LOWER PAXTON TOWNSHIP
BOARD OF SUPERVISORS

TUESDAY, FEBRUARY 18, 2020 - 7:00 PM,
425 PRINCE STREET, LOWER PAXTON, PA

CALL TO ORDER - CHAIRMAN HENRY

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES

PUBLIC COMMENT

CHAIRMAN & BOARD MEMBERS' COMMENTS

MANAGER'S REPORT

OLD BUSINESS

NEW BUSINESS

FIRST PRESENTATION OF ORDINANCE 20-XX; CREATING CHAPTER 131 OF THE CODIFIED ORDINANCES, TITLED "NOISE" AND REGULATING NOISE - ***Mr. Gotshall***

ACTION ON RESOLUTION 20-07; ESTABLISHING THE PROCEDURE AND AUTHORIZATION OF THE DISPOSITION OF UNNECESSARY PERSONAL PROPERTY - ***Mr. Gotshall***

ACTION ON RESOLUTION 20-09 AND A STREET LIGHT SERVICES AGREEMENT; PROVIDING FOR THE FURNISHING OF ELECTRIC STREET LIGHTING SERVICE TO THE TOWNSHIP OF LOWER PAXTON - ***Mr. Gotshall***

SUBDIVISION AND LAND DEVELOPMENT
ACTION ON A FINAL LAND DEVELOPMENT PLAN FOR ENDERS INSURANCE (PLAN # 19-30) - ***Mrs. Zerbe***

IMPROVEMENT GUARANTEES

PAYMENT OF BILLS - LOWER PAXTON TOWNSHIP & LOWER PAXTON TOWNSHIP AUTHORITY

ANNOUNCEMENTS

ADJOURN

NEXT BOARD MEETING (Business Meeting), TUESDAY, MARCH 3, 2020; 7:00 P.M.

LOWER PAXTON TOWNSHIP
Dauphin County, Pennsylvania

ORDINANCE NO. 20-____

AN ORDINANCE OF LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA, CREATING CHAPTER 131 OF THE CODE OF ORDINANCES TITLED, "NOISE," AND REGULATING NOISE.

NOW THEREFORE, it is hereby ordained by the Board of Supervisors of Lower Paxton Township, Dauphin County, Pennsylvania that the Lower Paxton Township Codified Ordinances are hereby amended as follows:

That the Board of Supervisors does hereby amend the Lower Paxton Codified Ordinances by creating Chapter 131, entitled "Noise" to read as follows:

§ 131-1. <u>Short Title.</u> This Ordinance shall be known as the Lower Paxton Township Noise Ordinance.

§ 131-2. <u>Noise.</u>

A. No principal or accessory use, or operations or activities on its lot, shall generate a sound level exceeding the limits established in the table below, when measured at the specified locations:

Sound Level Limits by Receiving Land Use/District			
Land Use or Zoning District Receiving the Noise		**Hours/Days**	**Maximum Sound Level**
1.	At a lot line of a residential use in a residential district	7:00 a.m. to 9:00 p.m. other than Sundays, Christmas Day, Thanksgiving Day, New Years Day, Labor Day and Memorial Day	60 dBA
		9:00 p.m. to 7:00 a.m. plus all of the following days: Sundays, Christmas, Thanksgiving, New Years, Easter Sunday, Labor Day and Memorial Day	55 dBA

2.	Lot line of a principal residential use in a commercial or industrial district	7:00 a.m. to 9:00 p.m. other than Sundays, Christmas Day, Thanksgiving Day, New Years Day, Labor Day and Memorial Day	65 dBA
		9:00 p.m. to 7:00 a.m. plus all of the following days: Sundays, Christmas, Thanksgiving, New Years, Easter Sunday, Labor Day and Memorial Day	60 dBA
3.	Any lot line other than "1" or "2"	All times and days	70 dBA

*Note: dBA means "A" weighted decibel.

B. The maximum permissible sound level limits set forth in the above table shall not apply to any of the following noise sources:

(1) Sound needed to alert people about an emergency.

(2) Repair or installation of utilities or construction of structures, sidewalks or streets between the hours of 7:00 a.m. and 8:00 p.m., except for clearly emergency repairs which are not restricted by time.

(3) Lawnmowers, snowblowers, leaf blowers, and household power tools between the hours of 7:00 a.m. and 9:00 p.m.

(4) Agricultural activities, including permitted raising of livestock, but not exempting a commercial kennel.

(5) Public celebrations specifically authorized by the Township Supervisors or a County, state or federal government agency or body.

(6) Unamplified human voices.

(7) Routine ringing of bells and chimes by a place of worship or municipal clock.

(8) Vehicles operating on a public street, railroads and aircraft.

§131-3. <u>Violations and Penalties.</u> This chapter shall be enforced by action brought before a Magisterial District Justice in the same manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure. Any person, firm or corporation who or which violates or permits the violation of this chapter shall, upon conviction in a summary proceeding, be punishable by a fine of not more than $1,000 or imprisonment for a term not exceeding 90 days. Each day or portion thereof trhat such violation continues or is permitted to continue shall constitute a separate offense. Each section of this chapter that is violated shall also consitiute a separate offense.

REPEALER. Any ordinances or parts of ordinances inconsistent herewith are hereby repealed.

SEVERABILITY. The provisions of this Ordinance shall be severable, and if any of its provisions shall be held to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect the validity of any remaining provisions of this Ordinance. It is hereby declared to be the legislative intent that this Ordinance would have been adopted and enacted as it such unconstitutional, illegal or invalid provision had not been included therein.

EFFECTIVE DATE. This Ordinance shall become effective five (5) days from the date of enactment.

DULY ENACTED AND ORDAINED INTO LAW as Ordinance No. 20-____ this _____ day of _____, 2020 by the Board of Supervisors of Lower Paxton Township.

ATTEST:

BOARD OF SUPERVISORS
LOWER PAXTON TOWNSHIP

_____

_____

Chris Judd, Township Secretary

Lowman S. Henry, Chairman

LOWER PAXTON TOWNSHIP
BOARD OF SUPERVISORS

RESOLUTION 20-07

A RESOLUTION ESTABLISHING THE PROCEDURE AND AUTHORIZATION OF THE DISPOSITION OF UNNECESSARY PERSONAL PROPERTY

WHEREAS, from time-to-time, the Township of Lower Paxton possesses surplus vehicles and equipment that it desires to dispose of in accordance with the Pennsylvania Second Class Township Code; and

WHEREAS, the Lower Paxton Township Board of Supervisors adopted Resolution 15-18, establishing the procedures by which personal property may be disposed of to the Township's three volunteer fire companies; and

WHEREAS, section 66504 (b) of the Second Class Township Code, authorizes the Board of Supervisors of the Township of Lower Paxton to establish a procedure for the sale of surplus personal property which has an estimated fair market value of less than $2,000; and

WHEREAS, Lower Paxton Township is incorporated as a Pennsylvania Township of the Second Class; and

WHEREAS, the Board of Supervisors has determined that is it necessary to provide a streamlined disposition process and reduce unnecessary staff and legislative burden; and

WHEREAS, the Board of Supervisors desires to authorize the sale of small value items without advertising in a newspaper of general circulation; and

WHEREAS, the Board of Supervisors desires to provide first priority of the personal property to be disposed of to the Township's three fire companies; and

WHEREAS, the Board of Supervisors desires to grant, without further approval from the Board of Supervisors, the authority to sell Township personal property with a fair market value less than $2,000 and deemed inoperable, outdated, or no longer cost-effective to operate, to the Township Manager.

NOW, THEREFORE, BE AND IT IS HEREBY RESOLVED by the Board of Supervisors of the Township of Lower Paxton, Dauphin County, Pennsylvania, as follows:

Section 1. the Board of Supervisors hereby authorizes the disposal of small value personal property items by the Township Manager at his discretion, pursuant to the procedure as outlined:

A. The Township Manager shall establish a fair market value of the surplus personal property by using one of the following procedures:

   1) Obtaining two estimates from two independent vendors who sell similar or comparable products, with the average of the two estimates being considered the fair market value.

   2) Use one similarly marketed item to determine the value.

   3) Obtaining a price estimate from a market standard recognized outlet (Kelley Blue Book, etc.).

B. Unnecessary or surplus personal property that has met a useful lifespan, or no longer holds competitive fair market value, such as certain electronic devices, or items that will be disposed of through a professional recycling or buy-back program may be sold directly, without following the procedure hereinbefore.

C. Once the fair market value has been established per Section 1 (A), herein, the Township Manager shall provide the Township's three fire companies with an opportunity to purchase the personal property in question at such value, as established.

D. Providing no response to the opportunity extended the fire companies, the Township Manager may dispose of the personal property through a private sale or another available channel.

Section 2. In the event any provision, section, sentence, clause, or part of this Resolution shall be held to be invalid, illegal, or unconstitutional by a court of competent jurisdiction, such invalidity, illegality, or unconstitutionally shall not affect or impair the remaining provisions, sections, sentences, clauses, or parts of this Resolution, it being the intent of the Board of Supervisors that the remainder of the Resolution shall be and shall remain in full force and effect.

Section 3. This Resolution shall be effective immediately.

ADOPTED this 18th day of February 2020.

ATTEST:

BOARD OF SUPERVISORS
LOWER PAXTON TOWNSHIP

_____
Chris Judd, Secretary

_____
Lowman S. Henry, Chairman

(SEAL)

LOWER PAXTON TOWNSHIP
BOARD OF SUPERVISORS

RESOLUTION 20-09

A RESOLUTION PROVIDING FOR THE FURNISHING OF ELECTRIC STREET LIGHTING SERVICE TO THE TOWNSHIP OF LOWER PAXTON, DAUPHIN COUNTY, PENNSYLVANIA

WHEREAS, the Township of Lower Paxton contains certain street lighting infrastructure that is owned and operated by PPL Electric Utilities Corp.; and

WHEREAS, the Township of Lower Paxton desires to have current lighting infrastructure upgraded to modern standards of efficiency and economic value; and

WHEREAS, the Township of Lower Paxton, through a Street Light Services Agreement, may request a conversion of PPL-owned street lights.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Supervisors of Lower Paxton Township, Dauphin County, Pennsylvania, that the Township of Lower Paxton enter into an agreement with PPL Electric Utilities Corp. for the furnishing of all electric street lighting delivery service required to light the streets of the Township for the period and in accordance with the terms contained in the form of agreement now on file with the Township Secretary for the furnishing of such service; and that the proper officers of the Township are hereby authorized and directed to execute and deliver said form of agreement on behalf of the Township.

ADOPTED this 18th day of February 2020.

ATTEST:

BOARD OF SUPERVISORS
LOWER PAXTON TOWNSHIP

_____
Chris Judd, Secretary

_____
Lowman S. Henry, Chairman

(SEAL)

Account Number: _____

STREET LIGHT SERVICES AGREEMENT

This Street Light Services Agreement ("Agreement") is entered into on , ("Effective Date") by and between PPL Electric Utilities Corporation ("Company"), a Pennsylvania corporation with its principal place of business at Two North Ninth Street, Allentown, PA 18101, and Lower Paxton Township ("Municipality"), a municipality of the Commonwealth of Pennsylvania situated in the County of Dauphin . Company and Municipality are each referred to herein as a "Party" and collectively as the "Parties," and

WHEREAS, Company is a "public utility" and "electric distribution company" as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code, 66 Pa. C.S. §§ 102, 2803, that offers street light electric service to customers pursuant to its tariff approved by the Pennsylvania Public Utility Commission ("Commission"); and

WHEREAS, Municipality has requested Company to install new street lights, convert some or all of its existing street lights, or both, and

WHEREAS, at a properly noticed meeting of of the Municipality duly convened and held on the day of , , the Municipality authorized the execution of this agreement with Company, as evidenced by the Resolution attached as **Exhibit A.**

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the Parties, intending to be legally bound, hereby agree as follows:

1. Services

1.1 Street Light Installation/Conversion

(a) Standard Installation

(i) Company shall install new street lights, convert some or all of its existing street lights, or both, as described in the scope of work attached hereto as **Exhibit B**.

(ii) Except for Municipality-owned facilities described in **Exhibit B**, all necessary street lighting facilities shall be supplied, installed, owned, and maintained by the Company pursuant to the rate schedule of the Company's tariff identified in **Exhibit B** as presently in effect and as may be amended from time to time in accordance with the law ("Selected Rate Schedule"). If, in the course of installing and/or converting the street lights, Company discovers that there are additional and/or fewer street lights to be installed and/or converted in the locations requested by Municipality, Company shall notify Municipality, and the Parties shall cooperate to amend **Exhibit B** to reflect the actual number of street lights to be installed and/or converted.

(b) Special Installations

(i) In the event the Municipality requests an installation that is not in conformity with the Standard Installation in Section 1.1(a) and Exhibit A, the Company may, at its option, require advance payment from the Municipality for excess installation and/or equipment costs pursuant to the Selected Rate Schedule.

(ii) The Municipality shall be responsible for the excess costs to maintain any special equipment that is not in conformity with the Standard Installation in Section 1.1(a) and Exhibit A pursuant to the Selected Rate Schedule.

1.2 Removal of Street Light Facilities

(a) The Municipality may request removal of any existing Company-owned street light facilities pursuant to the Selected Rate Schedule.

(b) The Company shall charge and the Municipality shall pay for the requested removal of any Company-owned street light facilities that are fewer than 10 years old measured from the date of installation or conversion pursuant to the Selected Rate Schedule.

1.3 Rates for Electric Service

(a) Municipality agrees to receive electric service for the street lights described in Section 1.1(a) under the Selected Rate Schedule.

(b) Municipality's receipt of electric service under the Selected Rate Schedule shall commence with the first billing cycle following the completion of the installation/conversion of the street lights described Section 1.1(a), and shall continue through the term of this Agreement as defined in Section 2.

1.4 Additional Services

(a) Municipality shall promptly notify the Company of all Company-owned street lights installed pursuant to this Agreement that are not operating properly.

(b) In addition to the Company's regularly scheduled vegetation management practices and policies, Company may, at the written request of Municipality and within a reasonable period of time after such request, trim vegetation that, in Company's judgment, may interfere with the proper lighting of the roads or highways illuminated by the Company-owned street lights that were installed pursuant to this Agreement. Municipality shall obtain all consents and permits necessary for Company to perform such work.

2. Term of Agreement and Termination

2.1 Term – This Agreement shall commence on the Effective Date, shall continue for the period of years specified in the rate schedule of the Company's tariff identified in **Exhibit B** as in effect on the Effective Date, and shall renew for one-year periods thereafter until terminated in accordance with Section 2.2.

2.2 Termination of Agreement

(a) Either Party may terminate this Agreement for its convenience by giving six-months' prior written notice to the other Party; provided, however, that termination by the Company is subject to all applicable requirements of the Pennsylvania Public Utility Code, the Commission's regulations and the Company's tariff.

(b) If Municipality terminates this Agreement, Municipality shall be deemed to have requested the removal of all the Company-owned street lights and associated facilities that were installed pursuant to this Agreement. Section 1.2(b) shall govern the charges imposed and the payments made for such removal.

3. Attachments

3.1 No attachments can be made to Company's facilities without Company's consent. Municipality must submit an application to Company for review using the current application process. The process for submitting an application is defined on the Company's Pole Attachment Services website. The attachment may be made after the attachment application is approved by Company and an attachment agreement is executed by the Company and the Municipality.

4. Assignment

4.1 This Agreement shall be binding upon and shall inure to the benefit of the Parties hereto and their successors and permitted assigns.

4.2 Neither Party shall have the right to assign, convey, or transfer this Agreement or any rights hereunder, or delegate its duties hereunder without the written consent of the other Party, whose consent shall not be unreasonably withheld.

5. Choice of Law

5.1 This Agreement and the respective rights and obligations of the Parties hereto shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania, without regard to its conflicts of law provisions.

6. Miscellaneous

6.1 Notices – Each notice, request, demand, statement, or other communication allowed or required by this Agreement shall be in writing and shall be considered as delivered when received by the other Party by certified U.S. mail, reputable

overnight courier, or facsimile addressed to the other Party at its address indicated below or at such other address as a Party may provide in a written notice to the other Party, provided that in the case of facsimile communication, the recipient shall confirm by return facsimile upon receipt:

If to Company:

PPL Electric Utilities Corporation
Two North Ninth Street
Allentown, PA 18101
Attention: Business Accounts
Telephone: 1-888-220-9991, option 4
Facsimile:

If to Municipality:

Telephone:
Facsimile:

6.2 Incorporation of Tariff – This Agreement expressly incorporates the provisions of Company's tariff as amended from time to time in accordance with the law. If any aspect of this Agreement conflicts Company's tariff, the tariff shall govern.

6.3 Third Party Beneficiaries – This Agreement is only intended to create rights and obligations for Municipality and Company, and is not intended for the benefit of any third parties.

6.4 Headings – The headings of this Agreement are inserted only for convenience and shall not affect the meaning or interpretation of this Agreement or any provision hereof.

6.5 Severability – If any provision of this Agreement is held to be invalid or unenforceable, then to the extent that such invalidity or unenforceability does not deprive either Party of any material benefit intended to be provided by this Agreement, the remaining provisions of this Agreement shall remain in full force and effect and shall be binding upon the Parties.

6.6 Amendments and Waiver – No change, amendment, or modification of this Agreement, including any Exhibit attached to the Agreement, shall be valid or binding upon the Parties unless in writing and duly executed by both Parties. No delay or omission in the exercise of any right under this Agreement shall impair any such right or be taken, construed, or considered as a waiver or relinquishment thereof, but any such right may be exercised from time to time and as often as may be deemed expedient. If any provision hereof is breached and the non-breaching Party permits cure of such breach, such forbearance shall be limited to the particular

breach and shall not be deemed to waive any other breach hereof. The rights and remedies provided by this Agreement shall be in addition to those rights and remedies available in both law and equity.

6.7 Entire Agreement – This Agreement and the attached Exhibits embody the entire agreement and understanding of the Parties with respect to the subject matter hereof (i.e., services and equipment set forth in the Exhibits hereto) and supersede all prior and contemporaneous agreements and understandings, oral or written, relating to said subject matter.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officers on the Effective Date.

MUNICIPALITY

_____

Signature

Print Name

Title

Board of Commissioners

PPL ELECTRIC UTILITIES CORPORATION

_____

Signature:

Print Name

Title

PPL LED lights conversion estimate

Exhibit B
Scope of Work

Req Name:	Lower Paxton Twp
Req No:	16837
Account No:	9960119009
Date Printed:	1/28/2020

