

ZONING TABLE				
ZONE: HC - HIGHWAY COMMERCIAL USE: AUTOMOBILE FILLING STATION, RETAIL SALE OF GOODS AND SERVICES APN #39-00-02959-003				
APPLICANT/ OWNER INFORMATION				
APPLICANT:	727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109			
PROPERTY OWNER:	727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109			
BULK REQUIREMENTS				
ITEM	CODE	REQUIRED	EXISTING	PROPOSED
MIN. GROSS LOT AREA	§ 1282.04(a)	25 ACRES	127.50 ACRES	127.50 ACRES
NET BUILDABLE SITE AREA	---	---	120.97 ACRES	120.97 ACRES
MIN. LOT WIDTH	§ 1282.04(b)	1,000'	2,683'	2,683'
MIN. YARD SETBACKS				
FRONT YARD	§ 1282.05(a)	200'	480.9'	480.9'
SIDE YARD	§ 1282.05(a)	200'	N/A	N/A
REAR YARD	§ 1282.05(a)	200'	2.4'	2.4'
YARD ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.05(b)	400'	186.7'	186.7'
MAX. BUILDING COVERAGE	§ 1282.06(a)	20%	6.08% (7,362 AC.)	6.12% (7,407 AC.)
MAX. GROSS BUILDING FLOOR AREA COVERAGE	§ 1282.06(b)	40%	11.73% (14.19 AC.)	11.76% (14.23 AC.)
MAX. IMPERVIOUS COVERAGE	§ 1282.06(c)	40%	26.13% (31.61 AC.)	26.60% (32.18 AC.)
MAX. BUILDING HEIGHT	§ 1282.07	60', MAX OF 3 STORIES	< 60'	< 60'
MIN. PARKING SETBACKS				
FRONT, SIDE, REAR	§ 1282.08(b)	200'	2.4'	2.4'
ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.08(b)	300'	186.7'	186.7'
				EXISTING NON CONFORMITY

**PARKING REQUIREMENTS**

1224.01 REQUIRED OFF-STREET PARKING

- (10) OFFICE BUILDING: ONE SPACE FOR EVERY 250 SQUARE FEET OF OFFICE RENTAL SPACE, EXCLUDING HALLS AND LAVATORIES IN COMMON USAGE, SHIFTS, ELEVATORS, STAIRS AND UTILITY ROOMS.
- (12) LABORATORY OR INDUSTRIAL ESTABLISHMENT: ONE PARKING SPACE FOR EVERY EMPLOYEE ON THE TWO LARGEST SHIFTS, BUT NOT LESS THAN ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA AND
- (13) OTHER COMMERCIAL BUILDINGS: ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA OR FRACTION THEREOF, EXCEPT WHEN OTHERWISE AUTHORIZED AS A SPECIAL EXCEPTION CONSISTENT WITH THE REQUIREMENTS OF THIS SECTION FOR COMPARABLE ESTABLISHMENTS.

219,467 SF TOTAL OFFICE OCCUPANT AREA / 1000'4 = 878 SPACES  
 238,919 SF TOTAL LAB OCCUPANT AREA / 1000'1 = 239 SPACES  
 1,117 TOTAL SPACES REQUIRED

EXISTING  
 1,324 SPACES

PROPOSED  
 1,361 TOTAL SPACES PROVIDED (47 NEW - 10 TBR = 37 NET INCREASE)

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 SITE CIVIL AND CONSULTING ENGINEERING  
 PROGRAM MANAGEMENT  
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 SUSTAINABLE DESIGN  
 PERMITTING SERVICES  
 TRANSPORTATION SERVICES

REVISIONS			
REV	DATE	COMMENT	DRAWN BY

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PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID: PAA230019.03-LDVP-0A

PROJECT:  
**CONDITIONAL USE PLANS**  
 FOR  
**727 NORRISTOWN RD, LP**  
 BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS  
 727 NORRISTOWN RD  
 LOWER GWYNEDD TOWNSHIP  
 LOWER GWYNEDD, PA 19002  
 MONTGOMERY COUNTY

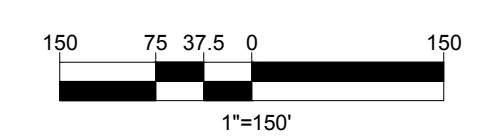
**BOHLER**  
 1600 MANOR DRIVE, SUITE 200  
 CHALFONT, PA 18914  
 Phone: (215) 996-9100  
 Fax: (215) 996-9102  
 www.BohlerEngineering.com

**W.R. REARDEN**  
 PROFESSIONAL ENGINEER  
 PENNSYLVANIA LICENSE NO. PE073243  
 NEW JERSEY LICENSE NO. 24GE04694500

SHEET TITLE:  
**OVERALL SITE PLAN**  
 SHEET NUMBER:  
**C-301**  
 1 OF 3  
 ORG. DATE - 6/28/2023

LEGEND	
PROPOSED	
BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
SIDEWALK	

LEGEND	
EXISTING	
PROPERTY LINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
EXISTING WETLANDS	

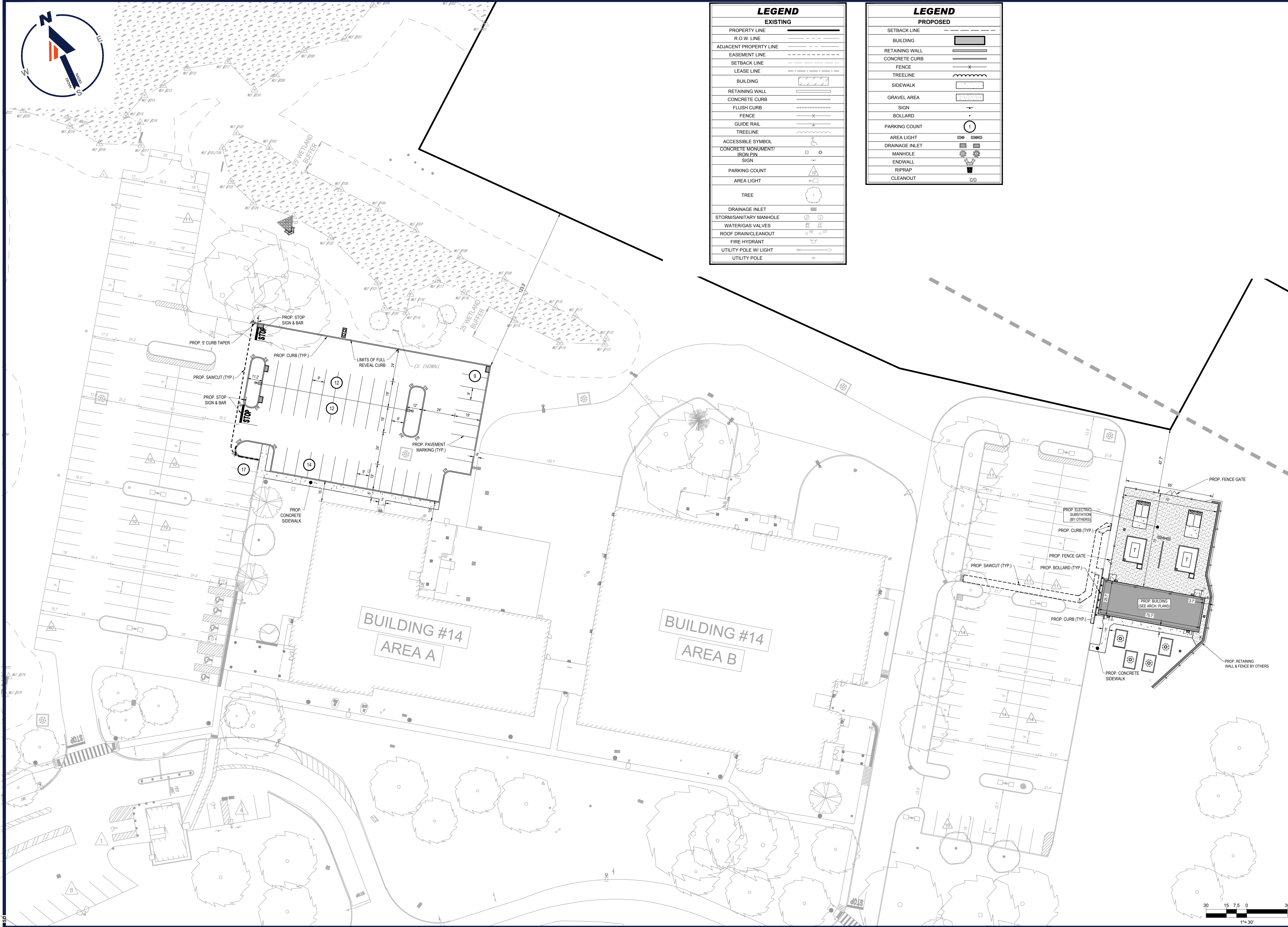


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LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
SETBACK LINE	---
LEASE LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Solid Line]
FLUSH CURB	[Dashed Line]
FENCE	[Crossed Line]
GUIDE RAIL	[Dashed Line]
TREELINE	[Wavy Line]
ACCESSIBLE SYMBOL	[Wheelchair Icon]
CONCRETE MONUMENT/ IRON PIN	[Square with Circle]
SIGN	[Triangle]
PARKING COUNT	[Triangle with Number]
AREA LIGHT	[Square with Circle]
TREE	[Circle with Center]
DRAINAGE INLET	[Square with Circle]
STORM/SANITARY MANHOLE	[Circle with Center]
WATER/GAS VALVES	[Square with Circle]
ROOF DRAIN/CLEANOUT	[Circle with Center]
FIRE HYDRANT	[Circle with Center]
UTILITY POLE W/ LIGHT	[Circle with Center]
UTILITY POLE	[Circle with Center]

LEGEND	
PROPOSED	
SETBACK LINE	---
BUILDING	[Solid Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Solid Line]
FENCE	[Crossed Line]
TREELINE	[Wavy Line]
SIDEWALK	[Dashed Line]
GRAVEL AREA	[Dotted Area]
SIGN	[Triangle]
BOLLARD	[Circle]
PARKING COUNT	[Triangle with Number]
AREA LIGHT	[Square with Circle]
DRAINAGE INLET	[Square with Circle]
MANHOLE	[Circle with Center]
ENDWALL	[Triangle]
RIPRAP	[Cross-hatched Area]
CLEANOUT	[Circle with Center]



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 727 NORRISTOWN RD  
 LOWER GWYNEDD TOWNSHIP  
 LOWER GWYNEDD, PA 19002  
 MONTGOMERY COUNTY

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**W.R. REARDEN**  
 PROFESSIONAL ENGINEER  
 PENNSYLVANIA LICENSE NO. PE073243  
 NEW JERSEY LICENSE NO. 24GE04694500

SHEET TITLE:  
**SITE PLAN**  
 SHEET NUMBER:  
**C-302**  
 2 OF 3  
 ORG. DATE - 6/28/2023

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LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Box]
CONCRETE CURB	[Dashed Line]
FLUSH CURB	[Dashed Line]
FENCE	[Dashed Line]
GUIDE RAIL	[Dashed Line]
TREELINE	[Wavy Line]
CONCRETE MONUMENT/ IRON PIN	[Square]
SIGN	[Circle]
AREA LIGHT	[Circle]
TREE	[Circle]
DRAINAGE INLET	[Circle]
STORM/SANITARY MANHOLE	[Circle]
WATER/GAS VALVES	[Circle]
ROOF DRAIN/CLEANOUT	[Circle]
FIRE HYDRANT	[Circle]
UTILITY POLE W/ LIGHT	[Circle]
UTILITY POLE	[Circle]
EXISTING CONTOUR	[Dashed Line]
EXISTING CONTOUR	[Dashed Line]

LEGEND	
PROPOSED	
SETBACK LINE	[Dashed Line]
BUILDING	[Solid Box]
RETAINING WALL	[Hatched Box]
CONCRETE CURB	[Dashed Line]
FENCE	[Dashed Line]
TREELINE	[Wavy Line]
SIDEWALK	[Dashed Line]
GRAVEL AREA	[Hatched Box]
SIGN	[Circle]
BOLLARD	[Circle]
AREA LIGHT	[Circle]
DRAINAGE INLET	[Circle]
MANHOLE	[Circle]
ENDWALL	[Circle]
RIPRAP	[Circle]
CLEANOUT	[Circle]
SPOT ELEVATION	[Circle]

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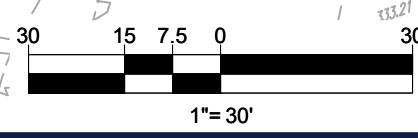
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SHEET TITLE:  
**GRADING PLAN**  
 SHEET NUMBER:  
**C-401**  
 3 OF 3  
 ORG. DATE - 6/28/2023

R:\2023\PA230019\03\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\PA230019.03-LDVP-0A.dwg - LAYOUT: C-401 GRADING CU



**DEVELOPER CERTIFICATION**

ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE TOWNSHIP AND A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE TOWNSHIP AND MONTGOMERY COUNTY CONSERVATION DISTRICT FOR APPROVAL, IF APPLICABLE.

NAME \_\_\_\_\_ DATE \_\_\_\_\_

**OWNER CERTIFICATION OF INTENT PARCEL# 39-00-02959-008**

I, SEAN BYARS, SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC, OWNER OF 727 NORRISTOWN RD, LP, UNDERSIGNED, HAS LAID OUT UPON ITS LAND SITUATE IN THE TOWNSHIP OF LOWER GWYNEDD TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN IMPROVEMENTS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS \_\_\_\_\_ DAY OF DECEMBER, 2023.

SEAN BYARS  
SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC,  
OWNER OF 727 NORRISTOWN RD, LP

**OWNER CERTIFICATION OF ACKNOWLEDGEMENT**

COMMONWEALTH OF PENNSYLVANIA:  
SS.  
COUNTY OF MONTGOMERY

ON THIS, THE \_\_\_\_\_ DAY OF DECEMBER, 2023 BEFORE ME, A NOTARY PUBLIC IN AND FOR THE ABOVE STATE AND COUNTY, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED SEAN BYARS, WHO ACKNOWLEDGED HIMSELF TO BE THE SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC, OWNER OF 727 NORRISTOWN RD, LP (OWNERS OF RECORD) AND OWNER OF THE PROPERTY SITUATED IN LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, THAT HE BEING AUTHORIZED DO TO SO, EXECUTED THIS PLAN FOR THE PURPOSE THEREIN CONTAINED, WITH THE INTENTION THAT THIS PLAN OF SUBDIVISION OR DEVELOPMENT SITUATED IN LOWER GWYNEDD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, AND DESIRED THAT SAID PLAN BE RECORDED ACCORDING TO LAW, WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND YEAR AFORESAID.

WITNESS \_\_\_\_\_ SEAN BYARS  
SENIOR VICE PRESIDENT OF BEACON CAPITAL PARTNERS, LLC,  
OWNER OF 727 NORRISTOWN RD, LP

NOTARY PUBLIC \_\_\_\_\_

NOTARY COMMISSION EXPIRES: \_\_\_\_\_

**ENGINEER'S CERTIFICATION**

I, WILLIAM R. REARDEN, ON THIS DATE \_\_\_\_\_ HEREBY CERTIFY THAT THIS DRAINAGE PLAN MEETS ALL REQUIREMENTS OF THE THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (DEP'S) REGULATIONS AND THIS ORDINANCE.

WILLIAM R. REARDEN, P.E.  
PROFESSIONAL ENGINEER LICENSE No. PE073243

**CERTIFICATION OF ACCURACY**

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LOWER GWYNEDD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP.

DATE \_\_\_\_\_ WILLIAM R. REARDEN, PA #PE073243 SEAL \_\_\_\_\_

**CERTIFICATE OF REVIEW BY THE TOWNSHIP ENGINEER**

REVIEWED BY THE TOWNSHIP ENGINEER ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

TOWNSHIP ENGINEER \_\_\_\_\_

**CERTIFICATE OF REVIEW BY THE PLANNING COMMISSION**

REVIEWED BY THE LOWER GWYNEDD TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

PLANNING COMMISSION CHAIRMAN \_\_\_\_\_

**CERTIFICATION OF TOWNSHIP APPROVAL**

AT THE MEETING HELD ON XXXX/2023, THE BOARD OF SUPERVISORS OF LOWER GWYNEDD TOWNSHIP BY RESOLUTION DULY ENACTED AND APPROVED THE PRELIMINARY/FINAL LAND DEVELOPMENT PLAN OF THE PROPERTY OF THE XXXXXX AS SHOWN HEREON.

CHAIRMAN OF THE BOARD OF SUPERVISORS \_\_\_\_\_

TOWNSHIP SECRETARY \_\_\_\_\_

MCPD No.: \_\_\_\_\_  
PROCESSED AND REVIEWED. Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code.  
Certified this date \_\_\_\_\_  
Montgomery County Planning Commission

**CERTIFICATION OF THE COUNTY RECORDER OF DEEDS**

RECORDED IN THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

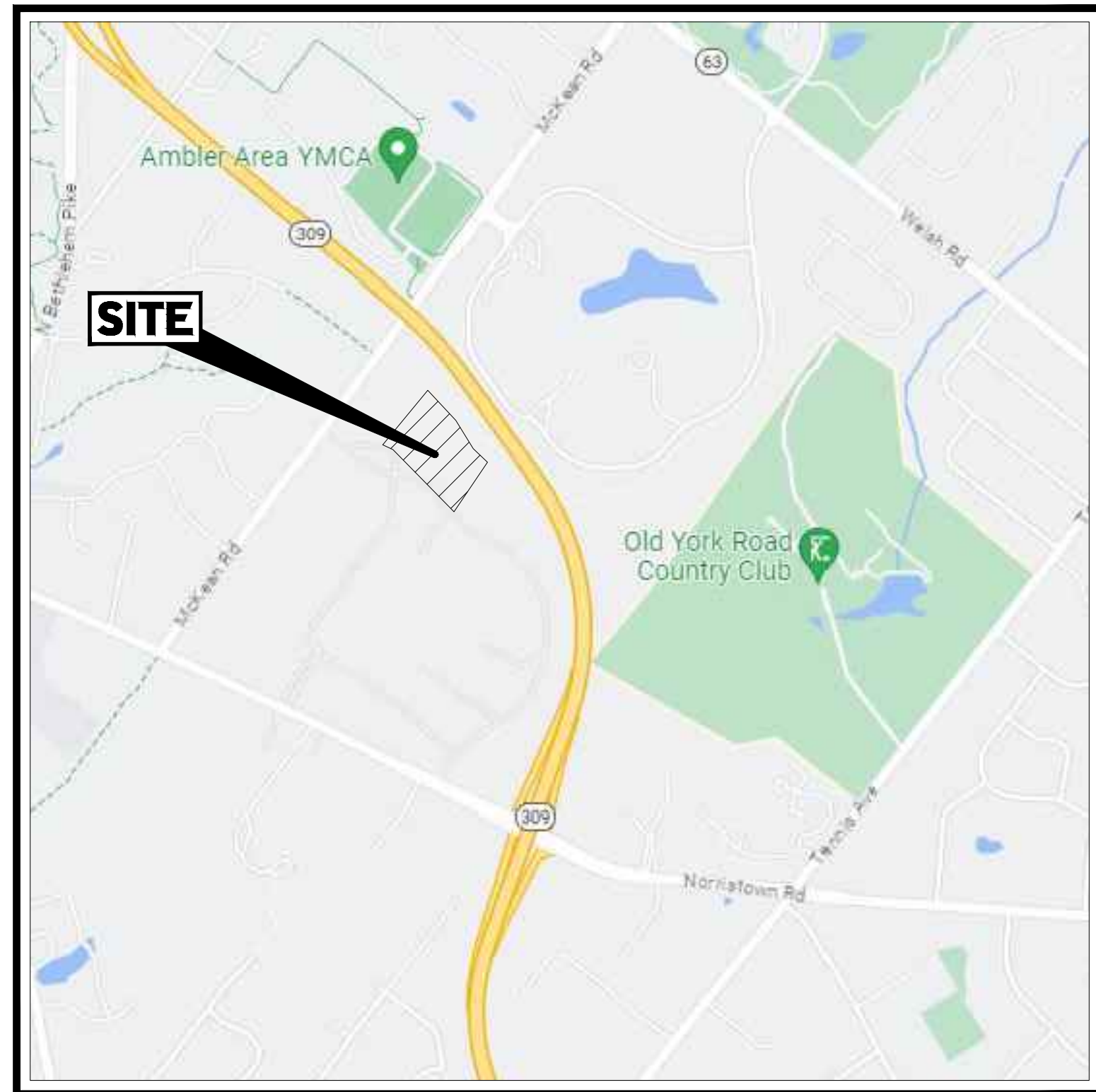
BY \_\_\_\_\_  
RECORDER OF DEEDS

# PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

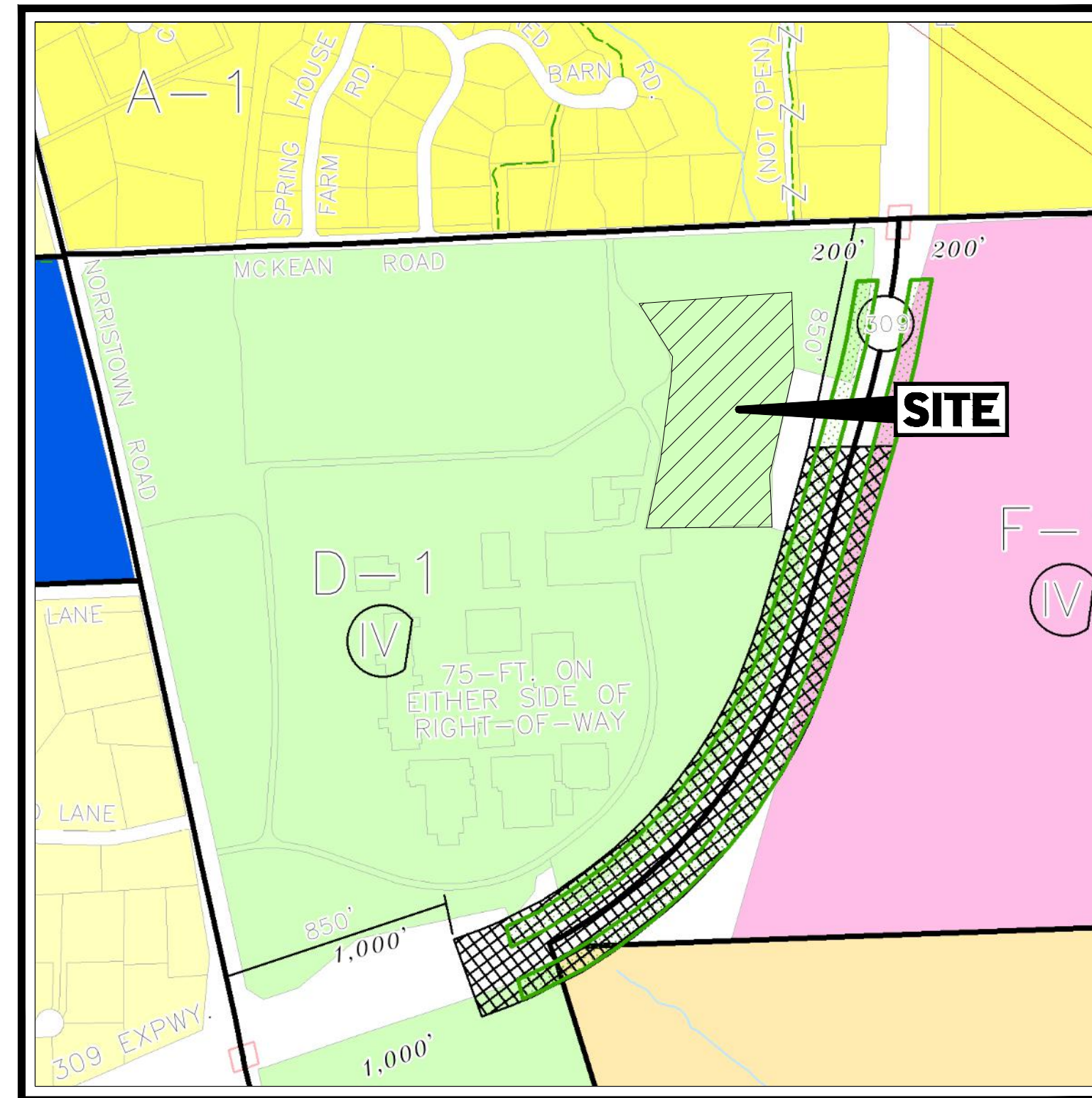
FOR  
**727 NORRISTOWN RD, LP  
SPRINGHOUSE INNOVATION PARK**

PROPOSED  
**BUILDING 14 & ELECTRIC SUBSTATION  
IMPROVEMENT PLANS**

LOCATION OF SITE  
**727 NORRISTOWN ROAD  
LOWER GWYNEDD TOWNSHIP  
LOWER GWYNEDD, PA 19002  
MONTGOMERY COUNTY, PENNSYLVANIA  
APN #39-00-02959-008**



**LOCATION MAP**  
SCALE: 1" = 1,000'  
SOURCE: GOOGLE MAPS



**ZONING MAP**  
SCALE: 1" = 500'  
SOURCE: LOWER GWYNEDD TOWNSHIP

**DRAWING SHEET INDEX**

SHEET TITLE	SHEET NUMBER
COVER SHEET*	C-101 (1 OF 20)
GENERAL NOTES SHEET*	C-102 (2 OF 20)
EXISTING CONDITIONS/DEMOLITION PLAN	C-201 (3 OF 20)
NATURAL RESOURCES PROTECTION PLAN	C-202 (4 OF 20)
OVERALL SITE PLAN*	C-301 (5 OF 20)
SITE PLAN*	C-302 (6 OF 20)
GRADING PLAN	C-401 (7 OF 20)
UTILITY PLAN	C-501 (8 OF 20)
SOIL EROSION AND SEDIMENT POLLUTION CONTROL PLAN	C-601 (9 OF 20)
SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES & DETAILS	C-602, C-603, C-604 (10-12 OF 20)
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN*	C-605 (13 OF 20)
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS*	C-606, C-607 (14 & 15 OF 20)
LIGHTING PLAN	C-701 (16 OF 20)
LANDSCAPE PLAN	C-702 (17 OF 20)
LANDSCAPE AND LIGHTING DETAILS	C-703 (18 OF 20)
PROFILES	C-801 (19 OF 20)
DETAILS SHEET	C-901 (20 OF 20)

\* SHEETS C-101, C-102, C-301, C-302, C-605, C-606 & C-607 OF THIS PLAN SET WILL BE CONSIDERED A COMPLETE RECORD PLAN SET FOR FILING PURPOSES IN THE MONTGOMERY COUNTY RECORDER OF DEEDS OFFICE. THE REMAINING PLAN SHEETS, WHICH ARE NOT BEING RECORDED, ON FILE AT LOWER GWYNEDD TOWNSHIP SHALL BE CONSIDERED PART OF THE FINAL RECORD PLAN AS IF RECORDED WITH SAME.



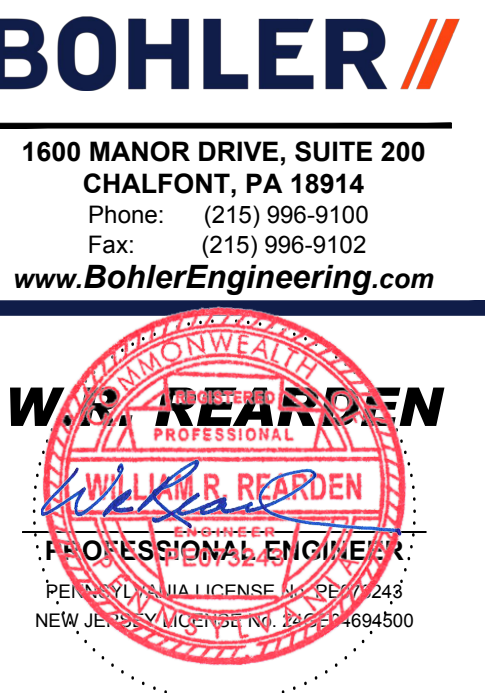
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**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**  
FOR  
**727 NORRISTOWN RD, LP**  
BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS  
727 NORRISTOWN RD  
LOWER GWYNEDD TOWNSHIP  
LOWER GWYNEDD, PA 19002  
MONTGOMERY COUNTY



SHEET TITLE:  
**COVER SHEET**  
SHEET NUMBER:  
**C-101**  
1 OF 20  
ORG. DATE - 6/28/2023

PREPARED BY



R:\2023\PA\230019.03\CADD\DRAWINGS\PLAN SET\TRICIAL SITE PLANS\PA230019.03-CNDS-0A.dwg - LAYOUT - C-101 COVER

GENERAL NOTES (Rev. 1/2023)

- 1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING, PENNSYLVANIA, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE PROFESSIONAL OF RECORD AND BOHLER PREPARED THESE PLANS...

DEMOLITION NOTES (Rev. 1/2023)

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS...

GRADING NOTES (Rev. 1/2023)

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS...

SITE SPECIFIC

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS...

ACCESSIBILITY DESIGN GUIDELINES (Rev. 1/2023)

- 1. ALL ACCESSIBLE (A.K.A ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 12151 ET SEQ.) AND (B) ANY APPLICABLE LOCAL AND STATE REGULATIONS AND ALL AMENDMENTS TO BOTH, WHICH USE IN EFFECT WHEN THESE PLANS WERE COMPLETED...

DRAINAGE AND UTILITY NOTES (Rev. 1/2023)

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS...

SITE SPECIFIC

- 1. EXISTING PROPERTY INFORMATION: APN #59-00-02559-008, 727 NORRISTOWN RD, LOWER GWYNEDD, PA 19002...

SITE SPECIFIC NOTES

- 1. EXISTING PROPERTY INFORMATION: APN #59-00-02559-008, 727 NORRISTOWN RD, LOWER GWYNEDD, PA 19002...

SITE LAYOUT NOTES (Rev. 1/2020)

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS...

REFERENCES AND CONTACT INFORMATION

- 1. SURVEY: PLANS BY CONTROL POINT ASSOCIATES, INC. 1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914...

BOHLER ENGINEERING logo and contact information: SITE CIVIL AND CONSULTING ENGINEERING, PROGRAM MANAGEMENT, LANDSCAPE ARCHITECTURE, SUSTAINABLE DESIGN, PERMITTING SERVICES, TRANSPORTATION SERVICES.

REVISIONS

Table with columns: REV, DATE, COMMENT, DRAWN BY, CHECKED BY.

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PERMIT SET

PROJECT No.: PAA23019.03, DRAWN BY: MCM, CHECKED BY: WRR, CAL CAD ID.: PAA23019.03-02/25-02.

