

MEMO

PLYMOUTH TOWNSHIP



TO: Planning Agency Members
FROM: Joel Rowe
DATE: January 28, 2026
SUBJECT: February Planning Agency Agenda

The Planning Agency will meet once this month:

Wednesday February 4thth, 2026 beginning at 7:00 p.m.

- 1. 1920 Little Ave – Two Lot Subdivision**
- 2. 1175 Conshohocken Rd – Land Development for New Training Facility**
- 3. Approval of January Minutes**

MEMO: (Insert Topic of memo)

January 28, 2026

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FINAL LAND DEVELOPMENT PLAN

FOR

MONTGOMERY COUNTY

NEW LIVE FIRE TRAINING BUILDING

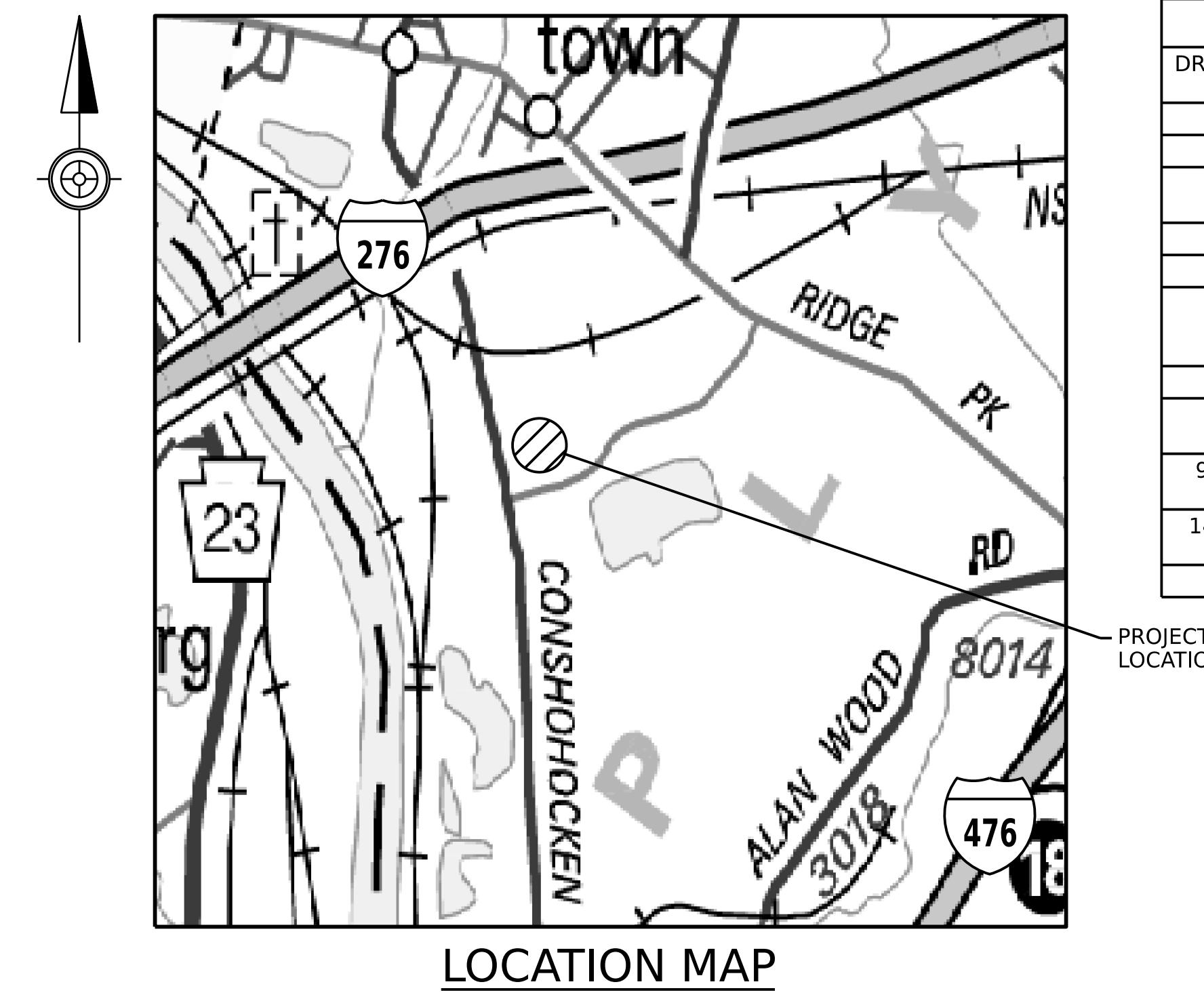
1175 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA 19428
PLYMOUTH TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
JANUARY 14, 2026

PLYMOUTH TOWNSHIP COUNCIL

AT A MEETING HELD ON _____, THE PLYMOUTH TOWNSHIP COUNCIL APPROVED THE MONTGOMERY COUNTY PUBLIC SAFETY TRAINING CAMPUS - LIVE FIRE TRAINING BUILDING LAND DEVELOPMENT PLAN AS SHOWN HEREON.

