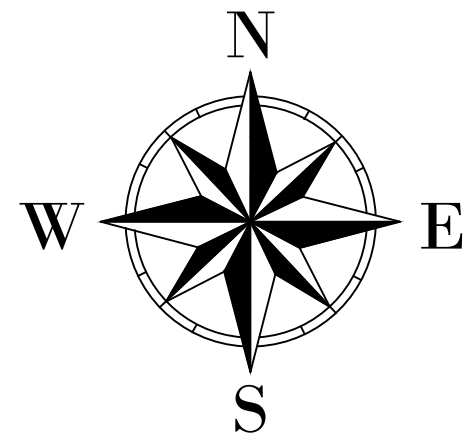
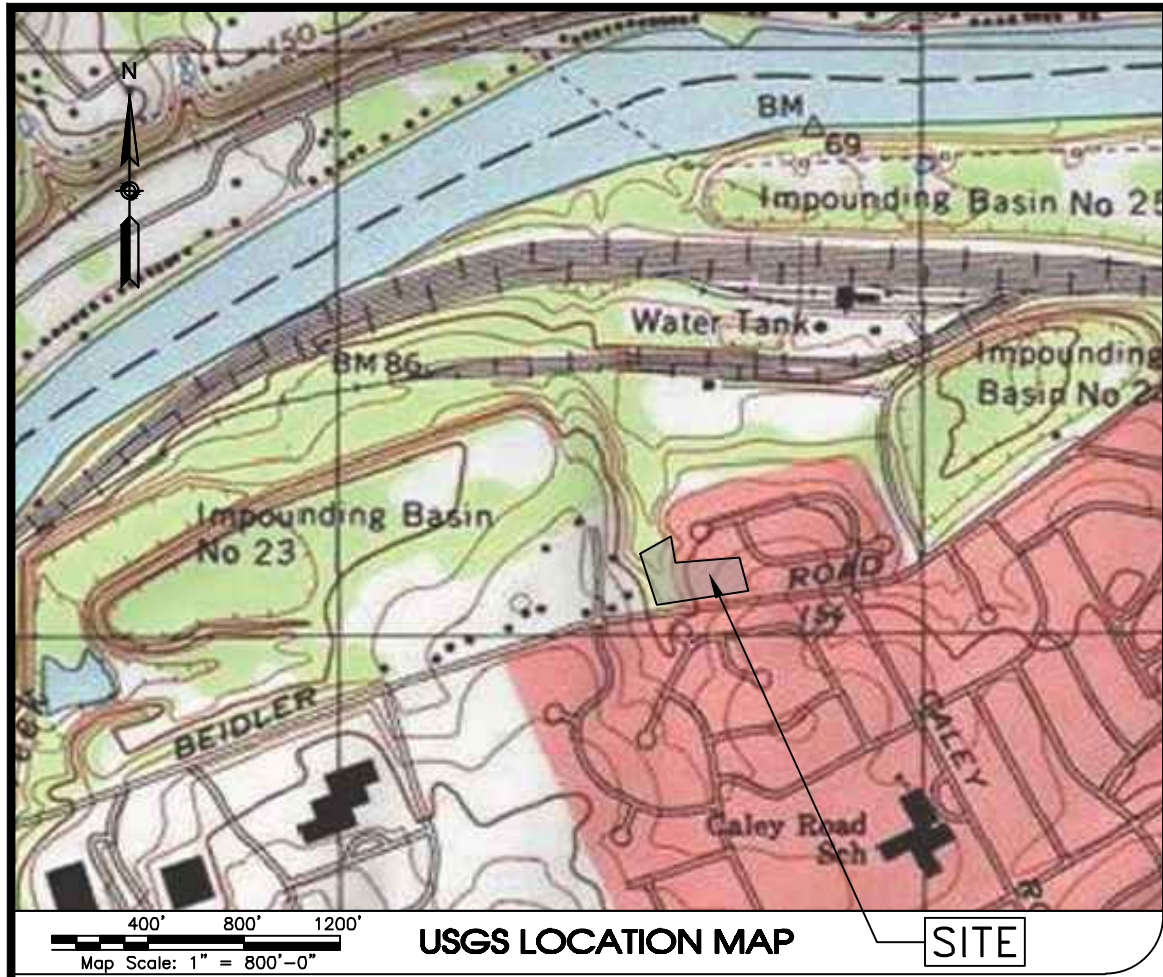




FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN

450 WEST BEIDLER ROAD

BLOCK 58-035-026 & 58-035A-114

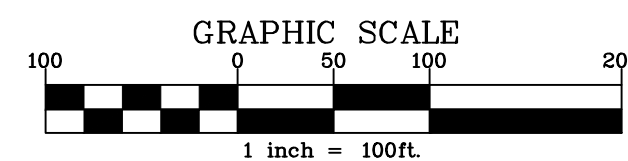
ADJOINING PROPERTIES:

- LANDS N/F:*
1. ROYER-GRAEVES SCHOOL FOR BLIN.
496 W BEIDLER RD
58-035-029
 2. CHARLES & RITA ROSSI
504 W BEIDLER RD
58-035-025
 3. JANET M WILAMOWSKI
549 SUSAN DR
58-035A-031
 4. EUGENE DEVOL III & CYNTHIA SCHWARTZ
547 SUSAN DR
58-035A-030
 5. GINA DILIBERTO
545 SUSAN DR
58-035A-029
 6. JOSEPH & TIMOTHY & THEO GRIBB
543 SUSAN DR
58-035A-028
 7. THOMAS K McDONALD
541 SUSAN DR
58-035A-027
 8. MICHAEL & KAREN B SALTZBURG
539 SUSAN DR
58-035A-026
 9. JI XIAO & CHEN LU
539 SUSAN DR
58-035A-025
 10. SUSAN L BRANCO
437 JEAN DR
58-035A-019
 11. JAMES SHAUGHNESSY
435 JEAN DR
58-035A-018
 12. HALEY FITZGERALD & NEUFER KEY
749 CHAMPLAIN DR
58-0250-006
 13. KAMLESH R MIRA K JANI
747 CHAMPLAIN DR
58-0250-005
 14. SHAYNA & BERLE TAYLOR
745 CHAMPLAIN DR
58-0250-004
 15. PAUL E & JULIE ANNE EXTER
743 CHAMPLAIN DR
58-0250-003
 16. ADAM S & REBECCA ROBINSON
741 JOHN HANCOCK RD
58-0250-002
 17. ZHENG SHU GUANG & NGUYEN THUY
739 JOHN HANCOCK RD
58-0250-001
 18. MIA RIVALTA WEYGAND
737 JOHN HANCOCK RD
58-025P-035
 19. MARK & MARIANNE E PICARIELLO
501 W BEIDLER RD
58-025P-036

*MONTGOMERY COUNTY PUBLIC PROPERTY
RECORDS WEBSITE FOR AS OF 2/20/26



VICINITY MAP WITH SIGNIFICANT FEATURES WITHIN 200' OF SITE
AERIAL SOURCE: TILE 27002630PAS, PEMA ORTHOIMAGERY 2018, PASDA WEBSITE



CIVIL ENGINEER:
SITE ENGINEERING CONCEPTS, LLC

ATTN: PATRICK SPELLMAN, P.E.
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: (610) 523-9002
E: PSPELLMAN@SITE-ENGINEERS.COM

APPLICANT/ OWNER:
PARKVIEW HOMES AT VALLEY FORGE, LLC

ATTN: RUDOLPH CELLI
125 STRAFFORD AVE, SUITE 115
P: (610) 291-8838
E: RCELLI@CELLILAW.COM

DRAWING SCHEDULE

1. COVER SHEET
2. FINAL RECORDING PLAN
3. EXISTING CONDITIONS & NATURAL RESOURCES PLAN
4. POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
5. PCSM DETAILS
6. PCSM DETAILS & NOTES
7. PCSM DRAINAGE AREA MAPS
8. EROSION & SEDIMENT CONTROL PLAN - EXISTING CONDITIONS
9. E&SC PLAN - POST CONDITIONS
10. E&SC PLAN NOTES & DETAILS
11. E&SC PLAN DETAILS
12. STREAM STABILIZATION DETAILS
13. GRADING & UTILITY PLAN
14. DIMENSION PLAN
15. MISCELLANEOUS CONSTRUCTION DETAILS & NOTES
16. SANITARY PROFILE, DETAILS & NOTES
17. ROAD & STORM SEWER PROFILES

LANDSCAPE PLANS PREPARED BY JESSE FORRESTER, RLA, FORRESTER LANDSCAPE STUDIOS

18. L0.1 EXISTING TREE PLAN
19. L0.2 EXISTING TREE LIST
20. L1.1 PLANTING PLAN
21. L1.2 PLANTING PLAN
22. L2.1 PLANTING PLAN
23. L3.1 LIGHTING PLAN

PROPERTY OWNER

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THE ____ DAY OF _____, 20____, BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, THE UNDERSIGNED OFFICER PERSONALLY APPEARED, _____, WHO ACKNOWLEDGED HIM/HERSELF TO BE THE _____ OF _____, OWNER OF THE PROPERTIES PROPOSED TO BE DEVELOPED IN THE SUBJECT PLAN, BEING AUTHORIZED TO DO SO, ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF THE PROPERTIES SHOWN THEREON, SITUATED IN THE TOWNSHIP OF RADNOR, DELAWARE COUNTY, PENNSYLVANIA, AND DESCRIBED THAT THIS PLAN WAS MADE WITH THE OWNER'S FREE CONSENT AND INTENDED TO BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND YEAR AFORESAID.

NOTARY _____

OWNER _____

UPPER MERION TOWNSHIP:

THIS IS TO CERTIFY THE BOARD OF COMMISSIONERS HAS APPROVED THIS LAND DEVELOPMENT PLAN FOR 20____ FOR RECORDING AT THE RECORDER OF DEEDS OF MONTGOMERY COUNTY, NORRISTOWN, PENNSYLVANIA. OFFERS OF DEDICATION HAVE BEEN ACCEPTED/REJECTED, BONDS, FUNDS OR SECURITIES IN ESCROW HAVE BEEN FILED WITH THE TOWNSHIP AND ACCEPTED TO COVER ALL IMPROVEMENTS SHOWN ON THE PLAN AND REQUIRED UNDER THE SUBDIVISION/LAND DEVELOPMENT AGREEMENT.

APPROVED THE ____ DAY OF _____, 20____

BOARD OF COMMISSIONERS SIGNED THIS ____ DAY OF _____, 20____

CHAIRMAN _____

MEMBER _____

TOWNSHIP ENGINEER _____

ATTEST: _____

MANAGER _____

MONTGOMERY COUNTY PLANNING COMMISSION:

REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION THIS ____ DAY OF _____, 20____

SECRETARY _____

RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF MONTGOMERY COUNTY AT NORRISTOWN, PENNSYLVANIA IN THE

PLAN BOOK _____ PAGE _____ ON THE ____ DAY OF _____, 20____

RECORDER OF DEEDS _____

RESOLUTION 2023-23 PLAN APPROVAL

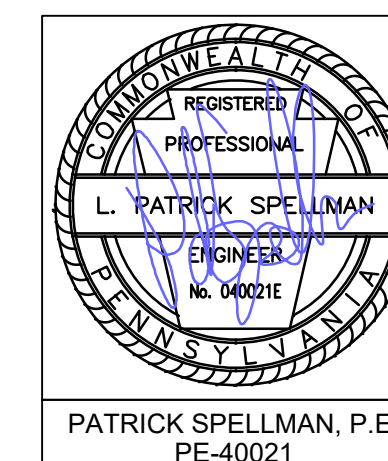
THIS FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN ADDRESSES THE CONDITIONS OF APPROVAL FROM RESOLUTION 2023-23 GRANTING APPROVAL OF THE LAND DEVELOPMENT PLAN AND FOLLOWING WAIVERS AS DETAILED IN THE JULY 13, 2023 RESOLUTION:

a) SECTION 145-27 REGARDING PRELIMINARY/FINAL APPLICATION.
b) SECTION 145-10E REGARDING CARTWAY WAY.

NUM.	DATE	REVISION
4.	3/20/2026	RESPONSE TO TWP SUBDIVISION, LDP & MCD NPDES REVIEWS
3.	12/31/2025	TOWNSHIP SUBDIVISION & LDP SUBMISSION
2.	12/19/2025	RESPONSE TO 12/16/25 ADMIN INCOMPLETE REVIEW
1.	11/21/2025	RESPONSE TO 9/24/25 ADMIN INCOMPLETE REVIEW

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

PLAN PREPARED FOR:
PARKVIEW HOMES AT VALLEY FORGE, LLC
450 WEST BEIDLER ROAD, KING OF PRUSSIA
UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA



COVER SHEET

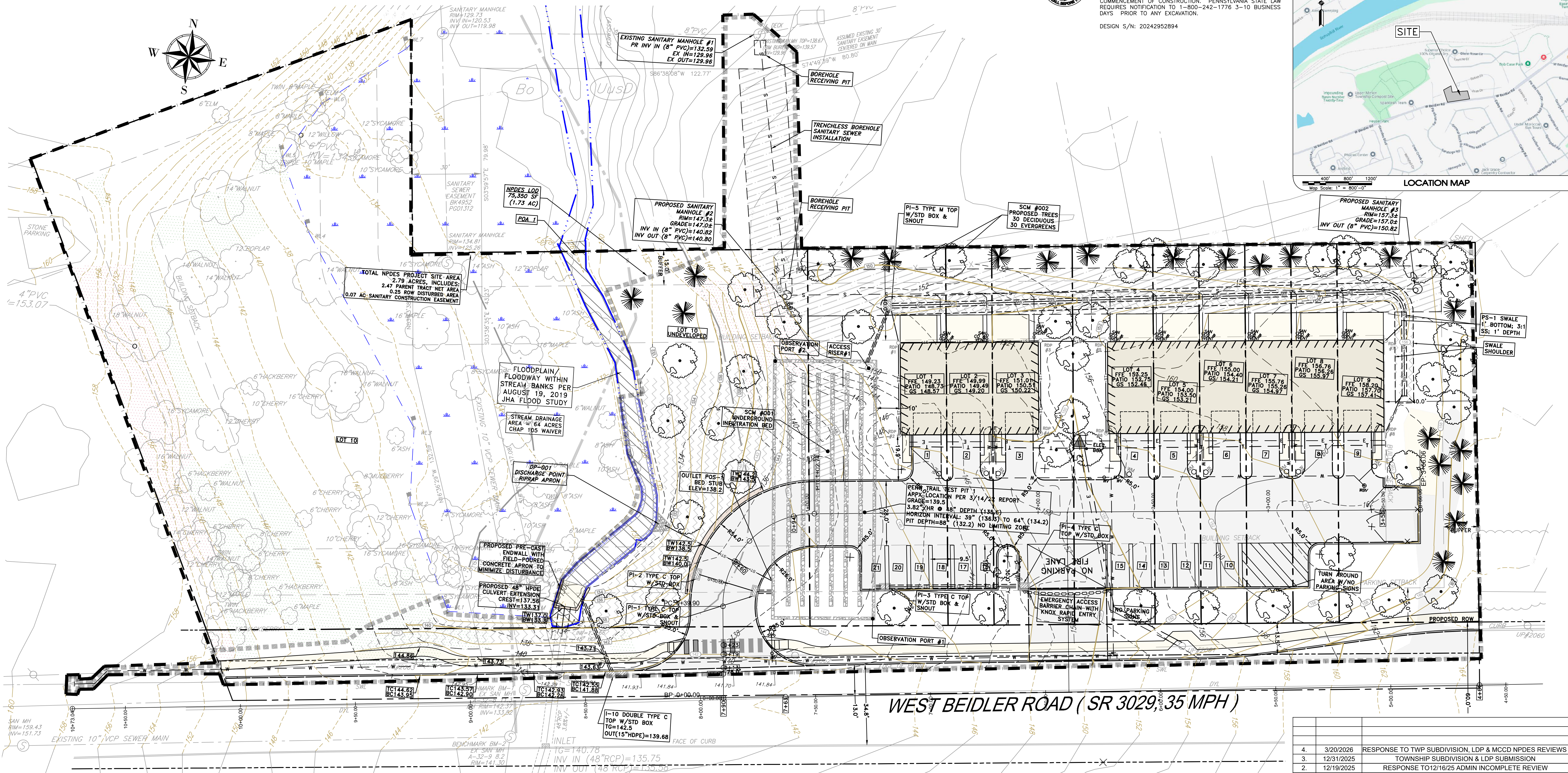
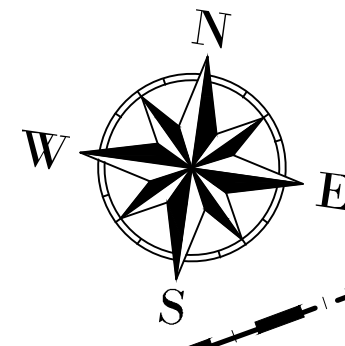
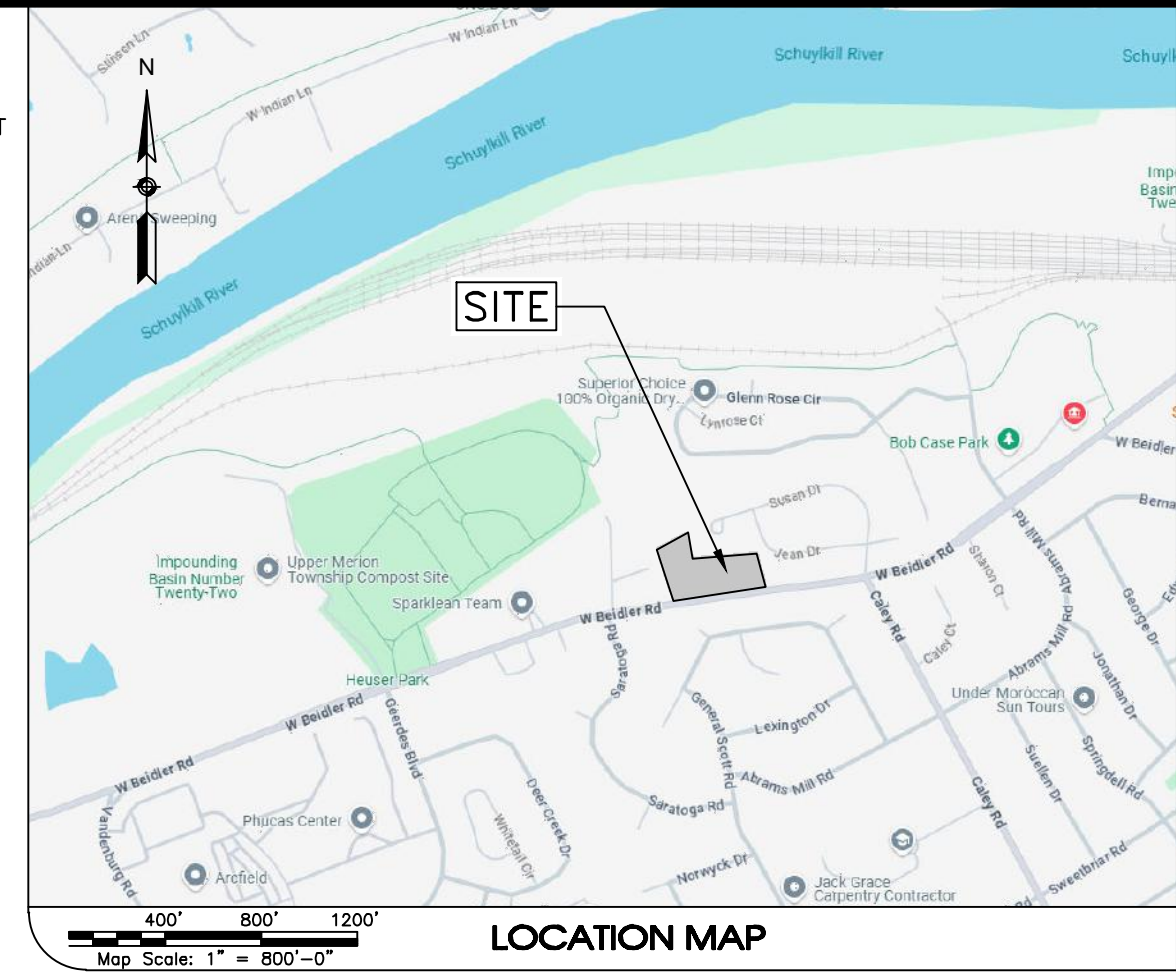
SHEET
1 of 23

SCALE: 1" = 100'



NOTE: THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES CANNOT BE GUARANTEED. ALL UTILITIES DEPICTED ON THIS PLAN HAVE BEEN DEVELOPED FROM ABOVE GROUND OBSERVATIONS AND/OR EXISTING RECORDS. CONTRACTOR MUST VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. PENNSYLVANIA STATE LAW REQUIRES NOTIFICATION TO 1-800-242-1776 3-10 BUSINESS DAYS PRIOR TO ANY EXCAVATION.

DESIGN S/N: 20242952894



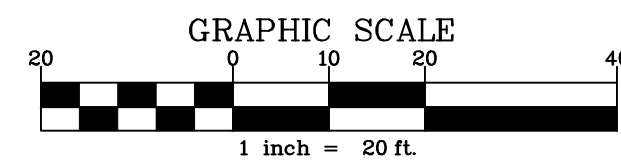
- PLAN LEGEND**
- BOLD LINES: PROPOSED
FADED LINES: EXISTING
- NPDES PERMIT BOUNDARY
 - LIMIT OF DISTURBANCE LINE
 - PROPERTY LINE
 - RIGHT-OF-WAY
 - BUILDING SETBACK LINE
 - EDGE OF PAVEMENT
 - MONUMENT OR PIN (FOUND AND HELD TO BE SET)
 - 1" INTERVAL CONTOUR
 - PROPOSED INTERVAL
 - 5" INDICATOR CONTOUR
 - PROPOSED INDICATOR
 - 2" LIDAR CONTOURS
 - STORM SEWER PIPING
 - STORMWATER MANHOLE
 - STORMWATER INLET
 - STORM CLEAN OUT
 - SANITARY SEWER PIPING
 - GAS MAIN / SERVICE
 - UNDERGROUND ELECTRIC
 - OVERHEAD WIRES & POLES
 - COMMUNICATIONS
 - HYDRANT
 - WATER VALVE
 - WATER METER
 - SANITARY VENT
 - SANITARY CLEAN OUT
 - SANITARY MANHOLE
 - GAS METER
 - GAS VALVE

- BUILDINGS
- PORCH / ROOF LINES
- ASPHALT
- WALKS & PADS
- WALLS
- PARKING STALL #
- EDGE OF LANDSCAPING
- FENCE LINE
- LIGHT POLE
- SOIL BOUNDARY & MAP SYMBOL
- NORTH AMERICAN GREEN VMX C350
- TURF REINFORCEMENT MATTING
- STREAM
- TWP STREAM EASEMENT
- WETLANDS W/FLAGS
- FLOODWAY
- SLOPES, <15%
- SLOPES, 15-25%
- STEEP SLOPES, >25%
- NATURAL MAN-MADE OR <4" CHANGE
- SANITARY SEWER EASEMENTS

PIPE & STRUCTURE DATA

SEE DETAIL SHEET FOR:

- PIPE RUN TABLE WITH PIPE DIAMETER, MATERIAL, LENGTH & SLOPE.
- STRUCTURE TABLE FOR INLET CONFIGURATION AND INVERTS.



PCSM PLAN SET LIST OF DRAWING

1. SEE SHEET 4 FOR PCSM PLAN.
 2. SEE SHEETS 5 FOR PCSM DETAILS.
 3. SEE SHEETS 6 FOR PCSM DETAILS & NOTES.
 4. SEE SHEETS 7 FOR DRAINAGE AREA MAPS.
- REFERENCE:
SEE SHEETS 8 TO 12 FOR E&S PLANS, NOTES, DETAILS AND SEQUENCING.
SEE NPDES AND TWP GRADING PERMIT CONDITIONS FOR ADDITIONAL REQUIREMENTS.

SOIL DATA 102.4(b)(5)(i)

(PER WEB SOIL SURVEY, USDA, NRCS AS OF JULY 2020)

MAP SYMBOL	SOIL NAME	% SLOPE	INCHES TO HIGH WATER	INCHES TO BEDROCK	LAND CAPABILITY	DRAINAGE CLASS	HSG	DWELLING W/BASEMENT	LAWNS	ROADS	SEPTIC D-RIP	DEEP INFILTRATION
Bo	BOWMANVILLE-KNAUERS	0-3	0-18	72 TO 99	3w/4v (NONIRRI)	POORLY	C/D	NR	NR	NR	NR	NR
UusD	URBAN LAND - UDORTHERTS	8-25	>80	22 TO 99	8v (NONIRRI)	WELL	B	NR	NR	NR	NR	NR

NL = NOT LISTED; NR = NOT RATED.
POSSIBLE SOIL LIMITATIONS PER PADEP E&S MANUAL APPENDIX E:
-BOWMANVILLE: OUTBANKS; CORROSION; STEEL/CONCRETE; FLOODING; HIGH WATER; HYDRIC; LOW STRENGTH; SLOW PERC; PIPING; POOR TOPSOIL; FROST ACTION; WETNESS.
-KNAUERS: OUTBANKS; CORROSION; STEEL/CONCRETE; DROUGHT; FLOODING; HIGH WATER; HYDRIC; LOW STRENGTH; SLOW PERC; POOR TOPSOIL; FROST ACTION; PONDING; WETNESS.
-UDORTHERTS: CORROSION; STEEL/CONCRETE; DROUGHT; FLOODING; HIGH WATER; HYDRIC; LOW STRENGTH; SLOW PERC; POOR TOPSOIL; FROST ACTION.
GEOTECHNICAL BORING WERE PERFORMED AND THE LIMITATIONS OF THE SOILS ARE INCLUDED IN FOUNDATION AND STORMWATER DESIGNS

NUM.	DATE	REVISION
4.	3/20/2026	RESPONSE TO TWP SUBDIVISION, LDP & MCD NPDES REVIEWS
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LAND DEVELOPMENT PLAN/ NPDES PLAN
PLAN PREPARED FOR:
PARKVIEW HOMES AT VALLEY FORGE, LLC
450 WEST BEIDLER ROAD, KING OF PRUSSIA
UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA
18 AUG 2025

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

SHEET 4 of 23
SCALE: 1" = 20'

Hydrowall Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023 Thursday, 03 / 12 / 2026

Pond No. 1 - 36IN PIPE &STONE BED	BED CONFIGURATON INCLUDING STONE
Pond Data	STORAGE USED FOR NPDES CALCULATIONS

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	135.50	n/a	0	0
0.50	136.00	n/a	981	981
1.00	136.50	n/a	1,413	2,391
1.50	137.00	n/a	1,784	4,105
2.00	137.50	n/a	1,854	5,959
2.50	138.00	n/a	1,874	7,834
3.00	138.50	n/a	1,917	9,751
3.50	139.00	n/a	1,852	11,643
4.00	139.50	n/a	1,713	13,357
4.50	140.00	n/a	1,409	14,766
5.00	140.50	n/a	981	15,747

Culvert / Orifice Structures					Weir Structures				
	[A]	[B]	[C]	[PrfRsr]		[A]	[B]	[C]	[D]
Rise (in)	= 10.00	0.00	0.00	0.00	Crest Len (ft)	= 0.00	0.00	0.00	0.00
Span (in)	= 10.00	0.00	0.00	0.00	Crest El. (ft)	= 0.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0	Weir Coeff.	= 3.33	3.33	3.33	3.33
Invert El. (ft)	= 138.20	0.00	0.00	0.00	Weir Type	=	---	---	---
Length (ft)	= 52.00	0.00	0.00	n/a	Multi-Stage	= No	No	No	No
Shape (%)	= 15.70	0.00	0.00	n/a					
N-Value	= 0.13	0.13	0.13	n/a					
Orifice Coeff.	= 0.60	0.60	0.60	0.60	Exfil.(In/hr)	= 0.000	(by Wet areas)		
Multi-Stage	= n/a	No	No	No	TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

[illegible]

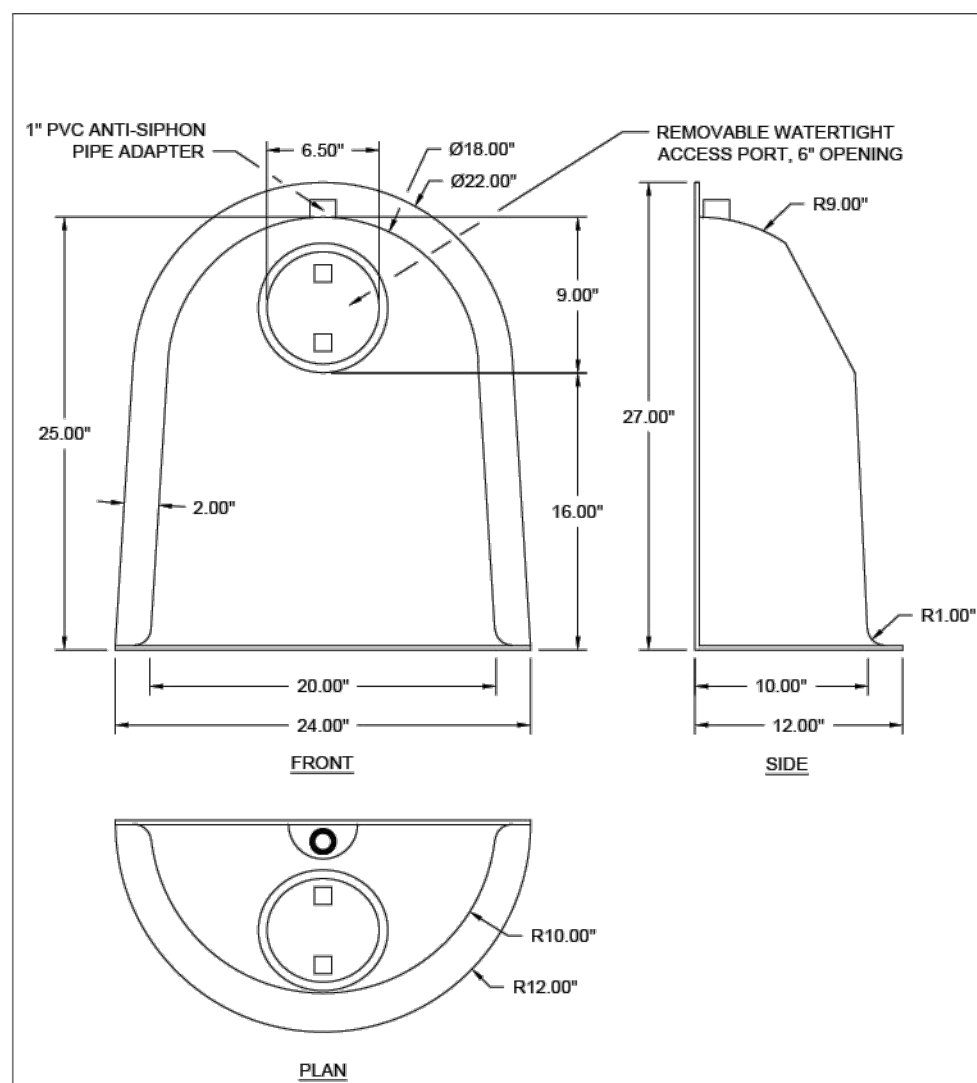
Hydrowflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023 Wednesday, 02 / 18 / 2026

Pond No. 2 - 36IN PIPE wOUTSTONE	BED CONFIGURATION WITHOUT STONE
Pond Data	STORAGE USED FOR TWP CALCULATIONS
UG Chambers -Invert elev. = 136.00 ft, Rise x Span = 4.00 x 4.00 ft, Barrel Len = 100.00 ft, No. Barrels = 7, Slope = 0.00%, Headers = Yes	

Stage / Storage Table				
Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	136.00	n/a	0	0
0.40	136.40	n/a	510	510
0.80	136.80	n/a	886	1,397
1.20	137.20	n/a	1,078	2,475
1.60	137.60	n/a	1,187	3,662
2.00	138.00	n/a	1,241	4,903
2.40	138.40	n/a	1,241	6,143
2.80	138.80	n/a	1,187	7,331
3.20	139.20	n/a	1,078	8,408
3.60	139.60	n/a	886	9,294
4.00	140.00	n/a	510	9,804

Culvert / Orifice Structures					Weir Structures				
	[A]	[B]	[C]	[PrfRsr]		[A]	[B]	[C]	[D]
Rise (in)	= 10.00	0.00	0.00	0.00	Crest Len (ft)	= 0.00	0.00	0.00	0.00
Span (in)	= 10.00	0.00	0.00	0.00	Crest El. (ft)	= 0.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0	Weir Coeff.	= 3.33	3.33	3.33	3.33
Invert El. (ft)	= 138.20	0.00	0.00	0.00	Weir Type	= ---	---	---	---
Length (ft)	= 52.00	0.00	0.00	0.00	Multi-Stage	= No	No	No	No
Slope (%)	= 15.70	0.00	0.00	n/a					
N-Value	= 0.13	0.13	0.13	n/a					
Orifice Coeff.	= 0.60	0.60	0.60	0.60	Exfil.(in/hr)	= 3.820 (by Wet area)			
Multi-Stage	= n/a	No	No	No	TW Elev. (ft)	= 0.00			

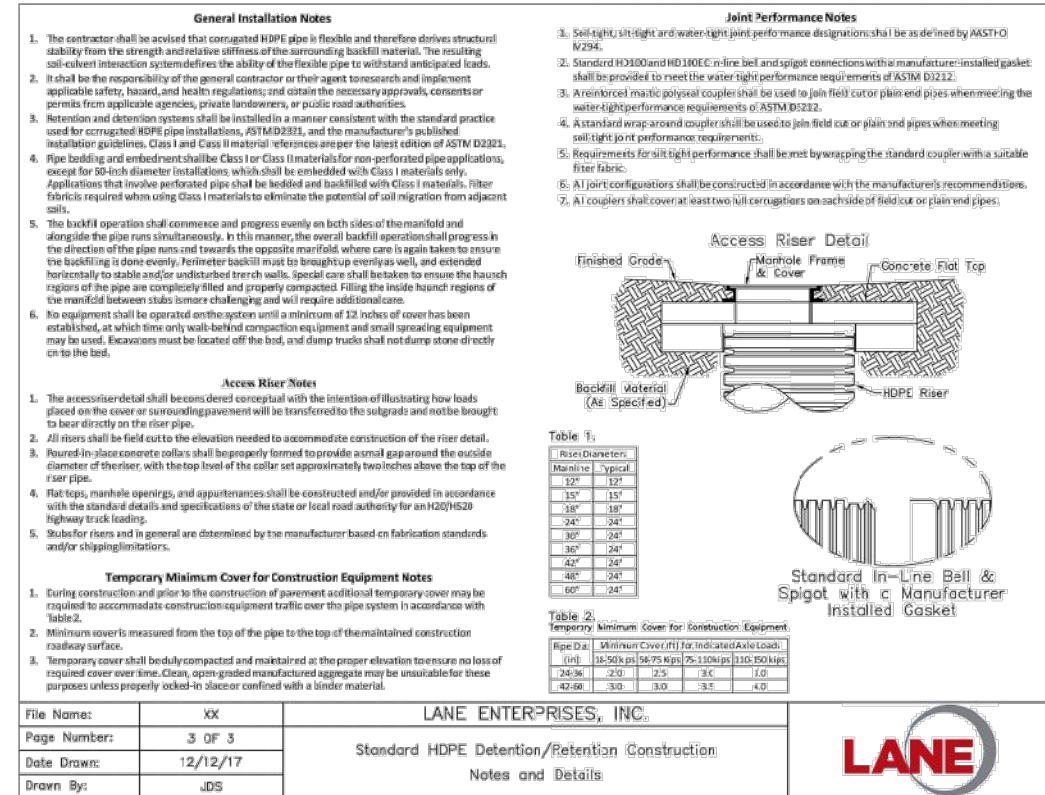
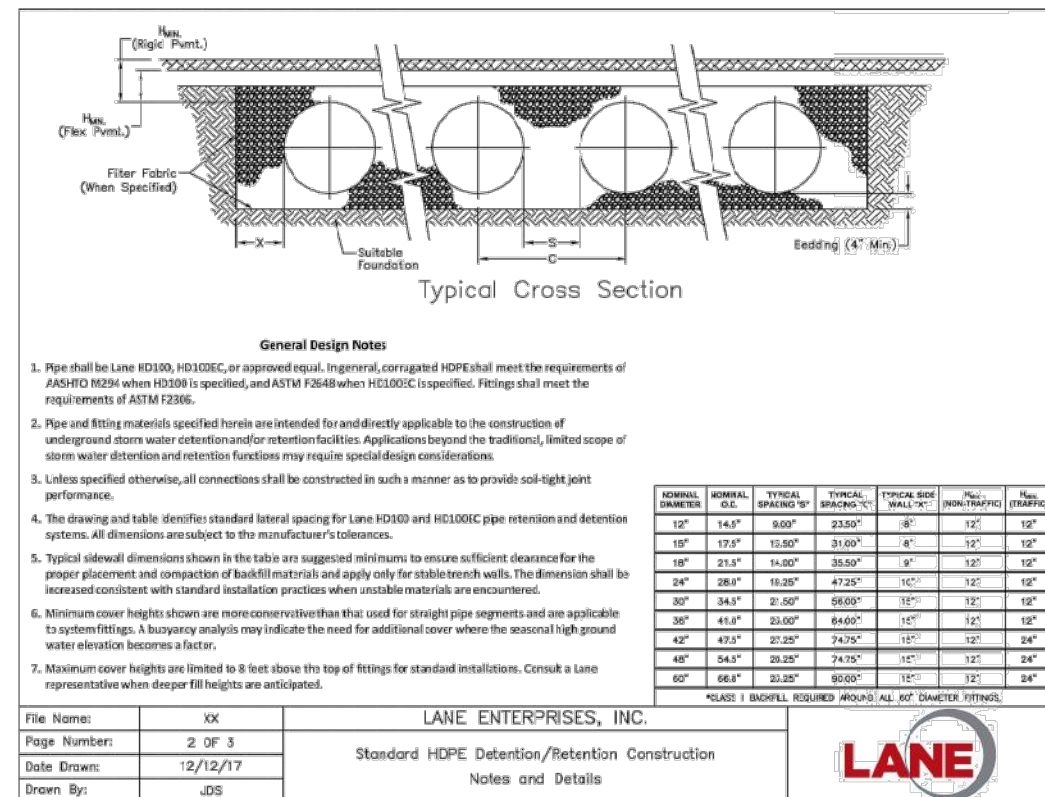
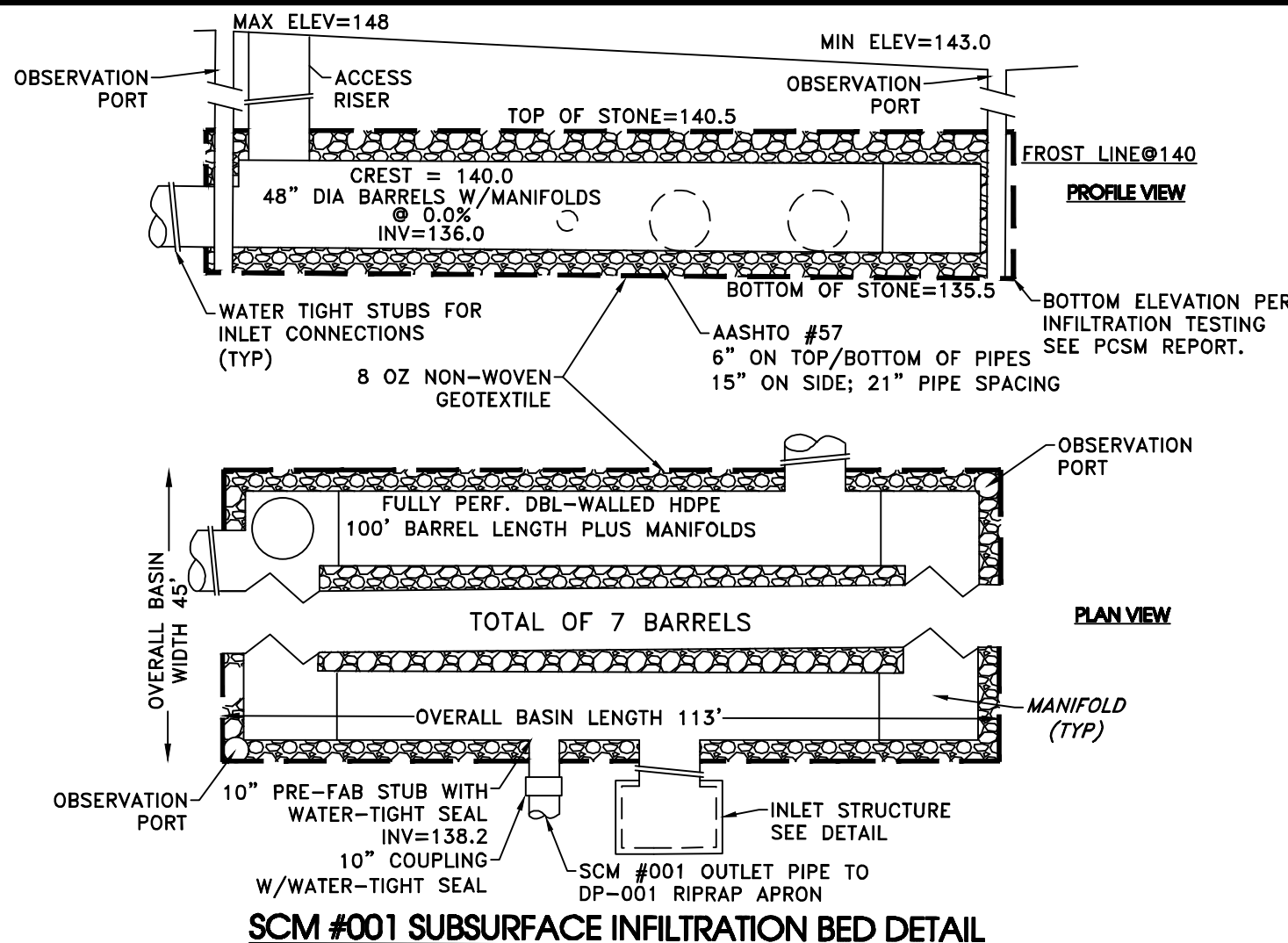
Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PfRr cfs	Wc A cfs	Wc B cfs	Wc C cfs	Wc D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	136.00	0.00	---	---	---	---	---	---	---	0.000	---	0.000
0.40	510	136.40	0.00	---	---	---	---	---	---	---	0.178	---	0.178
1.00	1,387	136.80	0.00	---	---	---	---	---	---	---	0.256	---	0.256
1.20	2,475	137.20	0.00	---	---	---	---	---	---	---	0.320	---	0.320
1.40	7,662	137.60	0.00	---	---	---	---	---	---	---	0.378	---	0.378
2.00	9,043	138.00	0.00	---	---	---	---	---	---	---	0.433	---	0.433
2.40	6,143	138.40	0.15	ic	---	---	---	---	---	---	0.489	---	0.643
2.80	7,531	138.80	1.11	ic	---	---	---	---	---	---	1.547	---	1.657
3.20	8,048	139.20	2.01	ic	---	---	---	---	---	---	0.611	---	2.617
3.60	8,204	139.60	2.26	ic	---	---	---	---	---	---	0.689	---	3.280
4.00	9,604	140.00	3.00	ic	---	---	---	---	---	---	0.867	---	3.955