PRELIMINARY FINAL LAND DEVELOPMENT PLANS FOR

727 NORRISTOWN RD, LP BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

BOHLER logo

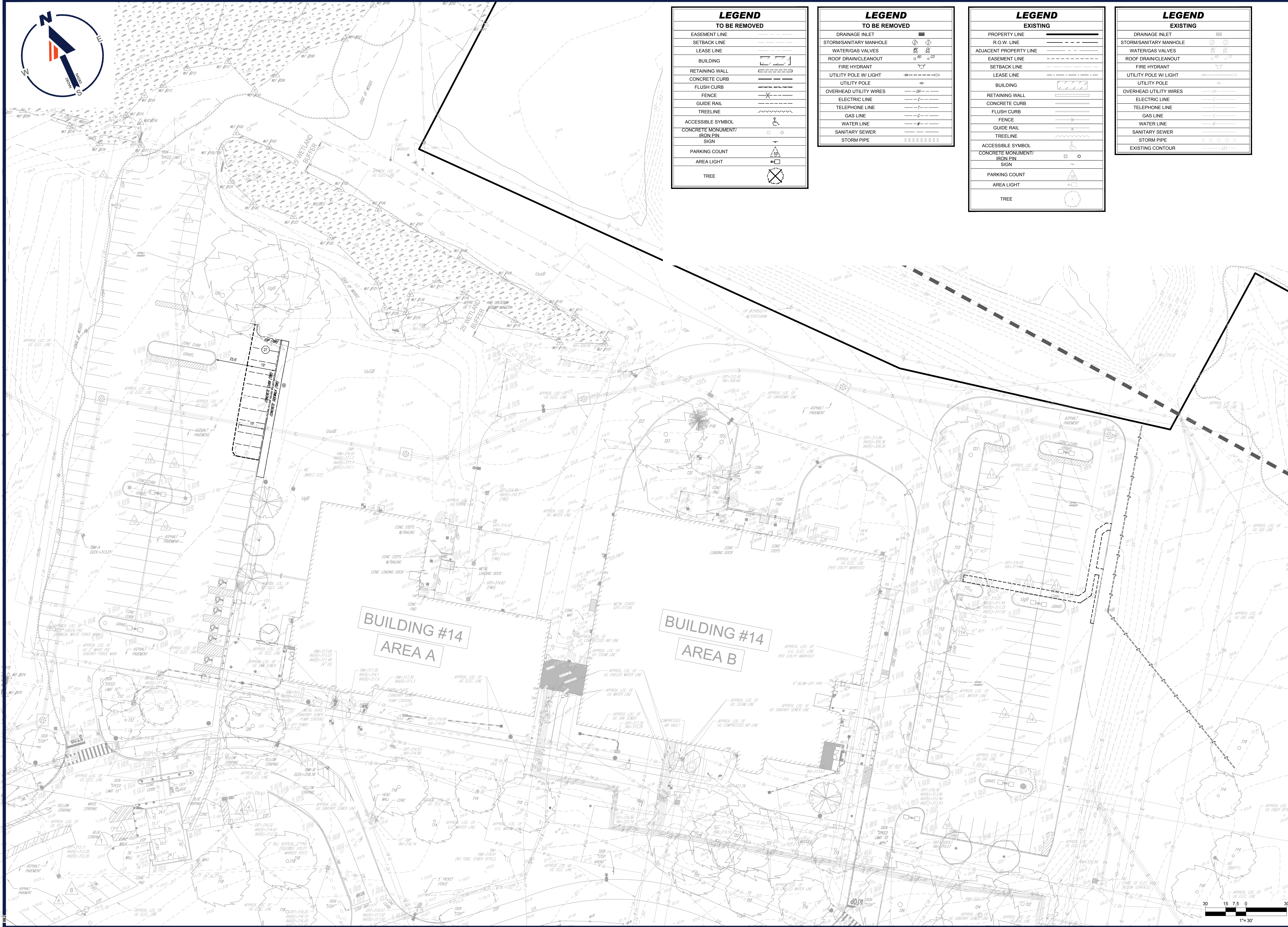
1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102

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W.A. REARDEN PROFESSIONAL ENGINEER logo with seal and contact info.

GENERAL NOTES SHEET C-102

ORG. DATE - 6/28/2023



**LEGEND**  
TO BE REMOVED

EASEMENT LINE	---
SETBACK LINE	---
LEASE LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	---
FLUSH CURB	---
FENCE	---
GUIDE RAIL	---
TREELINE	---
ACCESSIBLE SYMBOL	[Wheelchair Icon]
CONCRETE MONUMENT/ IRON PIN	[Square with Circle]
SIGN	[Triangle with X]
PARKING COUNT	[Triangle with 10]
AREA LIGHT	[Square with X]
TREE	[Circle with X]

**LEGEND**  
TO BE REMOVED

DRAINAGE INLET	[Square]
STORM/SANITARY MANHOLE	[Circle]
WATER/GAS VALVES	[Circle]
ROOF DRAIN/CLEANOUT	[Circle]
FIRE HYDRANT	[Circle]
UTILITY POLE W/ LIGHT	[Circle]
UTILITY POLE	[Circle]
OVERHEAD UTILITY WIRES	---
ELECTRIC LINE	---
TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---

**LEGEND**  
EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
SETBACK LINE	---
LEASE LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	---
FLUSH CURB	---
FENCE	---
GUIDE RAIL	---
TREELINE	---
ACCESSIBLE SYMBOL	[Wheelchair Icon]
CONCRETE MONUMENT/ IRON PIN	[Square with Circle]
SIGN	[Triangle with X]
PARKING COUNT	[Triangle with 10]
AREA LIGHT	[Square with X]
TREE	[Circle with X]

**LEGEND**  
EXISTING

DRAINAGE INLET	[Square]
STORM/SANITARY MANHOLE	[Circle]
WATER/GAS VALVES	[Circle]
ROOF DRAIN/CLEANOUT	[Circle]
FIRE HYDRANT	[Circle]
UTILITY POLE W/ LIGHT	[Circle]
UTILITY POLE	[Circle]
OVERHEAD UTILITY WIRES	---
ELECTRIC LINE	---
TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---
EXISTING CONTOUR	---

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PROJECT No.: PAA230019.03  
DRAWN BY: MCM  
CHECKED BY: WRR  
DATE: 6/28/2023  
CAD ID: PAA230019.03-LDVP-0A

**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**  
FOR  
**727 NORRISTOWN RD, LP**

**BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS**

727 NORRISTOWN RD  
LOWER GWYNEDD TOWNSHIP  
LOWER GWYNEDD, PA 19002  
MONTGOMERY COUNTY

**BOHLER**

1600 MANOR DRIVE, SUITE 200  
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**W.F. REARDEN**  
W.F. REARDEN  
PROFESSIONAL ENGINEER  
ANAL. LICENSE NO. 245  
NEW JERSEY LICENSE NO. 4694500

SHEET TITLE:  
**EXISTING CONDITIONS/ DEMOLITION PLAN**

SHEET NUMBER:  
**C-201**  
3 OF 20

ORG. DATE - 6/28/2023

R:\2023\PA230019.03\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\PA230019.03-LDVP-0A...LAYOUT\_C-201.DWG



**NATURAL RESOURCE PROTECTION**

RESOURCE	TOTAL AREA (AC.)	AREA OF PROPOSED DISTURBANCE (AC.)	MAXIMUM ALLOWABLE DISTURBANCE OF RESOURCE
STEEP SLOPES 15% TO 25%	5.773	0.088 (1.52%)	30%
STEEP SLOPES 25% OR GREATER	5.185	0.028 (0.54%)	20%
WOODLAND AREAS	SEE NOTE 1	0.000 (0%)	75%
WETLANDS	3.201	0.000 (0%)	0%

NOTES  
 1.) NO WOODLAND AREAS EXIST WITHIN THE PROPOSED LIMIT OF DISTURBANCE OF THE PROJECT. THEREFORE THIS APPLICATION PROPOSES NO DISTURBANCE TO ANY WOODLAND AREA.

**Slopes Table**

Number	Minimum Slope	Maximum Slope	Color	Area (SF)	Area (Ac.)
1	15.00%	25.00%	[Light Gray Box]	251,486	5.773
2	25.00%	100.00%	[Dark Gray Box]	225,869	5.185

**LEGEND**

NATURAL RESOURCE	
LIMIT OF DISTURBANCE	LOD
STEEP SLOPES AREAS (15% TO 25%)	[Light Gray Box]
STEEP SLOPES AREAS (25% OR GREATER)	[Dark Gray Box]
STEEP SLOPES AREAS (15% TO 25%) TO BE DISTURBED	[Orange Grid Box]
STEEP SLOPES AREAS (25% OR GREATER) TO BE DISTURBED	[Blue Grid Box]
WOODLAND AREAS	[Dotted Box]
WETLAND AREAS	[Wavy Pattern Box]

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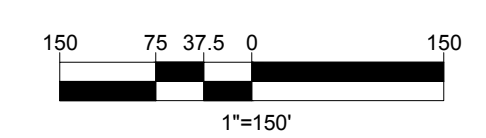
PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID: PAA230019.03-LDVP-0A

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 MONTGOMERY COUNTY

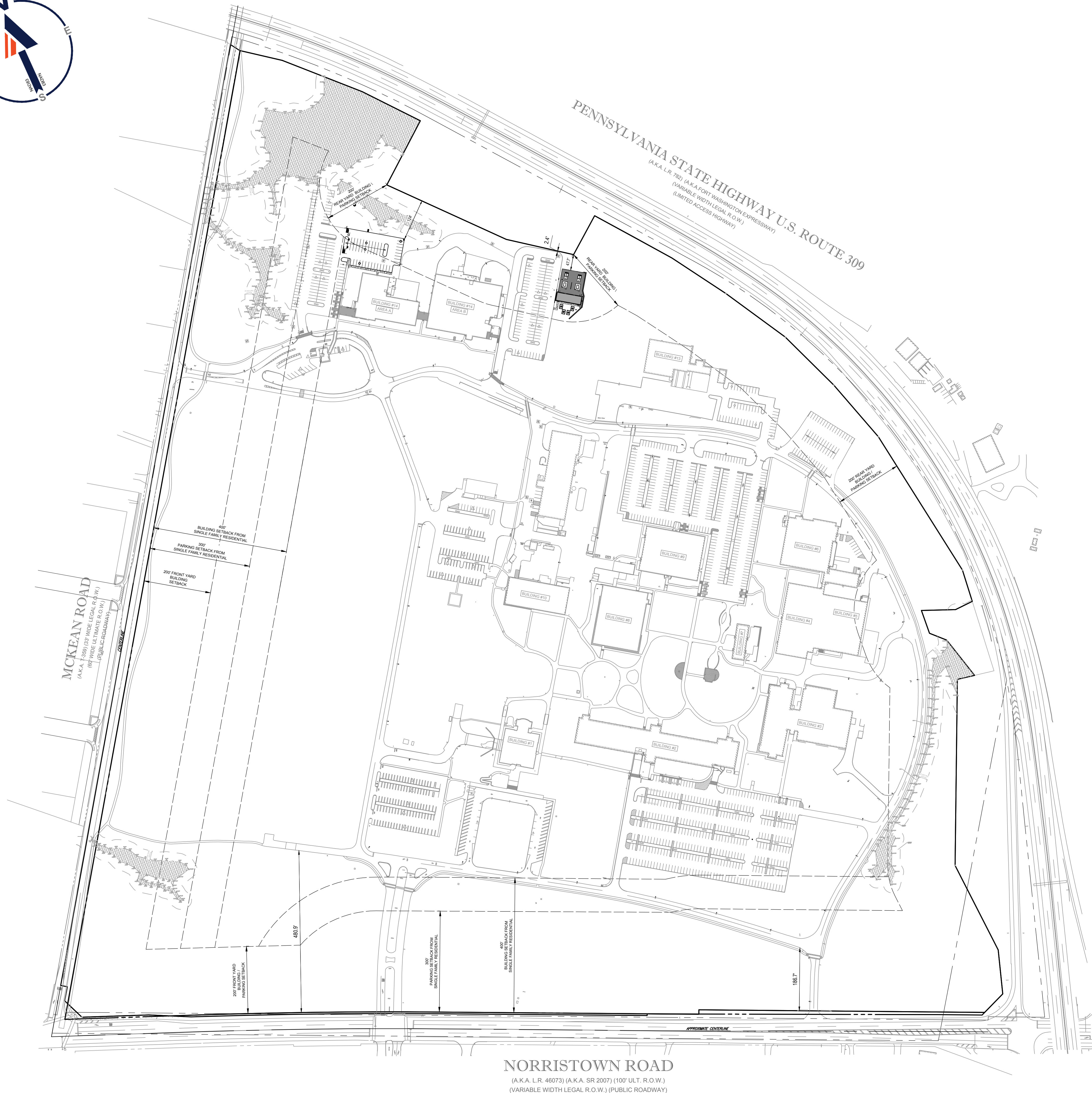
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 NEW JERSEY LICENSE NO. 14694500

SHEET TITLE:  
**NATURAL RESOURCES PROTECTION PLAN**  
 SHEET NUMBER:  
**C-202**  
 4 OF 20  
 ORG. DATE - 6/28/2023



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ZONING TABLE				
ZONE: HC - HIGHWAY COMMERCIAL USE: AUTOMOBILE FILLING STATION, RETAIL SALE OF GOODS AND SERVICES APN #39-00-02959-003				
APPLICANT/ OWNER INFORMATION				
APPLICANT:	727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109			
PROPERTY OWNER:	727 NORRISTOWN RD, LP 200 STATE STREET, 5TH FLOOR BOSTON, MA 02109			
BULK REQUIREMENTS				
ITEM	CODE	REQUIRED	EXISTING	PROPOSED
MIN. GROSS LOT AREA	§ 1282.04(a)	25 ACRES	127.50 ACRES	127.50 ACRES
NET BUILDABLE SITE AREA	---	---	120.97 ACRES	120.97 ACRES
MIN. LOT WIDTH	§ 1282.04(b)	1,000'	2,683'	2,683'
MIN. YARD SETBACKS				
FRONT YARD	§ 1282.05(a)	200'	480.9'	480.9'
SIDE YARD	§ 1282.05(a)	200'	N/A	N/A
REAR YARD	§ 1282.05(a)	200'	2.4'	2.4'
YARD ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.05(b)	400'	186.7'	186.7'
MAX. BUILDING COVERAGE	§ 1282.06(a)	20%	6.08% (7,362 AC.)	6.12% (7,407 AC.)
MAX. GROSS BUILDING FLOOR AREA COVERAGE	§ 1282.06(b)	40%	11.73% (14.19 AC.)	11.76% (14.23 AC.)
MAX. IMPERVIOUS COVERAGE	§ 1282.06(c)	40%	26.13% (31.61 AC.)	26.60% (32.18 AC.)
MAX. BUILDING HEIGHT	§ 1282.07	60' MAX OF 3 STORIES	< 60'	< 60'
MIN. PARKING SETBACKS				
FRONT, SIDE, REAR	§ 1282.08(b)	200'	2.4'	2.4'
ADJACENT TO SINGLE-FAMILY RESIDENTIAL DISTRICT	§ 1282.08(b)	300'	186.7'	186.7'
				EXISTING NON CONFORMITY

**PARKING REQUIREMENTS**

1224.01 REQUIRED OFF-STREET PARKING

- (10) OFFICE BUILDING. ONE SPACE FOR EVERY 250 SQUARE FEET OF OFFICE RENTAL SPACE, EXCLUDING HALLS AND LAVATORIES IN COMMON USAGE, SHIFTS, ELEVATORS, STAIRS AND UTILITY ROOMS.
- (12) LABORATORY OR INDUSTRIAL ESTABLISHMENT. ONE PARKING SPACE FOR EVERY EMPLOYEE ON THE TWO LARGEST SHIFTS, BUT NOT LESS THAN ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA AND
- (13) OTHER COMMERCIAL BUILDINGS. ONE PARKING SPACE FOR EVERY 1,000 SQUARE FEET OF FLOOR AREA OR FRACTION THEREOF, EXCEPT WHEN OTHERWISE AUTHORIZED AS A SPECIAL EXCEPTION CONSISTENT WITH THE REQUIREMENTS OF THIS SECTION FOR COMPARABLE ESTABLISHMENTS.

219,467 SF TOTAL OFFICE OCCUPANT AREA / 1000'4 = 878 SPACES  
 238,919 SF TOTAL LAB OCCUPANT AREA / 1000'1 = 239 SPACES  
 1,117 TOTAL SPACES REQUIRED

EXISTING  
 1,324 SPACES

PROPOSED  
 1,361 TOTAL SPACES PROVIDED (47 NEW - 10 TBR = 37 NET INCREASE)

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PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID: PAA230019.03-LDVP-0A

**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**  
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**727 NORRISTOWN RD, LP**  
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 727 NORRISTOWN RD  
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 PENNSYLVANIA LICENSE # 1443  
 NEW JERSEY LICENSE # 14694500

SHEET TITLE:  
**OVERALL SITE PLAN**

SHEET NUMBER:  
**C-301**  
 5 OF 20

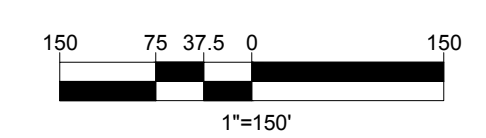
ORG. DATE - 6/28/2023

**LEGEND**  
 PROPOSED

BUILDING	[Solid Grey Box]
RETAINING WALL	[Dashed Line]
CONCRETE CURB	[Double Line]
FENCE	[Line with Dots]
SIDEWALK	[Line with Bricks]

**LEGEND**  
 EXISTING

PROPERTY LINE	[Dashed Line]
R.O.W. LINE	[Double Line]
ADJACENT PROPERTY LINE	[Dashed Line]
EASEMENT LINE	[Dashed Line]
SETBACK LINE	[Dashed Line]
EXISTING WETLANDS	[Hatched Area]



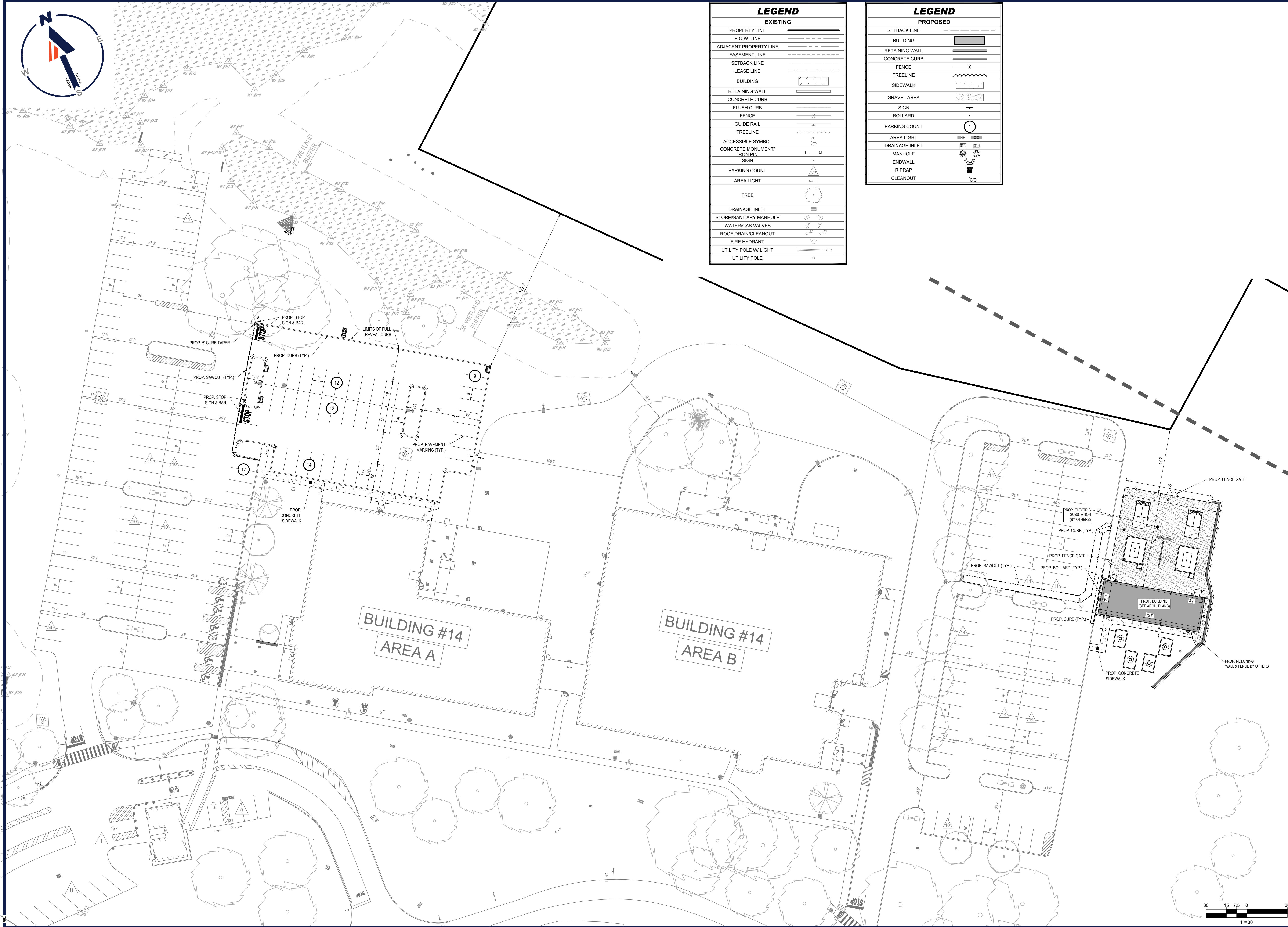
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LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
SETBACK LINE	---
LEASE LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Solid Line]
FLUSH CURB	[Dashed Line]
FENCE	[Line with X's]
GUIDE RAIL	[Line with Dots]
TREELINE	[Wavy Line]
ACCESSIBLE SYMBOL	[Wheelchair Icon]
CONCRETE MONUMENT/ IRON PIN	[Square with X]
SIGN	[Triangle]
PARKING COUNT	[Circle with Number]
AREA LIGHT	[Square with X]
TREE	[Circle with Dots]
DRAINAGE INLET	[Circle with Square]
STORM/SANITARY MANHOLE	[Circle with X]
WATER/GAS VALVES	[Circle with X]
ROOF DRAIN/CLEANOUT	[Circle with X]
FIRE HYDRANT	[Circle with X]
UTILITY POLE W/LIGHT	[Circle with X]
UTILITY POLE	[Circle]

LEGEND	
PROPOSED	
SETBACK LINE	---
BUILDING	[Solid Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Solid Line]
FENCE	[Line with X's]
TREELINE	[Wavy Line]
SIDEWALK	[Hatched Area]
GRAVEL AREA	[Dotted Area]
SIGN	[Triangle]
BOLLARD	[Circle with X]
PARKING COUNT	[Circle with Number]
AREA LIGHT	[Square with X]
DRAINAGE INLET	[Circle with Square]
MANHOLE	[Circle with X]
ENDWALL	[Circle with X]
RIPRAP	[Hatched Area]
CLEANOUT	[Circle]



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 PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID: PAA230019.03-LDVP-0A

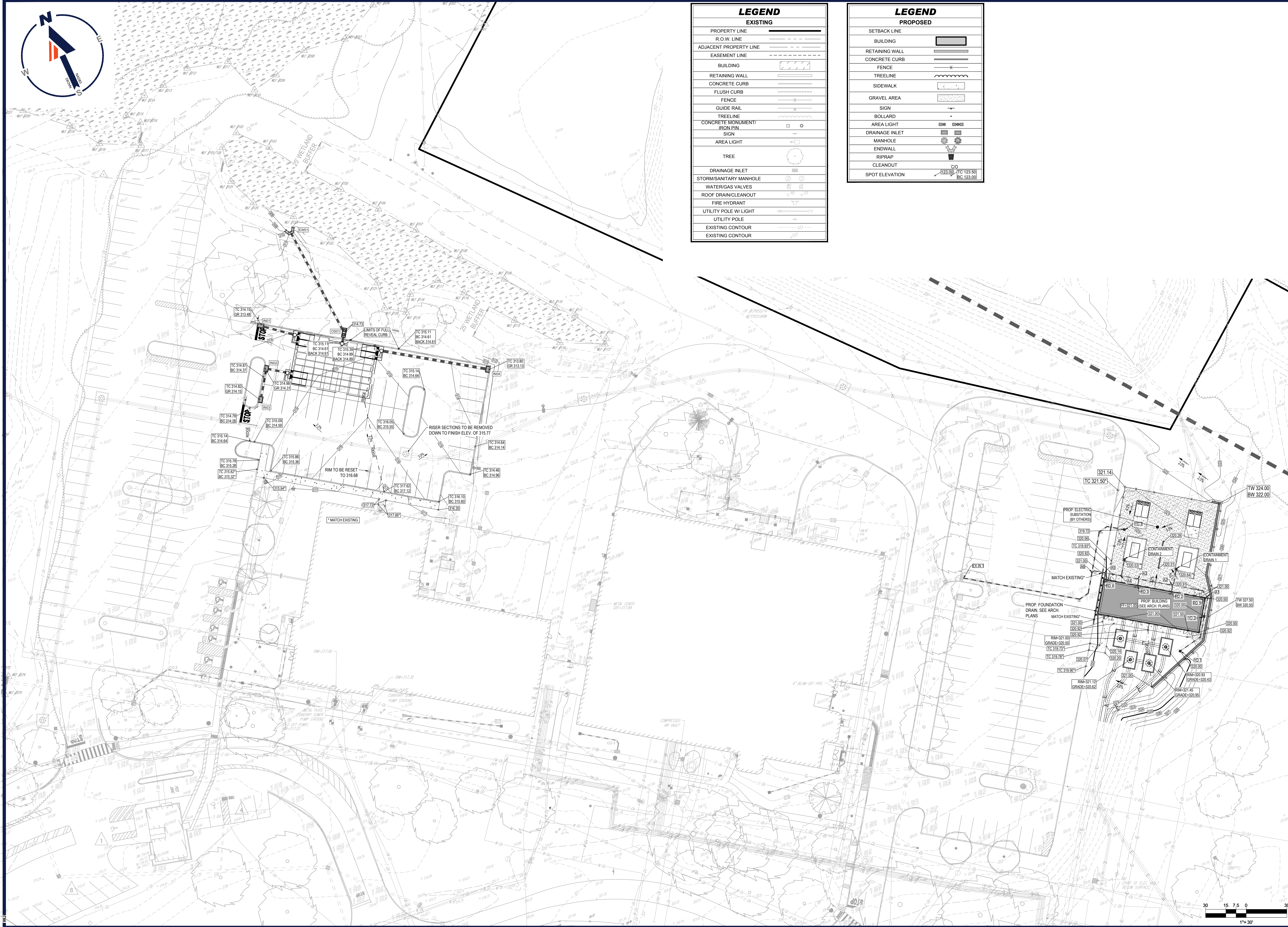
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 FOR  
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 NEW JERSEY LICENSE # 34694500

SHEET TITLE:  
**SITE PLAN**  
 SHEET NUMBER:  
**C-302**  
 6 OF 20  
 ORG. DATE - 6/28/2023

R:\3022\PA230019.03\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\PA230019.03-LDVP-0A...LAYOUT\_C-302.SITE



LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Dashed Line]
FLUSH CURB	[Dotted Line]
FENCE	[Cross-hatched Line]
GUIDE RAIL	[Line with Cross-ticks]
TREELINE	[Wavy Line]
CONCRETE MONUMENT/ IRON PIN	[Square with Circle]
SIGN	[Square]
AREA LIGHT	[Circle]
TREE	[Circle with Dots]
DRAINAGE INLET	[Square with Circle]
STORM/SANITARY MANHOLE	[Circle with X]
WATER/GAS VALVES	[Circle with X]
ROOF DRAIN/CLEANOUT	[Circle with X]
FIRE HYDRANT	[Circle with X]
UTILITY POLE W/ LIGHT	[Circle with X]
UTILITY POLE	[Circle]
EXISTING CONTOUR	[Dashed Line]
EXISTING CONTOUR	[Dotted Line]

LEGEND	
PROPOSED	
SETBACK LINE	---
BUILDING	[Solid Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Dashed Line]
FENCE	[Cross-hatched Line]
TREELINE	[Wavy Line]
SIDEWALK	[Dashed Line]
GRAVEL AREA	[Dotted Area]
SIGN	[Square]
BOLLARD	[Circle]
AREA LIGHT	[Circle]
DRAINAGE INLET	[Square with Circle]
MANHOLE	[Circle with X]
ENDWALL	[Circle]
RIPRAP	[Triangle]
CLEANOUT	[Circle]
SPOT ELEVATION	[Circle with X]

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 CAD ID: PAA230019.03-LDVP-0A

PROJECT:  
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SHEET TITLE:  
**GRADING PLAN**

SHEET NUMBER:  
**C-401**  
 7 OF 20

ORG. DATE - 6/28/2023

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LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
BUILDING	▒
RETAINING WALL	▒
CONCRETE CURB	▒
FLUSH CURB	▒
FENCE	▒
GUIDE RAIL	▒
TREELINE	▒
CONCRETE MONUMENT/ IRON PIN	○
SIGN	▒
AREA LIGHT	▒
TREE	○
DRAINAGE INLET	▒
STORM/SANITARY MANHOLE	○
WATER/GAS VALVES	○
ROOF DRAIN/CLEANOUT	○
FIRE HYDRANT	○
UTILITY POLE W/ LIGHT	○
UTILITY POLE	○
OVERHEAD UTILITY WIRES	---
ELECTRIC LINE	---
TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---

LEGEND	
PROPOSED	
SETBACK LINE	---
BUILDING	▒
RETAINING WALL	▒
CONCRETE CURB	▒
FENCE	▒
TREELINE	▒
SIDEWALK	▒
GRAVEL AREA	▒
SIGN	▒
BOLLARD	▒
AREA LIGHT	▒
DRAINAGE INLET	▒
MANHOLE	○
ENDWALL	▒
RIPRAP	▒
CLEANOUT	○
ELECTRIC LINE	---
STORM PIPE	---

	UPSTREAM	PIPE	PIPE	PIPE		DOWNSTREAM
PIPE RUN	ELEVATION	SIZE (IN)	MATERIAL	LENGTH (FT)	SLOPE (FT/FT)	ELEVATION
YD 1 to YD 2	318.00	6	PVC	34	0.010	317.66
YD 2 to A1	317.66	6	PVC	15	0.010	317.51
RD 1 to A1	318.50	6	PVC	2	0.495	317.51
A1 to A2	317.51	6	PVC	29	0.010	316.52
RD 2 to A2	319.00	6	PVC	6	0.413	316.52
Containment Drain 1 to A2	316.64	6	PVC	12	0.010	316.52
A2 to A3	316.52	6	PVC	26	0.010	316.26
RD 3 to A3	319.00	6	PVC	6	0.457	316.26
A3 to A4	316.26	6	PVC	13	0.010	316.13
Containment Drain 2 to A4	316.53	6	PVC	12	0.033	316.13
A4 to A5	316.13	6	PVC	12	0.010	316.01
RD 4 to A5	319.00	6	PVC	6	0.498	316.01
A5 to A6	316.01	6	PVC	10	0.010	315.91
YD 3 to A6	317.55	8	PVC	50	0.033	315.91
A6 to EX IN 1	315.91	8	PVC	111	0.018	313.92

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PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID: PAA230019.03-LDVP-0A

**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**  
 FOR  
**727 NORRISTOWN RD, LP**

**BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS**

727 NORRISTOWN RD  
 LOWER GWYNEDD TOWNSHIP  
 LOWER GWYNEDD, PA 19002  
 MONTGOMERY COUNTY

**BOHLER**

1600 MANOR DRIVE, SUITE 200  
 CHALFONT, PA 18914  
 Phone: (215) 996-9100  
 Fax: (215) 996-9102  
 www.BohlerEngineering.com

**W. R. REARDEN**  
 PROFESSIONAL ENGINEER  
 PENNSYLVANIA LICENSE NO. 000004500  
 NEW JERSEY LICENSE NO. 12A00004500

SHEET TITLE:  
**UTILITY PLAN**

SHEET NUMBER:  
**C-501**  
 8 OF 20

ORG. DATE - 6/28/2023

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LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Dashed Line]
FLUSH CURB	[Dashed Line]
FENCE	[Crossed Line]
GUIDE RAIL	[Dashed Line]
TREELINE	[Wavy Line]
CONCRETE MONUMENT/ IRON PIN	[Square]
SIGN	[Circle]
AREA LIGHT	[Circle]
TREE	[Circle]

LEGEND	
EXISTING	
DRAINAGE INLET	[Symbol]
STORM/SANITARY MANHOLE	[Symbol]
WATER/GAS VALVES	[Symbol]
ROOF DRAIN/CLEANOUT	[Symbol]
FIRE HYDRANT	[Symbol]
UTILITY POLE W/ LIGHT	[Symbol]
UTILITY POLE	[Symbol]
OVERHEAD UTILITY WIRES	[Symbol]
ELECTRIC LINE	[Symbol]
TELEPHONE LINE	[Symbol]
GAS LINE	[Symbol]
WATER LINE	[Symbol]
SANITARY SEWER	[Symbol]
STORM PIPE	[Symbol]
EXISTING CONTOUR	[Symbol]

LEGEND	
PROPOSED	
SETBACK LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Dashed Line]
FENCE	[Crossed Line]
TREELINE	[Wavy Line]
SIDEWALK	[Dashed Line]
GRAVEL AREA	[Dotted Area]
SIGN	[Circle]
BOLLARD	[Circle]
AREA LIGHT	[Circle]
DRAINAGE INLET	[Symbol]
MANHOLE	[Symbol]
ENDWALL	[Symbol]
RIPRAP	[Symbol]
CLEANOUT	[Symbol]
ELECTRIC LINE	[Symbol]
STORM PIPE	[Symbol]

LEGEND	
PROPOSED	
LIMIT OF DISTURBANCE	---
PROJECT SITE BOUNDARY	---
COMPOST FILTER SOCK	[Symbol]
TREE PROTECTION FENCE	[Symbol]
INLET FILTER BAG	[Symbol]
INLET BLOCKING	[Symbol]
CONCRETE WASHOUT	[Symbol]
TEMPORARY STOCKPILE	[Symbol]
PUMPED WATER FILTER BAG	[Symbol]
NAGSC150	[Symbol]



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SHEET TITLE:  
**SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN**

SHEET NUMBER:  
**C-601**  
 9 OF 20

ORG. DATE - 6/28/2023

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**E&S - GENERAL NOTES:**

- 1. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL STRUCTURES. ADDITIONAL FACILITIES OR MEASURES SHALL BE INSTALLED WHERE NECESSARY OR WHERE DIRECTED BY EITHER THE TOWNSHIP OR THE COUNTY CONSERVATION DISTRICT AS CONSTRUCTION PROGRESSES.
2. THE OWNER/CONSTRUCTION MANAGER IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROLS AND SITE STABILIZATION. THE OWNER SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.
3. PROTECTION TO THE EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE.
4. ANY DRY FILL HAULED OFFSITE MUST BE TAKEN TO A LOCATION WITH AN EROSION AND SEDIMENTATION CONTROL PLAN WHICH HAS BEEN REVIEWED BY THE COUNTY CONSERVATION DISTRICT FOR ADEQUACY.
5. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN TRIBUTARY AREAS OF THOSE CONTROLS.
6. STOCKPILES MUST BE STABILIZED IMMEDIATELY.
7. NO CHANGES SHALL BE MADE IN THE CONTOUR OF THE LAND. NO GRADING, EXCAVATING, REMOVAL, OR DESTRUCTION OF THE TOPSOIL, TREES OR OTHER VEGETATIVE COVER OF THE LAND SHALL BE COMMENCED WITHIN A PROPOSED SUBDIVISION OR LAND DEVELOPMENT TRACT UNTIL SUCH TIME THAT A PLAN FOR SEDIMENTATION CONTROL AND MINIMIZING EROSION HAS BEEN REVIEWED AND APPROVED BY THE TOWNSHIP.
8. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE TOWNSHIP.
9. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
10. CONTRACTOR SHALL USE TREADED MACHINERY AND MINIMIZE SOIL COMPACTION WHEREVER POSSIBLE.

**DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES**

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

- 1. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
2. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
3. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.
4. ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING BUT NOT LIMITED TO VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECT TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENTS POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENTS MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM.

**RECYCLING OR DISPOSAL OF MATERIALS §102.4(b)(5)(xi)**

- THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE:
- CONCRETE CURB AND SIDEWALK
- ASPHALT
- E&S BMP - COMPOST FILTER SOCKS
- E&S BMP - EROSION CONTROL MATTING
- E&S BMP - INLET PROTECTION

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 280.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. BELOW IS A LIST OF METHODS FOR THE PROPER RECYCLING/DISPOSAL OF VARIOUS MATERIALS:

- 1. DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.
2. SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST 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.
3. SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.
4. WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.
5. CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

**E&S PLAN DESIGNED AND IMPLEMENTED TO BE CONSISTENT WITH PCSM PLAN §102.4(b)(5)(xiv)**

- REGARDING THE LOCATIONS OF EXISTING RIPARIAN BUFFERS RELATIVE TO THE LIMIT OF DISTURBANCE AND WHETHER PROPOSED INFILTRATION FACILITIES ARE OUTSIDE OF PROPOSED GRADING AREAS, NOTE THE FOLLOWING:
• THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS.
• THERE ARE NO PROPOSED INFILTRATION BMPs OUTSIDE OF PROPOSED GRADING AREAS.

**EXISTING/PROPOSED RIPARIAN FOREST BUFFERS §102.4(b)(5)(xv)**

- REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING:
• THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.

**MAINTENANCE, MONITORING & INSPECTION PROGRAM §102.4(b)(5)(x)**

UNTIL THE SITE IS STABILIZED AND DURING CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS TO ENSURE THEIR EFFECTIVE OPERATION. SEE EROSION AND SEDIMENT DETAILS FOR ADDITIONAL INSPECTION AND MAINTENANCE REQUIREMENTS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND REINSETING 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. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE 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 UPON REQUEST.

INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IF STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS.

GRASSED AREAS SHALL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION ONCE ALL AREAS ARE COVERED WITH BUILDING FOUNDATION OR PAVEMENT, OR HAVE A STAND OF GRASS WITH AT LEAST 10 PERCENT DENSITY IN ACCORDANCE WITH PERMIT REQUIREMENTS. THE VEGETATIVE DENSITY MUST BE MAINTAINED TO BE CONSIDERED STABILIZED. AREAS MUST BE WATERED, FERTILIZED, AND RESEEDED AS NEEDED TO ACHIEVE THIS REQUIREMENT.

ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE OR IMPACTS TO RECEIVING WATERS.

**VISUAL INSPECTIONS**

THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL. TO ASCERTAIN THAT E&S BMPs AND PCSM BMPs ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

- (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

**NONCOMPLIANCE REPORTING**

WHERE E&S, PCSM OR PFC BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO-PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

- (1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;
(2) THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;
(3) STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENT OF THE NONCOMPLIANCE; AND
(4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

**REDUCTION, LOSS, OR FAILURE OF THE BMPs**

UPON REDUCTION, LOSS, OR FAILURE OF THE BMPs, THE PERMITTEE AND CO-PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPs OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPs OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPs.

**COMPLETION CERTIFICATE AND FINAL PLANS**

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

**SEEDING SPECIFICATIONS**

- 1. SEEDING DATES
A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 16TH AND NO LATER THAN OCTOBER 15TH.
B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON.
2. SEED MIXTURES. SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LBA) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATINGS (SEE ITEM #3 BELOW).
A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE AS FOLLOWS:
ANNUAL RYE (66 POUNDS / ACRE PLS) OR SPRING OATS (66 POUNDS / ACRE PLS) OR WINTER RYE (166 POUNDS / ACRE PLS) (REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND", TABLE 5)
B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS:
I. NURSE CROP (SELECT ONE):
ANNUAL RYE (10 POUNDS / ACRE PLS) OR SPRING OATS (64 POUNDS / ACRE PLS) OR WINTER RYE (66 POUNDS / ACRE PLS) (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #1)
II. PERMANENT SEED MIXTURE (TALL FESCUES (66 POUNDS / ACRE PLS) OR FINE FESCUE (35 POUNDS / ACRE PLS) OR KENTUCKY BLUEGRASS (9 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS) OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS) (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #2)
3. PURE LIVE SEED. MINIMUM PLS RATING ACCEPTED SHALL BE 85% PLS. SEED RATE MAY NEED TO BE ADJUSTED BASED ON THE PLS RATING OF THE SEED.
A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 ((%PURE X %GERMINATION) / 100)
C. DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.8 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
4. APPLICATION OF SEED - SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION).
A. SEEDING SHALL TAKE PLACE BETWEEN MARCH 15 - OCTOBER 15.
B. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.
C. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
I. DRILL SEEDING
II. BROADCAST SEEDING (TWO DIRECTIONS)
III. HYDROSEEDING (TWO DIRECTIONS)
D. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:
1. TEMPORARY STABILIZATION WITH STRAW:
1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 1ST).
2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING-BLANKETS (WHERE SPECIFIED):
1. MATTING-BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS, STREAMS OR WETLANDS. THE PRODUCT SHALL BE INSTALLED AND STARTED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
2. AREAS WITH MATTING-BLANKETS SHALL NOT BE TRACKED (CATAWALDED) AFTER INSTALLATION.
3. MATTING-BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY. IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD CONDITION.
III. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED.
E. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF 1/2" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

**SEQUENCE OF BMP INSTALLATION AND REMOVAL §102.4(b)(5)(vii)**

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. UPON COMPLETION OF TEMPORARY CESSION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF LOWER GWYNEDD TOWNSHIP FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.

BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM LOWER GWYNEDD TOWNSHIP. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. 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.

- 1. ALL CONSTRUCTION TRAFFIC MUST ENTER THE SITE FROM NORRISTOWN ROAD. CONSTRUCTION TRAFFIC WILL NOT BE PERMITTED FROM MCKEAN ROAD.
2. INSTALL ALL PERIMETER COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROL IS PERMITTED.
3. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. ALL EXCAVATED MATERIAL FROM TRENCHES TO BE PLACED ON THE UP-SLOPE SIDE OF THE EXPOSED TRENCH. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
4. INITIATE STORM SEWER AND SUBSURFACE BASIN INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. SEE ADDITIONAL DETENTION BASIN SEQUENCING, INSTALLATION AND MAINTENANCE & CONSTRUCTION NOTES PROVIDED ON THE STORMWATER MANAGEMENT PLANS FOR THE CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE DETENTION BASIN, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT. INLETS DISCHARGING TO SUBSURFACE DETENTION BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASIN. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASIN TO AVOID DAMAGING THE SUBSURFACE BASIN OR OVER-COMPACTING THE SUBSURFACE SOILS.
5. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION WHERE APPLICABLE.
6. INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE-BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.
7. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
8. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
9. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
10. UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE LOWER GWYNEDD TOWNSHIP, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES INCLUDING COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION AT THIS TIME. ALL CAPPED INLETS DISCHARGING TO THE UNDERGROUND DETENTION BASIN SHALL BECOME FUNCTIONAL. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
11. CRITICAL STAGE: INSTALL ALL WATER QUALITY INSERTS PER NOTES PROVIDED ON THE PCSM DETAIL SHEETS. THE INSTALLATION OF THE FILTER INSERTS SHALL BE IN ACCORDANCE WITH THE DIRECTION AND RECOMMENDATIONS FROM THE MANUFACTURER. THE OWNER SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE INSTALLATION OF THE WATER QUALITY FILTERS. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND INSTALLATION OF THE WATER QUALITY INSERTS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
12. CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM 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. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.
13. DEMOBILIZE.

**LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER CHAPTER 93 §102.4(b)(5)(v)**

THE SUBJECT SITE DRAINS TO WILLOW RUN, WHICH HAS A TSF (TROUT STOCKING) & MF (MIGRATORY FISHES) CHAPTER 93 CLASSIFICATION.

**CRITICAL STAGES**

- SUBSURFACE DETENTION BASIN INSTALLATION (A LICENSED PROFESSIONAL WILL OVERSEE THE BMP INSTALLATION FROM SUBGRADE PREPARATION TO COMPLETION)
• WATER QUALITY INSERTS INSTALLATION

**TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS §102.4(b)(5)(ii)**

**SOIL DESCRIPTIONS**

Table with columns: SOIL, DESCRIPTION, SOIL GROUP. Rows include Ugb (Urban Land, 0 to 8 percent slopes, N/A) and UusB (Urban Land-Urthentics, shale and sandstone complex, 0 to 8 percent slopes, B).

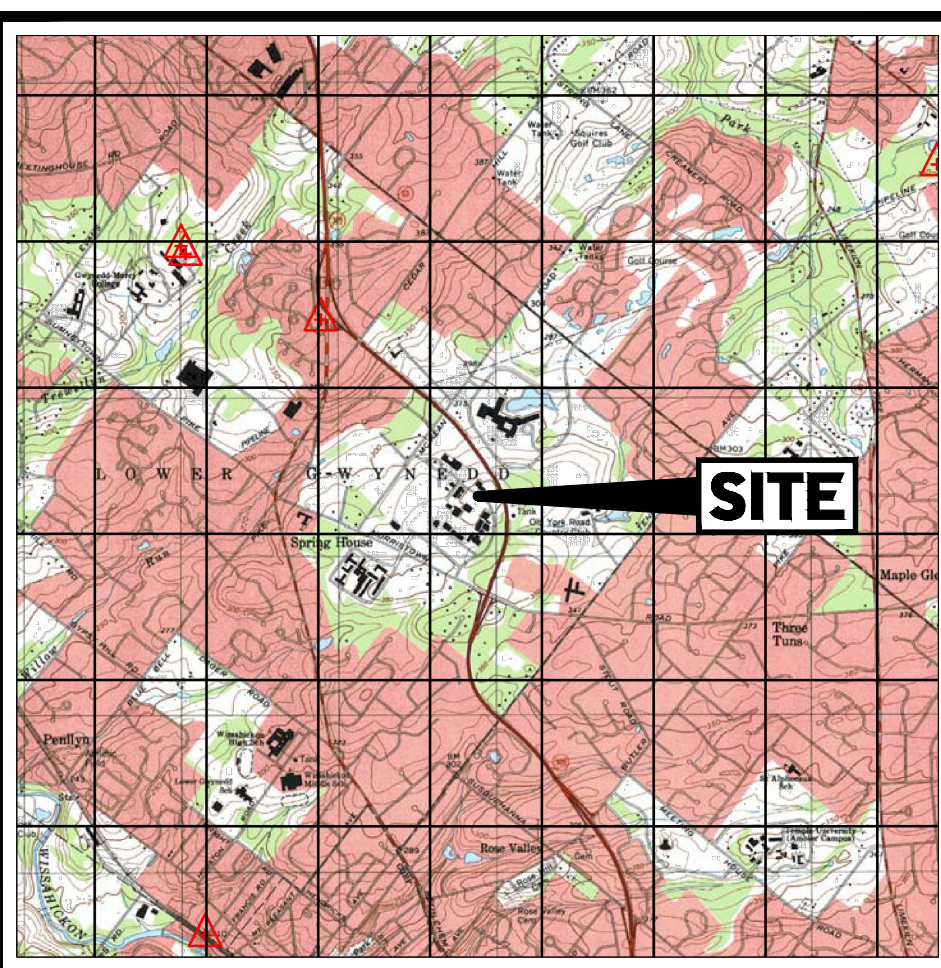
SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

**LIMITATIONS FOR PENNSYLVANIA SOILS PERTAINING TO EARTH DISTURBANCE PROJECTS**

Table mapping soil names to various parameters: CUT/BANKS, CORROSIVE TO CONCRETE, DROUGHT, FLOODING, DEPTH TO SATURATED MATERIALS, HYDROIC INCLUSIONS, LOW STRENGTH/LABILE, PERCOLATION, PIPING, POOR SOURCE OF FROST ACTION, SHRINK-SWELL, SOIL MOISTURE/SWELLING, PONDING, WETNESS.

**GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION §102.4(b)(5)(xii)**

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.



**USGS MAP**

SCALE: 1" = 1,000'



**SOIL MAP**

NOT TO SCALE

BOHLER logo and company name: BOHLER AND CONSULTING ENGINEERING, PROGRAM MANAGEMENT, LANDSCAPE ARCHITECTURE, SUSTAINABLE DESIGN, PERMITTING SERVICES, TRANSPORTATION SERVICES.

**REVISIONS**

Table with columns: REV, DATE, COMMENT, DRAWN BY, CHECKED BY.

811 logo and text: Know what's below. Call before you dig. Pennsylvania You must call 811 before any excavation whether it's on private or public land. 1-800-242-1776 www.911call.org

**PERMIT SET**

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAA230019.03 MCM
DRAWN BY: WRR
CHECKED BY: WRR
DATE: 6/28/2023
CAD ID: PAA230019.03-CNDS-04

**PROJECT:**

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS FOR

727 NORRISTOWN RD, LP

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD LOWER GWYNEDD TOWNSHIP LOWER GWYNEDD, PA 19002 MONTGOMERY COUNTY

BOHLER logo and address: 1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102 www.BohlerEngineering.com

Professional Engineer Seal for W.R. Rearden, No. 024244, State of Pennsylvania, Exp. 12/31/2026.

SHEET TITLE: SOIL EROSION & SEDIMENT POLLUTION CONTROL NOTES & DETAILS SHEET NUMBER: C-602 10 OF 20

ORG. DATE - 6/28/2023

R:\023219\PAA230019.03\CADD\DRAWINGS\PLAN SET\CTR\CTHIL SITE PLANS\PAA230019.03-CNDS-04.dwg - LAAYOUT - 6/28/2023 9:46:03 AM

**I. GENERAL INFORMATION**

- THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
- NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED.
- ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
- DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION.
- AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED.
- WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE. THIS IS ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY ESBP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS. IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
- THE CONTRACTOR SHALL DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPILL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE.
- ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITIONAL STABILIZATION MEASURES BE NECESSARY, IN ACCORDANCE WITH THE NPDES AND/OR SWPPP REQUIREMENTS FOR THE PROJECT.

- II. STANDARD FOR LAND GRADING**
- DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAIN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.
    - PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FULL SLOPES.
    - ADJACENT PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
  - INSTALLATION REQUIREMENTS
    - TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETATIVE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STANDARD FOR DISPOSAL OF MATERIALS.
    - FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
    - ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
    - ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION. (SEE I. D.)

- III. STANDARD FOR UTILITY TRENCH EXCAVATION**
- LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
  - LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX. OF SIX DAYS FOR CERTAIN CASES REQUIRING TESTING OF THE INSTALLED PIPE.
  - WORK WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE INSTALLATION AND/OR BACKFILLING BEGINS.
  - ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
  - WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF-CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
  - ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

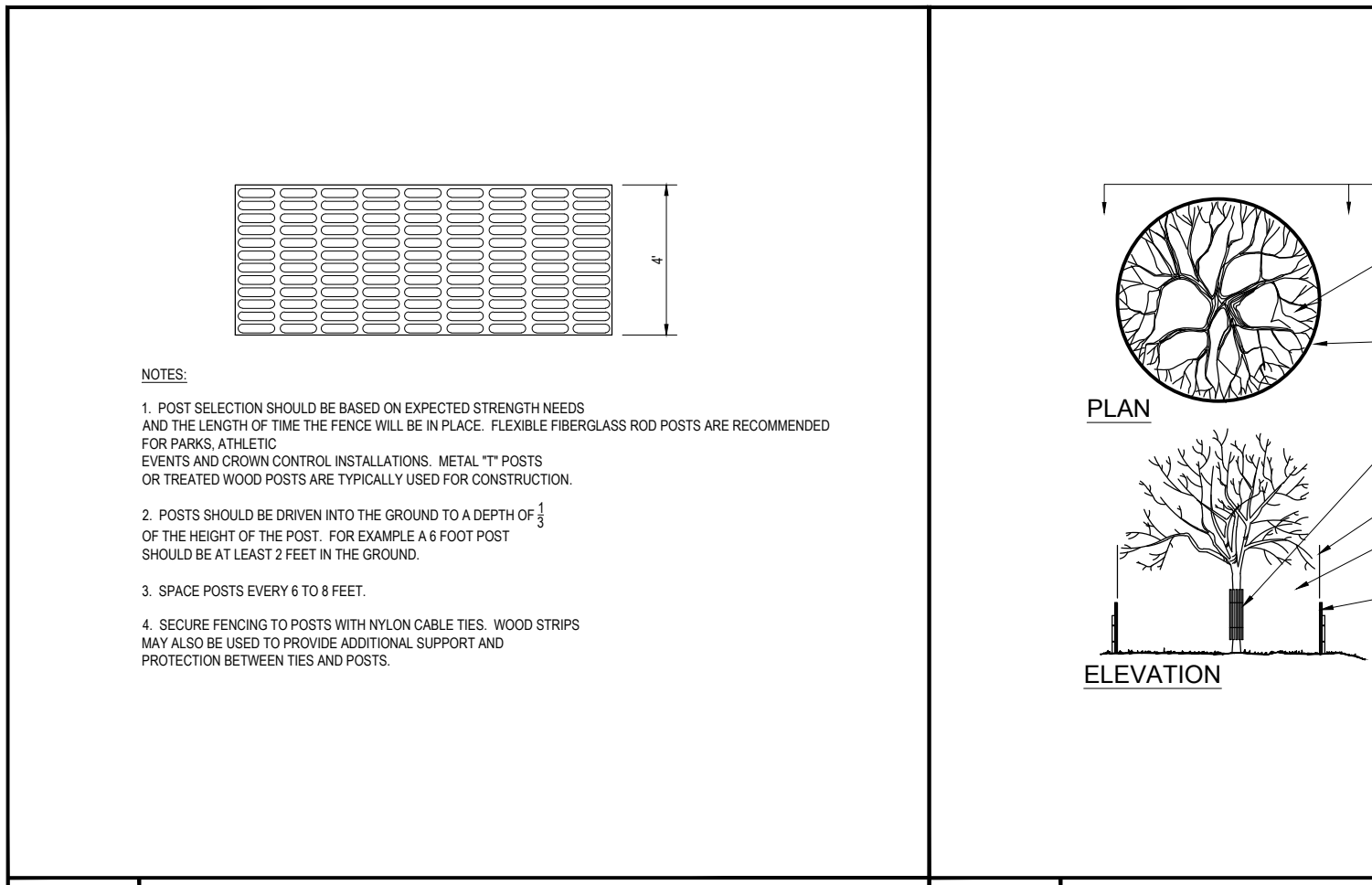
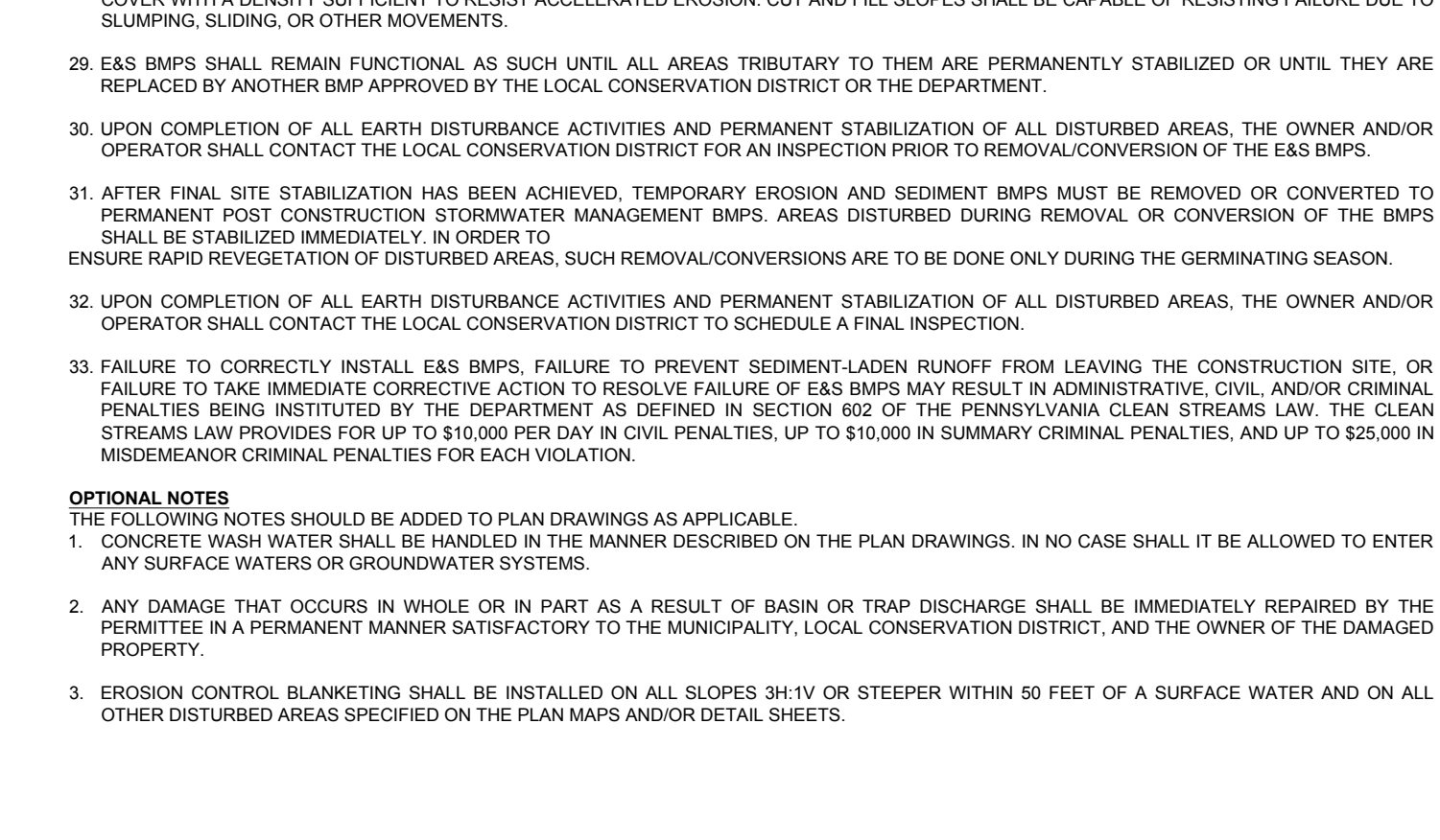
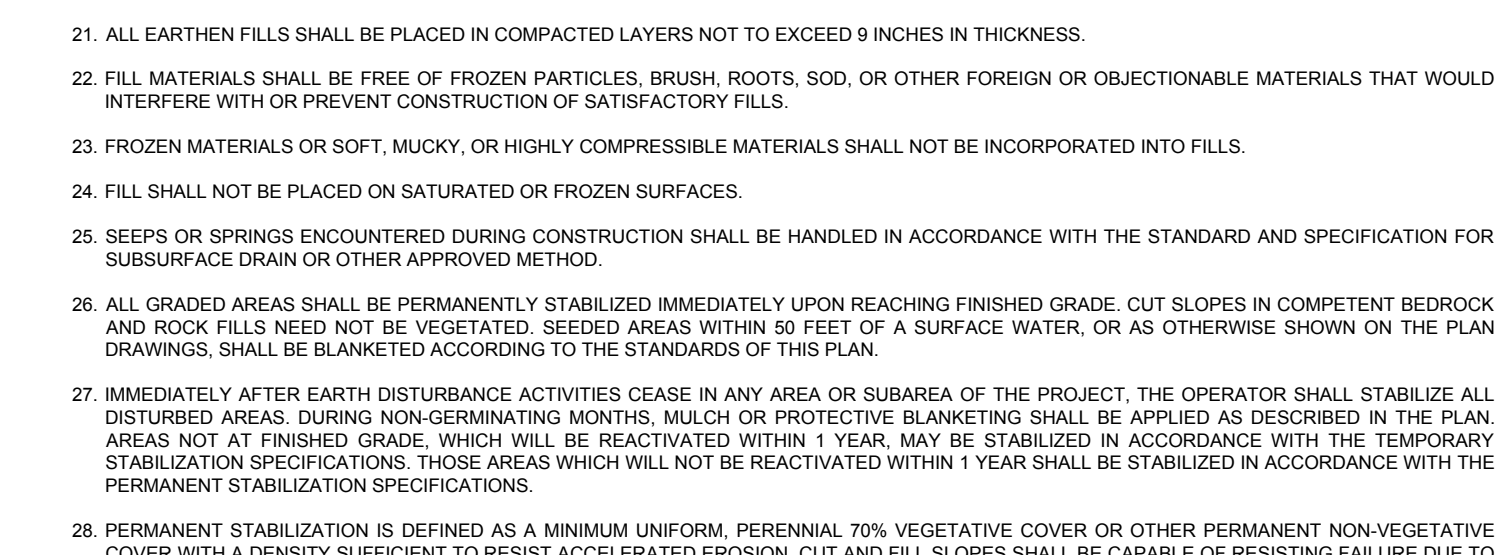
- IV. STANDARD FOR TEMPORARY STABILIZATION**
- STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH
    - MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING. IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
    - PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
    - GRADE AS NEEDED AND FEASIBLE. SEE STANDARDS FOR LAND GRADING.
    - PROTECTIVE MATERIALS TO BE USED.
      - UNROOTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORM AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      - HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS FROM WIND OR WATER. PRODUCTS WILL BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM), OR PER MANUFACTURER'S SPECIFICATIONS.
  - STANDARD FOR TEMPORARY STABILIZATION WITH SEED
    - DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
    - ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY.
    - SEEDBED PREPARATION FOR TEMPORARY SEEDING.
      - PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
      - APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE
      - APPLY 10-10-10 FERTILIZER AT RATE OF 500 POUNDS PER ACRE.
      - WORK LINE AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.
    - SEEDING. SEE SEEDING SPECIFICATIONS

- V. STANDARD FOR PERMANENT STABILIZATION**
- SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
    - SITE PREPARATION
      - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
      - SUBSOIL SHOULD BE TESTED FOR LIMB REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
      - IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
        - APPLYING TOPSOIL
        - TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
        - ALL DISTURBED TOPSOIL ON-SITES TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF TOPSOIL IS ALLOWED UNLESS APPROVED BY THE LOWER GWYNEDD TOWNSHIP. UNIFORM APPLICATION TO A DEPTH OF 6-8 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE.
        - SEEDBED PREPARATION
        - SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
        - PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
          - APPLY 10-20-20 BATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
          - APPLY AGRICULTURAL LIME AT A RATE OF 5 TONS PER ACRE OR 245 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
          - WORK LINE AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.
          - REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOSING, LUMPS OR OTHER UNSUITABLE MATERIAL.
          - INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
        - SEEDING. SEE SEEDING SPECIFICATIONS
        - SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG- HYDROMULCHING) AS OUTLINED IN ITEM IV A. HEREIN.

- STANDARD FOR PERMANENT STABILIZATION WITH SOD
  - METHODS AND MATERIALS
    - CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
    - SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
    - SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
    - SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED INSTALLED WITH A FIRM GRASP FROM THE UPPER END OF THE STRIP. BROKEN PADS OR TOP AND UNDEEN ENDS WILL NOT BE ACCEPTABLE.
    - A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
    - ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
  - SITE PREPARATIONS. SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
    - SOD PLACEMENT
      - SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD, DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
      - PLACE SOD STRIPS WITH SNG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
      - ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
      - ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
      - SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
      - IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
      - FOLLOW UP INSPECTION. AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED EAS PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL NOTIFY ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE EBS PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE EBS BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS EAS PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARED, GRUBBED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2:1 V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 26 PA. CODE 2601 ET SEQ 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OF UNSEEN BUILDING MATERIALS SHALL BE BURIED, BURNED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN EAS PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILM. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
- VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD NAME).
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, RE-MULCHING, AND RE-NETTING MUST BE PERFORMED IMMEDIATELY IF THE EBS BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT EBS BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEPED INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES; 6 TO 12 INCHES ON COMPACTED SOILS. PRIOR TO PLACEMENT OF TOPSOIL, AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FULL CUTOFFS SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOIL, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDING AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS. MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- EBS BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE EBS BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. THE OPERATOR SHALL ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- FAILURE TO CORRECTLY INSTALL EBS BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF EBS BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AND THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

- OPTIONAL NOTES**
- THE FOLLOWING NOTES SHOULD BE ADDED TO PLAN DRAWINGS AS APPLICABLE.
- CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
  - ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF A BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
  - EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3:1 V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.



