). With the lot consolidation of the four parcels, the entire site will be surrounded by roadways on all sides.

- Construct a new 3-story 30,688 SF (74,100 GSF) academic building with associated parking areas located adjacent the new building.
- New curbing, sidewalk and walkways; landscaping; and stormwater management facilities are also proposed as part of this land development.

The new building addition is proposed to be serviced by public water and sewer.

The parcels consisting of 1639, 1665, and 1681 Cloverly Lane were located within the R-1 Low-Density Residential zoning District; however, based on Ordinance No. 2187, adopted on November 10, 2021, the parcels have been re-zoned to be the same zoning district as the Penn State Abington campus located within the CS Community Service Zoning District. In addition to the re-zoning of these parcels, the Board of Commissioners also adopted Ordinance No. 2186 on November 10, 2021, which is a text amendment to the current Zoning Code to create a new college/university use within the CS Community Service Zoning District.

The site is fronted by Woodland Road (40 FT R/W) to the north; School Lane (40 FT R/W) to the east, and Cloverly Lane (40 FT R/W) to the south and east. Access to/from the campus site will be by way of nine (9) existing entrances, of which three (3) access drives intersect Woodland Road; three (3) access drives intersect School Lane; and three (3) access drives intersect Cloverly Lane. There will be one (1) new entrance that intersects Cloverly Lane proposed for the new academic building. Portions of the existing three (3) buildings located at the southwest corner of Cloverly Lane and the three (3) buildings along Woodland Road do not meet the minimum 75' front yard setback; and therefore, these existing buildings are considered existing non-conforming.

There is an existing tributary to Meadow Brook, located adjacent the Spring House at the northern portion of the site, and traverses through the center of the tract to flow southeast from the site. In accordance with the FEMA, Flood Insurance Rate Map (FIRM) Panel No. 42091C0076G, effective March 2, 2016, and Panel No. 42091C0401G, effective March 2, 2016, the tributary and adjacent areas are identified by the FEMA FIRM to be located within flood Zone X and are special flood hazard areas subject to inundation by the 0.2% annual chance flood (500-year flood), or areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. The remaining portions of the tract are located within Zone X, which are areas determined by the FEMA FIRM to be located outside the 0.2% annual chance flood and areas of minimal flood hazard. Therefore, based on the FEMA determination, the area of the tract with the proposed site improvements is not located within the Floodplain Conservation Overlay District and is not subject to the floodplain regulations of the Floodplain Conservation Overlay District. However, in accordance with Figure 15.2 - Approximate Location of Riparian Corridor Conservation District, the campus parcel is located within the Riparian Corridor Conservation District and is subject to the regulations of the Riparian Corridor Conservation District.

The Applicant is not requesting any variances as part of this land development project.

WAIVERS REQUESTED

The Applicant is requesting the following waivers as part of this land development:

1. **§146-9.A – Application Stages –** A waiver to consider the current subdivision and land development submission to be a combined Preliminary/Final application.
   We support this waiver request contingent the Applicant is not required to provide public improvements such as roadway widening, curb and sidewalk; and contingent the Applicant obtains conditional use approval for the proposed electric utility line to cross the riparian corridor Zones 1

and 2 located south of the existing pond and between the Woodland Building and Art Gallery and Lares Buildings.

2. **§146-10.A.(1) – General Requirements, Drafting Standards –** A partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.
   We support this partial waiver request due to the large size of the campus to be depicted on one plan sheet; and since the Applicant is providing larger scales of portions of the site under multiple plan sheets within the land development plans set.

3. **§146-11.B.(7) – Existing Features Plan –** A partial waiver is requested from the requirements to provide the location, size, and ownership of all underground and above ground public or private utilities. The proposed plan provides information made available through site survey, historical maps, and information obtained through PA one-call. However, the plans do not show information that was not discovered during project development.
   We support this partial waiver request since the Applicant has provided an Existing Resources Site Analysis Map (ERSAM) and the location of the new building is limited to the southwest corner of the site.

4. **§146-11.D.(4) – Grading Plans –** A waiver is requested from the requirement to provide contour lines based on Abington Township sanitary sewer datum. The parcel includes FEMA mapped areas and correlation with FEMA datum is required coordination.
   We do not support this waiver request since the Applicant can comply with providing an adjustment to the elevations shown on the plans to conform to the Abington Township sanitary sewer datum. We encourage the Applicant contact the Abington Wastewater Utilities department to obtain a benchmark elevation and provide a note on the land development plans to reference the elevation adjustment to meet the Abington Township sanitary sewer datum.

5. **§146-24.D.(3) – Streets, Cartway Width –** A waiver is requested to allow the existing cartway widths of the exiting streets to remain. The existing streets are well-established, and no roadway widening is proposed.
   The minimum cartway width for residential streets is 30 feet between curbs. The existing cartway of Cloverly Lane where the new access drive is proposed is 22.5 feet to 23 feet.

   We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

6. **§146-27 – Sidewalks and Curbs –** A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new sidewalks or curbs are proposed within the public right-of-way.
   There are no sidewalks leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus entrance to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.

   However, the Abington School District Athletic fields are located to the southwest of the site off of Huntingdon Road and is within relatively close proximity to the Penn State campus. The Applicant may wish to consider providing pedestrian access through the Penn State owned property located at 1694 Cloverly Lane which backs up to the school field.

We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

7. **§146-28.A – Off-Street Parking Areas –** A waiver is requested to provide parking stall sizes in accordance with Ordinance No. 2186 in lieu of 10 feet wide by 20 feet long spaces. The Applicant is proposing parking stalls of 9 feet wide by 18 feet long.
   This waiver request is not applicable since the proposed 9' wide by 18' long parking spaces comply with the parking space dimension of the College/University Campus Use as provided under Ordinance No. 2186, adopted on November 10, 2021.

8. **§146-33.C – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to have a cover less than 24 inches in limited areas that are not subject to vehicular traffic.
   Based on the profiles, the Applicant is proposing Infiltration bed BMP 2A to be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading.

   We do not support the waiver request from this section of the code and recommend that there be at least a minimum of 24 inches of cover provided between the BMPs and storm pipes from the proposed ground surface.

9. **§146-33.D – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to be less than 15 inches in diameter. The Applicant is proposing pipes with a diameter of less than 15 inches.
   We support this waiver contingent upon the Applicant providing pipe conveyance calculations to ensure the proposed pipes can adequately convey the stormwater runoff through the pipes.

10. **§146-39.B.(3)(a)[1] – Landscaping, Off Street Parking Areas –** A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. The Applicant is proposing additional landscaping is provided on the building-side of the parking lot.
    We support this partial waiver request since the Applicant is proposing the required landscaping elsewhere on the site and contingent the planting arrangements are acceptable to the Township Board of Commissioners.

11. **§146-43.C.(3)(a) – Erosion and Sediment Control –** A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon Township Engineer approval of design. The Applicant is proposing slopes of approximately 2:1 of 50%.
    We support this waiver request due to the existing steep topographic conditions of site, and to minimize the site disturbance to the existing terrain.

12. **§142-409.A – Stormwater Peak Rate Control and Management Districts –** A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:
    a. Proposed to receive replacement pavement in kind;
    b. To receive a reduction in pavement area and not otherwise improved;
    c. Outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

    We do not support this waiver request as the Applicant is required to provide stormwater peak rate control for the entire site as part of this land development. Due to existing downstream flooding concerns, the Applicant should consider regrading these areas to provide positive flow towards proposed stormwater facilities to capture uncontrolled stormwater runoff.

The following documents have been reviewed:

Title	Sheet	Dated	Revised
Cover Sheet	1 of 37	06/06/22	-----
Record Plan of Land Development	2 of 17	06/06/22	-----
Lot Consolidation Plan	3 of 37	06/06/22	-----
Site Plan	4 of 37	06/06/22	-----
Existing Resources and Site Analysis Plan (ERSAP)	5 of 37	06/06/22	-----
Existing Features Plan - Overall	6 of 37	06/06/22	-----
Existing Features and Demolition Plan	7 of 37	06/06/22	-----
Grading Plan	8 of 37	06/06/22	-----
Grading Detail Plan	9-10 of 37	06/06/22	-----
Erosion & Sediment Control Plan	11 of 37	06/06/22	-----
Erosion & Sediment Control Details & Notes	12-13 of 37	06/06/22	-----
PCSM Plan	14 of 37	06/06/22	-----
Pre-Development Drainage Area Plan	15 of 37	06/06/22	-----
Post Development Drainage Area Plan	16 of 37	06/06/22	-----
Post Development Inlet Drainage Area Plan	17 of 37	06/06/22	-----
PCSM Notes	18 of 37	06/06/22	-----
PCSM Details	19-24 of 37	06/06/22	-----
Utility Plan - Overall	25 of 37	06/06/22	-----
Utility Plan – Partial Site	26 of 37	06/06/22	-----
Utility – Water Service Details	27 of 37	06/06/22	-----
Utility – Sanitary Sewer Details	28 of 37	06/06/22	-----
Logistics Plan	29 of 37	06/06/22	-----
Landscape Plan	30 of 37	06/06/22	-----
Lighting Plan	31 of 37	06/06/22	
Landscape & Lighting Details	32 of 37	06/06/22	-----
Profiles	33-35 of 37	06/06/22	-----
Construction Details	36 of 37	06/06/22	-----
Truck Turning Plan	37 of 37	06/06/22	-----
PCSM Report	136 Pages	July 2022	-----

We have performed a review of the above referenced plans for compliance with the Zoning Ordinance (Chapter 162); Subdivision and Land Development Ordinance (Chapter 146); Stormwater Management Ordinance (Chapter 142). We offer the following comments for your consideration:

ZONING COMMENTS

1. **Per Ordinance No. 2186 Section 1 –** Use E-18 University Campus is a new use that has been added to the Abington Comprehensive Use Matrix and is now a permitted use in the CS Community Service District.

2. **Per Ordinance No. 2186 §902.A.4 – Dimensional Requirements –** The maximum building height shall be forty-five (45) feet, subject to the exceptions set forth in §2601.G, Height Exceptions. Building height may be increased to fifty-five (55) feet, if the front yard or other yard setback along a public street exceeds 100 feet, if fire lane access lanes are provided for the structure, consistent with recommendations of the Township Fire Marshal, and if a high-density buffer is used along property

lines adjacent to a residential zoning district. For properties greater than twenty-five (25) acres, new building facades may exceed a length of 160 feet provided that they include horizontal building offsets at least once every 100 horizontal feet of façade length. However, in no case shall a new building façade exceed a length of 300 feet.
The Applicant is proposing a building height of 47.83 feet which is greater than the 45-feet maximum. Based on the requirements above, the Applicant will only be permitted to increase the building height greater than 45 feet if the front yard setback is at least 100 feet, fire lanes are provided, and a high-density buffer is provided adjacent to residential zoning districts. Based on the plan, it appears there are no fire lanes provided for the new building, or the fire lanes are not labeled. The Applicant shall clarify and confirm if fire lanes are provided. We defer to the Fire Marshal for acceptance of the fire lanes. If no fire lanes have been provided, the Applicant will not be able to provide a building height of greater then 45 feet without a variance being obtained.

3. **Per §903.C.1 – Design –** Rooftop HVAC or other utilities shall be screened by the roofline, parapet, or other architectural features.
The Applicant shall indicate if any roof mounted equipment is proposed, and if so, this equipment shall be screened by the roofline, parapet, or other architectural features.

4. **Per §903.C.2 – Design -** Roofs are required to be either: (a) pitched on at least 80% of their surface with a pitch of 6 vertical to 12 horizontal, (b) have a parapet for its entire length, or (c) have a change in roof line of at least two vertical feet at least once every 50 horizontal feet. If the building is at least two stories tall it may meet (a), (b), or (c), above, or may have a projecting cornice. All roofs shall meet the standards above for facades visible from public ways.
Based on the Architectural renderings provided, there are changes provided in the roofline; however, no dimensions for these roofline changes have been provided. The Applicant shall provide dimensions of these changes to ensure that they are at least two (2) vertical feet at least once every fifty (50) horizontal feet. A calculation of the pitch roof surface area should also be provided on the renderings for clarification.

5. **Per §904 – Expansions -** Community service institutions permitted by-right may, as a matter of right, increase building and impervious surface coverage by a total of 25% of the coverage existing as the date of this amendment, not to exceed the dimensional requirements of Figure 9.4 CS Community Service District: Dimensional Requirements. Any increase beyond 25% of such existing coverage up to the maximum permitted under Figure 9.4 CS Community Service District: Dimensional Requirements may be made only by conditional use approval.
The Applicant shall provide a calculation on the plans showing the existing and proposed building and impervious surface coverages to ensure that the proposed coverages do not exceed a total of 25% of the existing coverages; otherwise, the Applicant shall be required to obtain a conditional use approval for exceedance of the permitted 25% expansion.

6. **Per §1503.B.2.b. & c. – Riparian Corridor Conservation District, Uses Permitted by Conditional Use –** In Zone 2, corridor crossings by centralized sewer and water lines, and/or public utility transmission lines, provided that any disturbance is offset by corridor mitigation measures as outlined in §1508. Riparian Management of this chapter, and provided underground utility and pipe crossings are located at least 3 feet below the stream invert. Centralized sewer and/or water lines and public utility transmission lines running along the corridor, provided that any disturbance is, at a minimum, offset by corridor mitigation measures. These lines shall be located as far from Zone One as practical
The Applicant is proposing an electrical line that crosses the Riparian Corridor Zones 1 and 2. The Applicant shall clarify and confirm that the electrical line at the crossings will be a minimum of three

feet below the stream invert. In addition, the Applicant shall provide mitigation measures in accordance with §1508 – riparian management. The mitigation measures shall be labeled and shown on the plans.

7. **Per Ordinance 2186 §2103.E Use E-18 A.1 –** Building elevations/renderings shall be submitted to determine compliance with these criteria. Views presented shall include those of each new building façade visible from the street, as viewed from the street. Views of new parking areas from the street shall also be provided, where visible from the street.
   The Applicant has provided architectural renderings; however, no elevations/dimensions have been provided. The Applicant shall provide architectural renderings with dimensions to ensure compliance with this Code Section.

8. **Per Ordinance 2186 §2103.E Use E-18 A.2.a thru g –** It is recommended that all new buildings and expansions be compatible with the architectural theme of existing buildings and structures on-campus and on abutting streets. Factors for consideration include, but are not limited to:
   a. Colors
   b. Materials
   c. Style and pitch of roof
   d. Use of differentiated materials
   e. Wall-to-window-and-door ratio
   f. Architectural features and trim
   g. Door accentuation

   The Applicant shall clarify and confirm the proposed building will be compatible with the architectural theme of existing buildings on campus and on abutting streets. The Applicant shall note the architectural themes on the plans.

9. **Per Ordinance 2186 §2103.E Use E-18 A.7 –** A traffic impact study shall be submitted for review and approval and shall comply with the requirements of the above section of the code.
   We defer to the Township Traffic Engineer, McMahon Associates, for further traffic related comments.

10. **Per Article XXII – Signs –** The Applicant shall indicate if any signage is proposed as part of this land development. If so, all signs shall meet the requirements of the above section of the code.

11. **Per §2312.A – Off-Street Loading Requirements –** Areas provided for the loading and unloading of delivery trucks and other vehicles, and for the servicing of shops by refuse collection, fuels, and other service vehicles, shall be arranged so that they may be used without blocking or interfering with traffic lanes, access drives; parking aisles; parking facilities, or pedestrian ways; or requiring backing out into a street.
    The Applicant is proposing a loading space on Sheet 37 which will encroach and block the drive aisle in the parking lot area. The Applicant shall revise the location of this loading space to not encroach into the required drive aisle.

12. **Per §2312.E – Off-Street Loading Requirements –** All loading areas shall be adequately screened from adjacent streets and properties, and landscaped in accordance with an overall plan, designed according to the provisions herein.
    The Applicant is proposing the loading dock to be located to the side of the proposed building with no screening or landscaping being provided. The Applicant will be required to revise the location of this loading dock and ensure the loading area is adequately screened per this Code Section.

13. **Per §2312.F – Off-Street Loading Requirements –** A required loading berth shall be at least 15' in width by at least 50 feet in length, exclusive of aisle and maneuvering space, and shall have a vertical clearance of at least 16 feet. Exception: Where it can be demonstrated that loading and unloading will only be performed by small trucks or vans, the loading berth size may be reduced upon agreement with the Township. The approved plan shall contain a note which so restricts the type of loading permitted, and subsequent uses shall be restricted, as necessary.
The Applicant is providing a loading space that is 12 feet wide by 50 feet long. The Applicant will be required to widen the loading berth width or demonstrate that the loading area will be restricted to small trucks or vans, and upon agreement with the Township. Otherwise, a variance from this Code Section will be required.

14. **Per §2401.A.2.d.(1).(a) – Preservation and Protection of Existing Vegetation –** Tree replacement shall occur when new impervious coverage exceeds 500 SF and a tree with a minimum caliper of six (6) inches is removed. In such cases, two new trees, each with a minimum of 3-3.5 inches in caliper, measured six (6) inches above grade, shall be planted for each tree with a minimum caliper of six (6) inches that is removed.
The Applicant is proposing to remove 76 existing trees with a caliper of greater than six (6) inches. Therefore, the Applicant is required to provide 152 additional trees each with a caliper of 3-3.5 inches as part of this land development. The Applicant is proposing 37 trees to be planted with 115 trees to be dispersed throughout the site and/or coordinated between PSU and Abington Township. The Applicant shall be required to obtain Township approval for an agreement to not provide all the required replacement trees on site and to provide the additional trees in other locations approved by the Township.

15. **Per §2401.A.2.d.(1).(c) – Preservation and Protection of Existing Vegetation –** Each mature tree with a 10-inch caliper or greater on the site shall be designated either "TO REMAIN" or "TO BE REMOVED".
The Applicant shall indicate and label any existing trees within the project site that have a 10-inch caliper or greater on the plans and indicate if these trees are "TO REMAIN" or "TO BE REMOVED".

16. **Per §2402.A.2.b.(7) – Planting Strips –** Planting strips shall contain plantings of one canopy tree every 25 feet, with two shrubs per tree, and pervious area (consisting of green area, mulch, or pervious paving) to cover the entire remaining unplanted area at maturity.
The Applicant is providing a planting strip to the south of the proposed building that has trees that are spaced 30 feet apart and where no shrubs and groundcover is shown. The Applicant shall landscape the planting strip as required by this Code Section.

17. **Per §2402.B.2.b – Parking Lot Landscaping and Street Trees –** Large canopy trees shall be planted at least fifteen (15) feet from overhead utilities, including streetlights, and six (6) feet from underground utilities. However, ornamental trees may be planted under overhead utility wires. Street trees shall not be placed within the clear site triangle of street intersections.
There are existing overhead utility wires along Cloverly Lane that are not shown on the plans. The Applicant shall show these overhead utility lines and ensure that no large canopy trees are planted within 15 feet of the overhead utilities.

18. **Per §2403.C.6.b.(1) – Site Element Screens –** Medium-Intensity Site Element Screen, Screen Type #4 – Opaque Fence or Masonry Wall with Shrubs.
Per Figure 24.7 – Site Element Screen Requirements, for a dumpster or trash containment area, a medium intensity screen is required. The Applicant shall provide a dumpster detail to comply with

the site element screen type #4 requirements of this Code Section.

19. **Per §2601.H.2 – Lighting Standards –** All on-lot public parking areas, aisles, and access ways for any nonresidential use shall be provided with a minimum of one-half (0.5) foot candles of light at any point on the ground.
There are multiple locations within the parking areas, aisles, and access ways where the lighting is below 0.5-foot candles of light. The Applicant shall revise the lighting to provide a minimum 0.5-foot candles at the entrance and stairs adjacent the loading area; parking area between luminaires A & D; and the new walkway connecting to the existing parking lot behind Rydal Building.

20. **Per §2601.H.4 – Lighting Standards -** Lighting standards in parking areas shall not be located farther than 200' apart and may not be taller than 18' in height. No pedestrian lighting standard may exceed 14' in height.
The Applicant is proposing multiple light to be mounted at a height of 19 feet. These lights shall be revised to have a mounting height of no more than 18 feet.

21. **Per §2601.J.1 – Mechanical Equipment Standards –** All roof-mounted equipment shall be architecturally screened from public view on adjoining streets, public thoroughfares, and adjacent residential uses for a minimum distance of 1,000 feet beyond the property line, as measured at a height of six (6) feet above street grade.
The Applicant shall clarify if roof-mounted equipment is being proposed as part of this project. If so, the equipment shall be screened as required from the above section of the code.

CHAPTER 146
SUBDIVISION & LAND DEVELOPMENT COMMENTS

22. **Per §146-9.A.(1) – Type of Application, Stages –** A preliminary plan is a first-stage plan in a two-stage approval process. The preliminary plan is required for all subdivision, land development or combination subdivision and land development plans within the township, wherein public improvements are proposed.
The Applicant is requesting a waiver from this section of the code to allow for the current submission to be considered a Preliminary/Final submission. We support this waiver request contingent the Applicant is not required to provide public improvements such as roadway widening, curb and sidewalk, and contingent the Applicant obtains conditional use approval for the proposed electric utility line to cross the riparian corridor Zones 1 and 2 located south of the existing pond and between the Woodland Building and Art Gallery and Lares Buildings.

23. **Per §146-10.A.(1) – General Requirements, Drafting Standards –** The horizontal plan shall be drawn at a scale not smaller than one inch equals 50 feet. If such scale is not practical, a lesser scale may be used, provided that prior written permission is obtained from the Township Engineer.
The Applicant has requested a partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.
We support this partial waiver request due to the large size of the campus to be depicted on one plan sheet; and since the Applicant is providing larger scales of portions of the site under multiple plan sheets within the land development plans set.

24. **Per §146-10.B.(5) – General Requirements –** The submission type in accordance with §146-9.D shall be indicated on all the plan sheets as "Preliminary Major Subdivision and Land Development" and noted as land development application number "LD-22-05".

25. **Per §146-11.A.(4) – Property Identification Plans –** The property identification plans shall contain tract boundaries with tax parcel numbers, owner's names, and approximate acreage of lots surrounding any portion of the site for a distance of 400 feet.
The Applicant has provided an aerial photograph plan, but this plan does not show the required information in the above section of the code. Due to the size and scope of the project, the Applicant may wish to consider requesting a partial waiver from this code requirement to permit the use of an aerial photograph plan with the 400' distance dimensioned on the plan and show the abutting property owner information.

26. **Per §146-11.A.(6) & §146-11.B.(4) – Property Identification Plans & Existing Features Plan –** The property identification plans shall contain the location of all existing monuments and iron pins on or defining the site.
The Applicant shall show the existing iron pins and monuments on site.

27. **Per §146-11.A.(8) – Property Identification Plans –** The property identification plans shall contain the existing cartways of streets and on adjoining the site, with existing and ultimate rights-of-ways and legislative and traffic route numbers.
The Applicant showed a 21.1 feet roadway cartway for Cloverly Lane in front of the proposed site access drive to the new building and a 50 feet ultimate right-of-way for Cloverly Lane. The Applicant shall show the roadway cartway widths at multiple locations along Cloverly Lane since the roadway width appears to change throughout the roadway based on our measurements. The Applicant shall also provide the roadway cartway widths, and right-of way and ultimate right-of-way widths for Woodland Road and School Lane if the right-of-way lines are different than the ultimate right of way lines.

28. **Per §146-11.A.(10) – Property Identification Plans –** The property identification plans shall show the zoning classification applicable to the tract along with all zoning boundaries that traverse or are within 400 feet of the tract.
The Applicant shall show the zoning tract boundaries that surround the entire site.

29. **Per §146-11.B.(2) – Existing Features Plan –** The existing features plan shall contain the location, names, and widths of all streets, whether including right-of-way, cartway, or center lines.
The Applicant shall label the right-of-way widths, cartway widths, and show the centerlines for all roads surrounding the site on the existing conditions plan.

30. **Per §146-11.B.(3) – Existing Features Plan –** The existing features plan shall contain the location of property lines and names of landowners within 400 feet of any part of the site to be subdivided or developed.
The Applicant has requested a partial waiver from this section of the code to not provide the location, size, and ownership of all underground and above ground public or private utilities.

31. **Per §146-11.B.(5) – Existing Features Plan –** The existing features plan shall contain the location and dimension of all existing buildings and man-made structures, or surfaces located on site, with notations as to which ones will remain and which ones will be removed.
The Applicant shall label the existing buildings and structures on site as either "To Remain" or "To Be Removed".

32. **Per §146-11.B.(7) – Existing Features Plan –** The existing features plan shall contain the location, size,

and ownership of all underground and above ground public or private utilities, on the site ad within 400 feet of any portion of the site, including waterlines, sanitary sewer lines, storm sewer lines, electric lines, telephone lines, gas mains, fire hydrants, and streetlights.
The Applicant has provided an aerial photograph plan which shows the property lines within 400 feet of the site. Due to the size and scope of the project, the Applicant may wish to consider requesting a partial waiver from this code requirement to permit the use of an aerial photograph plan with the 400' distance dimensioned on the plan and show the abutting property owner information.

33. **Per §146-11.C.(6) – Proposed Layout Plans –** The proposed layout plans shall show the location, dimensions, height, type, and first-floor elevation of all proposed buildings and structures.
The Applicant shall provide the above noted information on the Site Plan (Sheet 4).

34. **Per §146-11.D.(4) – Grading Plans –** The grading plans shall provide a note stating the datum to which contour lines refer shall be based on the Abington Township sanitary sewer datum.
The Applicant is requesting a waiver from this section to the code to not provide contour lines based on the Abington Township Sanitary Sewer Datum. We do not support this waiver request since the Applicant can comply by contacting the Abington Wastewater Utilities department to obtain a benchmark elevation and provide a note to adjust the elevations shown on the plans to conform to the Abington Township sanitary sewer datum.

35. **Per §146-11.D.(7) – Grading Plans –** The grading plans shall show the delineation of the limits of work areas and the portions to remain undisturbed.
The Applicant shall label the total limit of disturbance area on the grading plans and show the complete limit of NPDES disturbance area. The Applicant is proposing to run electric through the site from Woodland Road. This area shall be included in the limit of disturbance area and shown entirely on the plans.

36. **Per §146-11.G.(1).(d) – Utility Plan –** The utility plan shall show fire hydrants, fire lanes, and fire department connections.
The utility plans shall clearly show the locations of existing fire hydrants. The Applicant shall ensure there is a working hydrant located within 500 feet of the building under construction per §146-41.B.(4)(d).

37. **Per §146-11.G.(1).(e) & (f) – Utility Plan –** The utility plan shall show the locations of all electrical lines, telephone lines, junctions, vaults, and other related appetences.
There are existing overhead utility lines along Cloverly Lane and internal to the site that are not entirely shown on the plans. The Applicant shall show these overhead utility lines on the utility plans. Base the overall utility plan on Sheet 25, it appears that there will be a utility conflict with the electric line and the proposed underground stormwater basin 1-B located in the new parking area south of the new academic building.

38. **Per §146-11.L.(1).(a) – Architectural Plans –** Tentative architectural plans shall include front, side, and rear elevations of proposed buildings.
The Architectural plans provided do not include elevations for the proposed building. The Applicant shall provide architectural plans that show proposed elevations.

39. **Per §146-12.B.(5) – Record Plan, Seals –** The impressed seal of the Township Engineer shall be provided on the plans.

The Applicant shall provide sufficient room for the signatures and seals of the Township and Township Engineer on the plans. Currently there is no room for the seals of the Township and Township Engineer adjacent to the signature lines.

40. **Per §146-24.D.(3) – Streets –** Where there are present streets, the Board of Commissioners may grant such reasonable exceptions to the requirements for grading and width of cartway provided for in this chapter as will not be contrary to the public interest, subject to conditions necessary to assure adequate streets and other public improvements.
The Applicant is requesting a waiver from this section to not provide cartway widening for the existing streets surrounding the site. We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

41. **Per §146-25.F – Intersections –** Proper sight lines shall be maintained at all intersections of streets. They shall be measured along the center line a minimum clear sight triangle of sixty-five (65) feet from the point of intersection. No buildings, trees, hedges, shrubbery, or other obstruction within the subdivision/land development will be permitted in this area.
The Applicant shall add the clear sight lines to the plans for the proposed driveway entrance to the new building. We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

42. **Per §146-27.A – Sidewalks and Curbs -** Sidewalks shall be provided along all streets except where, in the opinion of the Board of Commissioners, they are unnecessary for the public safety and convenience.
The Applicant is requesting a waiver from this section of the code to not provide sidewalks and curbing along the existing roadways. The Applicant is indicating that the existing onsite walkways and pedestrian routes are adequate to meet pedestrian access requirements. There are no sidewalks leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus entrance to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.

However, the Abington School District Athletic fields are located to the southwest of the site off of Huntingdon Road and is within relatively close proximity to the Penn State campus. The Applicant may wish to consider providing pedestrian access through the Penn State owned property located at 1694 Cloverly Lane which backs up to the school field.

We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

43. **Per §146-27.1 – Curb and Sidewalk Escrow Requirement –** When the Board of Commissioners determines that the installation of curbs and sidewalks are not required for a lot or parcel of ground undergoing subdivision or land development approval, the applicant or developer shall be required to post an escrow amount with the Township of Abington for a period of two years following construction permit issuance, in an amount sufficient to complete curb and sidewalk installation along all street frontage involving the application, when any additional lots or parcels of land remain along the block(s) to which the lot or parcel has frontage which are capable of subdivision or land development at a future point in time.
If a waiver from sidewalk and curb construction is granted, the Applicant will be required to provide a fee-in-lieu held in escrow by the Township for a period of 2 years for the sidewalk and curb covering the cost of this construction at the discretion of the Board of Commissioners.

44. **Per §146-28.A – Off-Street Parking Areas –** All parking spaces for vehicles shall be ten (10) feet wide by twenty (20) feet long. All spaces shall have adequate maneuvering room with clear access at all times entering and existing the space.
Based on Ordinance No. 2186, a parking space for use E-18: University Campus shall be 9 feet by 18 feet. The Applicant is requesting a waiver from this section of the code to not provide parking spaces that are 10 feet wide by 20 feet long. Since the Applicant complies with the zoning requirement for the parking space size, a waiver from this code section is not required.