US PATENT #6126817 ADDITIONAL PATENTS PENDING

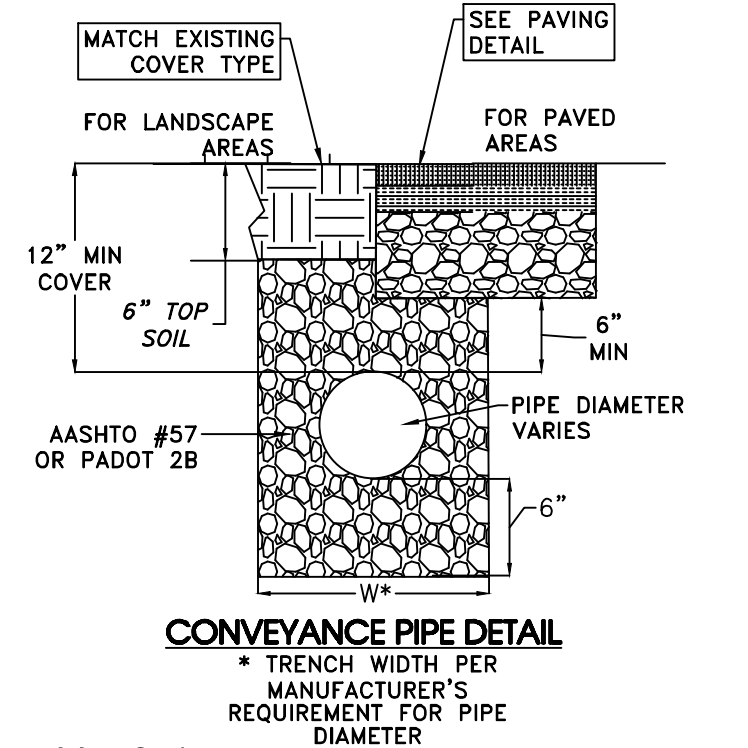
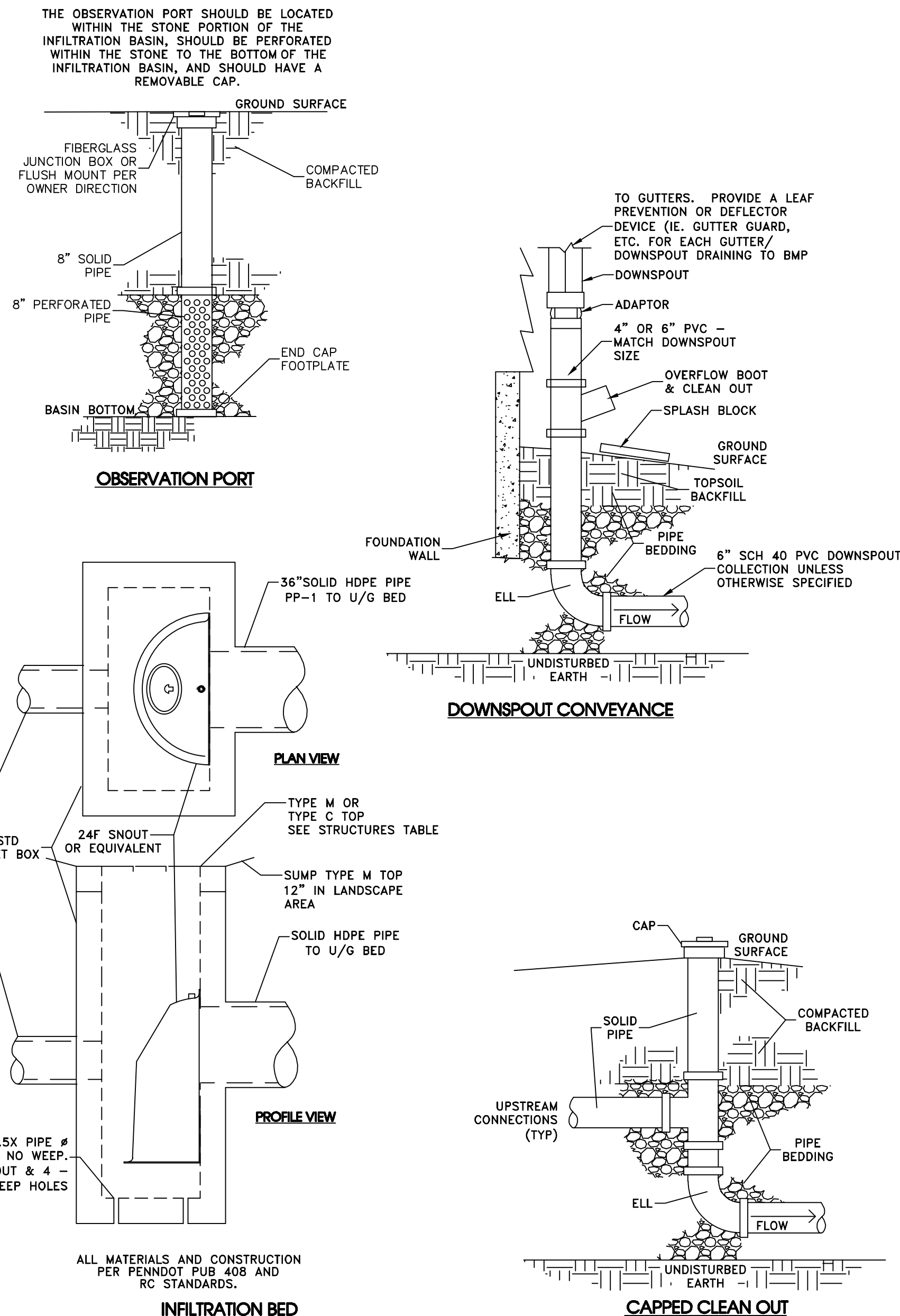
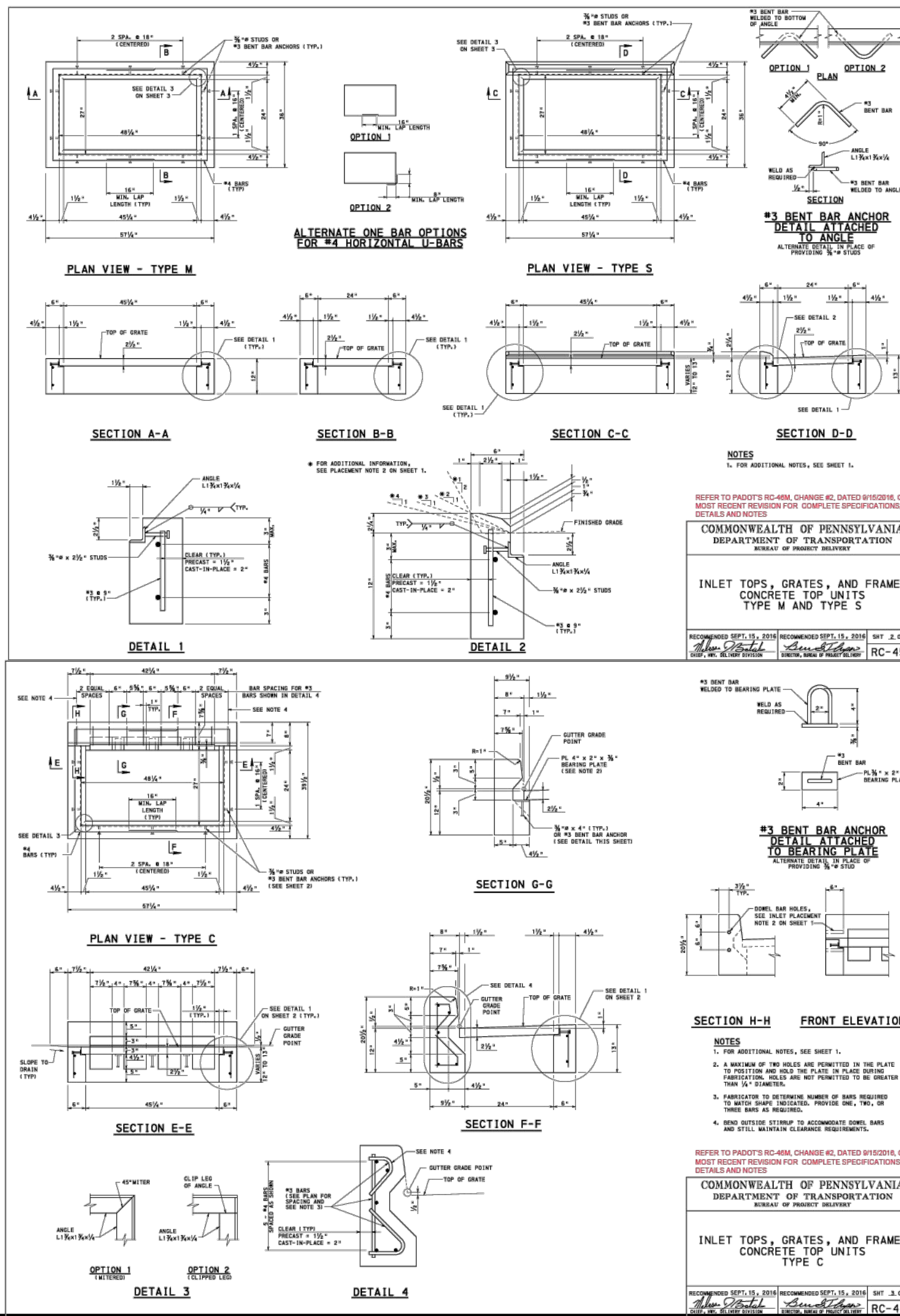
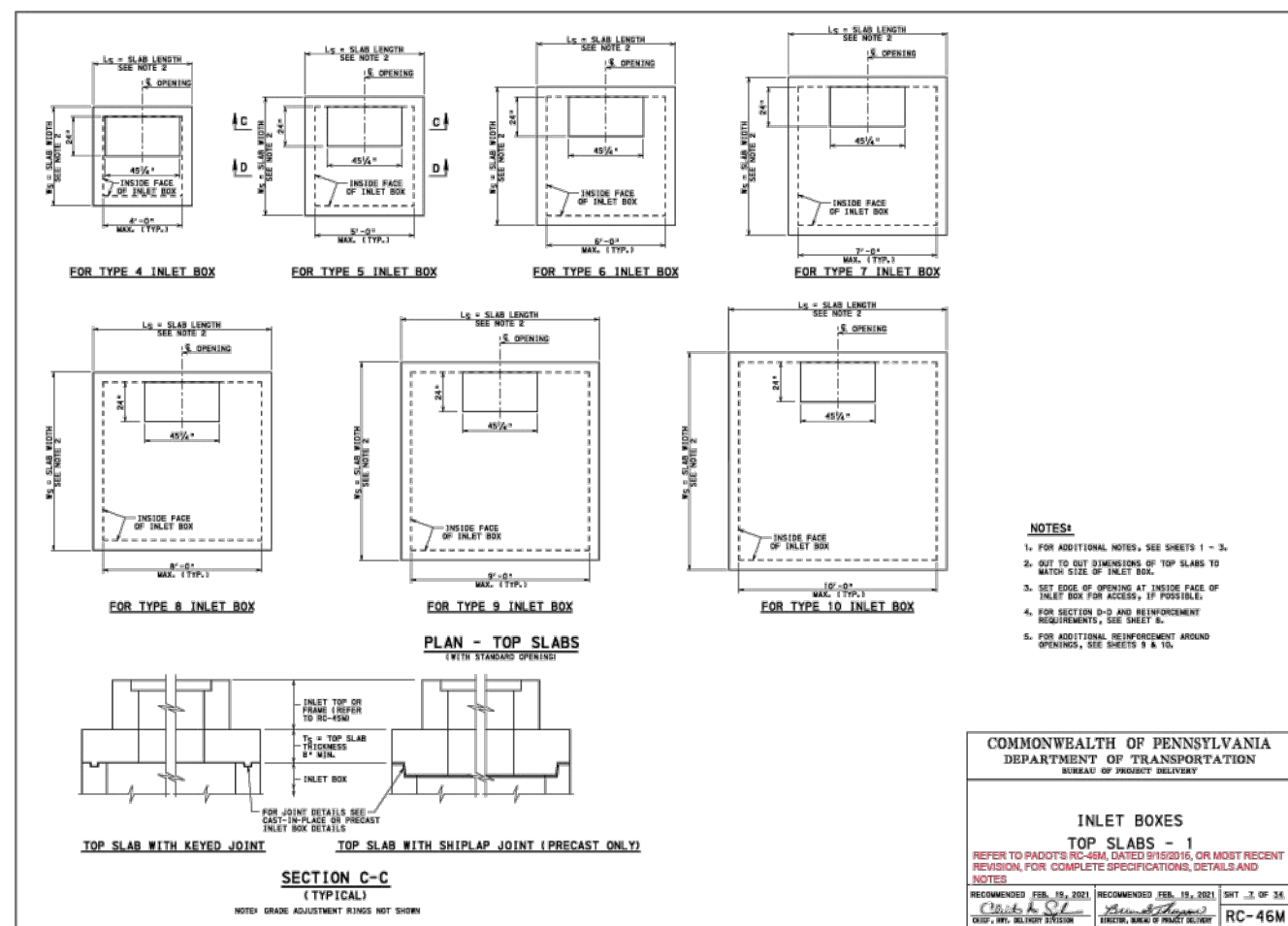
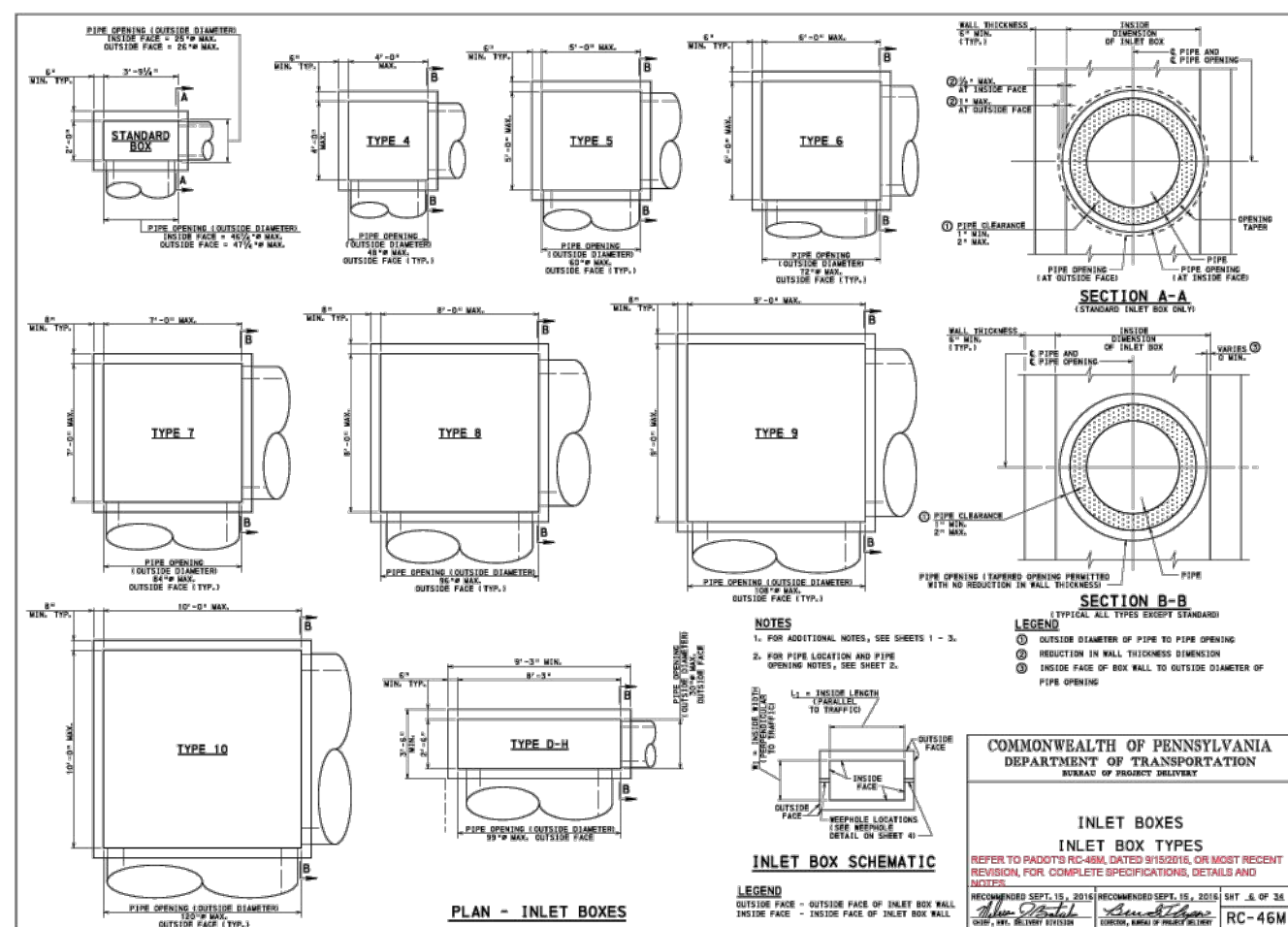
BMP, INC.
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 504-8008 FAX: (860) 434-3195

DESCRIPTION	DATE	SCALE
BF SNOUT OIL DEBRIS STOP	09/14/99	NONE
DRAWING NUMBER		
18F		



Line ID	STRUCTURE		Length (feet)	Invert		Slope (ft/ft)	Pipe Size (inch)	Pipe Material	Ground Elevation		Cover	
	Down	Up		Down	Up				Down	Up	Down	Up
PP-1	SCM001	PI-1	6.32	136.06	136.32	0.050	24	HPDE	142.50	142.85	4.50	4.53
PP-2	PI-1	PI-2	24.10	136.34	140.80	0.185	15	HPDE	142.85	143.17	5.26	1.13
PP-3	SCM001	PI-3	2.00	136.06	136.04	0.020	24	HPDE	145.00	145.20	7.00	7.16
PP-4	PI-3	PI-4	55.10	136.06	145.43	0.170	15	HPDE	145.20	147.80	7.89	1.13
PP-5	SCM001	PI-5	34.00	136.06	143.33	0.216	15	HPDE	148.50	147.00	11.25	2.42
POS-1	DP-001	SCM001	52.70	130.00	138.20	0.156	10	PVC	132.00	142.50	1.17	3.47
RD-1	PI-5	RDPI	13.40	145.49	146.18	0.052	6	PVC	147.00	148.00	1.01	1.32
RD-2	RDPI	RDPI	39.40	146.20	146.99	0.020	6	PVC	148.00	148.50	1.30	1.01
RD-3	RDPI	RDPI	60.00	146.20	148.18	0.033	6	PVC	148.00	151.00	1.30	2.32
RD-4	RDPI	RDPI	39.40	148.20	148.99	0.020	6	PVC	151.00	150.50	2.30	1.01
RD-5	RDPI	RDPI	26.80	148.20	148.68	0.018	6	PVC	151.00	152.00	2.30	2.82
RD-6	RDPI	RDPI	39.40	148.70	149.49	0.020	6	PVC	152.00	151.00	2.80	1.01
RD-7	SWALE	RDPI	9.80	156.00	156.19	0.019	6	PVC	156.50	157.70	0.00	1.01
RD-8	SWALE	RDPI	16.90	156.00	156.19	0.011	6	PVC	156.50	157.70	0.00	1.01

SCHEDULE OF STRUCTURES									
BOX							PIPE CONNECTIONS		
ID	BOX TYPE	TOP TYPE	GRATE ELE	SNOUT	SUMP INV	BOX DEPTH	DIA (IN)	MAT'L	INV
PI-1	STD	C INLET	142.9	YES	129.32	13.53	15	HDPE	136.34
							24	HDPE	136.32
PI-2	STD	C INLET	143.2	NO	139.80	3.38	15	HDPE	140.80
							24	HDPE	136.06
PI-3	STD	C INLET	145.2	YES	129.04	16.16	15	HDPE	140.80
							24	HDPE	136.04
PI-4	STD	C INLET	147.8	NO	144.43	3.38	15	HDPE	145.43
PI-5	STD	M INLET	147.0	YES	138.96	8.04	6	PVC	145.49
							15	HDPE	143.33



- PIPE NOTES**
1. PIPE TO BE DOUBLE-WALLED HDPE, LANE ENTERPRISES' HD100S OR APPROVED EQUIVALENT. PVC SDR 35 MAY BE SUBSTITUTED FOR 6" PIPE.

PCPSM PLAN SET LIST OF DRAWING

1. SEE SHEET 4 FOR PCPSM PLAN.
2. SEE SHEETS 5 FOR PCPSM DETAILS.
3. SEE SHEETS 6 FOR PCPSM DETAILS & NOTES.
4. SEE SHEETS 7 FOR DRAINAGE AREA MAPS.

REFERENCE:

SEE SHEETS 8 TO 12 FOR GR&SC PLANS, NOTES, DETAILS AND SEQUENCING.

SEE MPDES AND TWP GRADING PERMIT CONDITIONS FOR ADDITIONAL REQUIREMENTS

4.	3/20/2026	RESPONSE TO TWP SUBDIVISION, LDP & MCCD NPDES REVIEWS
3.	12/31/2025	TOWNSHIP SUBDIVISION & LDP SUBMISSION
2.	12/19/2025	RESPONSE TO12/16/25 ADMIN INCOMPLETE REVIEW
1.	11/21/2025	RESPONSE TO 9/24/25 ADMIN INCOMPLETE REVIEW
NUM.	DATE	REVISION

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM
LAND DEVELOPMENT PLAN/ NPDES PLAN
PLAN PREPARED FOR:
*PARKVIEW HOMES AT VALLEY
FORGE, LLC*
450 WEST BEIDLER ROAD, KING OF PRUSSIA
UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA
18 AUG 2025

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

SHEET
5 of 23

SCALE: 1" = N

CONSTRUCTION SEQUENCE

NOTE: A QUALIFIED LICENSED PROFESSIONAL OR DESIGNER SHALL BE PRESENT AT THE SITE TO OBSERVE CRITICAL STAGES. CRITICAL STAGES ARE UNDERLINED IN THE CONSTRUCTION SEQUENCE BELOW. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER WHEN THE UNDERLINED STAGES ARE SCHEDULED.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

AT LEAST 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, THE DESIGNATED LICENSED DESIGN PROFESSIONAL (PREPARER OF E&S PLAN AND PCSM PLAN), ALL APPROPRIATE MUNICIPAL OFFICIALS, AND A REPRESENTATIVE FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING.

THE TOWNSHIP ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF EARTH MOVING ACTIVITIES AND ALL REQUIRED INSPECTIONS. TO MEET ABOVE REQUIREMENTS FOR THE NPDES GENERAL PERMIT, STREET SWEEPING WITH A VACUUM SWEEPER MUST BE PERFORMED AT THE END OF EACH WORK DAY (OR MORE FREQUENTLY AS NEEDED). TOWNSHIP STAFF SHALL HAVE THE RIGHT TO ORDER STREET CLEANING MORE OFTEN IF THERE IS EVIDENCE OF CONSTRUCTION RELATED DEBRIS IN THE ROADWAY DURING THE PROJECT.

CESSATION OF DISTURBANCE ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.

- THE LIMIT OF DISTURBANCE SHALL BE MARKED BY SURVEY STAKES, POSTS & ROPE, OR CONSTRUCTION FENCING PRIOR TO DISTURBANCE ACTIVITIES.
- REMOVE TREES AS NEEDED IF WITHIN THE ALLOWABLE TIME PERIOD. DO NOT REMOVE TREES BETWEEN MAY 15 AND AUGUST 15 PER THE AVOIDANCE MEASURES REQUIRED BY THE US FISH AND WILDLIFE SERVICES' RESPONSE ON THE 9/24/2024 PNDI RECEIPT.
- INSTALL ROCK CONSTRUCTION ENTRANCE, SCM #1 PROTECTION FENCING AND SILT BARRIERS.
- INSTALL COMPOST SOCK TRAP AND DIVERSION SOCKS.
- INSTALL CONCRETE WASH OUT.
- GRUB TREE STUMPS AND VEGETATION. STOCK PILE TOPSOIL. ROUGH GRADE TOWNHOUSE AND DRIVEWAY AREAS.
- BEGIN CONSTRUCTION OF EMERGENCY ACCESS AND PARKING LOT UP TO SPACE 19 AND ASSOCIATED STORMWATER INLETS AND CONVEYANCE PIPING PER THE PLANS, NOTES AND DETAILS. ALL STORMWATER FEATURES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.
- SEAL INLETS UNTIL CONTRIBUTING AREAS ARE STABILIZED PER THE SEQUENCE BELOW.
- STABILIZE EMERGENCY ACCESS AND PARKING WITH BASE COURSE. INSTALL STABILIZED ACCESS OF CRUSHED STONE ON REMAINING PARKING LOT, ROADWAY AND AROUND BUILDING AREA FOR CONSTRUCTION.
- BEGIN CONSTRUCTION OF BUILDINGS PER THE PLANS, NOTES AND DETAILS.
- STAGE CONSTRUCTION OF STORMWATER INFILTRATION BED IN SUCH A WAY THAT NO SEDIMENT ENTERS THE BED. CLEAN WASHED STONE SHALL BE USED TO CONSTRUCT BED. IF SEDIMENT ENTERS STONE, STONE SHALL BE REPLACED AND THE GEOTEXTILE FABRIC SHALL BE CLEANED OR REPLACED AS NECESSARY. INSTALL INLET PROTECTION. NO FLOW SHALL ENTER BEDS FROM ANY AREAS THAT ARE NOT AT LEAST 70% STABILIZED WITH A UNIFORM VEGETATIVE COVER OR FULLY PROTECTED WITH INLET PROTECTION.
- CRITICAL STAGE: CONSTRUCT INFILTRATION BED SCM #001 PER THE PLANS, NOTES AND DETAILS. CRITICAL OBSERVATIONS BY QUALIFIED LICENSED PROFESSIONAL:
 - BED BOTTOM AT DESIGN DEPTH, LEVEL AND UNCOMPACTED.
 - BED FOOTPRINT DIMENSIONS: STONE, PIPE & GEOTEXTILE MATERIAL PLACED.
 - OUTLET STRUCTURE WITH DISCHARGE CONTROL(S) SIZED PER DESIGN.
- UPON THE COMPLETION OF INFILTRATION BED INSTALLATION TO FINAL GRADES, IMMEDIATELY STABILIZE DORMANT DISTURBED AREAS WITH THE PERMANENT SEED MIXTURE, MULCH AT 3 TONS PER ACRE AND LIME AS PRESCRIBED OR EROSION MATTING AS REQUIRED PER PLAN NOTES.
- CRITICAL STAGE: COMPLETE SCM FORM FOR SCM #001 AND SUBMIT TO MCCD AS REQUIRED AFTER SCM INSTALLATION
- CONTINUE CONSTRUCTION OF IMPROVEMENTS. UPON THE COMPLETION OF FINAL GRADING IN ANY AREA, IMMEDIATELY STABILIZE DORMANT DISTURBED AREAS WITH THE PERMANENT SEED MIXTURE, MULCH AT 3 TONS PER ACRE AND LIME AS PRESCRIBED OR EROSION MATTING AS REQUIRED PER PLAN NOTES.
- INSTALL SWALE AND FINAL GRADING. STABILIZED WITH REINFORCED TURF MATTING AND SEED PER PLANS.
- INSTALL DISCHARGE PIPE, FLARED END SECTION AND RIPRAP APRON.
- COMPLETE DRIVEWAY CONSTRUCTION AND INLETS PI-1 & PI-2. PLACE WEARING COAT ON ROADWAY, PARKING LOT AND EMERGENCY ACCESS ROAD.
- STABILIZE COMPOST SOCK TRAP CONTRIBUTORY AREA WITH PERMANENT COVER AS SHOWN ON PLANS. REMOVE DIVERSION SOCKS AND SOCK TRAP ONCE ENTIRE SITE IS AT LEAST 70% STABILIZED.
- REMOVE REMAINING EROSION AND SEDIMENT CONTROL MEASURES ONCE TRIBUTARY AREAS ARE FULLY STABILIZED. IMMEDIATELY STABILIZE ANY REMAINING DISTURBED AREAS AND AREAS DISTURBED BY THE REMOVAL OF EROSION CONTROL FACILITIES WITH THE PERMANENT SEED MIXTURE, MULCH AT 3 TONS/ACRE AND LIME AS PRESCRIBED OR EROSION MATTING AS REQUIRED PER PLAN NOTES.
- INSTALL BEIDLER ROADWAY CULVERT EXTENSION AND STREAM STABILIZATION – SEE CULVERT EXTENSION AND STREAM RESTORATION SEQUENCE
- CRITICAL STAGE: ONCE THE ENTIRE CONTRIBUTORY AREA TO THE DRIVE INFILTRATION BED SCM #001 HAS BEEN FULLY STABILIZED, REMOVE INLET SEALS AND PUT BASIN ON-LINE. IF SEDIMENT ENTERS STONE, STONE SHALL BE REPLACED AND THE GEOTEXTILE FABRIC SHALL BE CLEANED OR REPLACED AS NECESSARY. NO FLOW SHALL ENTER BEDS FROM ANY AREAS THAT ARE NOT AT LEAST 70% STABILIZED WITH A UNIFORM VEGETATIVE COVER OR FULLY PROTECTED WITH INLET PROTECTION.
- THE DESIGNATED LICENSED PROFESSIONAL SHALL INSPECT TO ENSURE THAT THE INFILTRATION BED IS WORKING CORRECTLY BEFORE THE N.O.T. IS SUBMITTED TO THE CONSERVATION DISTRICT.
- CRITICAL STAGE: UPON COMPLETION OF ALL CONSTRUCTION, A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

ANTICIPATED START OF CONSTRUCTION – SUMMER 2026
ANTICIPATED COMPLETION OF CONSTRUCTION – WINTER 2028

SCM #001 INFILTRATION BED

DESIGN

- SOIL INVESTIGATION AND INFILTRATION TESTING IS NEEDED (APPENDIX C).
- GUIDELINES FOR INFILTRATION SYSTEMS SHOULD BE MET (APPENDIX C).
- THE OVERALL SITE SHOULD BE EVALUATED FOR POTENTIAL SUBSURFACE INFILTRATION AREAS EARLY IN THE DESIGN PROCESS, AS EFFECTIVE DESIGN REQUIRES CONSIDERATION OF EXISTING SITE CHARACTERISTICS (TOPOGRAPHY, NATURAL FEATURES/DRAINAGE WAYS, SOILS, GEOLOGY, ETC.).
- CONTROL OF SEDIMENT IS CRITICAL. RIGOROUS INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES IS NEEDED TO PREVENT SEDIMENT DEPOSITION WITHIN THE STONE BED. NONWOVEN GEOTEXTILE MAY BE FOLDED OVER THE EDGE OF THE BED UNTIL THE SITE IS STABILIZED.
- THE INFILTRATION BED SHOULD BE WRAPPED IN NON-WOVEN GEOTEXTILE FILTER FABRIC.
- SUBSURFACE INFILTRATION AREAS SHOULD NOT BE PLACED ON AREAS OF RECENT FILL OR COMPACTED FILL. ANY GRADE ADJUSTMENTS REQUIRING FILL SHOULD BE DONE USING THE STONE SUBBASE MATERIAL, OR ALTERNATIVE.
- AREAS OF HISTORICAL FILL (>5 YEARS) MAY BE CONSIDERED IF OTHER CRITERIA ARE MET.
- THE SUBSURFACE INFILTRATION BED IS TYPICALLY COMPRISED OF A 12 TO 36 INCH SECTION OF AGGREGATE, SUCH AS AASHTO NO.3, WHICH RANGES 1–2 INCHES IN GRADATION. DEPENDING ON LOCAL AGGREGATE AVAILABILITY, BOTH LARGER AND SMALLER SIZE AGGREGATE HAS BEEN USED. THE CRITICAL REQUIREMENTS ARE THAT THE AGGREGATE BE UNIFORMLY GRADED, CLEAN-WASHED, AND CONTAIN AT LEAST 40% VOID SPACE. THE DEPTH OF THE BED IS A FUNCTION OF STORMWATER STORAGE REQUIREMENTS, FROST DEPTH CONSIDERATIONS, AND SITE GRADING; INFILTRATION BEDS ARE TYPICALLY SIZED TO MITIGATE THE INCREASED RUNOFF VOLUME FROM THE DESIGN STORM.
- WATER QUALITY INLET AND OUTLET BASINS OR NEED FOR SURFACE INLETS SHOULD BE DESIGNED TO AVOID STANDING WATER FOR PERIODS GREATER THAN THE CRITERIA IN CHAPTER 5.
- INFILTRATION BEDS MAY BE PLACED ON A SLOPE BY BENCHING OR TERRACING INFILTRATION LEVELS. THE SLOPE OF THE INFILTRATION BED BOTTOM SHOULD BE LEVEL OR WITH A SLOPE NO GREATER THAN 1%. A LEVEL BOTTOM ASSURES EVEN WATER DISTRIBUTION AND INFILTRATION.
- PERFORATED PIPES ALONG THE BOTTOM OF THE BED CAN BE USED TO EVENLY DISTRIBUTE RUNOFF OVER THE ENTIRE BED BOTTOM. CONTINUOUSLY PERFORATED PIPES MAY CONNECT STRUCTURES (SUCH AS CLEANOUTS AND INLET BOXES). PIPES SHOULD LAY FLAT ALONG THE BED BOTTOM AND PROVIDE FOR UNIFORM DISTRIBUTION OF WATER. DEPENDING ON SIZE, THESE PIPES MAY PROVIDE ADDITIONAL STORAGE VOLUME.
- CLEANOUTS OR INLETS SHOULD BE INSTALLED AT A FEW LOCATIONS WITHIN THE BED AND AT APPROPRIATE INTERVALS TO ALLOW ACCESS TO THE PERFORATED PIPING NETWORK AND/OR STORAGE MEDIA.
- ALL INFILTRATION BEDS SHOULD BE DESIGNED WITH AN OVERFLOW FOR EXTREME STORM EVENTS. CONTROL IN THE BEDS IS USUALLY PROVIDED IN THE FORM OF AN OUTLET CONTROL STRUCTURE. A MODIFIED INLET BOX WITH AN INTERNAL CONCRETE WEIR (OR WEIR PLATE) AND LOW-FLOW ORIFICE IS A COMMON TYPE OF CONTROL STRUCTURE. THE SPECIFIC DESIGN OF THESE STRUCTURES MAY VARY, DEPENDING ON FACTORS SUCH AS RATE AND STORAGE REQUIREMENTS, BUT IT MUST ALWAYS INCLUDE POSITIVE OVERFLOW FROM THE SYSTEM. THE OVERFLOW STRUCTURE IS USED TO MAXIMIZE THE WATER LEVEL IN THE STONE BED, WHILE PROVIDING SUFFICIENT COVER FOR OVERFLOW PIPES. GENERALLY, THE TOP OF THE OUTLET PIPE SHOULD BE 4 INCHES BELOW THE TOP OF THE AGGREGATE TO PREVENT SATURATED SOIL CONDITIONS IN REMOTE AREAS OF THE BED, AS WITH ALL INFILTRATION PRACTICES, MULTIPLE DISCHARGE POINTS ARE RECOMMENDED. THESE MAY DISCHARGE TO THE SURFACE OR A STORM SEWER SYSTEM.
- ADEQUATE SOIL COVER (GENERALLY 12–18 INCHES) SHOULD BE MAINTAINED ABOVE THE INFILTRATION BED TO ALLOW FOR A HEALTHY VEGETATIVE COVER.
- OPEN SPACE WITHIN INFILTRATION BEDS CAN BE VEGETATED WITH NATIVE GRASSES, MEADOW MIX, OR OTHER LOW-GROWING, DENSE VEGETATION. THESE PLANTS HAVE LONGER ROOTS THAN TRADITIONAL GRASS AND WILL LIKELY BENEFIT FROM THE MOISTURE IN THE INFILTRATION BED, IMPROVING THE GROWTH OF THESE PLANTINGS AND, POTENTIALLY INCREASING EVAPOTRANSPIRATION.
- FERTILIZER USE SHOULD BE MINIMIZED.
- THE SURFACE SHOULD BE STABILIZED. THE BED SHOULD BE COMPACTED AS MINIMALLY AS POSSIBLE TO ALLOW FOR SURFACE PERCOLATION THROUGH THE ENGINEERED SOIL LAYER AND INTO THE STONE BED.
- WHEN DIRECTING RUNOFF FROM ROADWAY AREAS INTO THE BEDS, MEASURES TO REDUCE SEDIMENT SHOULD BE USED.
- SURFACE GRADING SHOULD BE RELATIVELY FLAT, ALTHOUGH A RELATIVELY MILD SLOPE BETWEEN 1% AND 3% IS RECOMMENDED TO FACILITATE DRAINAGE.
- IN THOSE AREAS WHERE THE THREAT OF SPILLS AND GROUNDWATER CONTAMINATION EXISTS, PRETREATMENT SYSTEMS, SUCH AS FILTERS AND WETLANDS, MAY BE NEEDED BEFORE ANY INFILTRATION OCCURS. IN HOT SPOT AREAS, SUCH AS TRUCK STOPS AND FUELING STATIONS, THE SUITABILITY OF SUBSURFACE INFILTRATION MUST BE CONSIDERED.
- IN AREAS WITH POORLY-DRAINING SOILS, SUBSURFACE INFILTRATION AREAS MAY BE DESIGNED TO SLOWLY DISCHARGE TO ADJACENT WETLANDS OR BIOTRENTATION AREAS.
- WHILE MOST SUBSURFACE INFILTRATION AREAS CONSIST OF AN AGGREGATE STORAGE BED, ALTERNATIVE SUBSURFACE STORAGE PRODUCTS MAY ALSO BE EMPLOYED. THESE INCLUDE A VARIETY OF PROPRIETARY, INTERLOCKING PLASTIC UNITS THAT CONTAIN MUCH GREATER STORAGE CAPACITY THAN AGGREGATE, AT AN INCREASED COST.
- THE SUBSURFACE BED AND OVERFLOW MAY BE DESIGNED AND EVALUATED IN THE SAME MANNER AS A DETENTION BASIN TO DEMONSTRATE THE MITIGATION OF PEAK FLOW RATES. IN THIS MANNER, DETENTION BASINS MAY BE ELIMINATED OR SIGNIFICANTLY REDUCED IN SIZE.
- DURING CONSTRUCTION, THE EXCAVATED BED MAY SERVE AS A TEMPORARY SEDIMENT BASIN OR TRAP. THIS CAN REDUCE OVERALL SITE DISTURBANCE. THE BED SHOULD BE EXCAVATED TO AT LEAST 1 FOOT ABOVE THE FINAL BED BOTTOM ELEVATION OF THE INFILTRATION BASIN FOLLOWING CONSTRUCTION AND SITE STABILIZATION, SEDIMENT SHOULD BE REMOVED AND FINAL GRADES ESTABLISHED. IN BMPs THAT WILL BE USED FOR INFILTRATION IN THE FUTURE, USE OF CONSTRUCTION EQUIPMENT SHOULD BE LIMITED AS MUCH AS POSSIBLE.

CONSTRUCTION

- DUE TO THE NATURE OF CONSTRUCTION SITES, SUBSURFACE INFILTRATION SHOULD BE INSTALLED TOWARD THE END OF THE CONSTRUCTION PERIOD, IF POSSIBLE. (INFILTRATION BEDS MAY BE USED AS TEMPORARY SEDIMENT BASINS OR TRAPS AS DISCUSSED ABOVE).
- INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES (AS PER THE PENNSYLVANIA EROSION AND SEDIMENTATION CONTROL PROGRAM MANUAL) DURING CONSTRUCTION.
- THE EXISTING SUBGRADE UNDER THE BED AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE BED PLACEMENT.
- WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE.
- CARE MUST BE TAKEN TO PREVENT EROSION OF SUBGRADE DURING EXCAVATION. THESE BEDS DO NOT REQUIRE COMPACTION IF PROVEN STABLE DURING CONSTRUCTION.
- INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
- GEOTEXTILE AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHOULD OVERLAP A MINIMUM OF 16 INCHES. IT SHOULD ALSO BE SECURED AT LEAST 4 FEET OUTSIDE OF BED IN ORDER TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED AND VEGETATED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE ALONG BED EDGES CAN BE CUT BACK TO THE EDGE OF THE BED.
- CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 8-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM AS MUCH AS POSSIBLE.
- APPROVED SOIL MEDIA SHOULD BE PLACED OVER INFILTRATION BED IN MAXIMUM 6-INCH LIFTS.
- SEED AND STABILIZE TOPSOIL.
- DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

STORMWATER INFILTRATION BED NOTES

- IMPLEMENT INSTALLATION IN ACCORDANCE WITH THE PROJECT CONSTRUCTION SEQUENCE
- DURING SITE CONSTRUCTION, ALL INFILTRATION PRACTICE COMPONENTS SHALL BE PROTECTED FROM COMPACTION DUE TO HEAVY EQUIPMENT OPERATION OR STORAGE OF FILL OR CONSTRUCTION MATERIAL. INFILTRATION AREAS SHALL ALSO BE PROTECTED FROM SEDIMENTATION. AREAS THAT ARE ACCIDENTALLY COMPACTED OR GRADED SHALL BE REMEDIATED TO RESTORE SOIL COMPOSITION AND POROSITY. ADEQUATE DOCUMENTATION TO THIS EFFECT SHALL BE SUBMITTED TO THE COUNTY CONSERVATION DISTRICT AND TOWNSHIP FOR REVIEW. ALL AREAS DESIGNATED FOR INFILTRATION SHALL NOT RECEIVE RUNOFF UNTIL THE CONTRIBUTORY DRAINAGE AREA HAS ACHIEVED FINAL STABILIZATION.
- BED BOTTOM DEPTH REQUIREMENT PER STORMWATER SITE EVALUATION REPORT.
- SCARIFY BOTTOM OF BED, TAKING CARE NOT TO COMPACT SOIL.
- PERFORATIONS SHALL MEET AASHTO CLASS II PATTERN FOR PIPE DIAMETER.
- ENTIRE BED, SIDES AND BOTTOM SHALL BE WRAPPED IN TENCATE BIRAF 180N NON-WOVEN GEOTEXTILE OR ENGINEER APPROVED EQUAL. PROVIDE A MINIMUM 1' OVERLAP AT ALL SEAMS AND JOINTS. WHERE PROTRUSIONS OR PENETRATIONS OCCUR, GEOTEXTILE SHALL BE PERMANENTLY REPAIRED.
- CARE SHOULD BE TAKEN IN THE PLACING OF STONE ATOP THE GEOTEXTILE SO AS TO AVOID TEARING OR RIPPING OF THE FABRIC. STONE SHOULD NOT BE DUMPED UNTIL A 6" LAYER OF STONE IS IN PLACE.
- A 30 MIL PVC LINER SHALL BE PLACED ALONG ANY INFILTRATION BED SIDE THAT IS WITHIN 10' OF A SUBSURFACE STRUCTURE (E.G.: BASEMENT). LINER IS NOT TO BE PLACED UNDER BED BOTTOM.
- THE STORMWATER MANAGEMENT CONTROLS (PIPES, STRUCTURES AND BMPs) ARE NOT DESIGNED TO ACCEPT FLOW FROM SUMP PUMPS AND/OR FOUNDATION DRAINS. SUMP PUMPS AND/OR FOUNDATION DRAINS CAN NOT BE CONNECTED TO THE DETENTION BED.
- GUTTER LEAF GUARDS OR OTHER DEBRIS COLLECTORS SHOULD BE PROVIDED FOR THE RUNOFF ENTERING THE INFILTRATION BED. INVISIFLOW SELF-CLEANING DOWNSPOUT FILTERS OR EQUIVALENT WOULD BE AN ACCEPTABLE ALTERNATIVE.
- ALL INLETS AND DRAIN BASINS THAT DRAIN DIRECTLY TO INFILTRATION BEDS SHALL SUMPED WITH A SNOUT OR SIMILAR DEVICE AND CLEANED PER O&M REQUIREMENTS.