**NOTES:**

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

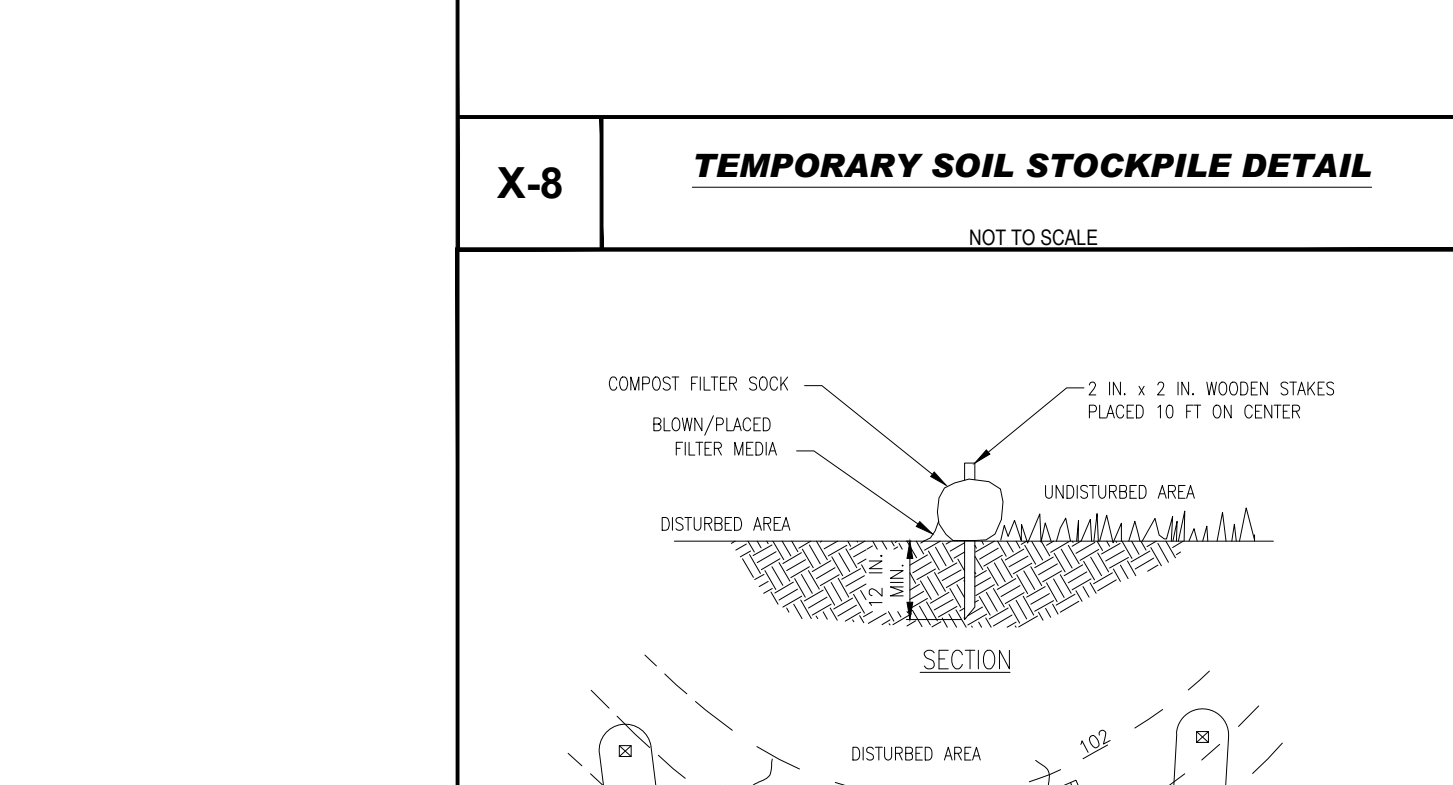
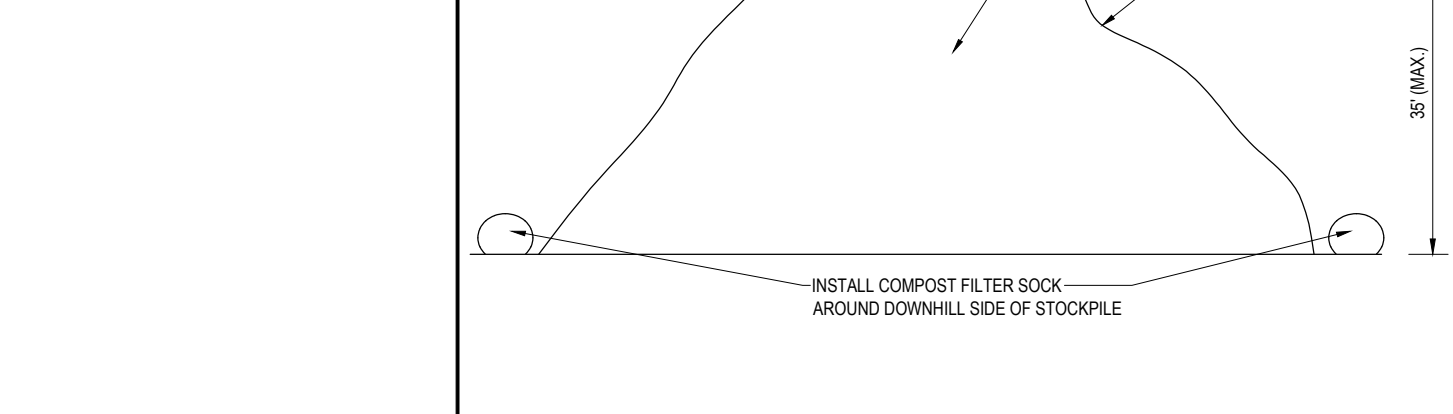
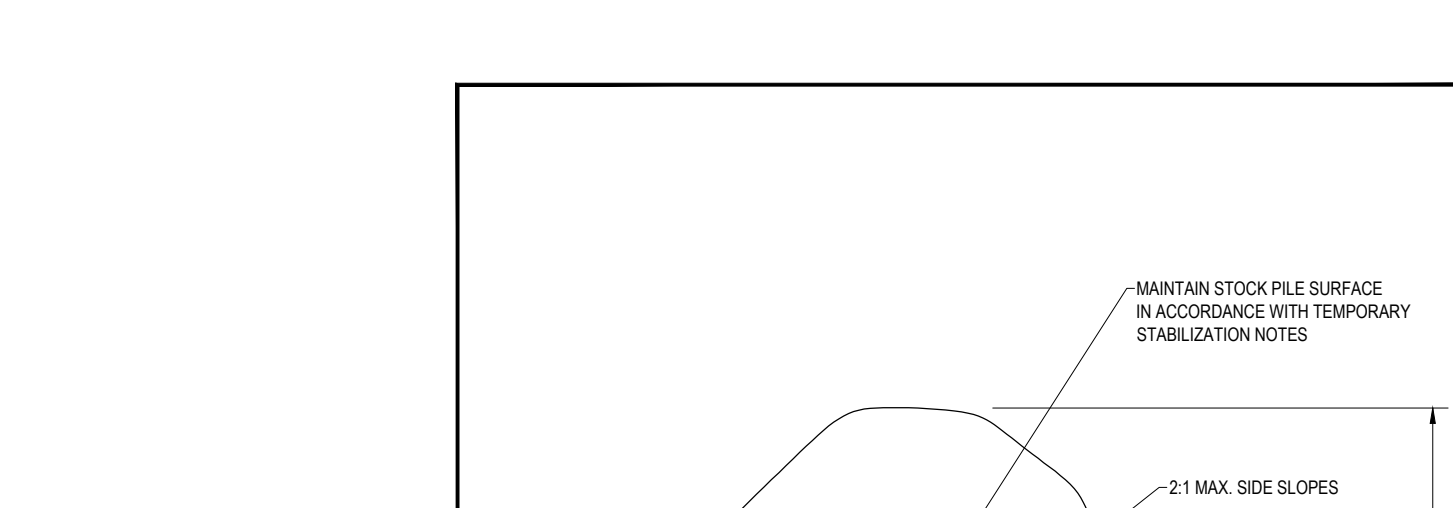
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AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS. A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

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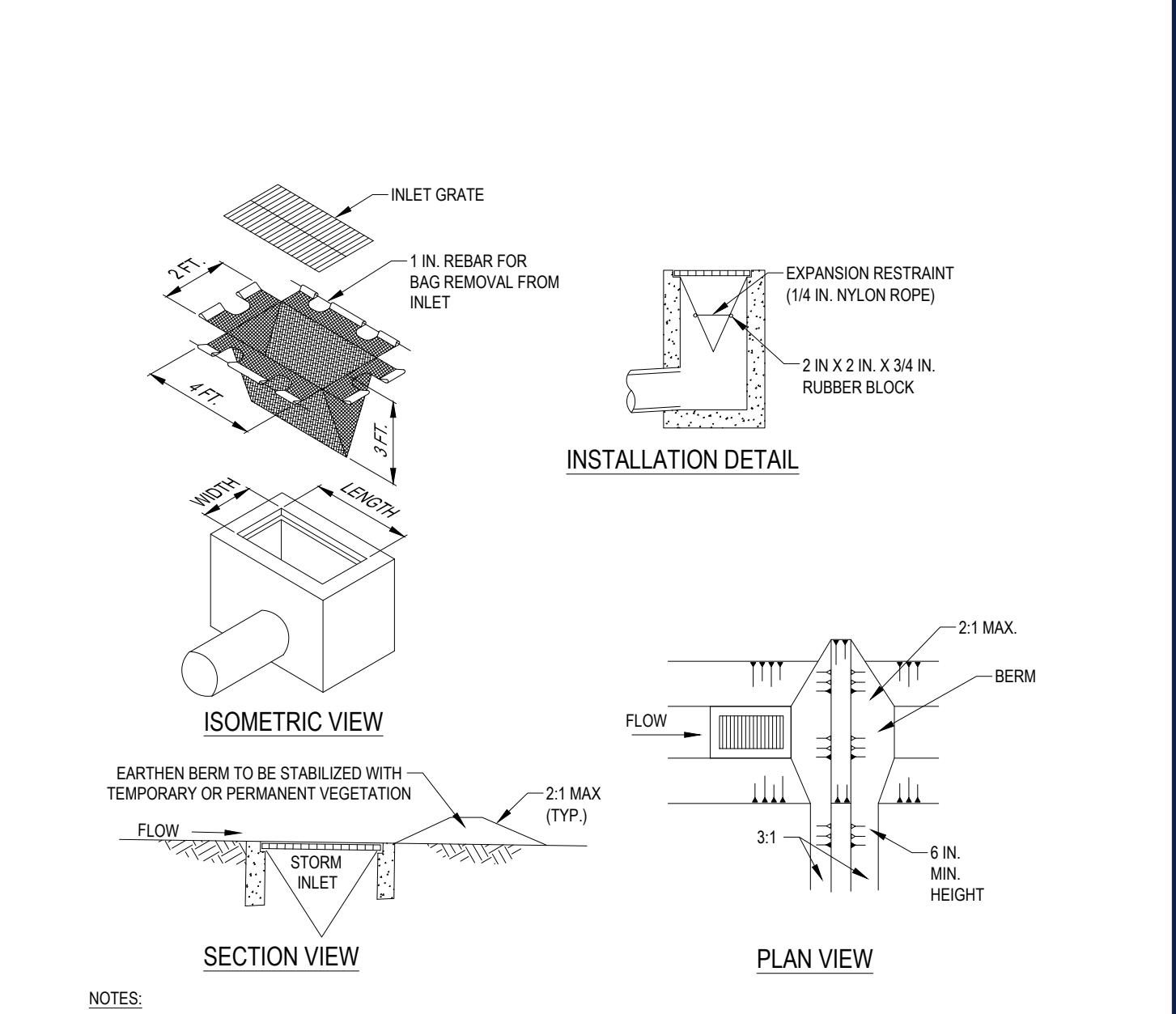
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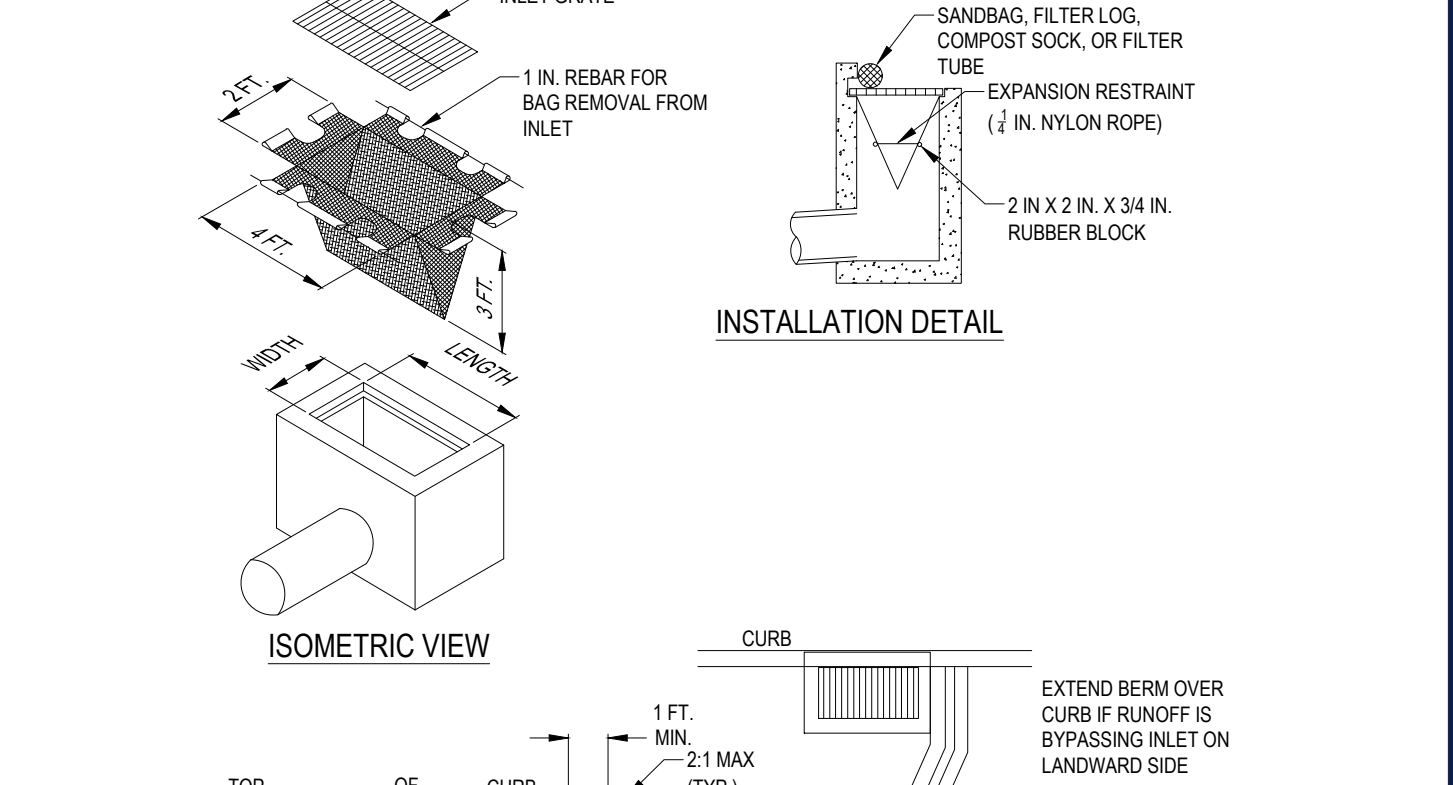
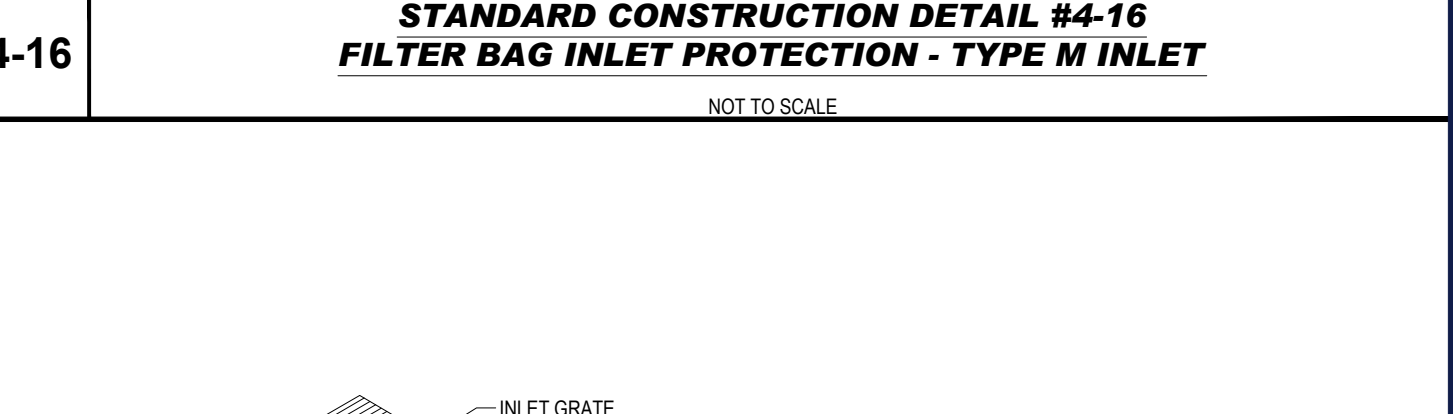
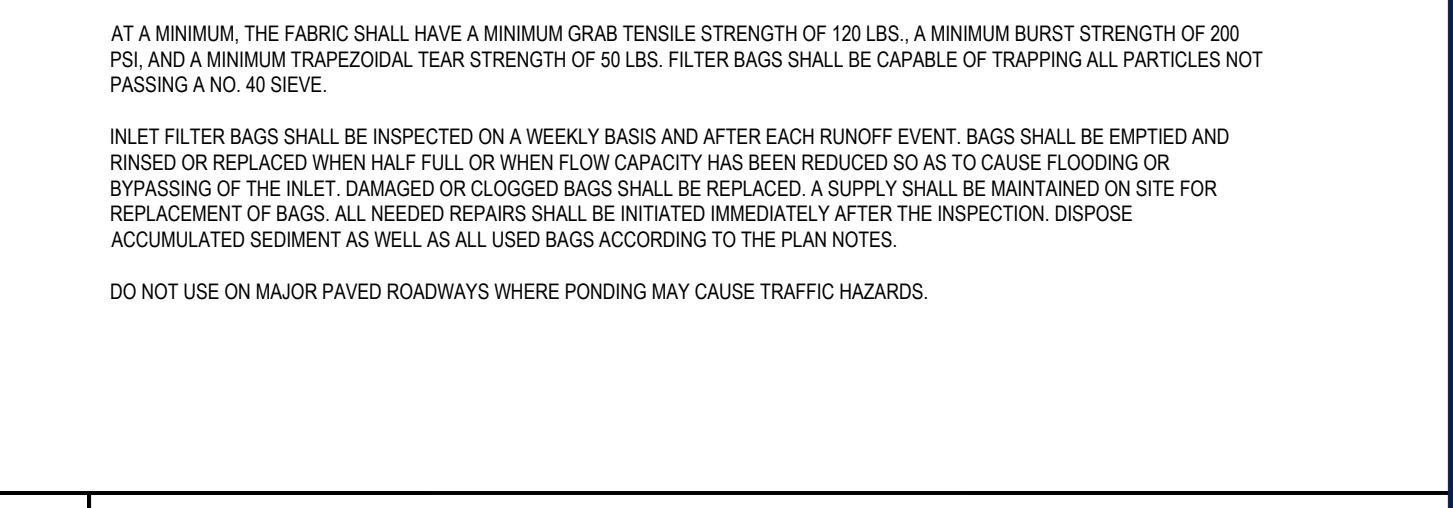
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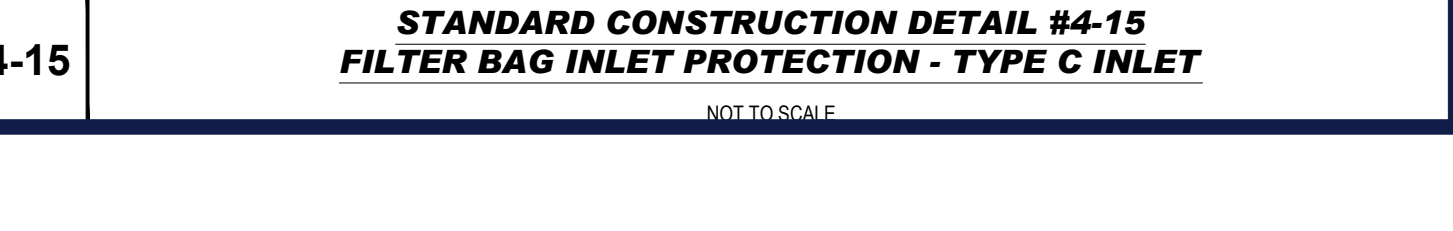
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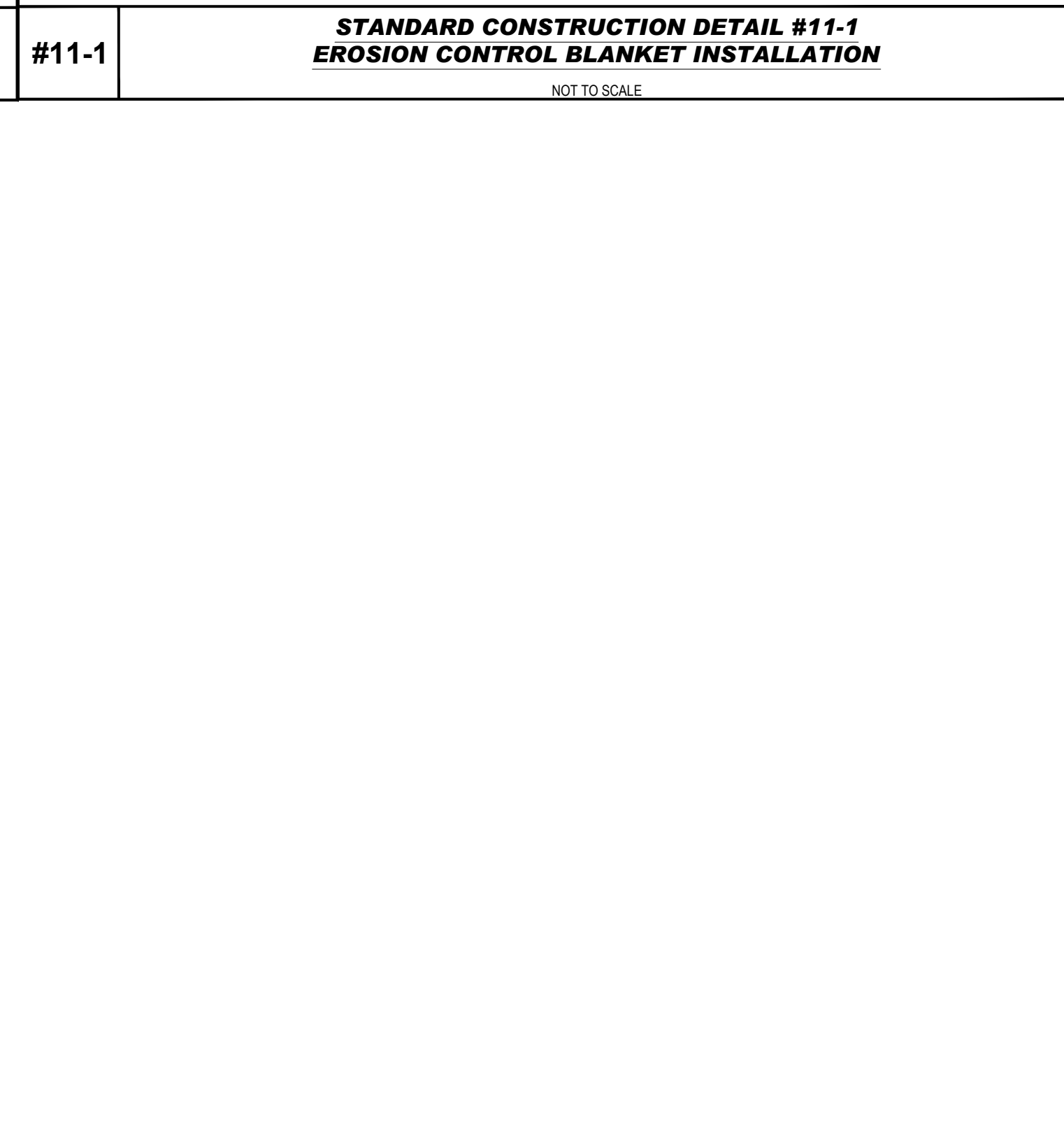
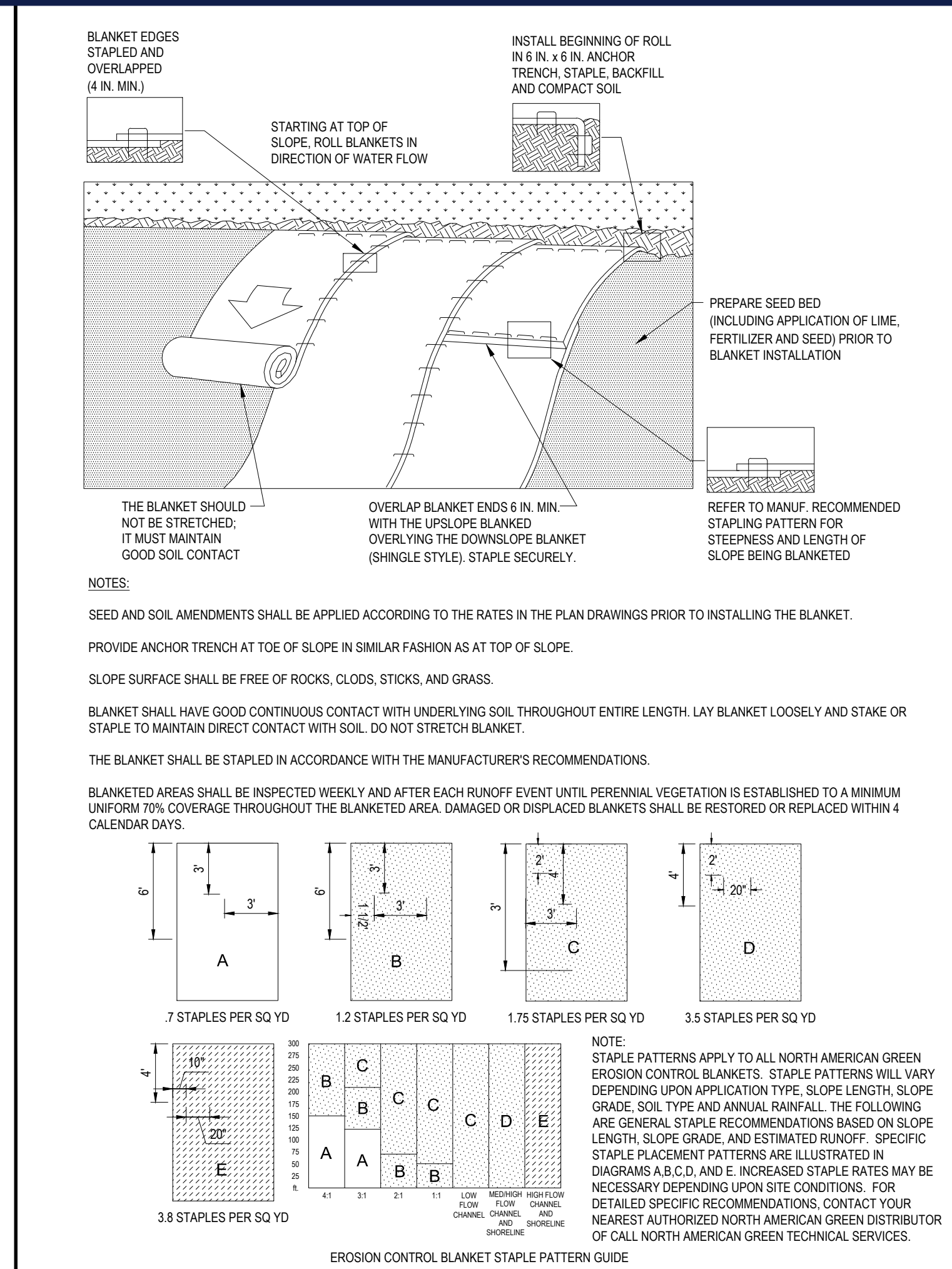
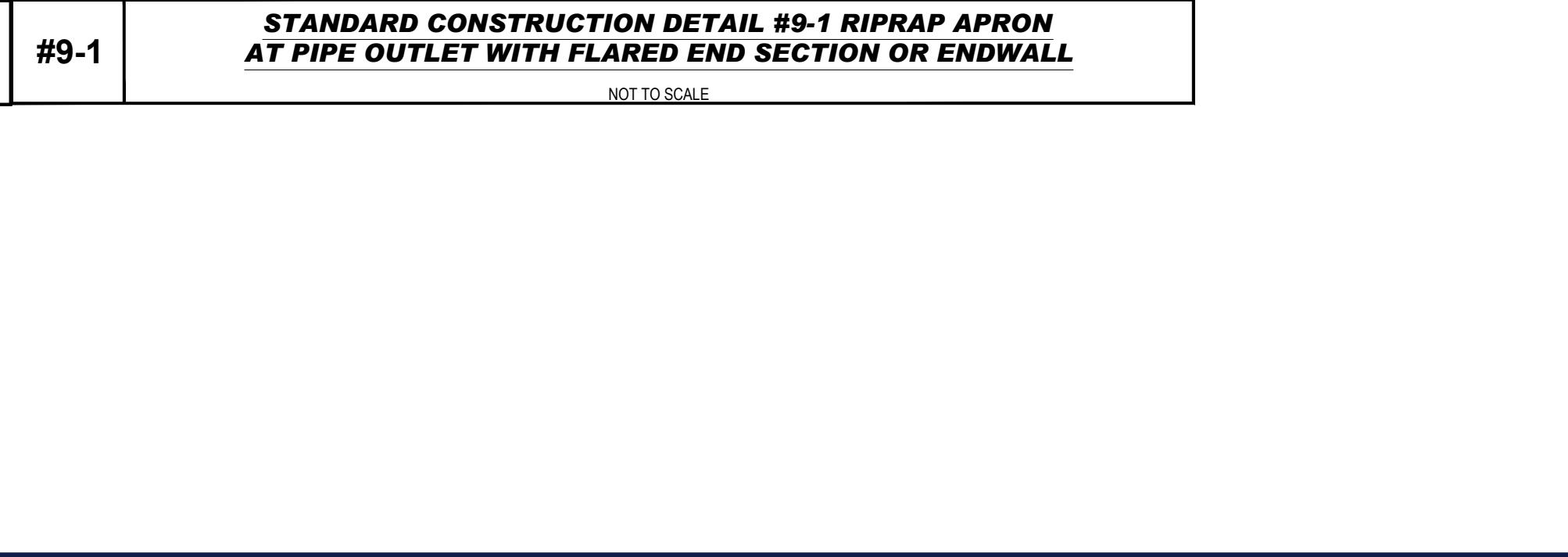
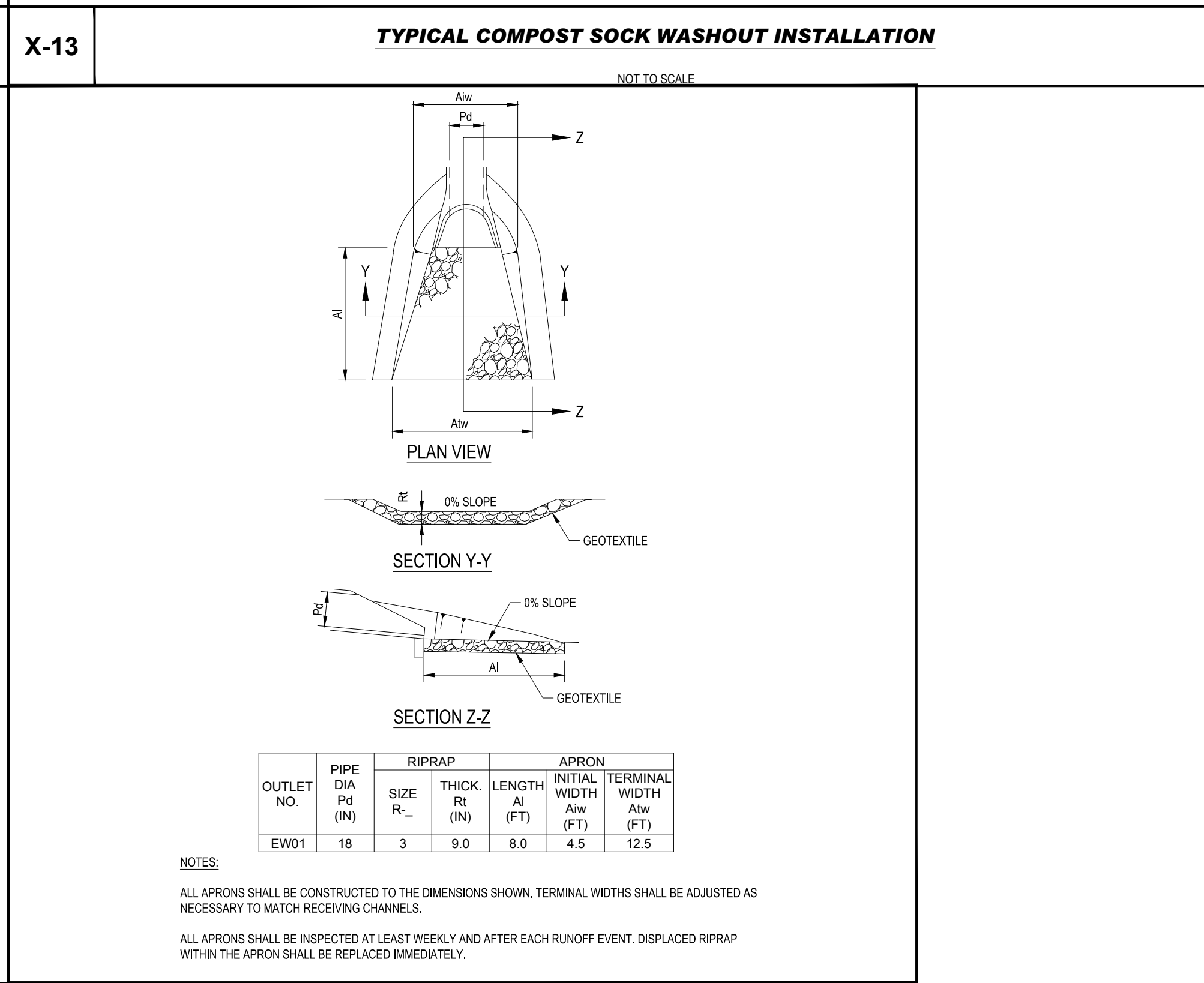
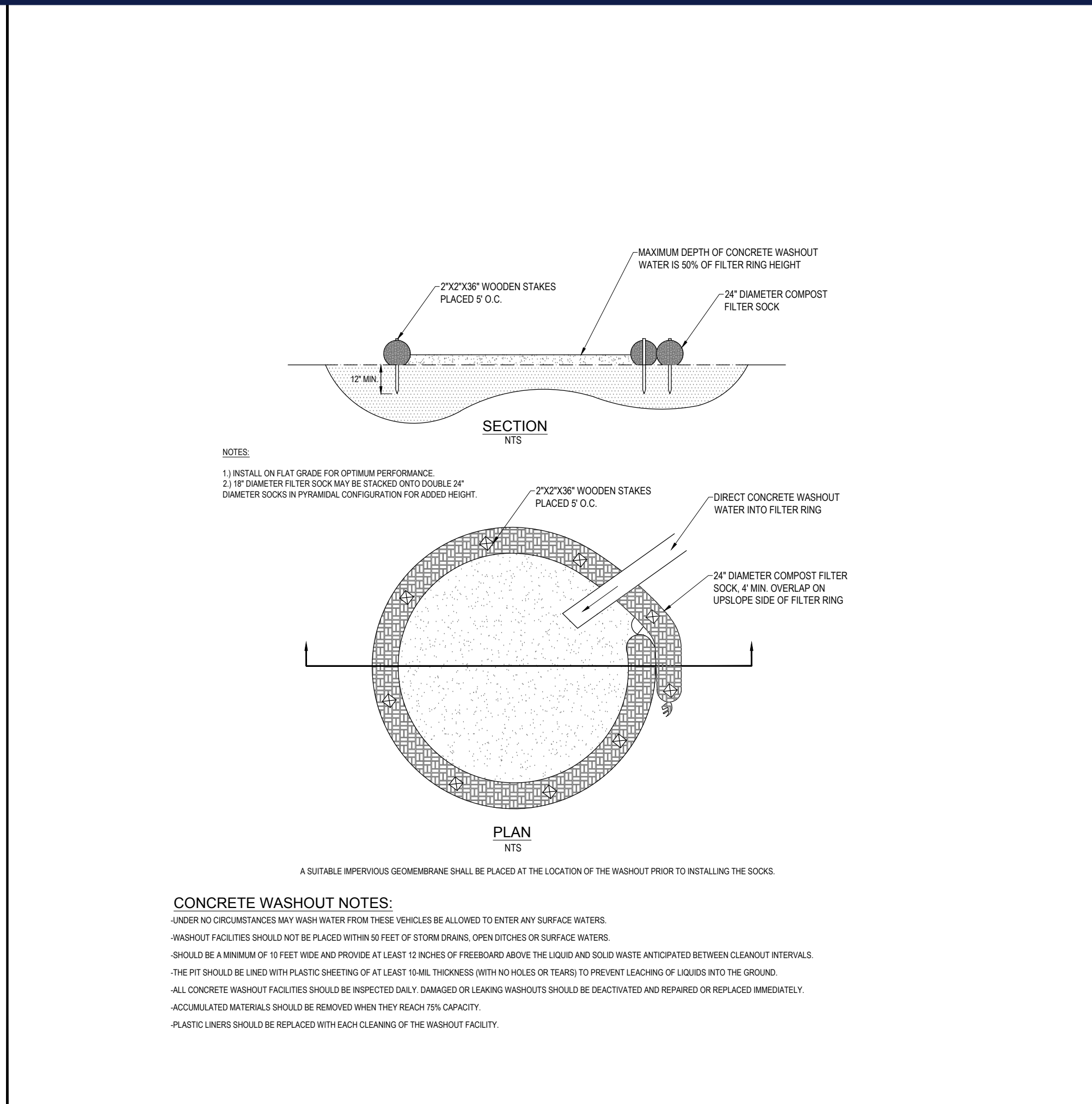
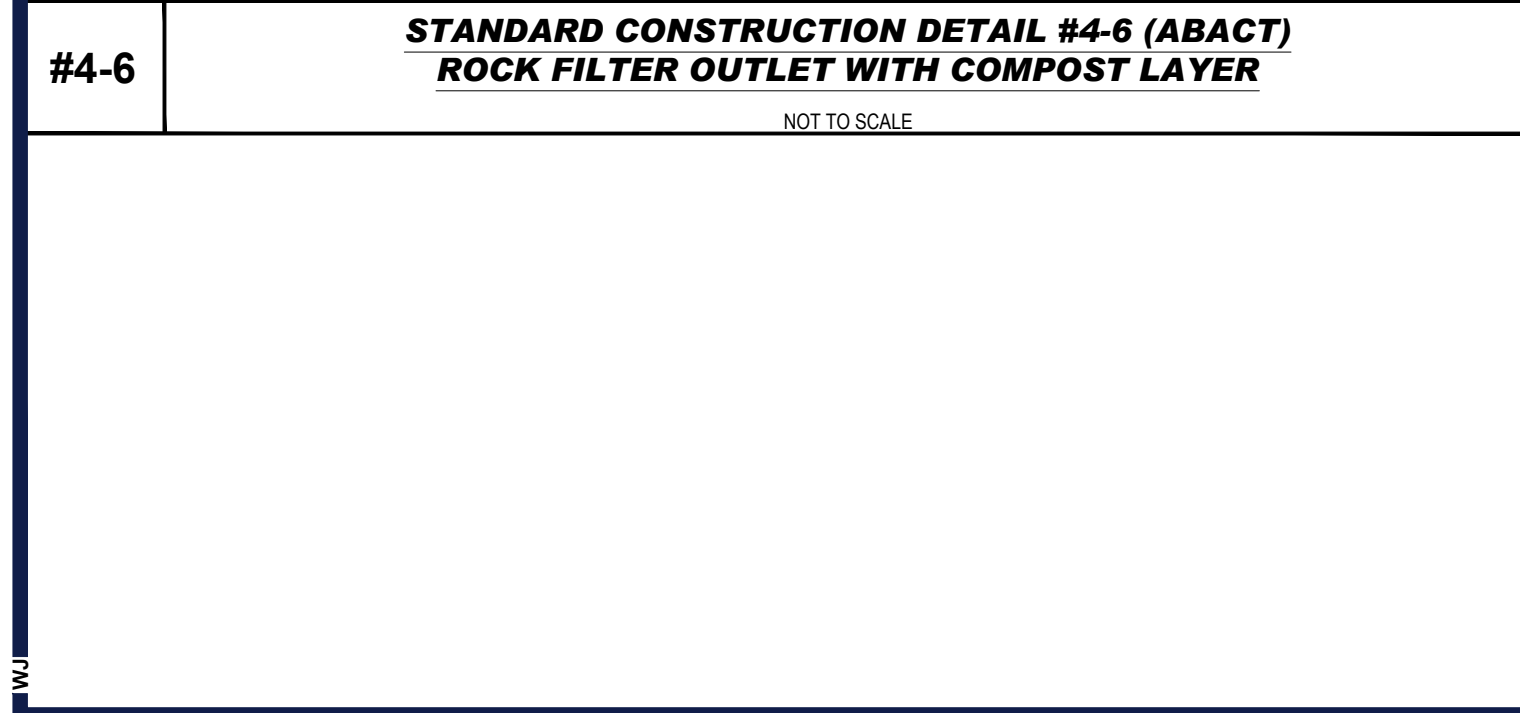
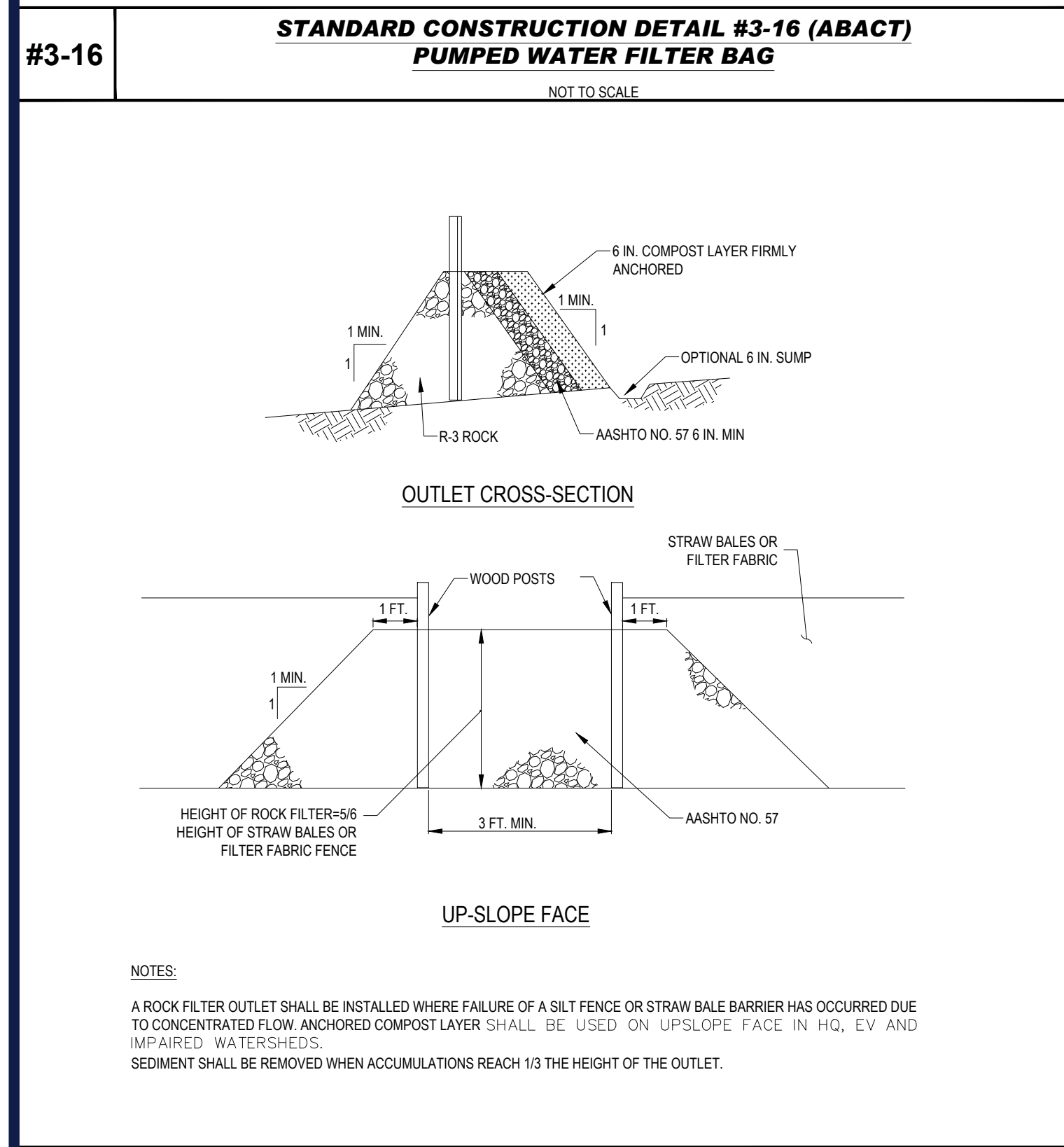
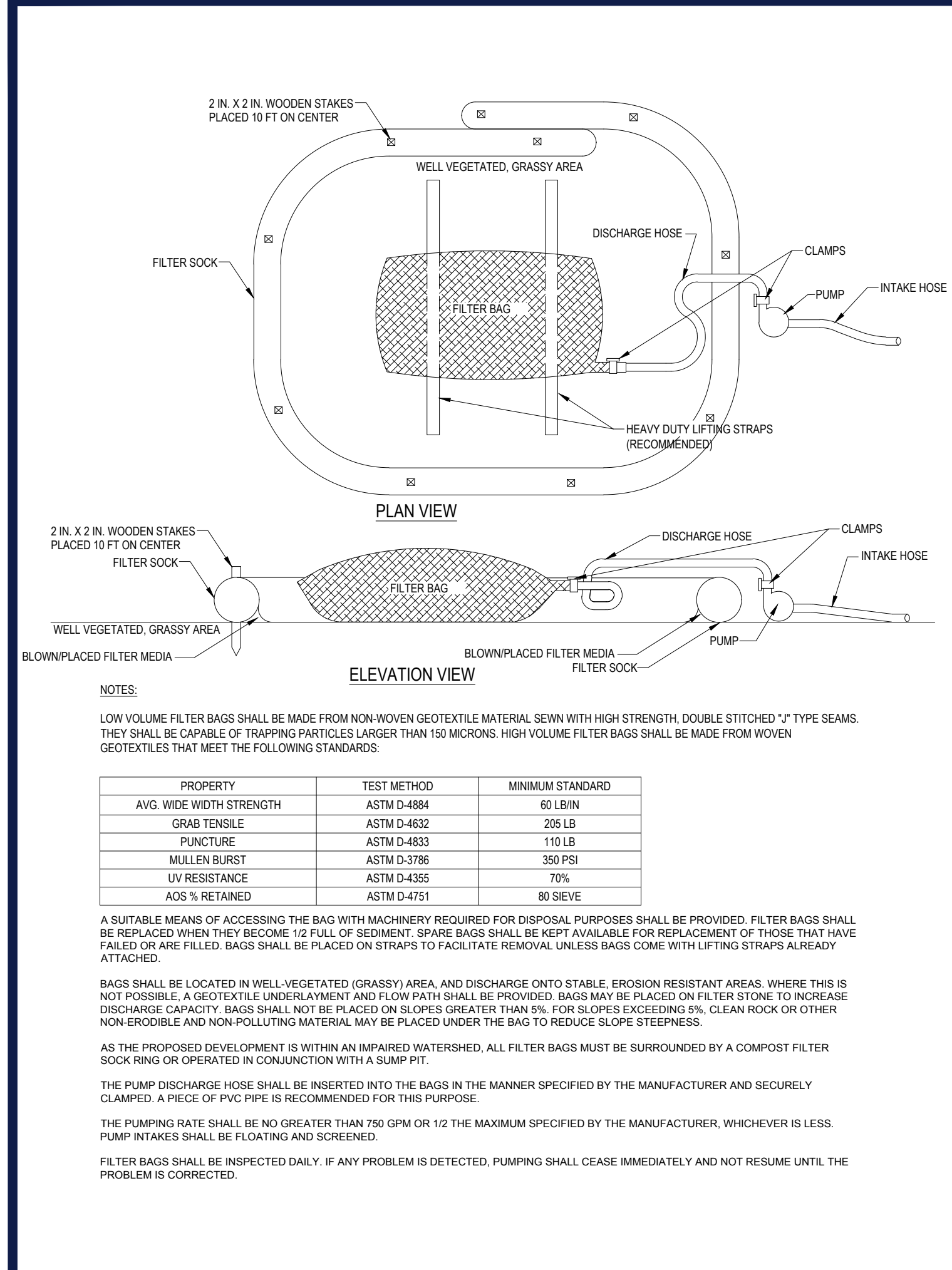
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PROJECT: PAA230019.03  
DRAWN BY: MCM  
CHECKED BY: WRR  
DATE: 6/28/2023  
CAD ID: PAA230019.03-CNDS-0A

