

T:\and design\2018-05040-Core Creek\CAD\Production Drawings\1805040_COVER SHEET.dwg Layout: 1 COVER SHEET Plotted By: dwate, on Wed Sep 16, 2020 at 10:21am

TRAIL DEVELOPMENT PLAN

FOR

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



STATE ROUTE 2033 SECTION CCP
IN BUCKS COUNTY

FROM STA. 86+62.00 TO STA. 89+50.00
LENGTH 288.00 FT. 0.055 MI.

FROM SEG. 0130 OFFSET 0692 TO SEG. 0130 OFFSET 0980
AND

NESHAMINY GREENWAY TRAIL
FROM STA. 00+00.00 TO ST 51+21.57

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2. TRAFFIC SIGNAL PERMIT PLAN, DATED 1-20-2020, SHEET 2 OF 2

DESIGN DESIGNATION		TRAFFIC DATA	
S.R. 2033			
HIGHWAY CLASSIFICATION	RURAL REGIONAL ARTERIAL	CURRENT YEAR ADT	12,979 (2019)
DESIGN SPEED	40 MPH	DESIGN YEAR ADT	14,656 (2039)
PAVEMENT WIDTH	22 FT	DHV	1,038
SHOULDER WIDTH	1-11 FT	D	52
MEDIAN WIDTH	0 FT	T	3

NESHAMINY GREENWAY TRAIL	
HIGHWAY CLASSIFICATION	MULTI USE TRAIL
DESIGN SPEED	18 MPH
PAVEMENT WIDTH	10 FT
SHOULDER WIDTH	5 FT UNPAVED

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
CORPORATE HEADQUARTERS
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GILMORE & ASSOCIATES, INC.

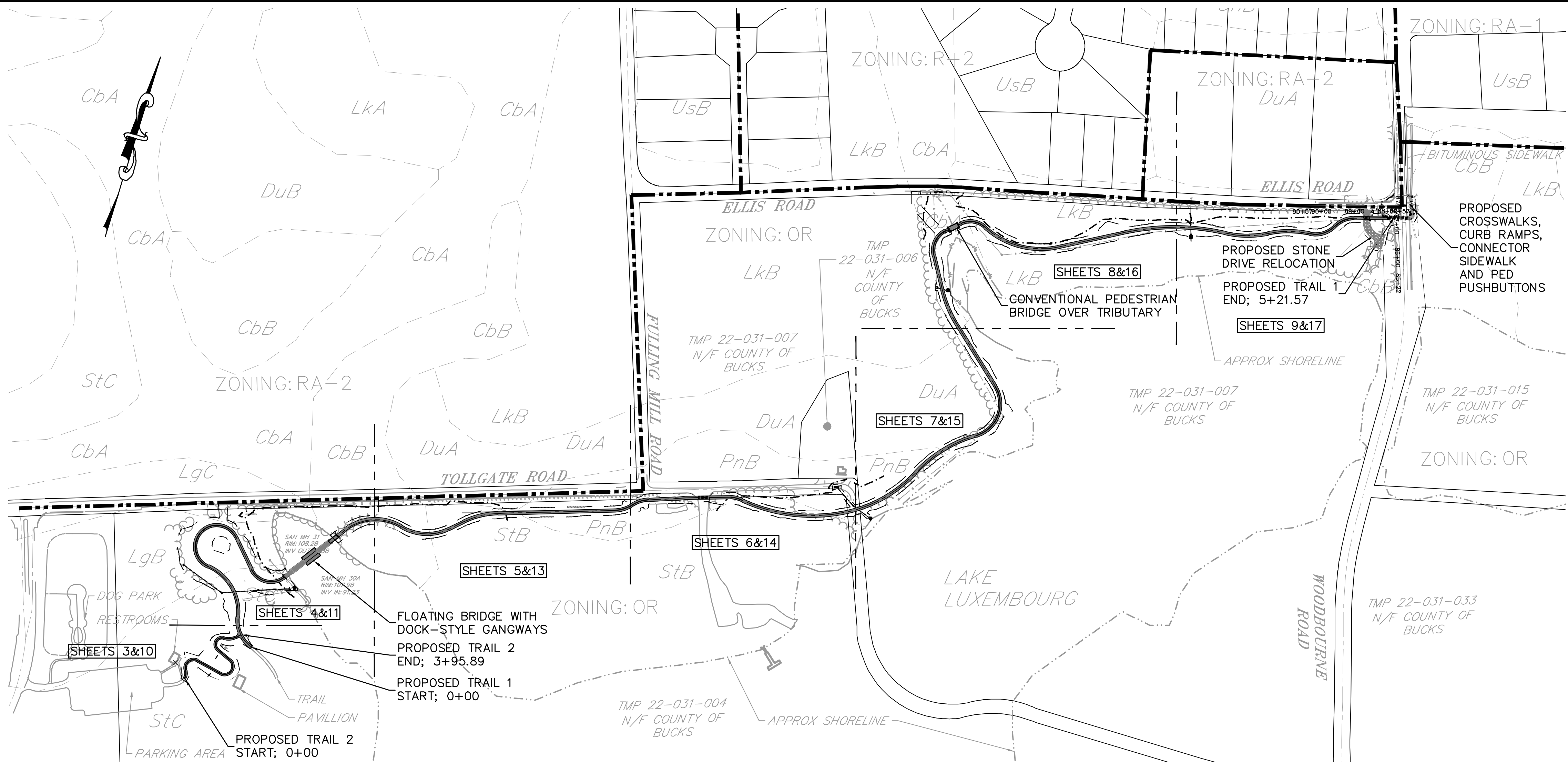
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2018-05040 NESHAMINY GREENWAY TRAIL - CORE CREEK - JANUARY 24, 2020

REVISION DATE: August 31, 2020

SHEET NO.: 1 OF 31

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Site Plans.dwg Layout 2 OVERALL SITE PLAN (200 SCALE) Plotted By: dwate, on Wed Sep 16, 2020 at 10:22am



FLOODPLAIN MANAGEMENT NARRATIVE:

1. THE FLOODPLAIN SHOWN IS BASED ON THE EFFECTIVE FIRM MAP NUMBER 42017C0433K, REVISED MARCH 21, 2017.
2. THE TRAIL WILL BE LOCATED IN ZONE A AREAS OF THE LAKE LUXEMBOURG FLOODPLAIN. THE INTENT OF THE DESIGN IS TO PROVIDE A NET ZERO, OR NEGATIVE FILL WITHIN THE FLOODPLAIN.
3. THE DESIGN OF THE TRAIL AS SHOWN ON THIS PLAN INCLUDES A NET NEGATIVE FILL WITHIN THE FLOODPLAIN.

STORMWATER MANAGEMENT NARRATIVE:

1. THE STORMWATER MANAGEMENT STRATEGY TO ADDRESS THE ADDITIONAL IMPERVIOUS COVERAGE IS AS FOLLOWS:
 - 1.1. AN OPEN-GRADED STONE BASE WILL BE DESIGNED AND PROVIDED BENEATH THE TRAIL THAT WILL STORE A VOLUME THAT IS EQUAL OR GREATER THAN THE INCREASE IN STORMWATER RUNOFF VOLUME FROM THE IMPERVIOUS SURFACE ABOVE. THE STONE BASE WILL DAYLIGHT ON BOTH SIDES OF THE TRAIL FOR FREE ENTRY INTO AND OUT THROUGH THE BASE STORAGE AREA FOR EXCESS RUNOFF. THE STONE BASE WILL BE SUMPED SO THAT ANY EXISTING INFILTRATION AVAILABLE IN THE NATURAL (EXISTING) SUBGRADE WILL PROVIDE RECHARGE AND CONTROL FOR THE REQUIRED RUNOFF VOLUME.
 - 1.2. IN GENERAL, THE NATURAL RUNOFF PATTERNS WILL BE NEARLY PERPENDICULAR TO THE PROPOSED TRAIL. IN THE LIMITED AREAS OF RUNOFF CONCENTRATION, CULVERTS WILL BE DESIGNED TO MANAGE MAINTENANCE ISSUES ASSOCIATED WITH CONCENTRATED RUNOFF FLOW ACROSS THE TRAIL SURFACE.

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

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

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NOTICE TO UTILITIES BEFORE YOU EXCAVATE,
DRILL, BLAST OR DEMOLISH

SERIAL NO. 20183131006, 20183131017, & 20183131027

PROJECT NARRATIVE:

1. THE PROJECT GOAL IS TO DEVELOP AND CONSTRUCT AN ADA COMPLIANT SHARED-USE TRAIL TO PROVIDE ACCESS TO CORE CREEK PARK AND ADJACENT NEIGHBORHOODS ALONG ELLIS ROAD AND WOODBOURNE ROAD. VIA AN EXISTING CONNECTING TRAIL ALONG WOODBORNE ROAD, THE TRAIL WILL PROVIDE ACCESS TO TWO OFFICE PARKS AND LASALLE UNIVERSITY NEAR THE NORTHERN BORDER OF MIDDLETOWN TOWNSHIP. THE TRAIL WILL HELP CLOSE A GAP IN THE NESHAMINY GREENWAY TRAIL (NGT) NETWORK IN CENTRAL BUCKS COUNTY.
2. THE PROJECT ALSO PROPOSES TO ADDRESS THE EXISTING POTENTIAL SAFETY ISSUE AT THE SOUTHWEST CORNER OF THE INTERSECTION OF ELLIS ROAD AND WOODBOURNE ROAD WHERE A GRAVEL LANE CONNECTS TO THE EDGE OF LAKE LUXEMBOURG.
3. THE TRAIL PROJECT CONSISTS OF TWO (2) BITUMINOUS TRAIL SEGMENTS:
 - 3.1. TRAIL SEGMENT 1 - IS A 10 FOOT WIDE BITUMINOUS TRAIL DESIGNED TO MEET AASHTO STANDARDS FOR AN ACCESSIBLE TRAIL. THIS SEGMENT BEGINS ALONG THE EXISTING TRAIL THAT TRAVERSES CORE CREEK PARK FROM THE SOUTHEAST SIDE OF LAKE LUXEMBOURG NEAR THE BOAT RENTAL AREA TO THE CORE CREEK DOG PARK. TRAIL SEGMENT 1 INTERSECTS THIS EXISTING TRAIL NEAR AN EXISTING PAVILLION THAT IS ADJACENT TO THE PARKING AREA LOCATED NEXT TO THE DOG PARK. TRAIL SEGMENT 1 CONTINUES ALONG THE NORTH EDGE OF LAKE LUXEMBOURG FOR APPROXIMATELY ONE MILE TO THE INTERSECTION OF ELLIS ROAD AND WOODBOURNE ROAD. CROSSWALKS, A SIDEWALK CONNECTOR, CURB RAMPS AND PEDESTRIAN PUSHBUTTONS ARE PROPOSED AT THIS INTERSECTION TO TIE-INTO THE BITUMINOUS SIDEWALK LOCATED ALONG WOODBOURNE ROAD TO THE NORTH OF THIS INTERSECTION.
 - 3.2. TRAIL SEGMENT 2 - A RELATIVELY SHORT 8 FOOT WIDE TRAIL OF APPROXIMATELY 400 LF WILL TIE IN THE NEW TRAIL TO THE EXISTING ACCESSIBLE CONNECTION TO THE PARKING AREA AND RESTROOMS LOCATED NEAR THE DOG PARK.

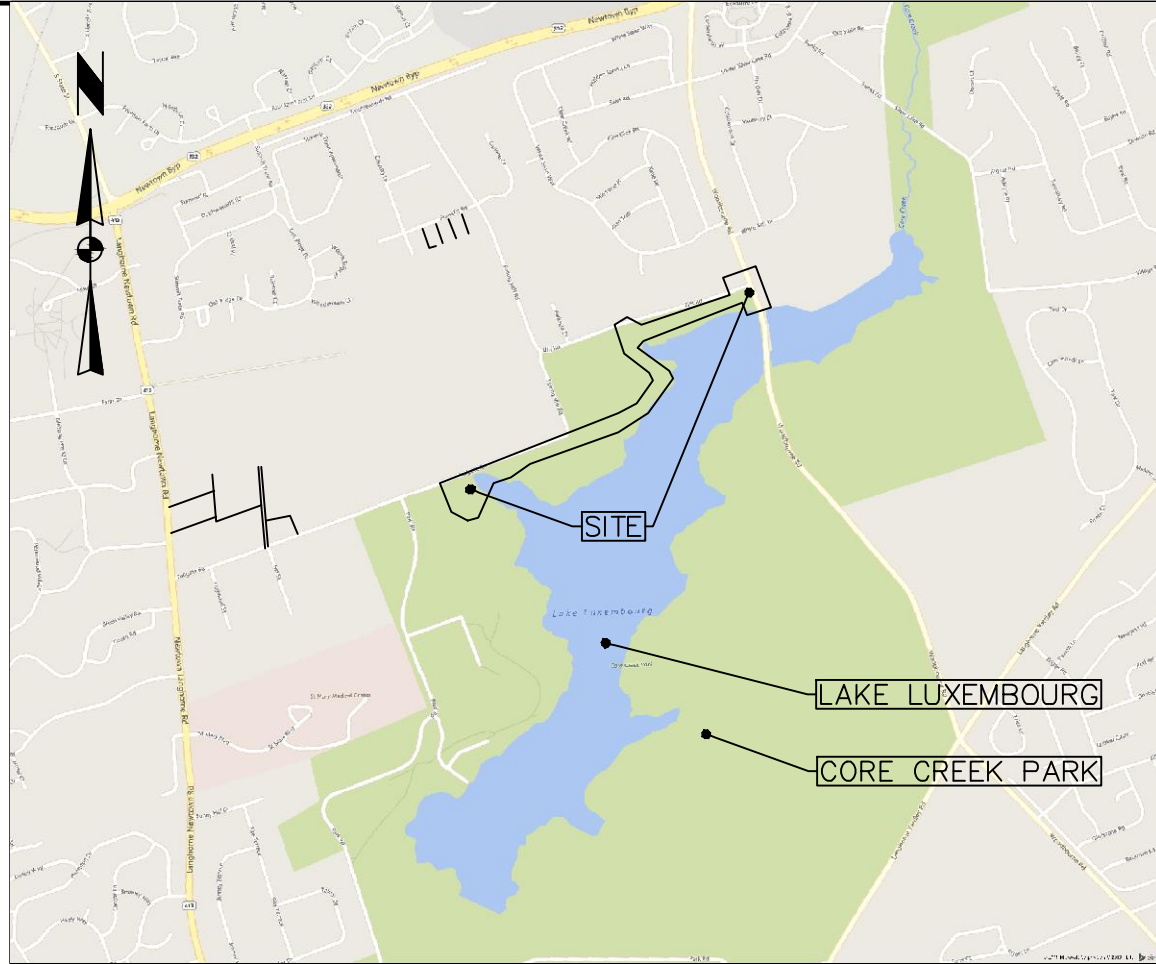
TRAIL SEGMENT 1 INCLUDES TWO BRIDGES:

- 4.1. 1) A DOCK-LIKE STRUCTURE WITH A GANGWAY (RAMP) AT BOTH ENDS ANCHORED WITH SMALL ABUTMENTS. THIS "FLOATING BRIDGE" WILL BE DESIGNED BY A DOCK MANUFACTURER EXPERIENCED WITH INNOVATIVE SOLUTIONS FOR ADA-EQUIPPED DOCK USES. THE BRIDGE WILL INCLUDE A LATERAL BRACING SYSTEM CONSISTING OF CABLES THAT WILL ALSO ALLOW FOR VERTICAL MOVEMENTS TO ACCOMMODATE LAKE ELEVATION CHANGES.
- 4.2. 2) A CONVENTIONAL PEDESTRIAN BRIDGE OVER A LAKE TRIBUTARY WITH A SPAN OF APPROXIMATELY 50 FEET.

GENERAL SURVEY NOTES:

1. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN JANUARY AND SEPTEMBER OF 2019.
2. THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY AND WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. OTHER RIGHTS TO PROPERTY MAY EXIST.
3. PARCEL LINES WERE OBTAINED FROM COUNTY GIS MAPPING FOR THE TOWNSHIP OF MIDDLETOWN, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA. PARCEL LINES ARE APPROXIMATE AND ARE NOT ADJUSTED TO PHYSICAL EVIDENCE FOUND.
4. SUBJECT TO COVENANTS, RESTRICTIONS AND/OR EASEMENTS EITHER WRITTEN OR IMPLIED.
5. VERTICAL DATUM IS NAVD88 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS), WITH OBSERVATIONS REFERENCED TO THE KEYNET-GPS VIRTUAL REFERENCE STATION SYSTEM.
6. THE LIMIT OF SEPTEMBER 2019 GILMORE & ASSOCIATES FIELD SURVEY IS IDENTIFIED BY THE LIMIT OF EXISTING TOPOGRAPHY SHOWN ON THE GRADING PLANS. ADDITIONAL INFORMATION SUCH AS THE CORE CREEK PARKING LOT, PORTIONS OF THE EXISTING BITUMINOUS TRAIL, AND OUTLINE OF LAKE LUXEMBOURG AS SHOWN OUTSIDE OF THE LIMIT OF SURVEY ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE. THE LEGAL RIGHTS-OF-WAY SHOWN IN THE VICINITY OF THE INTERSECTION OF ELLIS AND WOODBOURNE ROADS ARE BASED ON DRAWINGS OBTAINED FROM PENNDOT RECORDS UNIT (SEE REFERENCES).

PROPOSED LIMIT OF DISTURBANCE:
4.92 AC



LOCATION MAP
SCALE: 1"=2000'

- LEGEND
- PROPOSED TRAIL
 - LIMIT OF DISTURBANCE
 - ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
 - EXISTING SOILS
 - LAKE EDGE (APPROXIMATE)
 - ZONING BOUNDARY

REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF MIDDLETOWN, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA.
2. PLAN ENTITLED "PLAN OF BOUNDARY & TOPOGRAPHIC SURVEY, TAX MAP PARCEL 22-5-7, STONE FARM, MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA", PREPARED BY GILMORE & ASSOCIATES, INC., DATED MAY 29, 2015.
3. PLAN ENTITLED "FINAL PLAN OF SUMMIT TRACE", PREPARED BY TRI-STATE ENGINEERING & LAND SURVEYORS, INC., DATED MAY 18, 1977 AND LAST REVISED JULY 22, 1977.
4. PLAN ENTITLED "FINAL PLAN, LOT LINE CHANGE, LOTS 148-215, SUMMIT TRACE", PREPARED BY PICKERING, CORTS & SUMMERSON, INC., DATED SEPTEMBER 7, 1982 AND LAST REVISED NOVEMBER 23, 1982.
5. PLAN ENTITLED "FINAL PLAN OF SECTION 1, MILL-WAY FARMS" PREPARED BY PICKERING, CORTS & SUMMERSON CIVIL ENGINEERS & SURVEYORS, DATED MARCH 5, 1957.
6. PLAN ENTITLED "MINOR SUBDIVISION/LOT LINE CHANGE PLAN PREPARED FOR DORIS M. ELLIS & SHARON L. LYNN" PREPARED BY PICKERING CORTS & SUMMERSON INC., DATED SEPTEMBER 19, 1994 AND LAST REVISED NOVEMBER 21, 1994.
7. PLAN ENTITLED "FINAL PLAN LUXEMBOURG ESTATES" PREPARED BY PICKERING CORTS & SUMMERSON INC., DATED DECEMBER 15, 1983 AND LAST REVISED JULY 31, 1984.
8. PLAN ENTITLED "MINOR SUBDIVISION PLAN MADE FOR THE ESTATE OF EZRA C. STONE, "STONE MEADOW FARM" PREPARED BY ALL COUNTY INC., DATED AUGUST 12, 1998 AND LAST REVISED AUGUST 1, 2000.
9. PLAN ENTITLED "DRAWINGS FOR CONSTRUCTION OF LEG. ROUTE 09027 SECTION 10-S IN BUCKS COUNTY FROM STA. 73+25.00 TO STA 88+07.24, LENGTH 1482.24 FT, 0.281 MI, PREPARED FOR THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION BY WILLIAM C. MAJOR, ASSOCIATES, INC. DATED NOVEMBER 19, 1975, SHEET 12 OF 13.

GILMORE & ASSOCIATES, INC.
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JOB NO.:	2018-05040	TAX MAP PARCEL NO.:	22-031-004, 22-031-007
MUNICIPAL FILE NO.:	XX	TOTAL LOTS:	2
OWNER:	COUNTY OF BUCKS 55 E COURT STREET MIDDLETOWN, PA 19001 (215)-346-6000	TOTAL AREA:	XX AC.
DATE:	01/24/2020	SCALE:	1"=200'
DRAWN BY:	TPB	CHECKED BY:	DW, CG

TRAIL DEVELOPMENT PLAN
OVERALL SITE PLAN (200 SCALE)

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:
2 OF 31

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED, UNLESS NOTED OTHERWISE. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE, AND ONLY IN THOSE AREAS WHERE SUITABLE BMPs HAVE BEEN INSTALLED AND ARE FUNCTIONING. PRIOR TO EARTH DISTURBANCE ACTIVITIES THE LIMITS OF DISTURBANCE AND WATERS OF THE COMMONWEALTH SHALL BE MARKED WITH SURVEY STAKES, POSTS & ROPE, OR CONSTRUCTION FENCING.

1. INSTALL ROCK CONSTRUCTION ENTRANCES AS SHOWN ON THE PLAN.
2. INSTALL COMPOST SOCK, TREE PROTECTION, AND ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES ON SITE. COORDINATE TRAIL DETOUR AND CLOSURE OF THE GRAVEL DRIVE AT THE INTERSECTION OF ELLIS ROAD AND WOODBOURNE ROAD THROUGHOUT CONSTRUCTION.
3. PERFORM DEMOLITION ACTIVITIES AND SITE CLEARING AND GRUBBING. STOCKPILE TOPSOIL WHERE DESIGNATED.
4. CONSTRUCT STORM SEWER NETWORKS AS SHOWN ON THE PLANS. INSTALL INLET PROTECTION IMMEDIATELY UPON NEW INLET INSTALLATION AND OUTLET PROTECTION UPON NEW OUTLET INSTALLATION.
5. REMOVE TOPSOIL FOR PROPOSED GRADING AREAS AND STOCKPILE.
6. PERFORM GRADING OPERATIONS AND RESPREAD TOPSOIL OUTSIDE OF THE TRAIL FOOTPRINT. INSTALL SLOPE PROTECTION AND STABILIZE DISTURBED AREAS OUTSIDE OF THE TRAIL FOOTPRINT IMMEDIATELY.
7. INSTALL GEOTEXTILE AND STONE BASE FOR TRAIL AS SOON AS PRACTICAL.
8. INSTALL BRIDGE ABUTMENTS AND INSTALL BRIDGE COMPONENTS
9. FINE GRADE AND RE-STABILIZE AREAS AS NEEDED.
10. PREPARE PLANTING AREAS AND VEGATED SHOULDERS AS SOON AS PRACTICAL. INSTALL PLANTINGS.
11. PRIOR TO PLACEMENT OF BITUMINOUS TRAIL SECTION, REMOVE, CLEAN AND REPLACE ANY AREA OF TRAIL BASE STONE AND GEOTEXTILE THAT HAS BECOME INUNDATED WITH SOIL.
12. INSTALL BITUMINOUS TRAIL PAVING. PERFORM PARK SITE DEMOLITION ACTIVITIES AND SITE CLEARING AND GRUBBING. STOCKPILE TOPSOIL WHERE DESIGNATED.
13. AFTER THE SITE HAS BEEN STABILIZED, ALL TEMPORARY E&S CONTROLS SHALL BE REMOVED. AREAS DISTURBED DURING THE REMOVAL OF E&S CONTROL BMPs SHALL BE STABILIZED IMMEDIATELY.

STABILIZATION SHALL BE CONSIDERED THE PLACEMENT OF BASE COURSE IN PAVED AREAS OR BY 70% OR MORE VEGETATION, UNIFORM COVERAGE, IN LAWN AREAS OR BY OTHER PERMANENT MEANS WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

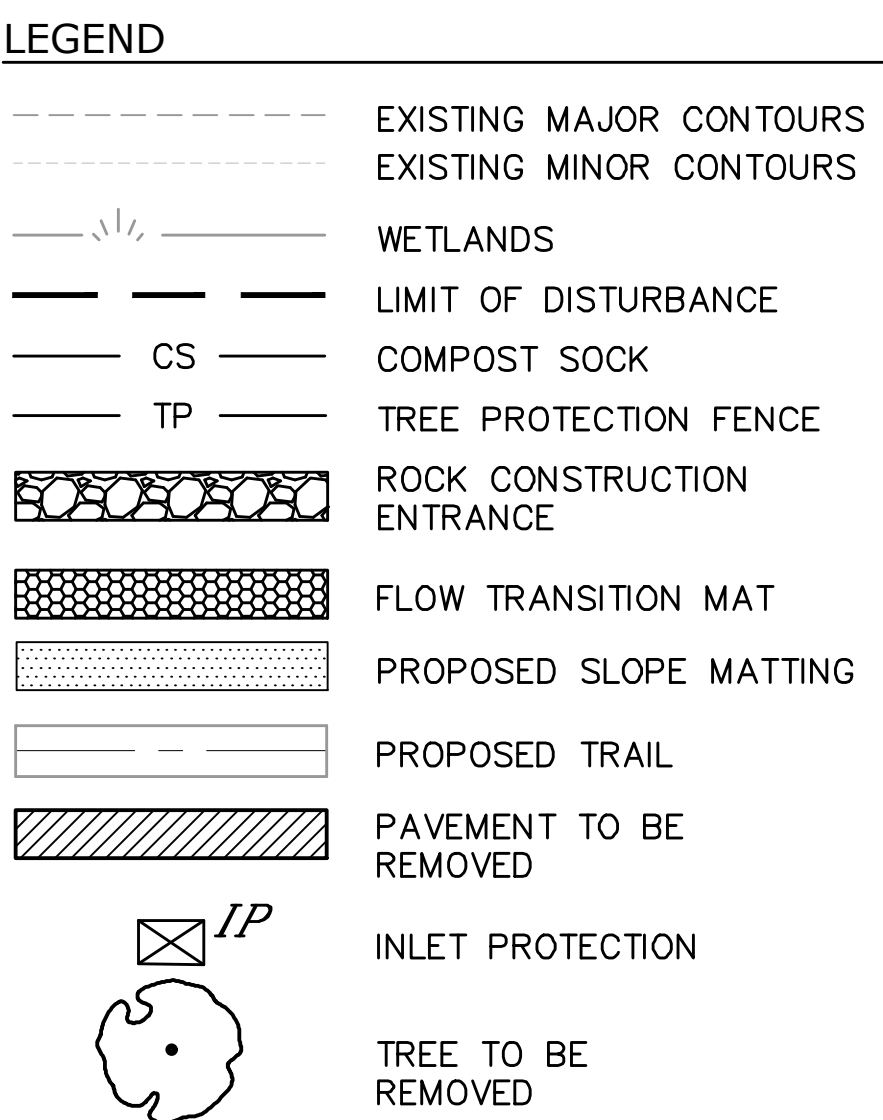
THE STORMWATER MANAGEMENT BMP PROPOSED FOR THIS PROJECT INCLUDES OPEN-GRADED STONE BASE FOR THE PROPOSED MULTISE TRAIL. THE FOLLOWING STAGES OF CONSTRUCTION ARE CRITICAL STAGES IN WHICH A LICENSED PROFESSIONAL ENGINEER OR DESIGNEE SHALL BE PRESENT ON SITE:

A. INSPECTION OF STONE TRAIL BASE MATERIALS PRIOR TO INSTALLATION OF BITUMINOUS PAVEMENT. THE ENGINEER RESPONSIBLE FOR PROVIDING NPDES NOTICE OF TERMINATION (N.O.T.) DOCUMENTATION SHALL DETERMINE THAT STONE BASE MATERIALS ARE CLEAN AND ADEQUATE FOR PROVIDING THE REQUIRED STONE VOID STORAGE FOR RUNOFF IMMEDIATELY PRIOR TO INSTALLATION OF BITUMINOUS PAVEMENT.

SERIAL NO. 20183131006, 20183131017, & 20183131027

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

3 OF 31



PROJECT WASTES—SECTION 102.4(b)(5)(xi)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE:

1. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
2. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN ON THE PROPERTY, DEMOLISHED OR EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE. MATERIALS SLATED FOR REMOVAL FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ANY AND ALL APPLICABLE MUNICIPAL OR OTHER GOVERNMENTAL AGENCY CURRENT REGULATIONS. DEBRIS SHALL NOT BE PERMITTED TO ACCUMULATE ON THE JOB-SITE. DUST AND DIRT SHALL BE HELD TO A MINIMUM DURING DEMOLITION, BY WETTING DOWN, AS REQUIRED. ON SITE BURNING OF MATERIALS WILL NOT BE PERMITTED. AT THE COMPLETION OF WORK, THE ENTIRE AREA INVOLVED WILL BE CLEAN AND LEFT IN A NEAT CONDITION, FREE OF RUBBISH. RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THIS PROJECT SITE SHALL BE UNDERTAKEN IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION RULES AND REGULATIONS.
3. SEDIMENT REMOVED FROM CONTROL FACILITIES AS A PART OF REGULAR MAINTENANCE SHALL BE DISPOSED OF UPSLOPE OF THE CONTROL FACILITY.