45. **Per §146.31.A.(6) – Reserve strips; rights-of-ways; easements –** Easements for present or ultimate construction of storm drains and sanitary sewers having a minimum width of twenty (20) feet shall be provided where necessitated by topographical conditions.
The Applicant shall provide an easement around the proposed stormwater management facilities; or the Applicant may consider providing a blanket easement for the proposed stormwater management facilities as part of the stormwater bmp operations and maintenance agreement with the Township.

46. **Per §146-32.A 0 Survey Monuments; Benchmarks; Deed Correction –** Monuments shall be of stone or concrete and located on the right-of-way lines at corners, angle points, beginning and end of curves and as otherwise required. Monuments shall be indicated on all plans. They shall be placed after a new street has been completed. A certified copy of this referenced information shall be given to the Township Engineer. Permanent reference monuments of concrete or durable stone 20 inches by four inches by four inches with forty-five-degree beveled edges shall be set by the subdivider/land developer or builder.
The Applicant shall show the location of all existing and proposed monuments and iron pins on the record and site plans.

47. **Per §146-33.C – Drainage –** Wherever practicable, storm drains shall be located behind the curb and within the right-of-way of the street. They shall be protected by a cover of at least 24 inches diameter.
The Applicant is requesting a waiver from this section of the code to not require storm pipes to have a cover of at least 24 inches. Based on the profiles, the Applicant is proposing Infiltration bed BMP 2A to be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading. We do not support a waiver from this section of the code and recommend a minimum of 24 inches of cover is provided between the BMPs and storm pipes and the proposed ground surface.

48. **Per §146.33.D – Drainage –** Storm drains shall be adequate for the anticipated runoff when the area is fully developed as permitted by zoning. They shall have a minimum internal diameter of 15 inches and a minimum grade of 0.5% unless otherwise approved by the Township Engineer. Reinforced cement concrete pipe (RCCP) shall be used where the system is to be accepted by the Township.
The Applicant is requesting a waiver from this section of the code to provide piping that is smaller than the required 15 inches in diameter. We support this waiver contingent upon the Applicant providing pipe conveyance calculations to ensure the proposed pipes can adequately convey the stormwater runoff through the pipes.

49. **Per §146.37 – Utilities –** All water mains, gas mains, electric, telephone, and other communication services shall be located underground; and such facilities shall be installed prior to street paving.

Electric, telephone, and communication service facilities, both main and service lines, shall be provided by underground cables.
The Applicant shall provide a note on the utility plan stating that all utilities shall be placed underground.

50. **Per §146-39.B.(3)(a)[1] – Landscaping, Off-Street Parking Areas –** At least 5% of the total area devoted to parking area, not including buffers or yards on the perimeter, shall not be paved but shall be used for interior landscaping within a parking area.
The Applicant is requesting a partial waiver from this section of the code to allow a portion of the proposed parking area north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. We would support this partial waiver request since the Applicant is proposing the required landscaping elsewhere on the site and contingent the planting arrangements are acceptable to the Township Board of Commissioners.

51. **Per §146-43.A.(1) – Erosion and Sediment Control –** No change shall be made in the contour of the land nor shall grading, excavating, removal, or destruction of the topsoil, trees, or other vegetative cover of the land can be commenced until such time that a grading permit is applied for and approved.

52. **Per §146-43.C.(3)(a) – Erosion and Sediment Control –** Cut and fill slopes shall not be 15% or steeper, except as approved by the Township Zoning Hearing Board.
The Applicant is requesting a waiver from this section of the code to provide slopes greater than 15%. The Applicant is proposing slopes greater than 2:1 of 50% south of the proposed building and parking area. We would recommend a waiver from this section of the code contingent that the Applicant provide slopes no greater than 3:1 of 33%. We support this waiver request due to the existing steep topographic conditions of site, and to minimize the site disturbance to the existing terrain.

53. **Per §146-44 – Steep Slopes –** Areas where the pre and post development slope is 15% or more shall be shown on the preliminary and final plans as required by article V of this chapter.
The Applicant is proposing slopes of greater than 2:1 or 50% south of the proposed building and parking area. These areas shall be hatched to indicate slopes of greater than 15%.

CHAPTER 142
STORMWATER MANAGEMENT COMMENTS

54. **Per §142-302.B.(1).(m) – SWM Site Plan Contents –** The following signature block for the Municipality:
"(Municipal official or designee), on this date (date of signature), has reviewed and hereby certifies that the SWM site plan meets all design standards and criteria of the Municipal Ordinance No. (number assigned to the Ordinance)."

The Applicant shall add the above signature block to the PCSM plan as required per this Code Section.

55. **Per §142-302.B.(2).(b).[5] – SWM Site Plan Requirements –** The PCSM Plan shall show the locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of the property lines.
The Applicant shall show the existing and proposed features within fifty (50) feet of the property lines as indicated in this Code Section.

56. **Per §142-302.B.(2).(b).[9] – SWM Site Plan Requirements –** The PCSM Plan shall include O&M plan in accordance with §142-702 of this chapter, for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities.
The Applicant shall provide an O&M schedule and notes on the PCSM Plan.

57. **Per §142-302.B.(2).(b).[10] – SWM Site Plan Requirements –** The PCSM Plan shall show the limits of earth disturbance, including the type and amount of impervious area that is proposed.
The Applicant shall provide the total size of the limit of disturbance area on the PCSM Plan. The Applicant is proposing to run electric through the site from Woodland Road. This area shall be included in the limit of disturbance area total.

58. **Per §142-303.A.(1) – Plan Submission –** Proof of application or documentation of required permit(s) or approvals for the National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from construction activities shall be provided.
Since the Applicant is disturbing more than an acre of land, a NPDES Permit will be required.

59. **Per §142-401.H – General Requirements –** No regulated activities shall commence until the Municipality issues written approval of an SWM site plan, which demonstrates compliance with the requirements of this chapter**.**

60. **Per §142-405.A.(1).(a) thru (e) – Groundwater Recharge Requirements –** Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the characteristics as described in §142-405.A.(1).(a) thru (e).
The Applicant has indicated on the PCSM Plan that the proposed BMP will utilize infiltration. Since the Applicant is intending to propose infiltration, the proposed BMP shall meet the requirements of the above section of the code. The Applicant shall provide basin and raingarden cross-sections for all basins/raingardens to ensure that the above requirements are being met. The 100-year flood elevations for these proposed BMPs shall also be shown on the cross sections.

61. **Per §142-408.B.(2) – Stream Bank Erosion Requirements –** The minimum orifice size in the outlet structure to the BMP shall be three inches in diameter where possible, and a trash rack shall be installed to prevent clogging. On sites with small drainage areas contributing to this BMP that do not provide enough runoff volume to allow a twenty-four-hour attenuation with the three-inch orifice, the calculations shall be submitted showing this condition. Orifice sizes less than three inches can be utilized, provided that the design will prevent clogging of the intake. It is recommended that the design, to accommodate maintenance, include a sand or porous media filter.
The Applicant is proposing orifice sizes smaller than 3 inches in OS-1A, OS,1B, OS-2A, OS-2B, and OS-3B. The Applicant shall provide an orifice size of at least 3 inches for all outlet structures; otherwise, a waiver from this section of the code will be required.

62. **Per §142-409.A.(1).(b) – Stormwater Peak Rate Control and Management Districts -** Based on the Watershed Map, Figure 1.03, this site is located within the Pennypack Creek Watershed. Per Figure 409.1P Area P Stormwater Management District Watershed Map, this site is located within District B of this watershed. This district requires the 100-year post flow to be reduced to the 50-year pre, the 50-year post be reduced to the 25-year pre, the 25-year post be reduced to the 10-year pre, the 10-year post be reduced to the 5-year pre, the 5-year post be reduced to the 2-year pre, and the 2-year

post be reduced to the 1-year pre.
The Applicant is requesting a partial waiver from this section of the code for the requirements to provide rate controls for the areas along the eastern limit of proposed work. We would not support this waiver request as the Applicant is required to provide stormwater peak rate control for the entire site. We do not support this waiver request as the Applicant is required to provide stormwater peak rate control for the entire site as part of this land development. Due to existing downstream flooding concerns, the Applicant should consider regrading these areas to provide positive flow towards proposed stormwater facilities to capture any stormwater runoff.

In addition, based on the discharge summary chart provided in the stormwater management report, the total existing discharge flows are unclear. The Applicant shall provide a comparison table to clearly indate the pre and post development discharges for each storm year to ensure compliance with the requirements of this Code Section.

63. **Per §142-704.A – Operation and Maintenance Agreement for Privately Owned Stormwater Controls and BMPs –** Prior to final approval of the SWM site plan, the owner shall sign and record an operation and maintenance (O&M) agreement covering all stormwater control facilities which are to be privately owned.

64. **Per §142-802.A – Roof Drains –** Roof drains shall not be connected to streets, sanitary or storm sewers, or roadside ditches, and shall discharge to infiltration areas or vegetative BMPs to the maximum extent practicable, except for already existing developed sites where the onsite stormwater system already designed and equipped to accomplish stormwater rate, quality, and quantity mitigation.
The Applicant shall show the roof drain locations on the PCSM Plan to ensure that the water is being directed to the BMPs.

GENERAL STORMWATER MANAGEMENT COMMENTS

65. The Applicant shall complete the statement of note 4 of the stormwater management notes on the PCSM Plan (Sheet 14); or remove note 4 if not needed.

66. The Applicant shall provide pipe conveyance calculations as part of the PCSM Report. In the report, the Applicant indicated that conveyance computations are to be provided under separate cover.

67. The Applicant shall provide charts showing the invert elevations, hydrologic elevations, pipe sizes, pipe flows, pipe slopes, etc. in the PCSM Report.

68. The Applicant shall provide storage volume calculations for the proposed infiltration facility to ensure that the 100-year storm can be properly managed.

69. The Applicant has provided an underground infiltration bed detail on the plans; however, no elevations are specified for this detail. The Applicant shall provide elevations for all proposed underground infiltration beds on the plans.

70. Additional stormwater comments may follow once the Applicant submits all the required information.

GENERAL COMMENTS

71. The Applicant shall add the list of the waivers requested on the plans. The list of waivers will later note the date of approval by the Township Board of Commissioners if granted.

72. The Applicant shall indicate the plan sheets to be recorded on the Sheet List Table on Sheet 1.

73. The Applicant shall confirm the numbering of the general notes list on the Cover Sheet on Sheet 1.

74. On the Existing Resources and Site Analysis plan (Sheet 5), the scale is noted as 1"=40'; however, the scale shown of the plan appears to be 1"=100'. The Applicant shall confirm all scales shown on the plans and revise accordingly.

75. On the project information table on the Site Plan (Sheet 4), the Applicant is indicating 1,457 parking spaces are provided but in the parking calculation, the Applicant is indicating that 1,291 parking spaces are provided. The Applicant shall confirm the correct number of parking spaces and revise accordingly.

76. The Applicant shall provide our office with legal descriptions and exhibits for each of the existing lots and the proposed combined parcel for review and approval prior to the recording of the plans; as well as any required easements. In addition, the Applicant is offering 5' right-of-way offered for dedication to the Township. A description and exhibit of this area shall also be provided for review and approval.

77. We defer to Traffic Planning and Design for traffic related comments.

We have received the following documents/permits/reviews:

- AQUA Will Serve Letter (June 1, 2022)
- Application for SD/LD Review (June 6, 2022)
- MCPC Request for Review Letter (June 7, 2022)
- Waiver Request Letter (June 7, 2022)
- Sanitary Sewer Availability Letter (June 17, 2022)
- Sanitary Sewer Review Letter (June 30, 2022)
- Post Construction Stormwater Management Report (July 2022)
- Fire Marshal Review (via email August, 3, 2022)
- Traffic Review (August 8, 2022)
- MCPC Review (July 11, 2022)

We have not received the following documents/permits/reviews:

- EAC Review *(A special combined meeting was held with STC on 07/28/2022. Review comments in progress.)*
- STC Review *(A special combined meeting was held with EAC on 07/28/2022. Review comments in progress.)*
- MCCD Review
- Financial Escrow
- LD Agreement
- Stormwater BMP O&M Agreement

- Legal Descriptions & Exhibits

SUMMARY

We do not recommend Preliminary/Final Major Subdivision and Land Development Plans approval until the Applicant addresses the above referenced comments, in particular the zoning comments. We suggest that a technical discussion meeting be scheduled to discuss the above referenced comments.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Executive Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager

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September 9, 2022

ABINT130027

Mr. Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: Executive Summary for LD-22-05-Penn State New Academic Building
PARID: 30-00-09797-00-6 / TMID: 30003 002 (1577 Cloverly Lane)
PARID: 30-00-09788-00-1 / TMID: 30003 001 (1639 Cloverly Lane)
PARID: 30-00-09784-00-5 / TMID: 30003 025 (1665 Cloverly Lane)
PARID: 30-00-09780-00-9 / TMID: 30003 020 (1681 Cloverly Lane)
Preliminary/Final Major Subdivision and Land Development Plans Review

Dear Mr. Manfredi:

We have received a copy of the Preliminary/Final Major Subdivision and Land Development Plans consisting of thirty-seven (37) sheets dated June 6, 2022 and received on June 9, 2022 as prepared by Gilmore & Associates, Inc. located at 184 West Main Street, Suite 300 in Trappe, PA for the above referenced project. The land development applicant was deemed complete for reviews on June 17, 2022.

Executive Summary:
This land development application involves the four (4) existing parcels noted above. Under this application, the applicant is proposing the following:

- Consolidation of the four (4) existing parcels, which will yield a gross area of 2,090,422.72 SF (or 47.99 acres). With the lot consolidation of the four parcels, the entire site will be surrounded by roadways on all sides.
- Construct a new 3-story 30,688 SF (74,100 GSF) academic building with associated parking areas located adjacent the new building.
- New curbing, sidewalk and walkways; landscaping; and stormwater management facilities are also proposed as part of this land development.

The new building addition is proposed to be serviced by public water and sewer.

The parcels consisting of single-family and vacant land (1639, 1665, and 1681 Cloverly Lane) have been rezoned from the R-1 Low-Density Residential zoning District to the CS Community Service Zoning District under Ordinance No. 2187, as adopted on November 10, 2021. The Penn State Abington campus (1577 Cloverly Lane) zoning district within the CS Community Service Zoning District did not change. In addition, the Zoning text amendment under Ordinance No. 2186, as adopted on November 10, 2021, created a new college/university use within the CS Community Service Zoning District.

The site is fronted by Woodland Road (40 FT R/W) to the north; School Lane (40 FT R/W) to the east, and Cloverly Lane (40 FT R/W) to the south and east. Access to/from the campus site will be by way of nine (9) existing entrances, of which three (3) access drives intersect Woodland Road; three (3) access drives intersect School Lane; and three (3) access drives intersect Cloverly Lane. There will be one (1) new

entrance that intersects Cloverly Lane proposed for the new academic building. Portions of the existing three (3) buildings located at the southwest corner of Cloverly Lane and the three (3) buildings along Woodland Road do not meet the minimum 75' front yard setback; and therefore, these existing buildings are considered existing non-conforming.

There is an existing tributary to Meadow Brook, located adjacent the Spring House at the northern portion of the site, and traverses through the center of the tract to flow southeast from the site. In accordance with the FEMA, Flood Insurance Rate Map (FIRM) Panel No. 42091C0076G, effective March 2, 2016, and Panel No. 42091C0401G, effective March 2, 2016, the tributary and adjacent areas are identified by the FEMA FIRM to be located within flood Zone X and are special flood hazard areas subject to inundation by the 0.2% annual chance flood (500-year flood), or areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. The remaining portions of the tract, including the location of the new academic building, are located within Zone X, which are areas determined by the FEMA FIRM to be located outside the 0.2% annual chance flood and areas of minimal flood hazard. Therefore, based on the FEMA determination, the area of the tract with the proposed site improvements are not subject to the floodplain regulations of the Floodplain Conservation Overlay District. However, in accordance with Figure 15.2 - Approximate Location of Riparian Corridor Conservation District, the campus parcel is located within the Riparian Corridor Conservation District and is subject to the regulations of the Riparian Corridor Conservation District.

The Applicant is not requesting any variances as part of this land development project.

Waivers Requested:
The Applicant is requesting the following waivers as part of this land development:

1. **§146-9.A – Application Stages –** A waiver to consider the current subdivision and land development submission to be a combined Preliminary/Final application.

2. **§146-10.A.(1) – General Requirements, Drafting Standards –** A partial waiver to allow plans that depict the overall site to be smaller than 1"=50'.
   Plans depicting the Academic Building project area are drawn at 1"=40' or larger.

3. **§146-11.B.(7) – Existing Features Plan –** A partial waiver is requested from the requirements to provide the location, size, and ownership of all underground and above ground public or private utilities.
   The proposed plan provides information made available through site survey, historical maps, and information obtained through PA one-call.

4. **§146-11.D.(4) – Grading Plans –** A waiver is requested from the requirement to provide contour lines based on Abington Township sanitary sewer datum. The parcel includes FEMA mapped areas and correlation with FEMA datum is required coordination.

5. **§146-24.D.(3) – Streets, Cartway Width –** A waiver is requested to allow the existing cartway widths of the exiting streets to remain. The existing streets are well-established, and no roadway widening is proposed.
   The minimum cartway width for residential streets is 30 feet between curbs. The existing cartway of Cloverly Lane where the new access drive is proposed is 22.5 feet to 23 feet.

6. **§146-27 – Sidewalks and Curbs –** A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements.
   No new sidewalks or curbs are proposed within the public right-of-way. There are no sidewalks

leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus entrance to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.

7. **§146-28.A – Off-Street Parking Areas –** A waiver is requested to provide parking stall sizes in accordance with Ordinance No. 2186 in lieu of 10 feet wide by 20 feet long spaces. The Applicant is proposing parking stalls of 9 feet wide by 18 feet long.
   This waiver request is not applicable since the proposed 9' wide by 18' long parking spaces comply with the parking space dimension of the College/University Campus Use as provided under Ordinance No. 2186, adopted on November 10, 2021.

8. **§146-33.C – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to have a cover less than 24 inches in limited areas that are not subject to vehicular traffic.
   Based on the profiles, the Applicant is proposing Infiltration bed BMP 2A to be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading.

9. **§146-33.D – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to be less than 15 inches in diameter.
   The Applicant is proposing pipes with a diameter of less than 15 inches.

10. **§146-39.B.(3)(a)[1] – Landscaping, Off Street Parking Areas –** A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter.
    The Applicant is proposing additional landscaping provided on the building-side of the parking lot.

11. **§146-43.C.(3)(a) – Erosion and Sediment Control –** A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon Township Engineer approval of design.
    The Applicant is proposing slopes of approximately 2:1 of 50%.

12. **§142-409.A – Stormwater Peak Rate Control and Management Districts –** A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:
    a. Proposed to receive replacement pavement in kind;
    b. To receive a reduction in pavement area and not otherwise improved;
    c. Outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

Issues:
The following issues we have identified from our review is as follows:

- Traffic:
  - Applicant needs to address McMahon traffic review comments regarding the traffic statement provided by the Applicant.
- Building Height:
  - Building height of 47.83 ft proposed. Applicant to confirm fire lane for building to permit the proposed height.
- Loading Area:
  - Applicant to clarify delivery vehicles, maneuverability, and possibility of a reduced loading area so delivery vehicle do not block parking lot drive aisle.
- Site element screens:

  - Additional landscaping for trash containment area needed
- Site lighting:
  - There are multiple locations within the parking areas, aisles, and access ways where the lighting is below 0.5-foot candles of light. The Applicant shall revise the lighting to provide a minimum 0.5-foot candles at the entrance and stairs adjacent the loading area; parking area between luminaires A & D; and the new walkway connecting to the existing parking lot behind Rydal Building.
- Stormwater Management:
  - Applicant to provide NPDES permit.
  - Roof drain locations on the PCSM Plan needs to be shown to ensure that the runoff is being directed to the BMPs.
  - A comparison table to clearly indicate the pre and post development discharges for each storm year to ensure compliance needs to be provided.
  - Additional supporting pipe conveyance calculations, charts, storage volumes, etc. are needed as part of the PCSM Report; as well as, storm event elevations to be shown on the plan for the infiltration bed details.

Summary:
We do not recommend Preliminary/Final Major Subdivision and Land Development Plans approval until the Applicant addresses the above referenced comments, in particular the zoning comments.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Executive Assistant to the Township Manager
Ashley McIlvaine, Special Assistant to the Township Manager
Lucy Strackhouse, Chairperson, Abington Township Planning Commission

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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

October 4, 2022

Mr. Richard Manfredi, Township
Manager Abington Township
1176 Old York
Road Abington,
PA 19001

RE: LD-22-05-Penn State New Academic Building
PARID: 30-00-09797-00-6 / TMID: 30003 002 (1577 Cloverly Lane)
PARID: 30-00-09788-00-1 / TMID: 30003 001 (1639 Cloverly Lane)
PARID: 30-00-09784-00-5 / TMID: 30003 025 (1665 Cloverly Lane)
PARID: 30-00-09780-00-9 / TMID: 30003 020 (1681 Cloverly Lane)
Preliminary/Final Major Subdivision and Land Development Plans Review (1st Submission)

Dear Mr. Manfredi:

We are in receipt of a review letter for the referenced minor land development project from the township engineer, Pennoni, dated August 9, 2022 Below are the review comments presented in the order in which they appear in this letter. Sections containing general project information requiring no response have been omitted. Our responses are provided in italics following each comment.

WAIVERS REQUESTED

The Applicant is requesting the following waivers as part of this land development:

1. **§146-9.A – Application Stages –** A waiver to consider the current subdivision and land development submission to be a combined Preliminary/Final application.
   We support this waiver request contingent the Applicant is not required to provide public improvements such as roadway widening, curb and sidewalk; and contingent the Applicant obtains conditional use approval for the proposed electric utility line to cross the riparian corridor Zones 1 and 2 located south of the existing pond and between the Woodland Building and Art Gallery and Lares Buildings.

   Noted.

2. **§146-10.A.(1) – General Requirements, Drafting Standards –** A partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.
   We support this partial waiver request due to the large size of the campus to be depicted on one plan sheet; and since the Applicant is providing larger scales of portions of the site under multiple plan sheets within the land development plans set.

   Support for this partial waiver request is noted.

3. **§146-11.B.(7) – Existing Features Plan –** A partial waiver is requested from the requirements to provide the location, size, and ownership of all underground and above ground public or private utilities. The proposed plan provides information made available through site survey, historical maps, and information obtained through PA one-call. However, the plans do not show information that was not discovered during project development.
We support this partial waiver request since the Applicant has provided an Existing Resources Site Analysis Map (ERSAM) and the location of the new building is limited to the southwest corner of the site.

Support for this waiver request is noted.

4. **§146-11.D.(4) – Grading Plans –** A waiver is requested from the requirement to provide contour lines based on Abington Township sanitary sewer datum. The parcel includes FEMA mapped areas and correlation with FEMA datum is required coordination.
We do not support this waiver request since the Applicant can comply with providing an adjustment to the elevations shown on the plans to conform to the Abington Township sanitary sewer datum. We encourage the Applicant contact the Abington Wastewater Utilities department to obtain a benchmark elevation and provide a note on the land development plans to reference the elevation adjustment to meet the Abington Township sanitary sewer datum.

A benchmark elevation to the Abington Township sanitary sewer datum will be added to the plan. The township engineer has indicated that this will be sufficient to provide support for the waiver request.

5. **§146-24.D.(3) – Streets, Cartway Width –** A waiver is requested to allow the existing cartway widths of the exiting streets to remain. The existing streets are well-established, and no roadway widening is proposed.
The minimum cartway width for residential streets is 30 feet between curbs. The existing cartway of Cloverly Lane where the new access drive is proposed is 22.5 feet to 23 feet.

We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

No zoning relief is required for the width of the public road:

1- The property is an existing, developed university campus on an existing public road which will not be altered by the new academic building. Thus, even if the section of the 2017 ordinance cited in the review letter were applicable, the width of the public street is an existing nonconforming condition, which does not require zoning relief.

2- See ordinance 2186 and the provisions which amended the 2017 zoning code, creating a new land use category with superseding zoning standards:

- *Section 902.A.5 of the zoning code, as amended – requires on access to a public street, with no minimum street width. This provision, deleting the minimum street width requirement, was included specifically because of the existing width of Cloverly Lane;*
- *Section 902.B of the amended zoning code contains provisions regarding possible conflicts between the new university regulations and previous regulations for all schools. The university regulations prevail and supersede conflicting regulations; and*
- *The same conflict provisions appear in section 3.E of Ordinance 2186 (page7), whereby Ordinance 2186 controls in the event of any conflicting regulation.*

6. **§146-27 – Sidewalks and Curbs –** A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new sidewalks or curbs are proposed within the public right-of-way.
There are no sidewalks leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus *entrance* **to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.**

However, the Abington School District Athletic fields are located to the southwest of the site off of Huntingdon Road and is within relatively close proximity to the Penn State campus. The Applicant may wish to consider providing pedestrian access through the Penn State owned property located at 1694 Cloverly Lane which backs up to the school field.

We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

As part of the zoning process, the township asked the University to divest itself of the properties across the street, including 1694 Cloverly Lane. Providing pedestrian access through that property for active athletic fields would significantly and adversely impact the marketability of the properties which the University has agreed to sell.

7. **§146-28.A – Off-Street Parking Areas –** A waiver is requested to provide parking stall sizes in accordance with Ordinance No. 2186 in lieu of 10 feet wide by 20 feet long spaces. The Applicant is proposing parking stalls of 9 feet wide by 18 feet long.
This waiver request is not applicable since the proposed 9' wide by 18' long parking spaces comply with the parking space dimension of the College/University Campus Use as provided under Ordinance No. 2186, adopted on November 10, 2021.

This waiver is not required.

8. **§146-33.C – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to have a cover less than 24 inches in limited areas that are not subject to vehicular traffic.
Based on the profiles, the Applicant is proposing Infiltration bed BMP 2A to be located between
1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading.

We do not support the waiver request from this section of the code and recommend that there be at least a minimum of 24 inches of cover provided between the BMPs and storm pipes from the proposed ground surface.

Additional information will be provided to the township engineer regarding minimum fill requirements for the stormwater pipes provided. Based on coordination between the applicant and township engineer, support for this waiver request is anticipated.

9. **§146-33.D – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to be less than 15 inches in diameter. The Applicant is proposing pipes with a diameter of less than 15 inches.
We support this waiver contingent upon the Applicant providing pipe conveyance calculations to ensure the proposed pipes can adequately convey the stormwater runoff through the pipes.

Pipe conveyance computations will be forwarded to the township engineer.

10. **§146-39.B.(3)(a)[1] – Landscaping, Off Street Parking Areas –** A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. The Applicant is proposing additional landscaping is provided on the building-side of the parking lot.
We support this partial waiver request since the Applicant is proposing the required landscaping elsewhere on the site and contingent the planting arrangements are acceptable to the Township Board of Commissioners.

Support for this partial waiver request is noted.

11. **§146-43.C.(3)(a) – Erosion and Sediment Control –** A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon Township Engineer approval of design. The Applicant is proposing slopes of approximately 2:1 of 50%.
We support this waiver request due to the existing steep topographic conditions of site, and to minimize the site disturbance to the existing terrain.

Support for this partial waiver request is noted.

12. **§142-409.A – Stormwater Peak Rate Control and Management Districts –** A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:
    a. Proposed to receive replacement pavement in kind;
    b. To receive a reduction in pavement area and not otherwise improved;
    c. Outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

We do not support this waiver request as the Applicant is required to provide stormwater peak rate control for the entire site as part of this land development. Due to existing downstream flooding concerns, the Applicant should consider regrading these areas to provide positive flow towards proposed stormwater facilities to capture uncontrolled stormwater runoff.

The applicant's engineer has discussed this waiver request with the township engineer who has indicated that support for this waiver request will be considered for areas where stormwater control is infeasible. Additional coordination between the applicant's engineer and the township engineer is pending.

ZONING COMMENTS

1. **Per Ordinance No. 2186 Section 1 –** Use E-18 University Campus is a new use that has been added to the Abington Comprehensive Use Matrix and is now a permitted use in the CS Community Service District.

Noted

2. **Per Ordinance No. 2186 §902.A.4 – Dimensional Requirements –** The maximum building height shall be forty-five (45) feet, subject to the exceptions set forth in §2601.G, Height Exceptions. Building height may be increased to fifty-five (55) feet, if the front yard or other yard setback along a public street exceeds 100 feet, if fire lane access lanes are provided for the structure, consistent with recommendations of the Township Fire Marshal, and if a high-density buffer is used along property lines adjacent to a residential zoning district. For properties greater than twenty-five (25) acres, new building facades may exceed a length of

160 feet provided that they include horizontal building offsets at least once every 100 horizontal feet of façade length. However, in no case shall a new building façade exceed a length of 300 feet.
The Applicant is proposing a building height of 47.83 feet which is greater than the 45-feet maximum. Based on the requirements above, the Applicant will only be permitted to increase the building height greater than 45 feet if the front yard setback is at least 100 feet, fire lanes are provided, and a high-density buffer is provided adjacent to residential zoning districts. Based on the plan, it appears there are no fire lanes provided for the new building, or the fire lanes are not labeled. The Applicant

shall clarify and confirm if fire lanes are provided. We defer to the Fire Marshal for acceptance of the fire lanes. If no fire lanes have been provided, the Applicant will not be able to provide a building height of greater then 45 feet without a variance being obtained.

Through the applicant's coordination with the Fire Marshal, no additional fire lanes, other than the access shown on the current Land Development plan set, are required for this project. We believe that the Fire Marshal has also made the township engineer aware that the plan is consistent with his recommendations. Therefore, this referenced section permits the additional building height of 55 ft.

3. **Per §903.C.1 – Design –** Rooftop HVAC or other utilities shall be screened by the roofline, parapet, or other architectural features.
The Applicant shall indicate if any roof mounted equipment is proposed, and if so, this equipment shall be screened by the roofline, parapet, or other architectural features.