**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**

FOR

**727 NORRISTOWN RD, LP**

BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS

727 NORRISTOWN RD  
LOWER GWYNEDD TOWNSHIP  
LOWER GWYNEDD, PA 19002  
MONTGOMERY COUNTY

**BOHLER**

1600 MANOR DRIVE, SUITE 200  
CHALFONT, PA 18914  
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**W. REARDEN**

PROFESSIONAL ENGINEER  
PENNSYLVANIA LICENSE # 000004348  
NEW JERSEY LICENSE # 230100004500

SHEET TITLE:  
**SOIL EROSION & SEDIMENT POLLUTION CONTROL NOTES & DETAILS**

SHEET NUMBER:  
**C-604**

12 OF 20

ORG. DATE - 6/28/2023

R:\2023\PA230019.03\CADD\DRAWINGS\PLAN SET\TRICHL SITE PLANS\PA230019.03-CNDS-0A.dwg - LAYOUT\_C-604.BEC.BEC NOTES & DETAILS

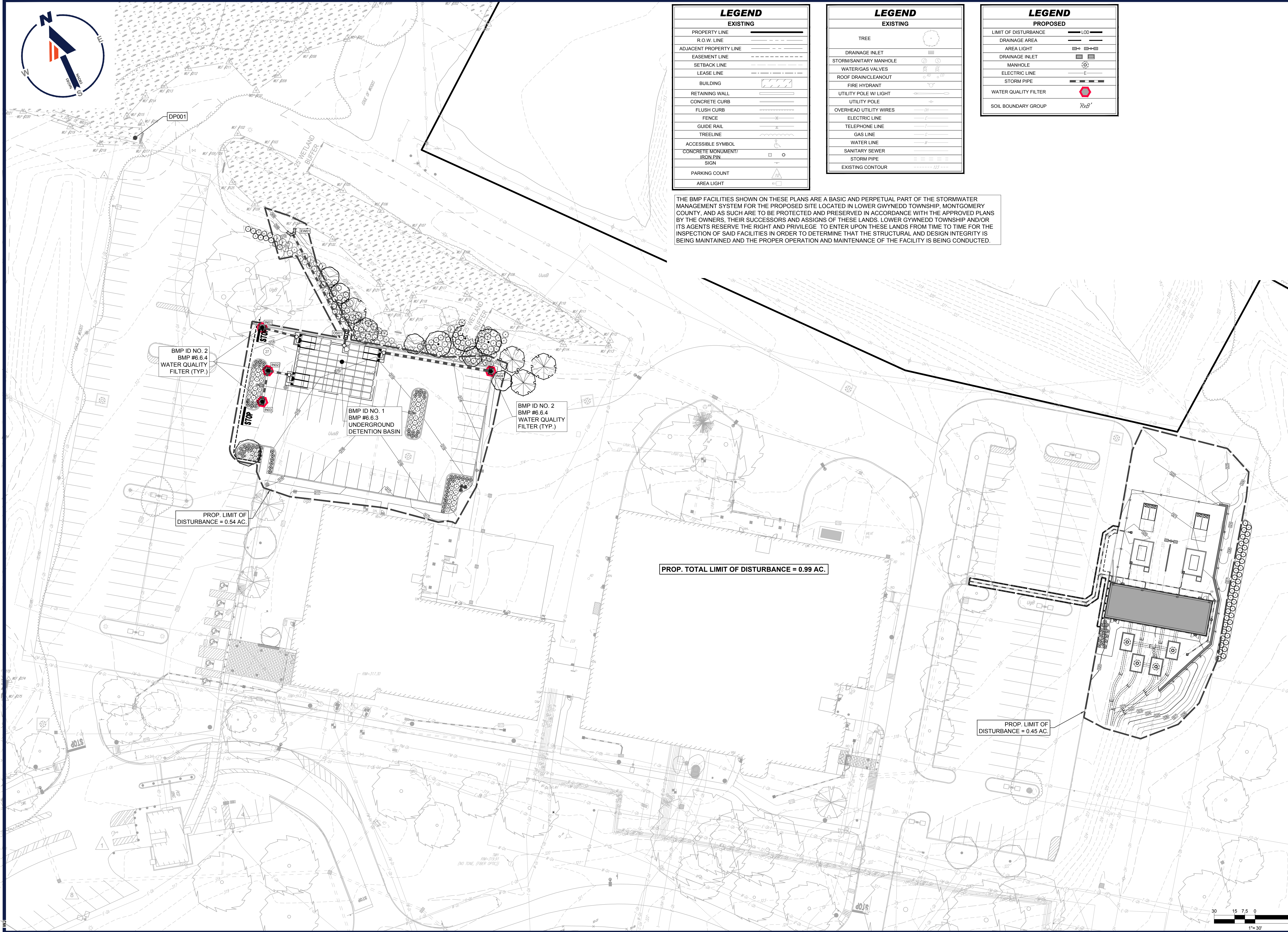


LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
SETBACK LINE	---
LEASE LINE	---
BUILDING	[Hatched Box]
RETAINING WALL	[Hatched Line]
CONCRETE CURB	[Dashed Line]
FLUSH CURB	[Dashed Line]
FENCE	[Dashed Line]
GUIDE RAIL	[Dashed Line]
TREELINE	[Wavy Line]
ACCESSIBLE SYMBOL	[Symbol]
CONCRETE MONUMENT/ IRON PIN	[Symbol]
SIGN	[Symbol]
PARKING COUNT	[Symbol]
AREA LIGHT	[Symbol]

LEGEND	
EXISTING	
TREE	[Circle]
DRAINAGE INLET	[Symbol]
STORM/SANITARY MANHOLE	[Symbol]
WATER/GAS VALVES	[Symbol]
ROOF DRAIN/CLEANOUT	[Symbol]
FIRE HYDRANT	[Symbol]
UTILITY POLE W/ LIGHT	[Symbol]
UTILITY POLE	[Symbol]
OVERHEAD UTILITY WIRES	[Symbol]
ELECTRIC LINE	[Symbol]
TELEPHONE LINE	[Symbol]
GAS LINE	[Symbol]
WATER LINE	[Symbol]
SANITARY SEWER	[Symbol]
STORM PIPE	[Symbol]
EXISTING CONTOUR	[Dashed Line]

LEGEND	
PROPOSED	
LIMIT OF DISTURBANCE	[Dashed Line]
DRAINAGE AREA	[Symbol]
AREA LIGHT	[Symbol]
DRAINAGE INLET	[Symbol]
MANHOLE	[Symbol]
ELECTRIC LINE	[Symbol]
STORM PIPE	[Symbol]
WATER QUALITY FILTER	[Symbol]
SOIL BOUNDARY GROUP	[Symbol]

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.



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REV	DATE	COMMENT	DRAWN BY

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 PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID: PAA230019.03-LDVP-0A

**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**  
 FOR  
**727 NORRISTOWN RD, LP**  
 BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS  
 727 NORRISTOWN RD  
 LOWER GWYNEDD TOWNSHIP  
 LOWER GWYNEDD, PA 19002  
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 NEW JERSEY LICENSE NO. 34694500

SHEET TITLE: **POST CONSTRUCTION STORMWATER MANAGEMENT PLAN**  
 SHEET NUMBER: **C-605**  
 13 OF 20  
 ORG. DATE - 6/28/2023

R:\2023\PA\230019.03\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\PA230019.03-LDVP-0A...LAYOUT\_C-605.PCSM



**PCSM - GENERAL BMP NOTES**

- 1. A SITE INSPECTION AND APPROVAL BY THE TOWNSHIP IS REQUIRED PRIOR TO THE REMOVAL OF SEDIMENT CONTROLS.
2. BOHLER ENGINEERING SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND BMP CONSTRUCTION SCHEDULE.
3. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE PROPOSED BMP BOTTOMS.
4. REFER TO THE BMP CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT BMPs.
5. REFER TO THE PCSWM PLAN AND DETAILS FOR SPECIFIC BMP CONSTRUCTION GUIDELINES.
6. AS-BUILT PLANS OF THE STORMWATER BMPs FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL SURVEYOR.

**LONG-TERM OPERATION AND MAINTENANCE SCHEDULE**

- §102.8(f)(10)
1. UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AS SPECIFIED. 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.
2. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE 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 UPON REQUEST.
3. SHOULD ON-SITE EROSION OCCUR FROM THE LANDSCAPED AREAS, THE SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE INLETS AND STORMWATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.
4. HEAVY CONSTRUCTION VEHICLES SHALL NOT BE PARKED ON OR DRIVEN OVER BMP FACILITIES AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY EQUIPMENT, INCLUDING MOWERS.
5. AFTER RUNOFF EVENTS, INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SIGNS OF EROSION.
6. REMOVE ACCUMULATED SEDIMENT FROM THE FACILITIES AS REQUIRED AND PROPERLY DISPOSE OF SEDIMENT AS SPECIFIED.
727 NORRISTOWN RD, LP IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT BMPs AS DESCRIBED HEREIN.

**RIPARIAN FOREST BUFFER MANAGEMENT PLAN**

§102.8(f)(14)
REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING:
• THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.

**RECYCLING OR DISPOSAL OF MATERIALS**

§102.8(f)(11)
THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE:
- TRASH (CANS, BOTTLES, ETC.)
- YARD WASTE (LEAVES, GRASS CLIPPINGS, ETC.)
- ANTI-CING MATERIALS
- DEBRIS COLLECTED IN INLETS
- SEDIMENT CAPTURED IN ANY PCSM BMP

1) SOLID WASTE DISPOSAL - NO SOLID MATERIALS ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS, MUST 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.
2) COMPOSTING - MATERIALS SUCH AS YARD WASTE THAT ARE BIO-DEGRADABLE CAN BE COMPOSTED AND SOIL ON SITE TO RESTORE SOIL NUTRIENTS FOR THE VEGETATION.

**SEQUENCE OF BMP INSTALLATION AND REMOVAL**

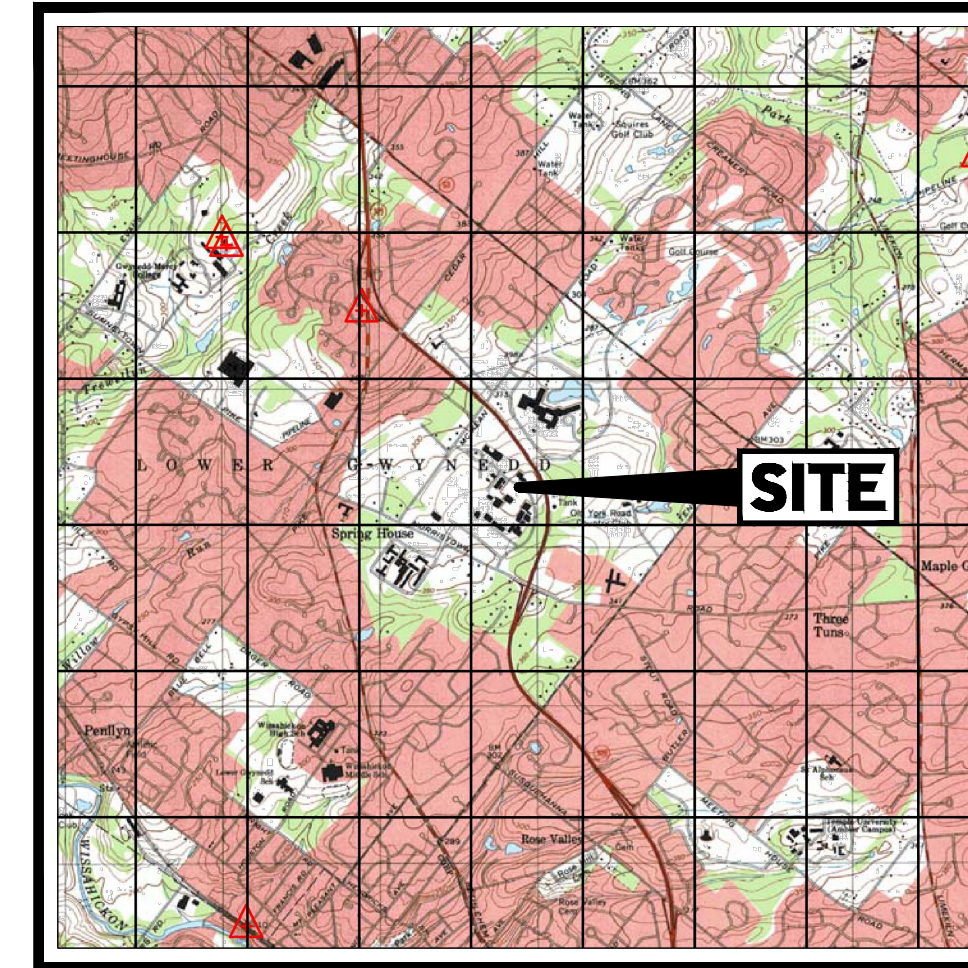
- §102.4(b)(5)(vii)
ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OF TEMPORARY SECTION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF LOWER GWYNEDD TOWNSHIP FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.
BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EAS CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM LOWER GWYNEDD TOWNSHIP. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. 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.
1. ALL CONSTRUCTION TRAFFIC MUST ENTER THE SITE FROM NORRISTOWN ROAD. CONSTRUCTION TRAFFIC WILL NOT BE PERMITTED FROM MCKEAN ROAD.
2. INSTALL ALL PERIMETER COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
3. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. ALL EXCAVATED MATERIAL FROM TRENCHES TO BE PLACED ON THE UP-SLOPE SIDE OF THE EXPOSED TRENCH. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDING AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND FILLING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
4. INITIATE STORM SEWER AND SUBSURFACE BASIN INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. SEE ADDITIONAL DETENTION BASIN SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE DETENTION BASIN, MUST BE CONDUCT THE OVERSIGHT. ALL CAPPED INLETS DISCHARGING TO THE UNDERGROUND, INLETS DISCHARGING TO SUBSURFACE DETENTION BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASIN. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASIN TO AVOID DAMAGING THE SUBSURFACE BASIN OR OVER-COMPACTING THE SUBSURFACE SOILS.
5. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION WHERE APPLICABLE.
6. INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.
7. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
8. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
9. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
10. UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE LOWER GWYNEDD TOWNSHIP, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES INCLUDING COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION. AT THIS TIME, ALL CAPPED INLETS DISCHARGING TO THE UNDERGROUND DETENTION BASIN SHALL BECOME FUNCTIONAL. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
11. CRITICAL STAGE: INSTALL ALL WATER QUALITY INSERTS PER NOTES PROVIDED ON THE PCSM DETAIL SHEETS. THE INSTALLATION OF THE FILTER INSERTS SHALL BE IN ACCORDANCE WITH THE DIRECTION AND RECOMMENDATIONS FROM THE MANUFACTURER. THE OWNER SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE INSTALLATION OF THE WATER QUALITY FILTERS. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND INSTALLATION OF THE WATER QUALITY INSERTS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
12. CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ. 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.
13. DEMOBILIZE.

**LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER CHAPTER 93**

§102.4(b)(5)(v)
THE SUBJECT SITE DRAINS TO WILLOW RUN, WHICH HAS A TSF (TROUT STOCKING) & MF (MIGRATORY FISHES) CHAPTER 93 CLASSIFICATION.

**CRITICAL STAGES**

- SUBSURFACE DETENTION BASIN INSTALLATION (A LICENSED PROFESSIONAL WILL OVERSEE THE BMP INSTALLATION FROM SUBGRADE PREPARATION TO COMPLETION)
• WATER QUALITY INSERTS INSTALLATION



**USGS MAP**  
SCALE: 1" = 1,000'



**SOIL MAP**  
NOT TO SCALE

**TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS**

§102.4(b)(5)(ii)

Table with 3 columns: SOIL, DESCRIPTION, SOIL GROUP. Rows include Ugb (URBAN LAND, 0 TO 8 PERCENT SLOPES, N/A) and UusB (URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES, B).

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

**LIMITATIONS FOR PENNSYLVANIA SOILS PERTAINING TO EARTH DISTURBANCE PROJECTS**

Table with 18 columns: SOIL NAME, CUT/BANKS, CORROSIVE TO CONCRETE, DROUGHT, FLOODING, INFILTRATION, INCLUSIONS, LOW STRENGTH, PERCOLATION, PIPING, POOR SOURCE OF FERTILITY, FROST ACTION, SHRINK-SWELL, SENSITIVE TO SOILWORK, PONDING, WETNESS. Rows include UDORTHENTS and URBANA.

**GEOLOGIC FORMATIONS/ SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION**

§102.4(b)(5)(xii)

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

LONG-TERM OPERATION AND MAINTENANCE SCHEDULE table with 5 columns: BMP, SCHEDULE, INSPECTION TASK, MAINTENANCE, FAILURE INDICATORS. Rows include Stormwater Management Basin, BMP 6.6.3 Subsurface Dry Extended Detention Basin, BMP 6.6.4 Water Quality Filters & Hydrodynamic Devices, and BMP 6.7.2 Landscape Restoration.