STORM WATER MANAGEMENT FACILITY OWNERSHIP AND MAINTENANCE NOTES

AN O&M AGREEMENT MUST BE RECORDED WITH THE COUNTY AND IS INCORPORATED INTO THESE O&M REQUIREMENTS BY REFERENCE. ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES SHOWN ON THIS PLAN ARE PERMANENT AND ARE NOT TO BE REMOVED OR FILLED. THE INDIVIDUAL LOT OWNER, HIS/HER HEIRS, ASSIGNS OR SUCCESSORS SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE SAID FACILITIES. THE TOWNSHIP MAINTAINS THE RIGHT, BUT NOT THE RESPONSIBILITY, TO ENTER SAID PREMISES TO OBSERVE OR INSPECT THE FUNCTIONING OF THESE FACILITIES. IF THE PROPERTY OWNER, HIS/HER HEIRS, ASSIGNS, OR SUCCESSORS FAILS IN ANY WAY TO MAINTAIN THE SAID FACILITIES OR CAUSES THESE FACILITIES TO BE ALTERED OR REMOVED, UPON WRITTEN NOTIFICATION BY THE TOWNSHIP, THE DEFECTS SHALL PROMPTLY BE CORRECTED BY THE PROPERTY OWNER. UPON THE OWNER'S FAILURE TO CORRECT THE DEFECTS WITHIN TIME SPECIFIED BY THE TOWNSHIP, THE OWNER, HIS/HER HEIRS, ASSIGNS, OR SUCCESSORS DO HEREBY AUTHORIZE THE TOWNSHIP AND/OR THEIR CONTRACTOR TO ENTER UPON THE SAID PROPERTY AND CAUSE THE NECESSARY REPAIRS AND CORRECTIONS TO BE MADE. A LIEN MAY BE FILED AGAINST THE PROPERTY FOR THE COSTS OF ALL CORRECTIONS INCLUDING APPLICABLE ENGINEERING AND/OR ATTORNEY'S FEES. THE TOWNSHIP IS UNDER NO OBLIGATION TO TAKE ANY ACTION. MAINTENANCE RESPONSIBILITIES SHALL INCLUDE THE FOLLOWING:

- MAINTAINING THE GRASS ON AND AROUND STORM WATER FACILITIES TO PREVENT LARGE VEGETATION AND ROOT SYSTEMS FROM GROWING ON OR NEAR FACILITIES AND TO PREVENT THE FORMATION OF NON-VEGETATED AREAS THAT COULD FLOW INTO AND CLOG THE FACILITIES.
- KEEPING ALL DEBRIS, INCLUDING GRASS CLIPPINGS AND LEAVES, CLEAR OF INLET AND OUTLET STRUCTURES. REMOVE ANY ACCUMULATED DEBRIS FROM GRATES AND SUMPS.
- GUTTER LEAF GUARDS OR OTHER DEBRIS COLLECTORS SHOULD BE PROVIDED FOR THE RUNOFF ENTERING THE INFILTRATION BED. INVISIFLOW SELF-CLEANING DOWNSPOUT FILTERS OR EQUIVALENT WOULD BE AN ACCEPTABLE ALTERNATIVE.
- INLET AND OUTLET STRUCTURES SHALL BE INSPECTED ANNUALLY.
- NO TREES OR SHRUBBERY MAY BE PLACED OVER THE LOCATION OF THE INFILTRATION BED.
- IF INFILTRATION BED DOES NOT DRAIN WITHIN 72 HOURS AFTER THE LAST STORM EVENT IT SHALL BE INSPECTED THEN REPAIRED OR REPLACED AS NEEDED.

- 6.1 INSPECT OBSERVATION PORTS #1 AND 2 AND ACCESS RISER #1 FOR WATER LEVELS.
- 6.2 INSPECT PI-2 AND PI-3 FOR WATER LEVEL AND DEBRIS.
- THE INFILTRATION BED SHALL BE INSPECTED BY PROFESSIONAL ENGINEER EVERY 3 YEARS AND REPORT SUBMITTED TO THE TOWNSHIP.

MAINTENANCE ISSUES

SUBSURFACE INFILTRATION IS GENERALLY LESS MAINTENANCE INTENSIVE THAN OTHER PRACTICES OF ITS TYPE. GENERALLY SPEAKING, VEGETATION ASSOCIATED WITH SUBSURFACE INFILTRATION PRACTICES IS LESS SUBSTANTIAL THAN PRACTICES SUCH AS RECHARGE, CATCH BASINS AND VEGETATED SWALES AND THEREFORE REQUIRES LESS MAINTENANCE. MAINTENANCE ACTIVITIES REQUIRED FOR THE SUBSURFACE BED ARE SIMILAR TO THOSE OF ANY INFILTRATION SYSTEM AND FOCUS ON REGULAR SEDIMENT AND DEBRIS REMOVAL. THE FOLLOWING REPRESENTS THE RECOMMENDED MAINTENANCE EFFORTS:

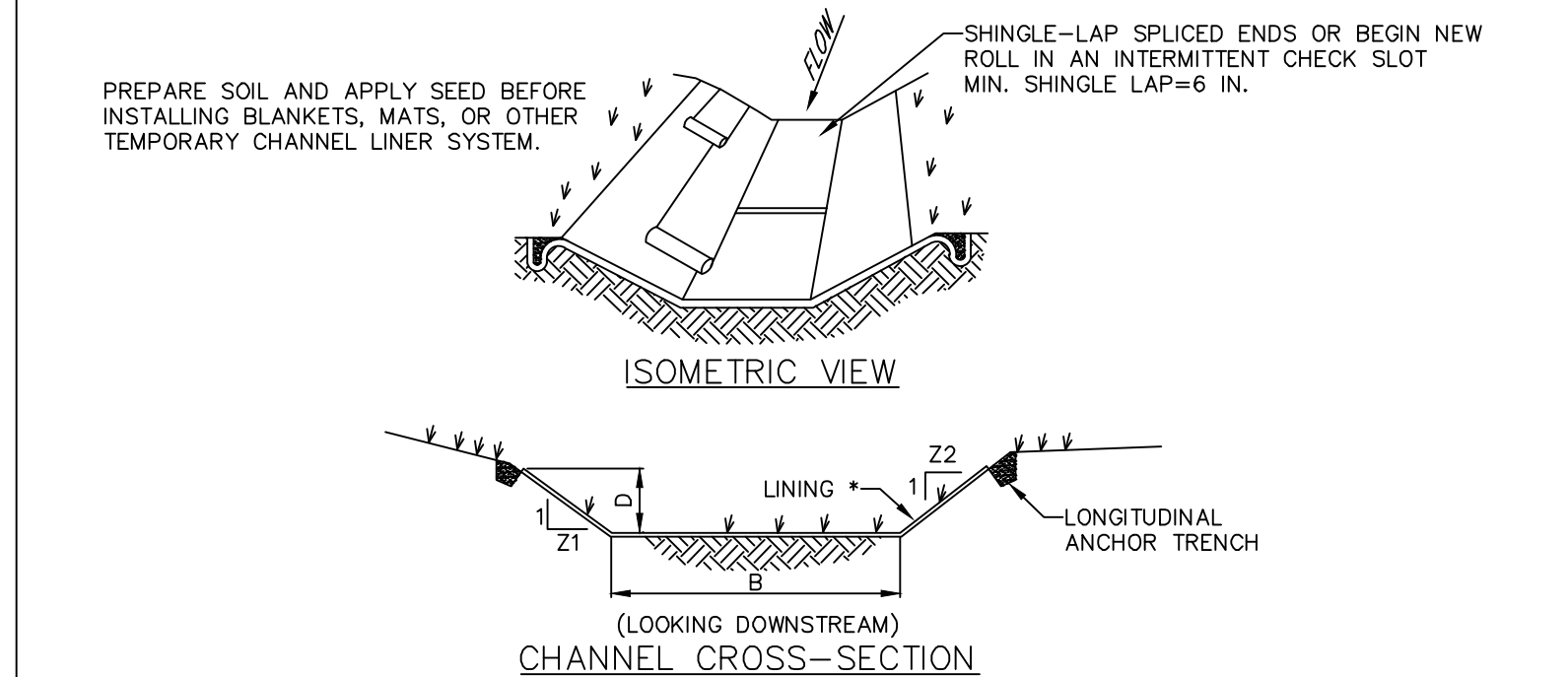
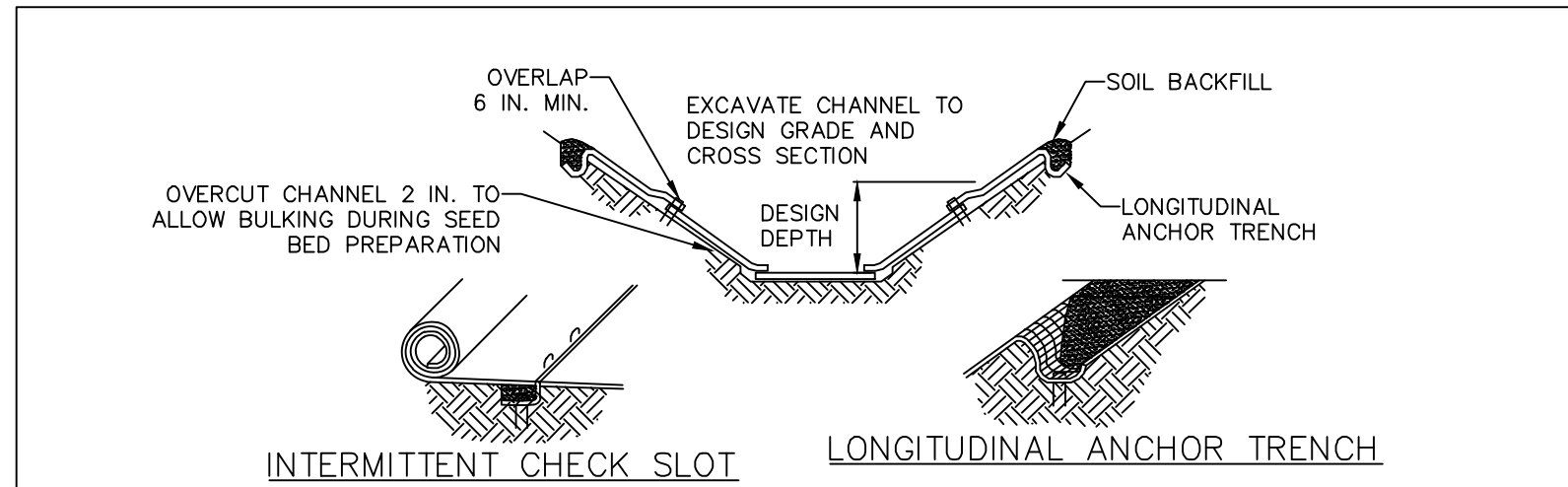
- ALL CATCH BASINS AND INLETS SHOULD BE INSPECTED AND CLEANED AT LEAST 2 TIMES PER YEAR.
- THE OVERLYING VEGETATION OF SUBSURFACE INFILTRATION FEATURES SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- VEHICULAR ACCESS ON SUBSURFACE INFILTRATION AREAS SHOULD BE PROHIBITED, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. IF ACCESS IS NEEDED, USE OF PERMEABLE, TURF REINFORCEMENT SHOULD BE CONSIDERED.

RAIN WATER CONDUCTOR DESIGN NOTE

RWCs ARE PART OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (PCSM). ALL PIPING MUST BE DESIGN TO CONVEY THE 100-YEAR STORM PEAK RUNOFF RATE AS CALCULATED BY THE SCS METHOD IN THE ACCOMPANYING PCSM PLAN.

RECYCLING AND DISPOSAL

PCSM WASTE TO CONSIST OF GRASS CLIPPINGS, LEAVES, DEAD VEGETATION, ETC., AND MISCELLANEOUS DEBRIS AND TRASH. THE PARTY RESPONSIBLE FOR THE O&M PLAN SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL PCSM WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS ACT 25 PA CODE 260.1, ET SEQ 271.1 ET SEQ, AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THE SITE.



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
REAR	0 to 305	1	1	11	5	5	NAG VMAX C350 TRM

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE

NPDES NOTES

- STORMWATER ULTIMATELY DISCHARGES TO THE SCHUYLKILL RIVER VIA UT.
- NO WETLANDS CURRENTLY EXIST IN LIMIT OF DISTURBANCE AREA. EXISTING WETLANDS OUTSIDE OF LOD DELINEATED BY WOLF BIOSERVICES, INC., NOVEMBER 2018.
- THERE ARE NO HQ / EV WATERSHEDS NEAR PROJECT SITE.
- ALL STORMWATER FLOWS TOWARDS POINT OF INTEREST #1, SCHUYLKILL RIVER.
- NO RIPARIAN BUFFERS EXIST ON SITE.
- FLOODPLAIN/ FLOODWAY DELINEATION PER "FLOOD STUDY", PREPARED FOR 450 W BEIDLER ROAD, PREPARED BY JHA COMPANIES, DATED AUGUST 8, 2019.

O&M RESPONSIBLE PARTY:

RESPONSIBLE FOR ONGOING INSPECTIONS, OPERATION, REPAIR, AND MAINTENANCE OF THE BMP OR CONVEYANCE AFTER COMPLETION OF CONSTRUCTION:

PARKVIEW HOMES AT VALLEY FORGE, LLC,
OR CURRENT HOA ENTITY.

PCSM PLAN SET LIST OF DRAWING

- SEE SHEET 4 FOR PCSM PLAN.
 - SEE SHEETS 5 FOR PCSM NOTES & DETAILS.
 - SEE SHEETS 6 FOR PCSM NOTES & ADDITIONAL DETAILS.
 - SEE SHEETS 7 FOR DRAINAGE AREA MAPS.
- REFERENCE:
SEE SHEETS 8 TO 12 FOR E&S PLANS, NOTES, DETAILS AND SEQUENCING.
SEE NPDES AND TWP GRADING PERMIT CONDITIONS FOR ADDITIONAL REQUIREMENTS

4.	3/20/2026	RESPONSE TO TWP SUBDIVISION, LDP & MCCD NPDES REVIEWS
3.	12/31/2025	TOWNSHIP SUBDIVISION & LDP SUBMISSION
2.	12/19/2025	RESPONSE TO 12/16/25 ADMIN INCOMPLETE REVIEW
1.	11/21/2025	RESPONSE TO 9/24/25 ADMIN INCOMPLETE REVIEW
NUM.	DATE	REVISION

PLAN PREPARED BY:

SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399

P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

LAND DEVELOPMENT PLAN/ NPDES PLAN

PLAN PREPARED FOR:

PARKVIEW HOMES AT VALLEY FORGE, LLC
450 WEST BEIDLER ROAD, KING OF PRUSSIA

UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA

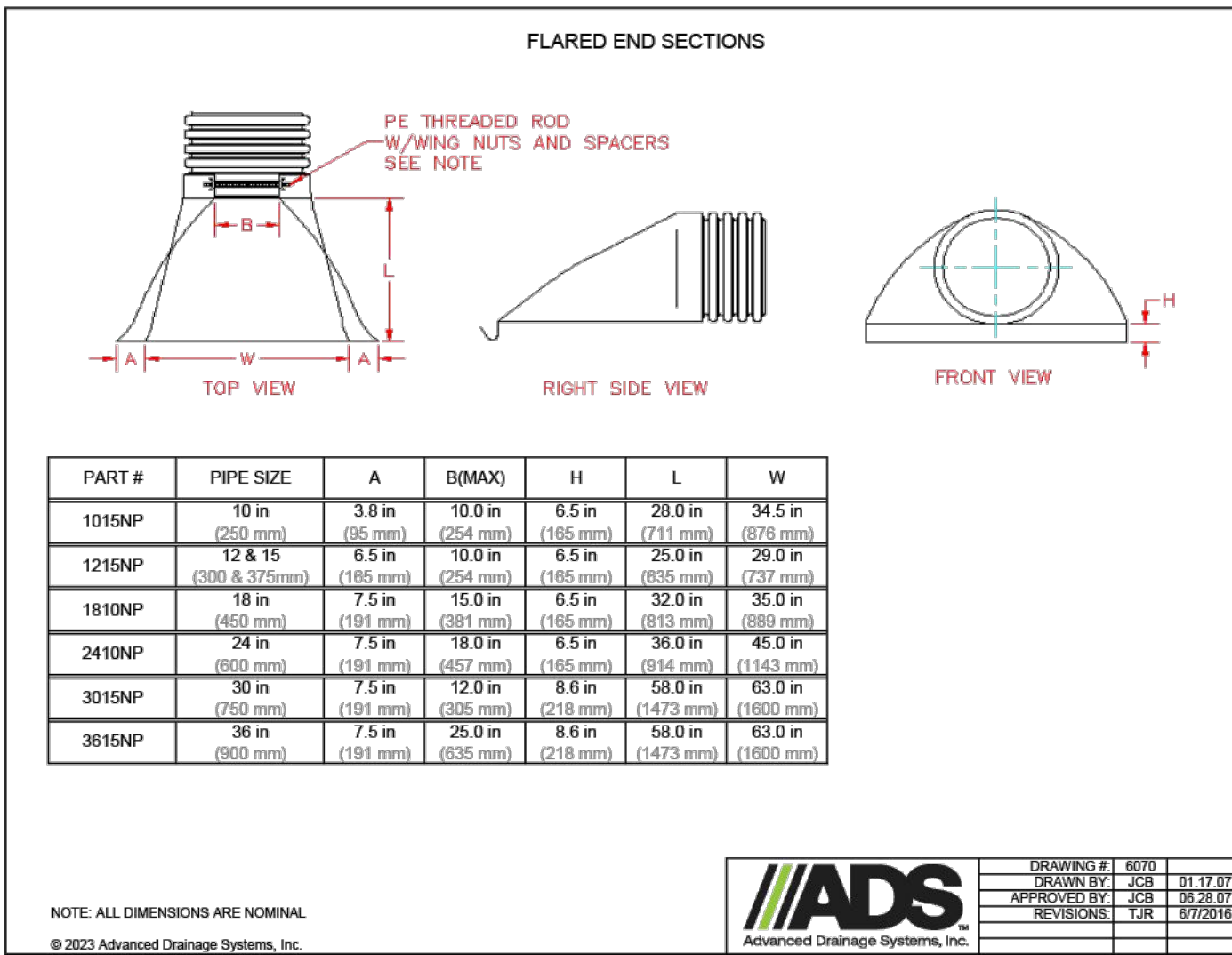
POST CONSTRUCTION

STORMWATER MANAGEMENT DETAILS & NOTES

SHEET 6 of 23

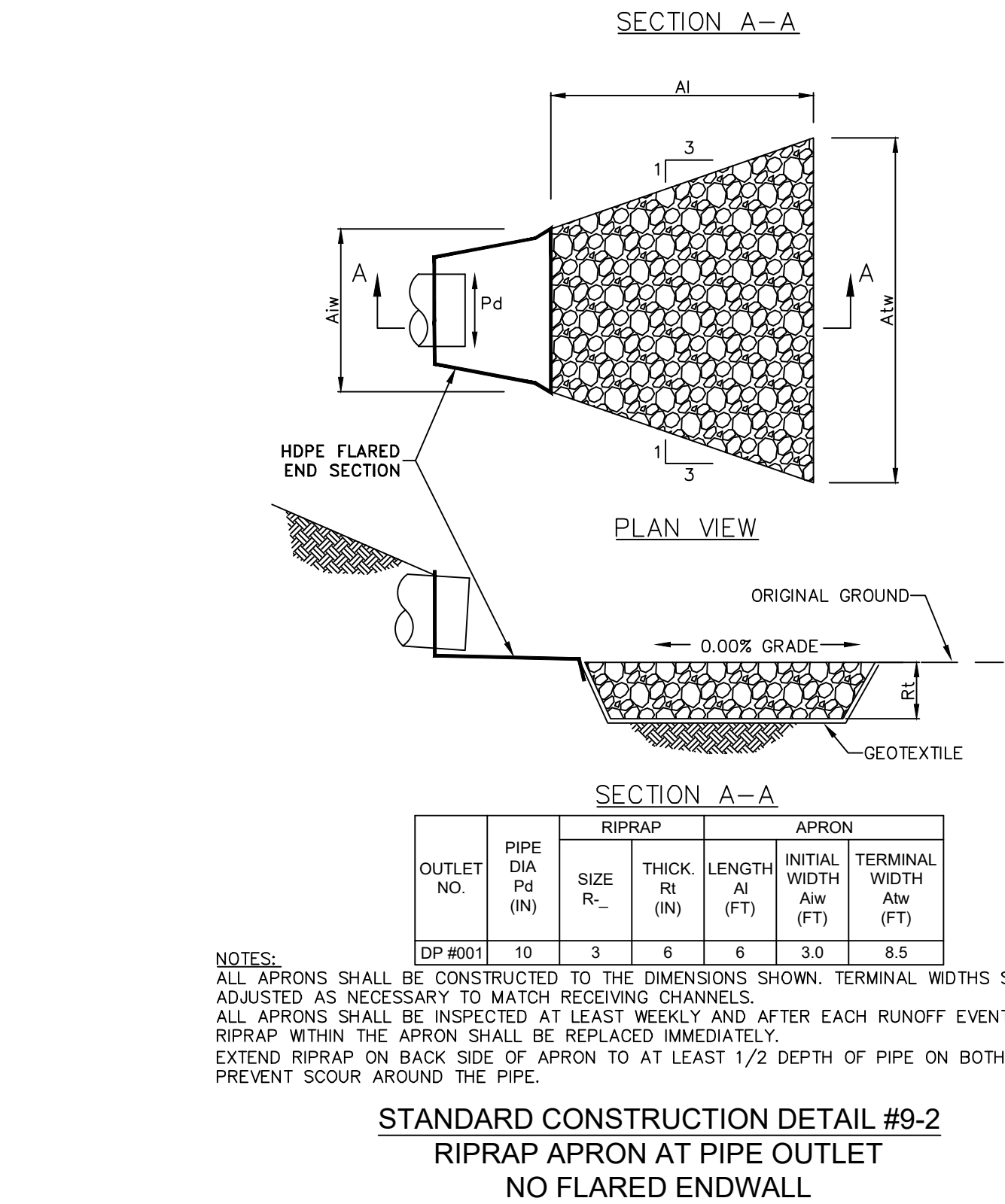
NOTES

NPDES PCSM PLAN SHEET 3 OF 4



PART #	PIPE SIZE	A	B(MAX)	H	L	W
1015NP	10 in	3.8 in	10.0 in	6.5 in	28.0 in	34.5 in
1215NP	12 in	6.5 in	10.0 in	6.5 in	25.0 in	29.0 in
1415NP	14 in	7.5 in	10.0 in	6.5 in	25.0 in	29.0 in
1810NP	18 in	7.5 in	15.0 in	6.5 in	32.0 in	35.0 in
2410NP	24 in	7.5 in	18.0 in	6.5 in	36.0 in	45.0 in
3015NP	30 in	7.5 in	12.0 in	8.6 in	58.0 in	63.0 in
3615NP	36 in	7.5 in	25.0 in	8.6 in	58.0 in	63.0 in

NOTE: ALL DIMENSIONS ARE NOMINAL
© 2023 Advanced Drainage Systems, Inc.



NOTES:
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9-2
RIPRAP APRON AT PIPE OUTLET
NO FLARED ENDWALL

TR55 Tc Worksheet

Hydrowater Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Hyd. No. 1

SITE

Description	A	B	C	Totals
-------------	---	---	---	--------

Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 150.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.81	0.00	0.00	
Land slope (%)	= 4.30	0.00	0.00	

Travel Time (min)	= 23.34	+ 0.00	+ 0.00	= 23.34
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Shallow Concentrated Flow				
Flow length (ft)	= 158.00	52.00	45.00	
Watercourse slope (%)	= 3.20	33.30	13.30	
Surface description	= Unpaved	Unpaved	Unpaved	
Average velocity (ft/s)	=2.89	9.31	5.88	

Travel Time (min)	= 0.91	+ 0.09	+ 0.13	= 1.13
-------------------	--------	--------	--------	--------

Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	=0.00	0.00	0.00	

Flow length (ft)	((0))0.0	0.0	0.0	
------------------	----------	-----	-----	--

Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
-------------------	--------	--------	--------	--------

Total Travel Time, Tc				24.50 min
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DRAINAGE MAP LEGEND

PLAN LEGEND

BOLD LINES: PROPOSED
FADED LINES: EXISTING

RED LINES: TBR

NPDES PERMIT BOUNDARY
LIMIT OF DISTURBANCE LINE
PROPERTY LINE
RIGHT-OF-WAY
BUILDING SETBACK LINE
FENCE LINE
MON/PIN (F&H)
(TO BE SET)
(TBS)
INTERVAL CONTOUR
PROPOSED INTERVAL
5' INDICATOR CONTOUR
PROPOSED INDICATOR
2' LIDAR CONTOURS OUTSIDE
OF SURVEY LIMITS
STORM MH
STORMWATER MANHOLE
STORMWATER INLET
STORM CLEAN OUT
SANITARY SEWER PIPING
GAS MAIN
WATER MAIN / SERVICE
UNDERGROUND ELECTRIC
OVERHEAD WIRES & POLES
COMMUNICATIONS
HYDRANT
WATER VALVE
SANITARY VENT
SANITARY CLEAN OUT
SANITARY MANHOLE
GAS METER
GAS VALVE

BUILDINGS
PORCH /
ROOF LINES
ASPHALT
WALKS & PADS
WALLS

EDGE OF LANDSCAPING
EDGE OF PAVEMENT
LIGHT POLE
SOIL BOUNDARY
& MAP SYMBOL
NORTH AMERICAN GREEN VMAX C350
TURF REINFORCEMENT MATTING
TWP BUFFER
WETLANDS W/FLAGS
FLOODWAY
SLOPES, <15%
SLOPES, 15-25%
STEEP SLOPES, >25%
NATURAL
MAN-MADE
OR 4% GRADE

PCSM PLAN SET LIST OF DRAWING

1. SEE SHEET 4 FOR PCSM PLAN.
2. SEE SHEETS 5 FOR PCSM NOTES & DETAILS.
3. SEE SHEETS 6 FOR PCSM NOTES & ADDITIONAL DETAILS.
4. SEE SHEETS 7 FOR DRAINAGE AREA MAPS.

REFERENCE:
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LAND DEVELOPMENT PLAN/ NPDES PLAN

PLAN PREPARED FOR:

PARKVIEW HOMES AT VALLEY

FORGE, LLC

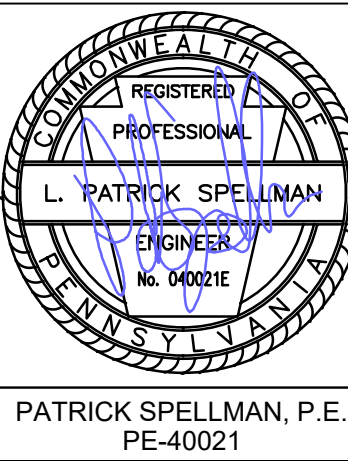
450 WEST BEIDLER ROAD, KING OF PRUSSIA
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**POST CONSTRUCTION
STORMWATER
MANAGEMENT DRAINAGE
AREA MAPS**

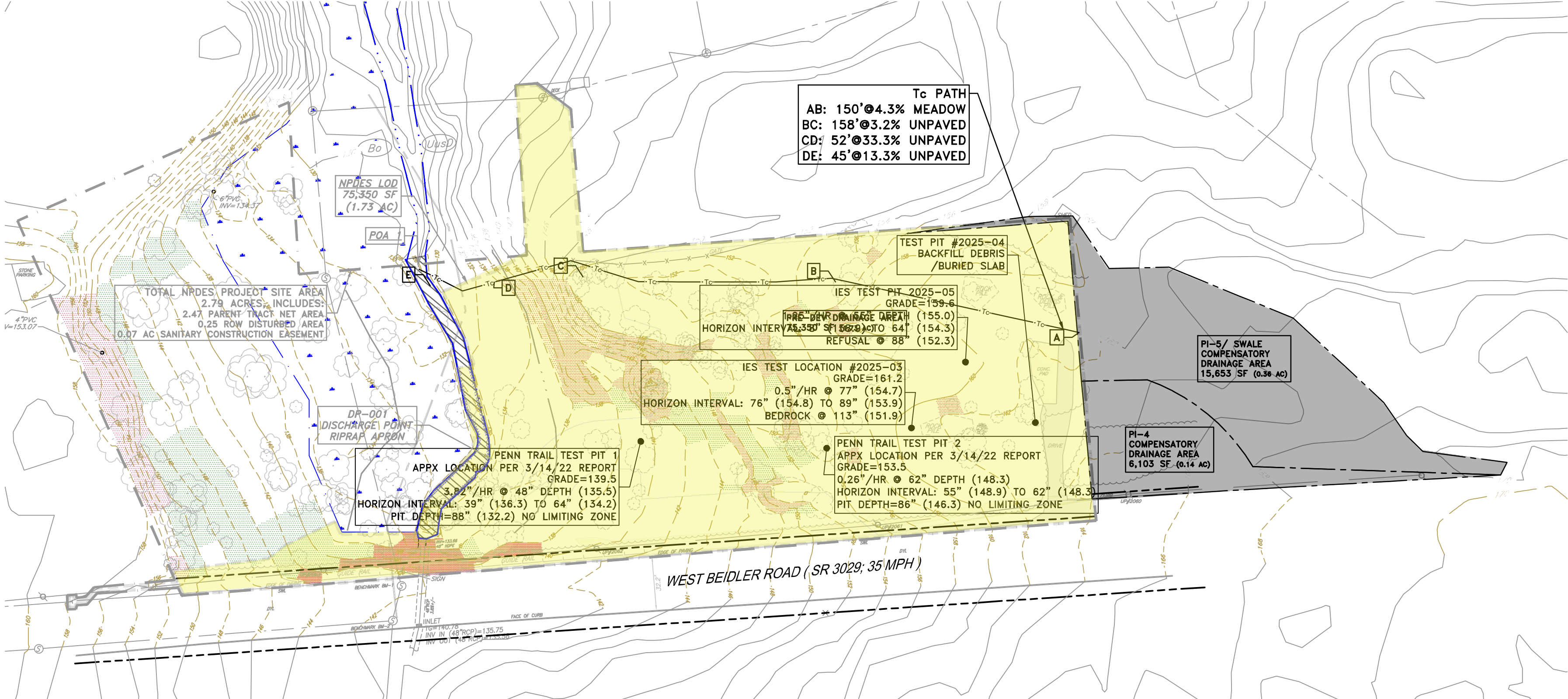
18 AUG 2025

**SHEET
7 of 23**

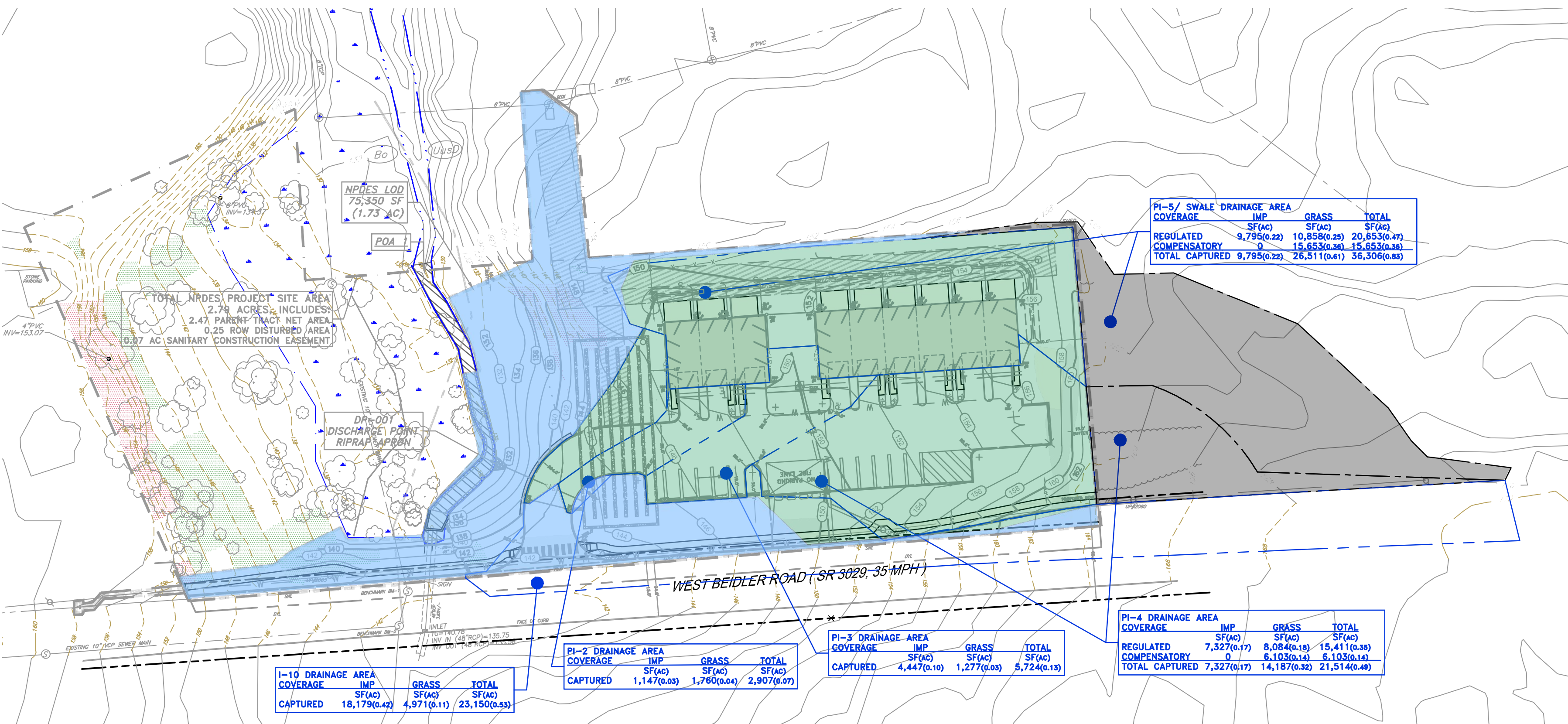
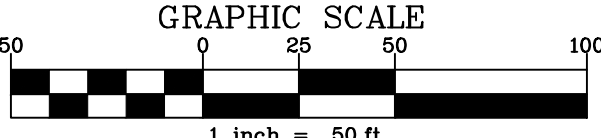
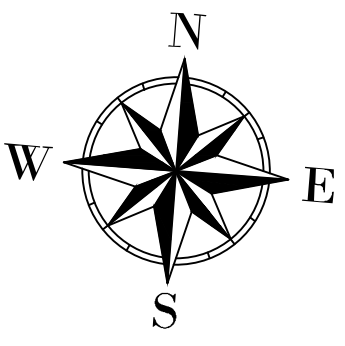
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PATRICK SPELLMAN, P.E.
PE-40021

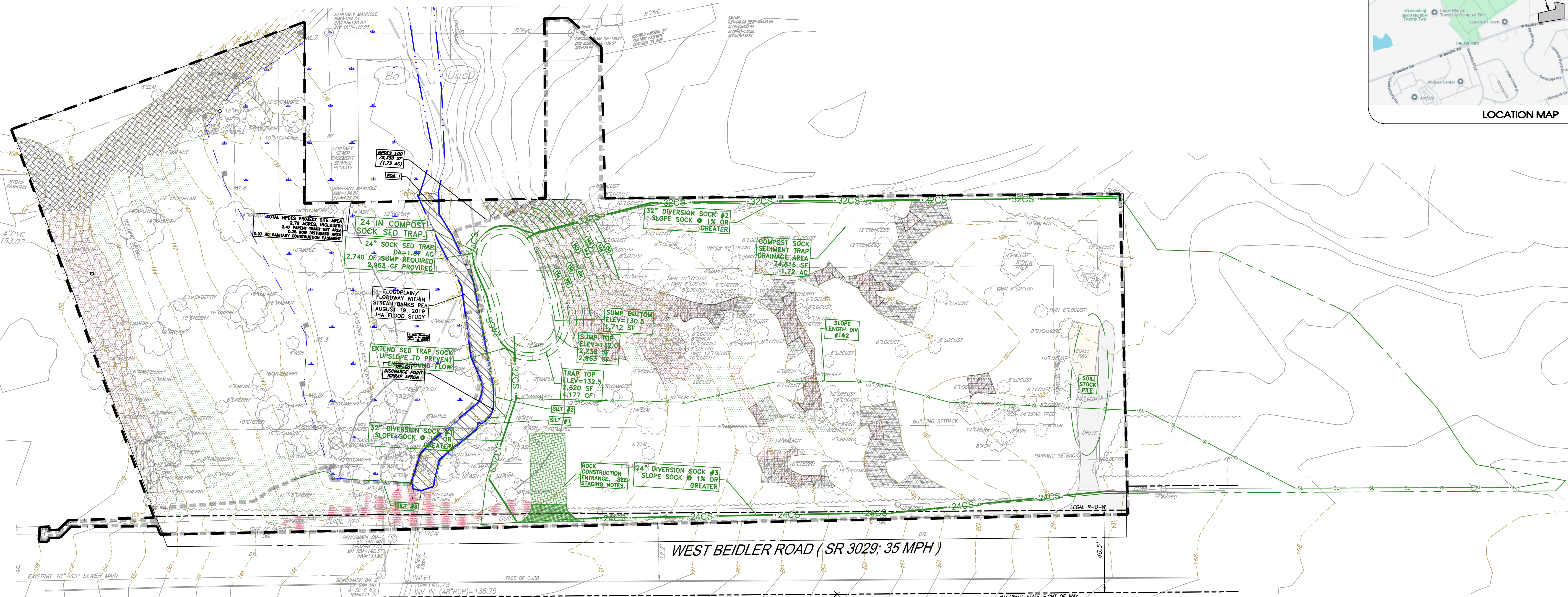
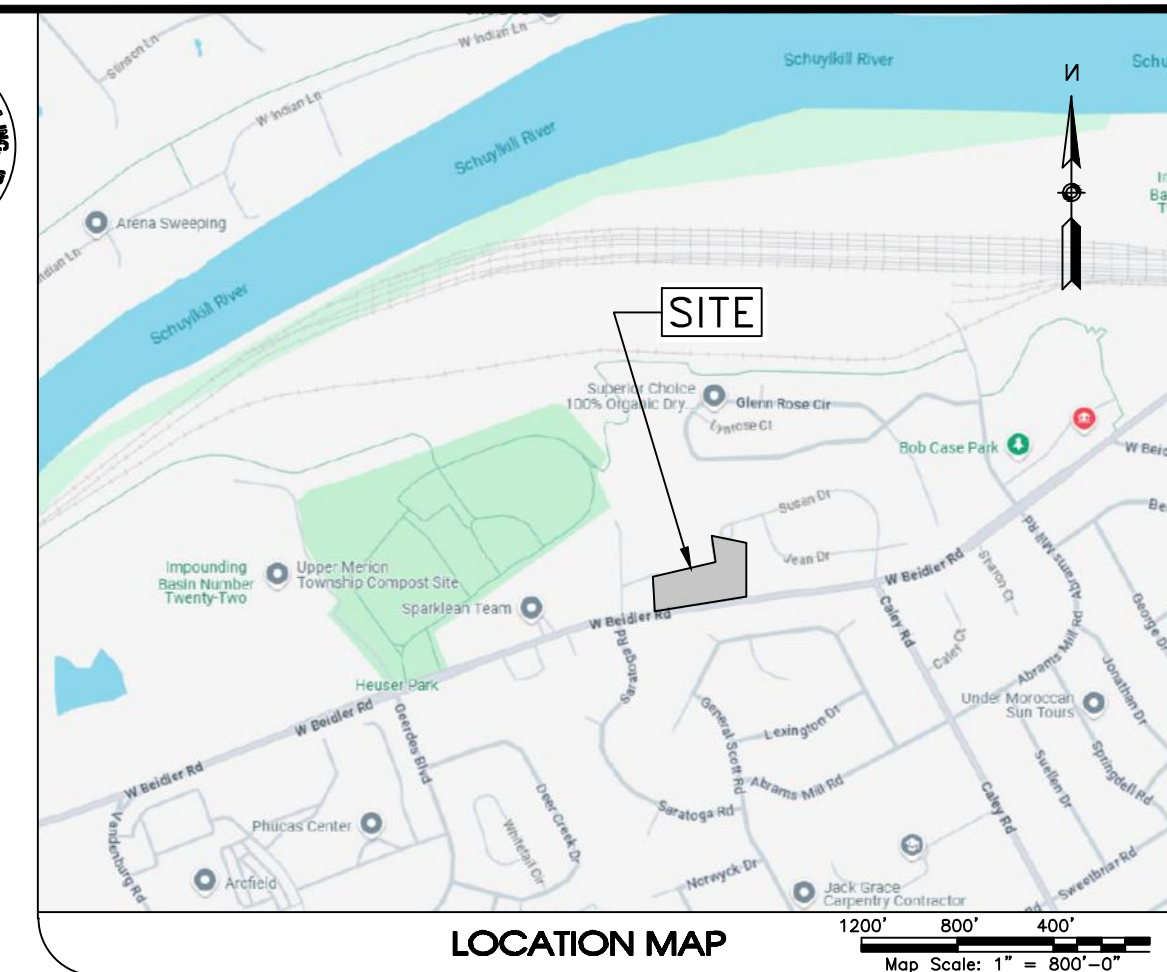
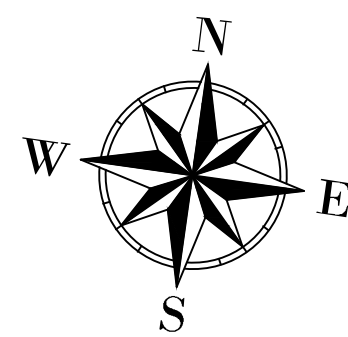


PRE-DEVELOPMENT DRAINAGE MAP



POST-DEVELOPMENT DRAINAGE MAP

PC Tc NOTE:
FOR CONSERVATIVE PCSM DESIGN, THE POST
CONSTRUCTION Tc IS ASSUMED TO BE 6
MINUTES FOR ALL DRAINAGE AREAS.



