

Land Development Plans

SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

prepared for

ACTS RETIREMENT-LIFE COMMUNITIES INC.

prepared by



607 Easton Road
Building B - 2nd Floor
Willow Grove, PA 19090

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Fax: (215) 346-8759
www.eustaceeng.com

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L-8	34	Site Lighting Plan	5/29/2024	08/09/2024	

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land development\01-record plan.dwg August 8, 2024

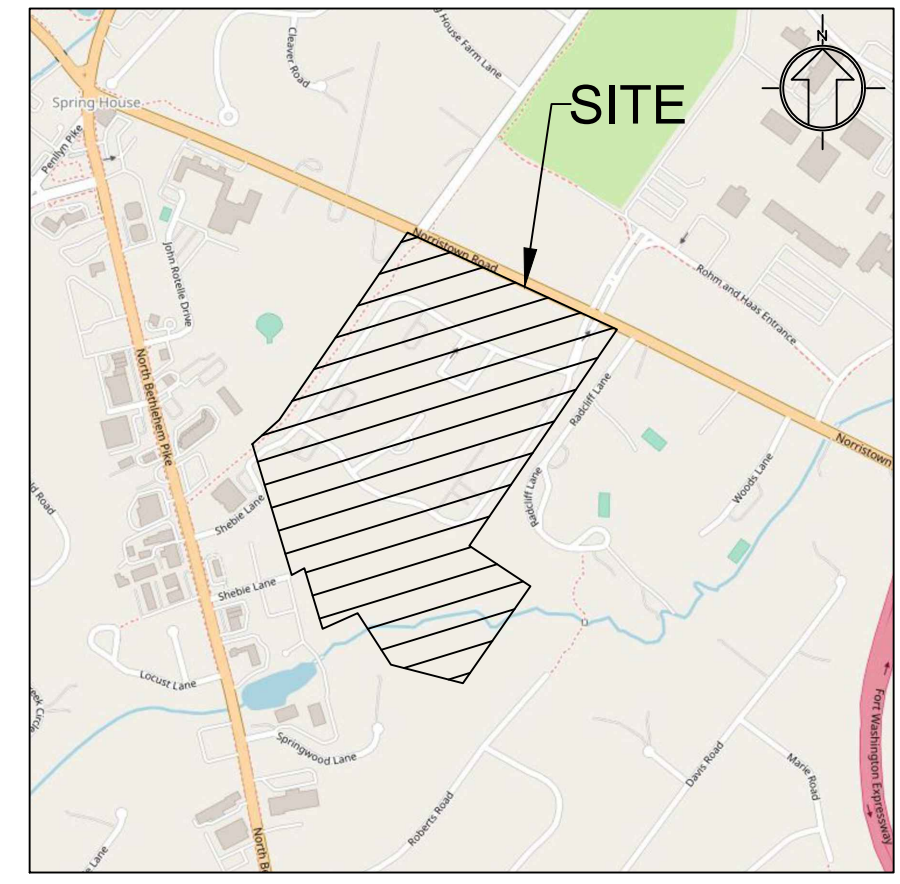
IMPERVIOUS CALCULATIONS TABLE				
TYPE	EXISTING	EXISTING REMOVED	PROPOSED	TOTAL
BUILDING	270,878 SF	864 SF	3,576 SF	273,590 SF
ASPHALT	309,998 SF	18,955 SF	20,573 SF	311,616 SF
CONC., RIPRAP, ETC.	56,701 SF	6,103 SF	10,465 SF	61,063 SF
TOTAL	637,577 SF	25,922 SF	34,614 SF	646,269 SF
GROSS AREA	55.04 AC			55.04 AC
PERCENT IMPERVIOUS	26.59 %			26.96 %

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General Notes:

- Boundary and site features information from Record Plan, prepared for Spring House Estates, dated 2-2-99, last revised 3-31-2000, Drawing No. 50102, Sheet 1 of 16, Job 187-021.01, prepared by Chambers Associates, Inc., 619 Conestoga Road, Villanova, PA 19085.
- Supplemental field survey of areas to be improved performed by Eustace Engineering of Willow Grove on March 11, 2021.
- This Plan does not represent a Boundary Survey.
- This Plan was prepared in accordance with the instructions of the Client.
- This property is subject to all easements, restrictions and agreements of record.
- Easements if shown are done so to the best of our abilities given the quality of the reference documents.
- This Plan was prepared without the benefit of a Title Report. This property is subject to all easements, restrictions, and agreements of record as they may apply and any stated facts that a current Title Report would reveal.
- Future development of this property is subject to all rules, regulations, codes and ordinances of the Lower Gwynedd Township, Montgomery County, and the Commonwealth of Pennsylvania as they may apply.
- Attention is called to the Lower Gwynedd Township Zoning Code as amended.
- A building and/or zoning permit is required for any changes to the conditions that exist within this property.
- Property corners were not set.
- Building setback lines are not shown herein.



Location Map
Scale: 1" = 1000'

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS DAY, _____ DAY OF _____, 20____, BEFORE ME, THE SUBSCRIBED, A NOTARY PUBLIC, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED TO BE _____ OF ACTS RETIREMENT-LIFE COMMUNITIES, INC. AND THAT AS SUCH OFFICER, BEING AUTHORIZED TO DO SO, EXECUTED THE WITHIN INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED BY SIGNING THE ACKNOWLEDGEMENT OF INTENT OF THE COMPANY AS OFFICER. WITNESS MY HAND AND NOTORIAL SEAL THIS DAY AND YEAR AFORESAID.

MY COMMISSION EXPIRES _____

ACKNOWLEDGEMENT OF INTENT:
ACTS RETIREMENT-LIFE COMMUNITIES HAS LAID OUT UPON OUR LAND SITUATE IN THE TOWNSHIP OF LOWER GWYNEDD, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WITNESS MY HAND AND SEAL THIS DAY, _____ DAY OF _____, 20____.

(SIGNATURE OF OWNER)
(SEAL)
(TITLE)

APPROVED BY THE LOWER GWYNEDD TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF _____, 20____.

APPROVED BY THE LOWER GWYNEDD TOWNSHIP ENGINEER THIS _____ DAY OF _____, 20____.

TOWNSHIP ENGINEER _____

APPROVED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PA THIS _____ DAY OF _____, 20____.

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF MONTGOMERY COUNTY, PENNSYLVANIA, IN PLAN BOOK _____ PAGE _____ ON THIS _____ DAY OF _____, 20____.

SURVEYOR'S STATEMENT
THE BOUNDARY INFORMATION SHOWN HEREON WAS TAKEN FROM A "RECORD PLAN" PREPARED BY CHAMBERS ASSOCIATES, INC., DATED 2-2-99, AS REVISED 3-31-2000 SHEET 1 OF 16. I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, THE INFORMATION SHOWN HEREON IS TRUE AND CORRECT, AND PER THAT INSTRUMENT OF RECORD.

(PROFESSIONAL REGISTERED SURVEYOR)
(REGISTRATION NUMBER)
(DATE)

ENGINEER'S CERTIFICATION:
THIS PLAN WAS PREPARED UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. ALL DATA CONCERNING EXISTING LAND, BUILDINGS, STREETS AND OTHER LOCATIONS ARE CORRECT AND THAT TO THE BEST OF MY KNOWLEDGE, THE PLAN COMPLIES WITH ALL ORDINANCES AND REGULATIONS OF THE TOWNSHIP.

(SIGNED) _____ (TITLE)

Legend

- Property Line
- Right-of-Way Line
- Setback Line
- Easement
- Existing Building
- Existing Building Overhang
- Existing Edge of Pavement
- Existing Curb
- Existing Wetlands
- Existing Stream
- Existing Concrete
- Existing Brick Paver
- Existing Gravel
- Proposed Building
- Proposed Asphalt
- Proposed Sidewalk
- Proposed Curb
- Proposed Wall
- Proposed Gravel

Site Data:

Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:

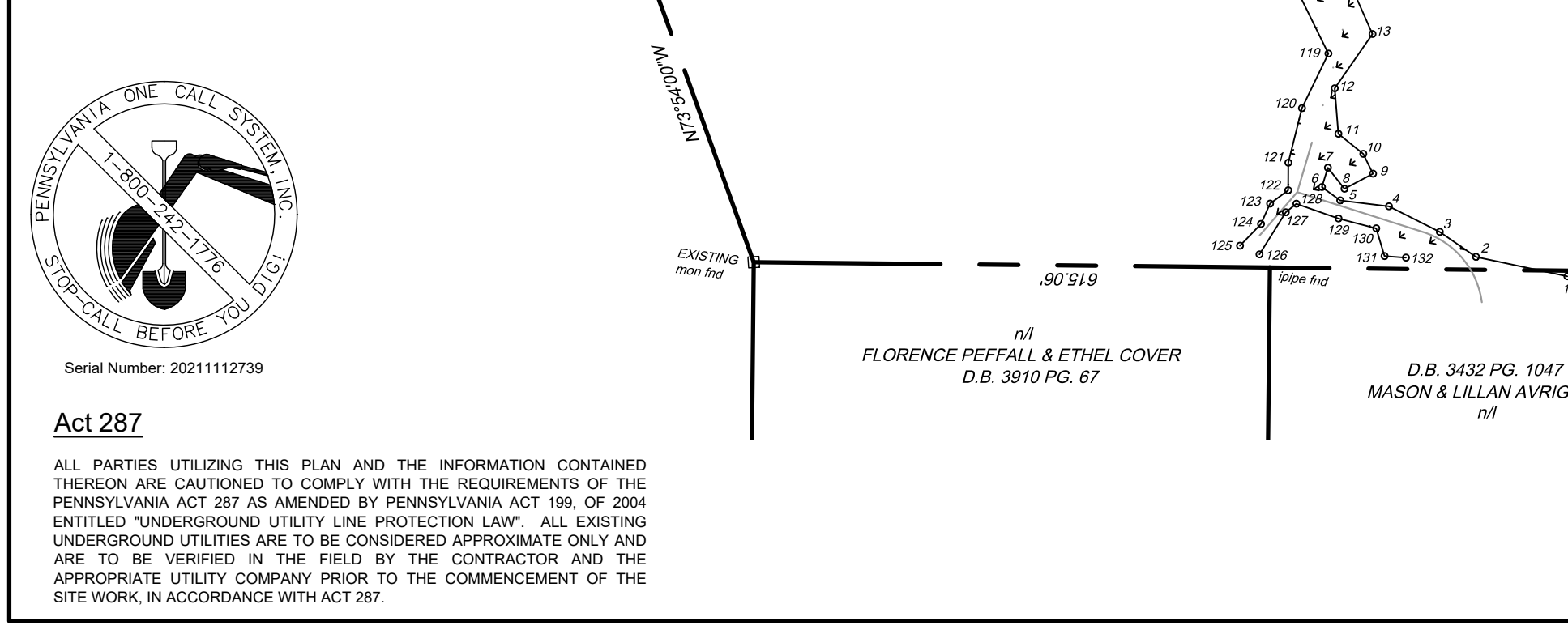
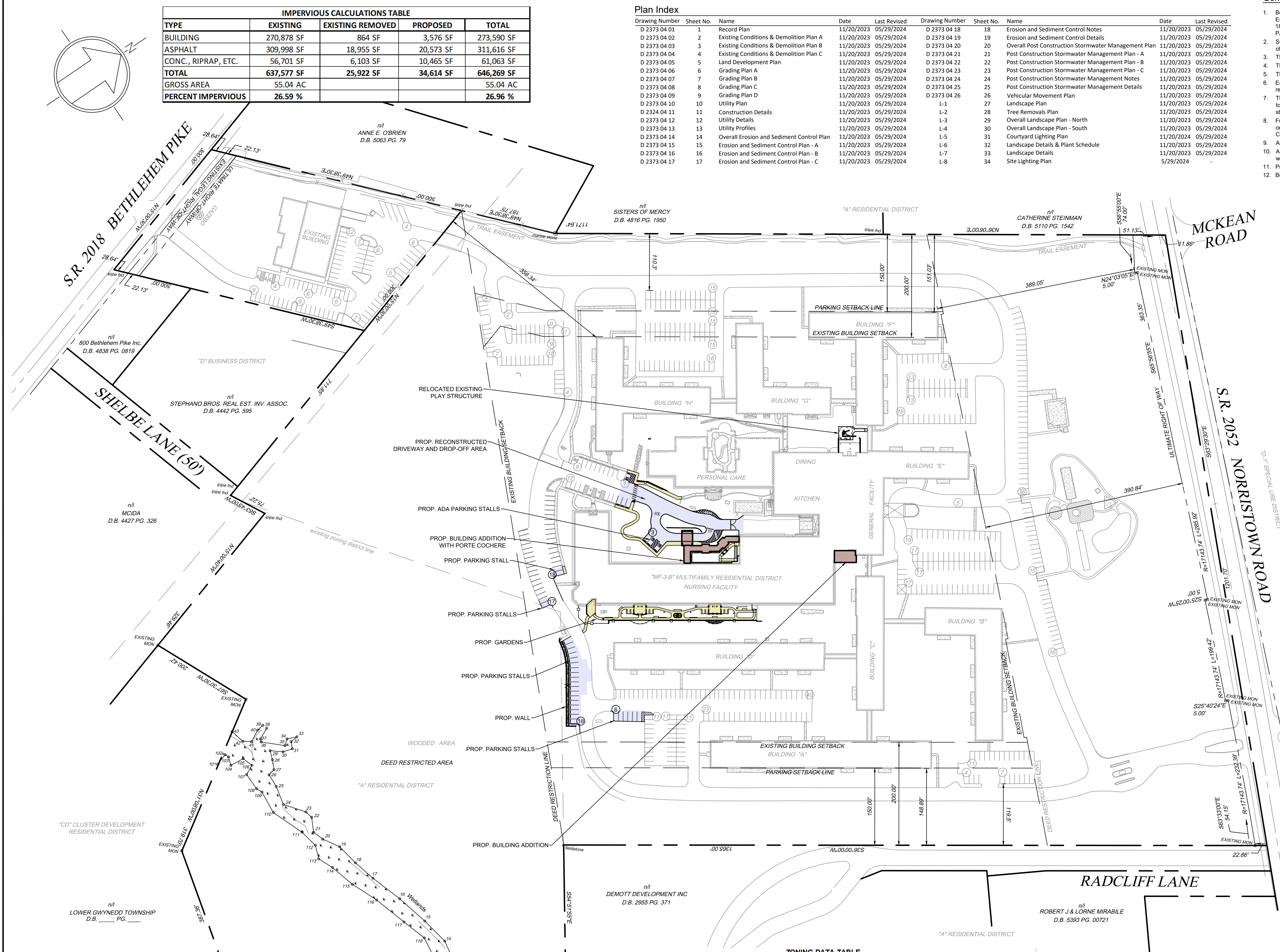
ACTS Retirement-Life Communities, Inc.
Corporate Services Center
423 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:

Parcel ID: 39-00-03025-00-5
Tax Map ID: 390170004

Waivers Requested:

- \$1230.46(e)(3) Partial waiver requested on March 20, 2024 for "Planting Islands shall be provided at the end of each parking row. The island should be 10 feet wide and curbed." Conditions are to provide planting in the islands, but curbs will not need to be installed since there are currently no curbs in the parking areas and will create tripping hazards.



DESCRIPTION	ZONING DATA TABLE	
	REQUIRED	PROPOSED
LOWER GWYNEDD TOWNSHIP		
USE DESCRIPTION	MULTIFAMILY RESIDENTIAL	
LOT AREA	55.04 AC	No Change
LOT WIDTH	1210.97 FT	No Change
FRONT YARD	389.69 FT	No Change
SIDE YARD	148.89 FT *	No Change
REAR YARD	358.34 FT	No Change
MAXIMUM BUILDING COVERAGE	11.13%	11.29%
MAXIMUM IMPERVIOUS COVERAGE	26.55%	26.93%
MAXIMUM BUILDING HEIGHT	35 FT, 2 STORIES	No Change
PARKING REQUIREMENT	0.85 SPACE PER UNIT + EMPLOYEE	572 **
DENSITY REQUIREMENT	UNITS PER ACRE = 7.3 MAX	328 UNITS / 55.04 AC = 5.96
NURSING BEDS TO UNITS	96 UNITS	No Change
PERSONAL CARE UNITS	52 UNITS	No Change
OPEN SPACE	5 AC MIN.	29.9 AC

DESCRIPTION	PARKING DATA		
	REQUIRED	EXISTING	PROPOSED
PARKING SETBACKS (PSBL)			
FRONT, SIDE, REAR - ADJACENT RESIDENTIAL	150 FT	110.3' AND 119.5' *	No Change
FRONT, SIDE, REAR - ADJACENT OTHER DISTRICT	100 FT	N/A	No Change
PARKING REQUIREMENT	3.85 SPACE PER UNIT + EMPLOYEE	532	No Change
REQUIRED PARKING STALL DIMENSIONS	9' x 19'	9' x 18' 10" x 18' **	9' x 19'
REQUIRED ADA PARKING STALL DIMENSIONS	12.5' x 19'	N/A	17.5' x 19'
PARKING SPACE TYPE			
CAR	9' x 19'	551 (9'x18')	574
VAN/BUSSES		12 (9'5' x 19')	No Change
BUSSES		4 (10' x 38')	No Change
MAX (9'5' x 25')		6 (9'5' x 25')	No Change
TOTAL		572 SPACES	595

Existing Non-Conforming
** Car spacing existing non-conforming

GRAPHIC SCALE
0 50 100 200 400

DRAWING SCALE: 1" = 100'

3 08/09/2024 MJU TOWNSHIP AND MCCD RESUBMISSION

2 05/29/2024 MJU TOWNSHIP AND MCCD RESUBMISSION

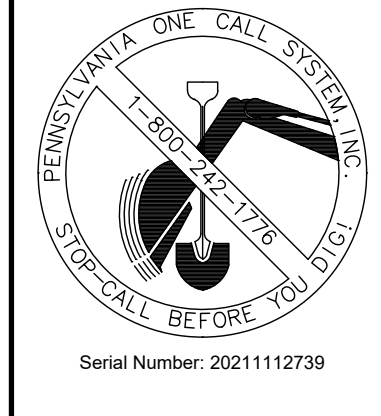
1 01/28/2024 YG REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Record Plan
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

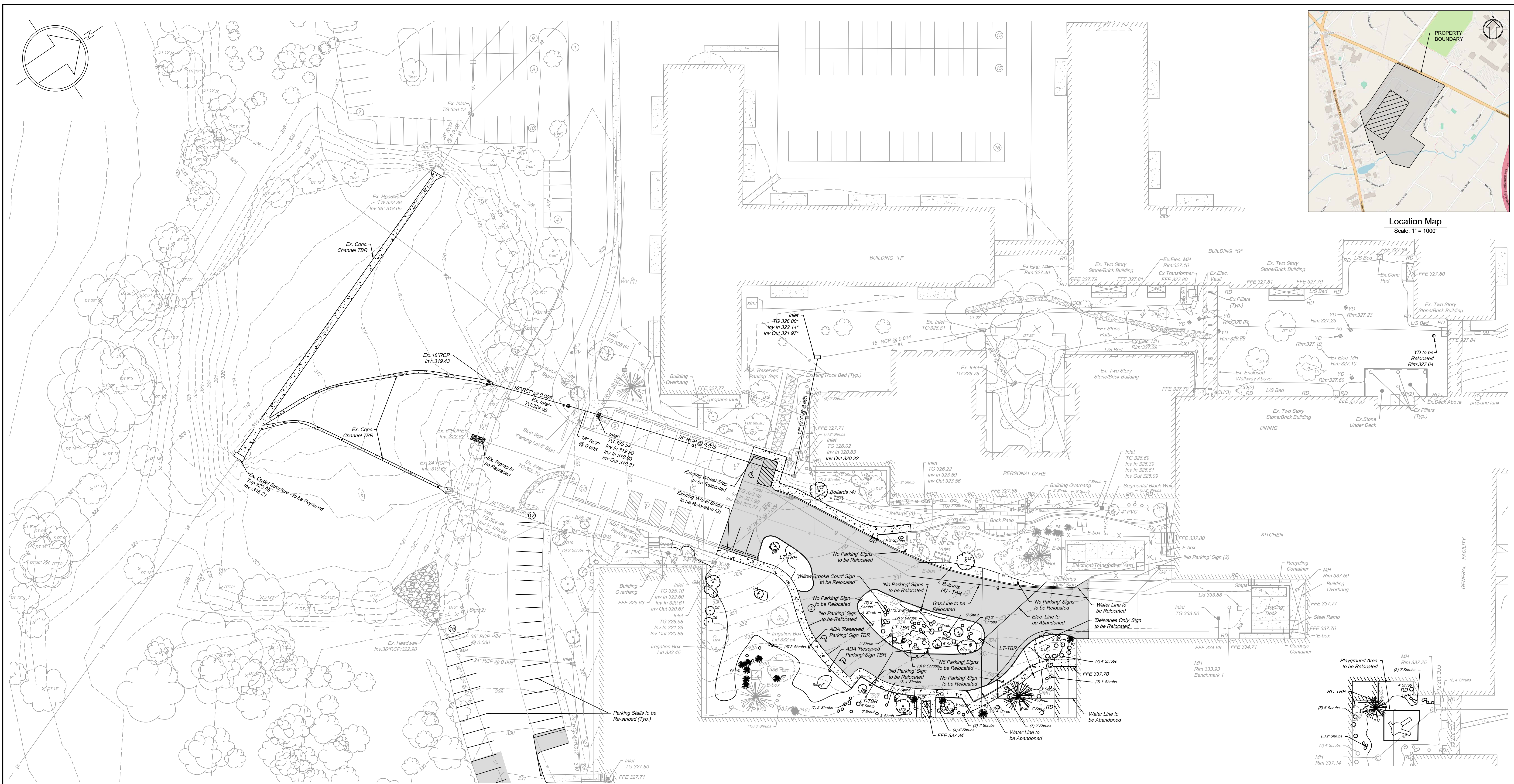
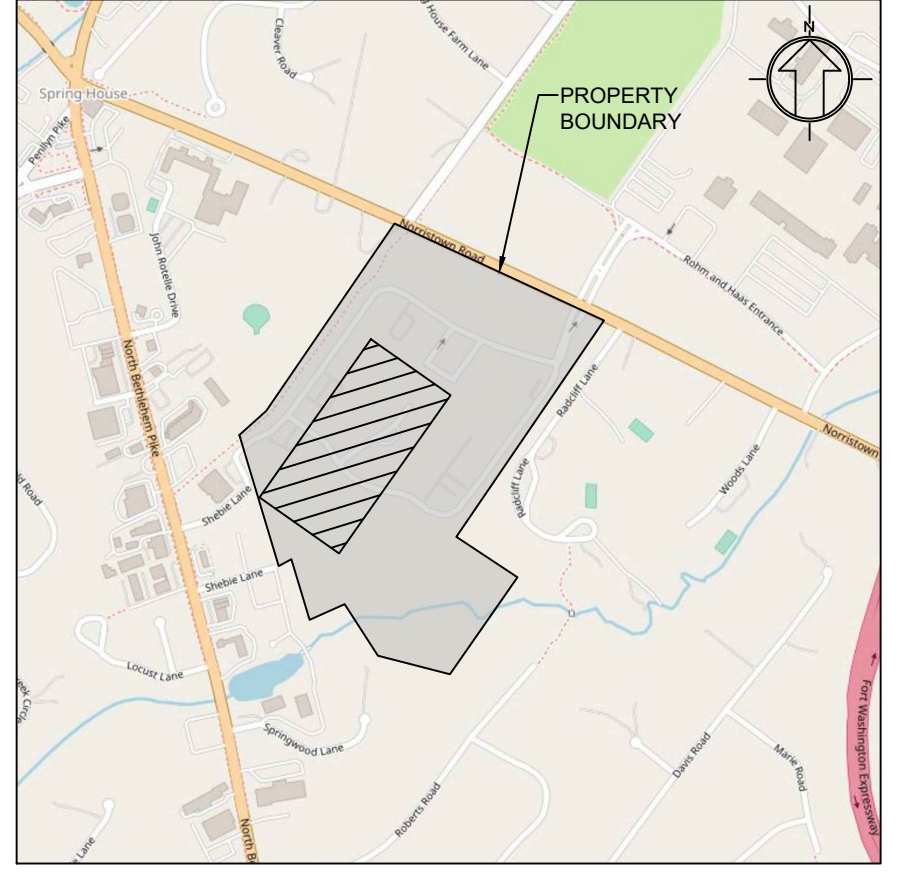
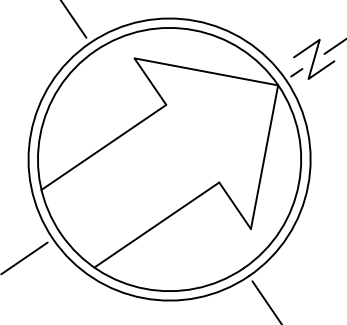
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ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

MARTIN J. EUSTACE, III, P.E.
307 Easton Road
Willow Grove, PA 19090
Tel: (215) 346-8757
Fax: (215) 346-8759
www.eustaceeng.com

DRAWN BY YG
CHECKED BY MJE
DATE 11-20-2023
DRAWING No. D 2373 04 01



Act 287
ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.

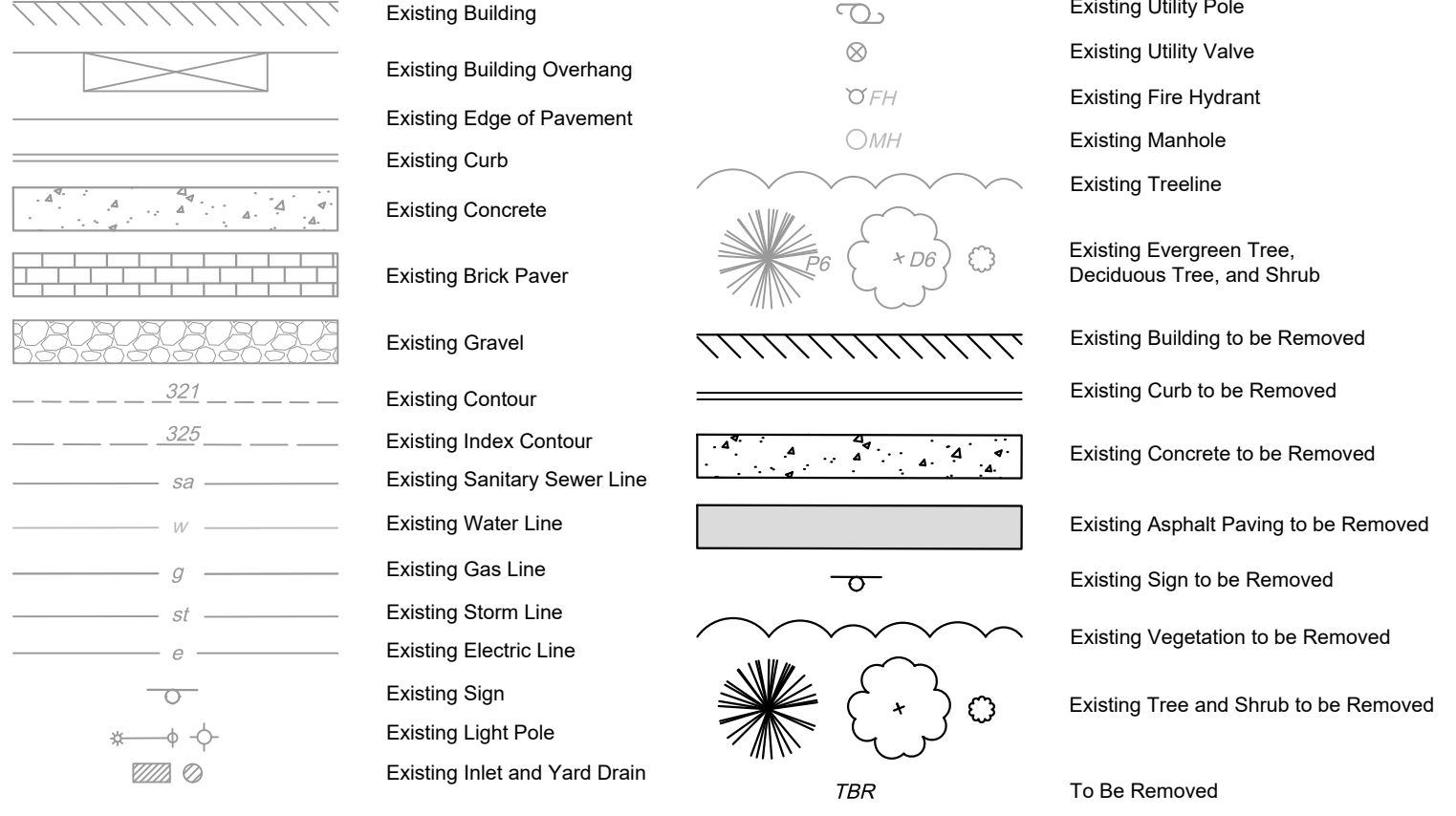


General Notes:

- Boundary and site features information from Record Plan, prepared for Spring House Estates, dated 2-2-99, last revised 3-31-2000, Drawing No. S0102, Sheet 1 of 16, Job 167-021-01, prepared by Chambers Associates, Inc., 619 Conestoga Road, Villanova, PA 19085.
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- This Plan does not represent a Boundary Survey.
- This Plan was prepared in accordance with the instructions of the Client.
- This property is subject to all easements, restrictions and agreements of record.
- Easements if shown are done so to the best of our abilities given the quality of the reference documents.
- This Plan was prepared without the benefit of a Title Report. This property is subject to all easements, restrictions, and agreements of record as they may apply and any stated facts that a current Title Report would reveal.
- Future development of this property is subject to all rules, regulations, codes and ordinances of the Lower Gwynedd Township, Montgomery County, and the Commonwealth of Pennsylvania as they may apply.
- Attention is called to the Lower Gwynedd Township Zoning Code as amended.
- A building and/or zoning permit is required for any changes to the conditions that exist within this property.
- Property corners were not set.
- Building setback lines are not shown hereon.
- To the best of our knowledge this property is served by or has the ability to be served by public sanitary sewer, public water, electric, telephone, and gas. The location of service connections are unable to be determined. Utility information shown is a composite of information obtained from the Pennsylvania One Call System Serial Number, 2021112739 and field locations by Eustace Engineering. The location of utility features and the feature information is only approximate

- and where information was readily available. All information is to be verified via a field markup and is subject to the findings that the markup and further research would reveal. Eustace Engineering does not guarantee that all subsurface utility structures and information are shown hereon.
- The subject property shown hereon is subject to underground utilities and pipes. Information regarding location, direction, depth, size and slope is shown to the best of our ability due to site conditions at the time of the survey and the availability of records and information.
- To the best of our knowledge, utilities enter the premises from public streets or rights of way.
- The location of the above and below surface utilities shown hereon are only approximate. Prior to any development of this property, verification needs to be obtained from the appropriate utility authorities to confirm their location, easement locations, development restrictions and regulations.
- This property lies within Flood Hazard Zone-X (areas determined to be outside of 0.2% annual chance flood plain) as per the Federal Emergency Management Agency Flood Insurance Rate Map number 42091C0286G, dated March 2, 2016 for Montgomery County, community 420953, Panel No. 286 of 451.
- Vegetation as shown hereon is approximate and is for graphic depiction purposes only and may not represent exact field locations or conditions.
- Items shown with an asterisk (*) are: (a) items that are a composite of field data and/or reference material; (b) items not able to be obtained and/or determine due to field conditions. These items are not to be considered absolute and are subject to the findings that further verification would reveal.
- Vertical information if shown is based on NAVD88 vertical as established.
- Benchmark 1: Sanitary Manhole Rim, located on asphalt in loading dock area, Elevation: 333.93
- Benchmark 2: Sanitary Manhole Rim, located at bottom of courtyard area, Elevation: 336.65.

Legend



Site Data:

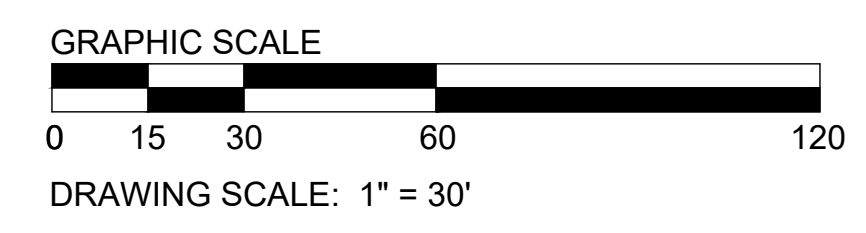
Address: 728 Norristown Rd.
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 Zoned: MF-3B - Multi-Family Residential District
 Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:

ACTS Retirement-Life Communities, Inc.
 Corporate Services Center
 420 Delaware Drive
 P.O. Box 2222
 Fort Washington, PA 19034

Parcel Information:

Parcel ID: 39-00-03025-00-5
 Tax Map ID: 390170004



3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Existing Conditions & Demolition Plan A
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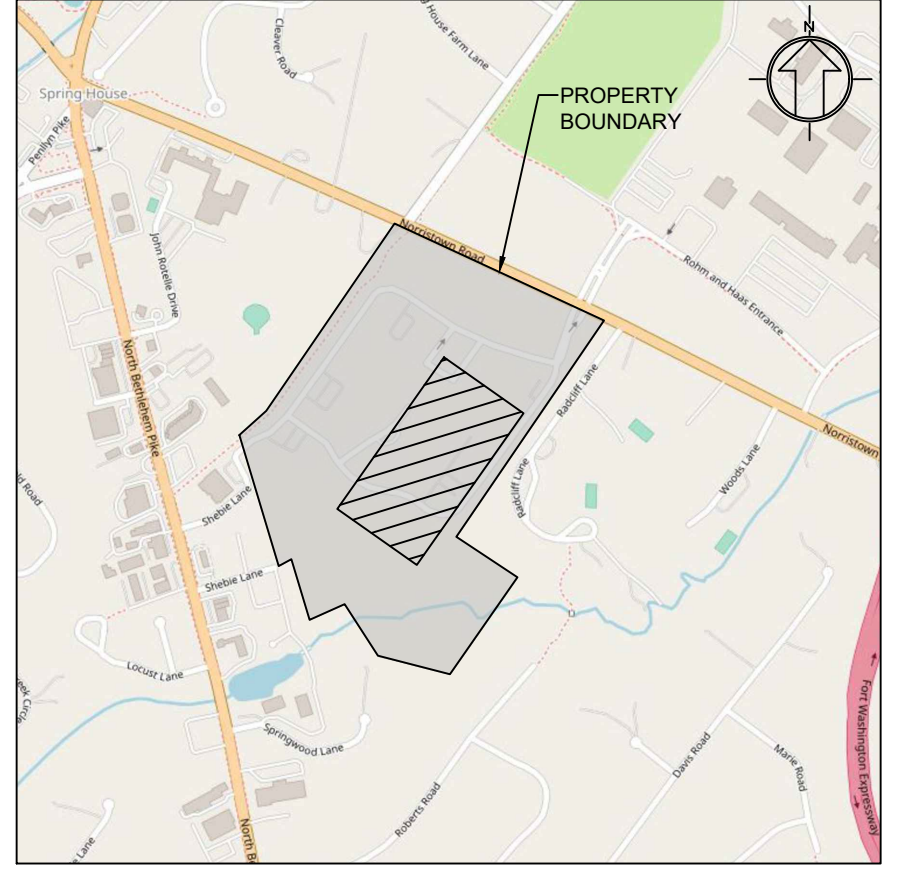
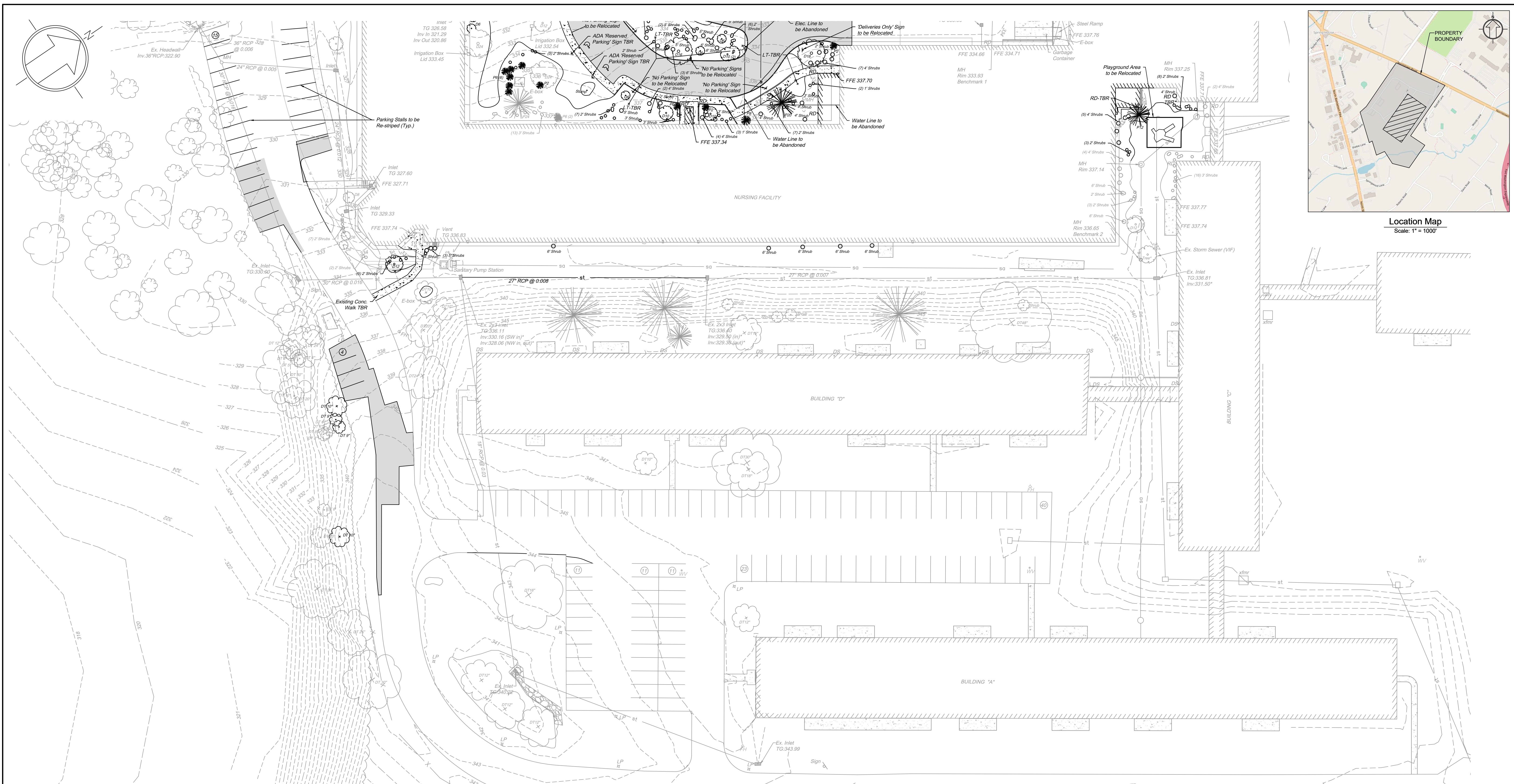
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 CHECKED BY: MJE
 DATE: 11-20-2023
 DRAWING No.: D2373 04 02

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\02a-existing conditions.dwg May 17, 2024



Act 287
 ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\02b-existing conditions.dwg May 17, 2024



Location Map
Scale: 1" = 1000'

Legend

- Existing Building
- Existing Building Overhang
- Existing Edge of Pavement
- Existing Curb
- Existing Concrete
- Existing Brick Paver
- Existing Gravel
- Existing Contour
- Existing Index Contour
- Existing Sanitary Sewer Line
- Existing Water Line
- Existing Gas Line
- Existing Storm Line
- Existing Electric Line
- Existing Sign
- Existing Light Pole
- Existing Inlet and Yard Drain
- Existing Utility Pole
- Existing Utility Valve
- Existing Fire Hydrant
- Existing Manhole
- Existing Treeline
- Existing Evergreen Tree, Deciduous Tree, and Shrub
- Existing Building to be Removed
- Existing Curb to be Removed
- Existing Concrete to be Removed
- Existing Asphalt Paving to be Removed
- Existing Sign to be Removed
- Existing Vegetation to be Removed
- Existing Tree and Shrub to be Removed
- To be Removed

Site Data:

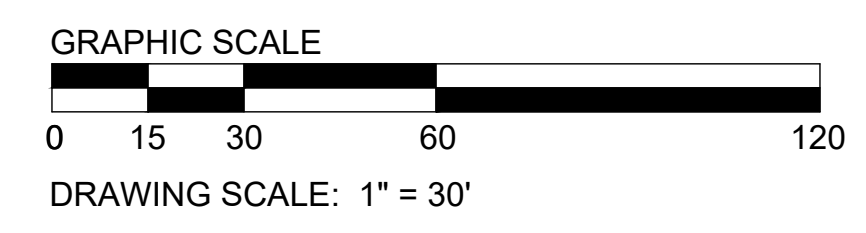
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Existing Conditions & Demolition Plan B
ACTS SPRING HOUSE ESTATES

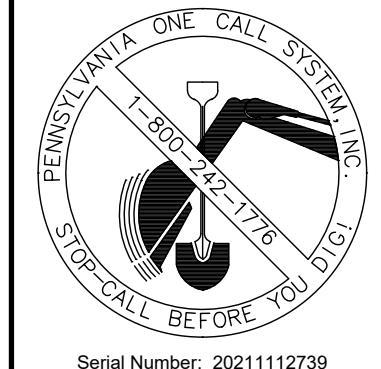
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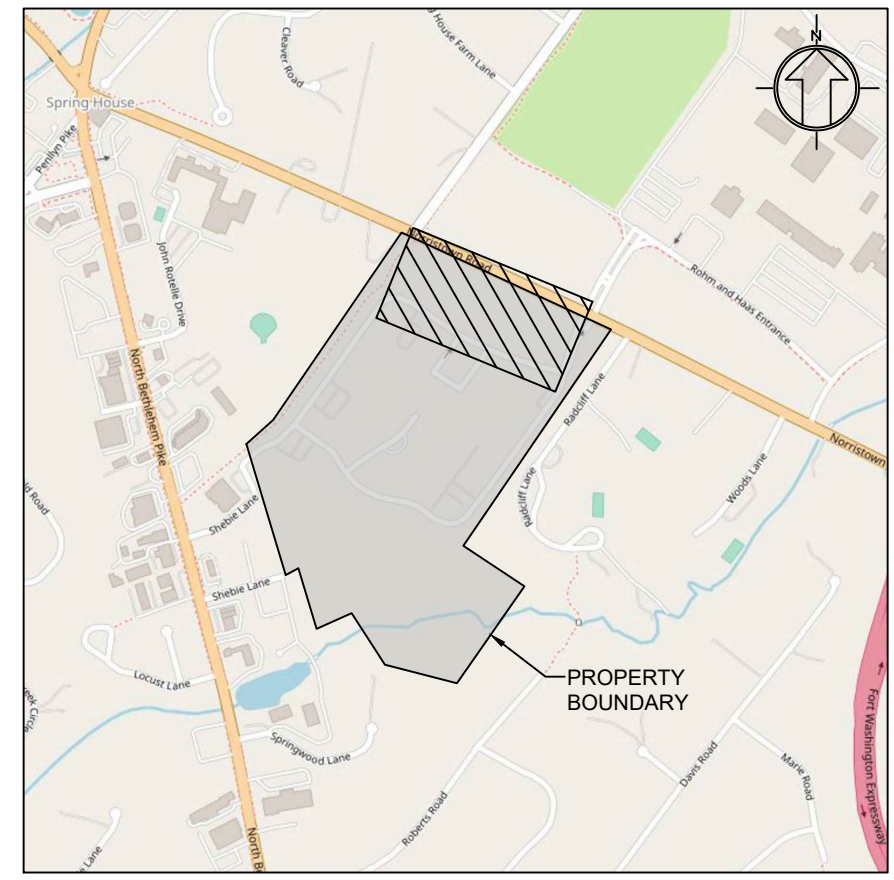
Martin J. Eustace, III, P.E.
PA Lic. PE048891E

DRAWN BY: YG
CHECKED BY: MJE
DATE: 11-20-2023
DRAWING No.: D 2373 04 03

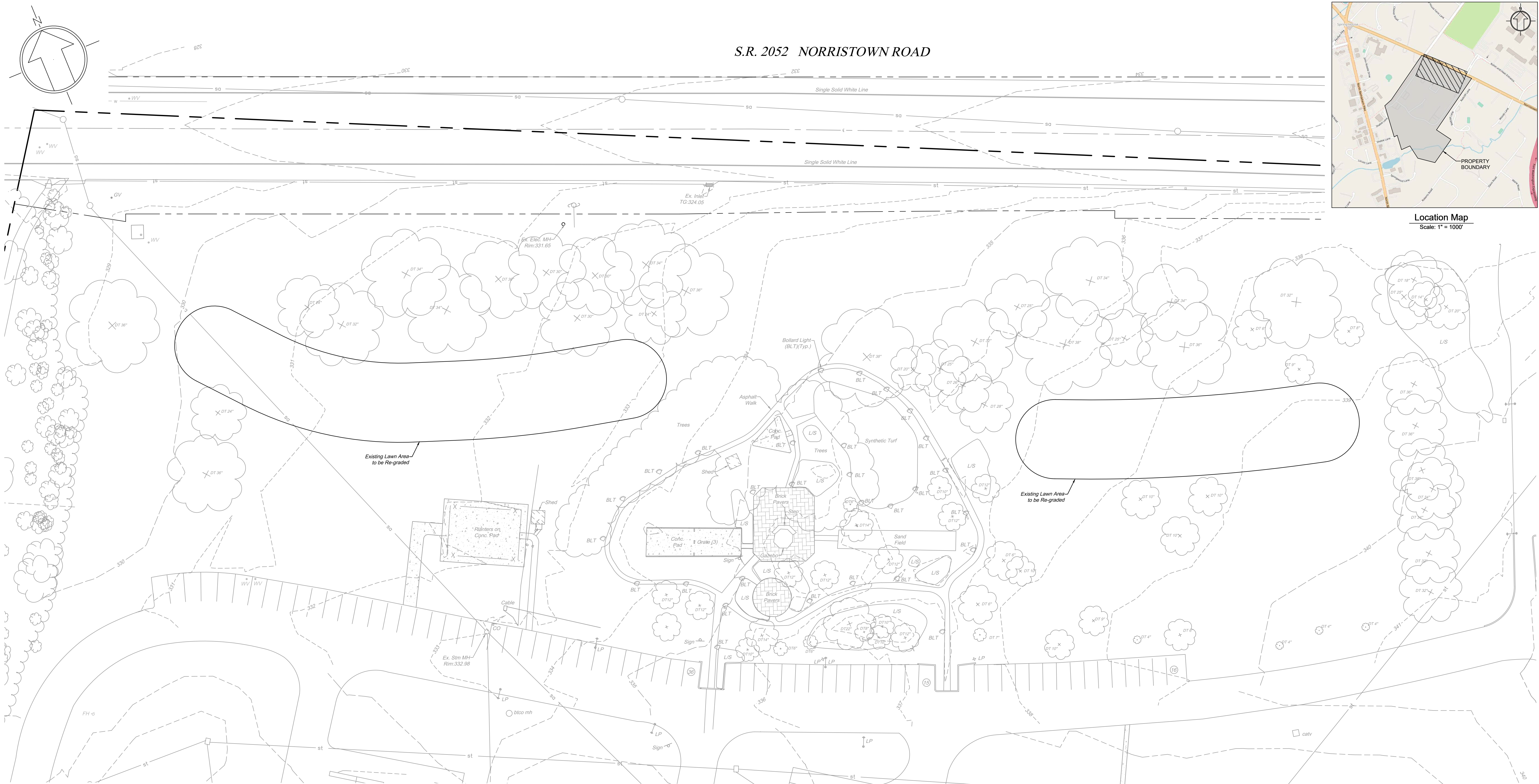


Act 287
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S.R. 2052 NORRISTOWN ROAD



Location Map
Scale: 1" = 1000'



Legend

- | | | | |
|--|-------------------------------|--|--|
| | Existing Building | | Existing Utility Pole |
| | Existing Building Overhang | | Existing Utility Valve |
| | Existing Edge of Pavement | | Existing Fire Hydrant |
| | Existing Curb | | Existing Manhole |
| | Existing Concrete | | Existing Tree |
| | Existing Brick Paver | | Existing Evergreen Tree, Deciduous Tree, and Shrub |
| | Existing Gravel | | Existing Building to be Removed |
| | Existing Contour | | Existing Curb to be Removed |
| | Existing Index Contour | | Existing Concrete to be Removed |
| | Existing Sanitary Sewer Line | | Existing Asphalt Paving to be Removed |
| | Existing Water Line | | Existing Sign to be Removed |
| | Existing Gas Line | | Existing Vegetation to be Removed |
| | Existing Storm Line | | Existing Tree and Shrub to be Removed |
| | Existing Electric Line | | To be Removed |
| | Existing Sign | | |
| | Existing Light Pole | | |
| | Existing Inlet and Yard Drain | | |

Site Data:

Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:

ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:

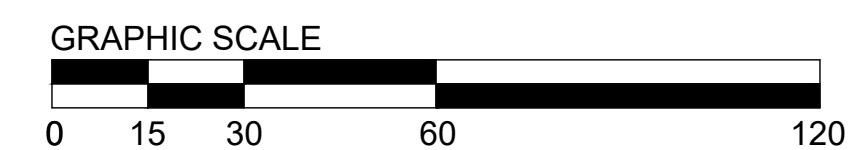
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Tax Map ID: 390170004

3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTED TO TOWNSHIP.

Existing Conditions & Demolition Plan C
ACTS SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

		307 Easton Road Building B - 2nd Floor Willow Grove, PA 19090 Tel: (215) 346-8757 Fax: (215) 346-8759 www.eustaceeng.com
		Martin J. Eustace, III, P.E. PA Lic. PE048891E



DRAWING SCALE: 1" = 30'

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\02c-existing conditions.dwg May 17, 2024

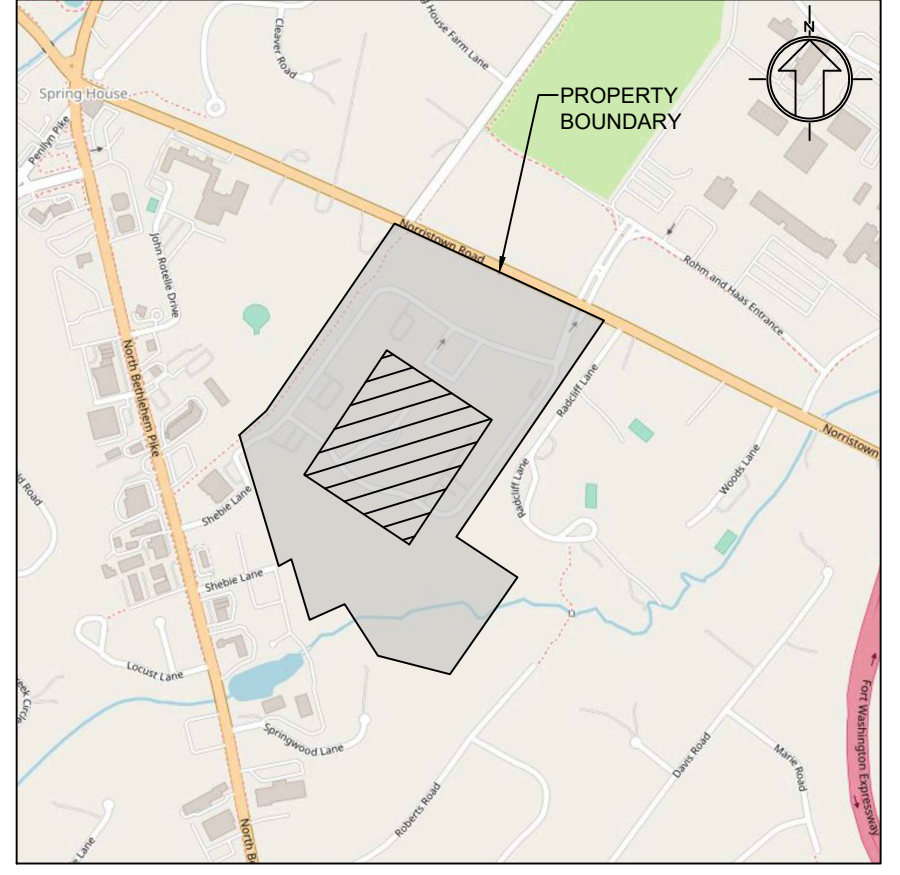
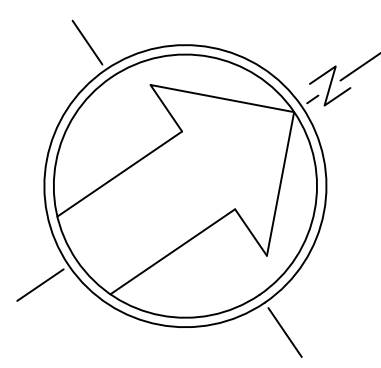


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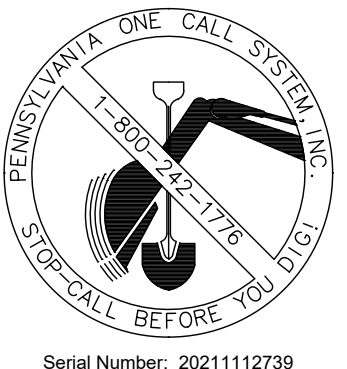
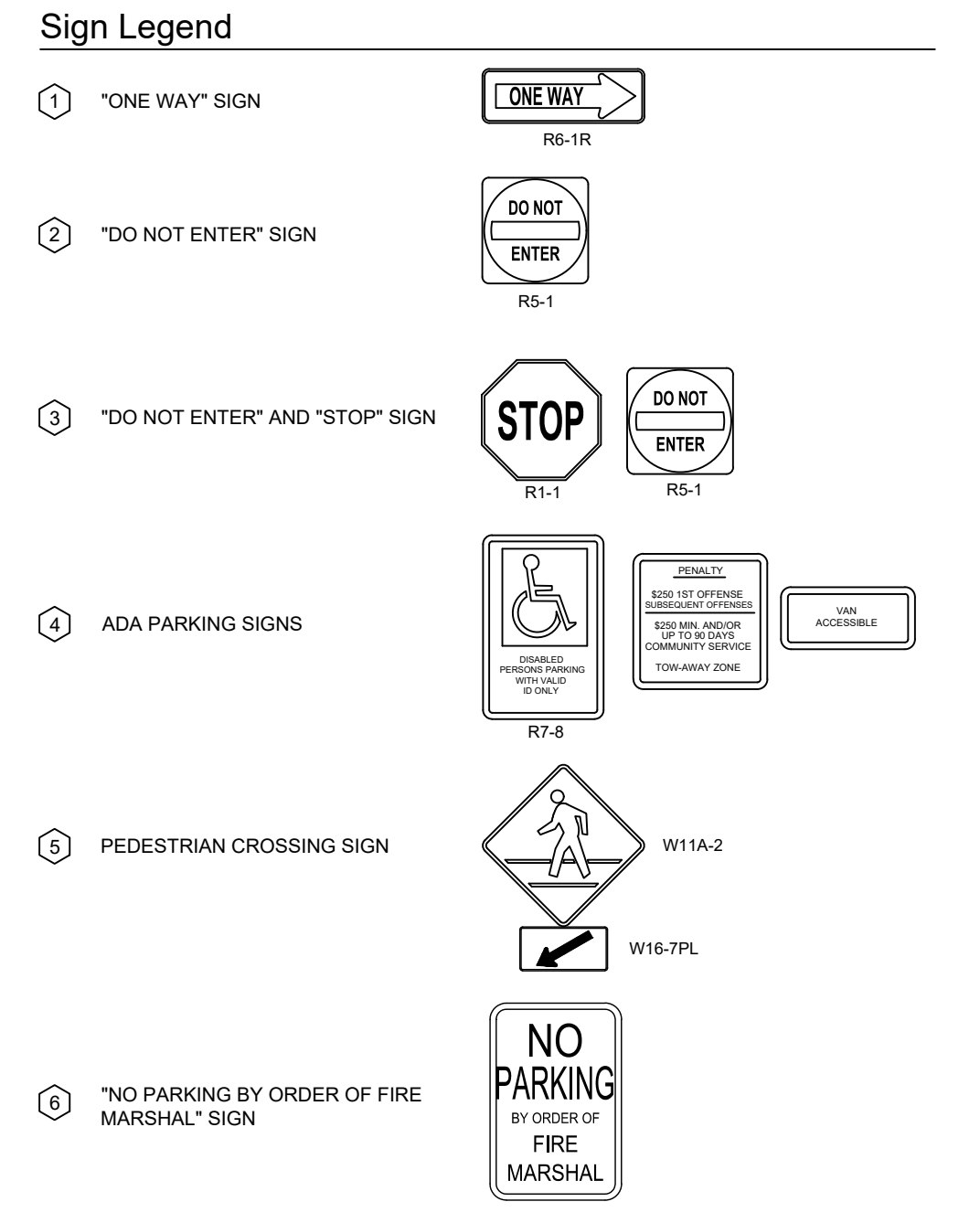
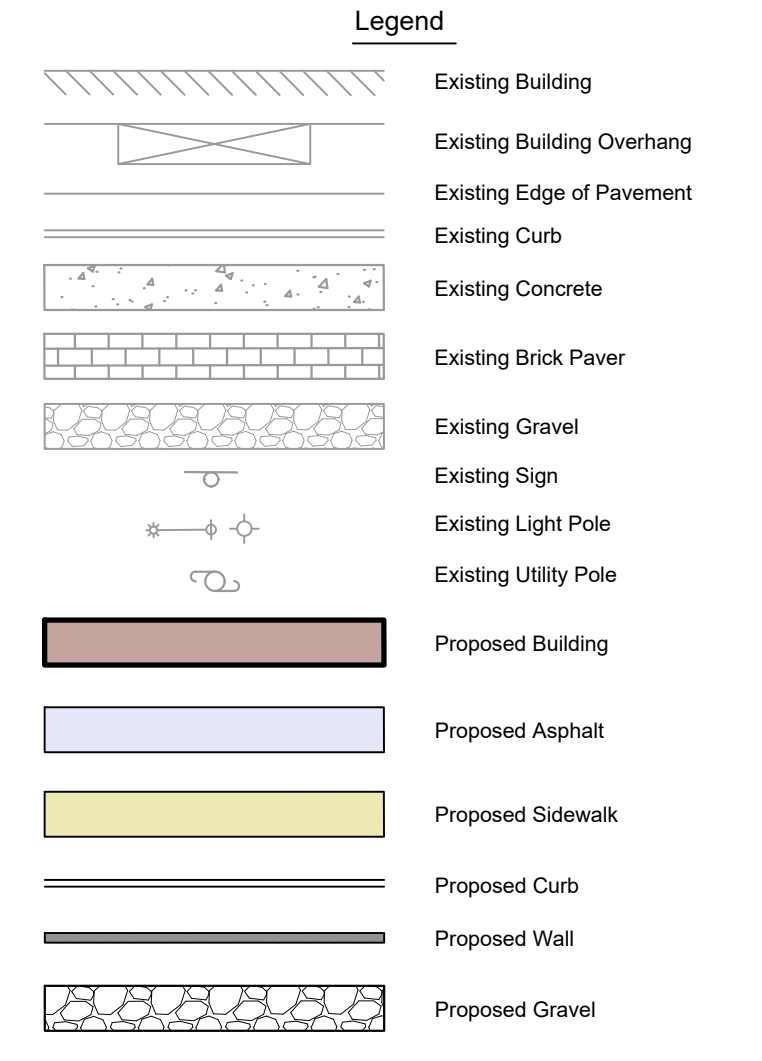
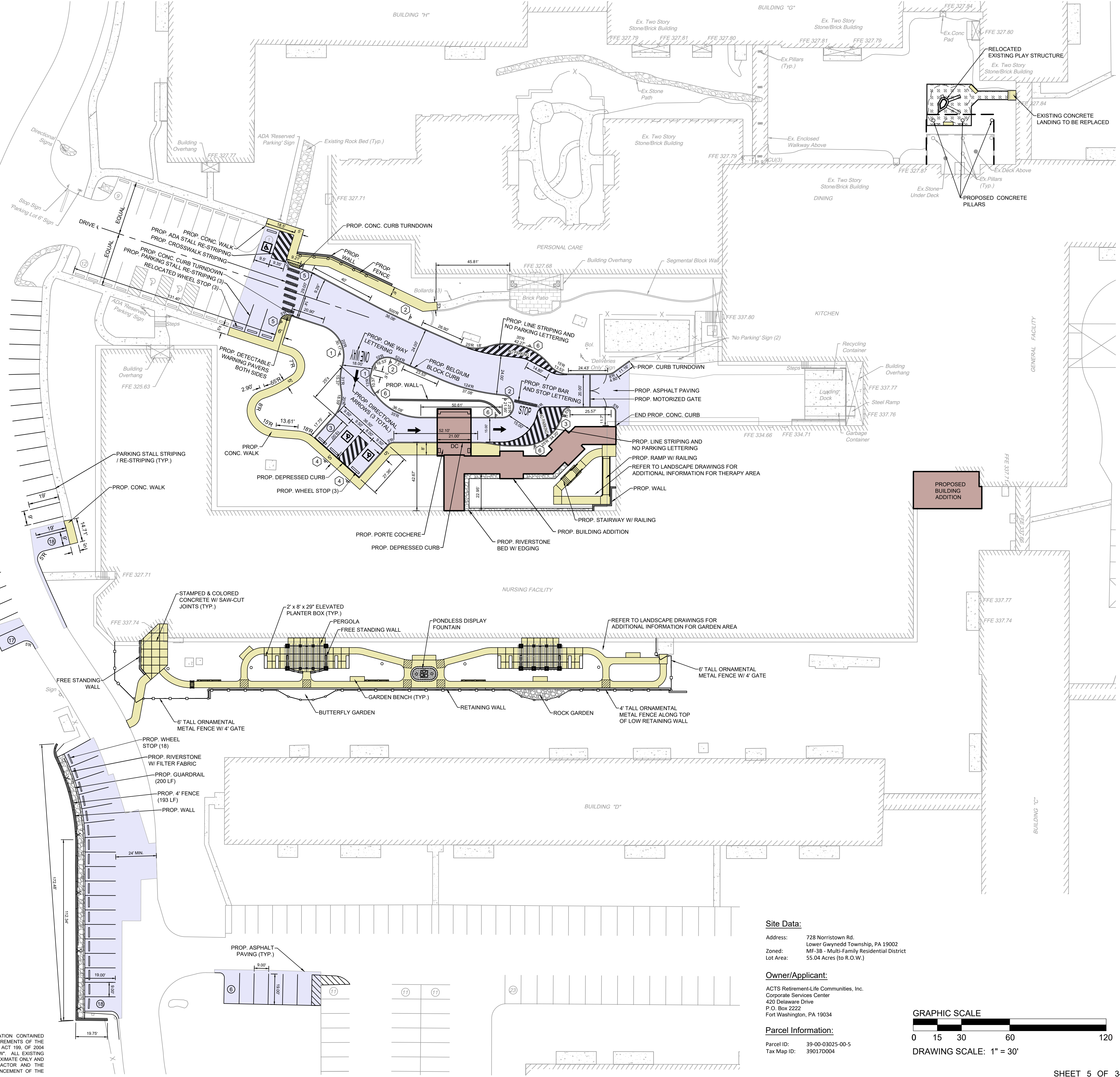
Act 287