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

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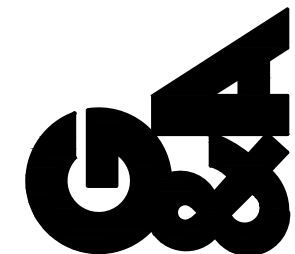
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SERIAL NO. 20183131006, 20183131017, & 20183131027

E&S AND DEMOLITION PLAN 'B'
SCALE: 1" = 30'

VERT 1"=3'



OWNER: COUNTY OF BUCKS 55 E COURT STREET #4318 DOYLESTOWN, PA 18901 (215)-348-6000	JOB NO.: 2018-05040	TAX MAP PARCEL NO.: 22-031-004, 22-031-007
MUNICIPAL FILE NO.: XX		
TOTAL AREA: XX AC.	TOTAL LOTS: 2	DATE: 01/24/2020
SCALE: 1"=30'	DESIGNED BY: TPB	DRAWN BY: TPB
	CHECKED BY: D.W. CS	

TRAIL DEVELOPMENT PLAN
E&S PLAN B (30 SCALE)

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

NOT FOR CONSTRUCTION

SHEET NO.:

4 OF 31

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Demo Plans.dwg Layout: 5 E&S PLAN C (30 SCALE) Plotted By: dwalte, on Wed Sep 16, 2020 at 10:23am

- LEGEND**
- EXISTING MAJOR CONTOURS
 - EXISTING MINOR CONTOURS
 - WETLANDS
 - LIMIT OF DISTURBANCE
 - CS COMPOST SOCK
 - TP TREE PROTECTION FENCE
 - ROCK CONSTRUCTION ENTRANCE
 - FLOW TRANSITION MAT
 - PROPOSED SLOPE MATTING
 - PROPOSED TRAIL
 - PAVEMENT TO BE REMOVED
 - INLET PROTECTION
 - TREE TO BE REMOVED

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

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West Mifflin, Pennsylvania
15122 - 1078

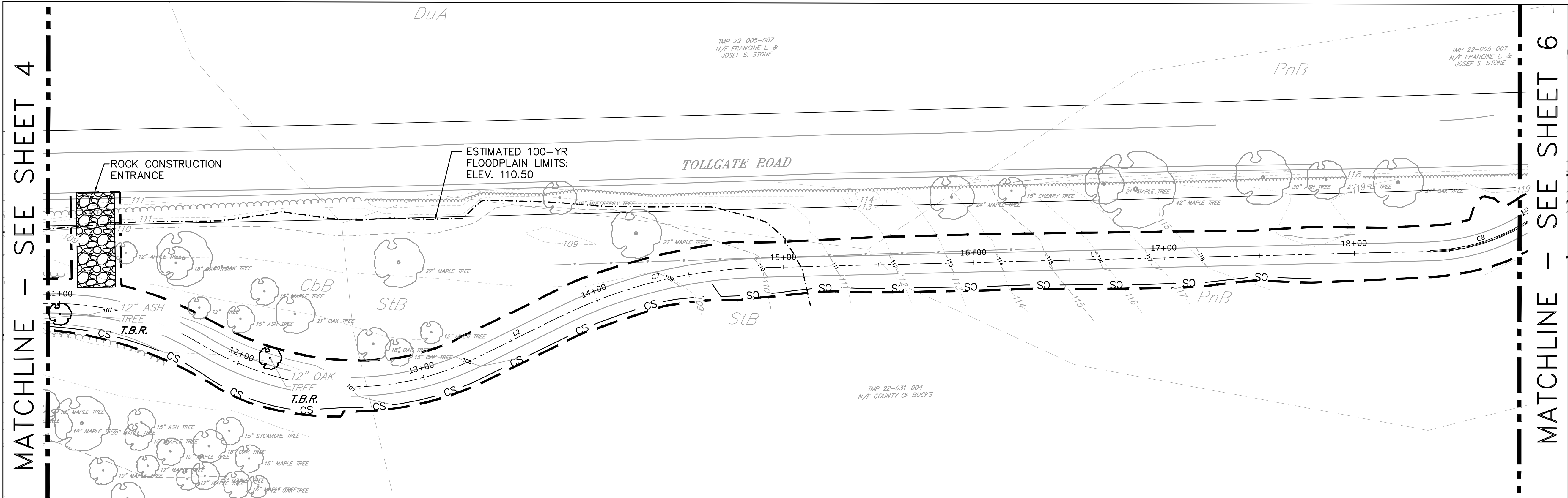


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SERIAL NO. 20183131006, 20183131017, & 20183131027



E&S AND DEMOLITION PLAN 'C'
SCALE: 1" = 30'

VERT 1"=6'

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS BASED ON USDA-NRCS WEB SOIL SURVEY OF BUCKS COUNTY									
SYMBOL	MAPPING UNITS	SLOPE	LAND CAPBLTY	HYDRIC SOIL	HYDRO. GROUP	DEPTH TO		LIMITATIONS FOR CONSTRUCTION	RESOLUTION OF LIMITATIONS
						BEDROCK	WATER TABLE		
<i>CbA</i>	CHALFONT SILT LOAM	0-3%	3w	NO	C	> 70"	0.5'-1.5'	VERY LIMITED: DEPTH TO SATURATED ZONE	HAVE BYPASS PUMP(S) & FILTER BAG(S) AVAILABLE. SEE DETAIL.
<i>CbB</i>	CHALFONT SILT LOAM	3-8%	3w	NO	C	> 70"	0.5'-1.5'	VERY LIMITED: DEPTH TO SATURATED ZONE	HAVE BYPASS PUMP(S) & FILTER BAG(S) AVAILABLE. SEE DETAIL.
<i>DuA</i>	DUNCANNON SILT LOAM	0-3%	1	NO	B	> 68"	> 6'	NOT LIMITED	
<i>LgB</i>	LANSDALE LOAM	3-8%	2e	NO	B	60"-61"	> 6'	NOT LIMITED	
<i>LgC</i>	LANSDALE LOAM	8-15%	3e	NO	B	60"-61"	> 6'	SOMEWHAT LIMITED: SLOPE	MINIMIZE SLOPE DISTURBANCE AND STABILIZE IMMEDIATELY.
<i>LkB</i>	LAWRENCEVILLE SILT LOAM	3-8%	2e	NO	C	> 74"	1.5'-3.0'	VERY LIMITED: DEPTH TO SATURATED ZONE	HAVE BYPASS PUMP(S) & FILTER BAG(S) AVAILABLE. SEE DETAIL.
<i>PnB</i>	PENN-LANSDALE COMPLEX PENN LANSDALE	3-8%	2e	NO	C	34"-44"	> 6'	SOMEWHAT LIMITED: DEPTH TO SOFT BEDROCK	RIPPING, HOE-RAMMING, AND/OR BLASTING OF ROCK MAY BE NEEDED. COMPLY WITH ALL REGULATIONS.
<i>StB</i>	STEINBURG GRAVELLY LOAM	3-8%	2e	NO	B	30"-40"	> 6'	SOMEWHAT LIMITED: DEPTH TO SOFT BEDROCK	RIPPING, HOE-RAMMING, AND/OR BLASTING OF ROCK MAY BE NEEDED. COMPLY WITH ALL REGULATIONS.
<i>StC</i>	STEINBURG GRAVELLY LOAM	8-15%	3e	NO	B	30"-40"	> 6'	SOMEWHAT LIMITED: DEPTH TO SOFT BEDROCK, SLOPE	RIPPING, HOE-RAMMING, AND/OR BLASTING OF ROCK MAY BE NEEDED. COMPLY WITH ALL REGULATIONS. MINIMIZE SLOPE DISTURBANCE AND STABILIZE IMMEDIATELY.

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

SHEET NO.:
5 OF 31

TRAIL DEVELOPMENT PLAN
E&S PLAN C (30 SCALE)

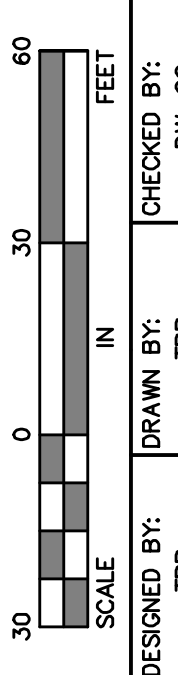
NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

JOB NO.: 2018-05040

MUNICIPAL FILE NO.: XX

TAX MAP PARCEL NO.: 22-031-004, 22-031-007



OWNER: COUNTY OF BUCKS
55 E COURT STREET
DOYLESTOWN, PA 18901
(215)-346-6000

TOTAL AREA: 2
XX AC.
DATE: 01/24/2020
SCALE: 1"=30'

DRAWN BY: TPB

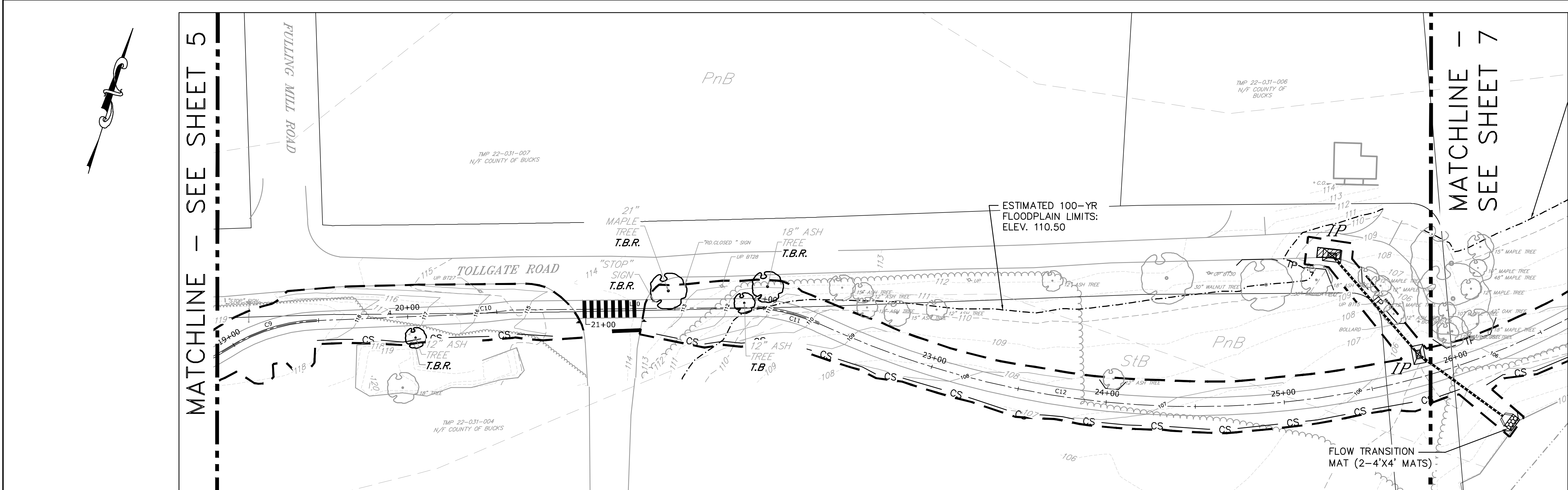
CHECKED BY: DW, CS

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CORPORATE HEADQUARTERS
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T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Demo Plans.dwg Layout: 6 E&S PLAN D (30 SCALE) Plotted By: dwalte, on Wed Sep 16, 2020 at 10:24am



E&S AND DEMOLITION PLAN 'D'
SCALE: 1" = 30'

VERT 1"=6'

LEGEND

- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- WETLANDS
- LIMIT OF DISTURBANCE
- CS COMPOST SOCK
- TP TREE PROTECTION FENCE
- ROCK CONSTRUCTION ENTRANCE
- FLOW TRANSITION MAT
- PROPOSED SLOPE MATTING
- PROPOSED TRAIL
- PAVEMENT TO BE REMOVED
- INLET PROTECTION
- TREE TO BE REMOVED

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

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

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SERIAL NO. 20183131006, 20183131017, & 20183131027

EROSION & SEDIMENT CONTROL NOTES

- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, STABILIZED AND FUNCTIONAL PRIOR TO EARTH DISTURBANCE WITHIN THE TRIBUTARY AREA TO SAID E&S MEASURE.
- GENERAL SITE CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S MEASURES SPECIFIED IN THE SEQUENCE FOR THAT STAGE/PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS INTENDED.
- LOCAL ROADS ARE TO REMAIN FREE OF SEDIMENT AND CONSTRUCTION VEHICLES AND EQUIPMENT.
- UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION AS PER SEEDING AND MULCHING SCHEDULE.
- SILT FENCING MAY BE REMOVED WHEN THE SITE IS PERMANENTLY STABILIZED. ACCUMULATED SEDIMENT MAY BE SPREAD AT THE SITE IN AREAS NOT SUBJECT TO EROSION.
- THE TREE PROTECTION FENCING SHALL NOT BE REMOVED UNTIL ALL DEVELOPMENT AREAS ARE STABILIZED AND WRITTEN CONFIRMATION IS RECEIVED FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE CONTRACTOR SHALL RECEIVE APPROVAL OF THE REVISIONS FROM THE BUCKS COUNTY CONSERVATION DISTRICT.
- THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, 'EROSION CONTROL RULES AND REGULATIONS,' TITLE 25, PART 1, DEPT. OF ENVIRONMENTAL PROTECTION, SUBPART C-PROTECTION OF NATURAL RESOURCES, ARTICLE III-WATER RESOURCES, CHAPTER 102-EROSION CONTROL AND WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" BY THE COMMONWEALTH OF PA., DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2012 OR LATEST EDITION.
- TECHNICAL ADVICE FOR THE IMPLEMENTATION OF THIS PROGRAM MAY BE OBTAINED BY CONTACTING THE BUCKS COUNTY

CONSERVATION DISTRICT AT (215)345-7577.

- COPIES OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL ASSURE THAT AN APPROVED EROSION & SEDIMENT CONTROL PLAN IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFFSITE BORROW OR SPOIL SITES.
 - ALL FILL MATERIALS TO BE USED ON THIS SITE SHALL BE CLEAN FILL UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY AND THE CONSERVATION DISTRICT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DUE DILIGENCE FOR ALL IMPORTED MATERIAL IN DETERMINING THAT FILL IS CLEAN.
 - INVESTIGATIVE TECHNIQUES SHALL INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.
- CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINED BY THE APPROVED EROSION & SEDIMENT CONTROL PLAN AND THE SEQUENCE OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER AND THE BUCKS COUNTY CONSERVATION DISTRICT.
- NOTES ON TEMPORARY CONTROL MEASURES:
 - EXISTING TREES AND OTHER EXISTING VEGETATION WILL BE DISRUPTED AS LITTLE AS POSSIBLE.
 - IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY HAS CEASED, ALL AREAS SHALL BE STABILIZED. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE STABILIZED WITH TEMPORARY VEGETATION. AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR SHALL RECEIVE PERMANENT STABILIZATION. (SEE SEEDING AND MULCHING TABLE FOR DETAILS)
 - ALL TOPSOIL FROM THE OVERALL SITE PREPARATIONS WILL BE STOCKPILED AND REDISTRIBUTED UNIFORMLY AT THE TIME OF FINAL GRADING. ALL STOCKPILES SHALL HAVE PERIMETER SILT FENCE INSTALLED AND BE SEEDED AND MULCHED IMMEDIATELY. STOCKPILE(S) SHALL HAVE A SIDE SLOPE OF 2:1 OR FLATTER AND SHALL HAVE A HEIGHT NOT GREATER THAN 35 FEET. SEE PLAN FOR LOCATION OF TOPSOIL STOCKPILES.
 - GRADE ALL CUT AND FILL SLOPES TO 3 FOOT HORIZONTAL FOR EVERY 1 FOOT VERTICAL OR FLATTER, AND APPLY SEEDING AND MULCH. AREAS WITH GRADES GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEED MIX AND PERMANENT TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #SC150 OR EQUAL

- SCOUR STOP MATS WILL BE APPLIED TO ALL AREAS WHERE HEAVY CONCENTRATIONS OF DRAINAGE ARE PREVALENT (GREATER THAN 3.5 cfs). THIS WOULD BE AT CULVERT OUTLETS, WHERE WATER IS IN TRANSITION FROM AN OPEN CHANNEL INTO A CULVERT, OR AS SPECIFIED.
- SIGNIFICANT STANDS OF TREES, DESIGNATED TO REMAIN, WILL BE PROTECTED WITH FENCING, SEE DETAIL. INSTALL ALONG THE DRIP LINE OF THE TREE BRANCHES.
- EROSION CONTROL FACILITIES MUST DISCHARGE INTO ADEQUATE STORM SEWERS, NATURAL WATERWAYS, OR STABLE EROSION RESISTANT AREAS.
- CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CLEANING OF CHUTES, MIXERS, AND HOPPERS OF DELIVERY VEHICLES. NO WASH WATER FROM THESE VEHICLES SHALL BE ALLOWED TO ENTER ANY SURFACE WATERS. WASHOUT FACILITIES SHALL NOT BE LOCATED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES, INFILTRATION FACILITIES OR SURFACE WATERS.
- ANY SEDIMENT OR MUD THAT IS TRACKED ONTO THE PUBLIC ROADWAY MUST BE CLEANED OFF IMMEDIATELY BY BROOMING AND/OR SHOVELING TO THE SATISFACTION OF THE TOWNSHIP AT THE EXPENSE OF THE DEVELOPER AND/OR RESPONSIBLE CONTRACTOR. USE OF A BACKHOE BUCKET TO SCRAPE ROADWAY SURFACE IS PROHIBITED. WHERE SAND AND/OR SEDIMENT IS CAUSING SLICK OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE PRESSURE WASHED TO REMOVE THE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.
- NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE/PROPERTY WITHOUT FIRST BEING FILTERED TO THE SATISFACTION OF BUCKS COUNTY CONSERVATION DISTRICT. ANY INLETS WHICH DO NOT DIRECT FLOW TO A SEDIMENT BASIN MUST BE PROTECTED WITH STONE FILTER INLET PROTECTION.
- ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A FILTER BAG, DISCHARGING OVER UNDISTURBED AREAS.
- ABSOLUTELY NO EARTHMOVING, PLACEMENT OF FILL MATERIAL OR THE ENTRY OF SEDIMENT LADEN WATER MUST TAKE PLACE IN WETLANDS. ALL WETLANDS SHALL BE PROTECTED FROM ENCROACHMENT WITH FENCING.
- ROCK FILTER OUTLETS MUST BE PROVIDED IMMEDIATELY WHERE SILT FENCING HAS BEEN UNDERMINED OR OVERTOPPED.
- THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN HAVE BEEN PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE BUCKS COUNTY CONSERVATION DISTRICT. GILMORE AND ASSOCIATES DOES NOT TAKE ANY RESPONSIBILITY IN OBSERVING AND CERTIFYING THE CONSTRUCTION OF THESE FACILITIES UNLESS REQUESTED SPECIFICALLY BY THE OWNER AND/OR CONTRACTOR. THEREFORE, GILMORE AND ASSOCIATES DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF IMPROPER CONSTRUCTION AND/OR MAINTENANCE OF FACILITIES DURING CONSTRUCTION.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES.
- ACCUMULATED SEDIMENTS REMOVED FROM ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES. IMMEDIATELY STABILIZE REPLACED SOILS WITH SEED & MULCH OR DEPOSIT IN SOIL STOCKPILES AND STABILIZE.
- THE CONTRACTOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH DEP'S SOLID WASTE MANAGEMENT REGULATIONS, AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

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JOB NO.: 2018-05040
MUNICIPAL FILE NO.: XX
TAX MAP PARCEL NO.: 22-031-004, 22-031-007

OWNER: COUNTY OF BUCKS
55 E COURT STREET #418
DOWNTOWN, PA 19801
(215)-345-6000

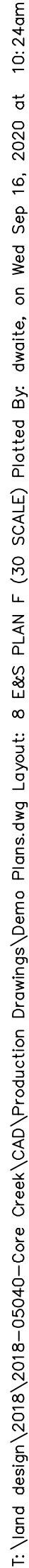
TOTAL LOTS: 2
TOTAL AC.: XX
DATE: 01/24/2020

TRAIL DEVELOPMENT PLAN
E&S PLAN D (30 SCALE)

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

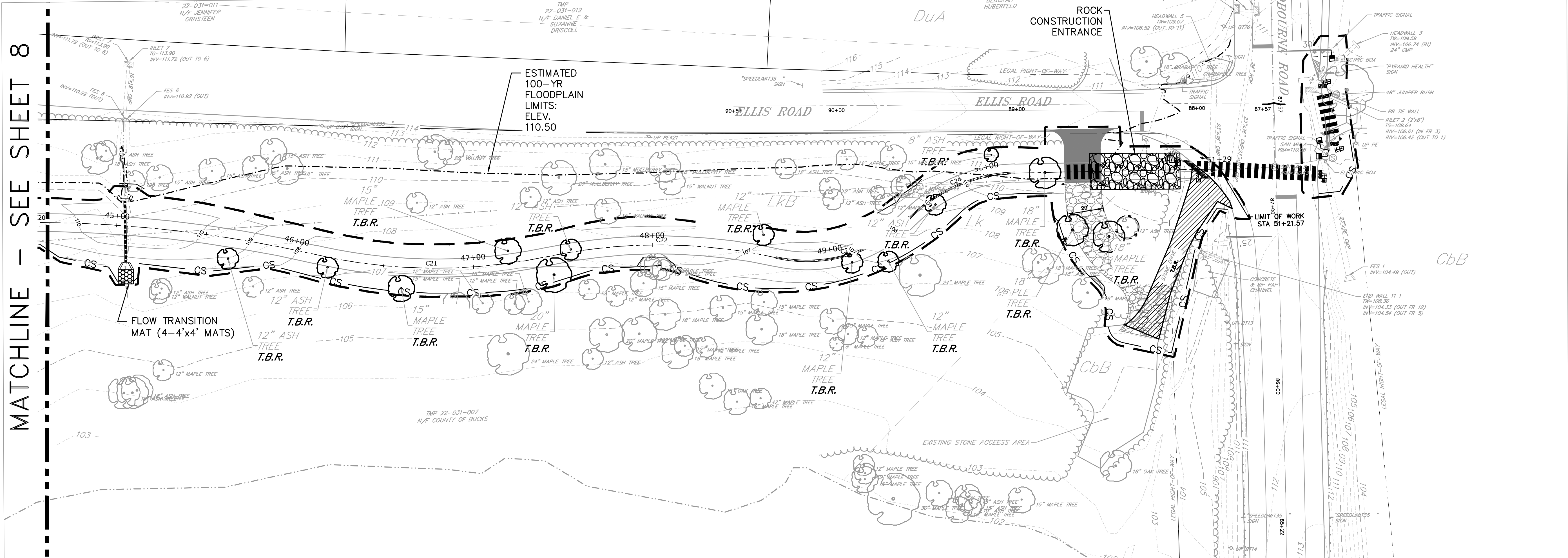
SHEET NO.: 6 OF 31



T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Demo Plans.dwg Layout: 9 E&S PLAN G (30 SCALE) Plotted By: dwelte, on Wed Sep 16, 2020 at 10:24am

MAINTENANCE OF FACILITIES

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



E&S AND DEMOLITION PLAN 'G'
SCALE: 1" = 30'

STATION 44+55 TO 51+22

LEGEND

	EXISTING MAJOR CONTOURS		PROPOSED TRAIL
	EXISTING MINOR CONTOURS		PAVEMENT TO BE REMOVED
	WETLANDS		INLET PROTECTION
	LOD LIMIT OF DISTURBANCE		TREE TO BE REMOVED
	CS COMPOST SOCK		FLOW TRANSITION MAT
	TP TREE PROTECTION FENCE		PROPOSED SLOPE MATTING
	ROCK CONSTRUCTION ENTRANCE		

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

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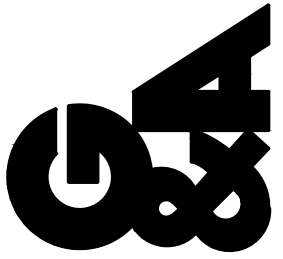
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JOB NO.: 2018-05040

MUNICIPAL FILE NO.: XX

OWNER: COUNTY OF BUCKS
55 E COURT STREET #401
DOVER, PA 19901
(215) 348-6000

TRAIL DEVELOPMENT PLAN
E&S PLAN G (30 SCALE)

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

9 OF 31

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

NOT FOR CONSTRUCTION

T:\land design\2018\2018-05040-Core Creek\0AD\Production Drawings\Site Plans.dwg Layout: 10 PCSM PLAN & PROFILE A (30 SCALE) Plotted By: dwalke, on Wed Sep 16, 2020 at 10:25am

STORMWATER MANAGEMENT BMP
OPERATION & MAINTENANCE NOTES

- THE STORMWATER MANAGEMENT FACILITIES ARE OWNED, OPERATED AND MAINTAINED BY THE PROPERTY OWNER (PERMITTEE).
- INSPECTION OF THE STORMWATER MANAGEMENT FACILITIES SHALL BE PERFORMED SEMI-ANNUALLY (AT LEAST TWICE EACH YEAR) BY THE OWNER (PERMITTEE).
- TYPICAL INSPECTION PROCEDURES OF FACILITIES LIKE THESE INCLUDE, BUT ARE NOT LIMITED TO, VERIFYING THAT:
 - EXCESSIVE EROSION HAS NOT OCCURRED ANYWHERE IN THE BMP LIMITS
 - SIGNIFICANT SEDIMENTATION HAS NOT ACCUMULATED
 - THE PERMANENT OUTLET STRUCTURES ARE FREE FROM DEBRIS AND STRUCTURALLY STABLE.
- TYPICAL MAINTENANCE PROCEDURES FOR UNDERGROUND DETENTION BASIN:
 - UNDERGROUND INFILTRATION BASIN SYSTEM – THE UNDERGROUND INFILTRATION BASIN SYSTEM WILL CONSIST OF A SERIES OF PERFORATED PIPES CONNECTED IN SERIES WITHIN A STONE BED BENEATH THE PAVING AREAS SHOWN ON THE PLANS. MAINTENANCE AND CLEAN-OUT OF INLETS SHALL BE PERFORMED TO MAINTAIN CLEAR SUMPS AND FREE FLOW TO CONNECTED PIPES.
 - ANY DEBRIS WITHIN THE SWM STRUCTURES (PIPES, OUTLET STRUCTURE, OR INLETS) SHALL BE REMOVED IMMEDIATELY.
 - ANY SEDIMENT ACCUMULATION WITHIN THE PIPE SYSTEM SHALL BE REMOVED. SEDIMENTS SHALL BE SPREAD ON-SITE AND STABILIZED IMMEDIATELY WITH SEED AND MULCH. RE-SPREADING OF SEDIMENT SHALL NOT BE PLACED SO AS TO INTERFERE WITH SIGHT DISTANCE OF DRIVEWAYS OR ROADWAYS.
 - THE PIPE SYSTEM SHALL BE INSPECTED ON A BI-ANNUAL BASIS FOR PHYSICAL DAMAGES, CHANGE OF PHYSICAL CONDITIONS, AND SIGNS OF EROSION. ALL MINOR DEFECTS SHALL BE REPAIRED IMMEDIATELY. OWNER/OPERATOR SHALL CONSULT A REGISTERED PROFESSIONAL ENGINEER FOR THE REPAIR OF MAJOR DEFECTS.
 - OUTLET STRUCTURE, INLETS, MANHOLES – THE OUTLET STRUCTURES FOR THE UNDERGROUND BASIN FACILITIES ARE CONCRETE WITH SPECIFIC ORIFICES USED TO CONTROL STORMWATER FLOW RATES. INLETS ABOVE THE INFILTRATION FACILITIES ARE FITTED WITH BMP "SNOOTS" (INLET FILTERS) TO PREVENT DEBRIS FROM ENTERING THE FACILITIES.
 - ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE FILTERS AND INLET SUMPS FOLLOWING EVERY RUNOFF EVENT OR WHEN SUCH MATERIALS ARE OBSERVED.
 - THE STRUCTURES SHALL BE INSPECTED ON A BI-ANNUAL BASIS FOR PHYSICAL DAMAGE AND CHANGE OF PHYSICAL CONDITIONS. ALL MINOR DEFECTS SHALL BE REPAIRED IMMEDIATELY. OWNER/OPERATOR SHALL CONSULT A REGISTERED PROFESSIONAL ENGINEER FOR THE REPAIR OF MAJOR DEFECTS.
- TYPICAL MAINTENANCE PROCEDURES FOR INLETS WITH A SNOUT WATER QUALITY INSERT INCLUDE, BUT ARE NOT LIMITED TO:
 - POLLUTANTS COLLECTED BY A SNOUT EQUIPPED STRUCTURE WILL CONSIST OF FLOATABLE DEBRIS, TRASH, AND OILS FLOATING ON THE SURFACE OF THE CAPTURED WATER AND GRIT AND SEDIMENT ON THE BOTTOM OF STRUCTURE/SUMP.
 - THE INLET STRUCTURE SHALL BE CLEANED WHEN THE SUMP IS HALF FULL
 - WHEN 6 INCHES OF FLOATABLE DEBRIS AND TRASH ACCUMULATE ON THE SURFACE OF THE STATIC WATER LEVEL, CLEAN AND REMOVE ACCUMULATED FLOATABLE DEBRIS AND TRASH.
 - STRUCTURES SHOULD BE CLEANED IF A SPILL OR OTHER EVENT CAUSES A LARGER THAN NORMAL ACCUMULATION OF POLLUTANTS IN THE STRUCTURE.
 - MAINTENANCE IS BEST ACCOMPLISHED USING A VACUUM TRUCK.
 - ALL COLLECTED WASTES AND POLLUTANTS MUST BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH LOCAL/STATE/FEDERAL ENVIRONMENTAL REQUIREMENTS.
 - TO MAINTAIN THE SNOUT HOODS THEMSELVES, AN ANNUAL INSPECTION OF THE ANTI-SIPHON VENT AND ACCESS HATCH ARE RECOMMENDED. A SIMPLE FLUSHING OF THE VENT, OR A GENTLE RODDING WITH A FLEXIBLE WIRE ARE ALL THAT'S TYPICALLY NEEDED TO MAINTAIN THE ANTI-SIPHON PROPERTIES. THE ACCESS HATCH SHOULD BE OPENED AND CLOSED ONCE A YEAR TO AND CLOSING THE ACCESS HATCH ONCE A YEAR.

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

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PENNSYLVANIA ONE CALL SYSTEM, INC.

925 Irwin Run Road
West Mifflin, Pennsylvania
15122 - 1078



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SERIAL NO. 20183131006, 20183131017, & 20183131027

*CRITICAL STAGE OF BMP INSTALLATION

- INSTALLATION OF THE UNDERGROUND INFILTRATION BASIN BMP IS A CRITICAL CONSTRUCTION STAGE THAT REQUIRES ONSITE PRESENCE OF A LICENSED PROFESSIONAL ENGINEER.
- AN AS-BUILT PLAN SHOWING AS-CONSTRUCTED DETAIL OF THE UNDERGROUND INFILTRATION BASIN IS REQUIRED TO BE PREPARED TO SATISFY THE CONDITIONS OF THE NPDES PERMIT. THE NPDES PERMITTEE (THE OWNER) AND CO-PERMITTEE (CONTRACTOR) ARE RESPONSIBLE FOR RETAINING SERVICES OF A LICENSED SURVEYOR TO PREPARE THE AS-BUILT PLAN. AS-BUILT PLAN SHALL INCLUDE: STONE BED DIMENSIONS; AVERAGE STONE BED INVERT; DISTRIBUTION PIPE SIZE; SLOPE; MATERIALS AND INVERTS; OUTLET STRUCTURE DIMENSIONS INCLUDING GRATE, WEIRS AND ORIFICES; OUTLET PIPE SIZE, SLOPE AND MATERIAL; AND OTHER INFORMATION THAT MAY BE REQUESTED BY THE BOROUGH ENGINEER AND/OR BCCD.

RECYCLING OR DISPOSAL METHODS

- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
- EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN ON THE PROPERTY, DEMOLISHED OR EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE. MATERIALS SLATED FOR REMOVAL FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ANY AND ALL APPLICABLE MUNICIPAL OR OTHER GOVERNMENTAL AGENCY CURRENT REGULATIONS. DEBRIS SHALL NOT BE PERMITTED TO ACCUMULATE ON THE JOB-SITE. DUST AND DIRT SHALL BE HELD TO A MINIMUM DURING DEMOLITION, BY WETTING DOWN, AS REQUIRED. ON SITE BURNING OF MATERIALS WILL NOT BE PERMITTED. AT THE COMPLETION OF WORK, THE ENTIRE AREA INVOLVED WILL BE CLEAN AND LEFT IN A NEAT CONDITION, FREE OF RUBBISH. RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THIS PROJECT SITE SHALL BE UNDERTAKEN IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION RULES AND REGULATIONS.
- SEDIMENT REMOVED FROM CONTROL FACILITIES AS A PART OF REGULAR MAINTENANCE SHALL BE DISPOSED OF UPSLOPE OF THE CONTROL FACILITY.