No of Street Lights:	113
IIC Cost:	$0
LCC Cost:	$1,225

Pole Location			High Pressure Sodium (HPS) Rate SHS. Existing		Light Emitted Diode (LED) Rate SLE. Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
25342S36503	1	COBRA HEAD	9500	42.7	4900	26
25401S36623	1	COBRA HEAD	25500	113.3	15000	61.8
25603S36646	1	COBRA HEAD	25500	113.3	15000	61.8
25654S35108	1	COBRA HEAD	25500	113.3	15000	61.8
25659S35189	1	COBRA HEAD	9500	42.7	4900	26
25663S35151	1	COBRA HEAD	9500	42.7	4900	26
25671S35124	1	COBRA HEAD	25500	113.3	15000	61.8
25677S35208	1	COBRA HEAD	9500	42.7	4900	26
25682S35168	1	COBRA HEAD	9500	42.7	4900	26
25693S35144	1	COBRA HEAD	25500	113.3	15000	61.8
25706S35145	1	COBRA HEAD	25500	113.3	15000	61.8
25729S36642	1	COBRA HEAD	25500	113.3	15000	61.8
25737S36677	1	COBRA HEAD	25500	113.3	15000	61.8
25775S36155	1	COBRA HEAD	25500	113.3	15000	61.8
25853S34568	1	COBRA HEAD	25500	113.3	15000	61.8
25855S34561	1	COBRA HEAD	25500	113.3	15000	61.8
25861S34568	1	COBRA HEAD	25500	113.3	15000	61.8
25862S34563	1	COBRA HEAD	25500	113.3	15000	61.8
25966S34694	1	COBRA HEAD	25500	113.3	15000	61.8
25975S34575	1	COBRA HEAD	25500	113.3	15000	61.8
25979S34569	1	COBRA HEAD	25500	113.3	15000	61.8
26103S34588	1	COBRA HEAD	50000	177.8	20000	95.8
26137S35433	1	COBRA HEAD	25500	113.3	15000	61.8
26167S35038	1	COBRA HEAD	9500	42.7	4900	26
26167S35453	1	COBRA HEAD	50000	177.8	20000	95.8
26171S35307	1	COBRA HEAD	16000	62.8	7500	33.1
26172S35270	1	COBRA HEAD	16000	62.8	7500	33.1
26177S35440	1	COBRA HEAD	50000	177.8	20000	95.8
26244S35606	1	COBRA HEAD	16000	62.8	7500	33.1
26275S35084	1	COBRA HEAD	25500	113.3	15000	61.8
26281S35535	1	COBRA HEAD	25500	113.3	15000	61.8
26291S35533	1	COBRA HEAD	25500	113.3	15000	61.8
26300S36848	1	COBRA HEAD	16000	62.8	7500	33.1
26322S35593	1	COBRA HEAD	25500	113.3	15000	61.8
26328S35585	1	COBRA HEAD	25500	113.3	15000	61.8
26362S34620	1	COBRA HEAD	16000	62.8	7500	33.1
26365S35667	1	COBRA HEAD	25500	113.3	15000	61.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
26378S35669	1	COBRA HEAD	25500	113.3	15000	61.8
26431S35761	1	COBRA HEAD	50000	177.8	20000	95.8
26434S35766	1	COBRA HEAD	50000	177.8	20000	95.8
26436S35753	1	COBRA HEAD	50000	177.8	20000	95.8
26438S35762	1	COBRA HEAD	50000	177.8	20000	95.8
26461S35553	1	COBRA HEAD	25500	113.3	15000	61.8
26462S36424	1	COBRA HEAD	9500	42.7	4900	26
26473S35555	1	COBRA HEAD	25500	113.3	15000	61.8
26500S35865	1	COBRA HEAD	25500	113.3	15000	61.8
26501S37303	1	COBRA HEAD	25500	113.3	15000	61.8
26544S36838	1	COBRA HEAD	9500	42.7	4900	26
26546S35915	1	COBRA HEAD	25500	113.3	15000	61.8
26548S36773	1	COBRA HEAD	9500	42.7	4900	26
26556S34691	1	COBRA HEAD	25500	113.3	15000	61.8
26563S35950	1	COBRA HEAD	50000	177.8	20000	95.8
26568S35947	1	COBRA HEAD	50000	177.8	20000	95.8
26594S35999	1	COBRA HEAD	50000	177.8	20000	95.8
26614S34742	1	COBRA HEAD	25500	113.3	15000	61.8
26632S36852	1	COBRA HEAD	9500	42.7	4900	26
26640S36190	1	COBRA HEAD	9500	42.7	4900	26
26676S36092	1	COBRA HEAD	25500	113.3	15000	61.8
26681S36095	1	COBRA HEAD	25500	113.3	15000	61.8
26693S36431	1	COBRA HEAD	50000	177.8	20000	95.8
26825S36052	1	COBRA HEAD	25500	113.3	15000	61.8
26847S36201	1	COBRA HEAD	25500	113.3	15000	61.8
26847S36208	1	COBRA HEAD	25500	113.3	15000	61.8
26851S35153	1	COBRA HEAD	16000	62.8	7500	33.1
26902S36233	1	COBRA HEAD	25500	113.3	15000	61.8
26910S36224	1	COBRA HEAD	25500	113.3	15000	61.8
26914S35411	1	COBRA HEAD	9500	42.7	4900	26
26945S35661	1	COBRA HEAD	9500	42.7	4900	26
26993S36257	1	COBRA HEAD	50000	177.8	20000	95.8
27002S36249	1	COBRA HEAD	50000	177.8	20000	95.8
27057S36929	7	COBRA HEAD	9500	42.7	3800	19
27101S34930	1	COBRA HEAD	16000	62.8	7500	33.1
27152S35975	7	COBRA HEAD	9500	42.7	3800	19
27179S36308	1	COBRA HEAD	50000	177.8	20000	95.8
27192S36302	1	COBRA HEAD	50000	177.8	20000	95.8
27241S35941	7	COBRA HEAD	9500	42.7	3800	19
27647S34723	1	COBRA HEAD	9500	42.7	4900	26
27648S34673	1	COBRA HEAD	9500	42.7	4900	26
27666S34728	1	COBRA HEAD	9500	42.7	4900	26
27667S34620	1	COBRA HEAD	9500	42.7	4900	26
27925S34650	1	COBRA HEAD	9500	42.7	4900	26
26992S36125	1	COBRA HEAD	25500	113.3	15000	61.8
27001S36122	1	COBRA HEAD	25500	113.3	15000	61.8
25516S36637	1	COBRA HEAD	25500	113.3	15000	61.8
25525S36638	1	COBRA HEAD	25500	113.3	15000	61.8
26565S34691	1	COBRA HEAD	25500	113.3	15000	61.8
26558S34686	1	NEMA OPEN	25500		15000	
26549S34687	1	COBRA HEAD	25500	113.3	15000	61.8
26556S34693	1	COBRA HEAD	25500	113.3	15000	61.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
25409S36616	1	COBRA HEAD	25500	113.3	15000	61.8
26095S34513	1	COBRA HEAD	9500	42.7	4900	26
26093S34507	1	COBRA HEAD	9500	42.7	4900	26
26323S35110	1	COBRA HEAD	9500	42.7	4900	26
26361S35104	1	COBRA HEAD	9500	42.7	4900	26
26607S36672	1	COBRA HEAD	9500	42.7	4900	26
26765S36737	1	COBRA HEAD	9500	42.7	4900	26
26759S36821	1	COBRA HEAD	9500	42.7	4900	26
27173S36010	1	COBRA HEAD	9500	42.7	4900	26
26616S34749	1	COBRA HEAD	25500	113.3	15000	61.8
27529S34963	1	COBRA HEAD	25500	113.3	15000	61.8
27531S34957	1	COBRA HEAD	25500	113.3	15000	61.8
27526S34955	1	COBRA HEAD	25500	113.3	15000	61.8
27526S34959	1	COBRA HEAD	25500	113.3	15000	61.8
25899S36686	1	COBRA HEAD	25500	113.3	15000	61.8
25893S36685	1	COBRA HEAD	25500	113.3	15000	61.8
27202S36024	7	COBRA HEAD	5800	29.8	2600	18.8
25751S35201	4	COBRA HEAD	25500	113.3	15000	61.8
25762S35196	4	COBRA HEAD	25500	113.3	15000	61.8
27371S35202	2	COBRA HEAD	25500	113.3	15000	61.8
27375S35210	2	COBRA HEAD	25500	113.3	15000	61.8
26332S35429	1	COBRA HEAD	5800	29.8	3300	18.8
25688S35294	1	COBRA HEAD	9500	42.7	4900	26
26894S37018	1	COBRA HEAD	9500	42.7	4900	26

PPL LED lights conversion estimate

Exhibit B
Scope of Work

Req Name:	Lower Paxton Twp
Req No:	16838
Account No:	9940119003
Date Printed:	1/28/2020

No of Street Lights:	332
IIC Cost:	$0
LCC Cost:	$0

High Pressure Sodium (HPS) Rate SHS.

Light Emitted Diode (LED) Rate SLE.

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
25206S36389	1	NEMA OPEN	3350	49.1	3300	18.8
25330S36840	1	COBRA HEAD	6650	76.7	4900	26
25359S36838	1	COBRA HEAD	6650	76.7	4900	26
25398S36829	1	COBRA HEAD	6650	76.7	4900	26
25405S36872	7	COBRA HEAD	6650	76.7	3800	19
25412S36849	7	COBRA HEAD	6650	76.7	3800	19
25645S35220	1	COBRA HEAD	6650	76.7	4900	26
25684S35302	1	COBRA HEAD	6650	76.7	4900	26
25686S35419	1	NEMA OPEN	3350	49.1	3300	18.8
25687S35337	1	NEMA OPEN	3350	49.1	3300	18.8
25688S36388	1	NEMA OPEN	3350	49.1	3300	18.8
25693S35009	1	COBRA HEAD	6650	76.7	4900	26
25699S35015	1	COBRA HEAD	6650	76.7	4900	26
25699S35037	1	NEMA OPEN	3350	49.1	3300	18.8
25716S35017	1	COBRA HEAD	6650	76.7	4900	26
25721S36255	1	COBRA HEAD	6650	76.7	4900	26
25722S36292	1	COBRA HEAD	6650	76.7	4900	26
25724S36248	1	COBRA HEAD	6650	76.7	4900	26
25729S36306	1	COBRA HEAD	6650	76.7	4900	26
25731S36646	1	COBRA HEAD	6650	76.7	4900	26
25733S36385	1	COBRA HEAD	6650	76.7	4900	26
25764S35021	1	COBRA HEAD	6650	76.7	4900	26
25804S35473	1	COBRA HEAD	6650	76.7	4900	26
25805S36070	1	COBRA HEAD	6650	76.7	4900	26
25815S35026	1	COBRA HEAD	6650	76.7	4900	26
25821S35574	1	COBRA HEAD	6650	76.7	4900	26
25825S35559	1	COBRA HEAD	6650	76.7	4900	26
25830S35945	1	COBRA HEAD	6650	76.7	4900	26
25832S35509	1	COBRA HEAD	6650	76.7	4900	26
25842S34679	1	NEMA OPEN	3350	49.1	3300	18.8
25842S35028	1	COBRA HEAD	6650	76.7	4900	26
25880S35032	1	COBRA HEAD	6650	76.7	4900	26
25884S35023	1	COBRA HEAD	6650	76.7	4900	26
25884S35310	1	COBRA HEAD	6650	76.7	4900	26
25901S35266	1	COBRA HEAD	6650	76.7	4900	26
25905S34677	1	NEMA OPEN	3350	49.1	3300	18.8
25922S35532	1	NEMA OPEN	3350	49.1	3300	18.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
25929S35035	1	COBRA HEAD	6650	76.7	4900	26
25947S35284	1	COBRA HEAD	6650	76.7	4900	26
25948S35562	1	COBRA HEAD	6650	76.7	4900	26
25950S34476	1	NEMA OPEN	3350	49.1	3300	18.8
25960S35561	1	COBRA HEAD	6650	76.7	4900	26
25962S35537	1	NEMA OPEN	3350	49.1	3300	18.8
25968S35486	1	NEMA OPEN	3350	49.1	3300	18.8
25971S35069	1	NEMA OPEN	3350	49.1	3300	18.8
25972S35040	1	COBRA HEAD	6650	76.7	4900	26
26038S35043	1	COBRA HEAD	6650	76.7	4900	26
26045S34711	1	COBRA HEAD	6650	76.7	4900	26
26059S35974	1	COBRA HEAD	6650	76.7	4900	26
26096S34724	1	NEMA OPEN	3350	49.1	3300	18.8
26104S34612	1	NEMA OPEN	3350	49.1	3300	18.8
26107S35052	1	COBRA HEAD	6650	76.7	4900	26
26115S34710	1	NEMA OPEN	3350	49.1	3300	18.8
26117S34991	1	NEMA OPEN	3350	49.1	3300	18.8
26118S34679	1	NEMA OPEN	3350	49.1	3300	18.8
26129S34641	1	NEMA OPEN	3350	49.1	3300	18.8
26130S35558	1	COBRA HEAD	6650	76.7	4900	26
26134S34735	1	NEMA OPEN	3350	49.1	3300	18.8
26134S35622	1	NEMA OPEN	3350	49.1	3300	18.8
26136S36093	1	NEMA OPEN	3350	49.1	3300	18.8
26143S34683	1	NEMA OPEN	3350	49.1	3300	18.8
26144S34603	1	NEMA OPEN	3350	49.1	3300	18.8
26147S34660	1	NEMA OPEN	3350	49.1	3300	18.8
26147S34710	1	NEMA OPEN	3350	49.1	3300	18.8
26147S36412	1	COBRA HEAD	6650	76.7	4900	26
26151S34618	1	NEMA OPEN	3350	49.1	3300	18.8
26160S35060	1	COBRA HEAD	6650	76.7	4900	26
26163S36018	1	COBRA HEAD	6650	76.7	4900	26
26164S34678	1	NEMA OPEN	3350	49.1	3300	18.8
26168S34637	1	NEMA OPEN	3350	49.1	3300	18.8
26168S34710	1	NEMA OPEN	3350	49.1	3300	18.8
26170S34597	1	NEMA OPEN	3350	49.1	3300	18.8
26171S34494	1	NEMA OPEN	3350	49.1	3300	18.8
26171S35333	1	NEMA OPEN	3350	49.1	3300	18.8
26172S35238	1	COBRA HEAD	6650	76.7	4900	26
26173S34745	1	NEMA OPEN	3350	49.1	3300	18.8
26174S34520	1	NEMA OPEN	3350	49.1	3300	18.8
26179S34544	1	NEMA OPEN	3350	49.1	3300	18.8
26182S34697	1	NEMA OPEN	3350	49.1	3300	18.8
26183S35189	1	COBRA HEAD	6650	76.7	4900	26
26186S35418	1	COBRA HEAD	6650	76.7	4900	26
26187S34658	1	NEMA OPEN	3350	49.1	3300	18.8
26187S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26188S35882	1	NEMA OPEN	3350	49.1	3300	18.8
26190S34571	1	NEMA OPEN	3350	49.1	3300	18.8
26192S35160	1	COBRA HEAD	6650	76.7	4900	26
26193S34590	1	NEMA OPEN	3350	49.1	3300	18.8
26193S34594	1	NEMA OPEN	3350	49.1	3300	18.8
26194S34616	1	NEMA OPEN	3350	49.1	3300	18.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
26198S34714	1	NEMA OPEN	3350	49.1	3300	18.8
26199S34752	1	NEMA OPEN	3350	49.1	3300	18.8
26201S35134	1	COBRA HEAD	6650	76.7	4900	26
26203S34675	1	NEMA OPEN	3350	49.1	3300	18.8
26207S35882	1	NEMA OPEN	3350	49.1	3300	18.8
26208S34633	1	NEMA OPEN	3350	49.1	3300	18.8
26210S35396	1	COBRA HEAD	6650	76.7	4900	26
26210S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26211S35104	1	COBRA HEAD	6650	76.7	4900	26
26212S34593	1	NEMA OPEN	3350	49.1	3300	18.8
26216S34733	1	NEMA OPEN	3350	49.1	3300	18.8
26221S35073	1	COBRA HEAD	6650	76.7	4900	26
26225S34595	1	NEMA OPEN	3350	49.1	3300	18.8
26225S34652	1	NEMA OPEN	3350	49.1	3300	18.8
26225S35079	1	COBRA HEAD	6650	76.7	4900	26
26227S34759	1	NEMA OPEN	3350	49.1	3300	18.8
26227S35372	1	COBRA HEAD	6650	76.7	4900	26
26234S34701	1	NEMA OPEN	3350	49.1	3300	18.8
26235S35356	1	COBRA HEAD	6650	76.7	4900	26
26240S35543	1	COBRA HEAD	6650	76.7	4900	26
26242S34831	7	COBRA HEAD	6650	76.7	3800	19
26242S35882	1	NEMA OPEN	3350	49.1	3300	18.8
26244S34599	1	NEMA OPEN	3350	49.1	3300	18.8
26245S34871	7	COBRA HEAD	6650	76.7	3800	19
26245S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26246S35344	1	COBRA HEAD	6650	76.7	4900	26
26247S34671	1	NEMA OPEN	3350	49.1	3300	18.8
26248S34629	1	NEMA OPEN	3350	49.1	3300	18.8
26250S34803	7	COBRA HEAD	6650	76.7	3800	19
26250S36033	1	COBRA HEAD	6650	76.7	4900	26
26255S35426	1	COBRA HEAD	6650	76.7	4900	26
26264S35320	1	COBRA HEAD	6650	76.7	4900	26
26265S34604	1	NEMA OPEN	3350	49.1	3300	18.8
26271S35880	1	NEMA OPEN	3350	49.1	3300	18.8
26274S35304	1	COBRA HEAD	6650	76.7	4900	26
26275S35362	1	COBRA HEAD	6650	76.7	4900	26
26282S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26285S34875	7	COBRA HEAD	6650	76.7	3800	19
26287S35447	1	NEMA OPEN	3350	49.1	3300	18.8
26290S35940	1	NEMA OPEN	3350	49.1	3300	18.8
26295S35414	1	COBRA HEAD	6650	76.7	4900	26
26298S37556	1	COBRA HEAD	6650	76.7	4900	26
26302S35260	1	COBRA HEAD	6650	76.7	4900	26
26304S35881	1	NEMA OPEN	3350	49.1	3300	18.8
26305S35216	1	COBRA HEAD	6650	76.7	4900	26
26305S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26308S35232	1	COBRA HEAD	6650	76.7	4900	26
26308S35388	7	COBRA HEAD	6650	76.7	3800	19
26309S34857	1	COBRA HEAD	6650	76.7	4900	26
26309S35182	1	COBRA HEAD	6650	76.7	4900	26
26314S35357	7	COBRA HEAD	6650	76.7	3800	19
26315S35155	1	COBRA HEAD	6650	76.7	4900	26