R:\3023\PA\320819.03\CAD\DRAWINGS\PLAN SET\TRICHI\ SITE PLANS\PA\320819.03-CNDS-0A.dwg...LA\YOUT\_C-606.PCSM NOTES & DETAILS



**REVISIONS**

Table with 5 columns: REV, DATE, COMMENT, DRAWN BY, CHECKED BY.

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Table with 2 columns: PROJECT No., DRAWN BY, CHECKED BY, DATE, CAD ID. Values include PAA230019.03, MCM, WRR, 6/28/2023, PAA230019.03-CNDS-0A.

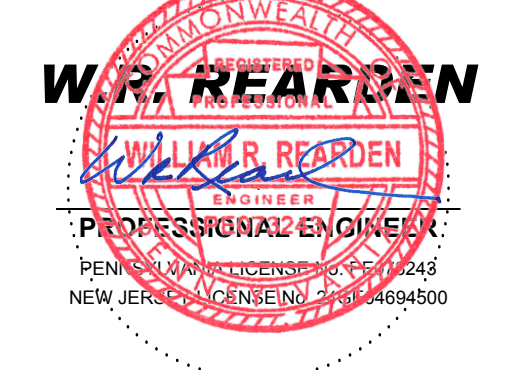
**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS FOR**

**727 NORRISTOWN RD, LP**

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**POST CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS**

SHEET NUMBER: **C-606**

14 OF 20

ORG. DATE - 6/28/2023



**GENERAL LIGHTING NOTES**

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
3. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-ALIGNING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNERS ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNERS.
6. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEERS AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
7. THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE PROFESSIONAL OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
8. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDS AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
9. UPON OWNERS ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
10. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
11. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO BOHLER FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.

**CALCULATION SUMMARY**

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVGMIN	MAXMIN
ALL POINTS	ILLUMINANCE	Fc	1.95	24.2	0.0	N/A	N/A
NEW - PARKING	ILLUMINANCE	Fc	1.57	6.0	0.3	3.14	12.00

**LUMINAIRE SCHEDULE**

LABEL	QTY	MOUNTING HEIGHT	ARRANGEMENT	LUM. LUMENS	LLF	DESCRIPTION	POLE	FOUNDATION DETAIL
P5	2	18'-0" AFG	SINGLE	18056	0.900	UTOPIA LIGHTING, LAP-2G LED AREA LUMINAIRE, TYPE 5, ZERO UP-LIGHT (LAP-2G-141LED-30K-T5-DM-x-PMR4-PSC-BLE-SR)	W/M ROUND STRAIGHT ALUMINUM POLE, 15'-6" LENGTH (RA-400-11-15.5-BK-DM10-8C)	1.3, 30" FOUNDATION
P4-D	1	15'-0" AFG	BACK-BACK	17655	0.900	UTOPIA LIGHTING, LAP-2G LED AREA LUMINAIRE, TYPE 4, ZERO UP-LIGHT (LAP-2G-141LED-30K-T4-DM-x-PMR4-PSC-BLE-SR)	W/M ROUND STRAIGHT ALUMINUM POLE, 12'-6" LENGTH (RA-400-11-12.5-BK-DM28-6C)	1.3, 30" FOUNDATION
W3	4	10'-0" AFF	SINGLE	4143	0.900	CREE LIGHTING, THE EDGE SERIES LED SECURITY WALL PACK LUMINAIRE, TYPE 3M, ZERO UP-LIGHT (SEC-EDG-3M-WM-04-E-x-x-350-300-x)	-----	-----



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PROJECT No.: PAA230019.03  
 DRAWN BY: MCM  
 CHECKED BY: WRR  
 DATE: 6/28/2023  
 CAD ID.: PAA230019.03-LLGT-04

**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS**  
 FOR  
**727 NORRISTOWN RD, LP**  
 BUILDING 14 & ELECTRIC SUBSTATION IMPROVEMENT PLANS  
 727 NORRISTOWN RD  
 LOWER GWYNEDD TOWNSHIP  
 LOWER GWYNEDD, PA 19002  
 MONTGOMERY COUNTY

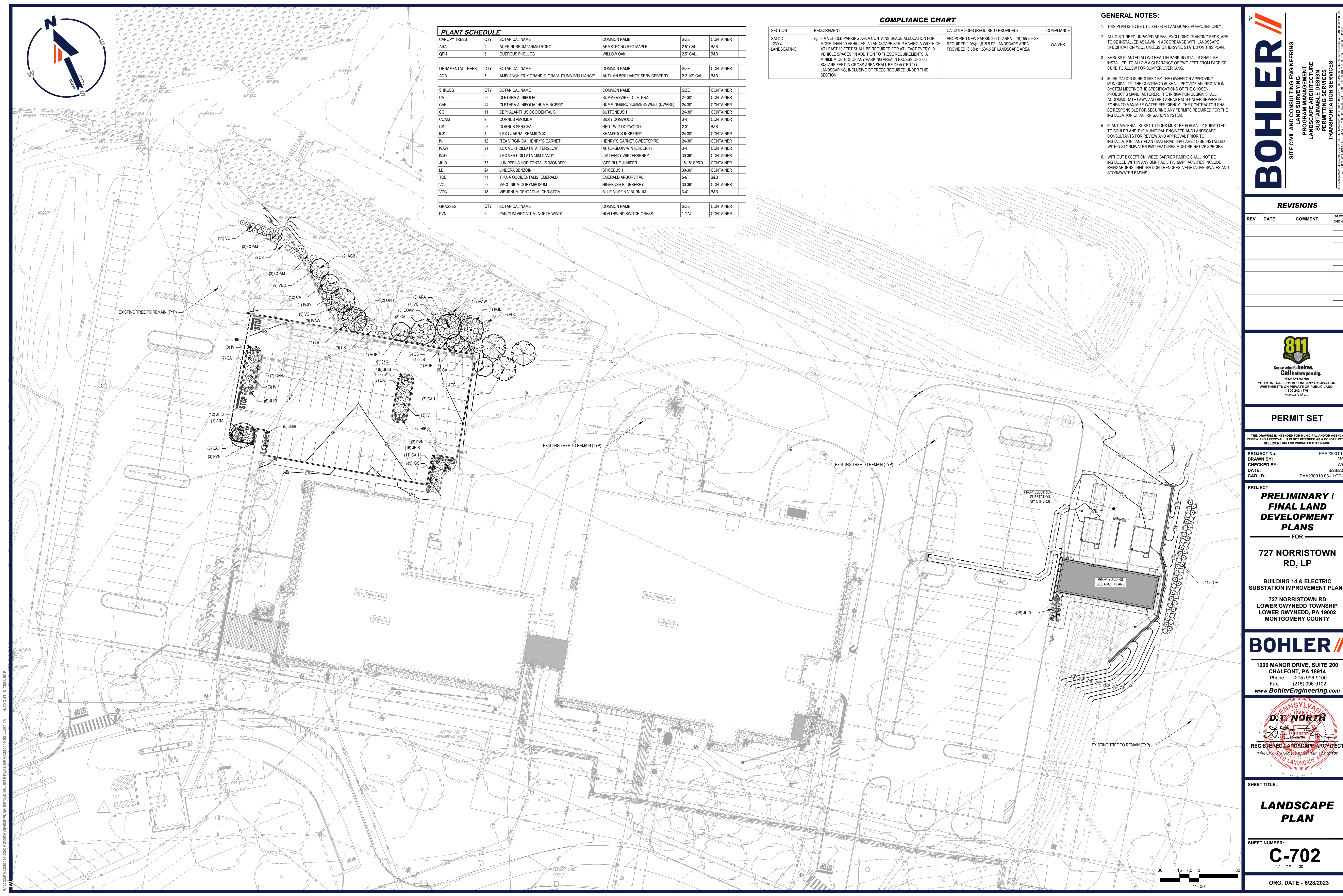
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**D.F. NORTH**  
 REGISTERED LANDSCAPE ARCHITECT  
 PENNSYLVANIA LICENSE NO. 107629  
 REGISTERED LANDSCAPE ARCHITECT

SHEET TITLE:  
**LIGHTING PLAN**  
 SHEET NUMBER:  
**C-701**  
 16 OF 20  
 ORG. DATE - 6/28/2023



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### COMPLIANCE CHART

SECTION	REQUIREMENT	CALCULATIONS (REQUIRED / PROVIDED)	COMPLIANCE
SALDO: 1230.41 LANDSCAPING	(g) IF A VEHICLE PARKING AREA CONTAINS SPACE ALLOCATION FOR MORE THAN 10 VEHICLES, A LANDSCAPE STRIP HAVING A WIDTH OF AT LEAST 10 FEET SHALL BE REQUIRED FOR AT LEAST EVERY 10 VEHICLE SPACES. IN ADDITION TO THESE REQUIREMENTS, A MINIMUM OF 10% OF ANY PARKING AREA IN EXCESS OF 2,000 SQUARE FEET IN GROSS AREA SHALL BE DEVOTED TO LANDSCAPING, INCLUSIVE OF TREES REQUIRED UNDER THIS SECTION.	PROPOSED NEW PARKING LOT AREA = 18,155.4 ± SF REQUIRED (10%): 1,815.5 SF LANDSCAPE AREA PROVIDED (8.5%): 1,534.5 SF LANDSCAPE AREA	WAIVER

### GENERAL NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
2. ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C., UNLESS OTHERWISE STATED ON THIS PLAN.
3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
4. IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
6. WITHOUT EXCEPTION, NEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

### PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
ARA	4	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2.5' CAL.	B&B
DPH	5	QUERCUS PHELLOS	WILLOW OAK	2.5' CAL.	B&B
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
AGB	5	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2.2 1/2' CAL.	B&B
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CA	29	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	24.30"	CONTAINER
CAH	44	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET (DWARF)	24.30"	CONTAINER
CO	11	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	24.30"	CONTAINER
COAM	9	CORNUS AMOMUM	SILKY DOGWOOD	3.4'	CONTAINER
CS	23	CORNUS SERICEA	RED TWIG DOGWOOD	2.3'	B&B
IGS	5	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	24.30"	CONTAINER
IV	12	ILEX VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPICE	24.30"	CONTAINER
IVAW	2	ILEX VERTICILLATA 'AFTERGLOW'	AFTERGLOW WINTERBERRY	3.4'	CONTAINER
IVJD	2	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY	30.36"	CONTAINER
JHB	73	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD.	CONTAINER
LB	24	LINDERA BENZON	SPICEBUSH	30.36"	CONTAINER
TOE	41	THUJA OCCIDENTALIS 'EMERALD'	EMERALD ARBORVITAE	5.6'	B&B
VC	23	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	30.36"	CONTAINER
VDC	18	VIBURNUM DENTATUM 'CHRISTOM'	BLUE MUFFIN VIBURNUM	3.4'	B&B
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
PVN	6	PANICUM VIRGATUM 'NORTH WIND'	NORTHWIND SWITCH GRASS	1 GAL.	CONTAINER

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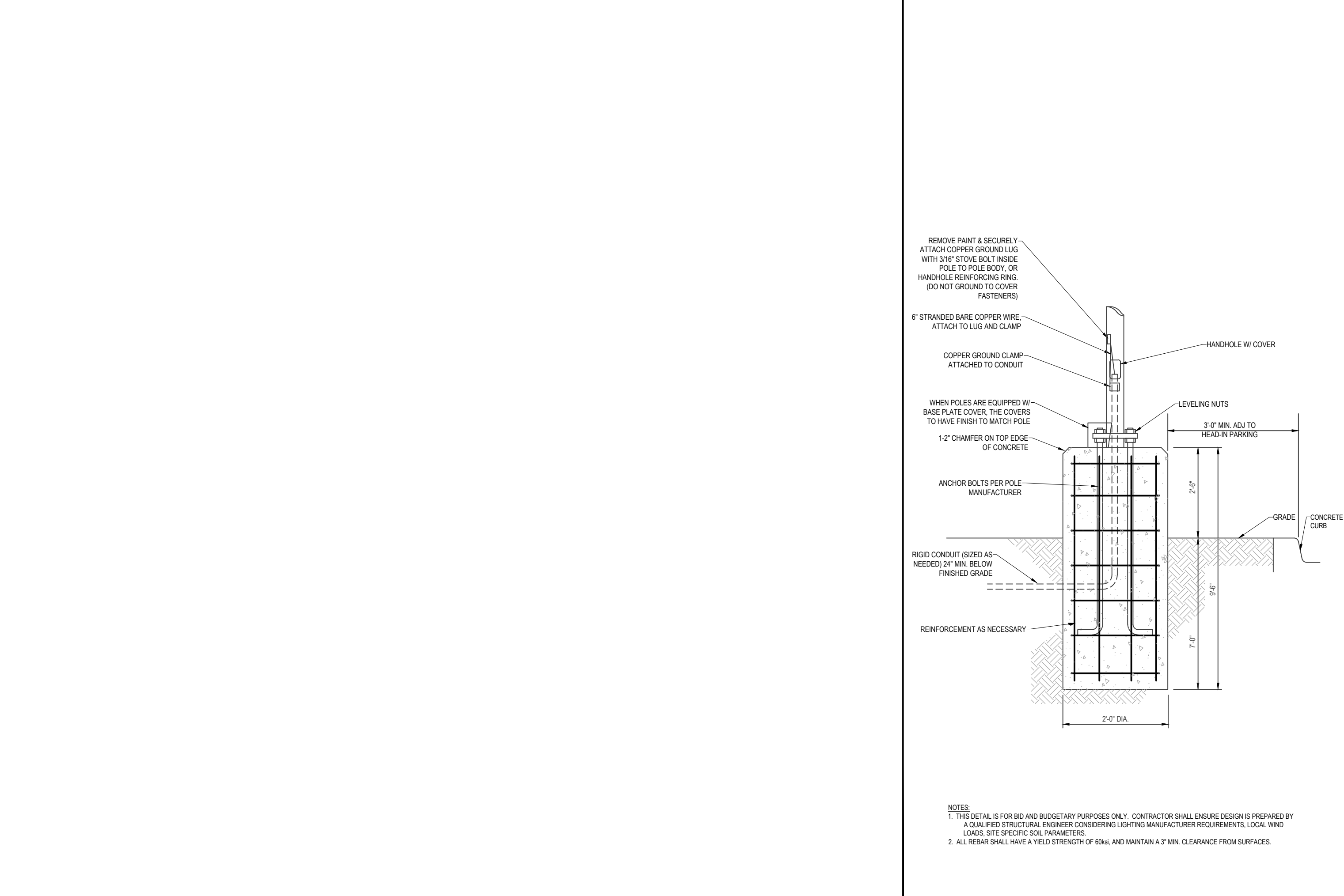
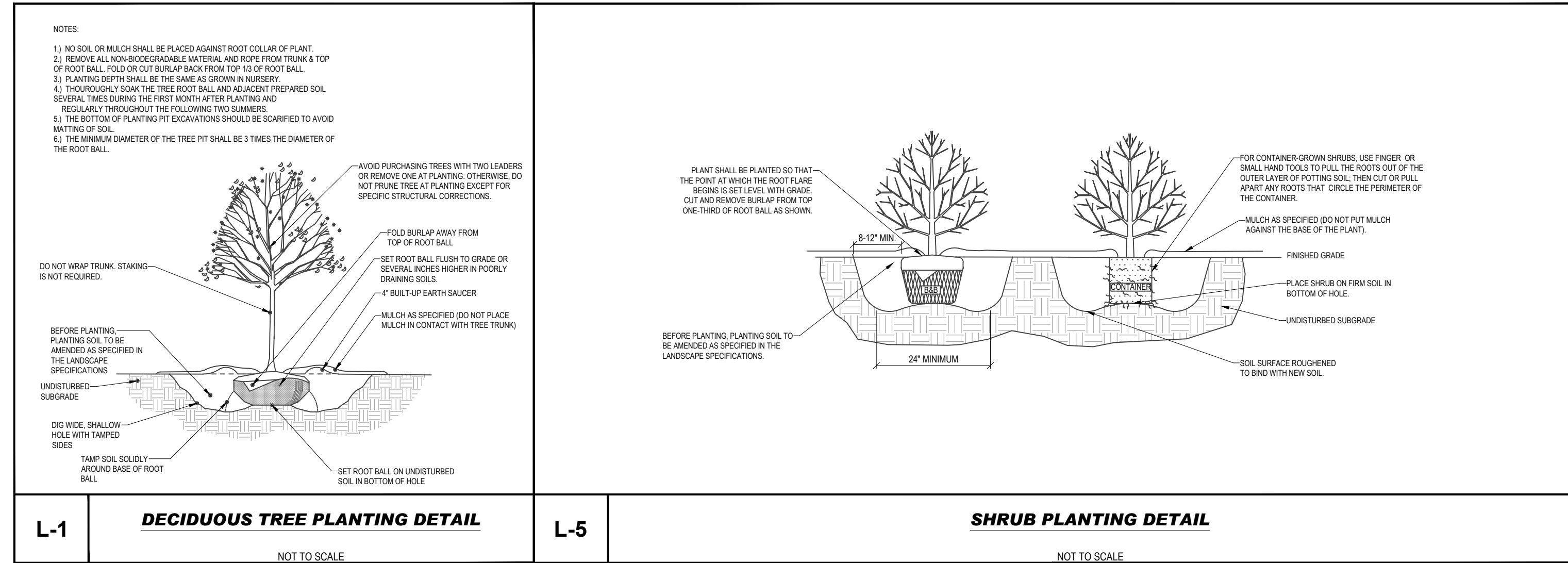


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SHEET TITLE:  
**LANDSCAPE PLAN**  
 SHEET NUMBER:  
**C-702**  
 17 OF 20  
 ORG. DATE - 6/28/2023

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**NOTES:**

- THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS, AND SITE SPECIFIC SOIL PARAMETERS.
- ALL REBAR SHALL HAVE A YIELD STRENGTH OF 60KSI AND MAINTAIN A 3" MIN. CLEARANCE FROM SURFACES.

**LANDSCAPE SPECIFICATIONS:**

1. SCOPE OF WORK: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SOILING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS:

- A. GENERAL: ALL LANDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
- B. TOPSOIL: NATURAL, FIBRIL, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5% A PH RANGE BETWEEN 5.5 TO 7.5 SHALL BE USED. SOIL SHOULD BE DEPOSITED UNDER LAYER OF 1" WOOD CHIPS, VEGETABLE MATTER AND CLAY GLOBS.
- C. LAWN: LAWN AREAS SHALL BE SEED OR SOILED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. FOR SOIL BED PREPARATIONS, REFER TO ITEM 8 BELOW.
- D. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN AND PROPERLY SIFTED. SOIL SHOULD BE EVENLY ROOTED, WEED AND DISEASE FREE WITH A UNIFORM THICKNESS. SEED INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PREGGED TO HOLD SOIL IN PLACE.
- E. FERTILIZER: ALL FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
- F. F. F. FOR THE PURPOSE OF BIDDER, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 15% PHOSPHORUS AND 10% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
- G. PLANT MATERIAL:

  - i. ALL PLANTS SHALL BE IN FULL COMPLIANCE WITH THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1, LATEST EDITION) AS PUBLISHED BY THE AMERICAN NURSERY FOREMEN'S ASSOCIATION AND LANDSCAPE ASSOCIATION.
  - ii. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
  - iii. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN AT LEAST THE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
  - iv. TREES WITH ABRAISON OF THE BARK, SUN SCALDS, DISCOLORATION OR FRESH CUTS OF LIMBS OVER 1" WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED.
  - v. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BRANCHES.
  - vi. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL INHERIT OF GROWTH HELL. GROWN PLANTS (GREEN) FOLIAGE SHALL BE FREE OF ROT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
  - vii. CALIPER MEASUREMENTS SHALL BE TAKEN AT THE NARROWEST POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER IS SIX INCHES (6") ABOVE THE GROUND, EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
  - viii. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
  - ix. TREE AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES

- A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORK DAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
- B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
- C. SITE PREPARATIONS:

  - A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
  - B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINING OF THE ROOTS. EXISTING TREES SHALL BE WATERED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DIEBACK.
  - C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

4. TREE PROTECTION

A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE BIRY LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

- A. FORTY EIGHT (48) INCH (4') HIGH WOODEN SNOW FENCE OR ORANGE COLORED HOV-DENSITY VISIBILITY OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT (8) FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
- B. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEANING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
- C. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

5. SOIL MODIFICATIONS

- A. CONTRACTOR SHALL ATAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
- B. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOI MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE CONTRACTOR DEPENDING ON SITE CONDITIONS.
- C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE DETERMINED BASED ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY:

  - i. TO INCREASE A SANDY SOILS RIBLITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 4"-8". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR FEAT MASS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
  - ii. TO INCREASE DRAINAGE, MOODY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE SAWD UP TO 30% BY VOLUME. AND/OR AGRICULTURAL GYPHUM COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 50% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
  - iii. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 20% OF THE TOTAL MIX.

6. FINISHED GRADING

- A. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
- B. CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (7").
- C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEFINED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
- D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

7. TOPSOILING

- A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AND LAWN AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
- B. ON SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOI MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

8. CLEANING

- A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PLANTED AREAS ARE TO BE CLEANED.
- B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

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**PRELIMINARY / FINAL LAND DEVELOPMENT PLANS FOR**

**727 NORRISTOWN RD, LP**

BUILDING 14 & ELECTRIC  
SUBSTATION IMPROVEMENT PLANS

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LOWER GWYNEDD TOWNSHIP  
LOWER GWYNEDD, PA 19002  
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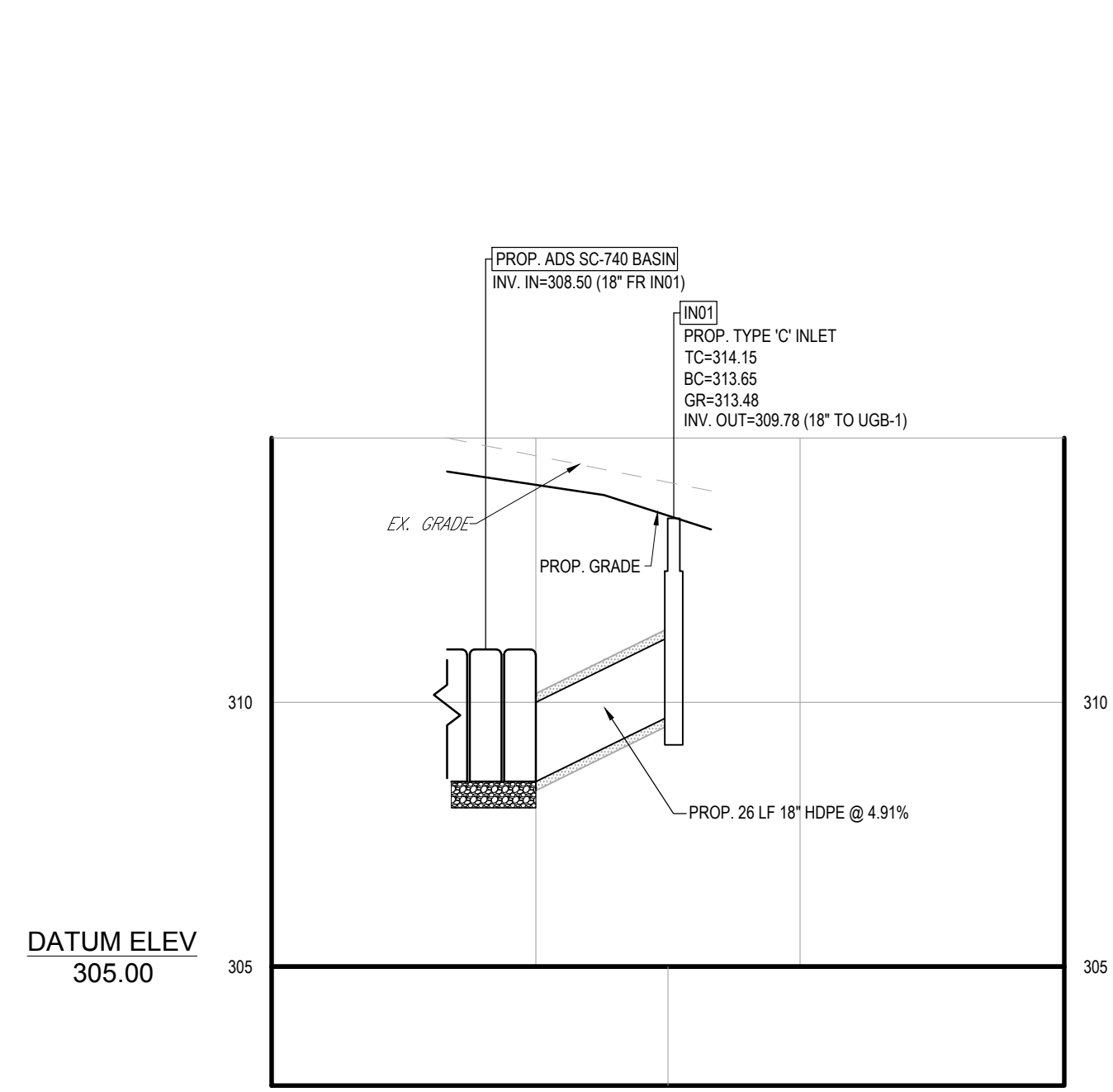
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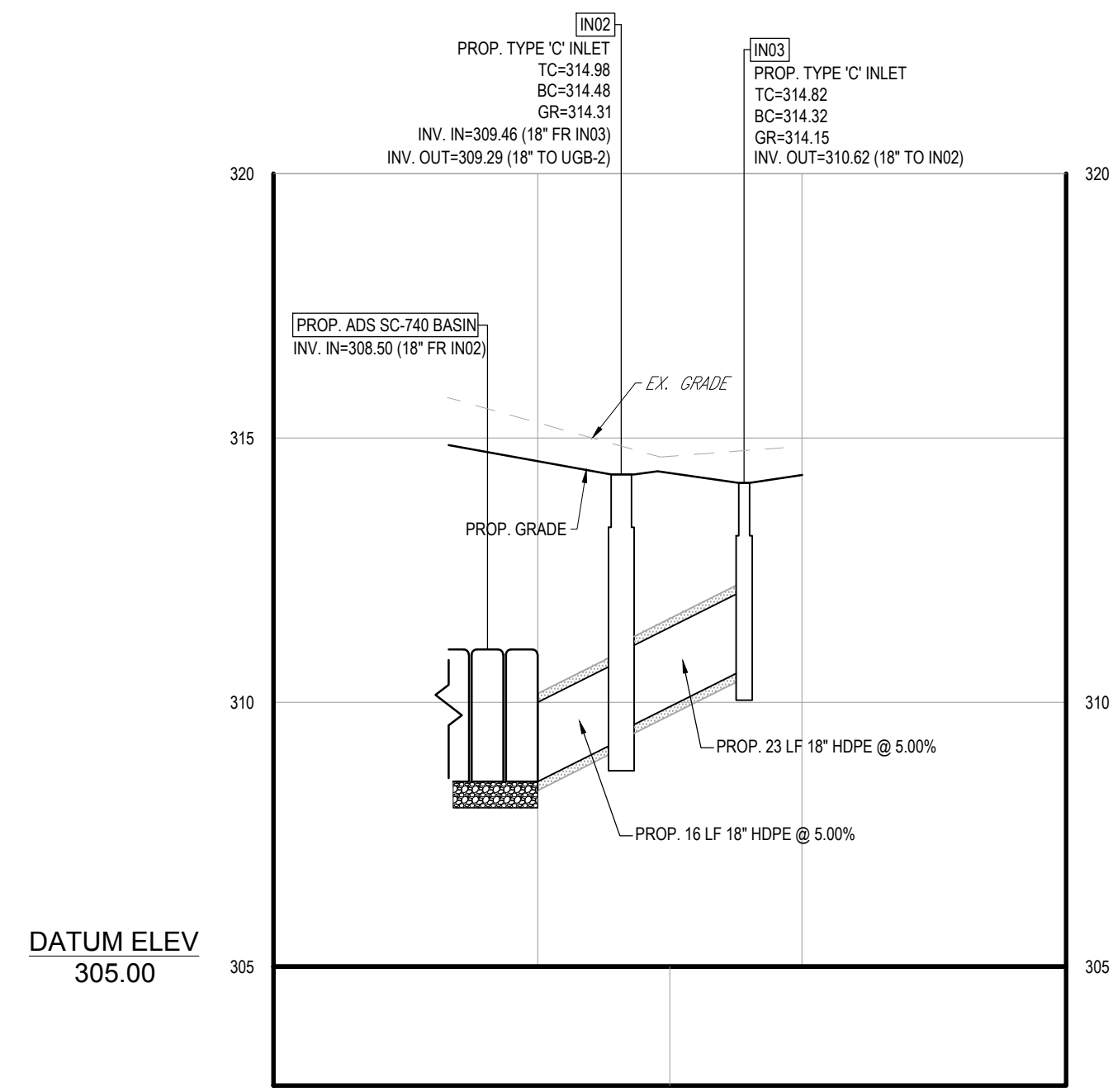
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LANDSCAPE & LIGHTING DETAILS