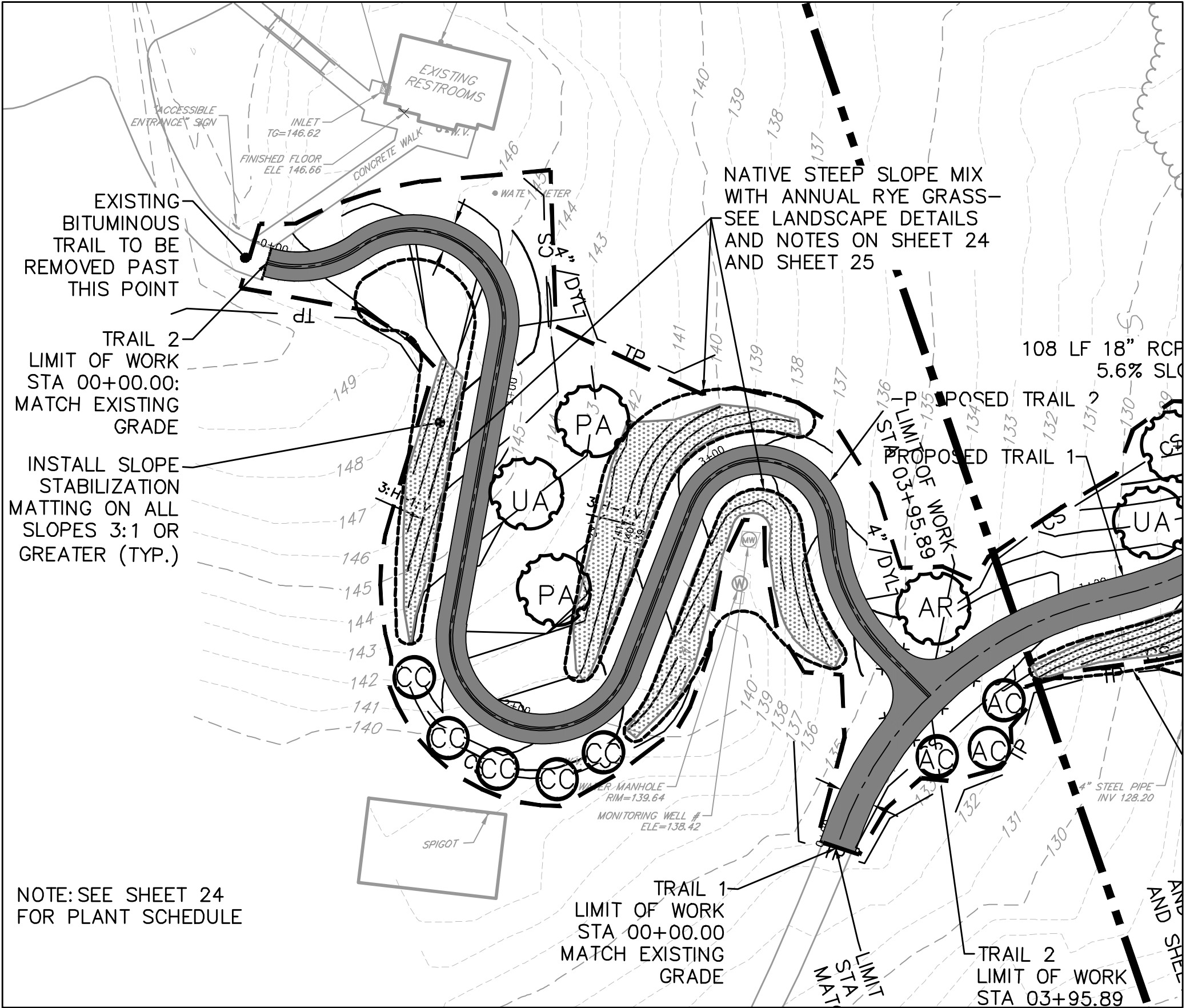
PCSM BMP INSTALLATION SEQUENCE:

- STORM SYSTEM CONSTRUCTION IS TO FOLLOW THE CONSTRUCTION SEQUENCE AND SHALL COMMENCE IN STRICT ACCORDANCE WITH THE CONSTRUCTION SEQUENCE PROVIDED ON THE EROSION AND SEDIMENT CONTROL PLAN, SHEET 10.
- IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE THE UNDERGROUND INFILTRATION BASIN PCSM BMP IS NOT TO BE INSTALLED UNTIL SPECIFIED IN THE E&S SEQUENCE. THIS BMP IS AN INFILTRATION BMP WITH STRUCTURAL PRETREATMENT BMPS AND MUST BE PROTECTED FROM SEDIMENT INTRUSION. ALL BASINS ARE TO BE INSTALLED IN ACCORDANCE WITH NOTES AND DETAILS PROVIDED ON PCSM PLANS.
- ALL STORM SEWER FACILITIES SHALL BE INSTALLED PRIOR TO INSTALLATION OF ANY NEW IMPERVIOUS SITE PAVEMENTS.
- INSTALL EROSION CONTROL FABRIC AS SHOWN ON THE EROSION CONTROL PLAN.
- INSTALL GROUNDCOVER AS SOON AS POSSIBLE UPON INSTALLATION FINAL GRADES AND TOPSOIL.
- SEDIMENT PROTECTION SHOWN ON THE EROSION CONTROL PLAN SHALL REMAIN IN PLACE UNTIL DRAINAGE AREAS ARE COMPLETELY STABILIZED. BASIN PLANTINGS SHALL BE ESTABLISHED PRIOR TO THE ISSUANCE OF A NOTICE OF TERMINATION.

LIMIT OF DISTURBANCE FOR
CONSTRUCTION: 1.9 ACRES.
NPDES PERMIT BOUNDARY IS THE
PROPERTY BOUNDARY.

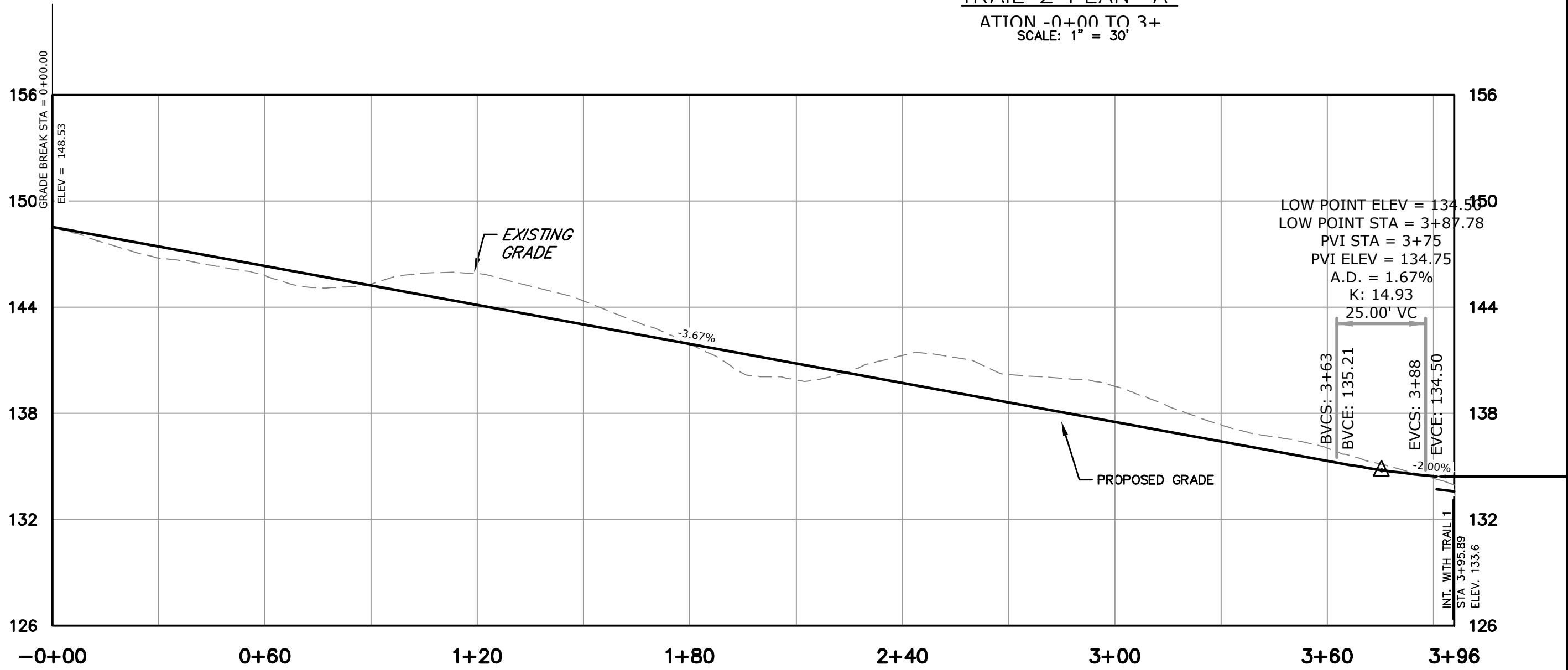
LEGEND

- PROPOSED TRAIL
- PROPOSED SLOPE MATTING (3:1 SLOPES OR GREATER)
- LIMIT OF DISTURBANCE
- TP TREE PROTECTION FENCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS



TRAIL 2 PLAN 'A'

ATTN: -0+00 TO 3+
SCALE: 1" = 30'



TRAIL 2 PROFILE - (PLAN A)

STATION -0+00 TO 3+96

SCALE: HORZ 1"=30'

VERT 1"=6'

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

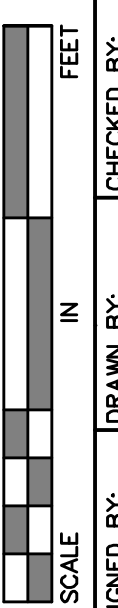
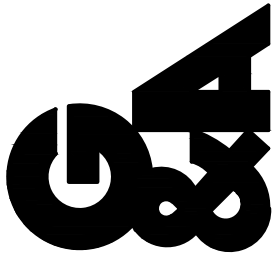
JOB NO.:	2018-05040	TAX MAP PARCEL NO.:	22-03-004, 22-03-007
MUNICIPAL FILE NO.:	XX	OWNER:	COUNTY OF BUCKS 95 E COURT STREET #418 PHILADELPHIA, PA 19101 (215)-348-6000
TOTAL LOTS:	2	DATE:	01/24/2020
TOTAL AREA:	XX AC.	SCALE:	1"=30'
DESIGNED BY:	TPB	DRAWN BY:	TPB
CHECKED BY:	TPB	SCALE:	1"=30'

TRAIL DEVELOPMENT PLAN
PCSM PLAN & PROFILE A (30 SCALE)
NESHAMINY GREENWAY TRAIL – CORE CREEK
MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

10 OF 31

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CORPORATE HEADQUARTERS
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CHECKED BY: DAW
DRAWN BY: TPB
SCALE: 1"=30'

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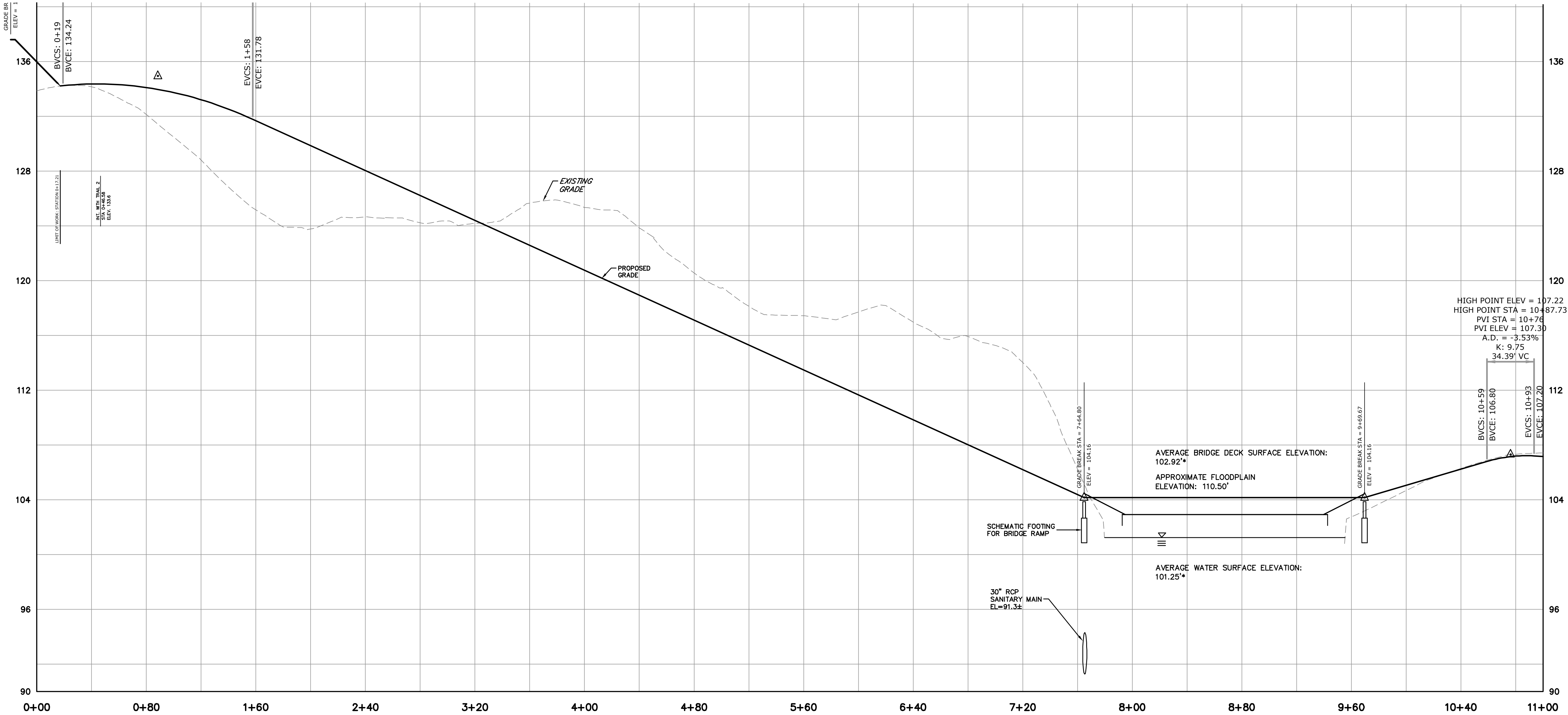
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PA LAW REQUIRES THREE WORKING DAYS
NOTICE TO UTILITIES BEFORE YOU EXCAVATE,
DRILL, BLAST OR DEMOLISH

11 OF 31

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TRAIL 1 PROFILE - (PLAN B)
STATION 0+00 TO 11+00
SCALE: HORIZ 1"=40'
VERT 1"=4'

NPDES COMPLIANCE CHECKLIST – PCSM

I. STREAM INTEGRITY PRESERVATION– SECTION 102.8(B)(1)

THE PROPOSED BMPs, AS PART OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, HAVE BEEN PLANNED AND PROVIDED IN ORDER TO PRESERVE THE INTEGRITY OF STREAM CHANNELS, AND TO MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITY OF THE RECEIVING STREAM.

II. PREVENT STORMWATER RUNOFF RATE INCREASE– SECTION 102.8(B)(2)

THE PROPOSED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN PREVENTS AN INCREASE IN THE RATE OF STORMWATER RUNOFF THROUGH THE USE OF INFILTRATION BMPs.

III. MINIMIZE STORMWATER RUNOFF VOLUME INCREASE– SECTION 102.8(B)(3)

THE PROPOSED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN MINIMIZES AN INCREASE IN STORMWATER RUNOFF VOLUME THROUGH THE USE OF INFILTRATION BMPs.

IV. MINIMIZE IMPERVIOUS AREAS– SECTION 102.8(B)(4)

THE PROPOSED DEVELOPMENT MINIMIZES IMPERVIOUS AREAS BY PROVIDING AN EFFICIENT LAYOUT OF

BUILDINGS, DRIVEWAYS, AND PARKING LOTS, WHILE PROVIDING GRASS AND VEGETATED AREAS.

V. MAXIMIZE DRAINAGE PROTECTION– SECTION 102.8(B)(5)

THE EXISTING DRAINAGE FEATURES AND VEGETATION SHALL BE PROTECTED TO THE MAXIMUM EXTENT PRACTICAL. TO ACHIEVE THIS GOAL, THE AREAS ON–SITE, OUTSIDE OF THE LIMITS OF DISTURBANCE ARE SUBJECT TO THE FOLLOWING CRITERIA:

- AREAS SHALL NOT BE SUBJECT TO GRADING OR MOVEMENT OF EXISTING SOIL.
- EXISTING VEGETATION IN A HEALTHY CONDITION MAY NOT BE ALTERED OR REMOVED, INCLUDING TREES AND DENSE BRUSH.
- INVASIVE NON–NATIVE VEGETATION MAY BE REMOVED.
- PRUNING OR OTHER REQUIRED MAINTENANCE OF VEGETATION IS PERMITTED. ADDITIONAL PLANTING IS PERMITTED.
- AREAS SHALL BE PROTECTED AND DELINEATED IN THE FIELD.

VI. MINIMIZE LAND CLEARING AND GRADING– SECTION 102.8(B)(6)

MINIMIZED LAND CLEARING AND GRADING SHALL BE ACHIEVED TO THE MAXIMUM EXTENT PRACTICAL. IN ORDER TO MINIMIZE LAND CLEARING AND GRADING, THE

AREAS BETWEEN TREE PROTECTION FENCING AND PROPERTY BOUNDARIES ARE SUBJECT TO THE FOLLOWING CRITERIA:

- AREAS SHALL NOT BE SUBJECT TO GRADING OR MOVEMENT OF EXISTING SOIL.
- EXISTING VEGETATION IN A HEALTHY CONDITIONS MAY NOT BE ALTERED OR REMOVED, INCLUDING TREES AND DENSE BRUSH.
- INVASIVE NON–NATIVE VEGETATION MAY BE REMOVED.
- PRUNING OR OTHER REQUIRED MAINTENANCE OF VEGETATION IS PERMITTED. ADDITIONAL PLANTING IS PERMITTED.
- AREAS SHALL BE PROTECTED AND DELINEATED IN THE FIELD.

VII. MINIMIZE SOIL COMPACTION– SECTION 102.8(B)(7)

THE LIMIT OF DISTURBANCE AREA HAS BEEN MINIMIZED TO THE EXTENT PRACTICAL, AND ALL OTHER AREAS SHALL NOT BE DISTURBED AND ARE SUBJECT TO THE FOLLOWING CRITERIA:

- AREAS SHALL NOT SUBJECT TO GRADING OR MOVEMENT OF EXISTING SOIL.
- EXISTING VEGETATION IN A HEALTHY CONDITION MAY NOT BE ALTERED OR REMOVED, INCLUDING TREES AND DENSE BRUSH.
- INVASIVE NON–NATIVE VEGETATION MAY BE REMOVED.

- PRUNING OR OTHER REQUIRED MAINTENANCE OF VEGETATION IS PERMITTED. ADDITIONAL PLANTING IS PERMITTED.
- AREAS SHALL BE PROTECTED AND DELINEATED IN THE FIELD.

VII. OTHER CONTROLS TO MINIMIZE RUNOFF–SECTION 102.8(B)(8)

OTHER STRUCTURAL AND/OR NONSTRUCTURAL BMPs SHALL BE UTILIZED TO PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF. SUCH BMPs ARE PROVIDED ON–SITE:

- SUBSURFACE INFILTRATION BASIN (BMP 6.4.3)

IX. SOIL AND GEOLOGIC STUDIES–SECTION 102.8(F)(1)

- SEE SHEET 3 – E&S PLAN A (30 SCALE)
- PROJECT WASTES–SECTION 102.8(F)(11)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON–SITE:

- E&S BMP – SILT FENCE & COMPOST FILTER SOCK
- E&S BMP – EROSION CONTROL MATTING
- E&S BMP – REGULATED FILL MATERIALS

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SERIAL NO. 20183131006, 20183131017, & 20183131027

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

JOB NO.:	2018–05040	TAX MAP PARCEL NO.:	22–03–004, 22–03–007
MUNICIPAL FILE NO.:	XX	OWNER:	COUNTY OF BUCKS 55 E COURT STREET #418 LYNDENHURST, PA 18901 (215)–348–6000
TOTAL LOTS:	2	TOTAL AREA:	XX AC.
SCALE:	1"=40'	DATE:	01/24/2020
DESIGNED BY:	TPB	DRAWN BY:	TPB
CHECKED BY:	DW, CG		

TRAIL DEVELOPMENT PLAN
PCSM PROFILE B (40 SCALE)

NESHAMINY GREENWAY TRAIL – CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

12 OF 31

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15122 - 1078

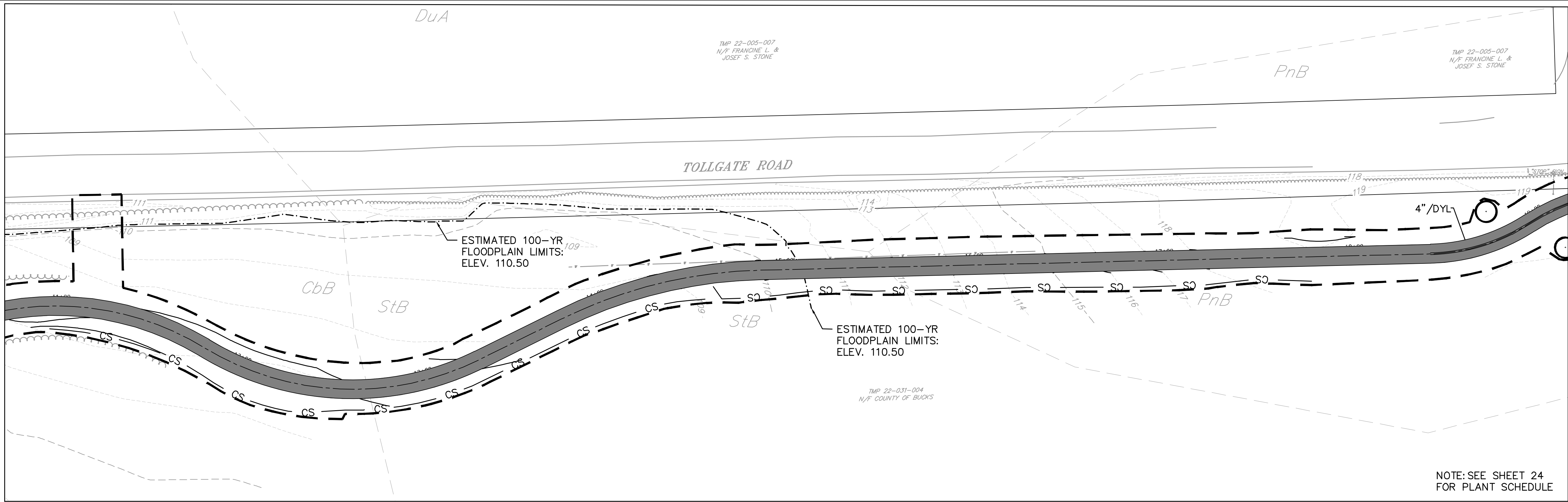


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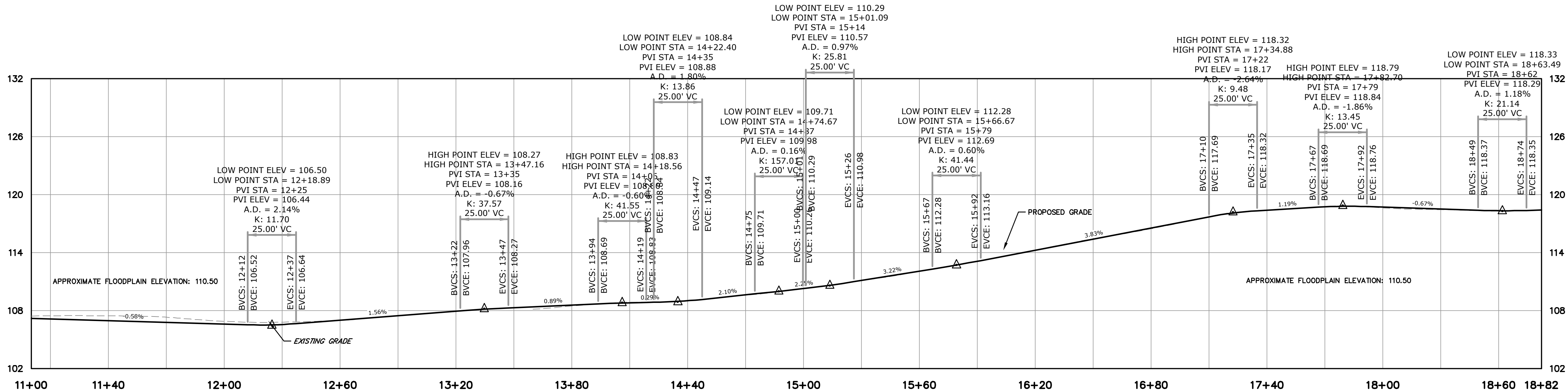
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SERIAL NO. 20183131006, 20183131017, & 20183131027



TRAIL 1 PLAN 'C'

STATION 11+00 TO 18+82
SCALE: 1" = 30'



TRAIL 1 PROFILE - (PLAN C)

STATION 11+00 TO 18+82

SCALE: HORIZ 1"=30'

VERT 1"=6'

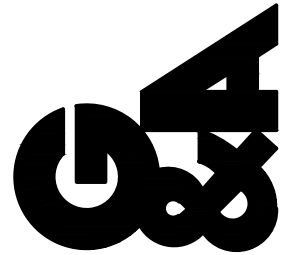
LEGEND

- PROPOSED TRAIL
- LIMIT OF DISTURBANCE
- TP TREE PROTECTION FENCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS

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JOB NO.: 2018-05040

TAX MAP PARCEL NO.: 22-03-004, 22-03-007

MUNICIPAL FILE NO.: XX

OWNER: COUNTY OF BUCKS
55 E COURT STREET #318
DOWNTOWN, PA 19001
(215) 346-6000

TOTAL AREA: XX AC.