PLAN LEGEND

- BOLD LINES: PROPOSED**
DASHED LINES: EXISTING
GREEN LINES: E&S
- NPDES PERMIT BOUNDARY
 - LIMIT OF DISTURBANCE LINE
 - PROPERTY LINE
 - RIGHT-OF-WAY
 - BUILDING SETBACK LINE
 - EDGE OF PAVEMENT
 - MONUMENT OR PIN (FOUND)
 - MONUMENT OR PIN (TO BE SET)
 - 2" INTERVAL CONTOUR
 - 10' INTERVAL CONTOUR
 - 2" LIDAR CONTOURS OUTSIDE OF SURVEY LIMITS
 - STORM SEWER PIPING
 - STORMWATER MANHOLE
 - STORMWATER INLET
 - STORM CLEAN OUT
 - SANITARY SEWER PIPING
 - GAS MAIN
 - WATER MAIN / SERVICE
 - UNDERGROUND ELECTRIC
 - OVERHEAD WIRES & POLES
 - COMMUNICATIONS
 - HYDRANT
 - WATER VALVE
 - WATER METER
 - SANITARY VENT
 - SANITARY CLEAN OUT
 - SANITARY MANHOLE
 - GAS METER
 - GAS VALVE

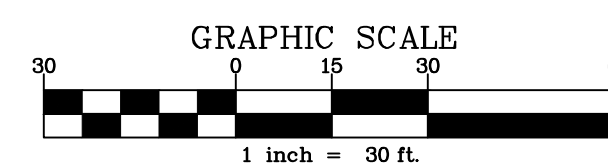
LEGEND - E & S CONTROL FEATURES

- 12" COMPOST SOCK
- 36" COMPOST SOCK
- TREE PROTECTION FENCING
- EROSION MATTING
- ROCK CONSTRUCTION
- ENTRANCE
- SOIL BOUNDARY
- MAP SYMBOL
- SLOPE LENGTH CALCULATION
- INLET PROTECTION

- BUILDINGS
- PORCH / ROOF LINES
- ASPHALT
- WALKS & PADS
- WALLS
- EDGE OF LANDSCAPING
- FENCE LINE
- LIGHT POLE
- NORTH AMERICAN GREEN VMAX C350
- TURF REINFORCEMENT MATTING
- STREAM
- TWP STREAM EASEMENT
- WETLANDS W/FLAGS
- FLOODWAY
- SLOPES, <15%
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- NATURAL - MAN-MADE OR <5% CHANGE

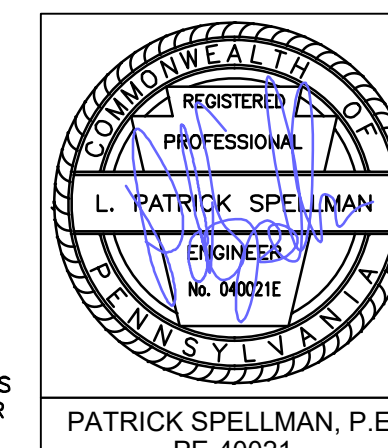
WEST BEIDLER ROAD (SR 3029; 35 MPH)

SOIL DATA 102.4(b)(5)(D)										
(PER WEB SOIL SURVEY, USDA, NRCS AS OF JULY 2020)										
MAP SYMBOL	SOIL NAME	% SLOPE	INCHES TO HIGH WATER	INCHES TO BEDROCK	LAND CAPABILITY	DRAINAGE CLASS	HSG	DWELLING W/BASEMENT	LAWNS	ROADS
Bo	BOWMANVILLE-KNAUERS	0-3	0-18	72 TO 99	3w/4w (NONIRRIg)	POORLY	C/D	NR	NR	NR
UusD	URBAN LAND - UDORTHERTS	8-25	>80	22 TO 99	8s (NONIRRIg)	WELL	B	NR	NR	NR
NL = NOT LISTED; NR = NOT RATED										
POSSIBLE SOIL LIMITATIONS PER PADEP E&S MANUAL APPENDIX E:										
-BOWMANVILLE: CUTBANKS CAVES; CORROSIVE STEEL/CONCRETE; FLOODING; HIGH WATER; HYDRIC; LOW STRENGTH; SLOW PERC; POOR TOPSOIL; FROST ACTION; WETNESS.										
-KNAUERS: CUTBANKS CAVES; CORROSIVE STEEL/CONCRETE; DROUGHTY; HIGH WATER; HYDRIC; LOW STRENGTH; SLOW PERC; POOR TOPSOIL; FROST ACTION; PONDING; WETNESS.										
-URBAN SOIL: NOT LISTED.										
-UDORTHERTS: CUTBANKS CAVES; CORROSIVE STEEL/CONCRETE; DROUGHTY; EASILY ERODIBLE; LOW STRENGTH; SLOW PERC; POOR TOPSOIL; FROST ACTION.										
GEOTECHNICAL BORING WERE PERFORMED AND THE LIMITATIONS OF THE SOILS ARE INCLUDED IN FOUNDATION AND STORMWATER DESIGNS										

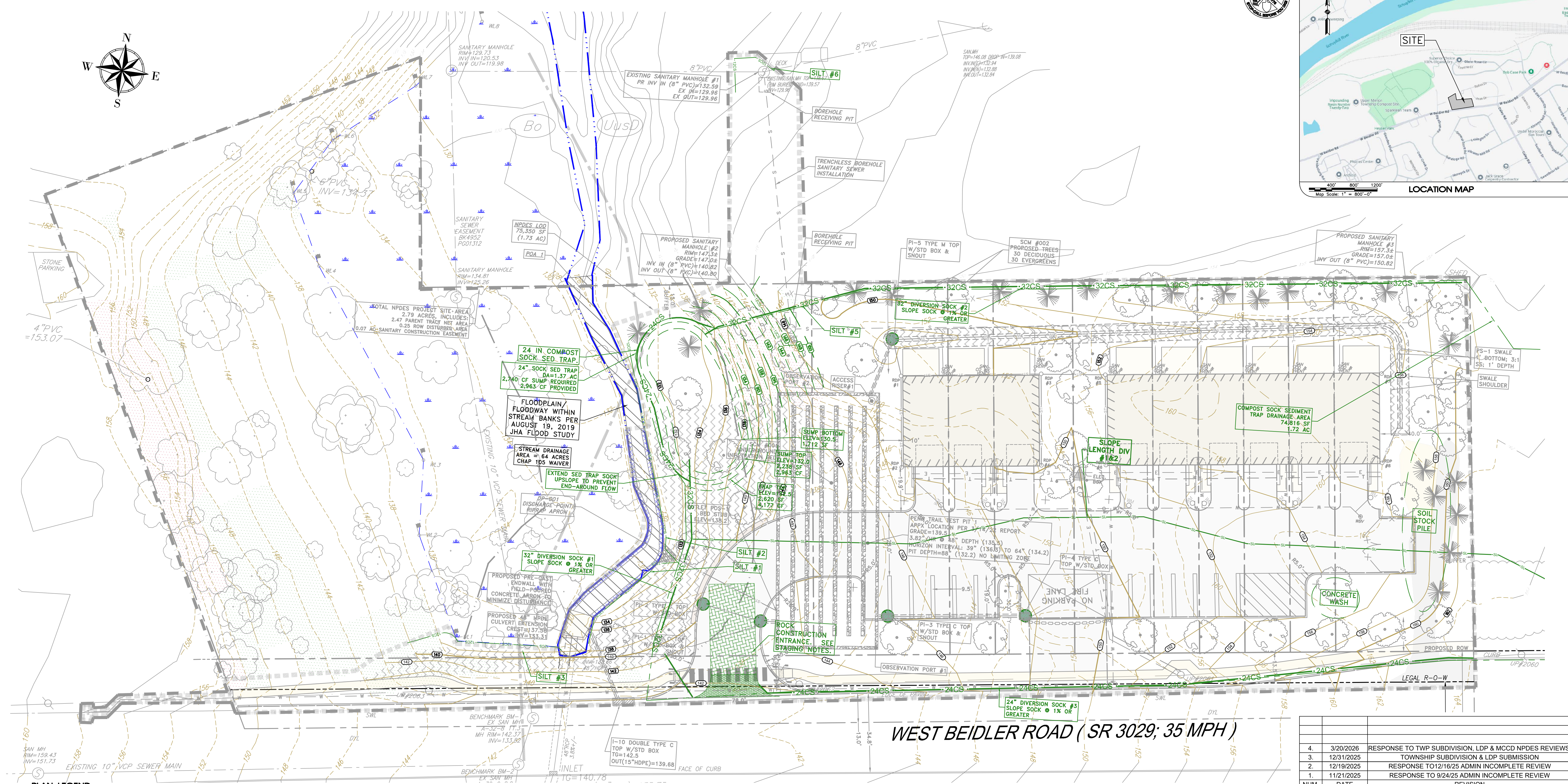


E&S PLAN SET LIST OF DRAWINGS

- SEE SHEET 8 FOR E&S PLAN - EXISTING
 - SEE SHEET 9 FOR E&S PLAN - POST
 - SEE SHEET 10 FOR E&S NOTES & DETAILS
 - SEE SHEET 11 FOR E&S DETAILS
 - SEE SHEET 12 FOR STREAM STABILIZATION DETAILS
- SEE NPDES AND TWP GRADING PERMIT CONDITIONS FOR ADDITIONAL REQUIREMENTS



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LAND DEVELOPMENT PLAN/ NPDES PLAN		
PLAN PREPARED FOR:		
PARKVIEW HOMES AT VALLEY FORGE, LLC		
450 WEST BEIDLER ROAD, KING OF PRUSSIA		
UPPER MERION TOWNSHIP	MONTGOMERY COUNTY	PENNSYLVANIA
EROSION & SEDIMENT CONTROL PLAN - EXISTING CONDITIONS		
18 AUG 2025		
SHEET 8 of 23		
SCALE: 1" = 30'		



- PLAN LEGEND**
- BOLD LINES: PROPOSED
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 - SANITARY VENT
 - SANITARY CLEAN OUT
 - SANITARY MANHOLE
 - GAS METER
 - OGV
 - GAS VALVE

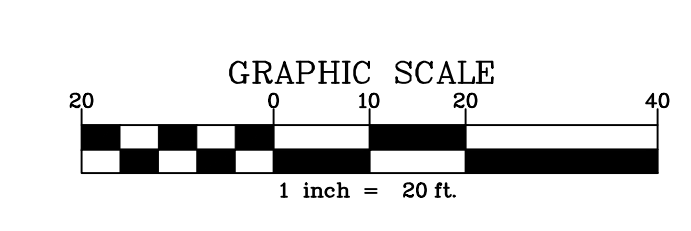
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- WALKS & PADS
- WALLS
- PARKING STALL #
- EDGE OF LANDSCAPING
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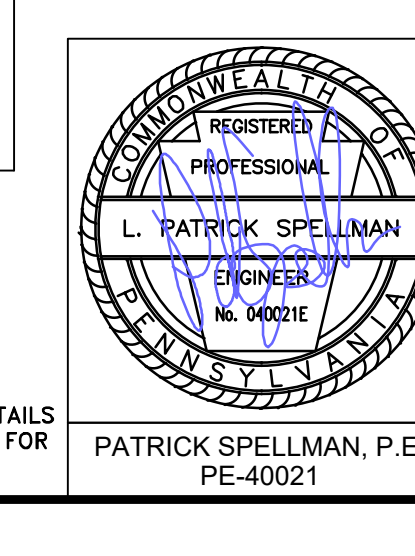
SOIL DATA 102.4.(b)(5)(i)
(PER WEB SOIL SURVEY, USDA, NRCS AS OF JULY 2020)

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UusD	URBAN LAND - UDOTHERENTS	8-25	>80	22 TO 99	(NONIRRI)G	WELL	B	NR	NR	NR	NR	NR

NL = NOT LISTED; NR = NOT RATED
POSSIBLE SOIL LIMITATIONS PER PADEP E&S MANUAL APPENDIX E:
-BOWMANVILLE: CUTBANKS CAVES; CORROSIVE STEEL/CONCRETE; FLOODING; HIGH WATER; HYDRIC; LOW STRENGTH; SLOW PERC; PIPING; POOR TOPSOIL; FROST ACTION; WETNESS.
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NUM. DATE REVISION

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SOUTHEASTERN, PA 19399

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450 WEST BEIDLER ROAD, KING OF PRUSSIA

UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA

18 AUG 2025

EROSION & SEDIMENT CONTROL PLAN - POST CONDITIONS

SHEET 9 of 23

SCALE: 1" = 20'

E&SC PLAN SHEET 2 OF 5

TOPSOIL NOTES

1. CONSIST OF FRIABLE LOAM SURFACE SOIL.
2. REASONABLY FREE OF SUBSIL, LIMBS, BRUSH, ROOTS, WEEDS, AND/OR STONES AND OTHER FOREIGN MATERIALS LARGER THAN 2 INCHES IN DIAMETER.
3. THE TOPSOIL SHALL CONSIST OF LOAM, WITH SOIL PARTICLES WITHIN THE FOLLOWING PERCENTAGES:
 - 3.1. SAND: 5-70;
 - 3.2. SILT: 10-70;
 - 3.3. CLAY: 5-36;
 - 3.4. DECOMPOSED ORGANIC MATTER: 2-10.
4. BETWEEN PH 5.0 TO PH 7.0.
5. SOIL SALINITY SHALL NOT EXCEED 3 MILLIMHOS PER CENTIMETER AT 25 DEGREES C.

SEEDING & MULCHING NOTES

1. ANY DISTURBED AREA ON WHICH CONSTRUCTION ACTIVITY HAS CEASED MUST BE IMMEDIATELY SEEDED AND MULCHED. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR SHALL BE IMMEDIATELY MULCHED AND SEEDED WITH A QUICK-GROWING TEMPORARY SEED MIXTURE. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE YEAR MUST BE IMMEDIATELY MULCHED AND SEEDED WITH THE PERMANENT SEED MIXTURE.
2. APPLY 6" OF UNCOMPACTED TOPSOIL TO VEGETATION AREAS PRIOR TO SEEDING.
3. DIVERSIONS, CHANNELS, SWALES, SEDIMENT BASINS, SEDIMENT TRAPS AND SOIL STOCKPILES SHALL BE SEEDED AND MULCHED IMMEDIATELY.
4. AREAS UTILIZING VEGETATIVE STABILIZATION MUST BE SEEDED AND MULCHED WITHIN THE APRIL 15th TO OCTOBER 15th PERMANENT WINDOW. SEEDING WILL BE ACCOMPLISHED THROUGH HYDROSEEDING OR CONVENTIONAL SEEDING METHODS.
5. GEOTEXTILE EROSION CONTROL CHANNEL LINING AND SLOPE PROTECTION SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS IMMEDIATELY UPON THE COMPLETION OF GRADING ACTIVITIES.

CLEAN FILL & DUE DILIGENCE 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 AND CO-APPLICANT (IF ANY).

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

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

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

ENVIRONMENTAL DUE DILIGENCE: THE 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 SCHEMES, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

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

REPORTING AND RECORD KEEPING

THE E&S PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE TOWNSHIP, PaDEP OR THE LOCAL COUNTY CONSERVATION DISTRICT.

RECYCLING AND DISPOSAL

CONSTRUCTION WASTE TO CONSIST OF TYPICAL BUILDING MATERIALS. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS ACT 25 PA. CODE 260.1, ET SEQ 271.1 ET SEQ, AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THE SITE.

TEMPORARY SEED AND MULCHING SPECIFICATIONS

SPECIES (95% PURITY):	LBS/ACRE:
FOR SPRING SEEDING (UP TO JUNE 15)	
ANNUAL RYEGRASS	40
OR SPRING OATS	96 (3 BU)
OR SPRING OATS PLUS RYEGRASS	64 LBS OATS (2 BU) +
20 LBS ANNUAL OR PERENNIAL RYEGRASS	180 (3 BU)
OR WINTER WHEAT	168 (3 BU)
OR WINTER RYE	180 (3 BU)
FOR LATE SPRING & SUMMER SEEDING (JUNE 16 TO AUGUST 15)	
ANNUAL RYEGRASS	40
OR JAPANESE OR FOXTAIL MILLET	35
OR SUDANGRASS	40
OR SPRING OATS	96 (3 BU)
OR WINTER WHEAT	180 (3 BU)
OR WINTER RYE	168 (3 BU)
FOR LATE SUMMER & FALL SEEDING (AUGUST 16 AND LATER)	
ANNUAL RYEGRASS	40
OR WINTER RYE	168 (3 BU)
OR WINTER WHEAT	180 (3 BU)
OR SPRING OATS	96
(CAN BE USED BUT WILL WINTER KILL)	

PREP: APPLY 1 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE PLUS 5-5-5 FERTILIZER AT THE RATE OF 1000 LBS PER ACRE. WORK INTO THE SOIL. WHERE POSSIBLE SECURE A SOIL TEST BEFORE APPLICATION OF PERMANENT SEEDING.

SEED: ALL SEED SHALL BE FRESH. ALL NEW CROP SEED SHALL BE LABELED IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT IN EFFECT ON THE DATE OF INVITATION FOR BIDS. ALL SEED SHALL BE FURNISHED IN SCALE STANDARD TO KIND, PERCENT BY WEIGHT, PURITY AND GERMINATION. THE GRASS SEED SHALL CONTAIN THE PERCENTAGES OF PURITY AND GERMINATION INDICATED ON THE LIST FURNISHED WITH THE APPLICABLE PLAN.

MULCH: SHALL BE HAY WHICH IS FREE OF WEEDS AND SEEDS, NOT MOLDED OR ROTTEN, AND SHALL BE APPLIED TO ALL AREAS AT A RATE OF 3 TONS PER ACRE. ON STEEP SLOPE AREAS (GREATER THAN 3:1), COVER SEEDED AREAS WITH AN ACCEPTABLE GEOTEXTILE EROSION CONTROL BLANKET.

PERMANENT SEED AND MULCHING SPECIFICATIONS

SPECIES	PARTS BY PERCENT
KENTUCKY BLUE GRASS	95%
(VERIFY AVAILABLE VARIETIES WITH INSPECTOR AT TIME OF PLANTING)	
PERENNIAL RYEGRASS	33% 95% 85%
ANNUAL RYEGRASS	33% 95% 85%

PREP: APPLY 3 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE PLUS 10-20-10 FERTILIZER AT THE RATE OF 1000 LBS PER ACRE. WORK INTO THE SOIL WHERE POSSIBLE.

SOD: KENTUCKY BLUEGRASS SOD (IF CALLED FOR) SHALL BE FURNISHED IN SCALE STANDARD TO KIND, PERCENT BY WEIGHT, PURITY AND GERMINATION. THE GRASS SOD SHALL BE GROWN UNDER THE SUPERVISION OF THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE BUREAU OF PLANT INDUSTRY OR SHALL BE COMPOSED OF ONLY BLUE TAC CERTIFIED SEED.

SEED: SEED SHALL BE FRESH. ALL NEW CROP SEED SHALL BE LABELED IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT IN EFFECT ON THE DATE OF INVITATION FOR BIDS. ALL SEED SHALL BE FURNISHED IN SCALE STANDARD TO KIND, PERCENT BY WEIGHT, PURITY AND GERMINATION. THE GRASS SEED SHALL CONTAIN THE PERCENTAGES OF PURITY AND GERMINATION INDICATED ON THE LIST FURNISHED WITH THE APPLICABLE PLAN. SEED MIX SHALL BE AS SPECIFIED, SPREAD AT THE RATE OF 5 POUNDS PER 1,000 SQUARE FEET (MINIMUM). FOR SLOPE 3:1 OR GREATER, USE 7.5 POUNDS OF SEED PER 1,000 SQUARE FEET.

MULCH: SHALL BE HAY WHICH IS FREE OF WEEDS AND SEEDS, NOT MOLDED OR ROTTEN, AND SHALL BE APPLIED TO ALL AREAS AT A RATE OF 3 TONS PER ACRE. ON STEEP SLOPE AREAS (GREATER THAN 3:1), COVER SEEDED AREAS WITH AN ACCEPTABLE GEOTEXTILE EROSION CONTROL BLANKET.

STANDARD E&S NOTES (PA E&S MANUAL, APPENDIX C)

1. ALL EARTH DISTURBANCE, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM, INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE TOWNSHIP AND LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CARBING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN 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.
9. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.

10. 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 TOWNSHIP AND LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
11. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR REMOVED BUILDING MATERIALS SHALL BE BURNED, BURIED, DISPOSED, OR DISCHARGED AT THE SITE.
12. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE TOWNSHIP AND LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

13. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
14. THE PUMPING OF WATER FROM ANY WORK AREA SHALL BE TO FILTER BAGS ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN.
15. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY WITHOUT TRAVERSING A ROCK CONSTRUCTION ENTRANCE.
16. 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 (>0.25") AND ROUTINE END OF DAY CHECKS, ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADEING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
17. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE AT THE TIME OF INSPECTION.
18. 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 SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
19. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
20. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

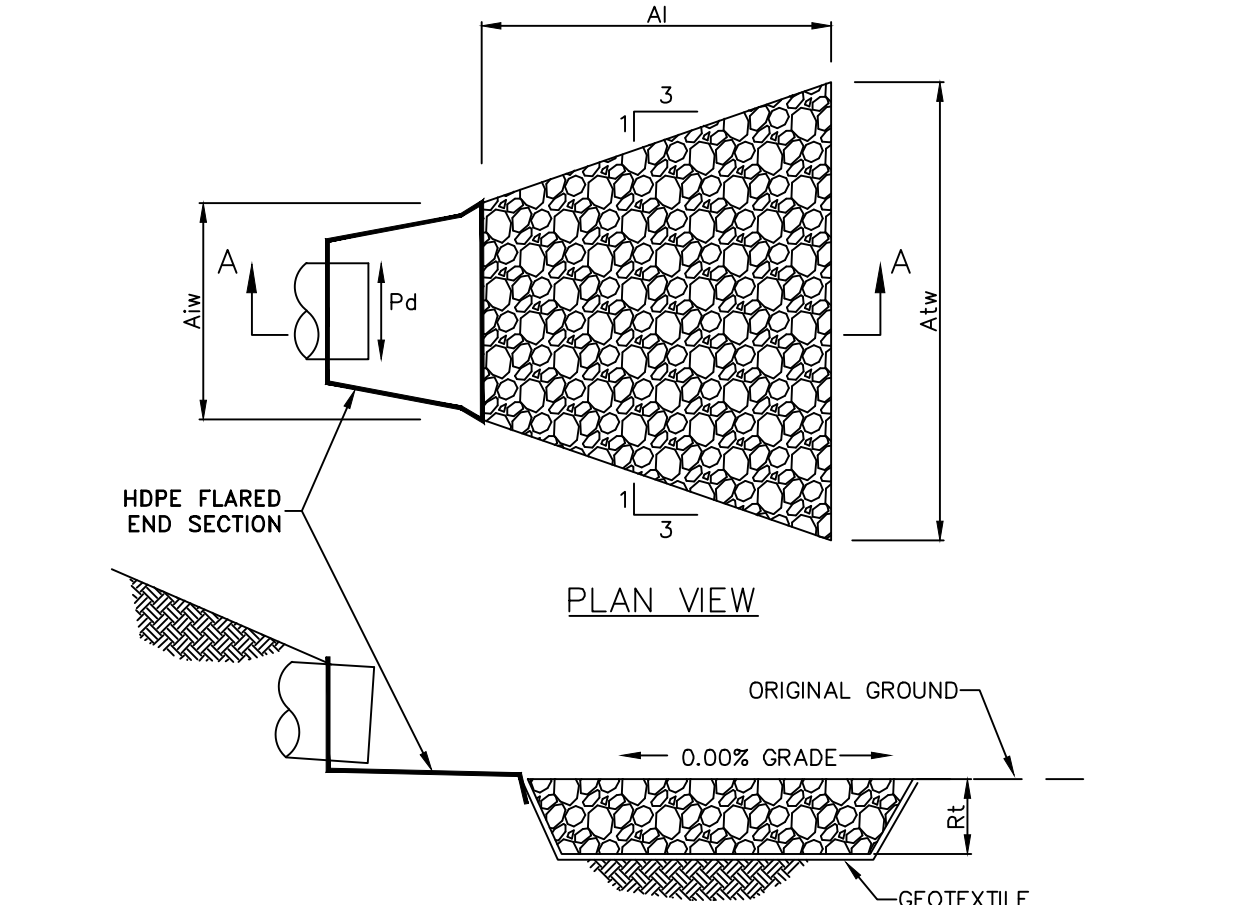
21. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
22. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
23. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
24. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
25. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
26. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
27. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 100 FEET OF ANY SURFACE WATER, OR OTHER WATER, OR DISCHARGED AT THE SITE, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

28. 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 COVER SHALL BE APPLIED TO ALL DISTURBED AREAS. 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.
29. 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.
30. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE TOWNSHIP AND LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
31. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE TOWNSHIP AND LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
32. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
33. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE TOWNSHIP AND LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.

34. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
35. 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.
36. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
37. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 8" LAYERED LIFT AT 95% DENSITY.
38. TO MEET ABACT REQUIREMENTS FOR THE NPDES GENERAL PERMIT, STREET SWEEPING WITH A VACUUM SWEEPER OF ALL ROADWAYS ADJACENT TO ACTIVE PORTIONS OF THE CONSTRUCTION SITE MUST BE PERFORMED AT THE END OF EACH WORK DAY (OR MORE FREQUENTLY AS NEEDED). TOWNSHIP STAFF SHALL HAVE THE RIGHT TO ORDER STREET CLEANING MORE OFTEN IF THERE IS EVIDENCE OF CONSTRUCTION RELATED DEBRIS IN THE ROADWAY DURING THE PROJECT.

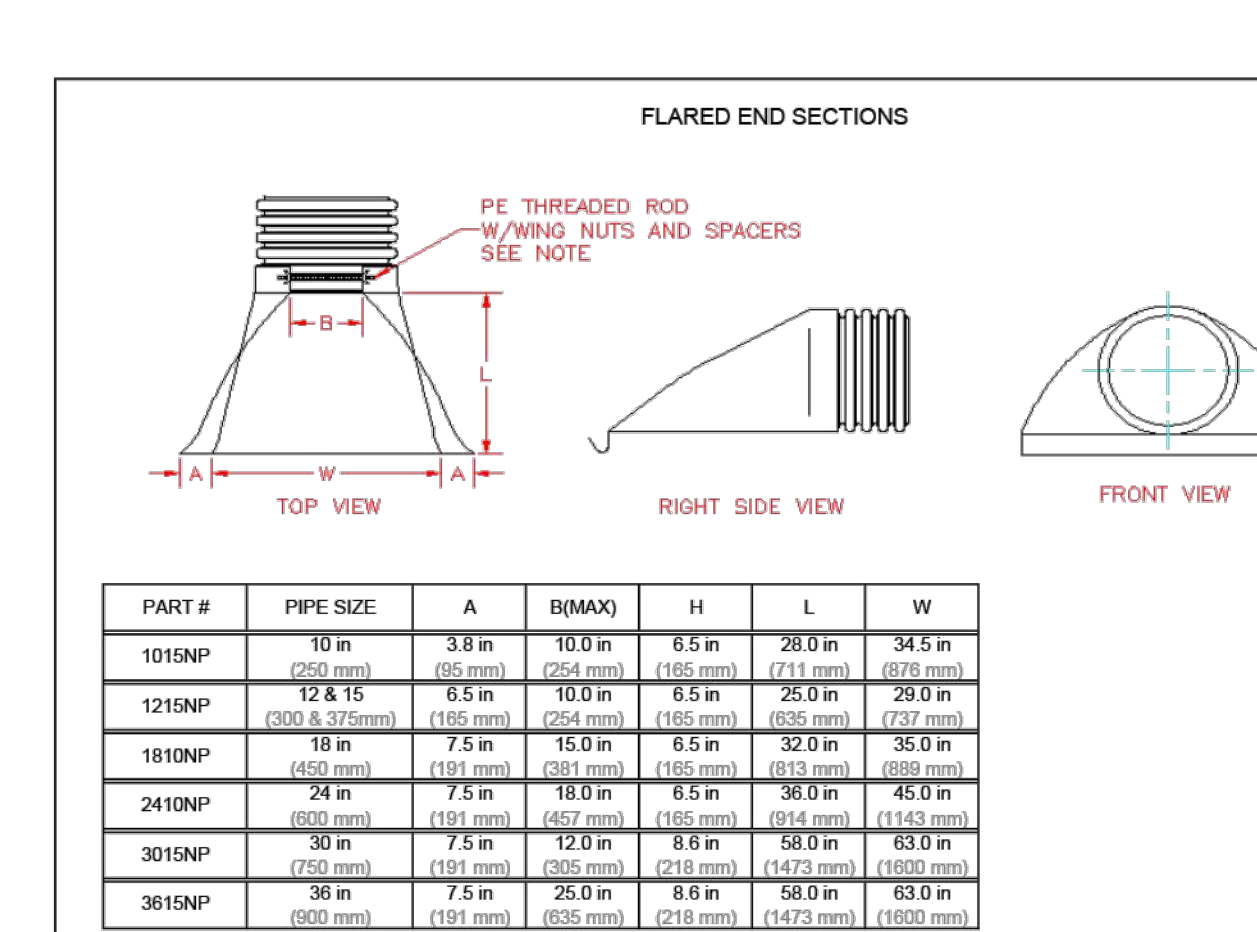
ADDITIONAL NOTES

1. EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
2. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY.
3. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY WITHOUT TRAVERSING A ROCK CONSTRUCTION ENTRANCE.
4. ALL SLOPES 3:1 OR STEEPER MUST UTILIZE EROSION CONTROL BLANKET (ECB) AND SEED OR SOD FOR STABILIZATION.
5. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADEING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
6. WHERE BMPs ARE FOUND TO FAIL TO ALLEViate EROSION AND SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING:
 - A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION
 - B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECCURENCE OF THE NON-COMPLIANCE.
 - C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
7. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL, RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE II, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
8. THE NPDES BOUNDARY IS EQUAL TO THE OUTER PERIMETER BOUNDARY OF THE SITE, AND ANY OFF-SITE AREAS WITHIN THE LIMITS OF DISTURBANCE THAT ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL, INCLUDING OFF-SITE FACILITIES SUCH AS UTILITIES AND ROADWAY IMPROVEMENTS.
9. RUNOFF CROSSING TO THE ADJACENT PROPERTY DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE MANAGED SO THAT THE WATER QUALITY/QUANTITY IMPACT IS MINIMIZED TO THE ADJACENT PROPERTY. DIVERSION BERMS, STONED STAGING AREAS, AND INLETS/PIPING SHALL BE PROVIDED AS NEEDED TO INSURE ACCEPTABLE CONDITIONS DURING CONSTRUCTION.
10. GRADING AND EARTHMOVING OPERATIONS SHALL BE MINIMIZED DURING THE PERIOD FROM NOVEMBER 15 TO APRIL 1 WHEN RE-VEGETATION OF EXPOSED GROUND SURFACE IS DIFFICULT. MULCH, STRAW, STONE AND/OR SOD SHALL BE USED TO STABILIZE ALL AREAS DENUDDED DURING THIS TIME PERIOD.
11. E&S CONTROL FOR TRENCH CONSTRUCTION WILL CONSIST OF PLACING EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH AND BACKFILLING AND STABILIZING WITHIN THE SAME WORK DAY.
12. NO GRADING SHALL BE PERMITTED WITHIN 5' OF A PROPERTY BOUNDARY.
13. RETAINING WALLS AND STEPS SHALL COMPLY WITH THE APPLICABLE BUILDING CODES REGARDING SAFETY FENCING AND ANY OTHER BUILDING CODE REQUIREMENTS.
14. THE ARCHITECTURAL PLANS MUST BE COORDINATED W/ BUILDING HEIGHT CALCULATION AND MUST COMPLY WITH THE GRADING PROPOSED BY THIS PERMIT PLAN.
15. CONTRACTOR MUST OBTAIN A HIGHWAY PERMIT TO WORK WITHIN THE TOWNSHIP RIGHT-OF-WAY.
16. ALL CONSTRUCTION-RELATED VEHICLES SHALL BE PARKED ON SITE OR AT REMOTE SITE NOT IN THE NEIGHBORHOOD. NO CONSTRUCTION-RELATED VEHICLES MAY PARK ON THE STREET. THIS INCLUDES PERSONAL VEHICLES OPERATED BY CONSTRUCTION WORKERS OR VEHICLES OPERATED FOR CONSTRUCTION WORKERS, MATERIAL SUPPLIERS, PRODUCT VENDORS, AND ALL CONSTRUCTION TRADES ENGAGED IN THE PROJECT.
17. THE APPLICANT SHALL CONDUCT REGULAR STREET CLEANING OF ALL ROADWAYS ADJACENT TO ACTIVE PORTIONS OF THE CONSTRUCTION SITE. STAFF SHALL HAVE THE RIGHT TO ORDER STREET CLEANING MORE OFTEN IF THERE IS EVIDENCE OF CONSTRUCTION RELATED DEBRIS IN THE ROADWAY DURING THE PROJECT.



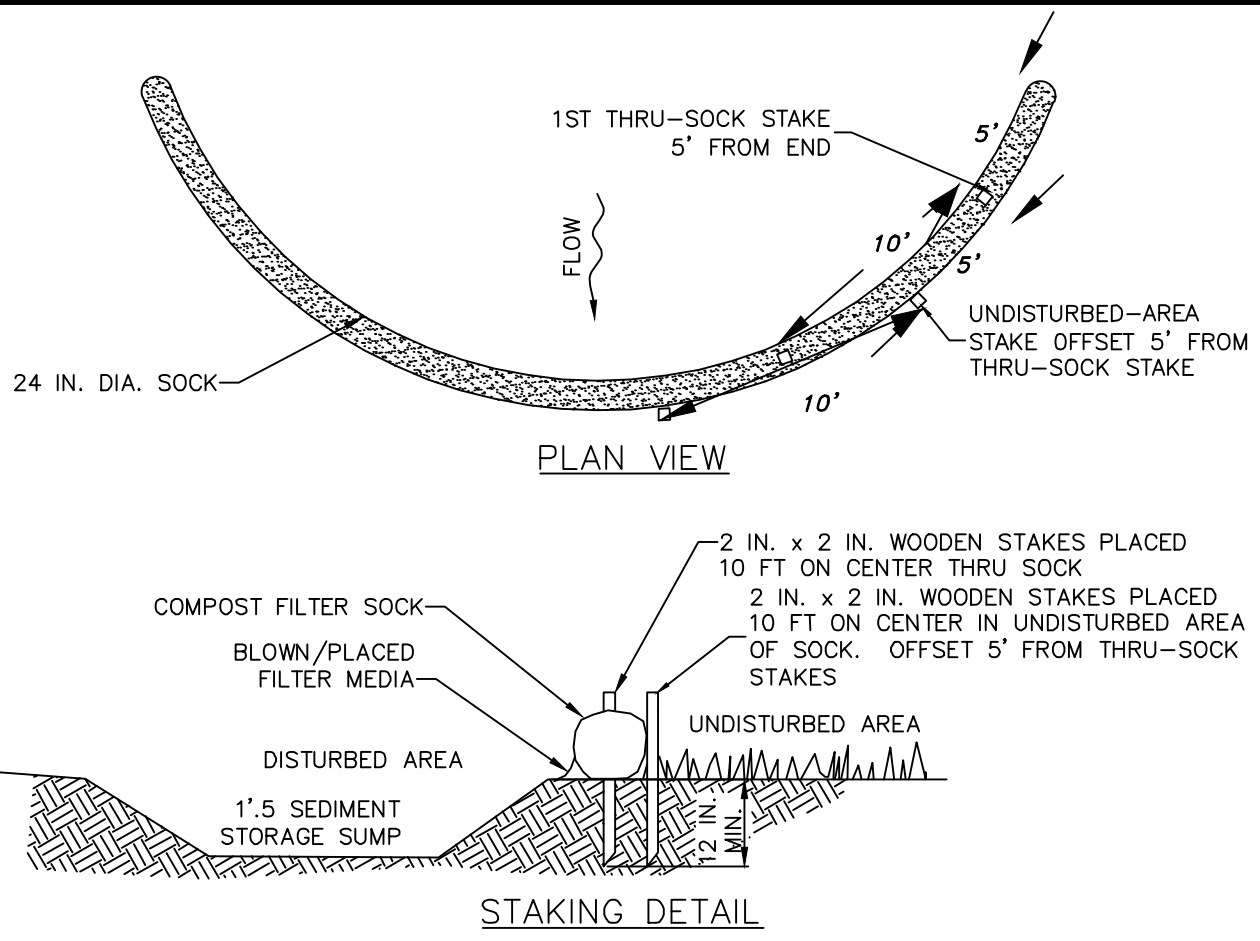
OUTLET NO	RIPRAP				APPRON			
	PIPE DIA (IN)	SIZE R-1	THICK. RI (IN)	LENGTH AI (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Awt (FT)		
DP #001	10	3	6	6	3.0	8.5		

STANDARD CONSTRUCTION DETAIL #9-2 RIPRAP APPRON AT PIPE OUTLET NO FLARED ENDWALL



PART #	PIPE SIZE	A	R(MAX)	H	L	W
1015NP	10 in (254 mm)	3.0 in (76 mm)	10.0 in (254 mm)	6.5 in (165 mm)	28.0 in (711 mm)	34.5 in (878 mm)
1215NP	12 in (304.8 mm)	3.5 in (89 mm)	10.0 in (254 mm)	6.5 in (165 mm)	28.0 in (711 mm)	34.5 in (878 mm)
1810NP	18 in (457 mm)	5.0 in (127 mm)	15.0 in (381 mm)	8.5 in (216 mm)	32.0 in (813 mm)	38.0 in (965 mm)
2410NP	24 in (609.6 mm)	7.0 in (178 mm)	18.0 in (457 mm)	10.0 in (254 mm)	36.0 in (914 mm)	42.0 in (1067 mm)
3015NP	30 in (762 mm)	8.5 in (216 mm)	22.0 in (559 mm)	12.0 in (305 mm)	40.0 in (1016 mm)	46.0 in (1168 mm)
3615NP	36 in (914 mm)	10.0 in (254 mm)	26.0 in (660 mm)	14.0 in (355 mm)	44.0 in (1118 mm)	50.0 in (1270 mm)

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

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

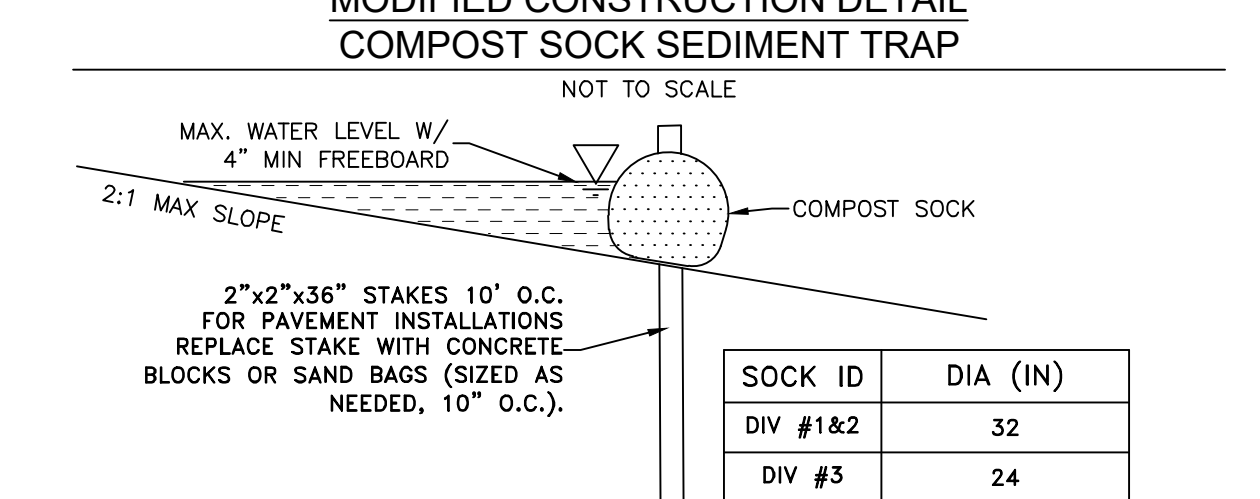
COMPOST SOCK SEDIMENT TRAPS SHALL NOT EXCEED THREE SOCKS IN HEIGHT AND SHALL BE STACKED IN A PYRAMIDAL FORM AS SHOWN ABOVE. MINIMUM TRAP HEIGHT IS ONE 24" DIAMETER SOCK. ADDITIONAL STORAGE MAY BE PROVIDED BY MEANS OF AN EXCAVATED SUMP 12" DEEP EXTENDING 1 TO 3 FEET UPSLOPE OF THE SOCKS ALONG THE LOWER SIDE OF THE TRAP.

COMPOST SOCK SEDIMENT TRAPS SHALL PROVIDE 2,000 CUBIC FEET STORAGE CAPACITY WITH 12" FREEBOARD FOR EACH TRIBUTARY DRAINAGE ACRE. (SEE MANUFACTURER FOR ANTICIPATED SETTLEMENT.)

THE MAXIMUM TRIBUTARY DRAINAGE AREA IS 5.0 ACRES. SINCE COMPOST SOCKS ARE "FLOW-THROUGH," NO SPILLWAY IS REQUIRED.

COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT STORAGE SUMP IS 1-FOOT FULL.

PHOTODEGRADABLE AND BIODEGRADABLE SOCKS SHALL NOT BE USED FOR MORE THAN 1 YEAR.



SOCK ID		DIA (IN)	
DIV #1&2		32	
DIV #3		24	

SOPE ALONG DIVERSION SOCK MUST BE 1% OR GREATER

FILTREXX DIVERSION SOCK DETAIL

SOPE ALONG DIVERSION SOCK MUST BE 1% OR GREATER

CONSTRUCTION SEQUENCE

NOTE: A QUALIFIED LICENSED PROFESSIONAL OR DESIGNER SHALL BE PRESENT AT THE SITE TO OBSERVE CRITICAL STAGING AND STAGING AREAS UNDERLINED IN THE CONSTRUCTION SEQUENCE BELOW. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER WHEN THE UNDERLINED STAGES ARE SCHEDULED.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

AT LEAST 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, THE DESIGNATED LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF THE E&S PLAN AND PCSM PLAN, ALL APPROPRIATE MUNICIPAL OFFICIALS, AND A REPRESENTATIVE FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING.

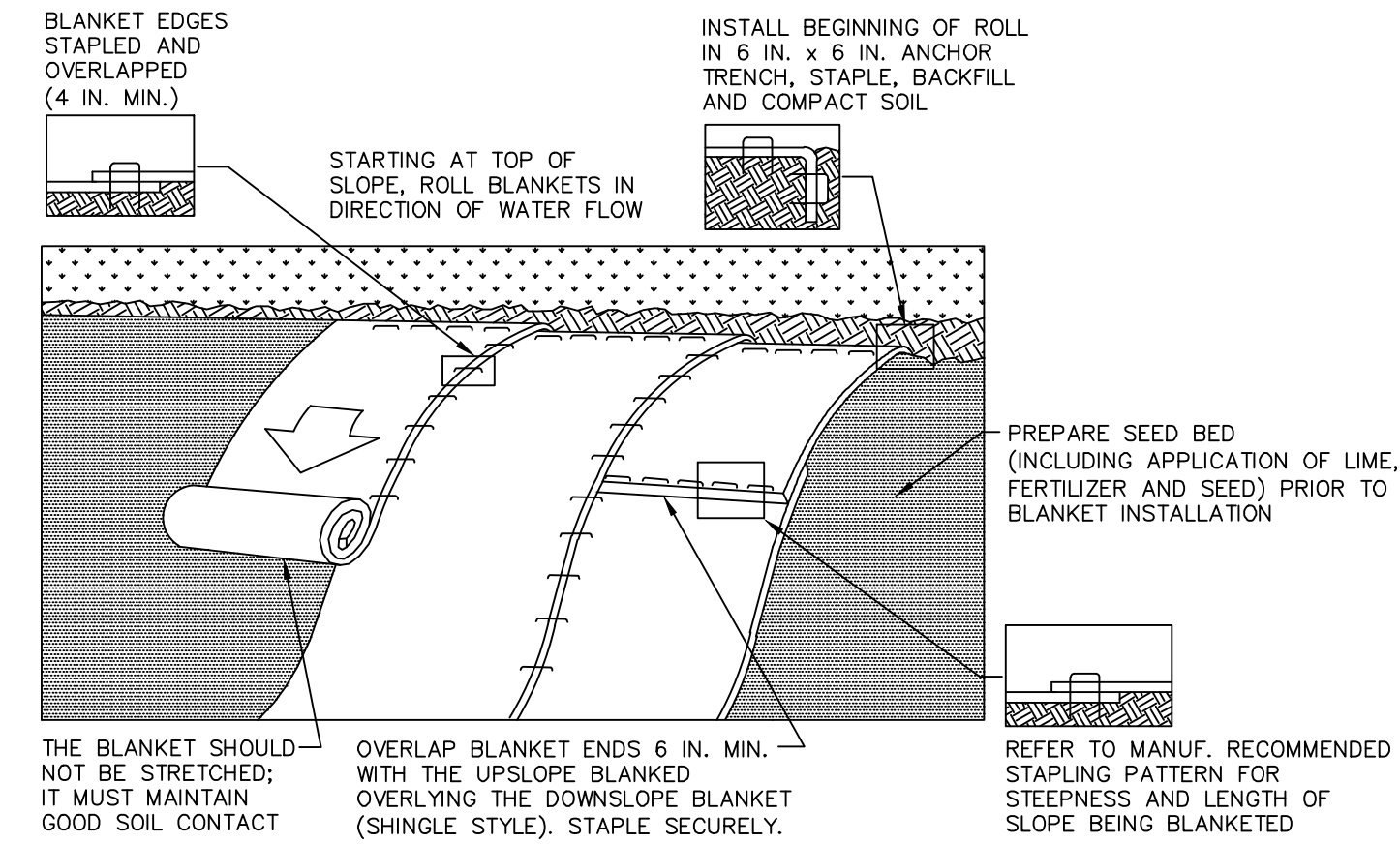
THE TOWNSHIP ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF EARTH MOVING ACTIVITIES AND ALL REQUIRED INSPECTIONS.

TO MEET ABACT REQUIREMENTS FOR THE NPDES GENERAL PERMIT, STREET SWEEPING WITH A VACUUM SWEEPER MUST BE PERFORMED AT THE END OF EACH WORK DAY (OR MORE FREQUENTLY AS NEEDED). TOWNSHIP STAFF SHALL HAVE THE RIGHT TO ORDER STREET CLEANING MORE OFTEN IF THERE IS EVIDENCE OF CONSTRUCTION RELATED DEBRIS IN THE ROADWAY DURING THE PROJECT.

1. THE LIMIT OF DISTURBANCE SHALL BE MARKED BY SURVEY STAKES, POSTS & ROPE, OR CONSTRUCTION FENCING PRIOR TO DISTURBANCE ACTIVITIES.
2. REMOVE TREES AS NEEDED IF WITHIN THE ALLOWABLE TIME PERIOD. DO NOT REMOVE TREES BETWEEN MAY 15 AND AUGUST 15 PER THE AVOIDANCE MEASURES REQUIRED BY THE US FISH AND WILDLIFE SERVICE'S RESPONSE ON THE 9/24/2024 PHOTO REQUEST.
3. INSTALL ROCK CONSTRUCTION ENTRANCE, SCM #1 PROTECTION FENCING AND SILT BARRIERS.
4. INSTALL COMPOST SOCK TRAP AND DIVERSION SOCKS.
5. INSTALL CONCRETE WASH OUT.
6. GRUB TREE STUMPS AND VEGETATION. STOCK PILE TOPSOIL. ROUGH GRADE TOWNHOUSE AND DRIVEWAY.