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
26318S35923	1	NEMA OPEN	3350	49.1	3300	18.8
26320S35126	1	COBRA HEAD	6650	76.7	4900	26
26322S35470	1	NEMA OPEN	3350	49.1	3300	18.8
26324S35327	7	COBRA HEAD	6650	76.7	3800	19
26325S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26326S35099	1	COBRA HEAD	6650	76.7	4900	26
26333S34831	1	NEMA OPEN	3350	49.1	3300	18.8
26333S35293	7	COBRA HEAD	6650	76.7	3800	19
26337S35389	7	COBRA HEAD	6650	76.7	3800	19
26340S35882	1	NEMA OPEN	3350	49.1	3300	18.8
26345S35025	1	COBRA HEAD	6650	76.7	4900	26
26347S35946	1	COBRA HEAD	6650	76.7	4900	26
26359S34795	1	NEMA OPEN	3350	49.1	3300	18.8
26359S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26359S35913	1	NEMA OPEN	3350	49.1	3300	18.8
26365S35391	7	COBRA HEAD	6650	76.7	3800	19
26377S35879	1	NEMA OPEN	3350	49.1	3300	18.8
26378S34852	1	COBRA HEAD	6650	76.7	4900	26
26382S35908	1	NEMA OPEN	3350	49.1	3300	18.8
26387S35223	1	COBRA HEAD	6650	76.7	4900	26
26390S35870	1	NEMA OPEN	3350	49.1	3300	18.8
26391S35853	1	NEMA OPEN	3350	49.1	3300	18.8
26392S35108	1	COBRA HEAD	6650	76.7	4900	26
26404S34414	1	NEMA OPEN	3350	49.1	3300	18.8
26407S34807	1	COBRA HEAD	6650	76.7	4900	26
26417S35547	1	NEMA OPEN	3350	49.1	3300	18.8
26428S35854	1	NEMA OPEN	3350	49.1	3300	18.8
26443S34644	1	COBRA HEAD	6650	76.7	4900	26
26459S35105	1	COBRA HEAD	6650	76.7	4900	26
26462S35858	1	NEMA OPEN	3350	49.1	3300	18.8
26479S35863	1	NEMA OPEN	3350	49.1	3300	18.8
26505S35099	1	COBRA HEAD	6650	76.7	4900	26
26509S36131	1	COBRA HEAD	6650	76.7	4900	26
26510S37295	1	COBRA HEAD	6650	76.7	4900	26
26515S36177	1	COBRA HEAD	6650	76.7	4900	26
26517S36210	1	COBRA HEAD	6650	76.7	4900	26
26534S35095	1	COBRA HEAD	6650	76.7	4900	26
26541S36289	1	COBRA HEAD	6650	76.7	4900	26
26551S36906	1	NEMA OPEN	3350	49.1	3300	18.8
26553S36124	1	NEMA OPEN	3350	49.1	3300	18.8
26564S35092	1	COBRA HEAD	6650	76.7	4900	26
26569S37055	1	COBRA HEAD	6650	76.7	4900	26
26588S35089	1	COBRA HEAD	6650	76.7	4900	26
26597S36911	1	NEMA OPEN	3350	49.1	3300	18.8
26604S35083	1	COBRA HEAD	6650	76.7	4900	26
26606S35978	1	COBRA HEAD	6650	76.7	4900	26
26624S36920	1	NEMA OPEN	3350	49.1	3300	18.8
26640S36571	1	COBRA HEAD	6650	76.7	4900	26
26649S35072	1	COBRA HEAD	6650	76.7	4900	26
26653S36001	1	COBRA HEAD	6650	76.7	4900	26
26671S36617	1	COBRA HEAD	6650	76.7	4900	26
26676S36856	1	NEMA OPEN	3350	49.1	3300	18.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
26683S35938	1	COBRA HEAD	6650	76.7	4900	26
26687S36943	1	NEMA OPEN	3350	49.1	3300	18.8
26689S36931	1	NEMA OPEN	3350	49.1	3300	18.8
26691S36959	1	NEMA OPEN	3350	49.1	3300	18.8
26695S36911	1	NEMA OPEN	3350	49.1	3300	18.8
26696S36890	1	NEMA OPEN	3350	49.1	3300	18.8
26698S36858	1	NEMA OPEN	3350	49.1	3300	18.8
26709S36737	1	COBRA HEAD	6650	76.7	4900	26
26710S36715	1	COBRA HEAD	6650	76.7	4900	26
26712S36505	1	COBRA HEAD	6650	76.7	4900	26
26713S36672	1	COBRA HEAD	6650	76.7	4900	26
26716S35068	1	COBRA HEAD	6650	76.7	4900	26
26720S36584	1	COBRA HEAD	6650	76.7	4900	26
26723S35736	1	COBRA HEAD	6650	76.7	4900	26
26723S36624	1	COBRA HEAD	6650	76.7	4900	26
26726S36949	1	NEMA OPEN	3350	49.1	3300	18.8
26733S35065	1	COBRA HEAD	6650	76.7	4900	26
26740S36739	1	COBRA HEAD	6650	76.7	4900	26
26741S36241	1	COBRA HEAD	6650	76.7	4900	26
26752S36592	1	COBRA HEAD	6650	76.7	4900	26
26753S36868	1	COBRA HEAD	6650	76.7	4900	26
26759S36839	1	NEMA OPEN	3350	49.1	3300	18.8
26760S35083	1	NEMA OPEN	3350	49.1	3300	18.8
26760S35132	1	NEMA OPEN	3350	49.1	3300	18.8
26760S35736	7	COBRA HEAD	6650	76.7	3800	19
26762S35105	1	NEMA OPEN	3350	49.1	3300	18.8
26762S35158	1	NEMA OPEN	3350	49.1	3300	18.8
26763S36789	1	NEMA OPEN	3350	49.1	3300	18.8
26764S35074	1	COBRA HEAD	6650	76.7	4900	26
26764S36927	1	COBRA HEAD	6650	76.7	4900	26
26765S35187	1	NEMA OPEN	3350	49.1	3300	18.8
26765S36950	1	NEMA OPEN	3350	49.1	3300	18.8
26766S36771	1	COBRA HEAD	6650	76.7	4900	26
26767S35212	1	NEMA OPEN	3350	49.1	3300	18.8
26770S35238	1	NEMA OPEN	3350	49.1	3300	18.8
26772S36626	1	NEMA OPEN	3350	49.1	3300	18.8
26773S34991	1	NEMA OPEN	3350	49.1	3300	18.8
26778S36648	1	NEMA OPEN	3350	49.1	3300	18.8
26785S35544	1	COBRA HEAD	6650	76.7	4900	26
26786S36674	1	NEMA OPEN	3350	49.1	3300	18.8
26787S36787	1	NEMA OPEN	3350	49.1	3300	18.8
26790S35249	1	NEMA OPEN	3350	49.1	3300	18.8
26794S35223	1	NEMA OPEN	3350	49.1	3300	18.8
26796S35576	1	COBRA HEAD	6650	76.7	4900	26
26796S36705	1	NEMA OPEN	3350	49.1	3300	18.8
26799S35087	1	COBRA HEAD	6650	76.7	4900	26
26799S35192	1	NEMA OPEN	3350	49.1	3300	18.8
26799S36959	1	NEMA OPEN	3350	49.1	3300	18.8
26802S36718	1	NEMA OPEN	3350	49.1	3300	18.8
26820S36061	1	COBRA HEAD	6650	76.7	4900	26
26823S36056	1	COBRA HEAD	6650	76.7	4900	26
26825S36791	1	NEMA OPEN	3350	49.1	3300	18.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
26828S35096	1	COBRA HEAD	6650	76.7	4900	26
26829S35204	1	NEMA OPEN	3350	49.1	3300	18.8
26832S35593	1	COBRA HEAD	6650	76.7	4900	26
26834S36815	1	NEMA OPEN	3350	49.1	3300	18.8
26840S35727	1	NEMA OPEN	3350	49.1	3300	18.8
26843S36844	1	NEMA OPEN	3350	49.1	3300	18.8
26846S36969	1	NEMA OPEN	3350	49.1	3300	18.8
26849S36862	1	NEMA OPEN	3350	49.1	3300	18.8
26851S36672	1	COBRA HEAD	6650	76.7	4900	26
26852S36894	1	NEMA OPEN	3350	49.1	3300	18.8
26855S36804	1	NEMA OPEN	3350	49.1	3300	18.8
26858S35193	1	COBRA HEAD	6650	76.7	4900	26
26863S36897	1	NEMA OPEN	3350	49.1	3300	18.8
26868S36782	1	NEMA OPEN	3350	49.1	3300	18.8
26868S36829	1	NEMA OPEN	3350	49.1	3300	18.8
26876S36854	1	NEMA OPEN	3350	49.1	3300	18.8
26882S35109	1	COBRA HEAD	6650	76.7	4900	26
26886S36757	1	NEMA OPEN	3350	49.1	3300	18.8
26888S36800	1	NEMA OPEN	3350	49.1	3300	18.8
26888S36899	1	NEMA OPEN	3350	49.1	3300	18.8
26889S36986	1	NEMA OPEN	3350	49.1	3300	18.8
26892S36838	1	NEMA OPEN	3350	49.1	3300	18.8
26894S36671	1	NEMA OPEN	3350	49.1	3300	18.8
26901S36945	1	NEMA OPEN	3350	49.1	3300	18.8
26903S36743	1	NEMA OPEN	3350	49.1	3300	18.8
26906S36977	1	NEMA OPEN	3350	49.1	3300	18.8
26913S36908	1	NEMA OPEN	3350	49.1	3300	18.8
26915S36084	1	NEMA OPEN	3350	49.1	3300	18.8
26915S36788	1	NEMA OPEN	3350	49.1	3300	18.8
26919S36817	1	NEMA OPEN	3350	49.1	3300	18.8
26921S36944	1	NEMA OPEN	3350	49.1	3300	18.8
26923S36767	1	NEMA OPEN	3350	49.1	3300	18.8
26924S36732	1	NEMA OPEN	3350	49.1	3300	18.8
26924S36996	1	NEMA OPEN	3350	49.1	3300	18.8
26934S36813	1	NEMA OPEN	3350	49.1	3300	18.8
26935S36915	1	NEMA OPEN	3350	49.1	3300	18.8
26940S36959	1	NEMA OPEN	3350	49.1	3300	18.8
26944S36738	1	NEMA OPEN	3350	49.1	3300	18.8
26944S36866	1	NEMA OPEN	3350	49.1	3300	18.8
26945S36756	1	NEMA OPEN	3350	49.1	3300	18.8
26948S37003	1	NEMA OPEN	3350	49.1	3300	18.8
26950S36788	1	NEMA OPEN	3350	49.1	3300	18.8
26950S36833	1	NEMA OPEN	3350	49.1	3300	18.8
26958S36818	1	NEMA OPEN	3350	49.1	3300	18.8
26963S36772	1	NEMA OPEN	3350	49.1	3300	18.8
26969S36972	1	NEMA OPEN	3350	49.1	3300	18.8
26972S36734	1	NEMA OPEN	3350	49.1	3300	18.8
26975S37009	1	NEMA OPEN	3350	49.1	3300	18.8
26983S36755	1	NEMA OPEN	3350	49.1	3300	18.8
26985S36879	1	NEMA OPEN	3350	49.1	3300	18.8
26986S36733	1	NEMA OPEN	3350	49.1	3300	18.8
26987S36839	1	NEMA OPEN	3350	49.1	3300	18.8

Pole Location			Existing		Proposed/Equivalent	
Grid Number	Bill Code	Luminaire Description	Lumen Size	Monthly kWh (before conversion)	Lumen Size	Monthly kWh (after conversion)
26994S36824	1	NEMA OPEN	3350	49.1	3300	18.8
26996S36676	1	NEMA OPEN	3350	49.1	3300	18.8
26997S36979	1	NEMA OPEN	3350	49.1	3300	18.8
27009S37018	1	NEMA OPEN	3350	49.1	3300	18.8
27010S36884	1	NEMA OPEN	3350	49.1	3300	18.8
27013S36728	1	COBRA HEAD	6650	76.7	4900	26
27015S36670	1	NEMA OPEN	3350	49.1	3300	18.8
27018S36862	1	NEMA OPEN	3350	49.1	3300	18.8
27019S36839	1	NEMA OPEN	3350	49.1	3300	18.8
27022S36987	1	NEMA OPEN	3350	49.1	3300	18.8
27023S37020	1	NEMA OPEN	3350	49.1	3300	18.8
27042S37004	1	NEMA OPEN	3350	49.1	3300	18.8
27059S36145	1	COBRA HEAD	6650	76.7	4900	26
27071S35710	1	COBRA HEAD	6650	76.7	4900	26
27101S36085	1	COBRA HEAD	6650	76.7	4900	26
27145S36024	1	COBRA HEAD	6650	76.7	4900	26
27168S35732	1	COBRA HEAD	6650	76.7	4900	26
27206S35948	7	COBRA HEAD	6650	76.7	3800	19
27291S34622	1	NEMA OPEN	3350	49.1	3300	18.8
27320S34601	1	NEMA OPEN	3350	49.1	3300	18.8
27337S34638	1	NEMA OPEN	3350	49.1	3300	18.8
27411S34651	1	NEMA OPEN	3350	49.1	3300	18.8
27486S34685	1	NEMA OPEN	3350	49.1	3300	18.8
27493S34665	1	NEMA OPEN	3350	49.1	3300	18.8
27499S34640	1	NEMA OPEN	3350	49.1	3300	18.8
27506S34670	1	NEMA OPEN	3350	49.1	3300	18.8
27531S34642	1	NEMA OPEN	3350	49.1	3300	18.8
27546S34682	1	NEMA OPEN	3350	49.1	3300	18.8
27555S34921	1	COBRA HEAD	6650	76.7	4900	26
27567S34648	1	NEMA OPEN	3350	49.1	3300	18.8
27581S34687	1	NEMA OPEN	3350	49.1	3300	18.8
27586S34650	1	NEMA OPEN	3350	49.1	3300	18.8
27640S34628	1	NEMA OPEN	3350	49.1	3300	18.8
27742S35002	1	COBRA HEAD	6650	76.7	4900	26
25306S36582	1	COBRA HEAD	6650	76.7	4900	26

PRELIMINARY / FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

ENDERS

LOCATED IN

LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776
STOP-CALL BEFORE YOU DIG!

PENNSYLVANIA ACT 38 (1991) AS AMENDED REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH. SERIAL NO. 20192631471 IN LOWER PAXTON TOWNSHIP WEB TICKETS DATED 9/20/19

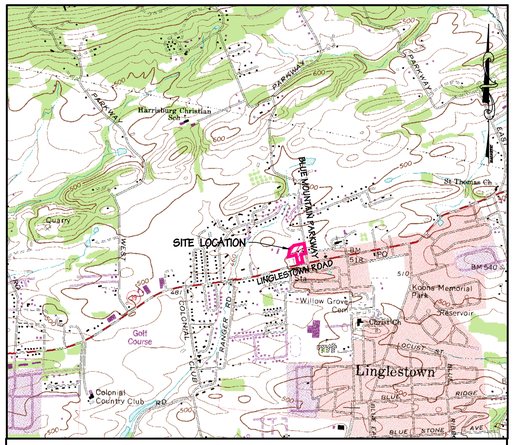
- COMCAST CABLE COMMUNICATIONS INC..
- PPL ELECTRIC UTILITIES CORP.
- UGI UTILITIES, HARRISBURG
- VERIZON PENNSYLVANIA, LLC.
- LOWER PAXTON TOWNSHIP AUTHORITY
- SUEZ WATER PENNSYLVANIA INC.

SITE DATA:

Record Owner:
James C. & Donald E. Enders, Jr.
Enders
5912 Linglestown Road
Harrisburg, PA 17112
Existing Number Of Lots: 5
Proposed Number Of Lots: 1
Existing Lot Area: 2.35 Acres
Proposed Lot Area: 2.35 Acres
Existing Water Supply: Public
Proposed Water Supply: Public
Existing Sewage Disposal: Public
Proposed Sewage Disposal: Public
Proposed Storm Sewers: 594 L.F., 8 inlets and 2 endwalls

ZONING REQUIREMENTS

	Low Density Residential (R-1)	Required Village (V)	Existing	Proposed
Use	–	–	Office / Residential	Office
Minimum Lot Size	20,000 S.F.	6,000 S.F.	99,489 S.F. (Net)	99,489 S.F. (Net)
Minimum Lot Width	90 Feet	50 Feet	120 Feet	120 Feet
Maximum Building Coverage	30%	5,000 S.F.	9,333 S.F.	6,500 S.F.
Maximum Impervious Coverage	40%	80%	19.9% (19,791 S.F.)	44.1% (43,910 S.F.)
Minimum Front Yard	25 Feet	15 Feet	–	> 15 feet
Minimum Side Yard	25 Feet	5 Feet	–	> 5 feet
Minimum Rear Yard	30 Feet	30 Feet	–	> 30 feet
Maximum Building Height	–	35 Feet	N/A	Two – Story
Off-Street Parking	–	1 per 300 S.F.	19	61 Spaces, incl. 2 ADA spaces
Landscaping	–	Parking, SWM, & Buffer Yards Per SALDO		See Plan



LOCATION & ZONING MAP 1" = 1000'

GENERAL NOTES:

1. The purpose of this plan is to consolidate five lots and two un-opened alleys to construct a new two-story building for Enders Insurance.
2. The tract and lot bearings are relative to the PA State Plane Coordinate System, NAD83, Zone 3702 (PA South).
3. The elevations and topography are relative to NAVD88, based on an Online Positional User Services (OPUS) solution, a field survey of the property performed on 4/09/2019 through 9/23/19 by R.J. Fisher & Associates, Inc., and Pennsylvania Spatial Data Access (PASDA) Lidar. The site benchmark is a concrete monument found at the southwest corner of the property. The NAVD88 elevation of this benchmark is 492.25.
4. Penn DOT Right-of-Way information from Instrument #20080035759.
5. The survey was prepared without the benefit of a title search.
6. A PA One-call System notification has been made. The contractor shall contact PA One-call before any construction begins.
7. Site is not located within a mapped 100 year flood plain based upon a review of the Flood Insurance Rate Map (FIRM) Number 42043C0335D, last revised 8/2/2012.
8. All traffic and street signs shall meet the PennDOT and USDOT reflectivity standards.
9. All easements and right-of-ways have been shown and all utilities have been contacted.
10. Utility Companies indicating facilities at site have been contacted. Those that have responded include:
    -- UGI
    -- PPL
    -- Lower Paxton Township Authority
11. Applicant shall comply with all Township regulations in effect at the time of the filing of the Preliminary Plan.
12. Applicant shall be responsible for paying for the installation of street and traffic control signs required for the project if/as deemed necessary by Lower Paxton Township.
13. Applicant shall provide as-built / record drawings for any public improvements upon construction completion, prior to the release of financial security.
14. A minimum of two working days prior to beginning the construction of any improvement, with 48 hours notice, arrange a pre-construction meeting with Lower Paxton Township officials, utility companies, contractors, regulatory agencies, and other interested parties, to review project status.
15. Nothing shall be planted or placed on within an easement which would adversely affect the function of the easement or conflict with any conditions associated with such easement.
16. The Operation and Maintenance (O&M) Agreement is part of the stormwater management site plan.
17. Total proposed impervious area shown on plan is 36,626 sq.ft. An additional 7,284 sq.ft. of impervious area has been included in lot coverage and stormwater calculations for future expansions. This additional impervious area has been assumed to be in the bypass drainage area and does not need to drain to the basin.
18. Inlets shall accept all pipes without having any corners punched out.
19. Sanitary Easement Beneficiary will be Lower Paxton Township Authority.
20. Storm Easement beneficiary will be Lower Paxton Township Authority.
21. The currently undedicated public space between the legal right-of-way line on Linglestown Road and Enders property shall be offered for dedication to Lower Paxton Township.
22. Any financial security related to the Final Plans and associated with any curb ramps which cannot be installed to satisfy all current ADA/PennDOT specifications shall not be released until a completed Technical Infeasibility Form (TIF) using the current PennDOT TIF format is provided by the applicant and approved by the Township.

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	AERIAL IMAGE PLAN
4	LAND DEVELOPMENT PLAN
5	GRADING PLAN
6	LANDSCAPING PLAN
7	LIGHTING PLAN
8	EROSION & SEDIMENT CONTROL PLAN
9	STORM SEWER PROFILES
10	CONSTRUCTION DETAILS
11	CONSTRUCTION DETAILS
12	PCSM DETAILS
13	EROSION CONTROL DETAILS
14	EROSION CONTROL DETAILS

ZONING VARIANCE

The following zoning variances have been granted from the Lower Paxton Township Zoning Ordinance:

VARIANCE SECTION	REQUIREMENT	DATE OF VARIANCE APPROVAL
203-318(8)(b)	No building or structure shall exceed a total gross floor area of 5,000 square feet, unless otherwise specified herein.	12/04/19

DEFERRALS

The following deferrals are requested from the Lower Paxton Township SALDO:

DEFERRAL SECTION	REQUIREMENT	DATE OF DEFERRAL REQUEST	DATE OF DEFERRAL APPROVAL
180-508.A.1	Defer sidewalk installation along the Blue Mountain Bypass until such time as a connection is installed either across Blue Mountain Parkway or along lands now or formerly of the Church of God	01/17/20	--/--/--

WAIVERS

The following waivers are requested from the Lower Paxton Township SALDO:

WAIVER SECTION	REQUIREMENT	DATE OF WAIVER REQUEST	DATE OF WAIVER APPROVAL
180-506.B.2	Double or reverse frontage lots shall be prohibited except where required to provide separation of residential development from collector or arterial streets or to overcome specific disadvantages of topography or orientation.	01/17/20	--/--/--
180-515.B.1	No plant material within buffer yards will be permitted where it may inhibit sight distance, conflict with the circulation and safety of pedestrians, conflict with utility or stormwater facilities, or create potential maintenance problems.	02/05/20	--/--/--

OWNER'S CERTIFICATION & DEDICATORY STATEMENT

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF _____.

ON THIS THE _____ DAY OF _____, 20____ BEFORE ME THE UNDERSIGNED PERSONALLY APPEARED.

OWNER(S) _____.
PRINTED NAME SIGNATURE

OWNER(S) _____.
PRINTED NAME SIGNATURE

WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY ARE THE OWNER(S) OR EQUITABLE OWNER(S) OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED, THAT ALL STREETS OR PARTS THEREOF AND OTHER LANDS INTENDED TO BE OFFERED FOR PUBLIC USE, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY OFFERED FOR DEDICATION TO PUBLIC USE AND DESIRE THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

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

_____.
NOTARY PUBLIC MY COMMISSION EXPIRES

PLAN APPROVAL

COUNTY PLANNING COMMISSION REVIEW STATEMENT

THIS PLAN REVIEWED BY DAUPHIN COUNTY PLANNING COMMISSION THIS _____ DAY OF_____, 20____,

CHAIRMAN _____.

SECRETARY _____.

TOWNSHIP ENGINEER REVIEW STATEMENT

THIS PLAN REVIEWED BY THE LOWER PAXTON TOWNSHIP ENGINEER THIS _____ DAY OF_____, 20____,

TOWNSHIP ENGINEER _____.

TOWNSHIP PLANNING COMMISSION APPROVAL STATEMENT

THIS PLAN RECOMMENDED FOR APPROVAL BY THE LOWER PAXTON TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF_____, 20____,

CHAIRMAN _____.

SECRETARY _____.

TOWNSHIP BOARD OF SUPERVISORS APPROVAL STATEMENT

THIS PLAN APPROVED BY THE LOWER PAXTON TOWNSHIP BOARD OF SUPERVISORS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED THIS _____ DAY OF_____, 20____,

CHAIRMAN _____.

SECRETARY _____.

OWNER / APPLICANT

ANDREW M. ENDERS
ENDERS
5912 LINGLESTOWN ROAD
HARRISBURG, PA. 17112
PHONE: (717) 652-4902
E-MAIL: AENDERS@ENDERSINSURANCE.COM

I HEREBY ACKNOWLEDGE THAT STORMWATER MANAGEMENT FACILITIES AND BMPS ARE TO BE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN BY THE MUNICIPALITY.

_____

DESIGN ENGINEER / SURVEYOR

R.J. FISHER & ASSOCIATES, INC.
1546 BRIDGE STREET
NEW CUMBERLAND, PA 17070
PHONE: (717) 774-7534
E-MAIL: RJF@RJFISHERENGINEERING.COM

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LOWER PAXTON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

I HEREBY CERTIFY THIS PLAN TO BE CORRECT AS SHOWN AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE LOWER PAXTON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE LOWER PAXTON TOWNSHIP'S STORMWATER MANAGEMENT ORDINANCE.