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X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\03-land development.dwg August 8, 2024



Location Map
Scale: 1" = 1000'

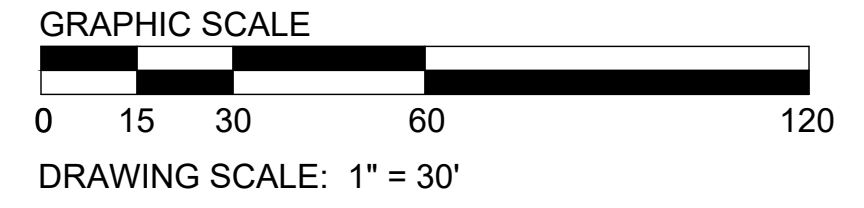


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Lower Gwynedd Township, PA 19002
Zoned: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:
Parcel ID: 39-00-03025-00-5
Tax Map ID: 39017D004

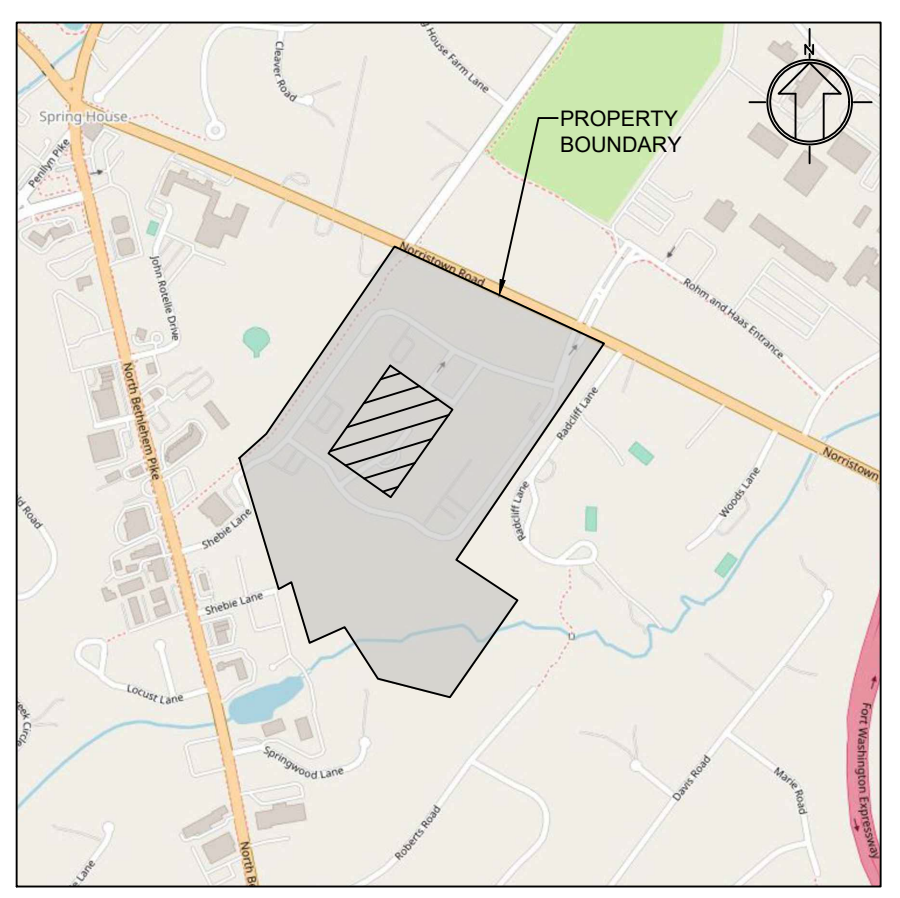
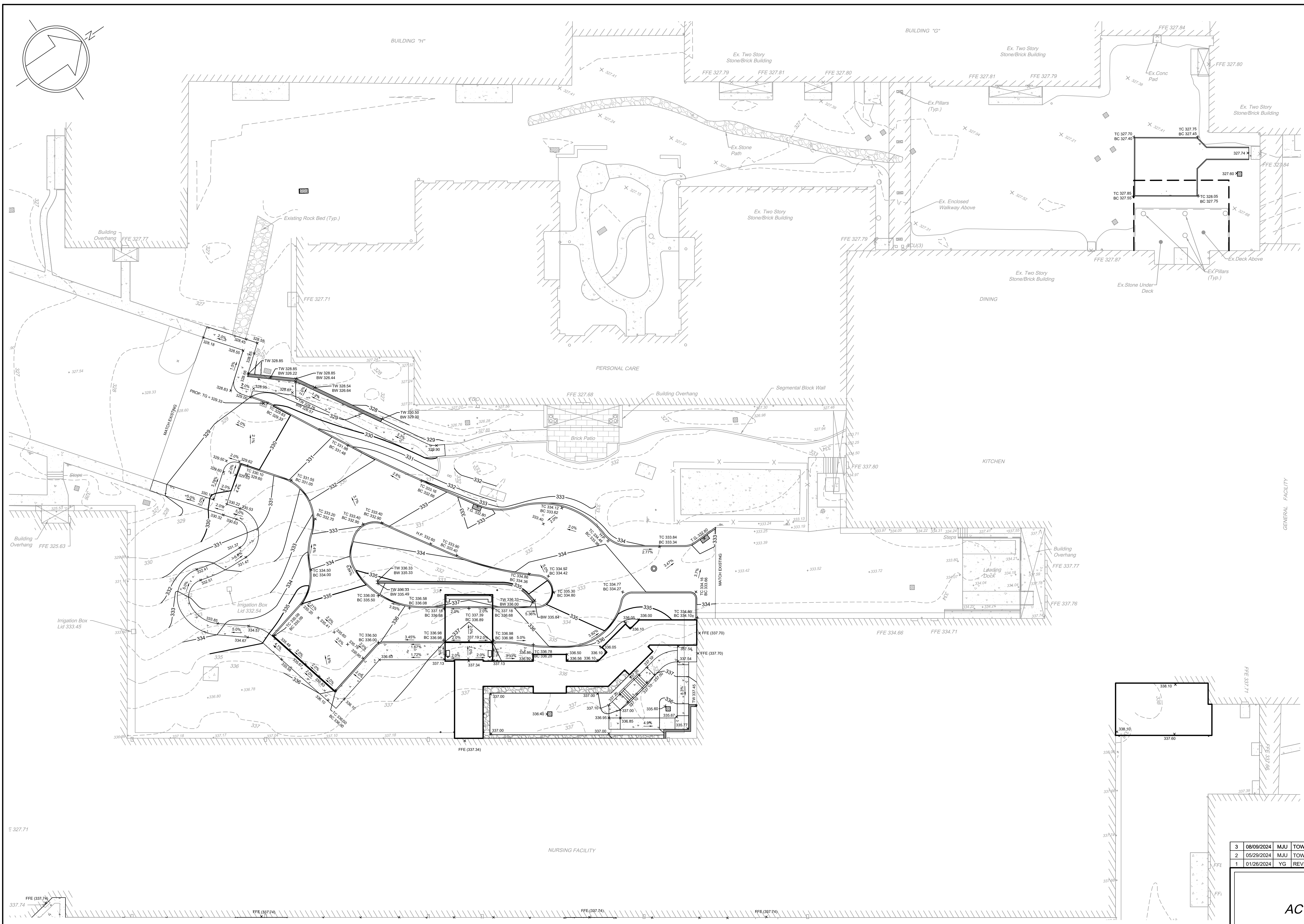


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2	05/29/2024	MJU	TOWNSHIP AND MCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Land Development Plan
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

DRAWN BY: YG
CHECKED BY: MJE
DATE: 11-20-2023
DRAWING No.: D 2373 04 05

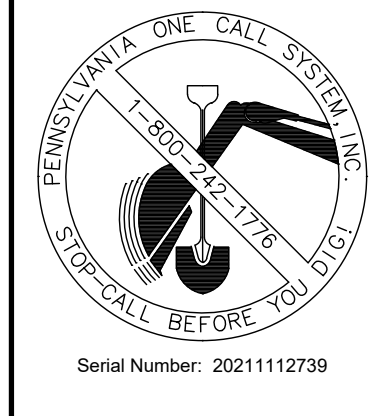
X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\04a-grading.dwg June 3, 2024



Location Map
Scale: 1" = 1000'

Legend

- Existing Building
- Existing Building Overhang
- Existing Edge of Pavement
- Existing Curb
- Existing Concrete
- Existing Brick Paver
- Existing Gravel
- Existing Contour
- Existing Index Contour
- Existing Sign
- Existing Light Pole
- Existing Inlet and Yard Drain
- Existing Utility Pole
- Proposed Building
- Proposed Sidewalk
- Proposed Curb
- Proposed Wall
- Proposed Gravel
- Proposed Contour
- Proposed Index Contour
- Proposed Spot Grade
- Proposed Top and Bottom of Curb Grade
- Proposed Top and Bottom of Wall Grade
- Elevation to Match Existing
- Proposed Inlet and Yard Drain

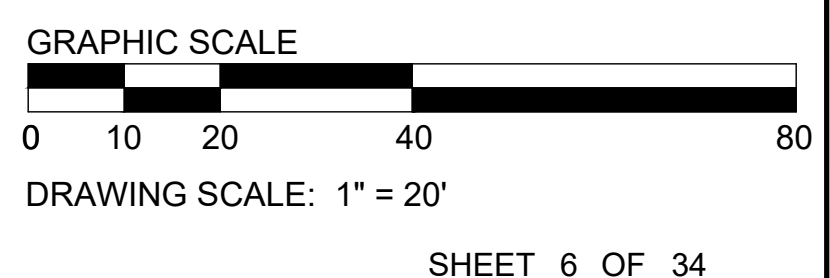


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Site Data:
 Address: 728 Norristown Rd.
 Lower Gwynedd Township, PA 19002
 Zoned: MF-38 - Multi-Family Residential District
 Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
 ACTS Retirement-Life Communities, Inc.
 Corporate Services Center
 420 Delaware Drive
 P.O. Box 2222
 Fort Washington, PA 19034

Parcel Information:
 Parcel ID: 39-00-03025-00-5
 Tax Map ID: 39017D004



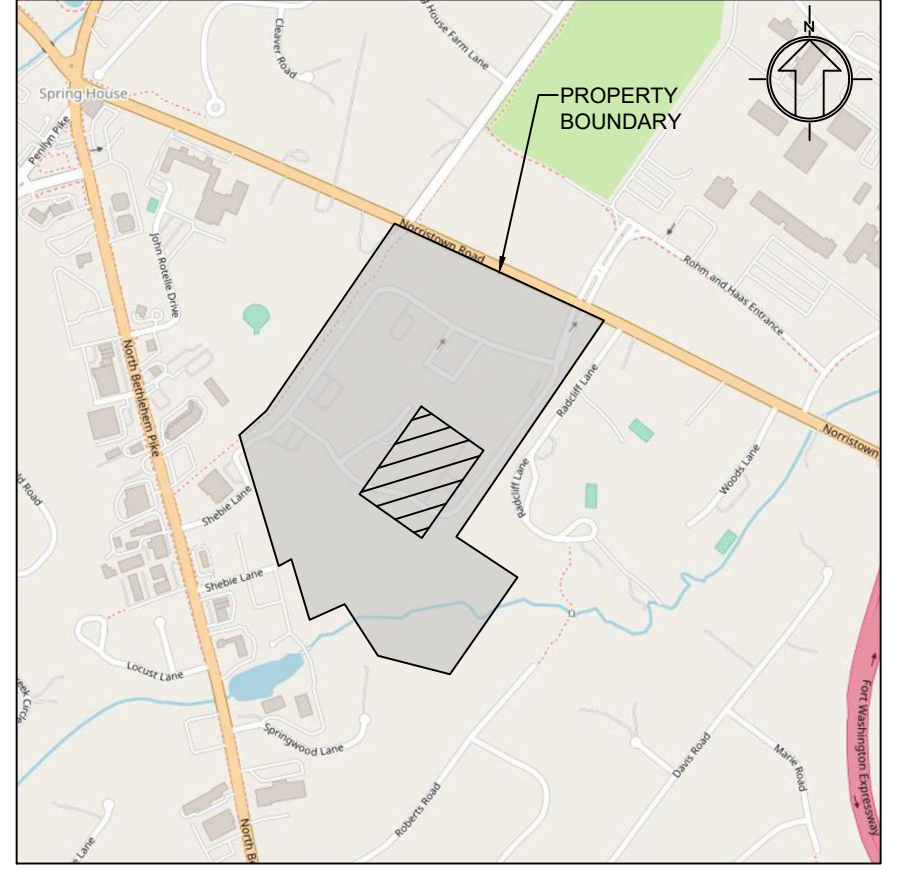
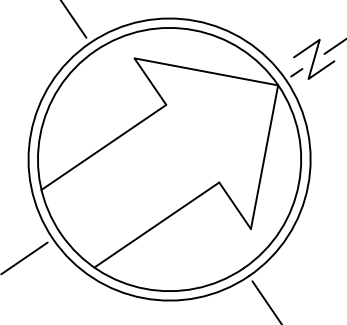
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1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTED TO TOWNSHIP.

Grading Plan A
ACTS SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EUSTACE
 ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

MARTIN J. EUSTACE, III, P.E.
 807 Easton Road
 Building B - 2nd Floor
 Willow Grove, PA 19090
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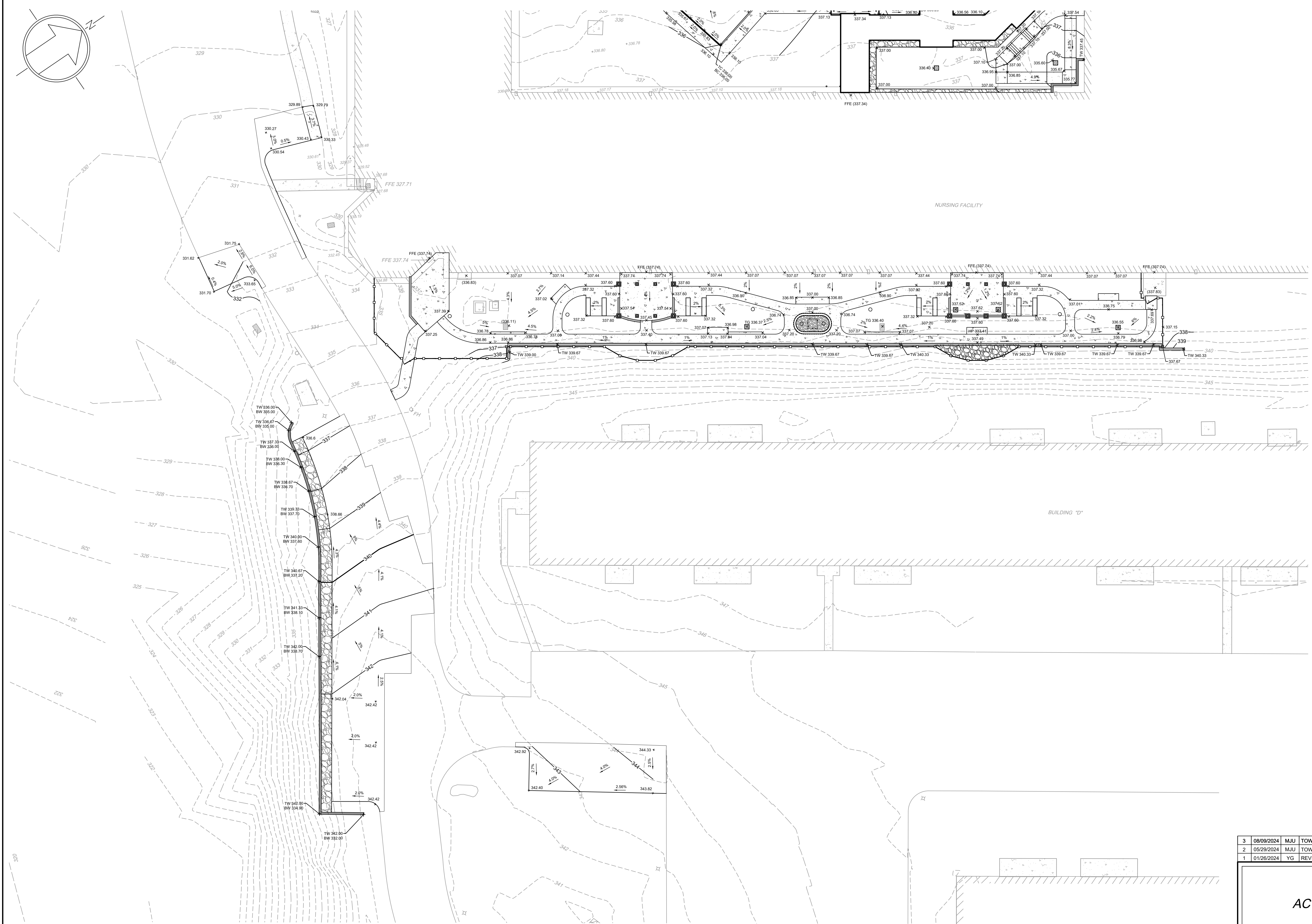
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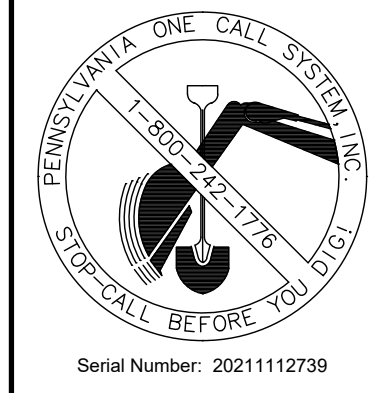
Location Map
Scale: 1" = 1000'

Legend

- Existing Building
- Existing Building Overhang
- Existing Edge of Pavement
- Existing Curb
- Existing Concrete
- Existing Brick Paver
- Existing Gravel
- Existing Contour
- Existing Index Contour
- Existing Sign
- Existing Light Pole
- Existing Inlet and Yard Drain
- Existing Utility Pole
- Proposed Building
- Proposed Sidewalk
- Proposed Curb
- Proposed Wall
- Proposed Gravel
- Proposed Contour
- Proposed Index Contour
- Proposed Spot Grade
- Proposed Top and Bottom of Curb Grade
- Proposed Top and Bottom of Wall Grade
- Elevation to Match Existing
- Proposed Inlet and Yard Drain



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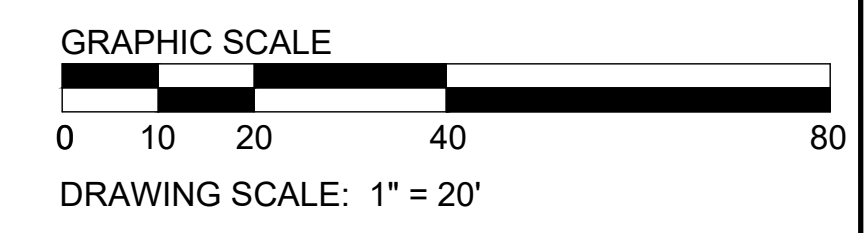


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Site Data:
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 Lower Gwynedd Township, PA 19002
 Zoned: MF-28 - Multi-Family Residential District
 Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
 ACTS Retirement-Life Communities, Inc.
 Corporate Services Center
 420 Delaware Drive
 P.O. Box 2222
 Fort Washington, PA 19034

Parcel Information:
 Parcel ID: 39-00-03025-00-5
 Tax Map ID: 39017D004



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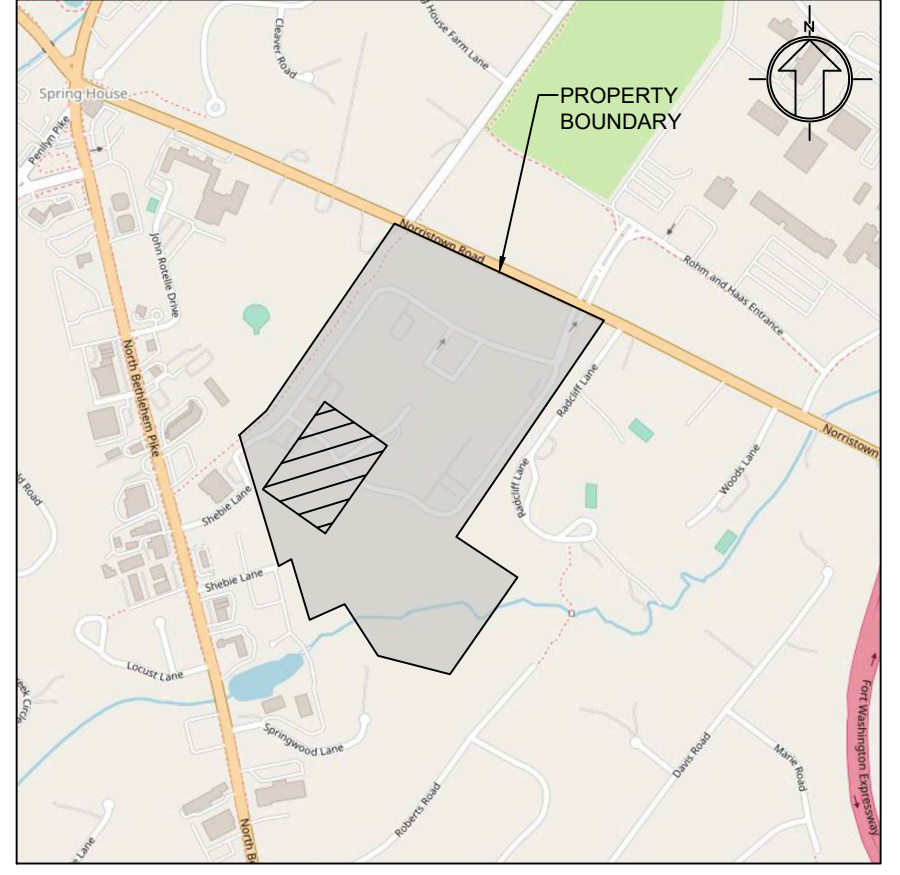
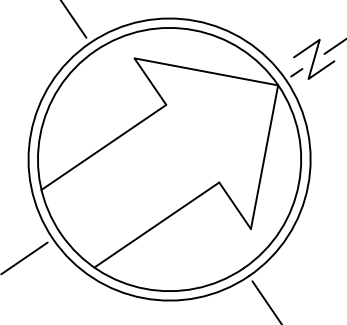
Grading Plan B
ACTS SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

EUSTACE
 ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

MARTIN J. EUSTACE, III
 PROFESSIONAL SURVEYOR

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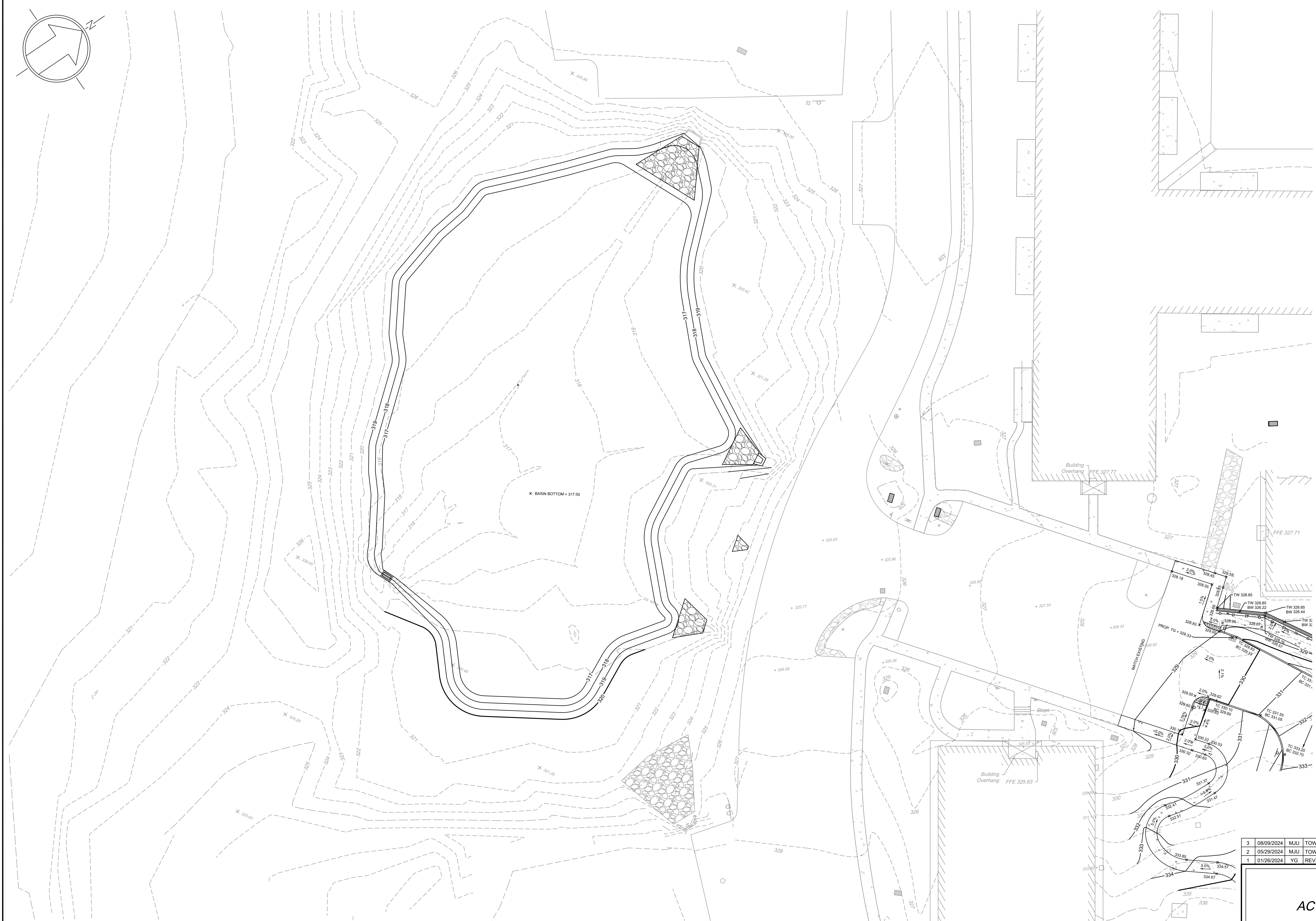
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 DATE: 11-20-2023
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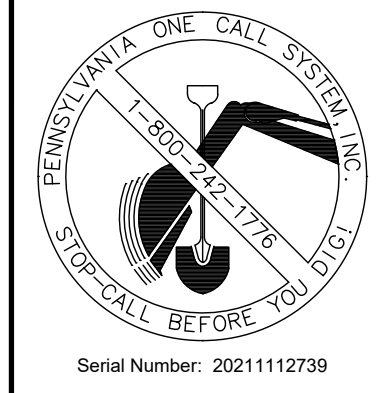
Location Map
Scale: 1" = 1000'

Legend

	Existing Building
	Existing Building Overhang
	Existing Edge of Pavement
	Existing Curb
	Existing Concrete
	Existing Brick Paver
	Existing Gravel
	Existing Contour
	Existing Index Contour
	Existing Sign
	Existing Light Pole
	Existing Inlet and Yard Drain
	Existing Utility Pole
	Proposed Building
	Proposed Sidewalk
	Proposed Curb
	Proposed Wall
	Proposed Gravel
	Proposed Contour
	Proposed Index Contour
	Proposed Spot Grade
	Proposed Top and Bottom of Curb Grade
	Proposed Top and Bottom of Wall Grade
	Elevation to Match Existing
	Proposed Inlet and Yard Drain



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Act 287

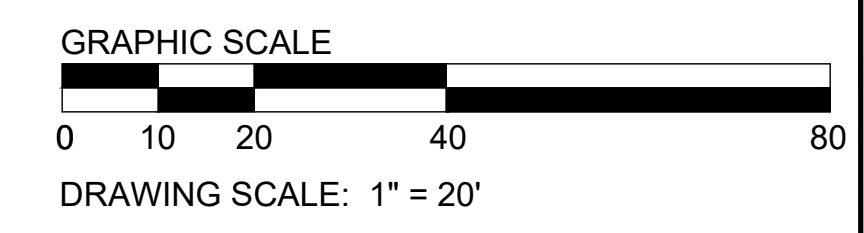
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Serial Number: 20211112739

Site Data:
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 Lower Gwynedd Township, PA 19002
 Zoned: MF-38 - Multi-Family Residential District
 Lot Area: 55.04 Acres (to R.O.W.)

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 P.O. Box 2222
 Fort Washington, PA 19034

Parcel Information:
 Parcel ID: 39-00-03025-00-5
 Tax Map ID: 390170004

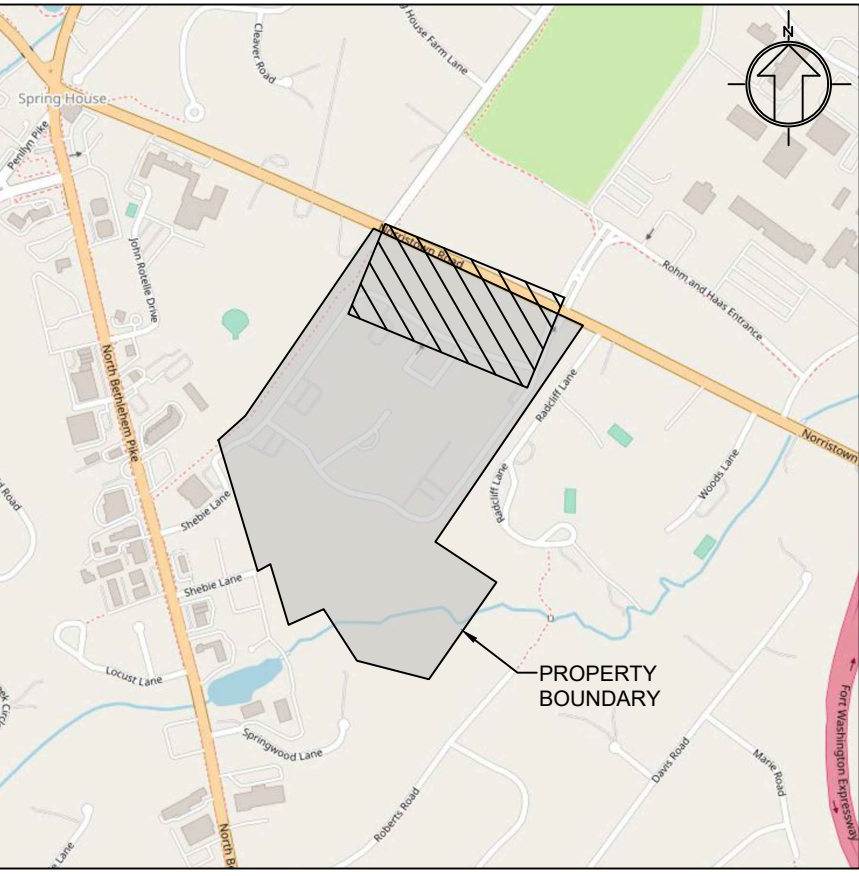


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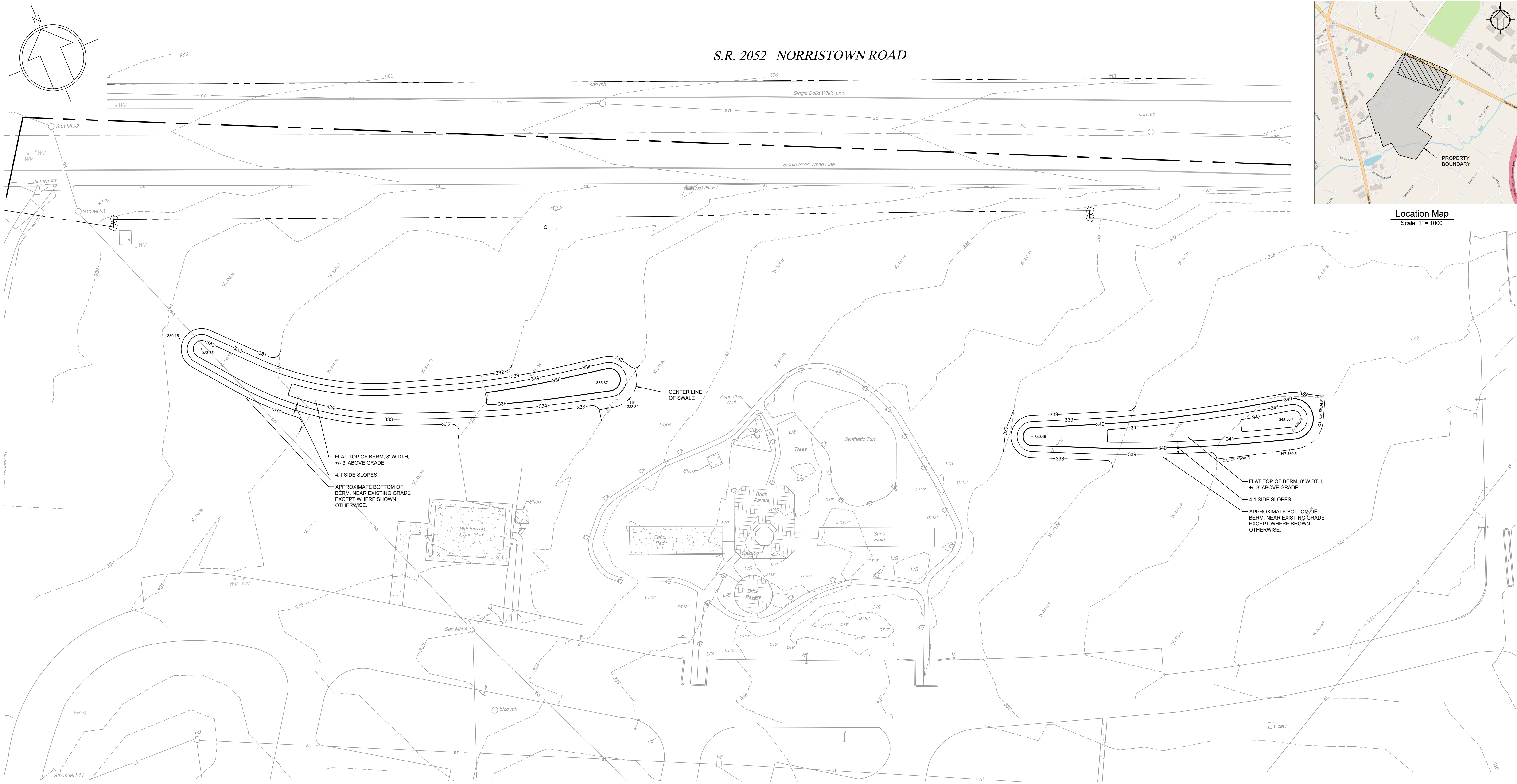
Grading Plan C
ACTS SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

	EUSTACE ENGINEERS LANDSCAPE ARCHITECTS SURVEYORS	DRAWN BY YG
MARTIN J. EUSTACE, III 307 Easton Road Building B - 2nd Floor Willow Grove, PA 19090 Tel: (215) 346-8757 Fax: (215) 346-8759 www.eustaceeng.com		CHECKED BY MJE
<i>Martin J. Eustace, III, P.E.</i> PA Lic. PE04889-E		DATE 11-20-2023
		DRAWING No. D 2373 04 08

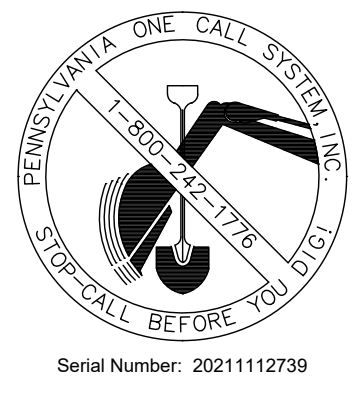
S.R. 2052 NORRISTOWN ROAD



Location Map
Scale: 1" = 1000'



X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\04c-grading.dwg May 17, 2024



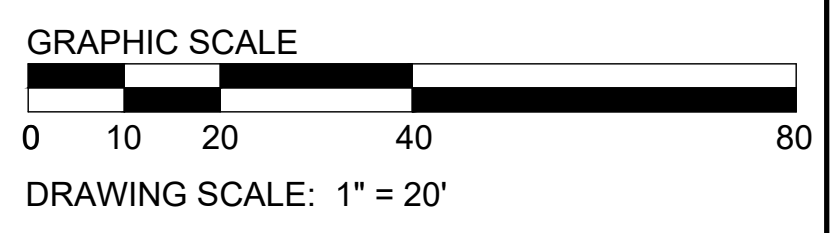
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Legend	
	Existing Building
	Existing Building Overhang
	Existing Edge of Pavement
	Existing Curb
	Existing Concrete
	Existing Brick Paver
	Existing Gravel
	Existing Contour
	Existing Index Contour
	Existing Sign
	Existing Light Pole
	Existing Inlet and Yard Drain
	Existing Utility Pole
	Proposed Building
	Proposed Sidewalk
	Proposed Curb
	Proposed Wall
	Proposed Gravel
	Proposed Contour
	Proposed Index Contour
	Proposed Spot Grade
	Proposed Top and Bottom of Curb Grade
	Proposed Top and Bottom of Wall Grade
	Elevation to Match Existing
	Proposed Inlet and Yard Drain

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Parcel Information:
Parcel ID: 39-00-03025-00-5
Tax Map ID: 39017D004



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1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Grading Plan D
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

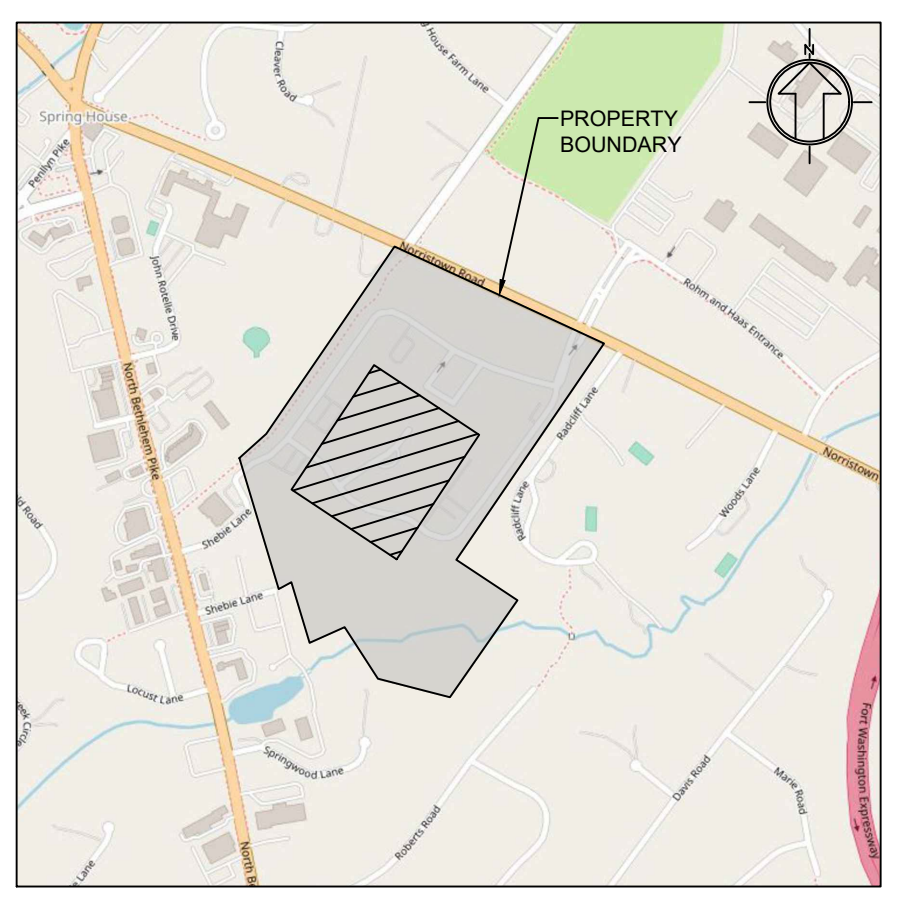
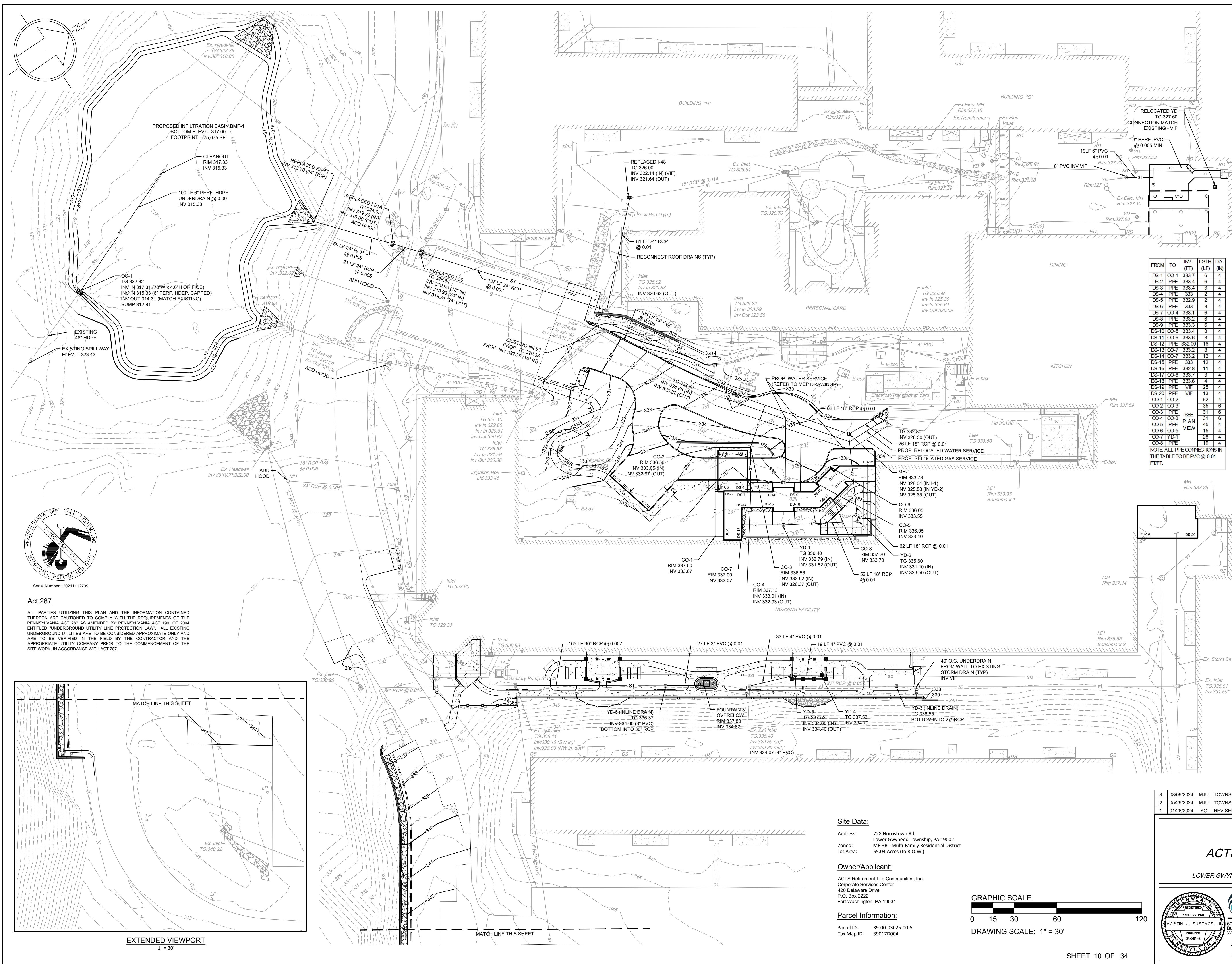
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Tel: (215) 348-8757
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www.eustaceeng.com

DRAWN BY: YG
CHECKED BY: MJE
DATE: 11-20-2023
DRAWING No.: D 2373 04 09

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Location Map
Scale: 1" = 1000'

Legend

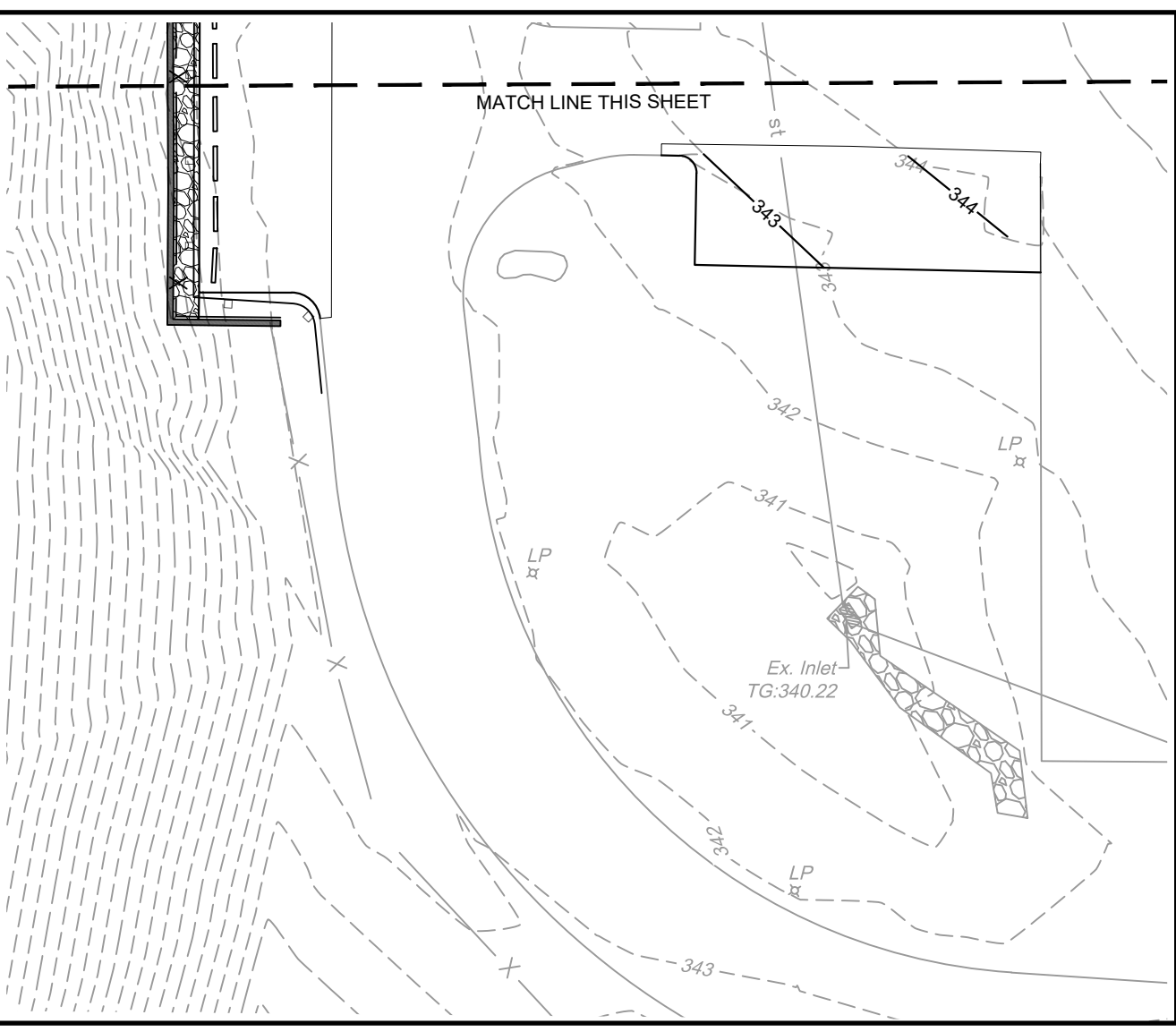
- Existing Building
- Existing Building Overhang
- Existing Edge of Pavement
- Existing Curb
- Existing Concrete
- Existing Brick Paver
- Existing Gravel
- Existing Contour
- Existing Index Contour
- Existing Sanitary Sewer Line
- Existing Water Line
- Existing Gas Line
- Existing Storm Line
- Existing Electric Line
- Existing Sign
- Existing Light Pole
- Existing Inlet and Yard Drain
- Existing Utility Pole
- Proposed Building
- Proposed Sidewalk
- Proposed Curb
- Proposed Wall
- Proposed Gravel
- Proposed Contour
- Proposed Index Contour
- Relocated Gas Line
- Relocated Water Line
- Proposed Storm Line
- Proposed Storm Line
- Proposed Inlet and Yard Drain
- Proposed Downspout
- Proposed Cleanout

FROM	TO	IN. (FT)	LGTH (LF)	DA. (IN)
DS-1	CO-1	333.7	6	4
DS-2	PIPE	333.4	6	4
DS-3	PIPE	333.4	3	4
DS-4	PIPE	333.3	2	4
DS-5	PIPE	332.9	2	4
DS-6	PIPE	333	3	4
DS-7	CO-4	333.1	6	4
DS-8	PIPE	333.2	6	4
DS-9	PIPE	333.3	6	4
DS-10	CO-5	333.4	3	4
DS-11	CO-6	333.6	3	4
DS-12	PIPE	332.00	16	4
DS-13	CO-7	333.2	8	4
DS-14	CO-7	333.2	12	4
DS-15	PIPE	333	12	4
DS-16	PIPE	332.8	11	4
DS-17	CO-8	333.7	3	4
DS-18	PIPE	332.6	4	4
DS-19	PIPE	VIF	25	4
DS-20	PIPE	VIF	13	4
CO-1	CO-2		62	4
CO-2	CO-3		35	6
CO-3	PIPE	SEE PLAN	31	6
CO-4	CO-3		31	6
CO-5	PIPE	VIEW	45	4
CO-6	CO-5		15	4
CO-7	YD-1		38	4
CO-8	PIPE		19	4

NOTE ALL PIPE CONNECTIONS IN THE TABLE TO BE PVC @ 0.01 FITF.



Act 287
 ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAI". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK IN ACCORDANCE WITH ACT 287.

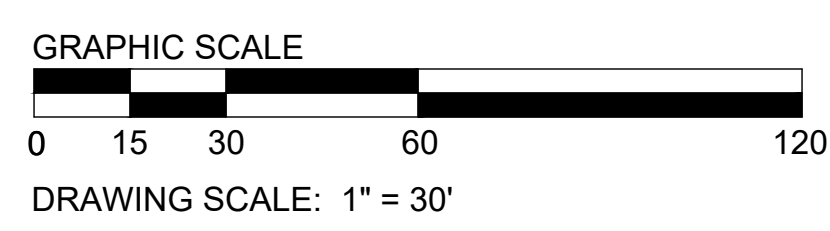


EXTENDED VIEWPORT
1" = 30'

Site Data:
 Address: 728 Norristown Rd.
 Lower Gwynedd Township, PA 19002
 Zoned: MF-3B - Multi-Family Residential District
 Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
 ACTS Retirement-Life Communities, Inc.
 Corporate Services Center
 420 Delaware Drive
 P.O. Box 2222
 Fort Washington, PA 19034

Parcel Information:
 Parcel ID: 39-00-03025-00-5
 Tax Map ID: 390170004



3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

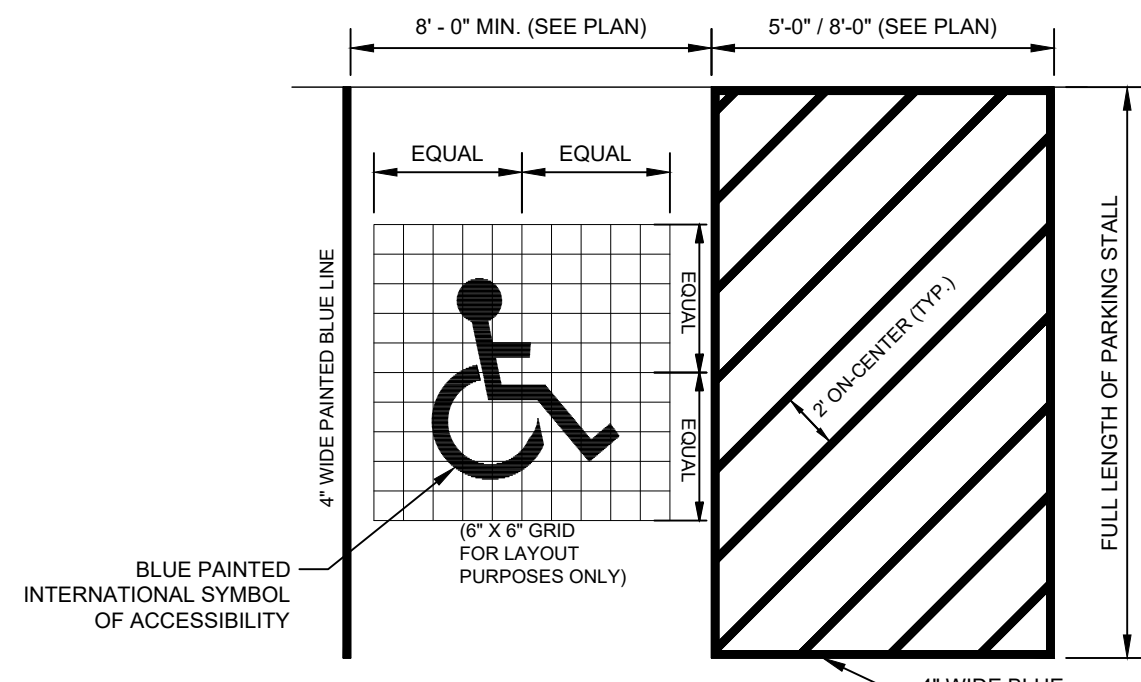
Utility Plan
ACTS SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

Martin J. Eustace, III, P.E.
PA Lic. PE048991E

EUSTACE
 ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

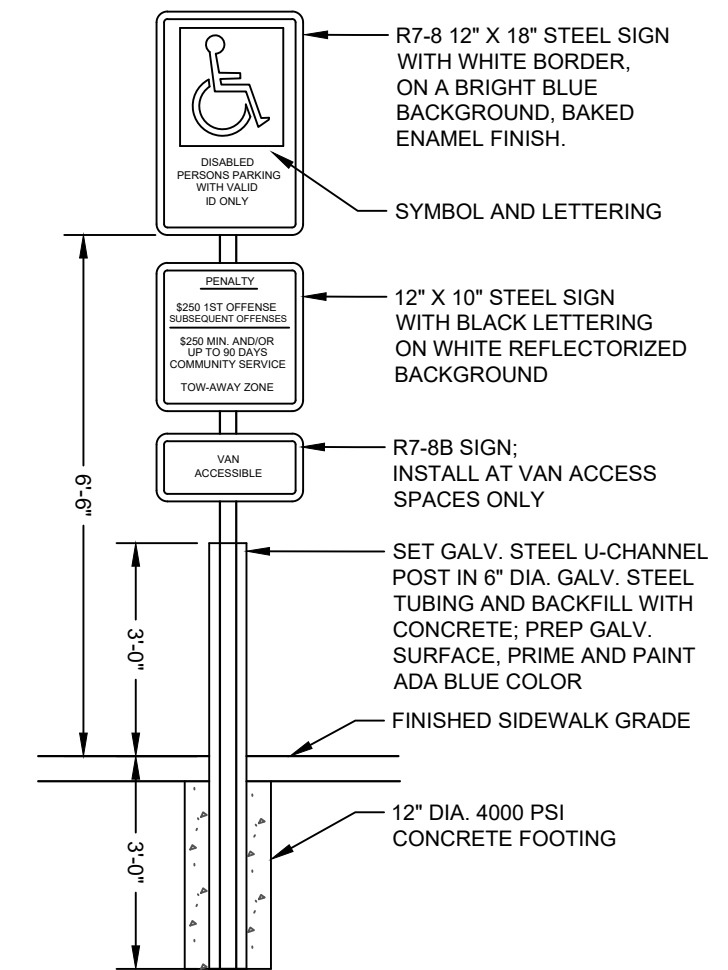
307 Easton Road
 Building B - 2nd Floor
 Willow Grove, PA 19090
 Tel: (215) 346-8757
 Fax: (215) 346-8759
 www.eustaceeng.com

DRAWN BY: YG
 CHECKED BY: MJE
 DATE: 11-20-2023
 DRAWING No.: D 2373 04 10

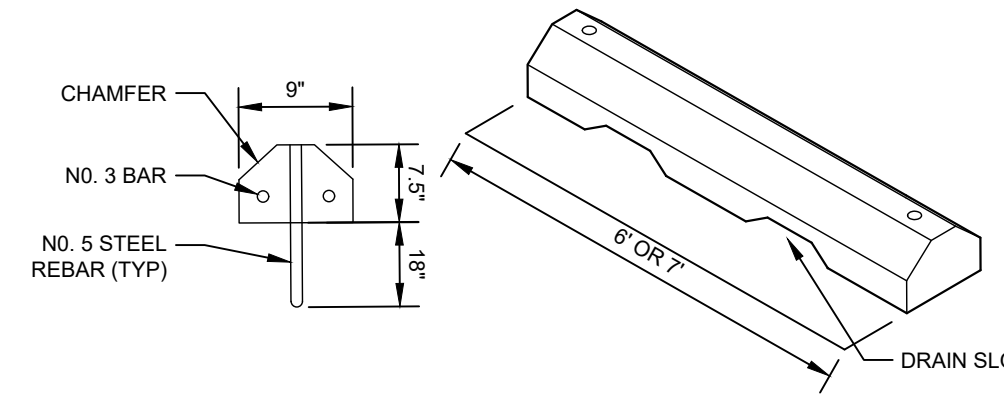


NOTE:
 1. PARKING STALL AND ACCESS AISLE WIDTHS SHALL BE MEASURED CENTER OF STRIPE TO CENTER OF STRIPE
 2. WHERE AN ADA PARKING STALL IS ADJACENT TO A STANDARD PARKING STALL OR ACCESS AISLE, A YELLOW STRIPE SHALL BE PAINTED NEXT TO THE BLUE STRIPE.

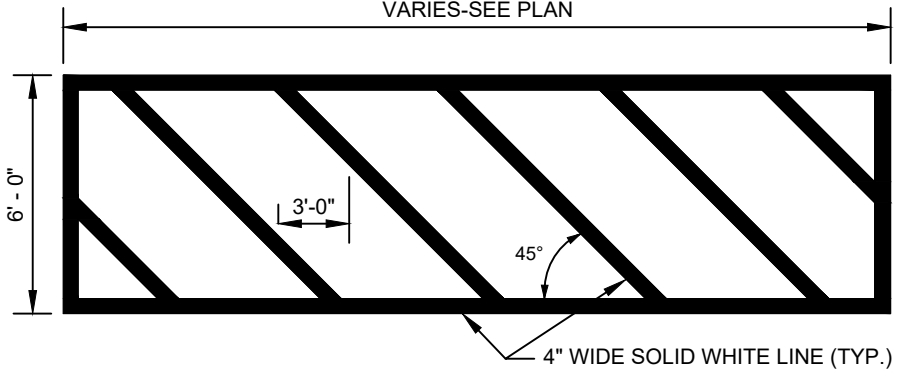
ADA PARKING STALL STRIPING
N.T.S.



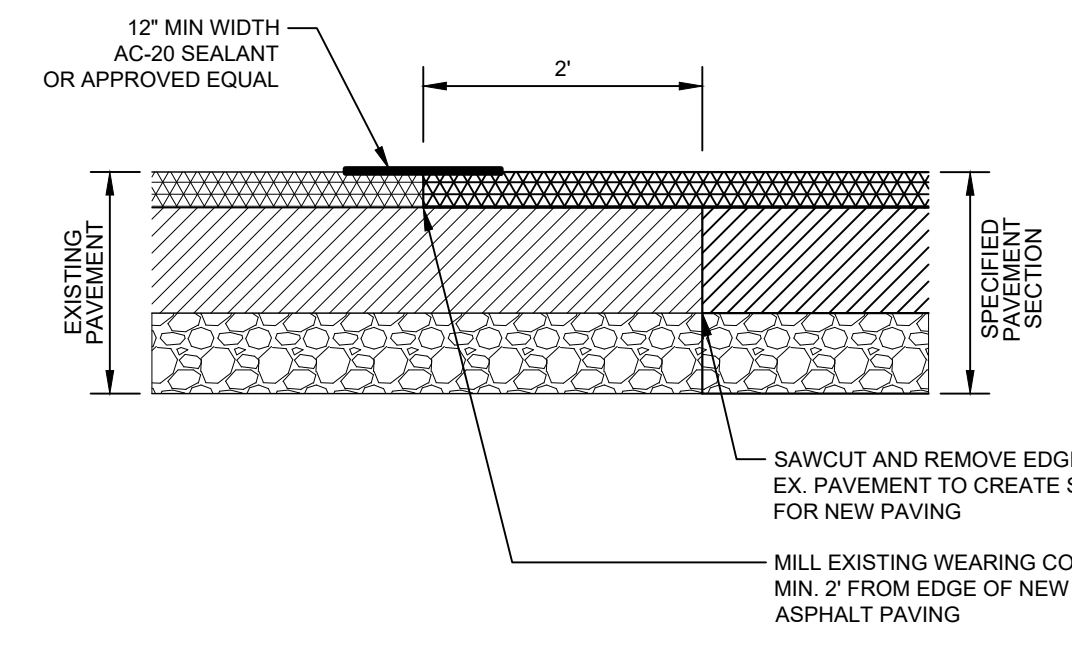
ADA PARKING SIGN
N.T.S.



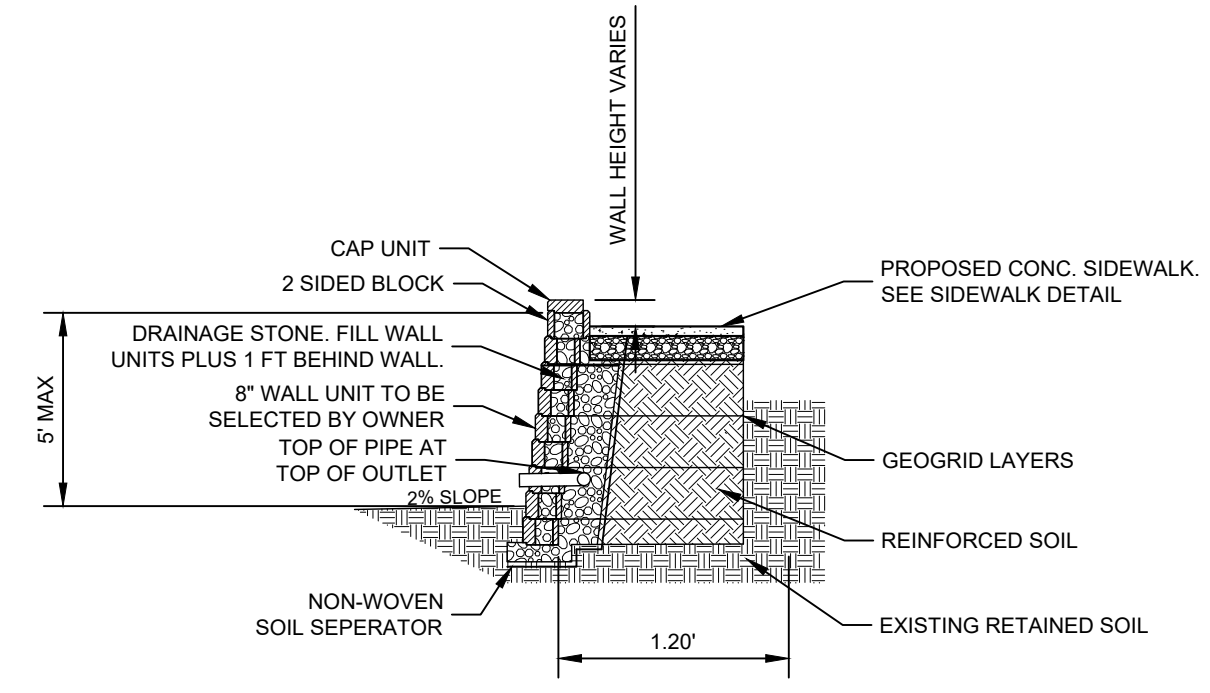
CONCRETE WHEEL STOP DETAIL
N.T.S.