DESIGNED BY: TPB

DRAWN BY: TPB

CHECKED BY: DW, CS

DATE: 01/24/2020

SCALE: 1"=30'

SCALE: 1"=30'

SCALE: 1"=30'

SCALE: 1"=30'

SCALE: 1"=30'

SCALE: 1"=30'

SCALE: 1"=30'

TRAIL DEVELOPMENT PLAN

PCSM PLAN & PROFILE C (30 SCALE)

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

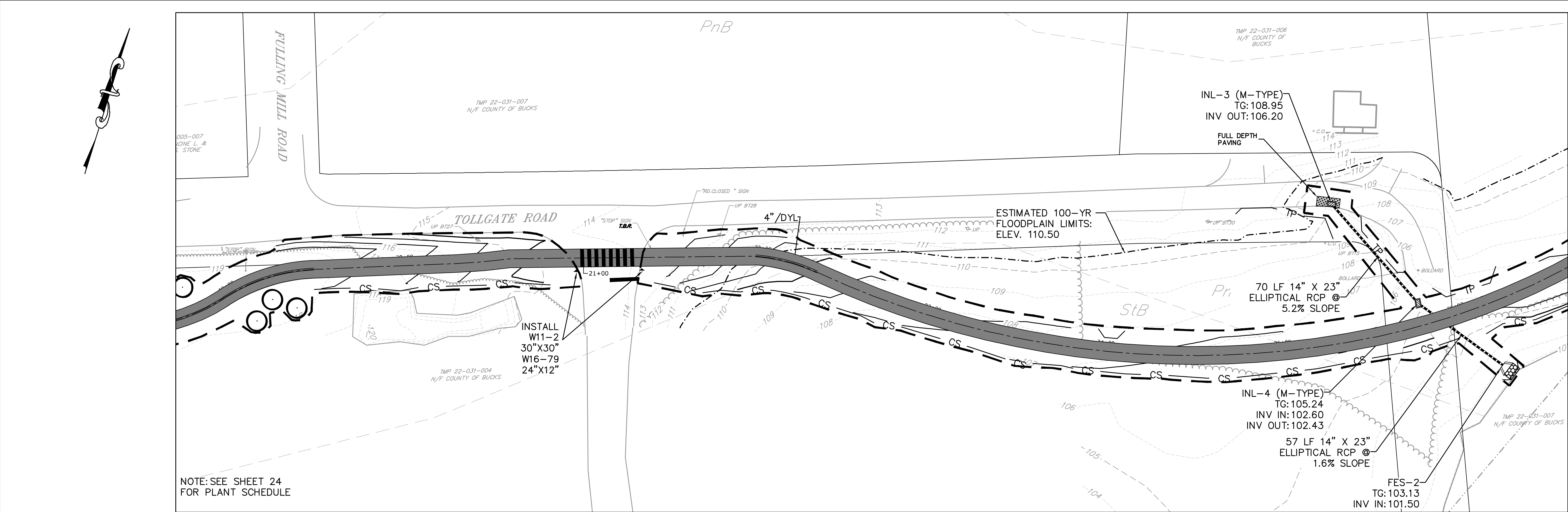
SHEET NO.:

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1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

NOT FOR CONSTRUCTION

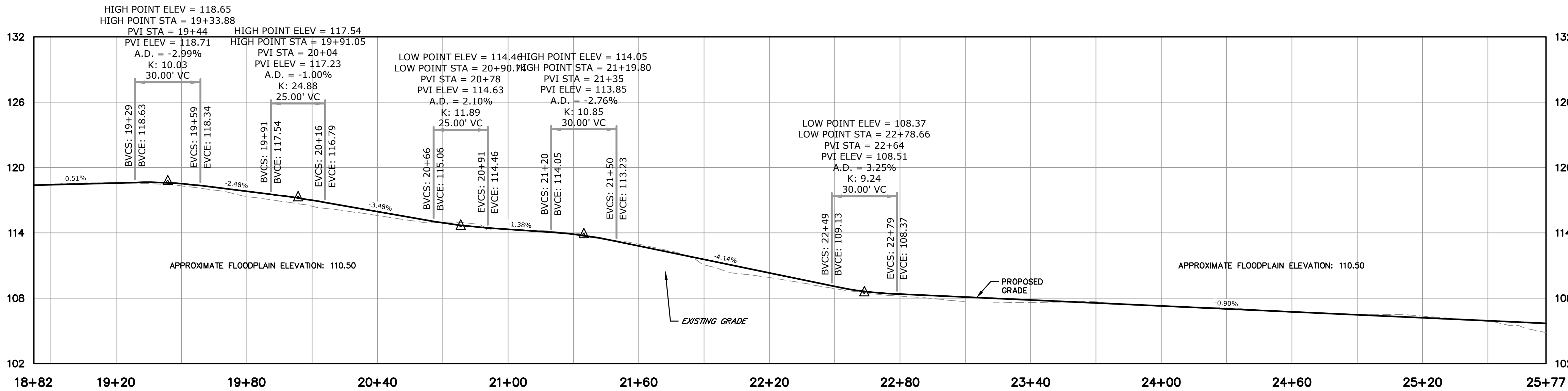
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TRAIL 1 PLAN 'D'
STATION 18+82 TO 25+77
SCALE: 1" = 30'

LEGEND

- PROPOSED TRAIL
- LIMIT OF DISTURBANCE
- TP TREE PROTECTION FENCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS
- FLOW TRANSITION MAT



TRAIL 1 PROFILE - (PLAN D)
STATION 18+82 TO 25+77
SCALE: HORIZ 1"=30'
VERT 1"=6'

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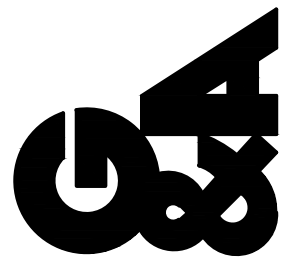
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SERIAL NO. 20183131006, 20183131017, & 20183131027

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JOB NO.:	2018-05040	TAX MAP PARCEL NO.:	22-03-004, 22-03-007
MUNICIPAL FILE NO.:	XX	DESIGNED BY:	TPB
DRAWN BY:	TPB	CHECKED BY:	DW, CS
DATE:	01/24/2020	SCALE:	1"=30'

OWNER:	COUNTY OF BUCKS 55 E COURT STREET DOVER, PA 19901 (215)-346-6000
TOTAL AREA:	XX AC.
TOTAL LOTS:	2
DATE:	01/24/2020

TRAIL DEVELOPMENT PLAN
PCSM PLAN & PROFILE D (30 SCALE)
NESHAMINY GREENWAY TRAIL - CORE CREEK
MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:	14 OF 31
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1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

NOT FOR CONSTRUCTION

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Site Plans.dwg Layout: 15 PCSM PLAN E (30 SCALE) Plotted By: dwitte, on Wed Sep 16, 2020 at 10:26am

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

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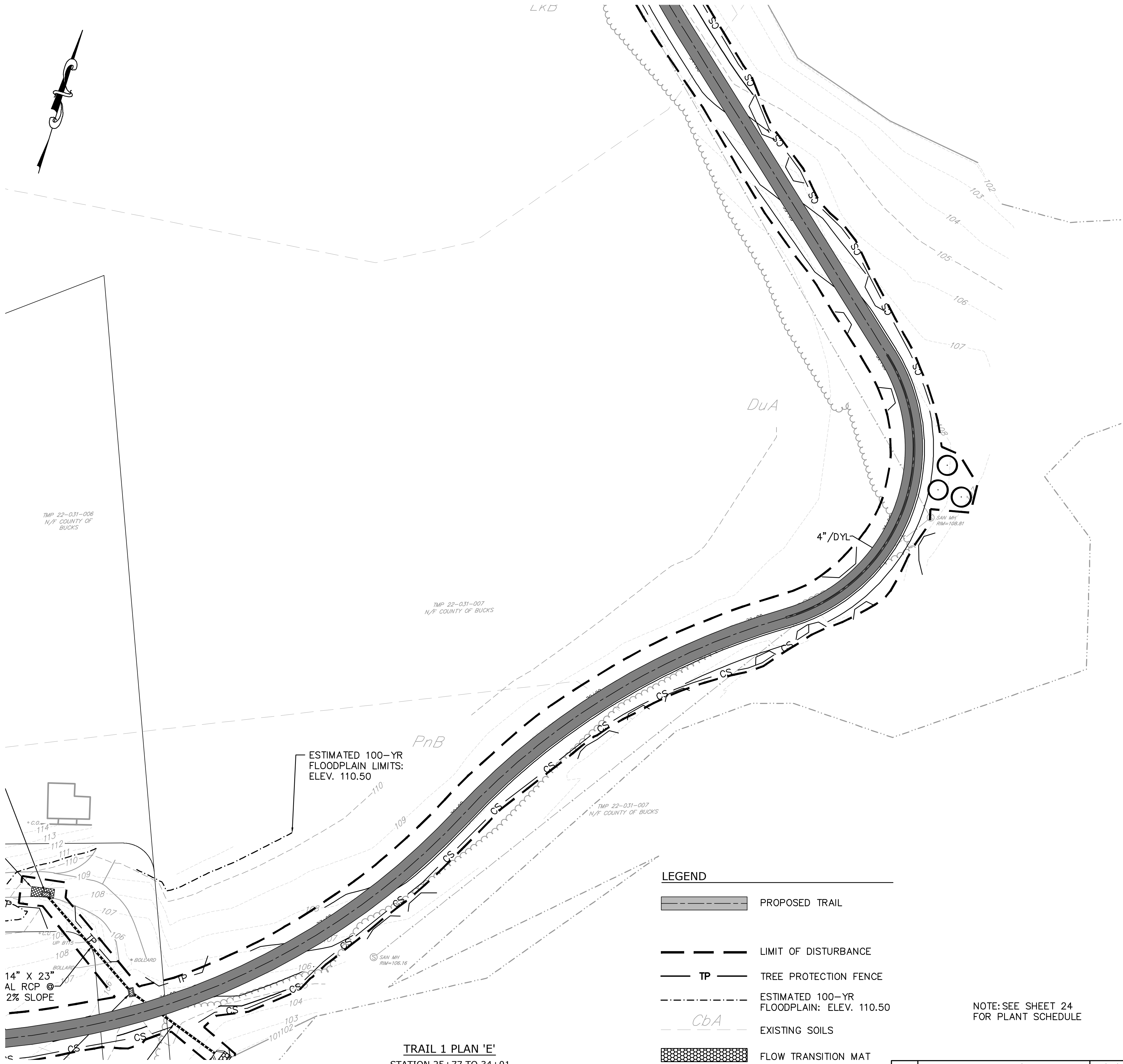
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West Mifflin, Pennsylvania
15122 - 1076



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LEGEND	
	PROPOSED TRAIL
	LIMIT OF DISTURBANCE
	TREE PROTECTION FENCE
	ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
	EXISTING SOILS
	FLOW TRANSITION MAT

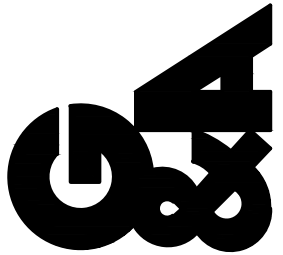
NOTE: SEE SHEET 24
FOR PLANT SCHEDULE

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

TRAIL DEVELOPMENT PLAN
PCSM PLAN E (30 SCALE)
NESHAMINY GREENWAY TRAIL - CORE CREEK
MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:
15 OF 31

OWNER:	JOB NO.:	TAX MAP PARCEL NO.:
COUNTY OF BUCKS 55 E COURT STREET #418 DOWNTOWN, PA 19001 (215)-346-6000	2018-05040	22-03-004, 22-03-007
TOTAL AREA: XX AC.	MUNICIPAL FILE NO.:	XX
TOTAL LOTS: 2	SCALE:	0 30 60 IN FEET
DATE: 01/24/2020	DESIGNED BY: TPB	CHECKED BY: DW, CS



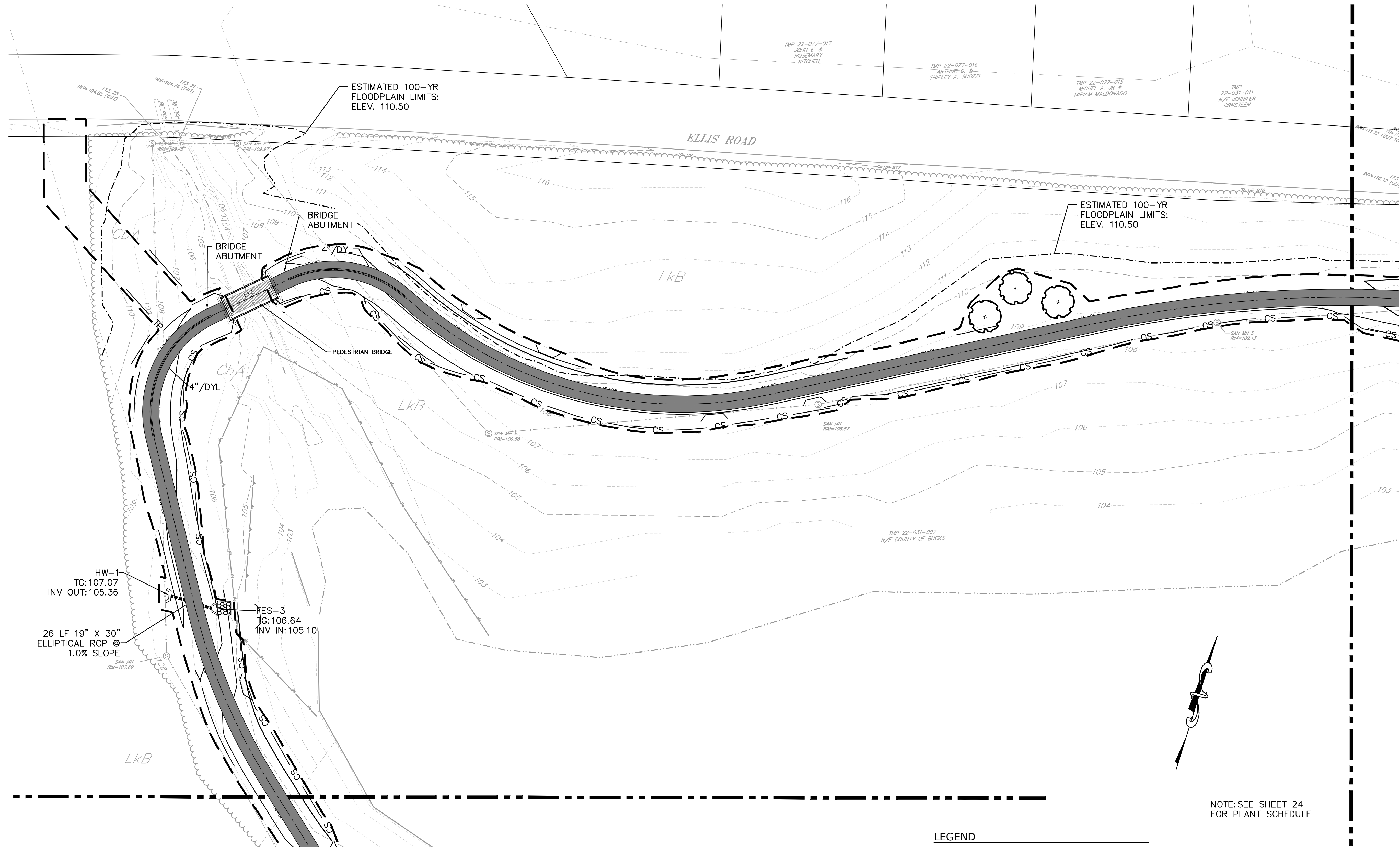
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TRAIL 1 PLAN 'F'

STA 34+01 TO 44+55
SCALE: 1" = 30'

LEGEND

- PROPOSED TRAIL
- LIMIT OF DISTURBANCE
- TP TREE PROTECTION FENCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS
- FLOW TRANSITION MAT

NOTE: SEE SHEET 24
FOR PLANT SCHEDULE

TRAIL DEVELOPMENT PLAN
PCSM PLAN F (30 SCALE)

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

16 OF 31

JOB NO.: 2018-05040

MUNICIPAL FILE NO.: XX

TAX MAP PARCEL NO.: 22-031-004, 22-031-007

OWNER: COUNTY OF BUCKS
55 E COURT STREET
POLESTOWN, PA 19051
(215)-346-6000

TOTAL AREA: XX AC.
TOTAL LOTS: 2
DATE: 01/24/2020

DESIGNED BY: TPB

DRAWN BY: TPB

CHECKED BY: DW, CS

SCALE: 0 30 60 FEET

XX

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T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Site Plans.dwg Layout: 17 PCSM PLAN G (30 SCALED) Plotted By: dwatte, on Wed Sep 16, 2020 at 10:27am

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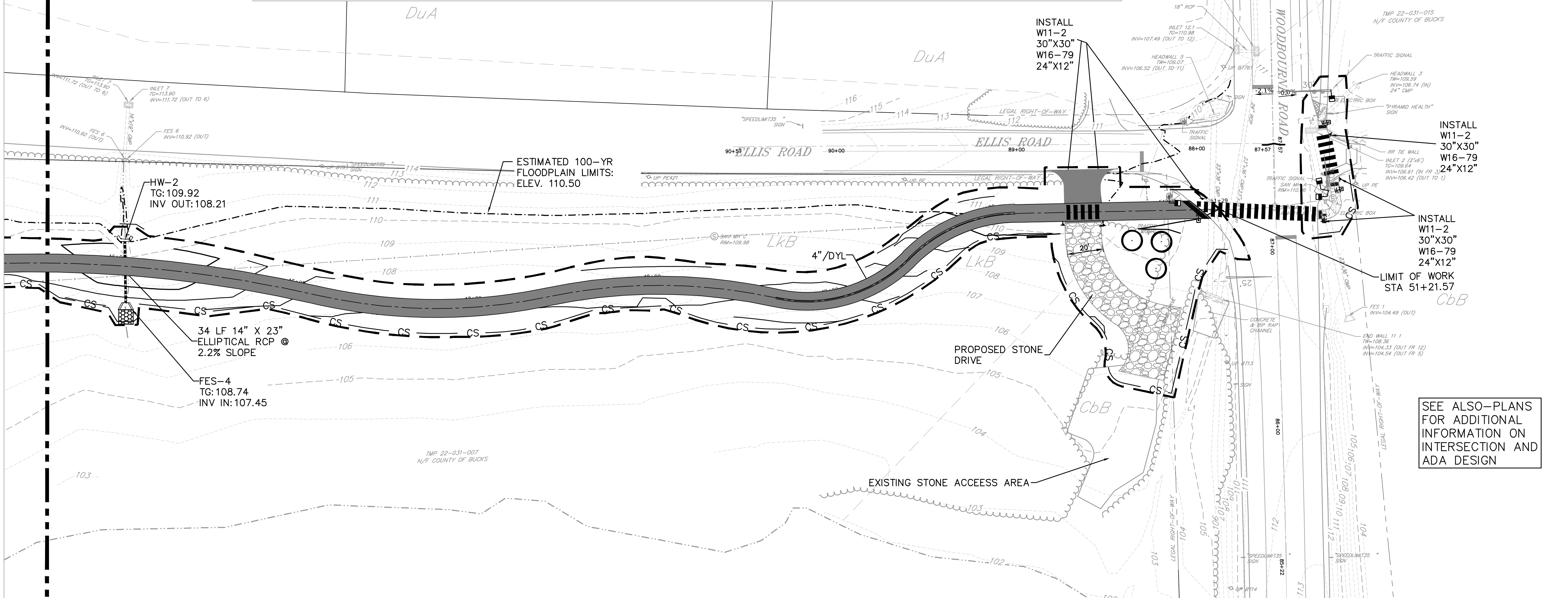
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SERIAL NO. 20183131006, 20183131017, & 20183131027

SIGN TABULATION													
SERIES	OWNER	IN/RI/R EL/RM/ ER	SR	SERIES DESIGNATION	MESSAGE	SEGMENT	OFFSET	WIDTH	HEIGHT	LEFT/ RIGHT/ OVERHEAD	ASCENDING/ DESCENDING/ INTERSECTION	STATION & OFFSET	
A	M	IN	2033	W11-2	PEDESTRIAN	0050	3538	30	30	L	A	12+63	15.81
B	M	IN	2033	W16-7P	DIAGONAL DOWNWARD ARROW	0050	3538	24	12	L	A	12+63	15.81
A	M	IN	2033	W11-2	PEDESTRIAN	0050	3522	30	30	R	A	12+47	18.51
B	M	IN	2033	W16-7P	DIAGONAL DOWNWARD ARROW	0050	3522	24	12	R	A	12+47	18.51
A	M	IN	2033	W11-2	PEDESTRIAN	0050	3522	30	30	R	A	12+47	18.51
B	M	IN	2033	W16-7P	DIAGONAL DOWNWARD ARROW	0050	3522	24	12	R	A	12+47	18.51



TRAIL 1 PLAN 'G'
STATION 44+55 TO 51+22
SCALE: 1" = 30'

LEGEND

- PROPOSED TRAIL
- LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS
- FLOW TRANSITION MAT

NOTE:SEE SHEET 24
FOR PLANT SCHEDULE

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

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JOB NO.: 2018-05040
MUNICIPAL FILE NO.: XX
TAX MAP PARCEL NO.: 22-031-004, 22-031-007

OWNER: COUNTY OF BUCKS
55 E COURT STREET
LEWISTOWN, PA 19001
(215) 348-6000

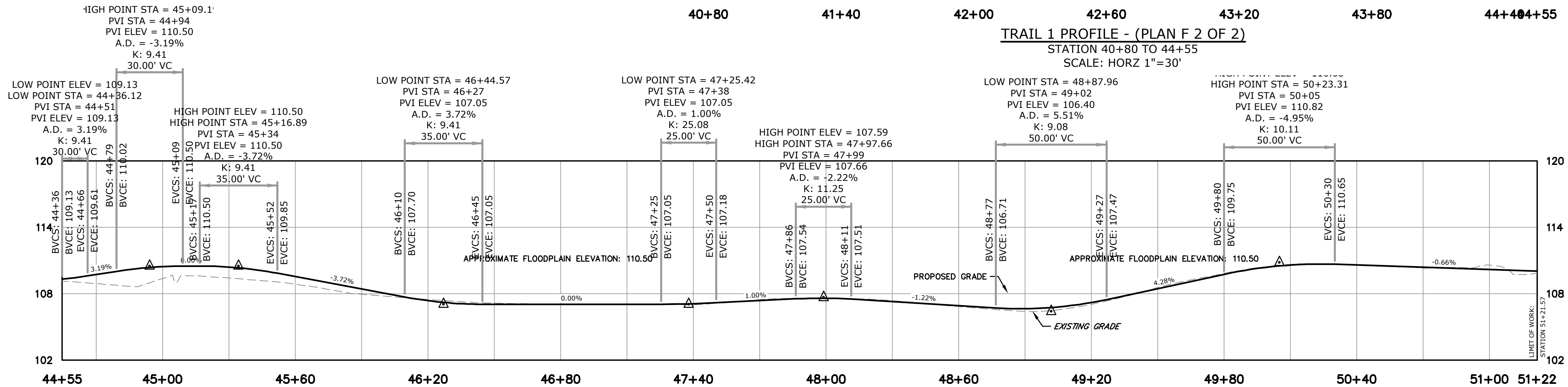
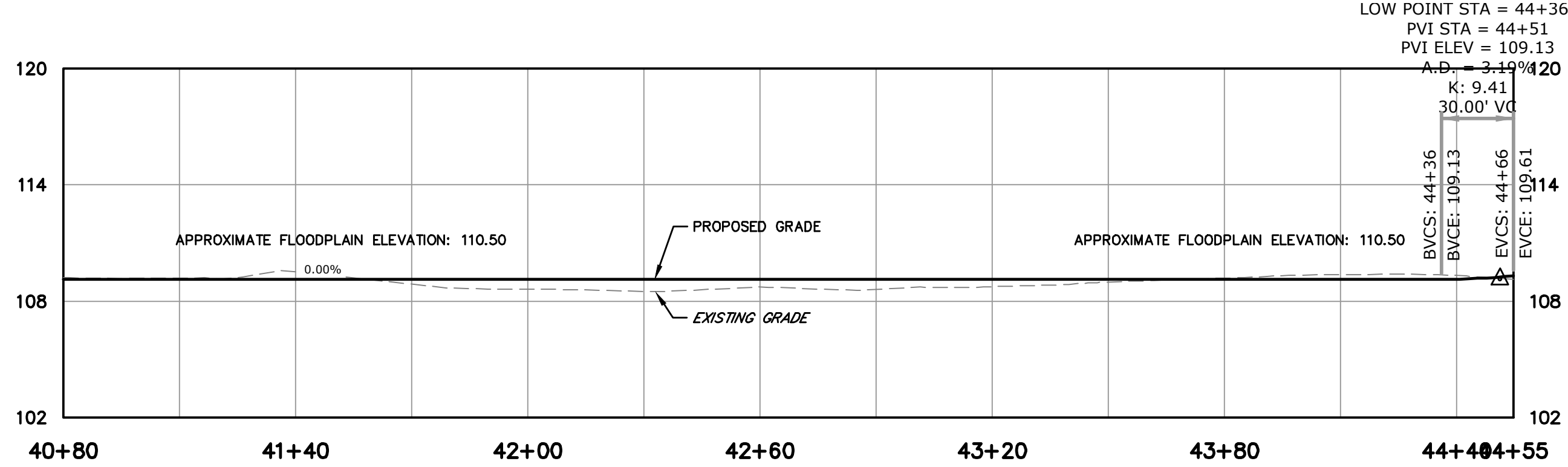
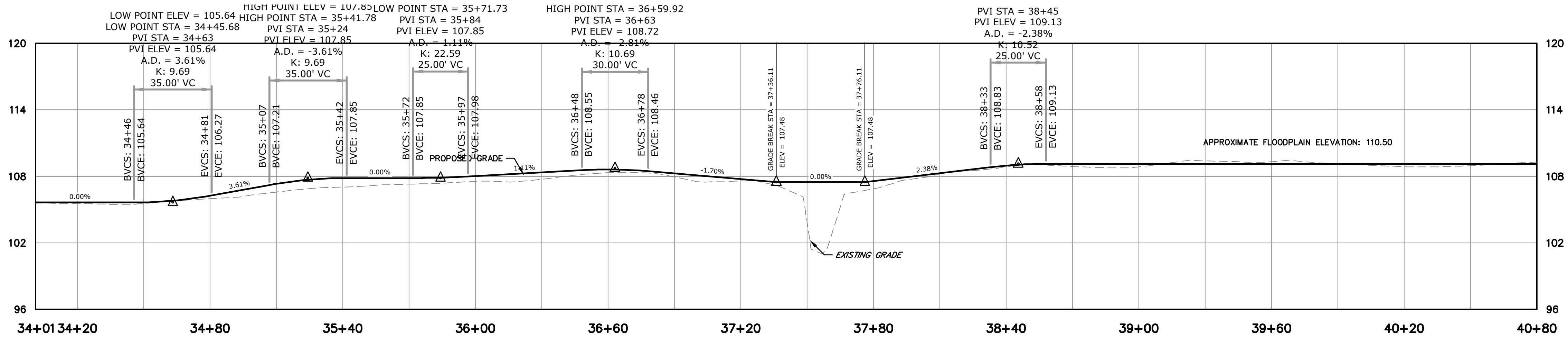
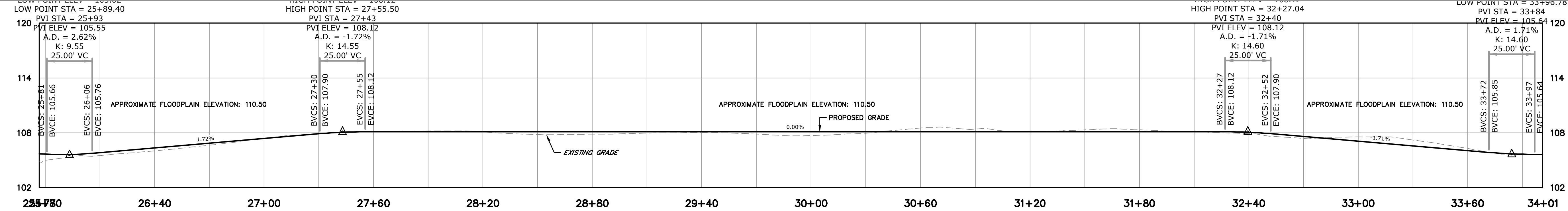
TOTAL LOTS: 2
TOTAL AREA: XX AC.
DATE: 01/24/2020

DESIGNED BY: TPB
DRAWN BY: TPB
CHECKED BY: DW, CG

TRAIL DEVELOPMENT PLAN
PCSM PLAN G (30 SCALE)
NESHAMINY GREENWAY TRAIL - CORE CREEK
MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.: 17 OF 31

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Site Plans.dwg Layout: 18 PCSM PROFILE E F & G (30 SCALE) Plotted By: dwalle, on Wed Sep 16, 2020 at 10:27am



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West Mifflin, Pennsylvania
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SERIAL NO. 20183131006, 20183131017, & 20183131027

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

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JOB NO.: 2018-05040
MUNICIPAL FILE NO.: 22-03-004, 22-03-007
TAX MAP PARCEL NO.: XX

OWNER: COUNTY OF BUCKS
55 E COURT STREET
DOYLESTOWN, PA 18901
(215)-346-6000

TOTAL AREA: XX AC.
TOTAL LOTS: 2
DATE: 01/24/2020
SCALE: 1"=30'

TRAIL DEVELOPMENT PLAN
PCSM PROFILE E, F, & G (30 SCALE)

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.: 18 OF 31

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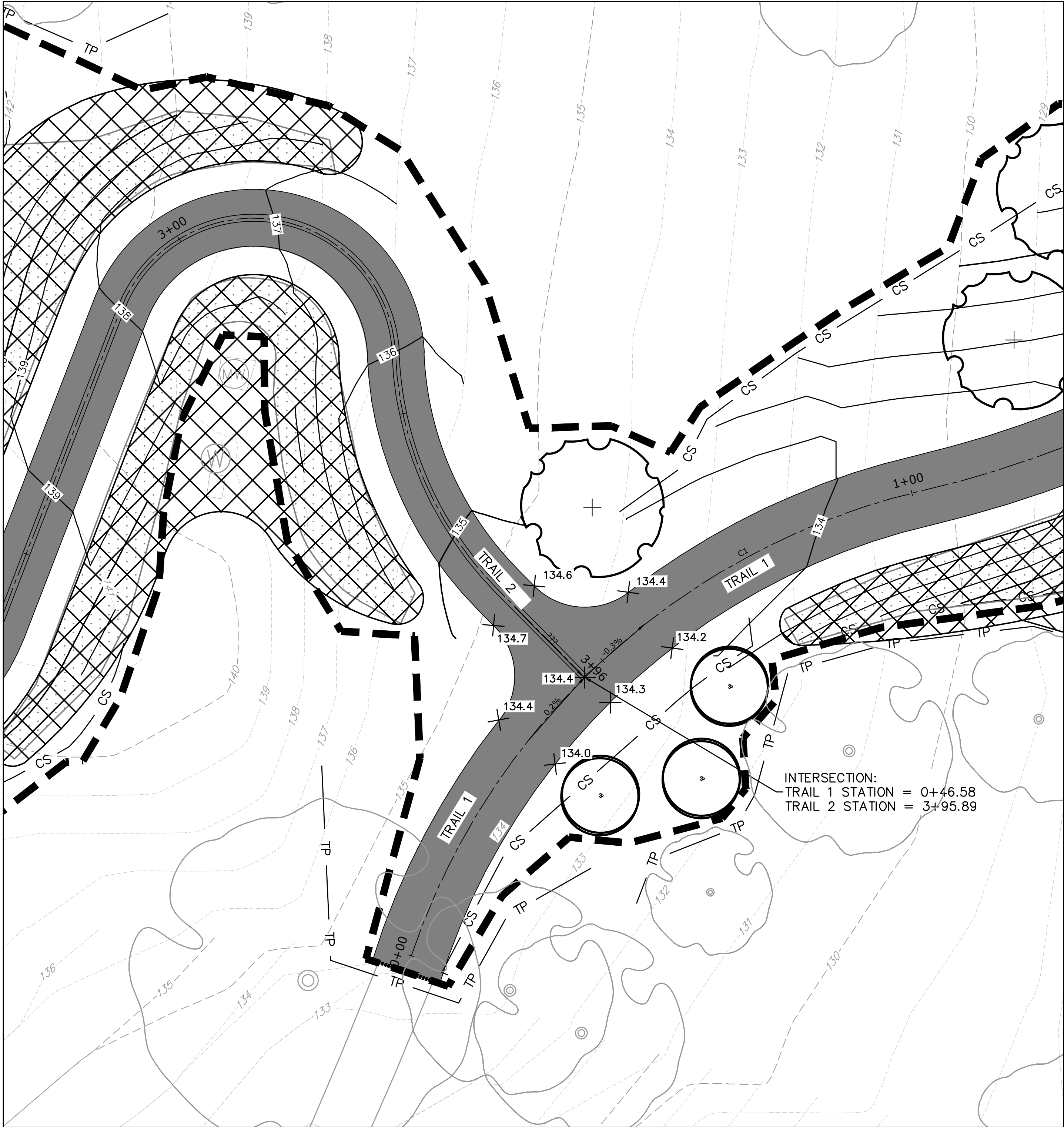
SERIAL NO. 20183131006, 20183131017, & 20183131027

LEGEND

- PROPOSED TRAIL
- PROPOSED SLOPE MATTING (3:1 SLOPES OR GREATER)
- LIMIT OF DISTURBANCE
- TP TREE PROTECTION FENCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS

TRAIL INTERSECTION DETAIL

SCALE: 1" = 10'



INTERSECTION:
TRAIL 1 STATION = 0+46.58
TRAIL 2 STATION = 3+95.89

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

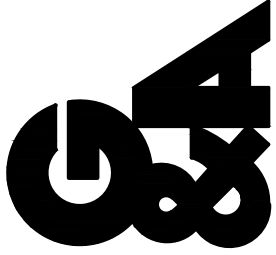
TRAIL DEVELOPMENT PLAN
TRAIL INTERSECTION PLAN DETAIL
NESHAMINY GREENWAY TRAIL – CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

19 OF 31

OWNER:	JOB NO.:	TAX MAP PARCEL NO.:
COUNTY OF BUCKS 55 E COURT STREET #418 PHILADELPHIA, PA 19101 (215)-348-6000	2018-05040	22-03-004, 22-03-007
TOTAL AREA: XX AC.	MUNICIPAL FILE NO.:	SCALE
TOTAL LOTS: 2	XX	0 10 20 FEET
DATE: 01/24/2020	DESIGNED BY: TPB	DRAWN BY: TPB
SCALE: 1"=10'	CHECKED BY: DW, CG	