ROBERT. J. FISHER, P.L.S., P.E. DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ROBERT J. FISHER
LAND SURVEYOR
SU 31401 E

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ROBERT J. FISHER
ENGINEER
033262 E

R. J. FISHER & ASSOCIATES, INC.
▫ SITE PLANNING ▫ CIVIL ENGINEERING ▫ LAND SURVEYS
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070
PHONE: (717) 774-7534 FAX: (717) 774-7190
WWW.RJFISHERENGINEERING.COM

No.	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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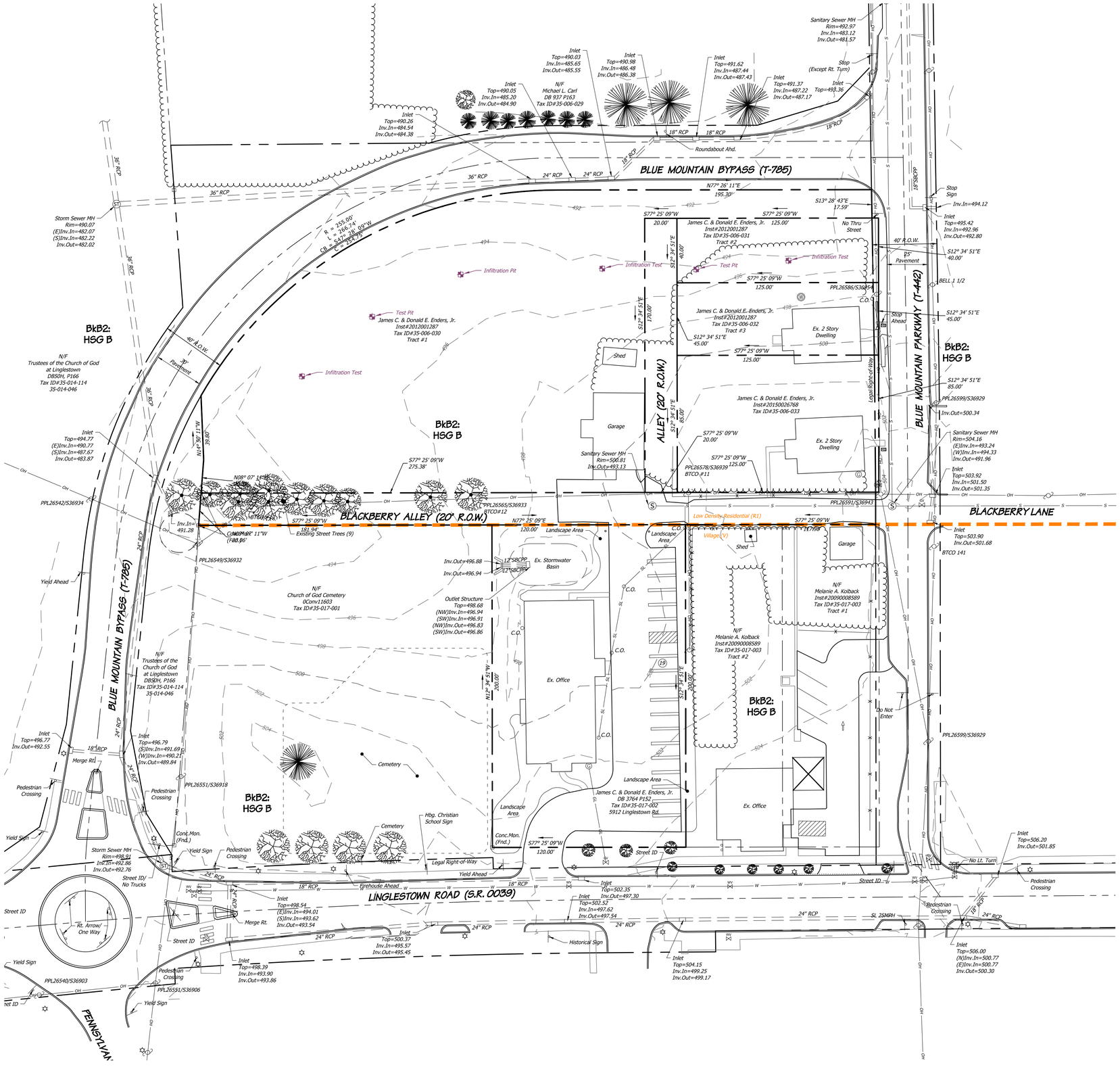
DRAWING ID: 219026-COV

DATE: 12/11/19



Existing Conditions Legend

- Existing 100 Year Floodplain
- Existing Adjacent Property Line
- Existing Benchmark
- Existing Boundary Line
- Existing Right-Of-Way Line
- Existing Building Setback Line
- Existing Street Centerline
- Existing Edge Of Pavement
- Existing Curb
- Existing Paint Line
- Existing Minor Contour
- Existing Major Contour
- Existing Fence
- Existing Guiderail
- Existing Mailbox
- Existing Property Line Marker
- Existing Concrete Monument
- Existing Sign
- Existing Soils Boundary
- Existing Stream
- Existing Deciduous Tree
- Existing Coniferous Tree
- Existing Sidewalk
- Existing Treeline
- Existing Overhead Utility Wire, Utility Pole, Guy Pole, Guy Wire
- Existing Underground Utilities
- Existing Utility Easement
- Existing Communications Box
- Existing Underground Electric Transformer
- Existing Gas Main, Valve
- Existing Gas Easement
- Existing Gas Lateral, Service Shut-off
- Existing Sanitary Sewer Line, MH
- Existing Sanitary Sewer Easement
- Existing Sanitary Lateral
- Existing Force Main
- Existing Storm Sewer Line, Inlet, MH
- Existing Storm Sewer Easement
- Existing Water Main, MH, Hydrant, Valve
- Existing Water Lateral, Meter, Service Shut-off
- Existing Water Easement
- Existing Wetlands

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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R. J. FISHER & Associates, Inc.

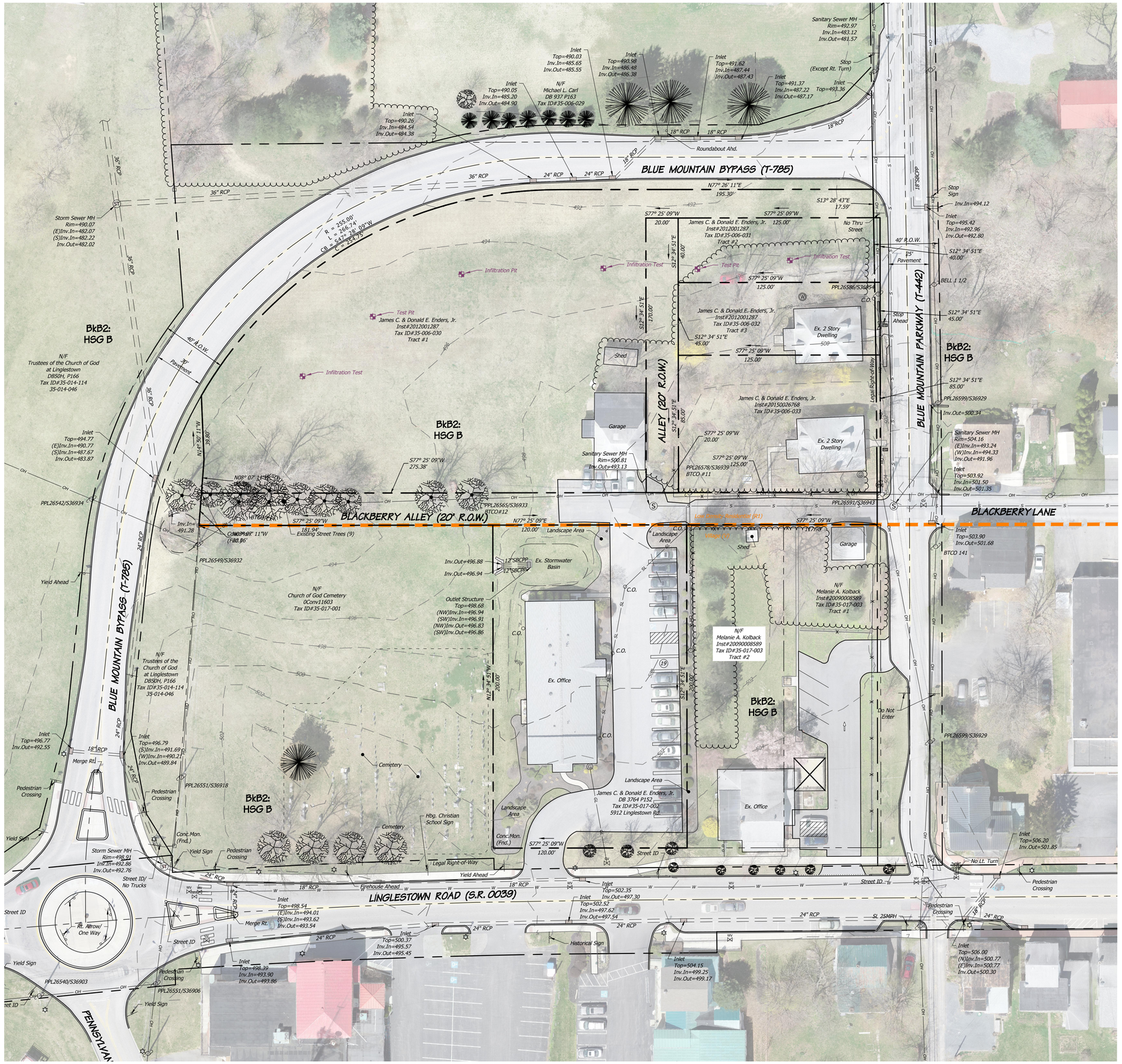
EXISTING CONDITIONS PLAN
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-EXC

DATE: 12/11/19

SHEET: 2 OF 14

2-EXC



Existing Conditions Legend

- Existing 100 Year Floodplain
- Existing Adjacent Property Line
- Existing Benchmark
- Existing Boundary Line
- Existing Right-Of-Way Line
- Existing Building Setback Line
- Existing Street Centerline
- Existing Edge Of Pavement
- Existing Curb
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- Existing Sidewalk
- Existing Treeline
- Existing Overhead Utility Wire, Utility Pole, Guy Pole, Guy Wire
- Existing Underground Utilities
- Existing Utility Easement
- Existing Communications Box
- Existing Underground Electric Transformer
- Existing Gas Main, Valve
- Existing Gas Easement
- Existing Gas Lateral, Service Shut-off
- Existing Sanitary Sewer Line, MH
- Existing Sanitary Sewer Easement
- Existing Sanitary Lateral
- Existing Force Main
- Existing Storm Sewer Line, Inlet, MH
- Existing Storm Sewer Easement
- Existing Water Main, MH, Hydrant, Valve
- Existing Water Lateral, Meter, Service Shut-off
- Existing Water Easement
- Existing Wetlands

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO.	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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R. J. FISHER & Associates, Inc.

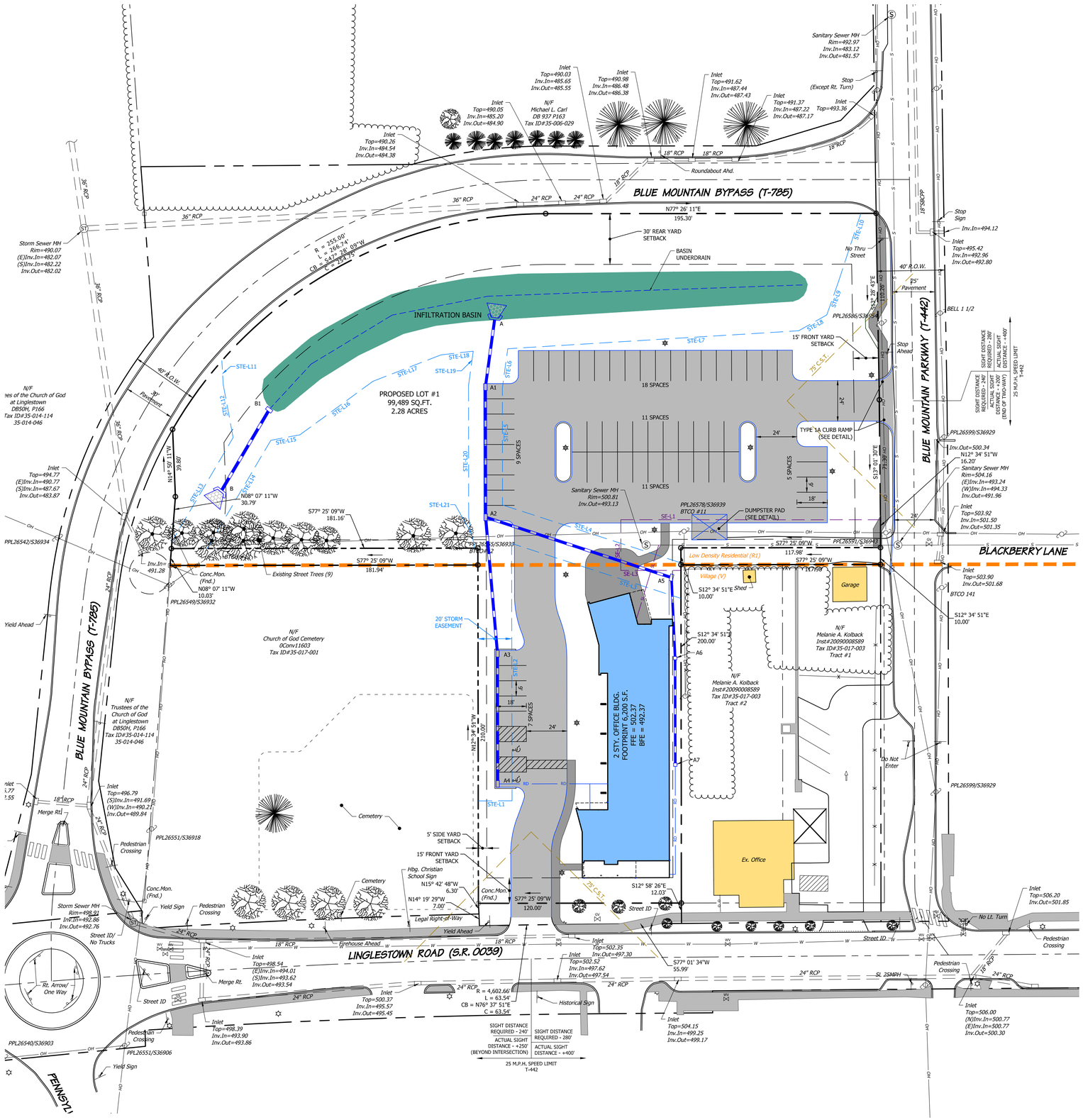
AERIAL IMAGE PLAN
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-EXC-AERIAL

DATE: 12/11/19

SHEET: 3 OF 14

3-EXC-AERIAL



Proposed Conditions Legend

- Proposed Property Line
- Proposed Right-of-Way
- Proposed Edge of Pave
- Proposed Curb
- Proposed Paint
- Proposed Sidewalk
- Proposed Building Setback Line
- Proposed Street Centerline
- Proposed Wall
- Proposed Sanitary Sewer Line, MH
- Proposed Storm Sewer Line, Inlet, MH
- Proposed Roof Drain
- Proposed Water Line, Hydrant
- Proposed Property Monument (To Be Set)
- Proposed Concrete Monument (To Be Set)
- Proposed Sign
- Proposed Light
- Proposed Pedestrian Ramp Location (See Detail)

SPCS GRID NORTH

Proposed Sanitary Easement Line Table

Line #	Direction	Length
SE-L1	N77° 31' 13"E	153.45
SE-L2	N12° 28' 47"W	30.00
SE-L3	S77° 31' 13"W	35.53

Proposed Storm Easement Line Table

Line #	Direction	Length
STE-L1	S77° 23' 44"W	20.00
STE-L2	S12° 36' 16"E	152.15
STE-L3	N84° 30' 41"W	105.25
STE-L4	S84° 30' 41"E	110.86
STE-L5	S12° 34' 51"E	69.06
STE-L6	S04° 43' 53"E	23.51
STE-L7	S73° 57' 52"W	172.33
STE-L8	S48° 05' 38"W	19.04
STE-L9	S06° 49' 57"W	20.86
STE-L10	S05° 36' 26"W	42.48
STE-L11	N15° 42' 38"W	14.11
STE-L12	N23° 04' 48"W	31.94
STE-L13	N17° 57' 46"E	71.36
STE-L14	S17° 57' 46"W	74.21
STE-L15	S66° 53' 35"W	17.48
STE-L16	S41° 15' 30"W	53.52
STE-L17	S56° 14' 17"W	43.15
STE-L18	S70° 57' 41"W	19.25
STE-L19	N04° 43' 53"W	20.70
STE-L20	N12° 34' 51"W	78.11
STE-L21	N23° 33' 25"W	18.16

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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FISHER & Associates, Inc.

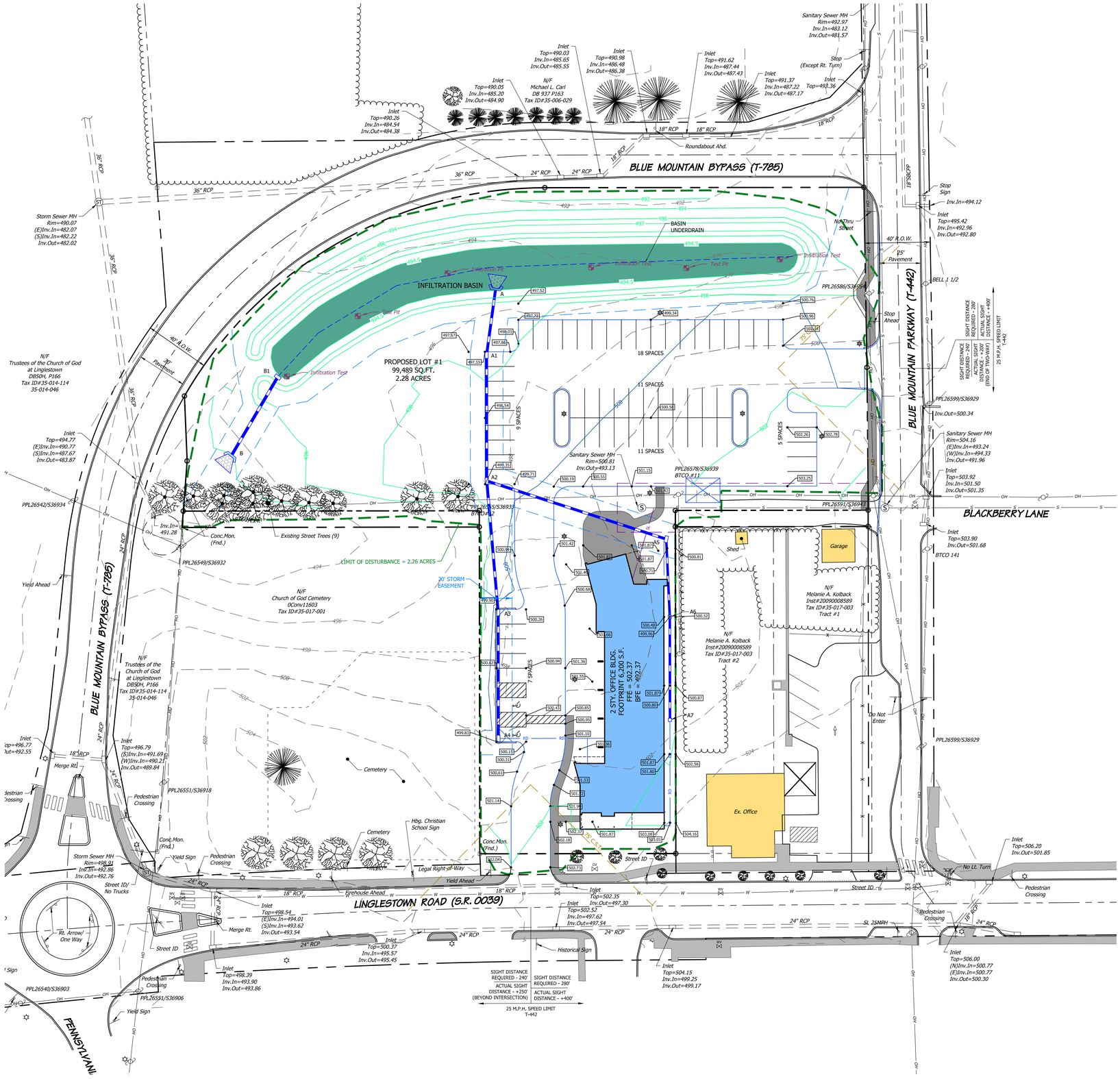
LAND DEVELOPMENT PLAN
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-LDP

DATE: 12/11/19

SHEET: 4 OF 14

4-LDP



Proposed Conditions Legend

- Proposed Right-of-Way
- Proposed Edge of Pave
- Proposed Curb
- Proposed Sidewalk
- Proposed Retaining Wall
- Proposed Sanitary Sewer Line, MH
- Proposed Storm Sewer Line, Inlet, MH
- Proposed Water Line, Hydrant
- Proposed Minor Contour
- Proposed Major Contour
- Limit of Disturbance/NPDES Boundary
- NPDES Boundary
- Proposed Roof Drain
- Proposed Sign
- Proposed Light
- Proposed Pedestrian Ramp Location (See Detail)
- Proposed Rip-Rap Apron (See Detail)
- 500.00 Proposed Spot Elevation

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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PHONE: (717) 774-7534 FAX: (717) 774-7190
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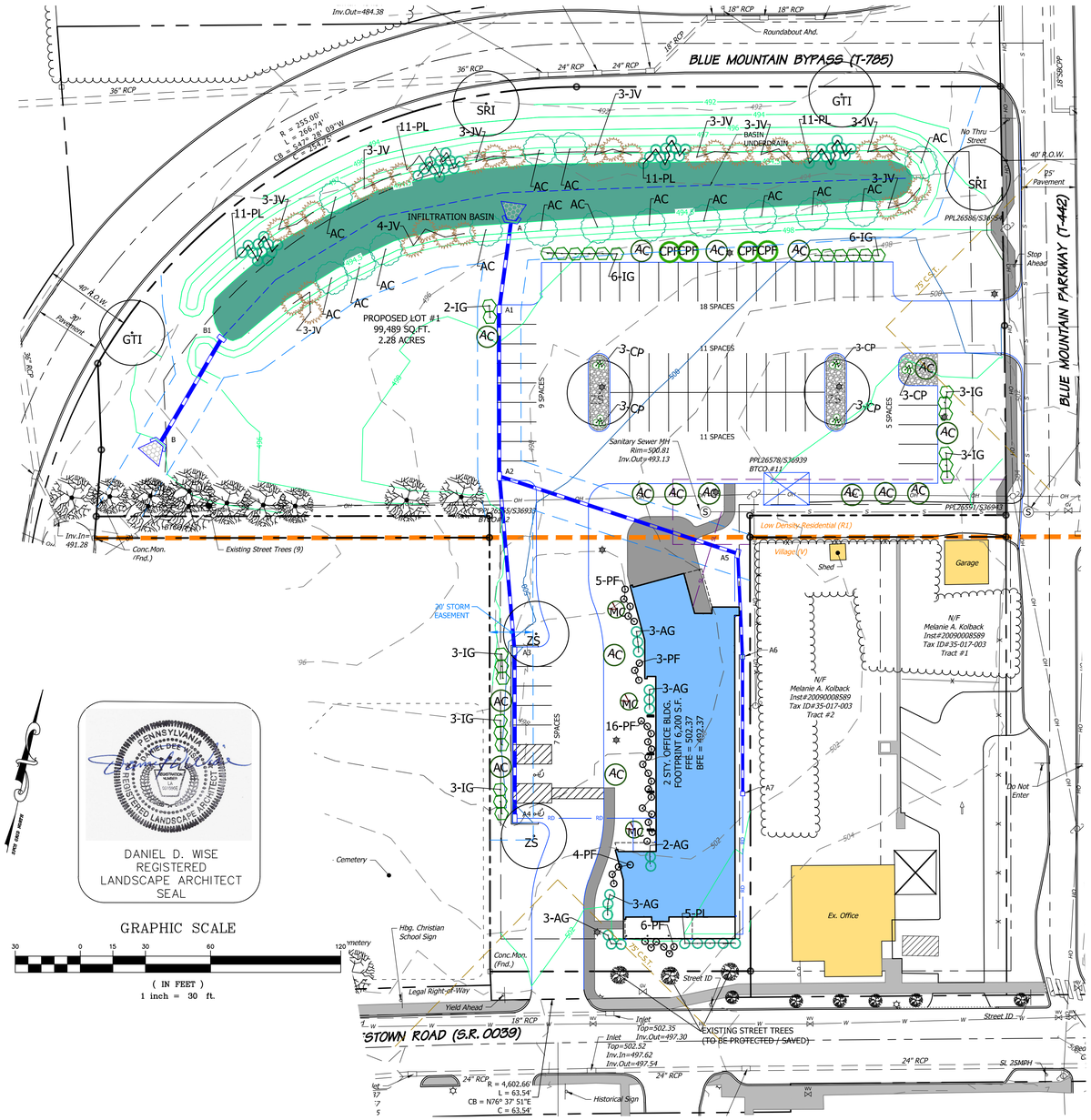
FISHER & Associates, Inc.