7. BEGIN CONSTRUCTION OF EMERGENCY ACCESS AND PARKING LOT UP TO SPACE 19 AND ASSOCIATED STORMWATER INLETS AND CONVEYANCE PIPING PER THE PLANS, NOTES AND DETAILS. ALL STORMWATER FEATURES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.
8. REMOVE EXISTING STONE WALLS AND STONE WALLS TO BE REPLACED BY THE SEQUENCE BELOW.
9. STABILIZE EMERGENCY ACCESS AND PARKING WITH BASE COURSE. INSTALL STABILIZED ACCESS OF CRUSHED STONE ON REMAINING PARKING LOT, ROADWAY AND AROUND BUILDING AREA FOR CONSTRUCTION.
10. BEGIN CONSTRUCTION OF BUILDINGS PER THE PLANS, NOTES AND DETAILS.
11. STAGE CONSTRUCTION OF STORMWATER INFILTRATION BED IN SUCH A WAY THAT NO SEDIMENT ENTERS THE BED. IF SEDIMENT ENTERS STONE WALLS SHALL BE REPLACED AND THE GEOTEXTILE FABRIC SHALL BE CLEANED OR REPLACED AS NECESSARY.
12. INITIAL INLET PROTECTION, NO FLOW SHALL ENTER BEDS FROM ANY AREAS THAT ARE NOT AT LEAST 70% STABILIZED WITH A UNIFORM VEGETATIVE COVER OR FULLY PROTECTED WITH INLET PROTECTION.

13. CRITICAL STAGE: CONSTRUCT INFILTRATION BED SCM #001 PER THE PLANS, NOTES AND DETAILS. CRITICAL OBSERVATIONS BY QUALIFIED LICENSED PROFESSIONAL:
 - 12.1. BED BOTTOM AT DESIGN DEPTH, LEVEL AND UNCOMPACTED.
 - 12.2. BED FOOTPRINT DIMENSIONS, STONE, PIPE & GEOTEXTILE MATERIAL PLACED.



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLDS, STICKS, AND GRASS.

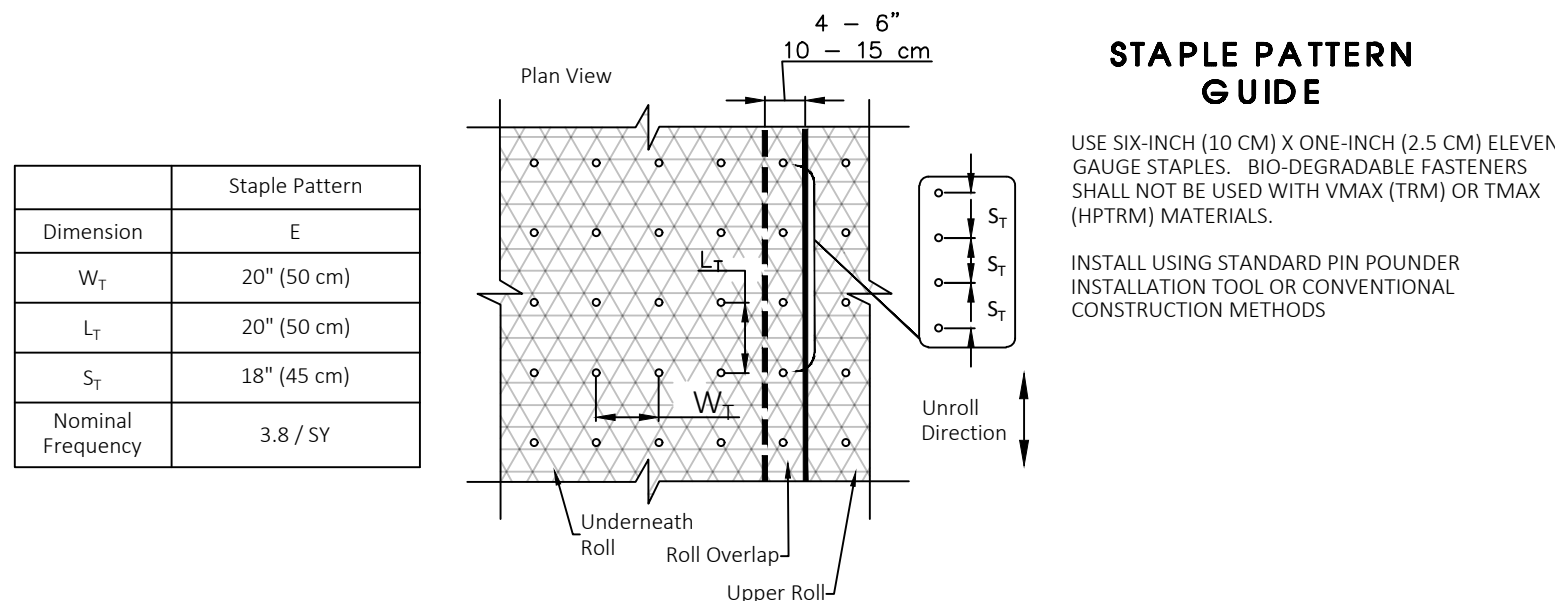
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

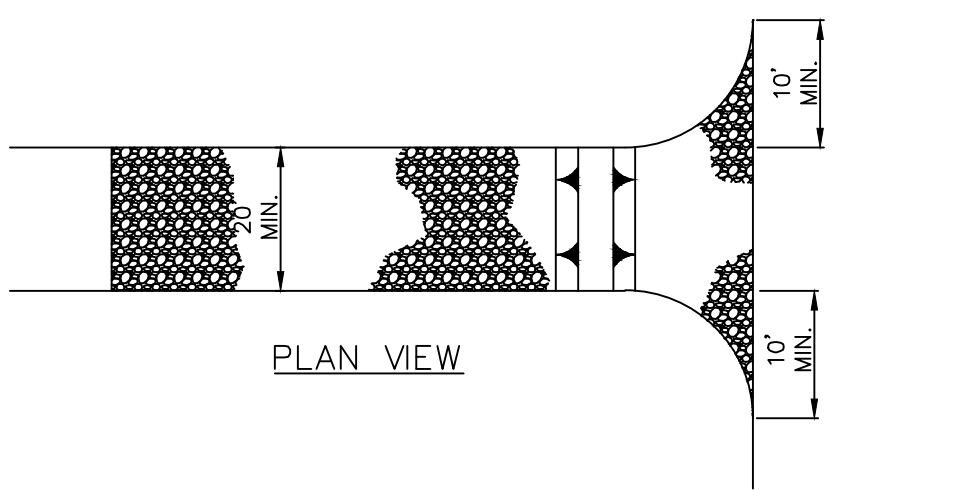


TURF REINFORCED MAT: NORTH AMERICAN GREEN VMAX C350

* SEE NORTH AMERICAN GREEN'S ROLLED EROSION CONTROL INSTALLATION GUIDE FOR ADDITIONAL SPECIFICATIONS AND DETAILS.

COIR LOGS: CLARION 20", HIGH DENSITY, PREDRILLED

* SEE ONE CLARION'S COIR LOG PRODUCT FLYER FOR SPECIFICATIONS AND INSTALLATION.



NOTES:

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

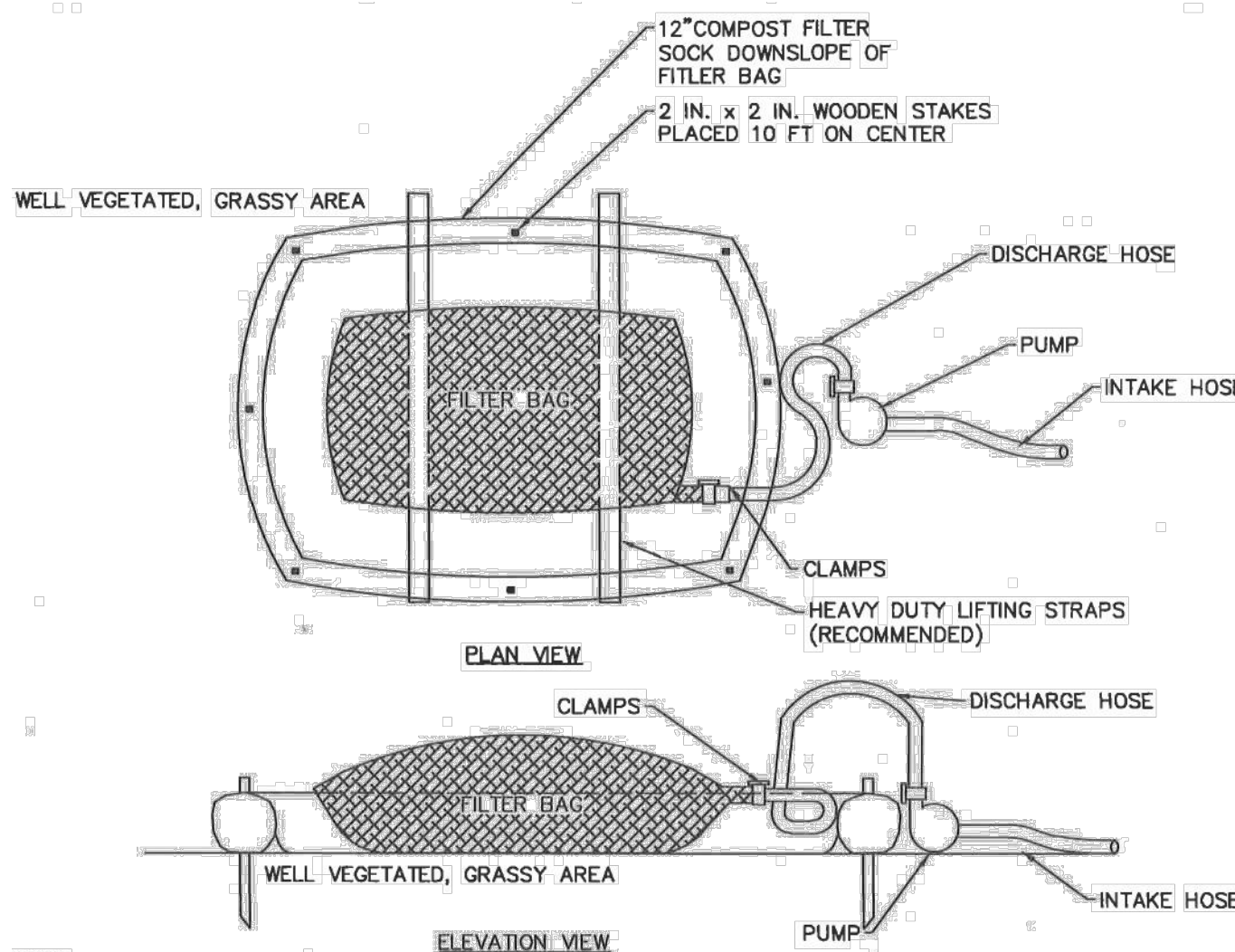
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

ABACT NOTE: TO MEET THE ABACT REQUIREMENTS OF THE NPDES GENERAL PERMIT, STREET SWEEPING WITH A VACUUM SWEEPER AND ROLLING OF DIRT ACCESS ROADS MUST BE PERFORMED AT THE END OF EACH WORK DAY (OR MORE FREQUENTLY AS NEEDED). TIRES CAN BE CLEANED OFF MANUALLY WITH A BROOM BEFORE EXITING THE PROJECT SITE.



NOTES:

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

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

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

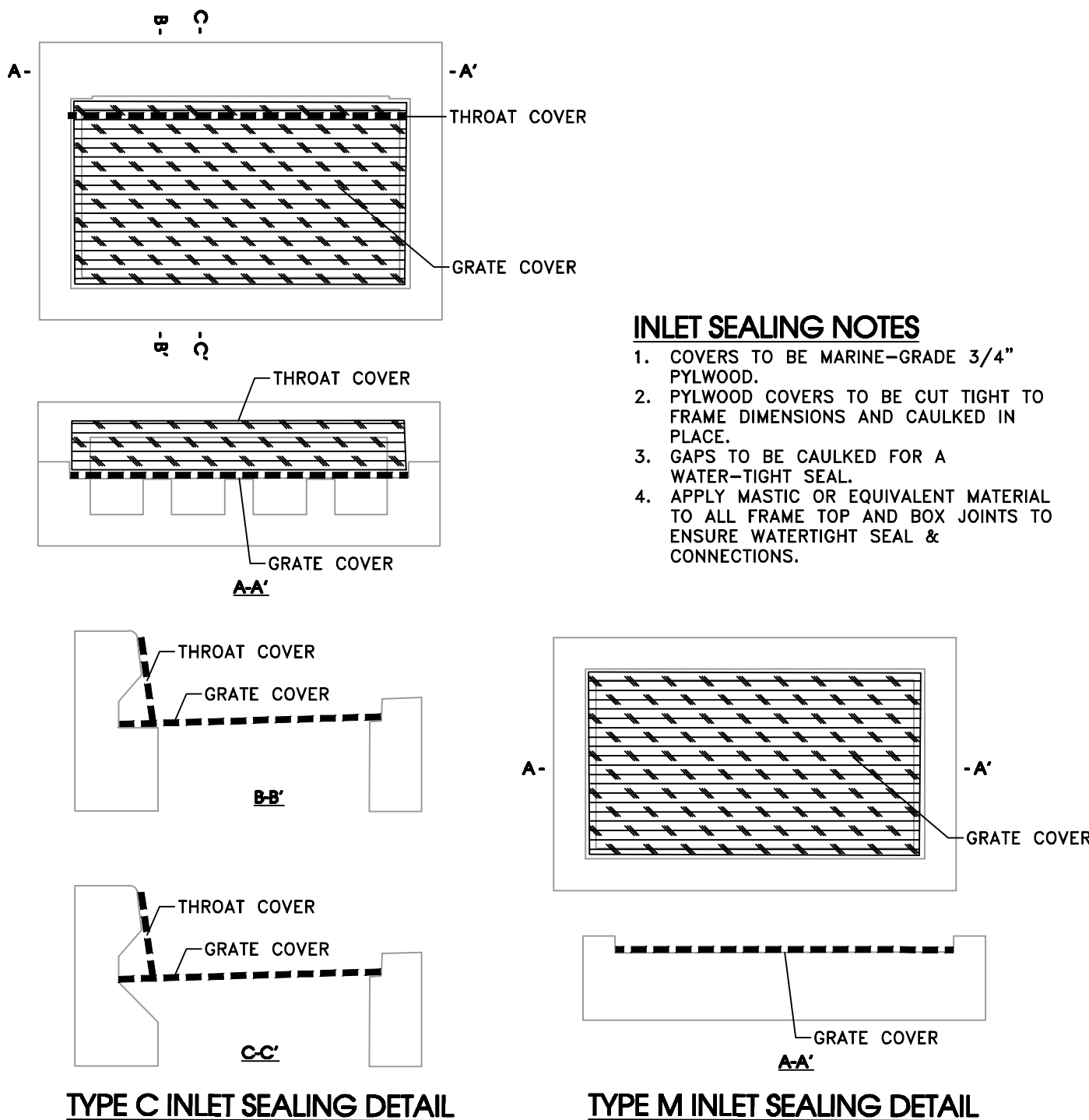
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG W/COMPOST SOCK RING

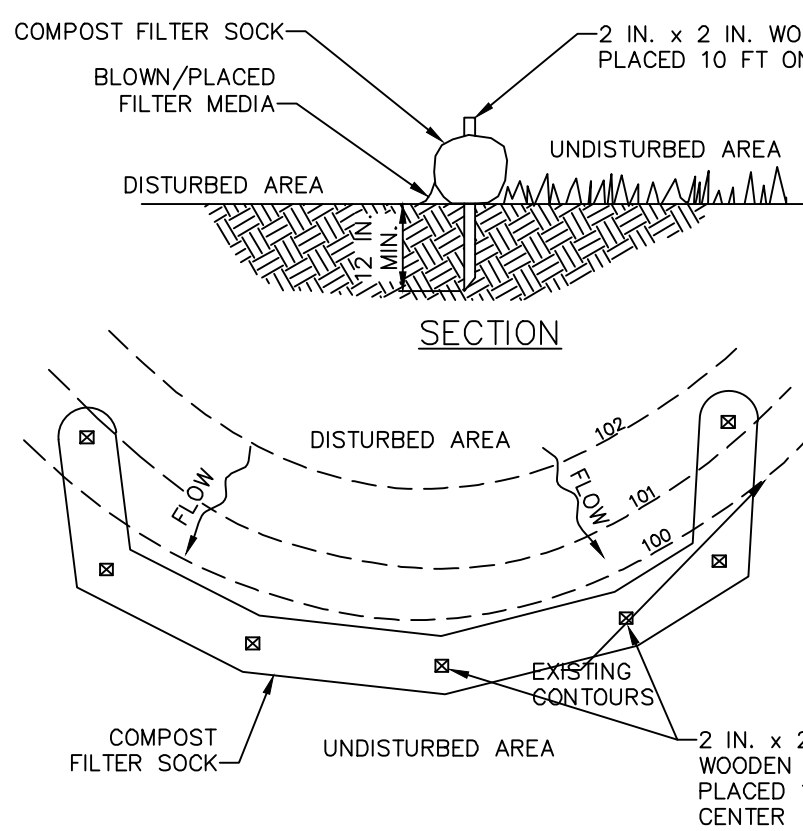
NOT TO SCALE

ABACT NOTE: TO MEET THE ABACT REQUIREMENTS OF THE NPDES GENERAL PERMIT, RUNOFF TO BE PUMPED FROM SUMP PIT TO FILTER BAG PIT RINGED BY 12" COMPOST SOCK.



INLET SEALING NOTES

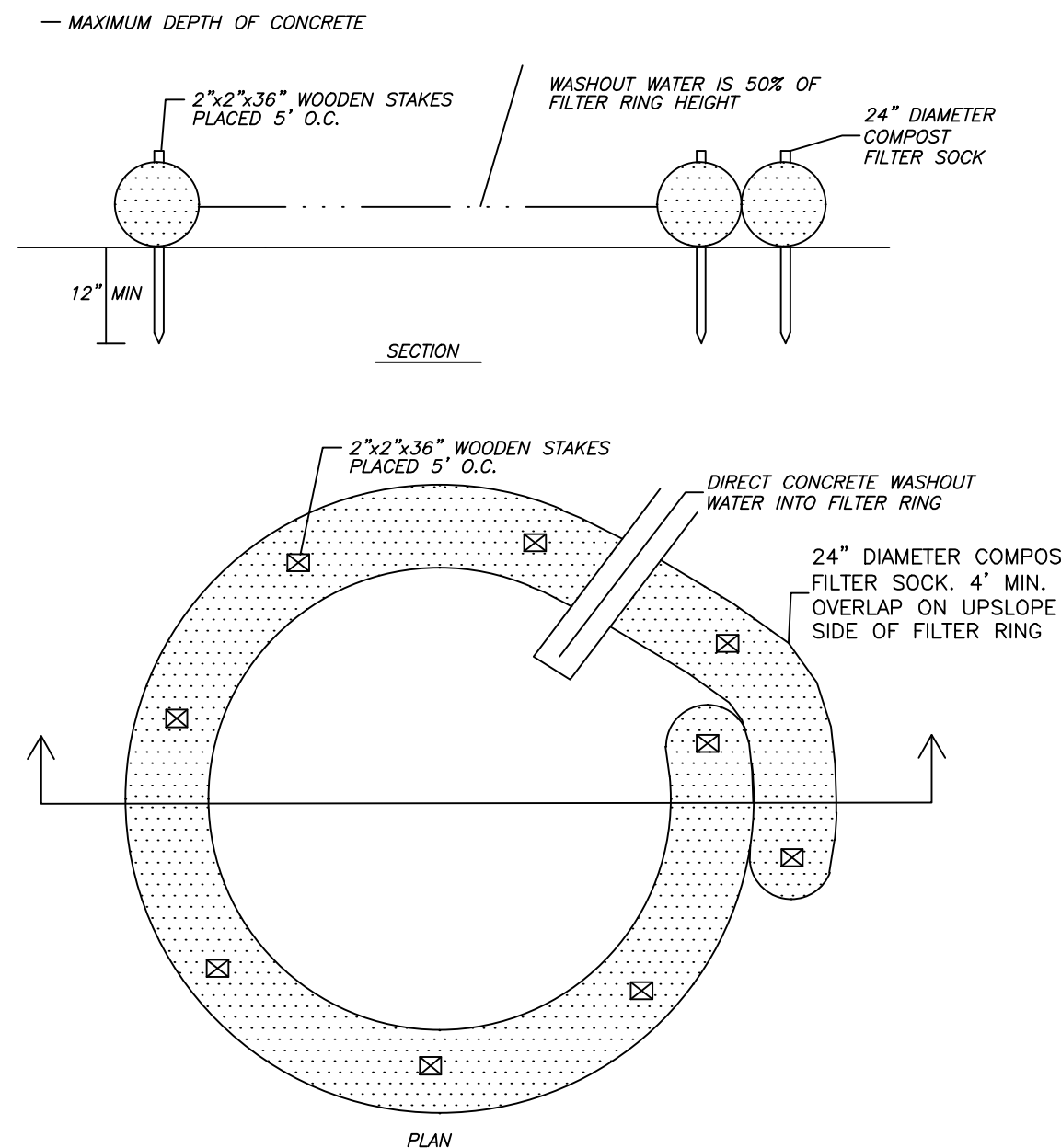
- COVERS TO BE MARINE-GRADE 3/4" PYLWOOD.
- PYLWOOD COVERS TO BE CUT TIGHT TO FRAME DIMENSIONS AND CAULKED IN PLACE.
- GAPS TO BE CAULKED FOR A WATER-TIGHT SEAL.
- APPLY MASTIC OR EQUIVALENT MATERIAL TO ALL FRAME TOP AND BOX JOINTS TO ENSURE WATERTIGHT SEAL & CONNECTIONS.



PLAN VIEW

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

NOT TO SCALE



CONCRETE WASHOUT DETAIL (USING COMPOST SOCK)

(TAKEN FROM 2012 PAPER E&SC PROGRAM MANUAL PG 50)

- INITIATION NOTES:**
- A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS. CARE SHOULD BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS
 - INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
 - 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
 - FOR MORE INFORMATION CONTACT: WEBSITE: <http://www.filtersock.com>
- GENERAL NOTES:**
- FOR ANY PROJECT ON WHICH CONCRETE WILL BE POURED OR OTHERWISE FORMED ONSITE, A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS FOR THE DELIVERY VEHICLES UNLESS ALL DELIVERY VEHICLES WILL BE CLEANED OFFSITE.
 - UNDER NO CIRCUMSTANCES MAY WASH WATER BE ALLOWED TO ENTER ANY SURFACE WATERS.
 - WASHOUT FACILITIES MUST BE MORE THAN 50 FEET FROM STORM DRAINS, OPEN DITCHES, AND SURFACE WATERS.
 - NOTIFICATION MUST BE PROVIDED TO DRIVERS SO THEY ARE AWARE OF THE WASHOUT FACILITIES.
- MAINTENANCE NOTES:**
- CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
 - ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
 - PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

STANDARD E&S WORKSHEET #1 EQUIVALENT

Compost Filter Socks

PROJECT NAME: PARKVIEW HOMES AT VALLEY FORGE
LOCATION: 450 W BEIDLER RD, UPPER MERION, MONTGOMERY CO
PREPARED BY: LPS
CHECKED BY: DATE: 8/10/2025
DATE: 3/12/2026

BARRIER ID TYPICAL WORST CASE - SILT #1 TO #2		SOCK SIZE 32		BARRIER SIZE ACCEPTABLE - SLOPE LENGTH < MAX LENGTH			
Segment	(A) Length, FT	(B) Slope	(C) Maximum Slope Length, FT	(D) Available Slope Length, FT	(E) % of Available Length Used (B)/(E) 100%	(F) % Maximum Length Used	(G) % Maximum Length Remaining
1	344	3%	1200	1,200	28.7%	71.3%	
2	65	10%	400	285	22.8%	55.1%	
3	42	14%	360	198	21.2%	43.4%	
4	133	8%	480	200	66.8%	14.5%	
Slope Length		584		Total Length Used =	85.5%		

BARRIER ID TYPICAL WORST CASE - DIV #3		SOCK SIZE 24		BARRIER SIZE ACCEPTABLE - SLOPE LENGTH < MAX LENGTH			
Segment	(A) Length (feet)	(B) Slope	(C) Maximum Slope Length (feet)	(D) Maximum Length x % Length Remaining (feet)	(E) % Maximum Length Used	(F) % Maximum Length Remaining	(G) % Maximum Length Remaining
1	30	10%	170	170	17.6%	82.4%	
Slope Length		30		Total Length Used =	17.6%		

BARRIER ID TYPICAL WORST CASE - SILT #1 TO #3		SOCK SIZE 12		BARRIER SIZE ACCEPTABLE - SLOPE LENGTH < MAX LENGTH			
Segment	(A) Length (feet)	(B) Slope	(C) Maximum Slope Length (feet)	(D) Maximum Length x % Length Remaining (feet)	(E) % Maximum Length Used	(F) % Maximum Length Remaining	(G) % Maximum Length Remaining
1	25	15%	100	100	25.0%	75.0%	
Slope Length		25		Total Length Used =	25.0%		

NOTES:

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

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

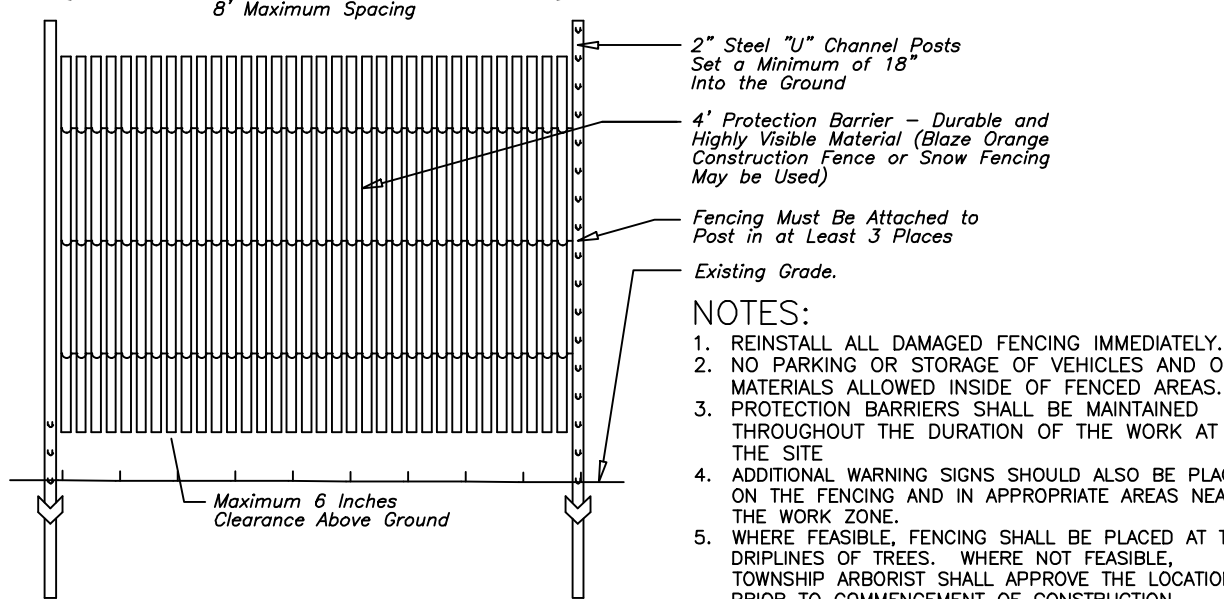
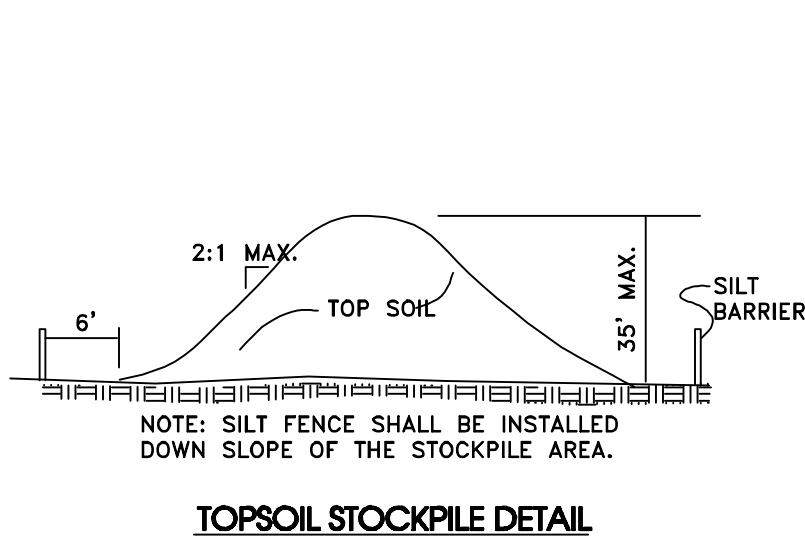
TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

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

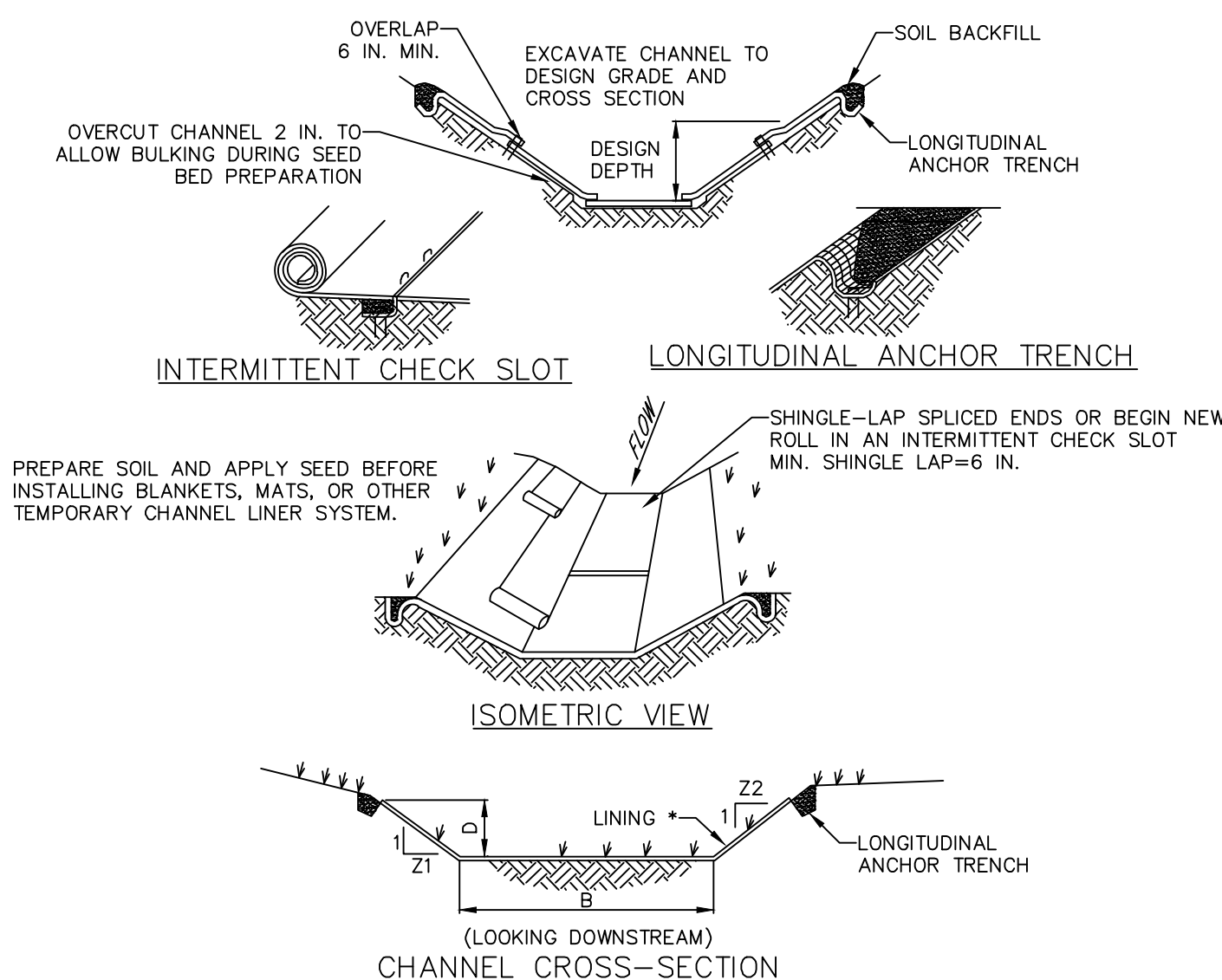
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

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

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



BMP & TREE PROTECTION TEMPORARY CONSTRUCTION FENCING



CHANNEL CROSS-SECTION

* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
REAR	0 to 275	1	1	7	3	3	NAG VMAX C350 TRM

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1 VEGETATED CHANNEL

NOT TO SCALE

E&SC PLAN SET LIST OF DRAWINGS

- SEE SHEET 8 FOR E&SC PLAN - EXISTING
- SEE SHEET 9 FOR E&SC PLAN - POST
- SEE SHEET 10 FOR E&SC NOTES & DETAILS
- SEE SHEET 11 FOR E&SC DETAILS.
- SEE SHEET 12 FOR STREAM STABILIZATION DETAILS

SEE NPDES AND TWP GRADING PERMIT CONDITIONS FOR ADDITIONAL REQUIREMENTS

NUM.	DATE	REVISION
4.	3/20/2026	RESPONSE TO TWP SUBDIVISION, LDP & MCCD NPDES REVIEWS
3.	12/31/2025	TOWNSHIP SUBDIVISION & LDP SUBMISSION
2.	12/19/2025	RESPONSE TO 12/16/25 ADMIN INCOMPLETE REVIEW
1.	11/21/2025	RESPONSE TO 9/24/25 ADMIN INCOMPLETE REVIEW

PLAN PREPARED BY:

SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399

P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

LAND DEVELOPMENT PLAN/ NPDES PLAN

PLAN PREPARED FOR:

PARKVIEW HOMES AT VALLEY

FORGE, LLC

450 WEST BEIDLER ROAD, KING OF PRUSSIA

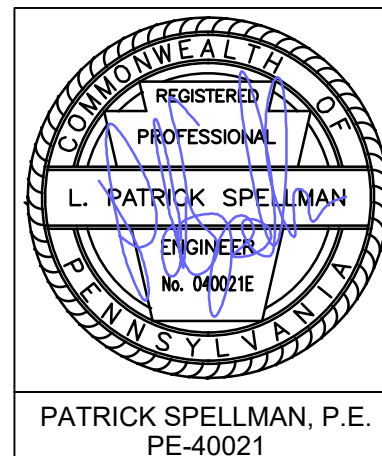
UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA

18 AUG 2025

EROSION AND SEDIMENT CONTROL PLAN DETAILS

SHEET
11 of 23

SCALE: 1" = NTS



Typical Slope Cross-Section and Material Property Data Sheet for C125BN Erosion Control Blanket. The cross-section shows the blanket installed on a slope with a 20" coir log for bank stack and falcon anchors. The material property data sheet lists various properties and test results for the C125BN blanket.

Typical Stream Bank Stabilization Detail and Material Property Data Sheet for C700BN Erosion Control Blanket. The detail shows the blanket installed on a slope with a 20" coir log for bank stack and falcon anchors. The material property data sheet lists various properties and test results for the C700BN blanket.

Typical Stream Bank Stabilization Detail and Material Property Data Sheet for F80-X-Z Series Falcon Pins. The detail shows the pins installed on a slope. The material property data sheet lists various properties and test results for the F80-X-Z series pins.

Typical Stream Bank Stabilization Detail and Material Property Data Sheet for F80-X-Z Series Falcon Pins. The detail shows the pins installed on a slope. The material property data sheet lists various properties and test results for the F80-X-Z series pins.

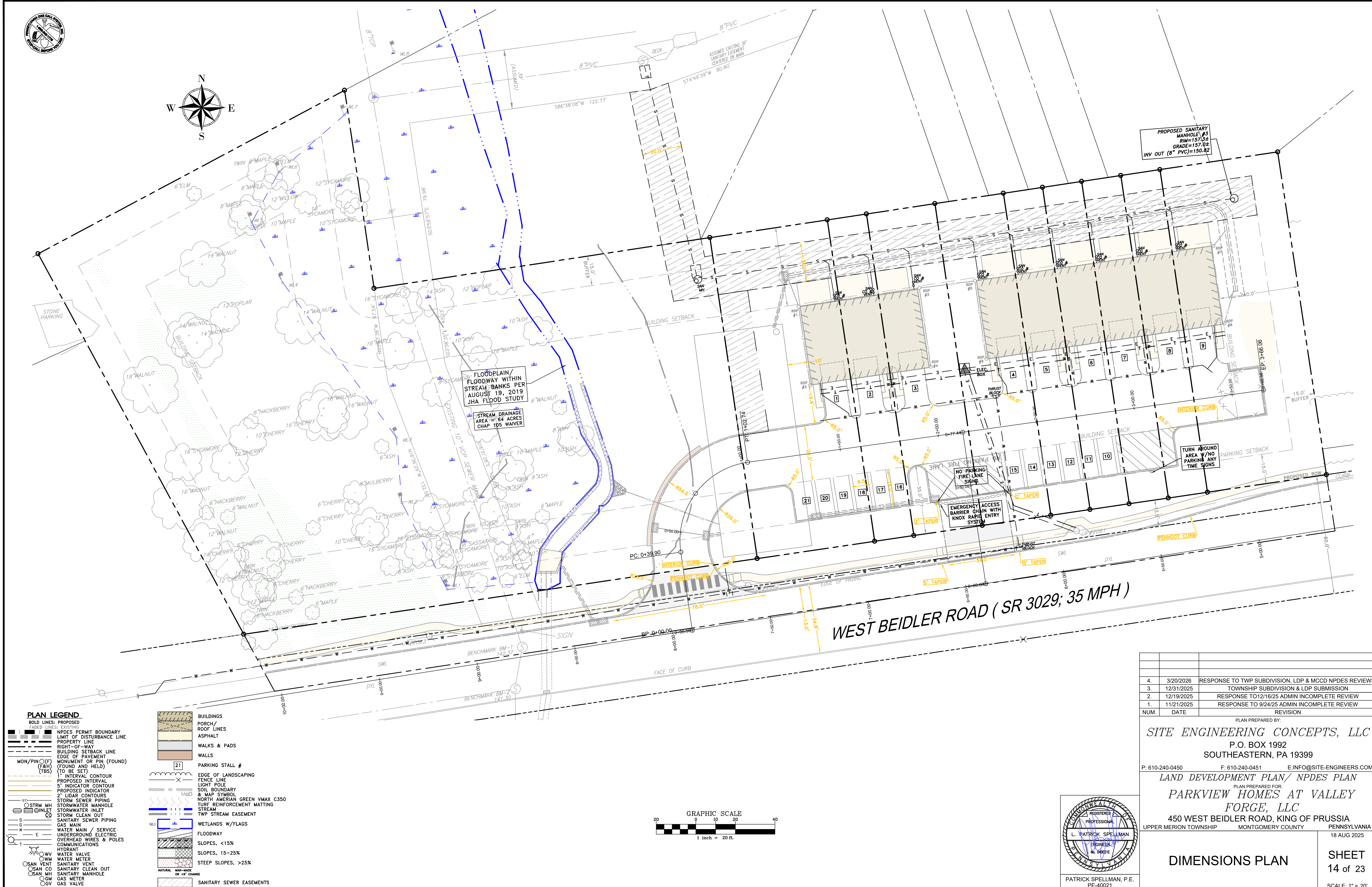
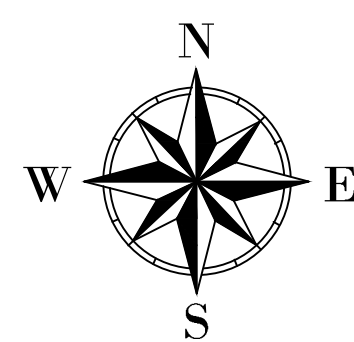
Culvert Extension and Stream Bank Stabilization Plan. The plan shows the culvert extension and stream bank stabilization details, including the culvert extension, stream bank stabilization, and the material property data sheet for the C125BN blanket.

Culvert Extension and Stream Bank Stabilization Plan. The plan shows the culvert extension and stream bank stabilization details, including the culvert extension, stream bank stabilization, and the material property data sheet for the C125BN blanket.

Figure 3.11: Temporary Cofferdam and Pump Bypass Around In-channel Work Areas. The diagram shows the temporary cofferdam and pump bypass system, including the pump, intake pipe, temporary dam, discharge pipe, culvert energy dissipater, rock filter, and pumped water filter bag. The material property data sheet lists various properties and test results for the C125BN blanket.

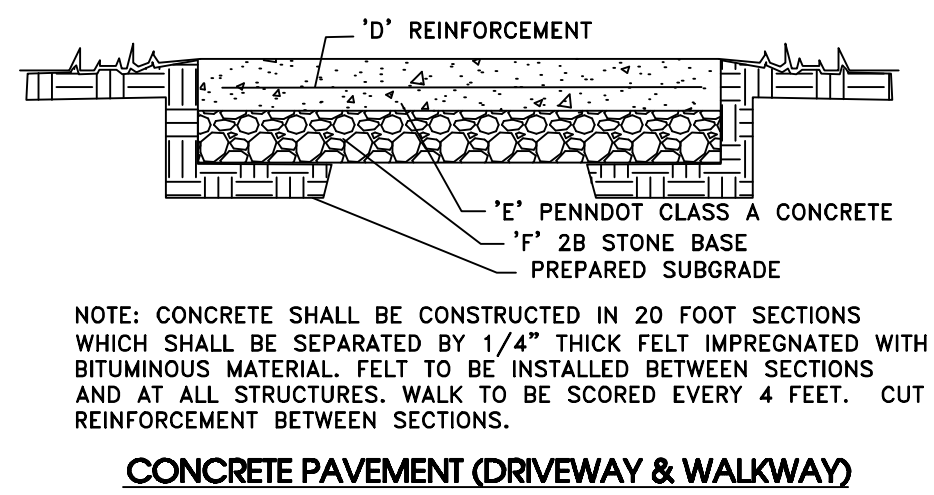
Culvert Extension and Stream Stabilization Construction Sequence. The sequence lists the steps for the construction, including the installation of the culvert extension, stream bank stabilization, and the material property data sheet for the C125BN blanket.

Standard Construction Detail #3-15: Sandbag Diversion Dam or Cofferdam. The detail shows the sandbag diversion dam or cofferdam, including the sandbags, impervious liner, and the material property data sheet for the C125BN blanket.