CROSSWALK/PARKING STRIPING (ON SITE ONLY)
N.T.S.

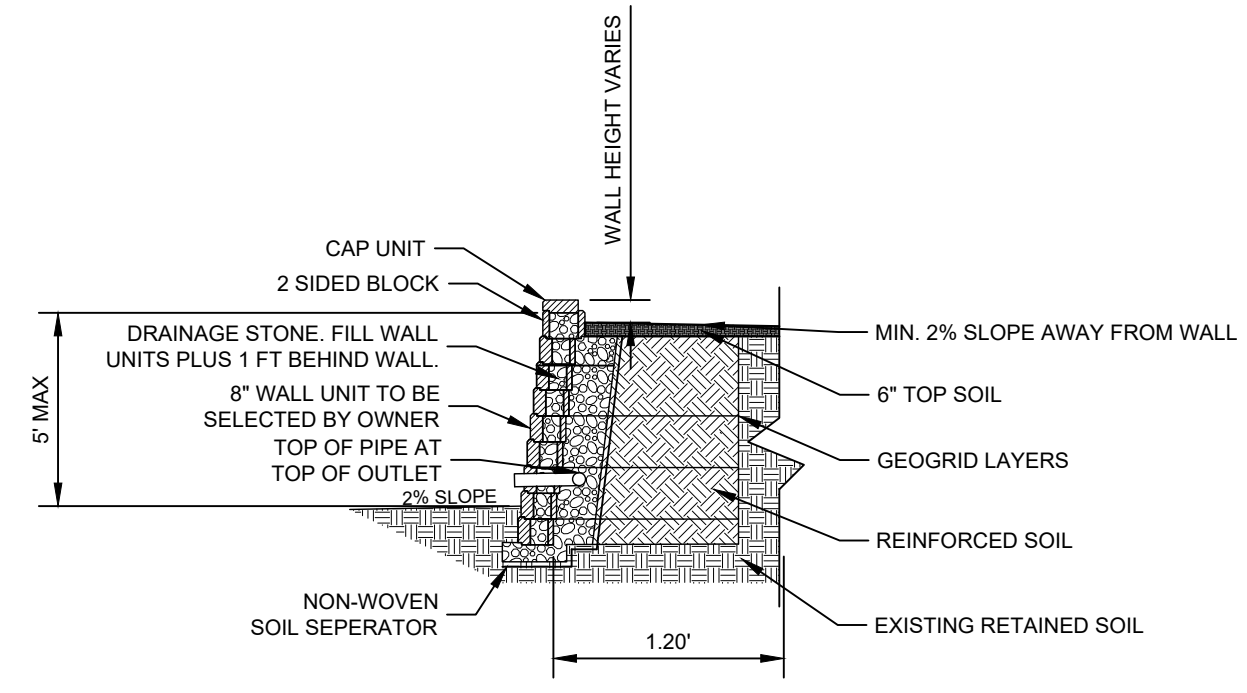


PARKING LOT PAVEMENT SAWCUTTING DETAIL
N.T.S.



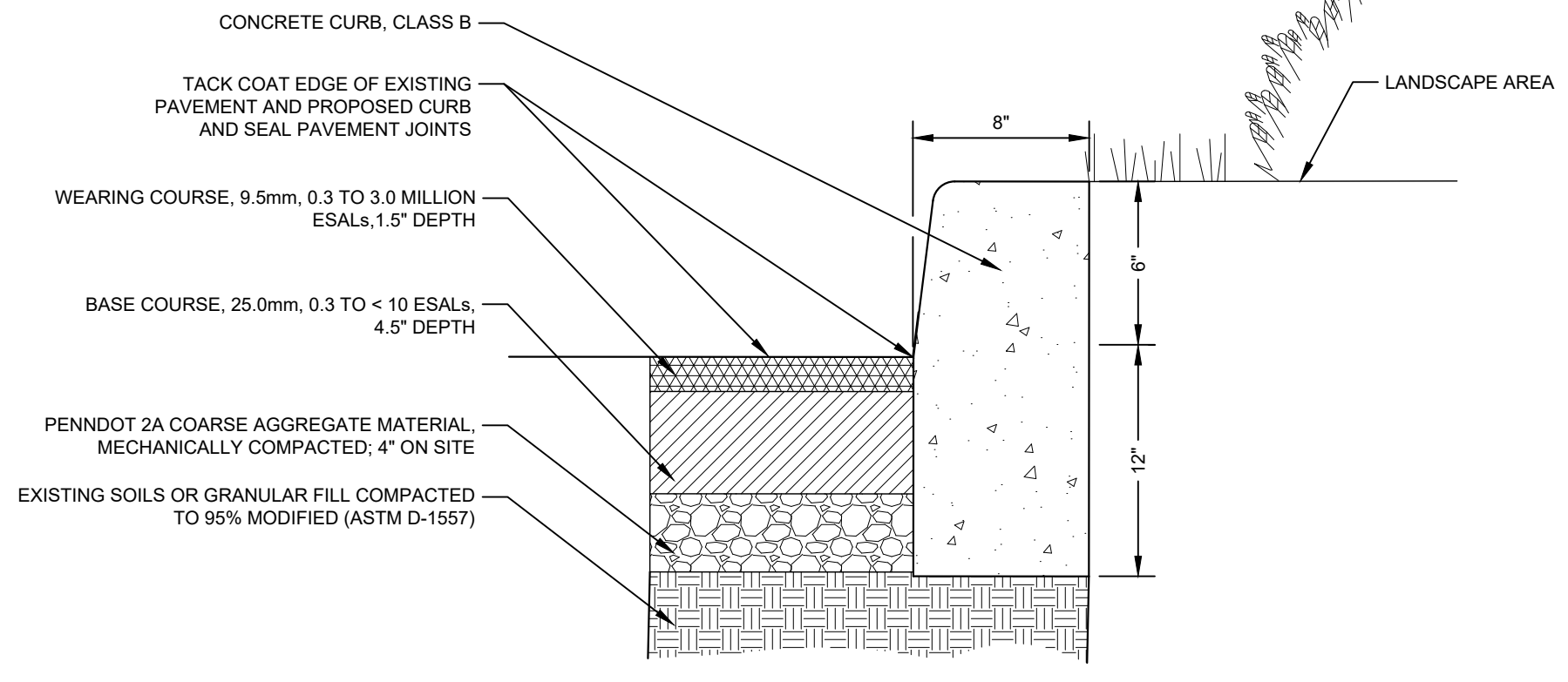
NOTE: WALL DESIGN TO BE COMPLETED BY WALL ENGINEER.

WALL/SIDEWALK INTERFACE
N.T.S.

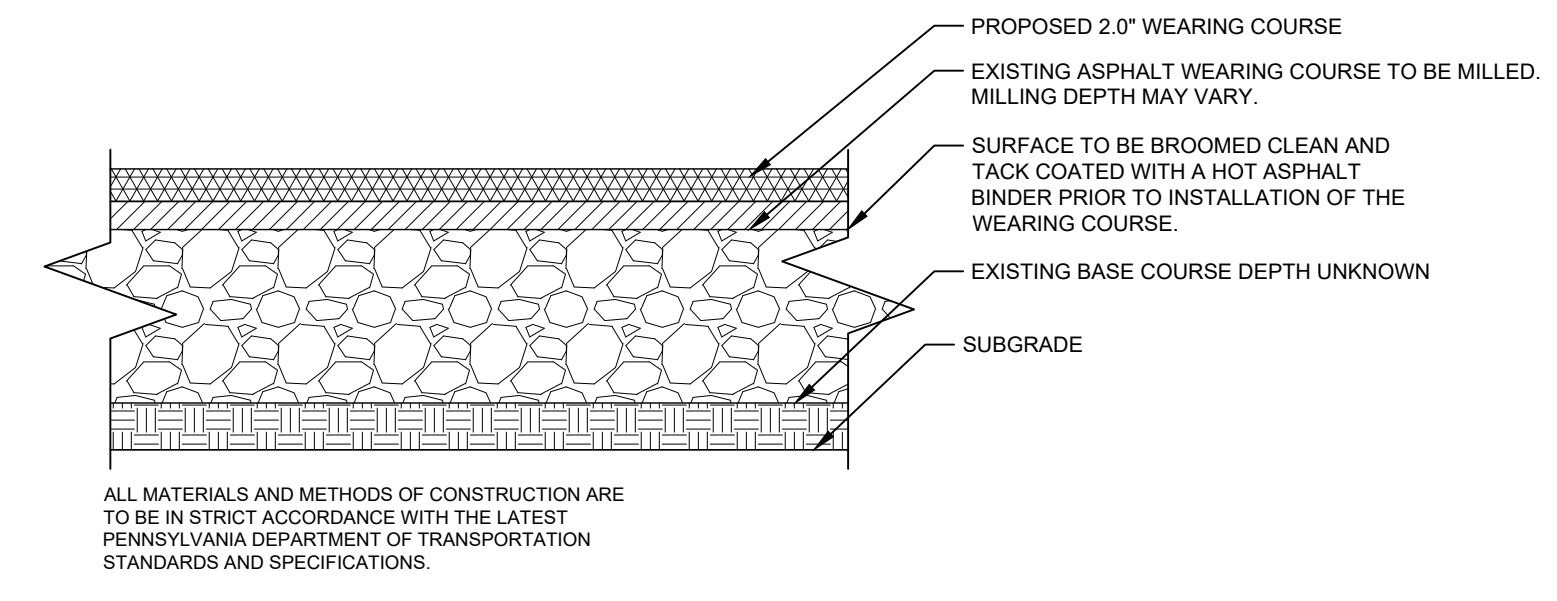


NOTE: WALL DESIGN TO BE COMPLETED BY WALL ENGINEER.

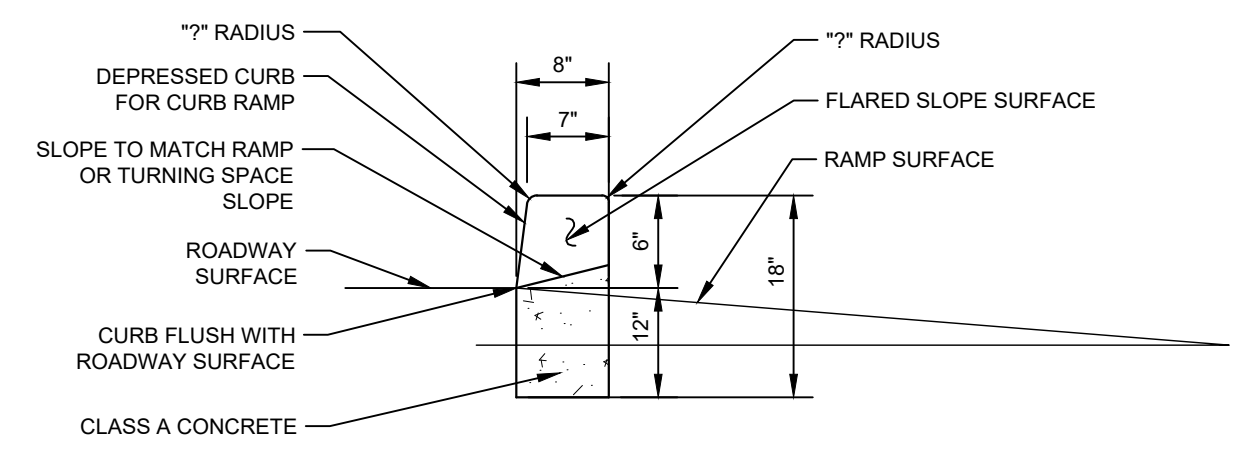
RETAINING WALL/SOIL INTERFACE
N.T.S.



ASPHALT/CONCRETE CURB INTERFACE
N.T.S.

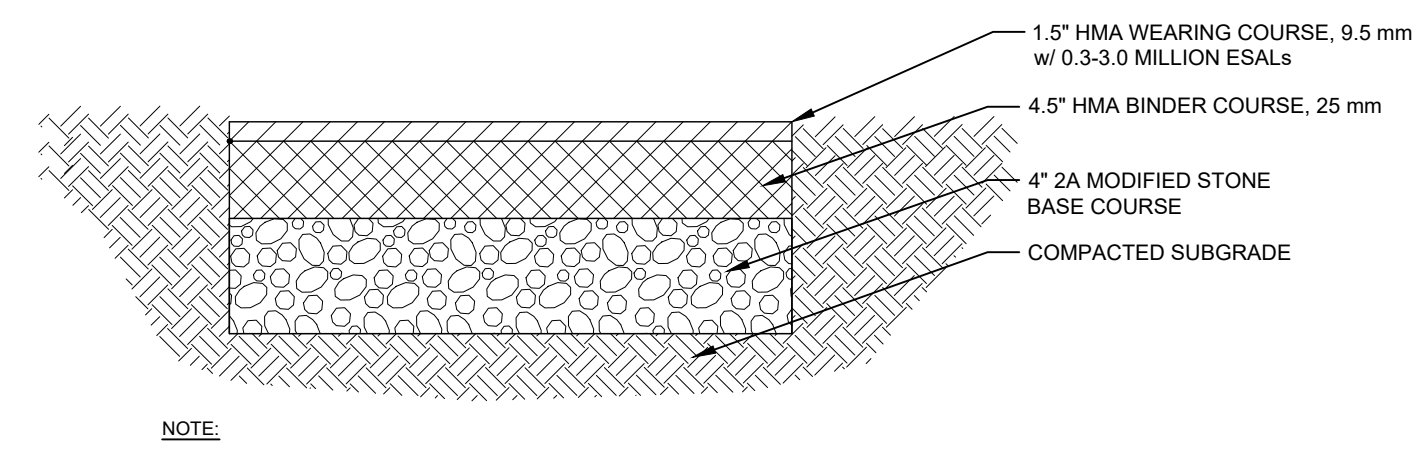


MILL AND OVERLAY PAVING SECTION
N.T.S.



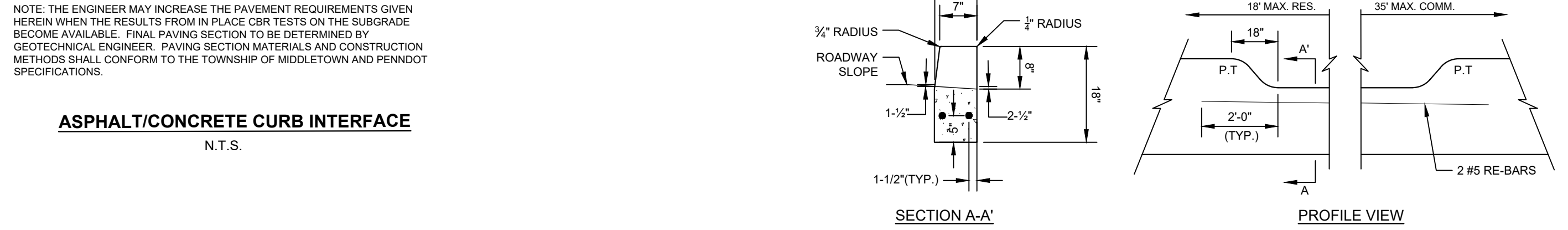
- ① SIDE FLARES 10.00% MAX SLOPE.
- ② IF THE TURNING SPACE IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.

ADA CURB RAMP DETAIL
N.T.S.

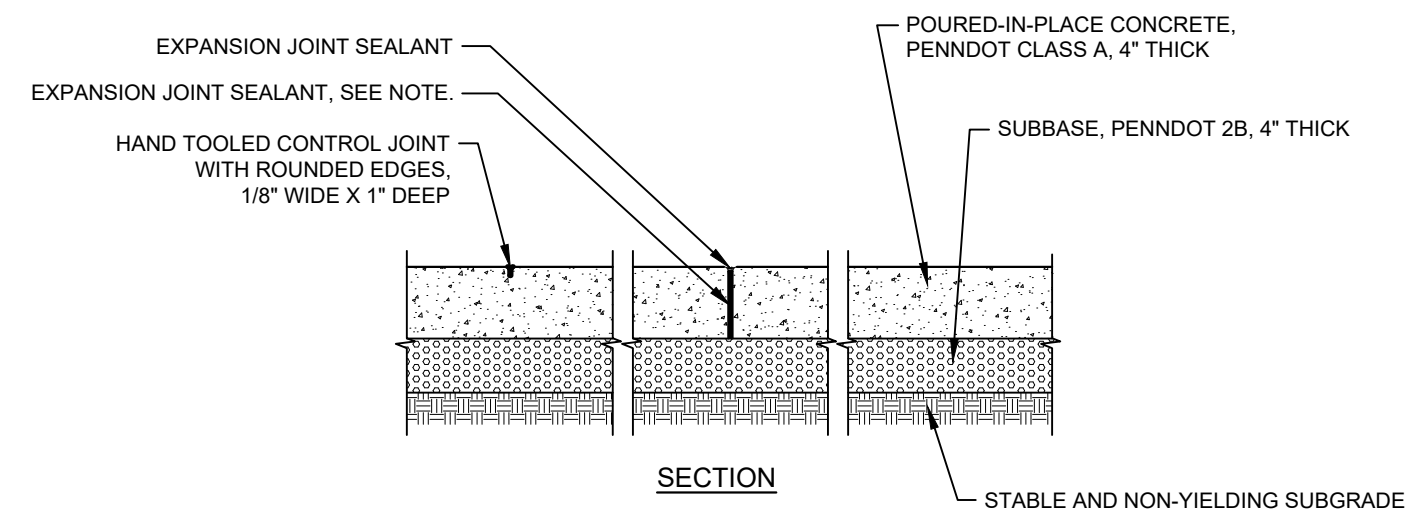


NOTE:
 THE ENGINEER MAY INCREASE THE PAVEMENT REQUIREMENTS GIVEN HEREIN WHEN THE RESULTS FROM IN PLACE CBR TESTS ON THE SUBGRADE BECOME AVAILABLE. FINAL PAVING SECTION TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
 PAVING SECTION MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT SPECIFICATIONS OF THE PENNDOT FORM 408

ASPHALT PAVING SECTION
N.T.S.

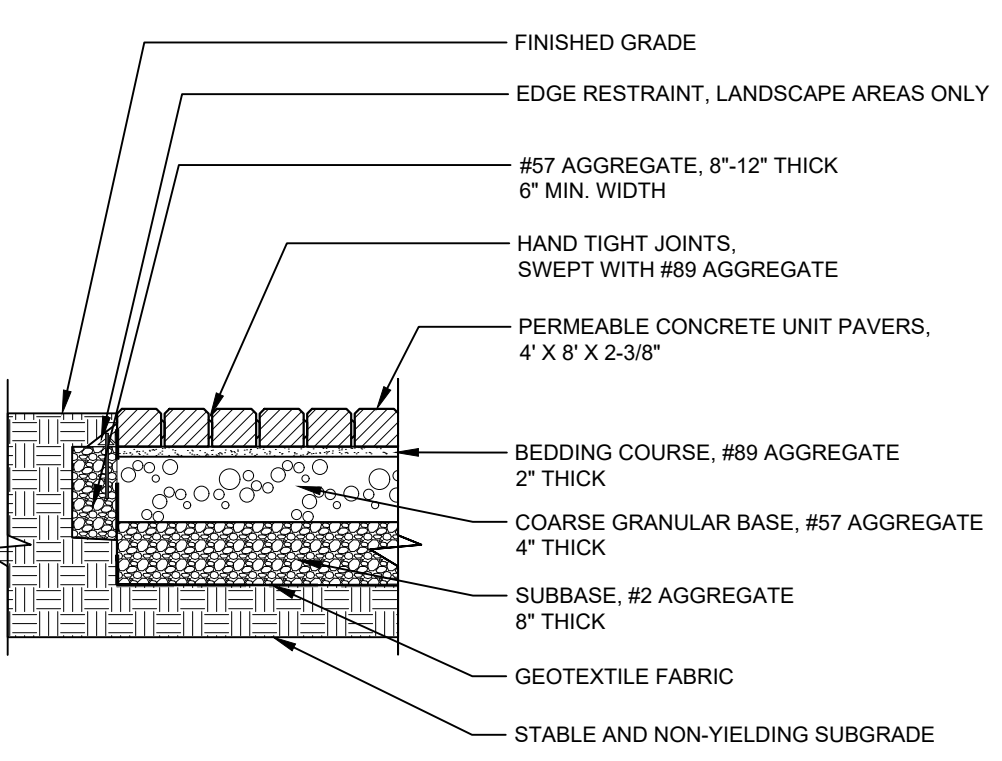


DEPRESSED CURB
N.T.S.

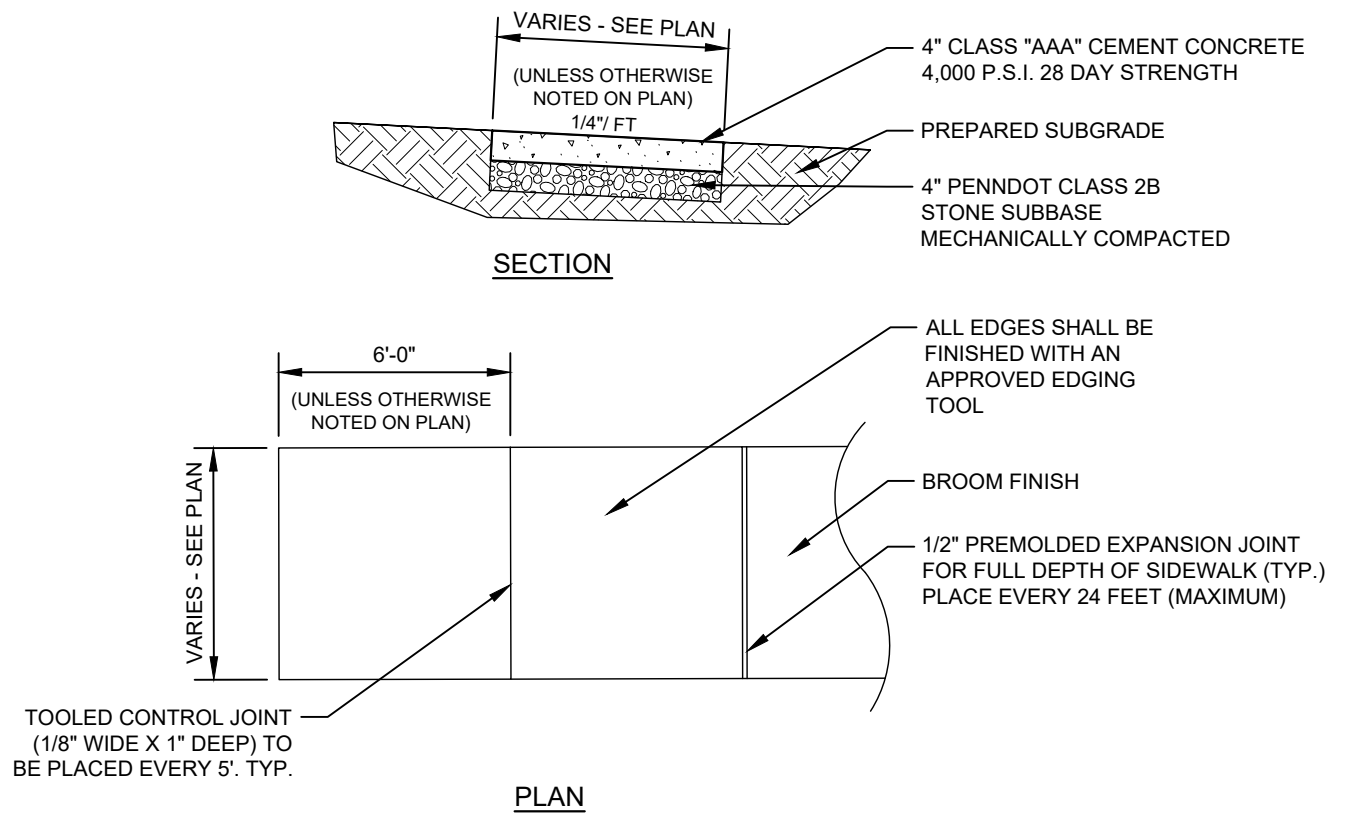


CONCRETE SLAB PATIO PAVING
N.T.S.

EXPANSION JOINT NOTE
 USE 1/2\"/>

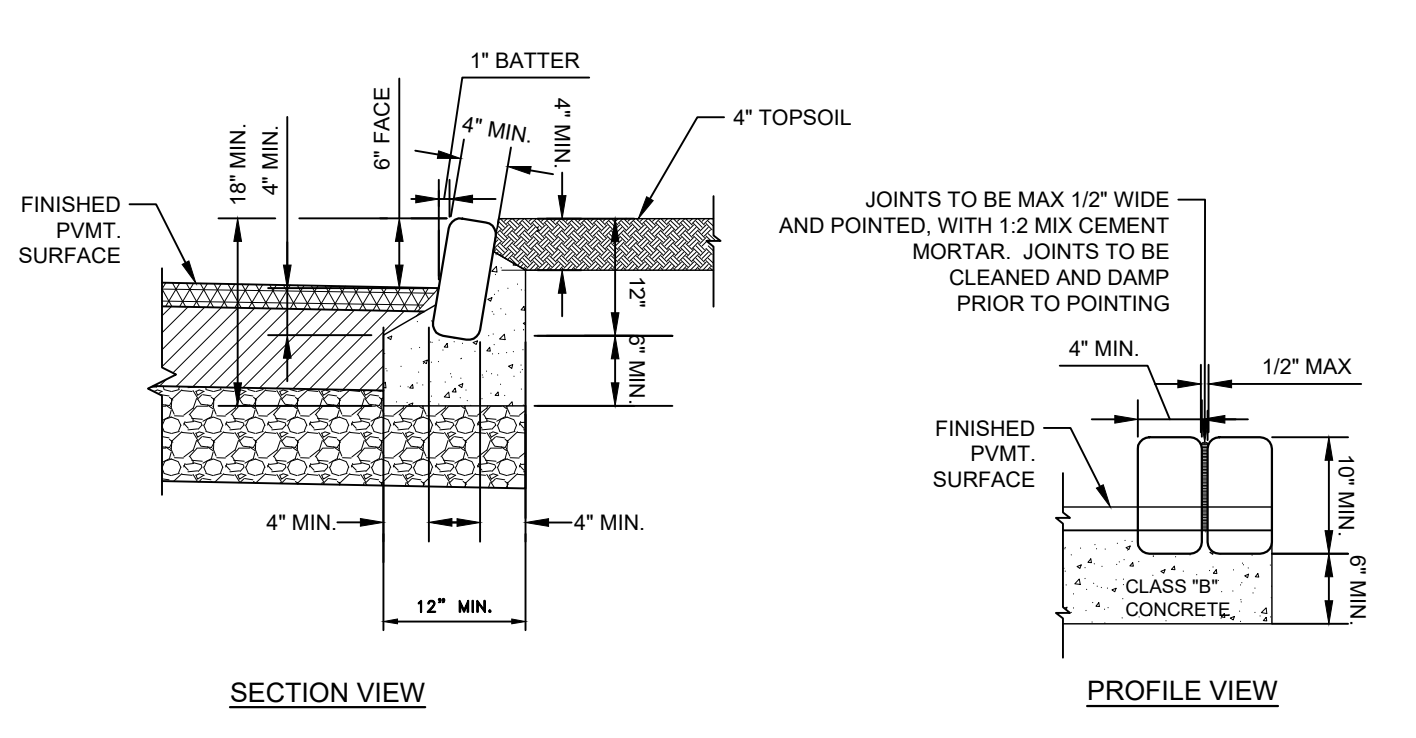


PAVER PATIO
N.T.S.



NOTE:
 1. 1/2\"/>

STANDARD CONCRETE SIDEWALK
N.T.S.



NOTE:
 1. CONCRETE SHALL BE CLASS B WITH 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI AND 6% ± 1.5% AIR ENTRAINMENT.
 2. EXPANSION JOINTS 1/2\"/>

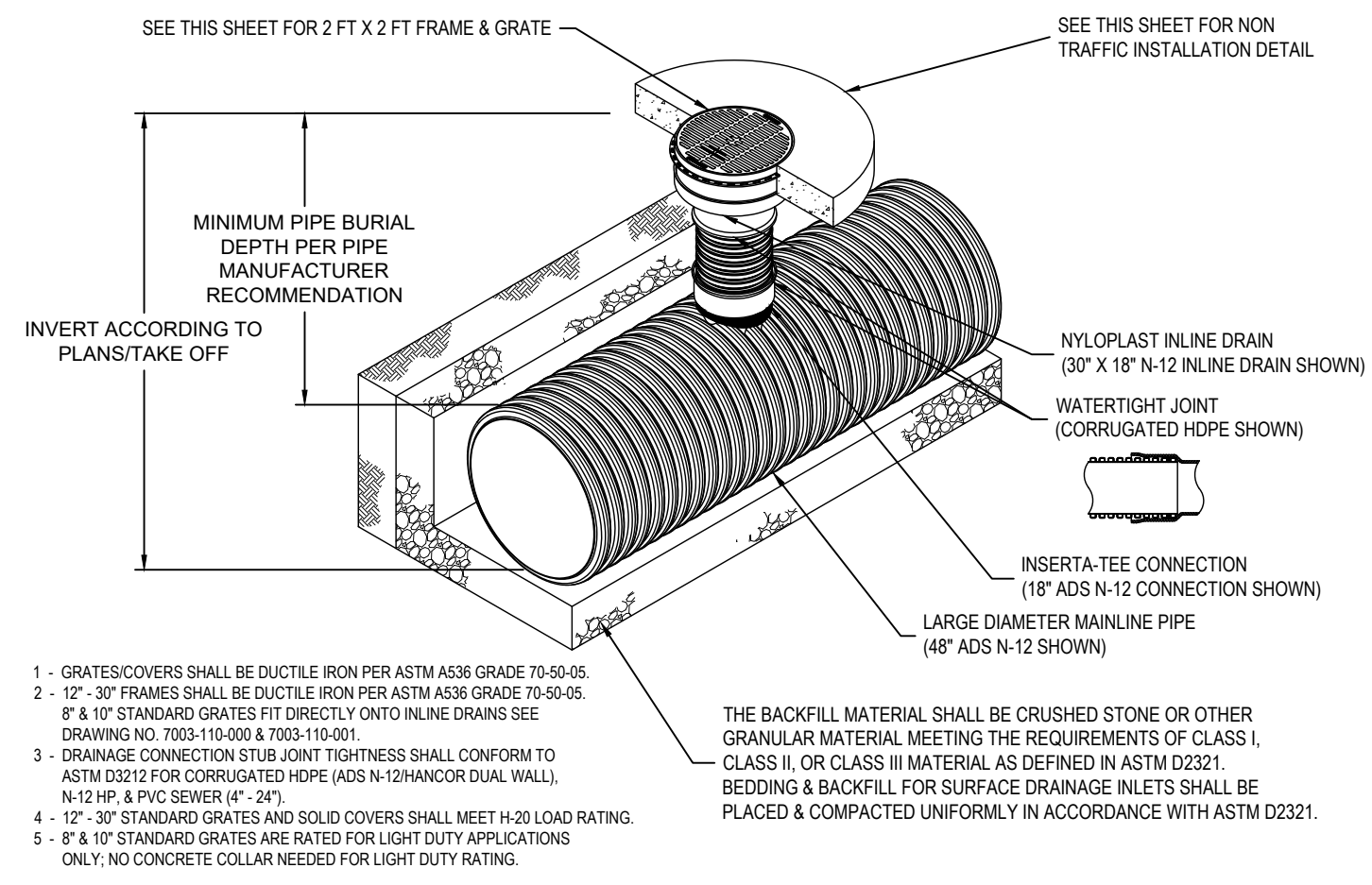
BELGIUM BLOCK CURB
N.T.S.

3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

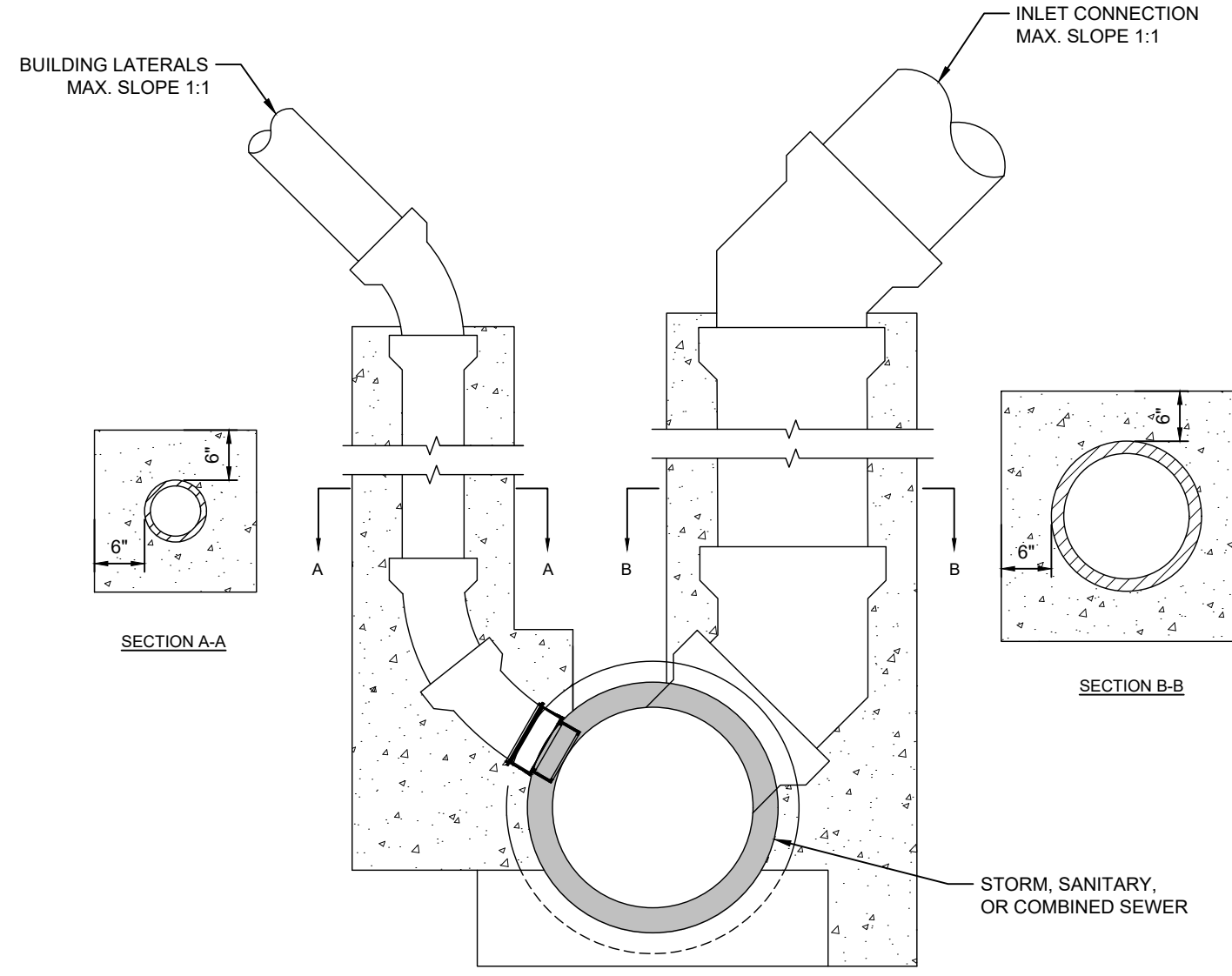
Construction Details
ACTS SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

			DRAWN BY YG
	307 Easton Road Willow Grove, PA 19090 Tel: (215) 348-8757 Fax: (215) 348-8759 www.eustaceeng.com		CHECKED BY MJE
DATE 11-20-2023			DRAWING No. D 2324 04 11

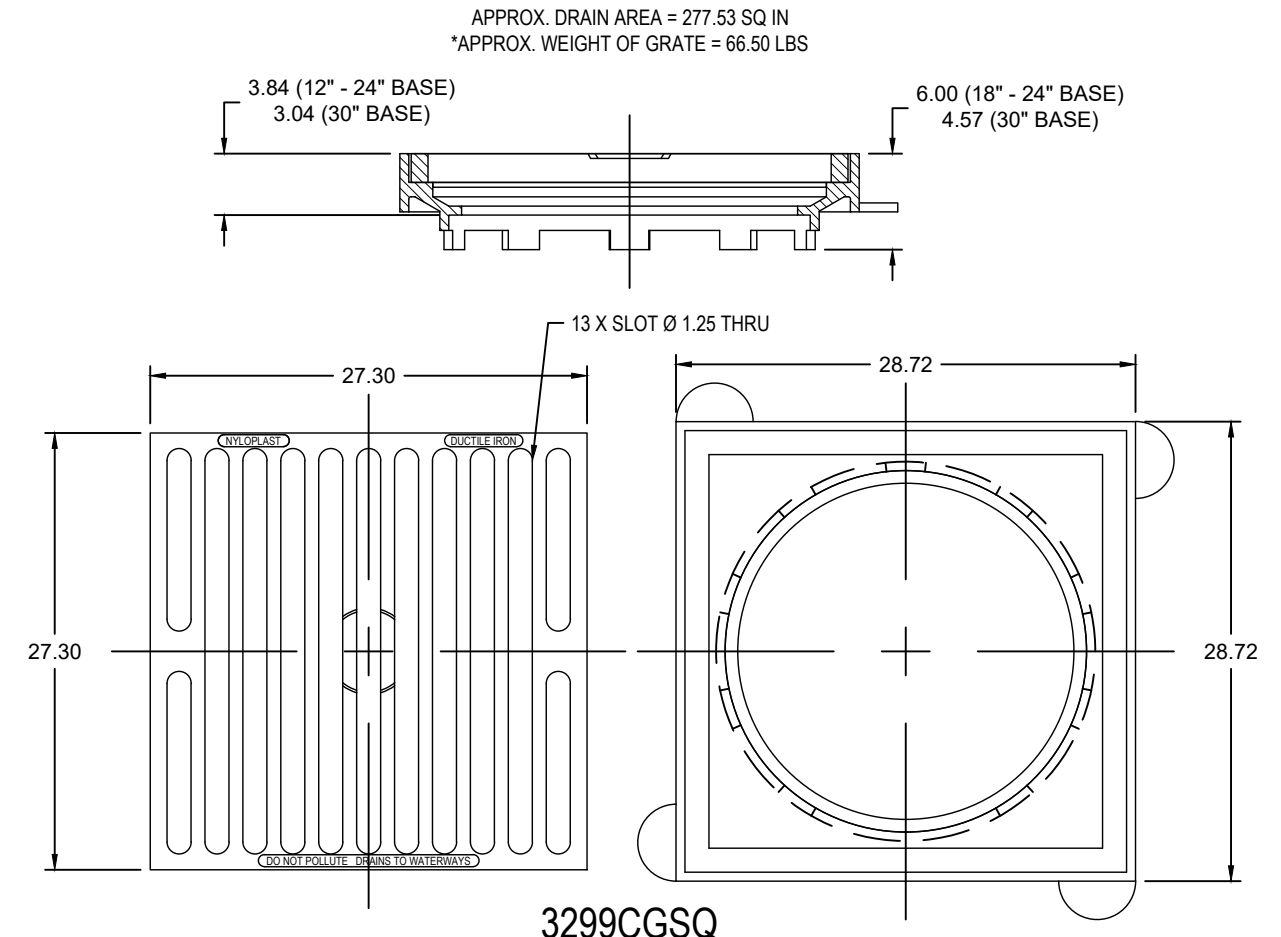
X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\05-construction details.dwg August 8, 2024



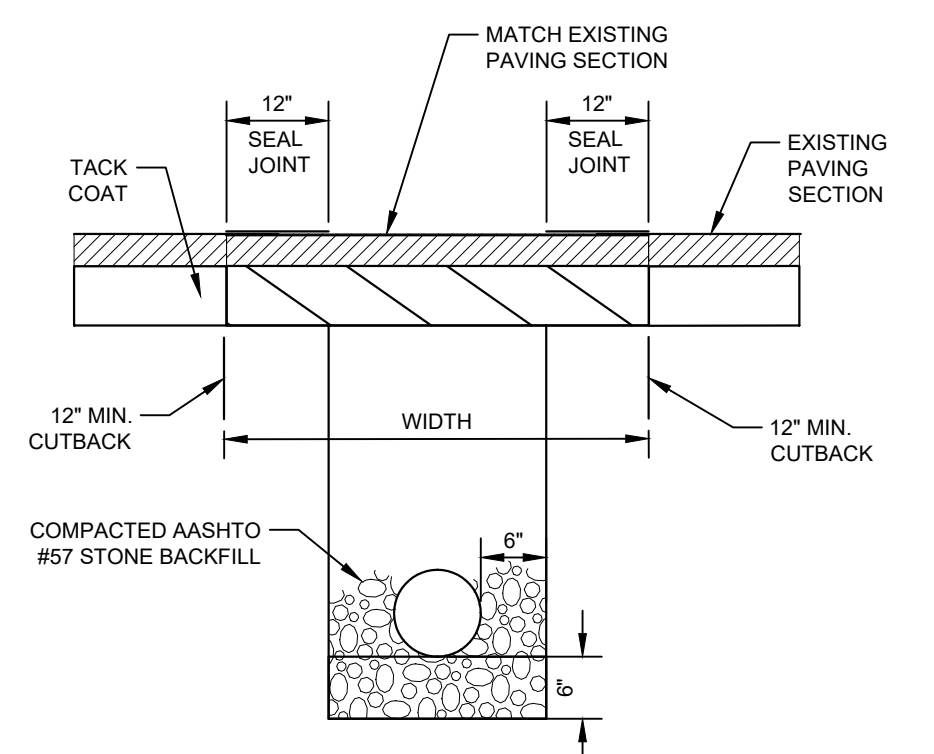
INLINE DRAIN CONNECTION TO LARGE DIAMETER MAINLINE (YD-3, YD-6)
N.T.S.



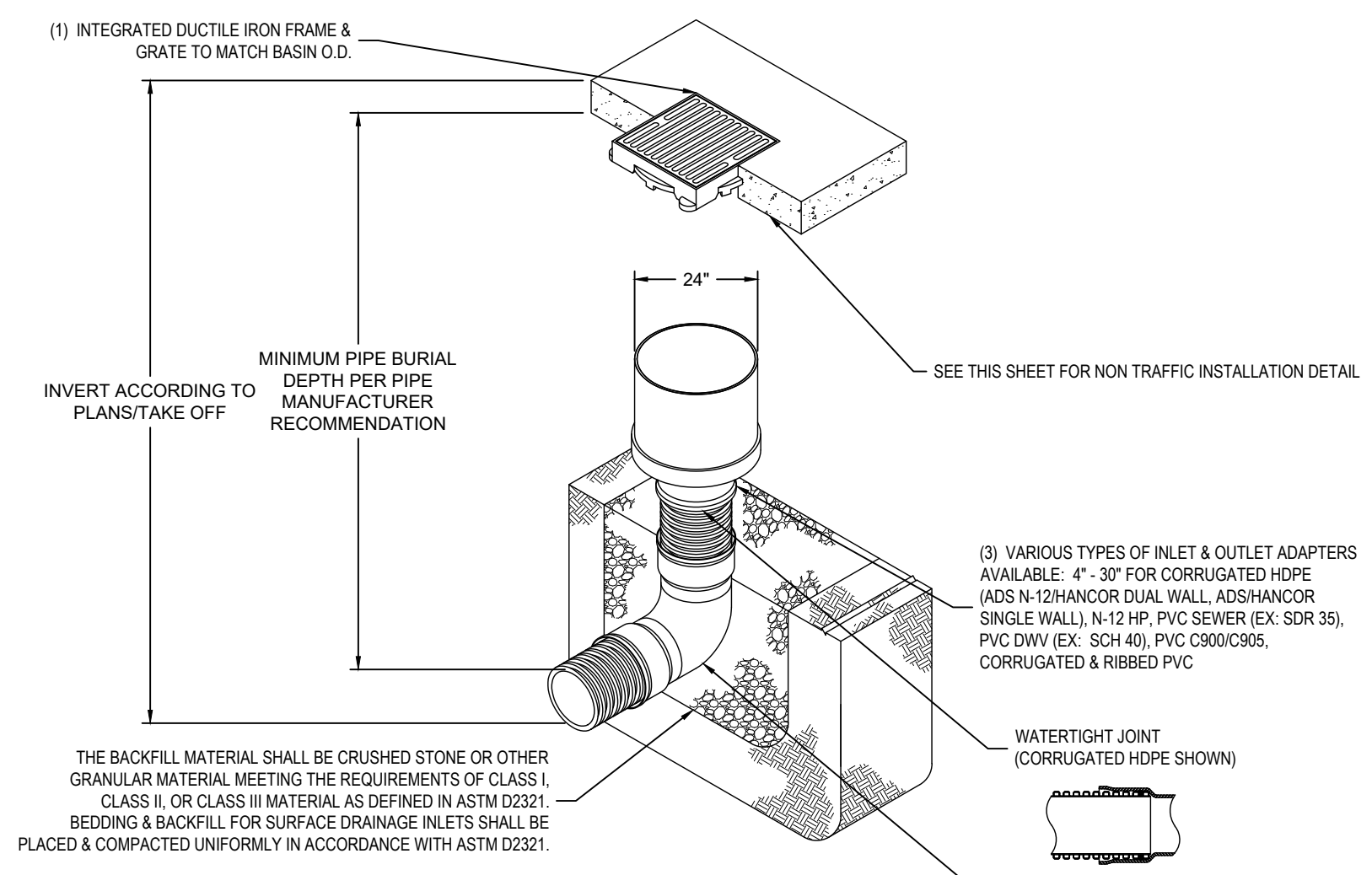
LATERAL RISERS (CO-8, DS-12 TO RCP)
N.T.S.



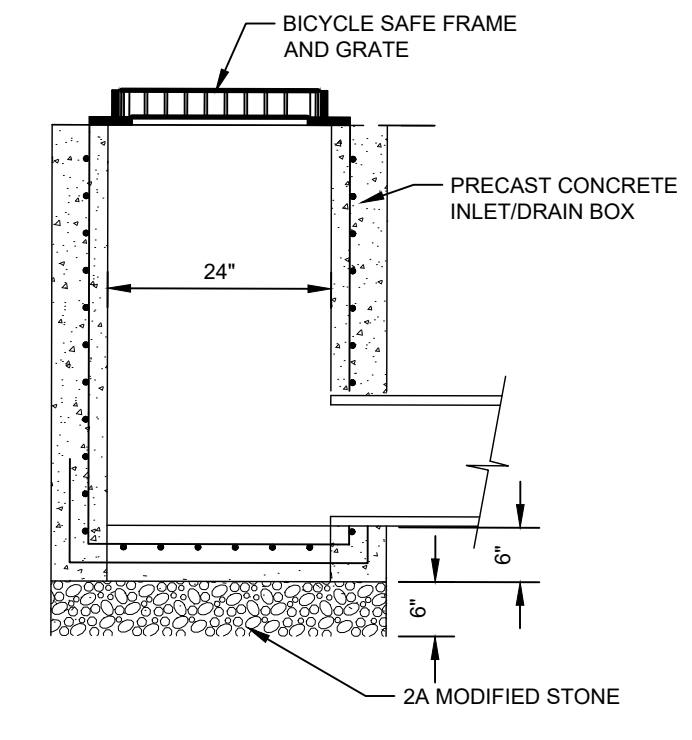
2 FT X 2 FT 2 PIECE GRATE ASSEMBLY (YD-3, YD-6)
N.T.S.



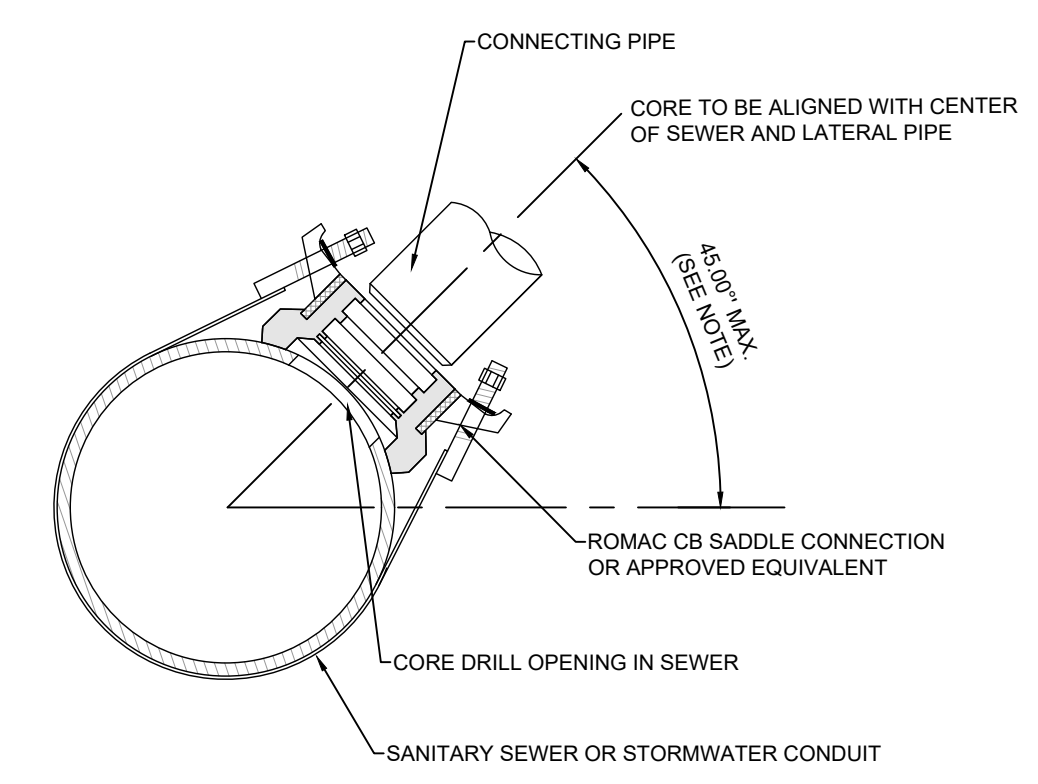
PAVING RESTORATION DETAIL FOR TRENCHES IN EXISTING PAVED AREAS
N.T.S.



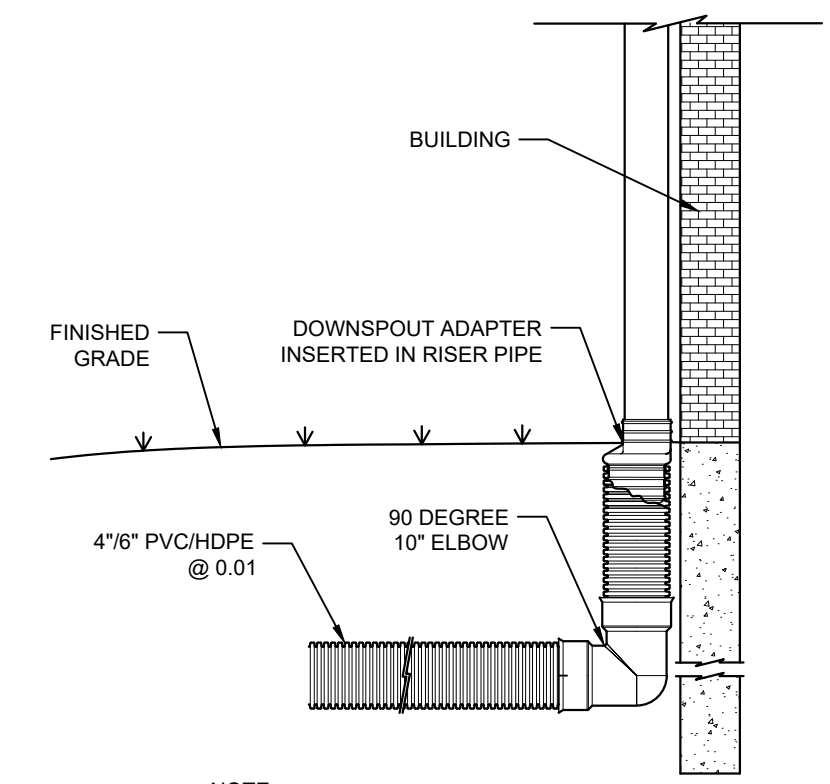
24" INLINE DRAIN WITH 2 FT X 2 FT FRAME & GRATE (YD-3, YD-6)
N.T.S.



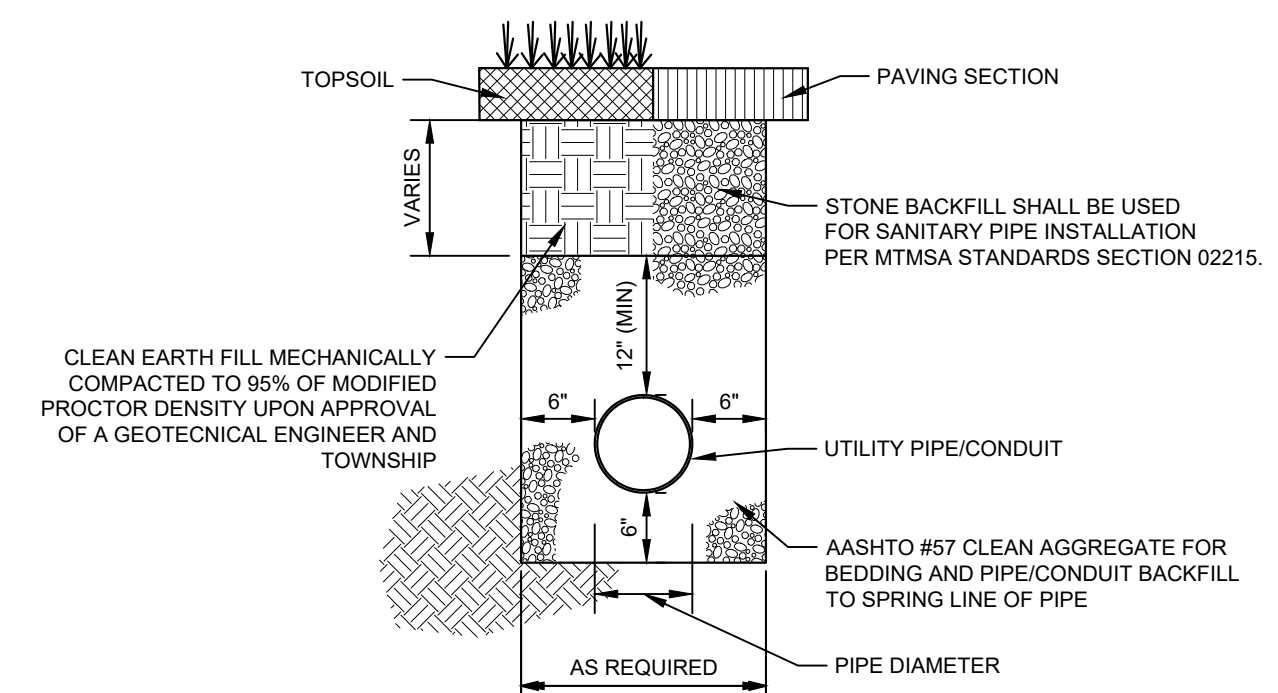
SECTION OF INLET & YARD DRAIN
N.T.S.



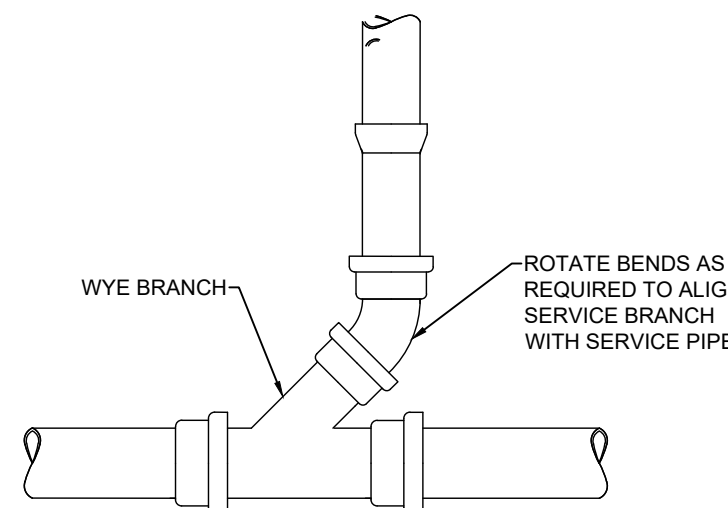
SADDLE CONNECTION (CO-3, DS-16, DS-19, DS-20 TO RCP)
N.T.S.



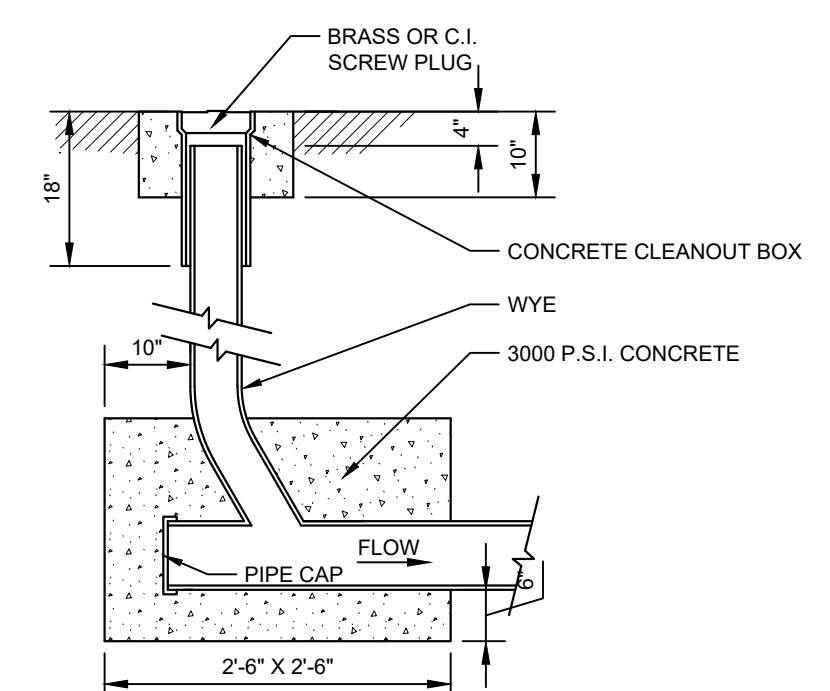
ROOF DRAIN DETAIL
N.T.S.



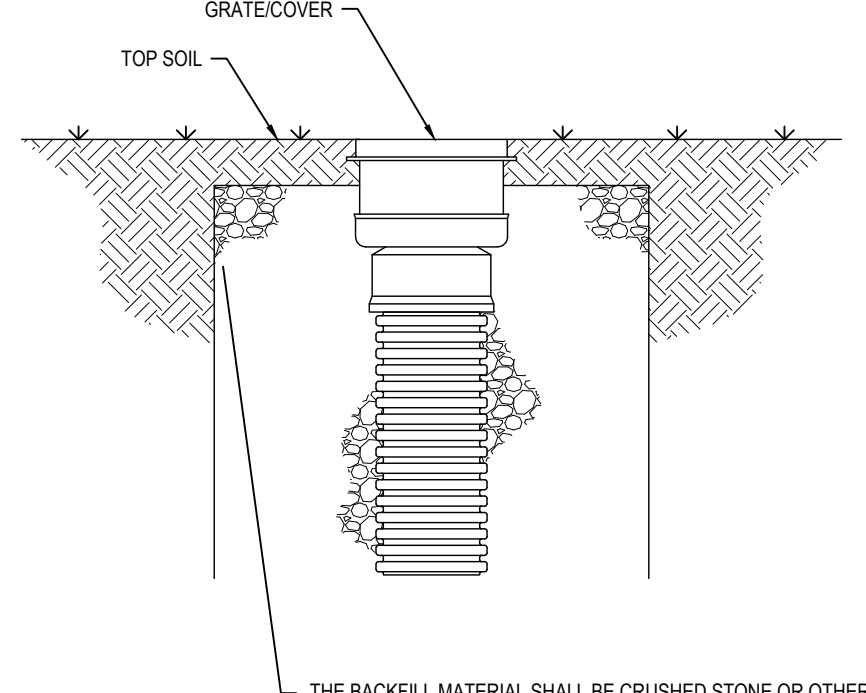
TRENCH BEDDING DETAIL
N.T.S.



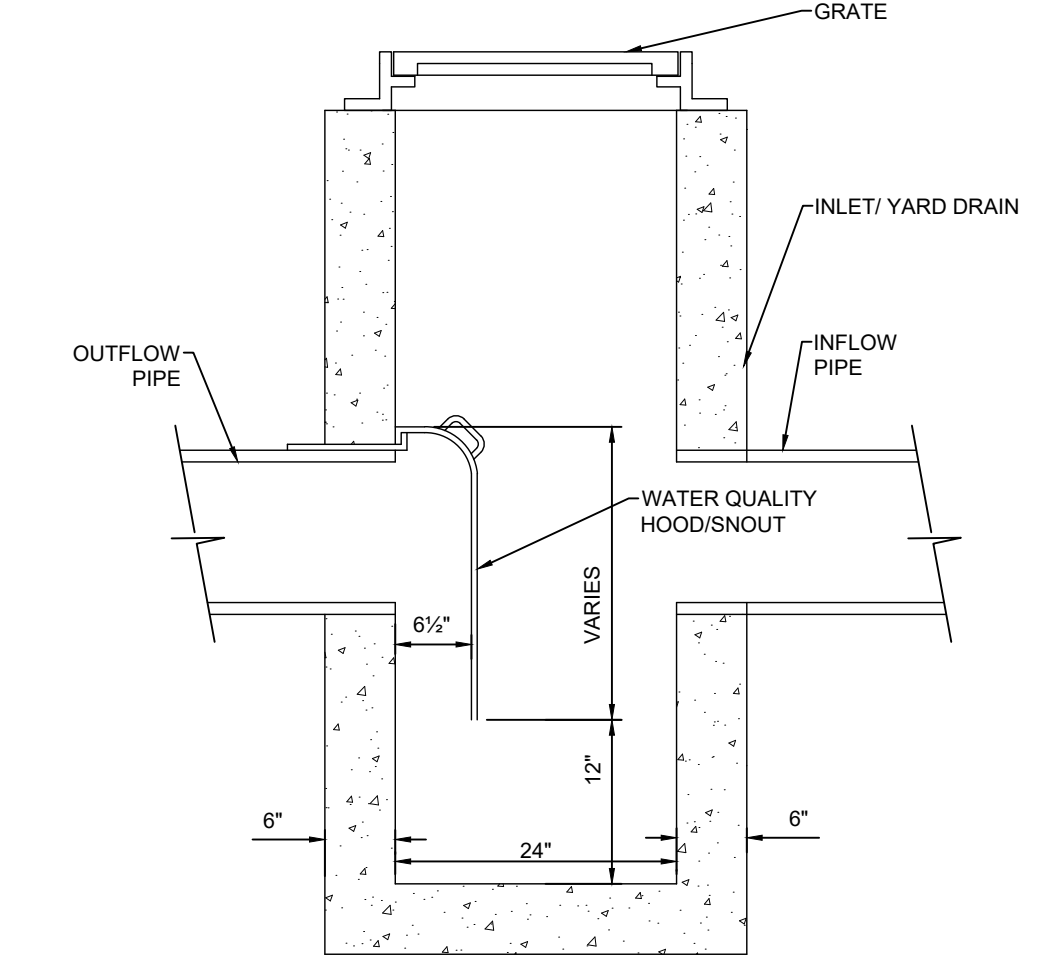
WYE BRANCH
N.T.S.