GRADING PLAN
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-GRD

DATE: 12/11/19

SHEET: 5 OF 14



DANIEL D. WISE
REGISTERED
LANDSCAPE ARCHITECT
SEAL

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

ZONING ORDINANCE SECTION 203-804.G.
APPLICABLE MUNICIPAL LANDSCAPE CRITERIA PER SUBDIVISION

STORMWATER BASIN LANDSCAPING REQUIRMENTS:

- BASIN LANDSCAPING SHALL BE PROVIDED 30' FROM OUTLET STRUCTURE, MIN. 2 TREES / 100 FT. OF BASIN PERIMETER, 10 SHRUBS PER 100 FEET OF BASIN PERIMETER

STANDARD COMPLIANCE VERIFICATION:

- 746 OF BASIN PERIMETER REQUIRES 15 TREES & 75 SHRUBS, 15 TREES AND 75 SHRUBS ARE PROVIDED.

SWM BASIN PLANTING SCHEDULE
BASIN 1

SYMBOL	ID	QUANTITY	BOTANICAL NAME	COMMON NAME	PLANTING SIZE/ CONDITIONS	MATURE SIZE / GENERAL TYPE
	AC	15	AMELANCHIER CANADENSIS 'GLENFORM'	RAINBOW PILLLAR SERVICE BERRY	2" CALIPER (CAL.), BALLED & BURLAPPED (B&B) ROOT	10' W. X 15' H. ORNAMENTAL TREE
	JV	31	JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER	6' H. , #10 CONTAINER (2" CAL.)	8' W. X 20' H. EVERGREEN TREE
	PL	44	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	SCHIPKA CHERRY LAUREL	2' H. , #5 CONTAINER (2" CAL.)	5' W. X 8' H. EVERGREEN SHRUB

APPLICABLE MUNICIPAL LANDSCAPE CRITERIA
PER ZONING ORDINANCE SECTION 804.C AND
PER SUBDIVISION LAND DEVELOPMENT ORDINANCE SECTION 180-515.E

STREET TREE REQUIREMENTS:

- MINIMUM AVERAGE OF ONE STREET TREE FOR EACH 50 FEET OF STREET LOT FRONTAGE SPACED A MAXIMUM OF 75 FEET APART AND A MINIMUM OF 30 FEET APART ON CENTER.
- NO MORE THAN 25% OF THE STREET TREES IN A SINGLE LAND DEVELOPMENT MAY BE OF THE SAME SPECIES.
- STREET TREES SHALL NOT BE PLANTED WITHIN 10 FEET FROM ANY STORM DRAIN INLET, FIRE HYDRANT, ACCESSIBLE MANHOLE OR UTILITY POLE OR STRUCTURE.

STANDARD COMPLIANCE VERIFICATION:

- THE SITE POSSESSES 660 LF OF STREET FRONTAGE REQUIRING 10 STREET TREES. 13 STREET TREES HAVE BEEN PROVIDED.

PLAN SYMBOL

PLANT LIST – REQUIRED STREET TREES – (13 Required, 4 Proposed, 9 Exist.)

QUAN.	LABEL	BOTANICAL NAME	COMMON NAME	PLANTING CONDITIONS	GENERAL TYPE, CHARACTER & APPROXIMATE MATURE SIZE
STREET TREES					
2	GTI	GLEDITSIA TRIACANTHOS 'IMPCOLE'	IMPERIAL HONEY LOCUST	2 to 2-1/2 " CAL. B&B	DECIDUOUS TREE, NATIVE. 35' TALL BY 35' SPREAD.
2	SRI	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	2 to 2-1/2 " CAL. B&B	DECIDUOUS TREE, NATIVE. 25' TALL BY 15' SPREAD, TREE FORM.

CAL. – CALIPER
B&B – BALLED & BURLAPPED
CONT. – CONTAINER

GENERAL LANDSCAPE NOTES:

1. ALL LANDSCAPE MATERIALS SHALL BE PLACED AND PLANTED IN ACCORDANCE WITH THIS PLAN AND ALL APPLICABLE STANDARDS AND REQUIREMENTS OF THE LOWER PAXTON TOWNSHIP ZONING AND SUBDIVISION/ LAND DEVELOPMENT ORDINANCES AND THE LOWER PAXTON TOWNSHIP SHADE TREE COMMISSION WHERE APPLICABLE.
2. THE OWNER WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL PLANT MATERIALS. ALL PLANTINGS WILL BE INSTALLED, MAINTAINED AND REPLACED BY THE OWNER, IF DEAD OR DISEASED, IN LOCATIONS AS SHOWN ON THIS APPROVED LANDSCAPE PLAN.
3. ALL PLANT MATERIALS SHALL BE PLANTED IN ACCORDANCE WITH GOOD NURSERY AND LANDSCAPING PRACTICES WITH ADEQUATE UNPAVED SURFACE AROUND EACH FOR WATER AND AIR AND SHALL BE PROPERLY PROTECTED BY CURBS, CURB STOPS, DISTANCE OR OTHER PROTECTIVE DEVICES TO PREVENT DAMAGE FROM VEHICLES. A MINIMUM VEGETATIVE AREA SHALL BE PROVIDED FOR ALL PLANT MATERIALS WHICH SHALL INCLUDE AT LEAST A 4-FOOT MINIMUM RADIUS OF PERVIOUS AREA AROUND ALL SIDES OF THE TRUNK OF EACH REQUIRED DECIDUOUS TREE OR SHRUB WITHIN OR ADJACENT TO A PARKING LOT. ANY AND ALL OTHER APPLICABLE STANDARDS ESTABLISHED BY THE TOWNSHIP SHALL ALSO APPLY. INDIVIDUAL PLANTS SHOULD BE MULCHED IN A CIRCLE OF MINIMUM DIAMETER OF 3 FT.. GROUPS OF SHURBS SHOULD BE IN A CONTINUOUS ORGANICALLY-SHAPED MULCH BED.
4. ALL PLANT MATERIALS SHALL BE NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE LOCALITY OF THE SUBJECT TRACT.
5. ALL PLANT MATERIALS SHALL HAVE A NORMAL, SYMMETRICAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY AND VIGOROUS AND SHALL BE FREE FROM DISEASE, INSECTS, INSECT EGGS AND LARVAE.
6. REQUIREMENTS FOR THE MEASUREMENT, BRANCHING, GRADING, QUALITY, BALLING AND BURLAPPING OF PLANT MATERIALS SHALL FOLLOW THE CODE OF STANDARDS RECOMMENDED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z.60, CURRENT EDITION. PLANTS SHALL BE SO TRAINED IN DEVELOPMENT AND APPEARANCE TO BE PROPER IN FORM, COMPACTNESS AND SYMMETRY. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE AND INSECTS OF ANY KIND.
7. LAYOUT OF PLANTS PRIOR TO PLANTING SHALL BE VERIFIED BY THE OWNER/DEVELOPER AND/OR THEIR REPRESENTATIVE.
8. PRIOR TO PLANTING, TREES SHALL BE INSPECTED BY THE OWNER/DEVELOPER AND/OR THEIR REPRESENTATIVE FOR INJURY TO TRUNKS, EVIDENCE OF INSECT INFESTATION, OR IMPROPER PRUNING.
9. ALL ROPES, STAVES, TAGS OR OTHER BINDINGS SHALL BE CUT OFF THE TOPS AND SIDES OF THE BALLS AND REMOVED FROM PITS. ALL ROT-PROOF, ROT-RESISTANT, PLASTIC BURLAP AND TOP HALF OF WIRE BASKET (MINIMUM) BALL COVERINGS SHALL BE REMOVED BEFORE PLANTING.
10. DIAMETER OF PITS FOR TREES AND B+B SHRUBS SHALL BE AT LEAST 2 FEET GREATER THAN THE DIAMETER OF THE BALL OR SPREAD OF ROOTS. DIAMETER OF PITS FOR BARE-ROOTED TREES AND SHRUBS SHALL BE AT LEAST 1 FOOT GREATER THAN THE SPREAD OF ROOTS. NEVER CUT LEADER, PRUNE TOP OF BARE-ROOTED SHRUBS AND LATERAL BRANCHES OF TREE TO BALANCE LOSS OF ROOTS RESULTING FROM DIGGING. REFER TO DETAIL SHEET FOR PLANTING DETAILS.
11. PLANT SUBSTITUTIONS MAY BE PERMITTED IF APPROVED BY THE OWNER/DEVELOPER AND LOWER PAXTON TOWNSHIP. ANY APPROVED SUBSTITUTION SHALL BE MADE IN LIKE KIND, SUITABLE FOR MICRO-CLIMATE AND SOIL CONDITIONS OF PLANTING SITE AND BE EQUIVALENT IN MATURE HEIGHT & WIDTH, GENERAL TYPE, HARDINESS.
12. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR IDENTIFYING AND AVOIDING DISRUPTION OR DAMAGE OF ANY AND ALL UNDERGROUND UTILITY LOCATIONS, PRIOR TO DIGGING, PERFORMING A PA ONE CALL, AND PERFORMING EXPLORATORY TESTING AS MAY OTHERWISE BE REQUIRED. ANY AND ALL DAMAGE TO UNDERGROUND UTILITIES, WHETHER KNOWN OR UNKNOWN, IS AND WILL BE THE SOLE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR.
13. THE CONTRACTOR SHALL SPRAY PAINT OR OTHERWISE MARK ALL PROPOSED PLANTING BED LINES FOR OWNER APPROVAL PRIOR TO CUTTING IN PROPOSED BEDS.
14. IF ANY DISCREPANCIES BETWEEN QUANTITIES IN PLANTING SCHEDULES AND THOSE SHOWN ON THE PLAN. THE PLAN SHALL GOVERN.
15. ALL TREES SHALL BE GUYED OR STAKED FOR ONE YEAR FOLLOWING PLANTING. ALL GUYS OR STAKES SHOULD BE REMOVED ONE YEAR FROM INSTALLATION.

APPLICABLE MUNICIPAL LANDSCAPE CRITERIA
PER ZONING ORDINANCE SECTION 804.D

PARKING LOT INTERIOR LANDSCAPING:

- A MINIMUM OF ONE DECIDUOUS TREE SHALL BE REQUIRED FOR EVERY 15 NEW OFF-STREET PARKING SPACES.
  IF 30 OR MORE PARKING SPACES ARE PROPOSED,
  THAN THE REQUIRED TREES SHALL BE PLANTED IN ISLANDS WITHIN THE PARKING LOT.

STANDARD COMPLIANCE VERIFICATION:

- 61 PARKING SPACES ARE PROPOSED, THEREFORE 4.06~4 DECIDUOUS TREES ARE REQUIRED.
  4 TREES ARE PROPOSED.

PLAN SYMBOL

PLANT LIST – REQUIRED PARKING LOT TREES

QUAN.	LABEL	BOTANICAL NAME	COMMON NAME	SIZE*	ROOT	GENERAL TYPE, CHARACTERISTICS, & APPROXIMATE MATURE SIZE
PARKING LOT TREES						
4	ZSG	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2 to 2-1/2 " CAL.	B&B	DECIDUOUS TREE 60'H. X 40' W.

* MEASURED 6" ABOVE GRADE

APPLICABLE MUNICIPAL LANDSCAPE CRITERIA
PER SUBDIVISION LAND DEVELOPMENT ORDINANCE SECTION 180-515.C

PARKING LOT ISLAND AND PERIMETER REQUIREMENTS:

- FOR ALL PARKING LOTS WITH 30 OR MORE SPACES, 5% OF THE TOTAL PARKING LOT AREA SHALL BE DEVOTED TO INTERIOR LANDSCAPING WHICH SHALL BE AT THE END OF A ROW IN CURBED ISLANDS
- EACH LANDSCAPING ISLAND MUST BE PROVIDED WITH A MINIMUM OF ONE DECIDUOUS TREE PLUS ONE SHRUB FOR EACH 100 SF OF ISLAND AREA. (SEC. 180-515.C.5.B.)
- PARKING LOT PERIMETER LANDSCAPING SHALL BE PROVIDED AND SHALL BE A MINIMUM OF 5 FEET IN WIDTH. A MINIMUM OF ONE DECIDUOUS OR CONIFEROUS TREE AND TWO SHRUBS SHALL BE PROVIDED FOR EACH 50 FEET OF PARKING LOT PERIMETER PROVIDED.

STANDARD COMPLIANCE VERIFICATION:

- THE PROPOSED PARKING LOT IS 27,104 SF. 5% OF THIS FIGURE IS 1355 SF OF REQUIRED INTERIOR LANDSCAPING.
  INTERIOR ISLANDS TOTAL 1471 SF SO THE % STANDARD HAS BEEN SATISFIED.
- FOR 2 "ISLANDS" 2 TREES ARE REQUIRED AND PROVIDED. FOR 1355 SF OF REQUIRED INTERIOR ISLAND 14 SHRUBS ARE REQUIRED, 15 ARE PROVIDED.
- THE PROPOSED PARKING LOT HAS 745 FEET OF PERIMETER LENGTH. THIS REQUIRES 15 TOTAL DECIDUOUS OR CONIFEROUS TREES AROUND THE PERIMETER OF THE PARKING LOT, AND 30 TOTAL SHRUBS TO COMPLY. 15 DECIDUOUS/CONIFEROUS TREES HAVE BEEN PROVIDED AND 31 SHRUBS HAVE BEEN PROVIDED, SO COMPLIANCE HAS BEEN ACHIEVED.

PLAN SYMBOL

PLANT LIST – PARKING LOT INTERIOR

QUAN.	LABEL	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	GEN. TYPE, CHARACTER, & APPROXIMATE MATURE SIZE
PARKING LOT TREES (SEE PARKING LOT TREE SCHEDULE ABOVE)						
PARKING LOT SHRUBS						
15	CP	CEANOTHUS X PALLIDUS 'MINMARI'	MARIE BLEU NEW JERSEY TEA	12"	CONT.	DECIDUOUS SHRUB, 2' H. X 3'W.
PARKING LOT GROUNDCOVER						
4" THK., 1"-2"# RIVER BED GRAVEL MULCH OVER WEED BARRIER MAT						

PLAN SYMBOL

PLANT LIST – PARKING LOT PERIMETER

QUAN.	LABEL	BOTANICAL NAME	COMMON NAME	SIZE*	ROOT	GEN. TYPE, CHARACTER, & APPROXIMATE MATURE SIZE
DECIDUOUS TREES						
15	AC	AMELANCHIER CANADENSIS 'GLENFORM'	RAINBOW PILLAR SERVICEBERRY	6'H.	CONT.	EVERGREEN SHRUB, 3' H. X 6'W.
SHRUBS						
27	IG	ILEX GLABRA " SHAMROCK	SHAMROCK INKBERRY HOLLY	24"-30"	CONT.	EVERGREEN SHRUB, 5' H. X 5' W.
4	OPF	CHAMAECYPARIS PISIFERA 'GOLD MOP'	GOLD MOP FALSE CYPRESS	24"-30"	CONT.	EVERGREEN SHRUB, 8' H. X 8' W.

LAND DEVELOPMENT ORDINANCE SECTION 180-515.D.
APPLICABLE MUNICIPAL LANDSCAPE CRITERIA PER SUBDIVISION

SITE / BUILDING FOUNDATION REQUIRMENTS:

- SITE LANDSCAPING SHALL BE PROVIDED FOR ...BUILDING FOUNDATIONS, FRONT & SIDE YARD AREAS, AREAS ADJACENT TO STREETS, AND AROUND ENTRY SIGNS...WITH A COMBINATION OF TREES, SHRUBS, GROUNDCOVER, ANNUALS & PERNNIALS, TO THE SATISFACTION OF THE TOWNSHI... FOR A SUITABLE DESIGN.

STANDARD COMPLIANCE VERIFICATION:

- SITE LANDSCAPING AND BUILDING FOUNDATION TREES, SHRUBS, GROUNDCOVER, ANNUALS & PERNNIALS, TO THE SATISFACTION OF THE TOWNSHI... FOR A SUITABLE DESIGN.

PLAN SYMBOL

PLANT LIST – SITE/ BUILDING FOUNDATION

QUAN.	LABEL	BOTANICAL NAME	COMMON NAME	SIZE*	ROOT	GEN. TYPE, CHARACTER, & APPROX. MATURE SIZE
DECIDUOUS TREES						
3	MC	MALUS X CORALCOLE'	CORALBURST CRABAPPLE	6'H.	CONT.	DECIDUOS TREE, 10'H. X 12'W.
SHRUBS						
14	AG	ABELIA GRANDIFOLIA	GLOSSY ABELIA	24"-30"	CONT.	EVERGREEN SHRUB, 5' H. X 5' W.
34	PF	POTENTILLA FRUITICOSA 'GOLD STAR'	GOLD STAR POTENTILLA	24"-30"	CONT.	DECIDUOUS SHRUB, 2' H. X 3' W.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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FISHER & Associates, Inc.

LANDSCAPING PLAN
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-LSCP
DATE: 12/11/19
SHEET: 6 OF 14

6-LSCP

LUMINAIRE SCHEDULE

SYMBOL	QTY.	LABEL	L.L.F.	LAMP	NO LAMPS	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LUMENS	WATTAGE
	9	S1-5	0.900	LED	1	HOLOPHANE	WFCL2 P50 30K AS L5 S P7 PCLL HLA 14 F5J 15 P07 ABG BK	WASHINGTON FCO LED 2, P50, 3000K, TYPE 5, OPTIC	11151	139

DESIGN AREA MEETS ILLUMINATION ENGINEERING SOCIETY'S RECOMMENDED PRACTICE FOR PARKING AREAS PER RP-20

TYPE S1 MEETS FULL CUTOFF CLASSIFICATION

LCS TABLE BUG RATING B4-U0-G2

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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FISHER & Associates, Inc.