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1.	11/21/2025	RESPONSE TO 9/24/25 ADMIN INCOMPLETE REVIEW
NUM.	DATE	REVISION

PLAN PREPARED BY:		
SITE ENGINEERING CONCEPTS, LLC		
P.O. BOX 1992		
SOUTHEASTERN, PA 19399		
P: 610-240-0450	F: 610-240-0451	E: INFO@SITE-ENGINEERS.COM
LAND DEVELOPMENT PLAN/ NPDES PLAN		
PLAN PREPARED FOR:		
PARKVIEW HOMES AT VALLEY		
FORGE, LLC		
450 WEST BEIDLER ROAD, KING OF PRUSSIA		
UPPER MERION TOWNSHIP	MONTGOMERY COUNTY	PENNSYLVANIA
		18 AUG 2025
DIMENSIONS PLAN		SHEET 14 of 23
		SCALE: 1" = 20'



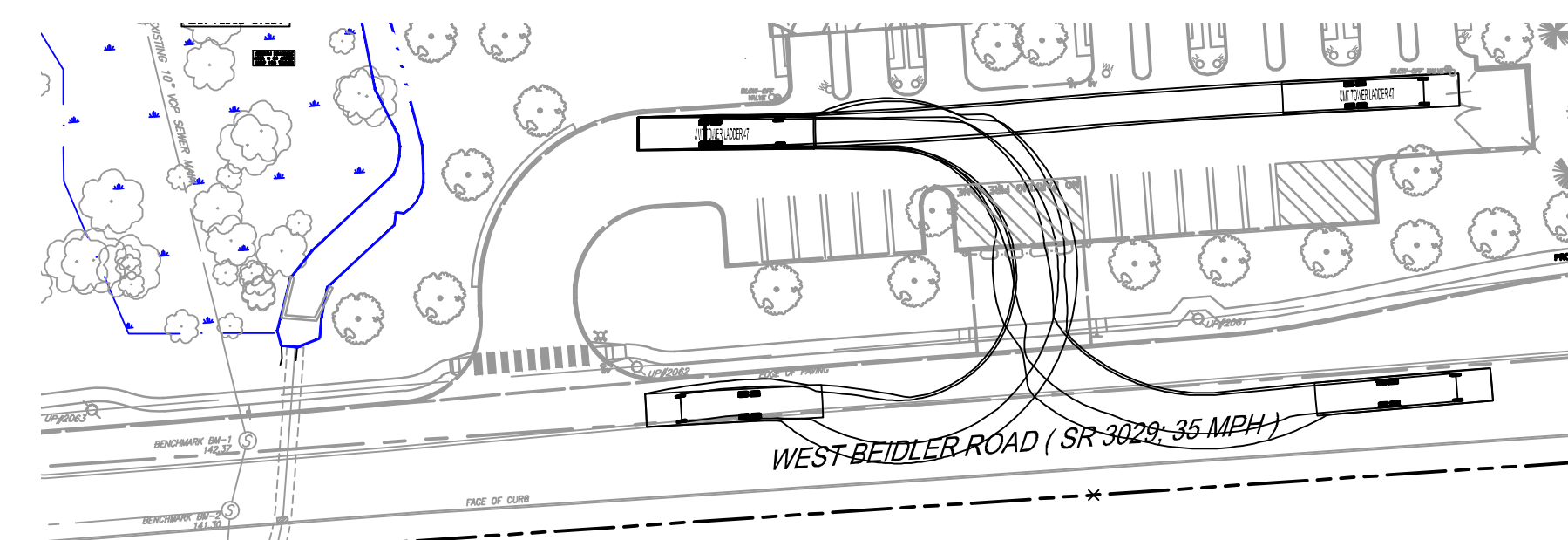
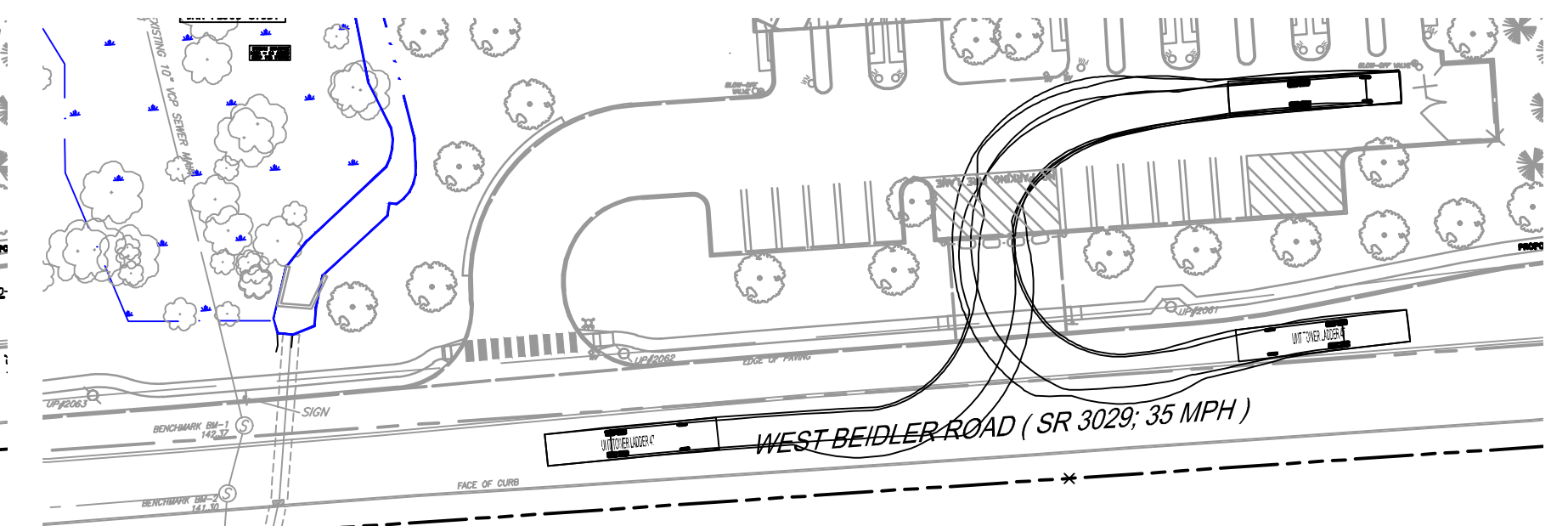
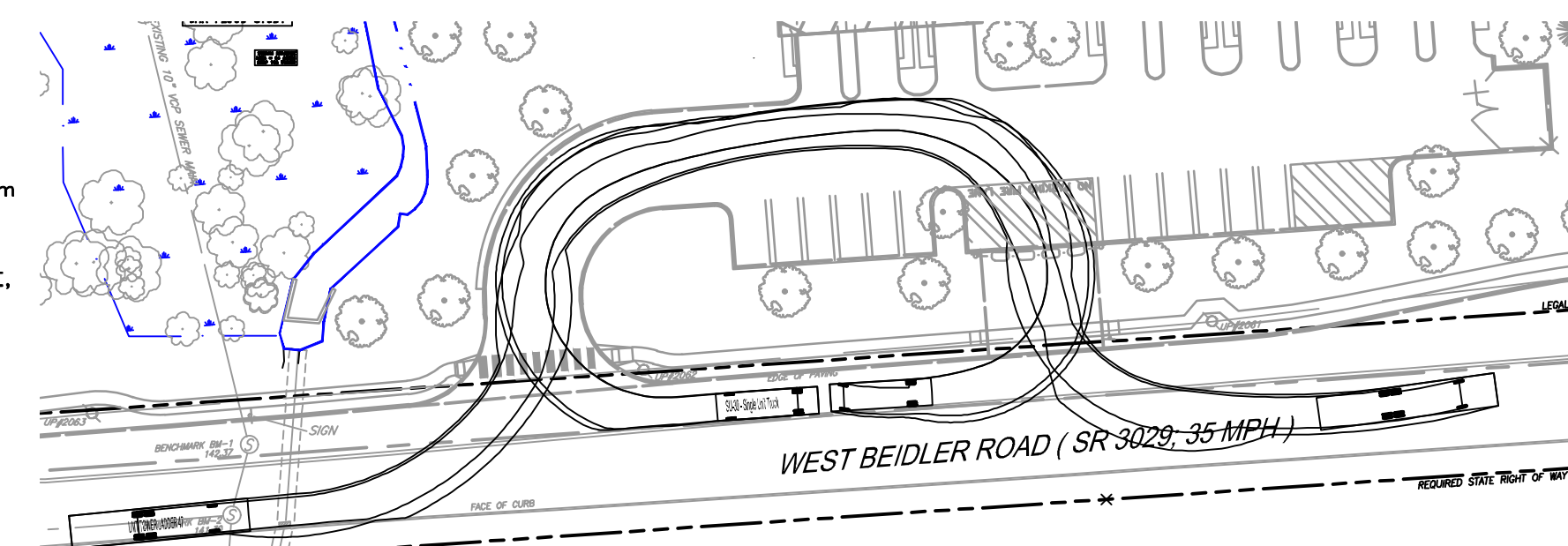
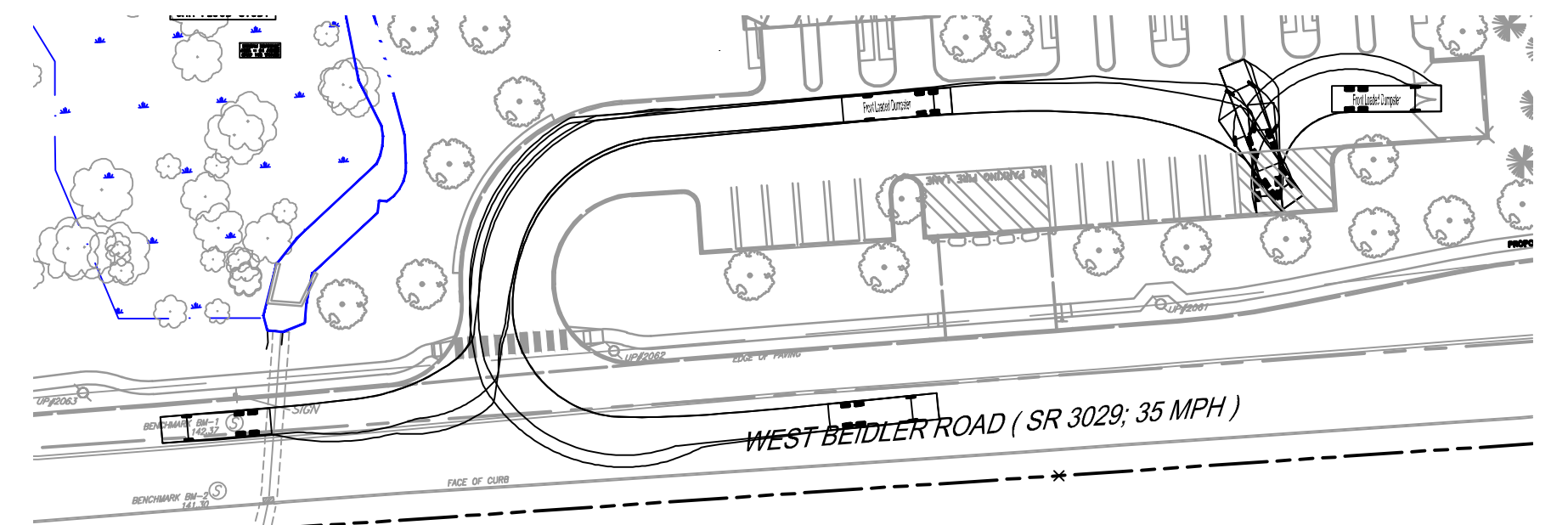
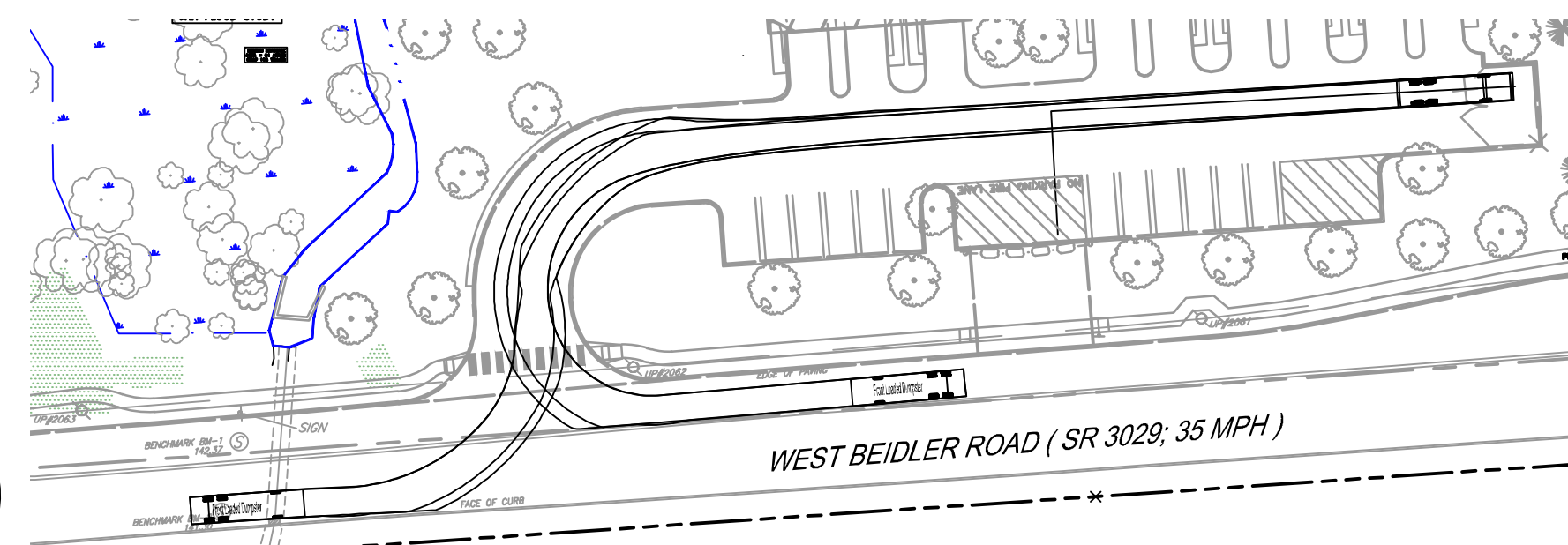
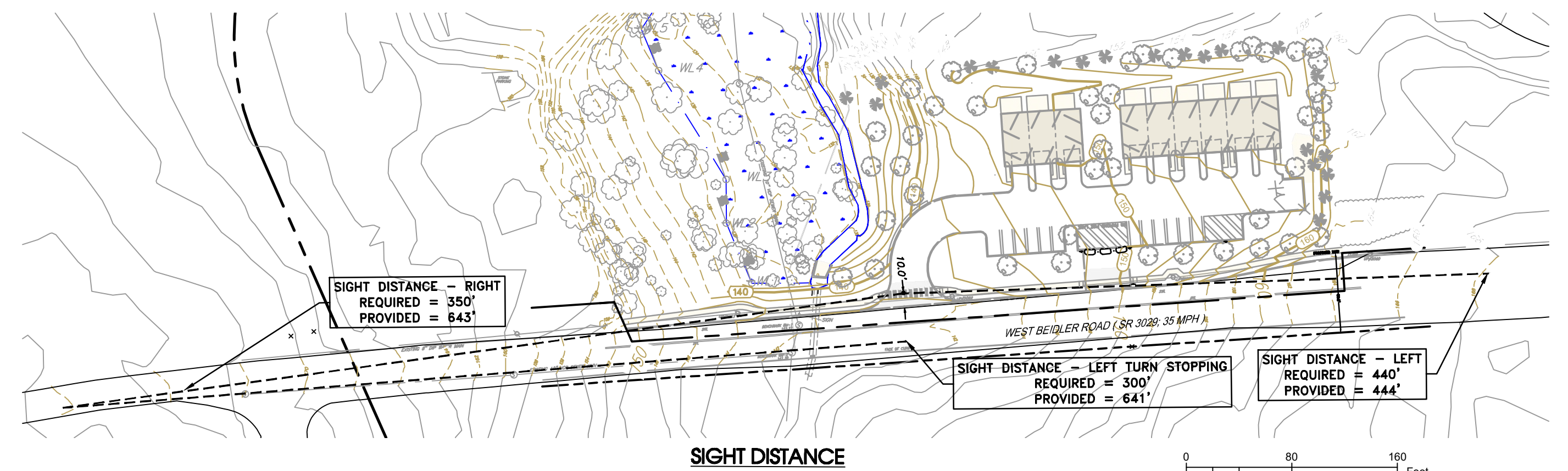
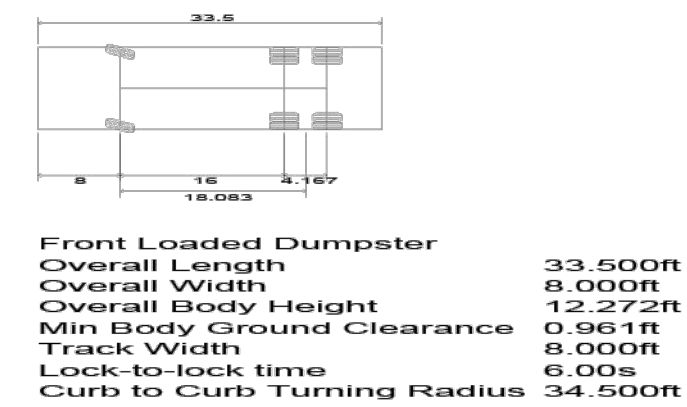
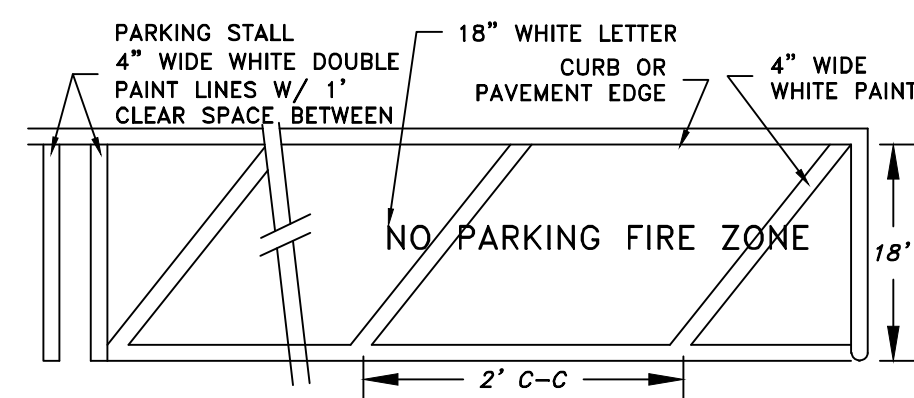
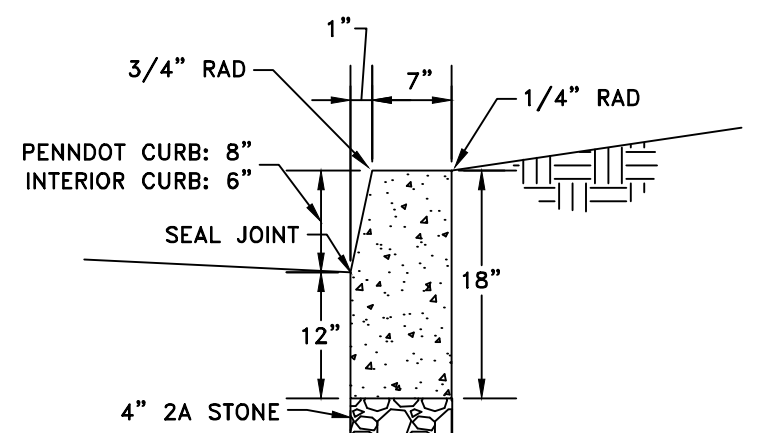
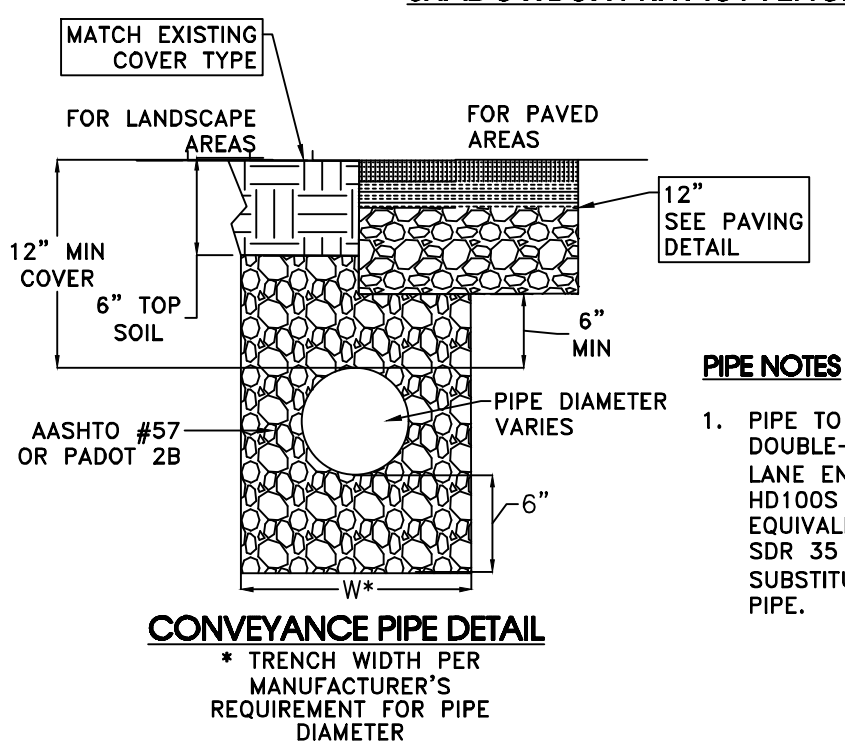
CONCRETE THICKNESS			
	'D' REINFORCEMENT	'E' CONCRETE THICKNESS (IN)	'F' STONE BASE THICKNESS (IN)
SIDEWALK ROW	6 x 6 / 1.4-1.4 W.W.F.	4.0	6.0
INTERIOR WALKWAY	6 x 6 / 1.4-1.4 W.W.F.	4.0	4.0
DRIVEWAY APRON	#4'S @ 10" O.C.E.W. AT CENTER OF SLAB	6.0	6.0

ASPHALT THICKNESS				
	'A' WEAR COAT (INCHES)	'B' BINDER (INCHES)	'C' BASE (INCHES)	'D' SUBBASE (INCHES)
STREET ROW	1.5	4.5	N/A	6.0
DRIVEWAY	1.5	2.5	N/A	6.0

WEARING COURSE: 'A' - 9.5 MM SUPERPAVE
BINDER COURSE: 'B' - 19 MM SUPERPAVE
BASE COURSE: 'C' - 25 MM SUPERPAVE
SUBBASE: 'D' PADOT 2A MODIFIED
COMPACTED

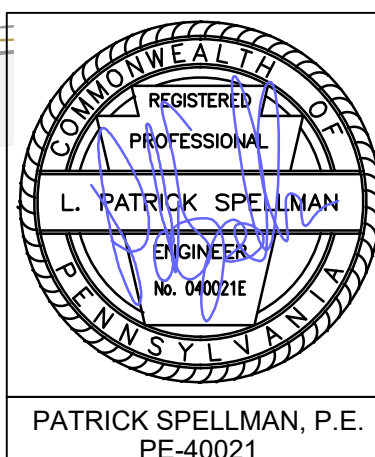
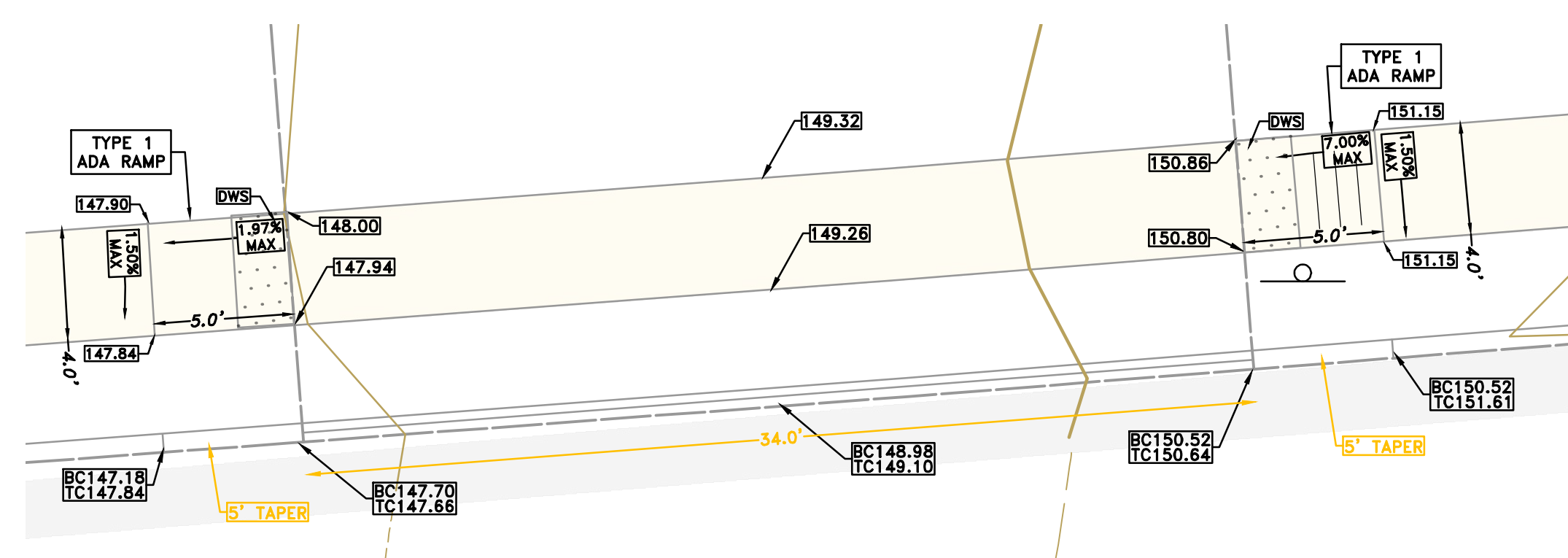
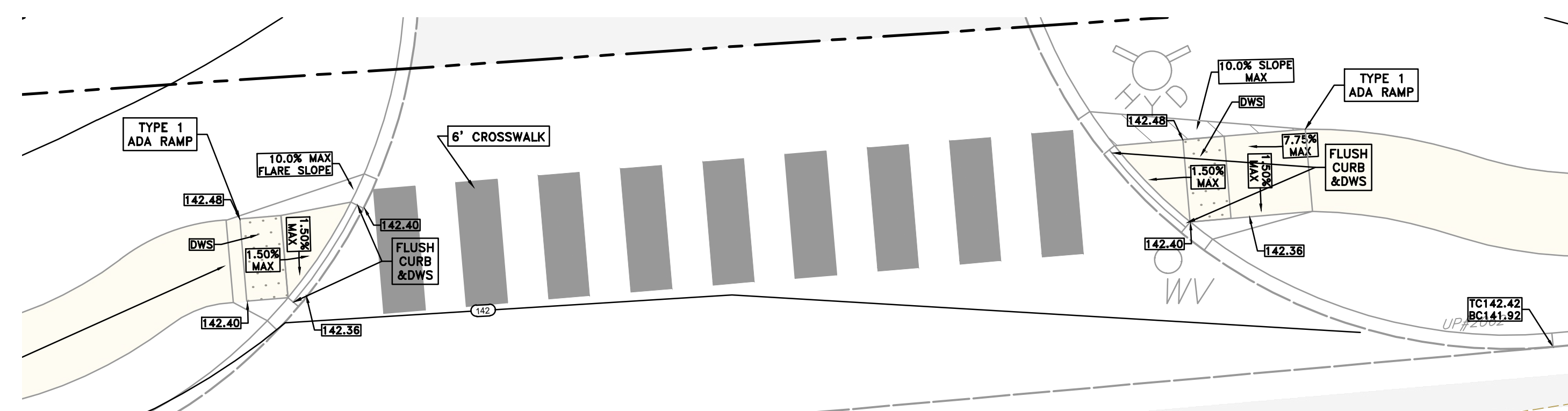
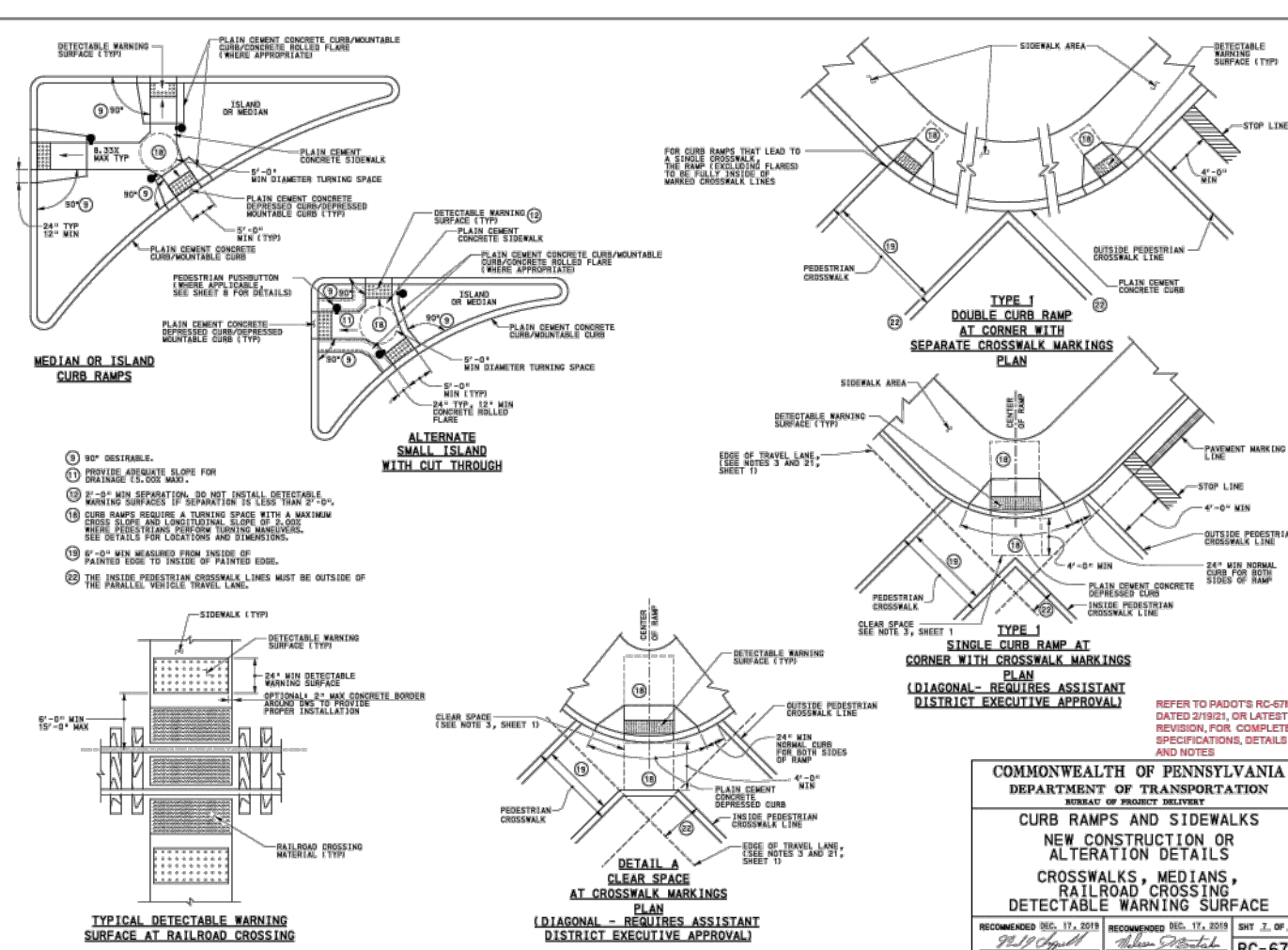
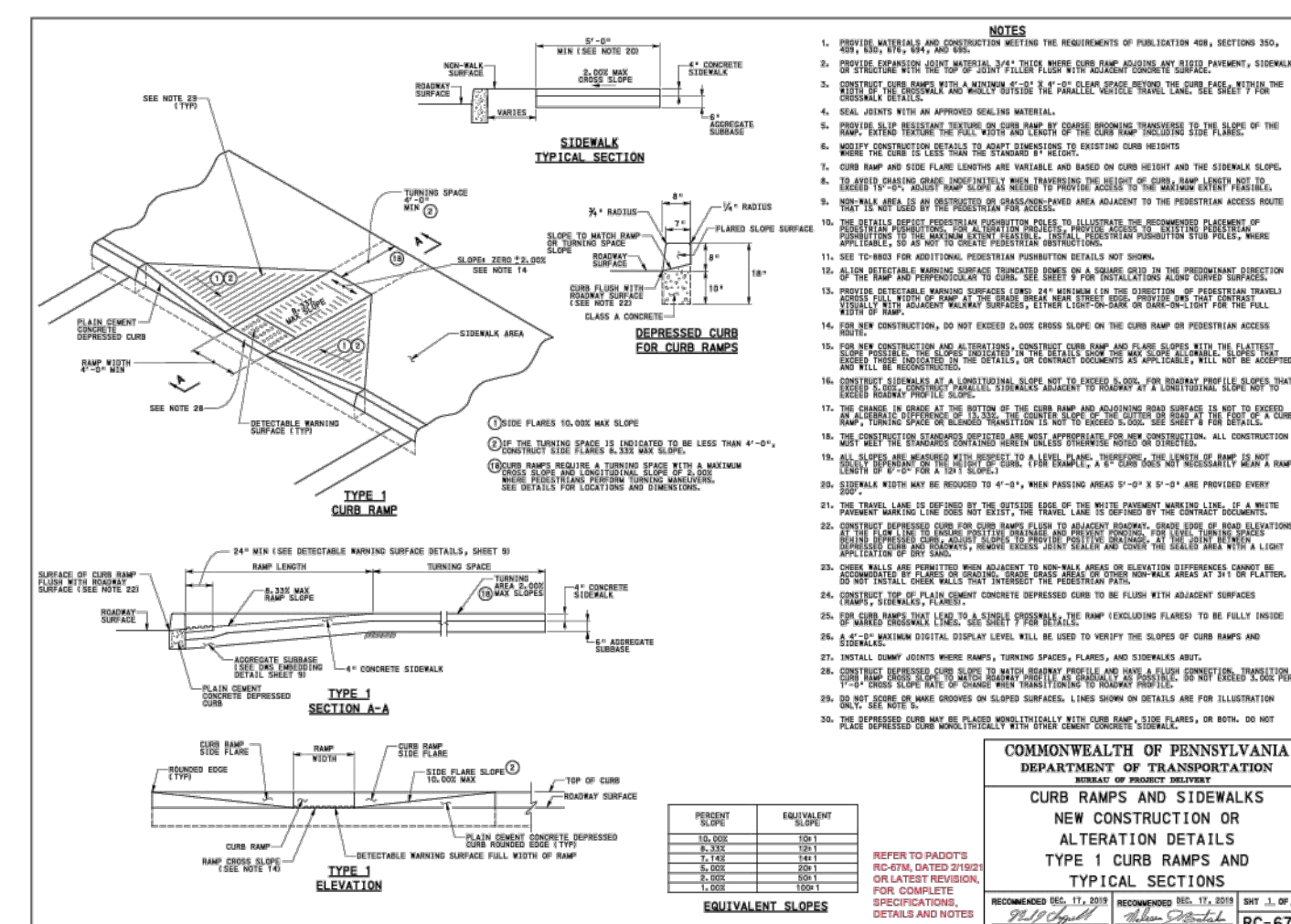
ASPHALT PAVING DETAIL

- a. SUPERPAVE VOLUMETRIC ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, 0.3 to < 3 MILLION ESALS, SRL= E, 9.5 MIX.
- b. SUPERPAVE VOLUMETRIC ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, 0.3 to < 3 MILLION ESALS, 19.0mm MIX.
- c. SUPERPAVE VOLUMETRIC ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, 0.3 to < 3 MILLION ESALS, 25mm MIX.
- d. SUBBASE 2A MOD.



UMT TOWER LADDER 47	
Overall Length	52.750ft
Overall Width	9.750ft
Overall Body Height	11.250ft
Min Body Ground Clearance	1.393ft
Max Track Width	8.333ft
Lock-to-lock time	2.00s
Max Steering Angle (Virtual)	30.00°

OVERHEAD UTILITY NOTE
1. ALL EXISTING AND PROPOSED UTILITY LINES MUST BE SET NO LOWER THAN 13' 6" TO PROVIDE NECESSARY VERTICAL CLEARANCE FOR EMERGENCY RESPONSE VEHICLES.



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SITE ENGINEERING CONCEPTS, LLC
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P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

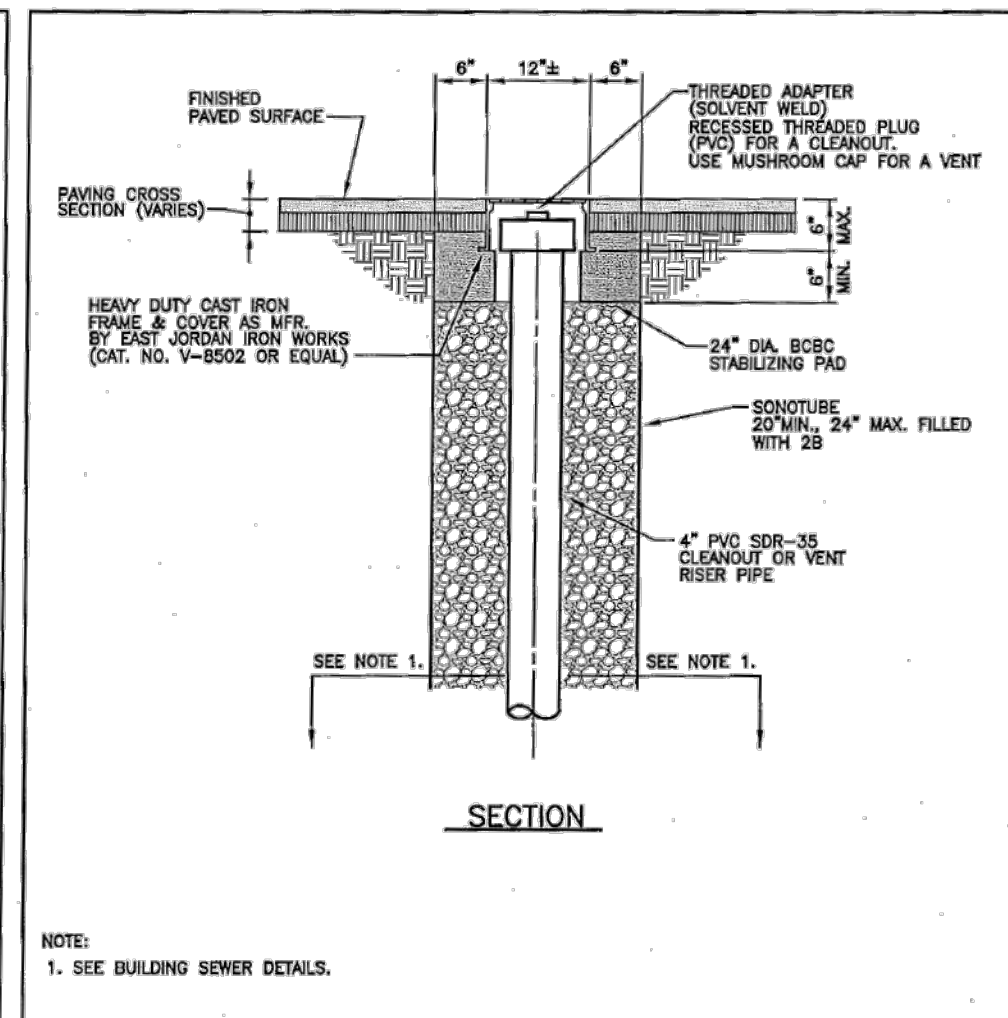
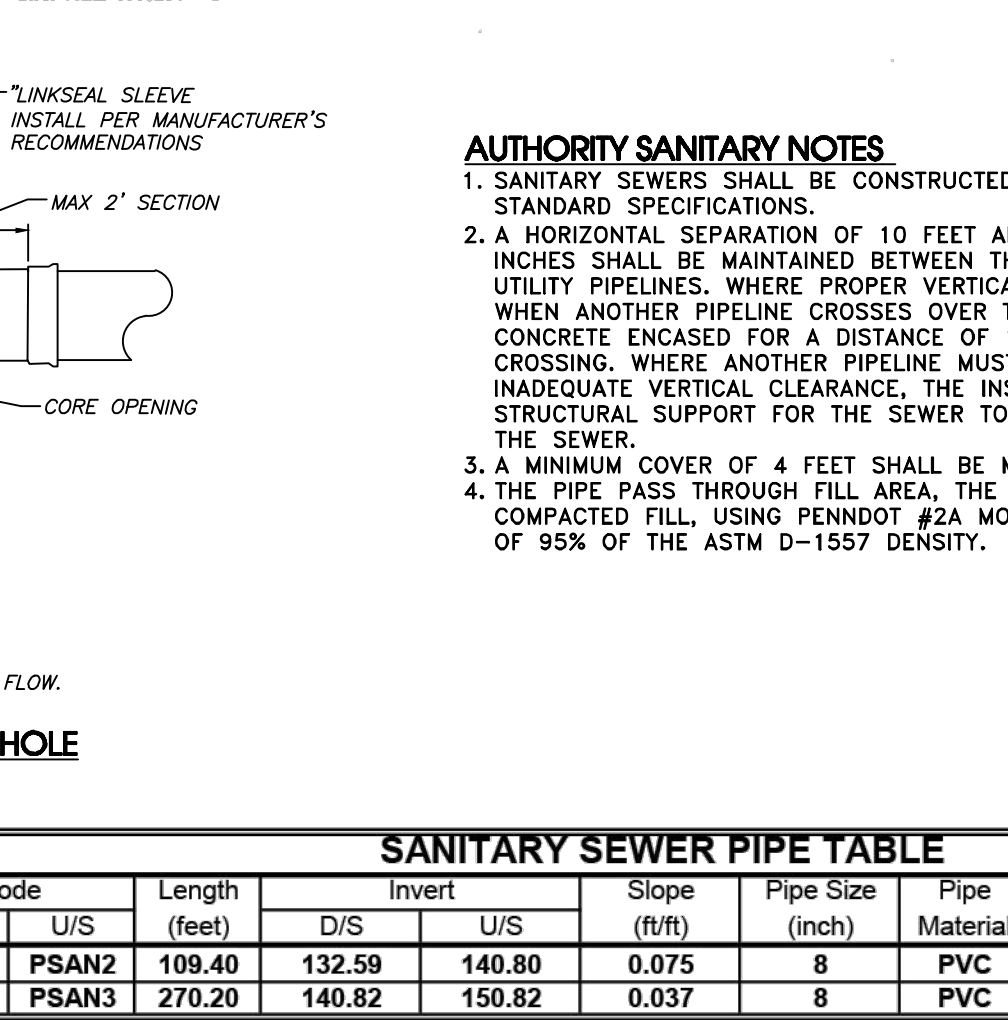
LAND DEVELOPMENT PLAN / NPDES PLAN

PLAN PREPARED FOR:
**PARKVIEW HOMES AT VALLEY
FORGE, LLC**
450 WEST BEIDLER ROAD, KING OF PRUSSIA
UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA

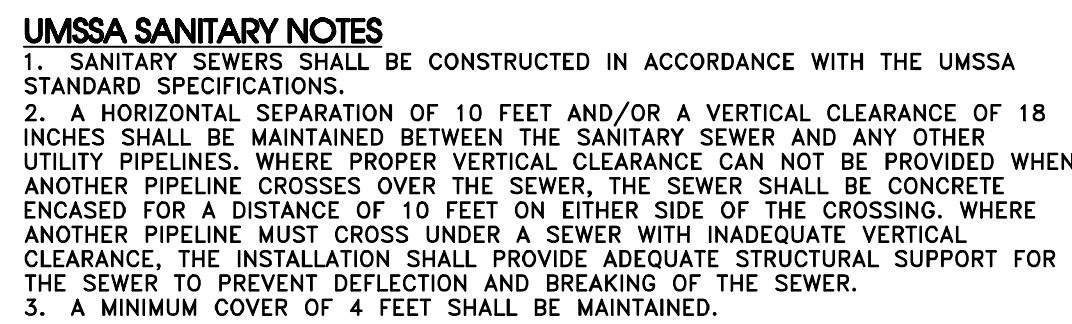
MISCELLANEOUS CONSTRUCTION DETAILS & NOTES	18 AUG 2025 SHEET 15 of 23
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SHEET
15 of 23

SALE: AS SHOWN

[illegible]

LATERAL PIPE RUN TABLE									
LOT	DIST TO PSAN2	MAIN INV	LAT SLOPE	DIST TO HOUSE	FND STUB	GRADE @ SWALE	COVER @ SWALE	GRADE @ HOUSE	COVER @ HOUSE
1	62.5	143.13	0.05	22.4	144.22	147.77	4.06	148.73	4.1
2	84.1	143.93	0.05	22.4	144.98	148.50	4.00	149.49	4.1
3	104.8	144.70	0.06	22.5	146.00	149.91	4.64	150.51	4.1
4	137.7	145.91	0.10	22.6	148.24	151.13	4.64	152.75	4.1
5	157.9	146.66	0.10	22.7	148.99	151.87	4.63	153.5	4.1
6	178.3	147.42	0.10	22.70	149.69	152.63	4.64	154.5	4.4
7	198.9	148.18	0.10	22.8	150.46	153.36	4.61	155.26	4.4
8	219.2	148.93	0.10	22.9	151.22	154.12	4.61	156.26	4.6
9	239.2	149.67	0.10	23.0	151.97	154.87	4.62	157.70	5.3