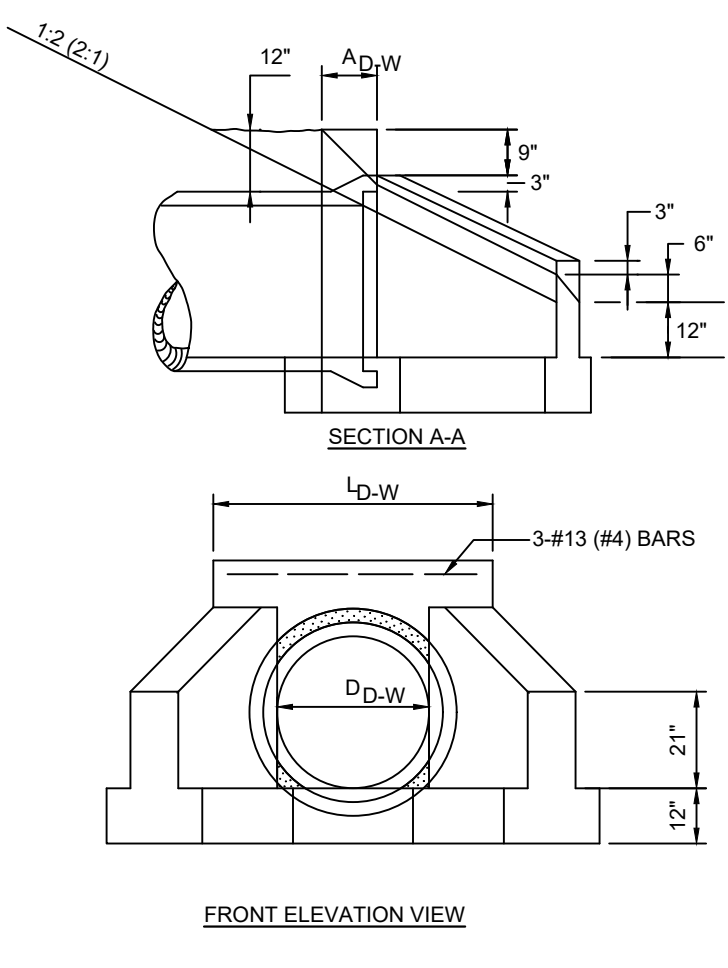
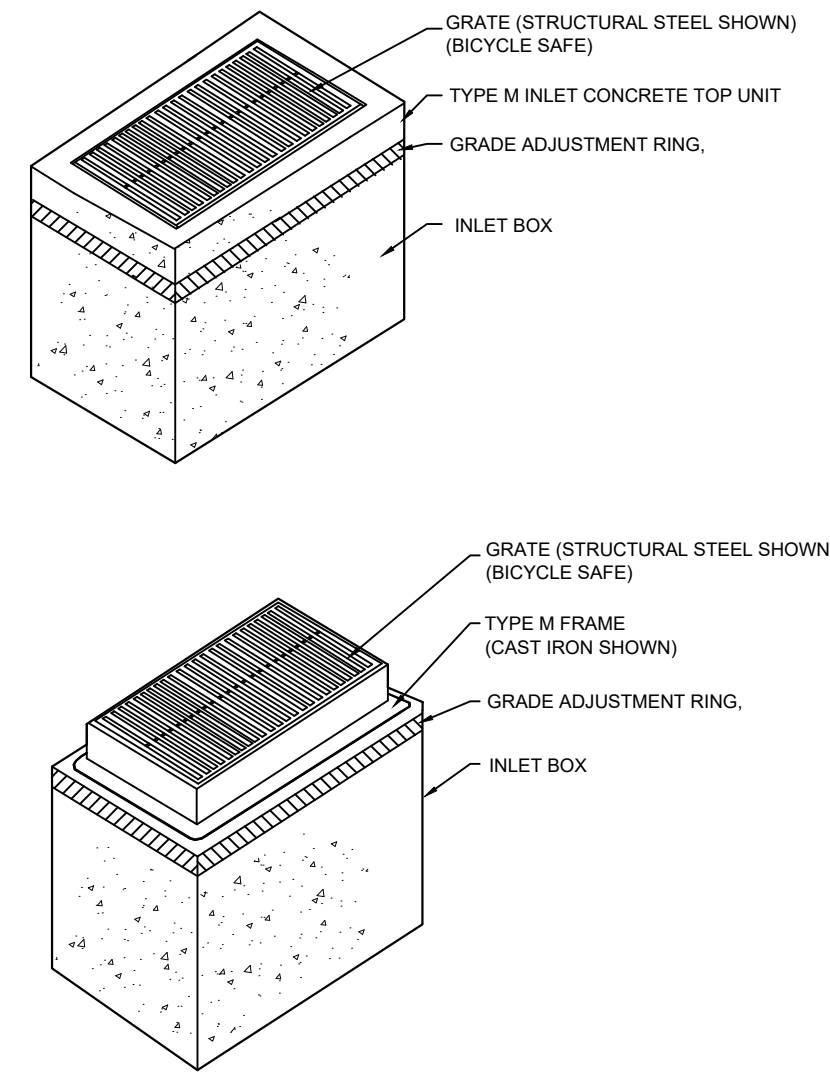
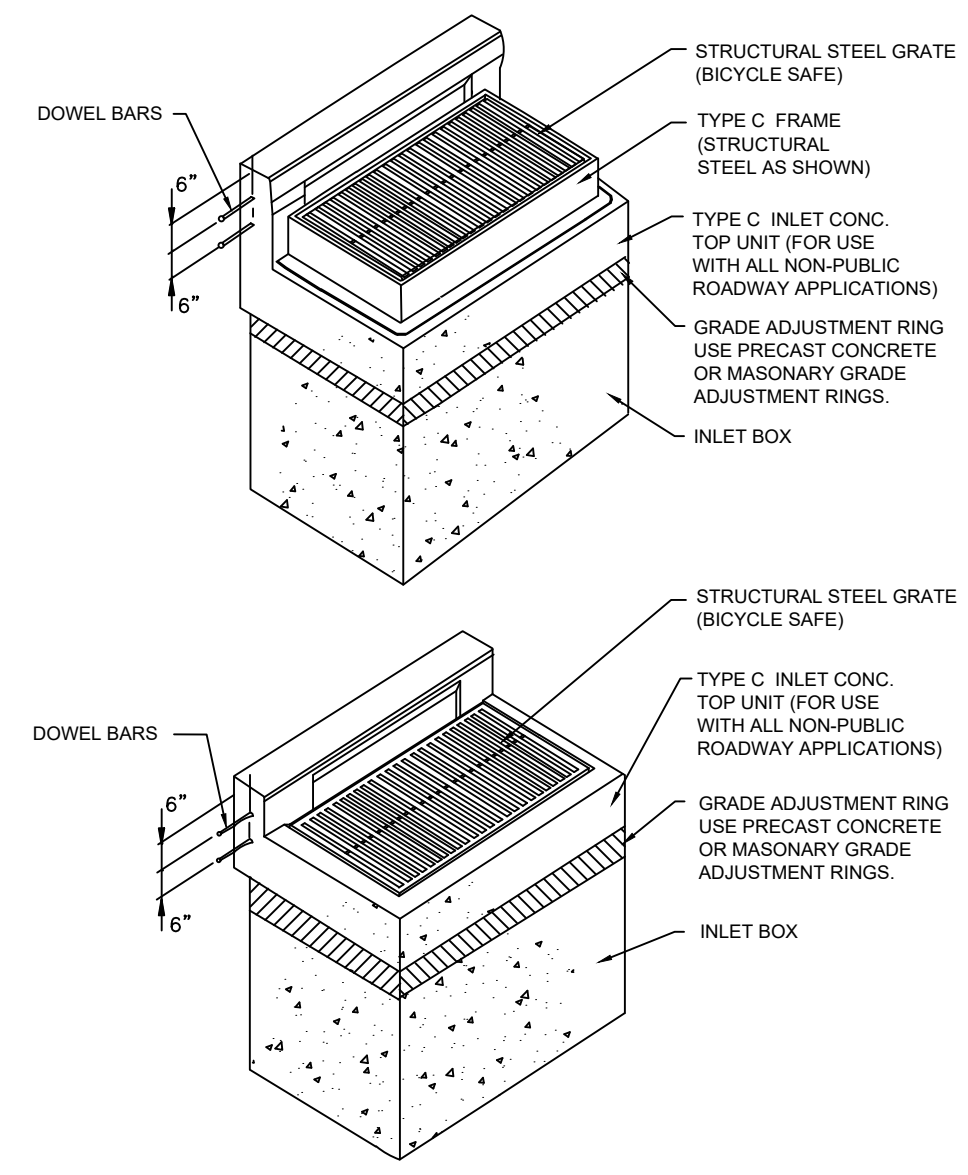
CLEANOUT DETAIL
N.T.S.



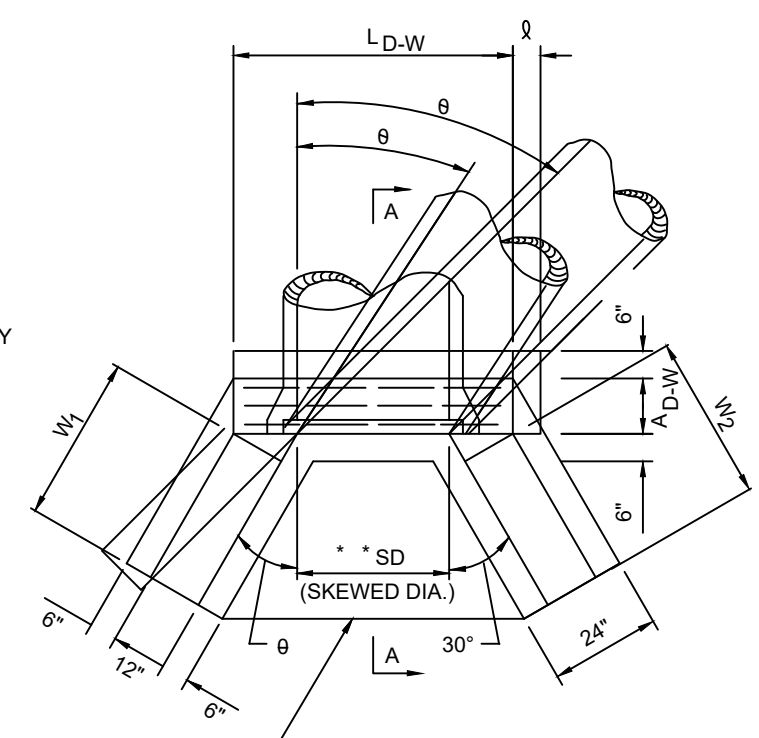
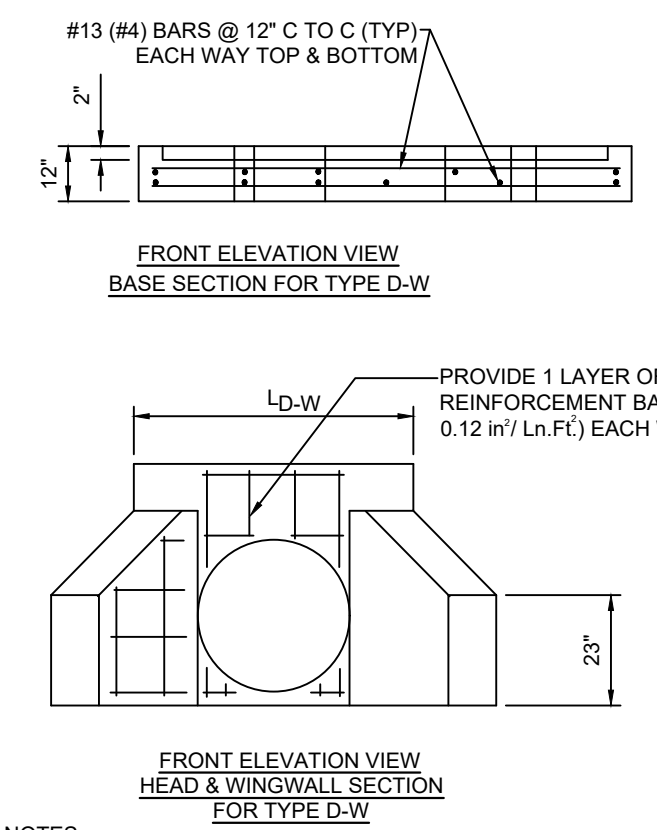
INLINE DRAIN NON TRAFFIC INSTALLATION (YD-3, YD-6)
N.T.S.



TRAPPED INLET
N.T.S.



PRECAST CONCRETE HEADWALL DETAIL
N.T.S.



3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Utility Details

ACTS SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

MARTIN J. EUSTACE, III, P.E.
PA Lic. PE048891E

EUSTACE
ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

307 Easton Road
Building B - 2nd Floor
Willow Grove, PA 19090
Tel: (215) 348-8757
Fax: (215) 348-8759
www.eustaceeng.com

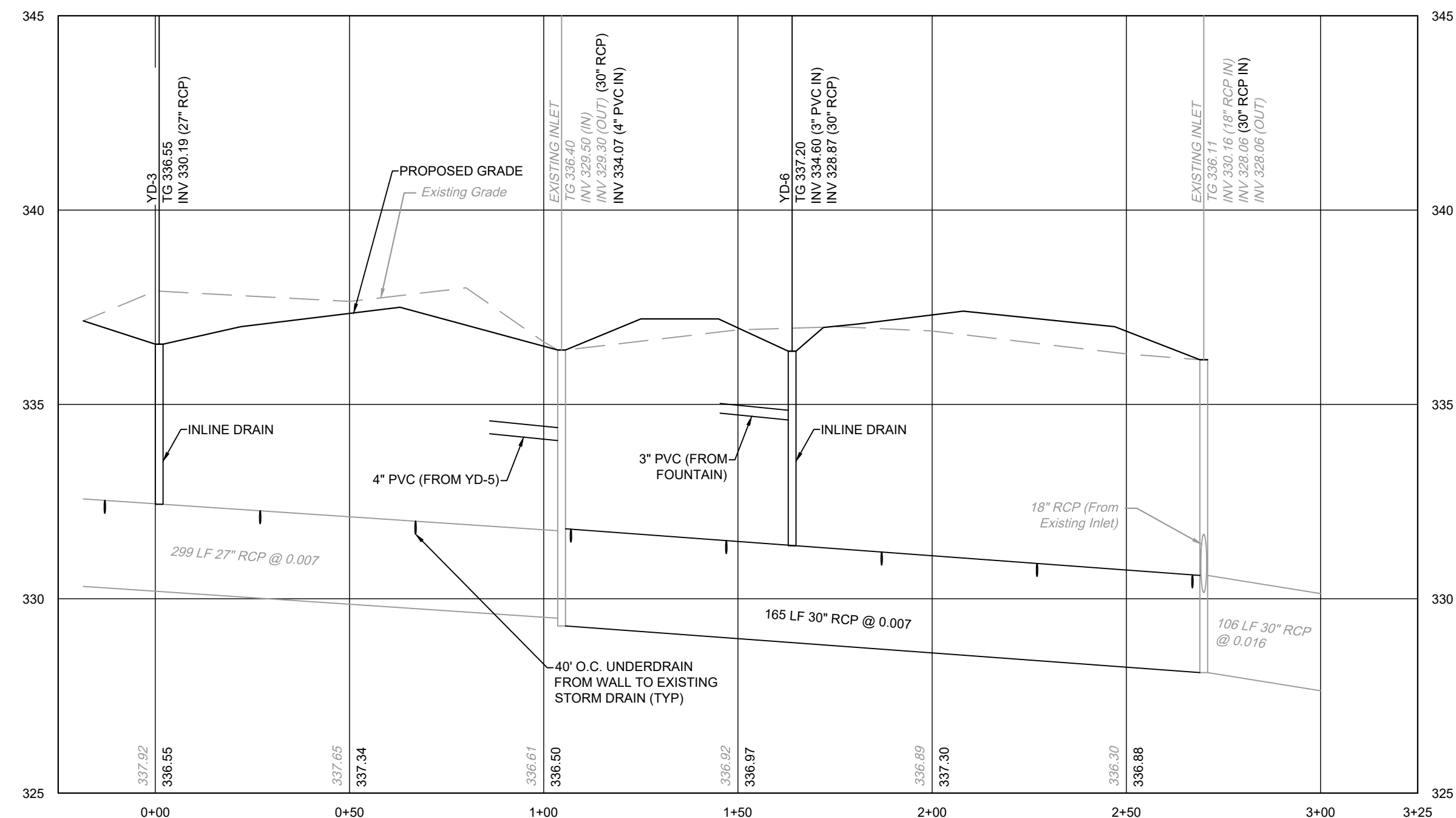
DRAWN BY: YG

CHECKED BY: MJE

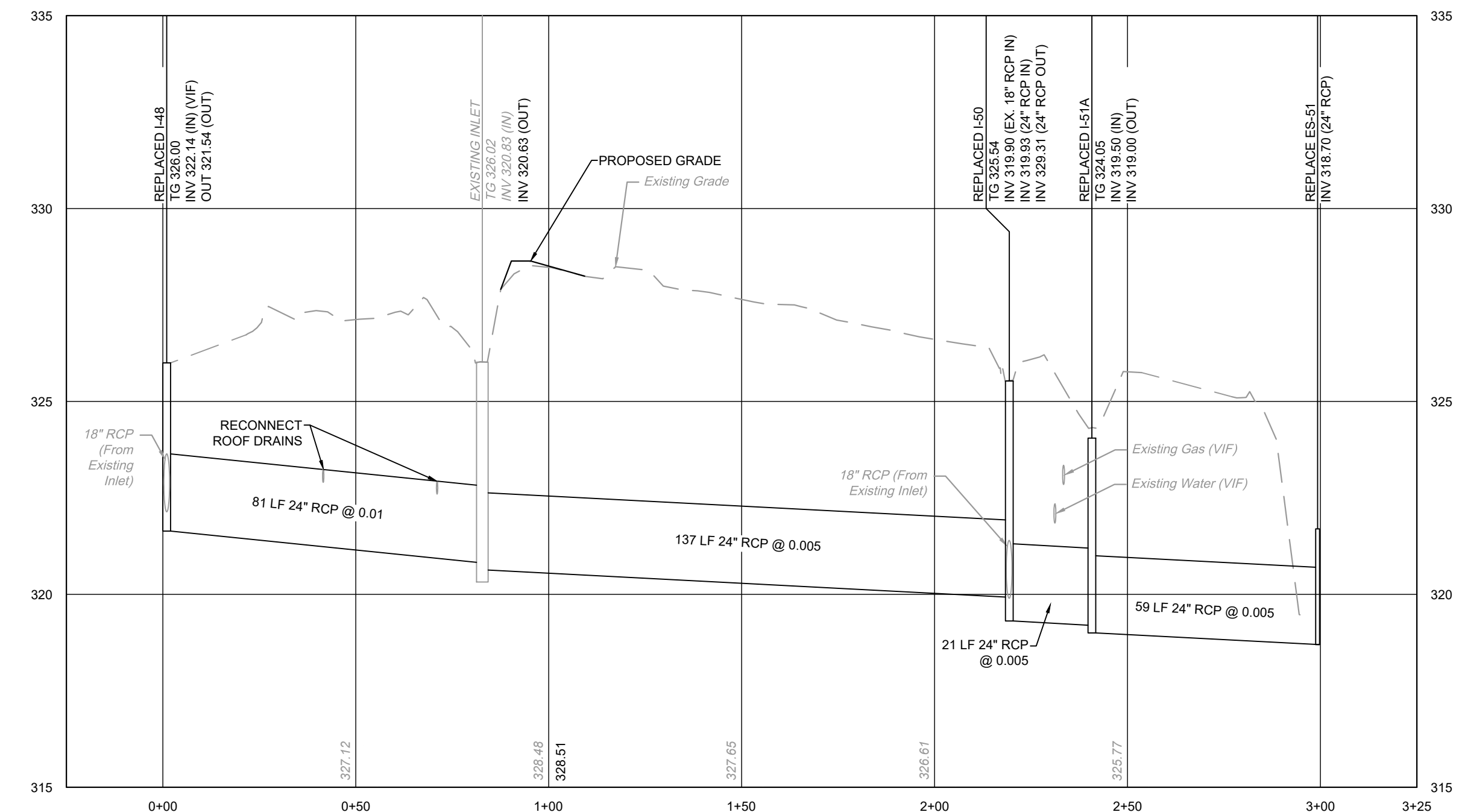
DATE: 11-20-2023

DRAWING No: D 2373 04 12

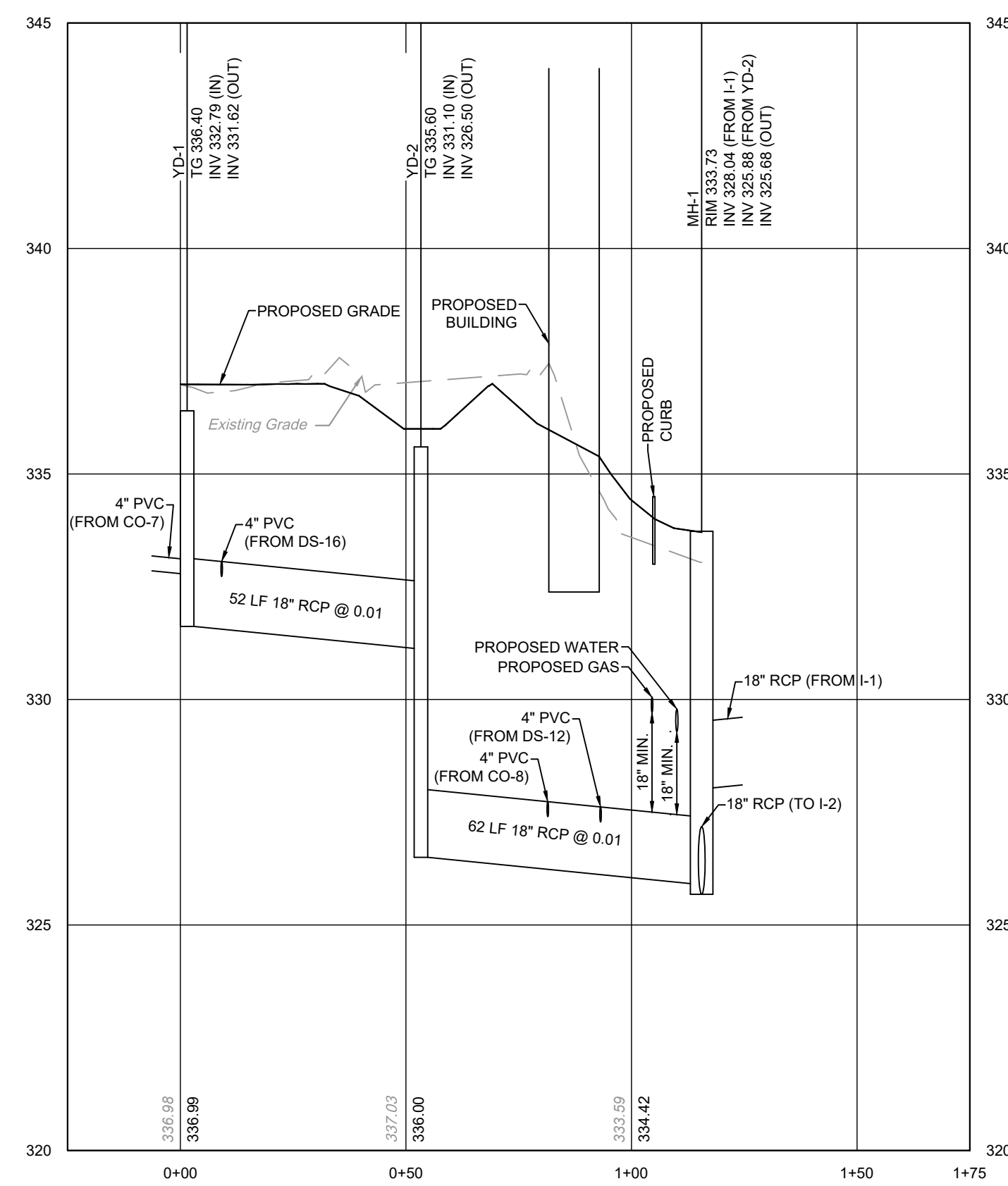
X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\07-utility details.dwg June 3, 2024



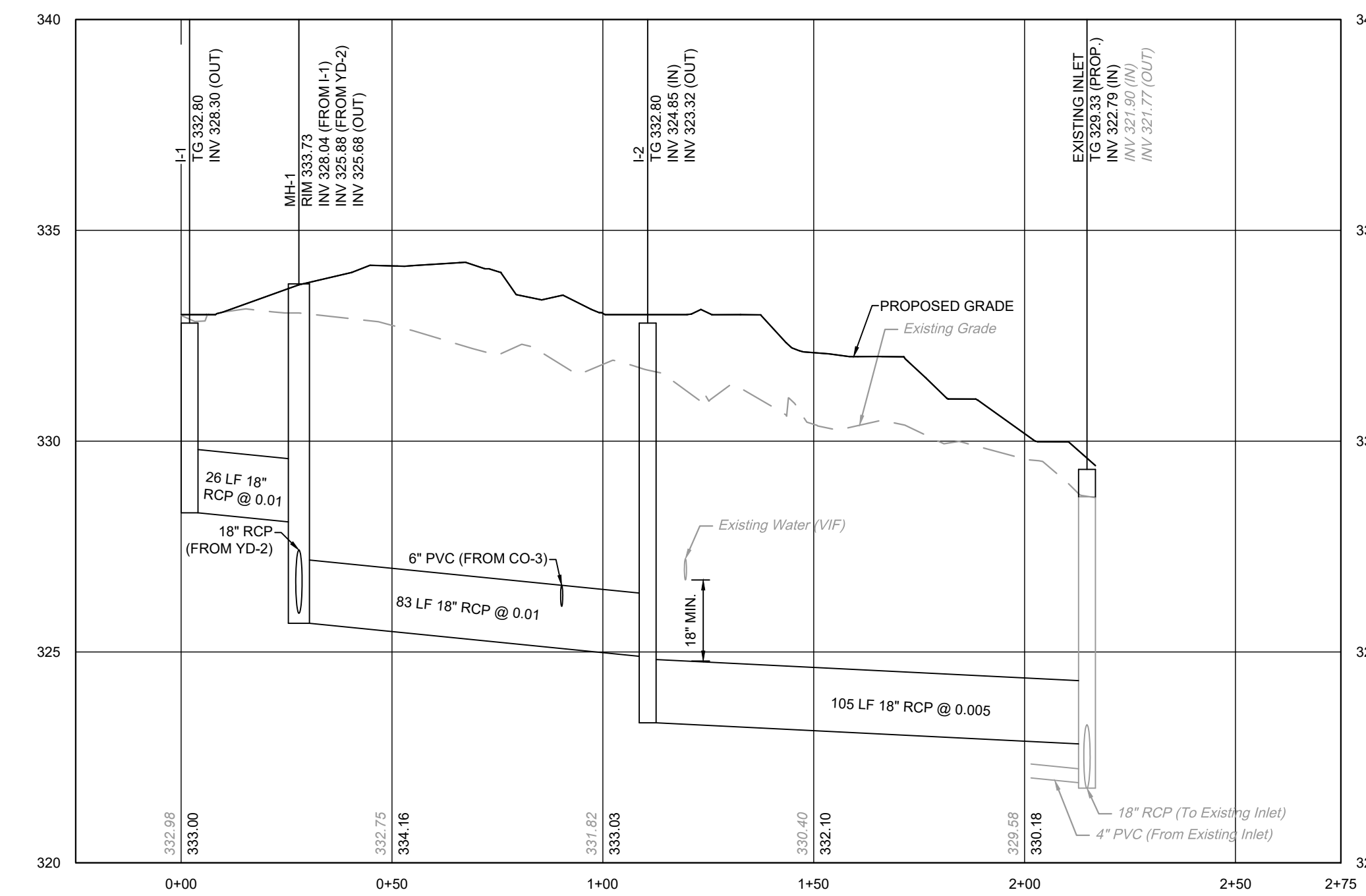
YD-3 TO EXISTING INLET
V: 1" = 3'
H: 1" = 30'



REPLACED I-48 TO REPLACED ES-51
V: 1" = 3'
H: 1" = 30'



YD-1 TO MH-1
V: 1" = 3'
H: 1" = 30'



I-1 TO EXISTING INLET
V: 1" = 3'
H: 1" = 30'

3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Utility Profiles
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

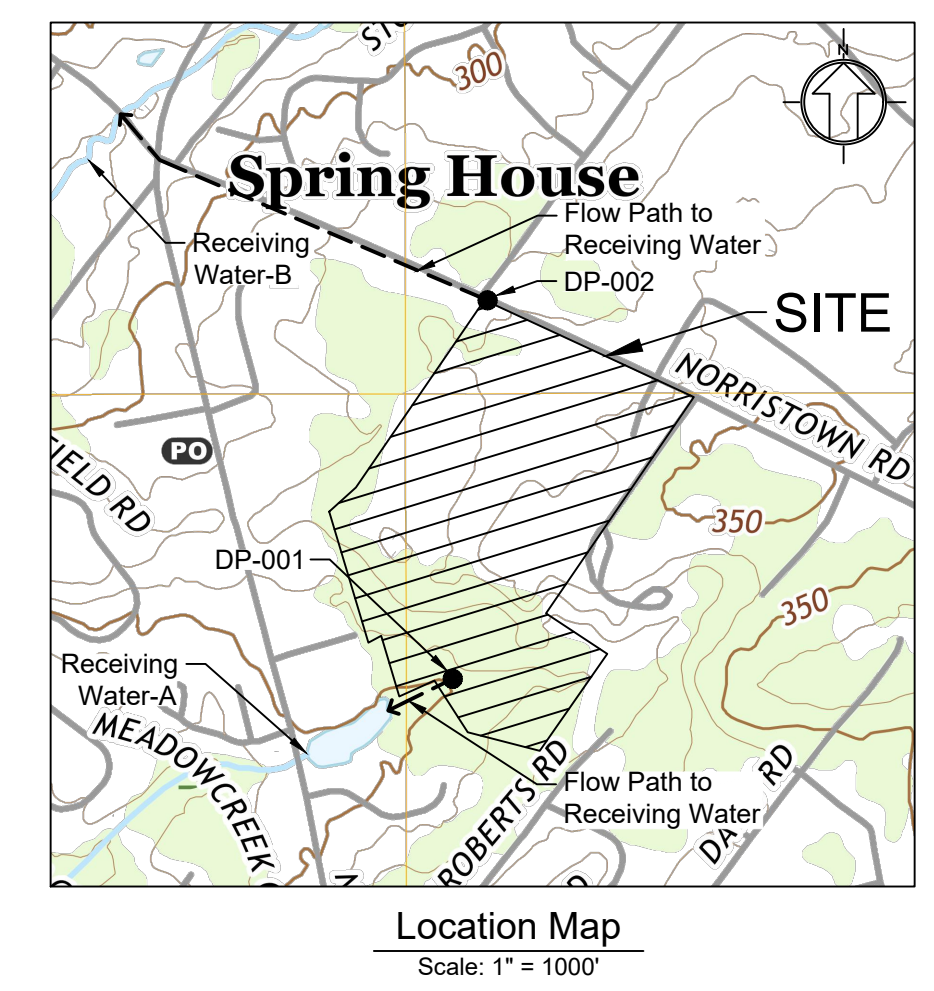
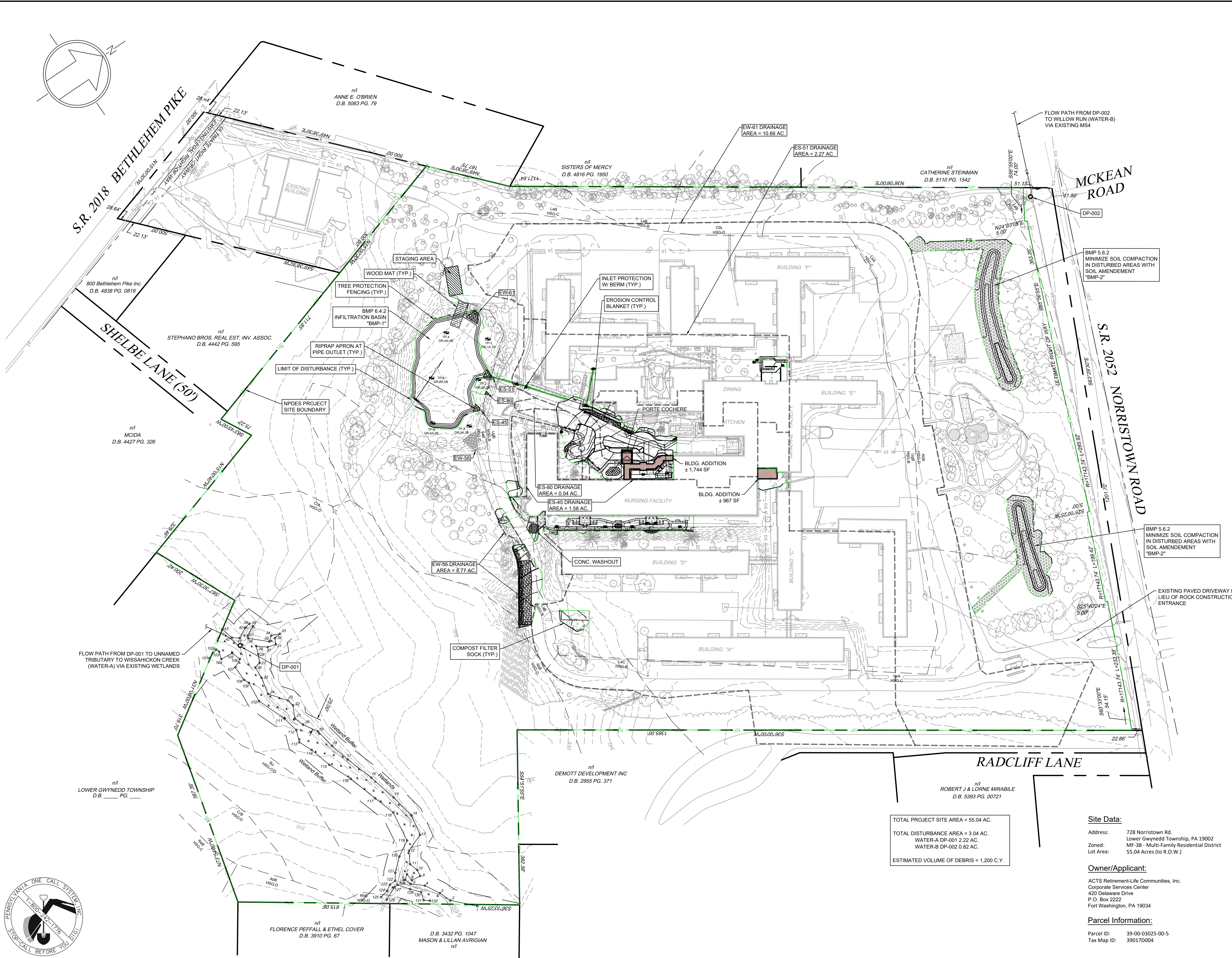
MARTIN J. EUSTACE, III
PROFESSIONAL ENGINEER
PA Lic. PE048891E

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ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

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DRAWN BY: YG
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DATE: 11-20-2023
DRAWING No.: D 2373 04 13

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\09-ES overall.dwg June 4, 2024



Legend

[Symbol]	Property Line
[Symbol]	Right-of-Way Line
[Symbol]	Existing Building
[Symbol]	Existing Curb
[Symbol]	Existing Wetlands
[Symbol]	Existing Stream
[Symbol]	Existing Concrete
[Symbol]	Existing Brick Paver
[Symbol]	Existing Gravel
[Symbol]	Existing Contour
[Symbol]	Existing Index Contour
[Symbol]	Relocated Gas Line
[Symbol]	Relocated Water Line
[Symbol]	Proposed Storm Line
[Symbol]	Proposed Inlet and Yard Drain
[Symbol]	Soil Boundary
[Symbol]	Wood Mat
[Symbol]	Tree Protection Fencing
[Symbol]	Compost Filter Sock
[Symbol]	Pipe Outlet Drainage Area
[Symbol]	Limit of Disturbance
[Symbol]	NPDES Project Site Boundary
[Symbol]	Discharge Point
[Symbol]	Testing Pit Location

TOTAL PROJECT SITE AREA = 55.04 AC.
 TOTAL DISTURBANCE AREA = 3.04 AC.
 WATER-A DP-001 2.22 AC.
 WATER-B DP-002 0.82 AC.
 ESTIMATED VOLUME OF DEBRIS = 1,200 C.Y.

Site Data:
 Address: 728 Norristown Rd.
 Lower Gwynedd Township, PA 19002
 Zoned: MF-3B - Multi-Family Residential District
 Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
 ACTS Retirement-Life Communities, Inc.
 Corporate Services Center
 420 Delaware Drive
 P.O. Box 2222
 Fort Washington, PA 19034

Parcel Information:
 Parcel ID: 39-00-03025-00-5
 Tax Map ID: 390170004

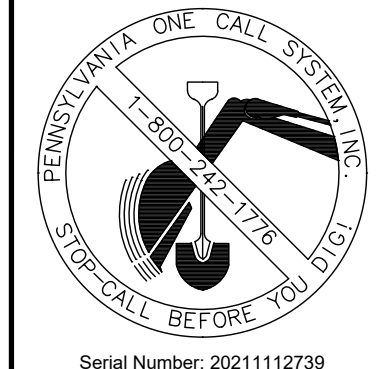
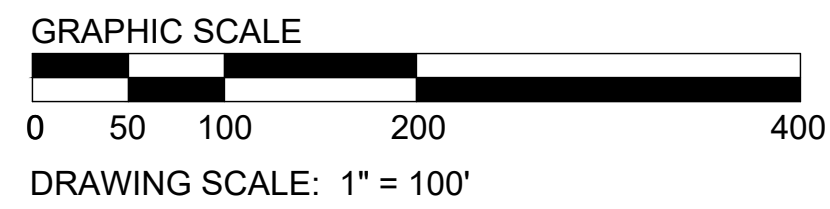
3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Overall Erosion and Sediment Control Plan
ACTS SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

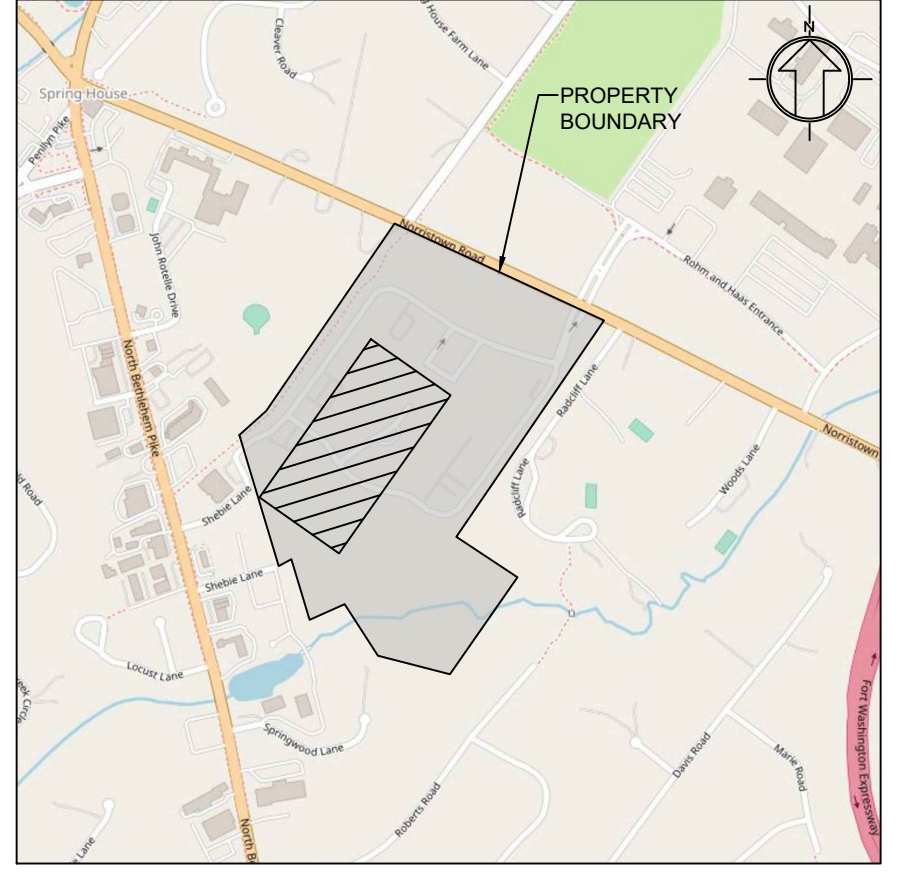
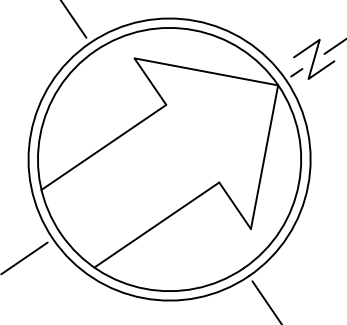
EUSTACE
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 307 Easton Road
 Willow Grove, PA 19090
 Tel: (215) 348-8757
 Fax: (215) 348-8759
 www.eustaceeng.com

DRAWN BY: YG
 CHECKED BY: MJE
 DATE: 11-20-2023
 DRAWING No.: D 2373 04 14



Act 287
 ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.



Location Map
Scale: 1" = 1000'

BMP 6.4.2
INFILTRATION BASIN
"BMP-1"

STAGING AREA
TEMPORARILY ADJUST
CONTOURS TO BE
PARALLEL WITH TIMBERS

WOOD MAT
TP-4
(DR-4A, 4B)

TP-1
(DR-1A, 1B)

TP-2
(DR-2A, 2B)

TP-5
(DR-5A, 5B)

TP-3
(DR-3A, 3B)

ES-80
PROP. R-3
RIPRAP

ES-45
PROP. R-4
RIPRAP

EW-56
EXISTING
RIPRAP TO
REMAIN

FS-6A

FS-6B

EARTH DISTURBANCE
AREA = 67,876 SF

EROSION CONTROL BLANKET

TREE PROTECTION
FENCING (TYP.)

EARTH DISTURBANCE
AREA = 1,294 SF

FS-6B

TOPSOIL STOCKPILE AREA

REFER TO SHEET 18 OF 26 FOR
LIST OF INLET PROTECTION
DRAINAGE AREA (TYP.)

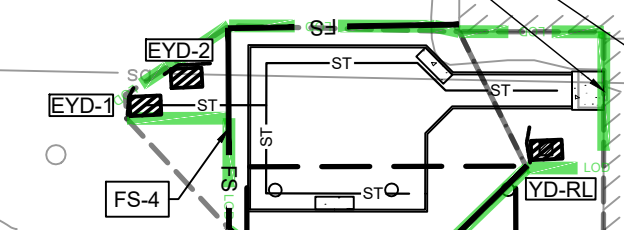
EROSION CONTROL BLANKET

FS-2A

FS-2B

FS-2C

FS-2D



ADJUST BUILDING ENTRANCE AS
NEEDED FOR HAND EQUIPMENT.
EXISTING PAVED SIDEWALK AND
DRIVEWAY TO BE USED IN LIEU
OF CONSTRUCTION ACCESS.

EARTH DISTURBANCE
AREA = 1,907 SF

ADJUST BUILDING ENTRANCE AS
NEEDED FOR HAND EQUIPMENT.
EXISTING PAVED SIDEWALK AND
DRIVEWAY TO BE USED IN LIEU
OF CONSTRUCTION ACCESS.

EARTH DISTURBANCE
AREA = 2,375 SF

FS-5

Legend

	Existing Building		Proposed Curb
	Existing Curb		Proposed Wall
	Existing Concrete		Proposed Gravel
	Existing Brick Paver		Proposed Soil Amendment
	Existing Gravel		Proposed Contour
	Existing Contour		Proposed Index Contour
	Existing Sanitary Sewer Line		Relocated Gas Line
	Existing Water Line		Relocated Water Line
	Existing Gas Line		Proposed Storm Line
	Existing Storm Line		Proposed Inlet and Yard Drain
	Existing Electric Line		Soil Boundary
	Existing Light Pole		Wood Mat
	Existing Inlet and Yard Drain		Tree Protection Fencing
	Existing Utility Pole		Composite Filter Sock
	Existing Fire Hydrant		Inlet Protection / Composite Filter Sock Trap Drainage Area
	Existing Manhole		Limit of Disturbance
	Proposed Building		Testing Pit Location
	Proposed Sidewalk		

Site Data:

Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

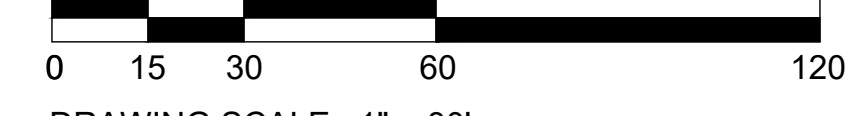
Owner/Applicant:

ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:

Parcel ID: 39-00-03025-00-5
Tax Map ID: 390170004

GRAPHIC SCALE



DRAWING SCALE: 1" = 30'

SHEET 15 OF 34

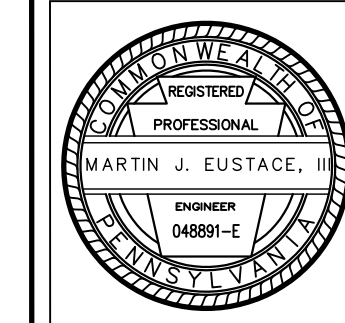
MATCH LINE E&S PLAN - A
MATCH LINE E&S PLAN - B

3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTED TO TOWNSHIP.

Erosion and Sediment Control Plan - A

ACTS SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA



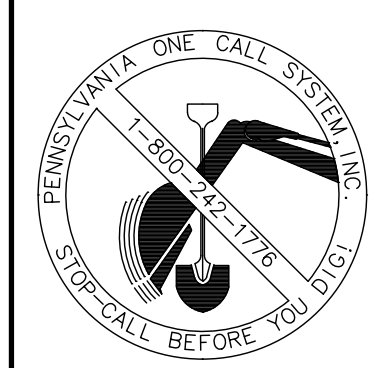
EUSTACE
ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

307 Easton Road
Building B - 2nd Floor
Willow Grove, PA 19090
Tel: (215) 348-8757
Fax: (215) 348-8759
www.eustaceeng.com

Martin J. Eustace, III, P.E.
PA Lic. PE048891E

DRAWN BY	YG
CHECKED BY	MJE
DATE	11-20-2023
DRAWING No.	D 2373 04 15

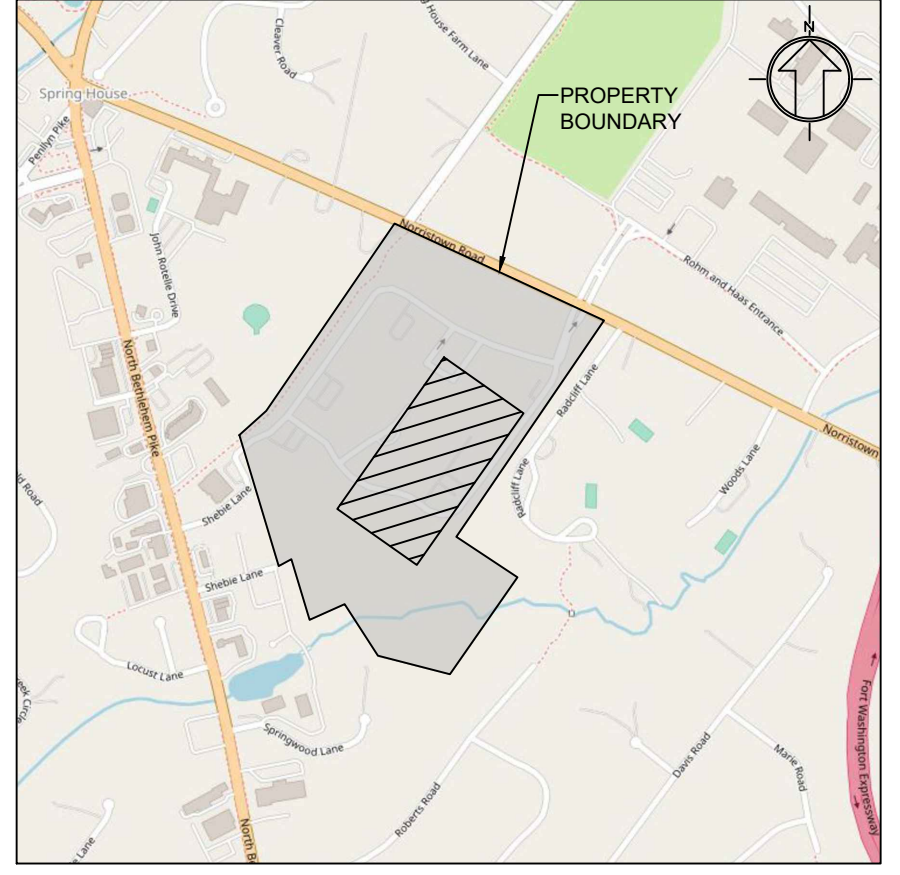
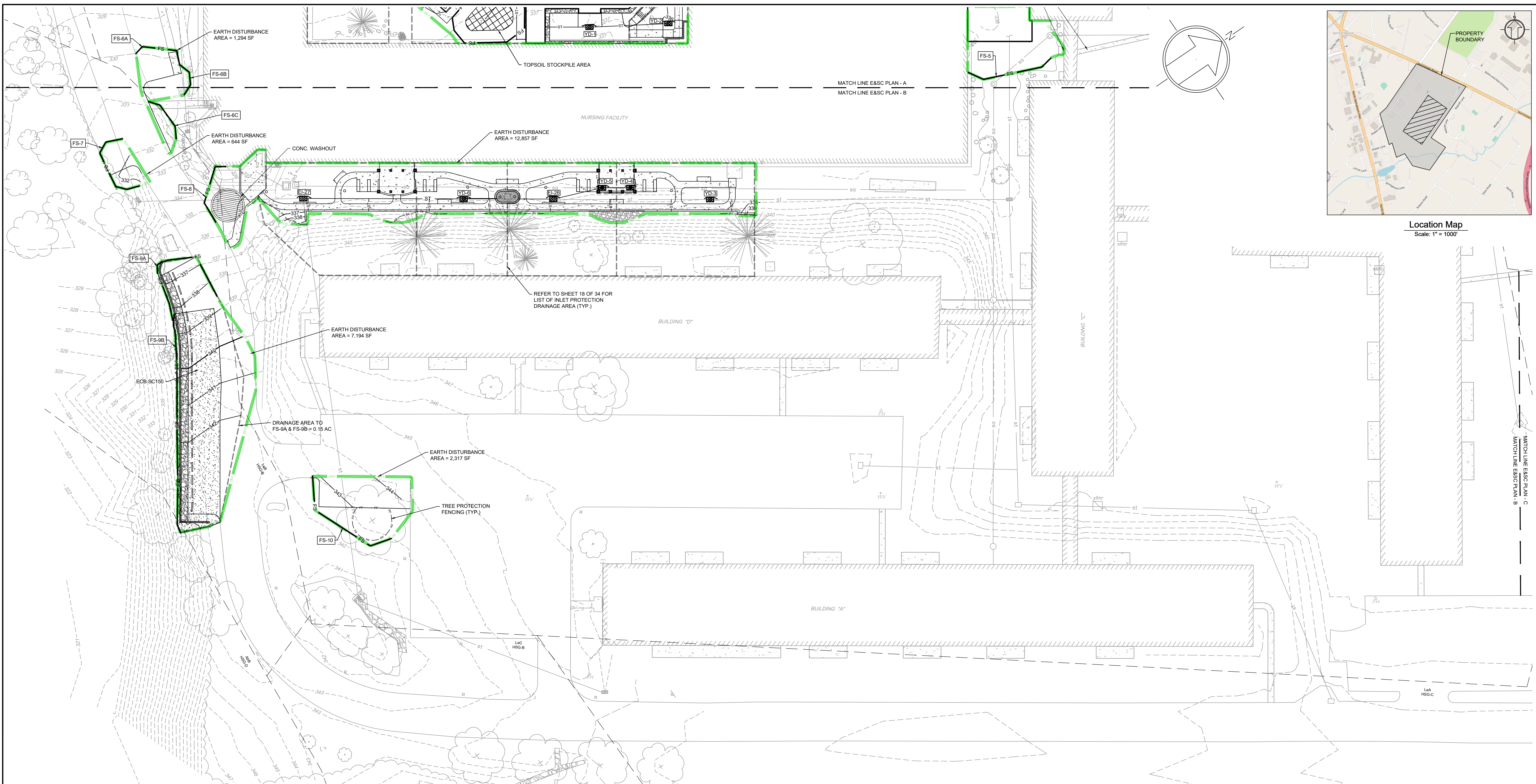
X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\10a-ES.dwg May 28, 2024



Serial Number: 2021112739

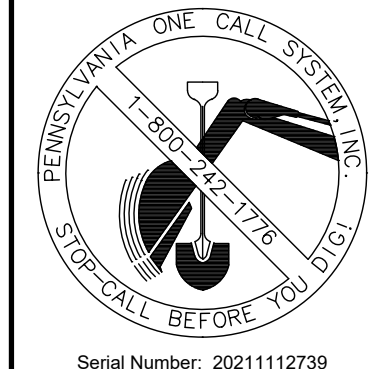
Act 287

ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.



Location Map
Scale: 1" = 1000'

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\10-ES.dwg May 28, 2024



Serial Number: 2021112739

Act 287
ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.

Legend	
	Existing Building
	Existing Curb
	Existing Concrete
	Existing Brick Paver
	Existing Gravel
	Existing Contour
	Existing Index Contour
	Existing Sanitary Sewer Line
	Existing Water Line
	Existing Gas Line
	Existing Storm Line
	Existing Electric Line
	Existing Light Pole
	Existing Inlet and Yard Drain
	Existing Utility Pole
	Existing Fire Hydrant
	Existing Manhole
	Proposed Building
	Proposed Sidewalk
	Proposed Curb
	Proposed Wall
	Proposed Gravel
	Proposed Soil Amendment
	Proposed Contour
	Proposed Index Contour
	Relocated Gas Line
	Relocated Water Line
	Proposed Storm Line
	Proposed Inlet and Yard Drain
	Soil Boundary
	Wood Mat
	Tree Protection Fencing
	Compost Filter Sock
	Inlet Protection / Compost Filter Sock Trap Drainage Area
	Limit of Disturbance
	Testing Pit Location

Site Data:

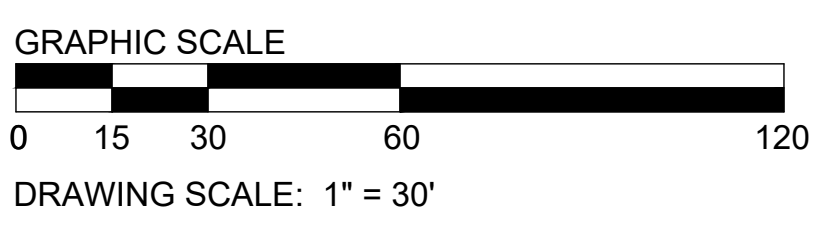
Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:

ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:

Parcel ID: 39-00-03025-00-5
Tax Map ID: 390170004



3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

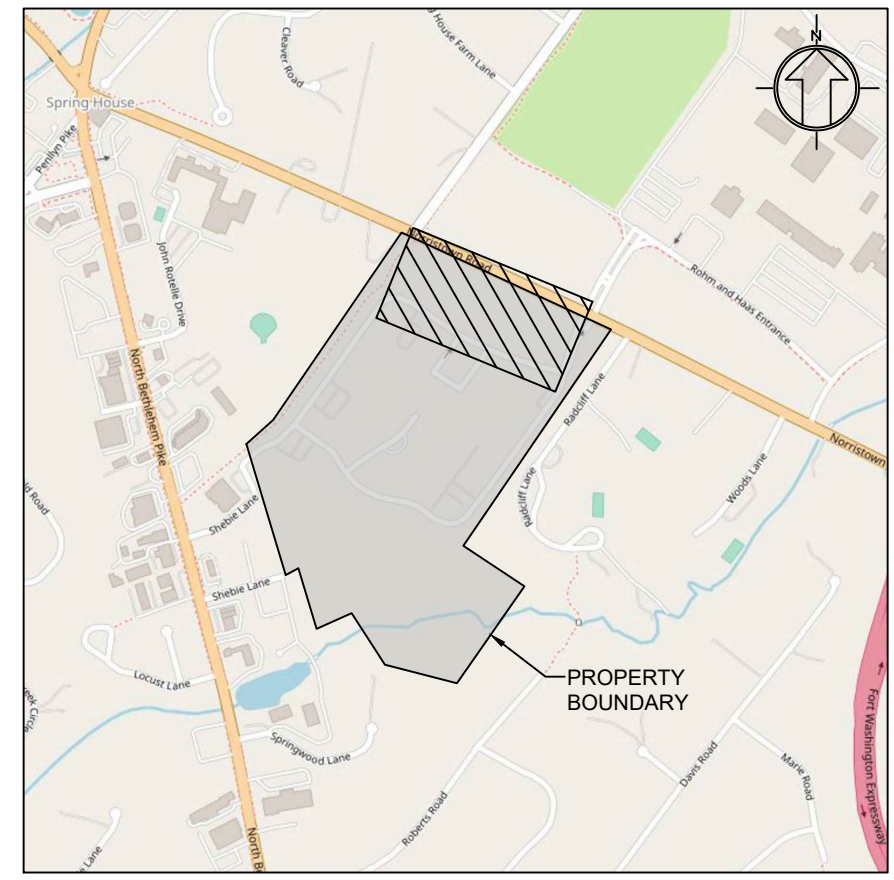
Erosion and Sediment Control Plan - B

ACTS SPRING HOUSE ESTATES

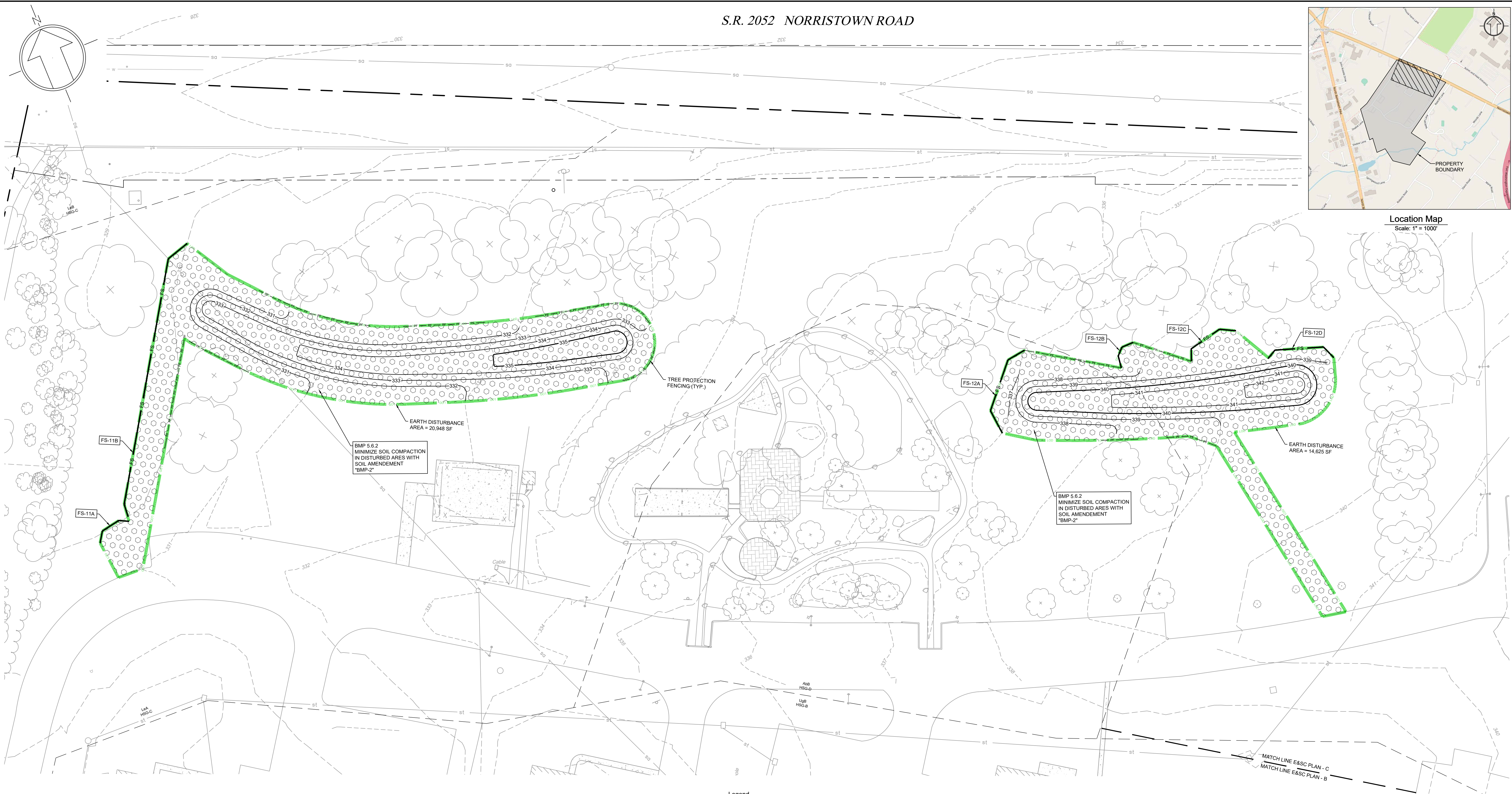
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

307 Easton Road
Willow Grove, PA 19090
Tel: (215) 348-8757
Fax: (215) 348-8759
www.eustaceeng.com

DRAWN BY: YG
CHECKED BY: MJE
DATE: 11-20-2023
DRAWING No.: D 2373 04 16



Location Map
Scale: 1" = 1000'



Legend

	Existing Building		Proposed Curb
	Existing Contour		Proposed Wall
	Existing Sanitary Sewer Line		Proposed Gravel
	Existing Water Line		Proposed Soil Amendment
	Existing Gas Line		Proposed Contour
	Existing Storm Line		Proposed Index Contour
	Existing Electric Line		Relocated Gas Line
	Existing Light Pole		Relocated Water Line
	Existing Inlet and Yard Drain		Proposed Storm Line
	Existing Utility Pole		Proposed Inlet and Yard Drain
	Existing Fire Hydrant		Soil Boundary
	Existing Manhole		Wood Mat
	Proposed Building		Tree Protection Fencing
	Proposed Sidewalk		Compost Filter Sock
			Inlet Protection / Compost Filter Sock
			Limit of Disturbance
			Testing Pit Location

Site Data:

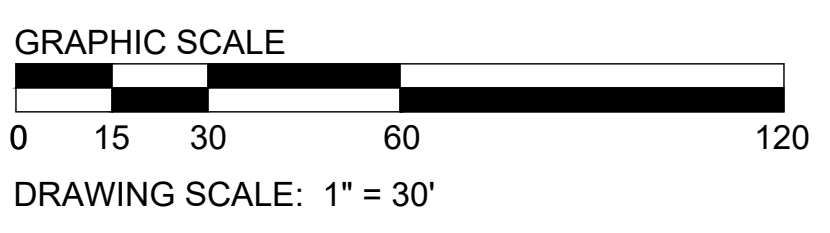
Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-38 - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:

ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:

Parcel ID: 39-00-03025-00-5
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1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Erosion and Sediment Control Plan - C
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

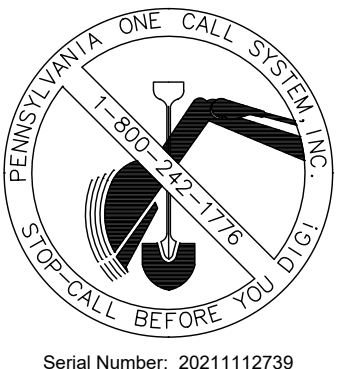
M. J. EUSTACE, III, P.E.
PA Lic. PE048891E

EUSTACE
ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

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DRAWN BY: YG
CHECKED BY: MJE
DATE: 11-20-2023
DRAWING No.: D 2373 04 17

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\10c-ES.dwg May 28, 2024



Act 287
ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199 OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.