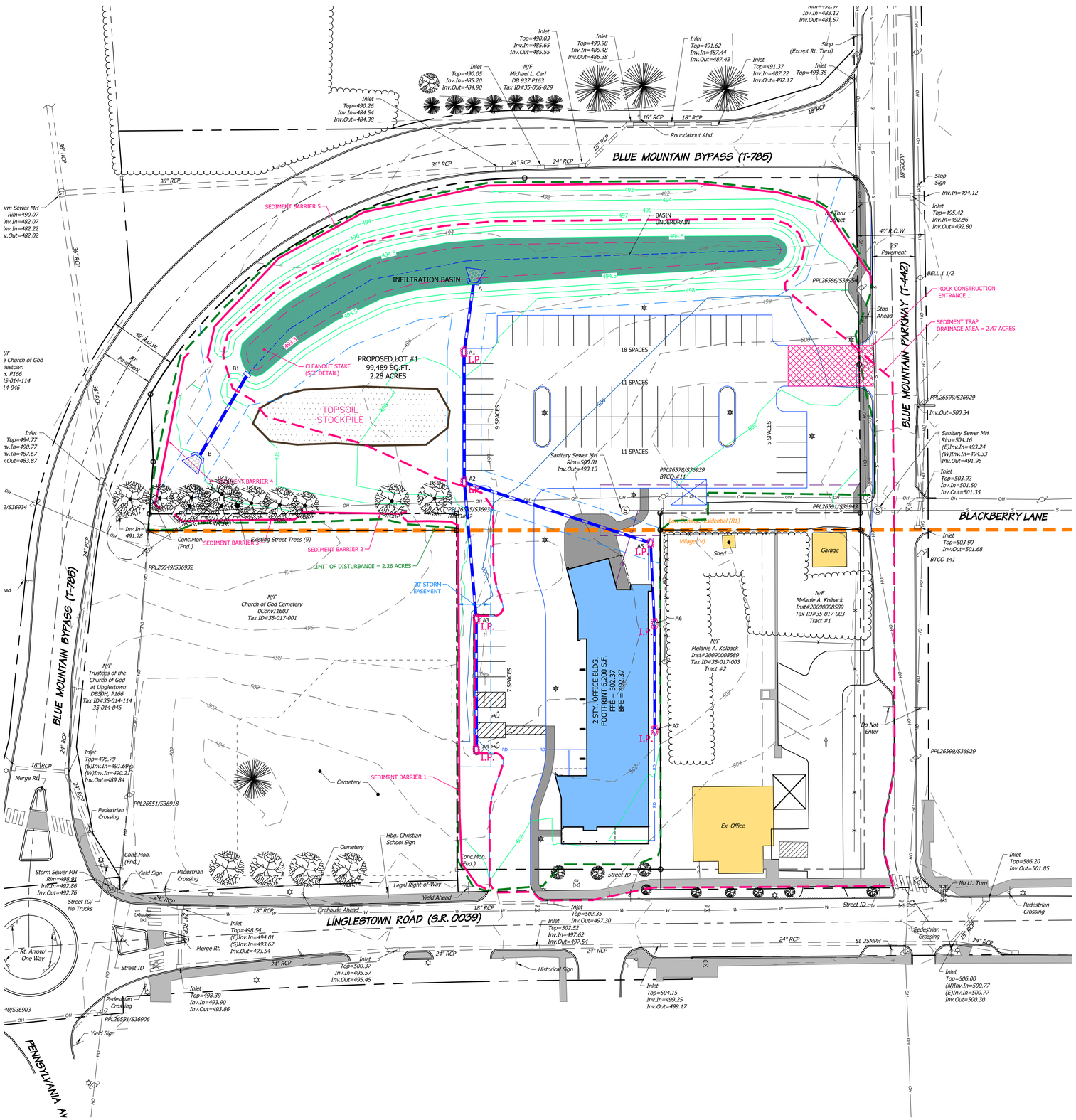
LIGHTING PLAN
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-LIGHT

DATE: 12/11/19

SHEET: 7 OF 14

DWG: 219026-LIGHT.DWG
Plotted by: RJFISHER on 02/13/2020 12:15:32 PM
7-LIGHT



Proposed Conditions Legend

- Proposed Property Line
- Proposed Right-of-Way
- Proposed Edge of Pave
- Proposed Curb
- Proposed Sidewalk
- Proposed Retaining Wall
- Proposed Sanitary Sewer Line, MH
- Proposed Storm Sewer Line, Inlet, MH
- Proposed Roof Drain
- Proposed Water Line, Hydrant
- Proposed Minor Contour
- Proposed Major Contour
- Limit of Disturbance/NPDES Boundary
- Drainage Area
- Proposed Inlet Protection, Waterbar, Inlet I.D.
- Proposed Sign
- Proposed Light
- 500.00 Proposed Spot Elevation

COMPOST FILTER SOCK TABLE

SOCK NO.	DIA. (IN)	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1	12	AS LABELED ON E&S PLAN	3.2	222
2	12	AS LABELED ON E&S PLAN	3.4	263
3	12	AS LABELED ON E&S PLAN	3.3	297
4	12	AS LABELED ON E&S PLAN	2.8	253
5	12	AS LABELED ON E&S PLAN	4.9	224

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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EROSION & SEDIMENT CONTROL PLAN

FOR

ENDERS

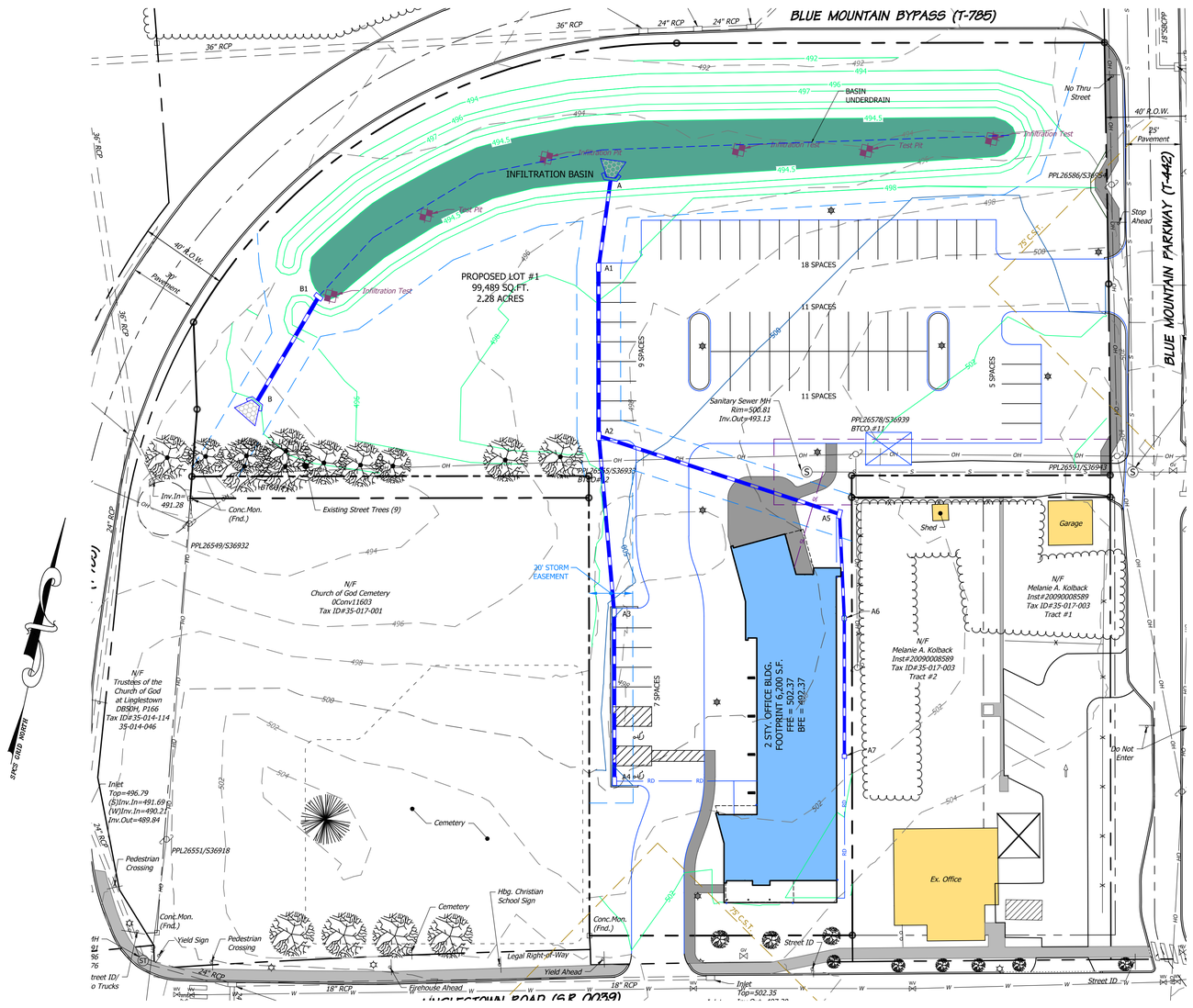
LOCATED IN

LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

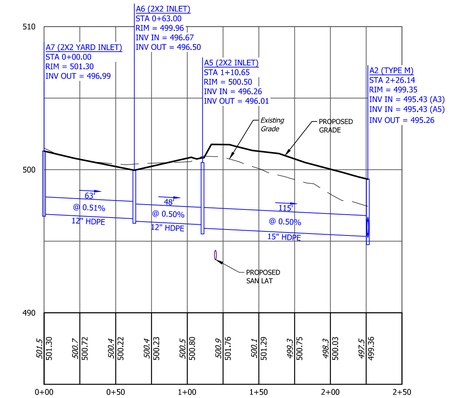
DRAWING ID: 219026-E&S

DATE: 12/11/19

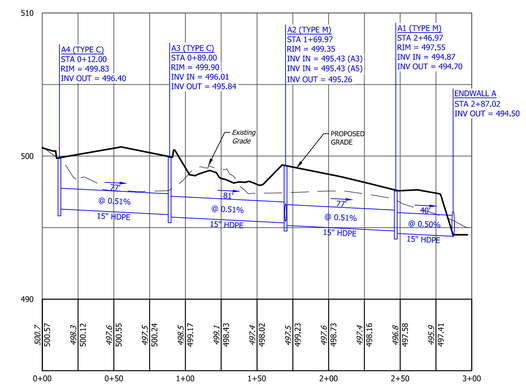
SHEET: 8 OF 14



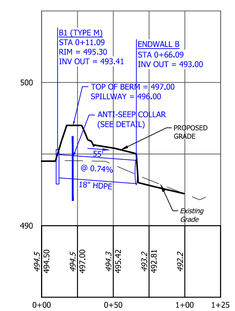
Plan View Of Storm Sewers
Horizontal Scale: 1"=30'



Profile View of Storm Sewer Structure A7 to A2 Sta: 0+00.00 - 2+50.00
Horizontal Scale: 1" = 10'
Vertical Scale: 1" = 1'



Profile View of Storm Network A4 to A Sta: 0+00.00 - 3+00.00
Horizontal Scale: 1" = 10'
Vertical Scale: 1" = 1'



Profile View of Storm Structure B1 to B Sta: 0+00.00 - 1+25.00
Horizontal Scale: 1" = 10'
Vertical Scale: 1" = 1'

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

GRAPHIC SCALES
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

10 5 2.5 0
(IN FEET)
1 inch = 5 ft.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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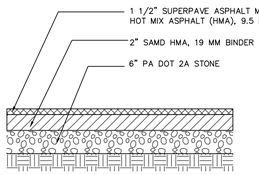
R. J. Fisher & Associates, Inc.

STORM SEWER PROFILES
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

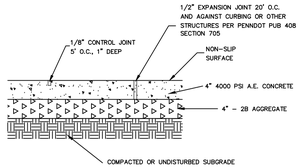
DRAWING ID: 219026-PRO
DATE: 12/11/19
SHEET: 9 OF 14

J:\PROJECTS\2019\219026\CAD\219026-SWB\219026-PROL.DWG
XREF: XREF\219026-Xrefs.dwg
B-PRO



PARKING, ACCESS DRIVE & DRIVEWAY PAVING DETAIL

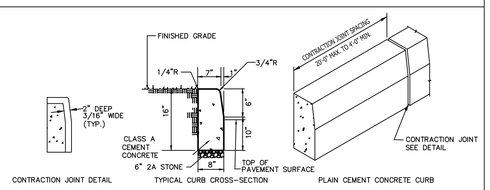
N.T.S.



NOTES:
1. MINIMUM CROSS SLOPE TOWARD THE STREET: $\frac{1}{4}$"/FT.
2. ALL CONCRETE SHALL BE CLASS A.
3. CURB RAMPS MUST BE INSTALLED WHERE INDICATED ON THE SITE PLAN, PER ADA REQUIREMENTS.
4. SEE SUBDIVISION PLAN FOR WALK LOCATIONS.
5. WALK WIDTH IS 5' FEET. MONOLITHIC TO FACE OF CURB

CONCRETE SIDEWALK DETAIL

NTS

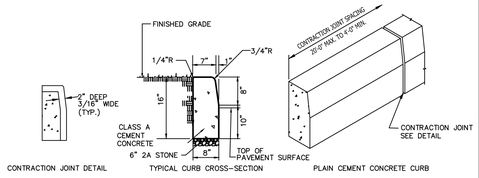


NOTES:

1.PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUB. 408, SECTION 630 FOR PLAIN CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CONCRETE CURB AND PLAIN CONCRETE CURB GUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4-INCH PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

6" VERTICAL CONCRETE CURB DETAIL (INTERIOR SITE)

N.T.S.

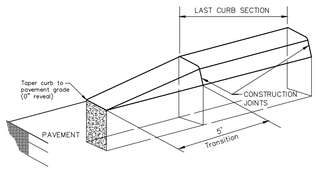


NOTES:

1.PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUB. 408, SECTION 630 FOR PLAIN CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CONCRETE CURB AND PLAIN CONCRETE CURB GUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4-INCH PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

8" VERTICAL CONCRETE CURB DETAIL (BLUE MOUNTAIN PARKWAY)

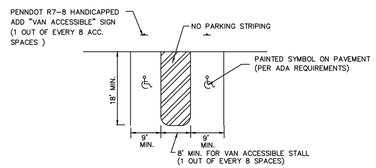
N.T.S.



NOTES:
1. ALL CONSTRUCTION MATERIALS AND STRUCTURES SHALL BE IN CONFORMANCE WITH PENN DOT STANDARDS FOR ROADWAY CONSTRUCTION AS AMMENDED AUGUST 28, 2000.
2. ALL CURBING SHALL BE IN CONFORMANCE WITH RC-64M STANDARDS.
3. SEE PLAN FOR LIMITS OF VERTICAL CURB INSTALLATION.
4. CURB TAPERS SHALL BE PROVIDED AT CURB ENDS WITH A 5' TRANSITION AND A 0" TERMINUS REVEAL.

CURB TAPER DETAIL

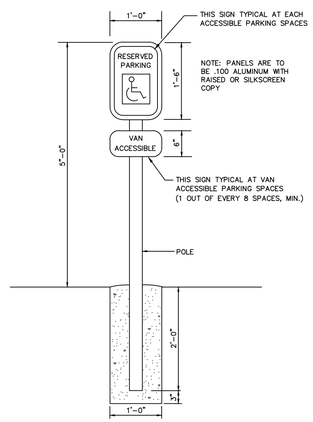
N.T.S.



NOTE: HANDICAPPED RAMPS AND STALLS SHALL COMPLY WITH THE AMERICANS WITH DISABILITY ACT DESIGN STANDARDS

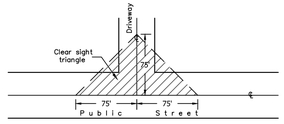
TYPICAL HANDICAP PARKING SPACE

N.T.S.



TYPICAL ACCESSIBLE PARKING SIGN DETAIL

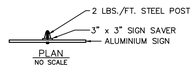
N.T.S.



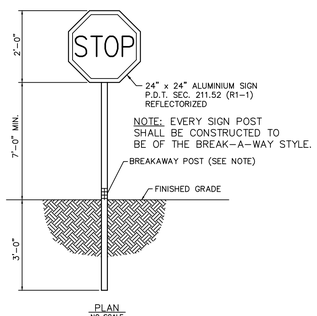
CLEAR-SIGHT TRIANGLE REQUIREMENTS AT DRIVEWAYS:
1. NO BUILDING OR OBSTRUCTION SHALL BE PERMITTED IN THIS AREA THAT WOULD OBSCURE THE VISION OF A MOTORIST.
2. GRADING AND / OR PLANTINGS (EXISTING THROUGH MATURE GROWTH) LESS THAN THREE (3) FEET ABOVE THE STREET GRADE ARE PERMITTED IN THE CLEAR-SIGHT TRIANGLE.

TYPICAL DRIVEWAY CLEAR SIGHT TRIANGLE (Lower Paxton Township)

N.T.S.



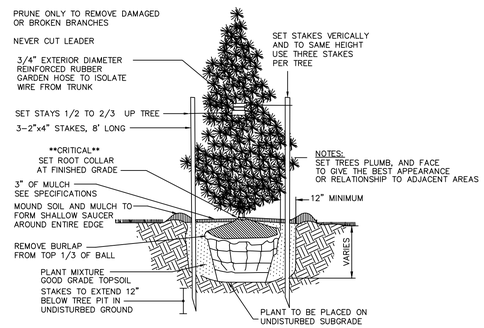
PLAN
NO SCALE



PLAN
NO SCALE

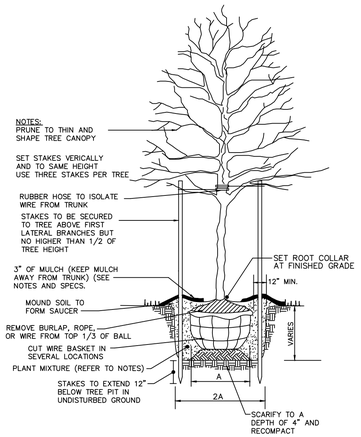
24" STOP SIGN
Pa.D.O.T. SIGN, R1-1

NTS



CONIFEROUS TREE PLANTING

NTS



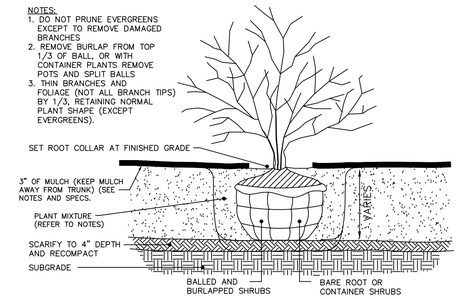
DECIDUOUS TREE PLANTING

NTS

LANDSCAPE PLANT NOTES

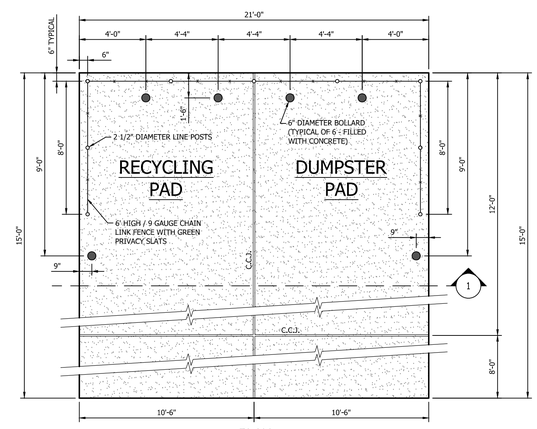
PLANTING BED MULCH SPECIFICATION
1. ALL PROPOSED PLANTING BEDS, AS SHOWN, SHALL BE MULCHED WITH A 3 INCH MINIMUM DEPTH OF PREMIUM MULCH OF LIKE KIND, QUALITY, TEXTURE AND COLOR TO THE EXISTING MULCH WHICH CURRENTLY EXISTING IN CLOSE PROXIMITY TO THE PROPOSED IMPROVEMENTS.
2. ALL PROPOSED MULCH SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE SUPPLIER'S SUGGESTED RECOMMENDATIONS AND SPECIFICATIONS.

PLANT BACKFILL MIXTURE
1. TO CONSIST OF REMOVED TOPSOIL AND SUBGRADE FROM THE DUG HOLE ONLY, THOROUGHLY MIXED WITH ALL ROOTS AND STONES REMOVED PRIOR TO REPLACEMENT IN THE HOLE.

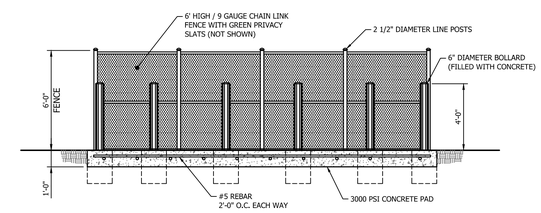


SHRUB PLANTING

NTS



PLAN



SECTION

DUMPSTER PAD WITH ENCLOSURE DETAIL

N.T.S.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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R. J. FISHER & Associates, Inc.

CONSTRUCTION DETAILS
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

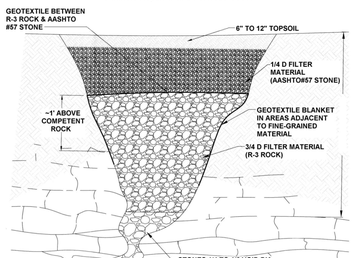
DRAWING ID: 219026-DET

DATE: 12/11/19

SHEET: 10 OF 14

10-DET

FIGURE 17.2
Sinkhole Repair with a Pervious Cover



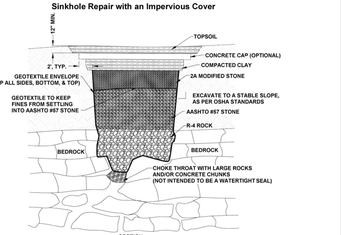
SECTION
NOT TO SCALE

Adapted from USDA NRCS

Loose material shall be excavated from the sinkhole and pervious solution void(s) if possible. Enlarge sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.

Stones used for the "bridge" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.

FIGURE 17.3
Sinkhole Repair with an Impervious Cover



SECTION
NOT TO SCALE

Adapted from USDA NRCS

Loose material shall be excavated from the sinkhole and expose solution void(s) if possible. Enlarge sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.

Geotextile shall be non-woven with a burst strength between 100 and 200 psi.

Select field stone(s) about 1.5 times larger than solution void(s) to form "bridge." Place rock(s) so no large openings exist along the sides. Stones used for the "bridge" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.

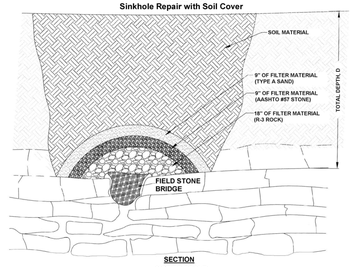
Minimum thickness of R-4 rock is 18." AASHTO #57 stone thickness shall be ¼ to ½ that of the R-4 rock. Minimum thickness of 2A modified crushed stone shall be 9". AASHTO #57 stone and 2A modified crushed stone shall be compacted after each placement.

Compacted clay seal shall be a minimum of 12" thick. Clay shall be placed in 6" to 9" lifts and thoroughly compacted.

Concrete cap, which is optional, shall be a minimum of 8" thick. Use 4,000 psi concrete with 6" X 6" - 6 gauge welded wire fabric, or # 3 rebar on 18" O.C. both ways.

Topsoil shall be a minimum of 12" thick. Grade for positive drainage away from sinkhole area.

FIGURE 17.4
Sinkhole Repair with Soil Cover



SECTION
NOT TO SCALE

Adapted from USDA NRCS

Loose material shall be excavated from the sinkhole and expose solution void(s) if possible. Enlarge sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.