All mechanical units are proposed to be located within fully enclosed rooftop penthouses. The exterior of the penthouses facing the public street is proposed to be clad using the same finish materials as the exterior walls of the building, as shown on the enclosed building elevations.

4. **Per §903.C.2 – Design -** Roofs are required to be either: (a) pitched on at least 80% of their surface with a pitch of 6 vertical to 12 horizontal, (b) have a parapet for its entire length, or (c) have a change in roof line of at least two vertical feet at least once every 50 horizontal feet. If the building is at least two stories tall it may meet (a), (b), or (c), above, or may have a projecting cornice. All roofs shall meet the standards above for facades visible from public ways.
Based on the Architectural renderings provided, there are changes provided in the roofline; however, no dimensions for these roofline changes have been provided. The Applicant shall provide dimensions of these changes to ensure that they are at least two (2) vertical feet at least once every fifty (50) horizontal feet. A calculation of the pitch roof surface area should also be provided on the renderings for clarification.]

The proposed roof complies with 903.C.2 Option (b); with a parapet proposed for its entire length. The parapets include a combination of vertical parapets clad with the same finish materials as the exterior walls of the building, and gable roof assemblies with a pitch of 15 vertical to 12 horizontal. These parapets are noted on the enclosed building elevations, as well as the calculation of the pitch of the sloped roof areas.

5. **Per §904 – Expansions -** Community service institutions permitted by-right may, as a matter of right, increase building and impervious surface coverage by a total of 25% of the coverage existing as the date of this amendment, not to exceed the dimensional requirements of Figure 9.4 CS Community Service District: Dimensional Requirements. Any increase beyond 25% of such existing coverage up to the maximum permitted under Figure 9.4 CS Community Service District: Dimensional Requirements may be made only by conditional use approval.
The Applicant shall provide a calculation on the plans showing the existing and

proposed building and impervious surface coverages to ensure that the proposed coverages do not exceed a total of 25% of the existing coverages; otherwise, the Applicant shall be required to obtain a conditional use approval for exceedance of the permitted 25% expansion.

The existing impervious coverage for the campus is 38.5%. The proposed impervious coverage, including consolidation, is 38.8 % for a total increase of 0.3 %. This information will be added to the plans.

6. **Per §905.B – Special Development Regulations –** The development site must have direct access to a public street which has a minimum thirty-two (32) foot paved cartway.
The Applicant is providing direct access to Cloverly Lane which has an existing roadway cartway width of approximately 22.5 to 23 feet wide, less than the required 32 feet wide paved cartway. The Applicant will be required to obtain a variance from this section of the code to allow for direct access to a public street with a cartway width of less than 32 feet.

We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

No zoning relief is required for the width of the public road:

1- The property is an existing, developed university campus on an existing public road which will not be altered by the new academic building. Thus, even if the section of the 2017 ordinance cited in the review letter were applicable, the width of the public street is an existing nonconforming condition, which does not require zoning relief.

2- See ordinance 2186 and the provisions which amended the 2017 zoning code, creating a new land use category with superseding zoning standards:

- *Section 902.A.5 of the zoning code, as amended – requires on access to a public street, with no minimum street width. This provision, deleting the minimum street width requirement, was included specifically because of the existing width of Cloverly Lane;*
- *Section 902.B of the amended zoning code contains provisions regarding possible conflicts between the new university regulations and previous regulations for all schools. The university regulations prevail and supersede conflicting regulations; and*
- *The same conflict provisions appear in section 3.E of Ordinance 2186 (page7), whereby Ordinance 2186 controls in the event of any conflicting regulation.*

7. **Per §1503.B.2.b. & c. – Riparian Corridor Conservation District, Uses Permitted by Conditional Use**

– In Zone 2, corridor crossings by centralized sewer and water lines, and/or public utility transmission lines, provided that any disturbance is offset by corridor mitigation measures as outlined in §1508. Riparian Management of this chapter and provided underground utility and pipe crossings are located at least 3 feet below the stream invert. Centralized sewer and/or water lines and public utility transmission lines running along the corridor, provided that any disturbance is, at a minimum, offset by corridor mitigation measures. These lines shall be located as far from Zone One as practical
The Applicant is proposing an electrical line that crosses the Riparian Corridor Zones 1 and 2. The Applicant shall clarify and confirm that the electrical line at the crossings will be a minimum of three feet below the stream invert. In addition, the Applicant shall provide mitigation measures in accordance with §1508 – riparian management. The mitigation measures shall be labeled and shown on the plans.

If required, the University will seek conditional use approval.

8. **Per Ordinance 2186 §2103.E Use E-18 A.1 –** Building elevations/renderings shall be submitted to determine compliance with these criteria. Views presented shall include those of each new building façade visible from the street, as viewed from the street. Views of new parking areas from the street shall also be provided, where visible from the street.
The Applicant has provided architectural renderings; however, no elevations/dimensions have been provided. The Applicant shall provide architectural renderings with dimensions to ensure compliance with this Code Section.

Building elevations including dimensions are enclosed. The building elevations shown on Sheet A3.10 represent the building facades that face the public street. The building elevations shown on Sheets A3.11 and A3.12 represent the building facades that face the interior of the Penn State Abington campus (not the public street). Overall building dimensions are indicated on the keyplan on Sheet A3.10.

9. **Per Ordinance 2186 §2103.E Use E-18 A.2.a thru g –** It is recommended that all new buildings and expansions be compatible with the architectural theme of existing buildings and structures on-campus and on abutting streets. Factors for consideration include, but are not limited to:
    a. Colors
    b. Materials
    c. Style and pitch of roof
    d. Use of differentiated materials
    e. Wall-to-window-and-door ratio
    f. Architectural features and trim
    g. Door accentuation

    The Applicant shall clarify and confirm the proposed building will be compatible with the architectural theme of existing buildings on campus and on abutting streets. The Applicant shall note the architectural themes on the plans.

The exterior building design is in accordance with the architectural standards provided in the Township's zoning ordinance and is compatible with the architectural theme of existing buildings on-campus and on abutting streets. Notation of the architectural themes is included on the enclosed building elevations.

10. **Per Ordinance 2186 §2103.E Use E-18 A.7 –** A traffic impact study shall be submitted for review and approval and shall comply with the requirements of the above section of the code. **We defer to the Township Traffic Engineer, McMahon Associates, for further traffic related comments.**

Enclosed is a Traffic Assessment report prepared by Traffic Planning and Design, Inc. and dated October 4, 2022.

11. **Per Article XXII – Signs –** The Applicant shall indicate if any signage is proposed as part of this land development. If so, all signs shall meet the requirements of the above section of the code.

Noted. Signage is not currently proposed.

12. **Per §2312.A – Off-Street Loading Requirements –** Areas provided for the loading and unloading of delivery trucks and other vehicles, and for the servicing of shops by refuse collection, fuels, and other service vehicles, shall be arranged so that they may be used without blocking or interfering with traffic lanes, access drives; parking aisles; parking facilities, or

pedestrian ways; or requiring backing out into a street.
The Applicant is proposing a loading space on Sheet 37 which will encroach and block the drive aisle in the parking lot area. The Applicant shall revise the location of this loading space to not encroach the required drive aisle.

See Ordinance 2186, the conflict provisions, and amended section 2103.E, subsection D providing superseding load berth requirements, without size and location requirements. The maximum size vehicle is anticipated to be a 40-foot straight truck. While the Applicant has the ability to temporarily restrict and manage parking to address the effect of occasional drive encroachment from loading, this area is being analyzed by the university to minimize the overlap currently shown on the drawings.

13. **Per §2312.E – Off-Street Loading Requirements –** All loading areas shall be adequately screened from adjacent streets and properties, and landscaped in accordance with an overall plan, designed according to the provisions herein.
The Applicant is proposing the loading dock to be located to the side of the proposed building with no screening or landscaping being provided. The Applicant will be required to revise the location of this loading dock and ensure the loading area is adequately screened per this Code Section.

Screening is provided in the form of solid walls, opaque fencing and opaque sliding gate. The loading area will be opened for occasional use of the loading dock. The loading area will remain screened, with opaque sliding gate closed, under all other circumstances. The front of the loading dock containing the sliding gate will face the interior of the campus and is not visible from the public street.

14. **Per §2312.F – Off-Street Loading Requirements –** A required loading berth shall be at least 15' in width by at least 50 feet in length, exclusive of aisle and maneuvering space, and shall have a vertical clearance of at least 16 feet. Exception: Where it can be demonstrated that loading and unloading will only be performed by small trucks or vans, the loading berth size may be reduced upon agreement with the Township. The approved plan shall contain a note which so restricts the type of loading permitted, and subsequent uses shall be restricted, as necessary.
The Applicant is providing a loading space that is 12 feet wide by 50 feet long. The Applicant will be required to widen the loading berth width or demonstrate that the loading area will be restricted to small trucks or vans, and upon agreement with the Township. Otherwise, a variance from this Code Section will be required.

See Ordinance 2186, the conflict provisions, and amended section 2103.E, subsection D providing superseding load berth requirements, without size and location requirements. The maximum size vehicle is anticipated to be a 40-foot straight truck. While the Applicant has the ability to temporarily restrict and manage parking to address the effect of occasional drive encroachment, this area is being analyzed to minimize the overlap currently shown on the drawings.

15. **Per §2401.A.2.d.(1).(a) – Preservation and Protection of Existing Vegetation –** Tree replacement shall occur when new impervious coverage exceeds 500 SF and a tree with a minimum caliper of six (6) inches is removed. In such cases, two new trees, each with a minimum of 3-3.5 inches in caliper, measured six (6) inches above grade, shall be planted for each tree with a minimum caliper of six (6) inches that is removed.
The Applicant is proposing to remove 76 existing trees with a caliper of greater than six (6) inches. Therefore, the Applicant is required to provide 152 additional trees each with a caliper of 3-3.5 inches as part of this land development. The Applicant is proposing 37 trees to be planted with 115 trees to be dispersed throughout the site

and/or coordinated between PSU and Abington Township. The Applicant shall be required to obtain Township approval for an agreement to not provide all the required replacement trees on site and to provide the additional trees in other locations approved by the Township.

Noted. The applicant will pursue an agreement for an alternate to providing all replacement trees upon the PSU Abington campus.

16. **Per §2401.A.2.d.(1).(c) – Preservation and Protection of Existing Vegetation –** Each mature tree with a 10-inch caliper or greater on the site shall be designated either "TO REMAIN" or "TO BE REMOVED". **The Applicant shall indicate and label any existing trees within the project site that have a 10-inch caliper or greater on the plans and indicate if these trees are "TO REMAIN" or "TO BE REMOVED".**

    Will Comply.

17. **Per §2402.A.2.b.(7) – Planting Strips –** Planting strips shall contain plantings of one canopy tree every 25 feet, with two shrubs per tree, and pervious area (consisting of green area, mulch, or pervious paving) to cover the entire remaining unplanted area at maturity.
    The Applicant is providing a planting strip to the south of the proposed building that has trees that are spaced 30 feet apart and where no shrubs and groundcover is shown. The Applicant shall landscape the planting strip as required by this Code Section.

    Will Comply.

18. **Per §2402.B.2.b – Parking Lot Landscaping and Street Trees –** Large canopy trees shall be planted at least fifteen (15) feet from overhead utilities, including streetlights, and six (6) feet from underground utilities. However, ornamental trees may be planted under overhead utility wires. Street trees shall not be placed within the clear site triangle of street intersections.

    There are existing overhead utility wires along Cloverly Lane that are not shown on the plans. The Applicant shall show these overhead utility lines and ensure that no large canopy trees are planted within 15 feet of the overhead utilities.

    Will Comply.

19. **Per §2403.C.6.b.(1) – Site Element Screens –** Medium-Intensity Site Element Screen, Screen Type #4
    – Opaque Fence or Masonry Wall with Shrubs.
    Per Figure 24.7 – Site Element Screen Requirements, for a dumpster or trash containment area, a medium intensity screen is required. The Applicant shall provide a dumpster detail to comply with the site element screen type #4 requirements of this Code Section.

    Will Comply.

20. **Per §2601.H.2 – Lighting Standards –** All on-lot public parking areas, aisles, and access ways for any nonresidential use shall be provided with a minimum of one-half (0.5) foot candles of light at any point on the ground.
    There are multiple locations within the parking areas, aisles, and access ways where the lighting is below 0.5-foot candles of light. The Applicant shall revise the lighting to provide a minimum 0.5- foot candles at the entrance and stairs adjacent the loading area; parking area between luminaires A & D; and the new walkway connecting to the

existing parking lot behind Rydal Building.

Will Comply.

21. **Per §2601.H.4 – Lighting Standards -** Lighting standards in parking areas shall not be located farther than 200' apart and may not be taller than 18' in height. No pedestrian lighting standard may exceed 14' in height.
The Applicant is proposing multiple light to be mounted at a height of 19 feet. These lights shall be revised to have a mounting height of no more than 18 feet.

Will Comply.

22. **Per §2601.J.1 – Mechanical Equipment Standards –** All roof-mounted equipment shall be architecturally screened from public view on adjoining streets, public thoroughfares, and adjacent residential uses for a minimum distance of 1,000 feet beyond the property line, as measured at a height of six (6) feet above street grade.
The Applicant shall clarify if roof-mounted equipment is being proposed as part of this project. If so, the equipment shall be screened as required from the above section of the code.

All roof mounted equipment is proposed to be located within fully enclosed rooftop penthouses. The exterior of the penthouses facing the public street is proposed to be clad using the same finish materials as the exterior walls of the building, as shown on the enclosed building elevations.

CHAPTER 146 SUBDIVISION & LAND EVELOPMENT COMMENTS

All responses to the comments under this chapter are "will comply" or as noted in the "Waivers" section as applicable.

23. **Per §146-9.A.(1) – Type of Application, Stages –** A preliminary plan is a first-stage plan in a two-stage approval process. The preliminary plan is required for all subdivision, land development or combination subdivision and land development plans within the township, wherein public improvements are proposed.
The Applicant is requesting a waiver from this section of the code to allow for the current submission to be considered a Preliminary/Final submission. We support this waiver request contingent the Applicant is not required to provide public improvements such as roadway widening, curb and sidewalk, and contingent the Applicant obtains conditional use approval for the proposed electric utility line to cross the riparian corridor Zones 1 and 2 located south of the existing pond and between the Woodland Building and Art Gallery and Lares Buildings.

24. **Per §146-10.A.(1) – General Requirements, Drafting Standards –** The horizontal plan shall be drawn at a scale not smaller than one-inch equals 50 feet. If such scale is not practical, a lesser scale may be used, provided that prior written permission is obtained from the Township Engineer.
The Applicant has requested a partial waiver to allow plans that depict the overall site to be smaller

than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.
We support this partial waiver request due to the large size of the campus to be depicted on one plan sheet; and since the Applicant is providing larger scales of

portions of the site under multiple plan sheets within the land development plans set.

25. **Per §146-10.B.(5) – General Requirements –** The submission type in accordance with §146-9.D shall be indicated on all the plan sheets as "Preliminary Major Subdivision and Land Development" and noted as land development application number "LD-22-05".

26. **Per §146-11.A.(4) – Property Identification Plans –** The property identification plans shall contain tract boundaries with tax parcel numbers, owner's names, and approximate acreage of lots surrounding any portion of the site for a distance of 400 feet.
The Applicant has provided an aerial photograph plan, but this plan does not show the required information in the above section of the code. Due to the size and scope of the project, the Applicant may wish to consider requesting a partial waiver from this code requirement to permit the use of an aerial photograph plan with the 400' distance dimensioned on the plan and show the abutting property owner information.

27. **Per §146-11.A.(6) & §146-11.B.(4) – Property Identification Plans & Existing Features Plan –** The property identification plans shall contain the location of all existing monuments and iron pins on or defining the site.
The Applicant shall show the existing iron pins and monuments on site.

28. **Per §146-11.A.(8) – Property Identification Plans –** The property identification plans shall contain the existing cartways of streets and on adjoining the site, with existing and ultimate rights-of-ways and legislative and traffic route numbers.
The Applicant showed a 21.1 feet roadway cartway for Cloverly Lane in front of the proposed site access drive to the new building and a 50 feet ultimate right-of-way for Cloverly Lane. The Applicant shall show the roadway cartway widths at multiple locations along Cloverly Lane since the roadway width appears to change throughout the roadway based on our measurements. The Applicant shall also provide the roadway cartway widths, and right-of way and ultimate right-of-way widths for Woodland Road and School Lane if the right-of-way lines are different than the ultimate right of way lines.

29. **Per §146-11.A.(10) – Property Identification Plans –** The property identification plans shall show the zoning classification applicable to the tract along with all zoning boundaries that traverse or are within 400 feet of the tract.
The Applicant shall show the zoning tract boundaries that surround the entire site.

30. **Per §146-11.B.(2) – Existing Features Plan –** The existing features plan shall contain the location, names, and widths of all streets, whether including right-of-way, cartway, or center lines.
The Applicant shall label the right-of-way widths, cartway widths, and show the centerlines for all roads surrounding the site on the existing conditions plan.

31. **Per §146-11.B.(3) – Existing Features Plan –** The existing features plan shall contain the location of property lines and names of landowners within 400 feet of any part of the site to be subdivided or developed.
The Applicant has requested a partial waiver from this section of the code to not provide the location, size, and ownership of all underground and above ground public or private utilities.

32. **Per §146-11.B.(5) – Existing Features Plan –** The existing features plan shall contain the location and dimension of all existing buildings and man-made structures, or surfaces located on site, with notations as to which ones will remain and which ones will be removed.

The Applicant shall label the existing buildings and structures on site as either "To Remain" or "To Be Removed".

33. **Per §146-11.B.(7) – Existing Features Plan –** The existing features plan shall contain the location, size, and ownership of all underground and above ground public or private utilities, on the site ad within 400 feet of any portion of the site, including waterlines, sanitary sewer lines, storm sewer lines, electric lines, telephone lines, gas mains, fire hydrants, and streetlights.
The Applicant has provided an aerial photograph plan which shows the property lines within 400 feet of the site. Due to the size and scope of the project, the Applicant may wish to consider requesting a partial waiver from this code requirement to permit the use of an aerial photograph plan with the 400' distance dimensioned on the plan and show the abutting property owner information.

34. **Per §146-11.C.(6) – Proposed Layout Plans –** The proposed layout plans shall show the location, dimensions, height, type, and first-floor elevation of all proposed buildings and structures.
The Applicant shall provide the above noted information on the Site Plan (Sheet 4).

35. **Per §146-11.D.(4) – Grading Plans –** The grading plans shall provide a note stating the datum to which contour lines refer shall be based on the Abington Township sanitary sewer datum.
The Applicant is requesting a waiver from this section to the code to not provide contour lines based on the Abington Township Sanitary Sewer Datum. We do not support this waiver request since the Applicant can comply by contacting the Abington Wastewater Utilities department to obtain a benchmark elevation and provide a note to adjust the elevations shown on the plans to conform to the Abington Township sanitary sewer datum.

36. **Per §146-11.D.(7) – Grading Plans –** The grading plans shall show the delineation of the limits of work areas and the portions to remain undisturbed.
The Applicant shall label the total limit of disturbance area on the grading plans and show the complete limit of NPDES disturbance area. The Applicant is proposing to run electric through the site from Woodland Road. This area shall be included in the limit of disturbance area and shown entirely on the plans.

37. **Per §146-11.G.(1).(d) – Utility Plan –** The utility plan shall show fire hydrants, fire lanes, and fire department connections.
The utility plans shall clearly show the locations of existing fire hydrants. The Applicant shall ensure there is a working hydrant located within 500 feet of the building under construction per §146- 41.B.(4)(d).

38. **Per §146-11.G.(1).(e) & (f) – Utility Plan –** The utility plan shall show the locations of all electrical lines, telephone lines, junctions, vaults, and other related appetences.
There are existing overhead utility lines along Cloverly Lane and internal to the site that are not entirely shown on the plans. The Applicant shall show these overhead utility lines on the utility plans. Base the overall utility plan on Sheet 25, it appears that there will be a utility conflict with the electric line and the proposed underground stormwater basin 1-B located in the new parking area south of the new academic building.

39. **Per §146-11.L.(1).(a) – Architectural Plans –** Tentative architectural plans shall include front, side, and rear elevations of proposed buildings.
The Architectural plans provided do not include elevations for the proposed building. The Applicant shall provide architectural plans that show proposed elevations.

40. **Per §146-12.B.(5) – Record Plan, Seals –** The impressed seal of the Township Engineer shall be provided on the plans.
The Applicant shall provide sufficient room for the signatures and seals of the Township and Township Engineer on the plans. Currently there is no room for the seals of the Township and Township Engineer adjacent to the signature lines.

41. **Per §146-24.D.(3) – Streets –** Where there are present streets, the Board of Commissioners may grant such reasonable exceptions to the requirements for grading and width of cartway provided for in this chapter as will not be contrary to the public interest, subject to conditions necessary to assure adequate streets and other public improvements.
The Applicant is requesting a waiver from this section to not provide cartway widening for the existing streets surrounding the site. We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

42. **Per §146-25.F – Intersections –** Proper sight lines shall be maintained at all intersections of streets. They shall be measured along the center line a minimum clear sight triangle of sixty-five (65) feet from the point of intersection. No buildings, trees, hedges, shrubbery, or other obstruction within the subdivision/land development will be permitted in this area.
The Applicant shall add the clear sight lines to the plans for the proposed driveway entrance to the new building. We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

43. **Per §146-27.A – Sidewalks and Curbs -** Sidewalks shall be provided along all streets except where, in the opinion of the Board of Commissioners, they are unnecessary for the public safety and convenience.
The Applicant is requesting a waiver from this section of the code to not provide sidewalks and curbing along the existing roadways. The Applicant is indicating that the existing onsite walkways and pedestrian routes are adequate to meet pedestrian access requirements. There are no sidewalks leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus entrance to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.

However, the Abington School District Athletic fields are located to the southwest of the site off of Huntingdon Road and is within relatively close proximity to the Penn State campus. The Applicant may wish to consider providing pedestrian access through the Penn State owned property located at 1694 Cloverly Lane which backs up to the school field.

We defer to the Township Traffic Engineer, McMahon Associates, for further comments.

44. **Per §146-27.1 – Curb and Sidewalk Escrow Requirement –** When the Board of Commissioners determines that the installation of curbs and sidewalks are not required for a lot or parcel of ground undergoing subdivision or land development approval, the applicant or developer shall be required to post an escrow amount with the Township of Abington for a period of two years following construction permit issuance, in an amount sufficient to complete curb and sidewalk installation along all street frontage involving the application, when any additional lots or parcels of land remain along the block(s) to which the lot or parcel has frontage which are capable of subdivision or land development at a future point in time.
If a waiver from sidewalk and curb construction is granted, the Applicant will be required to provide a fee-in-lieu held in escrow by the Township for a period of 2 years for the sidewalk and curb covering the cost of this construction at the discretion of the Board

of Commissioners.

45. **Per §146-28.A – Off-Street Parking Areas –** All parking spaces for vehicles shall be ten (10) feet wide by twenty (20) feet long. All spaces shall have adequate maneuvering room with clear access at all times entering and existing the space.
Based on Ordinance No. 2186, a parking space for use E-18: University Campus shall be 9 feet by 18 feet. The Applicant is requesting a waiver from this section of the code to not provide parking spaces that are 10 feet wide by 20 feet long. Since the Applicant complies with the zoning requirement for the parking space size, a waiver from this code section is not required.

46. **Per §146.31.A.(6) – Reserve strips; rights-of-ways; easements –** Easements for present or ultimate construction of storm drains and sanitary sewers having a minimum width of twenty (20) feet shall be provided where necessitated by topographical conditions.
The Applicant shall provide an easement around the proposed stormwater management facilities; or the Applicant may consider providing a blanket easement for the proposed stormwater management facilities as part of the stormwater bmp operations and maintenance agreement with the Township.

47. **Per §146-32.A 0 Survey Monuments; Benchmarks; Deed Correction –** Monuments shall be of stone or concrete and located on the right-of-way lines at corners, angle points, beginning and end of curves and as otherwise required. Monuments shall be indicated on all plans. They shall be placed after a new street has been completed. A certified copy of this referenced information shall be given to the Township Engineer. Permanent reference monuments of concrete or durable stone 20 inches by four inches by four inches with forty-five-degree beveled edges shall be set by the subdivider/land developer or builder.
The Applicant shall show the location of all existing and proposed monuments and iron pins on the record and site plans.

48. **Per §146-33.C – Drainage –** Wherever practicable, storm drains shall be located behind the curb and within the right-of-way of the street. They shall be protected by a cover of at least

    24 inches diameter.
    The Applicant is requesting a waiver from this section of the code to not require storm pipes to have a cover of at least 24 inches. Based on the profiles, the Applicant is proposing Infiltration bed BMP 2A to be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading. We do not support a waiver from this section of the code and recommend a minimum of 24 inches of cover is provided between the BMPs and storm pipes and the proposed ground surface.

49. **Per §146.33.D – Drainage –** Storm drains shall be adequate for the anticipated runoff when the area is fully developed as permitted by zoning. They shall have a minimum internal diameter of 15 inches and a minimum grade of 0.5% unless otherwise approved by the Township Engineer. Reinforced cement concrete pipe (RCCP) shall be used where the system is to be accepted by the Township.
    The Applicant is requesting a waiver from this section of the code to provide piping that is smaller than the required 15 inches in diameter. We support this waiver contingent upon the Applicant providing pipe conveyance calculations to ensure the proposed pipes can adequately convey the stormwater runoff through the pipes.
50. **Per §146.37 – Utilities –** All water mains, gas mains, electric, telephone, and other communication services shall be located underground; and such facilities shall be installed prior to street paving. Electric, telephone, and communication service facilities, both main

and service lines, shall be provided by underground cables.
The Applicant shall provide a note on the utility plan stating that all utilities shall be placed underground.

51. **Per §146-39.B.(3)(a)[1] – Landscaping, Off-Street Parking Areas –** At least 5% of the total area devoted to parking area, not including buffers or yards on the perimeter, shall not be paved but shall be used for interior landscaping within a parking area.
The Applicant is requesting a partial waiver from this section of the code to allow a portion of the proposed parking area north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. We would support this partial waiver request since the Applicant is proposing the required landscaping elsewhere on the site and contingent the planting arrangements are acceptable to the Township Board of Commissioners.

52. **Per §146-43.A.(1) – Erosion and Sediment Control –** No change shall be made in the contour of the land nor shall grading, excavating, removal, or destruction of the topsoil, trees, or other vegetative cover of the land can be commenced until such time that a grading permit is applied for and approved.

53. **Per §146-43.C.(3)(a) – Erosion and Sediment Control –** Cut and fill slopes shall not be 15% or steeper, except as approved by the Township Zoning Hearing Board.
The Applicant is requesting a waiver from this section of the code to provide slopes greater than 15%. The Applicant is proposing slopes greater than 2:1 of 50% south of the proposed building and parking area. We would recommend a waiver from this section of the code contingent that the Applicant provide slopes no greater than 3:1 of 33%. We support this waiver request due to the existing steep topographic conditions of site, and to minimize the site disturbance to the existing terrain.

54. **Per §146-44 – Steep Slopes –** Areas where the pre and post development slope is 15% or more shall be shown on the preliminary and final plans as required by article V of this chapter.
The Applicant is proposing slopes of greater than 2:1 or 50% south of the proposed building and parking area. These areas shall be hatched to indicate slopes of greater than 15%.

CHAPTER 142 STORMWATER MANAGEMENT COMMENTS

All responses to the comments under this chapter are "will comply" where applicable.

55. **Per §142-302.B.(1).(m) – SWM Site Plan Contents –** The following signature block for the Municipality:
"(Municipal official or designee), on this date (date of signature), has reviewed and hereby certifies that the SWM site plan meets all design standards and criteria of the Municipal Ordinance No. (number assigned to the Ordinance)."

The Applicant shall add the above signature block to the PCSM plan as required per this Code Section.

56. **Per §142-302.B.(2).(b).[5] – SWM Site Plan Requirements –** The PCSM Plan shall show the locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of the property lines.
The Applicant shall show the existing and proposed features within fifty (50) feet of the property lines as indicated in this Code Section.

57. **Per §142-302.B.(2).(b).[9] – SWM Site Plan Requirements –** The PCSM Plan shall include O&M plan in accordance with §142-702 of this chapter, for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities.
The Applicant shall provide an O&M schedule and notes on the PCSM Plan.

58. **Per §142-302.B.(2).(b).[10] – SWM Site Plan Requirements –** The PCSM Plan shall show the limits of earth disturbance, including the type and amount of impervious area that is proposed.
The Applicant shall provide the total size of the limit of disturbance area on the PCSM Plan. The Applicant is proposing to run electric through the site from Woodland Road. This area shall be included in the limit of disturbance area total.

59. **Per §142-303.A.(1) – Plan Submission –** Proof of application or documentation of required permit(s) or approvals for the National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from construction activities shall be provided.
Since the Applicant is disturbing more than an acre of land, a NPDES Permit will be required.

60. **Per §142-401.H – General Requirements –** No regulated activities shall commence until the Municipality issues written approval of an SWM site plan, which demonstrates compliance with the requirements of this chapter**.**

61. **Per §142-405.A.(1).(a) thru (e) – Groundwater Recharge Requirements –** Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the characteristics as described in §142- 405.A.(1).(a) thru (e).
The Applicant has indicated on the PCSM Plan that the proposed BMP will utilize infiltration. Since the Applicant is intending to propose infiltration, the proposed BMP shall meet the requirements of the above section of the code. The Applicant shall provide basin and raingarden cross-sections for all basins/raingardens to ensure that the above requirements are being met. The 100-year flood elevations for these proposed BMPs shall also be shown on the cross sections.

62. **Per §142-408.B.(2) – Stream Bank Erosion Requirements –** The minimum orifice size in the outlet structure to the BMP shall be three inches in diameter where possible, and a trash rack shall be installed to prevent clogging. On sites with small drainage areas contributing to this BMP that do not provide enough runoff volume to allow a twenty-four-hour attenuation with the three-inch orifice, the calculations shall be submitted showing this condition. Orifice sizes less than three inches can be utilized, provided that the design will prevent clogging of the intake. It is recommended that the design, to accommodate maintenance, include a sand or porous media filter.
The Applicant is proposing orifice sizes smaller than 3 inches in OS-1A, OS,1B, OS-2A, OS-2B, and OS-3B. The Applicant shall provide an orifice size of at least 3 inches for all outlet structures;
otherwise, a waiver from this section of the code will be required.