SIGNATURE - CHAIRMAN OF COUNCIL

SIGNATURE - TOWNSHIP SECRETARY



DRAWING INDEX	
DRAWING NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES
3	EXISTING CONDITIONS & DEMOLITION PLAN
4	EXISTING BOUNDARY PLAN
5	PROPOSED SITE PLAN
6	GRADING AND UTILITY PLAN AND POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
7	LANDSCAPE AND LIGHTING PLAN
8	EROSION AND SEDIMENT POLLUTION CONTROL PLAN
9 - 13	EROSION AND SEDIMENT POLLUTION CONTROL PLAN DETAILS
14 - 15	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN DETAILS
16	CONSTRUCTION DETAILS

CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF THE TOWNSHIP OF PLYMOUTH.

KEVIN A. MARMAS, PROFESSIONAL ENGINEER

MY PENNSYLVANIA REGISTRATION
LICENSE NUMBER IS PE076492

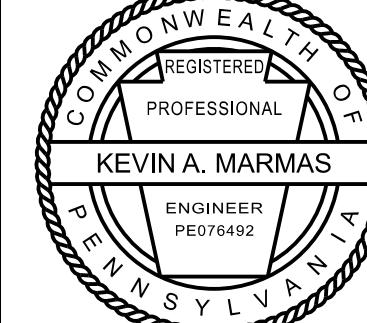
PLYMOUTH TOWNSHIP ENGINEER CERTIFICATION

I CERTIFY THAT THE PLAN COMPLIES WITH ALL CONDITIONS OF APPROVAL
AND THAT IMPROVEMENTS HAVE BEEN INSTALLED OR GUARANTEED.

SIGNATURE _____



DIAL 8-1-1 OR 1-800-242-1776 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS PRIOR TO THE START OF EXCAVATION.
COORDINATE YOUR PROJECTS VIA COORDINATE PA AT WWW.PAONECALL.ORG
PENNSYLVANIA ONE CALL SYSTEM SERIAL NUMBER
20252262037

Rev	Date	By	Chk'd	Description
PREPARED BY: benesch PROJECT MANAGER _____ DATE _____				
 				

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OWNERSHIP CERTIFICATION

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF _____

ON THIS, THE _____ DAY OF _____ 20____, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, WHO ACKNOWLEDGED HIMSELF/HERSELF TO BE _____ OF MONTGOMERY COUNTY, WHO BEING DULY SWEORN ACCORDING TO LAW, DEPOSES AND SAYS THAT MONTGOMERY COUNTY IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, THAT THE LAND DEVELOPMENT PLAN THEREOF WAS MADE AT ITS DIRECTION, AND THAT HE ACKNOWLEDGES THE SAME TO BE ITS ACT AND PLAN AND DESIRES THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