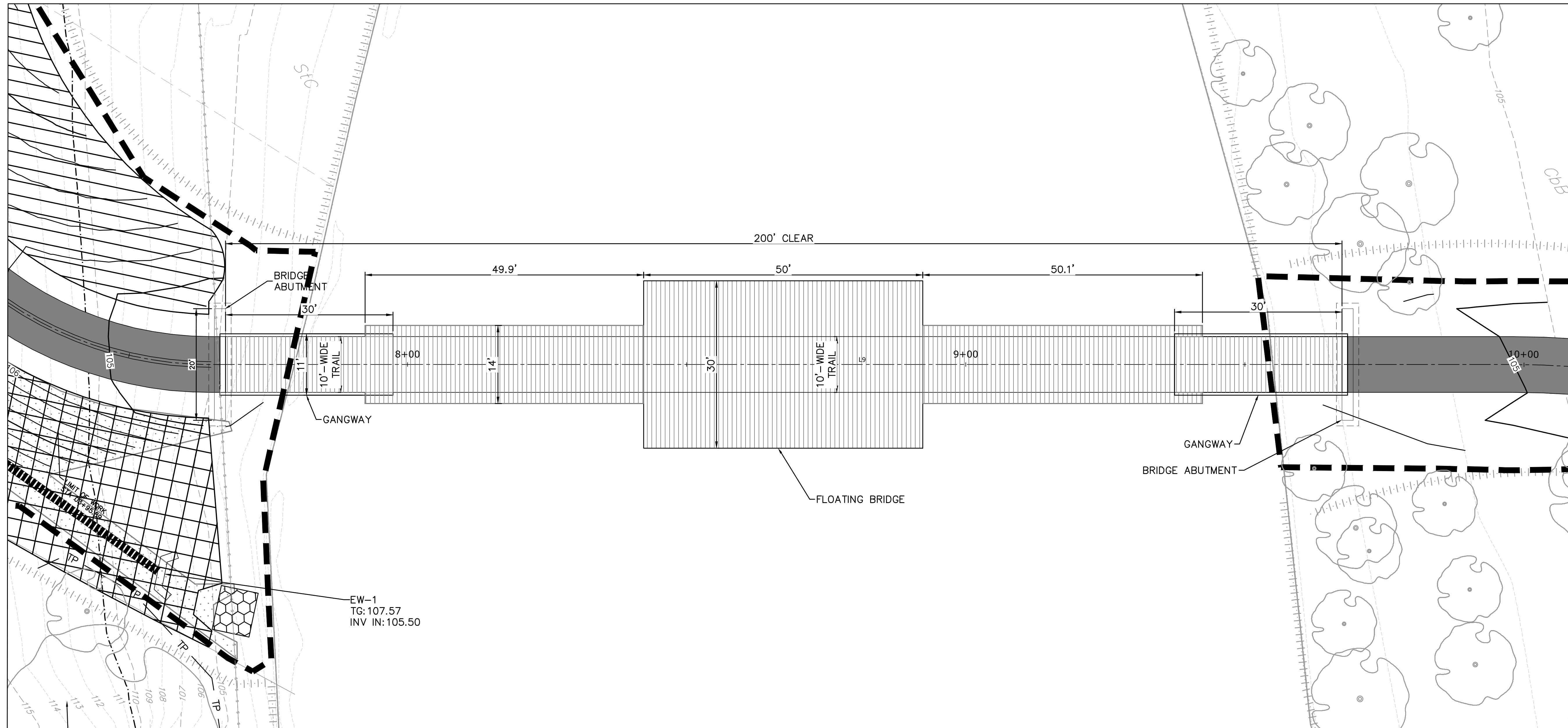


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ENGINEERING & CONSULTING SERVICES

CORPORATE HEADQUARTERS
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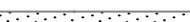
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FLOATING BRIDGE PLAN DETAIL
SCALE: 1" = 10'

- LEGEND**

	PROPOSED TRAIL
	PROPOSED SLOPE MATTING (3:1 SLOPES OR GREATER)
	LIMIT OF DISTURBANCE
	TREE PROTECTION FENCE
	ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
	EXISTING SOILS

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

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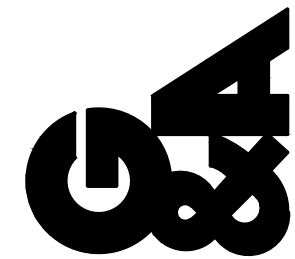


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PA LAW REQUIRES THREE WORKING DAYS
NOTICE TO UTILITIES BEFORE YOU EXCAVATE
DRILL, BLAST OR DEMOLISH

SERIAL NO. 20183131006, 20183131017, & 20183131027



OWNER: COUNTY OF BUCKS 14318 DOWNTOWN, PA 18901 (215)-348-6000	JOB NO.: 2018-05040	TAX MAP PARCEL NO.: Zs-031-00A, Zs-031-007								
	MUNICIPAL FILE NO.: XX									
<table><tr><td>10</td><td>0</td><td>10</td><td>20</td></tr><tr><td>SCALE</td><td>IN</td><td>FEET</td><td></td></tr></table>			10	0	10	20	SCALE	IN	FEET	
10	0	10	20							
SCALE	IN	FEET								
DATE: 01/24/2020	TOTAL AC. XX AC.	TOTAL LOTS: 2								
DESIGNED BY: TFR	DRAWN BY: TFR	CHECKED BY: JNW								
SCALE: 1"=10'										

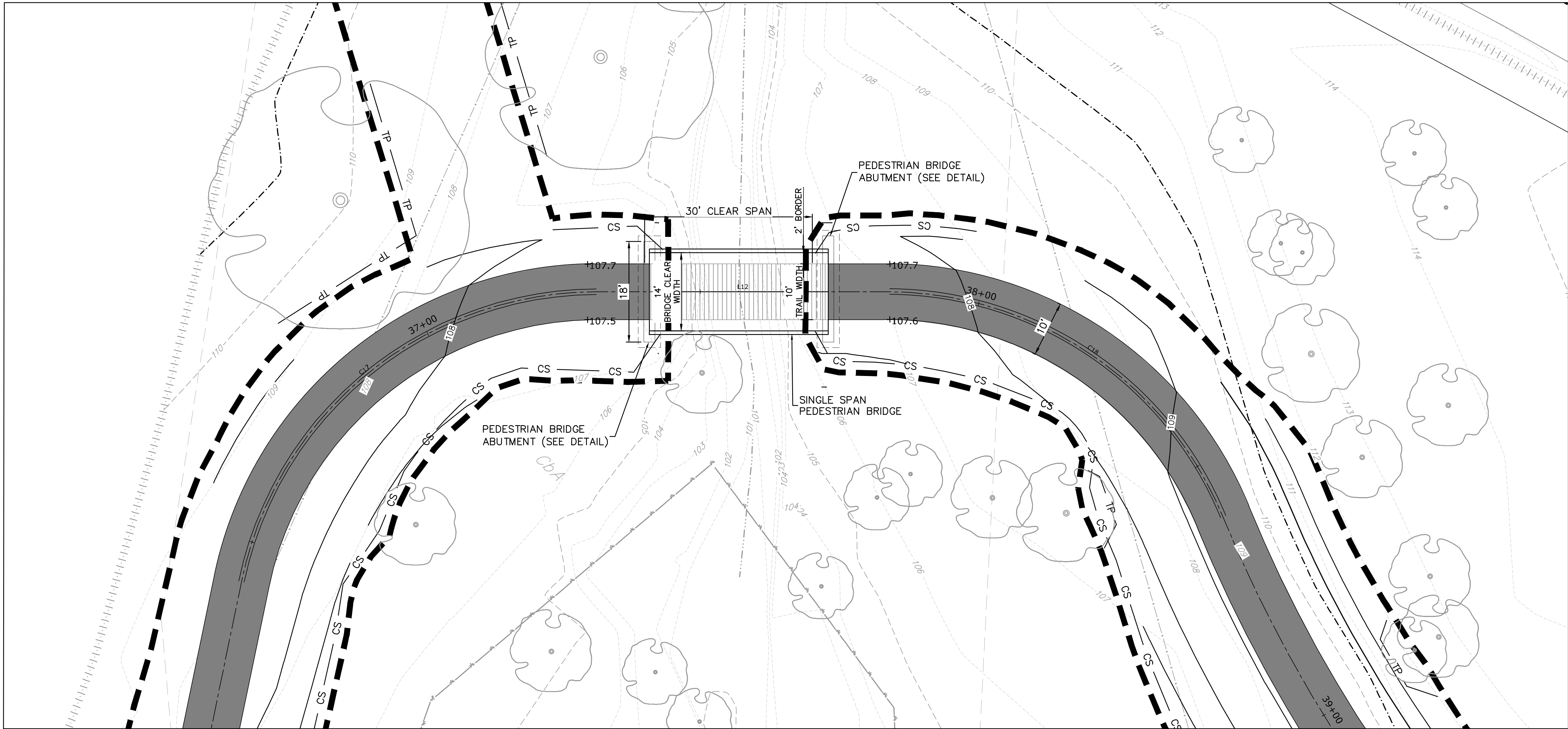
TRAIL DEVELOPMENT PLAN
FLOATING BRIDGE PLAN DETAIL

NESHAMINY GREENWAY TRAIL – CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\Site FEATURE_PLAN_DETAIL.dwg Layout: 21 PEDESTRIAN BRIDGE PLAN DETAIL Plotted By: dwalte, on Wed Sep 16, 2020 at 10:28am



FLOATING BRIDGE PLAN DETAIL

SCALE: 1" = 10'

PLAN NOTES:

1. THE PEDETRIAN TRAIL SHALL MAINTAIN 1'-0" CLEARANCE FROM BRIDGE RAILINGS ON BOTH SIDES.
2. INSTALLATION OF BOLLARDS IS REQUIRED TO RESTRICT THE MOVEMENT OF VEHICLES OVER THE BRIDGE.

LEGEND

- PROPOSED TRAIL
- PROPOSED SLOPE MATTING (3:1 SLOPES OR GREATER)
- LIMIT OF DISTURBANCE
- ESTIMATED 100-YR FLOODPLAIN: ELEV. 110.50
- EXISTING SOILS

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

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SERIAL NO. 20183131006, 20183131017, & 20183131027

TRAIL DEVELOPMENT PLAN
PEDESTRIAN BRIDGE PLAN DETAIL

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

JOB NO.: 2018-05040

TAX MAP PARCEL NO.: 22-03-004, 22-03-007

MUNICIPAL FILE NO.: XX

OWNER: COUNTY OF BUCKS
55 E COURT STREET #418
DOVER, PA 19901
(215)-348-6000

TOTAL AREA: TOTAL LOTS: 2
XX AC. SCALE: 1"=10'

DATE: 01/24/2020
DESIGNED BY: TPB
DRAWN BY: TPB
CHECKED BY: DW, CG

DATE: 01/24/2020

DESIGNED BY: TPB

DRAWN BY: TPB

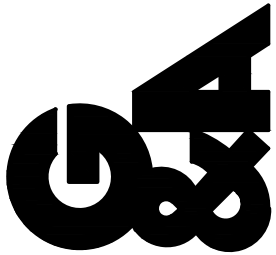
CHECKED BY: DW, CG

SHEET NO.:

21 OF 31

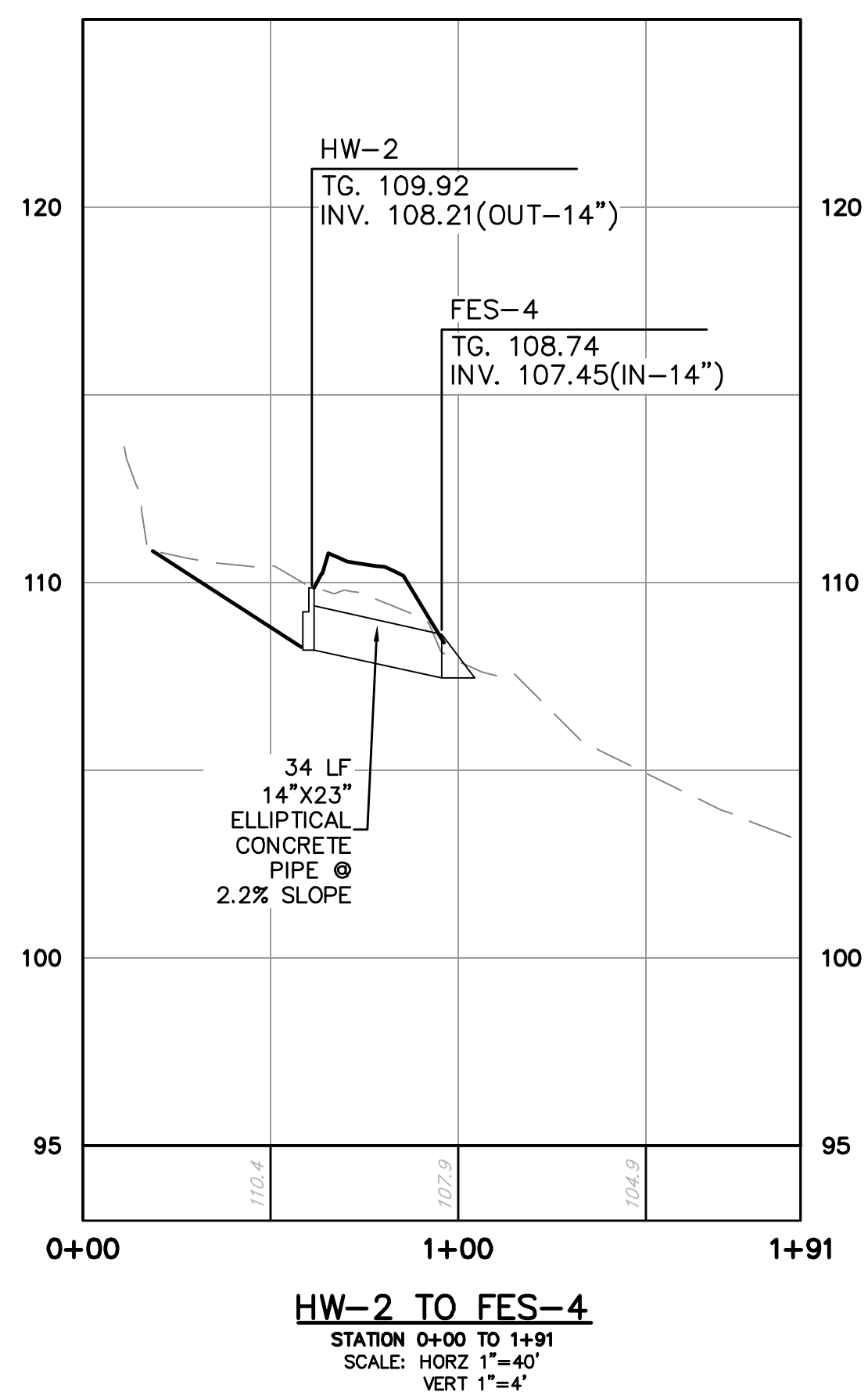
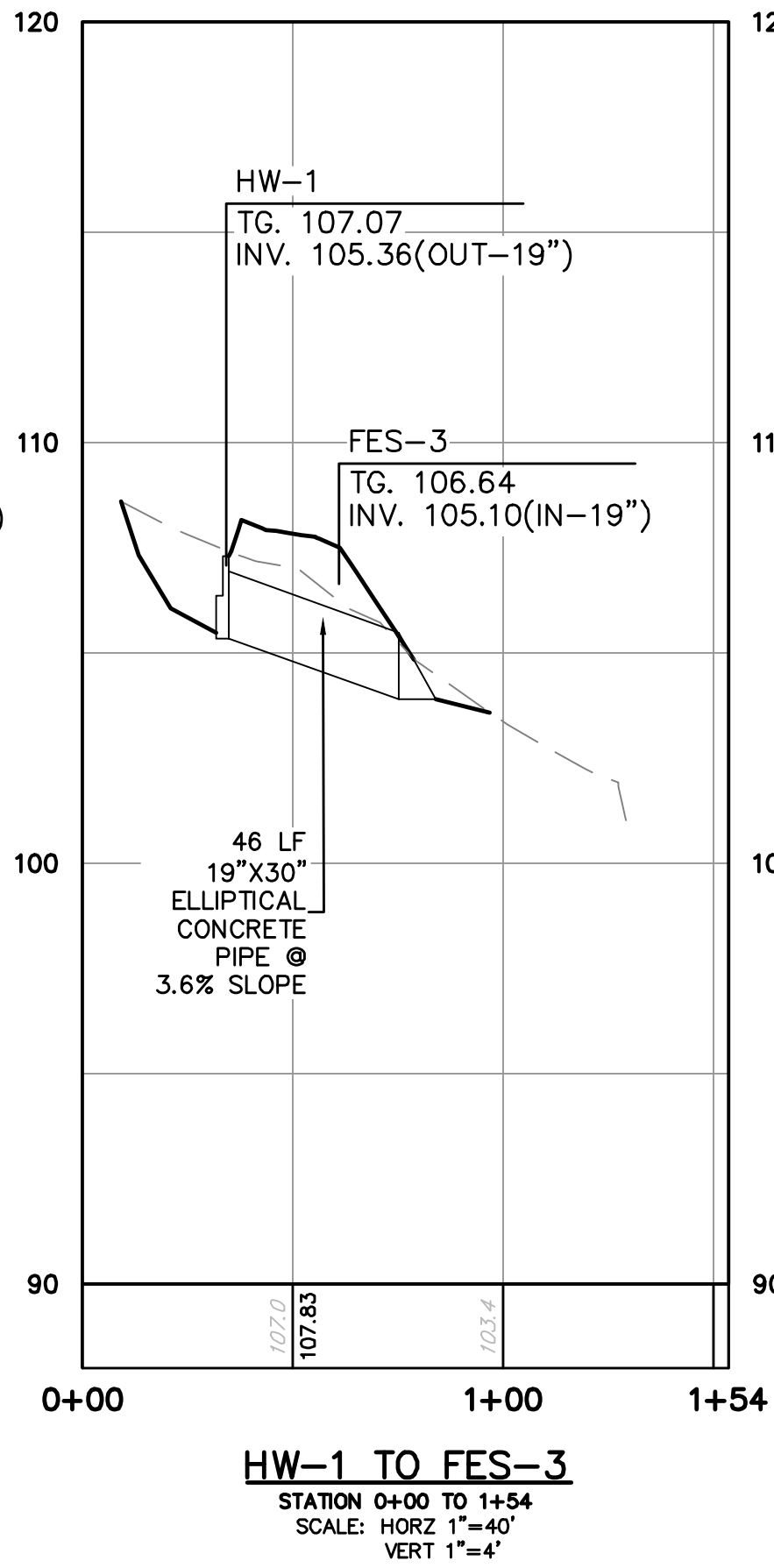
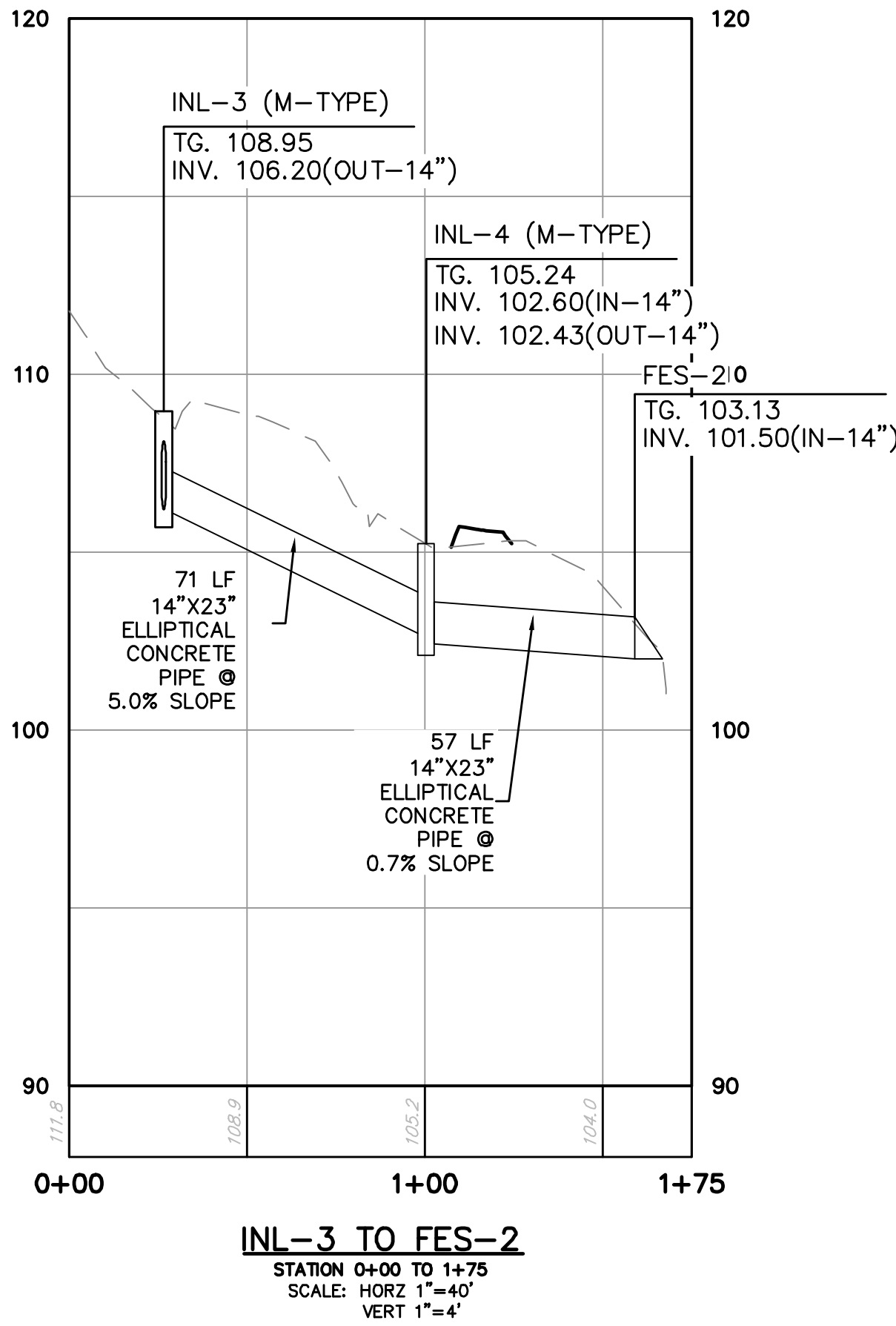
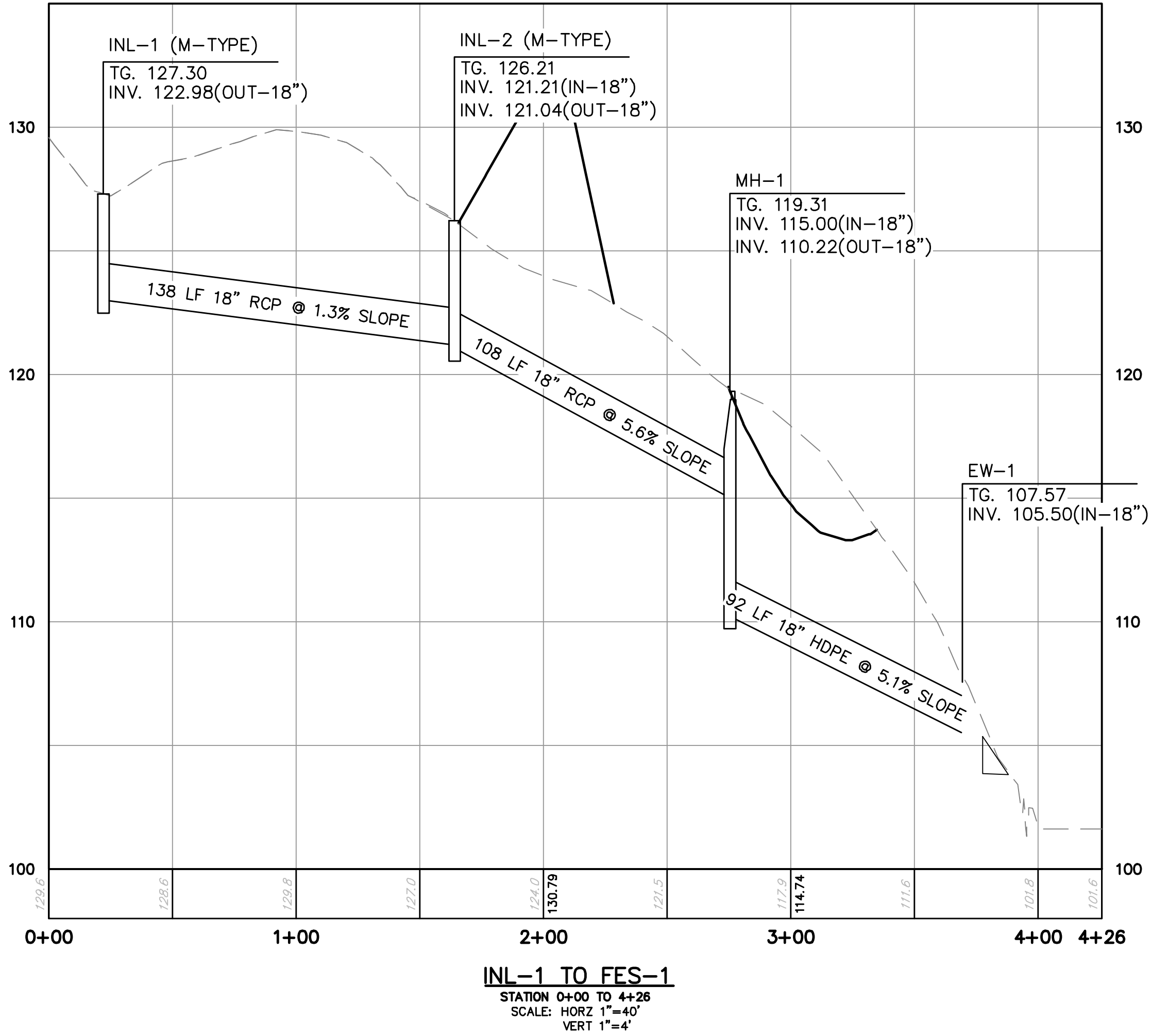
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T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\1805040_PROFILES.dwg Layout: 22 STORM PROFILES Plotted By: gwhite, on Wed Sep 16, 2020 at 10:29am



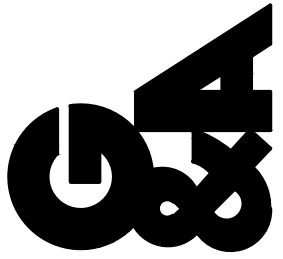
1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

SHEET NO.:
22 OF 31

TRAIL DEVELOPMENT PLAN
STORM PROFILES
NESHAMINY GREENWAY TRAIL - CORE CREEK
MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

OWNER:
COUNTY OF BUCKS
55 E COURT STREET #318
DOWNTOWN, PA 19001
(215)-346-6000

JOB NO.: 2018-05040	TAX MAP PARCEL NO.: 22-03-004
MUNICIPAL FILE NO.: XX	XX
TOTAL AREA: XX AC.	TOTAL LOTS: 2
DATE: 11/15/19	SCALE: 1"=40'
DESIGNED BY: TPB	CHECKED BY: DW, CS
DRAWN BY: TPB	DWG. NO.