E&S CONTROL NARRATIVE

25 Pa. Code § 102.4.(b)(3)
Prepared by: Martin J. Eustace, III, P.E.
Experience: Since 1988 has prepared numerous sedimentation plans for sites up to 700 acres...

SITE LOCATION

The project site is located at 728 Norristown Road in Lower Gwynedd Township, Montgomery County, PA. The site is bounded by Norristown Road to the north, Radcliff Lane and residential properties to the east...

EXISTING SITE & PROPOSED DEVELOPMENT

25 Pa. Code § 102.4.(b)(5)(i),(ii),(iii),(iv)
The project site is located in the Wissachick Creek Watershed. It consists of retirement centers and homes, nursing home, associated surface parking, open spaces, woodlands, wetlands, and stream...

PROPOSED STORMWATER MANAGEMENT

25 Pa. Code § 102.4.(b)(5)(v),(vi),(vii)
Most of the runoff from the proposed improvements will be conveyed via storm sewers or shallow concentrated flow to the infiltration basin. Runoff from the degraded area in the northern open space will be conveyed via sheet flow or shallow concentrated flow to the existing municipal storm sewer within Norristown Road...

PROPOSED E&S CONTROL

25 Pa. Code § 102.4.(b)(9),(10),(11),(12)
During the earthmoving period, we propose to control erosion and sedimentation by use of compost filter sock, tree protection fencing, compost sock sediment trap, and inlet protection.
Before any excavation begins, all perimeter compost filter sock shall be installed parallel to existing grade...

MAINTENANCE PROGRAM

25 Pa. Code § 102.4.(b)(13)
The contractor shall check the erosion and sedimentation control facilities as noted (once daily or weekly per BMP - see respective details), prior to any anticipated rainfall events, and after any runoff event. Sediment barriers shall be maintained in good repair...

SURFACE WATERS

- 1. Receiving Water A: Unnamed Tributary to Wissachick Creek-25960218
The designated use of the receiving water under 25 Pa. Code Chapter 93 is TSF (Trout Stocking) and MF (Migratory Fishes)...

RIPARIAN FOREST BUFFER

25 Pa. Code § 102.4.(b)(14)(v)
Wetland boundaries shown on E&S plans are from Record Plan, Job 187-021.01, (Drawing No. S0102, Sheet 1 of 18, prepared for Spring House Estates, prepared by Chambers Associates, Inc. (819 Conestoga Road, Villanova, PA 19085)...

RECYCLING OR DISPOSAL OF MATERIALS

25 Pa. Code § 102.4.(b)(15)
The operator shall remove from the site, recycle or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 280.1 et seq., 271.1 et seq., and 287.1 et seq.
Water pumped from work areas shall be treated for sediment removal prior to discharging to a surface water.

STANDARD E&S PLAN NOTES

- PA/DEP E&SPC Program Manual - Appendix C
1. All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times.
2. The reviewing agency shall be notified of any changes to the approved plan prior to implementation of those changes...

CONSTRUCTION SEQUENCE

25 Pa. Code § 102.4.(b)(16)(i)
All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed in compliance with Chapter 102 regulations before any following stage is initiated.
1. All earth disturbance activities shall be limited only to those areas described in each stage.
2. At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the E&S plan preparer...

PROPOSED PERMANENT SEEDING - LAWN

80% Turf Type Tall Fescue (3 dark green drought tolerant varieties min.)
10% Kentucky Bluegrass (drought tolerant variety)
10% Turf Type Perennial Ryegrass Rate: 6 Lbs. Per 1,000 s.f. = 262 lbs./Ac.
Fertilizer: 25 Lbs./1,000 s.f./10-20-20 Equiv. = 0.50 Tons/Ac.
Lime: 240 Lbs./1,000 s.f. = 6 Tons/Ac.
Straw mulch: 140 Lbs./1,000 s.f. = 3 Tons/Ac.
Provide clean, unchopped or not finely broken straw mulch on all seeded areas that are not blanketed...

TOPSOIL APPLICATION NOTES

Graded areas should be scarified or otherwise loosened to a depth of 3 to 5 inches to permit bonding of the topsoil to the surface areas and to provide a roughened surface to prevent topsoil from sliding down slope.
Topsoil should be uniformly distributed across the disturbed area to a depth of 4 to 8 inches minimum - 2 inches on fill outcrops. Spreading should be done in such a manner that sodding or seeding can proceed with a minimum of additional preparation or tillage. Irregularities in the surface resulting from topsoil placement should be corrected in order to prevent formation of depressions unless such depressions are part of the PCSM plan...

SOILS TYPES, DEPTHS, SLOPES, LIMITATIONS, & RESOLUTIONS

Table with columns: MAP UNIT SYMBOL, MAP UNIT NAME, HSG, DEPTH, SLOPE, HYDRIC SOIL RATING, CUTOBKANS CAVE, CORROSION TO CONCRETE/STEEL, DROUGHT, EASILY ERODIBLE, FLOODING, DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE, HYDRIC/CHRYC INCLUSIONS, LOW STRENGTH/LANDSLIDE PRONE, SLOW PERCOLATION, POOR SOURCE OF TOPSOIL, FROST ACTION, SHRINK-SWELL, POTENTIAL SINKHOLE, PONDING, WETNESS, LIMITATIONS.

STABILIZATION NOTES

- 1. Stockpile heights must not exceed 35'. Stockpile slopes must be 2:1 or flatter.
2. Upon completion of an earth disturbance activity or any stage or phase of an activity, the operator shall stabilize immediately the disturbed areas to protect from accelerated erosion. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not finished grade and which will be redistributed within 1 year may be stabilized in accordance with temporary seeding specifications.
3. Stockpiles must be stabilized immediately.
4. Hay or straw mulch must be applied at rates of at least 3.0 tons per acre. Straw mulch should be applied in long strands, not chopped or finely broken.

CLEAN FILL & ENVIRONMENTAL DUE DILIGENCE

- 1. Erosion control blankets must be installed on all slopes 3:1 or greater on all disturbed areas within 50 feet of streams and wetlands.
2. Utility trench excavation notes
1. Limit advanced clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
2. Work crews and equipment for trenching, placement of pipe, plug construction and backfilling will be self contained and separate from clearing and grubbing and site restoration and stabilization operations.

PROPOSED TEMPORARY SEEDING

100% Perennial Ryegrass
Pure Live Seed: 81%
Rate: 1 Lbs. per 1,000 s.f. = 0.02 Tons/Ac.
Provide clean mulch on all seeded areas.
Fertilizer: 12.5 Lbs. per 1,000 s.f. / 10-10-10 Equiv. = 0.25 Tons/Ac.
Lime: 40 Lbs. per 1,000 s.f. = 1 Tons/Ac.
Straw Mulch: 140 Lbs. per 1,000 s.f. = 3 Tons/Ac.
Provide clean, unchopped or not finely broken straw mulch on all seeded areas that are not blanketed...

PROPOSED PERMANENT SEEDING - STEEP SLOPES

Ernst Seed Co. Mix #126
"Retention Basin Floor Mix - Low Maintenance"
Rate: 0.5-1 lbs. per 1000 s.f.
Cover Crop: Grain Rye @ 50 lbs./Ac.
Fertilizer: 25 Lbs./1,000 s.f./10-20-20 Equiv. = 0.50 Tons/Ac.
Lime: 240 lb. per 1000 s.f. = 6 Tons/Ac.
Mulch: Clean Straw - 140 lb. per 1000 s.f. = 3 Tons/Ac.
Provide clean, unchopped or not finely broken straw mulch on all seeded areas that are not blanketed...

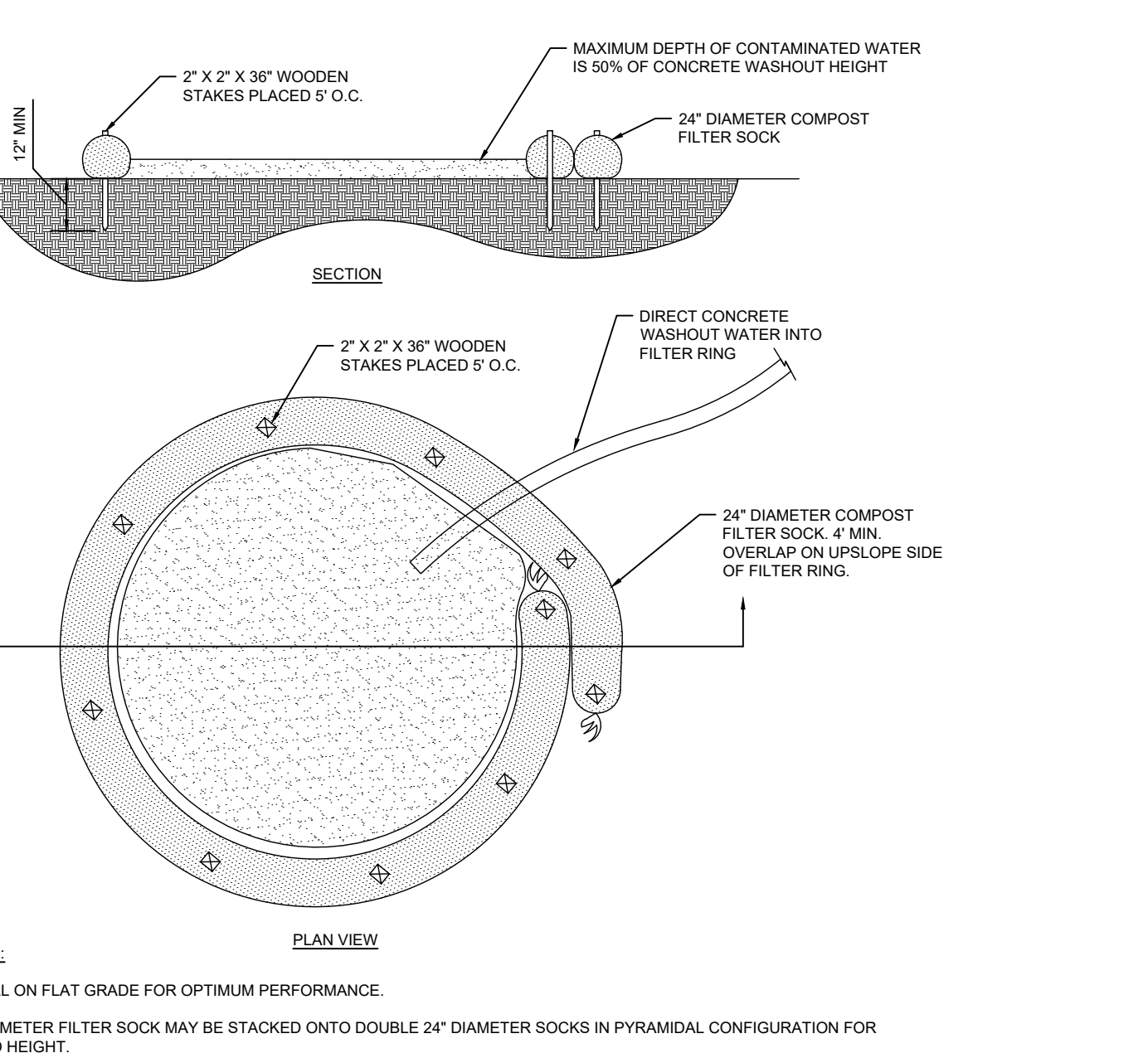
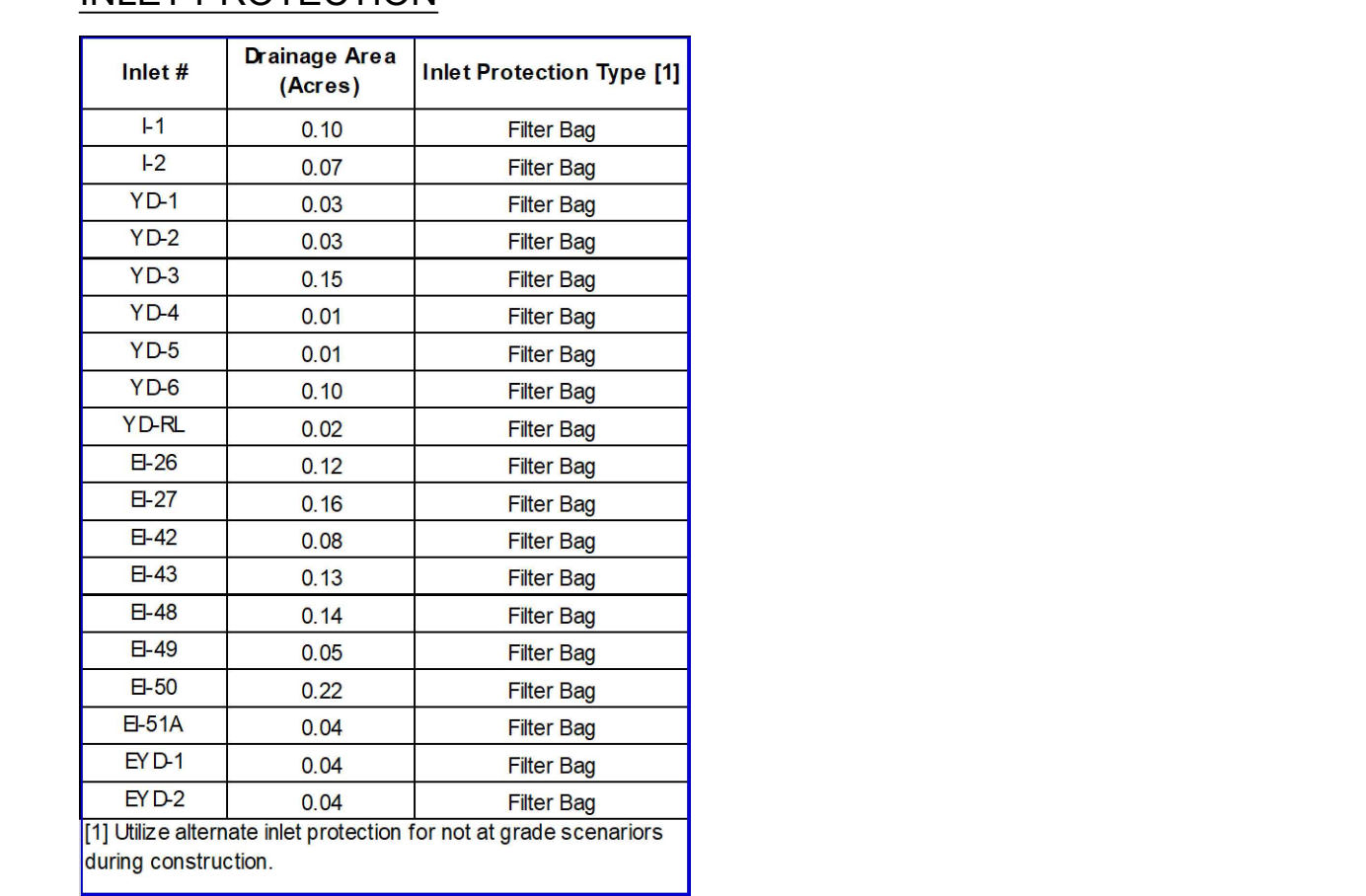
PROPOSED PERMANENT SEEDING - STEEP SLOPES

Ernst Seed Co. Mix #181
"Native Steep Slopes Mix with Annual Ryegrass"
Rate: 1.5 lb. per 1000 s.f.
Fertilizer: 25 Lbs./1,000 s.f./10-20-20 Equiv. = 0.50 Tons/Ac.
Lime: 240 lb. per 1000 s.f. = 6 Tons/Ac.
Mulch: Clean Straw - 140 lb. per 1000 s.f. = 3 Tons/Ac.
Provide clean, unchopped or not finely broken straw mulch on all seeded areas that are not blanketed...

PROPOSED PERMANENT SEEDING - STEEP SLOPES

Ernst Seed Co. Mix #181
"Native Steep Slopes Mix with Annual Ryegrass"
Rate: 1.5 lb. per 1000 s.f.
Fertilizer: 25 Lbs./1,000 s.f./10-20-20 Equiv. = 0.50 Tons/Ac.
Lime: 240 lb. per 1000 s.f. = 6 Tons/Ac.
Mulch: Clean Straw - 140 lb. per 1000 s.f. = 3 Tons/Ac.
Provide clean, unchopped or not finely broken straw mulch on all seeded areas that are not blanketed...

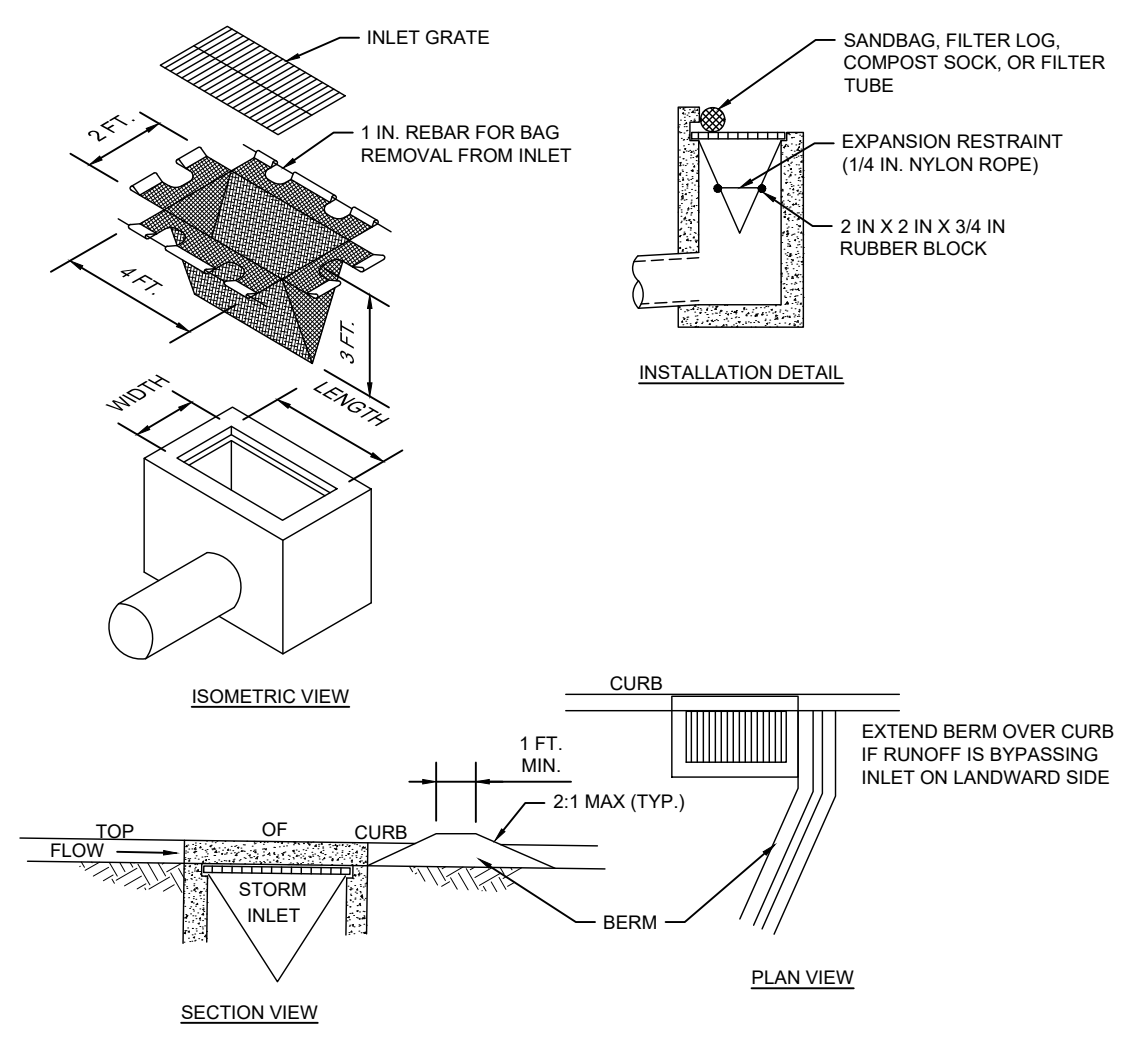
Table with 3 columns: Inlet #, Drainage Area (Acres), Inlet Protection Type [1]. Rows include I-1, I-2, YD-1, YD-2, YD-3, YD-4, YD-5, YD-6, YD-RL, B-26, B-27, B-42, B-43, B-48, B-49, B-50, B-51A, E'D-1, E'D-2.



CONCRETE WASHOUT
NOT TO SCALE
FOR ANY PROJECT ON WHICH CONCRETE WILL BE POURED OR OTHERWISE FORMED ON SITE, A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR THE CLEANING OF CHUTES, MIXERS, AND HOPPERS OF THE DELIVERY VEHICLES UNLESS SUCH A FACILITY WILL BE USED AT THE SOURCE OF THE CONCRETE. UNDER NO CIRCUMSTANCES MAY WASH WATER FROM THESE VEHICLES BE ALLOWED TO ENTER ANY SURFACE WATERS. MAKE SURE THAT PROPER SIGNAGE IS PROVIDED TO DRIVERS SO THAT THEY ARE AWARE OF THE PRESENCE OF WASHOUT FACILITIES.

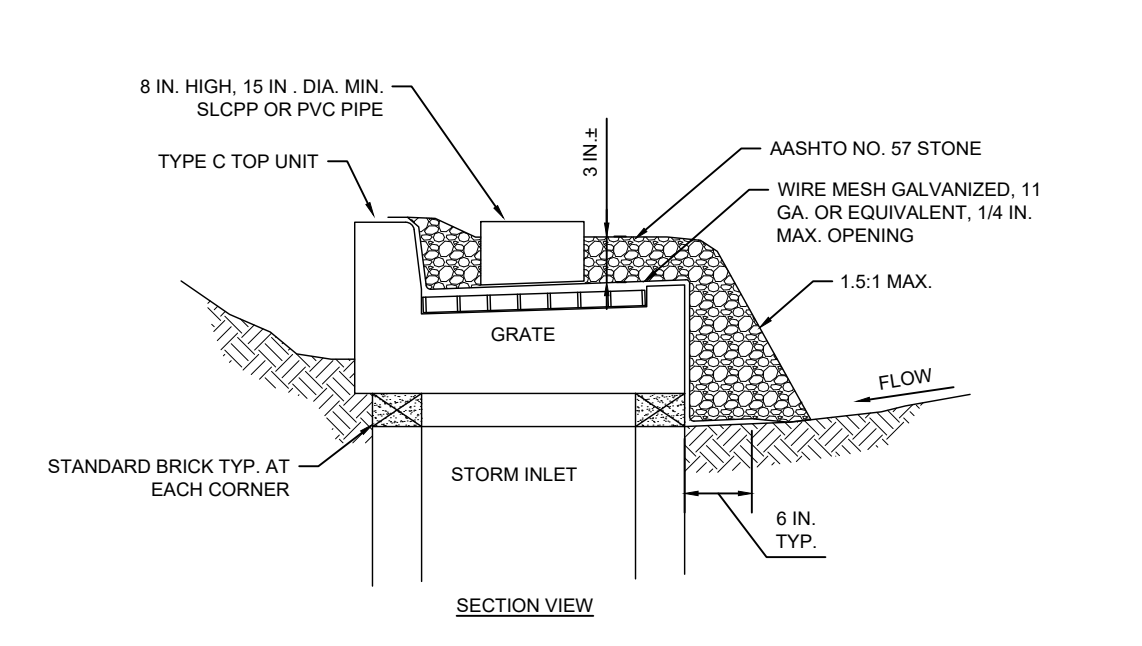
Professional seal and contact information for Eustace Engineers, Landscape Architects, and Surveyors. Includes Martin J. Eustace, III, P.E., PA Lic. PE048891E. Address: 307 Eaton Road, Building B - 2nd Floor, Willow Grove, PA 19090. Tel: (215) 348-8737, Fax: (215) 348-8759, www.eustaceeng.com.

X:\PROJECTS\12373\04 Acts - Spring House Estates\DRAWINGS\Land Development\11a-E&S notes and details.dwg August 2, 2024



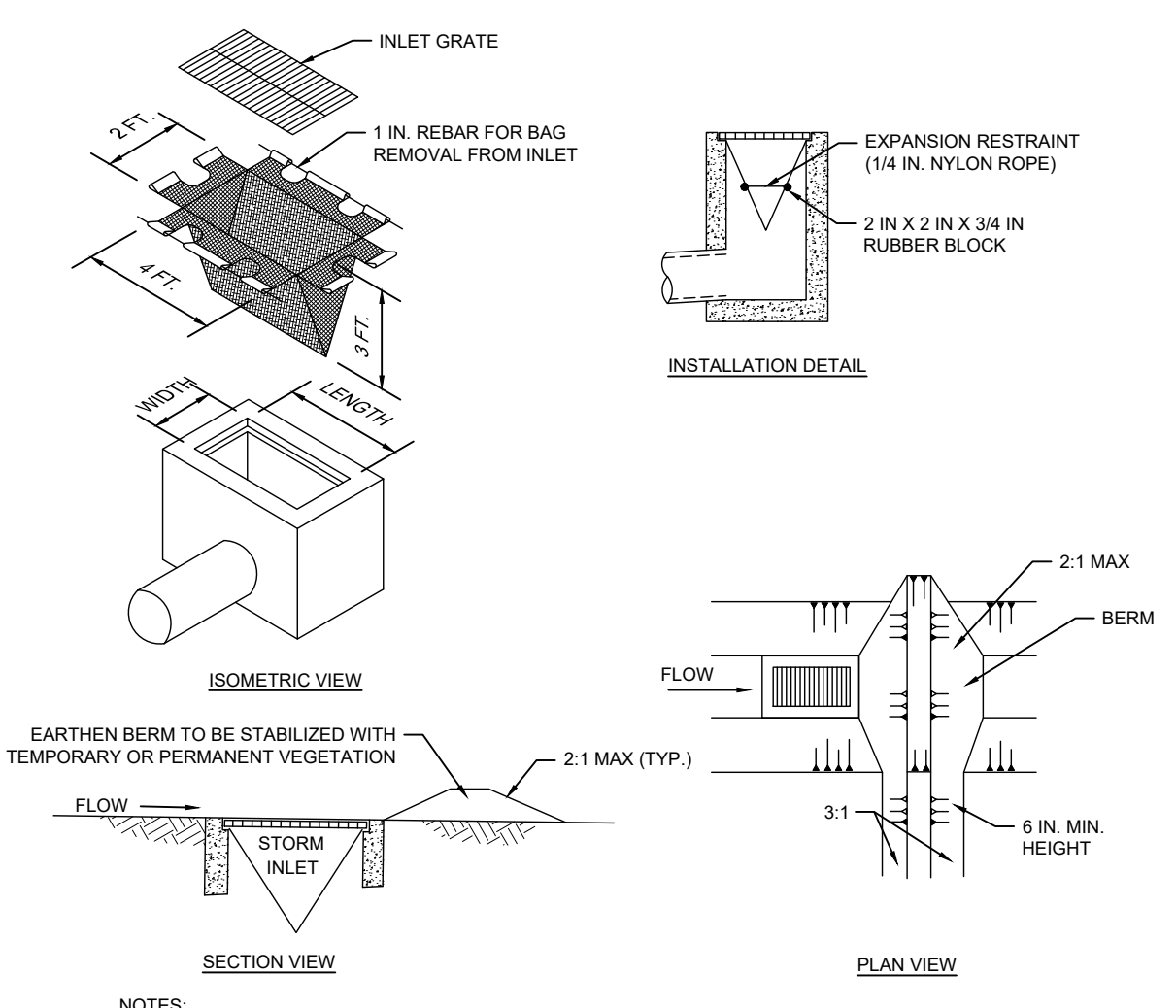
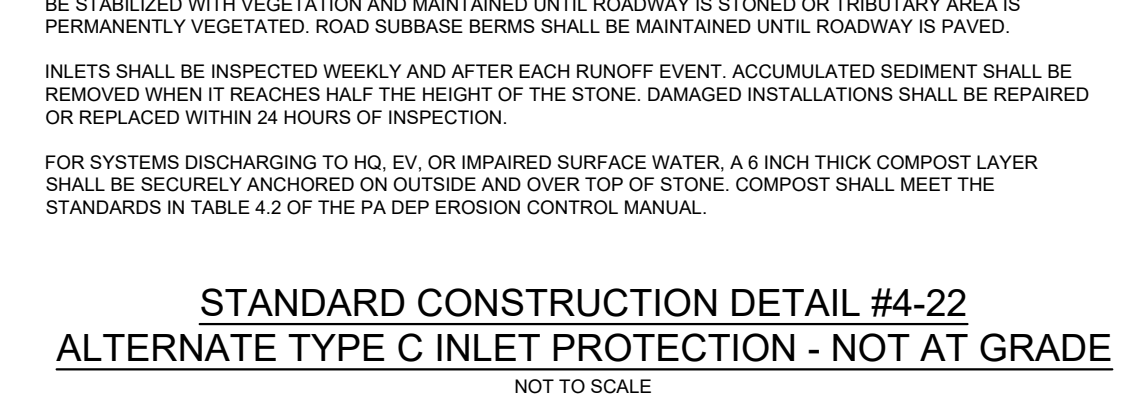
NOTES:
 MAXIMUM DRAINAGE AREA = 1/2 ACRE.
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. 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 ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
 DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-15
 FILTER BAG INLET PROTECTION - TYPE C INLET**
 NOT TO SCALE



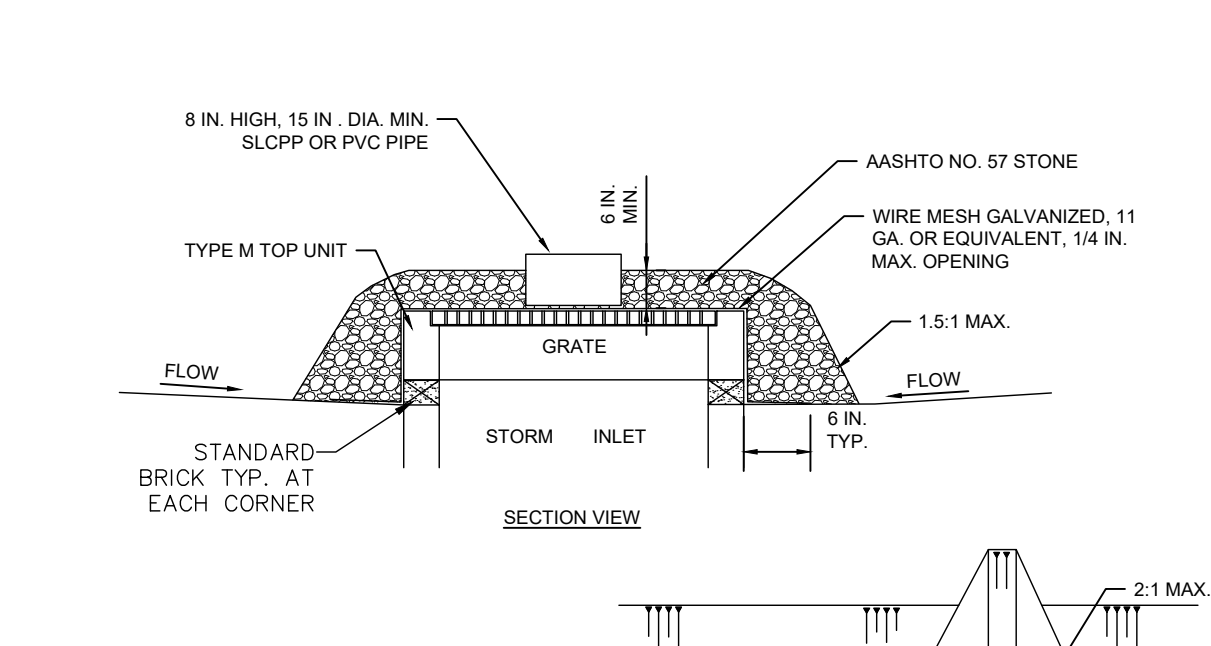
NOTES:
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASINS OR SEDIMENT TRAPS. ALTERNATE TYPE C INLET PROTECTION CAN BE USED ON ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD.
 BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT LOW POINTS. EARTHEN BERMS SHALL BE STABILIZED WITH VEGETATION AND MAINTAINED UNTIL ROADWAY IS STONED OR TRIBUTARY AREA IS PERMANENTLY VEGETATED. ROAD SUBBASE BERMS SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED.
 INLETS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.
 FOR SYSTEMS DISCHARGING TO HO, EV, OR IMPAIRED SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

**STANDARD CONSTRUCTION DETAIL #4-22
 ALTERNATE TYPE C INLET PROTECTION - NOT AT GRADE**
 NOT TO SCALE



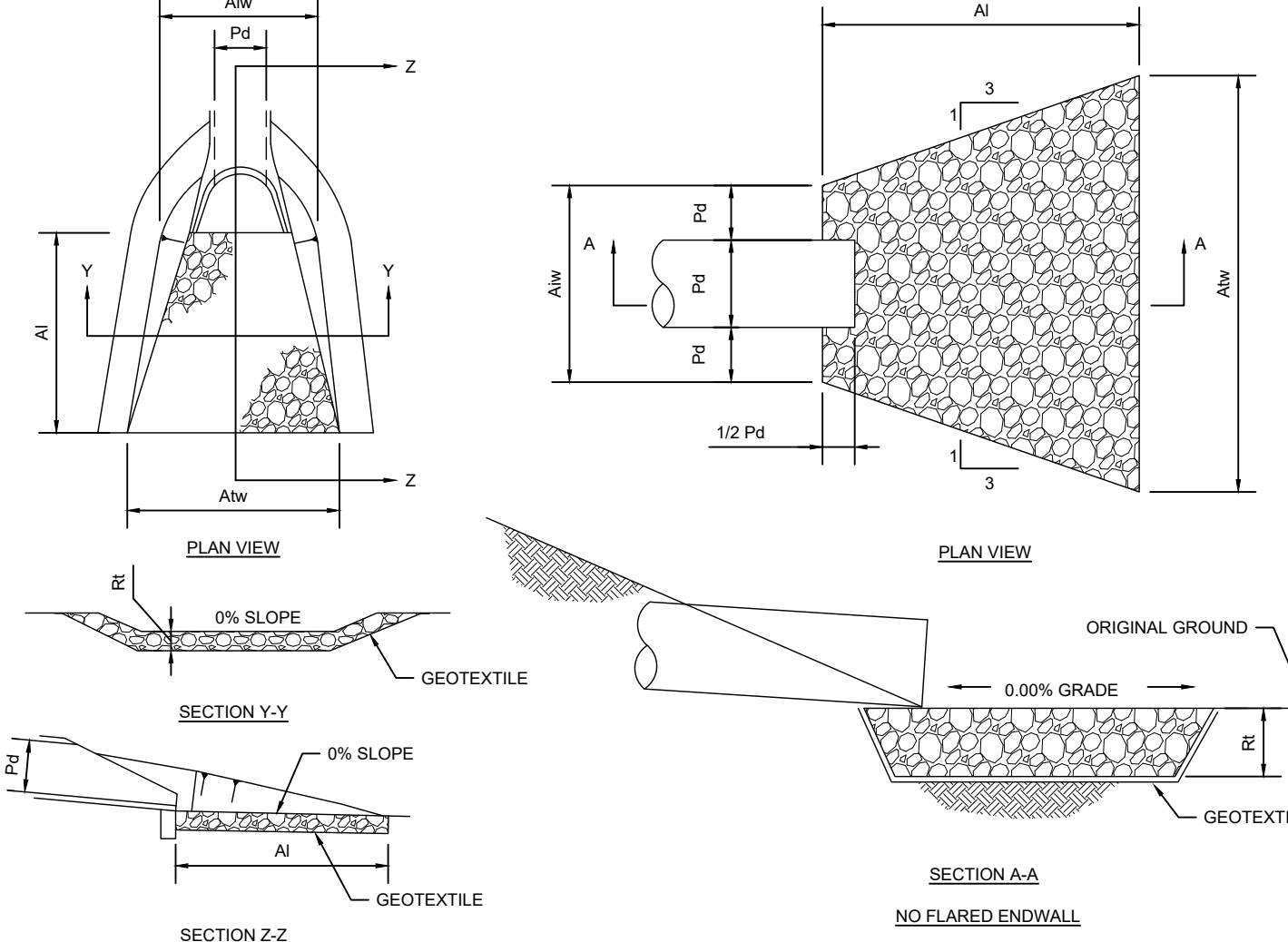
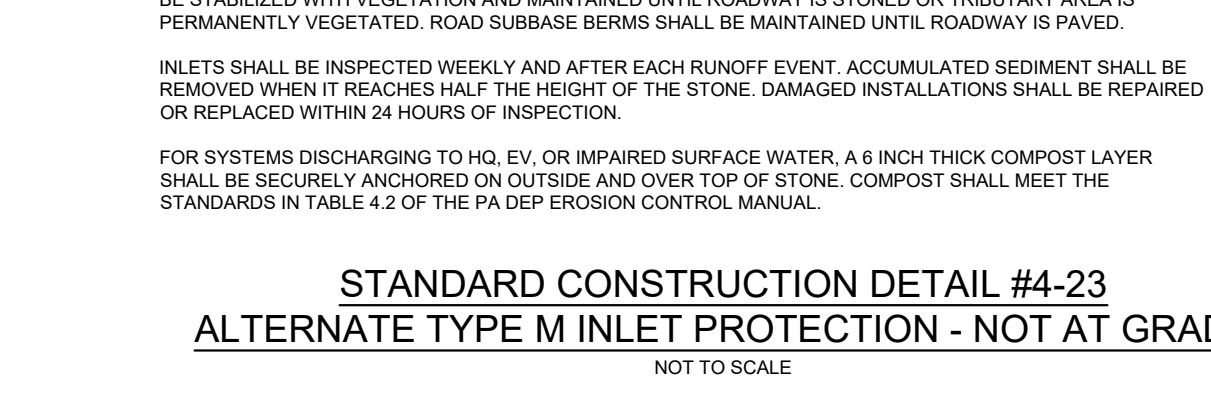
NOTES:
 MAXIMUM DRAINAGE AREA = 1/2 ACRE.
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAINS 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.
 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 ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
 DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-16
 FILTER BAG INLET PROTECTION - TYPE M INLET**
 NOT TO SCALE



NOTES:
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASINS OR SEDIMENT TRAPS. ALTERNATE TYPE C INLET PROTECTION CAN BE USED ON ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD.
 BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT LOW POINTS. EARTHEN BERMS SHALL BE STABILIZED WITH VEGETATION AND MAINTAINED UNTIL ROADWAY IS STONED OR TRIBUTARY AREA IS PERMANENTLY VEGETATED. ROAD SUBBASE BERMS SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED.
 INLETS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.
 FOR SYSTEMS DISCHARGING TO HO, EV, OR IMPAIRED SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

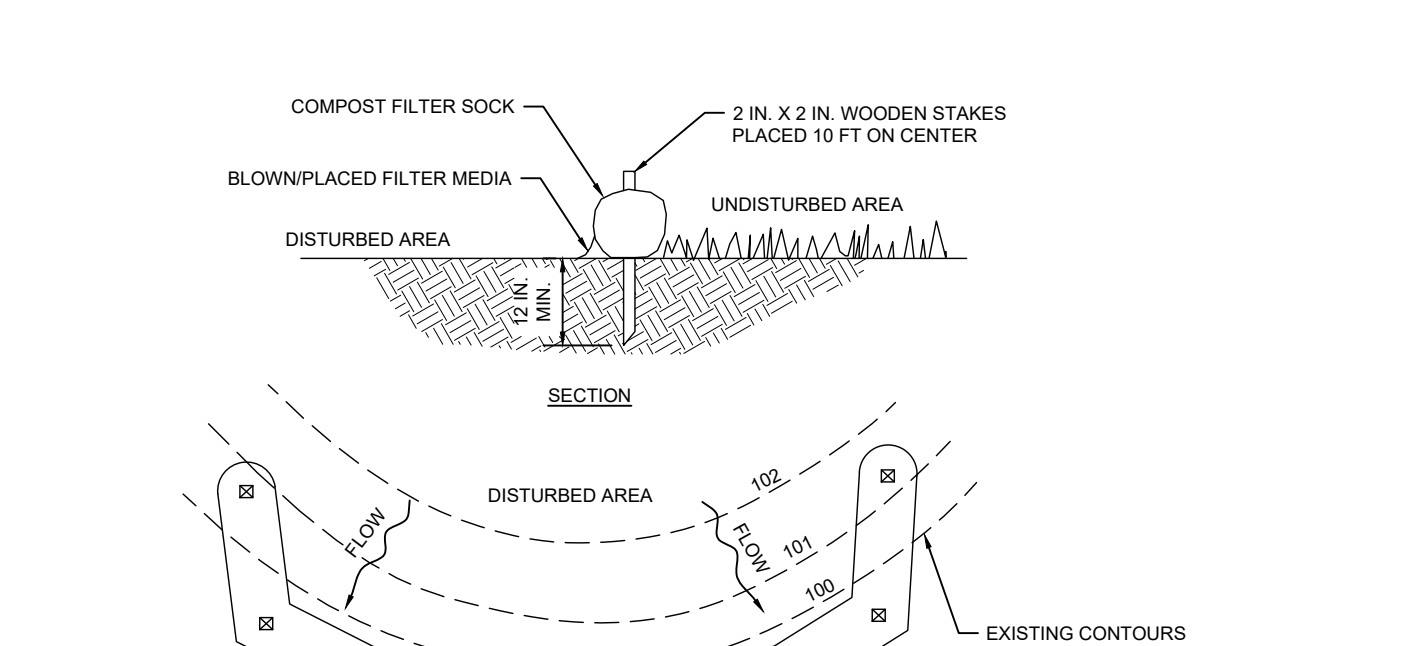
**STANDARD CONSTRUCTION DETAIL #4-23
 ALTERNATE TYPE M INLET PROTECTION - NOT AT GRADE**
 NOT TO SCALE



OUTLET NO.	PIPE DIA (IN)	RIPRAP SIZE R-1	RIPRAP THICK RT (IN)	LENGTH AI (FT)	APRON INITIAL WIDTH Aw (FT)	APRON TERMINAL WIDTH Atw (FT)
EW-61	36	5	27	21	9.0	30.0
ES-51	24	4	18	12	6.0	18.0
ES-80	6	3	9	6	1.5	7.5
ES-45	24	4	18	12	6.0	18.0
EW-56*	36	5	27	20	9.0	29.0

* EXISTING RIPRAP AT EW-56 MEETS THE CRITERIA IN THIS TABLE AND SHALL REMAIN.

**STANDARD CONSTRUCTION DETAIL #9-1, 9-2
 RIPRAP APRON AT PIPE OUTLET**
 NOT TO SCALE



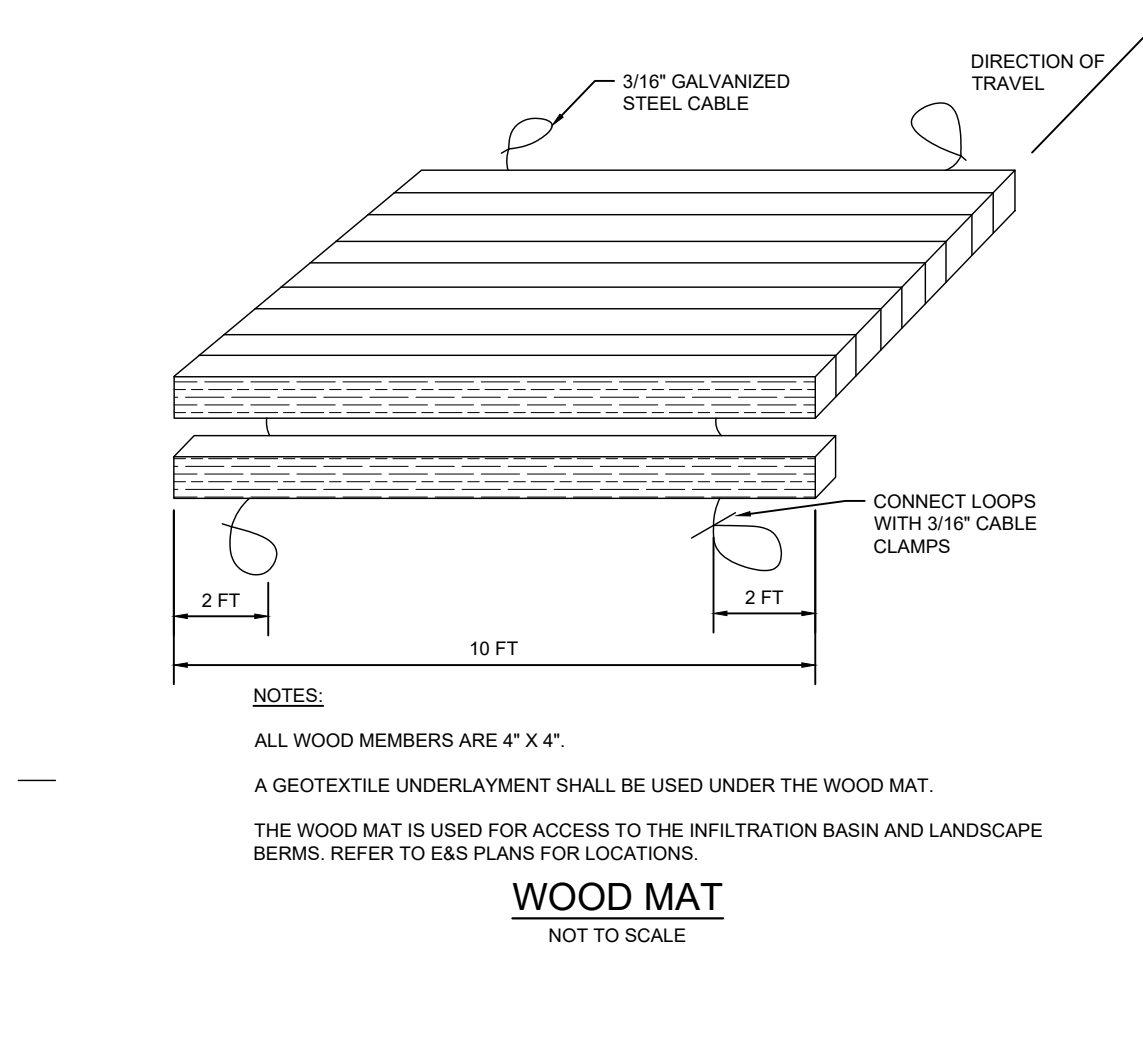
LOCATION	SOCK ID#	DIAMETER (IN) *
BETWEEN NURSING FACILITY AND PERSONAL CARE BUILDINGS	FS-1	12
	FS-2A, 2B, 2C, 2D	12
	FS-3	12
	FS-4	12
	FS-5	12
NEXT TO RELOCATED PLAYGROUND	FS-6A, 6B	12
	FS-6C	18
	FS-7	12
	FS-8	12
	FS-9A	32" SOCK TRAP
SOUTH OF NURSING FACILITY BUILDING	FS-9B	18" DIVERSION TRAP
	FS-10	12
SOUTH OF BUILDING D	FS-11A, 11B	12
	FS-12A, 12B, 12C, 12D	12
NEXT TO LANDSCAPE BERMS		

* REFER TO STANDARD WORKSHEET #1 FOR DETAILED CALCULATIONS OF COMPOST FILTER SOCK.
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.

**STANDARD CONSTRUCTION DETAIL #4-1
 COMPOST FILTER SOCK**
 NOT TO SCALE

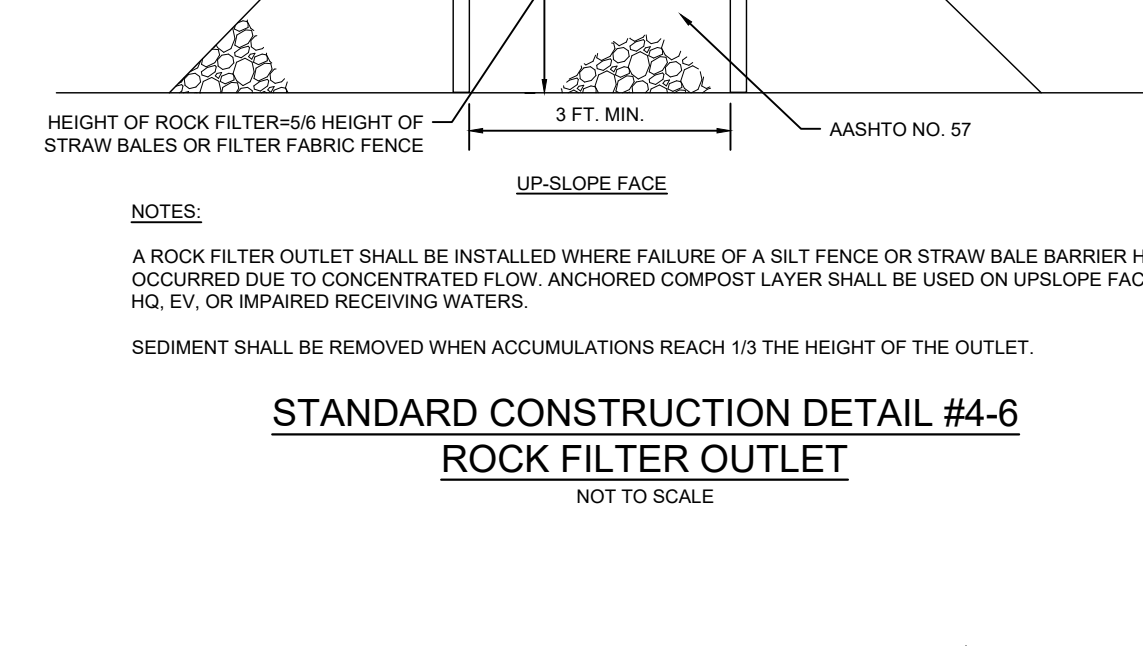


**STANDARD CONSTRUCTION DETAIL #4-1
 FILTER SOCK DIVERSION DETAIL**
 NOT TO SCALE



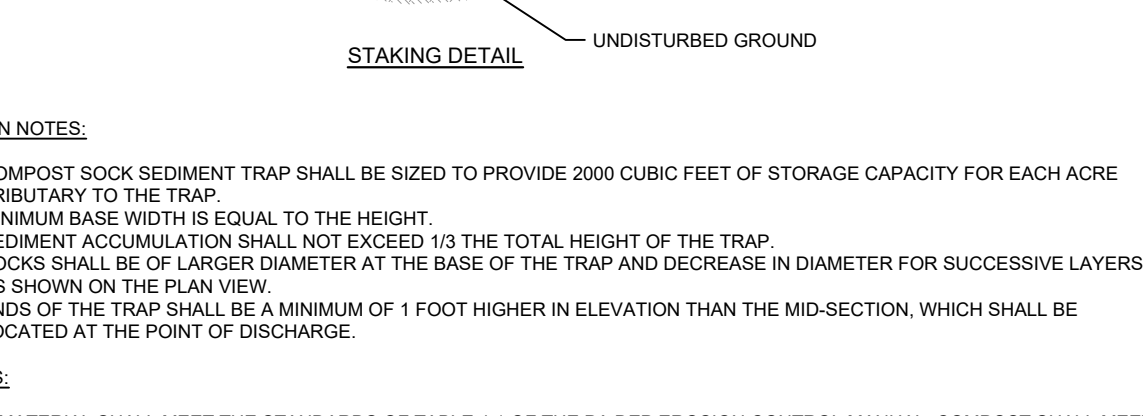
NOTES:
 ALL WOOD MEMBERS ARE 4" X 4".
 A GEOTEXTILE UNDERLAYMENT SHALL BE USED UNDER THE WOOD MAT.
 THE WOOD MAT IS USED FOR ACCESS TO THE INFILTRATION BASIN AND LANDSCAPE BERMS. REFER TO E&S PLANS FOR LOCATIONS.
WOOD MAT
 NOT TO SCALE

**STANDARD CONSTRUCTION DETAIL #11-1
 EROSION CONTROL BLANKET INSTALLATION**
 NOT TO SCALE

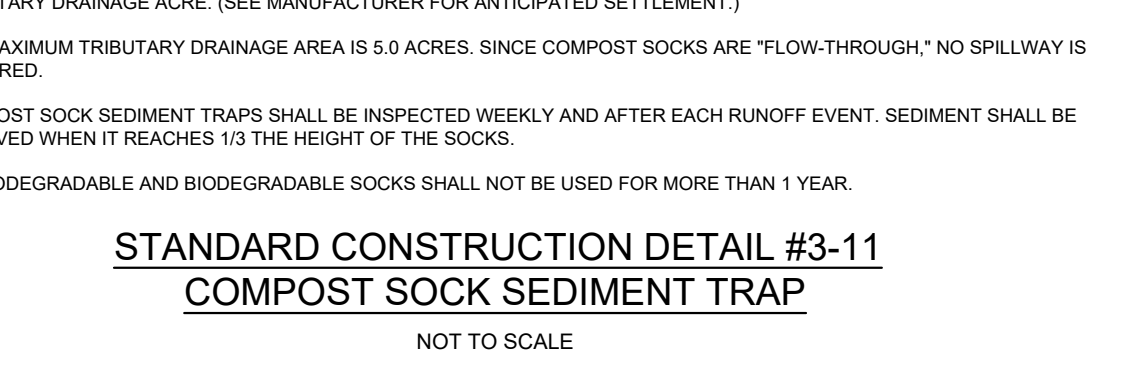


NOTES:
 ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
 ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
 FOR PIPE WITHOUT FLARED END SECTION OR ENDWALL, EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.
 A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HO, EV, OR IMPAIRED RECEIVING WATERS.
 SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

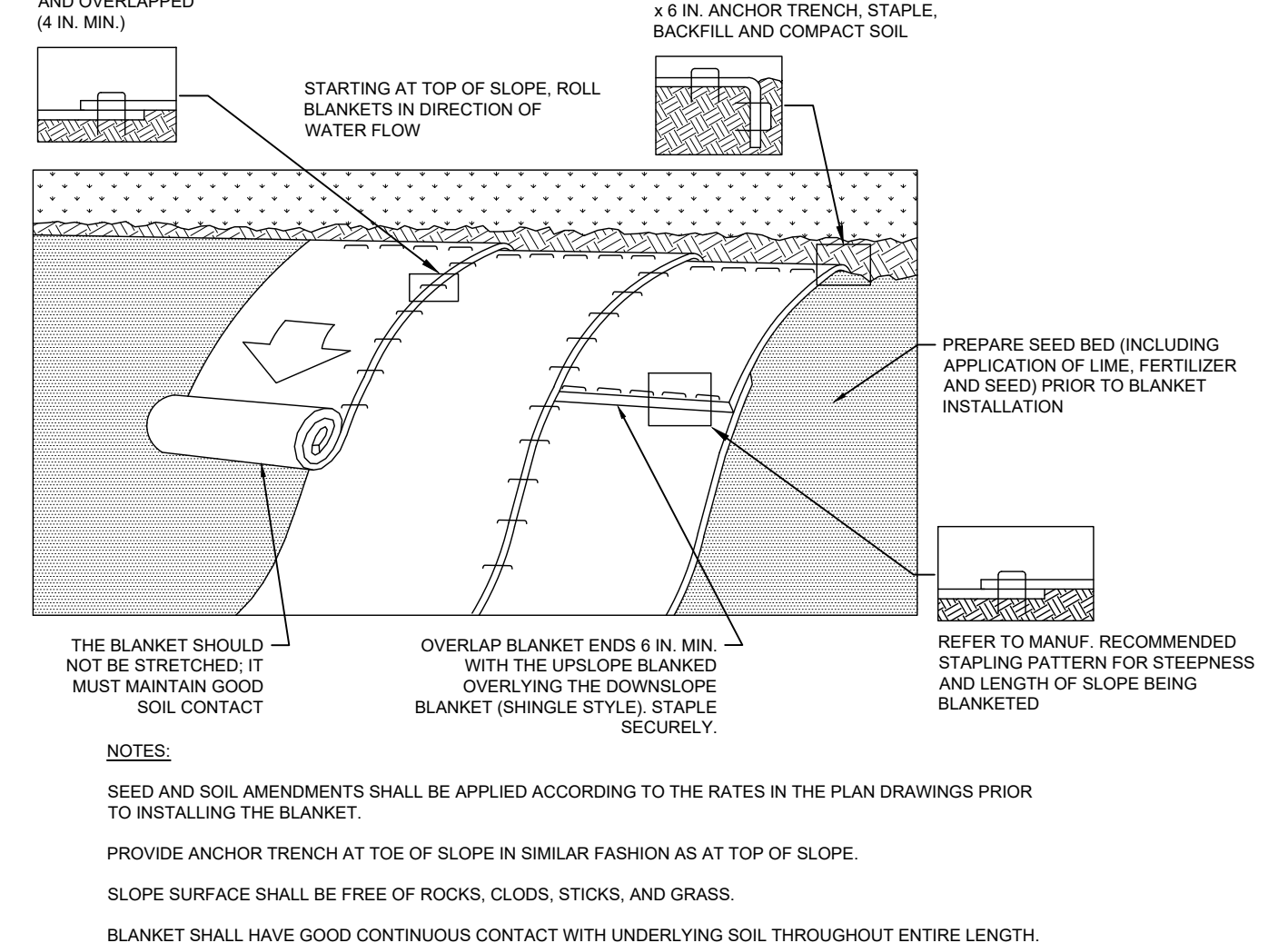
**STANDARD CONSTRUCTION DETAIL #4-6
 ROCK FILTER OUTLET**
 NOT TO SCALE



**STANDARD CONSTRUCTION DETAIL #3-11
 COMPOST SOCK SEDIMENT TRAP**
 NOT TO SCALE



**STANDARD CONSTRUCTION DETAIL #3-11
 COMPOST SOCK SEDIMENT TRAP**
 NOT TO SCALE



NOTES:
 SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
 PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
 SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
 BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
 THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

**STANDARD CONSTRUCTION DETAIL #3-12
 PUMPED WATER FILTER BAG**
 NOT TO SCALE

NOTES:
 LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4832	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
LOGS % RETAINED	ASTM D-4751	60 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
 BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
 NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HO, EV, OR IMPAIRED WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
 THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
 THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOWING AND SCREENED.
 FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

NO.	DATE	BY	DESCRIPTION
3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

**STANDARD CONSTRUCTION DETAIL #3-13
 PUMPED WATER FILTER BAG**
 NOT TO SCALE

DESIGN NOTES:
 1. COMPOST SOCK SEDIMENT TRAP SHALL BE SIZED TO PROVIDE 2000 CUBIC FEET OF STORAGE CAPACITY FOR EACH ACRE TRIBUTARY TO THE TRAP.
 2. MINIMUM BASE WIDTH IS EQUAL TO THE HEIGHT.
 3. SEDIMENT ACCUMULATION SHALL NOT EXCEED 1/3 THE TOTAL HEIGHT OF THE TRAP.
 4. SOCKS SHALL BE OF LARGER DIAMETER AT THE BASE OF THE SOCKS AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS AS SHOWN ON THE PLAN VIEW.
 5. ENDS OF THE TRAP SHALL BE A MINIMUM OF 1 FOOT HIGHER IN ELEVATION THAN THE MID-SECTION, WHICH SHALL BE LOCATED AT THE POINT OF DISCHARGE.