SIGNATURE OF OWNER _____

TITLE _____

benesch PROJECT
0326-
200040.00
DRAWING NO.
1 OF 16

GENERAL NOTES

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE LAND DEVELOPMENT OF A PROPOSED NFPA 1402 COMPLIANT LIVE FIRE TRAINING BUILDING THAT WILL REPLACE THE EXISTING STRUCTURAL BURN BUILDING. THE EXISTING BURN BUILDING WILL REMAIN ON SITE FOR OTHER SAFETY TRAINING PURPOSES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON WAS OBTAINED FROM "MUNICIPAL POLICE ACADEMY - BOUNDARY AND TOPOGRAPHIC PLAN" PREPARED BY BURSICH AND DATED AUGUST 15, 2018, WHICH INDICATED A HORIZONTAL DATUM OF NAD83 PA SPC SOUTH ZONE AND A VERTICAL DATUM OF NAVD88 WERE UTILIZED. VEHICLE RESCUE AND TRENCH RESCUE TRAINING FACILITY INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM "GRADING PERMIT PLANS FOR MONTGOMERY COUNTY PUBLIC SAFETY TRAINING CAMPUS TRENCH AND VEHICLE RESCUE FACILITIES" PREPARED BY BENESCH, DATED NOVEMBER 5, 2020, AND LAST REVISED MARCH 2, 2021.
- THE BOUNDARY SURVEY WAS DONE WITHOUT THE BENEFIT OF A TITLE SEARCH AND THE PROPERTIES SHOWN HEREON MAY BE SUBJECT TO EASEMENTS, RIGHT-OF-WAYS AND RESTRICTION NOT SHOWN HEREON.
- CONTOUR LINES AND ADDITIONAL EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IN THE AREA OF THE PROPOSED IMPROVEMENTS BASED ON A FIELD SURVEY PERFORMED BY BENESCH IN AUGUST 2025.
- HORIZONTAL DATUM IS BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) NAD-83. VERTICAL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD-88).
- THE PROPOSED SITE IS NOT LOCATED WITHIN A MAPPED 100-YEAR FLOODPLAIN ACCORDING TO FEMA FIRM MAP NUMBER 42091C0352G, WITH REVISION DATE OF MARCH 2, 2016.
- RECORD OWNER & SOURCE OF TITLE:
MONTGOMERY COUNTY
P.O. BOX 311
NORRISTOWN, PA 19404
DEED BOOK 4989, PAGE 1620
UPI NO. 49-00-02741-50-4
GROSS ACREAGE: 16.868 ACRES
NET ACREAGE: 16.312 ACRES
- ALL DIMENSIONS, ELEVATIONS, AND INVERTS SHOWN IN THIS PLAN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION ACTIVITIES.
- ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURB OR EDGE OF PAVING UNLESS NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF STRUCTURES. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED.
- BUILDING DIMENSIONS SHOWN ON THIS PLAN SET ARE FOR LAND DEVELOPMENT APPROVAL PURPOSES ONLY. ARCHITECTURAL PLANS SHALL BE PROVIDED BY OTHERS AT THE TIME OF BUILDING PERMIT APPLICATION(S).
- ANY PROPOSED BUILDING OR SITE SIGN SHALL BE SUBJECT TO THE SIGN REQUIREMENTS OF THE PLYMOUTH TOWNSHIP ZONING ORDINANCE, AND OBTAIN ANY REQUIRED SIGN PERMIT PRIOR TO SIGN CONSTRUCTION.
- ALL TRENCHING TO BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS.
- ANY EXISTING HAZARDOUS WASTE ENCOUNTERED IN PREPARATION OF THE PROJECT SITE MUST BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR AND DISPOSED OF AT AN APPROVED FACILITY.
- A WETLAND AND WATERCOURSE DETERMINATION WAS NOT PERFORMED FOR THE SITE. ALL IMPROVEMENTS AND DISTURBANCE ARE LOCATED ON IMPERVIOUS AREA OR PREVIOUS DEVELOPED AND WELL DRAINED AREAS.
- ALL LINE STRIPING TO BE 4" YELLOW STANDARD TRAFFIC PAINT.
- SEE ARCHITECTURAL PLANS AND STRUCTURAL PLANS FOR DIMENSIONS, ELEVATIONS, AND ALL OTHER INFORMATION FOR LIVE FIRE TRAINING FACILITY AND ASSOCIATED RETAINING WALLS, STEPS, AND CONCRETE PADS. ALL RETAINING WALL DESIGN INFORMATION TO BE PROVIDED WITH BUILDING PERMIT APPLICATION.

ZONING DATA:

PLYMOUTH TOWNSHIP

ZONING DISTRICT: HEAVY INDUSTRIAL DISTRICT

	REQUIRED	PROPOSED
MINIMUM DISTRICT AREA:	6 ACRES	16.868 ACRES
MINIMUM LOT AREA:	2 ACRES	16.868 ACRES
MINIMUM LOT FRONTAGE:	200 FEET	950 FEET
MAXIMUM BUILDING COVERAGE:	33.33%	8.71%
MAXIMUM IMPERVIOUS COVERAGE:	85.0%	45.2%
MAXIMUM BUILDING HEIGHT:	60 FEET	< 60 FEET
<u>BUILDING SETBACK REQUIREMENTS</u>		
FRONT YARD:	50 FEET	133.1 FEET *
REAR YARD:	50 FEET	207.1 FEET *
SIDE YARD (EACH SIDE):	50 FEET	464.1 FEET *
ANY SETBACK SHALL BE INCREASED TO ONE HUNDRED (100) FEET WHERE IT ABUTS A RESIDENTIAL DISTRICT		
GREEN SPACE AREA:	15%	54.8%
<u>PARKING SETBACK REQUIREMENTS</u>		
FRONT YARD:	25 FEET	> 25 FEET
REAR YARD:	25 FEET	> 25 FEET
SIDE YARD (EACH SIDE):	10 FEET	> 10 FEET
ANY SETBACK SHALL BE INCREASED TO ONE HUNDRED (100) FEET WHERE IT ABUTS A RESIDENTIAL DISTRICT		

* PROPOSED SETBACKS ARE SPECIFIC TO THE TWO PROPOSED BUILDINGS, I.E. LIVE FIRE TRAINING FACILITY AND THE RECOVERY PAVILION.

PARKING

PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS PROJECT WILL NOT IMPACT TRAFFIC OR PARKING ON THE PROPERTY. THEREFORE, NO CHANGES ARE PROPOSED TO THE EXISTING PARKING COUNT OR LAYOUT.

EXISTING
166 PARKING SPACES (APPROXIMATE)

* ADDITIONAL PARKING AVAILABLE THROUGHOUT THE SITE IN ADDITION TO THESE SPACES.

ACT 287 NOTIFICATION

ALFRED BENESCH & COMPANY HERBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 287 OF 1974, AS AMENDED THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

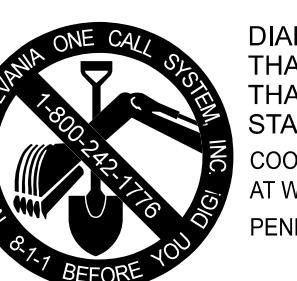
- PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, ALFRED BENESCH & COMPANY REQUESTED FROM EACH USER'S OFFICE DESIGNATED ON SUCH LIST PROVIDED BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 2, CLAUSE (4) OF SAID ACT, NOT LESS THAN (10) NOR MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED.
- PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, ALFRED BENESCH & COMPANY HAS MET THEIR OBLIGATION OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
- PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, ALFRED BENESCH & COMPANY HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM PHONE NUMBER, AND THE NAME OF THE USER, THE USER'S DESIGNATED OFFICE ADDRESS AND PHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 4, CLAUSE (5) OF SAID ACT."

ALFRED BENESCH & COMPANY DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT ALFRED BENESCH & COMPANY IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 121 OF 2008.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION:

DATE:

ONE CALL SYSTEM SERIAL NUMBERS:



DIAL 8-1-1 OR 1-800-242-1776 NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS PRIOR TO THE START OF EXCAVATION.
COORDINATE YOUR PROJECTS VIA COORDINATE PA AT WWW.PACALL.ORG
PENNSYLVANIA ONE CALL SYSTEM SERIAL NUMBER
20252262037

LIST OF UTILITIES

PENNSYLVANIA AMERICAN WATER 171 W JOHNSON HWY NORRISTOWN, PA 19401 SITI YEARWOOD siti.yearwood@amwater.com 610-292-3575	PECO AN EXELON COMPANY C/O USIC 450 S HENDERSON ROAD SUITE B KING OF PRUSSIA, PA 19406 NIKKIA SIMPKINS nikkiasimpkins@usicllc.com 484-681-5720
CROWN CASTLE 1500 CORPORATE DR CANONSBURG, PA 15317 FIBER DIG TEAM PERSONNEL fiber.dig@crowncastle.com 800-654-3110	ZAYO BANDWIDTH FORMERLY PPL TELCOM LLC 170 ROBBINS RD DOWNTON, PA, 19335 JOHN HOWELLS JOHN.HOWELLS@ZAYO.COM 610-476-1634
COMCAST 1004 CORNERSTONE BLVD DOWNTON, PA 19335 JOHN CEDRICK SALVATIERRA JOHN.CEDRICK.SALVATIERRA@COMCAST.COM 267-271-9781	VERIZON BUSINESS FORMERLY MCI 7000 WESTON PKWY CARY, NC, 27513 VICTOR WOOD victor.s.wood@verizon.com 919-414-2782
FRONTIER COMMUNICATIONS OF PA INC 300E LAIRD ST WILKES BARRE, PA 18702 MICHAEL NAVICH Michael.Navich@FTR.com 570-208-3375	PLYMOUTH TOWNSHIP MONTGOMERY COUNTY 700 BELVOIR RD PLYMOUTH MEETING, PA. 19462 CHRISTOPHER LOSCHIAVO closchiavo@plymouthtownship.org 610-233-0566