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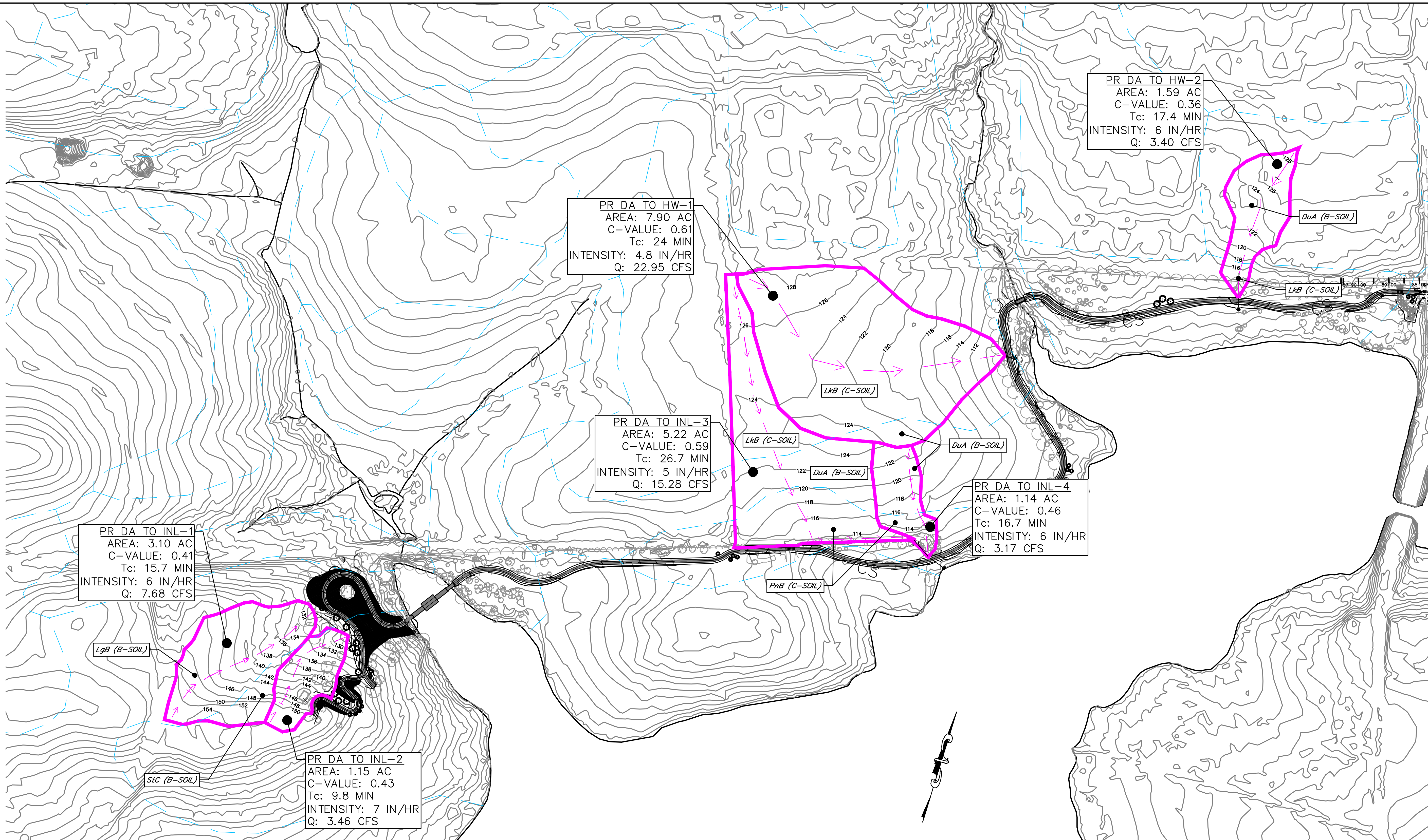
SERIAL NO. 20183131006, 20183131017, & 20183131027

PROPOSED DRAINAGE AREA PLAN

SCALE: 1' = 160'

LEGEND

- 118 ——— EXISTING CONTOUR
- PROPOSED CONTOUR
- DRAINAGE AREA DELINEATION
- → → → → TIME OF CONCENTRATION
- — — — — SOIL BOUNDARY



TRAIL DEVELOPMENT PLAN
PCSM-DRAINAGE AREA PLAN

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

OWNER: COUNTY OF BUCKS
55 E COURT STREET
POLESTOWN, PA 19001
(215)-346-6000

JOB NO.: 2018-05040

TAX MAP PARCEL NO.: 22-03-004, 22-03-007

MUNICIPAL FILE NO.: XX

DESIGNED BY: TFB

DRAWN BY: TFB

CHECKED BY: DW, CS

AS NOTED

DATE: 01/24/20

SCALE: XX AC

TOTAL AREA: XX AC

TOTAL LOTS: 2

DATE: 01/24/20

AS NOTED

DESIGNED BY: TFB

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CHECKED BY: DW, CS

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TOTAL LOTS: 2

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CHECKED BY: DW, CS

AS NOTED

DATE: 01/24/20

SCALE: XX AC

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TOTAL LOTS: 2

DATE: 01/24/20

AS NOTED

DESIGNED BY: TFB

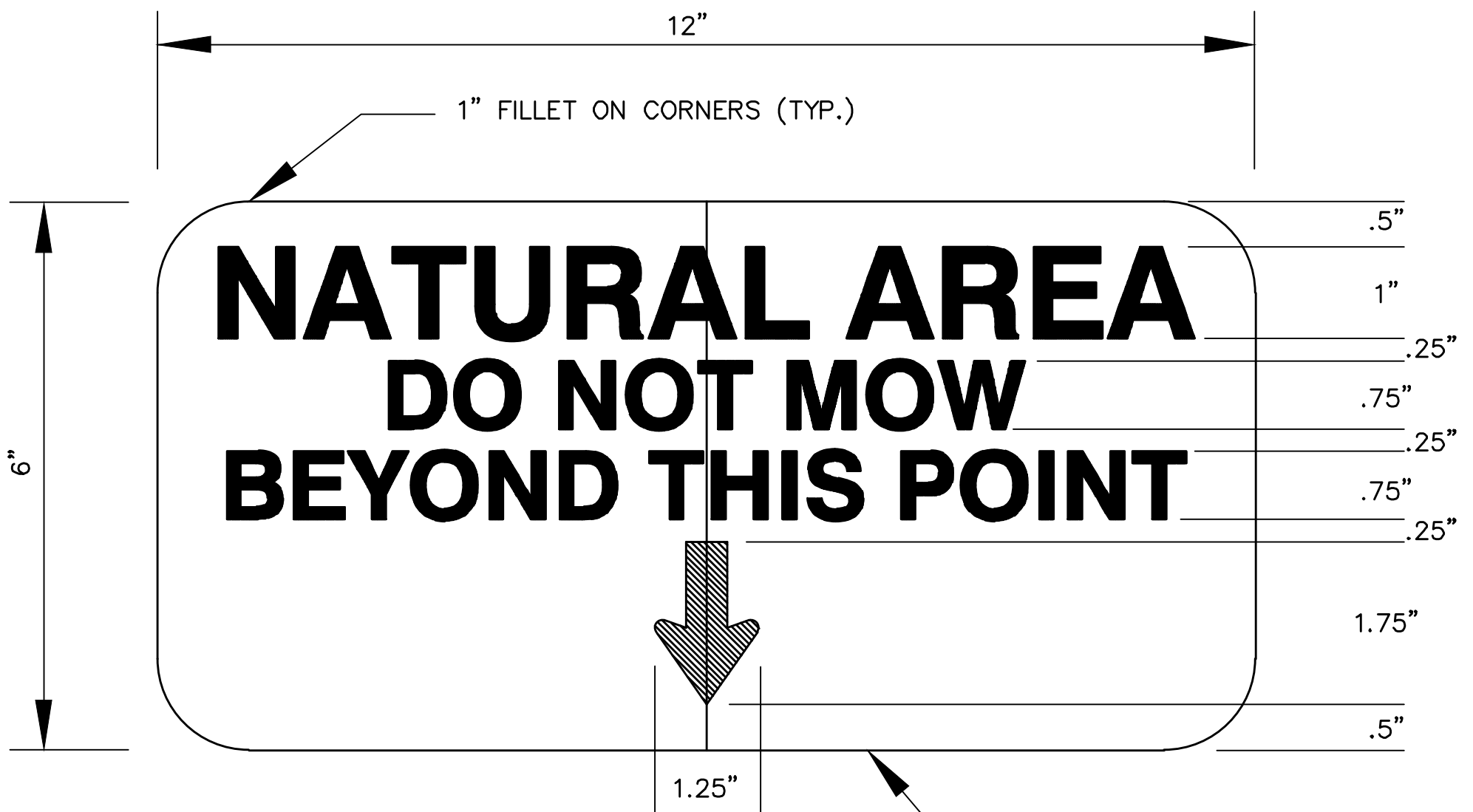
DRAWN BY: TFB

CHECKED BY: DW, CS

AS NOTED

DATE: 01/24/20

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\1805040 SITE DETAILS.dwg Layout: 24 LANDSCAPE DETAILS Plotted By: dwalle, on Wed Sep 16, 2020 at 10:30am



COLORS LEGEND:

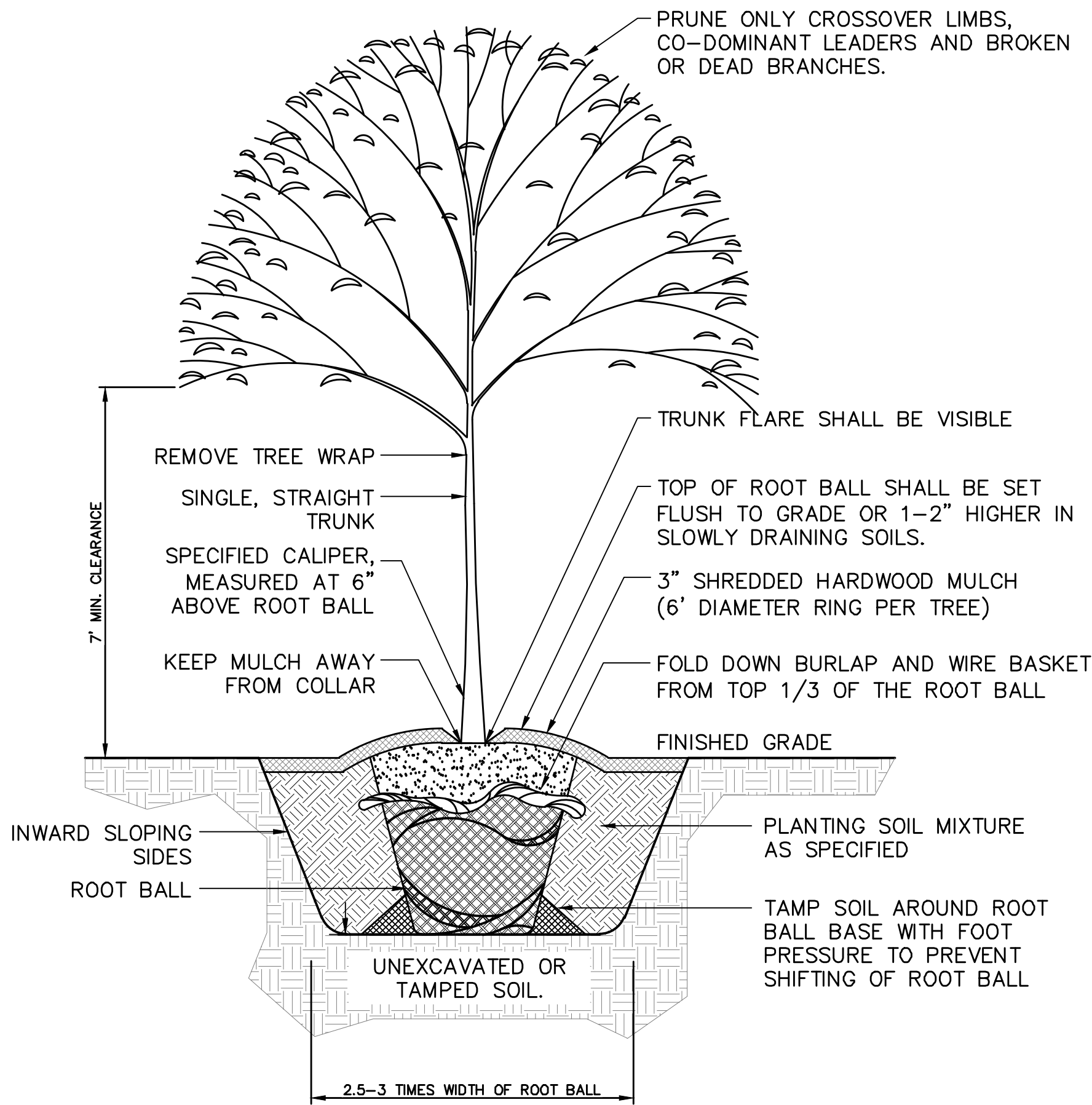
BACKGROUND— LIGHT TAN (NON-REFLECTORIZED)
SYMBOL— RED (NON-REFLECTORIZED)
LETTERS— DARK GREEN (NON-REFLECTORIZED)

*SIGNS SHALL BE PLACED AT 50' INTERVALS ALONG THE PERIMETER OF THE AREA DESIGNATED "MOWING LIMIT" ON LANDSCAPE PLAN. SIGNS SHALL BE INSTALLED AT A HEIGHT OF APPROXIMATELY 18" ABOVE GRADE, TO 2" x2"

RECYCLED PLASTIC STAKES.

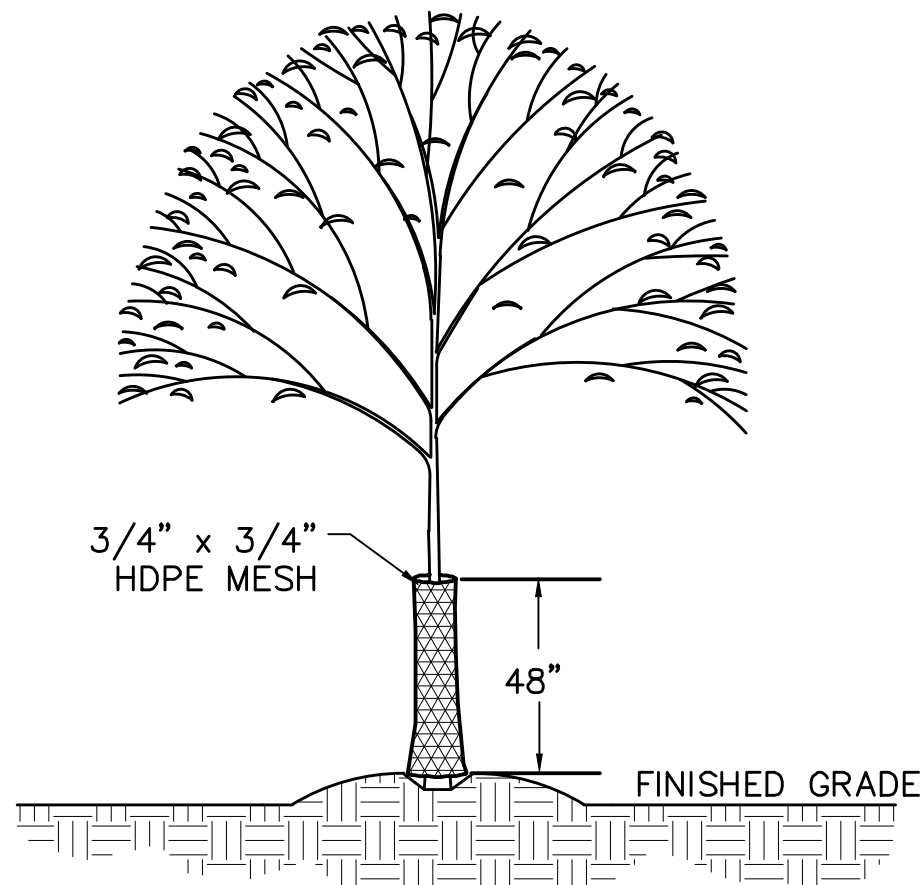
MOW LIMIT SIGN

NOT TO SCALE



TREE PLANTING DETAIL

NOT TO SCALE



TREE BARK PROTECTION

NOT TO SCALE



PLANT SCHEDULE

KEY	QTY.	SIZE	BOTANICAL NAME	COMMON NAME	REMARKS
CANOPY TREES					
AR	4	2 1/2-3" CAL. MIN.	ACER RUBRUM 'RED SUNSET'	RED SUNSET' RED MAPLE	B & B
LS	4	2 1/2-3" CAL. MIN.	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SWEETGUM	B & B
PA	2	2 1/2-3" CAL. MIN.	PLATANUS XACERIFOLIA	LONDON PLANE TREE	B & B
UA	5	2 1/2-3" CAL. MIN.	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE AMERICAN ELM	B & B
TOTAL	15				
FLOWERING TREES					
AC	9	6-7' H MIN.	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	B & B, MULTISTEMMED
CC	12	6-7' H MIN.	CERCIS CANADENSIS	EASTERN REDBUD	B & B, MULTISTEMMED
TOTAL	21				

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NOTICE TO UTILITIES BEFORE YOU EXCAVATE,
DRILL, BLAST OR DEMOLISH

SERIAL NO. 20183131006, 20183131017, & 20183131027

LEGEND

	PROPOSED TRAIL
	NATIVE STEEP SLOPE MIX WITH ANNUAL RAY GRASS
	TREE PROTECTION FENCE
	PROPOSED SLOPE MATTING (3:1 SLOPES OR GREATER)
	SHOWY NORTHEAST NATIVE WILDFLOWER & GRASS MIX

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

OWNER: COUNTY OF BUCKS
55 E COURT STREET #418
DOYLESTOWN, PA 19001
(215)-346-6000

TOTAL AREA: XX AC.
TOTAL LOTS: 2
DATE: 01/24/2020

JOB NO.: 2018-05040
MUNICIPAL FILE NO.: XX

TAX MAP PARCEL NO.: 22-03-004, 22-03-007

TRAIL DEVELOPMENT PLAN
LANDSCAPE DETAILS

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

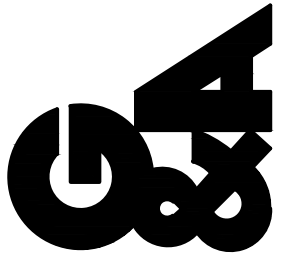
24 OF 31

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CORPORATE HEADQUARTERS

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- ## NATIVE STEEP SLOPE MIX WITH ANNUAL RYE GRASS

- SERIAL NO. 20183131006, 20183131017, & 20183131027

PARTIALLY SHADED AREA ROADSIDE MIX

NOTE: MIX TO BE UTILIZED IN ALL WOODED AREAS BEYOND THE 5' LAWN SHOULDERS.

- TOTAL: 100%

SEED MIX ESTABLISHMENT SPECIFICATIONS

INSTALLATION:

SPRAY AREAS TO BE SEEDED WITH A SYSTEMIC HERBICIDE ONE (1) MONTH PRIOR TO THE INSTALLATION OF THE SPECIFIED SEED MIXTURE. AFTER TWO (2) WEEKS OF HERBICIDE APPLICATION, AREAS TO BE SEEDED SHALL BE TREATED AGAIN IF PERSISTANT WEEDS RE-GERMINATE. ONLY AFTER ALL EXISTING VEGETATION TO BE REMOVED IS ERRADICATED SHALL THE FOLLOWING SEED INSTALLATION STEPS TAKE PLACE:

1. ALL AREAS TO BE SEEDED SHALL BE CLEARED OF ALL REMAINING DEBRIS AND VEGETATION.
2. TILL ALL AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES, AND ADD ANY SPECIFIED SOIL AMENDMENTS TO THE TILLED AREAS.
3. SPREAD SEED AT RECOMMENDED RATE EVENLY ACROSS THE ENTIRE SITE.
4. FINE RAKE ALL AREAS PREVIOUSLY SEEDED TO ENSURE GOOD SOIL TO SEED CONTACT.
5. SPREAD A THIN COAT OF STRAW TO REDUCE EROSION.
6. WATER ENTIRE AREA THOROUGHLY, AVOID OVER WATERING.

FIRST YEAR MAINTENANCE:

SEED MIXTURE SHALL BE INSPECTED FOR INVASIVE WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA SPOT TREAT BY PULLING. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT, MOW TO A HEIGHT OF APPROXIMATELY SIX (6) INCHES WITH A WEED EATER.

SECOND YEAR MAINTENANCE:

MOW ONCE IN SPRING AS CLOSE TO GROUND AS POSSIBLE. ALLOW PLANTS TO GROW TO FULL HEIGHT.

CONSECUTIVE FOLLOWING YEARS:

MOW EVERY OTHER YEAR AND SPOT TREAT INVASIVE PLANT SPECIES.

LITTLE BLUSTEM, 'CAMPER'
VIRGINIA WILDRYE, PA ECOTYPE
ROUND SEED PANICGRASS
PARTRIDGE PEA, PA ECOTYPE
PURPLE CONEFLOWER
BLACKEYED SUSAN, COASTAL PLAIN NC ECOTYPE
OXEYE SUNFLOWER, PA ECOTYPE
TALL WHITE BEARDTONGUE, PA ECOTYPE
BOTTLEBRUSH GRASS, PA ECOTYPE
MARSH BLAZING STAR, PA ECOTYPE
AUTUMN BENTGRASS, ALBANY PINE BUSH NY ECOTYPE
BUTTERFLY MILKWEED
BIGLEAF ASTER, PA ECOTYPE
ZIGZAG ASTER, PA ECOTYPE
BLUE FLATE INDIGO, SOUTHERN WV ECOTYPE
WHITE AVENS, M PA ECOTYPE
NARROWLEAF MOUNTAINMINT
WHITE GOLDENROD, PA ECOTYPE
OHIO SPIDERWORT, PA ECOTYPE
GOLDEN ALEXANDERS, PA ECOTYPE
THIMBLEWEED, PA ECOTYPE
SMOOTH BLUE ASTER, NY ECOTYPE
WLD BERGAMOT, FORT INDIANTOWN GAP, PA ECOTYPE
COMMON MILKWEED
EARLY GOLDENROD, PA ECOTYPE
YELLOW FALSE INDIGO, PA ECOTYPE
HAIRY BEARDTONGUE
CULVER'S ROOT, PA ECOTYPE

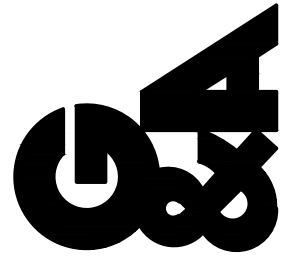
GENERAL LANDSCAPE NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIALS, PLANTS EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, HAVE VIGOROUS ROOT SYSTEMS AND BE FREE OF DEFECTS AND INJURIES.
4. ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE WELFARE OF THE PLANT MATERIAL, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISIONS SHALL BE MADE FOR A GUARANTEE OF AT LEAST ONE (1) YEAR FOR TREES AND SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE 1990 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN INC., OR LATEST EDITION.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC., SHALL BE USED FOR PLANTING.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTING OPERATIONS SHALL OCCUR BETWEEN APRIL 1, THROUGH JUNE 15 AND SEPTEMBER 1 THROUGH NOVEMBER 1 OF EACH CALENDAR YEAR. IF FAVORABLE PLANTING CONDITIONS EXTEND BEYOND DATES INDICATED HEREIN, AN EXTENSION MAY BE GRANTED BY THE LANDSCAPE ARCHITECT RESPONSIBLE FOR THESE PLANS.
10. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PLANTING PIT.
11. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
12. LANDSCAPING CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF LANDSCAPE MATERIAL. CONTRACTOR SHALL NOT PLACE LANDSCAPING MATERIAL ON TOP OF UTILITY PIPING.
13. PLAN QUANTITIES SUPERSEDE PLANT LIST.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

CORPORATE HEADQUARTERS

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JOB NO.:	TAX MAP PARCEL NO.:
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JOB NO.:
2018-05040
MUNICIPAL FILE NO.:

[illegible]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524
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OWNER:

COUNTY OF BUCKS
55 E COURT STREET #4318
DOYLESTOWN, PA 18901
(215)-348-6000

TOTAL AREA:	TOTAL LOTS:
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DATE:	SCALE:
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TRAIL DEVELOPMENT PLAN
LANDSCAPE NOTES

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

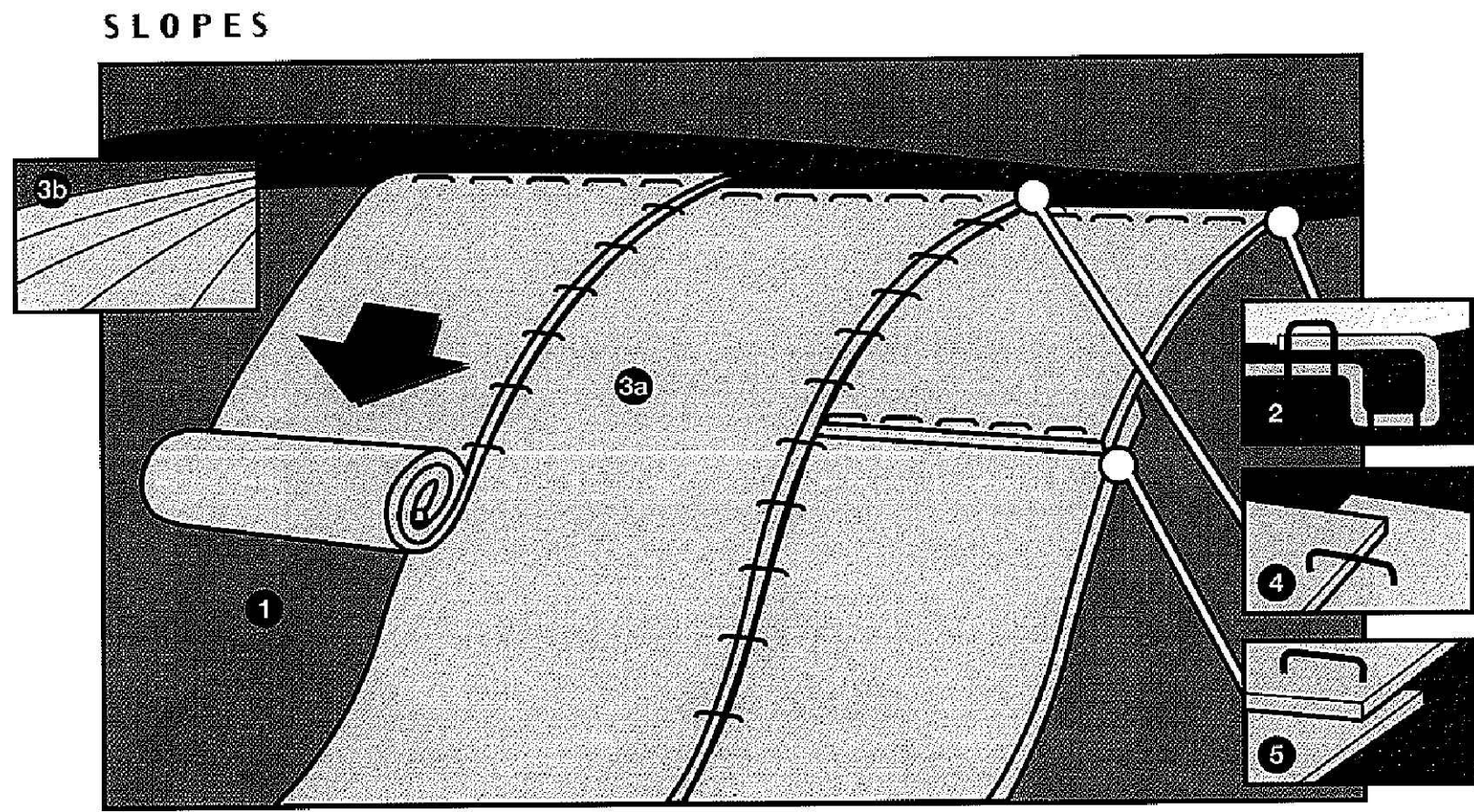
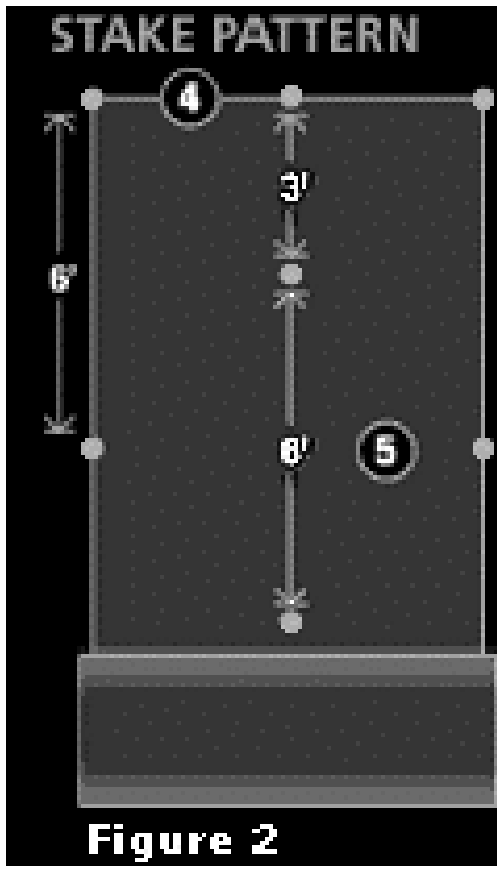
NORTH AMERICAN GREEN
SLOPE MATTING
INSTALLATION INSTRUCTION:

ADDITIONAL ITEMS NEEDED FOR INSTALLATION:

- GRASS SEED
- FERTILIZER
- RUBBER MALLET
- SCISSORS OR SHEARS
- SAFETY GLASS/GOGGLES

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

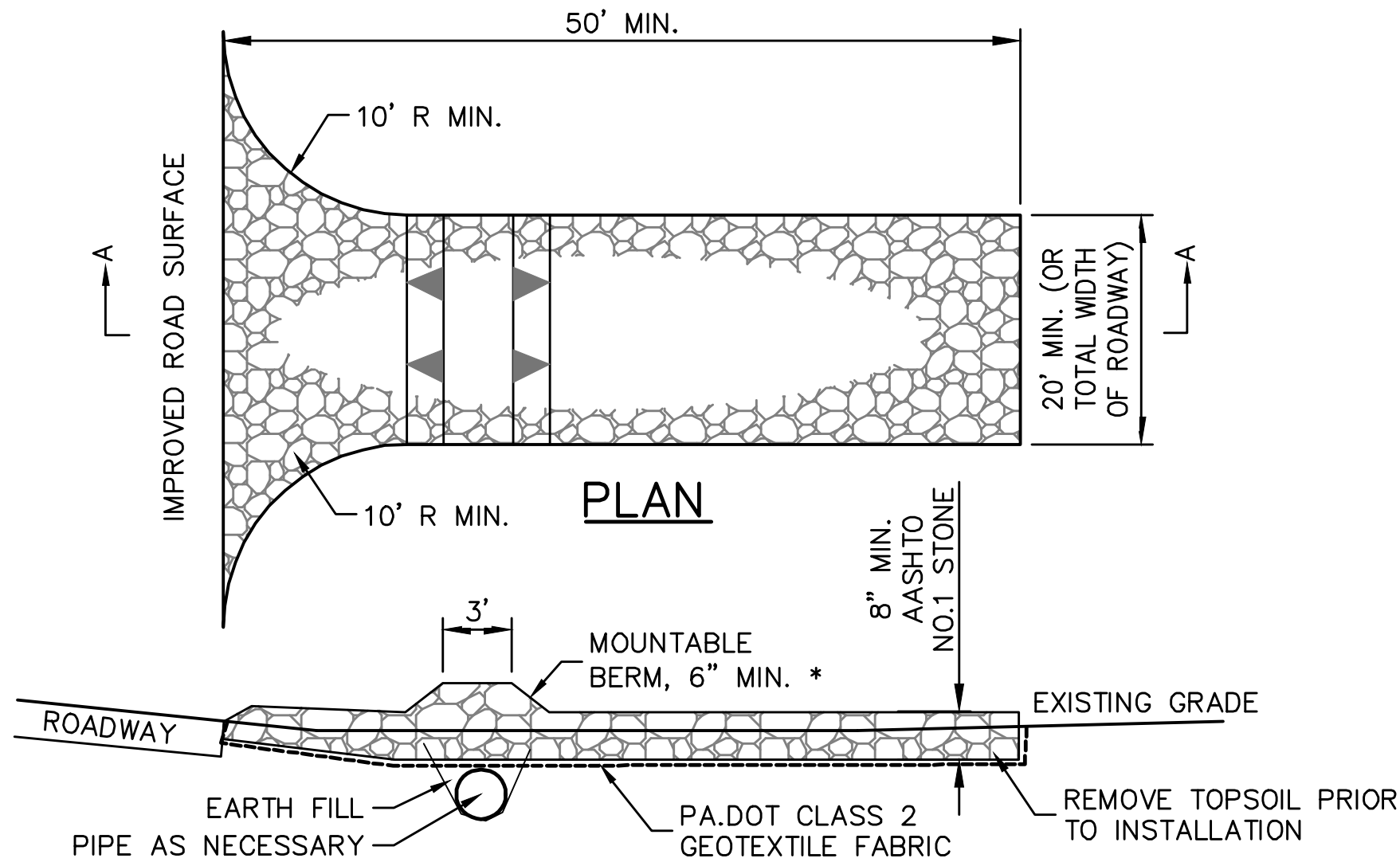
- PREPARE THE AREA TO BE PROTECTED BY RAKING THE SOIL TO A DEPTH OF 1-2 INCHES AND REMOVING LARGE DIRT CLODS, STICKS AND OTHER OBSTRUCTIONS. APPLY SEED AND FERTILIZER AND LIGHTLY RAKE INTO THE SOIL. (NOTE: THIS PRODUCT DOES NOT INCLUDE SEED OR FERTILIZER. FOR SEEDING AND FERTILIZER SEE THE SEEDING & MULCHING SCHEDULE).
- STARTING AT THE TOP OF SLOPE, ANCHOR THE BLANKET IN A 6"x6" TRENCH WITH A ROW OF BIODEGRADABLE PLASTIC BIOSTAKES. A RUBBER MALLET IS RECOMMENDED FOR DRIVING THE BIOSTAKES INTO THE GROUND. CAUTION! BIOSTAKES MAY SHATTER IF BROKEN, THEREFORE, ALWAYS WEAR EYE AND HAND PROTECTION DURING INSTALLATION. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ROLL OUT BLANKET (a) DOWN OR (b) HORIZONTALLY ACROSS THE SLOPE. SECURE BLANKET WITH BIOSTAKES IN APPROPRIATE PATTERN PER STAPLING PATTERN, FIGURE 2. IF APPLICABLE USE DOT SYSTEM PROVIDED ON FABRIC BY MANUFACTURER. BE SURE TO SMOOTH OUT ANY WRINKLES OR FOLDS IN MATERIAL AS WORK PROGRESSES.
- EDGES OF PARALLEL BLANKETS SHALL OVERLAP A MINIMUM OF 6" AND BE STAKED AT 12" INTERVALS.
- CONSECUTIVE BLANKETS ALONG SLOPE SHALL OVERLAP, SHINGLE STYLE, WITH A MINIMUM 6" OVERLAP. STAKE THROUGH OVERLAP AREA AT 12" INTERVALS.
- IMMEDIATELY FOLLOWING INSTALLATION, GENTLY WATER ENTIRE AREA, THOROUGHLY WETTING BOTH THE BLANKET AND UNDERLYING SOIL. FOR BEST RESULTS, KEEP SOIL MOIST FOR THE FIRST 30 TO 60 DAYS, OR UNTIL UNIFORM GRASS ESTABLISHMENT IS ACHIEVED.