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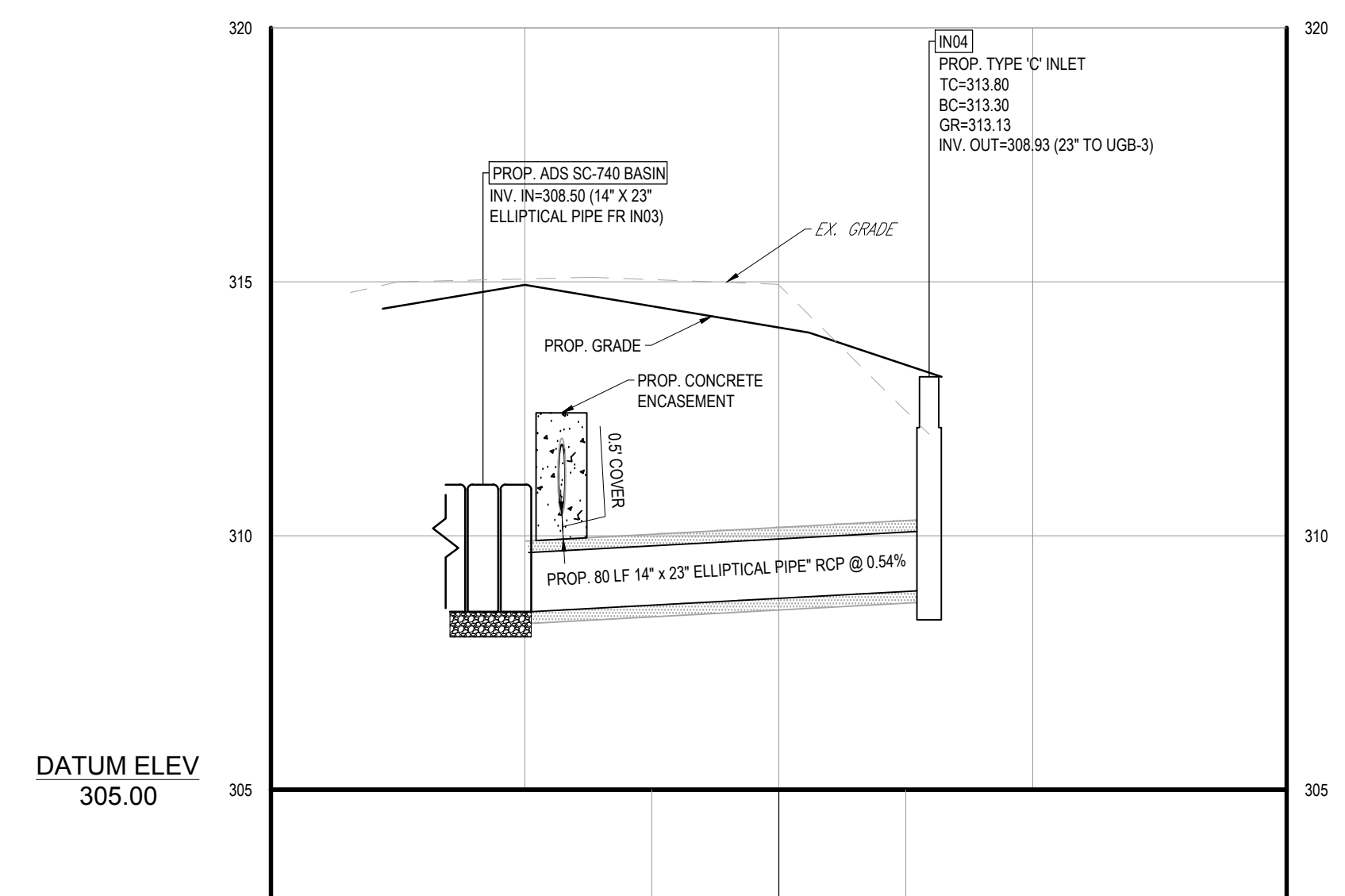
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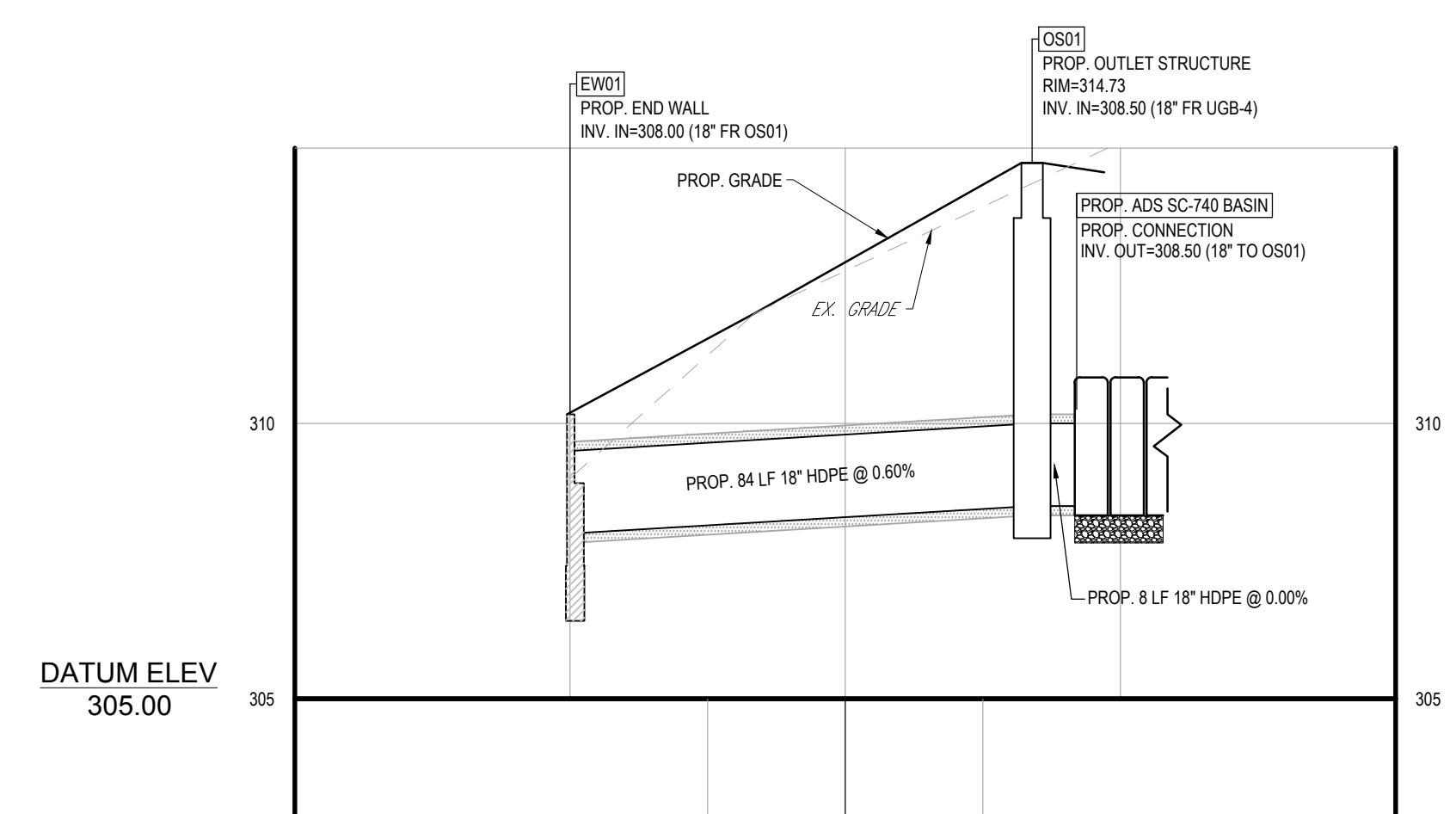
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SCALE: 1" = 30' HORIZONTAL  
1" = 3' VERTICAL