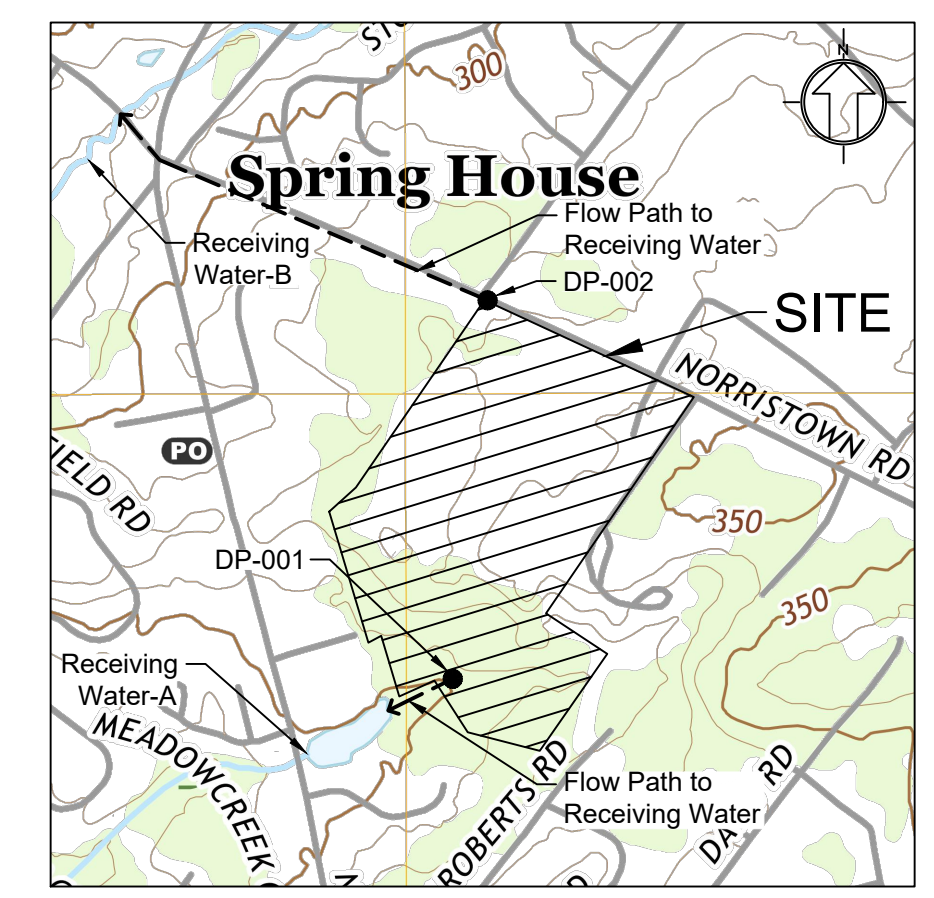
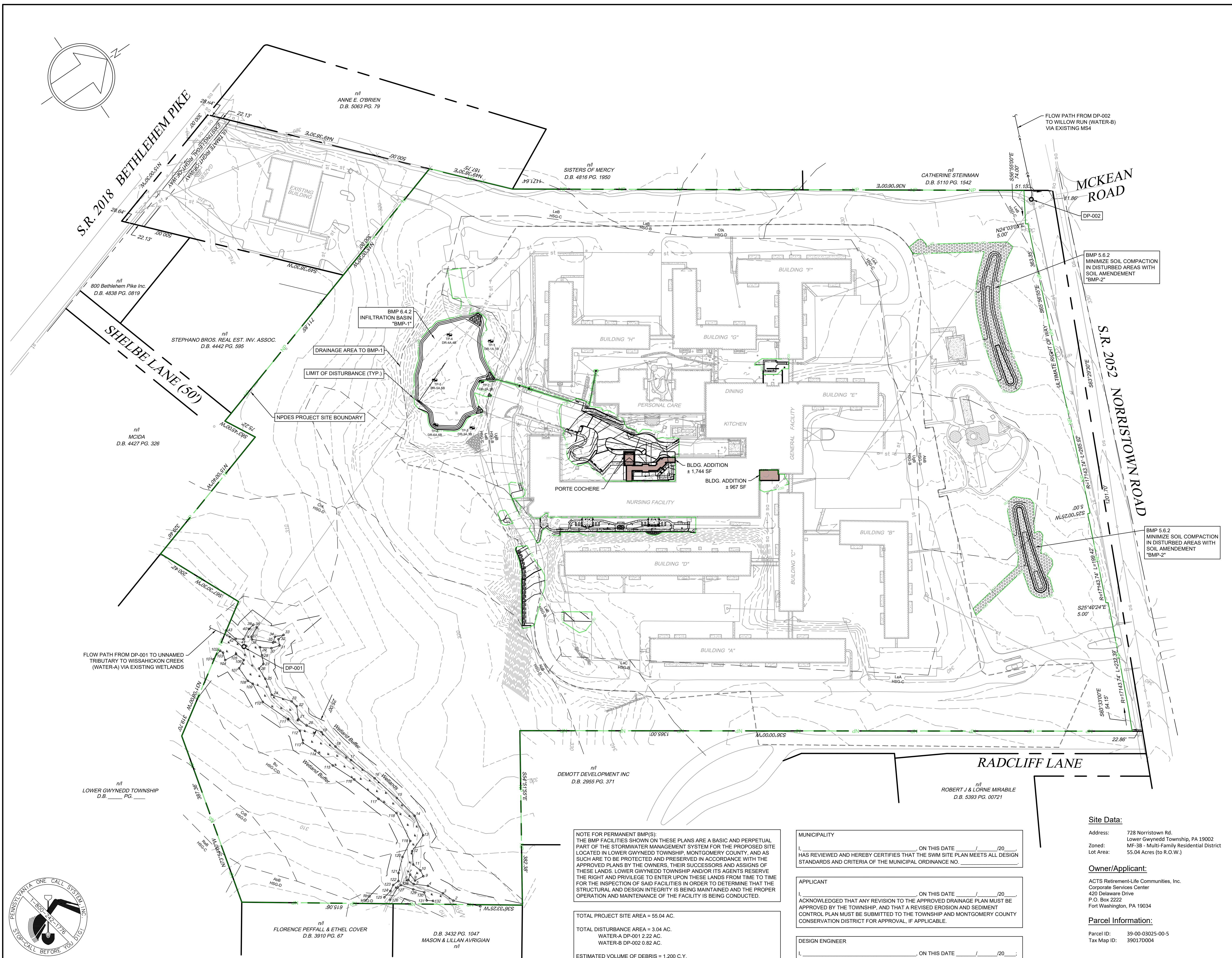
NOTES:
 SOCK MATERIAL SHALL MEET THE STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
 COMPOST SOCK SEDIMENT TRAPS SHALL NOT EXCEED THREE SOCKS IN HEIGHT AND SHALL BE STACKED IN PYRAMIDAL FORM AS SHOWN ABOVE. MINIMUM TRAP HEIGHT IS ONE 24" DIAMETER SOCK. ADDITIONAL STORAGE MAY BE PROVIDED BY MEANS OF AN EXCAVATED SUMP 12" DEEP EXTENDING 1 TO 3 FEET UPSLOPE OF THE SOCKS ALONG THE LOWER SIDE OF THE TRAP.
 COMPOST SOCK SEDIMENT TRAPS SHALL PROVIDE 2000 CUBIC FEET STORAGE CAPACITY WITH 12" FREEBOARD FOR EACH TRIBUTARY DRAINAGE ACRE. (SEE MANUFACTURER FOR ANTICIPATED SETTLEMENT.)
 THE MAXIMUM TRIBUTARY DRAINAGE AREA IS 5.0 ACRES. SINCE COMPOST SOCKS ARE "FLOW-THROUGH," NO SPILLWAY IS REQUIRED.
 COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 THE HEIGHT OF THE SOCKS.
 PHOTODEGRADABLE AND BIODEGRADABLE SOCKS SHALL NOT BE USED FOR MORE THAN 1 YEAR.

**Erosion and Sediment Control Details
 ACTS SPRING HOUSE ESTATES**
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

EUUSTACE
 807 Easton Road
 Building B - 2nd Floor
 Willow Grove, PA 19090
 Tel: (215) 348-8757
 Fax: (215) 348-8759
 www.eustaceeng.com

DRAWN BY: YG
 CHECKED BY: MJE
 DATE: 11-20-2023
 DRAWING No.: D2373 04 19



Location Map
Scale: 1" = 1000'

Legend

	Property Line
	Right-of-Way Line
	Existing Building
	Existing Curb
	Existing Wetlands
	Existing Stream
	Existing Concrete
	Existing Brick Paver
	Existing Gravel
	Existing Contour
	Existing Index Contour
	Existing Sanitary Sewer Line
	Existing Water Line
	Existing Gas Line
	Existing Storm Line
	Existing Electric Line
	Proposed Building
	Proposed Sidewalk
	Proposed Curb
	Proposed Wall
	Proposed Gravel
	Proposed Soil Amendment
	Proposed Contour
	Proposed Index Contour
	Relocated Gas Line
	Relocated Water Line
	Proposed Storm Line
	Proposed Inlet and Yard Drain
	Soil Boundary
	BMP-1 Drainage Area
	Limit of Disturbance
	NPDES Project Site Boundary
	Discharge Point
	Testing Pit Location

NOTE FOR PERMANENT BMP(S):
THE BMP FACILITIES SHOWN ON THESE PLANS ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM FOR THE PROPOSED SITE LOCATED IN LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED IN ACCORDANCE WITH THE APPROVED PLANS BY THE OWNERS, THEIR SUCCESSORS AND ASSIGNS OF THESE LANDS. LOWER GWYNEDD TOWNSHIP AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON THESE LANDS FROM TIME TO TIME FOR THE INSPECTION OF SAID FACILITIES IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY IS BEING MAINTAINED AND THE PROPER OPERATION AND MAINTENANCE OF THE FACILITY IS BEING CONDUCTED.

TOTAL PROJECT SITE AREA = 55.04 AC.
TOTAL DISTURBANCE AREA = 3.04 AC.
WATER-A DP-001 2.22 AC.
WATER-B DP-002 0.82 AC.
ESTIMATED VOLUME OF DEBRIS = 1,200 C.Y.

Floodplain:
1. This property lies within Flood Hazard Zone-X (areas determined to be outside the 0.2% annual chance floodplain) as per the Federal Emergency Management Agency Flood Insurance Rate Map number 42091C0266G, dated March 2, 2016 for Montgomery County, community 420953, Panel No. 286 of 451.

MUNICIPALITY
I, _____, ON THIS DATE _____/_____/20____ HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICIPAL ORDINANCE NO. _____

APPLICANT
I, _____, ON THIS DATE _____/_____/20____ ACKNOWLEDGED THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE TOWNSHIP AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE TOWNSHIP AND MONTGOMERY COUNTY CONSERVATION DISTRICT FOR APPROVAL, IF APPLICABLE.

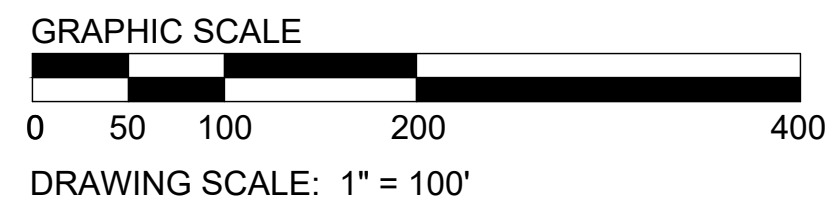
DESIGN ENGINEER
I, _____, ON THIS DATE _____/_____/20____ HEREBY CERTIFY THAT THIS DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (DEP'S) REGULATIONS AND LOWER GWYNEDD TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

Stormwater Easement:
1. A blanket stormwater easement for the benefit of Lower Gwynedd Township is hereby offered for dedication to Lower Gwynedd Township or its assigns.

Site Data:
Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zone: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:
Parcel ID: 39-00-03025-00-5
Tax Map ID: 390170004



3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
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1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Overall Post Construction Stormwater Management Plan

ACTS SPRING HOUSE ESTATES

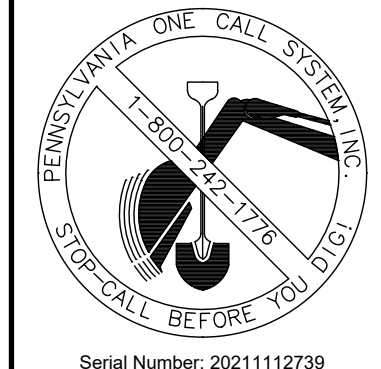
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

Martin J. Eustace, III, P.E.
PA Lic. PE04889E

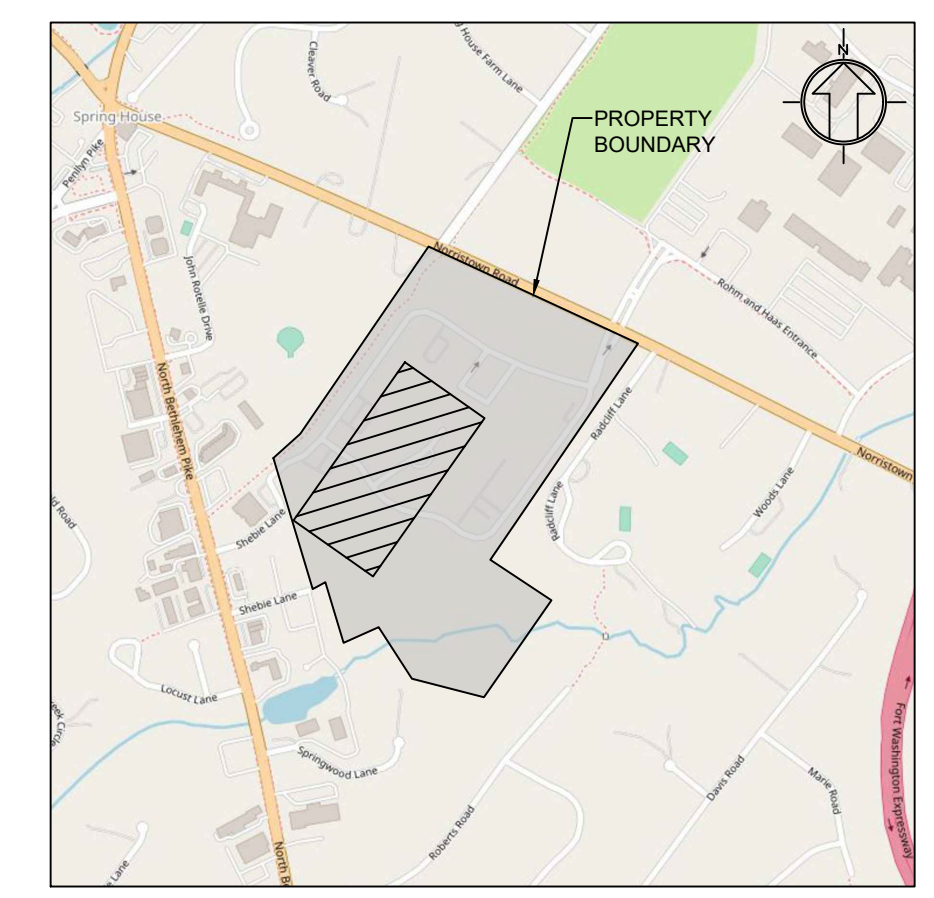
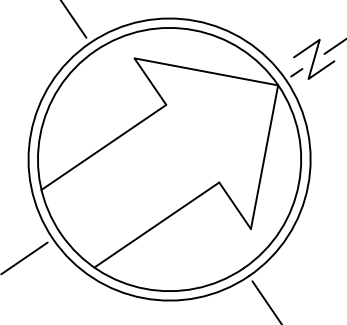
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DRAWN BY: YG
CHECKED BY: MJE
DATE: 11-20-2023
DRAWING No: D 2373 04 20

X:\PROJECTS\237304 Acts - Spring House Estates\DRAWINGS\Land Development\12-PCSM overall.dwg May 9, 2024



Act 287
ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199 OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.



Location Map
Scale: 1" = 1000'

BMP 6.4.2
INFILTRATION BASIN
"BMP-1"

REFER TO SHEET 25 OF 34
FOR BASIN VEGETATION

TP-4
(DR-4A, 4B)

TP-1
(DR-1A, 1B)

TP-5
(DR-5A, 5B)

TP-2
(DR-2A, 2B)

TP-3
(DR-3A, 3B)

Existing 14' x 29' Sidewalk
Elev. 328.43

ADD WATER QUALITY
HOOD/SNOUT TO MANHOLE

ADD WATER QUALITY
HOOD/SNOUT TO INLET

ADD WATER QUALITY
HOOD/SNOUT TO INLET

ADD WATER QUALITY
HOOD/SNOUT TO INLET

Legend	
	Existing Building
	Existing Curb
	Existing Concrete
	Existing Brick Paver
	Existing Gravel
	Existing Contour
	Existing Index Contour
	Existing Sanitary Sewer Line
	Existing Water Line
	Existing Gas Line
	Existing Storm Line
	Existing Light Pole
	Existing Inlet and Yard Drain
	Existing Utility Pole
	Existing Fire Hydrant
	Existing Manhole
	Proposed Building
	Proposed Sidewalk
	Proposed Curb
	Proposed Wall
	Proposed Gravel
	Proposed Soil Amendment
	Proposed Contour
	Proposed Index Contour
	Relocated Gas Line
	Relocated Water Line
	Proposed Storm Line
	Proposed Inlet and Yard Drain
	Soil Boundary
	Limit of Disturbance
	Testing Pit Location

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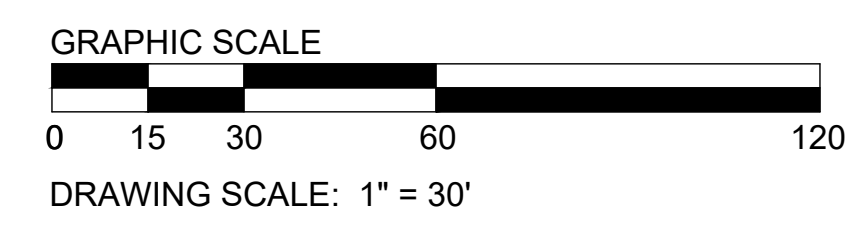
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Parcel Information:

Parcel ID: 39-00-03025-00-5
Tax Map ID: 390170004



DRAWING SCALE: 1" = 30'

SHEET 21 OF 34

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Post Construction Stormwater Management Plan - A

ACTS SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

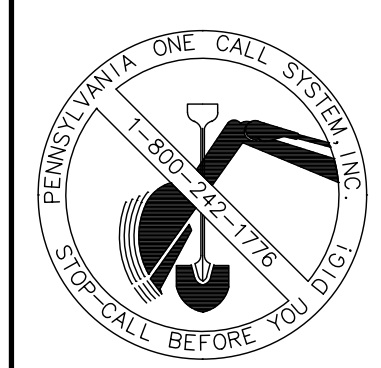
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ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

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Martin J. Eustace, III, P.E.
PA Lic. PE048891E

DRAWN BY	YG
CHECKED BY	MJE
DATE	11-20-2023
DRAWING No.	D 2373 04 21

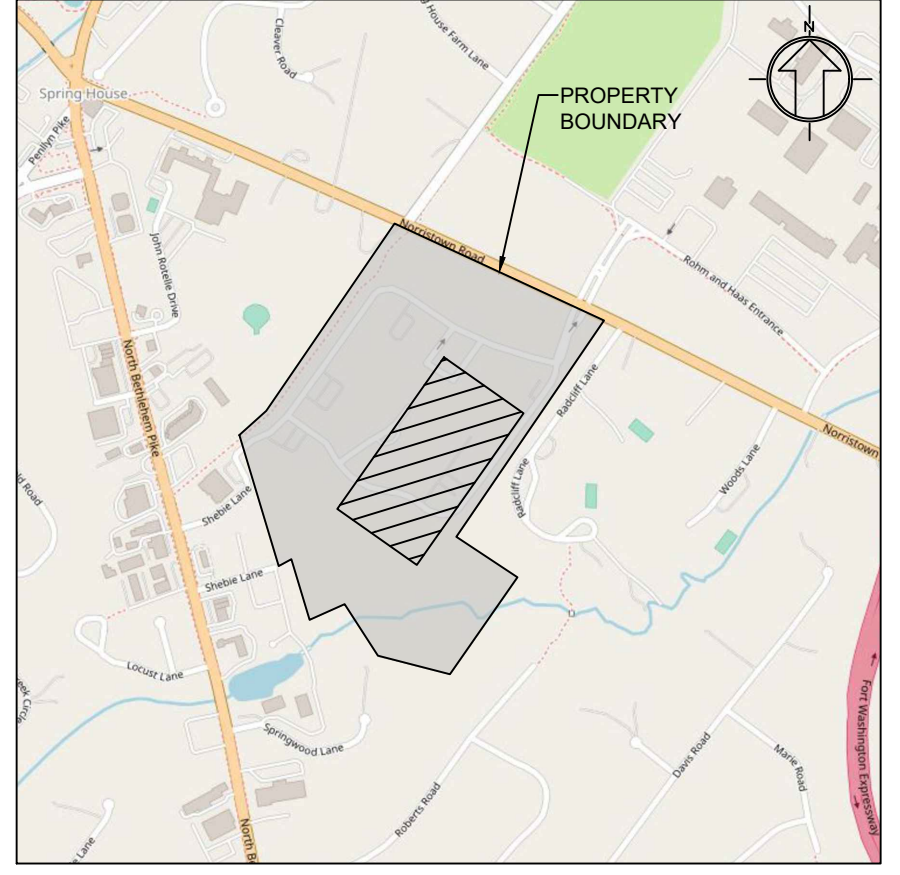
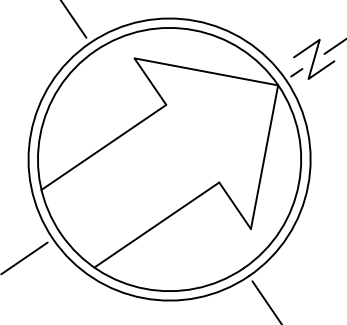
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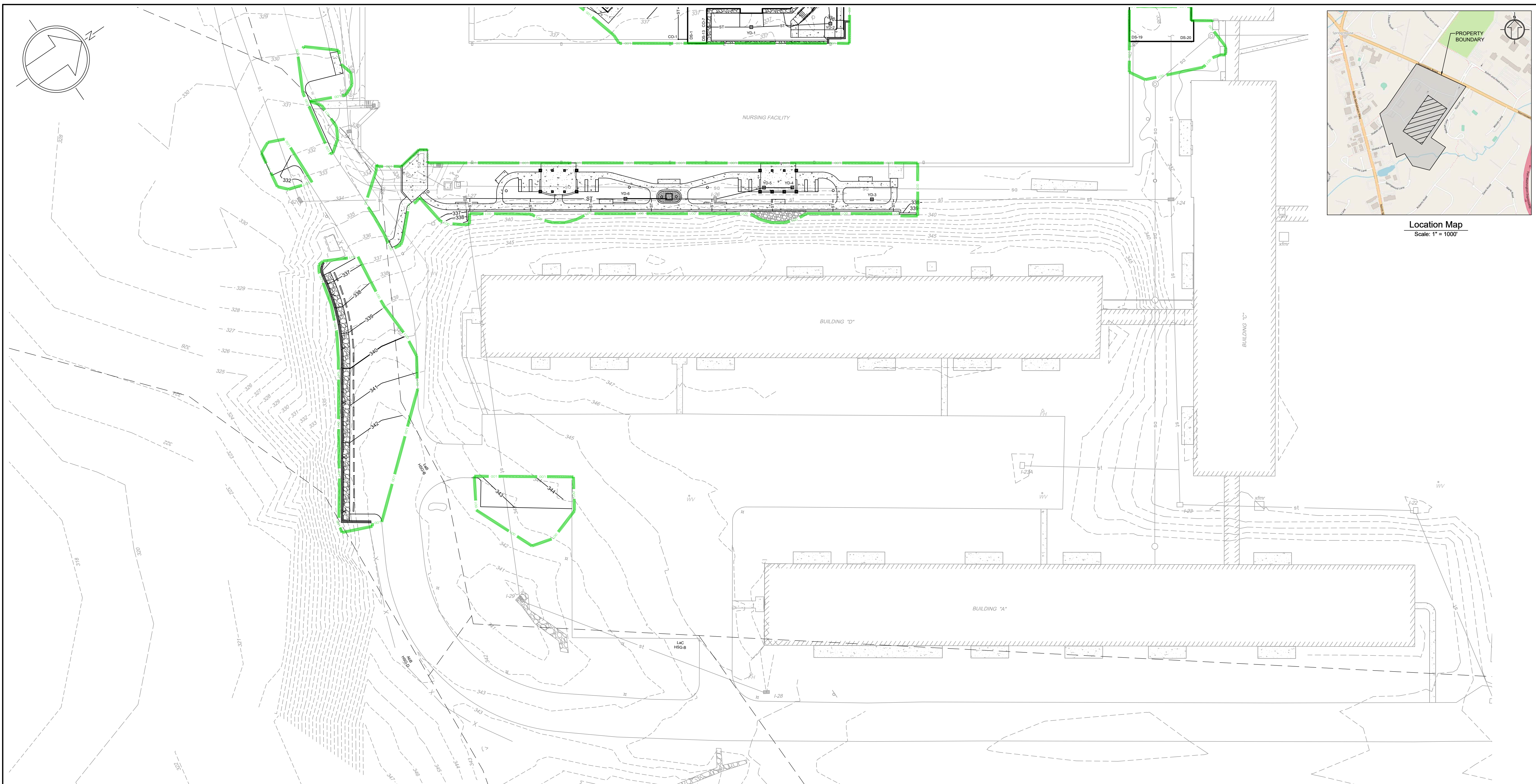
Serial Number: 2021112739

Act 287

ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.



Location Map
Scale: 1" = 1000'



Legend

	Existing Building		Proposed Curb
	Existing Curb		Proposed Wall
	Existing Concrete		Proposed Gravel
	Existing Brick Paver		Proposed Soil Amendment
	Existing Gravel		Proposed Contour
	Existing Contour		Proposed Index Contour
	Existing Index Contour		Relocated Gas Line
	Existing Sanitary Sewer Line		Relocated Water Line
	Existing Water Line		Proposed Storm Line
	Existing Gas Line		Proposed Inlet and Yard Drain
	Existing Storm Line		Soil Boundary
	Existing Electric Line		Limit of Disturbance
	Existing Light Pole		Testing Pit Location
	Existing Inlet and Yard Drain		
	Existing Utility Pole		
	Existing Fire Hydrant		
	Existing Manhole		
	Proposed Building		
	Proposed Sidewalk		

Site Data:

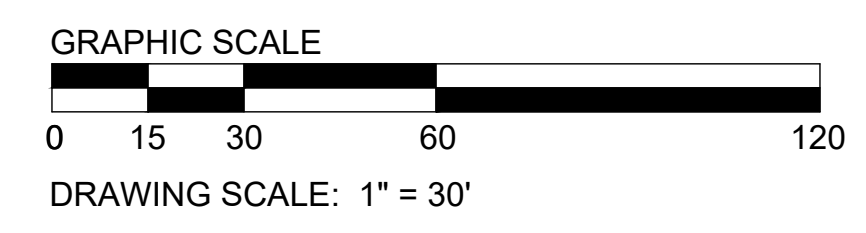
Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-3B - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:

ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:

Parcel ID: 39-00-03025-00-5
Tax Map ID: 390170004



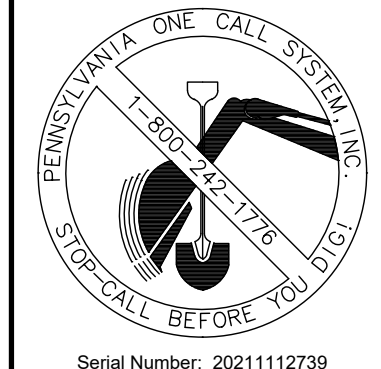
3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Post Construction Stormwater Management Plan - B
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

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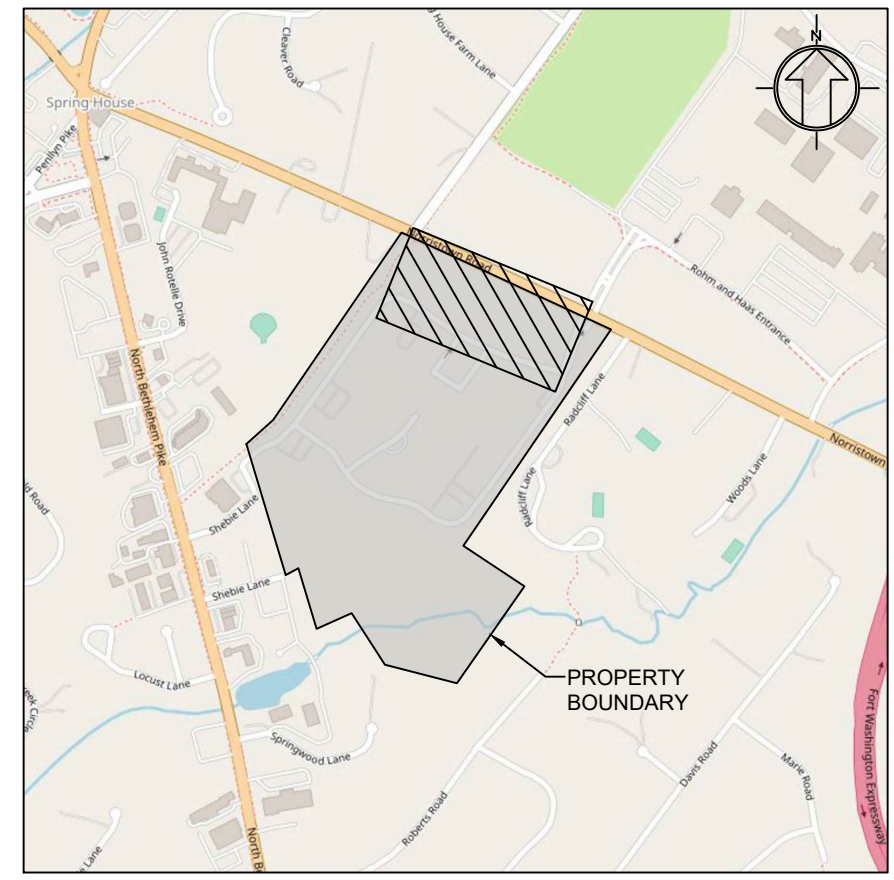
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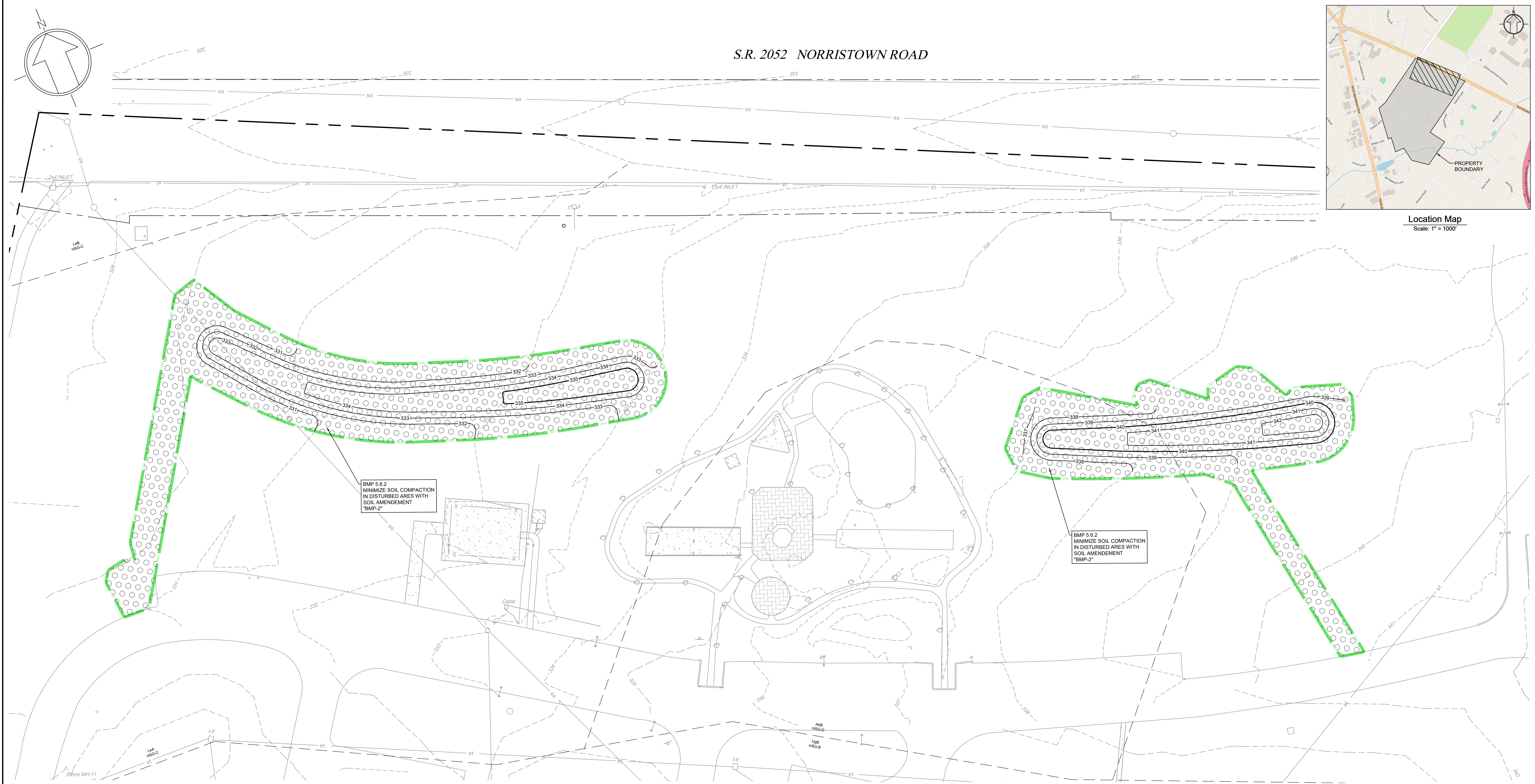
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S.R. 2052 NORRISTOWN ROAD



Location Map
Scale: 1" = 1000'



BMP 5.6.2
MINIMIZE SOIL COMPACTION
IN DISTURBED AREAS WITH
SOIL AMENDMENT
"BMP-2"

BMP 5.6.2
MINIMIZE SOIL COMPACTION
IN DISTURBED AREAS WITH
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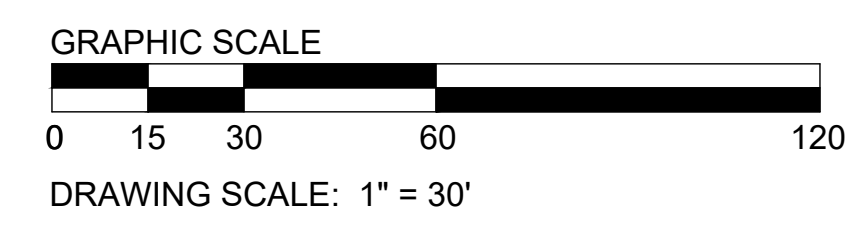
Legend

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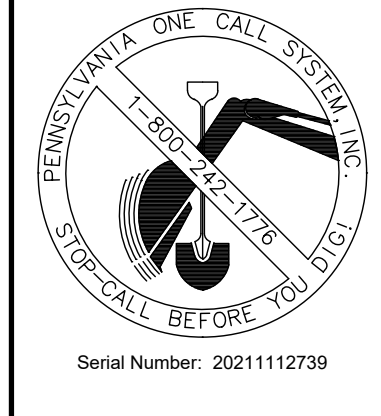
Post Construction Stormwater Management Plan - C
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

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DATE: 11-20-2023
DRAWING No: D 2373 04 23

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Act 287
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GENERAL PCSM PLANNING & DESIGN NOTES

- 25 Pa. Code § 102.8.(b)
1. The proposed improvements will preserve the integrity of stream channels and maintain and protect the physical, chemical and biological and chemical qualities of the received stream by mimicking existing drainage patterns...
2. Postdeveloped runoff peak rates shall be prevented to have an increase through the use of the infiltration basin and restoring existing land covers.
3. Postdeveloped runoff volume shall be minimized through the use of the infiltration basin and soil amendments.
4. The applicant has kept the proposed parking counts to the minimum anticipated for the use and located the improvements away from the existing riparian areas in an effort to minimize the overall impervious foot print.
5. The proposed stormwater management facility was designed in such manner to minimize changes to existing drainage patterns as noted above, thereby maximizing the protection of existing drainage features and existing vegetation.
6. The proposed improvements were located in such a manner to minimize disturbance to the existing sensitive areas, minimize land clearing and minimize grading.
7. Soil compaction will be minimized by limiting construction traffic on non-paved areas, use of low-impact construction methods, and by protective fencing.
8. The applicant is incorporating minimized disturbance areas as nonstructural BMPs to minimize and prevent changes in stormwater runoff.

PCSM PLAN PREPARER

25 Pa. Code § 102.8.(e)
Prepared by: Martin J. Eustace, III, P.E.
Experience: Since 1988 has prepared numerous sedimentation plans for sites up to 700 acres, located in Bradford, Bucks, Chester, Montgomery, Tioga & Philadelphia Counties.

EXISTING SITE & PROPOSED DEVELOPMENT

25 Pa. Code § 102.8.(f)(1),(3),(12)
The project site is located in the Wissahickon Creek Watershed. It consists of retirement centers and homes, nursing home, associated surface parking, open spaces, woodlands, wetlands, and stream. The existing site areas to be developed contain parking areas, drive aisles, open spaces, and detention basin. The majority of the project site slopes from north to south towards the existing surface water (DP-001). The northern open space slopes from southeast to northwest along Norrisstown Road and drains to existing municipal storm sewer (DP-002).
No naturally occurring geologic/soil conditions that have the potential to cause pollution are anticipated. The contractor shall coordinate with the geotechnical engineer should any geologic or soil conditions that have the potential to cause pollution are encountered.
The site has been used as retirement centers and homes and nursing home since 1974. Public water and sewer are located within Norrisstown Road.
The proposed improvements include two (2) building additions (+/- 2,711 SF) for the nursing facility, one (1) porte cochere, parking stalls, drive aisles, sidewalks, gardens, landscaping, regrading, storm sewers, and modifying the existing detention basin into an infiltration basin. Access to the site shall be via the entrance off Norrisstown Road.

PROPOSED STORMWATER MANAGEMENT

25 Pa. Code § 102.8.(f)(3)
Most of the runoff from the proposed improvements will be conveyed via storm sewers or sheet flow to the infiltration basin BMP-1 then via outlet culvert to the discharge point (DP-001). Runoff from undisturbed area will be conveyed via street flow or shallow concentrated flow through the existing wooded area to DP-001. Runoff from the regraded area in the northern open space will be conveyed via sheet flow or shallow concentrated flow to the existing municipal storm sewer within Norrisstown Road (DP-002).

The infiltration basin BMP-1 has been designed to reduce the post-developed runoff generated from the disturbed area to the Township allowable peak rates through the use of culvert and outlet structure. Runoff from the undisturbed/off-site area will be safely conveyed through the basin. The basin will discharge via an existing outlet pipe to the existing wetland then to the receiving surface water (Water-A Unnamed Tributary to Wissahickon Creek). PADEP volume reduction, peak rate control, and water quality requirements are being met through the infiltration basin.
Soil amendments will be installed at the regraded area in the northern open space. The area will be restored to the same previous ground cover as existing. The runoff will discharge to the municipal storm sewer then eventually into the receiving surface water (Water-B Willow Run). PADEP volume reduction and water quality requirements are met through the soil amendments. Peak rate control is not required by the Township for this area as there is no riparian improvements in the area and the earth disturbance is associated with constructing landscape berms.

To minimize thermal impacts to receiving waters, the existing wooded areas will remain, ground level impervious cover is being kept to the minimum required by the use, and proposed impervious surfaces shall be directed to the pervious basin where runoff can be cooled prior to discharge. Efforts during construction to reduce thermal impacts include use of temporary stabilization and regular removal of sediment from temporary facilities.

SURFACE WATERS

- 25 Pa. Code § 102.8.(f)(5)
1. Receiving Water A: Unnamed Tributary to Wissahickon Creek-25960218
The designated use of the receiving water under 25 Pa. Code Chapter 93 is TSF (Trout Stocking) and MF (Migratory Fishes). The receiving water is neither HQ (High Quality) nor EV (Exceptional Value). The receiving water is impaired for siltation (Category 4a) and flow regime modification (Category 4c). The water has an established TMDL for siltation in the report Total Maximum Daily Load For Sediment and Nutrients Wissahickon Creek Watershed, dated October 9, 2003. The water is identified as Tributary Downstream of Willow Run - East, Segment ID 971217-1015-ACE, Stream Code 885 in the report.
2. Receiving Water B: Willow Run-25960082
The designated use of the receiving water under 25 Pa. Code Chapter 93 is TSF (Trout Stocking) and MF (Migratory Fishes). The receiving water is neither HQ (High Quality) nor EV (Exceptional Value). The receiving water is impaired for siltation (Category 4a) and flow regime modification (Category 4c). The water has an established TMDL for siltation in the report Total Maximum Daily Load For Sediment and Nutrients Wissahickon Creek Watershed, dated October 9, 2003. The water is identified as Willow Run - East, Segment ID 971217-1015-ACE, Stream Code 885 in the report.

RECYCLING OR DISPOSAL OF MATERIALS

25 Pa. Code § 102.8.(f)(11)
The operator shall remove from the site, recycle or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq.
Post-construction project wastes from PCSM BMPs include accumulated sediment which should be disposed of properly on-site, debris and trash from PCSM BMPs which shall be collected and placed in containers. The containers will be emptied as necessary by a contract trash disposal service and hauled away from the site.

RIPIARIAN FOREST BUFFER

25 Pa. Code § 102.8.(f)(14)
Wetland boundaries shown on E&S plans are from Record Plan, Job 187-021.01, Drawing No. S0102, Sheet 1 of 16, prepared for Spring House Estates, prepared by Chambers Associates, Inc. (619 Conestoga Road, Villanova, PA 19085), dated February 2, 1999, last revised March 31, 2000.
The area designated as protected riparian areas along the existing stream/wetland within the NPDES project site area is located outside the limit of disturbance. Riparian buffer offsetting is not necessary for this project.

NET CHANGE IN VOLUME AND RATE

Table with 3 columns: Runoff Type, Predeveloped, Postdeveloped. Includes sub-tables for Peak Rate Control (CFS) [2] and DP-001 On-Site & Off-Site.

[1] Refer to DEP PCSM Spreadsheet - Quality Worksheet for runoff volume from undisturbed areas and outflow volume from BMP-1.
[2] Peak rate control per DEP requirements.

OVERALL SITE CONSTRUCTION SEQUENCE

25 Pa. Code § 102.8.(f)(7)
All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed in compliance with Chapter 102 regulations before any following stage is initiated. Clearing and grubbing shall be limited only to those areas described in each stage.
At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the E&S plan preparer, the licensed design professional, and a representative of the Montgomery County Conservation District to schedule an on-site meeting.
At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for buried utilities locations. The contractor shall verify locations and depths of all existing utilities prior to start of work.

Before implementing any revisions to the approved erosion and sediment control plan, or revisions to other plans which may affect the effectiveness of the approved E&S control plan(s), the operator must receive the approval of the revisions from the Montgomery County Conservation District and Township.
Water pumped from work areas shall be treated for sediment removal prior to discharging to a surface water. The operator is responsible for ensuring that any fill or borrow sites used for soil import/export have all applicable approved permits and/or E&S plans.

A designated Licensed Professional shall be present during all critical stages of construction. See BMP Construction sequence on PCSM plan.
Cessation of activity for 4 days or longer requires temporary stabilization. No more than 15,000 square feet of disturbed area shall reach final grade before initiating seeding and mulching operations. Stabilization of fill slopes shall be in 15-25 foot vertical increments.

- 1. Stake out the limit of disturbance. Install perimeter compost filter sock, sock traps, tree protection fencing, and inlet protection on any existing inlets as shown on plans.
2. Construction vehicles shall enter or exit the site via the existing paved driveway at Norrisstown Road. Existing paved areas shall be swept regularly throughout the day to prevent soil and sediment from being tracked into undisturbed areas and onto Norrisstown Road. The sediment shall be recycled or disposed of per notes on this sheet. Dust control shall be provided as needed.
3. Upon the installation or stabilization of all perimeter sediment control BMPs and at least 48 hours prior to proceeding with the bulk earth disturbance activities, the operator shall provide notification to the Montgomery County Conservation District, Township, and Township Engineer.
4. Strip and stockpile topsoil from areas of proposed building additions, parking, and courtyard. Surround stockpile with compost filter sock and stabilize immediately with temporary seed.
5. Saw out existing paving along proposed paving. Remove existing asphalt, concrete, and miscellaneous existing features.
6. Rough grade in the area of improvements. Immediately install stone subbase for paved areas. Stabilize disturbed areas with permanent seeding and mulch and/or place erosion control blankets on all slopes 3:1 or steeper along with permanent lining as noted on plans.
7. Begin retaining wall construction.
8. Relocate gas line. Construct new inlets, yard drains, and storm pipes. Install inlet protection immediately utilizing appropriate details.
9. Begin building foundation and walls.
10. Construct underground site utilities including new water and electric line as necessary.
11. Construct curbing and asphalt base course for driveways and parking areas.
12. CRITICAL STAGE
Strip topsoil from designated areas for use of landscape berms construction shown on plan. Construct infiltration basin BMP-1. Install all rip rap protection at endwalls. Temporarily divert runoff around upstate sides of the infiltration basin to protect from sedimentation. BMP(s) shall be constructed with weather in mind and in such a manner to limit sedimentation within the basin stone/soil media areas while the excavation is open. A pump water filter bag shall be used as necessary.

- 13. Complete building construction. Install fencing, gates, lighting, and electrical work.
14. Perform final site grading where necessary. Install asphalt wearing course and concrete sidewalks.
15. CRITICAL STAGE
Install lawns, landscape beds, permanent seeding, landscaping, and mulch. Install landscape berms and soil amendments at the northern open space. A licensed professional shall be present to oversee topsoil preparation.
16. Remove any accumulated sediment from compost filter socks and stabilize elsewhere on site.
17. Contact Montgomery County Conservation District once 70% uniform perennial cover is reached and before any BMPs are removed.
Resolution: Thermal impacts to receiving waters, the existing wooded areas will remain, ground level impervious cover is being kept to the minimum required by the use, and proposed impervious surfaces shall be directed to the pervious basin where runoff can be cooled prior to discharge. Efforts during construction to reduce thermal impacts include use of temporary stabilization and regular removal of sediment from temporary facilities.
19. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate potential for accelerated erosion and/or sediment pollution.
20. Within 30 days after the completion of earth disturbance activities authorized by the permit, including the permanent stabilization of the site and proper installation of PCSM BMPs in accordance with the approved PCSM plan, or upon submission of the NOI if sooner, the permittee shall file with the department or authorized conservation district a stated signed by a licensed professional and the permittee certifying that work has been performed in accordance with the terms and conditions of this permit and approved E&S and PCSM Plans. See BMP Construction sequence on PCSM Plan for critical stages.

INFILTRATION BASIN BMP-1 CONSTRUCTION SEQUENCE (CRITICAL STAGE)

- 25 Pa. Code § 102.8.(f)(7)
1. The contractor shall review the geotechnical summaries prepared during the development of the site design documents prior to beginning any excavation or earthwork. The contractor shall use lightweight construction equipment and operate outside of the basin footprint whenever possible to prohibit excessive compaction of the basin area.
2. Install outlet device. Connect existing discharge pipe to the outlet device.
3. Install inlet protection and BMPs as needed and prevent sediment laden water from entering inlets/pipes.
4. Excavate to bottom of the underdrain pipe trench. Install clean stone and underdrain pipe.
5. Excavate to bottom of soil media. Excavation shall be performed using light weight equipment in order to promote infiltration within native soils.
6. If any perched water is encountered, it shall be removed by temporary pumping. Pumped water shall be discharged through an approved pumped filter bag and located per PA DEP requirements. Pumping shall be performed under the supervision of a geotechnical engineer. The BMP area shall be dry prior to placing soil media. A licensed professional or designee shall be present.
7. Place planting soil mix to finished elevation. Perform finish grading within the earth disturbance area. Construction equipment shall not enter areas where soil media has been placed to avoid compaction. Soil media must remain free of sediment. If sediment enters the soil, the contractor shall remove the sediment and replace with new soil media.
8. Install permanent seeding per appropriate seed mix or plant per landscape drawings.
9. Do not remove inlet protection or other erosion and sediment control measures until the site is fully stabilized.

SOIL AMENDMENT BMP-2 CONSTRUCTION SEQUENCE (CRITICAL STAGE)

- 25 Pa. Code § 102.8.(f)(7)
1. Prior to construction, area with proposed soil amendment must be staked out and identified with signage. The area should be protected from excessive sediment and stormwater loads. The contractor shall use lightweight construction equipment and operate outside of the soil amendment area wherever possible to prohibit excessive compaction of the area.
2. Complete rough grading to within six inches (6") of final grade.
3. Loosen subsoil to a depth of twenty inches (20") and mix in amended soils into top six inches (6") of top of loosened soil.
4. If using in situ soils, add soil amendments at rates specified on PCSM Detail sheet.
5. Install amended soils to finished grades.

INFILTRATION TESTING SUMMARY TABLE

Table with 7 columns: Infiltration Test Number, Ground Surface Elevation (ft.), Infiltration Depth (ft.), Infiltration Test Elevation (ft.), Test Interval (min.), Final Drop in Water Level (in.), Infiltration Rate (in./hr.). Includes rows DR-1A through DR-6B.

* Testing results discarded.

Geometric Mean = 0.58 in./hr.
Design Rate = 0.29 in./hr.

SOILS TYPES, DEPTHS, SLOPES, LIMITATIONS, & RESOLUTIONS

Table with columns: MAP UNIT SYMBOL, MAP UNIT NAME, HSG, DEPTH, SLOPE, HYDRIC SOIL RATING, and various soil characteristics (CUTBANKS CAVE, CORROSIVE TO CONCRETE/STEEL, DROUGHTY, EASILY ERODIBLE, FLOODING, DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE, HYDRIC/OLIC INCLUSIONS, LOW STRENGTH/LANDSLIDE PRONE, SLOW PERCOLATION, POOR SOURCE OF TOPSOIL, FROST ACTION, SHRINK-SWELL, POTENTIAL SINKHOLE, PONDING, WETNESS). Includes rows AbB, LaB, LeA, LeB, Ugb, Bb, CA, C1A, C1B, C1C, C1D, LAC, ReB, R1B, U1B, C1A, C1B, C1C, C1D, LAC, ReB, R1B, U1B.

Limitation: Cutbanks cave, low strength - cutbanks have potential to cave and many soils are low strength.
Resolution: Contractor shall be aware of potential issues and follow OSHA guidelines for open trenching. Low soil strength is not a concern due to the nature of the proposed project. Utility trenching will not be adversely affected by poor soil strength.
Limitation: Corrosive to steel - soils corrosive to steel.
Resolution: If steel pipe is used rust protection by coatings and/or use of cathodic protection is recommended.
Limitation: Droughty - soils exhibiting a poor moisture-holding capacity, which may limit the vegetative stabilization ability of the soil.
Resolution: For droughty soils, contractor to refer to Table 11-3: Plant Tolerances of Soil Limitation Factors to select appropriate vegetation. Erosion control blankets should also be considered in soil conditions that make revegetation difficult (e.g., droughty). When installed properly, erosion control blankets can help hold soil particles in place and retain soil moisture, promoting seed germination.
Limitation: Easily erodible.
Resolution: Special attention shall be given to maintaining existing vegetation in easily erodible soils, to the extent possible. Easily erodible soils within 50 feet of surface water should be blanketed. Wherever erodible soils are present, or where there is not a sufficient vegetative filter strip between the waterbar and a receiving surface water, the waterbar should be provided with a temporary protective liner.
Limitation: High water table, potentially hydric - high water table is to be expected and many of the soils are potentially hydric.
Resolution: Follow E&S plan(s) regarding pumping and dewatering. Discharge of sediment laden water is prohibited unless without first passing through a "Pumped Water Filter Bag".
Limitation: Hydric / hydric inclusions - a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic-conditions. When such a soil is in an area that has hydrophytic vegetation and wetland hydrology, a wetland is present.
Resolution: Hydric soils that are delineated wetlands, should be avoided to the extent possible. Staging areas should be located 50 feet from the edge of wetland. Movement of vehicles across wetland must be minimized. Where vehicles need to cross wetlands, the use of temporary timber mats shall be used due to the potential for rutting. Trench plugs shall be installed to prevent the trench from draining the wetlands or changing the hydrology.
Limitation: Limited available topsoil.
Resolution: Any excavated topsoil will be stockpiled and reused. If necessary, additional topsoil will be brought on-site.
Limitation: Frost action - the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses, or frost heave, and the subsequent collapse of the soil and loss of strength on thawing, which can damage roads, buildings, and other structures as well as plant roots.
Resolution: Precautions are needed to prevent damage to roadways.
Limitation: Wet soils - some soils may exhibit a high water table or ponding.
Resolution: If high water table is encountered, trench dewatering will be employed.

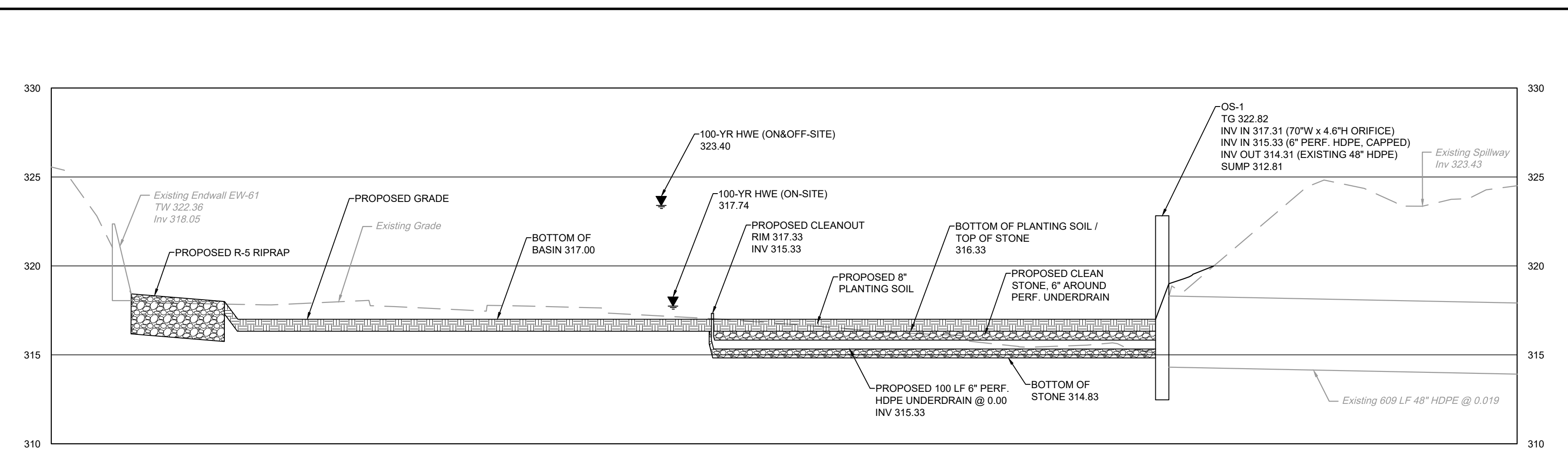
STORMWATER CONTROL AND BMP OPERATION AND MAINTENANCE

25 Pa. Code § 102.8.(f)(10)
During the construction activities and until the site is stabilized, all BMPs must be inspected and maintained properly by the contractor. All preventative and remedial maintenance work, including clean-out, repair, replacement, re-grading, re-seeding, re-mulching, and re-netting must be performed immediately and in accordance with these procedures, plans, and details. Any areas disturbed during maintenance must be stabilized immediately in accordance with the general conservation notes and specifications.
A written inspection log shall document each inspection, all BMP repairs, all BMP maintenance activities, how access to the PCSM BMPs will provide, and date, time, and name of the person conducting the inspection. The inspection log must be kept on site at all times and made available to the District or State upon request.

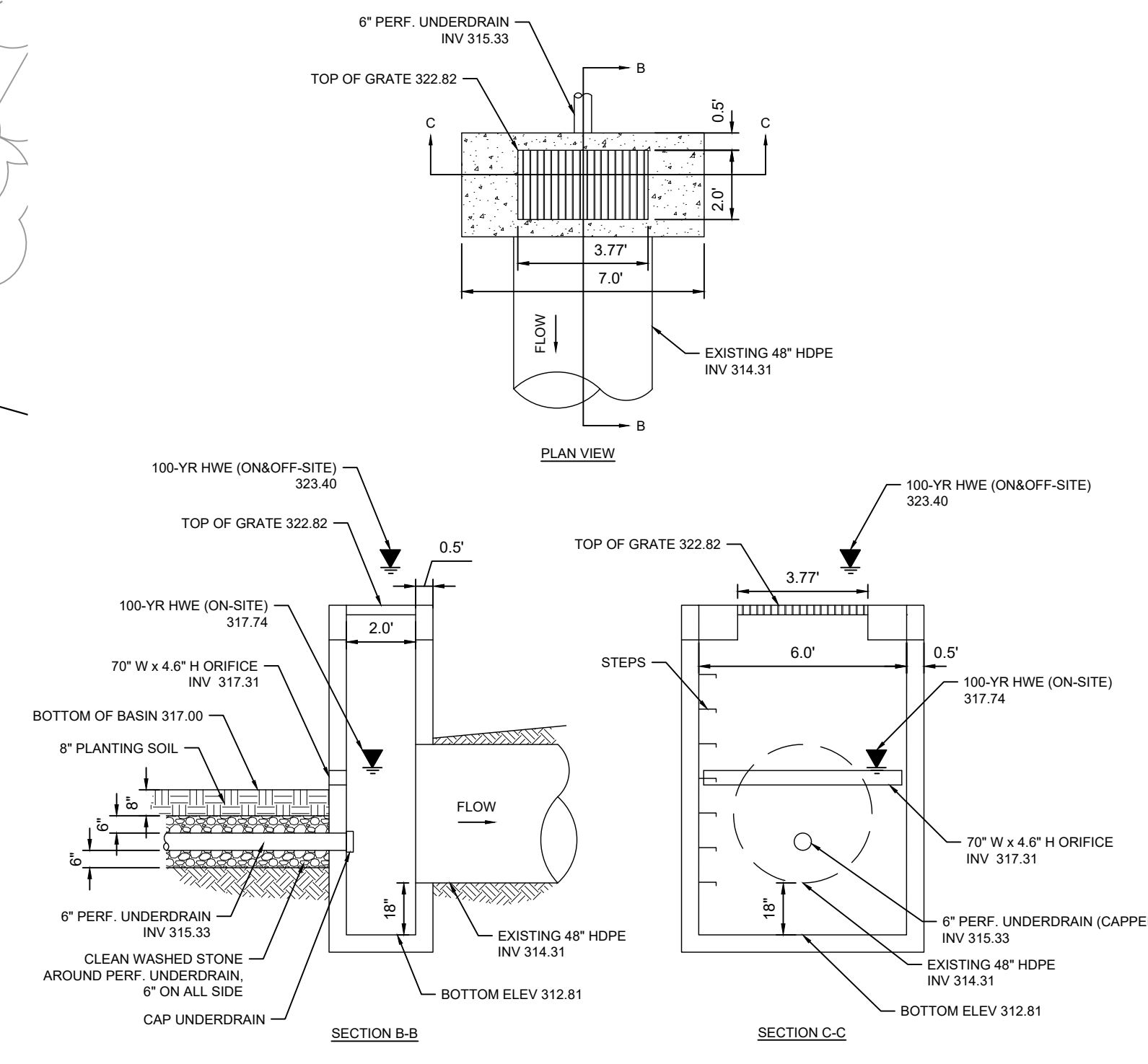
Table with 3 columns: Inspection and Maintenance Activity, Frequency, Failure Indicators. Includes sections for BMP 6.4.2 - Infiltration Basin "BMP-1" and BMP 5.6.2 - Minimize Soil Compaction in Disturbed Area with Soil Amendment "BMP-2".

Table with 3 columns: Date, Name, Title. Includes entries for 08/09/2024, 05/29/2024, and 01/28/2024.