63. **Per §142-409.A.(1).(b) – Stormwater Peak Rate Control and Management Districts -** Based on the Watershed Map, Figure 1.03, this site is located within the Pennypack Creek Watershed. Per Figure 409.1P Area P Stormwater Management District Watershed Map, this site is located within District B of this watershed. This district requires the 100-year post flow to be reduced to the 50-year pre, the 50-year post be reduced to the 25-year pre, the 25-year

post be reduced to the 10-year pre, the 10- year post be reduced to the 5-year pre, the 5-year post be reduced to the 2-year pre, and the 2-year post be reduced to the 1-year pre.
The Applicant is requesting a partial waiver from this section of the code for the requirements to provide rate controls for the areas along the eastern limit of proposed work. We would not support this waiver request as the Applicant is required to provide stormwater peak rate control for the entire site. We do not support this waiver request as the Applicant is required to provide stormwater peak rate control for the entire site as part of this land development. Due to existing downstream flooding concerns, the Applicant should consider regrading these areas to provide positive flow towards proposed stormwater facilities to capture any stormwater runoff.

In addition, based on the discharge summary chart provided in the stormwater management report, the total existing discharge flows are unclear. The Applicant shall provide a comparison table to clearly indicate the pre and post development discharges for each storm year to ensure compliance with the requirements of this Code Section.

64. **Per §142-704.A – Operation and Maintenance Agreement for Privately Owned Stormwater Controls and BMPs –** Prior to final approval of the SWM site plan, the owner shall sign and record an operation and maintenance (O&M) agreement covering all stormwater control facilities which are to be privately owned.

65. **Per §142-802.A – Roof Drains –** Roof drains shall not be connected to streets, sanitary or storm sewers, or roadside ditches, and shall discharge to infiltration areas or vegetative BMPs to the maximum extent practicable, except for already existing developed sites where the onsite stormwater system already designed and equipped to accomplish stormwater rate, quality, and quantity mitigation.
The Applicant shall show the roof drain locations on the PCSM Plan to ensure that the water is being directed to the BMPs.

GENERAL STORMWATER MANAGEMENT COMMENTS

All responses to the comments under this section are "will comply" where applicable.

66. The Applicant shall complete the statement of note 4 of the stormwater management notes on the PCSM Plan (Sheet 14); or remove note 4 if not needed.

67. The Applicant shall provide pipe conveyance calculations as part of the PCSM Report. In the report, the Applicant indicated that conveyance computations are to be provided under separate cover.

68. The Applicant shall provide charts showing the invert elevations, hydrologic elevations, pipe sizes, pipe flows, pipe slopes, etc. in the PCSM Report.

69. The Applicant shall provide storage volume calculations for the proposed infiltration facility to ensure that the 100-year storm can be properly managed.

70. The Applicant has provided an underground infiltration bed detail on the plans; however, no elevations are specified for this detail. The Applicant shall provide elevations for all proposed underground infiltration beds on the plans.

71. Additional stormwater comments may follow once the Applicant submits all the required information.

GENERAL COMMENTS

All responses to the comments under this section are "will comply" where applicable.

72. The Applicant shall add the list of the waivers requested on the plans. The list of waivers will later note the date of approval by the Township Board of Commissioners if granted.

73. The Applicant shall indicate the plan sheets to be recorded on the Sheet List Table on Sheet 1.

74. The Applicant shall confirm the numbering of the general notes list on the Cover Sheet on Sheet 1.

75. On the Existing Resources and Site Analysis plan (Sheet 5), the scale is noted as 1"=40'; however, the scale shown of the plan appears to be 1"=100'. The Applicant shall confirm all scales shown on the plans and revise accordingly.

76. On the project information table on the Site Plan (Sheet 4), the Applicant is indicating 1,457 parking spaces are provided but in the parking calculation, the Applicant is indicating that 1,291 parking spaces are provided. The Applicant shall confirm the correct number of parking spaces and revise accordingly.

77. The Applicant shall provide our office with legal descriptions and exhibits for each of the existing lots and the proposed combined parcel for review and approval prior to the recording of the plans; as well as any required easements. In addition, the Applicant is offering 5' right-of-way offered for dedication to the Township. A description and exhibit of this area shall also be provided for review and approval.

78. We defer to Traffic Planning and Design for traffic related comments.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

Douglas A. Waite, PE, CFM
Project Manager
Gilmore & Associates, Inc.

Enclosures (4)

Cc: Terry Castorina - Executive Assistant to the Abington Township Manager (via email)
Ashley McIlvaine – Assistant Abington Township Manager (via email)
Khaled R. Hassan, PE – Abington Township Engineer (via email)
Margo DelliCarpini, Ph.D. – Chancellor, Penn State Abington (via email)
Andrew D. Gutberlet, PE, LEED AP – Penn State Manager of Engineering Services (via email)
Kyle W. Hollick, RA, NCARB – Penn State Project Manager, Eastern Region (via email)
Marc D. Jonas, Esq – Eastburn and Gray, PC (via email)
Stacy Thomas, AIA, LEED AP - KCBA Architects (via email)

RUDOLPH CLARKE, LLC
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October 11, 2022

Via Electronic Mail Only (mjonas@eastburngray.com)
Marc D. Jonas, Esquire
Eastburn and Gray, PC
470 Norristown Road, Suite 302
Blue Bell, PA 19422

Re: Request for Determination
932 N. Marshall St. LLC
1170-1180 Easton Road; Tax Map Parcel No. 30-00-13950-00-6

Dear Marc:

This office has received your Request for Determination ("Request") dated September 13, 2022 on behalf of 932 N. Marshall St. LLC ("Landowner") for the property located at 1170-1180 Easton Road ("Subject Property") in the Township of Abington ("Township"). In your Request, you asked the Township make the following determinations:

1. [N]onconforming conditions related to the minimum lot size, amount of off-street parking, and the location of parking; and

2. [P]roposed renovations to the Property, which will divide two existing retail spaces into four retail spaces[.] Landowner requests a determination that these interior reallocations of existing leased areas will not require land development approval, or that the Township will waive the need for land development approval.

After a thorough review of both your Request and plans previously submitted to the Township by the Landowner, the Township has made the following determinations:

ZONING

The Subject Property is currently, and in its historic configuration, a C-33 Shopping Center Use. As stated in the Request, the historic configuration of retail spaces (athletic shoe store, teaching supply store, kitchen equipment store, and unspecified retail) along with a minority of non-retail uses (restaurant and residential units), seems to support a C-33 Use that conforms to the definitional requirements. Should the Subject Property remain compliant with the definitional requirements, most notably the requirement that no more than 25% of the uses within a C-33 Use may be non-retail, the Subject Property may continue as a non-conforming C-33 use with respects to those aspects of the Subject Property that are immutable, e.g. site size, architectural offsets, green buffer, etc.

PARKING

As stated above under **ZONING**, should the Subject Property maintain its conforming use status, the Landowner is entitled to take advantage of the non-conforming parking allocation. Should a calculation be required in the event the Landowner does not maintain the conforming C-33 Use, the Township encourages the Landowner to review the entirety of the Parking and Transportation provisions of the Zoning Ordinance, particularly those related to the utilization of on-street parking to fulfill parking requirements.

NON-CONFORMING USE

The Landowner is entitled to continue non-conformities unless otherwise required by the Township's Ordinance or abandoned by the Landowner, except as otherwise stated in this response.

LAND DEVELOPMENT

Pursuant to the Township's Subdivision and Land Development Ordinance (SALDO) and practice, the allocation of space requires land development. The Township is unable to make a determination as whether a waiver for land development is appropriate or would be granted, if requested, as that authority is vested solely in the Township's Board of Commissioners. The Landowners is welcome to request a Waiver of Land Development from the Township's Board of Commissioners. However, no further determination can or will be made on an administrative level.

If Landowner would like to continue these conversations and receive further feedback from the Township's professionals, the Landowner is encouraged to request a pre-submission meeting, execute a Professional Services Agreement, and fund the corresponding escrow.

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

Very truly yours,

Gregory R. Heleniak

cc: Zachary A. Sivertsen, Esquire – Eastburn and Gray, PC *(via e-mail only)*
Lori Schreiber – Commissioner, Township of Abington *(via e-mail only)*
Richard J. Manfredi – Manager, Township of Abington *(via e-mail only)*
Shaun Littlefield – Zoning Officer, Township of Abington *(via e-mail only)*
Allison Lee – Assistant Zoning Officer, Township of Abington *(via e-mail only)*
Michael P. Clarke, Esquire – Solicitor, Township of Abington *(via e-mail only)*

WASTEWATER DEPARTMENT

George Wrigley, Director

June 17, 2022

Mr. Andrew D. Gutberlet, PE., LEED AP
Pennsylvania State University
139J Physical Plant Building
University Park, PA 16802

RE: Proposed Academic Building 1600 Woodland Road, Abington: Sanitary Sewer Availability

Dear Mr. Gutberlet:

The Township of Abington Wastewater Utilities Department has reviewed the historical archived documents from Abington Township records in regards to your request for verification of sanitary sewer service availability at the development site. All existing structures on the site are connected to the public sanitary sewer system, therefore, public sewer is available and any new proposed building would also be required to connect to the public system.

The historical records indicate that the maximum annual water useage in 2019 was 3,990,000 gallons or 10,932 gallons per day (gpd). The last two years of annual water use averaged 2,094,250 gallons or 5,737 gpd, which if the same consumption continued in the future there would be approximately 5,195 gpd of capacity remaining. If at any time in the future the average daily water use, based on monthly water records, exceeds 10,932 gpd, additional capacity would be required to be purchased from Abington Township.

Should you have any questions or require any additional information, please contact me at 215-884-8329 or email at gwrigley@abingtonpa.gov.

Sincerely,

George Wrigley, Director

Abington Wastewater Utilities Department

pc: Ms. Terry Castorina, Executive Assistant, Township of Abington
Mr. Khaled R. Hassan, PE., Pennoni
Ms. Allison A. Lee, PE. Pennoni

WASTEWATER DEPARTMENT

George Wrigley, Director

June 30, 2022

Mr. Andrew D. Gutberlet, PE., LEED AP
Pennsylvania State University
139J Physical Plant Building
University Park, PA 16802

RE: Proposed Academic Building 1600 Woodland Road, Abington: Sanitary Sewer review

Dear Mr. Gutberlet:

The Township of Abington Wastewater Utilities Department has reviewed the plans prepared by Gilmore & Associates dated June 6, 2022 for the Penn State Abington Campus New Academic Building (Physical Plant Building No. 139J) in regards to sanitary sewer facilities.

1). The "Proposed Building to San Drop MH-2" profile on Sheet No. 35 should be revised to include the proposed electric conduits. The profile should also be revised to indicate the outfall sewer line from MH-1 exiting the manhole structure at the base.

2). The proposed manhole MH-1 is indicated to be an external "S4 – Drop Manhole Connection" as shown on Sheet. No. 28. External drops on manholes are prohibited. An internal drop within the manhole structure is required in accordance with the enclosed Detail No. 13.

3). The proposed manhole MH-2 is indicated to be an external "S3 – Doghouse Manhole Construction" as shown on Sheet. No. 28. Doghouse manholes are prohibited. An inserted internal drop manhole structure is required to connect into the existing sanitary sewer line in accordance with the enclosed Detail No. 29A. Prior determination of the type of existing sewer pipe should be conducted so that the proper sized coupling adapter is provided.

4). The proposed 6" diameter PVC pipe should be grade SDR-26 or greater.

5). The proposed 6" PVC sanitary sewer pipe between the building and Manhole MH-1 should not be encased in concrete.

6). The remaining details on Sheet No. 28 are satisfactory.

Should you have any questions or require any additional information, please contact me at 215-884-8329 or email at gwrigley@abingtonpa.gov.

WASTEWATER DEPARTMENT

George Wrigley, Director

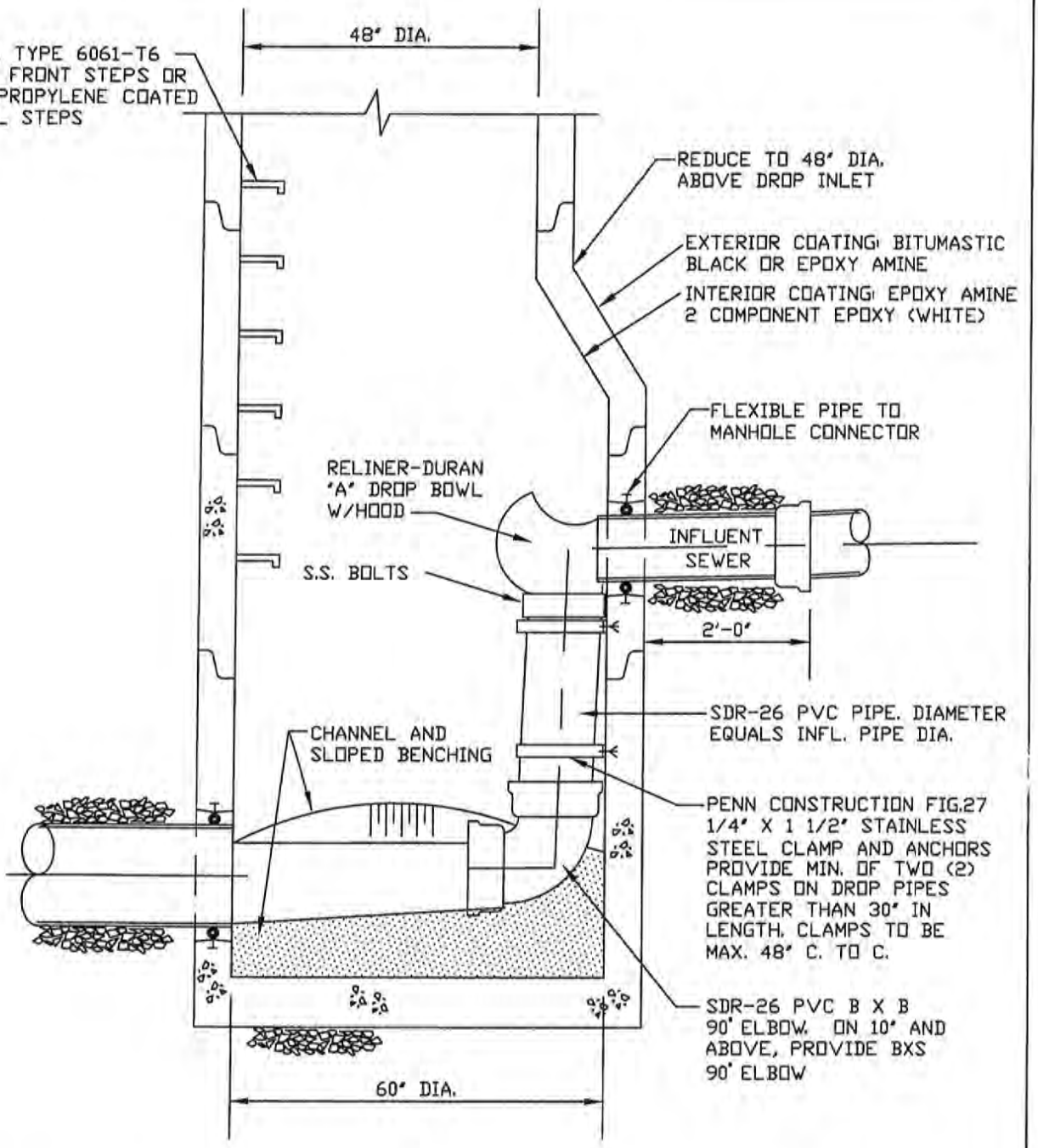
Sincerely,

George Wrigley

George Wrigley, Director

Abington Wastewater Utilities Department

pc: Ms. Terry Castorina, Executive Assistant, Township of Abington
Mr. Khaled R. Hassan, PE., Pennoni
Ms. Allison A. Lee, PE. Pennoni

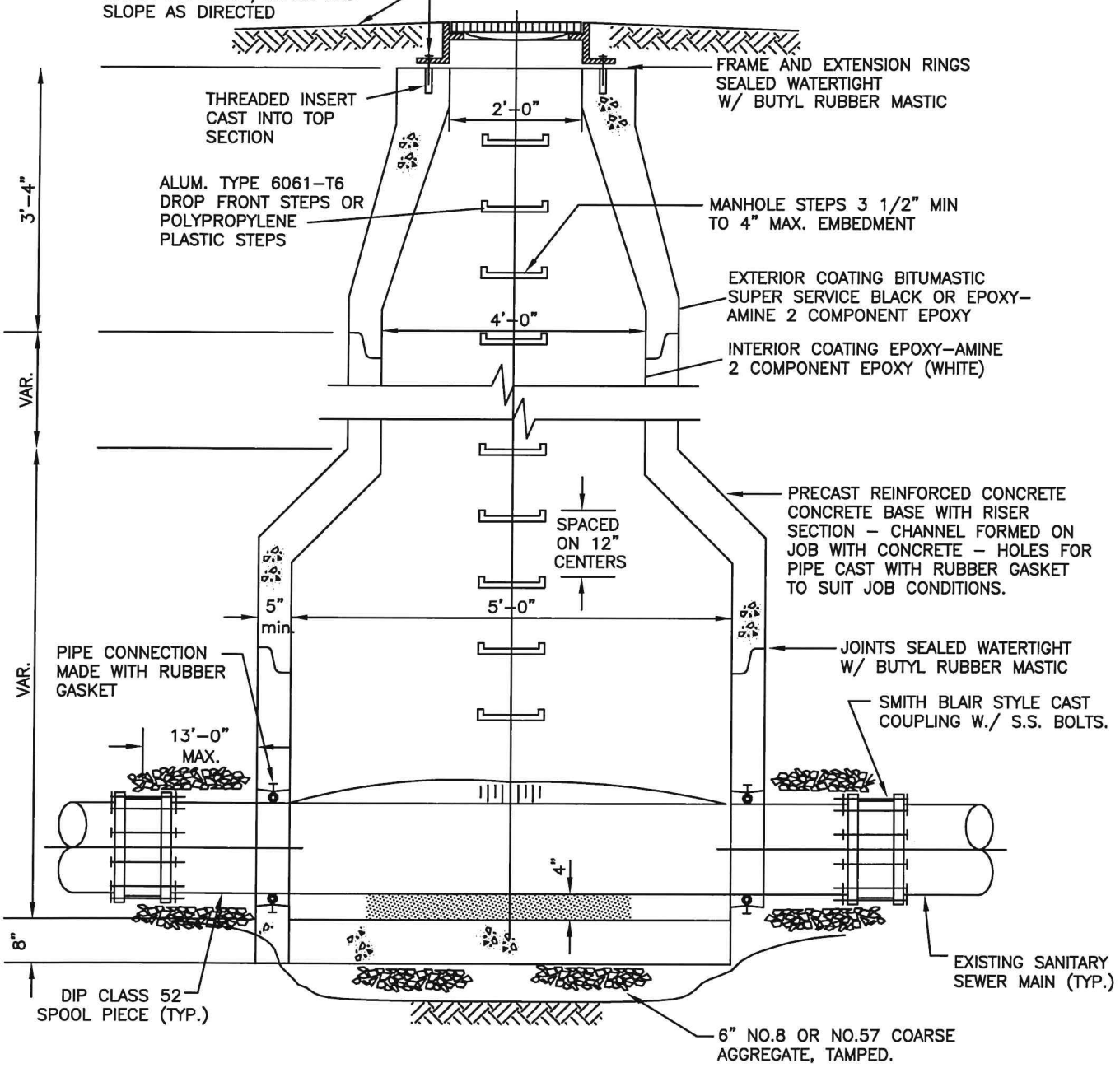


NOTES: 5' DIAMETER MANHOLE TO BE UTILIZED FOR INSIDE DROP MANHOLE
PIPED DROP TO BE USED FOR VERTICAL ELEVATION CHANGE GREATER THAN 2 FT.

Township of Abington STANDARD DETAIL - SEWER SYSTEM	
PRECAST SANITARY MANHOLE INSIDE DROP CONNECTION (8" - 24" SEWERS)	DATE: NOVEMBER 2015 DETAIL: 13

NOTES:

1. PRIOR TO INSTALLATION OF MANHOLE THE CONTRACTOR SHALL TEST DIG AND DETERMINE THE O.D. AND OVALITY OF THE EXISTING PIPE.
2. THE CONTRACTOR SHALL SUBMIT A PLAN FOR MAINTAINING THE EXISTING FLOW WHILE INSTALLING THE NEW MANHOLE.



INSERTED MANHOLE WITH INSIDE DROP

Township of Abington

STANDARD DETAIL - SANITARY SEWER SYSTEM

INSERTION OF A PRECAST CONCRETE MANHOLE INTO AN EXISTING SEWER MAIN

DATE: JUNE 2022

DETAIL: 29A

MONTGOMERY COUNTY
BOARD OF COMMISSIONERS

VALERIE A. ARKOOSH, MD, MPH, CHAIR
KENNETH E. LAWRENCE, JR., VICE CHAIR
JOSEPH C. GALE, COMMISSIONER

MONTGOMERY COUNTY
PLANNING COMMISSION

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SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

July 11, 2022

Mr. Richard J. Manfredi, Manager
Abington Township
1176 Old York Road
Abington, Pennsylvania 19001-3713

Re: MCPC #22-0162-001
Plan Name: Penn State Abington Campus-New Academic Building
(74,100 square feet on 1 lot of 44.57 acres)
Situate: 1600 Woodland Road
Cross Street: Cloverly Lane
Abington Township

Dear Mr. Manfredi:

We have reviewed the above-referenced subdivision and land development in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code,"as you requested on June 10, 2022. We forward this letter as a report of our review.

BACKGROUND

Penn State University, the applicant, has submitted a preliminary subdivision and land development plan for a subdivision (lot consolidation) and a land development. The lot consolidation would combine four lots into one: Block 3, Unit 1 (0.669 gross acres, 0.589 net acres); Block 3, Unit 2 (45.165 gross acres, 42.504 net acres); Block 3, Unit 20 (1.409 gross acres, 1.269 net acres); Block 3, Unit 25 (.0747 gross acres, 0.558 net acres) would be combined into one lot (47.990 gross acres, 44.920 net acres). The land development proposal involves a three-story academic building. The development would be considered an E-18 University Campus use (Ordinance No. 2187, adopted November 10, 2021) and is subject to the use regulations thereof. The area of disturbance would consist of 4.35 acres. The site is located in the CS Community Service zoning district. Public sewer and water will serve the site. The plan is dated June 6, 2022.

COMPREHENSIVE PLAN COMPLIANCE

MONTCO 2040: A New Vision: the Comprehensive Plan for Montgomery County (2015). The proposal is located in the plan's Suburban Residential future land use area. Institutional uses are an appropriate primary use within this category. Appropriate landscaping, buffers, and street trees should be provided by all developments. Non-residential buildings should have a residential character, with pitched roofs, small building footprints, residential

building materials, and residentially-scaled windows and doors. These uses must also be designed to limit potential impacts of traffic, noise, and light. The proposal is consistent with this plan.

Abington Master Bicycle Plan (2016): This plan recommends that Bike Route #10 be implemented along (a) Cloverly Lane and (b) Woodland Road, from Cloverly Lane to Hampton Road, along the university's property. The improvements on Route 10 at the university's campus include lane markings, signage, bollards, and a 10 foot asphalt trail from Cloverly Lane to the athletic fields on Huntingdon Road (see pp.91-92).[1] To be consistent with this plan, we recommend that the applicant consult with the township on implementation of this bike route.

Comprehensive Plan Update for Abington Township (2007): The proposal is located in the "Institutional—Schools/Churches" future land use category of the Comprehensive Plan Update for Abington Township, and is consistent with that plan.

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) generally supports the applicant's proposal, however, in the course of our review we have identified the following issues that the applicant and township may wish to consider prior to final plan approval. Our comments are as follows:

REVIEW COMMENTS

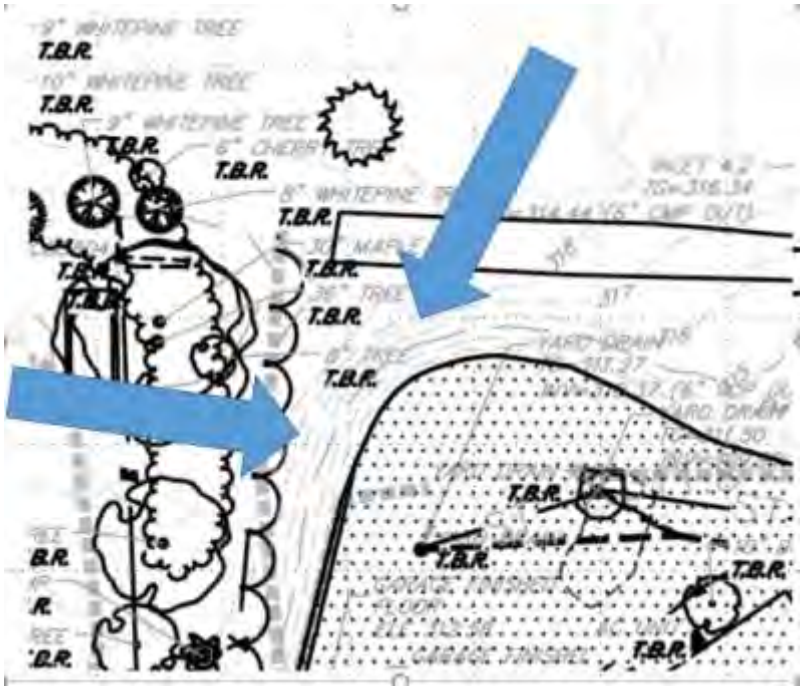
STORMWATER

[1] Abington Master Bicycle Plan (Part 2, with implementation table): https://www.abingtonpa.gov/home/showpublisheddocument/2246/637002480385370000

A. Infiltration. The notes on the plan say that "the stormwater management features are designed as MRCS to prevent infiltration…" Please explain the comment about preventing infiltration (this may be a typo; if not, why prevent infiltration?)

STEEP SLOPES

A. Designation. Precautionary and prohibitive steep slopes shall be shown on the plan [Zoning 1605.A, SALDO 146-11.B]. On sheet 5 of 37, the applicant states that "based on the definition of steep slopes from the township zoning ordinance, steep slopes are not present on the site." The definition is: "Natural or man-made areas of land where the average slope exceeds 15%, measured over a ten foot (10') horizontal distance. It appears that steep slopes are present on the site. For example, the areas indicated by the blue arrows appear to have an average rise of six-to-seven feet over a run of ten feet (average 60-70% slope).



LANDSCAPING

A. Street Trees. Redbuds are proposed as the three new street trees, to be located along the southernmost part of the buffer. Generally, redbuds are considered to be understory or decorative trees, rather than shade, canopy, or street trees. We suggest replacing these with canopy tree species.

B. Buffer. The proposed buffer includes fairly heavy use of white pines. This species tends to lose a majority of their lower branches, limbs, and needles after 10 to 15 years or so. Therefore, we recommend supplementing or replacing some of these plantings, as appropriate, to ensure that the proposed buffer maintains a continuous screening function at lower heights (including those sections of the buffer which might screen headlights from nearby residences).[2]

[2] "Alternatives to the White Pine Buffer," by MCPC: https://www.montcopa.org/DocumentCenter/View/3020/pbd-wwitepine_20060516095800?bidId=

C. Screening. Zoning requires that vegetation be a component of the medium-intensity screen for a dumpster enclosure [§2403.C].

D. Landscape Compliance Chart.

1. Landscaping chart. The landscape compliance chart includes a note about 20% more evergreen shrubs than otherwise required for a medium-intensity buffer; since the applicant selected Buffer Option A, it should also say that 20% more evergreen trees are required [Ord 2187, subsection C].

2. Building foundation. The chart should also include the requirement for building foundation landscaping [§2403.D]

SIDEWALK

A. Street Front. Zoning requires an eight foot sidewalk along the street front [§2504]. This seems particularly important to facilitate safe walking between the main university campus, the university property on the west side of Cloverly Lane, and the athletic fields on Huntingdon Road (and onward to Lion's Gate dormitory on Old York Road; see Appendix C for images illustrating this concept).

B. Connection to Athletic Fields. The applicant might be asked to construct a sidewalk or trail connecting the main campus to the athletic fields on Huntingdon Road rather than construct a traditional sidewalk along the length of the street front at the development site.

1. Past plan. In a plan submitted by Abington School District in 2012, a connecting trail was shown linking the athletic facilities to Cloverly Lane through university property (see Appendix C). Are the university and school district planning to continue with plans for constructing this trail?

2. Bicycling connection. The trail could also serve as a bicycling link. In fact, the Abington Master Bicycle Plan includes a connecting bicycle route in this location as well (see "Comprehensive Plan Compliance" section, above).

3. Coordinated development. As noted in §146-23.H, "proposed subdivision/land development shall be coordinated with the existing nearby neighborhood so that the community as a whole may develop harmoniously."

4. Waiver request. The applicant has requested a waiver from the sidewalk requirements in §146-27 of the SALDO. It is our opinion that a waiver is not necessary, since zoning contains regulatory language regarding sidewalks that is more restrictive. §146-5.B of the SALDO states that, "…Where the provisions of other ordinances or statutes impose greater restriction than this chapter, those regulations shall prevail." However, a variance from §2504.B. Street Front Sidewalks… would be required.

CONCLUSION

We wish to reiterate that MCPC generally supports the applicant's proposal but we believe that our suggested revisions will better achieve the township's planning objectives for institutional uses.

Please note that the review comments and recommendations contained in this report are advisory to the municipality and final disposition for the approval of any proposal will be made by the municipality.

Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. A paper copy bearing the municipal seal and signature of approval must be supplied for our files. Please print the assigned MCPC number (#22-0162-001) on any plans submitted for final recording.