Select field stone(s) about 1.5 times larger than solution void(s) to form "bridge." Place rock(s) so no large openings exist along the sides. Stones used for the "bridge" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.

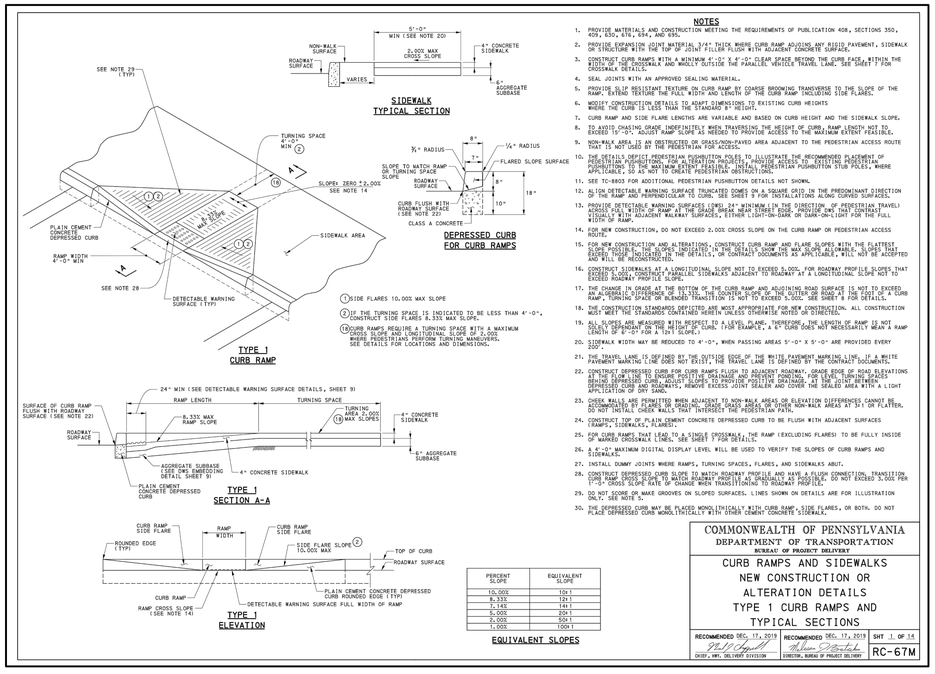
Minimum thickness of R-3 rock is 18." AASHTO #57 stone thickness shall be a minimum of 9" thick. Minimum thickness of type A sand shall be 9". NOTE: A non-woven geotextile with a burst strength between 100 and 200 psi may be substituted for the AASHTO#57 stone and type A sand.

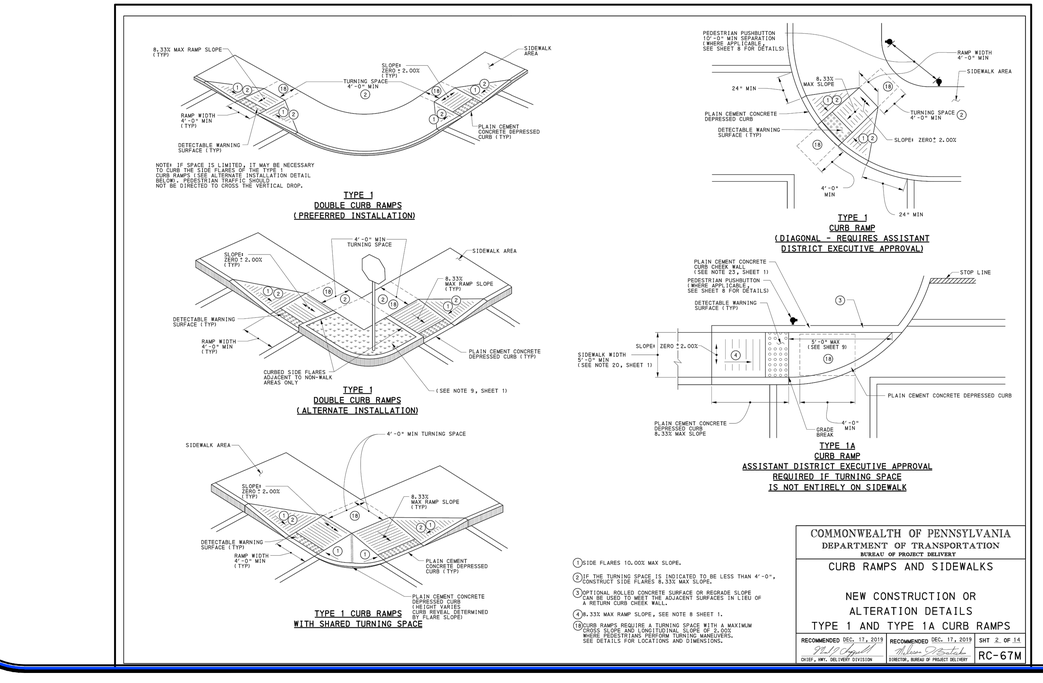
Soil shall be mineral soil with at least 12 % fines and overfilled by 5% to allow for settlement. Suitable soil from the excavation may be used. Any available topsoil shall be placed on top surface.

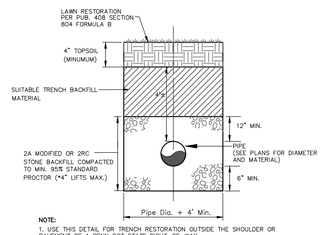
GENERAL SINKHOLE REPAIR POLICIES:

1. THE AREA OF THE SINKHOLE SHOULD BE EXCAVATED UNTIL THE "THROAT" OF THE SINKHOLE IS DISCOVERED.
2. ALL LOOSE SOIL OR MATERIAL SHOULD BE REMOVED.
3. THE THROAT OF THE SINKHOLE SHOULD BE EVALUATED FOR STABILITY AND/OR THE PRESENCE OF ADDITIONAL FRACTURES.
4. THE SINKHOLE SHOULD THEN BE BACKFILLED USING A GEOTEXTILE FILTER FABRIC FIRST, NO6 GEOTEXTILE CLASS 1 TYPE B. THEN USE R-5 STONE UP TO ABOUT 36" FROM FINISHED GRADE.
5. FOLD THE GEOTEXTILE FILTER FABRIC OVER ITSELF TO CREATE A "BAG."
6. ADD ABOUT 24" OF 2A MODIFIED STONE TO AROUND A FOOT BELOW FINAL GRADE DEPENDING ON WHERE THE SINKHOLE IS AND WHAT MATERIAL IS NEEDED TO FINISH BACKFILLING.
7. CONSULT WITH A GEOTECHNICAL ENGINEER PRIOR TO IMPLEMENTATION OF SINKHOLE REPAIR

SINKHOLE AND SINKHOLE AREA TREATMENT
N.T.S.

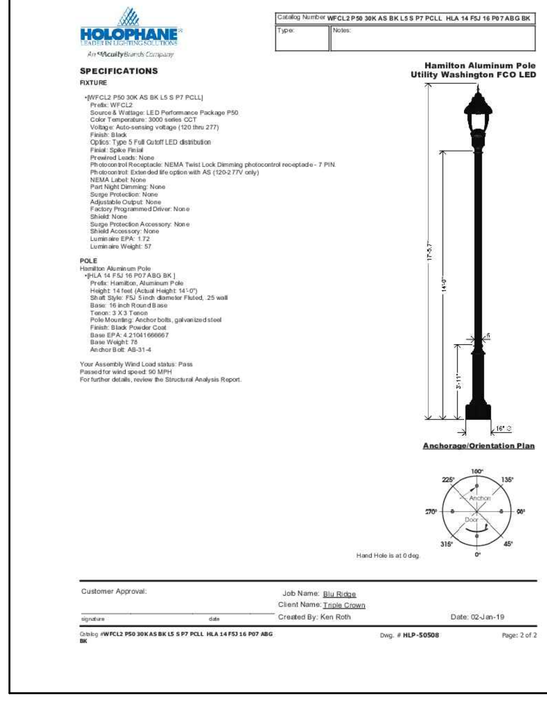






NOTE:
1. USE THIS DETAIL FOR TRENCH RESTORATION OUTSIDE THE SHOULDER OR PAVEMENT OF A PENN DOT STATE RIGHT-OF-WAY.
2. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENN DOT PUBLICATION 408, MOST RECENT AMENDMENT.
*3. BACKFILL MAY COMPACTED IN 8" LIFTS IF VIBRATORY EQUIPMENT IS USED.

DETAIL FOR TRENCHES
NTS



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NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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CONSTRUCTION DETAILS
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-DET
DATE: 12/11/19
SHEET: 11 OF 14

STORMWATER BMP OPERATION AND MAINTENANCE PLAN

The stormwater Best Management Practices (BMPs) as shown on this plan shall be maintained to function as designed as per the procedures described below. Facilities located outside the public right-of-ways shall be owned and maintained by the owners of the development.

The facilities are to remain permanent and can only be removed or altered after approval by one or more of the following entities which may have jurisdiction: Lower Paxton Township; Dauphin County Conservation District; and/or PA DEP.

The following facilities located outside the public right-of-ways shall be maintained to the original design and dimensions shown on the design plans, approved by Lower Paxton Township, until such a time as an amended plan is approved by the Township.

- Infiltration Basins, Emergency Spillways & Outlet Structures
- Stormwater Inlets, Manholes, & Pipes
- Riprap Aprons

For any structure facility (pipe, inlet, manhole), it must be repaired or replaced if damaged more than superficially, in a way that is a safety hazard, if structurally unsound, or if not substantially performing as it is intended per the original design. The responsible owners shall keep a record of any repaired or replaced facility, including costs, dates, materials removed, materials placed, and the contractor(s) information.

Inspection and maintenance tasks for infiltration basins, emergency spillways & outlet structures:

- Inspect annually at a minimum.
- The bottom of the stormwater infiltration basin can be maintained as mowed grass, maintained meadow, or natural brush succession, per the desires and budget of the lot owner. The basin berms shall be maintained as turf grass or meadow, being mowed at least several times per year. Removal of sediment / debris shall take place when the basin bottom has dried, if possible. Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.
- Examine for and clean out the outlet structure and trash rack, of accumulated trash, grit and the like.
- Remove grit, sand, soil or organic matter if it accumulates to a depth of 3" or more, so that storage volume is maintained.
- Infiltration Basin underdrain is to remain closed unless standing water problems occur. If standing water is present for greater than 72 hours after the last rainfall the underdrain may be opened to in order to drain the basin to perform the following remediation:
  - •• Remove 10" below the proposed basin bottom, replace with a 2:1 soil to compost mix and till up to 20".
  - •• If further problems persist contact Dauphin County Conservation District and/or Lower Paxton Township for a suitable solution.

Inspection and maintenance tasks for rain gardens & outlet structures:

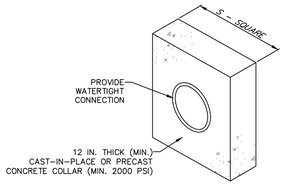
- While vegetation is being established, pruning and weeding may be required. Weeds should be removed thereafter by hand.
- Detritus may also need to be removed approximately twice a year. Perennial plantings may be cut down at the end of the growing season.
- Mulch should be re-spread when erosion is evident and be replenished annually. Once every 2 to 3 years the entire area may require mulch replacement.
- Rain Gardens should be inspected at least two times per year for sediment buildup, erosion, vegetative conditions, etc.

Inspection and maintenance tasks for stormwater inlets, manholes, pipes & swales:

- Examine annually at a minimum. Remove man-made trash and dispose of properly.
- Examine inlet bottoms via grates, for accumulated debris. Remove accumulated grit and debris. Check for any obvious structural deterioration.
- The swales shall be maintained as turf grass or meadow, being mowed at least several times per year.
- Any erosion shall be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.
- All inlets, storm piping, swales and drainage structures shall be kept free of any obstructions and foreign material that would cause disruption of water flow in a manner not designed for the facility, such as sediment, vegetation, wood, sand, debris, or vegetative growth in excess of 12 inches if not part of the landscape design. Removal of sediment/debris shall take place when the area has dried, if possible. Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.
- All impervious surfaces shall be maintained clean of oil, fuel or other toxic spills, in accordance with State, Federal or local regulations.

Inspections and maintenance tasks for riprap aprons:

- Inspect annually at a minimum.
- Remove any accumulated debris and trash, and remove promptly. Dislodged rock should be reset in place. Any scouring of earth at or below the apron should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.



BASIN OR TRAP NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO COLLAR (FT)	COLLAR SPACING (FT)
BAS 1	18	54	1	7.5'	N/A

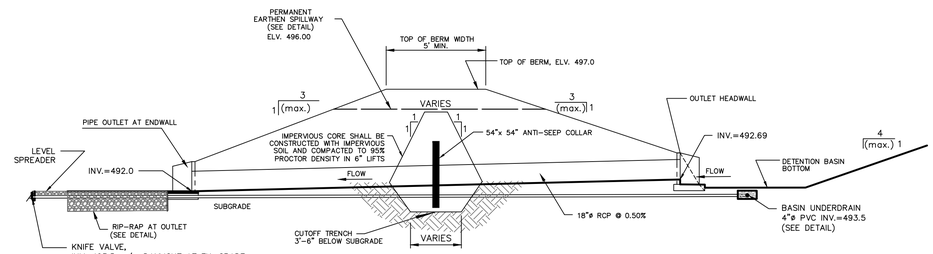
NOTES:

ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.

COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

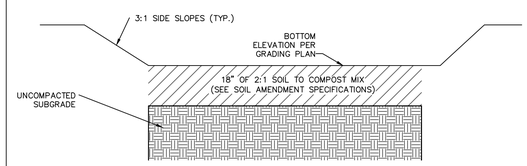
STANDARD CONSTRUCTION DETAIL #7-16
CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

N.T.S.



TYPICAL DETENTION BASIN BERM

N.T.S.



NOTES:

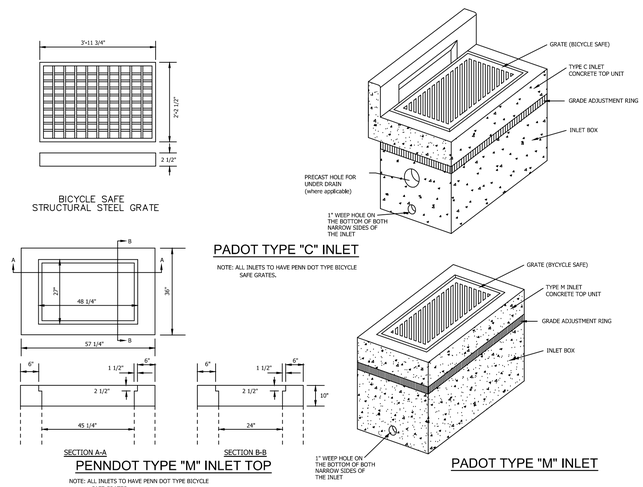
1. EVACUATE INFILTRATION AREA / BASIN TO PROPOSED INVERT DEPTH AND SCARIFY THE EXISTING SOIL SURFACES. DO NOT COMPACT IN-SITU SOILS.
2. BACKFILL INFILTRATION AREA / BASIN WITH AMENDED SOIL AS SHOWN ON THE PLANS AND SPECIFICATIONS. OVERFILLING IS RECOMMENDED TO ACCOUNT FOR SETTLEMENT. LIGHT HAND TAMPING IS ACCEPTABLE IF NECESSARY.
3. PRESOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION TO AID IN SETTLEMENT.
4. COMPLETE THE FINAL GRADING TO ACHIEVE PROPOSED DESIGN ELEVATIONS, LEAVING SPACE FOR UPPER LAYER OF COMPOST, MULCH OR TOPSOIL AS SPECIFIED ON PLANS.
5. SEED WITH ERNMX-180 RAIN GARDEN MIX 20 LB/ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB/ACRE.
6. MULCH AND INSTALL EROSION PROTECTION AT SURFACE FLOW ENTRANCES WHERE NECESSARY.

SOIL AMENDMENT SPECIFICATIONS:

1. SOIL AMENDMENT MEDIA MAY CONSIST OF COMPOST (CHOPPED STRAW, LEAVES, GRASS CLIPPINGS AD OTHER PLANT REFUSE), COMPOSTED OR DRIED MANURES, WOOD PRODUCTS (SAWDUST, WOOD SHAVINGS, SHREDDED WOOD PULVERIZED BARK AND WOOD CHIPS), PEAT MOSS, MUSHROOM SOIL, OR SAND.
2. COMPOST SHOULD BE ADDED AT A RATE OF 2:1 (SOIL:COMPOST).
3. ON-SITE TOPSOILS CAN BE PROPERLY STOCKPILED AND REUSED FOR SOIL PORTION OF THE 2:1 SOIL:COMPOST MIX.

INFILTRATION BASIN

NOT TO SCALE

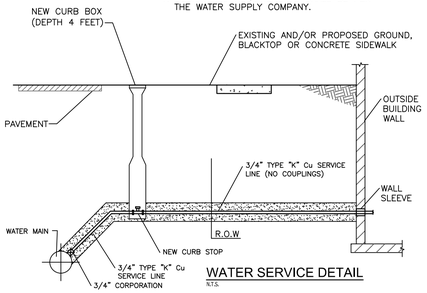


TYPICAL STORM INLET CONSTRUCTION

N.T.S.

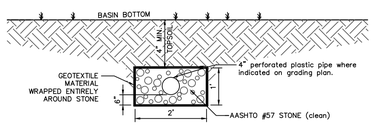
NOTES:

1. DESIGN AND REQUIREMENTS SHALL BE PER THE WATER SUPPLY COMPANY.



WATER SERVICE DETAIL

N.T.S.

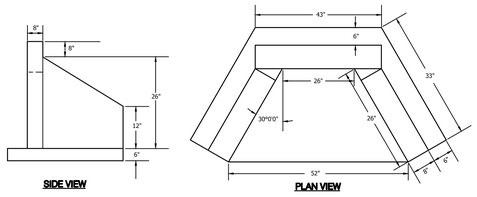


NOTES:

1. CONNECT TO OUTLET STRUCTURE AS SHOWN.
2. INSTALL KNIFE VALVE IN OUTLET STRUCTURE. VALVE TO REMAIN CLOSED UNLESS STANDING WATER OCCURS FOR GREATER THAN 72 HOURS

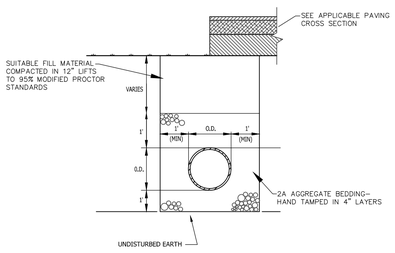
BASIN UNDERDRAIN DETAIL

N.T.S.



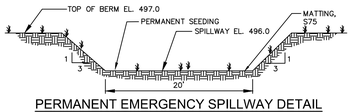
TYPE D-W ENDWALL (MAX. PIPE SIZE 21" HDPE) DETAIL

N.T.S.



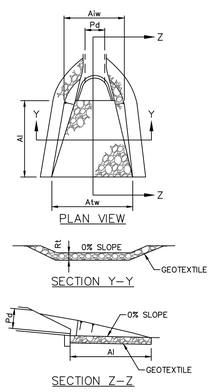
STORM SEWER TRENCH IN PRIVATE STREET

N.T.S.



PERMANENT EMERGENCY SPILLWAY DETAIL

N.T.S.



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R--	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
A	15	4	18	8	3.75	11.75
B	18	4	18	9.5	4.5	14

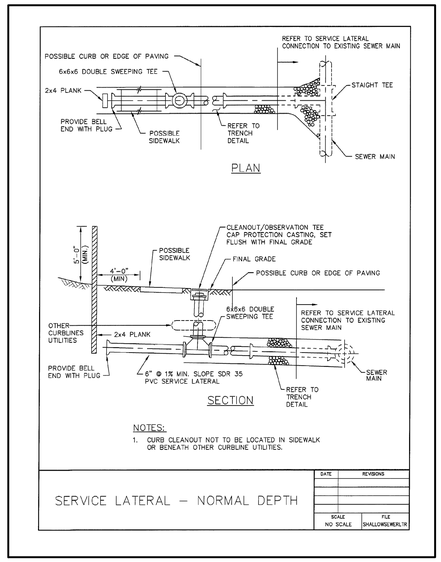
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE



NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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FISHER & Associates, Inc.