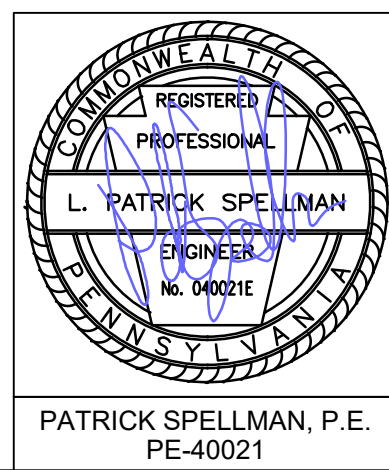


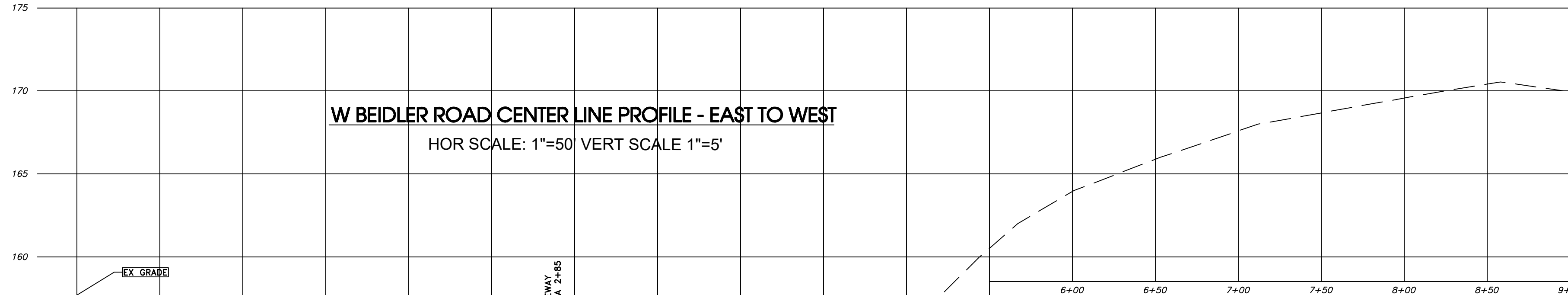
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P.O. BOX 1992
SOUTHEASTERN, PA 19399

LAND DEVELOPMENT PLAN/ NPDES PLAN PLAN PREPARED FOR: PARKVIEW HOMES AT VALLEY FORGE, LLC 450 WEST BEIDLER ROAD, KING OF PRUSSIA		
UPPER MERION TOWNSHIP	MONTGOMERY COUNTY	PENNSYLVANIA

SANITARY PROFILE, DETAILS & NOTES	SHEET 16 of 23 SCALE: 1" = NTS
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COMPLIANCE SUMMARY TABLE						
EVENT: UPPER MERION STORMWATER MANAGEMENT					DATE: 2/20/2026	
PROJECT: PARKVIEW HOMES AT VALLEY FORGE					BY: LPS	
LOCATION: 450 W BEIDLER					REVISION:	
Hydrograph Description	CHAP 140-14.B(1)(b) PEAK DISCHARGE (cfs)				COMMENTS	
	2-Yr	10-Yr	100-Yr	REVIS		
PROJECT AREA ANALYSIS						
10 YR TO 2YR, 85% OF 25, 50 & 100 YR						
REQUIREMENT BASIS	RATIONAL					
PRE-DEV. REGULATED AREA	0.43	1.73	2.84	3.87	5.02	Hydrograph #1
REQUIREMENT FOR RA	-	-1.30	-0.48	-0.58	-0.75	140-12.B(1)
CAPTURED COMPENSATORY ALLOWABLE DISCHARGE	-	2.40	3.85	5.21	6.72	Hydrograph #4
BASIN DISCHARGE & BYPASS	-	1.10	3.73	4.83	5.97	Row 10 + Row 11
PASS/FAIL	-	1.08	2.60	3.99	5.40	Hydrograph #15
		PASS	PASS	PASS	PASS	

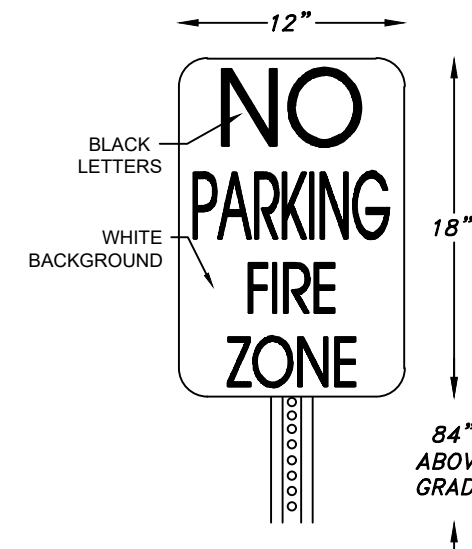
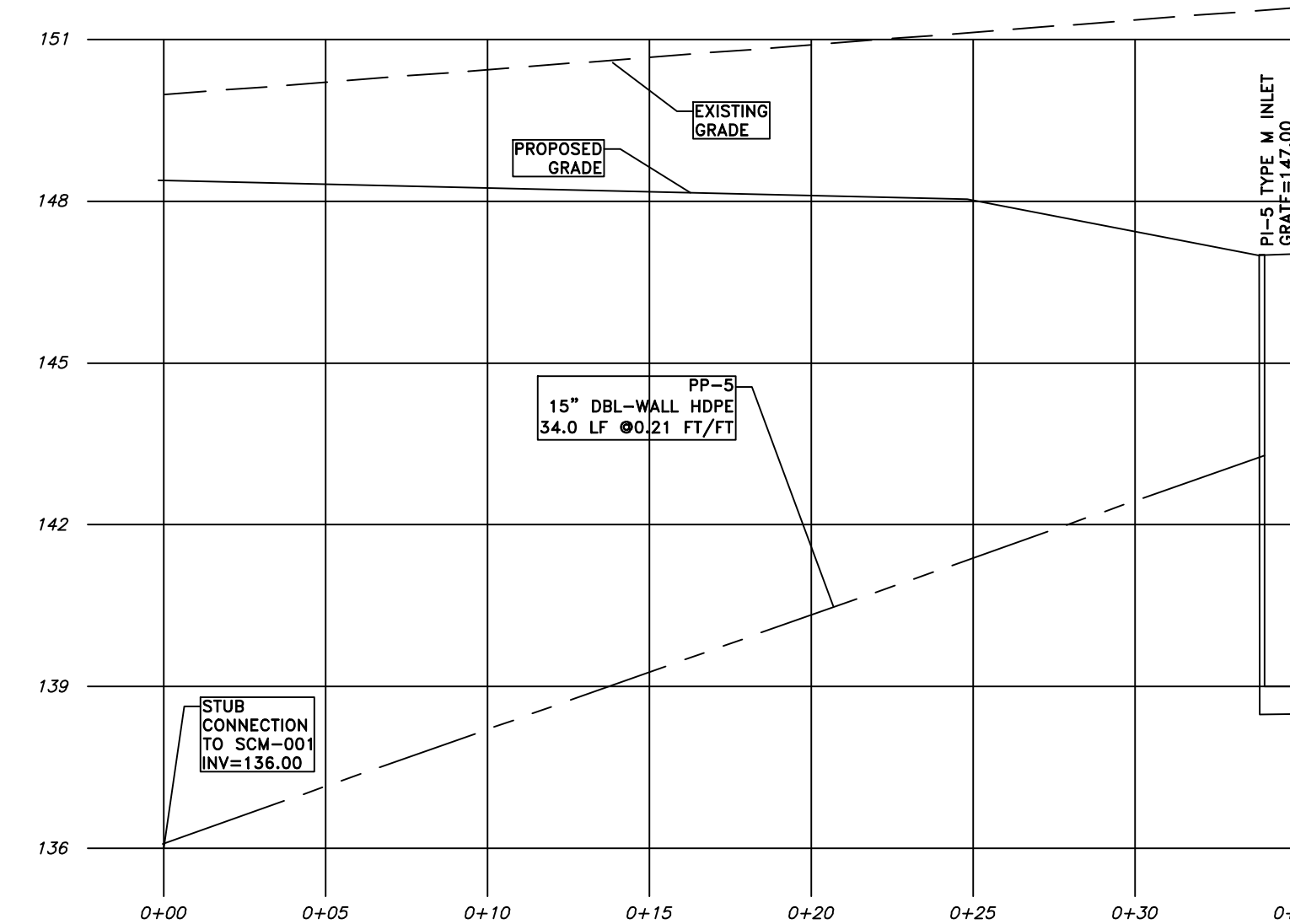
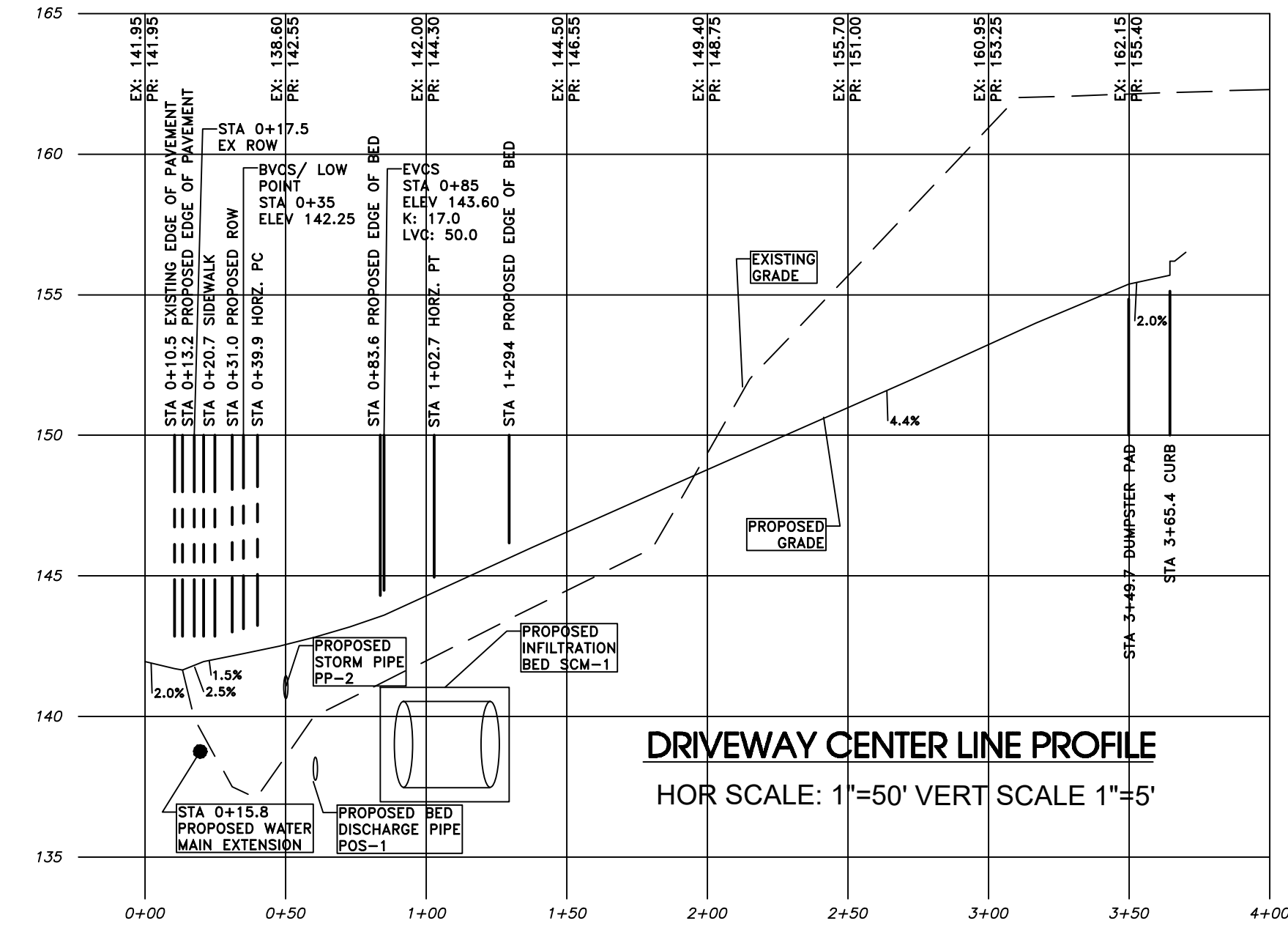
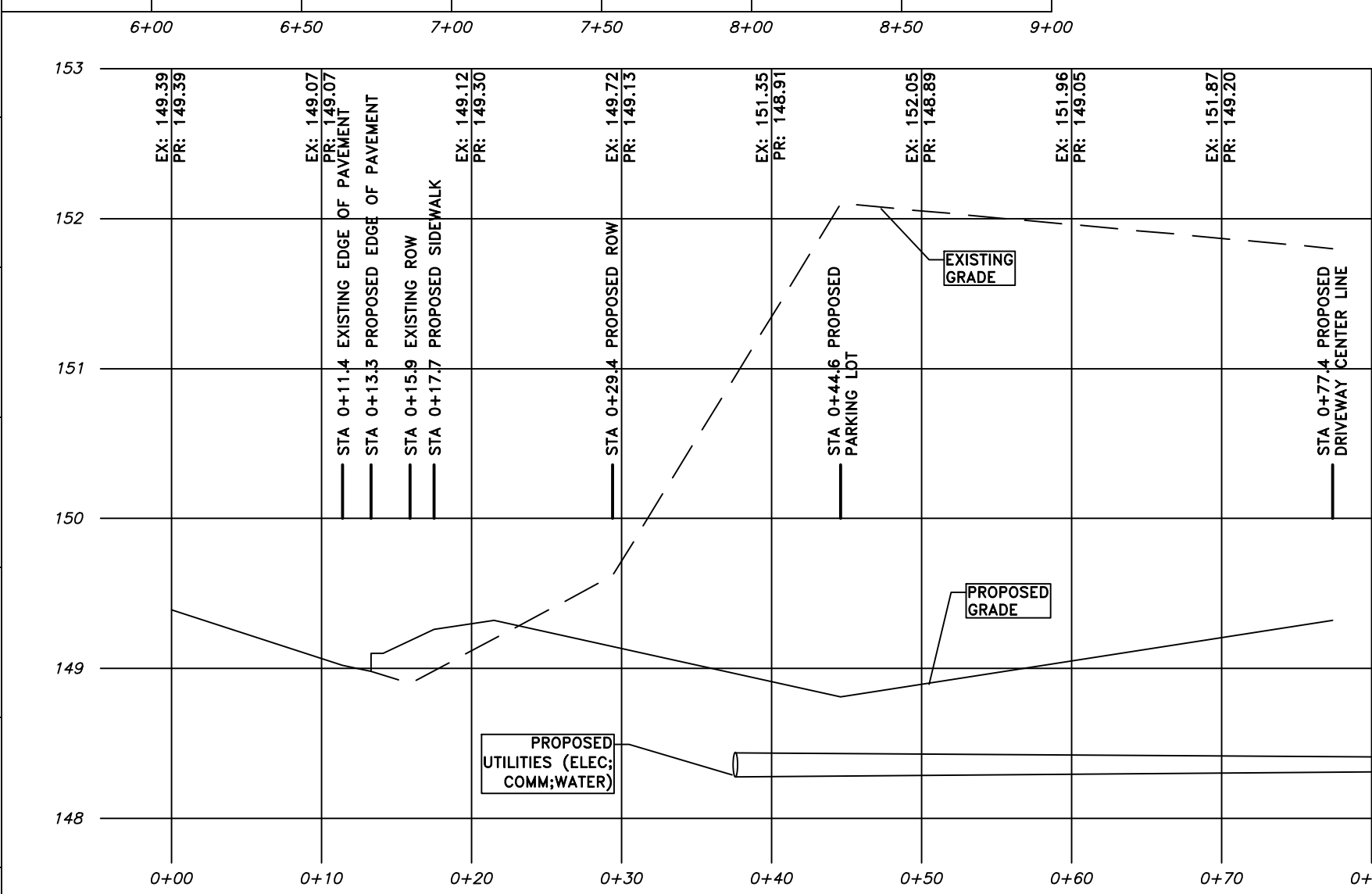
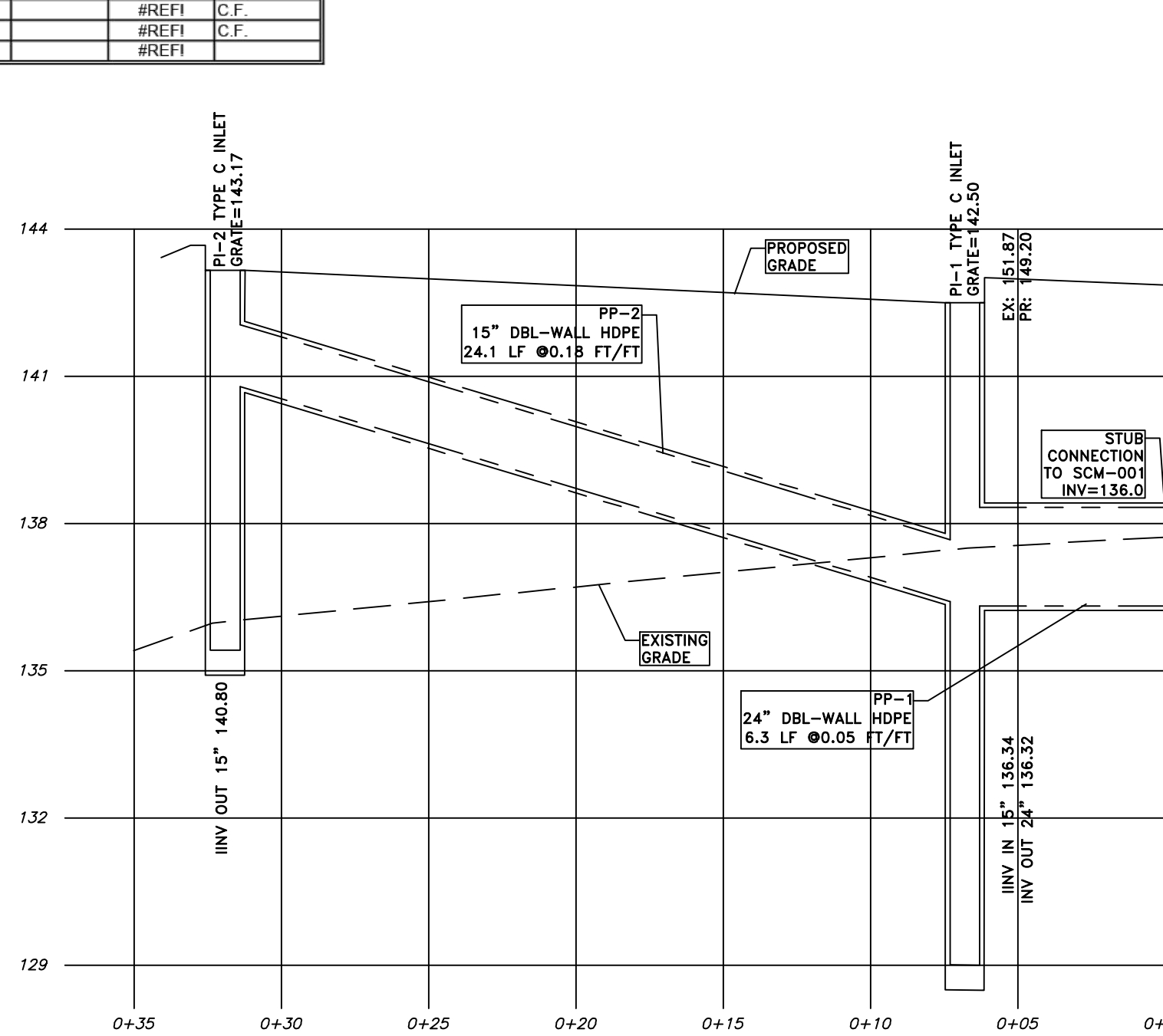
*ALLOWABLE DISCHARGE = PRE-DEV W/ COMPENSATORY RUNOFF LESS REDUCTION REQUIRED

PROVIDED INFILTRATION VOLUME			LOADING RATIO		
	ELEVATION	CU FT			
LOWER ELEVATION	138.00	4,903	CONTRIBUTING SF	5,1 IMP	8:1 TOTAL
LOWEST ORIFICE	138.20	5,523	BED FOOTPRINT (SF)	25,453	47,432
UPPER ELEVATION	138.40	6,143	RATIO	5	9

CHAP 140-14.B(2)(a)(1)(c) DEWATER TIME		
INFILTRATION RATE (INHR - TESTED)	1.91	FOS=2
BASIN FOOTPRINT (SF)	5,085	SEE SOIL REPORT
INFILTRATION VOLUME (CF)	5,523	
DEWATER TIME (HRS)	7	
MAX ALLOWED	72	
PASS/FAIL	Pass	

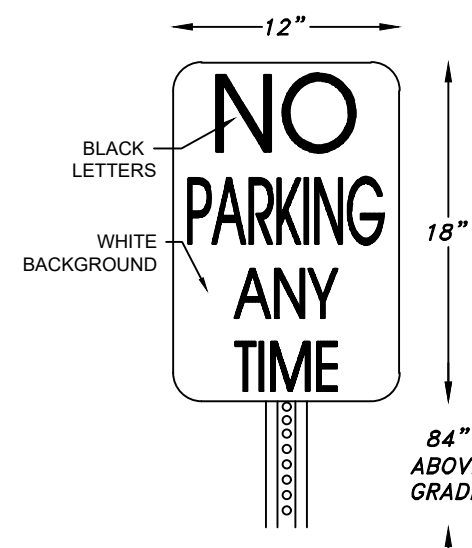
CHAPTER 140A-14.B(1)(c)(3) RECHARGE (SINKHOLE ZONE 3)		
2 YEAR POST-DEVELOPMENT	#REF!	C.F.
2 YEAR PRE-DEVELOPMENT	#REF!	C.F.
DIFFERENCE	#REF!	C.F.
BASIN INFILTRATION VOL	#REF!	C.F.

Volume WorkSheet - Post-Construction
Volume WorkSheet - Pre-Construction



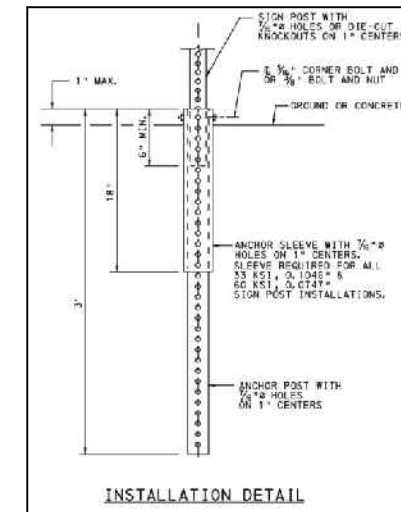
SIGN MATERIALS AND INSTALLATION PER LOCAL FIRE MARSHALL & PADOT PUB 408

NO PARKING FIRE ZONE SIGN



SIGN MATERIALS AND INSTALLATION PER LOCAL FIRE MARSHALL & PADOT PUB 408

NO PARKING ANYTIME SIGN



BOLT INLET TO BOLLARD FOR FIRE ACCESS CHAIN. PROVIDE CHAIN, LOCK AND KNOX BOX RAPID ENTRY SYSTEM.

CONCRETE FILLED 8" STEEL SCH 40, CROWN TOP PIPE TO BE PRIMED AND PAINTED TO MATCH ARCHITECTURAL METAL. COLOR TO BE SELECTED AND APPROVED BY LANDSCAPE ARCHITECT

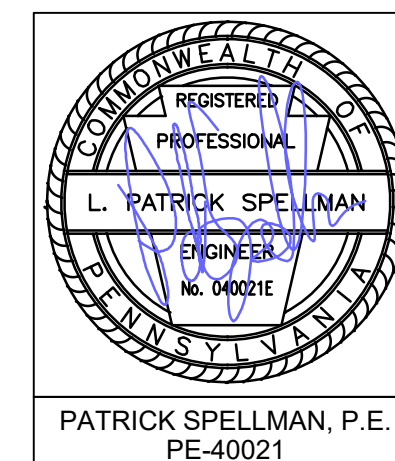
GROUND COVER 12" MAX.



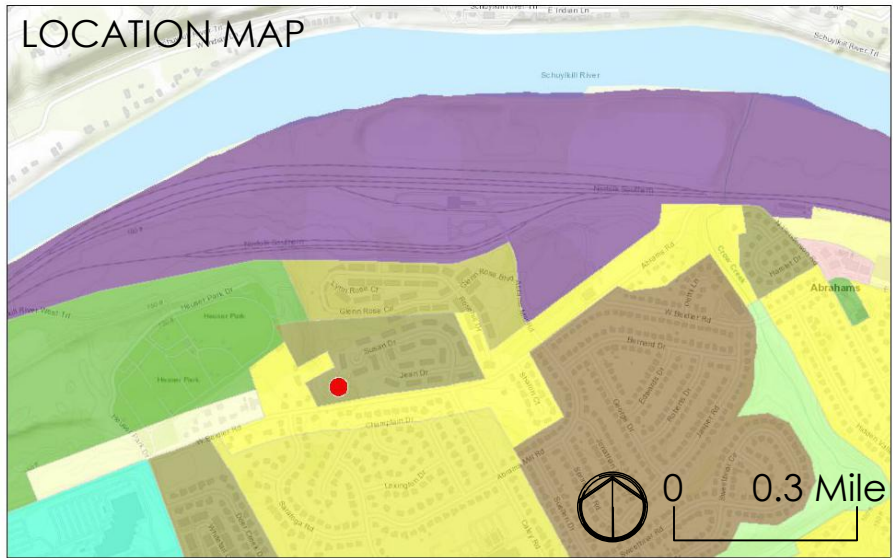
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P.O. BOX 1992
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P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

LAND DEVELOPMENT PLAN/ NPDES PLAN
PLAN PREPARED FOR:
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450 WEST BEIDLER ROAD, KING OF PRUSSIA
UPPER MERION TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA
18 AUG 2025



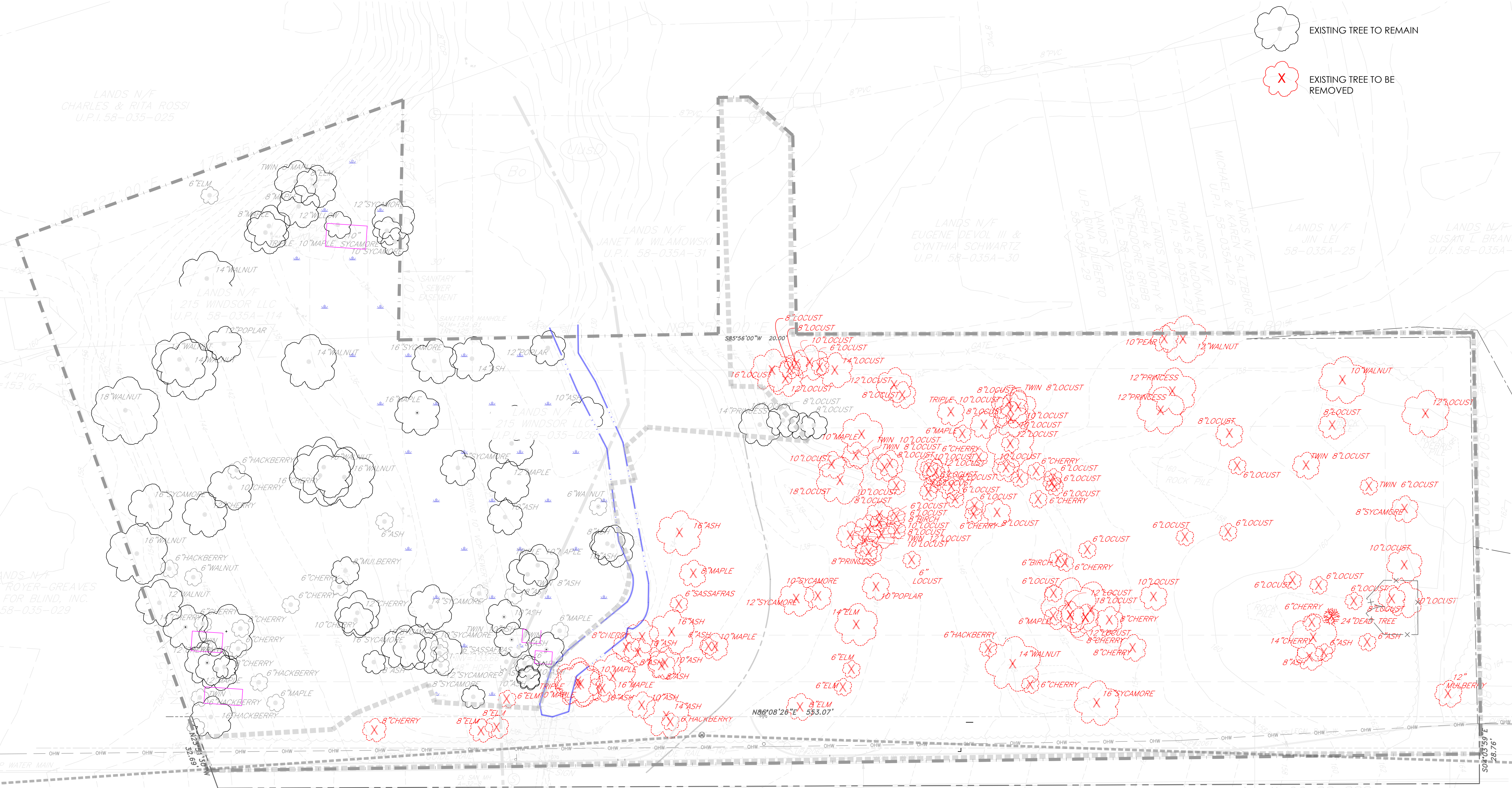
ROAD & STORM SEWER PROFILES AND DETAILS
SHEET 17 of 23
SCALE: 1" = NTS



Effective Zoning	R-1	R-2A	R-3B	HI
	RA	R-1A	R-3	U-R
	AG	R-2	R-3A	CN
				KPMU
				Citations

LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED

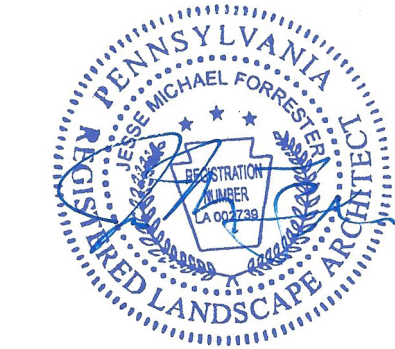


Existing Trees



Parkview
Homes at
Valley Forge
450 West Beidler Road,
King of Prussia, PA
Upper Merion Township
Montgomery County

Forrester Landscape Studio LLC
510 Tennis Ave, Ambler PA (267) 847-1726



2/20/2026
Existing Tree
Plan
SHEET
18 OF 23

L0.1

PLANT SCHEDULE (TREES)

Qty	Tag	Scientific Name Common Name.....	Size	Type	Street Tree	Building Landscaping	Dwelling Units	Parking Lot Landscaping	Buffer Planting
9	IIS	Ilex opaca 'Satyr Hill' (female variety).....	6-8'	Evergreen (Broadleaf)					9
5	Pia	Picea abies Norway Spruce.....	6-8'	Evergreen					5
6	Pio	Picea omorika Serbian Spruce.....	6-8'	Evergreen					6
4	Cec	Cercis canadensis Redbud.....	6-8'	Ornamental Tree					4
4	Chv	Chionanthus virginicus Fringe Tree.....	6-8'	Ornamental Tree					4
4	Mav	Magnolia virginiana Sweetbay Magnolia.....	6-8'	Ornamental Tree					4
3	AcR	Acer rubrum 'Red Sunset' Red Maple.....	2.5-3"	Shade Tree	2				1
4	Ben	Betula nigra 'Heritage' River Birch.....	2.5-3"	Shade Tree		4			
3	Ceo	Celtis occidentalis Hackberry.....	2-2.5"	Shade Tree	2			1	
7	Clk	Cladastris kentukea Yellowwood.....	2.5-3"	Shade Tree			3		4
6	Osv	Ostrya virginiana Hop Hornbeam.....	2.5-3"	Shade Tree		5	1		
4	Qub	Quercus bicolor Swamp White Oak.....	2.5-3"	Shade Tree	2	1			1
6	Qup	Quercus phellos Willow Oak.....	2.5-3"	Shade Tree	3	1	1	1	

NOTES

-See Sheet L1.2 for shrub plantings, quantities and schedule

-See Shee L2.1 for planting details and specifications

-No plantings or structures should be located within the sanitary sewer easements or within 10 feet of the sanitary sewers or laterals.

-All trees to be balled and burlapped condition

-Trees and shrubs to be mulched as shown in details on L2.1

-All disturbed areas not shown as tree or shrub plantings shall be seeded with "Performance" seed mix at a rate of 8lbs/square foot or sodded with a fescue mix at the owner's discretion. Seed mix supplied by Fisher and Sons in Exton, PA 1 (800) 262-2127

TOTAL TREES: 65

Number of species: 13

Maximum number of any one species: 9 (14%)

Maximum permitted: 20%

1. STREET TREES – 145-24.1.E(2)(d)
1 TREE / 40 LF ALONG WEST BEIDLER ROAD AT 542 LF = 14 STREET TREES
(CREDIT 5 EXISTING AS NOTED ON PLAN. 9 NEW TREES REQ'D)
9 TREES PROVIDED + CREDIT OF 5 = 14

2. BUILDING LANDSCAPING – 145-24.1.H
2.1 ONE CANOPY TREE OR TWO ORNAMENTAL TREES PER 50 LF OF BUILDING PERIMETER
520 LF / 50 LF = 11 CANOPY TREES
11 TREES PROVIDED

2.2 5 SHRUBS / 20 LF OF BUILDING PERIMETER
= 520 LF / 20 x 5 = 130 SHRUBS
130 SHRUBS PROVIDED (SEE SHEET L1.2)

3. DWELLING UNIT - 145-24.1.H(3)
1 CANOPY TREE / 2 DWELLING UNITS
9 UNITS / 2 = 5 TREES
5 TREES PROVIDED

4. PARKING LOT LANDSCAPING - 145-24.1.D(2)(a)
1 TREE FOR EVERY 10 PARKING SPACES
12 PARKING SPACES REQUIRES 2 TREES
2 TREES PROVIDED

5. LANDSCAPE BUFFER – SOFTENING BUFFER - 245-24.1.G
CANOPY TREES (6) **6 PROVIDED**
EVERGREEN TREES (12) **20 PROVIDED**
ORNAMENTAL TREES (12) **12 PROVIDED**

BUFFER BREAKDOWN				
PROPERTY LINE	CANOPY TREES	UNDERSTORY TREES	EVERGREEN TREES	
N85°56'00"E	4	8	8	
S04°04'00"E	2	4	4	

* NO LANDSCAPING PROVIDED ADJACENT TO LOT 1 & LOT 10
CREDIT FOR EXISTING TREES

LANDSCAPE MAINTENANCE

ACTIVITY

WATER VEGETATION AT THE END OF EACH DAY FOR TWO WEEKS AFTER PLANTING IS COMPLETED.

WATER VEGETATION REGULARLY TO ENSURE SUCCESSFUL ESTABLISHMENT.

INSPECT VEGETATION FOR SIGNS OF DISEASE OR DISTRESS.

REMULCH VOID AREAS

TREAT DISEASED TREES AND SHRUBS.

REMOVE LITTER AND DEBRIS

INSPECT TREES AND SHRUBS TO EVALUATE HEALTH, REPLACING IF NECESSARY.

FREQUENCY

DAILY FOR TWO WEEKS AFTER INSTALLATION.

EVERY FOUR DAYS AFTER FOUR DAYS OF NO RAIN.

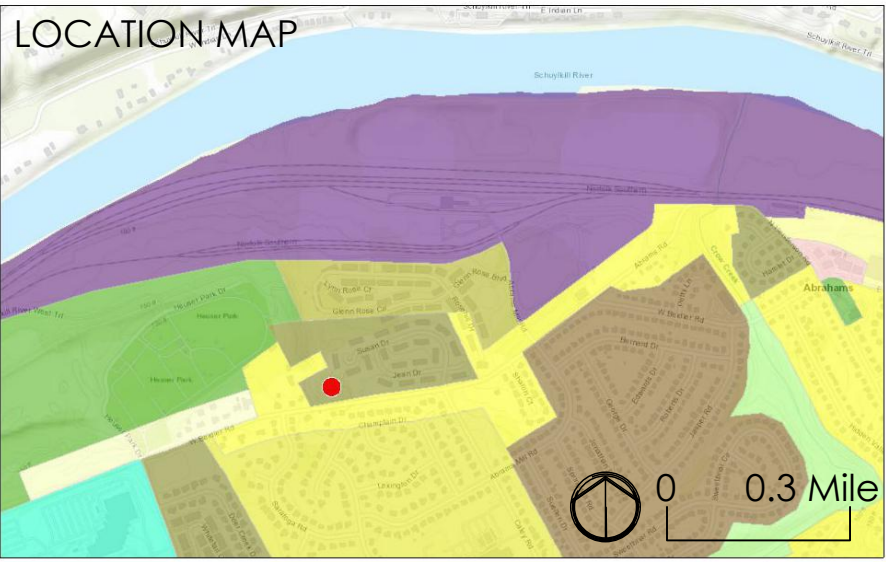
BIWEEKLY FOR ONE YEAR.

AS NEEDED.

AS NEEDED.

MONTHLY.

QUARTERLY.



Effective Zoning	R-1	R-2A	R-3B	HI
RA	R-1A	R-3	U-R	KPMU
AG	R-2	R-3A	CN	Citations

LEGEND

- Shade Tree
- Ornamental Tree
- Needled Evergreen
- Broadleaf Evergreen
- Deciduous Shrub

BASE INFORMATION:

BOLD LINES: PROPOSED

FADED LINES: EXISTING

	NPDES PERMIT BOUNDARY
	LIMIT OF DISTURBANCE LINE
	PROPERTY LINE
	RIGHT-OF-WAY
	BUILDING SETBACK LINE
	EDGE OF PAVEMENT
	MONUMENT OR PIN (FOUND)
	FOUND AND HELD
	TO BE SET
	1' INTERVAL CONTOUR
	PROPOSED INTERVAL
	5' INDICATOR CONTOUR
	PROPOSED INDICATOR
	2' LIDAR CONTOURS
	STORM SEWER PIPING
	STORMWATER MANHOLE
	STORMWATER INLET
	STORM CLEAN OUT
	SANITARY SEWER PIPING
	GAS MAIN
	WATER MAIN / SERVICE
	UNDERGROUND ELECTRIC
	OVERHEAD WIRES & POLES
	COMMUNICATION
	HYDRANT
	WATER VALVE
	WATER METER
	SANITARY VENT
	SANITARY CLEAN OUT
	SANITARY MANHOLE
	GAS METER
	GAS VALVE
	BUILDINGS
	PORCH/ROOF LINES
	WALKS & PADS
	ASPHALT
	WALLS
	EDGE OF LANDSCAPING
	FENCE LINE
	LIGHT POLE
	SOIL BOUNDARY
	MAP SYMBOL
	NORTH AMERICAN GREEN VMAX C350
	TURF REINFORCEMENT MATTING
	STREAM
	WETLANDS W/FLAGS
	FLOODWAY
	SLOPES, 15-25%
	STEEP SLOPES, >25%

Planting Plan (Trees)

EXISTING 8" SYCAMORE TOWARD STREE TREE REQUIREMENTS (COUNTS TOWARD 2 TREES)

EXISTING 6" MAPLE TOWARD STREE TREE REQUIREMENTS (COUNTS TOWARD 1 TREE)

EXISTING 10" HACKBERRY TOWARD STREE TREE REQUIREMENTS (COUNTS TOWARD 2 TREES)

Parkview
Homes at
Valley Forge
450 West Beidler Road,
King of Prussia, PA
Upper Merion Township
Montgomery County

Forrester Landscape Studio LLC
510 Tennis Ave, Ambler PA (267) 847-1726



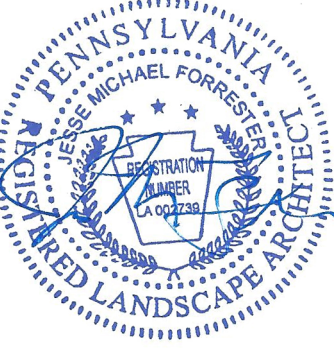
2/20/2026 Revised per Twp Comments
12/31/2025

Planting Plan

SHEET
20 OF 23

L1.1

CALL BEFORE YOU DIG! PA-1-CALL 811



PLANT SCHEDULE (SHRUBS)

Qty	Tag	Scientific Name	Common Name	Size
12	ArH	Aronia melanocarpa 'Lowscape Hedger'	Hedge Form Chokeberry...	18"
4	FoM	Fothergilla gardenii 'Mt Airy'	Mount Airy Fothergilla...	18"
19	IIC	Ilex meserveae 'Castle Spire'	Castle Spire Holly...	24-36"
63	IID	Ilex glabra 'Densa'	Compact Inkberry	18"
8	Pj	Pieris japonica 'Mountain Fire'	Japanese Andromeda...	18"
24	RhP	Rhododendron PJM PJM Hybrid Rhododendron		18"

NOTES:

- ALL PLANT MATERIAL SHALL MEET THE STANDARDS OF THE AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSEYRMEN, MOST RECENT EDITION.
- ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWNSHIP'S PLANTING STANDARDS AND SPECIFICATIONS. SEE DETAILS ON THIS SHEET FOR SOIL ADMIXTURE REQUIREMENTS, MULCHING AND STAKING/GUYING.
- ALL PLANTS SHALL BE GUARANTEED FOR A PERIOD OF 18 MONTHS FOLLOWING FINAL APPROVAL BY TOWNSHIP.
- PLANT SUBSTITUTIONS SHALL BE APPROVED BY TOWNSHIP OR OWNER'S REPRESENTATIVE.
- PRIOR TO INSTALLATION, PLANT LOCATION, HEALTH AND SIZE SHALL BE APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE.