Sincerely,

Mike Narcowich, AICP, Community Planning Assistant Manager
mnarcowi@montcopa.org – 610-278-5238

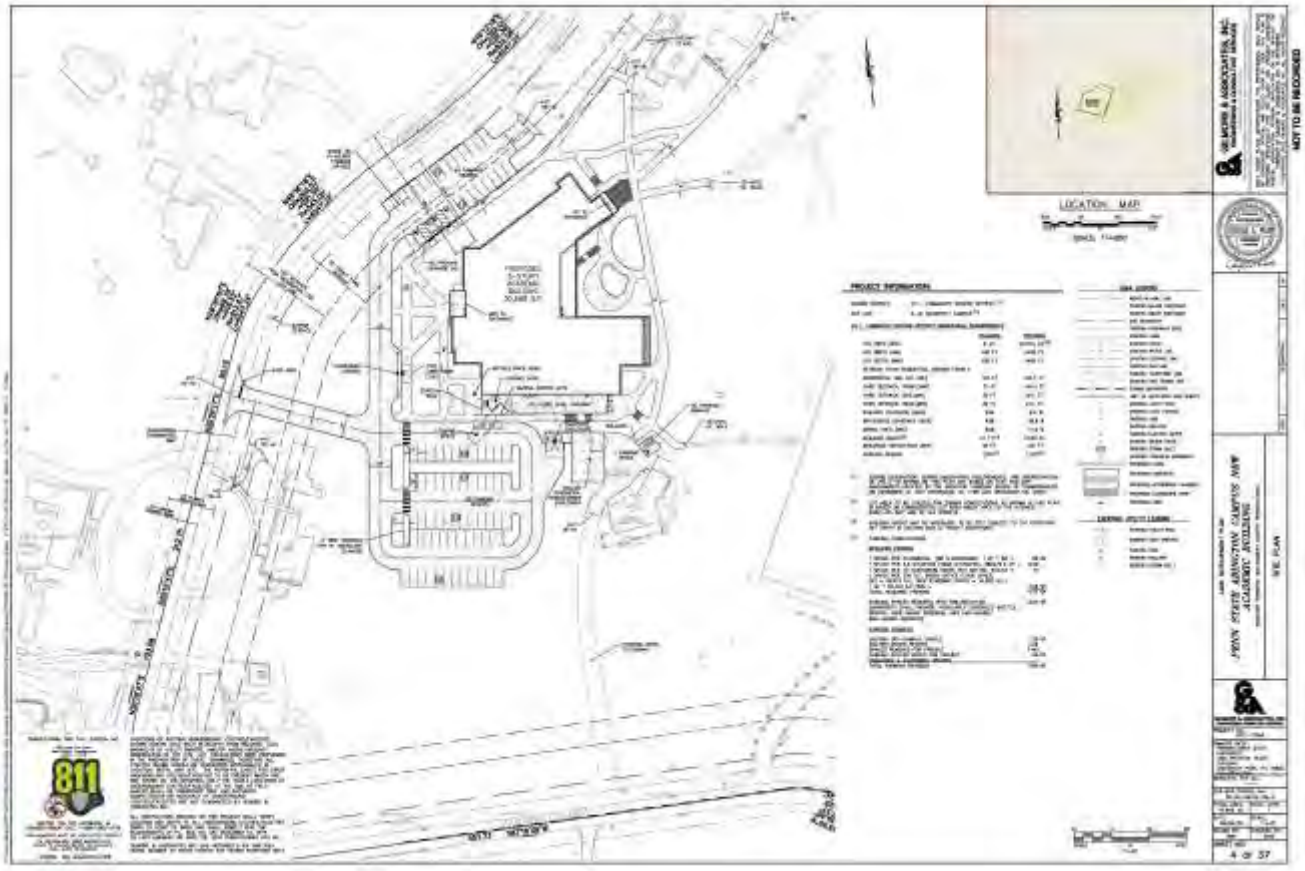
c:

Lucy Strackhouse, Chair, Township Planning Commission
Penn State University--Abington, Applicant
Douglas A. Waite, P.E., C. F. M., Gilmore & Associates, Applicant's Representative
Khaled R. Hassan, P.E., Pennoni, Township Engineer
Michael P. Clarke, Esq., Rudolph Clarke, LLC, Township Solicitor

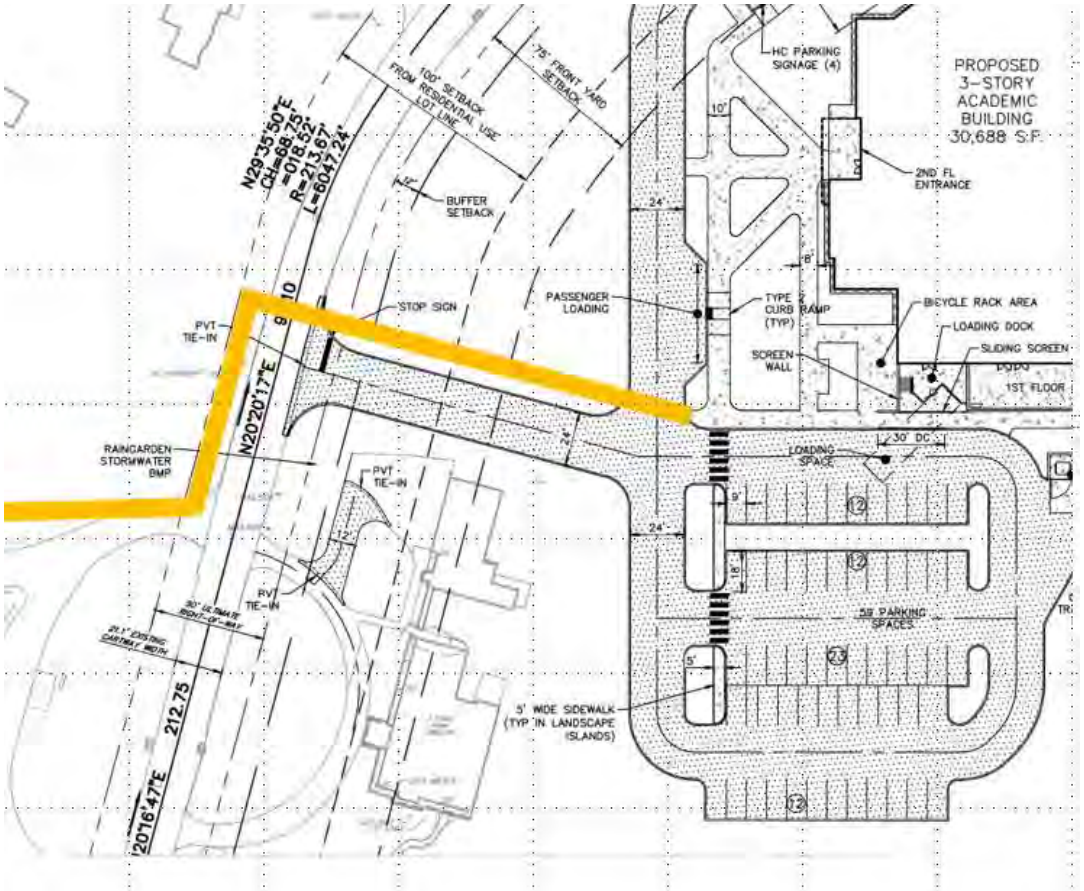
Attachment A: Aerial Image of Site
Attachment B: Reduced Copy of Applicant's Proposed Site Plan
Attachment C: Potential Pedestrian and/or Bicycling Connection from Penn State Abington to Huntingdon Road Athletic Fields

ATTACHMENT A

ATTACHMENT B

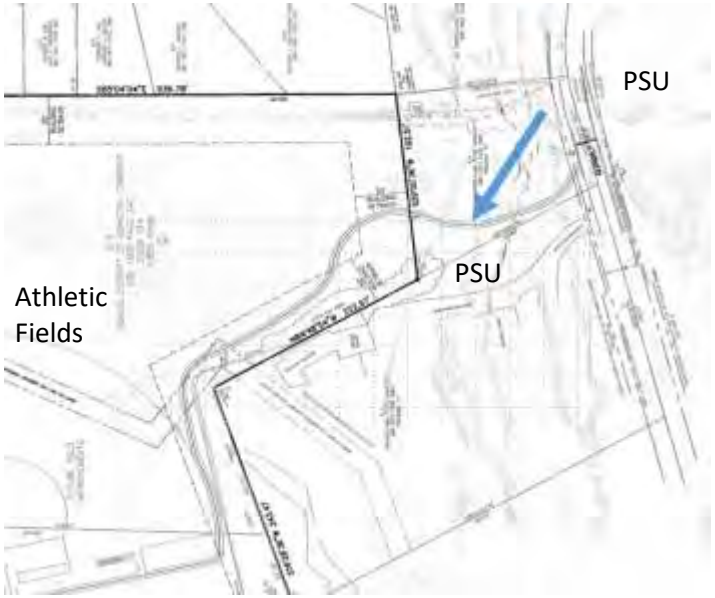


ATTACHMENT C (PAGE 1 OF 2)

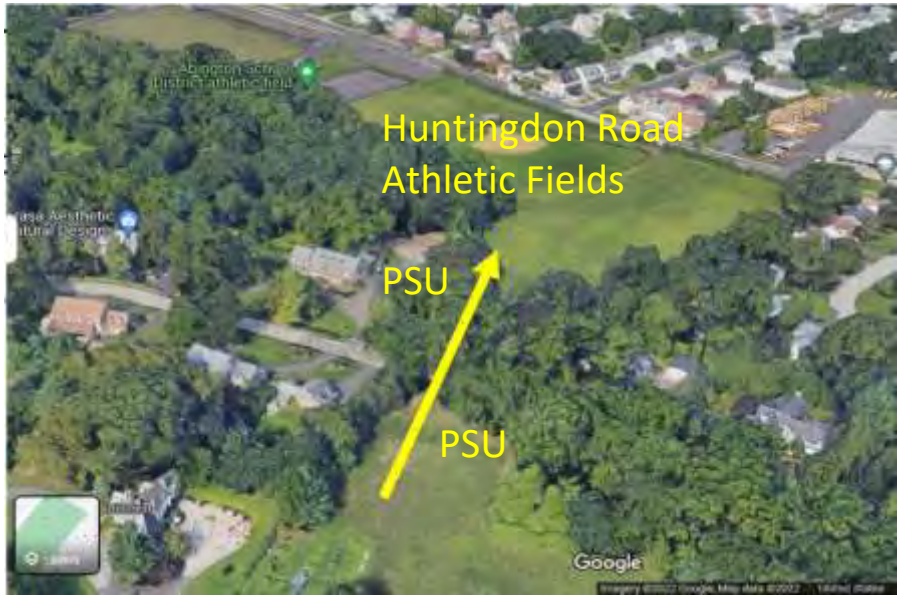


A sidewalk and crosswalk could be used in lieu of street sidewalks to connect the new academic building to the athletic fields on Huntingdon Road.

ATTACHMENT C (PAGE 2 OF 2)



Blue arrow shows trail proposed connecting Cloverly Lane to athletic fields on property owned by Abington School District (from plan submitted for review by Abington School District, 2012).



Yellow arrow shows conceptual connection which could use sidewalk along access drive to new academic building, crosswalk over Cloverly Lane, and Trail through PSU property on west side of Clovery Lane.

August 8, 2022

Mr. Richard Manfredi
Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: Traffic Engineering Review #1
Project LD-22-05
Penn State Abington Campus – New Academic Building
1600 Woodland Road
Abington Township, PA 19001
McMahon Project No. 822816.3A

Dear Mr. Manfredi:

Per your request, McMahon, a Bowman Company has completed a traffic engineering review of the proposed development to be located on the existing campus of Penn State Abington along Cloverly Lane in Abington Township, Montgomery County, PA. It is our understanding that the proposed development will consist of a 30,688 square-foot building to be utilized as an academic building and associated parking lots and sidewalk internal to the site. Access to the new building will be provided via one unsignalized full-movement driveway onto Cloverly Lane and via an internal connection to the existing parking lot located to the north of the proposed building.

The following documents were reviewed and/or referenced in preparation of our traffic review:

- Traffic Statement – Penn State Abington Campus, prepared by Traffic Planning and Design, Inc., dated April 26, 2022
- Land Development Plan – Penn State Abington Campus New Academic Building, prepared by Gilmore & Associates, Inc., dated June 6, 2022

Based on our review of the documents listed above, McMahon offers the following comments for consideration by the Township and further action by the applicant as related to this submission.

Traffic Statement

1. Provide additional information regarding the impact of traffic expected by the proposed building. While it is understood that no increase in student enrollment is planned, the proposed building and parking areas increase the parking capacity of the existing campus. Additionally, the location of the proposed parking will result in a redistribution of trips onto the surrounding roadway network. Additional information should be provided related to the location of existing classes that will be relocated to the new building.

Land Development Plans

2. With the addition of the proposed building, additional traffic would be anticipated to utilize the intersections of Cloverly Lane/Woodland Road and Cloverly Lane/Sewell Lane. The intersections should be evaluated for operation and safety due to the additional traffic.

3. Indicate on the project plans the minimum required and available sight distance for the proposed driveway onto Clovery Lane. Evaluate relocating the driveway further north along the curve to maximize sight distance.

4. It appears that the existing driveway to be maintained on the southern end of the site will have restricted access. Provide appropriate signage to discourage vehicles from entering the driveway.

5. Provide 'Stop' signs and stop bars at conflict points internal to the site.

6. Label the widths of the aisle areas between parking spaces.

We trust that this review letter responds to your request, and satisfactorily addresses the traffic issues related to the proposed development at this time. If the Township has any questions, or requires further clarification, please contact me.

Sincerely,

Anton Kuhner, P.E.
Senior Project Manager

EJR/akk

cc: Theresa Castorina, Abington Township
Kimberly Hamm, Abington Township
Allison Lee, Pennoni
Andrew Gutberlet, Applicant

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August 9, 2022

To: Lucy Strackhouse, Chair – Abington Township Planning Commission
From: Abington Township Shade Tree Commission
RE: PSU – Abington – Land Development Plan LD -22- 05 | Penn State Abington New Academic Building

Report of comments from the special meeting of the Shade Tree Commission (STC) and The Environmental Advisory Council (EAC) held Thursday, July 28, 2022

The meeting was attended by both EAC and STC members. A presentation of the project was provided by key professionals from the architect's team and several from the Penn State project and operations teams. There was period of questions, comments, and discussion from the EAC and STC. The project presentation overview was very helpful and the opportunity for questions and discussion was greatly appreciated.

- The STC comments were minimal with no significant concerns. It was noted that there is a wide variety of tree species that are virtually all native species. These include canopy and understory trees.
- EAC comments will be presented separate from this report
- It is not expected that any trees of significant value will be lost due to the project
- It was noted that proper tree protection standards will be followed during construction to protect the root zone of the trees remaining that line Cloverly Road
- The Penn State project team offered to provide any additional information as needed including a tour of the campus if so desired

There was no public comment presented at this meeting.

Respectfully submitted,
John Kennedy, Abington STC

cc: Richard Manfredi
Michael Narcowich
Shaun Littlefield
Planning Commission Members
EAC Members
Abington Shade Tree Commission Members

August 12, 2022

MEMO

To: Lucy Strackhouse, Chair – Abington Township Planning Commission
From: Abington Township Environmental Advisory Council
RE: PSU – Abington – Land Development Plan LD -22- 05
Plan Set Date: June 06, 2022

EAC Review Dates: July 13, July 28 (special meeting), August 10.

Site Summary
Owner: Penn State University
Zone – CS – Community Service District, Use: College/University Campus
Watershed – Pennypack Creek
Plan: Proposed 3-story academic building – Abington Campus

Dear Chairperson, Strackhouse,

The members of the Abington Township Environmental Advisory Council (EAC) have reviewed the above referenced land development plan at our regular meetings on July 13 and August 10 and at the special joint meeting with the Shade Tree Commission on July 28. We were grateful for the opportunity to ask questions of the development team at that time. The following comments and suggestions were based on our discussion with the development team at that meeting:

Overall Comments
We commend the use of majority native plantings for the proposed landscaping features and applaud Penn State's commitment to seek LEED certification for the new building.

Stormwater Management

The proposed development includes a number of stormwater management treatment systems in order to comply with the Township's stormwater ordinance volume control standards. We noted that only one of these systems includes a vegetative component (the bioswale along Cloverly Avenue). We request that additional opportunities to include additional vegetated features be considered, especially in the landscaped islands and perimeters of the parking lot areas. Adding these features will help slow and filter pollution that may be contained in the runoff from the hard surfaces prior to entering the underground treatment systems. Parking lots, in particular, can generate pollutants such as oils, grease and sediment. Adding these components to the stormwater system can help improve water quality. Designing parking lot islands to include bioretention elements such as a rain garden, can help filter runoff entering the underground retention basins. The Montgomery County Planning Commission's Guide for Sustainable Green Parking Lots is an excellent reference for natural stormwater control measures. We support using deep rooted native vegetation in landscaped areas and recommend that native species be used to the greatest extent possible including those that minimize irrigation needs.

At the July 28th joint EAC/STC meeting, the Penn State Team confirmed that they will seek LEED Certification. We encourage the following sustainable site best practices:

a. Consider: Designed to Meet the Energy Star for new construction and Energy Star Portfolio Manager or another benchmarking tool for existing buildings greater than 10,000 sf
b. Low embodied carbon materials for construction and materials management
c. Building electrification for HVAC systems to avoid fossil fuels such as natural gas, and support the Township's aspirations to be carbon neutral by 2050
d. Rely on Renewable Energy sources and microgrids wherever possible
e. Electric vehicle conduits or charging stations to reduce direct vehicle emissions and improve air quality

Again, we thank you for the opportunity to comment and for the ability to meet with the development team.

Respectfully submitted,

Susan S. Myerov

Susan Myerov,
Member, Abington Township EAC

cc: Richard Manfredi
Michael Narcowich
Shaun Littlefield
Planning Commission Members
EAC Members
Abington Shade Tree Commission Members

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

www.pennoni.com

June 29, 2023

ABINT130027

Mr. Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: LD-22-05-Penn State New Academic Building
PARID: 30-00-09797-00-6 / TMID: 30003 002 (1577 Cloverly Lane)
PARID: 30-00-09788-00-1 / TMID: 30003 001 (1639 Cloverly Lane)
PARID: 30-00-09784-00-5 / TMID: 30003 025 (1665 Cloverly Lane)
PARID: 30-00-09780-00-9 / TMID: 30003 020 (1681 Cloverly Lane)
Preliminary/Final Major Subdivision and Land Development Plans Review (2nd Submission)

Dear Mr. Manfredi:

We have received a copy of the Preliminary/Final Major Subdivision and Land Development Plans consisting of forty (40) sheets dated June 6, 2022 last revised June 5, 2023, and received on June 6, 2023 as prepared by Gilmore & Associates, Inc. located at 184 West Main Street, Suite 300 in Trappe, PA for the above referenced project.

This land development application involves four (4) existing parcels as follows:

- 1577 Cloverly Lane – The main campus parcel of this land development application, comprised of approximately 1,837,796.40 SF (42.19 acres) as surveyed. This parcel consists of multiple academic buildings for the university as well as parking areas, sidewalk, curbing, curb ramps, stairs, athletic fields, and landscaping.

- 1639 Cloverly Lane – An adjoining property located to the southwest of 1577 Cloverly Lane; and is comprised of approximately 29,156.39 SF (0.669 acres) as surveyed. This parcel is currently a vacant tract of land consisting of grass areas and trees.

- 1665 Cloverly Lane – An adjoining corner property located to the west of 1639 Cloverly Lane; and is comprised of approximately 32,526.21 SF (0.747 acres) as surveyed. This parcel consists of single-family detached dwelling and associated garage, driveway, walkways, and landscaping to remain.

- 1681 Cloverly Lane – An adjoining property located between 1665 and 1577 Cloverly Lane; and is comprised of approximately 61,363.46 SF (1.409 acres) as surveyed. This parcel consists of a single-family detached dwelling and associated garage, driveway, walkways, and landscaping to remain.

Under this application, the applicant is proposing the following:

- Consolidation of the four (4) existing parcels, which will yield a gross area of 2,090,422.72 SF (or 47.99 acres). With the lot consolidation of the four parcels, the entire site will be surrounded by roadways on all sides.
- Construct a new 3-story 30,688 SF (74,100 GSF) academic building with associated parking areas located adjacent the new building.
- New curbing, sidewalk and walkways; landscaping; and stormwater management facilities are also proposed as part of this land development.

The new building addition is proposed to be serviced by public water and sewer.

The parcels consisting of 1639, 1665, and 1681 Cloverly Lane were located within the R-1 Low-Density Residential zoning District; however, based on Ordinance No. 2187, adopted on November 10, 2021, the parcels have been re-zoned to be the same zoning district as the Penn State Abington campus located within the CS Community Service Zoning District. In addition to the re-zoning of these parcels, the Board of Commissioners also adopted Ordinance No. 2186 on November 10, 2021, which is a text amendment to the current Zoning Code to create a new college/university use within the CS Community Service Zoning District.

The site is fronted by Woodland Road (40 FT R/W) to the north; School Lane (40 FT R/W) to the east, and Cloverly Lane (40 FT R/W) to the south and east. Access to/from the campus site will be by way of nine (9) existing entrances, of which three (3) access drives intersect Woodland Road; three (3) access drives intersect School Lane; and three (3) access drives intersect Cloverly Lane. There will be one (1) new entrance that intersects Cloverly Lane proposed for the new academic building. Portions of the existing three (3) buildings located at the southwest corner of Cloverly Lane and the three (3) buildings along Woodland Road do not meet the minimum 75' front yard setback; and therefore, these existing buildings are considered existing non-conforming.

There is an existing tributary to Meadow Brook, located adjacent the Spring House at the northern portion of the site, and traverses through the center of the tract to flow southeast from the site. In accordance with the FEMA, Flood Insurance Rate Map (FIRM) Panel No. 42091C0076G, effective March 2, 2016, and Panel No. 42091C0401G, effective March 2, 2016, the tributary and adjacent areas are identified by the FEMA FIRM to be located within flood Zone X and are special flood hazard areas subject to inundation by the 0.2% annual chance flood (500-year flood), or areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. The remaining portions of the tract are located within Zone X, which are areas determined by the FEMA FIRM to be located outside the 0.2% annual chance flood and areas of minimal flood hazard. Therefore, based on the FEMA determination, the area of the tract with the proposed site improvements is not located within the Floodplain Conservation Overlay District and is not subject to the floodplain regulations of the Floodplain Conservation Overlay District. However, in accordance with Figure 15.2 - Approximate Location of Riparian Corridor Conservation District, the campus parcel is located within the Riparian Corridor Conservation District and is subject to the regulations of the Riparian Corridor Conservation District.

CONDITIONAL USE APPROVAL

The Applicant was granted a conditional use approval from the following sections at the Board of Commissioners Working Session meeting held on December 8, 2022:

1. **§1503.B.2.b** – A conditional use to allow for corridor crossings by centralized sewer and water lines, and/or public utility transmission lines, provided that any disturbance is offset by corridor mitigation measures as outlined in §1508. Riparian Management of this chapter, and provided underground utility and pipe crossings are located at least 3 feet below the stream invert.

2. **§1503.B.2.c** – A conditional use to allow centralized sewer and/or water lines and public utility transmission lines running along the corridor, provided that any disturbance is, at a minimum, offset by corridor mitigation measures. These lines shall be located as far from Zone One as practical.

The conditional use approval shall be included on the plans.

VARIANCES REQUESTED

The Applicant is not requesting any variances as part of this land development project.

WAIVERS REQUESTED

The Applicant is requesting the following waivers as part of this land development:

1. **§146-9.A – Application Stages –** A waiver to consider the current subdivision and land development submission to be a combined Preliminary/Final application.
   The Applicant is proposing a concurrent preliminary/final plan submission.

2. **§146-10.A.(1) – General Requirements, Drafting Standards –** A partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.
   The Applicant is providing scales smaller than 1"=50' on multiple plans throughout the plan set to show all required information.

3. **§146-11.A.(4) – Property Identification Plans –** A partial waiver is requested from the requirements of providing tract boundaries with tax parcel numbers, owner's names, and approximate acerage of lots surrounding any portion of the site within 400 feet.
   The Applicant is providing the tract boundaries within 400 feet of the site; however, the owners names and approximate acerage of lots surrounding the site are not provided on the plans.

4. **§146-11.B.(3) – Existing Features Plan –** A partial waiver is requested from the requirements of providing the property lines and names of landowners within 400 feet of any part of the site to be subdivided or developed.
   An aerial photograph plan is provided with the abutting property information shown on the plan.

5. **§146-11.B.(7) – Existing Features Plan –** A partial waiver is requested from the requirements to provide the location, size, and ownership of all underground and above ground public or private utilities. The proposed plan provides information made available through site survey, historical maps, and information obtained through PA one-call. However, the plans do not show information that was not discovered during project development.
   An Existing Resources Site Analysis Map (ERSAM) has been provided which shows the location of the new building. The existing building is limited to the southwest corner of the site where the proposed site improvements will occur under this LD agreement.

6. **§146-24.D.(3) – Streets, Cartway Width –** A waiver is requested to allow the existing cartway widths of the exiting streets to remain. The existing streets are well-established, and no roadway widening is proposed. *The minimum cartway width for residential streets is 30 feet between curbs. The existing cartway of Cloverly Lane where the new access drive is proposed is 22.5 feet to 23 feet. We defer to the Township Traffic Engineer, McMahon Associates, for further comments.*
   The Township Traffic Engineer, McMahon Associates indicated in their review letter dated December 7, 2022, that they do not oppose granting a waiver for this Code Section. The Applicant is indicating that the existing streets are well established and no roadway widening is proposed.

7. **§146-27 – Sidewalks and Curbs –** A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new sidewalks or curbs are proposed within the public right-of-way.
   There are no sidewalks leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus entrance to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.

8. **§146-33.C – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to have a cover less than 24 inches in limited areas that are not subject to vehicular traffic.
   Based on the profiles, Infiltration bed BMP 2A will be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading.

9. **§146-33.D – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to be less than 15 inches in diameter.
   Storm pipes with a diameter of less than 15 inches are being proposed throughout the site.

10. **§146-39.B.(3)(a)[1] – Landscaping, Off Street Parking Areas –** A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter.
    Based on our measurements, the Applicant is providing approximately 7.3% interior landscape area for the parking areas; therefore, it does not appear that a partial waiver is required from this Code Section.

11. **§146-43.C.(3)(a) – Erosion and Sediment Control –** A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon Township Engineer approval of design.
    Slopes of approximately 2:1 or 50% are proposed south of the proposed parking lot as well as portions to the east of the proposed building.

12. **§146-302.B.(2)(b)[5] – SWM Site Plan Requirements** – A waiver is requested from the requirement to show the locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of the property lines.
    The proposed plan provided information made available through site survey, historical maps, and information obtained through PA One-Call. The plan is not showing the existing utilities within 50 feet of the property lines.

13. **§142-409.A – Stormwater Peak Rate Control and Management Districts –** A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:
    a. Proposed to receive replacement pavement in kind;
    b. To receive a reduction in pavement area and not otherwise improved;
    c. Outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

    Due to ground slope of the campus along the eastern limit of the proposed work, runoff from these areas are not able to be captured without causing additional disturbance. To the extent that these relatively small areas of pavement replacement, pavement reduction, or ground surface restoration are not negatively affecting the existing drainage condition, the Applicant requests that this waiver be considered.

The following documents have been reviewed:

Title	Sheet	Dated	Revised
Cover Sheet	1 of 40	06/06/22	06/05/23
Record Plan of Land Development	2 of 40	06/06/22	06/05/23
Lot Consolidation Plan	3 of 40	06/06/22	06/05/23
Site Plan	4 of 40	06/06/22	06/05/23
Existing Resources and Site Analysis Plan (ERSAP)	5 of 40	06/06/22	06/05/23
Existing Features Plan - Overall	6 of 40	06/06/22	06/05/23
Existing Features and Demolition Plan	7 of 40	06/06/22	06/05/23
Grading Plan	8 of 40	06/06/22	06/05/23
Grading Detail Plan 1-2	9-10 of 40	06/06/22	06/05/23

Erosion & Sediment Control Plan	11 of 40	06/06/22	06/05/23
Erosion & Sediment Control Details & Notes	12-13 of 40	06/06/22	06/05/23
PCSM Plan - Overall	14 of 40	06/06/22	06/05/23
PCSm Plan	15 of 40	06/06/22	06/05/23
Pre-Development Drainage Area Plan	16 of 40	06/06/22	06/05/23
Post Development Drainage Area Plan	17 of 40	06/06/22	06/05/23
Post Development Inlet Drainage Area Plan	18 of 40	06/06/22	06/05/23
PCSM Notes	19 of 40	06/06/22	06/05/23
PCSM Details	20-26 of 40	06/06/22	06/05/23
Utility Plan - Overall	27 of 40	06/06/22	06/05/23
Utility Plan – Partial Site	28 of 40	06/06/22	06/05/23
Riparian Corridor Exhibit	29 of 40	06/06/22	06/05/23
Utility – Water Service Details	30 of 40	06/06/22	06/05/23
Utility – Sanitary Sewer Details	31 of 40	06/06/22	06/05/23
Logistics Plan	32 of 40	06/06/22	06/05/23
Landscape Plan	33 of 40	06/06/22	06/05/23
Lighting Plan	34 of 40	06/06/22	06/05/23
Landscape & Lighting Details	35 of 40	06/06/22	06/05/23
Profiles	36-38 of 40	06/06/22	06/05/23
Construction Details	39 of 40	06/06/22	06/05/23
Truck Turning Plan	40 of 40	06/06/22	06/05/23
PCSM Report	283 Pages	July 2022	June 2023

We have performed a review of the above referenced plans for compliance with the Zoning Ordinance (Chapter 162); Subdivision and Land Development Ordinance (Chapter 146); Stormwater Management Ordinance (Chapter 142), and our previous review letter dated August 9, 2022 last revised August 19, 2022. We offer the following outstanding comments for your consideration:

ZONING COMMENTS

7. ***Per §1503.B.2.b. & c. – Riparian Corridor Conservation District, Uses Permitted by Conditional Use –*** *In Zone 2, corridor crossings by centralized sewer and water lines, and/or public utility transmission lines, provided that any disturbance is offset by corridor mitigation measures as outlined in §1508. Riparian Management of this chapter, and provided underground utility and pipe crossings are located at least 3 feet below the stream invert. Centralized sewer and/or water lines and public utility transmission lines running along the corridor, provided that any disturbance is, at a minimum, offset by corridor mitigation measures. These lines shall be located as far from Zone One as practical*
The Applicant is proposing an electrical line that crosses the Riparian Corridor Zones 1 and 2. The Applicant shall clarify and confirm that the electrical line at the crossings will be a minimum of three feet below the stream invert. In addition, the Applicant shall provide mitigation measures in accordance with §1508 – riparian management. The mitigation measures shall be labeled and shown on the plans.