PCSM DETAILS
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-DET

DATE: 12/11/19

SHEET: 12 OF 14

12-DET

EROSION CONTROL PLAN

GENERAL NOTES

1. The site contractor and their designees shall familiarize themselves with this Erosion Control Plan. The site contractor shall be responsible for implementation of this Erosion Control Plan.
2. The site contractor shall not disturb more area than is necessary for the task to be done, so that potential for erosion is minimized.
3. The site contractor shall ensure that earth disturbance activities are planned and implemented to the extent practicable in accordance with the following:
   a. Minimize the extent and duration of the earth disturbance.
   b. Maximize protection of existing drainage features and vegetation.
   c. Minimize soil compaction.
   d. Utilize other measures or controls that prevent or minimize the generation of increased stormwater runoff.
4. Erosion and sedimentation controls must be constructed, stabilized, and functional before site disturbance within the tributary areas to the controls.
5. A copy of the approved Erosion and Sediment Control Plan / Drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times.
6. Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E & S BMPs specified by the Construction Sequence for that stage or phase have been installed and are functioning as described in this document.
7. At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operation begin.
8. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.
9. Solids, trash and other pollutants shall be disposed in accordance with federal and state regulations in order to prevent any pollutant in such materials from adversely affecting the environment. All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department of Environmental Protection's Solid Waste Management regulations at 25 Pa. Code 260, 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
10. All off-site waste and borrow areas must have an E & S Plan approved by the Conservation District or DEP, and fully implemented prior to being activated.
11. The contractor will be responsible for the removal of any excess material and make sure the site(s) receiving the excess has an approved and fully implemented erosion and sediment control plan that meets the conditions of Chapter 102 and/or other State or Federal regulations.
12. The contractor is responsible for ensuring that any material brought onto the site is Clean Fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as Clean Fill due to analytical testing.
13. Areas which are to be topsoiled shall be scarified to a minimum depth of 4 inches prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outslopes shall have a minimum of 2 inches of topsoil.
14. All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated.
15. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
16. All E & S BMPs must remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Conservation District or PA DEP.
17. After final site stabilization has been achieved, temporary E & S BMPs must be removed or converted to permanent post construction stormwater management BMPs. Area disturbed during removal or conversion of the BMPs must be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal / conversions should be done only during the germinating season.
18. Failure to correctly install E & S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E & S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Pennsylvania Department of Environmental Protection as defined in Section 602 of the Pennsylvania Clean Streams law. The Clean Streams law provides for up to $10,000 per day in civil penalties, up to $10,000 in summary criminal penalties, and up to $25,000 in misdemeanor criminal penalties for each violation.
19. Only limited disturbance will be permitted to initially access and acquire borrow to construct control facilities, before general site alteration begins.
20. If fuel or other dangerous chemicals are stored on site, then a Preparedness, Prevention and Contingency (PPC) Plan must be developed and kept on site.
21. Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross-section and protective lining. Any base flow within the channel shall be conveyed past the work in the manner described in this plan until such restoration is complete.
22. All channels must be kept free of obstructions such as fill ground, fallen leaves & woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all weedy, brushy or woody growth. Any underground utilities running across/through the channel(s) shall be immediately backfilled and the channel(s) repaired and stabilized per the channel cross-section detail.
23. Vegetated channels shall be constructed free of rocks, tree roots, stumps or other projections that will impede normal channel flow and/or prevent good lining to soil contact. The channel shall be initially over-excavated to allow for the placement of topsoil.
24. Sediment basins/traps shall be kept free of all trash, concrete wash water and other debris that pose the potential for clogging the basin/trap outlet structures and/or pose the potential for pollution to waters of the Commonwealth.
25. All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1., and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
26. Fill Materials:
   a. The NPDES Permit covers the "moving, depositing, stockpiling, or storing of soil rock or earth materials." If the site will need to have fill imported from an off site location, the responsibility for performing environmental due diligence and the determination of clean fill will in most cases reside with the Operator. If the site will have excess fill that will need to be exported to an off site location, the responsibility of clean fill determination and the environmental due diligence rests on the applicant. If all cut and fill materials will be used on the site, a clean fill determination is not required by the operator unless there is a belief that a spill or release of a regulated substance occurred on site. The contractor is responsible for ensuring that any material brought onto the site is Clean Fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as Clean Fill due to analytical testing.
   b. Applicants and/or operators must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the Department's policy "Management of Fill", document number 258-2182-773. A copy of this policy is available online at www.depweb.state.pa.us. Under the heading Quick Access on the left side of the screen, click on "Forms and Publications." On the left side of the screen click on "Technical Guidance Documents- Final." Then type the document number 258-2182-773 into the search window and conduct the search. Click on "Management of Fill."
   c. 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.)
   d. Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill."
   e. Environmental due diligence: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill."
   f. Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.
27. The potential for thermal impacts exists in the temporary condition as the existing vegetation on the site is disturbed, and un-shaded water will sit in the sediment traps. The thermal impacts will be minimized by infiltrating a portion of the runoff and temporary seeding disturbed areas as soon as possible.

SOIL LIMITATIONS & RESOLUTIONS

The soils on this site tend to be easily erodible, and may be susceptible to piping. A solution to this limitation is to grade the site at acceptable slopes (2:1 cut, 3:1 fill), and to stabilize the slopes as soon as they've been graded. The soils on this site are also corrosive to concrete, which the use of plastic pipes will help to alleviate. As are most soils in PA, the soils on this site can lead to cut banks that may cave. Proper stabilization will be utilized when digging pipe trenches and foundations. The soils on this site also have issues with slow percolation. Test pits and infiltration tests were performed in the area of the basins and underground infiltration beds to ensure that these limitations were analyzed for this site. These tests also allowed us to analyze the amount of topsoil present, which may be a limitation on the site.

SITE PRESERVATION ANALYSIS

There are no stream channels located on this site to preserve, maintain or protect. Due to the nature of the development, which includes a large building and a large amount of parking surfaces, it was not possible to minimize the impervious areas on the site. There are no significant drainage features and vegetation to protect on this site. Most of the site area will have to be cleared and graded in order to construct the proposed improvements. The soil will experience some compaction in all of the areas where grading will occur, however compaction will be kept to a minimum in the areas of the basins and underground infiltration beds. Amended soils will be added to the bottoms of the basins to promote infiltration. A number of BMPs including the stormwater basins and underground infiltration beds have been utilized to minimize changes in stormwater runoff. The increase in the stormwater runoff volume in the 2-year storm will be infiltrated through the bottoms of the basins and underground infiltration beds.

STABILIZATION SPECIFICATIONS

1. Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.

2. Permanent stabilization is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.

3. Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan drawings in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.

4. Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches (6 to 12 inches on compacted soils) prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outslopes shall have a minimum of 2 inches of topsoil.

5. Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. Compacted soils should be scarified 6 to 12 inches along contour whenever possible prior to seeding.

6. An erosion control blanket will be installed on all disturbed slopes 3:1 or steeper, all areas of concentrated flows, and disturbed areas within 50' of a surface water.

TEMPORARY SEEDING SCHEDULE

The contractor shall immediately temporarily stabilize any rough graded area, topsoil stockpile or unused excavated fill material that will be left idle for less than 1 year. The grass will provide interim protection against the impact of precipitation, running water and wind. Permanently seed any area that will be idle for more than 1 year.

Temporary seeding schedule is as follows:

Species:	Annual Rye grass
% Live Seed:	88.2%
Application rate:	10 lbs./1,000 sq. yds.
Fertilizer type:	general purpose granular, 10-20-20
Fertilizer application rate:	140 lbs./1,000 sq. yds. (Fertilizers should be reduced or eliminated based on soil test recommendations from approved lab.
Powdered Liming rate:	per soil test; minimum of 800 lbs/1000 yds.
Strawbale mulch rate:	1,200 lbs/1,000 sq. yds.
Seeding dates:	March 15 – October 15
Mulch anchoring:	Asphalt, either emulsified or cut-back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

When seeding is not possible due to the time of year or other limitations, disturbed area shall be mulched with strawbales at the rate above. An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75' or approved equal.

PERMANENT SEEDING SCHEDULE--

All disturbed soil not to be covered with impervious surfaces, riprap or landscaping mulch shall be permanently seeded to provide protection against the impact of precipitation, running water and wind. Permanent seeding schedule for the general project area is as follows:

Species:	50% Kentucky bluegrass 30% Pennlawn Creeping Red Fescue 20% Norlea Perennial ryegrass
% Pure live seed:	88.2%, 83.3%, 78.4%, Respectively
Application rate:	21 lbs./1,000 sq. yds.
Fertilizer type:	general purpose granular, 10-20-20
Fertilizer application rate:	40 lbs./1,000 sq. yds., see temporary seed note
Powdered Liming rate:	per soil test; minimum of 800 lbs/1000 yds
Seeding dates:	between March 15 – June 1, August 1 – October 15
Strawbale mulching rate:	1200 lbs/1000 sq. yds.
Mulch anchoring:	Asphalt, either emulsified or cut-back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75" or approved equivalent.

A minimum of 6" of topsoil shall be placed prior to seeding.

MAINTENANCE PLAN SCHEDULE

1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Responsibility for implementing and maintaining erosion and sedimentation control measures shall be designated to a minimum of one individual who will be present at the project site each working day. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis, to ensure that they are in place, stable, and functioning properly. All preventative and remedial maintenance work, including clean out, repair, replacement, re-grading, reseeding, re-mulching, and re-netting must be performed immediately, to restore the control measure to the original design. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
2. A log showing dates that E & S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
3. Any sediment removed from BMPs during construction shall be returned to upland areas within the project area, and incorporated into the site grading, or in the manner described on the plan drawings.
4. See the construction details and seeding specifications for maintenance procedures for the various control measures.
5. Mud must be removed from vehicle tires before they exit the site. Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in a manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer or surface water.

STAGING OF EARTH MOVING ACTIVITIES

1. A licensed professional or a designee shall be present on site during construction of the following critical stages of implementation of the approved PCSM plan:

   A. Basin Clay Core and Key Trench
   B. Basin Underdrain
   C. Riprap Apron

2. At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call system Incorporated at 1-800-242-1776 for the location of existing underground utilities.
3. All earth disturbance activities shall proceed in accordance with the following specific sequencing. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Any deviation from the following sequence must be approved in writing from the County Conservation District.
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 the potential for accelerated erosion and/or sediment pollution.
5. At least 7 days before starting any earth disturbance activities, the owner and/or operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, and a representative of the County Conservation District to an on-site pre-construction meeting.
6. Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary seeding vegetative stabilization specifications. Disturbed areas which are not at final grade or which will not be re-disturbed within 1 year must be stabilized in accordance with the permanent seeding vegetative stabilization specifications.
7. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.

SPECIFIC STAGING OF MAJOR EARTH MOVING ACTIVITIES AND PCSM BMP SEQUENCE

1. No earth disturbance should be started until the E&S BMP's treating the disturbed area are installed and functioning.
2. Clearly mark the limits of disturbance.
3. Install the rock construction entrance. The rock construction entrance shall be continually maintained to the specified dimensions. A stockpile of AASHTO #1 coarse aggregate shall be on the site for this purpose. At the end of each workday, any sediment deposited on paved roadways shall be removed and returned to the construction site.
4. Install Sediment Barriers 1 through 5 at the locations shown on the E&S Plan. Disturbance shall be restricted to that which is only necessary to access and install the designated sediment barriers.
5. Strip the topsoil in the area of Sediment Trap 1 and stockpile. Clear and grub as necessary.
6. Construct Sediment Trap 1, including clay cores for permanent basin, key trenches, temporary pipes, riser, and riprraps. Minimize compaction within the sediment trap during construction. Install cleanout markers. Stabilize the sediment trap immediately once the facility is constructed. Monitor the sediment trap throughout the duration of the construction activity to ensure trapped sediment does not exceed the cleanout marker elevation. A licensed professional must be present during the installation of clay cores, key trenches, and riprap aprons. Do not install permanent under drain until after site stabilization and conversion to permanent basin. Install storm network B and associated riprap aprons.
7. Strip the topsoil within the remaining areas that will be graded. Clear and grub as necessary. Demolish existing residential buildings. Field mark the topsoil stockpile locations. Topsoil stockpiles shall be stabilized utilizing the temporary seeding schedule and shall have sediment barriers located downstream to capture any sediment laden runoff. Stockpiles shall not exceed 35' in height and side slopes must be 2:1 or flatter.
8. Complete the mass grading. Minimize soil compaction within the undisturbed areas. Stabilize soil immediately and install temporary seeding as soon as possible. Permanent slopes of 3:1 or greater require temporary N.A.G. S75 matting or equivalent, as shown on the E&S plan. Remove existing Basin 1 stormwater piping, inlets, and outlets.
9. Install Storm Sewer Network A through A2 and A2 to A5. Filter inlet bags must be installed on all units as soon as the inlets are installed to ensure that only clean water is entering the system.
10. Install northern parking lot and access drive binder course.
11. Begin building construction. The existing Enders building is to remain in place and active until the new building is complete. The northern parking lot will be utilized during construction of the new building.
12. Once new building construction is complete begin demolition of existing building.
13. Install Storm Sewer Network A2 through A4 and A5 to A7. Install parking lot binder course and curb in front of new building.
14. Construction entrance may be removed with approval from Dauphin County Conservation District.
15. Install landscaping per landscape plan. Permanently seed and mulch as required.
16. Finish pavement with wearing course.

Conversion of Traps to Final PCSM Condition

1. Temporary control measures can only be removed when the watershed draining to the measure is permanently stabilized and removal is authorized by the County Conservation District. Permanently stabilized is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density capable to resist accelerated surface erosion, and subsurface characteristics sufficient to resist sliding and other movements. The location of the control measure must be immediately permanently stabilized upon its removal. All areas to be permanently seeded shall have a minimum depth of 6" of topsoil before seeding.

2. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the County Conservation District for an inspection prior to the removal/conversion of the E&S BMP's.

3. Any areas disturbed during the removal of the temporary BMPs shall be immediately repaired and permanently stabilized.

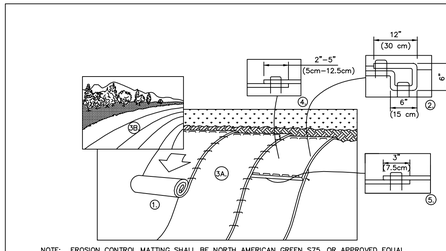
4. Upon approval from the County Conservation District, Sediment Trap 1 shall be converted to the permanent condition of Stormwater Basin 1. The sediment traps shall be dewatered and the cleanout stakes shall be removed. The temporary outlet structures can be removed. All sediment deposited within storm sewers shall be removed prior to converting the sediment trap. Grade basins to final grade and install underdrains. A temporary erosion control blanket shall be installed with the permanent seed and specialty seed in basin bottom and mulch over the entire interior of the basins.

5. Upon approval from the County Conservation District, all silt barriers shall be properly removed.

6. Upon completion of all earth disturbance activities, removal of all temporary BMPs, installation of all permanent BMPs and permanent stabilization of all disturbed areas, the owner/operators shall contact the County Conservation District for a final inspection.

Maintenance of Temporary Erosion & Sediment Control Facilities

1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Responsibility for implementing and maintaining erosion and sedimentation control measures shall be designated to a minimum of one individual who will be present at the project site each working day. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis, to ensure that they are in place, stable, and functioning properly. All preventative and remedial maintenance work, including clean out, repair, replacement, re-grading, reseeding, re-mulching, and re-netting must be performed immediately, to restore the control measure to the original design. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
2. A log showing dates that E & S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
3. Any sediment removed from BMPs during construction shall be returned to upland areas within the project area, and incorporated into the site grading, or in the manner described on the plan drawings.
4. See the construction details and seeding specifications for maintenance procedures for the various control measures.
5. Mud must be removed from vehicle tires before they exit the site. Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in a manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.

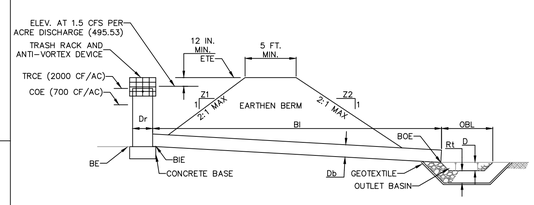


NOTE: EROSION CONTROL MATTING SHALL BE NORTH AMERICAN GREEN S75, OR APPROVED EQUAL.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. POSITION AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL MATTING ON SLOPE
N.T.S.



TRAP NO.	Z1 (FT)	Z2 (FT)	RISER MAT'L	RISER DIA Dr (IN)	RISER CREST ELEV RCE (FT)	RISER BOT PERF ELEV (FT)	BARREL MAT'L	BARREL DIA Bd (IN)	BARREL INLET ELEV BIE (FT)	BARREL LENGTH BI (FT)	BARREL OUTLET ELEV BOE (FT)	EMBANKMENT TOP ELEV ETE (FT)	EMBANKMENT TOP WIDTH Etw (FT)	CLEAN OUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
1	3	3	CMP	42	495.3	---	HDPE	18	492.69	93.37	492.00	497	5	494.3	493.3

NOTES:

SEE DETAIL #8-3 TEMPORARY RISER FOR DETAILS OF THE TEMPORARY RISER CONSTRUCTION.

FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS.

ALL SEDIMENT TRAPS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT.

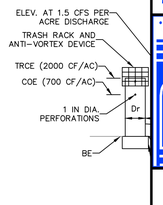
ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES SHALL BE PROVIDED.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH TRAP. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE TRAP IN THE MANNER DESCRIBED IN THE E&S PLAN.

CHECK EMBANKMENTS, SPILLWAYS, AND OUTLETS FOR EROSION, PIPING AND SETTLEMENT. CLOGGED OR DAMAGED SPILLWAYS AND/OR EMBANKMENTS SHALL BE IMMEDIATELY RESTORED TO THE DESIGN SPECIFICATIONS.
DISPLACED RIPRAP WITHIN THE OUTLET PROTECTION SHALL BE REPLACED IMMEDIATELY.

ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE TRAP SHALL BE STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. TO ASSIST IN REMOVING SEDIMENT, WHICH MAY BE SATURATED, A DEVICE SUCH AS IS SHOWN IN STANDARD CONSTRUCTION DETAIL #7-18 MAY BE USED TO DEWATER THE SEDIMENT PRIOR TO ITS REMOVAL.

STANDARD CONSTRUCTION DETAIL #8-2
BARREL/RISER SEDIMENT TRAP - TRAP #1
NOT TO SCALE



TRAP NO.	Z1 (FT)	Z2 (FT)	MAT'L	DIA Dr (IN)
88	88	88	12345	88

TRAP NO.
88

NOTES:

SEE DETAIL #8-3 TEMPOR

FILL MATERIAL FOR THE E
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NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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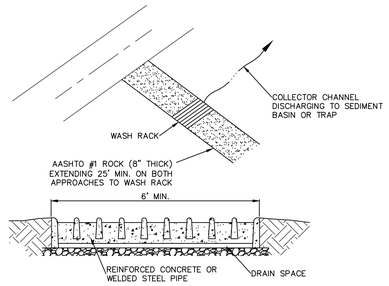
EROSION CONTROL DETAILS
FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-DET
DATE: 12/11/19
SHEET: 13 OF 14

13-DET



NOTES:

WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.

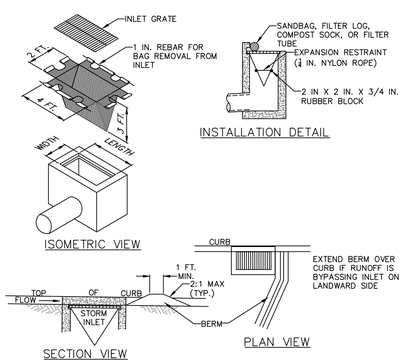
WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

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. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-2
ROCK CONSTRUCTION ACCESS WITH WASH RACK

NOT TO SCALE



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

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

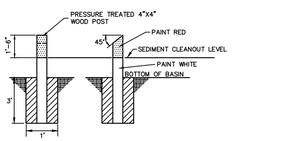
ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

FILTER BAG INLET PROTECTION - TYPE C INLET

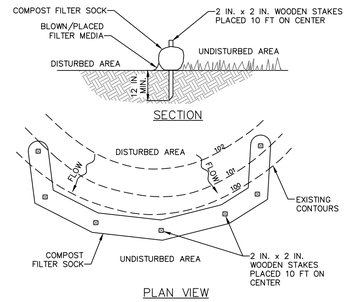
N.T.S.



NOTE:
IF SEDIMENT REACHES CLEANOUT LEVEL, REMOVE SEDIMENT AND PLACE ON TOPSOIL STOCKPILE. RESTORE BASIN TO ORIGINAL DIMENSIONS.

SEDIMENT CLEANOUT STAKE DETAIL

N.T.S.



COMPOST FILTER SOCK

NOT TO SCALE

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK TABLE

SOCK NO.	DIA. (IN)	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1	12	AS LABELED ON E&S PLAN	3.2	222
2	12	AS LABELED ON E&S PLAN	3.4	263
3	12	AS LABELED ON E&S PLAN	3.3	297
4	12	AS LABELED ON E&S PLAN	2.8	253
5	12	AS LABELED ON E&S PLAN	4.9	224

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

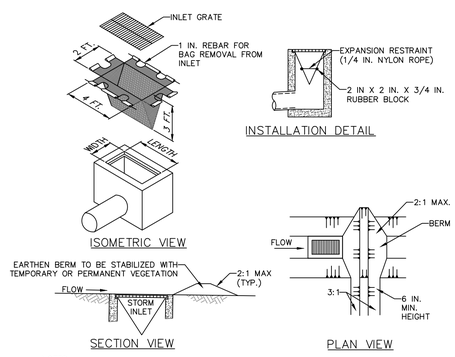
TWO-PLY SYSTEMS

Inner Containment Netting	HDPE biaxial net
	Continuously wound
	Fusion-welded junctures
	3/4" X 3/4" Max. aperture size
Outer Filtration Mesh	Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch)
	3/16" Max. aperture size
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.	

Filtrexx & JMD

COMPOST STANDARDS

Organic Matter Content	25%-100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5-8.5
Moisture Content	30%-60%
Particle Size	30%-50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum



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ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

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

FILTER BAG INLET PROTECTION - TYPE M INLET

N.T.S.

NO	REVISION	DATE
1	REVIEW COMMENTS	01/17/20
2	WAIVER ADDED	02/13/20
3	----	----
4	----	----

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FISHER & Associates, Inc.

EROSION CONTROL DETAILS

FOR
ENDERS
LOCATED IN
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 219026-DET

DATE: 12/11/19

SHEET: 14 OF 14

14-DET