See sheet L2.1 for details and additional specifications

LEGEND

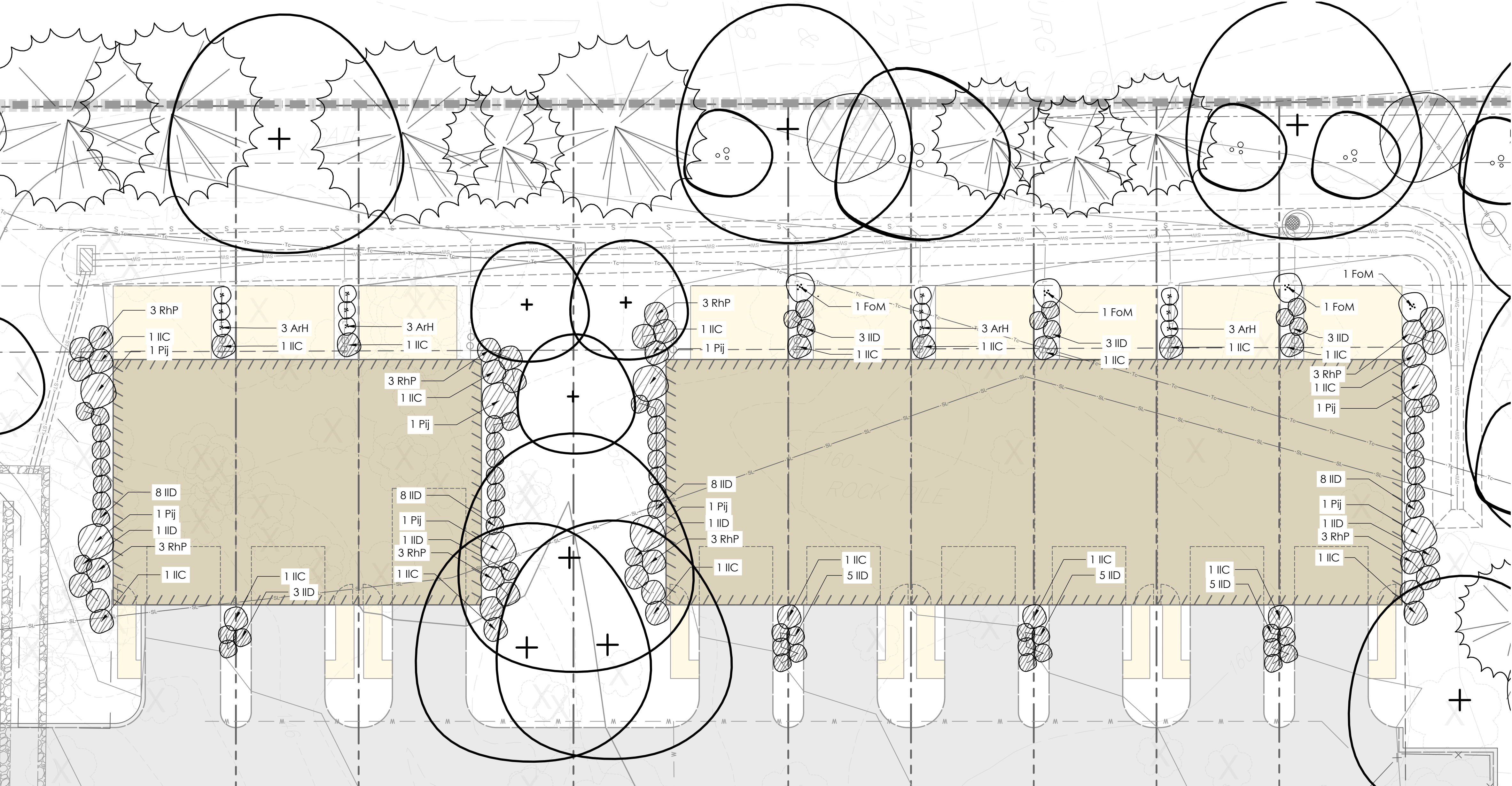
- Shade Tree
- Ornamental Tree
- Needled Evergreen
- Broadleaf Evergreen
- Deciduous Shrub

BASE INFORMATION:

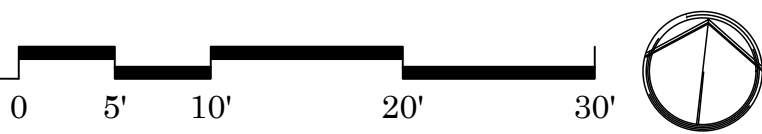
BOLD LINES: PROPOSED

FADED LINES: EXISTING

- NPDES PERMIT BOUNDARY
- LIMIT OF DISTURBANCE LINE
- PROPERTY LINE
- RIGHT-OF-WAY
- BUILDING SETBACK LINE
- EDGE OF PAVEMENT
- MONUMENT OR PIN (FOUND)
- MON/PIN (F&H) (TBS) (TO BE SET)
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- PROPOSED INTERVAL
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- PROPOSED INDICATOR
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- STORMWATER MANHOLE
- STORMWATER INLET
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- WATER MAIN / SERVICE
- UNDERGROUND ELECTRIC
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- BUILDINGS
- PORCH/ROOF LINES
- WALKS & PADS
- ASPHALT
- WALLS
- EDGE OF LANDSCAPING
- FENCE LINE
- LIGHT POLE
- SOIL BOUNDARY & MAP SYMBOL
- NORTH AMERICAN GREEN VMAX C350
- TURF REINFORCEMENT MATTING
- STREAM
- WETLANDS W/FLAGS
- FLOODWAY
- SLOPES, 15-25%
- STEEP SLOPES, >25%
- NATURAL MAN-MADE OR <8' CHANGE



Planting Plan (Shrubs)

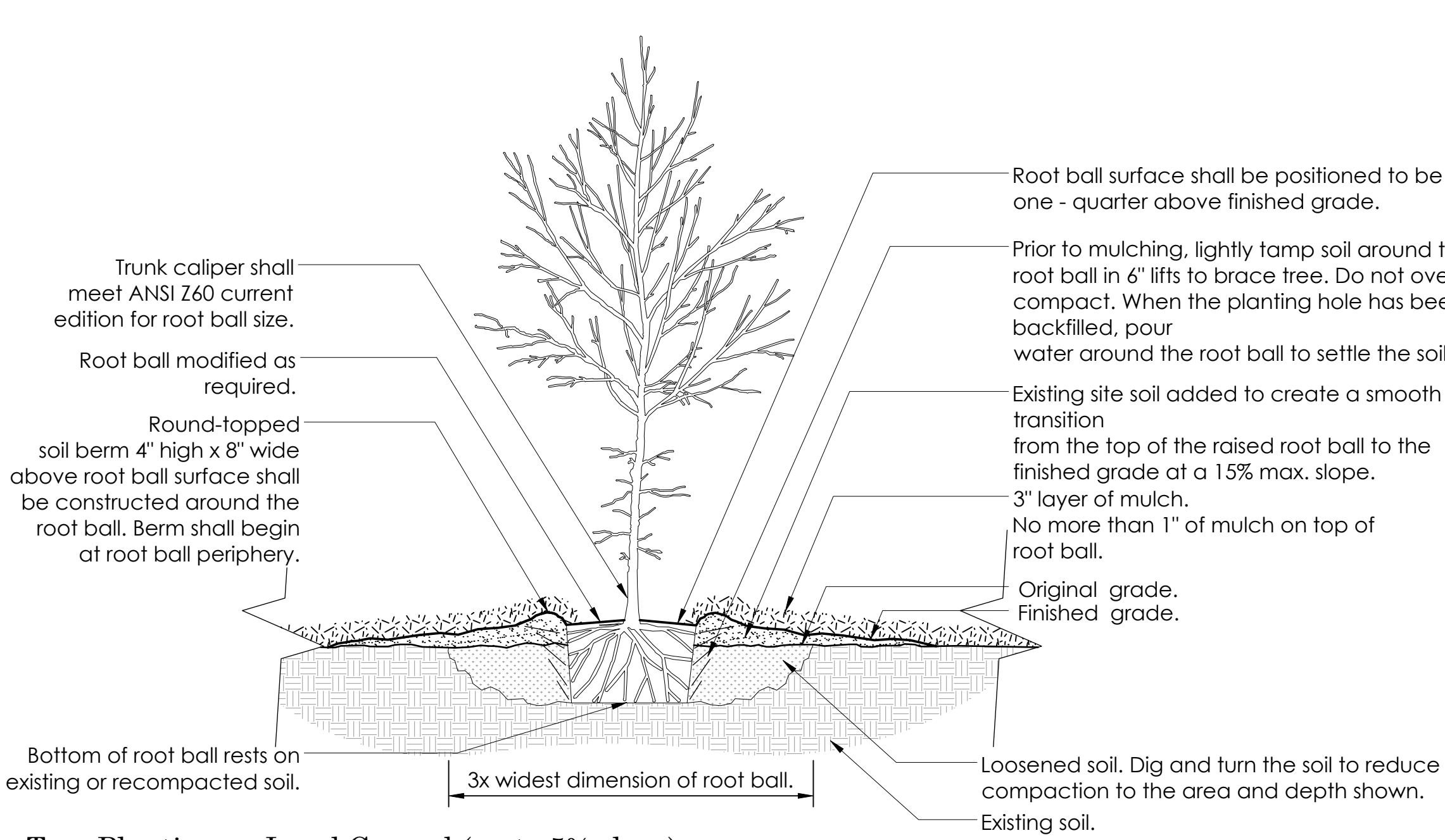


CALL BEFORE YOU DIG! PA-1-CALL 811

2/20/2026 Revised per Twp Comments
12/31/2025

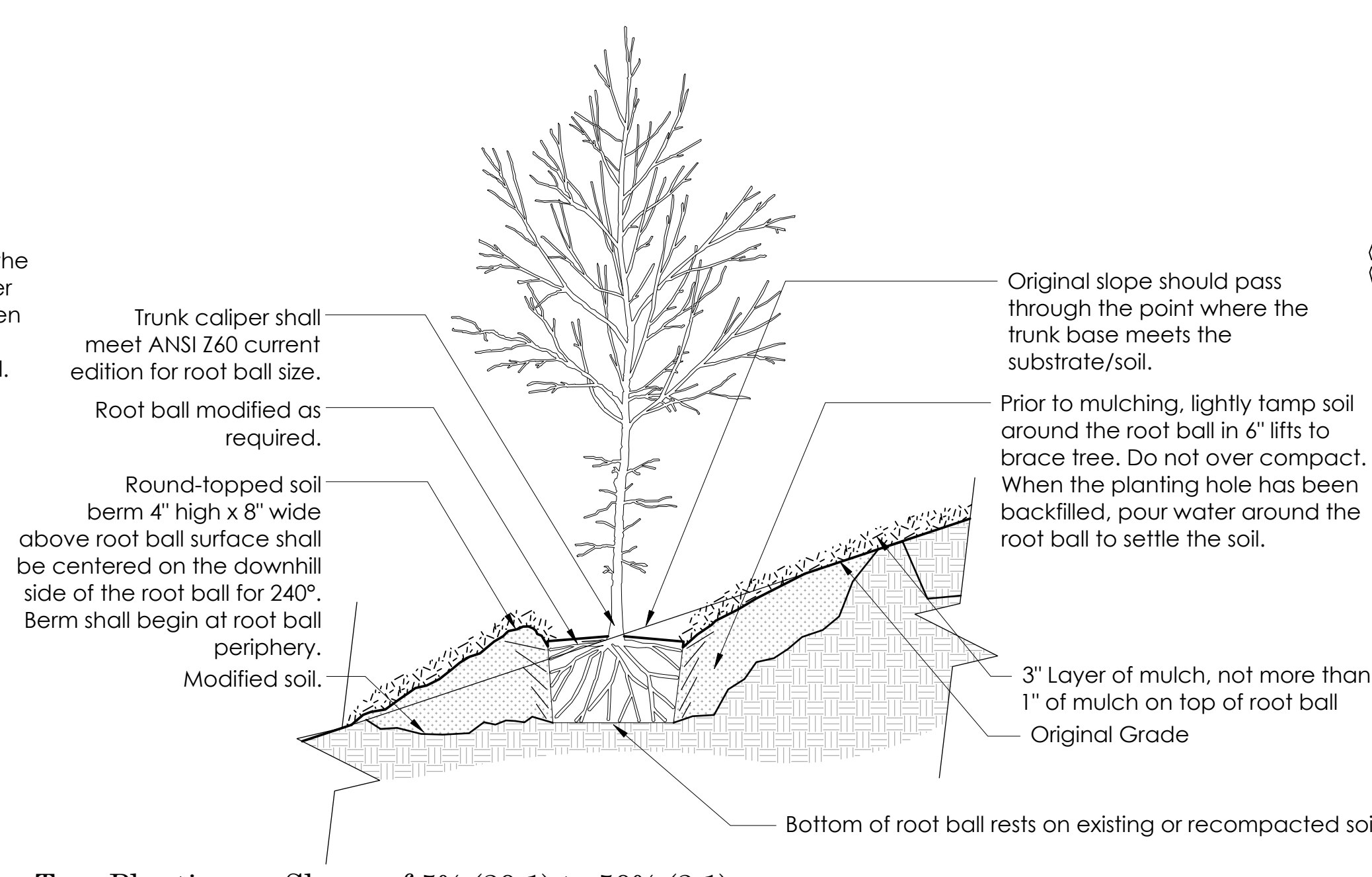
Planting Plan
SHEET
21 OF 23

L1.2



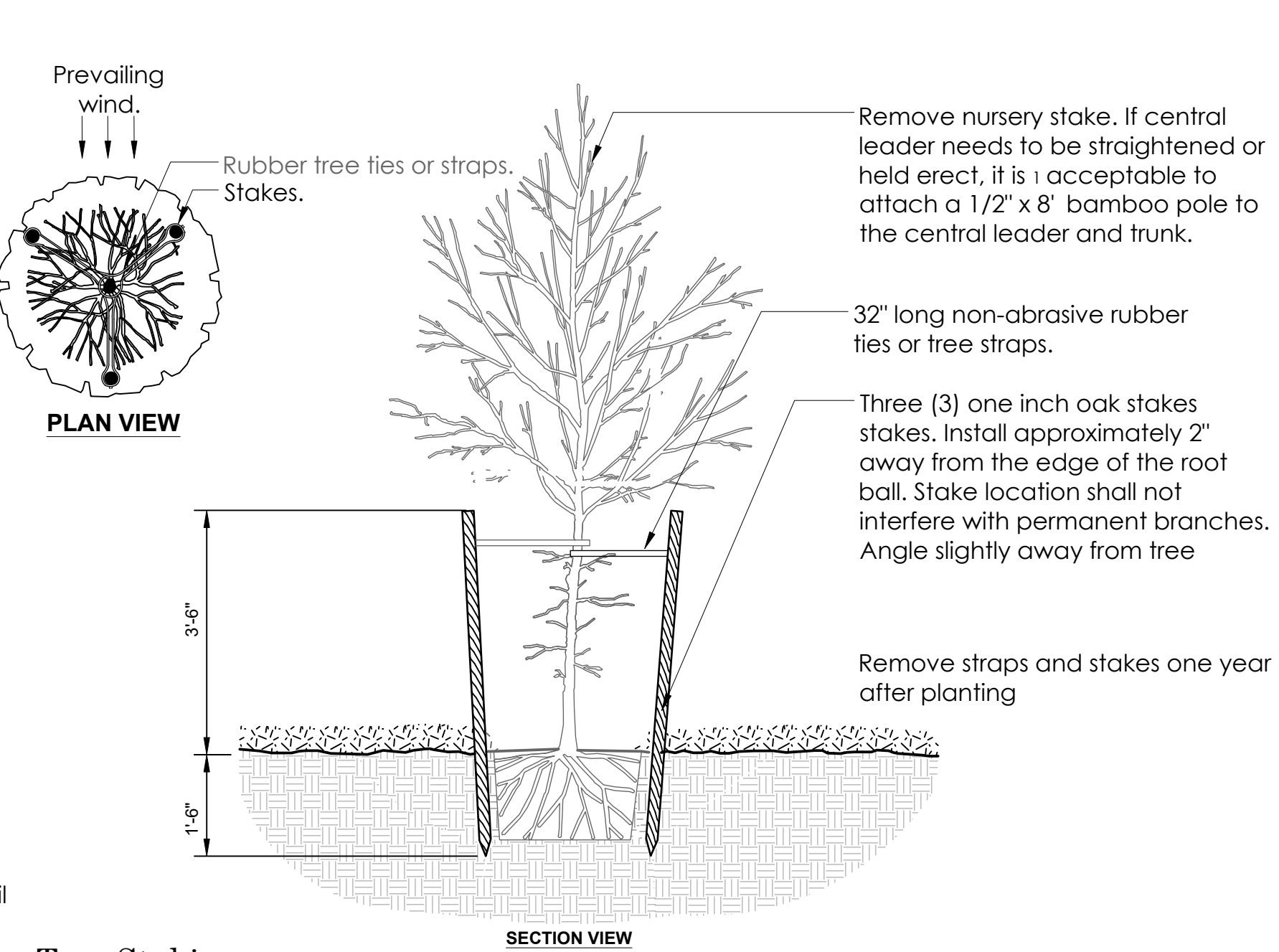
Tree Planting on Level Ground (up to 5% slope)

NTS



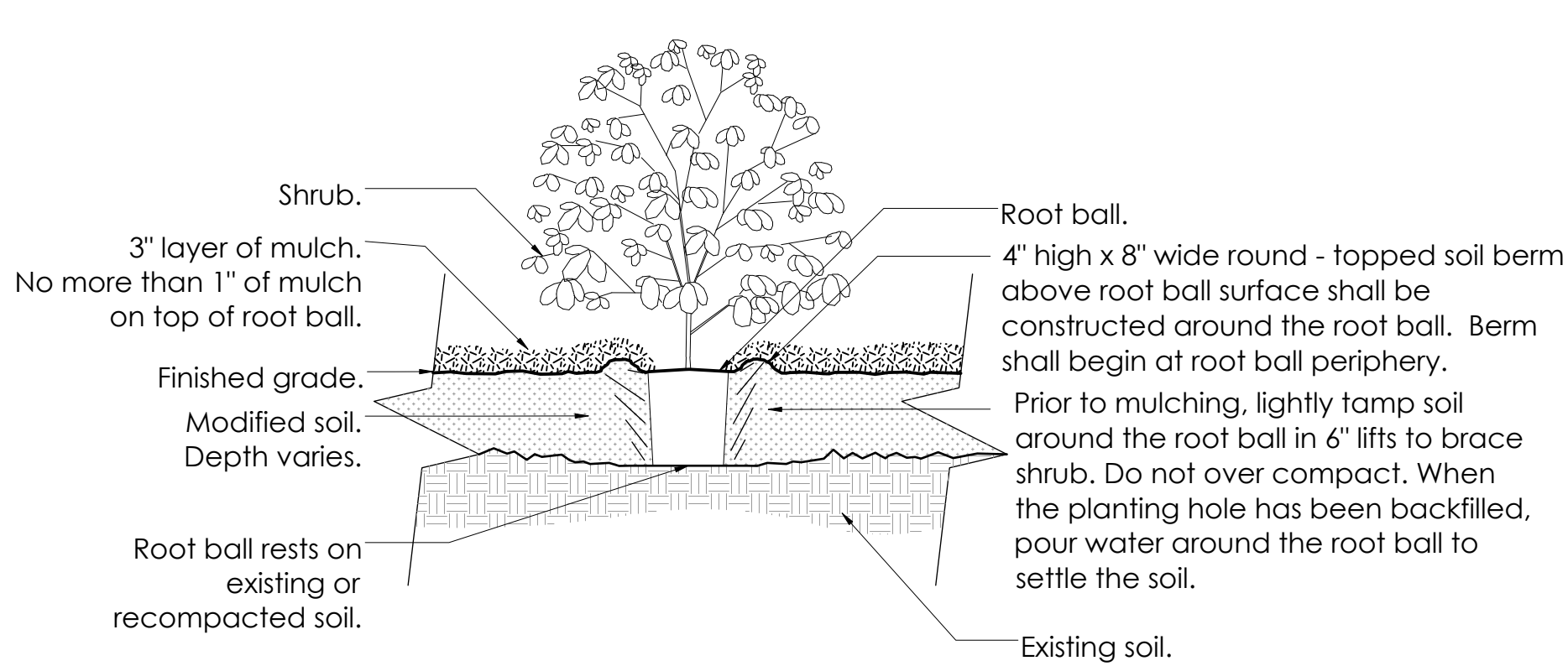
Tree Planting on Slopes of 5% (20:1) to 50% (2:1)

NTS



Tree Staking

NTS



Shrub Planting on Level Ground (Up to 5%)

NTS

- LANDSCAPE NOTES:
1. PLANT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL STAKE LOCATIONS FOR APPROVALS BY THE LANDSCAPE ARCHITECT PRIOR TO THE INSTALLATION OF PLANT MATERIAL.
 2. PROVIDE CONTINUOUS MULCH (3" THICK) IN ALL BEDDING AND GROUND COVER AREAS AND AT THE BASE OF SPECIMEN TREES.
 3. SIZES OF PLANT MATERIAL GIVEN ARE TO BE CONSIDERED MINIMUM.
 4. NO SUBSTITUTIONS FOR PLANT MATERIAL ARE ACCEPTABLE UNLESS APPROVED BY THE TOWNSHIP.
 5. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE, INCLUDING WATERING OF PLANT MATERIAL UNTIL JOB IS TURNED OVER TO OWNER.
 6. CONTRACTOR SHALL LOOSEN SUBGRADE OF PLANTING BED AREAS TO A MINIMUM DEPTH OF TWENTY-FOUR INCHES (24") USING A CULTIMULCHER OR SIMILAR EQUIPMENT. REMOVE STONES ONE TO ONE AND A HALF INCHES (1"-1-1/2") IN ANY DIMENSIONS AND STICKS, RUBBISH AND OTHER EXTRANEIOUS MATERIAL.
 7. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED OR SUSPECTED, SUCH AS RUBBLE FILL, UNACCEPTABLE TOPSOIL, ADVERSE DRAINAGE CONDITIONS OR OTHER OBSTRUCTIONS, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER AND THE LANDSCAPE ARCHITECT IN WRITING BEFORE PLANTING ANY TREES, SHRUBS OR LAWN AREAS.
 8. TREES AND SHRUBS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS, WELL DEVELOPED, DENSELY FOLIATED BRANCHES, AND VIGOROUS, FIBROUS ROOT SYSTEMS.
 9. TREES AND SHRUBS SHALL BE FREE FROM DEFECTS AND INJURIES AND CERTIFIED BY APPROPRIATE FEDERAL AND STATE AUTHORITIES TO BE FREE OF DISEASES AND INSECT INFESTATIONS.
 10. TREES AND SHRUBS SHALL BE FRESHLY DUG AND NURSERY GROWN. THEY SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE PROJECT OR PROPERLY ACCLIMATED TO CONDITIONS OF THE LOCALITY OF THE PROJECT.

11. ALL PLANTING BEDS SHALL BE MULCHED WITH DOUBLE GROUND HARDWOOD MULCH INSTALLED AT A MINIMUM DEPTH OF THREE INCHES (3").
12. ALL PLANTING BEDS WITHOUT SHRUB OR GROUND COVER PLANT MATERIAL SHALL BE PLANTED WITH A BLUE GRASS SEED MIX.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION ON THIS PLAN.
14. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE OWNER AND/OR LANDSCAPE ARCHITECT.
15. THIS PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.
16. NO MORE THAN FIVE INCHES (5") OF SOIL SHALL BE PLACED AROUND THE TRUNKS OF TREES WHICH ARE TO REMAIN. FOR THOSE TREES WHICH ARE TO REMAIN, WHERE MORE THAN FIVE INCHES (5") OF SOIL ARE TO BE PLACED, TREE WELLS SHALL BE CONSTRUCTED TO PRESERVE SUCH TREES.
17. ALL SIZES AND GRADING STANDARD FOR PLANT MATERIALS SHALL CONFORM WITH THE LATEST EDITION OF AMERICAN STANDARD OF NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., AND APPROVED MAY 2, 1986 BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC. OR THE LATEST REVISED EDITION OF THIS STANDARD.
18. TOPSOIL REMOVED BY GRADING OPERATIONS SHALL BE REDISTRIBUTED AND STABILIZED AS SOON AS POSSIBLE FOLLOWING THE COMPLETION OF A PHASE OF WORK OR THE ENTIRE PROJECT. ALL EXPOSED EARTH SURFACES SHALL BE STABILIZED BY THE FOLLOWING METHODS OR APPROVED EQUAL:
(A) SEEDING OR PLANTING OF SLOPES WITH A GRADIENT OF THIRTY PERCENT (30%) OR LESS STEEP.
(B) SODDING OR HYDRO SEEDING OF SLOPES WITH A GRADIENT OF THIRTY PERCENT (30%) OR MORE STEEP.
19. ALL TREES TO BE RETAINED SHALL BE PROTECTED DURING CONSTRUCTION FROM EQUIPMENT DAMAGE BY SNOW FENCING OR OTHER EFFECTIVE BARRIERS. THE CONTRACTOR SHALL LABEL EACH TREE AND SHRUB WITH SECURELY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.

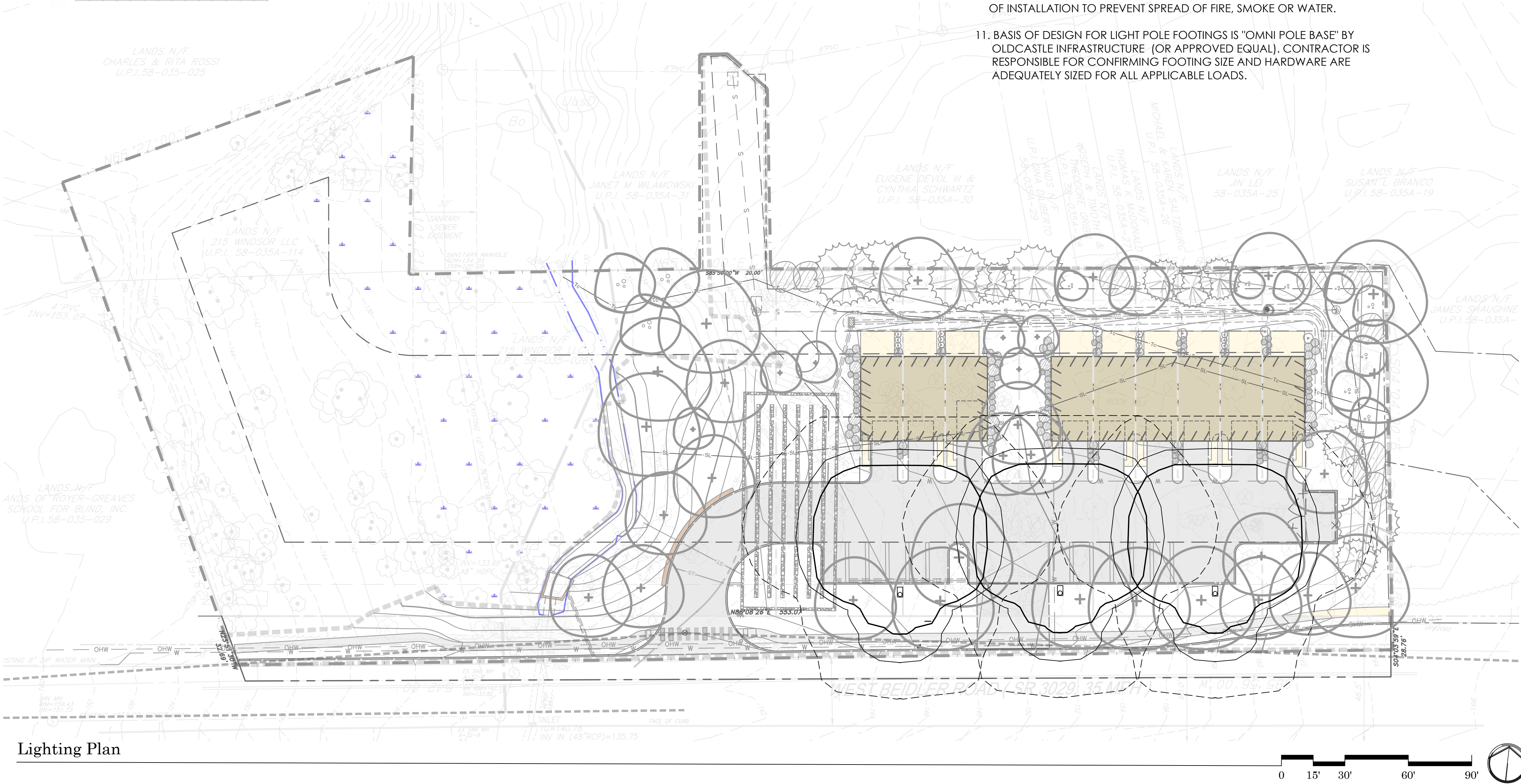
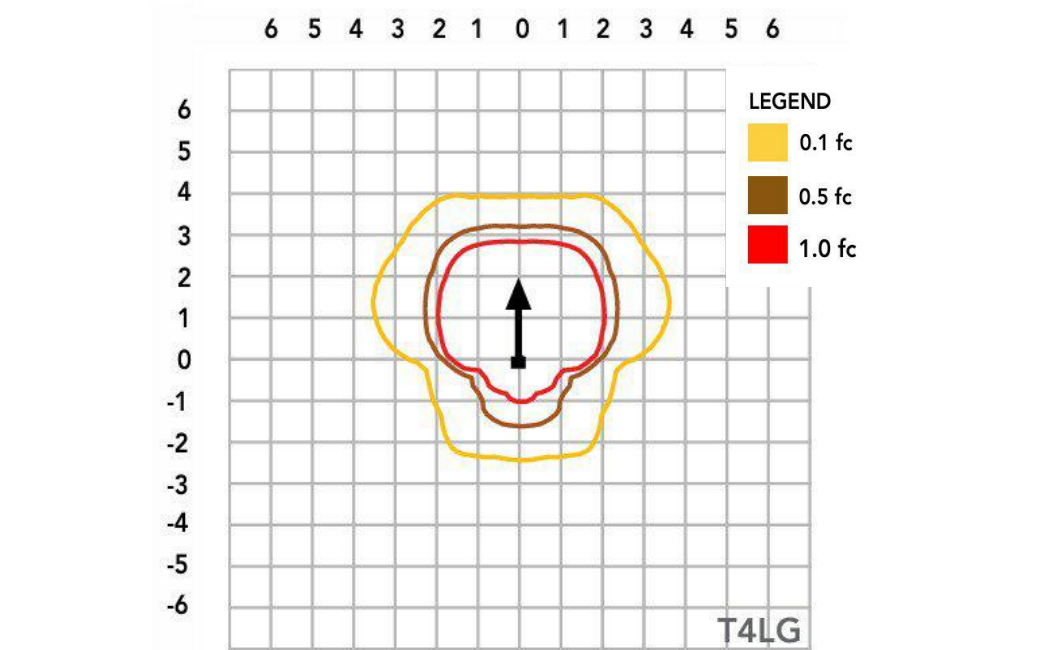
20. ALL DISTURBED AREAS ARE TO BE SEEDED TO ESTABLISH A VIABLE LAWN.
21. ANY TREE OR SHRUB THAT DIES WITHIN EIGHTEEN (18) MONTHS OF THE DEDICATION OF PUBLIC IMPROVEMENTS OF OCCUPANCY SHALL BE REPLACED. ANY TREE OR SHRUB WHICH, WITHIN THE AFOREMENTIONED TIME PERIOD DEEMED, IN THE OPINION OF AN AGENT AUTHORIZED BY THE TOWNSHIP, NOT TO HAVE SURVIVED OR GROWN IN A MANNER CHARACTERISTIC OF ITS TYPE SHALL BE REPLACED. ANY SUBSTITUTIONS SHALL BE APPROVED BY THE TOWNSHIP.
22. CLEAR SIGHT TRIANGLES SHALL BE PROVIDED AT ALL STREET INTERSECTIONS. WITHIN SUCH TRIANGLES NO VISION-OBSTRUCTING OBJECT SHALL BE PERMITTED WHICH OBSCURES VISION ABOVE THE HEIGHT OF 24 INCHES AND BELOW 10 FEET, MEASURED FROM THE CENTERLINE GRADE OF INTERSECTING STREETS. EACH SIDE OF THE SIGHT TRIANGLE SHALL BE A MINIMUM OF 75 FEET, MEASURED FROM THE POINT OF INTERSECTION ALONG EACH ROAD CENTERLINE.
23. ALL SHRUBS ARE TO BE PLANTED MASSED TOGETHER IN MULCHED PLANTING BED.
24. ALL STAKES AND STRAPS AT THE TREES MUST BE REMOVED AFTER ONE YEAR.
25. ALL PLANTS SHALL CONFORM WITH THE STANDARDS FOR NURSERY STOCK OF AMERICAN ASSOCIATION OF NURSERYMEN.
26. PLANTING SOILS SHALL CONSIST OF 4 PARTS ORGANIC TOPSOIL, 1 PART PEAT HUMUS, 1 PART WASHED SAND.
27. TOPSOIL SHALL HAVE THE FOLLOWING COMPOSITION AND MAKE UP:
(A) SHALL CONTAIN ORGANIC MATTER SUITABLE TO SUPPORT PLANT LIFE, INCLUDING A COMPOSITION OF APPROXIMATELY 5-10% SAND, 7-16% ORGANIC MATERIAL, NO MORE THAN 30% WEIGHT OF CLAY.
(B) SHALL BE WEED FREE (ABSENCE OF LIVING WEED CONTAMINATION).
(C) SHALL HAVE LESS THAN 2% BY WEIGHT OF UNWANTED MATERIALS SUCH AS STONES (NO LARGER THAN 12mm IN DIAMETER IN THE TOP 50mm), CONCRETE, STEEL, CLAY LUMPS, TREE ROOTS, STICKS OR OTHER INORGANIC MATERIAL.
28. NO TREES SHALL BE PLANTED CLOSER THAN FIFTEEN (15') FEET FROM THE FIRE HYDRANTS OR STOP SIGNS.
29. NO TREES SHALL BE PLACED WITH THEIR CENTERS LESS THAN FIVE (5) FEET FROM

- ANY PROPERTY LINE AND NO SHRUBS WITH THEIR CENTERS LESS THAN THREE (3) FEET FROM ANY PROPERTY LINE.
30. EXISTING TREES AND SHRUBS AT THE CORNER OF AN INTERSECTION OF STREETS AND/OR DRIVEWAYS SHALL BE CUT TO THE HEIGHT OF TWENTY-FOUR INCHES (24") FROM POINT OF INTERSECTION OF CORNER PROPERTY LINES BACK SEVENTY-FIVE FEET (75') TO AVOID BLOCKING SIGHT DISTANCE ON ONCOMING TRAFFIC, AND SHRUBS OR GROUNDCOVERS TO BE PLANTED SHALL BE OF THE MATURE VARIETY AND SHALL NOT EXCEED TWENTY-FOUR INCHES (24") IN HEIGHT AT MATURITY.
 31. ALL TREES ALONG THE RIGHT-OF-WAY OF ANY PROPERTY SHALL BE KEPT TRIMMED NINE FEET (9') ABOVE ANY SIDEWALK AND ELEVEN FEET (11') ABOVE ALL STREETS. AN UNOBSTRUCTED VERTICAL CLEARANCE OF 13 FEET 6 INCHES MUST BE ACHIEVED FOR EMERGENCY VEHICLE ACCESS.
 32. PROPER SIGHT LINES SHALL BE MAINTAINED AT ALL INTERSECTIONS OF STREETS. THERE SHALL BE A CLEAR SIGHT TRIANGLE MEASURING SEVENTY-FIVE FEET (75') ALONG THE INTERSECTING STREET LINES FROM THE POINT OF INTERSECTION INDICATING ON THE PLAN, THAT IS MAINTAINED FREE AND CLEAR OF STRUCTURES, SIGNS AND OTHER VISUAL OBSTRUCTIONS.

STATISTICS					
Description	Avg	Max	Min	Max/Min	Avg/Min
Parking Lot	1.2 fc	4.5 fc	0.2 fc	30.1	8.3

1. Calcs taken at grade
2. Fixtures mounted at 20 ft
3. Calculations are estimations based on the information provided and may vary with actual conditions

ALL SITE LIGHTING FIXTURES ARE FULLY SHIELDED TO MEET THE IES (ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA) CRITERIA FOR FULL CUT-OFF. THIS CATEGORY REQUIRES "THAT NOT MORE THAN 2 PERCENT OF THE LIGHT OUTPUT BE EMITTED ABOVE 90 DEGREES."





D-Series Size 1

LED Area Luminaire

Listing Number: A-DXS1-LED-P1-27K-OCRI-TAL92











Specifications

EPA: 0.69 ft²
(0.06 m²)

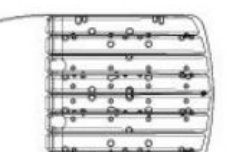
Length: 32.71"
(83.1 cm)

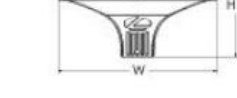
Width: 14.26"
(36.2 cm)

Height H1: 7.88"
(20.0 cm)

Height H2: 2.73"
(6.9 cm)

Weight: 34 lbs
(15.4 kg)





Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series mounting using photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.



Items marked with a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.aaculitybrands.com/designselect.

*See ordering tier for details

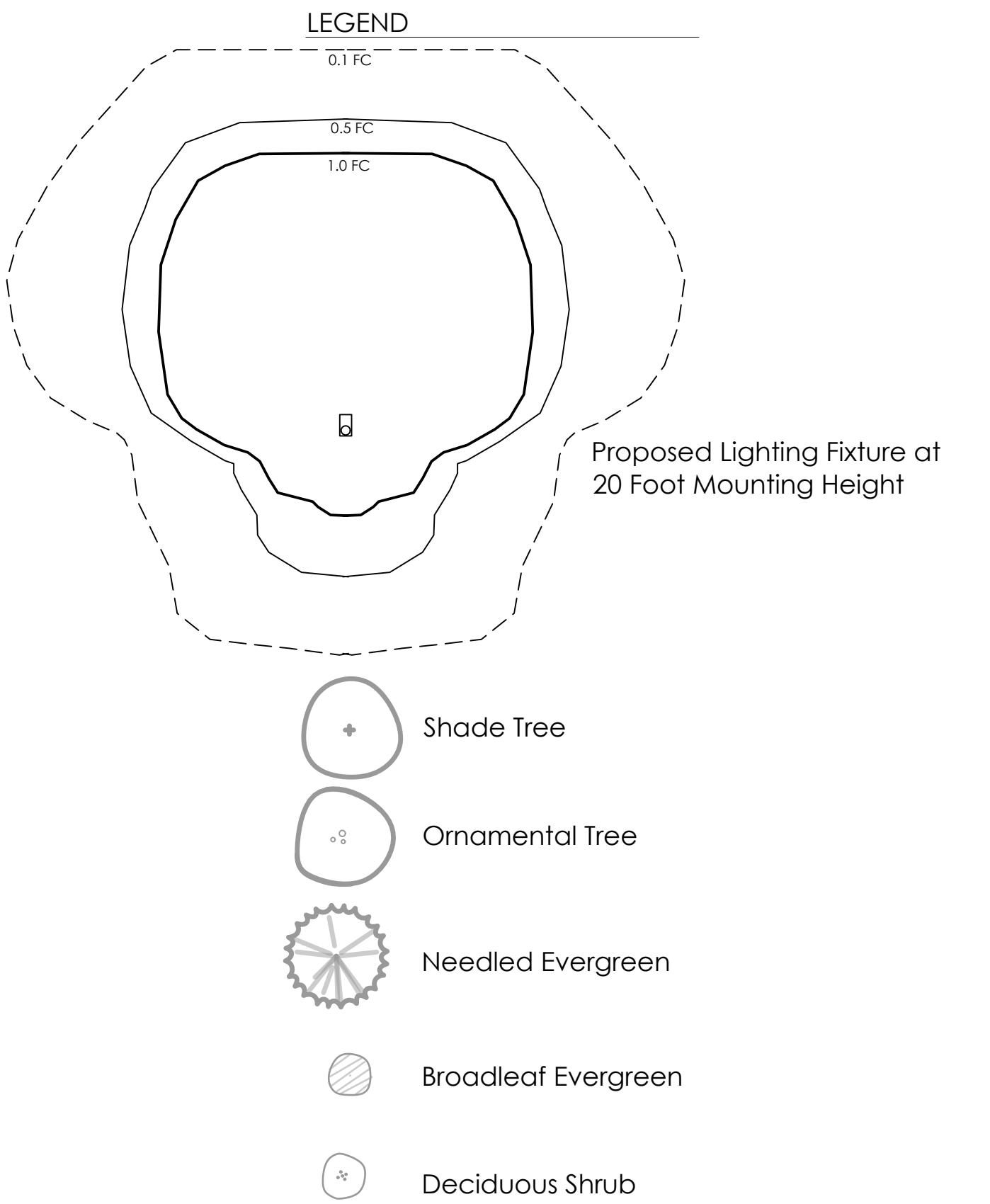
EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DBDBX

Ordering Information

DSX1 LED		Color Temperature ¹	Color Rendering Index ²	Distribution	Voltage	Mounting
Series						
Forward optics (this section 70CRI only)						
P1	P6	30K 3000K	70CRI	ATR Automotive host row	TMVLM Type V medium	MVOLT (120V-277V) ³
P2	P7	40K 4000K	70CRI	T1S Type I short	TS1G Type V low glare	XVOLT (347V - 480V) ^{3,4}
P3	P8	50K 5000K	70CRI	T2M Type II medium	TSW Type V wide	SVOLT (277V - 480V) ^{3,4}
P4	P9	50K 5000K	70CRI	T3M Type III medium	BLCI Type III backlight control	120V ^{3,4,5}
Rotated optics						
P10		27K 2700K	80CRI	T3GL Type III low glare ¹	BLCA Type IV backlight control	208V ^{3,4,5}
P11		30K 3000K	80CRI	T4M Type IV medium ¹	LECO Left corner cutoff ⁶	240V ^{3,4,5}
P12		35K 3500K	80CRI	T4GL Type IV low glare ¹	RTM Forward three medium	277V ^{3,4,5}
P13		50K 5000K	80CRI	TTM Type IV medium ¹	RCCO Right corner cutoff ⁶	347V ^{3,4,5}
						480V ^{3,4,5}

Shipped included	
SFA	Square pole mounting (#8 drilling)
SPR	Square pole mounting (#8 drilling)
SPAS	Square pole mounting #5 drilling ¹
RPR	Square pole mounting #5 drilling ¹
SPRN	Square square pole mounting (#8 drilling)
WBA	Wall bracket ⁶
MA	Max arm adapter (mounts on 2 1/4" Ø horizontal section)

1. ELECTRICAL WORK SHALL BE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. PROVIDE GROUND WIRES AS REQUIRED AND SIZE CONDUIT AS NECESSARY.
2. CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL ELECTRICAL DEVICES WITH ENGINEER AND OWNER PRIOR TO ROUGH-IN.
3. CONTRACTOR SHALL DETERMINE EXACT ROUTING AND LENGTHS REQUIRED. A SHOP DRAWING OF PROPOSED INSTALLATION SHALL BE SUPPLIED TO OWNER AND OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
4. INSTALL ALL WIRING MATERIALS IN A NEAT WORKMANLIKE MANNER. USE GOOD TRADE PRACTICES AS REQUIRED BY CHAPTER 3 OF THE NEC.
5. PROVIDE PULL AND JUNCTION BOXES WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING. BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS.
6. WHEN FIELD CUTTING IS REQUIRED, THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.
7. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS BEFORE WIRE IS PULLED.
8. UNLESS OTHERWISE INDICATED, GROUND ALL EXPOSED NON-CURRENT-CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, RACEWAY SYSTEMS, EQUIPMENT STRUCTURES AND THE NEUTRAL OF ALL WIRING SYSTEMS IN ACCORDANCE WITH THE NEC, STATE, AND OTHER APPLICABLE LAWS AND REGULATIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORING AS IT RELATES TO HIS WORK. DO NOT CUT NOR CORE THROUGH STRUCTURAL MEMBERS.
10. CONTRACTOR SHALL DO ALL REQUIRED CUTTING, BORING AND PATCHING FOR HIS WORK. ALL OPENINGS SHALL BE SEALED UPON COMPLETION OF INSTALLATION TO PREVENT SPREAD OF FIRE, SMOKE OR WATER.
11. BASIS OF DESIGN FOR LIGHT POLE FOOTINGS IS "OMNI POLE BASE" BY OLDCASTLE INFRASTRUCTURE (OR APPROVED EQUAL). CONTRACTOR IS RESPONSIBLE FOR CONFIRMING FOOTING SIZE AND HARDWARE ARE ADEQUATELY SIZED FOR ALL APPLICABLE LOADS.



- BASE INFORMATION:**
BOLD LINES: PROPOSED
FADED LINES: EXISTING
- | | |
|--|---------------------------------|
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| | SANITARY MANHOLE |
| | GAS METER |
| | GAS VALVE |
-
- | | |
|--|------------------|
| | BUILDINGS |
| | PORCH/ROOF LINES |
| | WALKS & PADS |
| | ASPHALT |
| | WALLS |
-
- | | |
|--|--------------------------------|
| | EDGE OF LANDSCAPING |
| | FENCE LINE |
| | LIGHT POLE |
| | SOIL BOUNDARY |
| | & MAP SYMBOL |
| | NORTH AMERICAN GREEN VMAX C350 |
| | TURF REINFORCEMENT MATTING |
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- | | |
|--|--------------------|
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| | FLOODWAY |
| | SLOPES, 15-25% |
| | STEEP SLOPES, >25% |
-
- | | |
|--|---------------|
| | NATURAL |
| | MAN-MADE |
| | OR <8' CHANGE |
- CALL BEFORE YOU**