   On the Riparian Corridor Exhibit Plan (Sheet 29), there is a callout for profile A-A and profile B-B on the plan; however, these profiles are not provided on the plans. These profiles shall be provided as part of the land development plans submission.

15. **Per §2401.A.2.d.(1).(a) – Preservation and Protection of Existing Vegetation** – Tree replacement shall occur when new impervious coverage exceeds 500 SF and a tree with a minimum caliper of six (6) inches is removed. In such cases, two new trees, each with a minimum of 3-3.5 inches in caliper, measured six (6) inches above grade, shall be planted for each tree with a minimum caliper of six (6) inches that is removed.

The Applicant is proposing to remove 76 existing trees with a caliper of greater than six (6) inches. Therefore, the Applicant is required to provide 152 additional trees each with a caliper of 3-3.5 inches as part of this land development. The Applicant is proposing 37 trees to be planted with 115 trees to be dispersed throughout the site and/or coordinated between PSU and Abington Township. The Applicant shall be required to obtain Township approval for an agreement to not provide all the required replacement trees on site and to provide the additional trees in other locations approved by the Township.

Based on the Landscape Plan (Sheet 33), 77 existing trees with a caliper of greater than six (6) inches are proposed to be removed which will require 154 replacement trees each with a caliper of 3-3.5 inches to be planted as part of this land development. The Applicant is proposing 37 trees to be planted and is requesting Township approval of an agreement to not provide the required replacement trees and instead pay a fee-in-lieu for the remaining replacement trees.

18. ***Per §2402.B.2.b – Parking Lot Landscaping and Street Trees*** *– Large canopy trees shall be planted at least fifteen (15) feet from overhead utilities, including streetlights, and six (6) feet from underground utilities. However, ornamental trees may be planted under overhead utility wires. Street trees shall not be placed within the clear site triangle of street intersections.*
There are existing overhead utility wires along Cloverly Lane that are not shown on the plans. The Applicant shall show these overhead utility lines and ensure that no large canopy trees are planted within 15 feet of the overhead utilities.

The location of the overhead utility lines along Cloverly Lane have been included on the Landscaping Plan (Sheet 33). Based on the overhead utilities shown on the Landscape Plan, there are 3 LS^B (Sweetgum) buffer area canopy trees located closer than 15 ft to the overhead electricity line along Cloverly Lane. These trees shall be relocated to be a minimum of 15 feet from the overhead utility lines.

CHAPTER 146
SUBDIVISION & LAND DEVELOPMENT COMMENTS

25. ***Per §146-10.B.(5) – General Requirements*** *– The submission type in accordance with §146-9.D shall be indicated on all the plan sheets as "Preliminary Major Subdivision and Land Development" and noted as land development application number "LD-22-05".*

The land development number LD-22-05 shall be provided on all plans.

40. ***Per §146-12.B.(5) – Record Plan, Seals*** *– The impressed seal of the Township Engineer shall be provided on the plans.*
The Applicant shall provide sufficient room for the signatures and seals of the Township and Township Engineer on the plans. Currently there is no room for the seals of the Township and Township Engineer adjacent to the signature lines.

There is not sufficient room for the Township President, Secretary, and Township Engineer signatures and seals on the Record Plan (Sheet 2). The signature block shall be adequately relocated or speced on the plan to provide sufficient room for the signatures and seals.

44. ***Per §146-27.1 – Curb and Sidewalk Escrow Requirement*** *– When the Board of Commissioners determines that the installation of curbs and sidewalks are not required for a lot or parcel of ground undergoing subdivision or land development approval, the applicant or developer shall be required to post an escrow amount with the Township of Abington for a period of two years following construction permit issuance, in an amount sufficient to complete curb and sidewalk installation along all street frontage involving the application, when any additional lots or parcels of land remain along the block(s) to which the lot or parcel*

has frontage which are capable of subdivision or land development at a future point in time.
If a waiver from sidewalk and curb construction is granted, the Applicant will be required to provide a fee-in-lieu held in escrow by the Township for a period of 2 years for the sidewalk and curb covering the cost of this construction at the discretion of the Board of Commissioners.

The Applicant has indicated that if a waiver from providing sidewalks and curbs is granted, they would also seek a waiver from the two-year fee-in-lieu escrow requirement. The Applicant would be required to obtain a waiver from this Code Section if a waiver from §146-27.A is granted. We defer to the discretion of the Abington Township Boarc of Commissioners.

46. ***Per §146.31.A.(6) – Reserve strips; rights-of-ways; easements –*** *Easements for present or ultimate construction of storm drains and sanitary sewers having a minimum width of twenty (20) feet shall be provided where necessitated by topographical conditions.*
The Applicant shall provide an easement around the proposed stormwater management facilities; or the Applicant may consider providing a blanket easement for the proposed stormwater management facilities as part of the stormwater bmp operations and maintenance agreement with the Township.

In the Applicants response letter a note stating a blanket easement will be added on the PCSM Plan (Sheet 19); however, this note was not shown on the PCSM plan. The note shall be provided as stated.

48. ***Per §146-33.C – Drainage –*** *Wherever practicable, storm drains shall be located behind the curb and within the right-of-way of the street. They shall be protected by a cover of at least 24 inches diameter.*
The Applicant is requesting a waiver from this section of the code to not require storm pipes to have a cover of at least 24 inches. Based on the profiles, the Applicant is proposing Infiltration bed BMP 2A to be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading. We do not support a waiver from this section of the code and recommend a minimum of 24 inches of cover is provided between the BMPs and storm pipes and the proposed ground surface.

Based on the profiles, all storm pipes are proposed greater then 24 inches below grade; however, BMP 1A and 2B are proposed to be less than 24 inches from the ground surface which is less than the recommended 24 inches of cover. We recommend a minimum of 24 inches of cover be proposed above BMPs 1A and 2B due to vehicular loading on the proposed parking lots above the BMPs.

CHAPTER 142
STORMWATER MANAGEMENT COMMENTS

61. ***Per §142-405.A.(1).(a) thru (e) – Groundwater Recharge Requirements*** *– Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the characteristics as described in §142-405.A.(1).(a) thru (e).*
The Applicant has indicated on the PCSM Plan that the proposed BMP will utilize infiltration. Since the Applicant is intending to propose infiltration, the proposed BMP shall meet the requirements of the above section of the code. The Applicant shall provide basin and raingarden cross-sections for all basins/raingardens to ensure that the above requirements are being met. The 100-year flood elevations for these proposed BMPs shall also be shown on the cross sections.

Cross sections for the proposed BMPs have been provided; however, per §142-405.A.(1).(a), the limiting zone is not shown on these cross sections to ensure a minimum of 24 inches is being provided between the top of the limiting zone and the bottom of the BMP. In addition, dewatering calculations shall be provided to ensure the BMPs can be dewatered in a maximum of 72 hours.

We have received the following documents/permits/reviews:

- AQUA Will Serve Letter (June 1, 2022)
- Application for SD/LD Review (June 6, 2022)
- MCPC Request for Review Letter (June 7, 2022)
- Waiver Request Letter (June 7, 2022)
- Sanitary Sewer Availability Letter (June 17, 2022)
- Sanitary Sewer Review Letter (June 30, 2022)
- Post Construction Stormwater Management Report (Revised June 2023)
- Fire Marshal Review (via email August, 3, 2022)
- Traffic Review (December 7, 2022)
- MCPC Review (July 11, 2022)
- EAC Review (August 12, 2022)
- STC Review (August 9, 2022)
- Legal Description & Exhibits (May 31, 2023)

We have not received the following documents/permits/reviews:

- MCCD Review
- Financial Escrow
- LD Agreement
- Stormwater BMP O&M Agreement
- NPDES Permit

SUMMARY

Since the outstanding zoning comments can be addressed without going before the Zoning Hearing Board, we recommend Preliminary/Final Major Subdivision and Land Development Plans approval contingent the Applicant adequately addresses the outstanding review comments.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

PENNONI

Khaled R. Hassan, PE
Township Engineer

cc: Terry Castorina, Assistant to the Township Manager
Ashley McIlvaine, Assistant Township Manager & Assistant CAO

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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

July 24, 2023

File No. 17-12006

Richard Manfredi, Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

Reference: (LD-22-05) Penn State Abington New Academic Building - **Review Letter Responses**
TMP 30-00-09797-00-6 (1577 Cloverly Lane)
TMP 30-00-09788-00-1 (1639 Cloverly Lane)
TMP 30-00-09784-00-5 (1665 Cloverly Lane)
TMP 30-00-09780-00-9 (1681 Cloverly Lane)
Abington Township, Montgomery County, PA

Dear Mr. Manfredi:

We are in receipt of the following review correspondence for the referenced project:

- Preliminary/Final Major Subdivision and Land Development Plans Review (2nd Submission) from Pennoni Associates, Inc., dated June 29, 2023.

Below are the review comments presented in the order in which they appear in the letter. Responses are provided in bold italics following each comment.

Pennoni Review Letter dated 06/29/2023

WAIVERS REQUESTED

The Applicant is requesting the following waivers as part of this land development:

1. **§146-9.A – Application Stages –** A waiver to consider the current subdivision and land development submission to be a combined Preliminary/Final application.
   The Applicant is proposing a concurrent preliminary/final plan submission.
   Noted.

2. **§146-10.A.(1) – General Requirements, Drafting Standards –** A partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1"=40' or larger.

The Applicant is providing scales smaller than 1"=50' on multiple plans throughout the plan set to show all required information.

Noted.

3. **§146-11.A.(4) – Property Identification Plans –** A partial waiver is requested from the requirements of providing tract boundaries with tax parcel numbers, owner's names, and approximate acreage of lots surrounding any portion of the site within 400 feet.
The Applicant is providing the tract boundaries within 400 feet of the site; however, the owners names and approximate acreage of lots surrounding the site are not provided on the plans.

Noted.

4. **§146-11.B.(3) – Existing Features Plan –** A partial waiver is requested from the requirements of providing the property lines and names of landowners within 400 feet of any part of the site to be subdivided or developed.
An aerial photograph plan is provided with the abutting property information shown on the plan.

Noted.

5. **§146-11.B.(7) – Existing Features Plan –** A partial waiver is requested from the requirements to provide the location, size, and ownership of all underground and above ground public or private utilities. The proposed plan provides information made available through site survey, historical maps, and information obtained through PA one-call. However, the plans do not show information that was not discovered during project development.
An Existing Resources Site Analysis Map (ERSAM) has been provided which shows the location of the new building. The existing building is limited to the southwest corner of the site where the proposed site improvements will occur under this LD agreement.

Noted.

6. **§146-24.D.(3) – Streets, Cartway Width –** A waiver is requested to allow the existing cartway widths of the exiting streets to remain. The existing streets are well-established, and no roadway widening is proposed.
The minimum cartway width for residential streets is 30 feet between curbs. The existing cartway of Cloverly Lane where the new access drive is proposed is 22.5 feet to 23 feet. We defer to the Township Traffic Engineer, McMofion *Associates, for further comments.*
The Township Traffic Engineer, McMahon Associates indicated in their review letter dated December 7, 2022, that they do not oppose granting a waiver for this Code Section. The Applicant is indicating that the existing streets are well established and no roadway widening is proposed.

Noted.

7. **§146-27 – Sidewalks and Curbs –** A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new sidewalks or curbs are proposed within the public right-of-way.
There are no sidewalks leading to/from the site aside from the Woodland Road and Cloverly Lane intersection which already has an asphalt sidewalk along the site frontage from the campus *entrance* to connect to the concrete sidewalk along Woodland Road. The remaining portions of the surrounding neighborhood does not have existing sidewalks and curbs along the site frontage.

   An internal access route has been coordinated with the township traffic engineer for approval and support for this waiver. The plans will be updated accordingly.

8. **§146-33.C – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to have a cover less than 24 inches in limited areas that are not subject to vehicular traffic.
Based on the profiles, Infiltration bed BMP 2A will be located between 1.33 feet to 0.33 feet below the ground surface. This BMP is located within a parking area which is subject to vehicular loading.

   The applicant is continuing to seek a waiver from this requirement due to depth to limiting zone. After conversations with the township engineer, they would support such waiver with documentation from the manufacturer that the design meets HS25 loading standards. 1.5' of cover will be provided in all basins.

9. **§146-33.D – Drainage –** A waiver is requested to allow onsite private storm sewer pipe to be less than 15 inches in diameter. The Applicant is proposing pipes with a diameter of less than 15 inches.
Storm pipes with a diameter of less than 15 inches are being proposed throughout the site.

   Noted.

10. **§146-39.B.(3)(a)[1] – Landscaping, Off Street Parking Areas –** A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. The Applicant is proposing additional landscaping is provided on the building-side of the parking lot.
Based on our measurements, the Applicant is providing approximately 7.3% interior landscape area for the parking areas; therefore, it does not appear that a partial waiver is required from this Code Section.

    Noted.

11. **§146-43.C.(3)(a) – Erosion and Sediment Control –** A waiver is requested from the requirement to show the locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of the property lines.
The proposed plan provided information made available through site survey, historical maps, and information obtained through PA One-Call. The plan is not showing the existing utilities within 50 feet of the property lines.

Noted.

12. **§146-302.B.(2)(b)[5] – SWM Site Plan Requirements –** A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon Township Engineer approval of design.
Slopes of approximately 2:1 or 50% are proposed south of the proposed parking lot as well as portions to the east of the proposed building.

Noted.

13. **§142-409.A – Stormwater Peak Rate Control and Management Districts –** A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:
    a. Proposed to receive replacement pavement in kind;
    b. To receive a reduction in pavement area and not otherwise improved;
    c. Outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

    Due to ground slope of the campus along the eastern limit of the proposed work, runoff from these areas are not able to be captured without causing additional disturbance. To the extent that these relatively small areas of pavement replacement, pavement reduction, or ground surface restoration are not negatively affecting the existing drainage condition, the Applicant requests that this waiver be considered.

Noted.

ZONING COMMENTS

1. **Per §1503.B.2.b. & c. – Riparian Corridor Conservation District, Uses Permitted by Conditional Use**

    – In Zone 2, corridor crossings by centralized sewer and water lines, and/or public utility transmission lines, provided that any disturbance is offset by corridor mitigation measures as outlined in §1508. Riparian Management of this chapter and provided underground utility and pipe crossings are located at least 3 feet below the stream invert. Centralized sewer and/or water lines and public utility transmission lines running along the corridor, provided that any disturbance is, at a minimum, offset by corridor mitigation measures. These lines shall be located as far from Zone One as practical
    The Applicant is proposing an electrical line that crosses the Riparian Corridor Zones 1 and 2. The Applicant shall clarify and confirm that the electrical line at the crossings will be a minimum of three feet below the stream invert. In addition, the Applicant shall provide mitigation measures in accordance with §1508 – riparian management. The mitigation measures shall be labeled and shown on the plans.
    On the Riparian Corridor Exhibit Plan (Sheet 29), there is a callout for profile A-A and profile B-B on the plan; however, these profiles are not provided on the plans. These profiles shall be provided as part of the land development plans submission.

Will comply.

2. **Per §2401.A.2.d.(1).(a) – Preservation and Protection of Existing Vegetation –** Tree replacement shall occur when new impervious coverage exceeds 500 SF and a tree with a minimum caliper of six (6) inches is removed. In such cases, two new trees, each with a minimum of 3-3.5 inches in caliper, measured six (6) inches above grade, shall be planted for each tree with a minimum caliper of six (6) inches that is removed.
   Based on the Landscape Plan (Sheet 33), 77 existing trees with a caliper of greater than six (6) inches are proposed to be removed which will require 154 replacement trees each with a caliper of 3-3.5 inches to be planted as part of this land development. The Applicant is proposing 37 trees to be planted and is requesting Township approval of an agreement to not provide the required replacement trees and instead pay a fee-in-lieu for the remaining replacement trees.

   Noted.

3. **Per §2402.B.2.b – Parking Lot Landscaping and Street Trees –** Large canopy trees shall be planted at least fifteen (15) feet from overhead utilities, including streetlights, and six (6) feet from underground utilities. However, ornamental trees may be planted under overhead utility wires. Street trees shall not be placed within the clear site triangle of street intersections.
   The location of the overhead utility lines along Cloverly Lane have been included on the Landscaping Plan (Sheet 33). Based on the overhead utilities shown on the Landscape Plan, there are 3 LS' (Sweetgum) buffer area canopy trees located closer than 15 ft to the overhead electricity line along Cloverly Lane. These trees shall be relocated to be a minimum of 15 feet from the overhead utility lines.

   Noted. The plans have been revised accordingly.

CHAPTER 146
SUBDIVISION & LAND DEVELOPMENT COMMENTS

4. **Per §146-10.B.(5) – General Requirements –** The submission type in accordance with §146-9.D shall be indicated on all the plan sheets as "Preliminary Major Subdivision and Land Development" and noted as land development application number "LD-22-05".
   The land development number LD-22-05 shall be provided on all plans.

   The land development number is provided on the title block under section "municipal file number".

5. **Per §146-12.B.(5) – Record Plan, Seals –** The impressed seal of the Township Engineer shall be provided on the plans.
   There is not sufficient room for the Township President, Secretary, and Township Engineer signatures and seals on the Record Plan (Sheet 2). The signature block shall be adequately relocated or spaced on the plan to provide room for the signatures and seals.

The Record Plan (sheet 2) will be updated accordingly.

6. **Per §146-27.1 – Curb and Sidewalk Escrow Requirement –** When the Board of Commissioners determines that the installation of curbs and sidewalks are not required for a lot or parcel of ground undergoing subdivision or land development approval, the applicant or developer shall be required to post an escrow amount with the Township of Abington for a period of two years following construction permit issuance, in an amount sufficient to complete curb and sidewalk installation along all street frontage involving the application, when any additional lots or parcels of land remain along the block(s) to which the lot or parcel has frontage which are capable of subdivision or land development at a future point in time.
The Applicant has indicated that if a waiver from providing sidewalks and curbs is granted, they would also seek a waiver from the two-year fee-in-lieu escrow requirement. The Applicant would be required to obtain a waiver from this Code Section if a waiver from §146-27. A is granted. We defer to the discretion of the Abington Township Board of Commissioners.

Noted.

7. **Per §146.31.A.(6) – Reserve strips; rights-of-ways; easements –** Easements for present or ultimate construction of storm drains and sanitary sewers having a minimum width of twenty (20) feet shall be provided where necessitated by topographical conditions.
In the Applicants response letter a note stating a blanket easement will be added on the PCSM Plan (Sheet 19); however, this note was not shown on the PCSM plan. The note shall be provided as stated.

A blanket easement is being provided. A note will be added to the PCSM Notes (sheet 19).

8. **Per §146-33.C – Drainage –** Wherever practicable, storm drains shall be located behind the curb and within the right-of-way of the street. They shall be protected by a cover of at least 24 inches diameter.
Based on the profiles, all storm pipes are proposed greater than 24 inches below grade; however, BMP 1A and 2B are proposed to be less than 24 inches from the ground surface which is less than the recommended 24 inches of cover. We recommend a minimum of 24 inches of cover be proposed above BMPs 1A and 2B due to vehicular loading on the proposed parking lots above the BMPs.

Additional information will be provided to the township engineer regarding minimum fill requirements for the stormwater pipes provided. Based on coordination between the applicant and township engineer, support for this waiver request is anticipated.

CHAPTER 142
STORMWATER MANAGEMENT COMMENTS

9. **Per §142-405.A.(1).(a) thru (e) – Groundwater Recharge Requirements –** Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the characteristics as described in §142- 405.A.(1).(a) thru (e).
Cross sections for the proposed BMPs have been provided; however, per §142-405.A.(1).(a), the limiting zone is not shown on these cross sections to ensure a minimum of 24 inches is being provided between the top of the limiting zone and the bottom of the BMP. In addition, dewatering calculations shall be provided to ensure the BMPs can be dewatered in a maximum of 72 hours.

The cross sections revised to show the limiting zone and dewatering calculations will be provided.

If you have any questions or comments with this submittal, please do not hesitate to contact me.

Sincerely,

Eric S. Clase

Eric Clase, P.E.
Executive Vice President
Gilmore & Associates, Inc.

Enclosures (2)

Cc: Terry Castorina - Executive Assistant to the Abington Township Manager (via email)
Ashley McIlvaine – Assistant Abington Township Manager (via email)
Khaled R. Hassan, PE – Abington Township Engineer (via email)
Margo DelliCarpini, Ph.D. – Chancellor, Penn State Abington (via email)
Andrew D. Gutberlet, PE, LEED AP – Penn State Manager of Engineering Services (via email)
Kyle W. Hollick, RA, NCARB – Penn State Project Manager, Eastern Region (via email)
Marc D. Jonas, Esq – Eastburn and Gray, PC (via email)
Stacy Thomas, AIA, LEED AP - KCBA Architects (via email)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

Land Development Plan for Penn State Abington Campus Academic Building

Abington Township, Montgomery County, PA

List of Requested Waivers (Submitted for Land Development approval on June 5, 2023, updated July 24, 2023 for the Planning Commission meeting on July 25, 2023)

In accordance with Section 146-8.3 of the Abington Township Subdivision/Land Development Ordinance, the following Ordinance waiver requests are anticipated to be requested for the current land development application:

1. §146-9.A – *Application Stages*. A waiver is requested to consider the current subdivision and land development submission to be a combined Preliminary/Final application.

2. §146-10 – *Plan Scale*. partial waiver to allow plans that depict the overall site to be smaller than 1"=50'. Plans depicting the Academic Building project area are drawn at 1" = 40 or larger.

3. §146-11.A(4) – *Property Identification Plans.* A partial waiver is requested from the requirements of providing tract boundaries with tax parcel numbers, owner's names, and approximate acreage of lots surrounding any portion of the site within 400 feet. Abutting property information is shown on the plans.

4. §146-11.B(3) – *Existing Features Plan*. A partial waiver is requested from the requirements of providing the property lines and names of landowners within 400 feet of any part of the site to be subdivided or developed. An aerial photograph plan is provided with abutting property information shown.

5. §146-11.B(7) – *Existing Utilities*. A partial waiver is requested from the requirements of providing the location, size, and ownership of all underground and above ground public or private utilities. The proposed plan provides information made available through site survey, historical maps, and information obtained through Pa One-Call. However, the plans do not show information that was not discovered during project development.

6. §146-24.D(3) – *Streets – Cartway Width* . A waiver is requested to allow the existing cartway widths of the existing streets to remain. The existing streets are well-established. No roadway widening is proposed.

7. §146-27 – *Sidewalks and Curbs.* A waiver is requested to permit the onsite walkways and pedestrian routes to be considered adequate to meet pedestrian access requirements. No new roadway sidewalks or curbs are proposed.

8. §146-33.C – *Storm Drain Cover*. A waiver is requested to allow on-site private storm sewer pipe to have less than 24 inches of cover. The limiting zone is very shallow in most of the test pits which allows little room for infiltration BMPs to be proposed.

9. §146-33.D – *Storm Drain Diameter.* A waiver is requested to allow on-site private storm sewer pipe to be less than 15 inches in diameter.

10. §146-39.B(3)(a)[1] – *Interior Landscaping within Parking Area*. A partial waiver is requested to allow a portion of the proposed parking area located north of the proposed building to include less than 5% interior landscaping between the overall curbed perimeter. Additional landscaping is provided on the building-side of the parking lot.

11. §146-43.C(3)(a) – *Excavations and Fills*. A waiver is requested to allow cut and fill slopes in excess of 15% conditioned upon township engineer approval of design.

12. §142-302.B(2)(b)[5] – *SWM Site Plan Requirements.* A waiver is requested from the requirement to show the locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of the property lines. The proposed plan provides information made available through site survey, historical maps, and information obtained through Pa One-Call. However, the plans do not show information that was not discovered during project development.

13. §142-409.A – *Rate Control Standards for PennyPack Creek Watershed*. A partial waiver is requested from rate control requirements of this section for limited areas of the project that are:

    a. proposed to receive replacement pavements in kind;
    b. to receive a reduction in pavement area and not otherwise improved;
    c. outside of bulk-grading areas that are proposed to be disturbed and restored to existing condition for installation of utility conduits only.

    Due to ground slope of the campus along the eastern limit of proposed work, runoff from these areas are not able to be captured without causing additional disturbance. To the extent that these relatively small areas of pavement replacement, pavement reduction or ground surface restoration are not negatively affecting the existing drainage condition, the applicant requests that this waiver be considered.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

July 25, 2023

File No. 17-12006

Mr. Richard Manfredi Township Manager
Abington Township
1176 Old York Road Abington, PA 19001

Reference: Traffic Engineering Review #3
Penn State Abington Campus – New Academic Building

Dear Mr. Manfredi:

On behalf of the applicant, Penn State University, we are providing this response letter per McMahon letter dated July 20, 2023. Please find the responses corresponding numerically to the review letter comment **in bold**:,

General

1. The applicant's engineers must provide response to comments letters with the resubmission indicating how the comments have been addressed.

Traffic Assessment

2. Our office has no comments on the traffic assessment provided by the applicant's engineer. However, it is recommended that the traffic operation at the intersections of Cloverly Lane & Woodland Road; Cloverly Lane & Sewell Lane and Cloverly Lane & Proposed Site Driveway should be monitored after opening of the new building.

Land Development Plans

3. The applicant is requesting a waiver from Section 146-24D of the Subdivision and Land Development Ordinance requiring cartway widening for the existing streets surrounding the site. McMahon does not oppose granting a waver for this code section.
   Noted

4. The applicant is requesting a waiver from Section 146-27A of the Subdivision and Land Development Ordinance requiring sidewalks to be provided along all streets. McMahon does not oppose granting a waver for this code section. However, the applicant must provide a sidewalk/walking path, outside of parking areas, from the proposed building to Woodland Road. It is our understanding that the applicant's engineer is reviewing alternatives to provide this access. Plans and details should be provided to the Township for review.
   See attached walkway option as requested.

Sincerely,

Eric S. Clase

Eric S. Clase, P.E, Vice President of Land Design Services
Gilmore & Associates, Inc.

Cc: Theresa Castorina, Abington Township
Allison Lee, Pennoni
Andrew Gutberlet, Applicant

NOT TO BE RECORDED

EXISTNG CONNECTION TO WOODLAND ROAD

EXISTING ROUTE WRAPS AROUND BEHIND WOODLAND BUILDING UP STEPS AND THROUGH NO PARKING ZONE

EXISTING ROUTE ENDS AT AMPITHEATER WHERE BUILDING EXTENDS INTO DRIVE AISLE. EXISTING DRIVE AISLE IS ONE-WAY.

PROPOSED MIN. 19' AISLE WIDTH

5' SIDEWALK TO CONNECT WITH EXISTING PATH/STAIRS APPROX. 235 LF (1200 SF)

TRAFFC DELINEATOR OR BOLLARDS TO BE INSTALLED ALONG SIDEWALK

EXISTING INLET & TRENCH DRAIN TO BE RELOCATED OUTSIDE SIDEWALK

EXISTING STAIRS LEADING TO INTERNAL CAMPUS ROUTES

EXISTING ROUTE CONNECTION TO PROPOSED SIDEWALK

PROPOSED BUILDING 30,688 S.F.

WOODLAND ROAD

CLOVERLY LANE

SEWELL LANE

SCHOOL LANE

R-1 ZONING DISTRICT

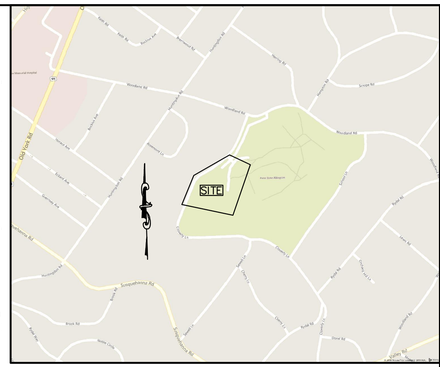
5' RIGHT-OF-WAY TO BE OFFERED FOR DEDICATION TO TOWNSHIP

50' ULTIMATE RIGHT-OF-WAY

75' FRONT YARD SETBACK

100' SETBACK FROM RESIDENTIAL USE LOT LINE

17' BUFFER SETBACK



LOCATION MAP

SCALE: 1"=800'

G&A LEGEND

- RIGHT-OF-WAY LINE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SOIL BOUNDARY
- EXISTING ROAD CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING SAN. SEWER LINE
- ZONING BOUNDARY
- LIMIT OF 2019/2022 G&A SURVEY
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING CONCRETE MONUMENT/IRON PIN
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED PAVEMENT

COMMONWEALTH OF PENNSYLVANIA
County of Montgomery
Board of Commissioners of the Township of Abington

Approved by the Board of Commissioners of the Township of Abington this _____ day of _____, 20_____

Attest _____ President
_____ Secretary
_____ Engineer

Certified by the Montgomery County Planning Commission this _____ day of _____, 19_____ File No. _____

Attest _____ Secretary

NOTARY PUBLIC
Commonwealth of Pennsylvania
County of Montgomery

On the _____ day of _____, A.D. 20_____, before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____, personally appeared _____ (name of officer of the corporation), who acknowledged (himself/herself) to be the (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that said corporation is the owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon and that said corporation desires that the foregoing plan may be duly recorded..

_____
Notary Public

_____
My Commission Expires

COUNTY RECORDER OF DEEDS
RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK_____, PAGE_____ON THE _____ DAY OF _____, 20_____.

COUNTY RECORDER OF DEEDS

MCPC No. _____.

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date_____.