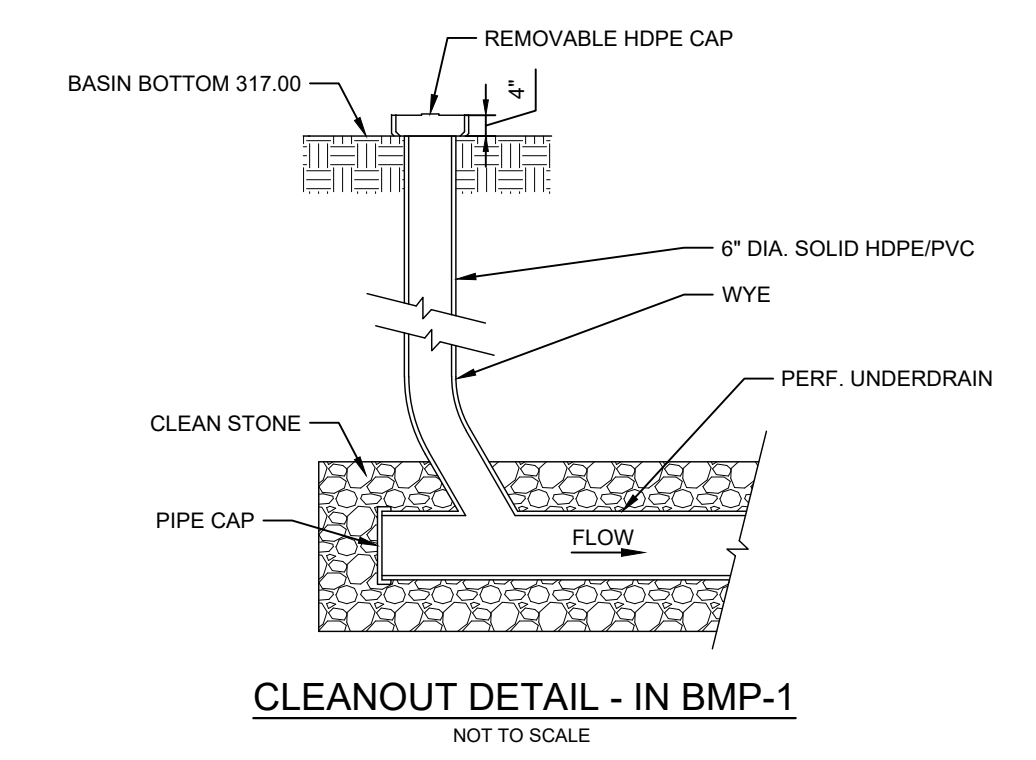
Post Construction Stormwater Management Notes
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
EUSTACE ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS
DRAWN BY YG
CHECKED BY MAJE
DATE 11-20-2023
DRAWING No. D 2373 04 24



BMP-1 INFILTRATION BASIN SECTION A-A
H: 1" = 20"
V: 1" = 5"

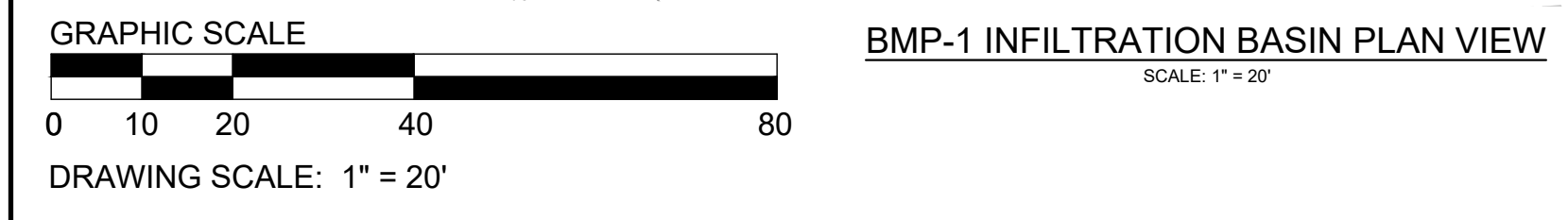


OS-1 (BMP-1) DETAILS
NOT TO SCALE



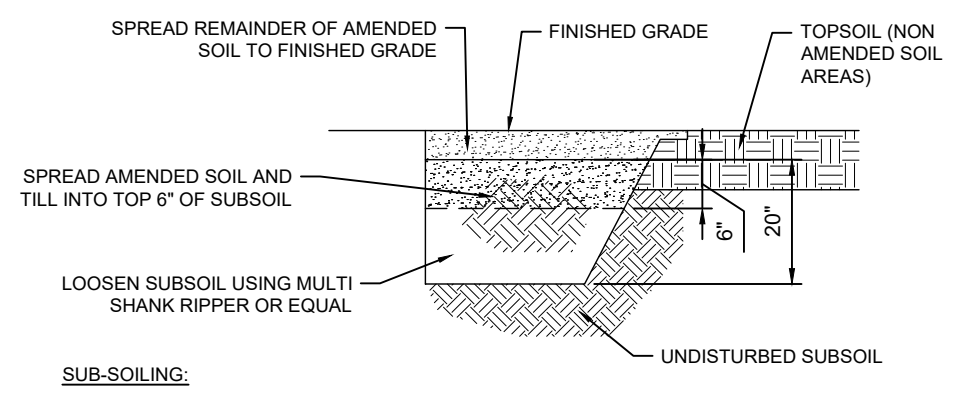
CLEANOUT DETAIL - IN BMP-1
NOT TO SCALE

- PERFORATED UNDERDRAIN - BMP-1**
Underdrain shall be made of continuously perforated high-density polyethylene (HDPE) plastic piping with a smooth interior. HDPE pipe must meet the specifications of AASHTO M 252, Type S or AASHTO M 294, Type S.
- STONE FOR UNDERDRAIN - BMP-1**
Uniformly graded, crushed, clean-washed AASHTO 57 stone with a wash loss of no more than 0.50% by mass, when tested per AASHTO T 11 wash loss test.
- PLANTING SOIL MEDIUM - BMP-1**
Planting soil should meet all the specifications listed below and should be a fertile, natural soil, free from large stones, roots, sticks, clods, plants, peat, sod, pockets of coarse sand, pavement and building debris, glass, noxious weeds including invasive species, infestations of undesirable organisms and disease causing pathogens, and other extraneous materials harmful to plant growth.
- The texture of planting soil should conform to the classification within the United States Department of Agriculture triangle for Sandy Loam or Loamy Sand. Planting soil should be a mixture of sand, silt, and clay particles as required to meet the classification. Ranges of particle size distribution, as determined by pipette method in compliance with ASTM F-1632, are as follows:
 - Sand (0.05 to 2.0 mm): 50 - 85%
 - Silt (0.002 to 0.05mm): 40% maximum
 - Clay (less than 0.002mm): 10% maximum
 - Gravel (2.0 to 12.7 mm): 15% maximum
 - Planting soil should be screened and free of stones larger than a half-inch (12.7 millimeters) in any dimension. No more than 10% of the soil volume should be composed of soil peds greater than one inch.
 - Clods, or natural clumps of soils, greater than three inches in any dimension should be absent from the planting soil. Small clods ranging from one to three inches and peds, natural soil clumps under one inch in any dimension, may be present but should not make up more than 10% of the soil by volume.
 - The pH of the planting soil should have a range of 5.8 to 7.1.
 - Soluble salts should be less than 2.0 mmhos/cm (dS/m), typically as measured by 1:2 soil-water ratio basic soil salinity testing. Sodic soils (Exchangeable Sodium Percentage greater than 15 and/or Sodium Adsorption Ratio greater than 13) are not acceptable for use regardless of amendment.
 - Organic content of planting soil should have a range of 3% to 15% by weight, as determined by loss on ignition (ASTM D2974). To adjust organic content, planting soil may be amended, prior to placing and final grading, with the addition of organic compost.



Plant Schedule (Detention Basin Shrubs & Seeding)

Abrev.	Botanical Name	Common Name	Quantity	Height	Spread	B&B	Native*	General Comments
CDG	CEPHALOTAXUS HARRINGTONIA 'DUKE GARDENS'	DUKE GARDENS PLUM YEW	14	24" - 30"	24" - 30"	YES	NO	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
CAR	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	12	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
IGN	ILEX GLABRA 'NIGRA'	NIGRA INKBERRY HOLLY	14	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
IV	ILEX VERTICILLATA	WINTERBERRY HOLLY	5	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
IHG	ITEA VIRGINICA 'HENRYS GARNET'	HENRYS GARNET VIRGINIA SWEETPIRE	21	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
LB	LINDERA BENZONI	SPICE BUSH	6	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	11	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
DBSM		DETENTION BASIN SEED MIX	18,980 SF	-	-	-	NO	DETENTION BASIN GRASS MIX BY JUSTIN SEED OR APPROVED EQUAL, SLIT SEED AT 30# PER ACRE
EM600	ERNMX-600, FL WET MEADOW MIX	WET MEADOW SEED MIX	27,450 SF	-	-	-	YES	SLIT-SEED AT 15#/ACRE WITH COVER CROP OF 30#/ACRE GRAIN RYE OR 10#/ACRE JAPANESE MILLET
EM1812	ERNMX-181-2, NATIVE STEEP SLOPE MIX W/GRAIN RYE	WILDFLOWER MEADOW MIX	6,000 SF	-	-	-	YES	SLIT-SEED AT 0.9#/1,000 SF AND COVER WITH JUTE NET, STAKED IN PLACE, ERNMX-181-2



BMP-2 AMENDED SOILS INSTALLATION DETAIL
NOT TO SCALE

- BMP-2 AMENDED SOIL MIX FOR LAWN AREA**
- Clay content: less than 10%
 - Sandy loam topsoil: 80%
 - Leaf compost or aged leaf mulch: 20%
 - Permeability of at least 1.0 feet per day (0.5 in/hour)
 - Free of stones, stumps, roots, or other woody material over 1 inch in diameter
 - Free of brush or seeds from noxious weeds
 - Soil pH range: 6.5 to 7.0
 - In situ soil shall be certified suitable prior to use.

3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Post Construction Stormwater Management Details
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

DRAWN BY
YG

CHECKED BY
MJE

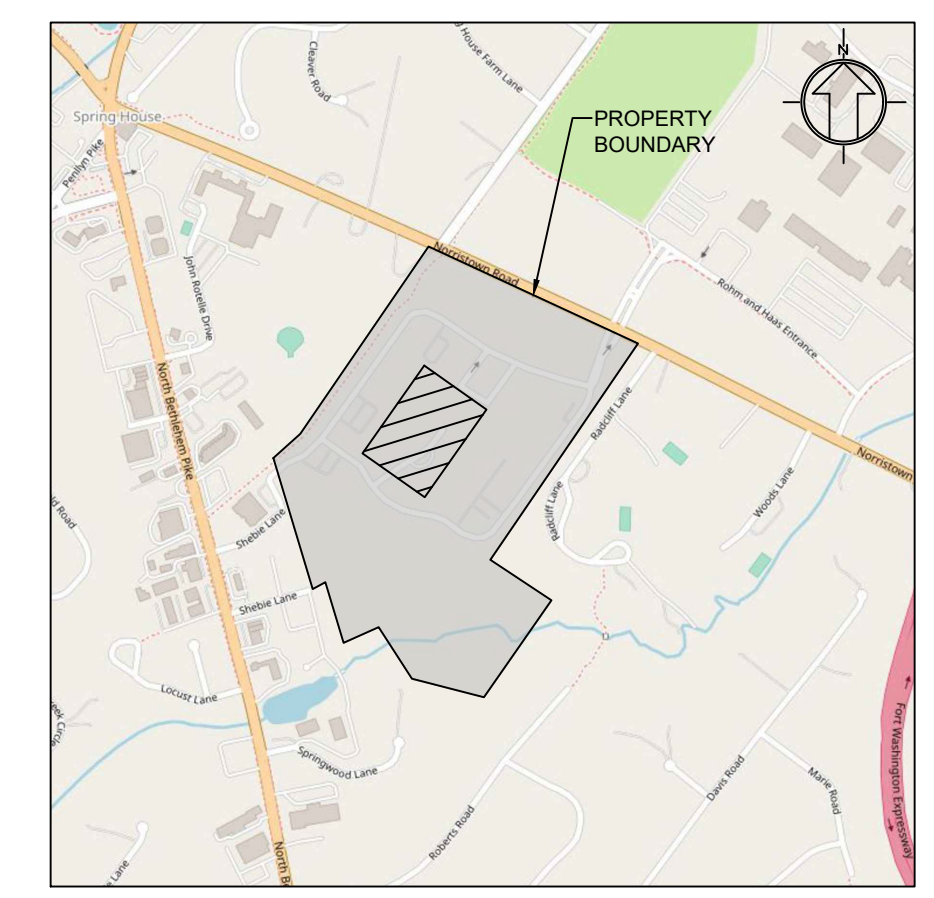
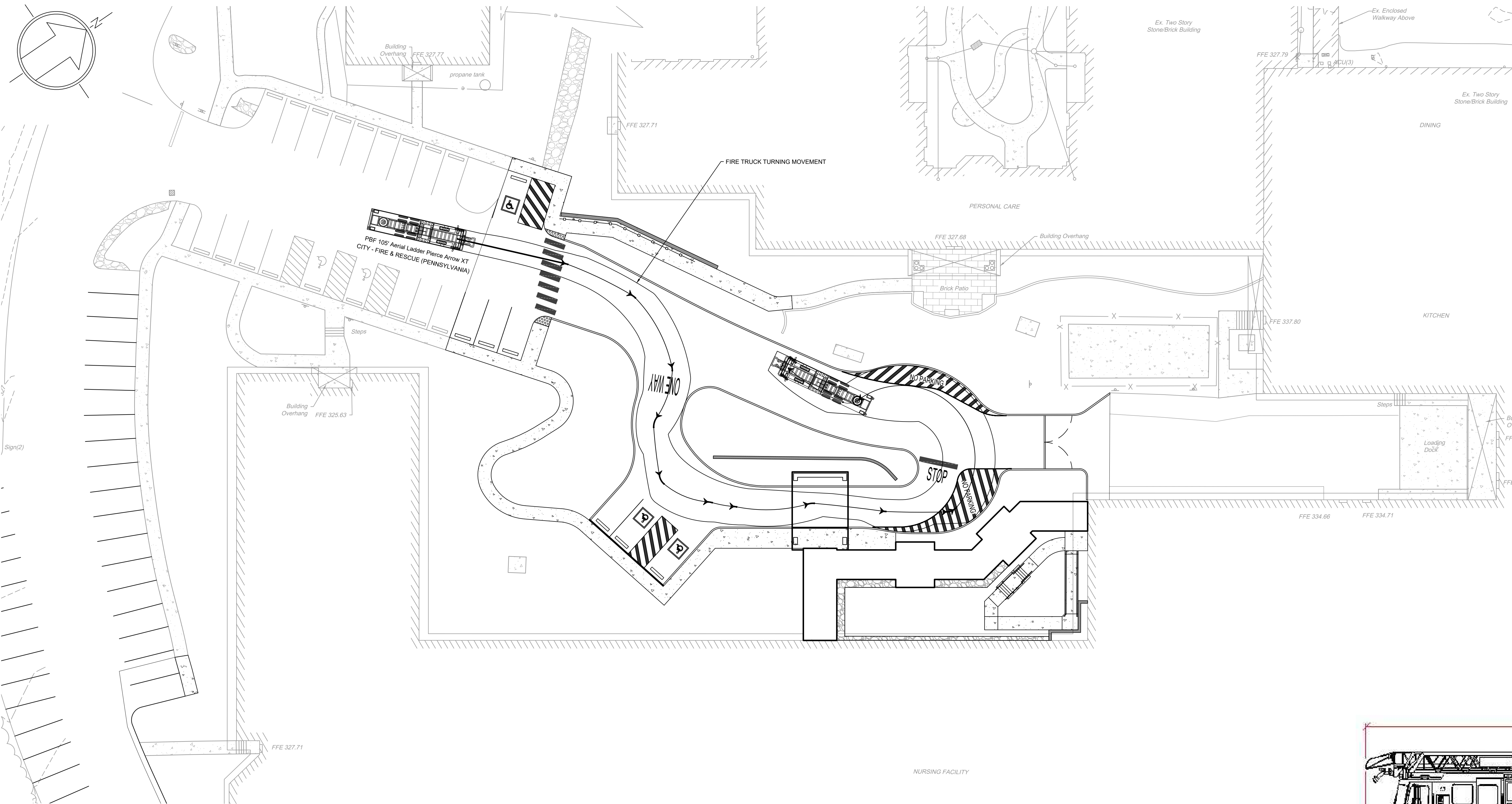
DATE
11-20-2023

DRAWING No.
D 2373 04 25

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Building B - 2nd Floor
Willow Grove, PA 19090
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Fax: (215) 346-8759
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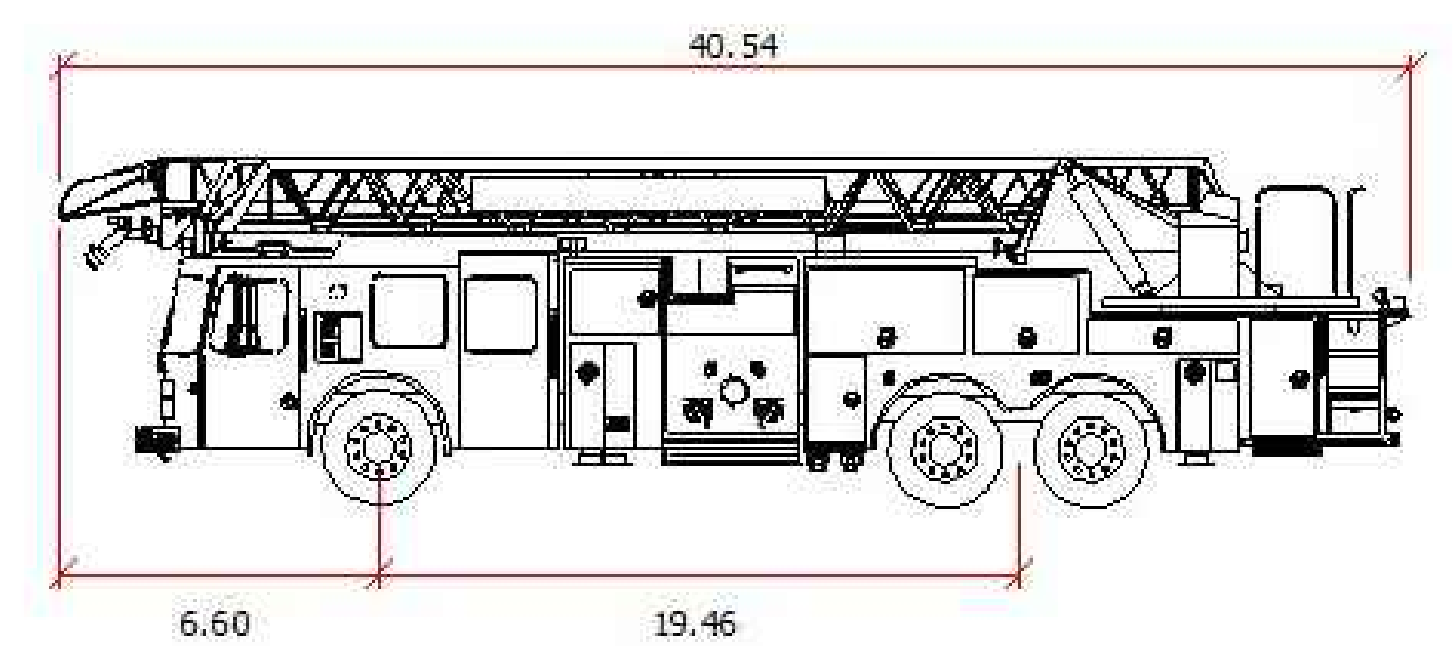
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Location Map
Scale: 1" = 100'

Legend

	Existing Building
	Existing Curb
	Existing Concrete
	Existing Brick Paver
	Existing Gravel
	Existing Contour
	Existing Index Contour
	Existing Sanitary Sewer Line
	Existing Water Line
	Existing Gas Line
	Existing Storm Line
	Existing Electric Line
	Existing Light Pole
	Existing Inlet and Yard Drain
	Existing Utility Pole
	Existing Fire Hydrant
	Existing Manhole
	Proposed Building
	Proposed Sidewalk



DESIGN VEHICLE
PBF 105' AERIAL LADDER PIERCE ARROW XT
CITY - FIRE & RESCUE (PENNSYLVANIA)

3	08/09/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	MJU	TOWNSHIP AND MCCD RESUBMISSION
1	01/28/2024	YG	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Vehicular Movement Plan
ACTS SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

	EUSTACE ENGINEERS LANDSCAPE ARCHITECTS SURVEYORS 307 Easton Road Willow Grove, PA 19090 Tel: (215) 348-8757 Fax: (215) 348-8759 www.eustaceeng.com	DRAWN BY YG CHECKED BY MJE DATE 11-20-2023 DRAWING No. D 2373 04 26
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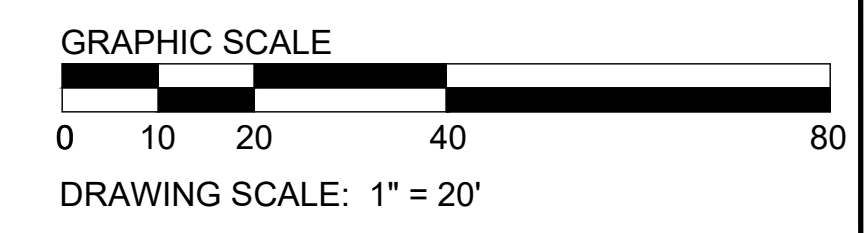


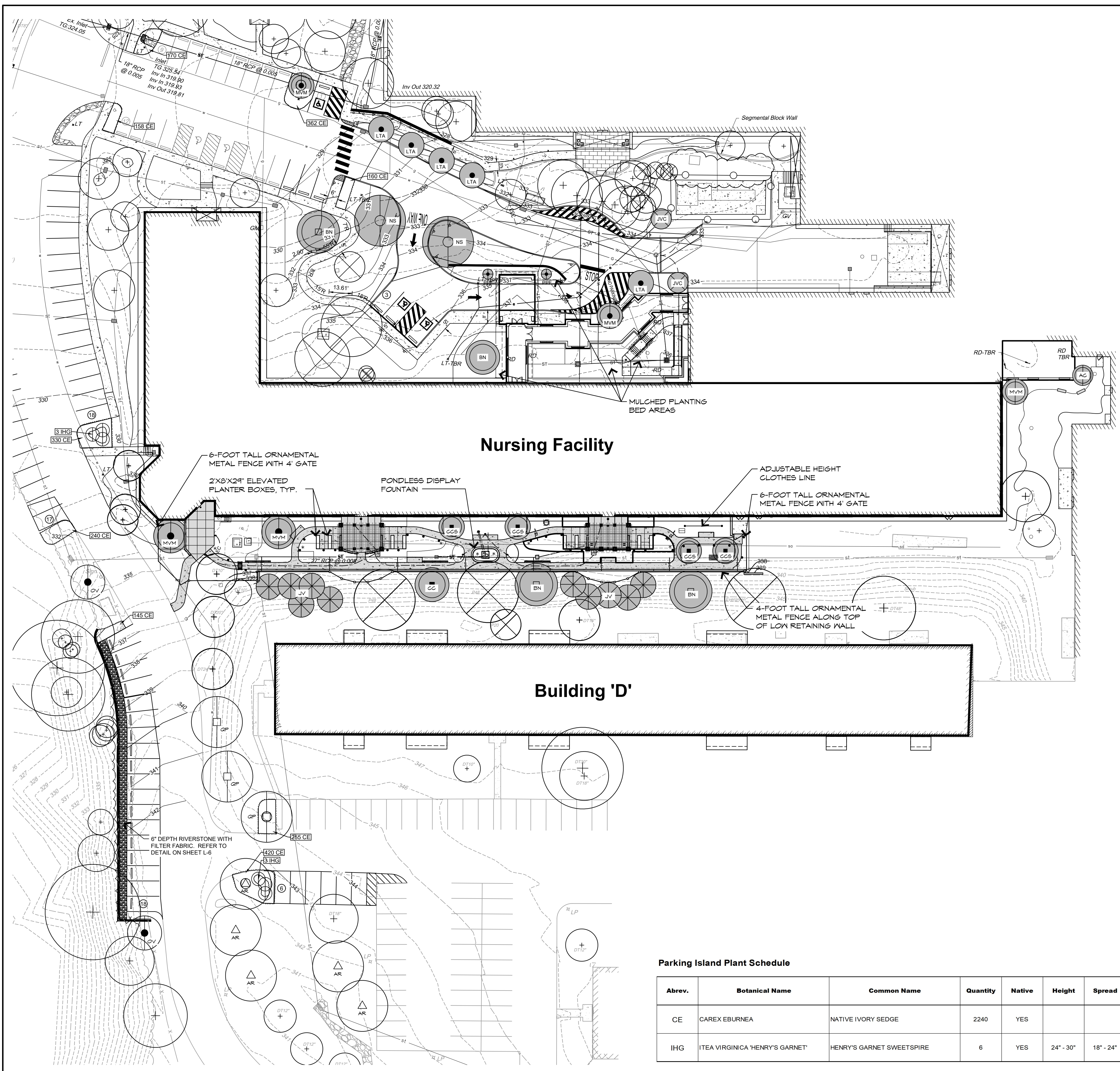
Act 287
ALL PARTIES UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA ACT 287 AS AMENDED BY PENNSYLVANIA ACT 199, OF 2004 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". ALL EXISTING UNDERGROUND UTILITIES ARE TO BE CONSIDERED APPROXIMATE ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY PRIOR TO THE COMMENCEMENT OF THE SITE WORK, IN ACCORDANCE WITH ACT 287.

Site Data:
Address: 728 Norristown Rd.
Lower Gwynedd Township, PA 19002
Zoned: MF-38 - Multi-Family Residential District
Lot Area: 55.04 Acres (to R.O.W.)

Owner/Applicant:
ACTS Retirement-Life Communities, Inc.
Corporate Services Center
420 Delaware Drive
P.O. Box 2222
Fort Washington, PA 19034

Parcel Information:
Parcel ID: 39-00-03025-00-5
Tax Map ID: 39017D004

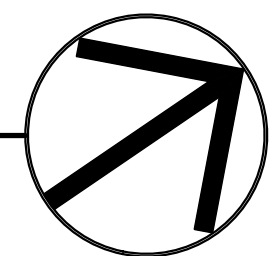




Landscape Plan

Scale: 1" = 30'-0"

Note: Refer to Plant Schedule and Details on Sheet L-6.



Parking Island Plant Schedule

Abrev.	Botanical Name	Common Name	Quantity	Native	Height	Spread	Root	General Comments
CE	CAREX EBURNEA	NATIVE IVORY SEDGE	2240	YES			32 PER TRAY	PLANT 10" ON CENTER IN CONTINUOUS SHREDDED HARDWOOD BARK MULCH BED, 2" DEPTH
IHG	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	6	YES	24' - 30'	18" - 24"	5 GAL. CAN	MATCHED PLANTS, BRANCHED TO GROUND

TOWNSHIP LANDSCAPE REQUIREMENTS (MF-3 MULTIFAMILY DISTRICT)

TYPE OF PLANTING	TOWNSHIP REQUIREMENT	QUANTITY REQUIRED	QUANTITY PROVIDED
SALDO 1230.41(g) Parking Lot Landscaping	a minimum of 10% of any parking area in excess of 2,000 SF gross area shall be devoted to landscaping	2,740 SF parking area added (16 spaces at 9'x19') = 276 SF green area required	274 SF of plantings added to existing island area.
SALDO 1230.41(i) Replacement of Existing Trees	Refer to separate Replacement Tree Table below.		
SALDO 1230.42(a)(1) Street Trees	Street trees shall be planted at the frequency of at least two shade trees per 40 feet of street length.	Not Required. The proposed development has no impact on street frontages of this site. <i>Some replacement trees are proposed along Norristown Road.</i>	
SALDO 1230.42(a)(2) Detention Basin Landscaping	One shade tree per 30 feet of basin perimeter. Up to 50% of shade trees may be substituted with flowering trees at the rate of two flowering trees per required shade tree.	Basin Perimeter: 921 LF 921 LF/30 = 31 Shade Trees	Existing Shade Trees ¹ : 41
SALDO 1230.42(e)(1) Buffer Plantings	One shade tree, one evergreen tree and one shrub per 30 feet of buffer yard.	Not Required. Proposed building addition and sitework are interior to the site and do not affect the existing mature buffer vegetation.	
SALDO 1230.42(e)(2) Interior Landscaping	Two shade trees per unit.	Not Required. Due to the proposed renovation, the number of skilled nursing beds is to be reduced.	
SALDO 1230.42(e)(3) Parking Area Landscaping	One shade tree per 2 vehicle parking spaces	22 Parking Spaces Proposed 11 Shade Trees Required (1 Shade Tree per 2 spaces)	10 New Shade Trees Provided plus 1 Existing Shade Tree to Remain
SALDO 1230.43(b)(1) Native Planting Requirements	No less than 75% of trees, shrubs and perennials shall be native to the area.	75% of Trees: 75% of Shrubs; 75% of Perennials	Complies
SALDO SMO 1241-402(d)(1) Detention Basin Landscape Requirements	There shall be a minimum of one approved tree and five approved shrubs per 2,500 cubic feet of basin storage at the 100-year storm design elevation.	Storage to be Added: 39,779 CF Plantings Required: 39,779/2,500 = 15.91 = 16 Trees 15.91 X 5 = 79.55 = 80 Shrubs	41 Existing Shade Trees ¹ 28 Evergreen Shrubs 52 Deciduous Shrubs (80 Total Shrubs)
SALDO SMO 1241-402(d)(2) Detention Basin Landscape Requirements	The trees shall be a combination of shade, flowering and evergreen tree types, and shrubs shall be a combination of deciduous, needed and broadleaf evergreen types.		Complies, See Above
SALDO SMO 1241-402(d)(3) Detention Basin Landscape Requirements	A wildflower mixture with meadow grasses shall be utilized for ground cover for a minimum of 20% of the basin perimeter where the probability of erosion is minimal.	Basin Perimeter Area: 29,300 SF 20% of Basin Perimeter: 5,830 SF	>5,860 SF of Wildflower Meadow Proposed
SALDO SMO 1241-402(g) Detention Basin Landscape Requirements	Native deciduous trees shall be a minimum of three to 3 1/2 inches in caliper, native shrubs shall be a minimum of 24 inches to 36 inches in height, and native evergreen trees shall be a minimum of six feet to eight feet in height at the time of installation.		Complies, Refer to Plant Schedules Sheets L-4 & L-6.
		Shade Trees: 42 Shrubs: 80	10 plus 42 Existing 80

1) Existing shade trees to remain within 40 feet of the overflow elevation of the basin are counted as existing trees toward basin landscape requirements.

TOWNSHIP LANDSCAPE REQUIREMENT - REPLACEMENT OF EXISTING TREES

TYPE OF PLANTING	TOWNSHIP REQUIREMENT	QUANTITY REQUIRED	QUANTITY PROVIDED
SALDO 1230.41(a)(i) Replacement of Existing Trees	Existing trees of 6" or more caliper measured at 6" above grade shall be replaced with plants from Section 1230.43 having a total caliper equal to or greater than the trees removed	218 caliper inches of trees removed = 218 caliper inches of new Native plants required	A minimum of 218 caliper inches of new native plants to be planted as replacement trees.
		PLANTING SIZE	CALIPER COUNTED PER TREE
		Native Shade Trees 4" Minimum Caliper	4"
		Native Shade Trees 3" Minimum Caliper	3"
		Native Shade Trees 2.5" Minimum Caliper	2.5"
		Native Flowering Trees 2.5" Min. Caliper, 8' - 9' Height	2.5"
		Native Evergreen Trees 3" Min. Caliper, 8' - 9' Height	3"
		Native Evergreen Trees 2" Min. Caliper, 5' - 6' Height	2"
		Total Replacement Caliper to be Provided on Site:	220
		Total Replacement Caliper Required:	218

3	08/09/2024	CBI	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	CBI	REVISED PER 3/14/24 TOWNSHIP COMMENTS
1	01/28/2024	CBI	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Landscape Plan

SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

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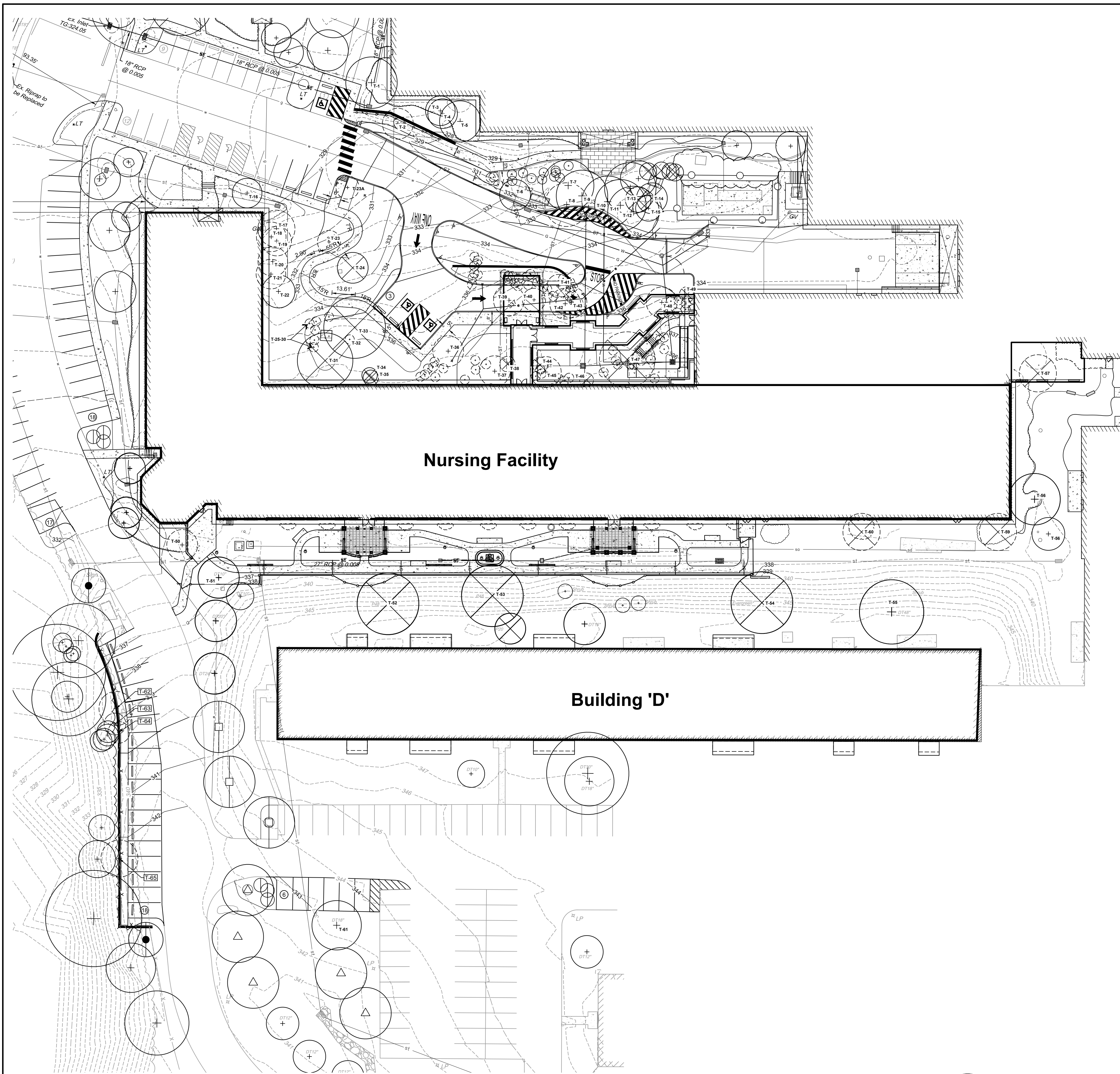
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DATE: 11/20/2023

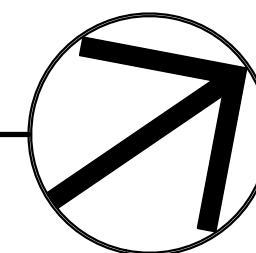
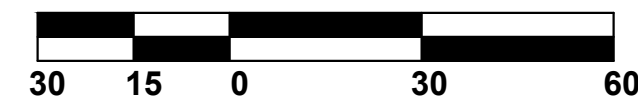
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SHEET 27 OF 34

Existing site conditions and dimensions shall be verified by Contractor and the Consultant, notified of any discrepancies before proceeding with construction.



Tree Removals Plan
Scale: 1" = 30'-0"



EXISTING TREE TABLE						
PLAN LOCATION NUMBER	CALIPER INCHES/ SIZE	'SINGLE TREE EQUIVALENT	SPECIES	TO BE REMOVED YES/NO	CALIPER INCHES TO BE REPLACED	CONDITION/ NOTES
T-1	10		Ornamental Cherry			
T-2	12		Japanese Zelkova	YES	12	
T-3	6		Ornamental Cherry			
T-4	6		Removed			
T-5	15		Dawn Redwood			
T-6	12		Callery Pear			
T-7	12		Dawn Redwood			
T-8	12		Japanese Zelkova	YES	12	
T-9	4		Dawn Redwood			
T-10	10		Dawn Redwood			
T-11	15		Dawn Redwood			
T-12	10		Japanese Zelkova			
T-13	8		White Pine			
T-14	14		White Pine			
T-15	10		White Pine			
T-16	10		Ornamental Cherry			
T-17	10		Callery Pear	YES	10	
T-18	6		shrub	YES	0	Overgrown shrub
T-19	6		shrub	YES	0	Overgrown shrub
T-20	6		shrub	YES	0	Overgrown shrub
T-21	6		shrub	YES	0	Overgrown shrub
T-22	24		shrub			
T-23	4		Ornamental Cherry	YES	0	**poor condition, <6" caliper
T-23A	9		Callery Pear	YES	9	
T-24	12		Dawn Redwood			
T-25	6		American Arborvitae	YES	0	American Arborvitae is listed as a shrub in Table 3 of the Landscape Ordinance therefore this species is not included in tree replacement calculations. ***
T-26	6		American Arborvitae	YES	0	
T-27	6		American Arborvitae	YES	0	
T-28	6		American Arborvitae	YES	0	
T-29	6		American Arborvitae	YES	0	
T-30	6		American Arborvitae	YES	0	
T-31	20		White Pine			
T-32			American Arborvitae, Missing			Removed after survey
T-33	24		Dawn Redwood			
T-34	6		False Cypress			Too close to foundation, we recommend removal without penalty
T-35	6		False Cypress			
T-36	6		Ornamental Cherry	YES	6	
T-37	10		False Cypress	YES	10	
T-38	6		False Cypress	YES	6	
T-39	16		Dawn Redwood	YES	16	
T-40	6		Ornamental Cherry	YES	6	
T-41	6		Callery Pear	YES	6	
T-42	10		Dawn Redwood	YES	10	
T-43	10		Dawn Redwood	YES	10	
T-44	2		shrub	YES	0	
T-45	10		Ornamental Cherry	YES	10	
T-46	8		Cedar	YES	8	
T-47	20		White Pine	YES	20	
T-48	18		Japanese Zelkova	YES	18	
T-49	2		False Cypress	YES	2	
T-50	9		Callery Pear	YES	9	
T-51	11		Oak			
T-52	31		White Pine			
T-53	31		White Pine			
T-54	31		White Pine			
T-55	31		Ornamental Cherry			
T-56	10		Kousa Dogwood			
T-57		12	American Arborvitae	YES	0	*** Not included in calculations
T-58		30	Ornamental Cherry			** Multi-stem tree
T-59		24	American Arborvitae	YES	0	*** Not included in calculations
T-60		60	American Arborvitae	YES	0	*** Not included in calculations
T-61	18		Unknown Canopy Tree			
T-62	10		Maple	YES	10	In existing woodland adjacent to proposed retaining wall.
T-63	9		Maple	YES	9	
T-64	9		Maple	YES	9	
T-65	10		Maple	YES	10	
Tree Removal Totals (# of Trees and Caliper Inches to be Replaced):				22	218	

- * Multi-stem trees converted to equivalent single stem trees based on equivalent cross-sectional area of 4" and larger stems.
- ** Trees that are 75% or more dead are to be removed without penalty.
- *** Landscape Ordinance, Table 3 lists American Arborvitae as a shrub, therefore this species is not included in replacement requirements.

3	08/09/2024	CBI	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	CBI	REVISED PER 3/14/24 TOWNSHIP COMMENTS
1	01/26/2024	CBI	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

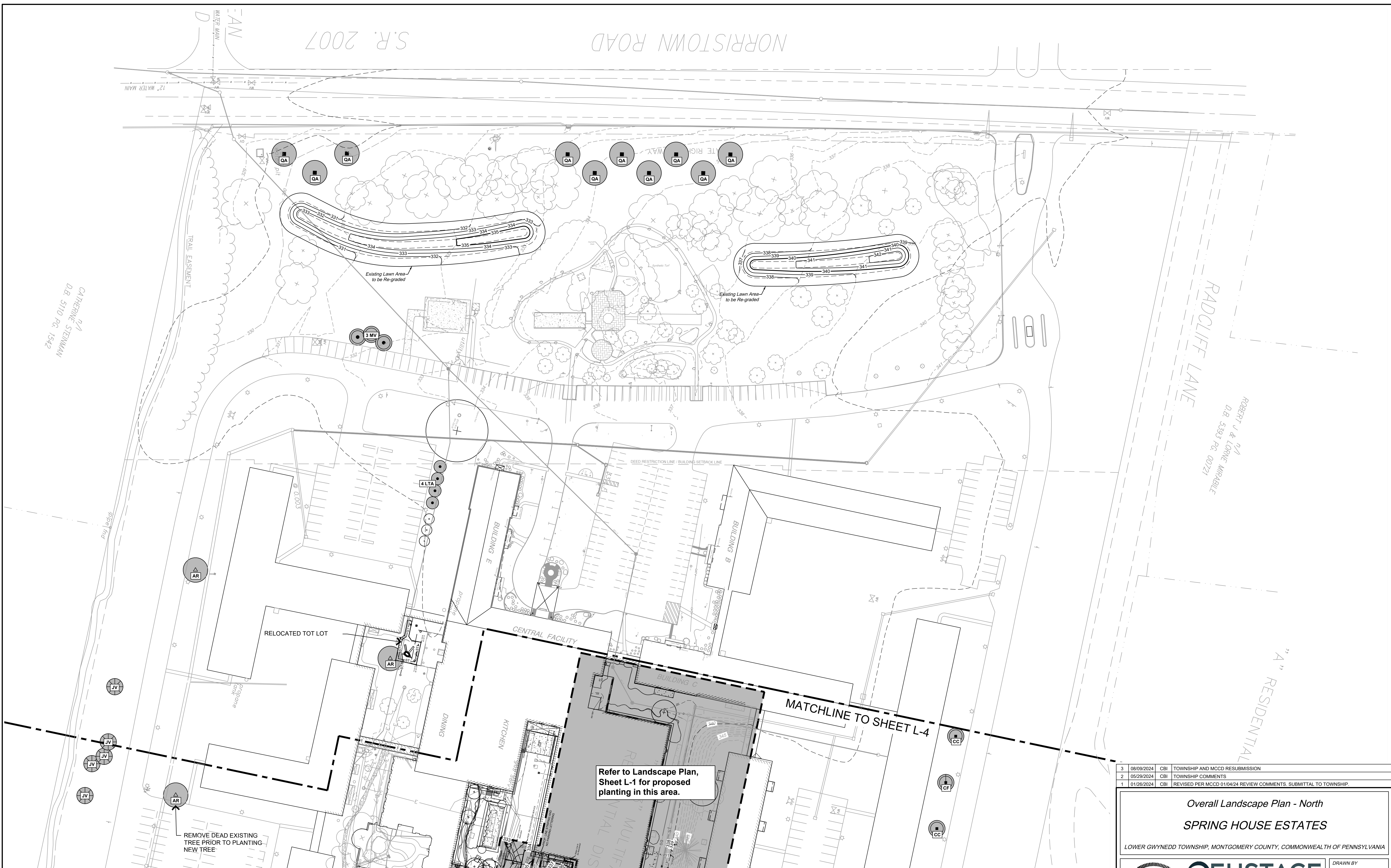
Tree Removals Plan
SPRING HOUSE ESTATES
LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

Michael J. Urban
PA Lic. RLAD01127E

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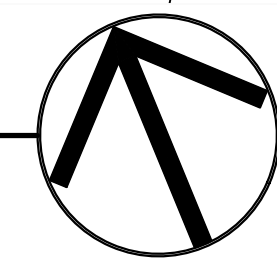


NORRISTOWN ROAD

RADCLIFF LANE

Overall Landscape Plan - North

Scale: 1" = 50'-0"
 Note: Refer to Plant Schedule and Details on Sheet L-6.

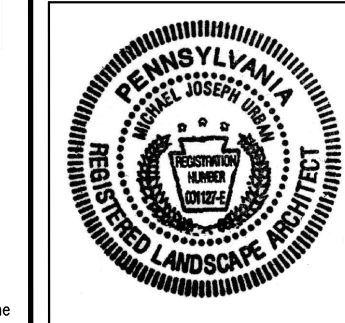


Refer to Landscape Plan, Sheet L-1 for proposed planting in this area.

3	08/09/2024	CBI	TOWNSHIP AND MCD RESUBMISSION
2	05/29/2024	CBI	TOWNSHIP COMMENTS
1	01/26/2024	CBI	REVISED PER MCD 0110424 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Overall Landscape Plan - North
SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA



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 Michael J. Urban
 PA Lic. RLAD01127E

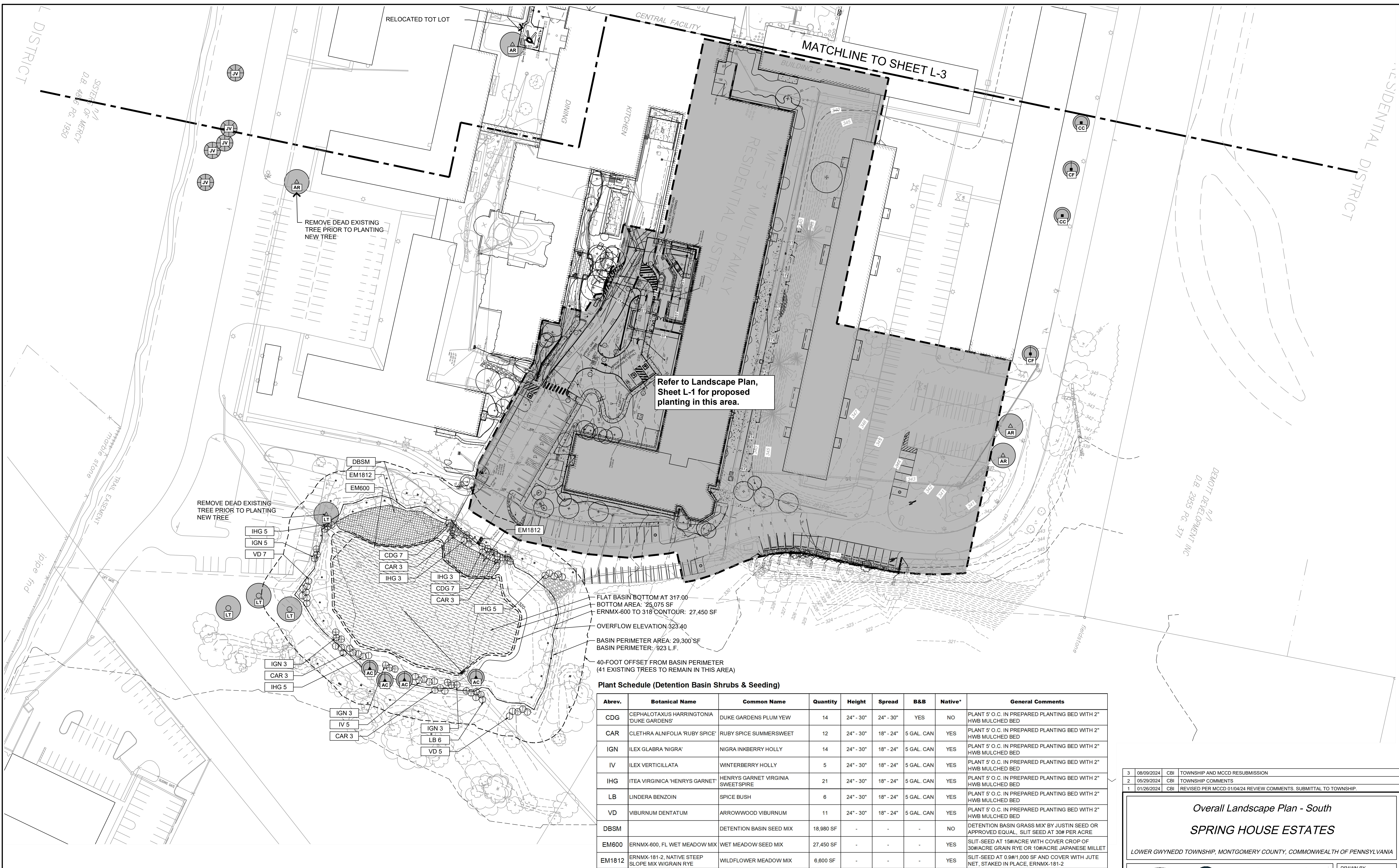
DRAWN BY	CBI
CHECKED BY	MJU
DATE	11/20/23
DRAWING No.	L-3

Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.

N/A
 CATHERINE STEINMAN
 D.B. 5110 PG. 1542

N/A
 ROBERT J & LORNE MARABLE
 D.B. 5393 PG. 00721

"A" RESIDENTIAL



Refer to Landscape Plan, Sheet L-1 for proposed planting in this area.

FLAT BASIN BOTTOM AT 317.00
 BOTTOM AREA: 25,075 SF
 ERNMX-600 TO 318' CONTOUR: 27,450 SF
 OVERFLOW ELEVATION 323.40
 BASIN PERIMETER AREA: 29,300 SF
 BASIN PERIMETER: 923 L.F.
 40-FOOT OFFSET FROM BASIN PERIMETER
 (41 EXISTING TREES TO REMAIN IN THIS AREA)

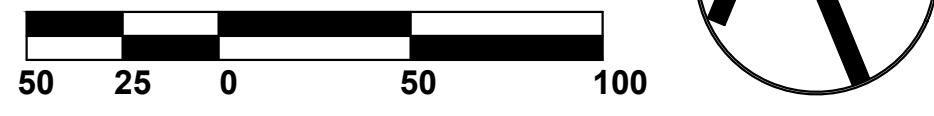
Plant Schedule (Detention Basin Shrubs & Seeding)

Abrev.	Botanical Name	Common Name	Quantity	Height	Spread	B&B	Native*	General Comments
CDG	CEPHALOTAXUS HARRINGTONIA 'DUKE GARDENS'	DUKE GARDENS PLUM YEW	14	24" - 30"	24" - 30"	YES	NO	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
CAR	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	12	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
IGN	ILEX GLABRA 'NIGRA'	NIGRA INKBERRY HOLLY	14	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
IV	ILEX VERTICILLATA	WINTERBERRY HOLLY	5	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
IHG	ITEA VIRGINICA 'HENRYS GARNET'	HENRYS GARNET VIRGINIA SWEET SPIRE	21	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
LB	LINDERA BENZOIN	SPICE BUSH	6	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	11	24" - 30"	18" - 24"	5 GAL. CAN	YES	PLANT 5' O.C. IN PREPARED PLANTING BED WITH 2" HWB MULCHED BED
DBSM		DETENTION BASIN SEED MIX	18,980 SF	-	-	-	NO	DETENTION BASIN GRASS MIX BY JUSTIN SEED OR APPROVED EQUAL, SLIT SEED AT 30# PER ACRE
EM600	ERNMX-600, FL WET MEADOW MIX	WET MEADOW SEED MIX	27,450 SF	-	-	-	YES	SLIT-SEED AT 15#/ACRE WITH COVER CROP OF 30#/ACRE GRAIN RYE OR 10#/ACRE JAPANESE MILLET
EM1812	ERNMX-181-2, NATIVE STEEP SLOPE MIX W/GRAIN RYE	WILDFLOWER MEADOW MIX	6,800 SF	-	-	-	YES	SLIT-SEED AT 0.9#/1,000 SF AND COVER WITH JUTE NET, STAKED IN PLACE, ERNMX-181-2

NOTE: REFER TO PLANT SCHEDULE ON SHEET L-6 FOR REPLACEMENT TREES.
 NOTE: REFER TO SHEET L-7 FOR SEED MIX SPECIFICATIONS AND SHRUB PLANTING DETAIL.
 *NOTE: 69 SHRUBS ARE NATIVE OF 83 PROPOSED, 83% NATIVE PROPOSED.

Overall Landscape Plan - South

Scale: 1" = 50'-0"
 Note: Refer to Plant Schedule and Details on Sheet L-6.



3	08/09/2024	CBI	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	CBI	TOWNSHIP COMMENTS
1	01/26/2024	CBI	REVISED PER MCCD 0110424 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Overall Landscape Plan - South
SPRING HOUSE ESTATES
 LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

EUSTACE
 ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS
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 Willow Grove, PA 19090
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 Fax: (215) 346-8759
 www.eustaceeng.com

DRAWN BY: CBI
 CHECKED BY: MJU
 DATE: 11-20-2023
 DRAWING No: L-4

Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.

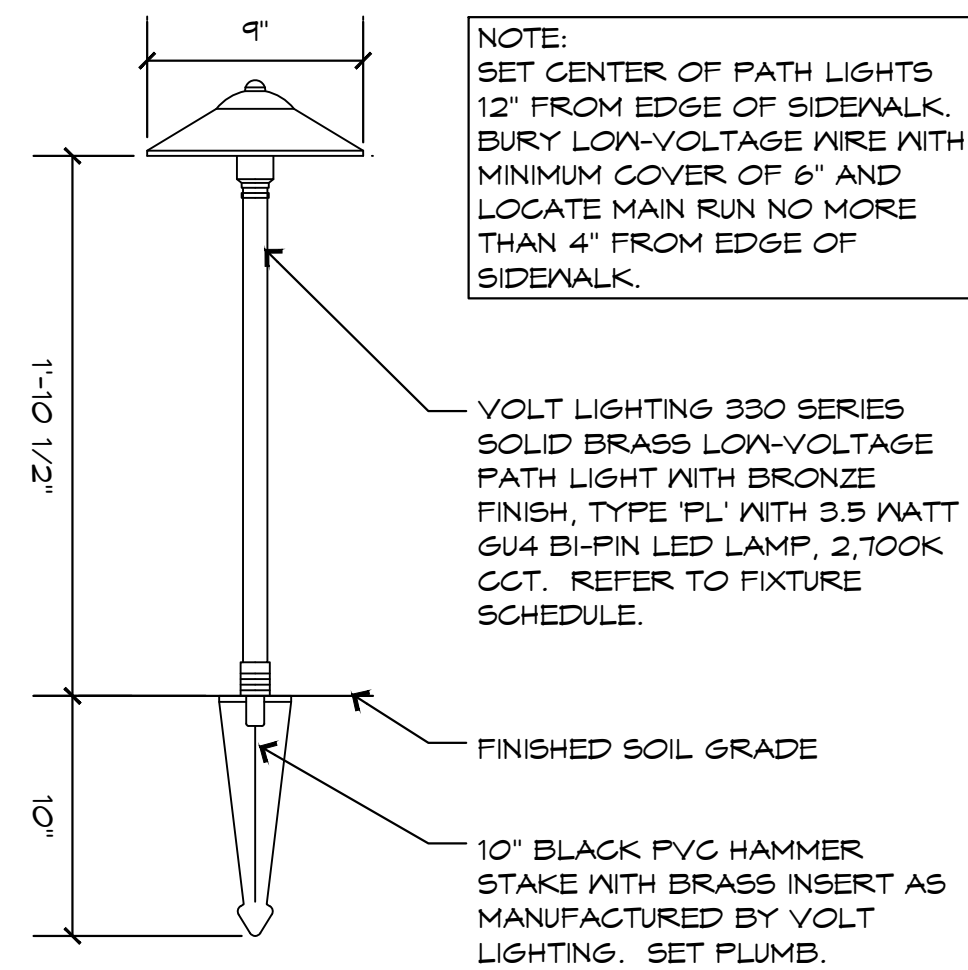
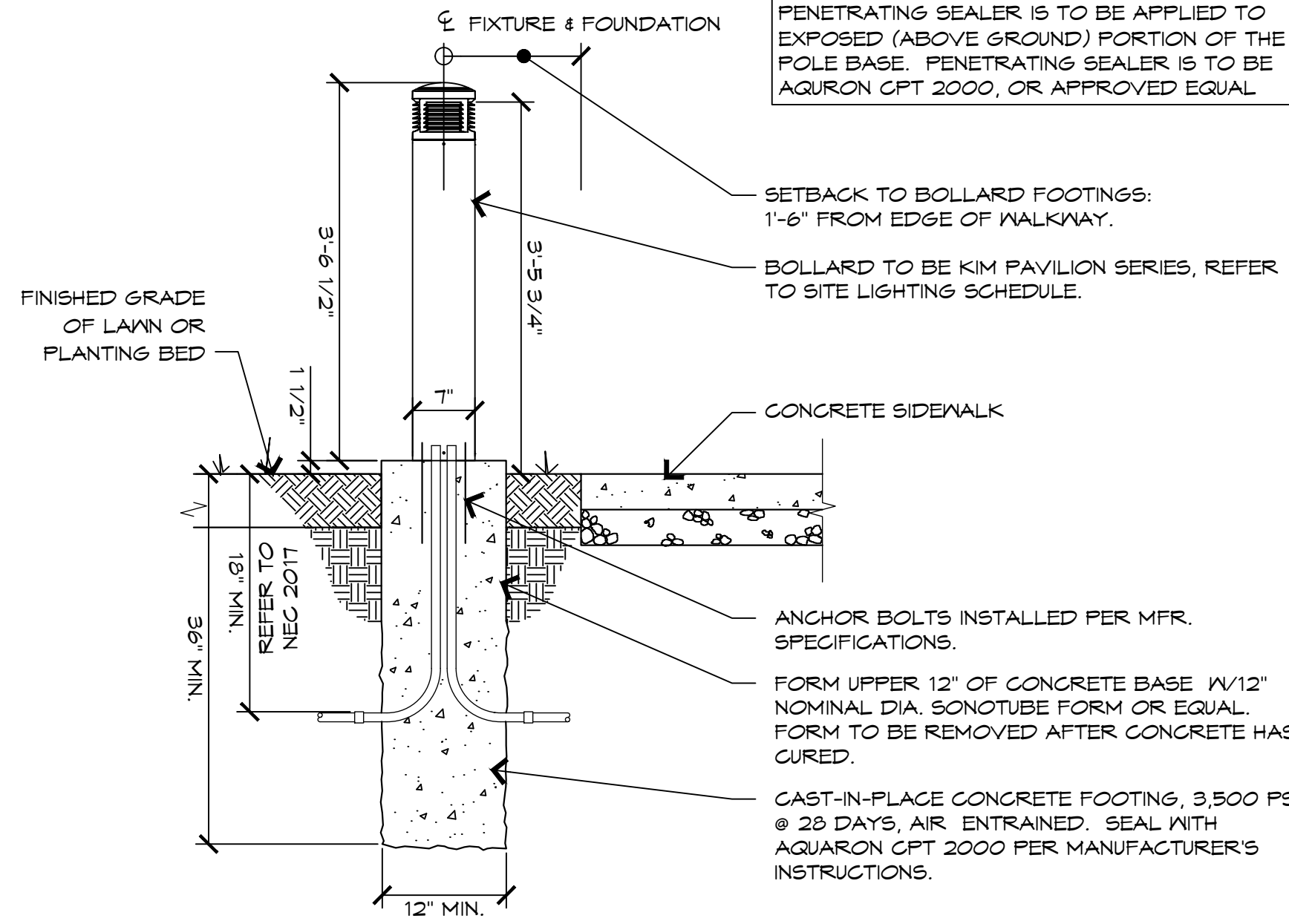
Site Lighting Schedule

Label	Phase 1 Quantity	Phase 2 Quantity	Total Quantity	Catalog Number	Mounting Height	Footing Height	Description	Design File	Lamp Lumens	LLF	Color Temp.	Watts
ARCHITECTURAL FIXTURES - Refer to Architect's Plans and Schedules, Fixtures shown are subject to revision by Architect, for Reference Only												
DC	1	1	2		34"-48"		Card access and door operator controls for access to building at Patios 2 and 3. Refer to Electrical Plans by others.					
DL	1	1	2	3JBK-RD-30K-90CRI	7.33	NONE	Lithonia 3" diameter retrofit downlight	3JBK-RD-30K-90CRI.ies	502	0.90	3,000	7
DLH	1	0	1	FSCDL8/MV010V/LED	7.33	NONE	Halco 8" diameter retrofit LED downlight	FLSCL8MV010VLED.ies	1,050	0.90	3,000	12
PROPOSED FIXTURES AND DEVICES - SHEET L-5 ONLY												
GFI	2	2	4		16"	NONE	Weather Resistant GFCI Duplex Outlet with in use cover					
KHS2	28	0	28	16102-SD-27	VARIABLES	NONE	Kichler adjustable hardcape light, 12" LENGTH	16102-photometric-report.ies	85	0.90	2,700	2
PB4	2	0	2	PA7R-CT-LV4-12L-010-3K7-42A-ROP-DBT-120	3.2	0.25	KIM Pavilion PATR, Type 4, 14W LED with 2 Weather Resistant GFCI Duplex Devices	PA7R-LV4-12L-010-3K7.ies	576	0.90	3,000	14
PB4X	1	0	1	PA7R-CT-LV4-12L-010-3K7-42A-ROP-DBT-120	3.2	0.25	KIM Pavilion PATR, Type 4, 22W LED with 2 Weather Resistant GFCI Duplex Devices	PA7R-LV4-12L-020-3K7.ies	878	0.90	3,000	14
PBSX	2	0	2	PA7R-CT-LV4-12L-020-3K7-42A-ROP-DBT-120	3.2	0.25	KIM Pavilion PATR, Type 5, 22W LED with 2 Weather Resistant GFCI Duplex Devices	PA7R-LV5-12L-020-3K7.ies	887	0.90	3,000	14
PL	18	10	28	BDL-330-BBZ with VAC-STK2-10-BBK and 3.5w GU4-2700K LED lamp	1.9	Flush	VOLT LIGHTING 330 Series Max Spread Path Light in Bronze Finish with 10" PVC Hammer Stake with Brass Insert	Maxspread w GU4-35-27.ies	183	0.70	2,700	4
PLT	1	0	1	VTR-300-SS-J1-BUNDLE	Wall Mt.	NONE	VOLT LIGHTING 300w Toroidal Transformer with Stainless Steel Case, Timer and Photocell Extension Combo Kit with Swivel Mount, 12v, 13v, 14v & 15v taps.					300
WPX1	2	2	4	WPX1-LED-P1-30K-MVOLT-DWHXD	7.33	Mount on Pergola Beam	Lithonia WPX1-P1, 3000K CCT	WPX1-LED-P1-30K-MVOLT.ies	1,537	0.90	3,000	12

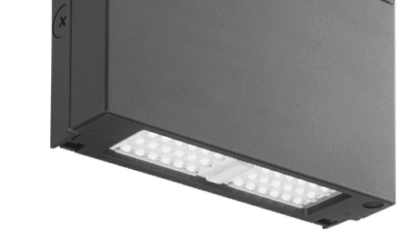
NOTES:

WEATHER PROTECTION FOR FOOTINGS SHALL BE USED IN ACCORDANCE WITH PENNDOT PUBLICATION 408, CURRENT EDITION.

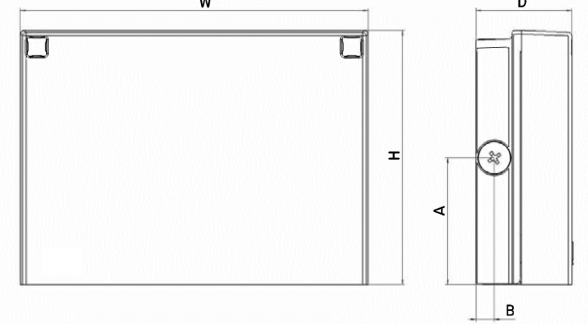
PENETRATING SEALER IS TO BE APPLIED TO EXPOSED (ABOVE GROUND) PORTION OF THE POLE BASE. PENETRATING SEALER IS TO BE AQUARON GPT 2000, OR APPROVED EQUAL.



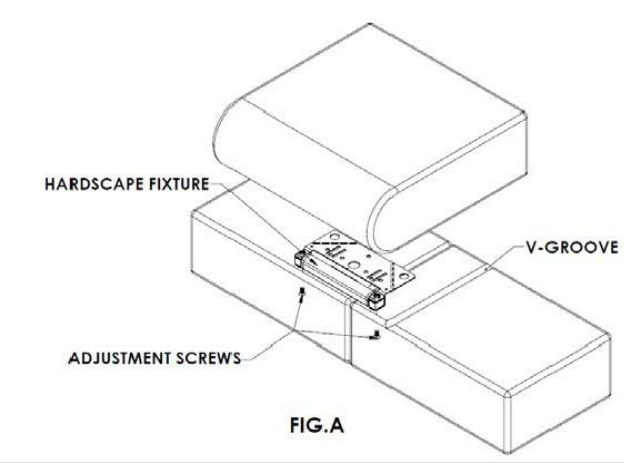
WPX LED Wall Packs



Specifications

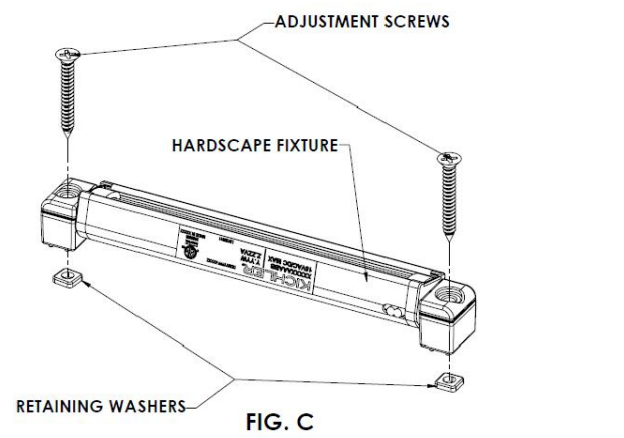


Luminaire	Height (H)	Width (W)	Depth (D)	Side Conduit Location		Weight
				A	B	
WPX1	8.1" (20.6 cm)	11.1" (28.3 cm)	3.2" (8.1 cm)	4.0" (10.3 cm)	0.6" (1.6 cm)	6.1 lbs (2.8kg)



INSTALLATION OF 16100, 16101, 16102 or 16103 on BRICK or MASONRY WALL (SEE FIG. A)

- Turn off power.
- Determine the desired location for each fixture before construction of wall is started. (NOTE: Knock out in steel bracket is center of fixture for alignment purposes.)
- Route the fixture wire through the wall to the main low voltage supply cable using standard masonry procedures. A "Y" shaped notch can be cut into the hardcape material to aide in wire management if desired. Note: Leave a loop of wire accessible to allow for future fixture replacement or maintenance.
- Insert stainless steel mounting plate in between layers of hardcape material. The use of adhesive or mortar (not provided) to secure the fixture in place is optional. It may be best to adjust fixture before securing permanently.
- Follow instructions below for fixture adjustment.
- Connect fixture wires to main low voltage supply cable using UL approved connectors.