ANTICIPATED PROJECT TIMELINE

APRIL 2026: SUBMIT FOR AND RECEIVE PERMIT APPROVALS
MAY 2026: BEGIN CONSTRUCTION
SUMMER/FALL 2026: FINALIZE CONSTRUCTION

EXISTING CONDITIONS & DEMOLITION PLAN NOTES

- ALL EXISTING CONDITIONS, DIMENSIONS, INVERTS AND ELEVATIONS ON THE SITE SHALL AND SHOWN ON THIS PLAN SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. IN THE EVENT OF ANY DISCREPANCY BETWEEN FIELD AND PLAN CONDITIONS, THE ENGINEER OF RECORD SHALL BE CONTACTED IMMEDIATELY.
- ANY EXISTING HAZARDOUS WASTE ENCOUNTERED IN PREPARATION OF THE PROJECT SITE MUST BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR AND DISPOSED OF AT AN APPROVED FACILITY.
- CONTRACTOR TO DEMOLISH ALL ITEMS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING AND SITE FEATURES WHETHER OR NOT INDICATED IN THE CONSTRUCTION DOCUMENTS. ADEQUATE AND PROPER PROTECTION SHALL BE PROVIDED TO EXISTING FEATURES NOT BEING REMOVED.
- EXCAVATIONS THAT ARE LEFT OPEN DURING THE DEMOLITION PROCESS SHALL BE COVERED OR FENCED OFF. THE AREA SHALL BE ADEQUATELY MARKED TO ENSURE WORKER AND PUBLIC SAFETY.
- THE CONTRACTOR IS RESPONSIBLE FOR TERMINATING ALL APPLICABLE UTILITIES WHERE ITEMS ARE BEING REMOVED IN A SAFE AND CODE CONFORMING MANNER.
- UNUSABLE MATERIALS AND RUBBISH SHALL BE IMMEDIATELY REMOVED FROM THE SITE. MATERIALS THAT REQUIRES PROTECTION FROM THE WEATHER SHALL BE STORED IN A SECURE AND DRY LOCATION.
- DAMAGE CAUSED TO EXISTING FEATURES DURING THE DEMOLITION PROCESS SHALL BE REPAIRED AND RESTORED TO PRE-DEMOLITION CONDITIONS. IF DAMAGE CANNOT BE REPAIRED ADEQUATELY, THE DAMAGED ITEM SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- FEATURES SHOWN IN BOLD INDICATE ITEMS TO BE REMOVED UNLESS INDICATED OTHERWISE, ALSO SEE NOTE 3.
- BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF ACT 287 - PA ONE CALL NOTIFICATION OF UTILITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL AT 1-800-242-1776. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED IN PART ON VISIBLE FIELD LOCATIONS, EXISTING SITE MAPPING, AND UTILITIES MARKED IN RESPONSE TO THE PA ONE CALL SYSTEM. NO SUBSURFACE LOCATION OR LOCATION SERVICES WERE PERFORMED. ALL EXISTING UTILITIES SHOWN HEREON MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION AND IDENTIFY ANY POTENTIAL UTILITY CONFLICTS.
- PRIOR TO ANY EARTH MOVING ACTIVITIES ON THE PROPERTY, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL UTILITY COMPANIES IN ACCORDANCE WITH ACT 287 TO VERIFY AN EXACT LOCATION OF ALL UNDERGROUND UTILITIES.
- CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY ON THE ADDITION, REMOVAL AND/OR RELOCATION OF UTILITIES, UTILITY POLES AND THE EXTENSION OF ALL PROPOSED UTILITIES.
- EXISTING OVERHEAD UTILITY LINES SERVING ANY EXISTING FEATURE BEING RELOCATED OR IMPACTED BY THE PROPOSED IMPROVEMENTS SHALL BE RELOCATED ACCORDINGLY AND IN COORDINATION WITH CORRESPONDING UTILITY OWNER(S) AND/OR PROVIDER(S).
- THERE ARE NO NATURAL STEEP SLOPES THAT WILL BE DISTURBED AS A RESULT OF THIS PROJECT.
- PRIOR TO REMOVAL OF EXISTING HEAVED CONCRETE SLAB, INDICATED TO BE REPLACED ON THE PLANS, CONTRACTOR TO VERIFY DIMENSIONS, I.E. LENGTH, WIDTH, AND DEPTH, OF THE EXISTING CONCRETE SLAB, AND REPLACE THE SLAB WITH THE SAME DIMENSIONS, INCLUDING PLACEMENT OF REINFORCEMENT MESH.
- PUBLIC GAS SERVICE IS NOT REQUIRED FOR THIS PROJECT SITE. EXISTING PROPANE TANKS UTILIZED FOR GAS SERVICE AND WILL BE RELOCATED AS PART OF THIS PROJECT. CONTRACTOR ALONG WITH DEVELOPER AND ARCHITECT TO COORDINATE WITH LOCAL GAS PROVIDERS TO DETERMINE TANK SIZE, TANK REQUIREMENTS, EQUIPMENT DETAILS AND PROTECTION AS NECESSARY, AND COMPLY WITH ANY MUNICIPAL AND/OR COUNTY SCREENING AND SEPARATION REQUIREMENTS.
- EARTHEN BERM TO BE A CLEAN FILL MATERIAL WITH TOPSOIL LAYER TO BRING TO FINAL GRADE. BERM CAN HAVE SUBTLE SIDE SLOPES AND BE AS WIDE AS NECESSARY TO ALLOW MOWING. INTENT OF THE BERM IS TO DIRECT A PORTION OF RUNOFF DRAINING FROM THE CONCRETE/PAVED AREA INTO THE PROPOSED INFILTRATION BASIN.
- CONTRACTOR TO REPLACE HEAVED CONCRETE WITH NEW 4,000 PSI COMPRESSIVE STRENGTH CONCRETE SLAB OF SAME LENGTH, WIDTH, AND DEPTH AS EXISTING SLAB AND PLACE REINFORCEMENT MESH IN THE NEW SLAB. SUBGRADE TO BE COMPACTED AND A MINIMUM OF 6 INCHES OF 2B STONE SUBBASE TO BE RE-ESTABLISHED BEHIND THE NEW SLAB. THE NEW SLAB TO BE SET FLUSH WITH THE EXISTING ADJOINING CONCRETE AND CONTINUING THE SAME SLOPE AND CROSS SLOPE AS THE ADJOINING CONCRETE.
- SEE ELECTRICAL PLANS FOR ANY PROPOSED ELECTRICAL SERVICES AND LIGHTING INFORMATION INCLUDING SERVICE LINE AND CONDUIT SIZE AND LOCATION AND TRENCH INFORMATION.
- PROPOSED STORM INLET PR-IN1 AND PROPOSED STORM MANHOLE PR-MH1 CAN BE DOGHOUSE STRUCTURES. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, LATEST EDITION, AND PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, RC-45M AND RC-46M FOR INLETS AND RC-39M FOR MANHOLES, LATEST EDITION.