_____.
For the Director
Montgomery County Planning Commission

PENNSYLVANIA ONE CALL SYSTEM, INC.
925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078

811

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776

NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

SERIAL NO. 20221043148

LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE-GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN THE PREPARATION OF THESE DRAWINGS; THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.

ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2018 PENNSYLVANIA ACT 50.

GILMORE & ASSOCIATES INC. HAS OBTAINED A PA-ONE CALL SERIAL NUMBER AS NOTED HEREON FOR DESIGN PURPOSES ONLY.

100 0 100 200
SCALE IN FEET
1"=100'

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
LUXEMBOURG CORPORATE CENTER
308 CORPORATE DRIVE WEST, LANGHORNE, PA 19047 • (215) 369-3055 • www.gilmore-assoc.com

ONLY THOSE PLANS INCORPORATING THE PROFESSIONAL SEAL SHOULD BE CONSIDERED OFFICIAL AND RELIED UPON BY USER. THIS PLAN IS PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT DESIGNATED HEREON. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY THE CONSENT OF GILMORE & ASSOCIATES, INC. IS PROHIBITED.
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC S. CLASE
ENGINEER
55713-E

REV.	DESCRIPTION	DATE	BY
3	REVISED PER TOWNSHIP COMMENTS	06/05/22	JM
2	75% CD SUBMISSION	09/09/22	DAW
1	50% CD SUBMISSION	07/20/22	DAW

PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN

PENN STATE ABINGTON CAMPUS NEW ACADEMIC BUILDING

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

RECORD PLAN OF LAND DEVELOPMENT – RECORD PLAN
2 OF 4

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

PROJECT No.: 2017-12006

OWNERS INFO:
PENNSYLVANIA STATE UNIVERSITY
139J PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802
814-865-0545

MUNICIPAL FILE No.: LD-22-05

TAX MAP PARCEL No.: 30-00-09792-00-6

TOTAL AREA: 47.989 AC.
TOTAL LOTS: 1

DATE: 06/06/22
SCALE: 1"=100'

DRAWN BY: WMH
CHECKED BY: JM

SHEET NO.: 2 OF 40

T:\land design\2017\2017120006_PSU-Abington New Academic Building\DESIGN\CAD\Production Drawings\1712006-01_RCRD.dwg Layout: 2 RECORD PLAN OF LAND DEVELOPMENT - RECORD PLAN 2 OF 4 Plotted By: whelder, on Mon Jun 05, 2023 at 11:21am

July 20, 2023

Mr. Richard Manfredi
Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

RE: Traffic Engineering Review #3
Project LD-22-05
Penn State Abington Campus – New Academic Building
1600 Woodland Road
Abington Township, PA 19001
McMahon Project No. 822816.3A

Dear Mr. Manfredi:

Per your request, McMahon, a Bowman Company has completed a traffic engineering review of the proposed development to be located on the existing campus of Penn State Abington along Cloverly Lane in Abington Township, Montgomery County, PA. It is our understanding that the proposed development will consist of a 30,688 square-foot building to be utilized as an academic building and associated parking lots and sidewalk internal to the site. Access to the new building will be provided via one unsignalized full-movement driveway onto Cloverly Lane and via an internal connection to the existing parking lot located to the north of the proposed building.

The following documents were reviewed and/or referenced in preparation of our traffic review:

- Traffic Assessment – Penn State Abington Campus, prepared by Traffic Planning and Design, Inc., dated October 4, 2022
- Land Development Plan – Penn State Abington Campus New Academic Building, prepared by Gilmore & Associates, Inc., dated June 5, 2023

Based on our review of the documents listed above, McMahon offers the following comments for consideration by the Township and further action by the applicant as related to this submission.

General

1. The applicant's engineers must provide response to comments letters with the resubmission indicating how the comments have been addressed.

Traffic Assessment

2. Our office has no comments on the traffic assessment provided by the applicant's engineer. However, it is recommended that the traffic operation at the intersections of Cloverly Lane & Woodland Road; Cloverly Lane & Sewell Lane and Cloverly Lane & Proposed Site Driveway should be monitored after opening of the new building.

Land Development Plans

3. The applicant is requesting a waiver from **Section 146-24D** of the **Subdivision and Land Development Ordinance** requiring cartway widening for the existing streets surrounding the site. McMahon does not oppose granting a waver for this code section.

4. The applicant is requesting a waiver from **Section 146-27A** of the **Subdivision and Land Development Ordinance** requiring sidewalks to be provided along all streets. McMahon does not oppose granting a waver for this code section. However, the applicant must provide a sidewalk/walking path, outside of parking areas, from the proposed building to Woodland Road. It is our understanding that the applicant's engineer is reviewing alternatives to provide this access. Plans and details should be provided to the Township for review.

We trust that this review letter responds to your request, and satisfactorily addresses the traffic issues related to the proposed development at this time. If the Township has any questions, or requires further clarification, please contact me.

Sincerely,

Anton Kuhner

Anton Kuhner, P.E.
Senior Project Manager

EJR/akk

cc: Theresa Castorina, Abington Township
Allison Lee, Pennoni
Andrew Gutberlet, Applicant
Jennifer Madden, Gilmore & Associates, Inc.

I:\eng\ABINGTO1\822816_PennStateExpansion_22-05\Correspondence\Out\Municipality\2023-07-19_Traffic Engineering Review #3.docx

TOWNSHIP OF ABINGTON
ORDINANCE NO. 2187

AN ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF ABINGTON TOWNSHIP, BY REZONING THREE PARCELS FROM THE RESIDENTIAL LOW DENSITY (R-1) DISTRICT TO THE COMMUNITY SERVICE (CS) DISTRICT

WHEREAS, the Board of Commissioners of the Township of Abington is empowered to amend the Zoning Ordinance and Zoning Map regulating the use and control of land within the Township; and,

WHEREAS, the Board of Commissioners of the Township of Abington has determined that it is in the interest of the health, safety and welfare of the residents of the Township to rezone three parcels of property within the Township and identified below from the Residential Low Density (R-1) District to the Community Service (CS) District; and

WHEREAS, the Board of Commissioners of the Township of Abington has determined that the rezoning of these three parcels from the Residential Low Density (R-1) District to the Community Service (CS) District is consistent with the community development goals and directives for Abington Township, and the general purpose and intent set forth in The Revised Abington Township Zoning Ordinance; and

WHEREAS, all three parcels to be rezoned are bordered by and enclosed within Woodland Road, Cloverly Lane, and School Lane but are zoned in a way which is inconsistent with the 42.19 acre abutting parcel owned by the Pennsylvania State University.

NOW THEREFORE, the Board of Commissioners of the Township of Abington does hereby enact and ordain as follows:

Section 1. The Official Zoning Map of Abington Township , as provided for in section 300.2 of The Revised Abington Township Zoning Ordinance, is hereby amended follows:

a. The parcel known as 1681 Cloverly Lane, being tax parcel number 30-00-09780-00-9, block 003, unit 020, is hereby rezoned from the Residential Low Density (R-1) District to the Community Service (CS) District.

b. The parcel known as 1639 Cloverly Lane, being tax parcel number 30-00-09788-00-1, block 003 unit 001, is hereby rezoned from the Residential Low Density (R-1) District to the Community Service (CS) District.

w:\mdj\penn state\abington campus\legal\map change ord draft 9-17-2015 rev. 20190712 rev. 20201123.doc

c. The parcel known as 1665 Cloverly Lane, being tax parcel number 30-00-09784-00-5, block 003 unit 025, is hereby rezoned from the Residential Low Density (R-1) District to the Community Service (CS) District.

Section 2. Severability.

If any section, subsection, or clause of this ordinance shall be deemed to be unconstitutional or otherwise invalid, the validity of the remaining sections, subsections, and clauses shall not be affected.

Section 3. Conflicting Ordinances Repealed.

All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 4. Effective Date.

This ordinance shall become effective and shall be enforced from and after November 10, 2021.

ENACTED AND ORDAINED the 10th day of November, 2021.

TOWNSHIP OF ABINGTON

Attest:

Richard J. Manfredi,
Township Manager & Secretary

By:

John L. Spiegleman, President
Board of Commissioners

w:\mdj\penn state\abington campus\legal\map change ord draft 9-17-2015 rev. 20190712 rev. 20201123.doc

TOWNSHIP OF ABINGTON MONTGOMERY COUNTY, PENNSYLVANIA

ORDINANCE NO. 2186

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE TOWNSHIP OF ABINGTON, PROVIDING FOR AND REGULATING A COLLEGE/UNIVERSITY CAMPUS USE IN THE CS COMMUNITY SERVICE DISTRICT

WHEREAS, the Board of Commissioners of the Township of Abington has the authority pursuant to section 601 of the Pennsylvania Municipalities Planning Code,53 P.S. §10601, and section 1502.1 of The First Class Township Code, 53 P.S.

§56502.1, to enact and amend land use ordinances;

WHEREAS, the Township of Abington is home to highly respected educational institutions of higher learning which significantly contribute to and enhance the vibrancy, appeal, and culture of the Township;

WHEREAS, section 900.A of the Zoning Ordinance states that the intent of the CS Community Service District is to "[p]rovide for the education, medical, municipal, religious, and recreational needs of the Township community…."

WHEREAS, the Zoning Ordinance does not expressly provide for a college oruniversity campus use that recognizes the uniqueness of these institutions and promotes the redevelopment of land currently used for college or university purposes within the Township; nor does the Zoning Ordinance provide appropriatedesign and regulatory standards for college and university facilities that will mutually benefit the Township and the institution;

WHEREAS, the CS Community Service District of the Township seeks to provide forthe educational needs of the Township community, allowing reasonable and measured growth of facilities and physical plant, while addressing the compatibilitywith nearby properties by minimizing potential impacts caused by traffic, noise, and lighting;

WHEREAS, permitting reasonable and controlled development of current college and university facilities will help to ensure the vitality of these institutions and provide continuing and significant community and economic benefits to the Township; and

WHEREAS, the Board of Commissioners has determined that the amendment of the zoning ordinance is appropriate and necessary to promote the development and redevelopment of land used for college and university purposes in the Township.

NOW, THEREFORE, the Board of Commissioners does hereby ENACT and ORDAIN as follows:

Section 1. The Comprehensive Use Matrix in the Appendix to the Zoning Ordinance, referred to in section 901 of the Zoning Ordinance, shall be amended by the addition of Use E-18, *University Campus*, as a permitted use in the CS Community Service District

Section 2. Section 902 of the Zoning Ordinance, *Dimensional Requirements* in Community Service Districts, shall be amended to read as follows:

SECTION 902. DIMENSIONAL REQUIREMENTS: ***See Figure 9.4 CS Community Service District: Dimensional Requirements.***

A. The Dimensional Requirements for a Use E-18 UniversityCampus shall be as follows:

1. The maximum building coverage shall be 25%.
2. The maximum impervious coverage shall be 40%, rounded to the nearest whole number.
3. The minimum green area shall be 60% rounded to the nearest whole number.
4. The maximum building height shall be 45 feet, subject tothe exceptions set forth in section 2601.G, *Height Exceptions*. Building height may be increased to 55 feet, if the front or other yard setback along a public street exceeds 100 feet, if fire access lanes are provided for thestructure, consistent with recommendations of thetownship fire marshal, and if a high-intensity buffer is

used along property lines adjacent to a residential zoningdistrict. For properties greater than 25 acres, new building facades may exceed a length of 160 feet provided that they include minimum 10-foot deep horizontal building offsets at least once every 100 horizontal feet of façade length. However, in no case shalla new building façade exceed a length of 300 feet.

5. The site must have direct access to a public street.

B. Where any dimensional or other requirements in the zoning ordinance, *e.g.*, *Figure 9.4 CS Community Service District: Dimensional Requirements,* conflict with the dimensional requirements set forth in this section and section 2103.E-18, thespecific requirements of this section and section 2103.E-18 shallapply.

Section 3. Section 2103.E of the Zoning Ordinance, *Community Service Uses (Institutional Uses)*, shall be amended by the addition of a new Use E-18, *UniversityCampus*, which shall read as follows:

Use E-18: University Campus: A college or university comprising one or more buildings, lots, parcels, facilities and uses that provides academic instruction or support to individuals enrolled therein, and that are authorized to award associate, baccalaureate, or post- baccalaureate degrees. This use shall comprise accessory and ancillary uses to serve the needs of the institution's students, faculty, and staff, including, but not limited to: academic facilities, performance facilities, recreational/athletic facilities, social facilities, eating/dining facilities, administrative facilities, support facilities, health facilities, parking facilities, and retail facilities. The following additional standards shall apply and shall supersede any conflicting requirements in the Zoning Ordinance:

A. Architectural standards:

1. Building elevations/renderings shall be submitted to determine compliance with these criteria. Views presented shall include thoseof each new building façade visible from the street, as viewed fromthe street. Views of new parking areas from the street shall also beprovided, where visible from the street.
2. It is recommended that all new buildings and expansions be compatible with the architectural theme of existing buildings andstructures on-campus and on abutting streets. Factors for consideration include, but are not limited to:
    a. Colors
    b. Materials
    c. Style and pitch of roof
    d. Use of differentiated materials
    e. Wall-to- window-and-door ratio
    f. Architectural features and trim
    g. Door accentuation
3. Security features, including lighting, shall be non-intrusive relative to nearby residential uses.
4. New mechanical, and HVAC facilities shall be screened from public view, consistent with §2403 Buffers and Screens, Subsection C.

    .
5. Submission of a master facilities plan is required for two or morenew non-accessory buildings, 80,000 square feet of new floor area, or a new outdoor facility area of at least 2 acres, unless a plan has been submitted within the past 3 years. The master facilities plan shall meet the requirements of a tentative sketchplan. In addition to the requirements of a tentative sketch planin the SALDO, the applicant shall show:
    a. Proposed driveways and parking areas.
    b. Student and faculty count.
    c. Approximate building heights.
    d. Floor area of existing and proposed buildings.
    e. Proposed timeline for building construction.

f. Building and impervious coverage data.

g. Elevations for building within 300 feet of a residential use(showing façade[s] facing public street or residential use within 300 feet).

1. Setback from Residential Uses. The following uses shall be set back at least 300 feet from the lot line of a property on which aresidential use is located: (1) organized activities such as graduation ceremonies or camp activities; and (2) active recreation fields or structures. Additionally, organized activities such as graduation ceremonies or camp activities will require administrative review and approval by the township. The Township's approval shall not be unreasonably withheld. The Township shall have 20 business days from the receipt of the request for its review. Such requests shall be submitted, by hand-delivery or first class, regular mail, to the manager's office. If the Township does not respond within that time period, the request will be considered approved.

2. Traffic Study

   a. Purpose. The Traffic Impact Study will enable theTownship to assess the impact of the proposed development on the transportation system in the Township. The purpose of the impact study is to insure that proposed developments do not adversely affect the transportation network and to identify any traffic problems associated with access between the site and the existing transportation network. The study's purpose is also to delineate solutions to potential problems and to present improvements to be incorporated into the proposed development.

   b. A Traffic Impact Study shall be prepared by a qualified traffic engineer and/or transportation planner withprevious traffic study experience. Procedures and standards for a Traffic Impact Study are as set forth in theSALDO (if such provisions are incorporated to the SALDOat the time of the proposed land development). Theapplicant may provide funds to the Township to enable the Township to hire a traffic engineer of its choice to conduct the study, if this procedure is deemed appropriate and approved by the Township.

   c. A Traffic Impact Study prepared in accordance with the guidelines of the Pennsylvania Department of Transportation as part of an application for a state highway occupancy permit may be submitted to the Township in fulfillment of this requirement.

d. In preparing the Traffic Impact Study, the most recent edition of the Trip Generation Handbook of the Institute of Transportation Engineers shall be used.

e. A traffic study is required for a new building or other improvement which meets any of these standards:

(i) It generates an average of 3,000+ trips/day.
(ii) It generates 100 or more vehicle trips entering orexiting in an hour.
(iii) It generates 100 or more additional vehicle trips ina redevelopment site.
(iv) It generates an increase in peak hour traffic greaterthan 5% of the existing volume in surrounding residential communities.
(v) Daily trip generation rates are greater than 500trips per 1,000 s.f. of GLA.

B. Excavation in, or disturbance of steep slope areas within the steep slope conservation district shall utilize engineeredslope stabilization, retaining walls, and/or foundation walls and shall comply with the provisions of Article XVI: Steep Slope Conservation District. The landowner shall submit an erosion and sedimentation control plan during land development, and any such construction shall be completed to the satisfaction of the Township engineer.

C. Existing parking lots shall not be subject to the landscaping requirements of § 2402.A.2. Parking areas on the same lot are notrequired to be interconnected. A 12-foot buffer is permitted for new vehicle parking located within a yard along a public street andwithin a screening buffer required by section 2403.B provided that enhancements to the portion less than 15 feet are made by providing 20% more evergreen shrubs and (if applicable) evergreentrees otherwise required for the buffer.

D. There shall be provided one (1) off-street loading berth per buildingor facility that is erected with a gross floor area over twentythousand (20,000) square feet where the principal use of the building requires the regular receipt or distribution of materials ormerchandise by vehicles.

E. In the event of a conflict or inconsistency between any zoning regulation governing a Use E-18: *University Campus* and any otherzoning regulation in the Abington Township Zoning Ordinance, thespecific regulation for Use E-18 shall apply and control.

Section 4. Section 2304, *Parking Use Requirements*, subsection E, *Community Service (Institutional) Uses*, shall be amended to add the following:

18. **Use E-18: University Campus**: A "parking space" shall be at least 9 feet x 18 feet in size. The computation of required parking spaces shall include both on-site and off-site parking spaces. A University Campus use shall have one (1) parking space for every classroom, plus one (1) space for every two anda half (2.5) students who regularly attend classes on campus, plus one (1) space for every ten (10) fixed auditorium seats, plusone (1) space for every three hundred (300) square feet of grossoffice area. The required number of parking spaces may be reduced by a maximum of thirty percent (30%) if the college or university provides and makes available all of the following:

1. a regularly scheduled shuttle service, which shall includeservice to a commuter rail station;
2. a ride-share program; and
3. to the extent such programs are readily available, car-shareand bike share services.

Section 6. The Comprehensive Use Matrix in the Appendix to the Zoning Ordinance, referred to in section 901 of the Zoning Ordinance, shall be amended by changing Use E-14, *School or College – Public/Private*, to Use E-14, *School – Public/Private*.

Section 7. Section 2103.E of the Zoning Ordinance, *Community Service Uses (Institutional Uses)*, Use E-14, *School or College – Public/Private*, shall be amendedby amending the name of the use category and the introductory paragraph as follows:

Use E-14: School – Public/Private: A facility, building, lot, parcel, use, or groupof facilities, buildings and uses that provides a broad educational curriculum

to individuals enrolled therein, and is licensed by the State Department of Education, including private and public kindergartens, elementary, junior and senior high schools:…

Section 8. Section 2304, *Parking Use Requirements*, subsection E, *Community Service (Institutional) Uses*, subsection 14 shall be amended as follows:

14. **Use E-14: School – Public/Private**: Elementary and secondary schools require 1 parking space for every classroom plus 1 space for every 4 students in tenth grade or higher, plus 1 space for every 10 fixed auditorium seats.

Section 9. Repealer. All ordinances or parts of ordinances inconsistent herewith or in conflict with any of the specific terms enacted hereby, to the extent of said inconsistencies or conflicts, are hereby specifically repealed.

Section 10. Severability. In the event that any section, sentence, clause, or word of this ordinance shall be declared illegal, invalid, or unconstitutional by any court of competent jurisdiction, such declaration shall not prevent, preclude or otherwise foreclose the validity of the remaining portions of this ordinance.

Section 11. Effective Date. This Ordinance shall be effective as of the date of enactment.

ENACTED and **ORDAINED** this 10th day of November, 2021.

TOWNSHIP OF ABINGTON

Attest:

Richard J. Manfredi,
Township Manager & Secretary

By: _____
John L. Spiegelman, President
Board of Commissioners

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	BOC-09-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Administration		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Resolution Setting Reasonable Fees for Costs Incurred by AT for Criminal History Investigative Information

EXECUTIVE SUMMARY:

Attached is a draft resolution for recovery of costs the Township incurs in responding to requests for police materials. The first part of this resolution deals with requests for criminal investigative information pursuant to the new Crime Victim Right of Access (CVRA) amendment to the Criminal History Record Information Act (CHRIA). With this amendment adding the CVRA subchapter to CHRIA, crime victims may, under certain circumstances, obtain criminal investigative information which was previously prohibited from dissemination. The Township's imposition of reasonable fees to recover costs expended in responding to such requests is specifically permitted by a provision of the new CVRA subchapter, as the resolution notes. The specific language is "[t]he criminal justice agency may impose reasonable fees for costs incurred to comply with the request."

The second part of this resolution deals specifically with requests for police audio and video recordings. The Legislature has drawn a distinction between requests for police documents under CVRA and requests for police audio and video recordings, which are governed by Act 22 of 2017 ("Act 22"). The Act 22 statute governing these requests for audio and video recordings also specifically authorizes the imposition of reasonable fees, and so the same fee structure is proposed for these requests.

We are confident the proposed fees are reasonable and provide a narrowly-tailored means for the Township to recover the costs it expends in processing and responding to requests for police materials.

PREVIOUS BOARD ACTIONS:

n/a

RECOMMENDED BOARD ACTIONS:

Motion to adopt Resolution 23-015 setting reasonable fees for costs incurred by Abington Township in complying with requests for criminal history investigative information pursuant to the Crime Victim Right of Access Subchapter to the Criminal History Record Information Act, as well as setting reasonable fees for costs incurred by Abington Township in complying with requests for disclosure of Police audio and video recordings pursuant to ACT 22 of 2017.

ABINGTON TOWNSHIP
RESOLUTION NO. 23-015

A RESOLUTION OF ABINGTON TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, SETTING REASONABLE FEES FOR COSTS INCURRED BY ABINGTON TOWNSHIP IN COMPLYING WITH REQUESTS FOR CRIMINAL HISTORY INVESTIGATIVE INFORMATION PURSUANT TO THE CRIME VICTIM RIGHT OF ACCESS SUBCHAPTER TO THE CRIMINAL HISTORY RECORD INFORMATION ACT, AS WELL AS SETTING REASONABLE FEES FOR COSTS INCURRED BY ABINGTON TOWNSHIP IN COMPLYING WITH REQUESTS FOR DISCLOSURE OF POLICE AUDIO AND VIDEO RECORDINGS PURSUANT TO ACT 22 OF 2017

WHEREAS, Abington Township ("Township") is a First Class Township duly organized and existing pursuant to the applicable laws of the Commonwealth of Pennsylvania; and

WHEREAS, the Township is empowered under the First Class Township Code, 53 P.S. § 55101, et. seq., to pass resolutions for the public health, safety, and welfare; and

WHEREAS, the Criminal History Record Information Act ("CHRIA") was recently amended to add the Crime Victim Right of Access ("CVRA") subchapter, permitting crime victims and some other individuals to, upon request to a criminal justice agency, access otherwise-protected criminal investigative information under certain circumstances; and

WHEREAS, 18 Pa.C.S.A. § 9158.2(d) permits criminal justice agencies to impose reasonable fees for costs incurred to comply with such requests; and

WHEREAS, the Township has estimated those costs to be as outlined in the attached Exhibit "A"; and

WHEREAS, requests for audio and video recordings made by a law enforcement agency are governed by Act 22 of 2017, as amended, and codified by 42 Pa.C.S.A. § 67A01, et seq.; and

WHEREAS, 42 Pa.C.S.A. § 67A05(d) specifically authorizes a law enforcement agency to establish reasonable fees relating to the costs incurred to disclose audio recordings or video recordings; and

WHEREAS, the Township has estimated those costs to be as outlined in the attached Exhibit "B";

NOW THEREFORE, BE IT RESOLVED by the Abington Township Board of Commissioners that the fees established for Abington Township's compliance with requests for criminal investigative information pursuant to the CVRA subchapter to CHRIA, shall be as outlined in the attached Exhibit "A," and the fees established for Abington Township's compliance with requests for audio and video recordings made by the Abington Township Police Department shall be as outlined in the attached Exhibit "B."

I HEREBY CERTIFY that this Resolution was adopted by Abington Township at its public meeting held on the 12th day of October , 2023.

ATTEST:

_____
Richard J. Manfredi
Township Manager and Secretary

ABINGTON TOWNSHIP

_____
Thomas Hecker, President
Board of Commissioner

EXHIBIT "A"

Pursuant to 18 Pa. C.S. §9158.2(d), Abington Township will impose reasonable fees for costs incurred to comply with requests. For any request granted, a standard processing fee will be imposed. Payment of the processing fee is required before any work is completed to fulfill the request. Payment is currently accepted by money order or check made out to Abington Township.

In addition, Abington Township will impose additional fees as necessary to cover additional costs associated with providing the requested materials. A cost-estimate will be provided in advance, and payment is expected before the responsive materials are released.

Initial Processing fee	$ 250.00
Electronic storage devices such as DVDs, flash drives, and external hard drives	Cost
Retrieval	$6.25/fifteen minutes
Photocopying	$0.25/page for black & white $0.50/page for color
Postage	Cost
Legal work, including but not limited to necessary redactions	Solicitor's hourly rate for litigation matters as imposed by the Abington Township Board of Commissioners from time to time

The information and requirements contained herein are subject to change, without notice, and will be further amended pursuant to any rules and regulations provided by the Pennsylvania Office of the Attorney General and/or the Supreme Court of Pennsylvania.

EXHIBIT "B"

Pursuant to 42 Pa.C.S.A. § 67A05(d), Abington Township will impose reasonable fees relating to costs incurred to disclose audio recordings or video recordings. For any request granted, a standard processing fee will be imposed. Such fees shall be paid by the requesting party at the time of disclosure of the audio recording or video recording. Payment is currently accepted by money order or check made out to Abington Township.

Initial Processing fee	$ 250.00
Electronic storage devices such as DVDs, flash drives, and external hard drives	Cost
Postage	Cost
Retrieval	$6.25/fifteen minutes
Legal work, including but not limited to review of requested audio recordings or video recordings for determination of whether disclosure of the requested audio recording or video recording is permitted by 42 Pa.C.S.A. § 67A04(a)	Solicitor's hourly rate for litigation matters as imposed by the Abington Township Board of Commissioners from time to time

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	FC-01-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Finance		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Expenditures Salaries & Wages for August 2023

EXECUTIVE SUMMARY:

N/A

PREVIOUS BOARD ACTIONS:

N/A

RECOMMENDED BOARD ACTIONS:

Motion to approve the August 2023 expenditures in the amount of $3,005,713.01and salaries and wages in the amount of $2,287,387.68 and authorizing the proper officials to sign and approve invoices and supporting documentation in payment of bills and contracts as they mature through the month of

November 2023. (Click here to view supporting information for expenditures in August 2023)

(Motion & Roll Call)

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	FC-02-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Finance		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Renewal for Retiree Healthcare

EXECUTIVE SUMMARY:

United Healthcare quote is an increase of 4.5% from 2023 rates, approximately $13,456. CIGNA quoted 18.3% and Humana quoted 23% over our current rate for 2024.

PREVIOUS BOARD ACTIONS:

At the November 14, 2019 Board of Commissions meeting, United Healthcare was selected as the retiree medical plan provider effective January 1, 2020.

At the September 8, 2022 Board of Commissioners meeting, the motion to ratify the selection of United Healthcare for retirees was approved.

RECOMMENDED BOARD ACTIONS:

Motion to continue with United Healthcare as the retiree medical plan provider effective January 1, 2024.

Abington Township Medicare Plan Rates

1/1/2024 Effective Date

For Illustrative Purposes Only

		2023 CURRENT United Healthcare	2024 RENEWAL United Healthcare	2024 Quote Cigna	2024 Quote Humana
With Rx	142	$147.92	$154.61	$182.06	$191.29
Without Rx	41	$92.57	$96.75	$84.96	$82.39
MONTHLY PREMIUM	**183**	**$24,800.01**	$25,921.37	$29,335.88	$30,541.17
ANNUAL PREMIUM		**$297,600.12**	**$311,056.44**	**$352,030.56**	**$366,494.04**
INCREASE/DECREASE			**$13,456.32**	**$54,430.44**	**$68,893.92**
PERCENTAGE			**4.52%**	**18.29%**	**23.15%**

Both Aetna and IBC declined to quote.

BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING

AGENDA ITEM

October 12, 2023	FC-03-101223	FISCAL IMPACT
DATE	*AGENDA ITEM NUMBER*	Cost > $10,000
		Yes ☐ No ☐
Community Development		PUBLIC BID REQUIRED
DEPARTMENT		Cost > $20,100
		Yes ☐ No ☐

AGENDA ITEM:

Award contract for the construction of sidewalk and curbing along Rubicam Ave.

EXECUTIVE SUMMARY:

As part of the 2022 CDBG Annual Action Plan, a project to construct (and in some places rehabilitate) sidewalks and curbing along the north side of Rubicam Ave. from SR611 (Old York Rd). to Crestmont Station and from Crestmont Station/Rubicam Park to Easton Rd.

The bidding period ran from Aug. 21-Sept. 7. Previously, Atlas Engineering was awarded a competitive bid for design and construction management; they have reviewed the bids received and identified X as the lowest qualified bidder.

PREVIOUS BOARD ACTIONS:

The 2022 CDBG AAP was approved by the board in July 2022 and HUD in September 2022.

RECOMMENDED BOARD ACTIONS:

Motion to award the contract for the construction of sidewalk and curbing along Rubicam Ave to

McCarthy Masonry and Concrete, Inc. in the amount of $258,103.10 and authorize the Township Manager to execute the contract.

ATLAS

September 7, 2023

Timothy G. Clark
Director of Engineering
Township of Abington
1176 Old York Road
Abington, PA 19001

Subject: Community Development Block Grant
Rubicam Avenue sidewalk Installation

Reference: **Recommendation of Award**

Dear Mr. Clark:

We have reviewed the bid submission packages received by the Township on September 7, 2023 for the subject project and find the apparent low bidder, McCarthy Masonry and Concrete, Inc. to be responsive to the Contract requirements. Accordingly, we recommend that the Township award this project to McCarthy Masonry and Concrete, Inc. in the amount of $258,103.10 for the base bid should sufficient funding be available. Enclosed are the low bidder's submissions for your review. Submissions of all the bidders are found online via PennBid. Also enclosed is a copy of the bid tabulation for the contract.