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

NORTH AMERICAN GREEN SLOPE INSTALLATION

NOT TO SCALE



NOTES:

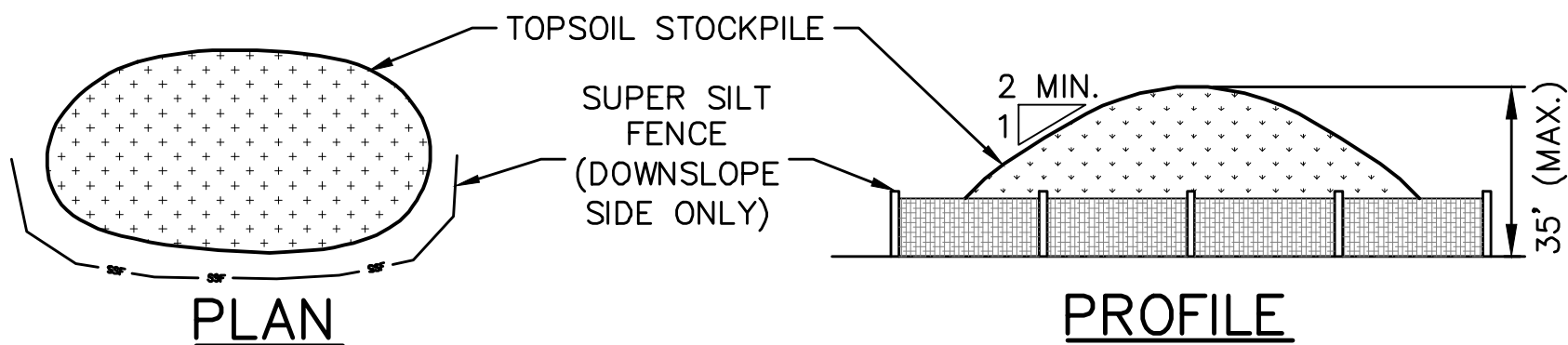
*MOUNTABLE BERM SHOULD BE USED WHEREVER OPTIONAL CULVERT PIPE IS USED TO PROVIDE PROPER COVER FOR PIPE PER MANUFACTURER'S SPECIFICATION. PIPE TO BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK.

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50-FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWER, CULVERTS OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTES:

SUPER SILT FENCE MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING & MULCH TO ALL STOCKPILES.

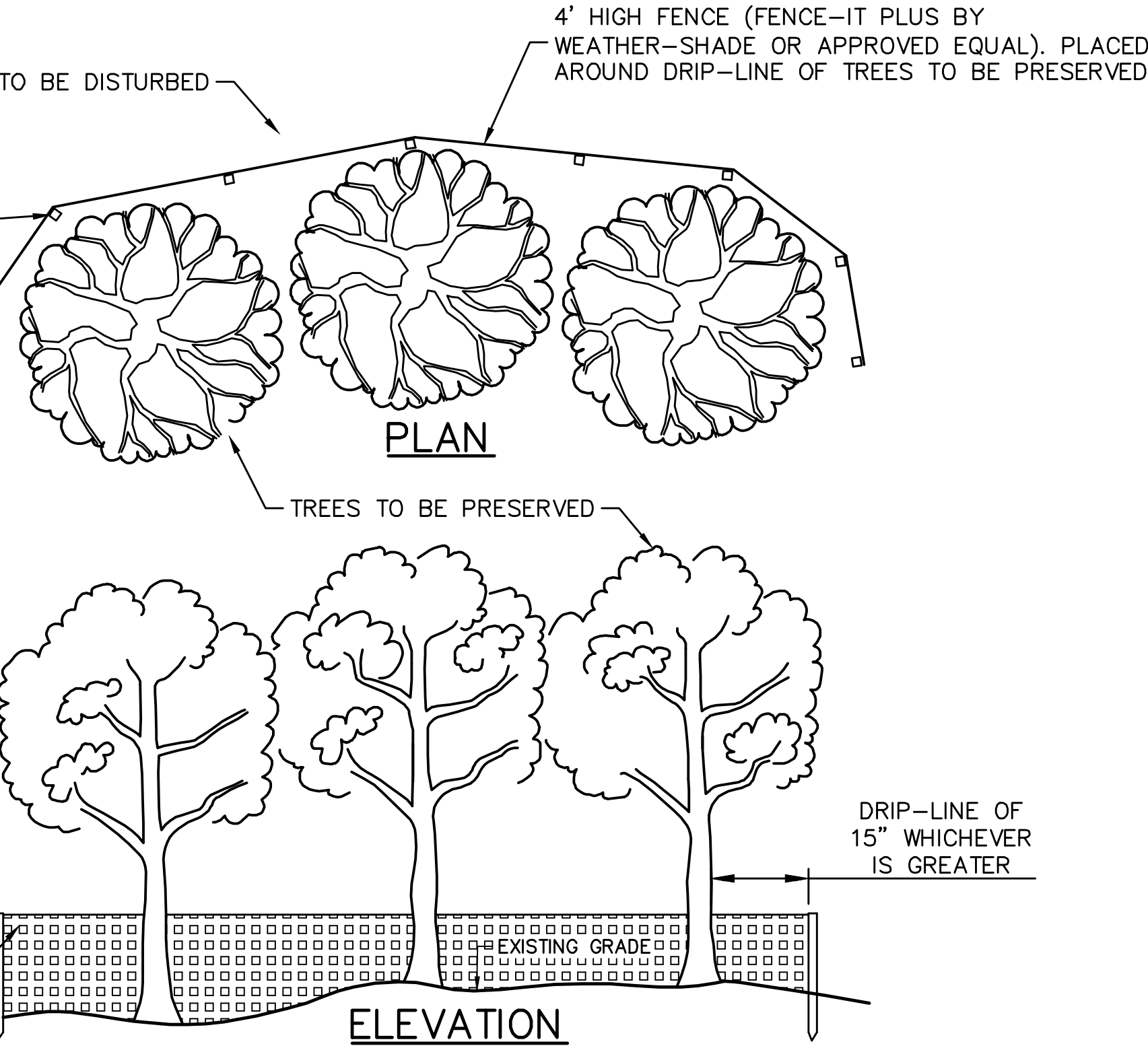
TOPSOIL STOCKPILE AREA DETAIL

NOT TO SCALE

TREE PROTECTION NOTES:

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

4' HIGH FENCE (FENCE-IT-PLUS BY WEATHER-SHADE OR APPROVED EQUAL) PLACED AROUND DRIP-LINE OF TREES TO BE PRESERVED



TREE PROTECTION DETAIL

NOT TO SCALE

PENNSYLVANIA ONE CALL SYSTEM, INC.

925 Irwin Run Road
West Mifflin, Pennsylvania
15122-1078



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

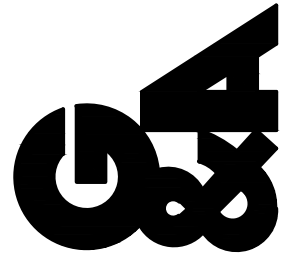
NON-MEMBERS MUST BE CONTACTED DIRECTLY

PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

95 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 19071 • (215) 346-1330 • www.gilmore-assoc.com

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JOB NO.: 2018-05040

MUNICIPAL FILE NO.: XX

OWNER: COUNTY OF BUCKS
55 E COURT STREET
DOYLESTOWN, PA 19041
(215)-346-6000

TRAIL DEVELOPMENT PLAN
E&S DETAILS -1

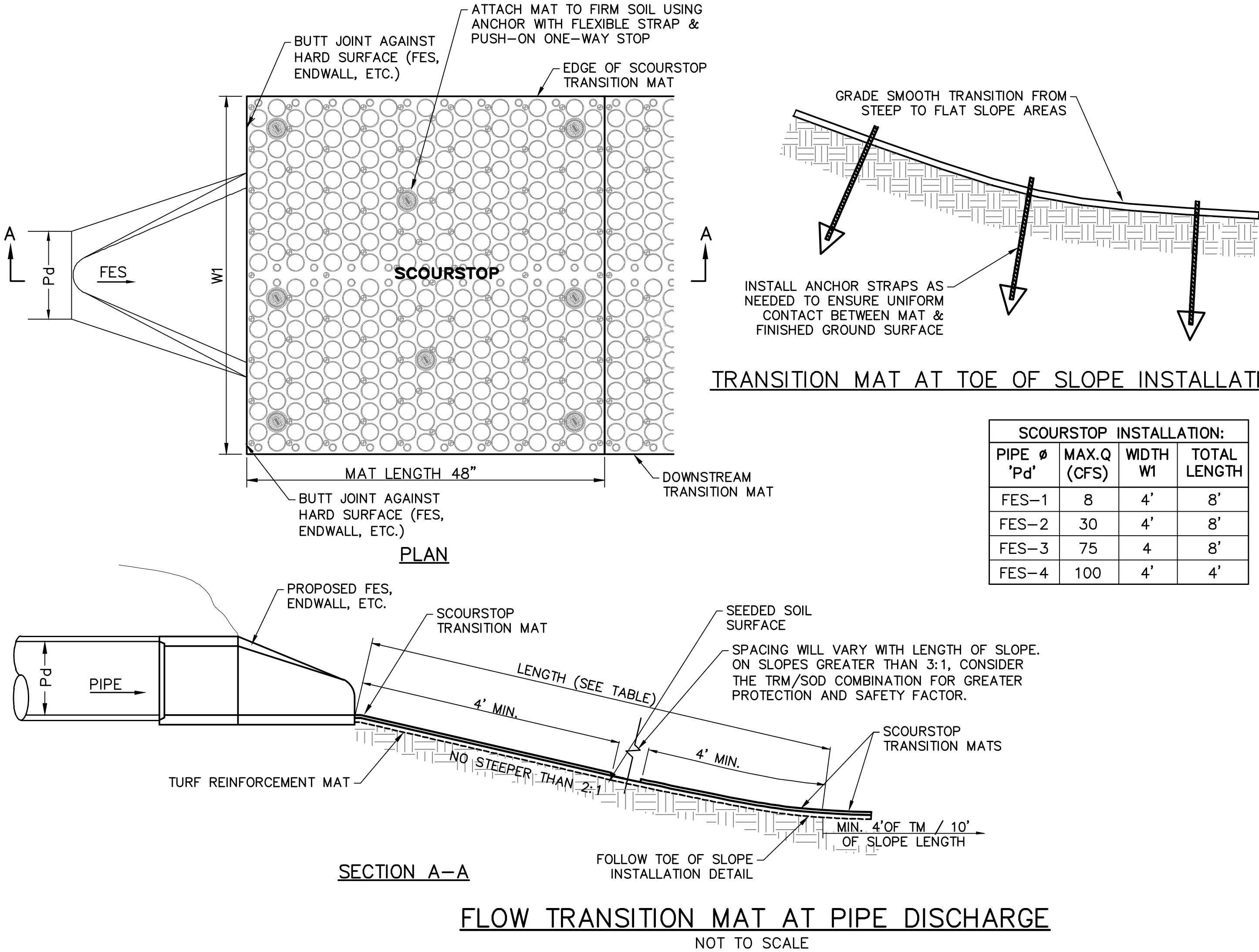
NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.: 26 OF 31

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

T:\land design\2018\2018-05040-Core Creek\CAD\Production Drawings\1805040 SITE DETAILS.dwg Layout: 27 E&S DETAILS on Wed Sep 16, 2020 at 10:30am



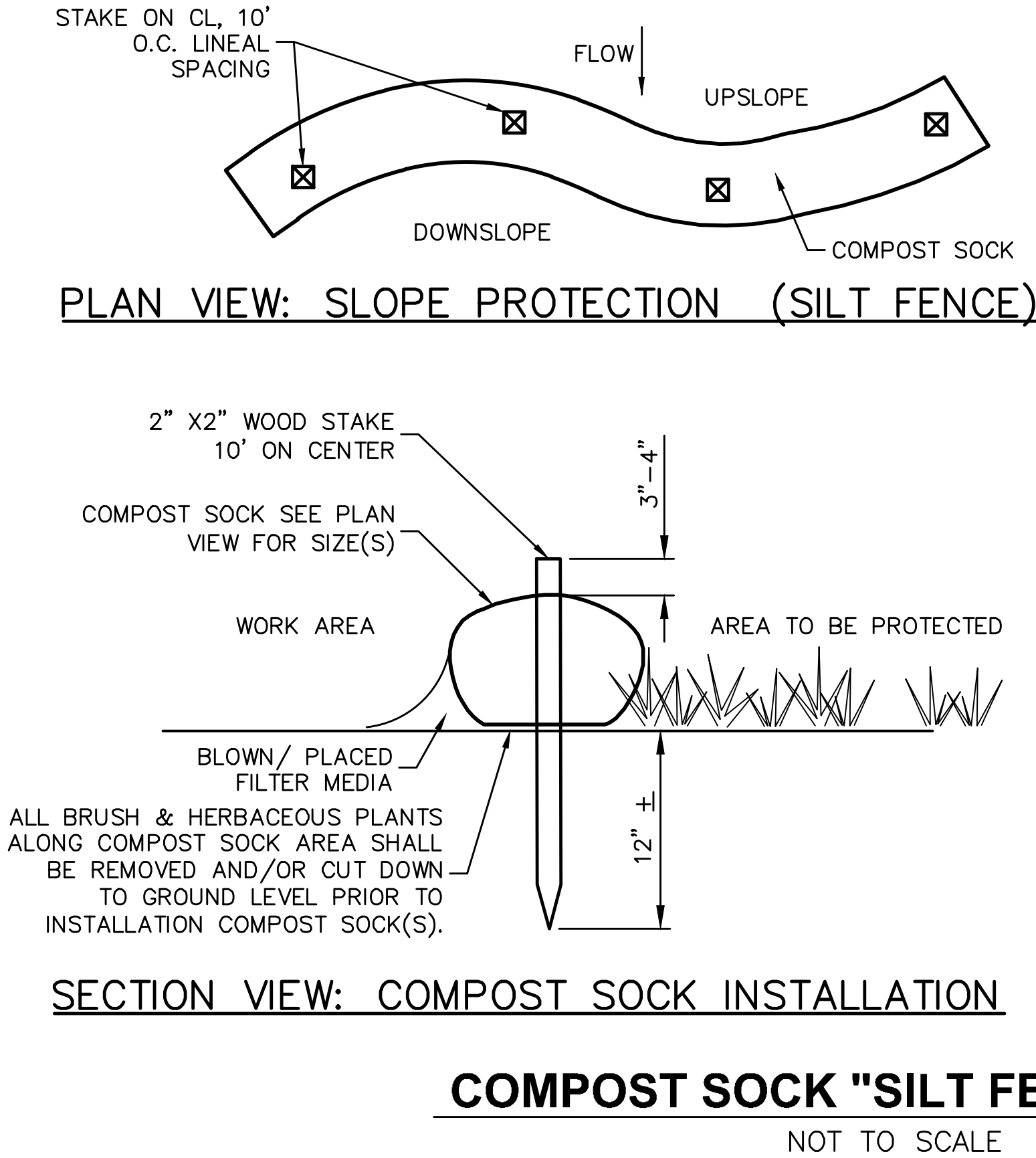
SCOUR STOP TRANSITION MAT APPLICATIONS AND POST CONSTRUCTION BMP

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

SCOUR STOP: MANUFACTURER'S INSTALLATION SPECIFICATIONS

- SCOURSTOP SHALL NOT BE INSTALLED OVER BARE SOIL. OPTIONAL SOIL COVERS ARE SOD, TRMs, AND GEOTEXTILES. SOIL COVERS SHALL EXTEND DOWNSTREAM TO LIMITS SHOWN ON PLANS.
- REMOVE AND REPLACE SATURATED SOILS FOR A SOLID BASE. TRICKLE FLOWS, IF DISCOVERED, SHOULD BE CAPTURED WITH A SUB-SURFACE DRAIN.
- FOR A PIPE OUTLET WITH NO APRON, TRANSITION MAT SHOULD BE INSTALLED DIRECTLY ABUTTING THE END OF PIPE.
- PIPE OUTLET FOOTINGS SHOULD NOT EXTEND PAST THE END OF PIPE, HEADWALL OR FLARED END SECTION. TRANSITION MAT SHALL ABUT DIRECTLY AGAINST THE PIPE OUTLET, FES, ENDWALL OR OTHER END TREATMENT.
- AVOID IMPACT EROSION ONTO THE MATS ARISING FROM 25% CHANGE IN SLOPE BETWEEN DISCHARGE AND OUTLET CHANNEL SLOPES. GRADE DOWNSTREAM SLOPE AS LONG AND FLAT AS POSSIBLE.
- INSTALL AT LEAST ONE 4' MAT LENGTH FOR EVERY 9" OF PIPE DIAMETER. PANELS MAY BE SHINGLED AS SHOWN. MATS SHALL NOT BE INSTALLED IN PARTIAL LENGTHS.
- CONSTRUCT SCOUR AREA WIDTH NOT LESS THAN 5 TIMES THE PIPE DIAMETER, WITH A SLOPE NO STEEPER THAN 3:1. DISCHARGE AREA WIDTH SHOULD BE AS LEVEL AS POSSIBLE TO AVOID WATER CONCENTRATION AND RILLING.
- FOR INSTALLATIONS ON SLOPES GREATER THAN 10%, ADD TRANSITION MATS AT THE BOTTOM OF SLOPE.
- PRIOR TO INSTALLATION, SOIL SHALL BE GRADED AS LEVEL AND SMOOTH AS POSSIBLE FOR CONSISTENT TRANSITION MAT CONTACT WITH THE SOIL. SOIL ANCHORS SHALL BE DRIVEN AT LEAST 18" DEEP, OR DEEPER AS NEEDED INTO FIRM SOIL. USE FLEXIBLE STRAPPING, FLAT WASHERS (GREATER THAN 2.5"Ø) AND ONE-WAY STOPS TO ATTACH THE TRANSITION MAT INSTALLATION INTO THE SOIL. FIRMLY PULL STRAP TO SNUG THE TRANSITION MAT DOWN AGAINST THE SOIL WITH THE WASHER AND ONE-WAY STOP. A 3-2-3 ANCHOR CONFIGURATION SHOULD BE USED UNLESS NOTED OTHERWISE.

- TYPE "A" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES LESS THAN 4%. INSTALLED ON AREA STABILIZED WITH SOD OR ESTABLISHED VEGETATION.
 - SOD OR THE SOD/TRM COMBINATION IS REQUIRED DOWNSTREAM UNTIL EROSION VELOCITIES HAVE DISSIPATED.
 - THE DOWNSTREAM CHANNEL MUST BE PROTECTED FOR ITS ENTIRE LENGTH. TRM's MAY BE UTILIZED OVER BARE SOIL WHEN CHANNEL VELOCITIES DO NOT EXCEED THE UNVEGETATED FLOW RATING OF THE SPECIFIED TRM.
 - IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
 - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
- TYPE "B" INSTALLATION INSTRUCTIONS: DESIGN OUTLET VELOCITY LESS THAN 21 FPS AND SLOPES GREATER THAN 4%. INSTALLED ON AREA TO BE STABILIZED WITH USE OF A COMBINATION TURF REINFORCEMENT MAT AND SOD.
 - PREFERRED INSTALLATION INVOLVES UTILIZING TRANSITION MAT OVER SOD IN THE AREA MOST PRONE TO SCOUR, AND A TURF REINFORCEMENT MAT ABOVE THE SOD, DOWNSTREAM OF THE TRANSITION MAT AREA.
 - TRIM INSTALLED SOD TO 1-2" HEIGHT. INSTALL TRM OVER INSTALLED SOD. IRRIGATE SOD AS NEEDED AFTER INSTALLATION TO AID IN ESTABLISHMENT OF VEGETATION.
 - TO HOLD SOD IN PLACE, INSTALL WIRE STAPLES AT 8" O.C. WITHIN 4" OF UPSTREAM EDGE OF SOD.
- TYPE "C" INSTALLATION INSTRUCTIONS: CONSTRUCTION PHASE, STREAMBED STABILIZATION, LOW SUNLIGHT AREAS, SEMI-ARID CONDITIONS. TEMPORARY INSTALLATION FOR AREA STABILIZED WITH USE OF HIGH-PERFORMANCE TRM.
 - INSTALL A HIGH PERFORMANCE TURF REINFORCEMENT MAT UNDER THE TRANSITION MAT TO STABILIZE THE SOIL AND MINIMIZE SCOUR.
 - LONG TERM WET OR GRAVEL TYPE CONDITIONS MIGHT BE AN APPROPRIATE APPLICATION FOR THIS COMBINATION AS IT SHOULD PERFORM MUCH LIKE A STABLE STREAM BED.
 - FOR TRANSITION MAT INSTALLATIONS DOWNSTREAM OF PIPES 48"Ø OR LARGER, PROVIDE AN ADDITIONAL LAYER OF TRANSITION MATS INSTALLED ABOVE THE SURFACE INSTALLATION (IN A 2X2 CONFIGURATION CENTERED ON THE PIPE OUTLET).
- TYPE "D" STREAMBANK AND SHORELINE APPLICATIONS: USE A 20 OUNCE GEOTEXTILE UNDER TRANSITION MATS 3' BELOW AND 6" ABOVE THE NORMAL WATER LINE. A HYBRID GEOTEXTILE / TRM COMPOSITE MAY ALSO BE USED



NOTES:

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

ORGANIC MATTER CONTENT	25% - 100%
ORGANIC PORTION	FIBROUS & ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30-50% PASS 3/8" SIEVE
SOLUBLE SALT	5.0 dS/m MAXIMUM
- COMPOST SOCKS SHALL BE PLACED AT LEVEL GRADE AND BOTH ENDS EXTENDED 8' MIN. UP SLOPE AT 45° ANGLE.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHENIT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED OF IN APPROVED UPLAND AREA.

TRAIL DEVELOPMENT PLAN
E&S DETAILS - 2

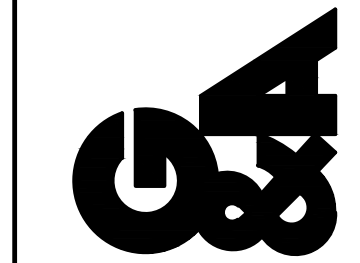
NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:

27 OF 31

JOB NO.:	2018-05040	TAX MAP PARCEL NO.:	22-03-004, 22-03-007
MUNICIPAL FILE NO.:	XX	N.T.S.	XX
OWNER:	COUNTY OF BUCKS 55 E COURT STREET DOYLESTOWN, PA 19501 (215)-346-6000	TOTAL LOTS:	2
TOTAL AREA:	XX AC.	SCALE:	NOT TO SCALE
DATE:	01/24/2020	DESIGNED BY:	TPB
DRAWN BY:	TPB	CHECKED BY:	DW, CG



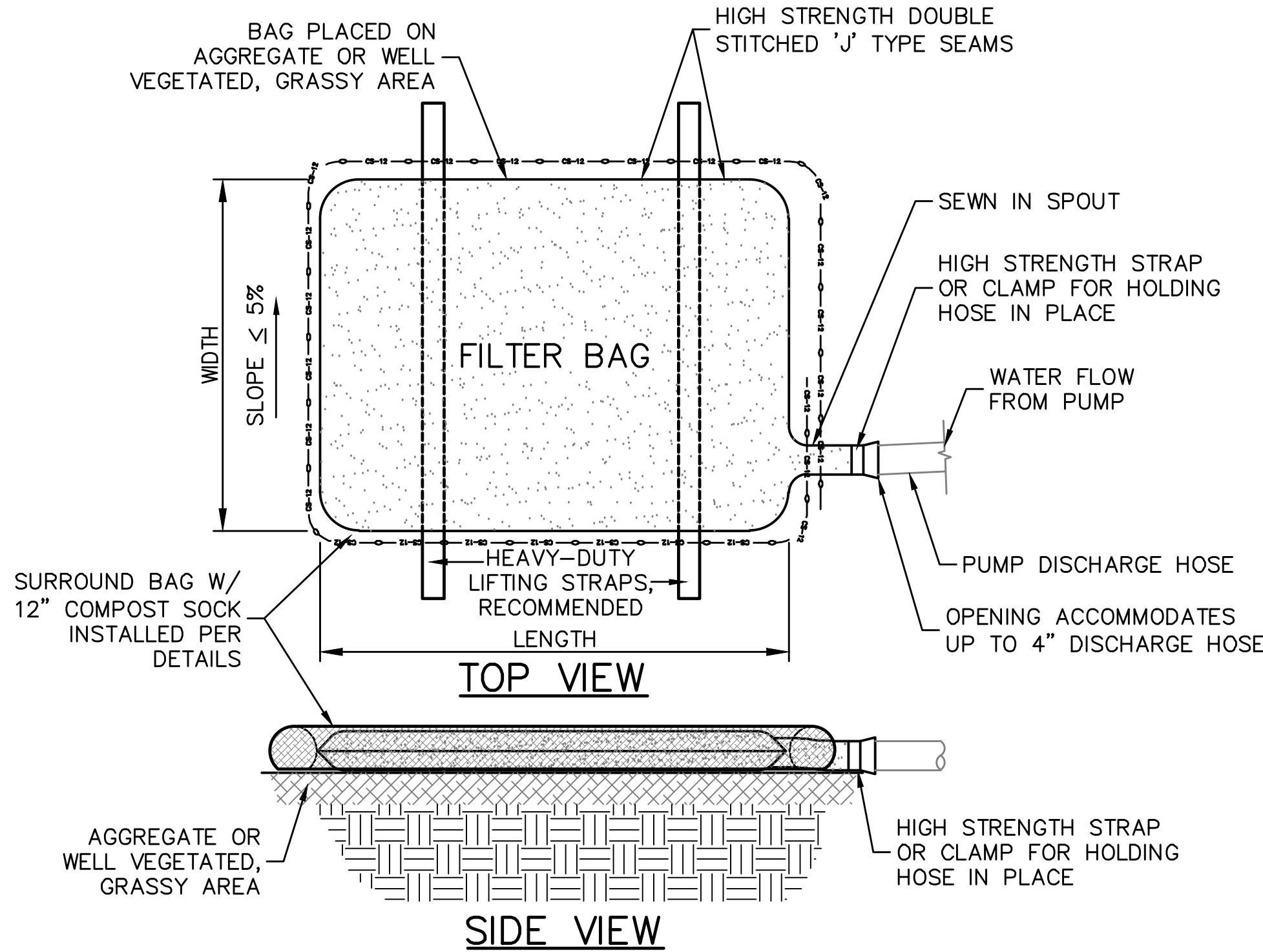
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FILTER BAG TO BE USED WHEN/IF WATER PONDS IN EXCAVATIONS.

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

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

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

SEDIMENT FILTER BAG FOR PUMPED WATER

NOT TO SCALE

PENNSYLVANIA ONE CALL SYSTEM, INC.