GRADING & UTILITY PLAN NOTES

- ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS ON THE SITE AND SHOWN ON THIS PLAN SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. IN THE EVENT OF ANY DISCREPANCY BETWEEN FIELD AND PLAN CONDITIONS, THE ENGINEER OF RECORD SHALL BE CONTACTED IMMEDIATELY.
- COORDINATION WITH FINAL BUILDING DESIGN IS REQUIRED TO CONFIRM BUILDING DIMENSIONS, ACCESS LOCATIONS AND ANY APPLICABLE UTILITY SERVICE POINTS.
- ALL FINAL SITE GRADING SHALL BE SMOOTH AND EVEN AND WITHOUT ABRUPT BREAKS OR CHANGES IN GRADE. FINISHED EARTHEN SLOPES SHALL BE ROUNDED TO PROVIDE A UNIFORM AND AESTHETIC LANDSCAPE. GRADING SHALL TIE INTO EXISTING GRADES NO CLOSER THAN 3 FEET FROM ANY PROPERTY LINE UNLESS OTHERWISE AUTHORIZED.
- ALL SPOT ELEVATIONS ARE REFERENCED TO THE FINISHED PAVEMENT OR GROUND SURFACE UNLESS OTHERWISE NOTED.
- NO WORK SHALL OCCUR OUTSIDE OF THE PROPERTY OR RIGHT-OF-WAY LINES UNLESS COVERED BY GRADING OR CONSTRUCTION EASEMENTS.
- FOR ANY ITEMS NOT COVERED BY DETAILS OR SPECIFICATIONS, THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE OWNER'S AND ENGINEER'S REVIEW PRIOR TO CONSTRUCTION.
- ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROVED PLANS, THE CURRENT REQUIREMENTS OF PLYMOUTH TOWNSHIP, THE CURRENT REQUIREMENTS OF MONTGOMERY COUNTY, AND IN ACCORDANCE WITH PADOT SPECIFICATIONS, PUBLICATION 408 AND THE ROADWAY CONSTRUCTION STANDARDS (RC STANDARDS), CURRENT EDITIONS, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
- BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF ACT 287 - PA ONE CALL NOTIFICATION OF UTILITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL AT 1-800-242-1776. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
- CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY ON THE ADDITION, REMOVAL AND/OR RELOCATION OF UTILITIES, UTILITY POLES AND THE EXTENT OF ALL PROPOSED UTILITIES.
- ALL AREAS NOT PAVED SHALL BE TOPSOILED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.
- ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.
- ALL WATER SUPPLY AND DISTRIBUTION SYSTEMS, PUBLIC OR ON-SITE SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION SPECIFICATIONS, AND ALL ORDINANCES, RULES, AND REGULATIONS OF PLYMOUTH TOWNSHIP, AND MONTGOMERY COUNTY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BID AND PERFORM ALL UTILITY WORK IN COMPLIANCE TO ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE CONNECTION, INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTED.
- SEE ARCHITECTURAL PLANS FOR ANY WATER LINE AND ELECTRIC CONNECTIONS.
- ALL INLETS SHALL BE PADOT TYPE M INLETS WITH STRUCTURAL STEEL (BICYCLE SAFE) GRATES UNLESS OTHERWISE SPECIFIED.
- ALL INLETS OVER 5 FEET IN DEPTH SHALL BE PROVIDED WITH MANHOLE STEPS.
- ALL ENDWALLS SHALL BE PRECAST CONCRETE TYPE DW ENDWALLS.
- ALL STORM PIPING SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCP) AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS (ADS) OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
- ALL EXISTING TREES, VEGETATION, PAVEMENTS, CONCRETE FOUNDATIONS, STRUCTURES AND ORGANIC TOPSOIL SHALL BE STRIPPED AND REMOVED FROM NEW CONSTRUCTION AREAS UNLESS OTHERWISE NOTED.
- ALL PROPOSED SLOPES SHALL BE 2:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS OTHERWISE NOTED.
- ANY ELECTRICAL SERVICE LINES WILL REQUIRE COORDINATION WITH, AND APPROVAL BY, THE RESPECTIVE UTILITY SUPPLIERS.
- PUBLIC GAS SERVICE IS NOT REQUIRED FOR THIS PROJECT SITE. EXISTING PROPANE TANKS UTILIZED FOR GAS SERVICE AND WILL BE RELOCATED AS PART OF THIS PROJECT. CONTRACTOR ALONG WITH DEVELOPER AND ARCHITECT TO COORDINATE WITH LOCAL GAS PROVIDERS TO DETERMINE TANK SIZE, TANK REQUIREMENTS, EQUIPMENT DETAILS AND PROTECTION AS NECESSARY, AND COMPLY WITH ANY MUNICIPAL AND/OR COUNTY SCREENING AND SEPARATION REQUIREMENTS.
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NOTES