If you concur with our findings, the Township, once the contract is awarded by the Commissioners, should then request the Contractor to submit the appropriate contract bonds and insurance certificates. The Contract Agreement should also be executed by the Township and the Contractor prior to the issuance of an official Notice to Proceed.

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

Very truly yours,

Michael R. Filmyer

Michael R. Filmyer, P.E.
Director of Engineering

MRF/sws
Enclosure
cc: Kimberly Hamm, Abington

BID TABULATION
RECEIVED BY THE TOWNSHIP OF ABINGTON
UNTIL 10:00 AM ON THURSDAY, SEPTEMBER 7, 2023

COMMUNITY DEVELOPMENT BLOCK GRANT
RUBICAM AVENUE SIDEWALK INSTALLATION
CONTRACT NO. 1

						CONTRACTORS								
Bid Item Number	**Description**	**Type**	**Quantity**	**Unit of Measurement**	**Extended Estimate**	**McCarthy Masonry and Concrete**	**G&B Construction**	**Associated Paving Contractors Inc.**	**LB Construction Enterprises, Inc./ DB Utility**	**Albert G. Cipolloni Jr & Sons, Inc.**	**NJs Concrete LLC**	**Ocean Construction**	**T. Schiefer Contractors, Inc.**	**GoreCon Inc.**
1A	Clearing and Grubbing, Including Fence Relocation	Base	1	LS		$28,401.00	$12,000.00	$79,178.00	$6,200.00	$15,000.00	$20,000.00	$4,000.00	$30,000.00	$34,948.47
1B	Tree Removal	Base	6	EA		$6,000.00	$7,200.00	$15,600.00	$36,000.00	$7,200.00	$15,600.00	$24,000.00	$12,000.00	$32,436.06
1C	Topsoil Furnished and Placed	Base	1	LS		$14,480.00	$3,500.00	$16,000.00	$5,800.00	$18,000.00	$3,000.00	$4,000.00	$16,800.00	$13,145.91
1D	Seeding and Soil Supplements Including Mulch	Base	1	LS		$4,827.00	$500.00	$6,500.00	$1,900.00	$6,820.00	$3,000.00	$6,000.00	$2,500.00	$11,712.54
2A	Wearing Course, 1-1/2" 9.5 MM SuperPave	Base	370	LF		$3,922.00	$2,590.00	$4,477.00	$5,550.00	$7,207.60	$11,840.00	$4,588.00	$4,070.00	$6,404.70
2B	Base Course, 6" 25 MM SuperPave	Base	370	LF		$6,586.00	$2,590.00	$6,512.00	$11,100.00	$4,732.30	$11,840.00	$4,588.00	$7,030.00	$9,830.90
2C	SubBase, 6" Depth (No. 2A)	Base	370	LF		$2,312.50	$1,480.00	$4,477.00	$2,960.00	$3,700.00	$11,840.00	$9,620.00	$3,700.00	$3,511.30
2D	Driveway Repaving	Base	55	LF		$4,999.50	$1,925.00	$6,352.50	$7,150.00	$3,080.00	$1,980.00	$6,490.00	$6,875.00	$7,097.75
3A	Demo of Existing Concrete Sidewalk	Base	240	LF		$20,438.40	$1,440.00	$5,280.00	$2,400.00	$4,300.80	$4,800.00	$6,720.00	$12,000.00	$5,532.00
3B	New Concrete Sidewalk	Base	1,670.00	LF		$85,186.70	$150,300.00	$40,414.00	$145,290.00	$143,553.20	$167,000.00	$169,004.00	$156,980.00	$209,768.70
3C	Handicap Ramp Construction	Base	12	EA		$19,800.00	$30,000.00	$48,840.00	$36,000.00	$52,800.00	$42,000.00	$36,498.00	$57,600.00	$75,308.04
3D	Driveway Aprons	Base	100	LF		$7,800.00	$5,500.00	$14,850.00	$10,000.00	$6,112.00	$7,500.00	$9,000.00	$10,000.00	$29,806.00
4A	New Curb	Base	600	LF		$21,600.00	$57,000.00	$54,120.00	$48,000.00	$54,432.00	$48,000.00	$89,400.00	$58,800.00	$56,832.00
5A	Miscellaneous Concrete	Base	10	CY		$5,060.00	$2,300.00	$7,150.00	$6,000.00	$5,000.00	$3,000.00	$2,000.00	$4,500.00	$3,485.20
5B	Miscellaneous Crushed Stone	Base	20	CY		$5,480.00	$900.00	$5,280.00	$1,200.00	$2,000.00	$600.00	$1,280.00	$2,000.00	$1,539.60
5C	Construction Stakeout/Surveying	Base	1	LS		$2,500.00	$2,000.00	$12,000.00	$6,000.00	$14,850.00	$15,000.00	$15,000.00	$10,000.00	$25,622.74
5D	Reset Post Mounted Signs	Base	8	EA		$960.00	$240.00	$2,640.00	$2,400.00	$3,152.00	$1,200.00	$2,200.00	$2,000.00	$2,847.12
5E	Reconnect Drain Pipes	Base	3	EA		$750.00	$300.00	$3,300.00	$1,500.00	$3,360.00	$150.00	$600.00	$1,500.00	$3,770.97
6A	Erosion & Sediment Control	Base	1	LS	2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00
7A	Mobilization	Base	1	LS	5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00
8A	Allowance for Miscellaneous Materials and Work	Base	1	LS	10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00
	TOTAL BID PRICE:					**$258,103.10**	**$298,765.00**	**$349,970.50**	**$352,450.00**	**$372,299.90**	**$385,350.00**	**$411,988.00**	**$415,355.00**	**$550,600.00**
							WBE							WBE

Bid Documents Submitted:										
	Bid Form:	X	X	X	X	X	X	X	X	X
	Add #1 Acknowledged:	X	X	X	X	X	X	X	X	X
	Add #2 Acknowledged:	X	X	X	X	X	X	X	X	X
	Bid Bond:	X	X	X	X	X	X	X	X	X
	Consent of Surety:	X	X	X		X	X	X	X	X
	Surety Power of Attorney:	X	X	X	X	X	X	X	X	X
	Surety Financial Statement:	X	X	X		X	X	X	X	X
	Non-Collusion Affidavit:	X	X	X	X	X	X	X	X	X
	Experience/Equipment/Financial Statement:	X	X	X (Unsigned)	X	X	X	X	X (No Financials)	X
	IFB Form:	X	X	X	X	X	X	X	X	X
	PWEV Form:	X	X	X	X			X	X	

Respectfully Submitted,

Michael R, Filmyer, P.E.
Atlas Technical Consultants
Director of Engineering

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we McCarthy Masonry & Concrete, Inc.

(hereinafter called the "Principal") as Principal, and Berkley Insurance Company, a Delaware Corporation authorized to transact business in Pennsylvania and having its principal office at 475 STEAMBOAT ROAD, GREENWICH, CT 06830 (hereinafter called the "Surety") as Surety, are held and firmly bound unto the Township of Abington (hereinafter called the Oblige), in the sum of Ten percent of the total amount bid and all add alternates DOLLARS ($ 10%), lawful money of the United States of America; for payment of which we bind ourselves, and each of our respective heirs, legal representatives, successors and assigns, jointly and severally, by these presents on the 7th day of September 2020 ~~20~~ 23.

WHEREAS, said Principal is herewith submitting to the Oblige a proposal to perform the

COMMUNITY DEVELOPMENT BLOCK GRANT
RUBICAM AVENUE SIDEWALK INSTALLATION

pursuant to Drawings, Specifications and other Contract Documents incorporated into said proposal by reference; and it is a condition of the Oblige' s receipt and consideration of said proposal that the proposal be accompanied by bid security to be held by the Obligee on terms embodied herein.

NOW, THEREFORE, the condition of this obligation is that if said Principal shall furnish Performance Bond, Labor and Material Payment Bond, and Insurance Certificates to the Oblige upon the Oblige's delivery to the Principal of notice of intention to accept his proposal and to make a formal award of contract to him, and shall enter into such contract, all as required by said Contract Documents, then this obligation shall be void; otherwise it shall remain in full force, and the Principal and Surety will pay to the Obligee the full amount of this Bond as liquidated damages and not as a penalty.

IN WITNESS WHEREOF, the Principal and Surety, intending to be legally bound, have executed this bond the day and year aforementioned.

Witness or Attest:

McCarthy Masonry & Concrete, Inc.
(Principal)

By:

Witness:

Berkley Insurance Company
(Surety)

By:

Jeffrey B. Cummings, Witness
Abington Township

Benjamin R. Pinkerton, Attorney-in-Fact
Z057000413

BB1/1

BERKLEY INSURANCE COMPANY

STATUTORY BALANCE SHEET
DECEMBER 31, 2022
(AMOUNTS IN THOUSANDS)

Admitted Assets

Bonds	$	13,748,920
Common & Preferred Stocks		5,444,146
Cash & Short Term Investments		1,220,600
Premiums Receivable		2,409,952
Other Assets		4,173,176
Total Admitted Assets	$	26,996,794

Liabilities & Surplus

Loss & LAE Reserves	$	13,487,428
Unearned Premium Reserves		4,200,566
Other Liabilities		978,212
Total Liabilities	$	18,666,206
Common Stock	$	43,000
Preferred Stock		10
Additional Paid In Capital		2,949,106
Unassigned Surplus		5,338,471
Total Policyholders' Surplus	$	8,330,587
Total Liabilities & Surplus	$	26,996,794

Officers:
President: William Robert Berkley, Jr.
Secretary: Philip Stanley Welt
Treasurer: Richard Mark Baio
Asst. Treasurer: Bertman Adam Braud, Jr.
Asst. Secretary: Aaron Pearce
Asst. Treasurer: Ted William Rogers

Directors:
William Robert Berkley
(Executive Chairman)
William Robert Berkley, Jr.
Philip Stanley Welt
Richard Mark Baio
Paul James Hancock
Carol Josephine LaPunzina
James Gerald Shiel

Consent of Surety

Abington Township
1176 Old York Road
Abington PA 19001

RE: McCarthy Masonry & Concrete, Inc.
Rubicam Avenue Sidewalk Installation

To Whom It May Concern:

We are pleased to be the surety agent for the above-referenced contractor. In the event this firm enters into a contract with you for this project, Berkley Insurance Company is prepared to execute the required Performance and Payment bonds in the full amount of the contract.

Signed and Sealed Date: 9/7/2023

Berkley Insurance Company

Benjamin R. Pinkerton
Attorney-In-Fact

1857 William Penn Way
PO Box 11600
Lancaster, PA 17605

EHDInsurance.com +1-800-544-7292 fax 717-394-0842

No. BI-10249d

POWER OF ATTORNEY
BERKLEY INSURANCE COMPANY
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: ***Morgan S. Ellis; Sarah E. Jordan; Matthew J. Swanick; Christina E. Haeussler; Valerie A. Sassaman; Robert J. Miller; Benjamin R. Pinkerton; or Jeffrey B. Cummings of Engle-Hambright & Davies, Inc. of Lancaster, PA*** its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed **Fifty Million and 00/100 U.S. Dollars (U.S.$50,000,000.00)**, to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

RESOLVED, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

RESOLVED, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

RESOLVED, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

RESOLVED, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 19th day of August, 2022.

Attest:

(Seal)

By _____
Ira S. Lederman
Executive Vice President & Secretary

Berkley Insurance Company

By _____
Jeffrey M. Hafter
Senior Vice President

WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.

STATE OF CONNECTICUT)
) ss:
COUNTY OF FAIRFIELD)

Sworn to before me, a Notary Public in the State of Connecticut, this 19th day of August, 2022, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Executive Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

MARIA C RUNDBAKEN
NOTARY PUBLIC
CONNECTICUT
MY COMMISSION EXPIRES
APRIL 30, 2024

_____
Notary Public, State of Connecticut

CERTIFICATE

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this 7th day of September, 2023.

(Seal)

_____
Vincent P. Forte

WARNING – Any unauthorized reproduction or alteration of this document is prohibited. This power of attorney is void unless seals are readable and the certification seal at the bottom is embossed. The background imprint, warning and **verification instructions** (on reverse) must be in blue ink.

BID FORM

(Notice: This Bid must be executed in ink or by typed entries and it must not be removed from this document)

Bid Of: McCarthy Masonry & Concrete, Inc
(Bidder's Name)

For: COMMUNITY DEVELOPMENT BLOCK GRANT
RUBICAM AVENUE SIDEWALK INSTALLATION

To: Abington Township
1176 Old York Road
Abington, PA 19001
Attention: Richard J. Manfredi
Township Manager

Herein called the Owner.

Note – All pricing information shall be submitted electronically via the "Bid" tab.

1. Intentionally left blank.

2. The Bidder agrees to begin work within ten (10) calendar days after the date designated in the Notice to Proceed and to substantially complete the Contract within sixty (60) calendar days from the date designated in the Notice to Proceed and complete the entire contract ready for final payment and closeout in accordance with Section 01060 MOBILIZATION AND CLOSEOUT within fifteen (15) days after substantial completion.

3. In case of failure on the part of the Contractor to substantially complete the renovation work within sixty (60) days from Notice to Proceed or any extensions thereof, the Contractor shall pay the Owner as liquidated damages (but not as a penalty) the sum of One Thousand Dollars and Zero Cents ($1,000.00) for each calendar day of delay until the work is completed or accepted. In case of failure on the part of the Contractor to complete the entire Contract ready for final payment and closeout in accordance with Section 01060, MOBILIZATION AND CLOSEOUT, within the time fixed in the Contract or any extensions thereof, the Contractor shall pay the Owner as liquidated damages (but not as a penalty) the sum of THREE HUNDRED DOLLARS and ZERO CENTS ($300.00) for each calendar day of delay until the work is totally completed ready for final payment.

4. The undersigned agrees, upon receipt of written notice of the acceptance of this Bid within sixty (60) days after the date of opening of Bids, to execute the Construction Contract, in accordance with the Bid as accepted. The undersigned also agrees to give the Bonds required with good and sufficient Surety or Sureties.

5. Payment for all work called for in the Drawings and Specifications or required for proper completion of the work under this Contract, and not specifically mentioned in the Drawings and Specifications, will be considered as covered by the Item No. 1 payments, and no extra payments will be allowed therefor.

6. The undersigned hereby designates as his office to which such notice of acceptance may be mailed, telegraphed or delivered:

McCarthy Masonry & Concrete, Inc, 740 E Cherry Road, Quakertown, PA 18951

7. Accompanying this proposal is a Bid Bond in the amount of 10%

~~DOLLARS and CENTS ($)~~ as Bid security.

8. This Bid may be withdrawn at any time prior to the scheduled time for the opening of Bids or any authorized postponement thereof via www.PennBid.Net.

9. The undersigned acknowledges that he received the following Addenda to the Specifications and that this Bid was prepared in accordance with said Addenda:

Addendum No.	Date	Addendum No.	Date
Addendum 1	08/22/2023		
Addendum 2	08/30/2023		

10. BIDDER'S REPRESENTATIONS

A. The Bidder in submitting the attached Bid represents that prior to Bidding,

(1) to the extent he deems it necessary or desirable, he has reviewed the Specifications, visited the site and made all site, soil and subsurface examinations he feels are necessary.

(2) he has carefully reviewed the Specifications for the purpose of detecting any inconsistencies and/or omissions, and, to the extent he has observed any such inconsistencies and/or omissions, he has duly noted them and has had an adequate opportunity to request clarification from the Owner and Engineer, and he has received a satisfactory response with respect thereto.

BID FORM

A. INDIVIDUAL

An individual doing business under the firm name of:

_____

Address: _____

Individual's Name: _____ (Sign)
_____ (Type)

Witness: _____ Date: _____

B. PARTNERSHIP

Partners trading and doing business under the firm name of:

_____

Address: _____

Partner's Names:

_____ (Sign) _____ (Sign)
_____ (Type) _____ (Type)

Witness: _____ Date: _____

C. CORPORATION

Name: McCarthy Masonry & Concrete, Inc

Address: 740 E Cherry Road, Quakertown, PA 18951

A Corporation organized under the laws of: Pennsylvania

Officer: _____ (Sign)
James P. McCarthy, President (Type)

Attest: _____ Date: September 7, 2023
Alice C. McCarthy (Secretary)

(CORPORATE SEAL)

NON-COLLUSION AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA
ss:
COUNTY OF ~~MONTGOMERY~~ Bucks

Abington Township

Contract No. 1

I, James P. McCarthy, of Richland Twp, in the County of Bucks and the State of Pennsylvania, of full age, being duly sworn according to law on my oath depose and say that:

I am of the firm of McCarthy Masonry & Concrete, Inc the Bidder making the Proposal for the above named project, and that I executed the said Proposal with full authority so to do; that said Bidder has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive Bidding in connection with the above named project; and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that the Abington Township relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract for the said project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by

McCarthy Masonry & Concrete, Inc.
(Name of Contractor)

(Also type or print name of affiant under signature) James P. McCarthy, President

Subscribed and sworn to before me this 7 day of September 2023.

Notary Public of

My commission expires February 20, 2027

Commonwealth of Pennsylvania - Notary Seal
Dawn Kraus, Notary Public
Bucks County
My commission expires February 20, 2027
Commission number 1288409
Member, Pennsylvania Association of Notaries

Atlas Technical Consultants
920 Germantown Pike, Suite 200
Plymouth Meeting, PA 19462
Phone: 610/313-3100

EXPERIENCE, EQUIPMENT AND FINANCIAL STATEMENT FOR PROSPECTIVE BIDDERS

NOTICE

This Form must be completed, with all blanks fully filled in utilizing current data, and submitted herewith with the Bid Submittal. All answers must be printed in ink or typewritten.

Project for which bidder is qualifying:

COMMUNITY DEVELOPMENT BLOCK GRANT

RUBICAM AVENUE SIDEWALK INSTALLATION

Date this Form submitted September 7, 2023 Date of receipt of bids _____

Submitted by McCarthy Masonry & Concrete, Inc

Individual
Co-partnership
Corporation

Designate proper description

Principal office address 740 E. Cherry Road, Quakertown, PA 18951

Telephone 215-538-1874

If a corporation, answer this:

Capital paid in cash, $??

When incorporated 1989

In what State Pennsylvania

President's name James P. McCarthy

Vice-President's name Alice C. McCarthy

Secretary's name Alice C. McCarthy

Treasurer's name James P. McCarthy

If a partnership, answer this:

Date of organization _____

State whether partnership is general or limited

Name, address and percentage ownership of partners:

EXPERIENCE AND EQUIPMENT

1. How many years has your organization been in business as a general contractor under your present business name?
   34+ years
2. How many years experience in this type of construction work has your organization had?
   (a) As a general contractor 34+ years (b) As a sub-contractor 34+ years
3. What are the largest projects your organization has completed?

	Contract Amount	Class of Work	When Completed	For Whom
1.	$1,452,620.00	Masonry	April 2016	Wohlsen Construction
2.	3,000,000.00	Masonry	April 2021	Whiting-Turner
3.	1,883,528.00	Masonry	June 2021	Klover Contracting
4.	1,434,726.00	Concrete & Masonry	May 2023	Prime Storage Group
5.	722,659.00	Concrete	August 2023	Perkasie Borough

Name and address of Reference for items listed above:

1. Wohlsen Construction (548 Steel Way, Lancaster, PA 17604) Attn: Joe DiBeneditto at 908-263-7480
2. Whiting Turner (131 Continental Drive, Suite 404, Newark, DE 19713) Attn: Frank Lerro at 302-292-0676
3. Klover Contracting (1121 Richland Commerce Drive, Suite B, Quakertown, PA 18951) Attn: Jerry Kilhefner at 215-536-7706
4. PrimeSpace Capital, LLC (139 Fulton St, New York, NY 10038) Attn: Ari Biegeleisen at 646-565-3555
5. Gilmore & Associates (65 E Butler Avenue, Suite 100, New Britain, PA 18901) Attn: Doug Rossino at 215-345-4330

Any other reference Previous projects completed for Abington Twp: Keswick Avenue, Fairways Phase 1 & 2, Old York Road Phases 1 & 3 ardesley Phase 1 & 2- Attn: Matthew Lahaza

4. Have you ever been declared in default or failed to complete any work awarded to you? No
   If so, where and why?
5. Have you or has any officer or partner of your organization ever been an officer or partner of some other contracting organization? No
   If so, state name of individual, position, and the name of the other organization
6. If any part of the work is sublet, will you require a bond from sub-contractor? No
7. Give list of uncompleted contracts at present held by you.

Contract	Amount
Johanna Farms- Compressor Building	$ 297,926.50
Living Branches Mennonite Community	372,344.00
Lyons VA Medical Center	188,918.00
Kalustyan- Tank Pad & Asphalt	552,370.00

8. What equipment do you own that is available for the proposed work?
   2022 Kenworth Dump Truck
   Case 580 Extend Hoe
   2022 Melroe E32 Excavator
   Track Skidsteers
9. State approximately the largest amount of work you have done in any one year $8.2 million
   Remarks:
10. Have you ever been cited by a Regulatory Agency for your failure to comply with any of its requirements? If so, where and why? No

FINANCIAL STATEMENT AS OF (DATE): Please see attached Balance Sheet as of 07/31/2023

Financial statement may be submitted as of the most recent regular statement rendered within 3 months of date of this questionnaire.

ASSETS

		Dollars	Cents
1.	Cash		
	Name banks		
2.	Notes receivable (a) Due within 90 days		
	(b) Due after 90 days		
	(c) Past due		
3.	Accounts receivable from completed contracts, exclusive of claims not approved for payment		
4.	Sums earned and not paid, on uncompleted contracts as shown by Engineer's or Architect's estimate		
	(a) Amount receivable after deducting retainage		
	(b) Retainage to date, due upon completion of contracts		
5.	Accounts receivable from sources other than construction contracts		
6.	Deposits for bids or other guarantees:		
	(a) Recoverable within 90 days		
	(b) Recoverable after 90 days		
7.	Real Estate owned and registered in the name of bidder - assessed value:		
	Description and Location of Property		
8.	Plant and equipment - actual value		
9.	Other assets		
	TOTAL ASSETS		

LIABILITIES

1.	Notes payable: (a) Within 90 days		
	(b) After 90 days		
2.	Accounts payable		
3.	Real estate encumbrances		
4.	Other liabilities		
5.	Reserves		
6.	Capital stock paid up		
7.	Surplus (net worth)		
	TOTAL LIABILITIES		

Audit Report

The apparent low bidders on all prime [contracts] are directed to submit [to the Contract Administration] within (30) days after bids are received their most recent audited financial statements and the Auditor's Report.

CONTINGENT LIABILITIES	Dollars	Cents
Liability on notes, accounts, or guarantees of others, and any judgments of record:		

CONTINGENT ASSETS		
Bank credits, etc.		

The undersigned guarantees the truth and accuracy of all statements and of all answers to interrogatories made and hereby authorizes any depository, vendor or other agency herein named to supply the holder with any information necessary to verify this statement.

NOTE: A partnership must give firm name and signatures of all partners. A corporation must give full corporate name, signature of official (either president, vice-president, secretary or treasurer) and affix corporate seal.

AFFIDAVIT for INDIVIDUAL

STATE OF _____ SS:

COUNTY OF _____

_____ being duly sworn, deposes and says that the foregoing financial statement, taken from his books, is a true and accurate statement of his financial condition as of the date thereof and that the answers to the foregoing interrogatories are true.

Sworn and subscribed to before me this

_____ day of _____ 20_____

_____ (Applicant must also sign here)

Notary Public My commission expires _____

AFFIDAVIT of PARTNERSHIP

STATE OF _____ SS:

COUNTY OF _____

_____ being duly sworn, deposes and says that he is a member of the firm of _____; that he is familiar with the books of the said firm showing its financial condition; that the foregoing statement is taken from the books of the said firm, and is a true and accurate statement of the financial condition of the said firm as of the date thereof; and that the answers to the foregoing interrogatories are true.

Sworn and subscribed to before me this

_____ day of _____ 20_____

_____ (Member of firm must also sign here)

Notary Public My commission expires _____

AFFIDAVIT for CORPORATION

STATE OF Pennsylvania SS:

COUNTY OF Bucks

James P. McCarthy being duly sworn, deposes and says that he is President of the McCarthy Masonry & Concrete, Inc.; the corporation described in and which executed the foregoing statement; that he is familiar with the books of the said corporation showing its financial condition; that the foregoing financial statement is taken from the books of the said corporation, and is a true and accurate statement of the financial condition of the said corporation as of the date thereof; and that the answers to the foregoing interrogatories are true.

Sworn and subscribed to before me this

7 day of September 20 23

Dawn Kraus

Notary Public

James P. McCarthy, President

(Officer must also sign here)

My commission expires February 20, 2027

Commonwealth of Pennsylvania - Notary Seal
Dawn Kraus, Notary Public
Bucks County
My commission expires February 20, 2027
Commission number 1288409
Member, Pennsylvania Association of Notaries

Balance Sheet
McCarthy Masonry & Concrete Inc.
As of Jul, 2023

	Assets	
Checking Account- Field		890,525.50
Field Acct-Truist		428,095.21
Money Market Account- Reserve		2.22
Petty Cash		491.53
Schwab One Account		481,822.33
Accounts Receivable		1,626,559.42
Doubtful Accounts Allowance		-275,674.00
Prepaid Expense		21,056.78
Underbillings		7,969.00
Construction Equipment		1,750,432.76
Vehicles		1,116,989.02
Building & Leasehold Improve		611,089.72
Office Furniture & Equipment		197,151.33
Accum. Depreciation		-2,655,291.51
Loans to employees		1,178.95
Loan- Major Landscaping		84,632.84
Investment in Captive		572,330.00
Escrow-Richland Township		4,000.00
Right of Use Asset-Operating		790,775.02
	Total Assets	5,654,136.12

Liabilities & Equity			
Accounts Payable			55,338.98
Accrued Workes Comp			58,475.55
Accrued Profit Sharing			961.99
Overbillings			599,136.00
Loan Payable-DeLage Landen-JLG			51,273.86
Loan Payable- Ram (57177)			266,566.33
Aflac Payable			316.56
NJ State Tax			213.62
Richland Local Tax			1,804.26
Richland OPT			123.00
Philadelphia Local Tax			73.99
FUTA			19.51
SUTA			415.69
401K to John Hancock			2,524.97
Employee Fringe Benefits			7,620.24
Lease Liability- Operating			791,484.27
Equity			
Shareholder Distributions		-698,840.13	
Retained Earnings		-502,979.19	
Common Stock		100.00	
Retained earnings Prior year		5,012,495.62	
Accum OCI-Opening Balance		7,011.00	
	Total Equity		3,817,787.30
	Total Liabilities & Equity		5,654,136.12

INFORMATION TO BE FURNISHED BY THE BIDDER

(NOTICE: This Form must be executed in ink or by typed entries)

McCarthy Masonry & Concrete, Inc

(Bidder's Name)

Project:

COMMUNITY DEVELOPMENT BLOCK GRANT
RUBICAM AVENUE SIDEWALK INSTALLATION

Owner: Abington Township
1176 Old York Road
Abington, PA 19001
Attention: Richard J. Manfredi
Township Manager

GENERAL

A. This Section is to be submitted with the Bidding Documents.

PART A - LIST OF INTENDED SUBCONTRACTORS

1. The Engineer will review the undersigned list of intended Subcontractor(s) in accordance with the INSTRUCTIONS TO BIDDERS and the GENERAL CONDITIONS.

2. The Contractor will not be permitted to substitute Subcontractors not listed on this form without written approval of the Owner and Engineer in accordance with Article 6.4 of the GENERAL CONDITIONS.

Subcontractor (Name and Address)	Work To Be Performed
Pavement Maintenance Group, LLC: 516 E Lancaster Avenue, Downingtown PA 19335	Asphalt Restoration

INFORMATION TO BE FURNISHED BY THE BIDDER

PART B - LIST OF INTENDED SUPPLIERS

1. The undersigned proposes to furnish the following equipment contingent upon its conformity to the Specifications and its review by the Engineer. The Supplier's name must be stated. Use of the words "as specified" or similar wording will not be acceptable in lieu of the manufacturer's name.

2. Only one supplier's name shall be listed for each unit. If the Bidder in contravention of this instruction names more than one, the Owner will consider only the name of the first Supplier listed. The Owner also reserves the right to reject all manufacturers named by the Bidder whose products do not meet the requirements of the Specifications.

3. The Engineer will review Bidder's list of the intended Manufacturers in accordance with the INSTRUCTIONS TO BIDDERS and the GENERAL CONDITIONS.

4. The Contractor shall not be permitted to substitute any Manufacturer's name not listed on this form without having submitted the APPLICATION FOR REVIEW, and having obtained written approval of the Owner and Engineer in accordance with Article 6.3 of the GENERAL CONDITIONS.

UNIT	SUPPLIER
Concrete	Delaware Valley Concrete
Asphalt	H&K

(We) (I), the undersigned agree that the Subcontractors and/or Suppliers listed above will perform the noted work or furnish the listed equipment subject to acceptance by the Owner.

Date September 7, 2023

(Sign) [signature]

(Type) James P. McCarthy

Title: President

A preliminary approved Supplier's list will be incorporated as part of the Contract Documents and will be subject to detailed review by the Engineer after submittal of the Shop Drawings. The equipment and all components, if accepted, are to be purchased by the Contractor under the original bid price at no additional cost to the Owner.

COMMONWEALTH OF PENNSYLVANIA

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM

Date September 7, 2023

Business or Organization Name (Employer) McCarthy Masonry & Concrete, Inc

Address 740 E. Cherry Road

City Quakertown **State** PA **Zip Code** 18951

[x] **Contractor** [ ] **Subcontractor (check one)**

Contracting Public Body Abington Township

Contract/Project No Z057000548

Project Description CDBG-Rubicam Avenue Sidewalk Installation

Project Location Rubicam Avenue- Abington Twp

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of the above date, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United States Department of Homeland Security. To the best of my/our knowledge, all employees hired post January 1, 2013 are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, James P. McCarthy **, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.**

James P. McCarthy

Authorized Representative Signature