**UGB TO IN03**  
SCALE: 1" = 30' HORIZONTAL  
1" = 3' VERTICAL



**UGB TO IN04**  
SCALE: 1" = 30' HORIZONTAL  
1" = 3' VERTICAL



**EW01 TO UNDERGROUND BASIN**  
SCALE: 1" = 30' HORIZONTAL  
1" = 3' VERTICAL

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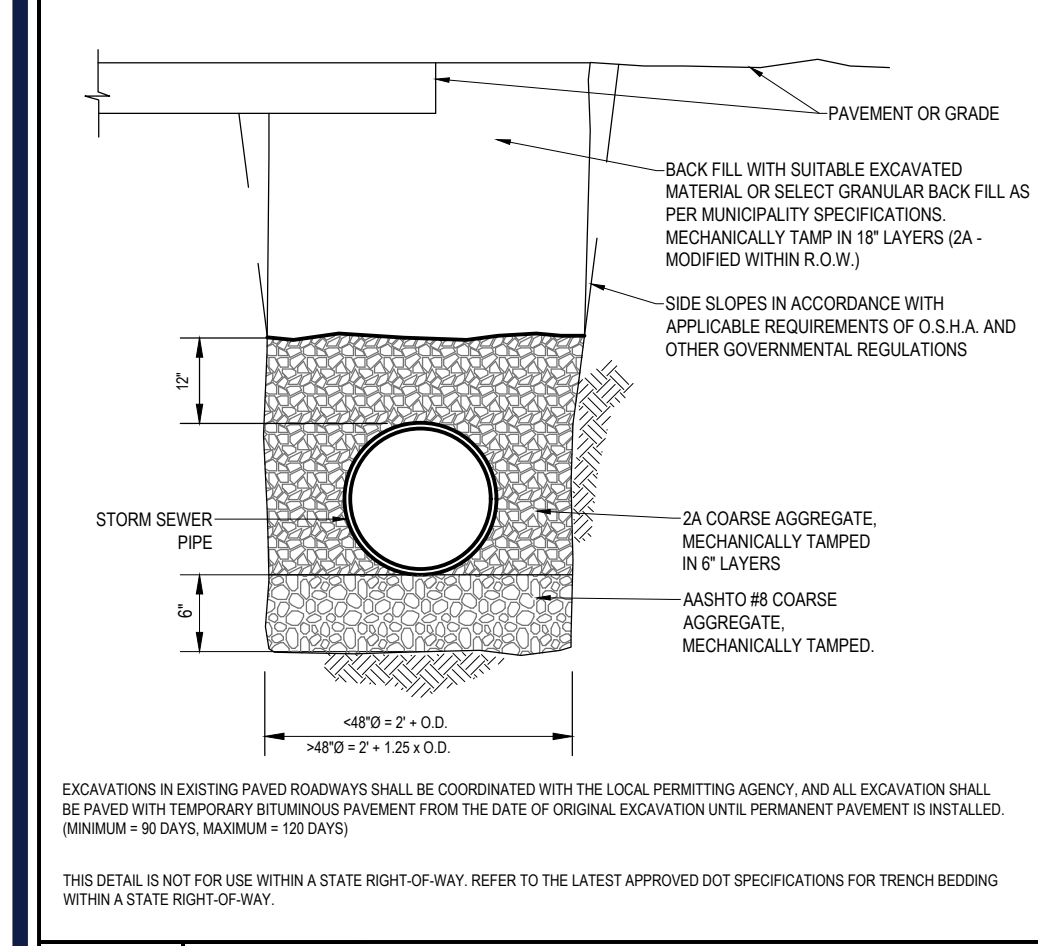
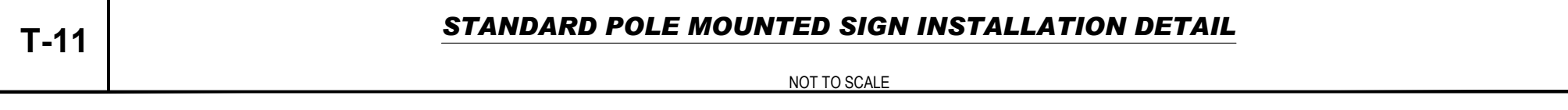
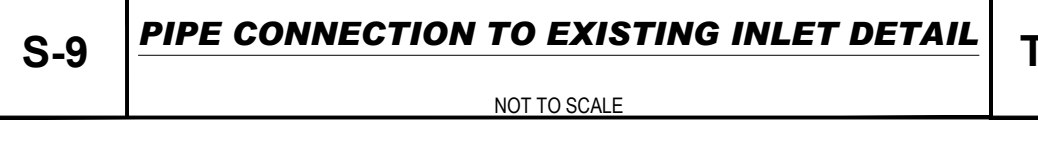
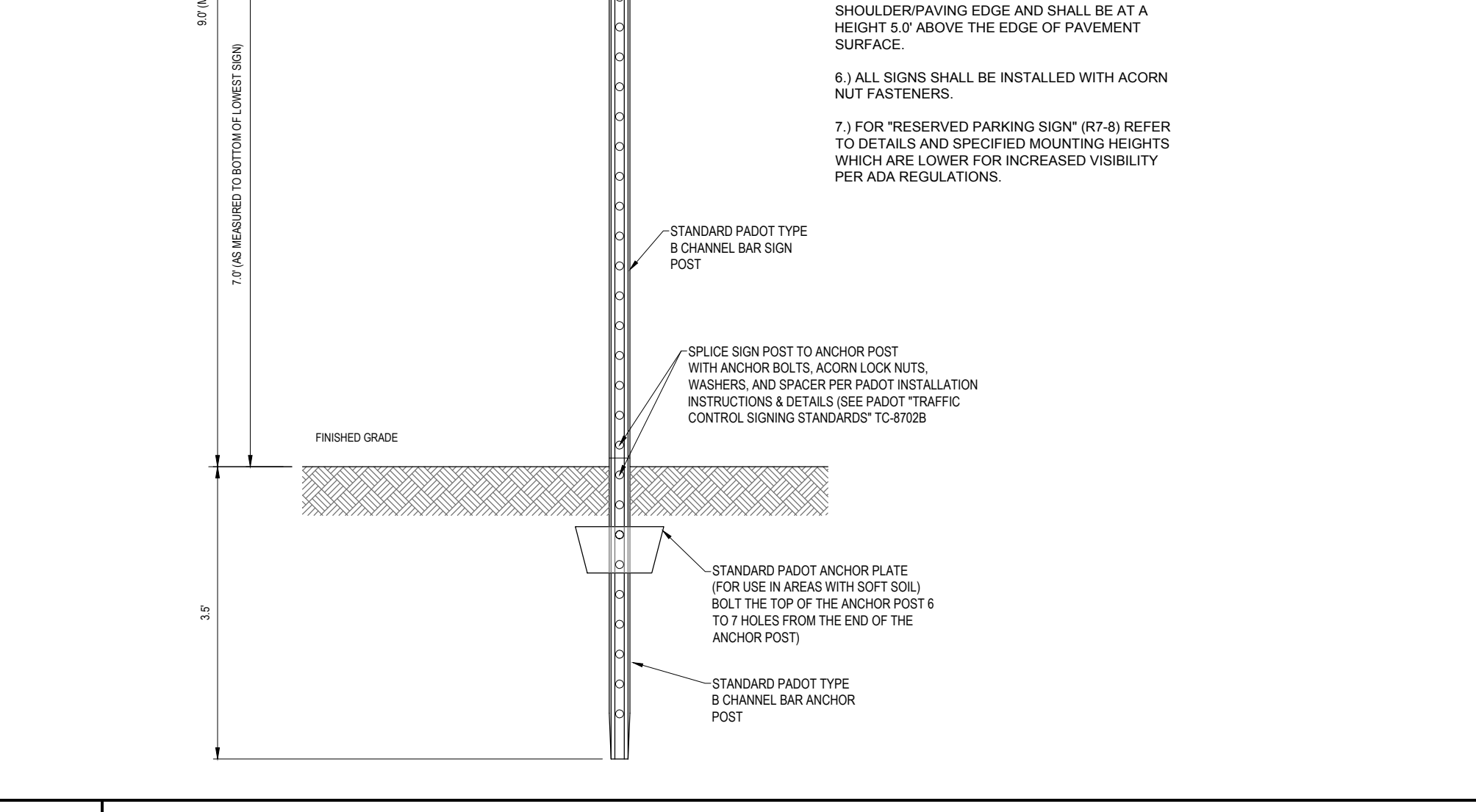
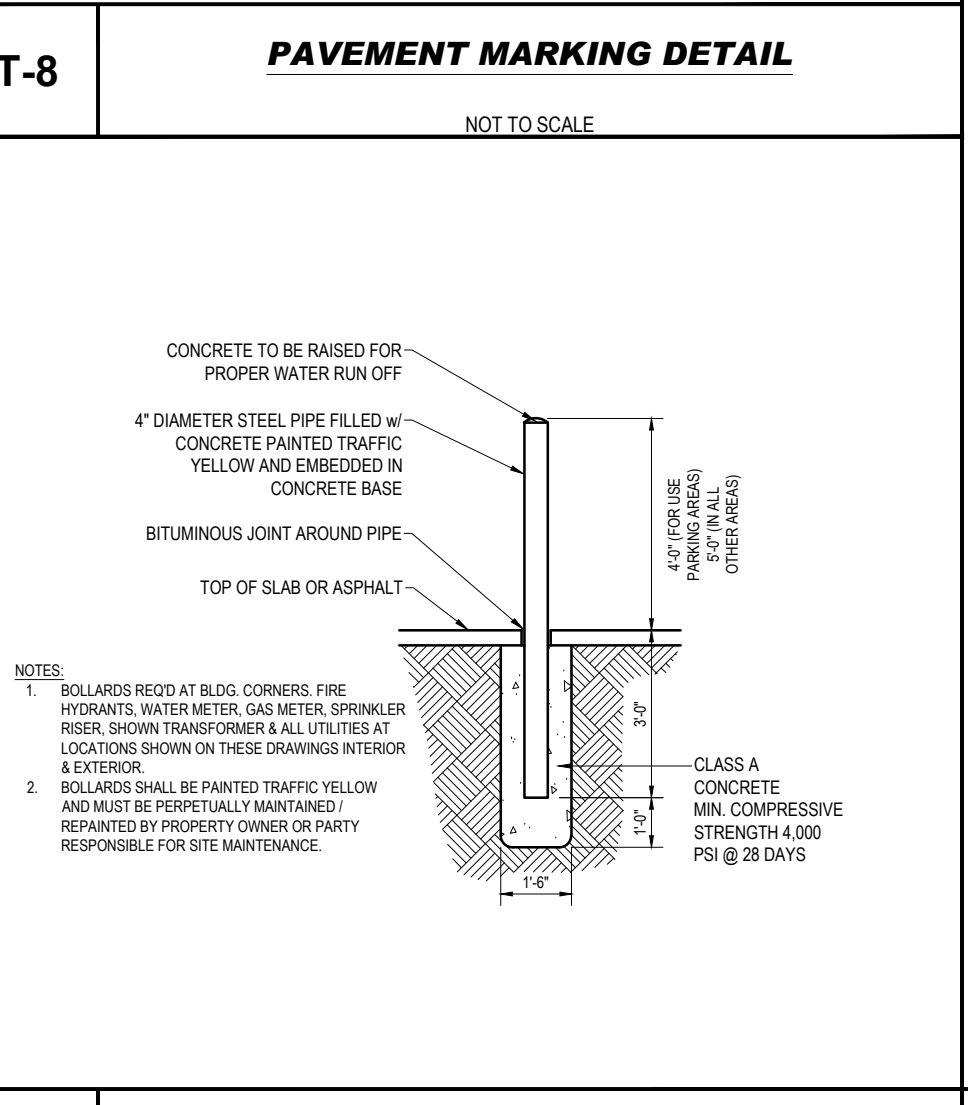
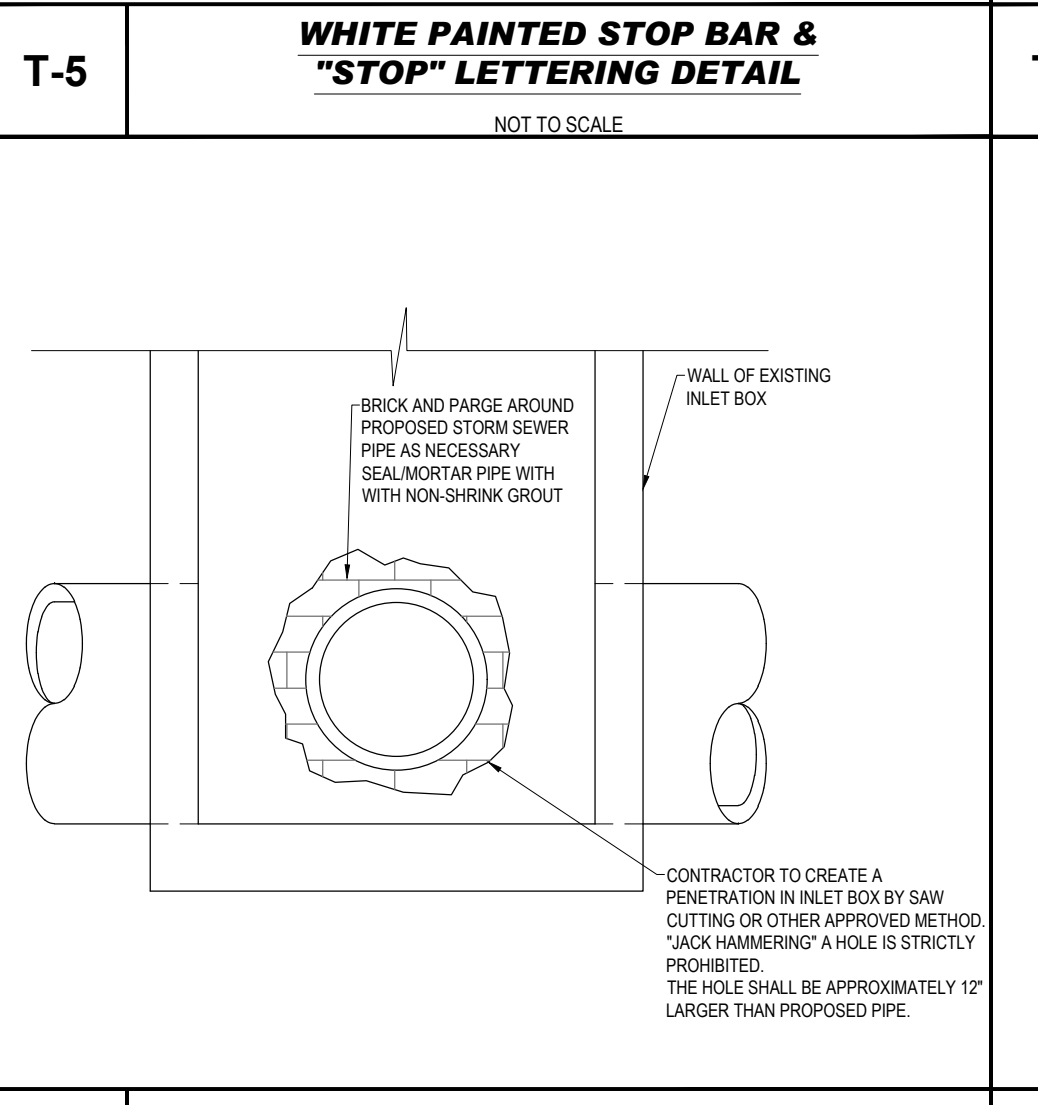
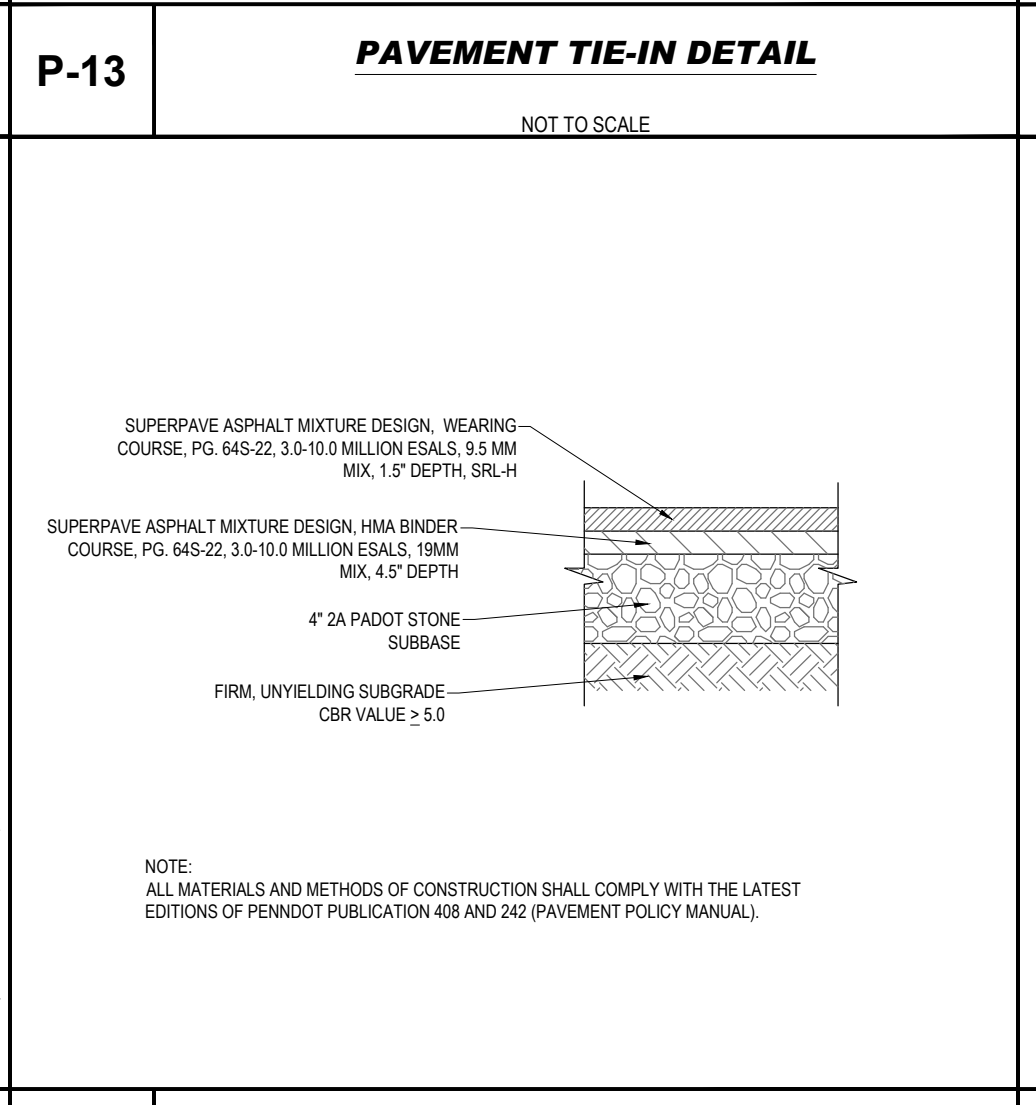
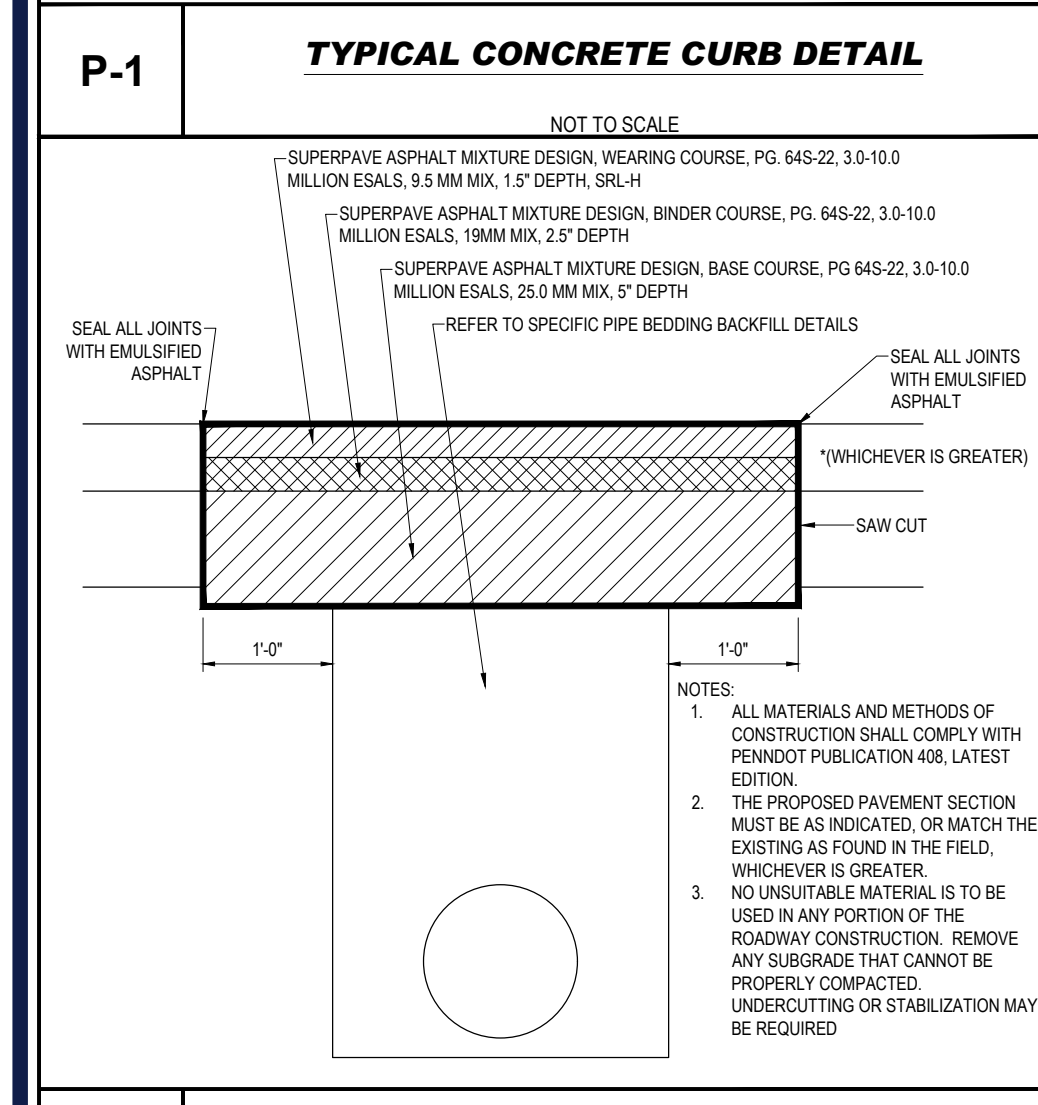
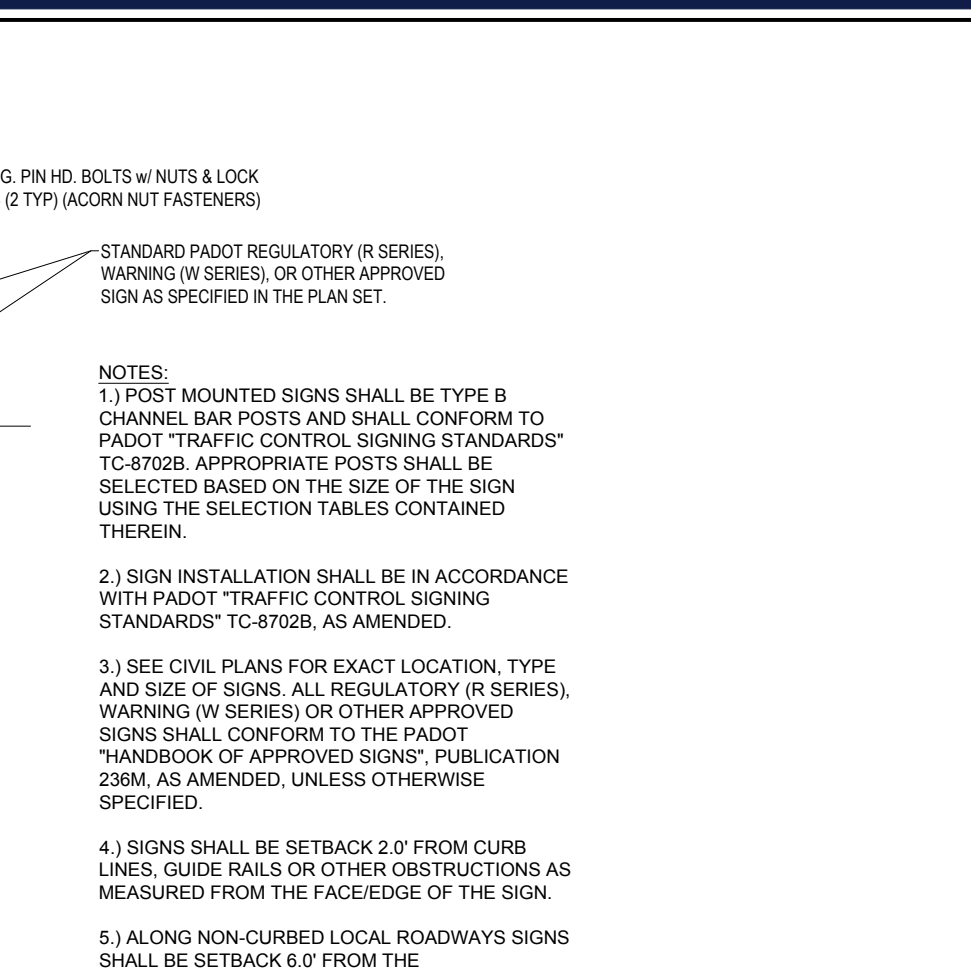
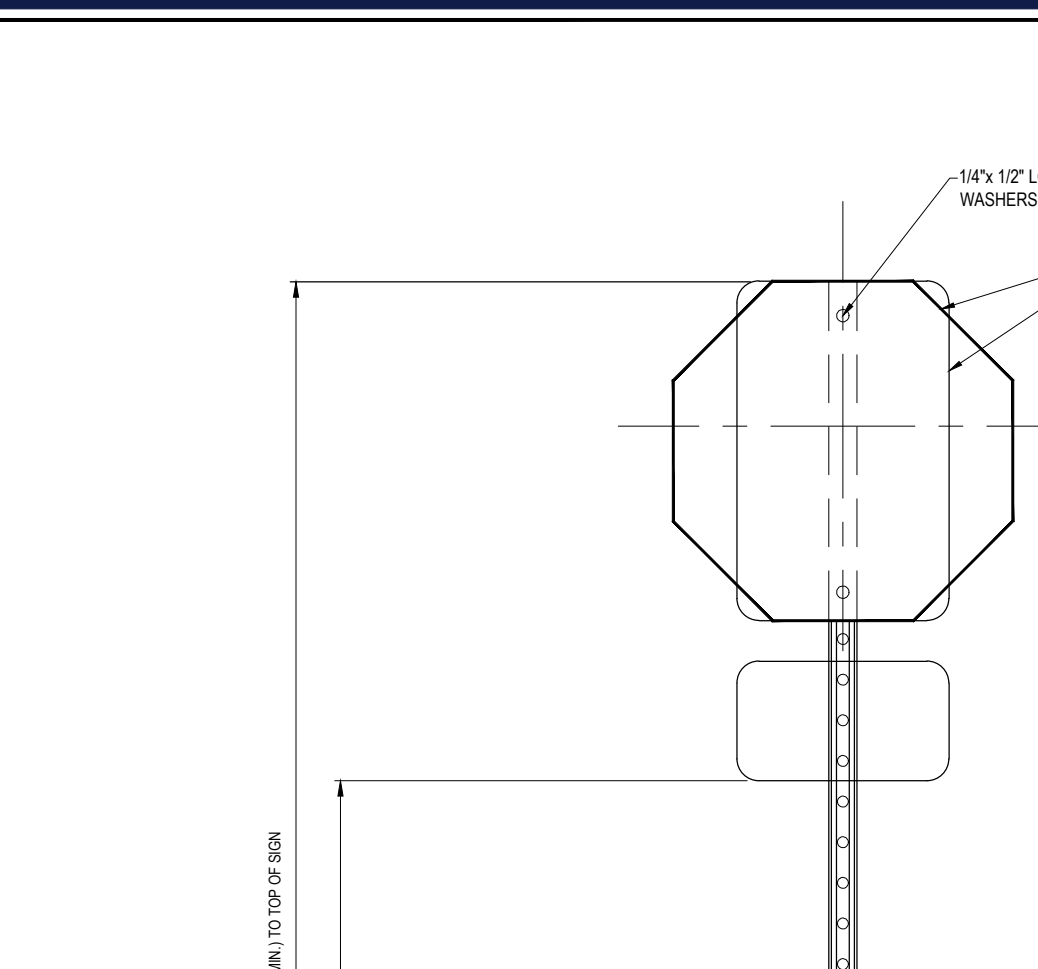
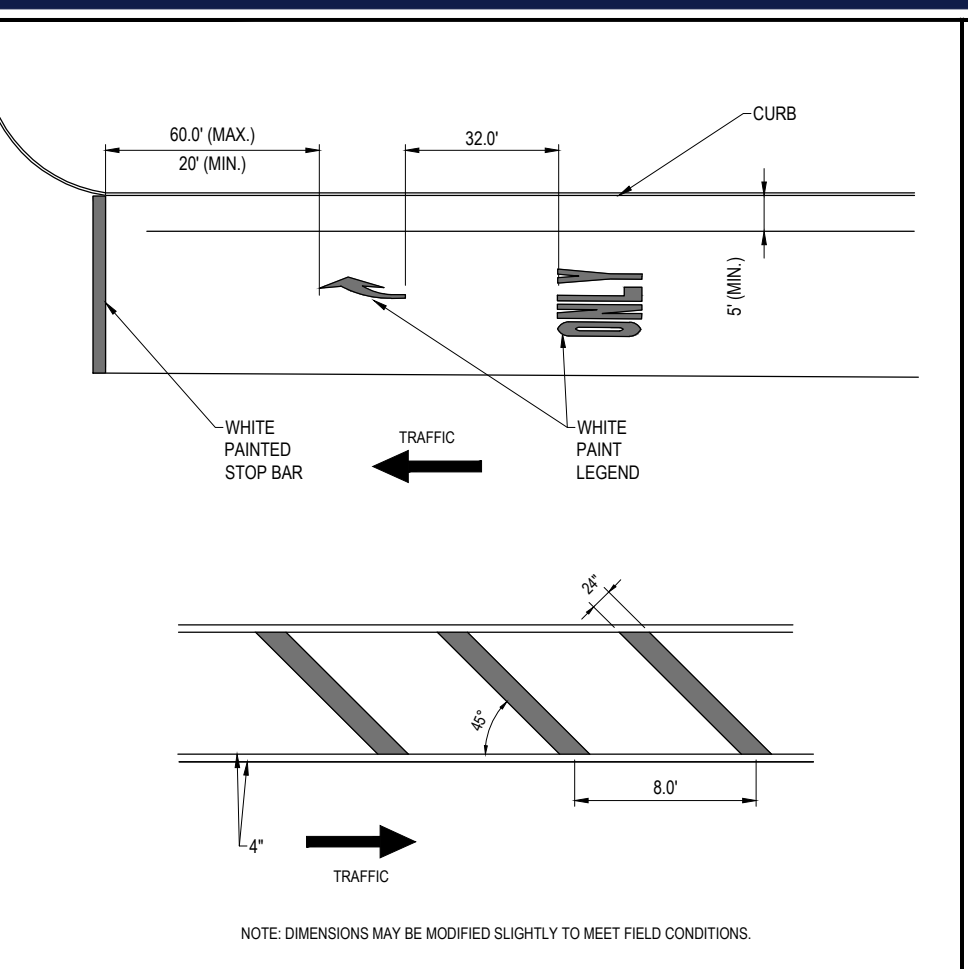
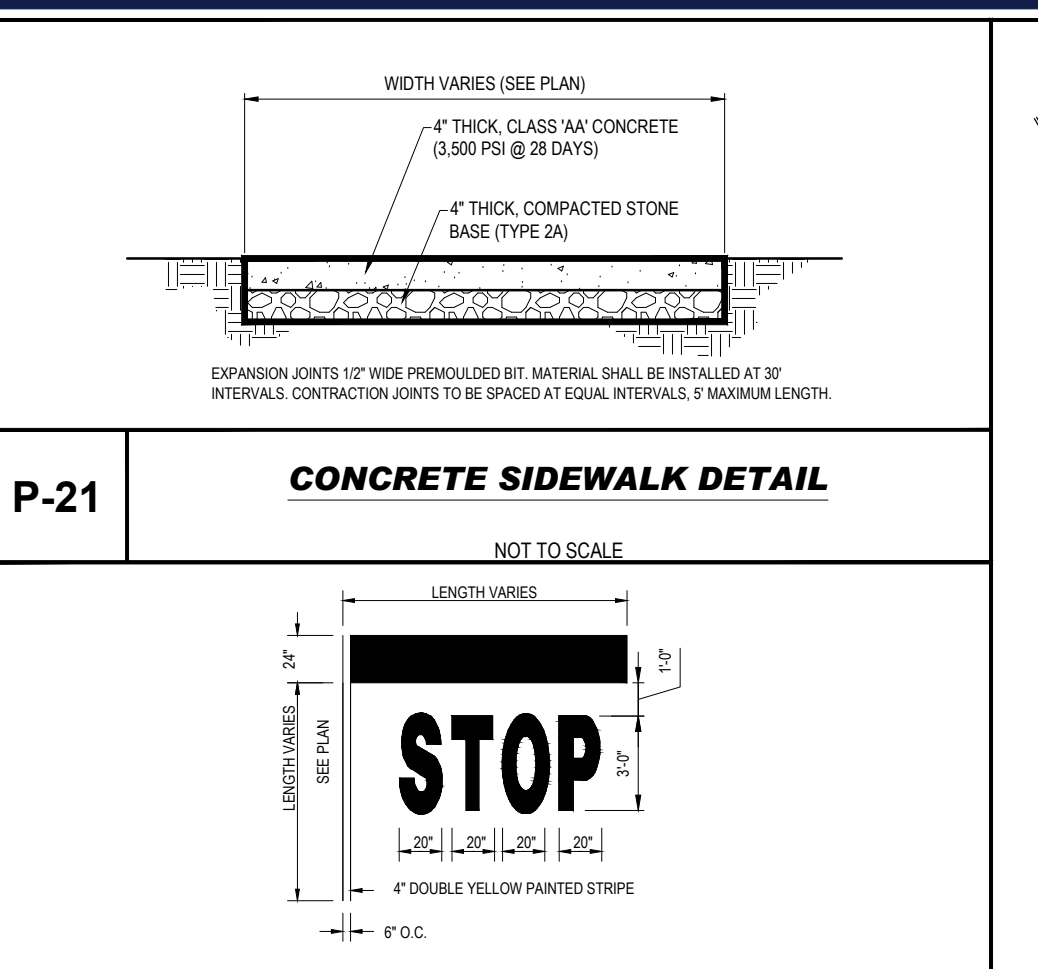
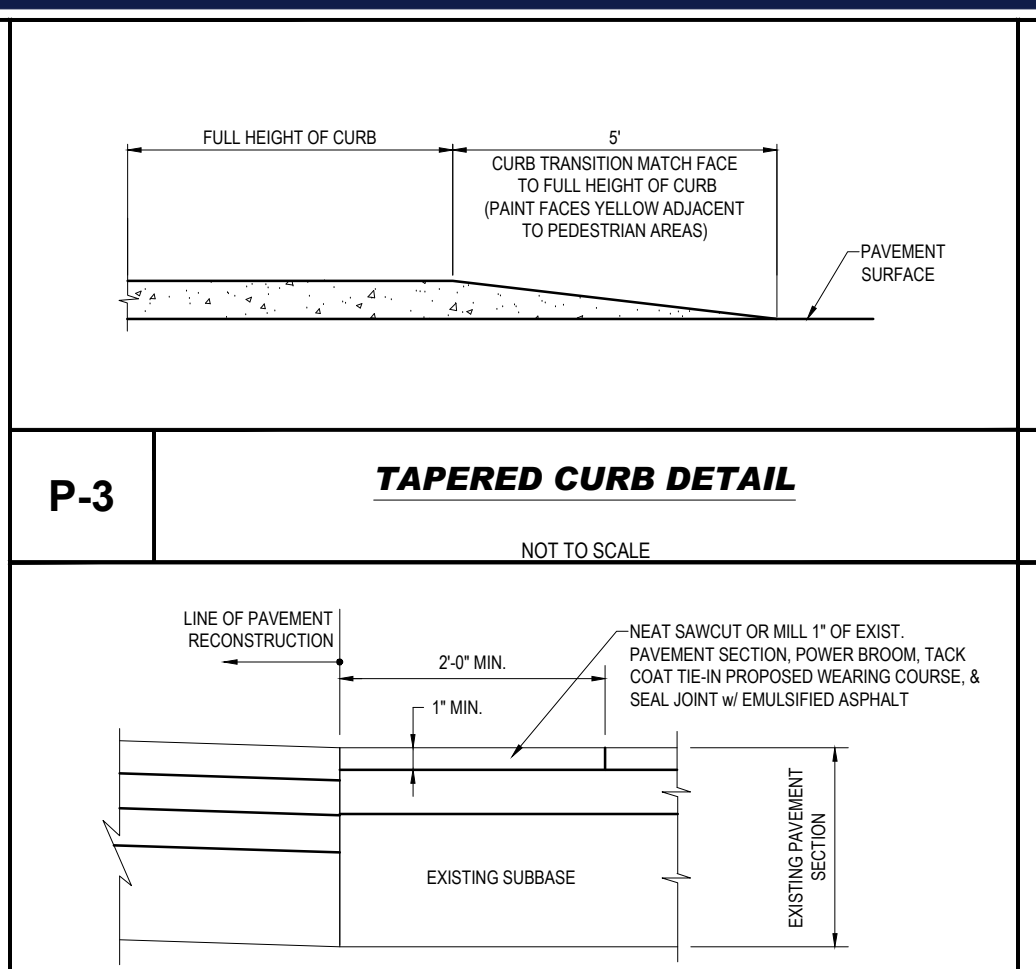
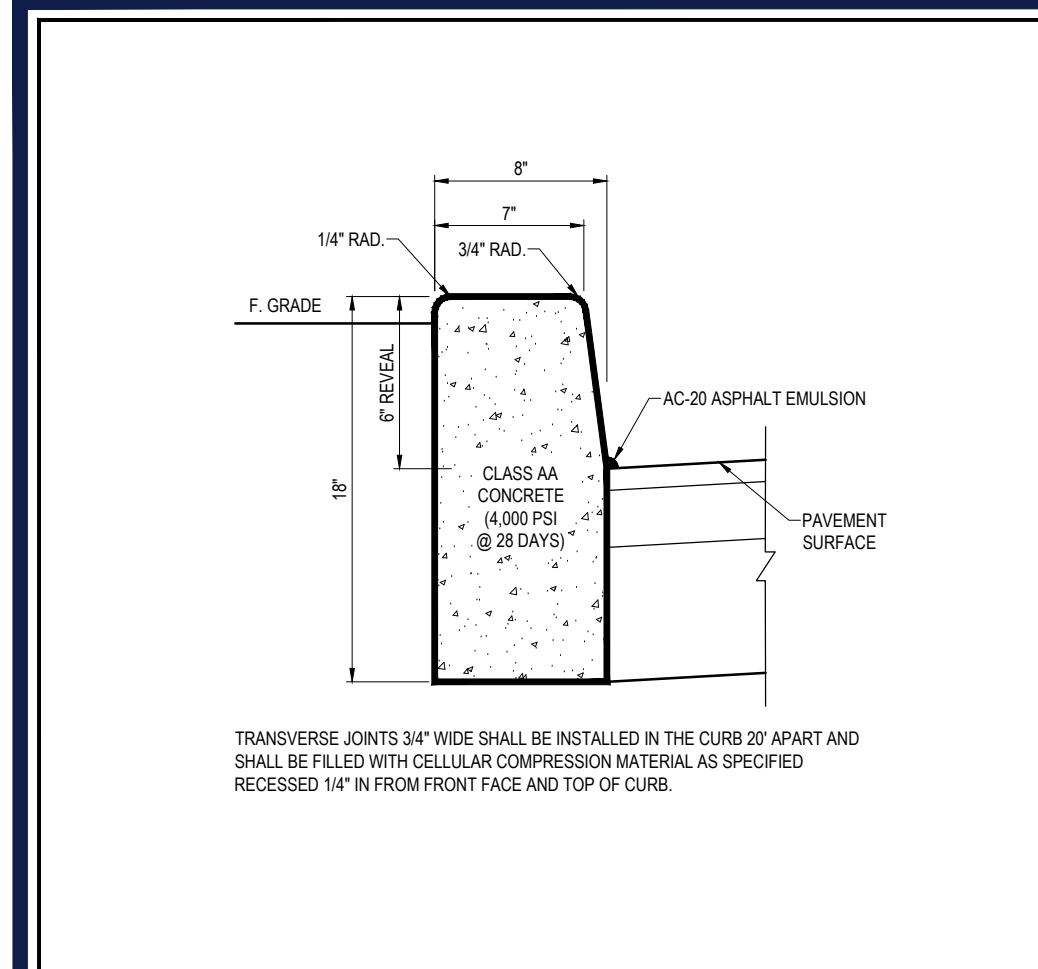
PROJECT No.: PAA230019.03  
DRAWN BY: MCM  
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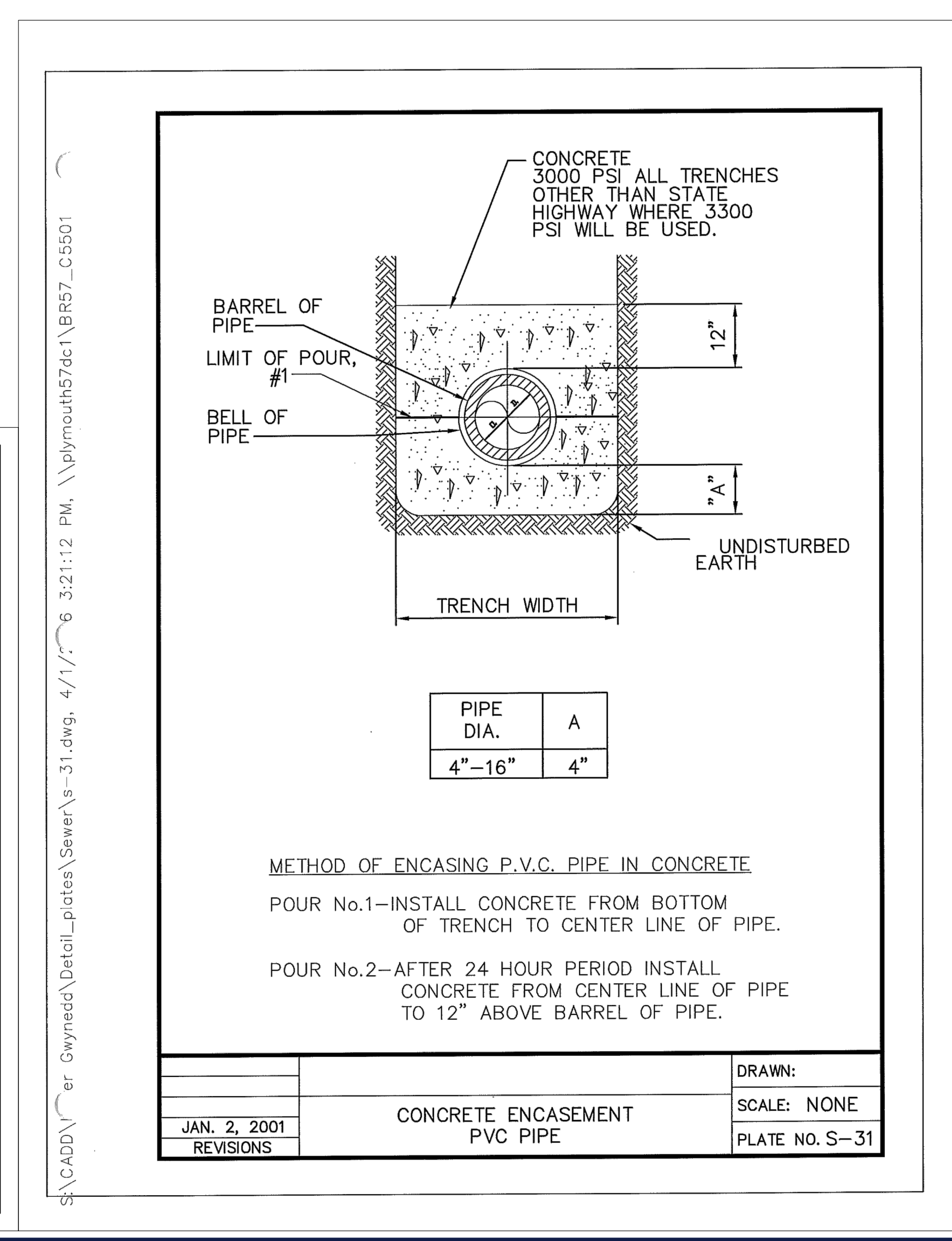
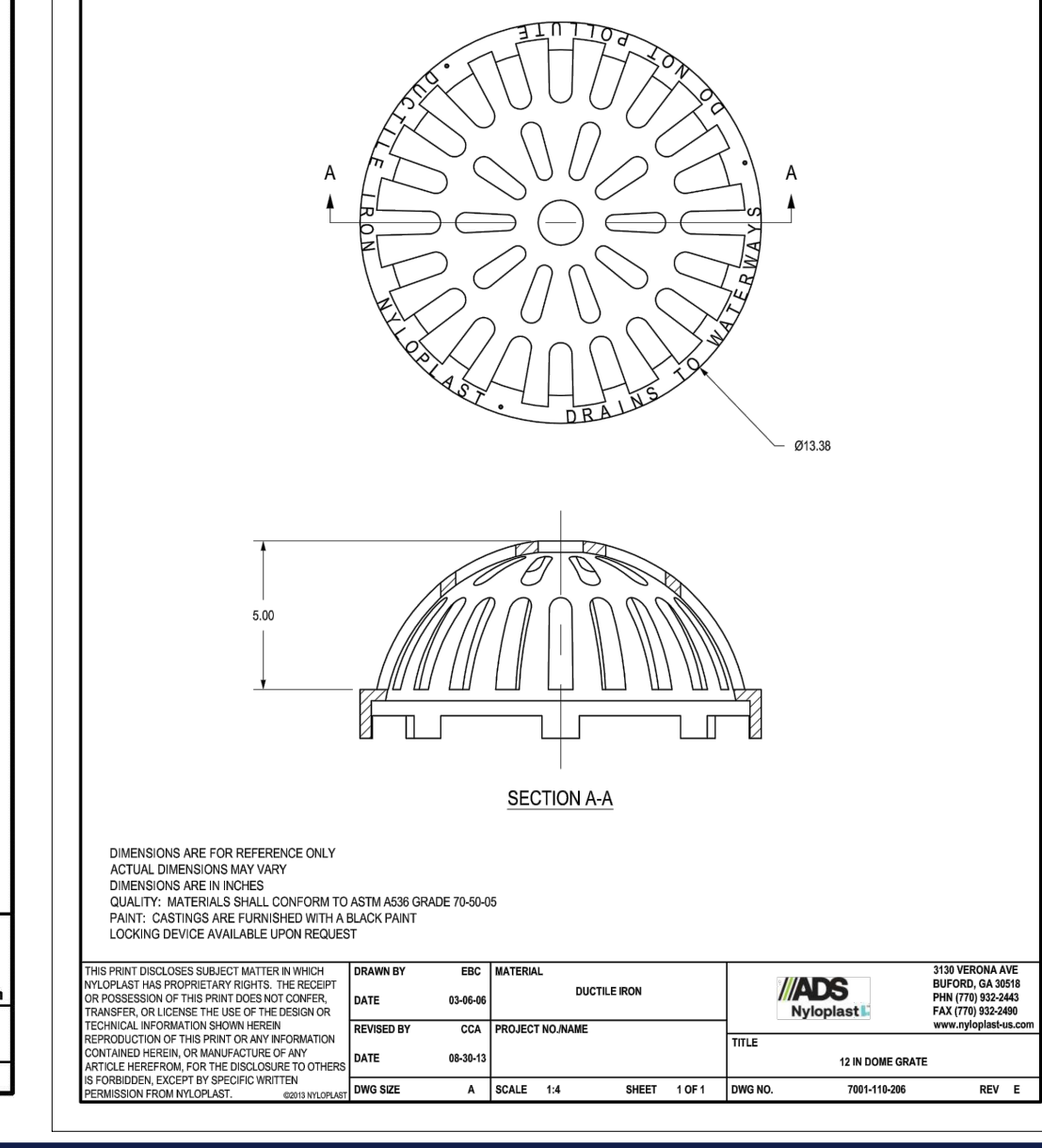
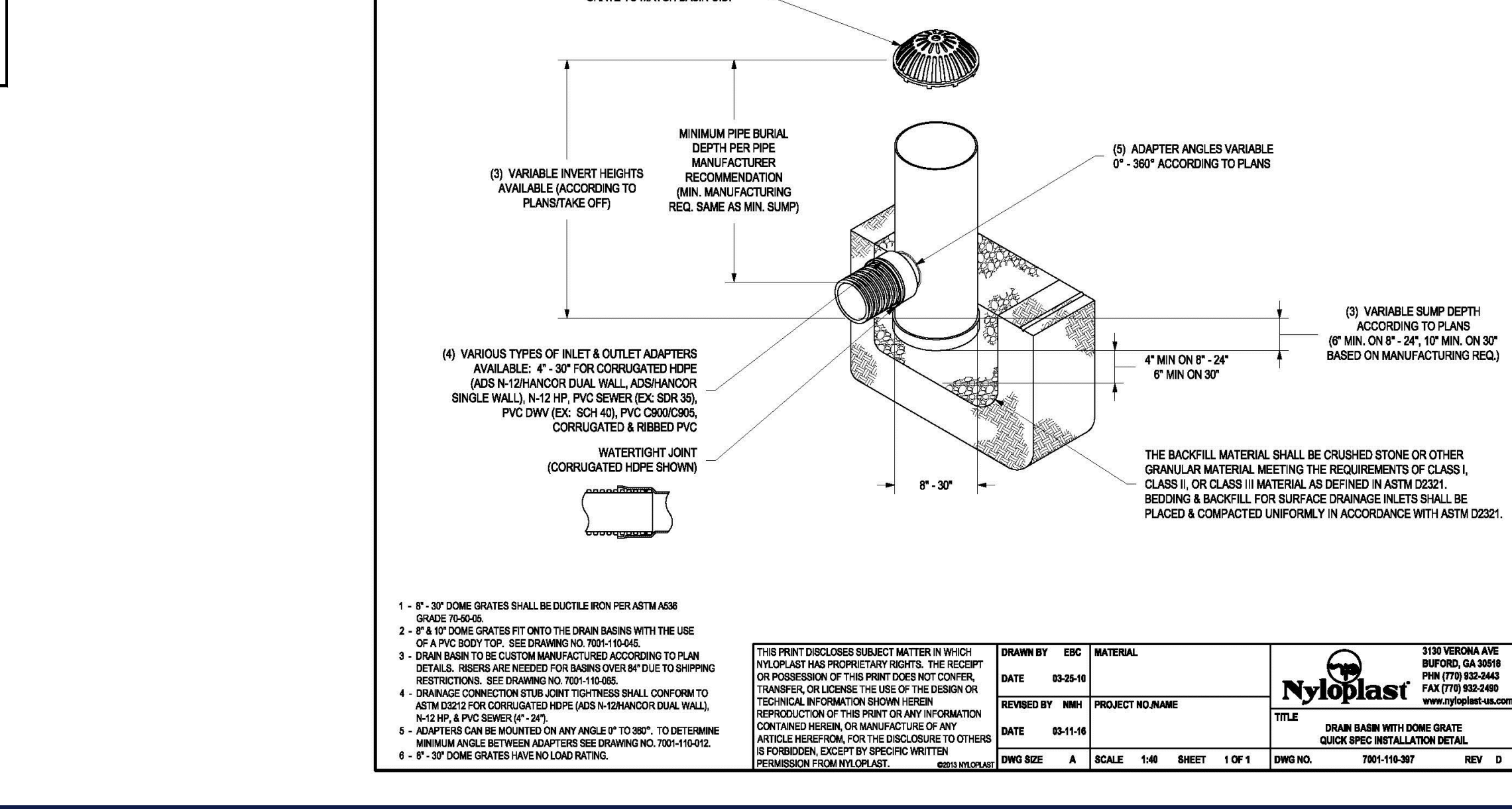
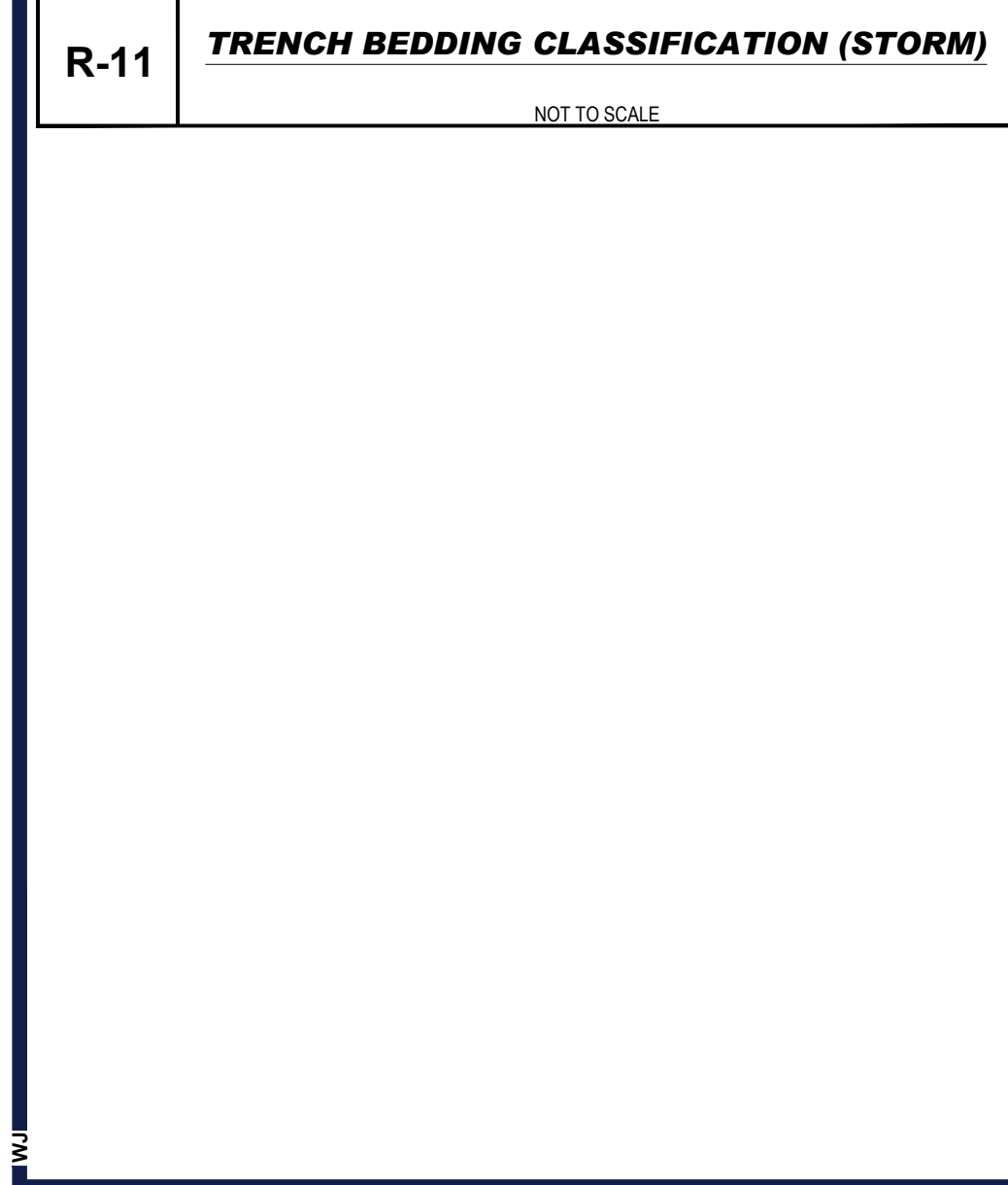
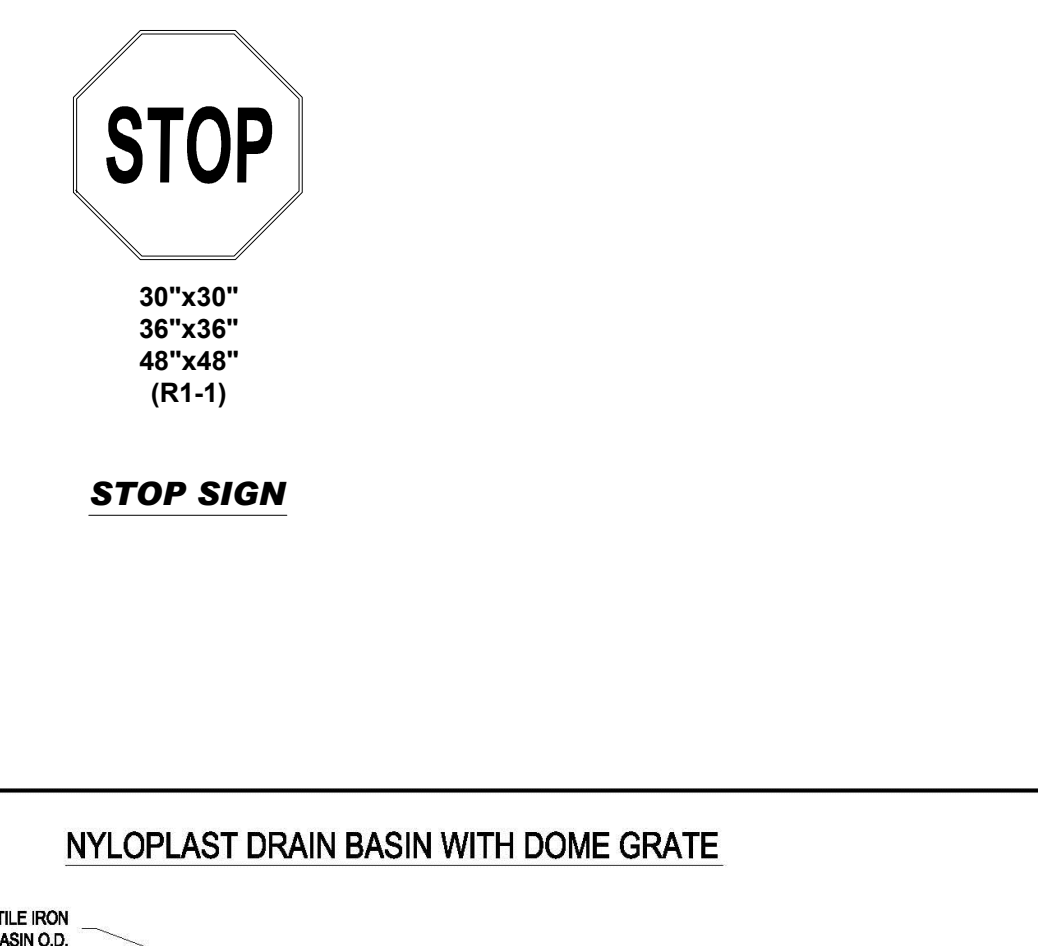
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SHEET NUMBER:  
**C-801**  
19 OF 20  
ORG. DATE - 6/28/2023



**LIST OF APPLICABLE PADOT DETAILS & STANDARDS**

ADDITIONAL DETAILS ASSOCIATED WITH PADOT ROAD IMPROVEMENTS ARE ON THE FOLLOWING STANDARD DETAILS FROM PennDOT PUBLICATION 72M: (CONTRACTOR IS TO OBTAIN COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS FROM THE PennDOT PUBLICATION 72M)

STANDARD DRAWING NUMBER	DRAWING NAME
RC - 31M	ENDWALLS
RC - 39M	STANDARD MANHOLES
RC - 45M	INLET TOPS, GRATES AND FRAMES
RC - 46M	INLET BOXES
RC - 67M	CURB RAMPS AND SIDEWALKS



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CHECKED BY: WRR  
DATE: 8/28/2023  
CAD ID: PAA230019.03-CND5-0A

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20 OF 20

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