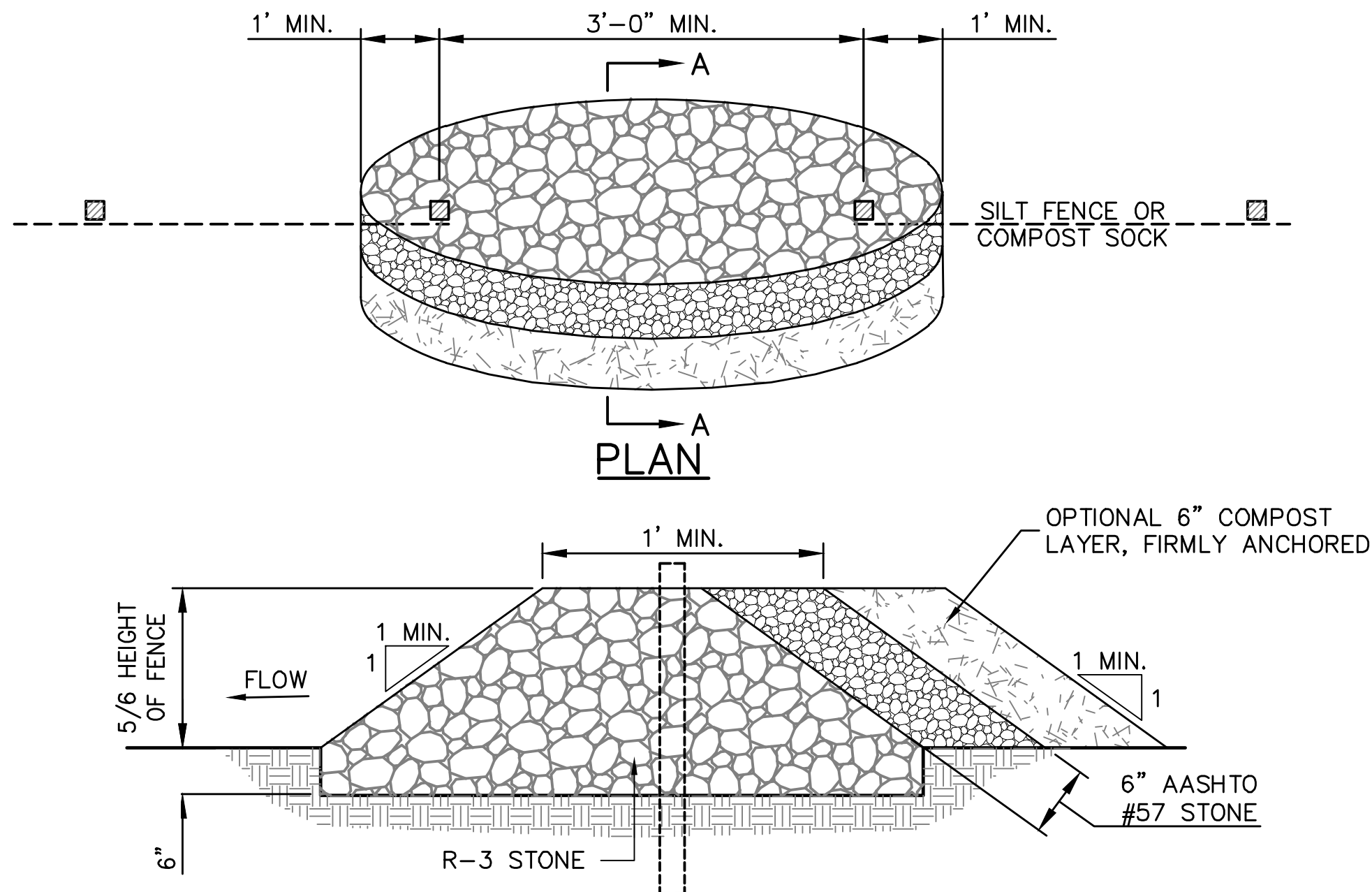
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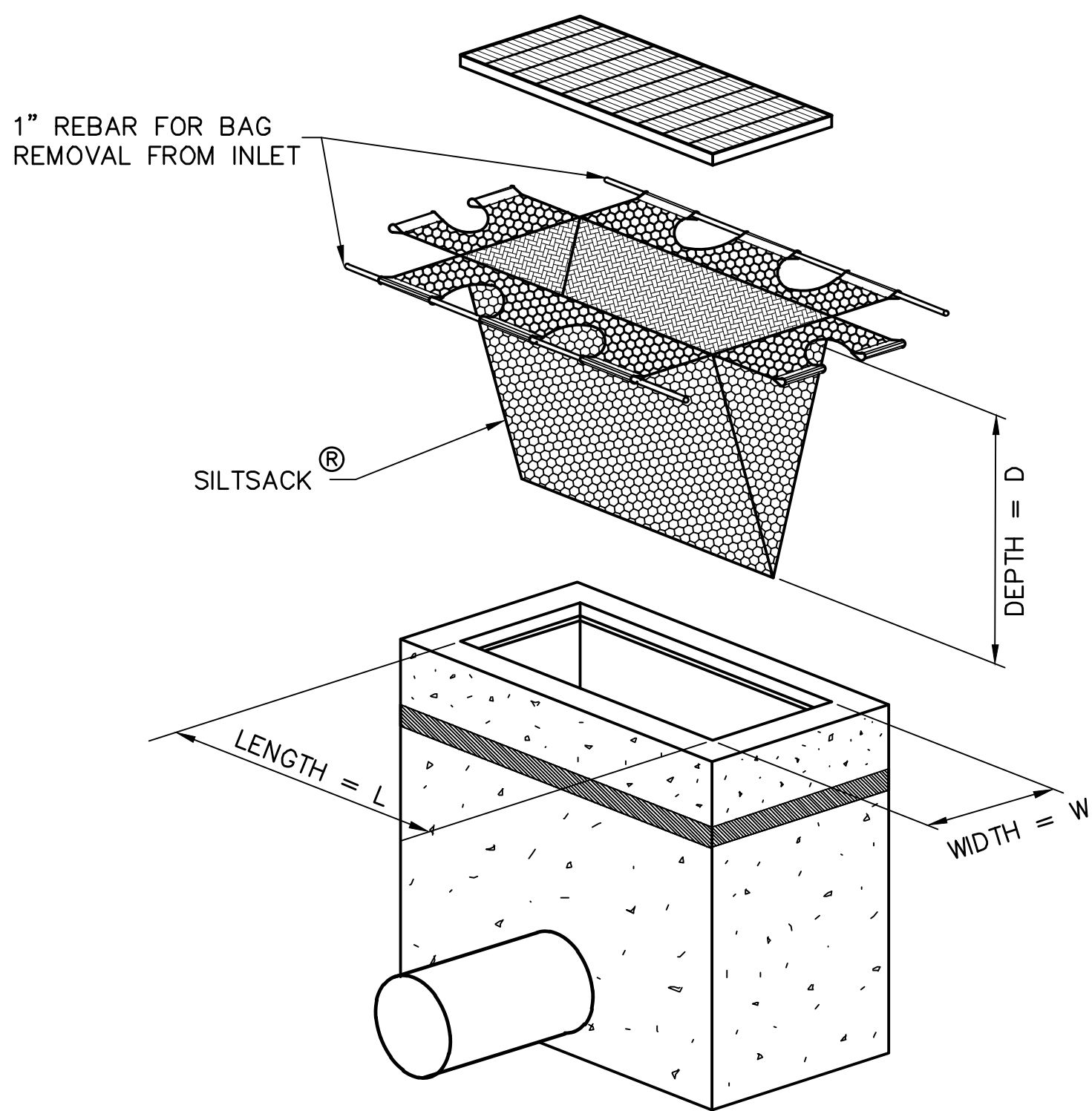


NOTES:

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

ROCK FILTER OURLET DETAIL

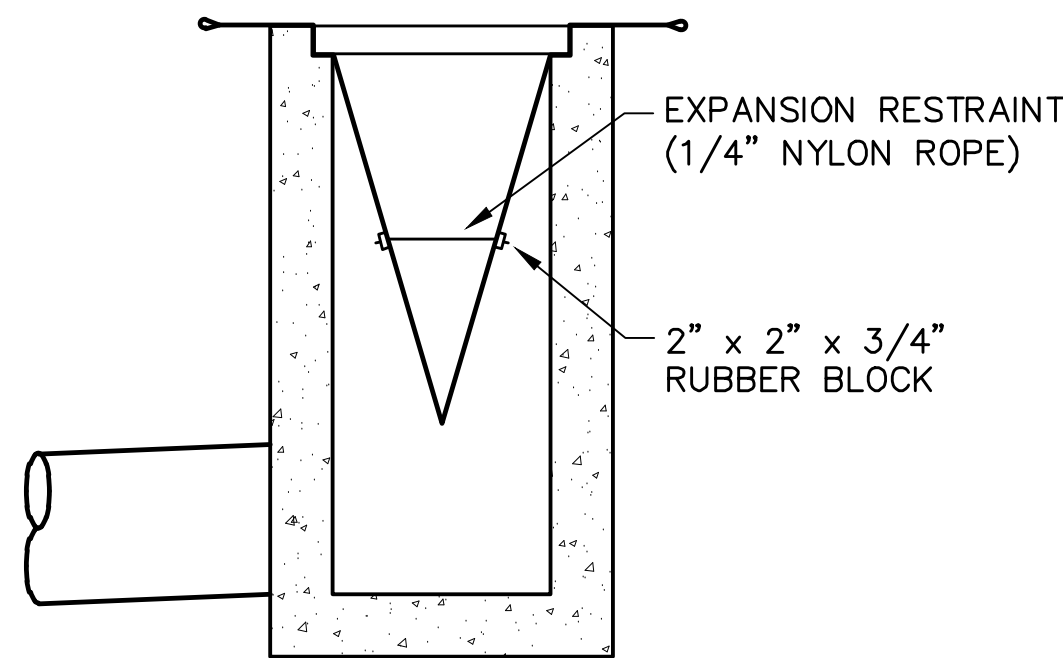
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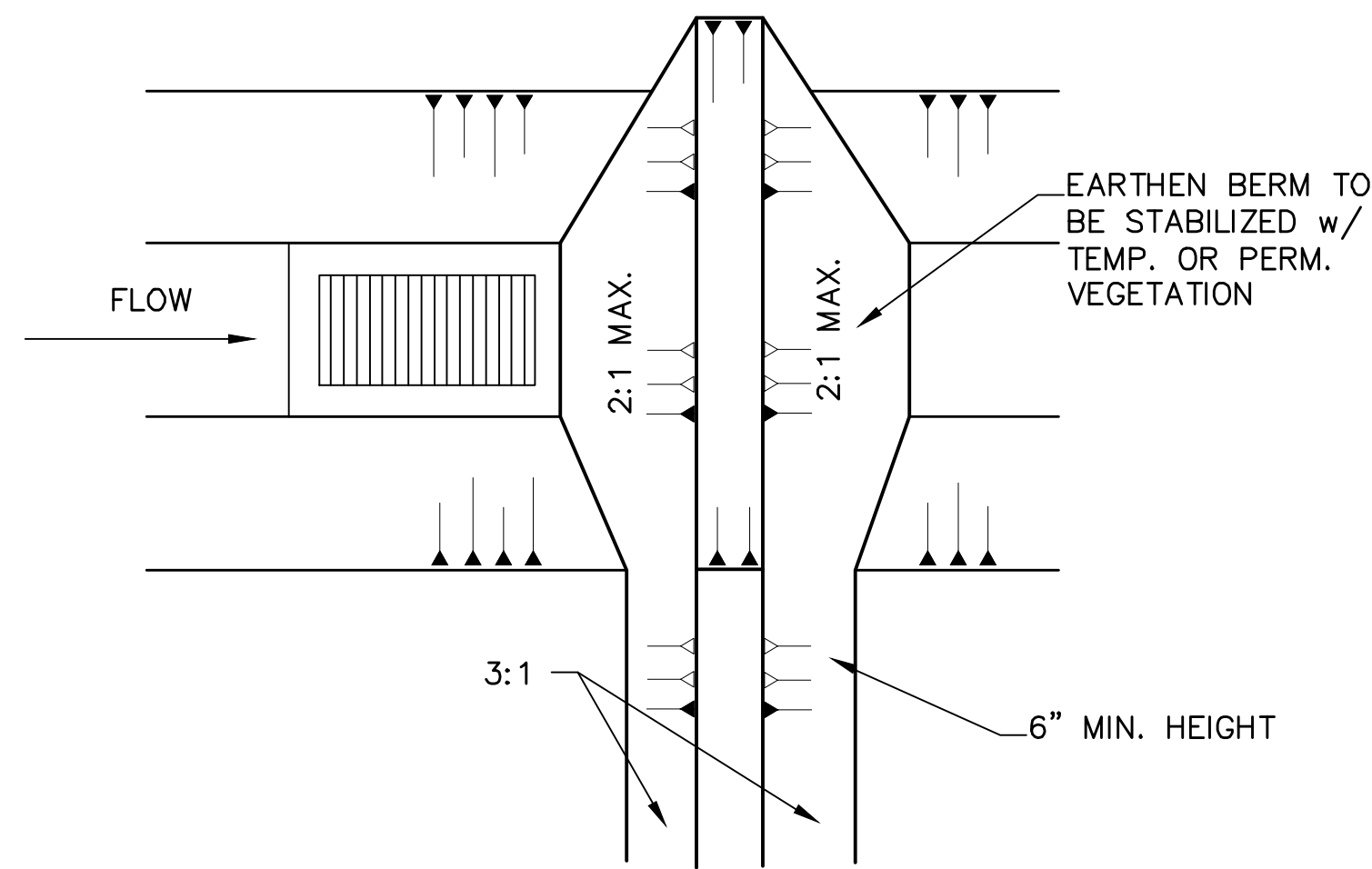
ISOMETRIC VIEW

SILTSACK TYPE 'M' INLET PROTECTION DETAIL

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INSTALLATION DETAIL



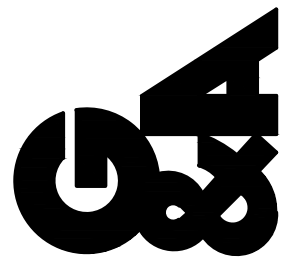
PLAN VIEW

MAINTENANCE:

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

1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

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CORPORATE HEADQUARTERS
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JOB NO.: 2018-05040

TAX MAP PARCEL NO.: 22-03-004, 22-03-007

MUNICIPAL FILE NO.: XX

OWNER: COUNTY OF BUCKS
55 E COURT STREET #318
DOYLESTOWN, PA 18901
(215)-346-6000

TRAIL DEVELOPMENT PLAN
E&S DETAILS - 3

SHEET NO.:

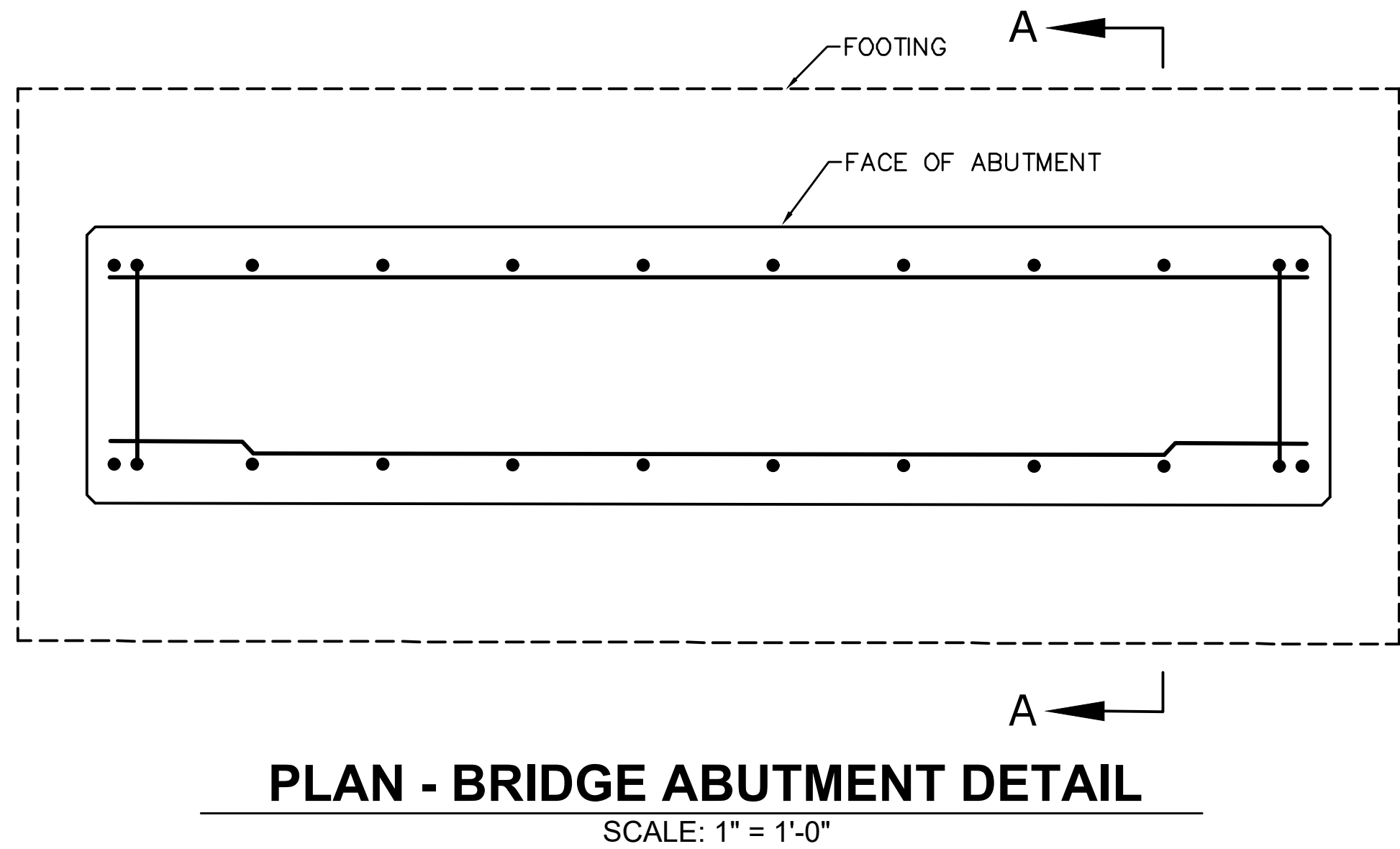
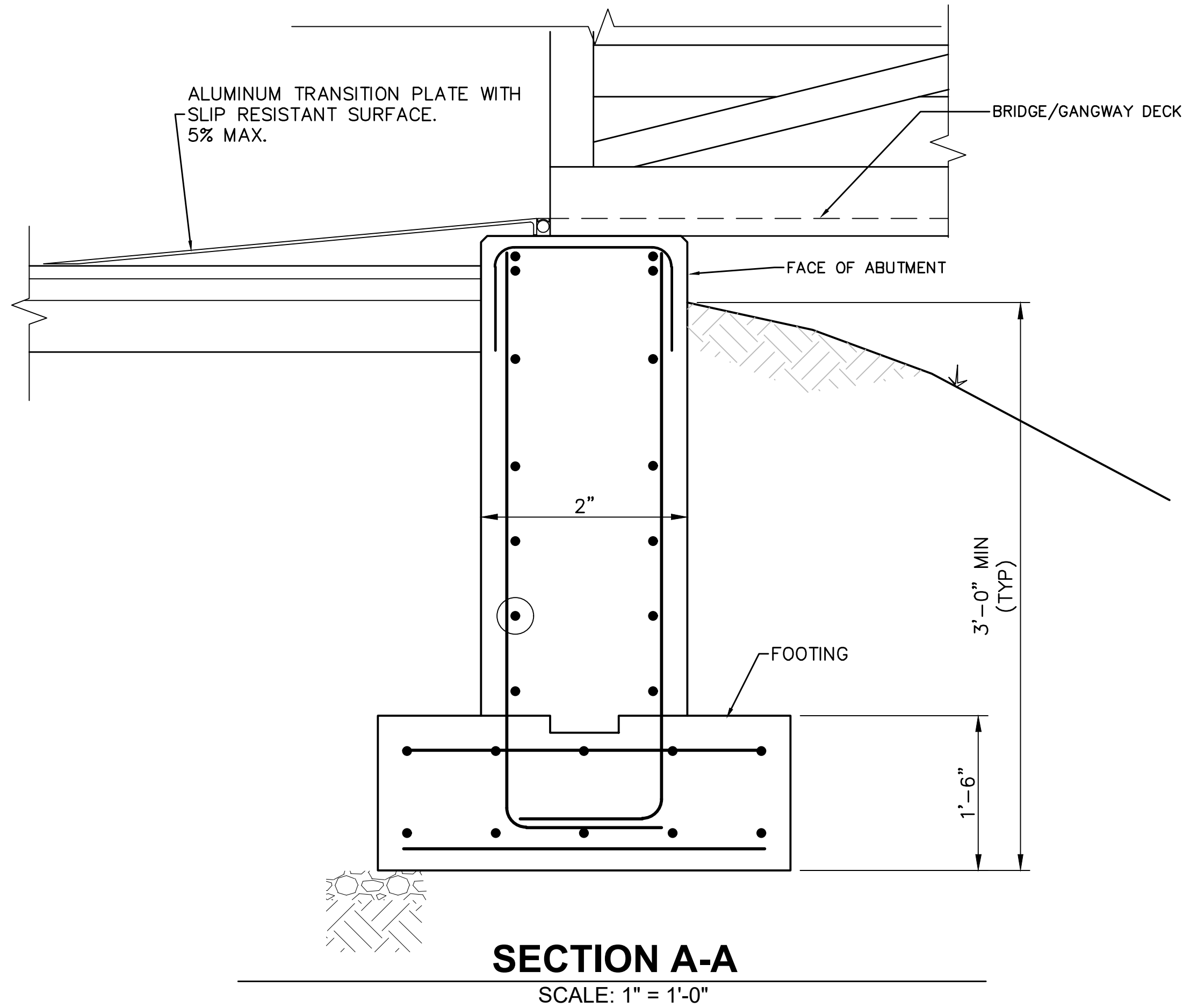
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NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

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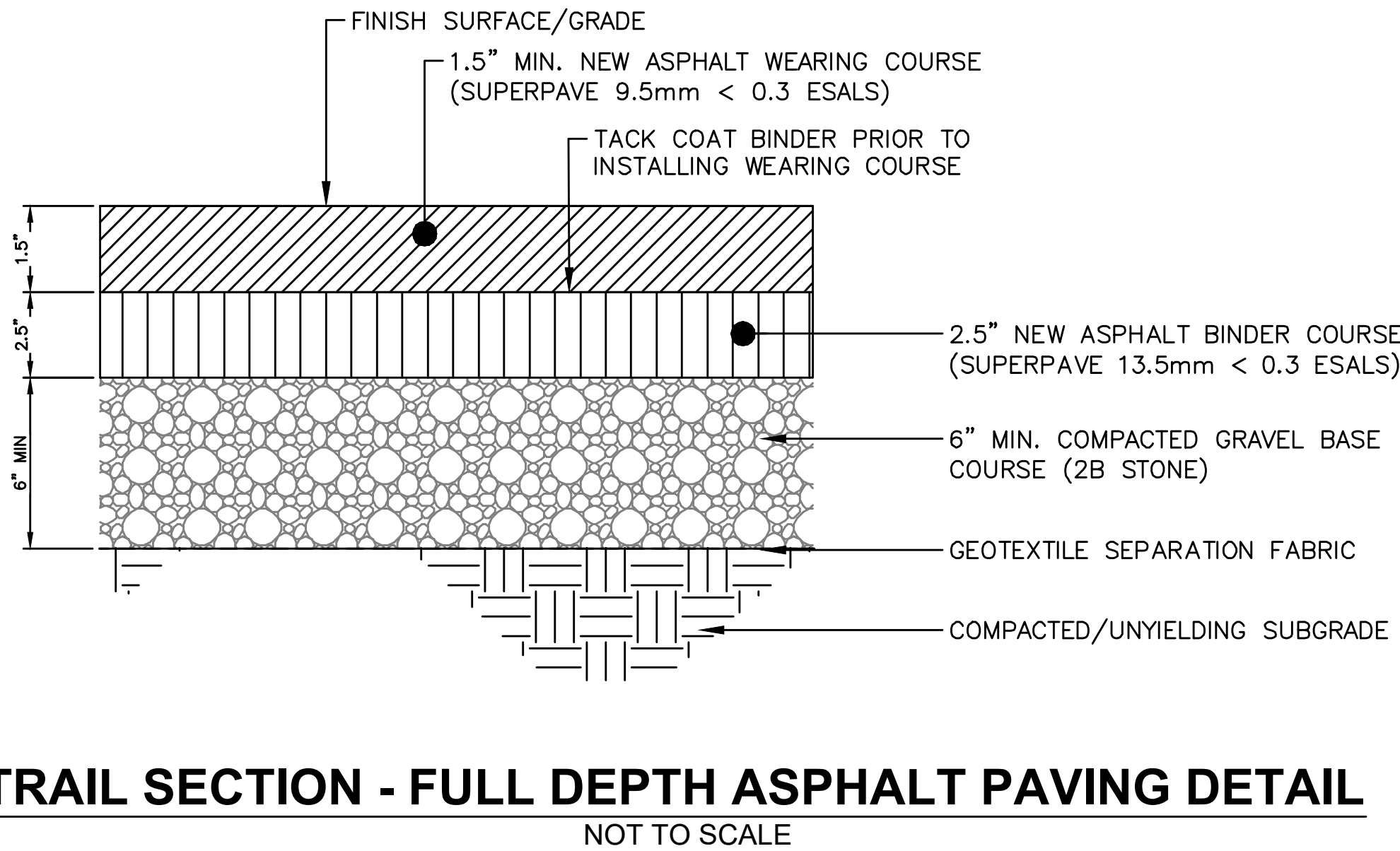
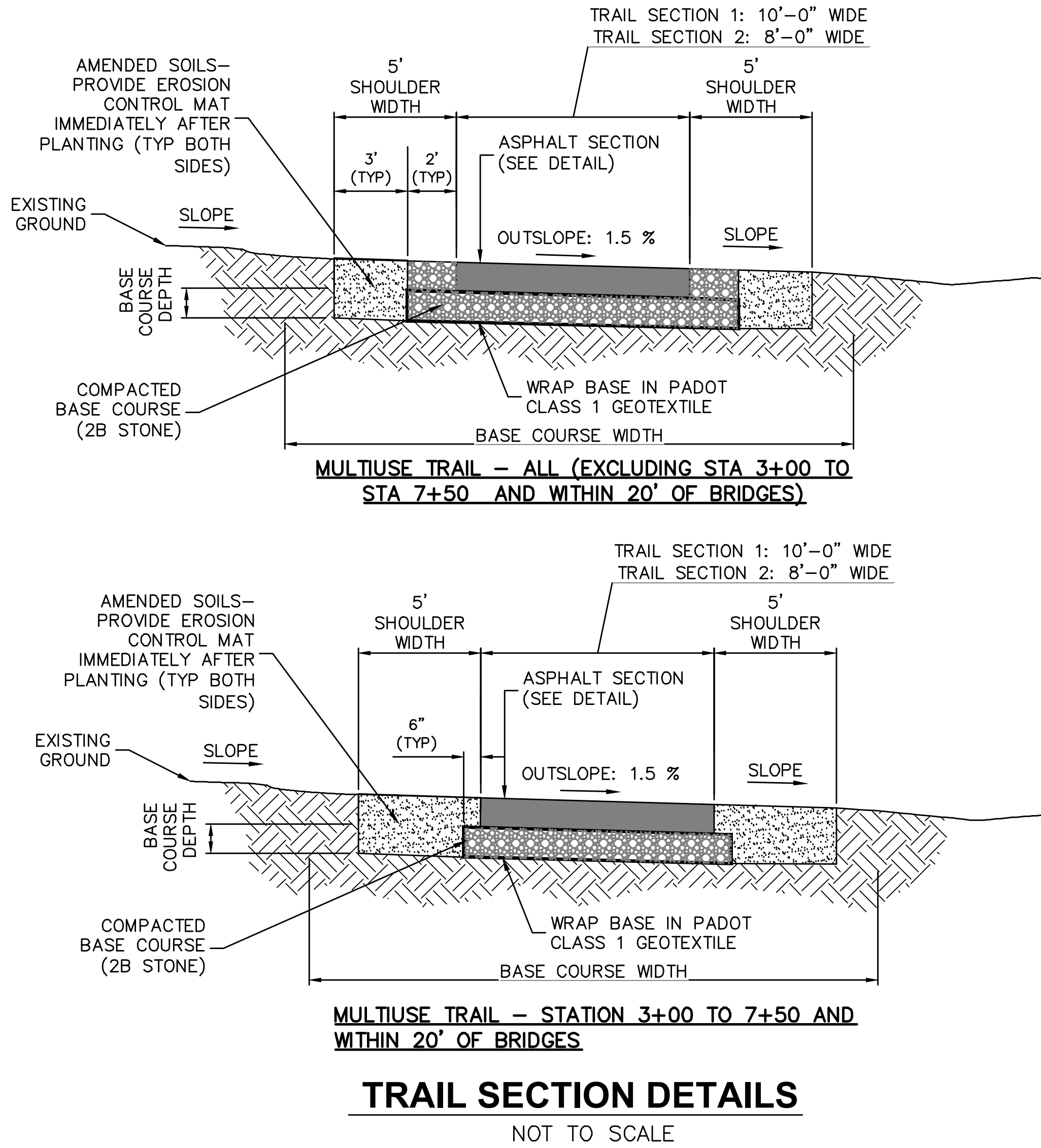
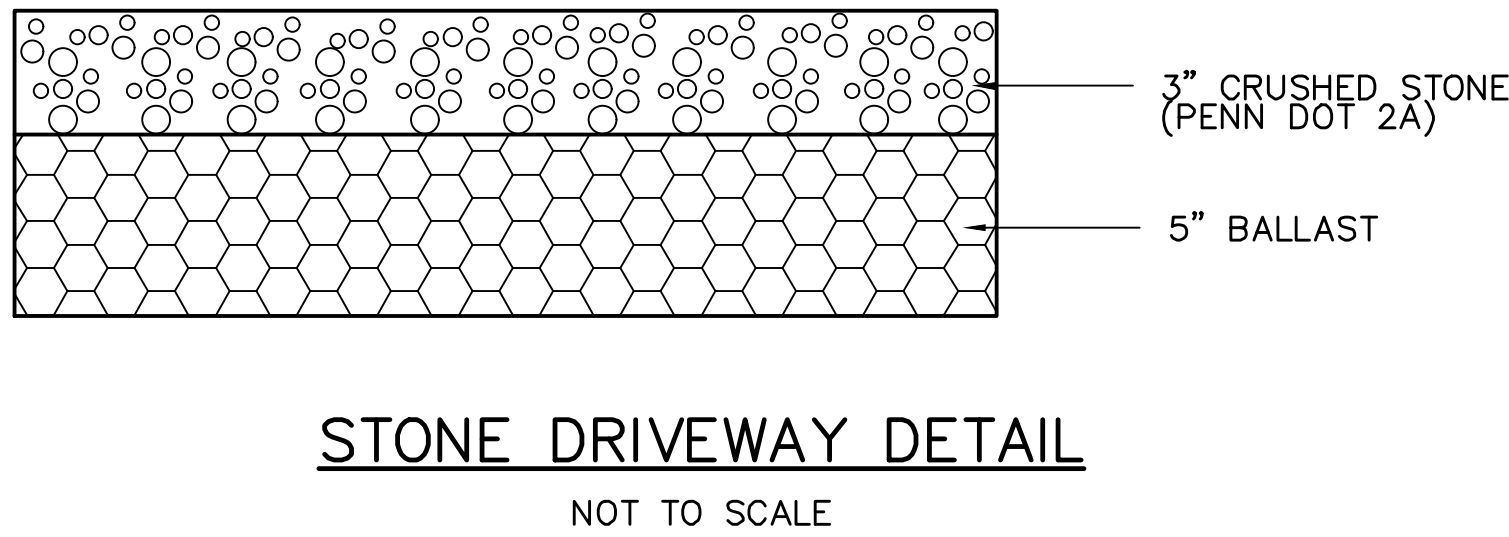
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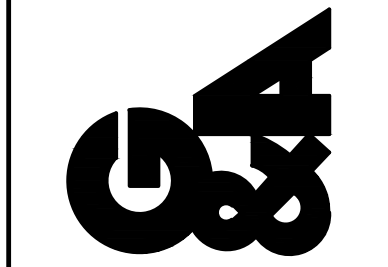
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JOB NO.:	2018-05040	TAX MAP PARCEL NO.:	22-03-004, 22-03-007
MUNICIPAL FILE NO.:	XX	N.T.S.	XX
OWNER:	COUNTY OF BUCKS 55 E COURT STREET DOYLESTOWN, PA 19001 (215)-346-6000	TOTAL LOTS:	2
TOTAL AREA:	XX AC.	SCALE:	NOT TO SCALE
DATE:	01/24/2020	DESIGNED BY:	TPB
DRAWN BY:	TPB	CHECKED BY:	DW, CG

TRAIL DEVELOPMENT PLAN
SITE DETAILS-1

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SHEET NO.:	29 OF 31
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1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
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"PEDESTRIAN BRIDGE" - BOARDSAFE PRODUCT EXAMPLE
SIMILAR TO THE PROPOSED APPLICATION

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1	BRIDGE COORDINATION/PREP NPDES	08/31/20	DAW
REV.	DESCRIPTION	DATE	BY

SHEET NO.:
31 OF 31

TRAIL DEVELOPMENT PLAN
SITE DETAILS-3

NESHAMINY GREENWAY TRAIL - CORE CREEK

MIDDLETOWN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

OWNER:
COUNTY OF BUCKS
55 E COURT STREET #318
DOWNTOWN, PA 18901
(215)-346-6000

TOTAL AREA:
XX AC.

TOTAL LOTS:
2

SCALE:
NOT TO SCALE

DATE:
01/24/2020

JOB NO.:
2018-05040

TAX MAP PARCEL NO.:
22-031-004, 22-031-007

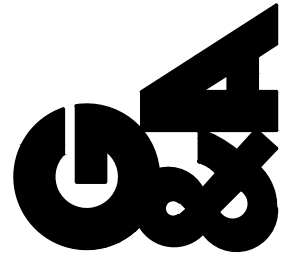
MUNICIPAL FILE NO.:
XX

XX N.T.S. XX XX

DESIGNED BY: TPB

DRAWN BY: TPB

CHECKED BY: DW, CS



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