ADJUSTMENT OF 16100, 16101, 16102 or 16103 on BRACKET (SEE FIG. A)

- Turn off power.
- Disassemble fixture by loosening screws which hold fixture to bracket at least three turns.
- Adjust tilt of the fixture to 45 degree forward tilt.
- Reassemble fixture by tightening both screws to bracket ensuring fixture no longer moves. (NOTE: Over tightening screw may cause damage to mounting bracket)
- Turn on power.
- If further adjustment is needed repeat steps 1 through 5

1 Light Bollard Detail - Type PBxx

Scale: 3/4" = 1'-0"

2 Path Light Detail - Type PL

Scale: 1 1/2" = 1'-0"

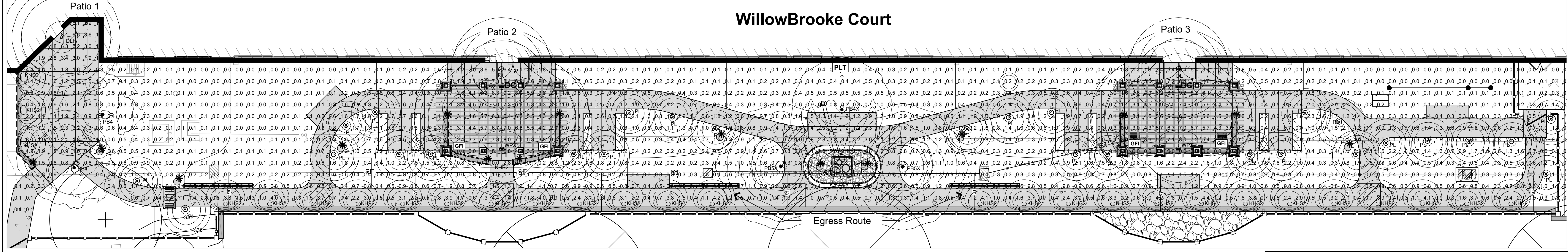
3 Pergola Light - Type WPX1

Not to Scale

4 Wall Light - Type KHS2

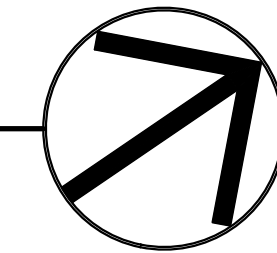
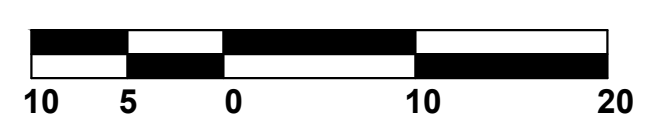
Not to Scale

WillowBrooke Court



Courtyard Lighting Plan

Scale: 1" = 10'-0"



Site Lighting Statistics

	Average	Maximum	Minimum	Max/Min	Avg/Min
+ Overall Area	1.1	9.2	0.0	N/A	N/A
* Patio No. 1	2.1	8.1	0.6	13.5:1	3.5:1
* Patio No. 2	4.9	9.2	1.1	8.4:1	4.5:1
* Patio No. 3	4.9	9.2	1.2	7.7:1	4.1:1
* Egress Route	1.1	4.4	0.3	14.7:1	3.7:1

NOTE: THE TOPOGRAPHIC AND BOUNDARY BASE INFORMATION AND EXISTING FEATURE LOCATIONS SHOWN ON THIS PLAN BASED ON PLAN INFORMATION PROVIDED BY EUSTACE ENGINEERS, WILLOW GROVE, PA, ON JUNE 6, 2022

3	08/09/2024	CBI	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	CBI	TOWNSHIP COMMENTS
1	01/26/2024	CBI	REVISED PER MCCD 0104/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

COURTYARD LIGHTING PLAN
SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

EUSTACE
ENGINEERS • LANDSCAPE ARCHITECTS • SURVEYORS

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DRAWN BY: CBI

CHECKED BY: MJU

DATE: 11-20-2023

DRAWING No. L-5

SHEET 31 OF 34

Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.

General Landscape Specifications:

CONTRACTOR QUALIFICATIONS/REFERENCES: Submit proof of qualifications for review by the Landscape Architect at least two weeks before proceeding with the work. Include a reference list of at least three landscape installations using plant material similar to that of the current project in size, quantity, and magnitude of work. Include for each reference the dollar amount of the project, date of completion, and phone numbers of contacts at each location listed.

DEFINITIONS: The term "plant material" shall mean trees, shrubs, ground cover, and other growing plants and seeding to the extent of the Plant Schedule shown on the Drawings and Planting Details. Trees, shrubs, and other plant material shall be as specified.

PLANT MATERIAL: The Landscape Contractor shall furnish, deliver, and install plant material as specified. Install plant material in accordance with the drawings, details, and general comments.

INSPECTION OF PLANTING AREAS: Inspect planting areas before topsoiling, finish grading, or planting is begun to ensure that adequate drainage exists. If areas to be landscaped show evidence of poor drainage, the Landscape Contractor shall notify the Owner immediately for corrective action. Plant material that dies due to poor or inadequate drainage shall be the responsibility of the Landscape Contractor.

TOPSOIL: Sufficient quantity of topsoil for planting is not available on the site and is to be provided by the Landscape Contractor.

MAINTENANCE BEFORE GUARANTEE PERIOD: The Landscape Contractor shall maintain plantings prior to the beginning of the guarantee period and keep the complete and incomplete work in a clean and neat condition at all times. Maintenance responsibilities shall include but not be limited to watering, mulching, fertilizing, disease control, and weed control.

INSPECTION FOR START OF GUARANTEE: The Landscape Architect will inspect the work to determine its substantial completion for beginning the guarantee period. The Landscape Contractor shall request such inspection in writing at least ten (10) days prior to the anticipated date of completion. After inspection, the Landscape Contractor will be notified of the date when the work has been approved for beginning the Guarantee Period or, if there are any deficiencies, a list to be corrected prior to the beginning of the guarantee period.

GUARANTEE: Guarantee landscape work, plant material, and lawn for (18) calendar months from date of completion of installation and written acceptance by the Owner or Landscape Architect. The Landscape Contractor shall guarantee that plant material will be in a vigorous and thriving condition at the end of the Guarantee Period. Should plants appear to be in poor health, or lack normal growth, the Landscape Contractor shall remove the plants at once and install replacements in a timely manner as specified.

WITHIN THE GUARANTEE PERIOD: The Landscape Contractor shall notify the Owner in writing of any maintenance practices being followed or omitted which would be detrimental to the healthy, vigorous growing condition of plants.

COMPLETION OF GUARANTEE: The Landscape Contractor shall notify the Landscape Architect or Owner upon completion of the Guarantee Period and request a full inspection prior to acceptance of the work.

Planting Specifications:

PLANT MATERIAL SOURCES: Plant materials are to be selected at nurseries located within the same plant hardiness zone as the project site and within a one hundred (100) mile radius of the project site, unless otherwise approved by the Landscape Architect or Owner.

PLANT SELECTION: Notify the Landscape Architect to select and seal plant material at the nursery before delivery.

STAKEOUT OF PLANT LOCATIONS: Notify the Landscape Architect to review stakeout of plant material locations at the site before installation. Markers shall be wood stakes, minimum 2"x2"x4".

BED PREPARATION: Supply and spread soil additives as above plus 3" depth of well-rotted compost over all bed areas, and rototill into the top 4" of topsoil before planting. Exception: Place Agriform tablets for bedded shrubs at time of planting.

SOIL ADDITIVES: For container-grown shrubs and B&B shrubs and trees, both evergreen and deciduous, apply soil additives in compliance with the manufacturer's recommended rates and procedures. Incorporate the following materials in the Backfill Mix:

Super absorbent copolymer and soil wetting agents, such as "Supersorb C" and "Aquaqro 20S" as manufactured by Aquatrols, (800) 257-7797.
M-ROOTS, as manufactured by ROOTS, Inc., (800) 342-6173, or approved equal Mycorrhizae inoculant including both Endo- and Ecto-mycorrhizae species, and biostimulants.
Agriform tablets 20-10-5 plus Minors, 21-gram size, as manufactured by Scotts-Sierra Horticultural Products Co. (937) 644-0011, or approved equal. Place in planting pit evenly spaced.

ANTIDESICCANT: When planting in late fall, apply anti-desiccant to broadleaf evergreen plant material before digging from the nursery field, at manufacturer's recommended application rates.

PRE-EMERGENCE HERBICIDE: Apply pre-emergence herbicide such as "Treflan" to planting beds according to manufacturer's recommendation before placing mulch. Include a second application of pre-emergence herbicide as a part of this work.

Sodding Specifications:

TIMING: Sodding shall commence between August 15 and October 15, or between March 15 and May 15, as weather permits and/or as approved by the Landscape Architect.

FINISH GRADING: The Landscape Contractor shall fine grade lawn areas and remove debris and stones larger than 1" from the Site. Add topsoil to curbed areas as required to bring finish grade flush with top of curb and provide crown as indicated in planting details. Finish grading is to be inspected by the Landscape Architect prior to sod planting.

SOIL AMENDMENTS: Incorporate by discing within the top 1-2" of topsoil the following materials: 30 lbs. of dolomitic limestone, 20 lbs. of basic fertilizer (0-20-20) and 25 lbs. of 10-6-4, 50% organic nitrogen per 1,000 sq. ft.

GRASS SPECIES: Sod shall include a blend of the following:
80% Fyking Kentucky Bluegrass or other acceptable Bluegrass cultivar
20% Pennlawn Creeping Red Fescue or other acceptable Red Fescue cultivar

INSTALLATION: Extra care shall be taken to eliminate air pockets and depressions by rolling or tamping base before sod installation. Sod must be delivered and installed within 36 hours of being cut. Sod shall be laid smoothly, edge to edge with staggered joints. Immediately after installation the sod shall be watered in to a depth of 4".

SLOPES: On slopes 3 to 1 or greater, fasten sod securely to the base by wooden pegs or an acceptable substitute.

WATERING: Water sod as required for four weeks (28 days) after all sod is installed. Replace sod showing signs of excessive drying.

REPAIRS AND REPLACEMENTS: Remove sod which has died immediately after any inspection. Repair joint separations, and replace dead or washed out sod, providing sod similar to the original installation. Install replacement sod during the following planting season. Repair turf bed, adding topsoil as necessary before laying replacement sod. Notify the Landscape Architect when sod replacements are complete.

MAINTENANCE BEFORE GUARANTEE PERIOD: Sod maintenance shall include, but not be limited to, watering of turf, mowing, cultivation, weeding, disease and pest control, replacement of dead or unacceptable materials, filling under settlement areas, reseeding washouts, and any other procedure consistent with good horticultural practice necessary to insure normal, vigorous and healthy growth of work under this Contract.

ADDITIONAL SOD GUARANTEE: Guarantee of sod shall also include the repair of washouts and gullies using materials and procedures specified above.

Plant Quantity Specifications:

Quantities of plant materials and related materials shown on drawing schedules are for the convenience of the contractor and may indicate a quantity less than required to perform the installation. Where spacing of plant material is indicated, plant spacing shall govern over quantity indicated. Where a quantity of plant material is indicated on plans, this quantity shall be interpreted as a minimum calculated quantity. In no case shall a quantity of plant material be installed that is less than the quantity shown on the plant schedule. The contractor shall be responsible to determine the quantity of plant materials required and shall be required to install that quantity of material.

Topsoil Replacement

Prior to replacement of topsoil, subgrades are to be reviewed by the Landscape Architect. REFER TO SPECIFICATION BOOKLET FOR ADDITIONAL INFORMATION. Topsoil to be a minimum depth of 6" in lawn areas.

Seeding Specifications:

TIMING: Seeding shall commence between August 15 and October 15, or between March 15 and May 15, as weather permits and/or as approved by the Landscape Architect.

FINISH GRADING: The Landscape Contractor shall fine grade lawn areas and remove debris and stones larger than 1" from the Site. Add topsoil to curbed areas as required to bring finish grade flush with top of curb and provide crown as indicated in planting details. Finish grading is to be inspected by the Landscape Architect prior to sod planting.

SEED AREA LIMITS: Areas disturbed by the Building Contractor and the removal and relocation of shrubs and trees shall be grubbed, soiled, regraded to match surrounding area, and seeded, fertilized, and mulched by the Landscape Contractor. Limits of lawn restoration shall be determined in the field based on a site inspection by the Owner and Landscape Contractor.

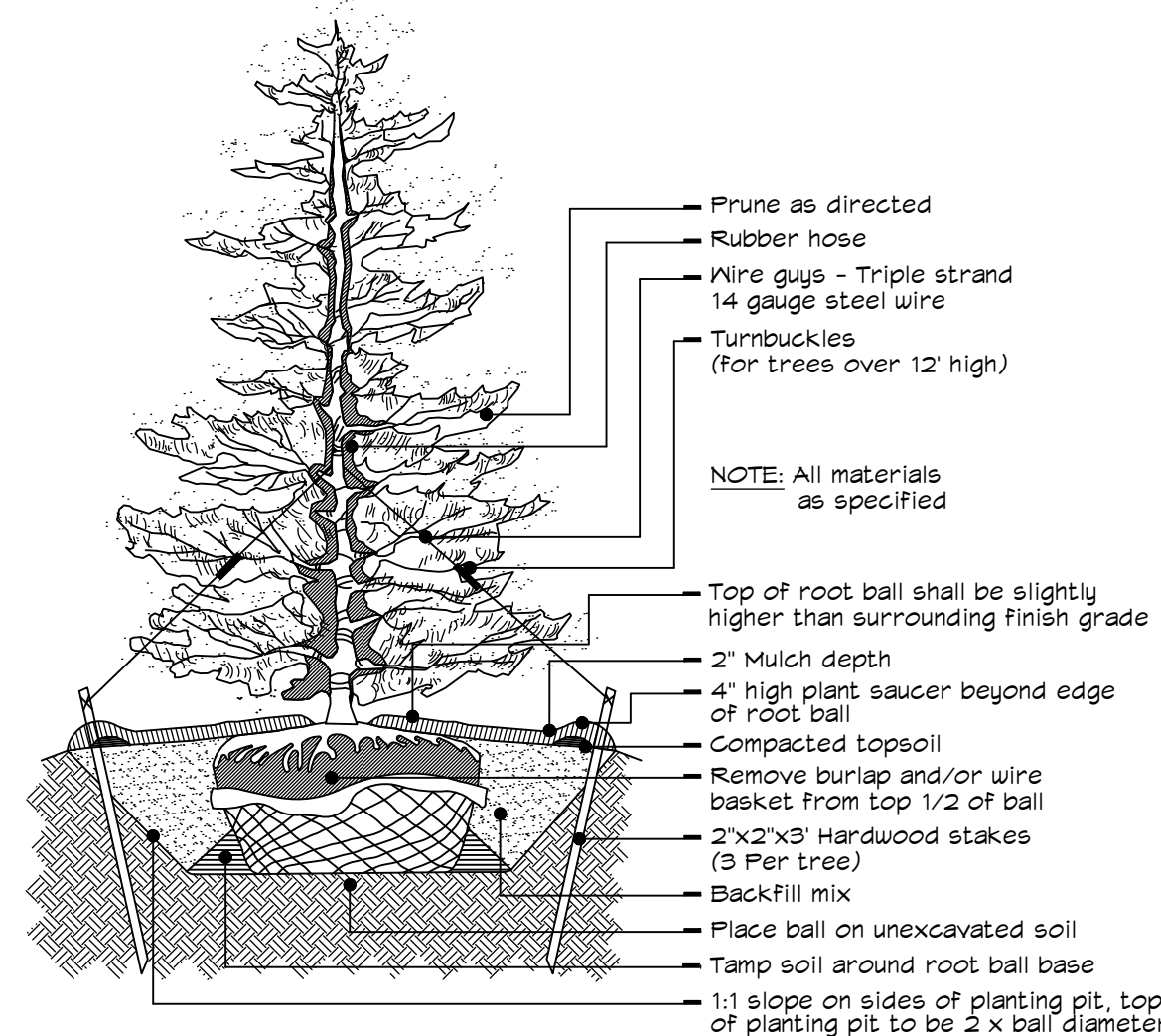
FERTILIZER: Fertilize with 30 lbs. of 10-6-4 per 1,000 sq. ft.

MULCH: Mulch newly seeded areas with hay or straw at the rate of 40 lbs. per 1,000 sq. ft., or 1,750 lbs. per acre.

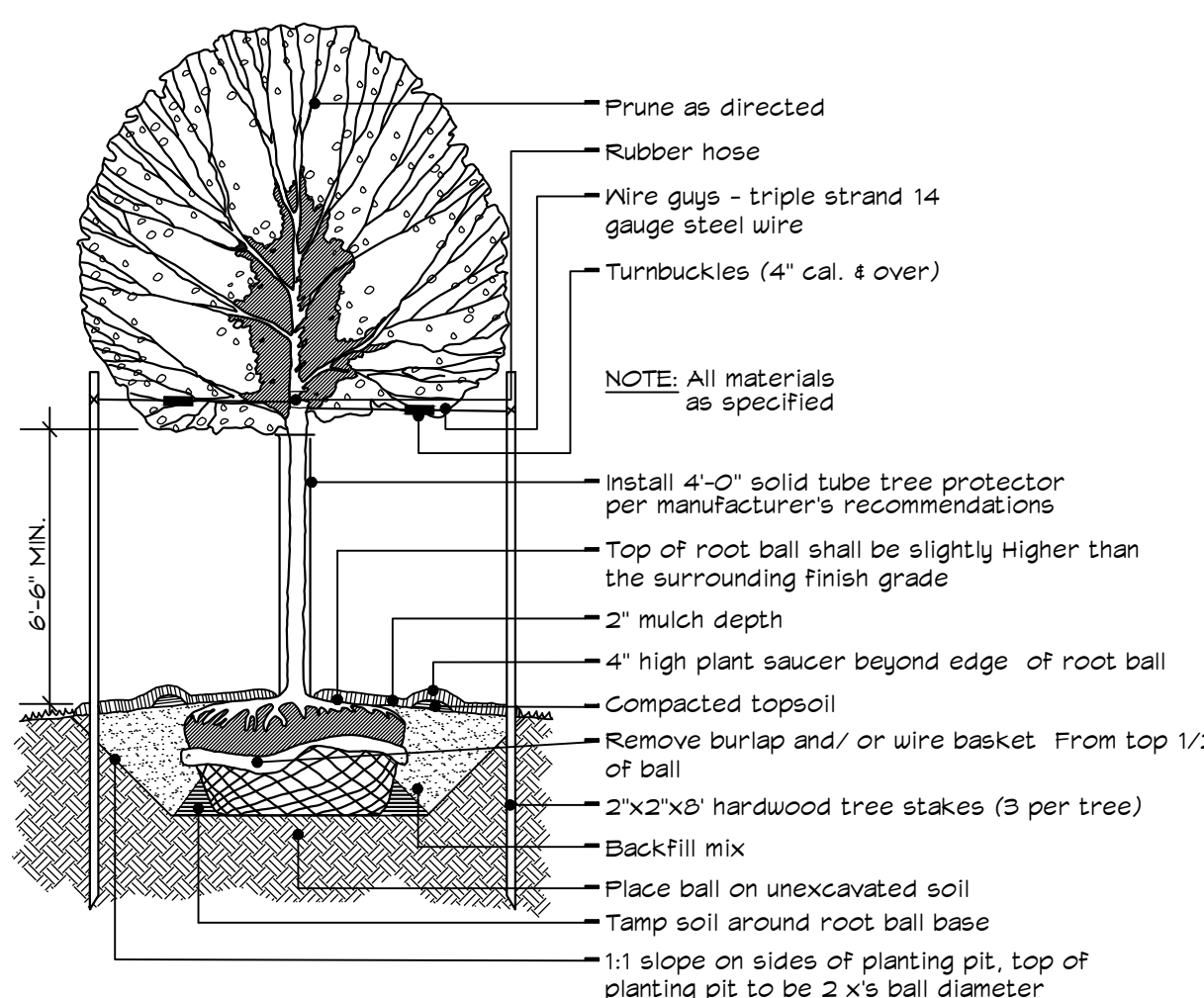
SEED MIX: Seed shall be a mixture of the following varieties:
60% Baron Kentucky Bluegrass
20% Jamestown II Chewings Fescue
20% Palmer II Perennial Ryegrass
Sow the above mixture (available from Budd Seed, Inc. as "Tri-Plex General Seed Mix") at 4.5 lbs. per 1,000 sq. ft.

MAINTENANCE BEFORE GUARANTEE PERIOD: Lawn work shall be maintained by the Landscape Contractor until full germination is accomplished and the lawn has been cut twice. If required, the contractor shall reseed, resoil, fertilize, remulch, etc. until a satisfactory stand of grass is achieved.

EROSION CONTROL MATTING: Soil erosion shall be controlled by installing North American Green erosion control matting per manufacturer's instructions on any slope greater than 4:1. Refer to manufacturer's specifications for the required staple pattern as dictated by slope gradient and soil conditions.



Typical Evergreen Tree Planting Detail
Not to Scale



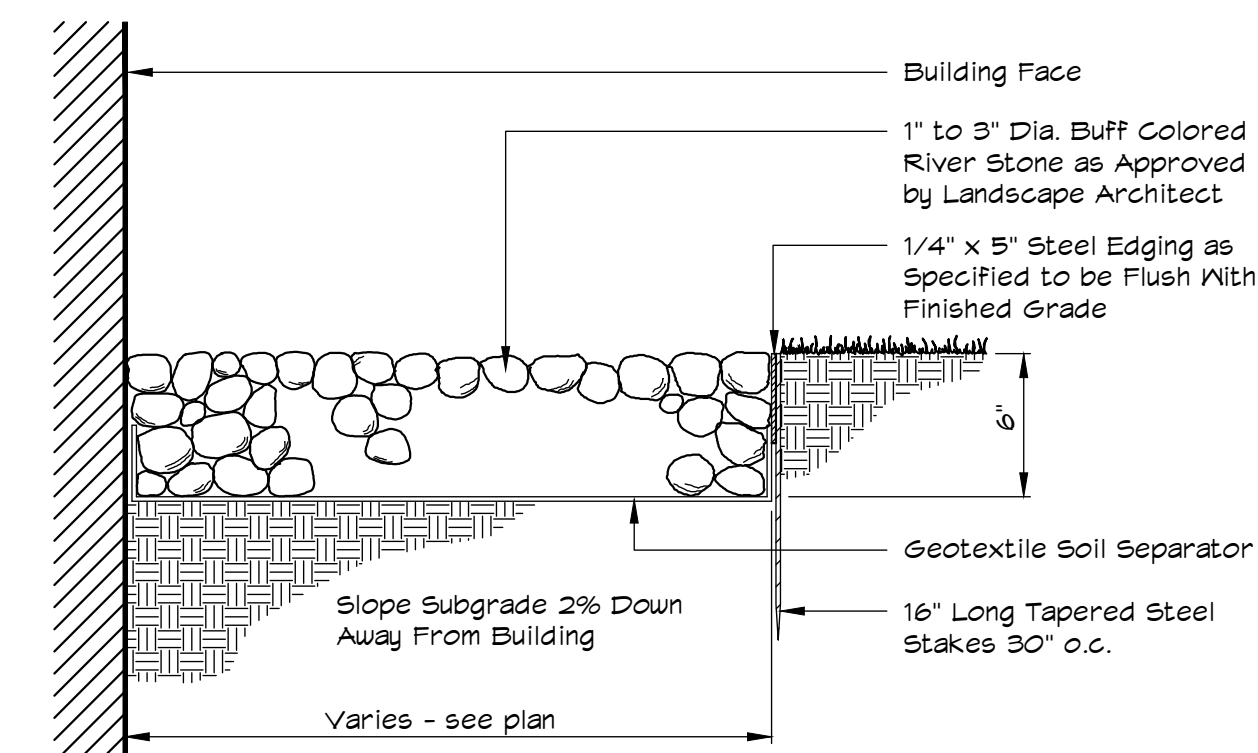
Typical Deciduous Tree Planting Detail
Not to Scale

Plant Schedule

Symbol	Abrev.	Botanical Name	Common Name	L-1 Planting Requirements	L-1 Replacement Trees*	L-3 & L-4 Replacement Trees*	Total Quantity	Native	Height	Spread	Caliper	B&B	General Comments
TOTAL TREE QUANTITY = 84				100% Native Replacement Trees + 100% Native Required Trees (Min. 75% Required)									
SHADE TREES (Quantity = 40); Required = 10; Replacement Trees = 20 @3"; 10 @4"													
⊙	AR	ACER RUBRUM	RED MAPLE	5	0	6	11	YES	14-16'	7-9'	3 - 3 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 6'-8"
⊙	LT	LIRIODENDRON TULIPIFERA	TULIP TREE	0	0	3	3	YES	14-16'	7-9'	3 - 3 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 6'-8"
⊙	LTA	LIRIODENDRON TULIPIFERA 'ARNOLD'	ARNOLD COLUMNAR TULIP TREE	0	5	4	9	YES	14-16'	4-6'	3 - 3 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 6'-8"
⊙	NS	NYSSA SYLVATICA	BLACK GUM	0	2	0	2	YES	14-16'	7-9'	2 1/2 - 3"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 6'-8"
⊙	OV	OSTRYA VIRGINIANA	HOP-HORNBEAM	2	0	0	2	YES	14-16'	7-9'	2 1/2 - 3"	YES	HEAVY SPECIMEN, CLEAR TRUNK TO 3'-6"
⊙	QA	QUERCUS ALBA	WHITE OAK	0	0	10	10	YES	16-18'	7-10'	4 - 4 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 6'-8"
⊙	QP	QUERCUS PALUSTRIS	PIN OAK	3	0	0	3	YES	13-15'	6-8'	3 - 3 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 6'-8"
EVERGREEN TREES (Quantity = 19); Replacement Trees = 19													
⊙	JV	JUNIPERUS VIRGINIANA	EASTERN RED-CEDAR	0	10	5	15	YES	8-10'	4-5'	3 - 3 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, BRANCHED TO GROUND.
⊙	JVC	JUNIPERUS VIRGINIANA 'CORCORCOR'	UPRIGHT EASTERN RED-CEDAR	0	2	0	2	YES	8-10'	3-4'	3 - 3 1/2"	YES	HEAVY SPECIMEN, SINGLE LEADER, BRANCHED TO GROUND.
⊙	PPF	PICEA FUNGENS 'FASTIGIATA'	COLUMNAR COLORADO SPRUCE	0	2	0	2	YES	5-6'	2-3'	2 - 2 1/2"	YES	MATCHED SPECIMENS, SINGLE LEADER, BRANCHED TO GROUND.
FLOWERING TREES (Quantity = 25); Required = 0; Replacement Trees = 25													
⊙	AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	0	1	4	5	YES	8-10'	5-6'	2 1/2 - 3"	YES	HEAVY SPECIMEN, MULTI-STEM, CLEAR TRUNK TO 2'-6"
⊙	BN	BETULA NIGRA	RIVER BIRCH	0	4	0	4	YES	8-10'	5-6'	2 1/2 - 3"	YES	HEAVY SPECIMEN, MULTI-STEM, CLEAR TRUNK TO 2'-6"
⊙	CC	CERCIS CANADENSIS	RED BUD	0	1	2	3	YES	8-10'	5-6'	2 1/2 - 3"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 3'-4"
⊙	CCS	CERCIS CANADENSIS 'LNT'	SUMMER'S TOWER RED BUD	0	4	0	4	YES	8-10'	4-5'	2 1/2 - 3"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 4'
⊙	CF	CORNUS FLORIDA	FLOWERING DOGWOOD	0	0	2	2	YES	8-10'	5-6'	2 1/2 - 3"	YES	HEAVY SPECIMEN, SINGLE LEADER, CLEAR TRUNK TO 3'-4"
⊙	MV	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	0	2	3	5	YES	8-10'	5-6'	2 1/2 - 3"	YES	HEAVY SPECIMEN, MULTI-STEM, CLEAR TRUNK TO 2'-6"
⊙	MVM	MAGNOLIA VIRGINIANA 'MOONSLON'	MOONSLON SWEETBAY MAGNOLIA	0	3	0	3	YES	8-10'	5-6'	2 1/2 - 3"	YES	HEAVY SPECIMEN, MULTI-STEM, CLEAR TRUNK TO 2'-6"
TOTALS:				10	15	05	05	*NOTE: ALL REPLACEMENT TREE SYMBOLS ARE SHADED ON THE LANDSCAPE PLANS, REFER TO SHEETS L-1, L-3 AND L-4 FOR PLANTING LOCATIONS.					

*PLANT SCHEDULE NOTE:

Quantities of plant materials and related materials shown on drawing schedules are for the convenience of the contractor and may indicate a quantity less than required to perform the installation. Where spacing of plant material is indicated, plant spacing shall govern over quantity indicated. Where a quantity of plant material is indicated on plans, this quantity shall be interpreted as a minimum calculated quantity. In no case shall a quantity of plant material be installed that is less than the quantity shown on the plant schedule or the plans. The contractor shall be responsible to determine the quantity of plant materials required and shall be required to install that quantity of material.



Typical Riverstone Edge Detail
Not to Scale

3	08/09/2024	CBI	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	CBI	TOWNSHIP COMMENTS
1	01/26/2024	CBI	REVISED PER MCCD 0104024 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Landscape Details and Planting Schedule

SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

Michael J. Urban
Landscape Architect
PA Lic. RA001127E

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ENGINEERS | LANDSCAPE ARCHITECTS | SURVEYORS

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DRAWN BY
CBI

CHECKED BY
MJU

DATE
11-20-2023

DRAWING No.
L-6

WET MEADOW SEEDING SPECIFICATIONS

- SEEDING AREAS DESIGNATED ON THE LANDSCAPE PLAN TO BE SEEDED WET MEADOW SHALL BE FINE GRADED, ADDING TOPSOIL PROVIDED ON SITE AS NECESSARY TO CREATE A SMOOTH SURFACE, MOWN, SLIT-SEEDED, RAKED OR ROLLED, AND MAINTAINED UNTIL ACCEPTED BY THE OWNER.
- REMOVE LITTER, DEBRIS, AND ROCK GREATER THAN ONE INCH IN DIAMETER FROM THE AREAS TO BE MOWED IF IT IMPEDES MOWING OR CREATES A HAZARD. BE RESPONSIBLE FOR DAMAGES INCURRED TO EQUIPMENT AS A RESULT.
- SEED: ALL PROPOSED SEEDING RATES ARE IN PURE LIVE SEED (PLS). SEED OF THE REQUIRED WILDFLOWER AND GRASS VARIETIES SHALL BE SUPPLIED IN SEALED CONTAINERS WITH SUPPLIER'S GUARANTEED ANALYSIS OF THE CONTENTS, INCLUDING WEIGHT, VARIETY, AND MINIMUM PLS. SEED AT RATE NOTED ON PLANT SCHEDULE.

SUPPLY THE FOLLOWING SEED MIXES PLUS 10 POUNDS PER ACRE OF COVER CROP SEED AS NOTED AT RIGHT.

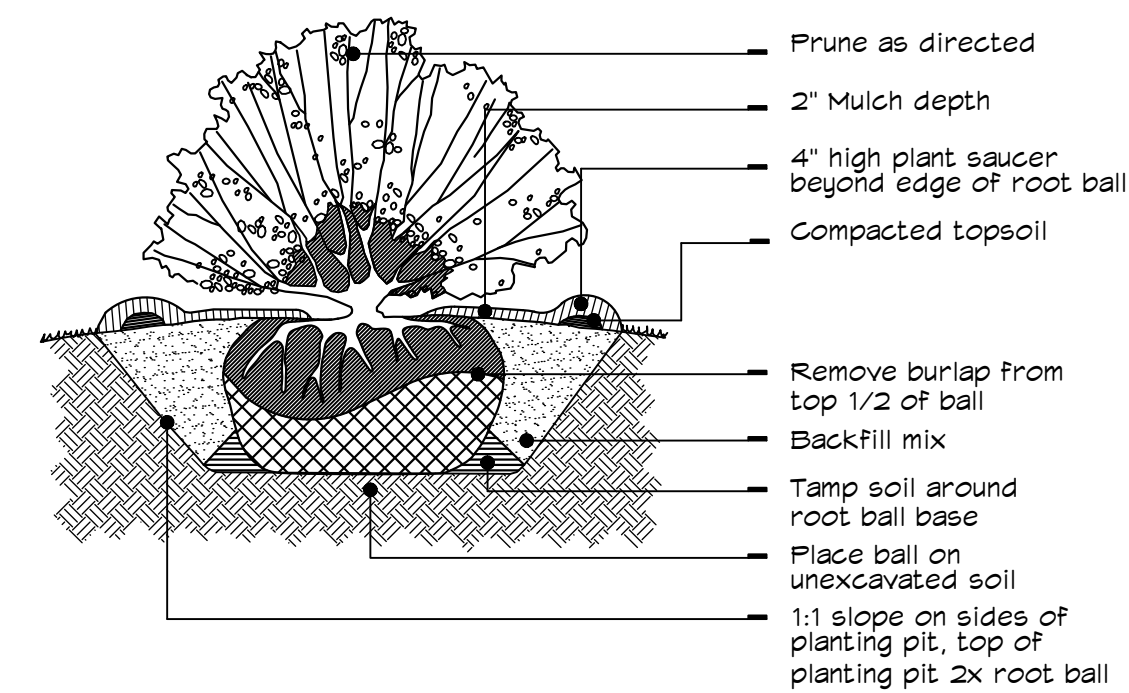
ERNMX - 181-2 - NATIVE STEEP SLOPE MIX

ERNMX - 126 - RETENTION BASIN FLOOR MIX

- IF SEEDS ARE NOT PREMIXED TO THE REQUIRED FORMULA BY ONE SEED SUPPLIER, CAREFULLY WEIGH AND MIX BY AN APPROVED MECHANICAL METHOD, THE WILDFLOWER AND GRASS SEED IN THE AMOUNTS SHOWN IN THE SEED FORMULAS AT RIGHT.
- SEEDING SHALL COMMENCE BETWEEN AUGUST 15 AND OCTOBER 15, OR BETWEEN MARCH 15 AND MAY 15, AS WEATHER PERMITS, AND/OR AS APPROVED BY THE LANDSCAPE ARCHITECT OR THE OWNER. INCORPORATE BY DISCING, 30 LBS. OF DOLOMITIC LIMESTONE, 20 LBS. OF BASIC FERTILIZER (3-20-20) AND 25 LBS. OF 10-6-4, 50% ORGANIC NITROGEN PER 1,000 SQUARE FEET, ALL WITHIN THE TOP 1-2" OF THE TOPSOIL.
- SEEDING: SOW MEADOW SEED MIXES AT THE SPECIFIED RATES. ADD EQUAL VOLUME OF SAND OR GENERIC KITTY LITTER FOR EVEN SPREADING. PLANT SEED USING THE OVER-SEEDING METHOD OF SLICING ROWS THROUGH THE EXISTING VEGETATION INTO THE SOIL, AND BROADCASTING THE WILDFLOWER SEED OVER THESE SLITS. DO NOT EXCEED 3 INCH SPACING BETWEEN SLIT SEEDING ROWS. LAWN ROLL OR RAKE AFTER SEEDING, BUT DO NOT COVER SEED WITH SOIL IN EXCESS OF THREE TIMES THE THICKNESS OF THE WILDFLOWER SEED.
- DEVELOP SEEDED AREA TO EXHIBIT A CLOSE STAND OF ACCEPTED VEGETATION WITH NO BARE SOIL AREAS GREATER THAN FOUR INCHES IN DIAMETER. IF REQUIRED, THE CONTRACTOR SHALL RESEED, RESOIL, ETC. AREAS WHICH FAIL TO SHOW A UNIFORM STAND OF SEED VEGETATION UNTIL A SATISFACTORY STAND OF MEADOW IS ACHIEVED.
- MAINTENANCE: SEEDED MEADOW AREAS SHALL BE MAINTAINED BY THE LANDSCAPE CONTRACTOR UNTIL GERMINATION IS ACCOMPLISHED AND THE AREA IS ACCEPTED BY THE OWNER. THE CONTRACTOR SHALL MAINTAIN ALL SEEDED AREAS IN FIRST-CLASS CONDITION FROM THE BEGINNING OF LANDSCAPE CONSTRUCTION UNTIL THAT PHASE OF THE PROJECT HAS BEEN INSPECTED AND ACCEPTED BY THE OWNER. AFTER THAT ACCEPTANCE, THE OWNER SHALL MAINTAIN THE WORK.

MAINTENANCE SHALL INCLUDE, BUT NOT LIMITED TO WATERING OF SEEDED AREAS, MOWING, CULTIVATION, WEED CONTROL, DISEASE AND PEST CONTROL, REPLACEMENT OF DEAD OR UNACCEPTABLE MATERIALS, FILLING UNDER SETTLEMENT AREAS, RESEEDING WASHOUTS, AND ANY OTHER PROCEDURE CONSISTENT WITH GOOD HORTICULTURAL PRACTICE NECESSARY TO INSURE NORMAL, VIGOROUS AND HEALTHY GROWTH OF WORK UNDER THIS CONTRACT.

- MOW SEEDED MEADOW AREAS TO 6" HEIGHT IN EARLY JUNE, MID-JULY, AND MID-AUGUST DURING THE FIRST GROWING SEASON, TO DISCOURAGE GROWTH OF AGGRESSIVE WEED SPECIES AND BRING SUNLIGHT TO LOW-GROWING NATIVES.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE THE SEEDED MEADOWS FOR TWELVE (12) MONTHS FROM THE DATE OF COMPLETION AND ACCEPTANCE BY THE OWNER.



Typical Shrub Planting Detail

Not to Scale

Native Steep Slope Mix w/Grain Rye - ERNMX-181-2

Botanical Name	Common Name
40.00 % <i>Secale cereale</i> , Variety Not Stated	Rye, Variety Not Stated
20.80 % <i>Sorghastrum nutans</i> , PA Ecotype	Indiangrass, PA Ecotype
11.20 % <i>Andropogon gerardii</i> , 'Niagara'	Big Bluestem, 'Niagara'
8.00 % <i>Elymus canadensis</i>	Canada Wildrye
5.60 % <i>Elymus virginicus</i> , Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
3.20 % <i>Agrostis perennans</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype
3.10 % <i>Panicum virgatum</i> , 'Shawnee'	Switchgrass, 'Shawnee'
2.40 % <i>Panicum clandestinum</i> , Tioga	Deertongue, Tioga
1.20 % <i>Echinacea purpurea</i>	Purple Coneflower
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype
0.90 % <i>Helianthus helianthoides</i> , PA Ecotype	Oxeye Sunflower, PA Ecotype
0.80 % <i>Carex lasiocarpa</i>	Lanceleaf Carex
0.80 % <i>Rudbeckia hirta</i>	Black-eyed Susan
0.30 % <i>Monarda fistulosa</i> , Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype
0.20 % <i>Solidago rugosa</i> , PA Ecotype	Wrinkleleaf Goldenrod, PA Ecotype
0.10 % <i>Aster lateriflorus</i>	Calico Aster
0.10 % <i>Aster pilosus</i> , PA Ecotype	Heath Aster, PA Ecotype

100.00 %

Seeding Rate: 75 lb per acre

Erosion Control & Revegetation; Grasses & Grass-like Species - Herbaceous Perennial; Herbaceous Flowering Species - Herbaceous Perennial

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Retention Basin Floor Mix - Low Maintenance - ERNMX-126

Botanical Name	Common Name
20.00 % <i>Panicum clandestinum</i> , Tioga	Deertongue, Tioga
20.00 % <i>Puccinellia distans</i> , Fuels	Alkaligrass, Fuels
18.00 % <i>Elymus virginicus</i> , Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
15.00 % <i>Agrostis stolonifera</i> , 'Penncross'	Creeping Bentgrass, 'Penncross'
15.00 % <i>Poa galatris</i>	Fowl Bluegrass
10.00 % <i>Carex vulpinoidea</i> , PA Ecotype	Fox Sedge, PA Ecotype
1.00 % <i>Carex scoparia</i> , PA Ecotype	Blunt Broom Sedge, PA Ecotype
1.00 % <i>Juncus effusus</i>	Soft Rush

100.00 %

Seeding Rate: 20-40 lbs per acre, or 0.5-1 lb/1,000 sq ft with a cover crop. For a cover crop use one of the following: grain rye (1 Sep to 30 Apr; 30 lbs/acre), Japanese millet (1 May to 31 Aug; 10 lbs/acre), or barnyard grass (1 May to 31 Aug; 10 lbs/acre).

Grasses & Grass-like Species - Herbaceous Perennial; Stormwater Management

The hardy inexpensive grass and grass-like species are ideal for retention basins that may have high salt inflows and where mowing may be required. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

3	08/09/2024	CBI	TOWNSHIP AND MCCD RESUBMISSION
2	05/29/2024	CBI	TOWNSHIP COMMENTS
1	01/26/2024	CBI	REVISED PER MCCD 01/04/24 REVIEW COMMENTS. SUBMITTAL TO TOWNSHIP.

Landscape Details

SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

		DRAWN BY	CBI
		CHECKED BY	MJU
807 Easton Road Building B - 2nd Floor Willow Grove, PA 19090 Michael J. Urban PA Lic. RLAD01127E		DATE	11-20-2023
		DRAWING No.	L-7

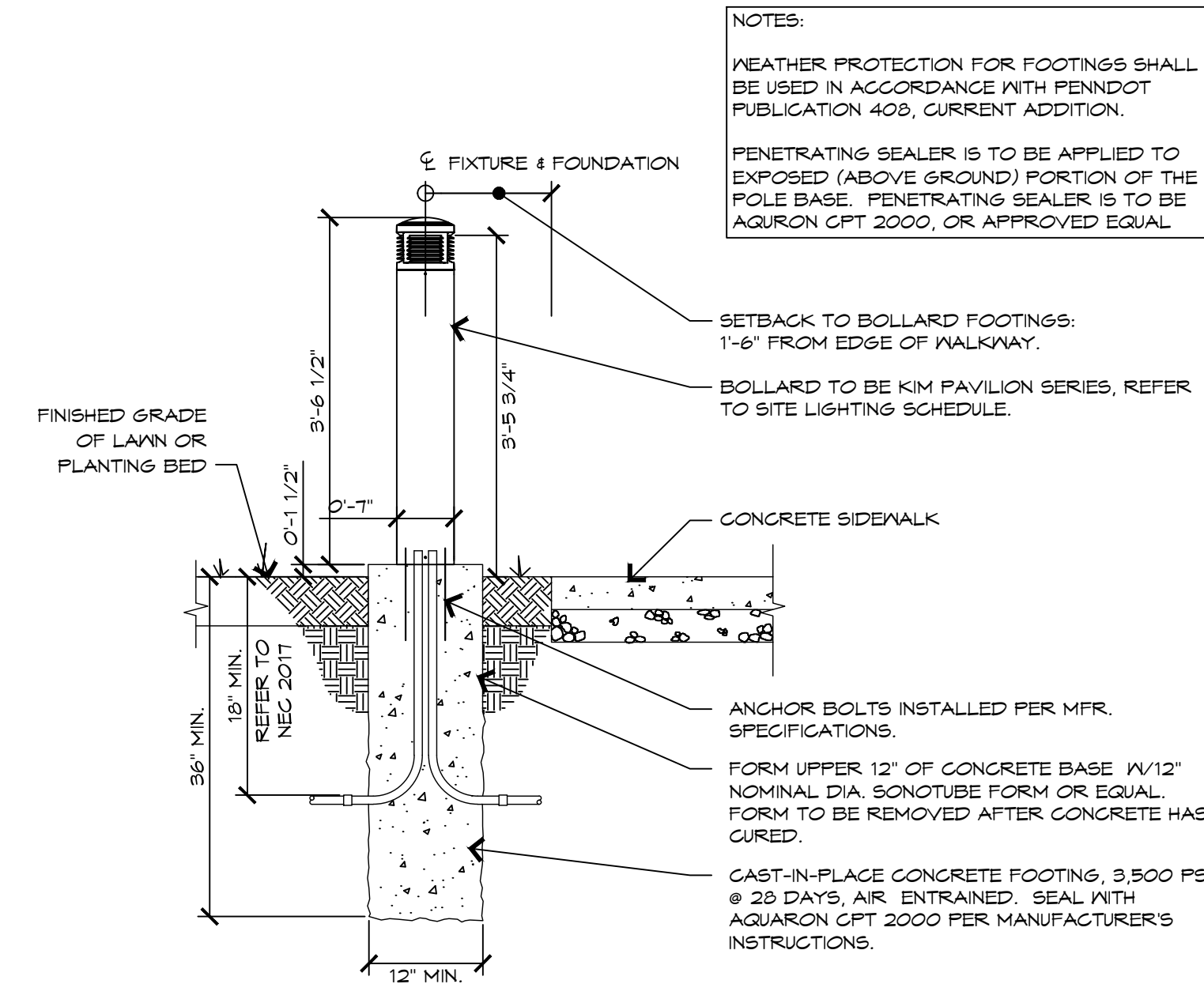
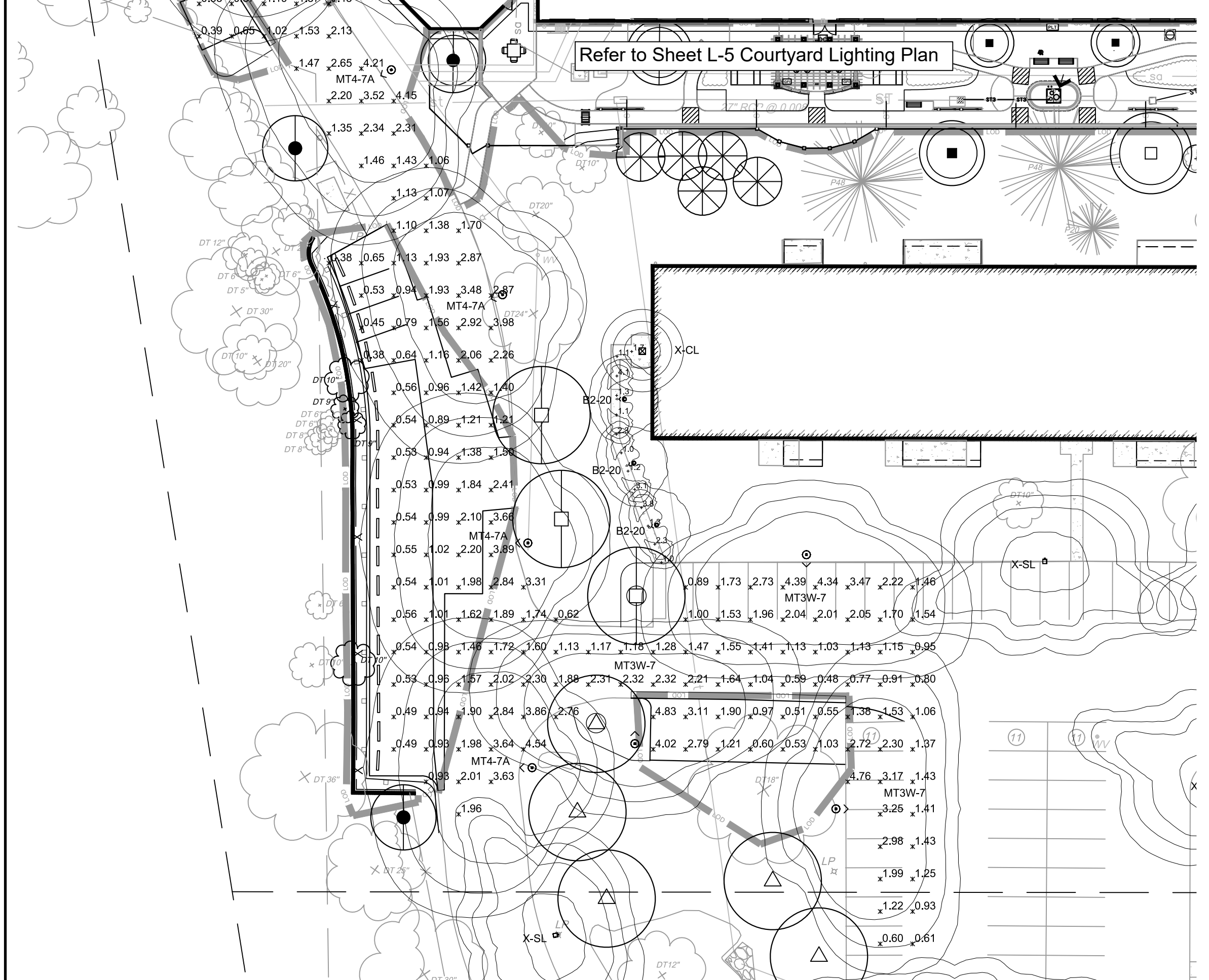
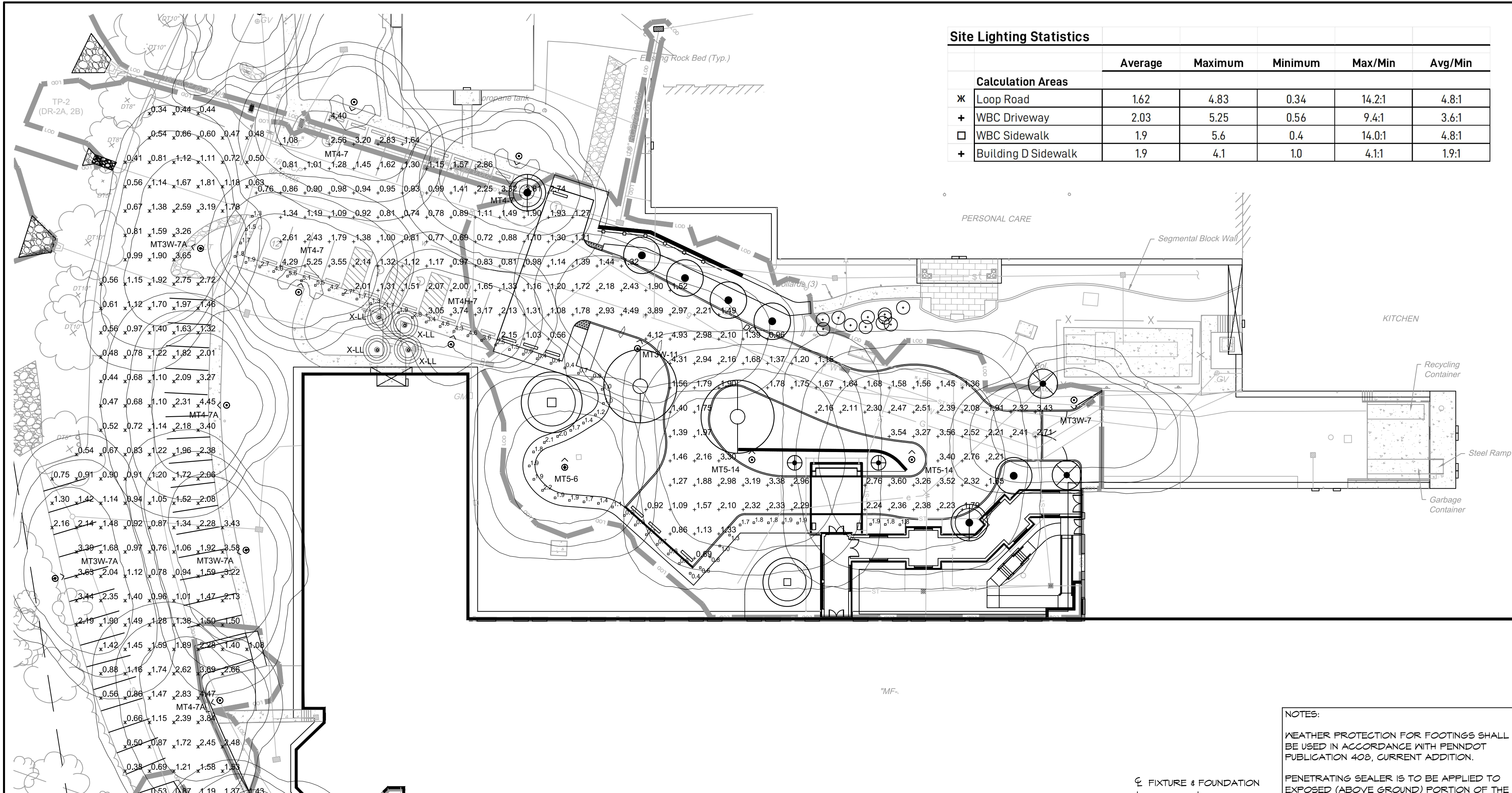
SHEET 33 OF 34

Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.

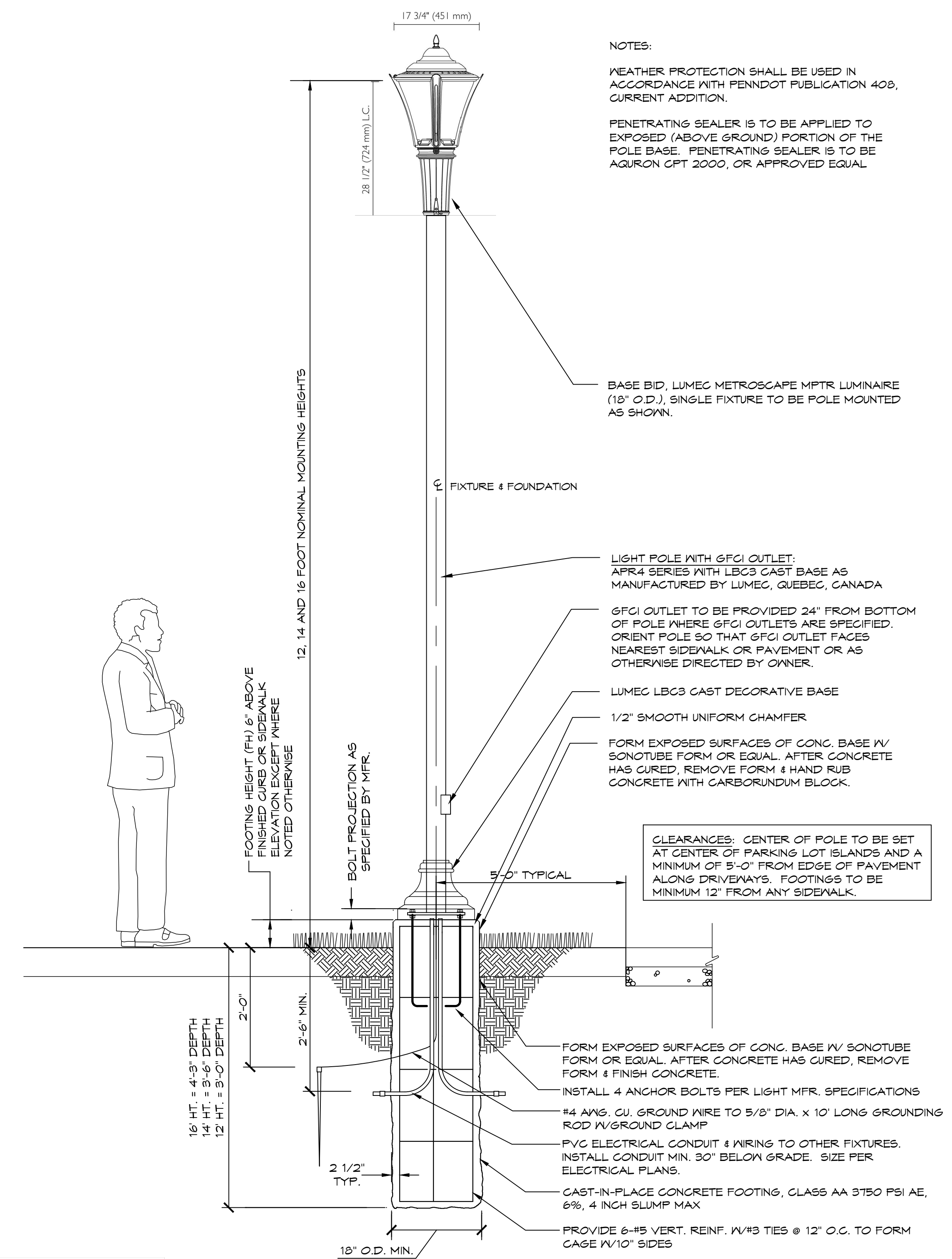
Site Lighting Statistics					
Calculation Areas	Average	Maximum	Minimum	Max/Min	Avg/Min
	X Loop Road	1.62	4.83	0.34	14.2:1
+ WBC Driveway	2.03	5.25	0.56	9.4:1	3.6:1
□ WBC Sidewalk	1.9	5.6	0.4	14.0:1	4.8:1
+ Building D Sidewalk	1.9	4.1	1.0	4.1:1	1.9:1

Lighting Notes:

- Many new light standards are to be connected to existing wiring at or near existing pole locations. All 12' and taller light poles are to be provided with new concrete footings unless otherwise directed by Owner.
- New light standards and bollards are to be controlled by existing centralized photocell controls. Photocell controls to prevent fixtures from operating during daylight hours. All fixtures to turn on at dusk and off at dawn.
- All poles are to be set plumb.
- Post approval alterations to lighting plans or intended substitutions for approved lighting equipment shall be submitted to the Township for review and approval prior to installation.
- The Township reserves the right to conduct post installation nighttime inspections to verify compliance with the commitments made on the approved lighting plan, if appropriate, to require remedial action at no expense to the Township.
- New poles supporting lighting equipment located directly behind parking spaces shall be set back a minimum of 5' from face of curb or wheel-stops, or placed atop a 30" high AFG concrete base, or otherwise suitably protected. Light pole length to be adjusted if 30" high footings are used.
- Landscape Trees shall be located so that at tree maturity or before, foliage does not block intended light distribution.



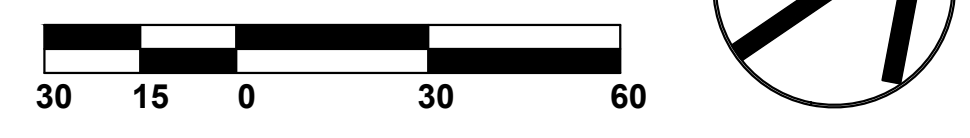
1 Light Bollard Detail
 Scale: 3/4" = 1'-0"



2 Light Standard Detail
 Scale: 3/4" = 1'-0"

Abbrev.	Manufacturer	Description	LLF	CCT	Mounting Height (ft.)	Footing Height (ft.)	Luminaire Catalog Number	Special Notes
B2-20 (3)	Kim	Pavilion Louvered Bollard with T2 Optic on new concrete footing, 20W	0.90	3,000	3.25	0.25	PA1R-LV2-12L-020-3K7	Test File PA1R-LV2-12L-020-3K7 JES at 812 Lumens
MT3W-7 (4)	Lumec	Metroscapc Post Top LED fixture with T3W Optic on new concrete footing, 70W	0.90	3,000	14	0.25	MPTR-70W4LED3K-G3-LE3W-UNV-SP2-BRTX-APRAU-12-BRTX	Test File MPTR-70W4LED3K-G3-LE3W-UNV-JES at 7,880 Lumens
MT3W-11 (3)	Lumec	Metroscapc Post Top LED fixture with T3W Optic on new concrete footing, 70W	0.90	3,000	16	0.25	MPTR-70W4LED3K-G3-LE3W-UNV-SP2-BRTX-APRAL-14-BRTX	Test File MPTR-70W4LED3K-G3-LE3W-UNV-JES at 7,880 Lumens
MT3W-11 (1)	Lumec	Metroscapc Post Top LED fixture with T3W Optic on new concrete footing at existing location, 18W	0.90	3,000	16	0.25	MPTR-108W4LED3K-G3-LE3W-UNV-SP2-BRTX-APRAF-12-BRTX	Test File MPTR-108W4LED3K-G3-LE3W-UNV-JES at 10,665 Lumens
MT4-7 (3)	Lumec	Metroscapc Post Top LED fixture with T4 Optic on new concrete footing, 70W	0.90	3,000	14	0.25	MPTR-70W4LED3K-G3-LE4-UNV-SP2-BRTX-APRAF-12-BRTX	Test File MPTR-70W4LED3K-G3-LE4-UNV-JES at 7,733 Lumens
MT4-7A (6)	Lumec	Metroscapc Post Top LED fixture with T4 Optic on new concrete footing, 70W	0.90	3,000	16	0.25	MPTR-70W4LED3K-G3-LE4-UNV-SP2-BRTX-APRAF-12-BRTX	Test File MPTR-70W4LED3K-G3-LE4-UNV-JES at 7,733 Lumens
MT5-6 (1)	Lumec	Metroscapc Post Top LED fixture with T5 Optic on new concrete footing, 59W	0.90	3,000	12	0.25	MPTR-59W4LED3K-G3-LE5-UNV-SP2-BRTX-APRAF-10-BRTX	Test File MPTR-59W4LED3K-G3-LE5-UNV-JES at 5,979 Lumens
MT5-14 (2)	Lumec	Metroscapc Post Top LED fixture with T5 Optic, GFI receptacle and new concrete footing, 140W	0.90	3,000	16	0.25	MPTR-140W4LED3K-G3-LE5-UNV-SP2-BRTX-APRAF-14-GFI-BRTX	Test File MPTR-140W4LED3K-G3-LE5-UNV-JES at 14,916 Lumens
X-SL	Existing	Existing cutoff HPS shoebox fixture with type 3 Optic on concrete footing, 150W	0.83	2,300	10	VARIES		Test File RCS-X-S15-H0.JES at 15,800 Lumens
X-CL	Existing	Existing incandescent canopy fixture with no optic, 75W	0.80	3,000	8	NA		Test File Cree A19-75W-P1-27K-E24-UJES at 1,179 Lumens
X-LL	Existing	Existing Kirchlert or equal path light, 34W	0.80	3,000	2	NA		Test File Volt GU4-35-27JES at 183 Lumens


Site Lighting Plan
 Scale: 1" = 30'-0"



3 08/09/2024 CBI TOWNSHIP AND MCOCD RESUBMISSION
 2 05/29/2024 CBI TOWNSHIP COMMENTS, NEW SHEET

Site Lighting Plan
SPRING HOUSE ESTATES

LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA



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Michael J. Urban
 PA Lic. RLAD01127E

DRAWN BY: CBI
 CHECKED BY: MJU
 DATE: 05-29-2024
 DRAWING No: L-8

Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.