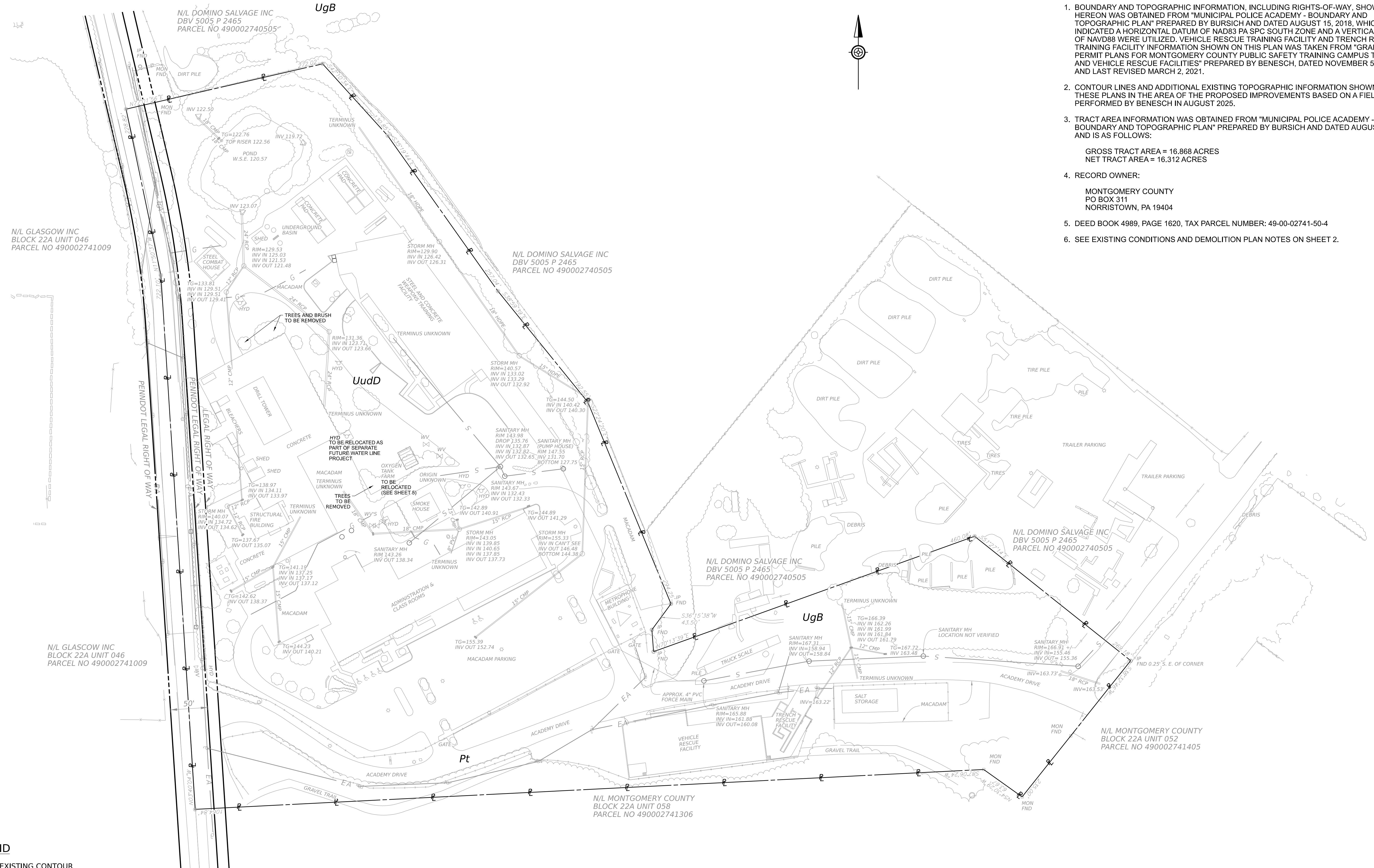
1. BOUNDARY AND TOPOGRAPHIC INFORMATION, INCLUDING RIGHTS-OF-WAY, SHOWN HEREON WAS OBTAINED FROM "MUNICIPAL POLICE ACADEMY - BOUNDARY AND TOPOGRAPHIC PLAN" PREPARED BY BURSICH AND DATED AUGUST 15, 2018, WHICH INDICATED A HORIZONTAL DATUM OF NAD83 PA SPC SOUTH ZONE AND A VERTICAL DATUM OF NAVD88 WERE UTILIZED. VEHICLE RESCUE TRAINING FACILITY AND TRENCH RESCUE TRAINING FACILITY INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM "GRADING PERMIT PLANS FOR MONTGOMERY COUNTY PUBLIC SAFETY TRAINING CAMPUS TRENCH AND VEHICLE RESCUE FACILITIES" PREPARED BY BENESCH, DATED NOVEMBER 5, 2020, AND LAST REVISED MARCH 2, 2021.
2. CONTOUR LINES AND ADDITIONAL EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IN THE AREA OF THE PROPOSED IMPROVEMENTS BASED ON A FIELD SURVEY PERFORMED BY BENESCH IN AUGUST 2025.
3. TRACT AREA INFORMATION WAS OBTAINED FROM "MUNICIPAL POLICE ACADEMY - BOUNDARY AND TOPOGRAPHIC PLAN" PREPARED BY BURSICH AND DATED AUGUST 15, 2018 AND IS AS FOLLOWS:

 - GROSS TRACT AREA = 16.868 ACRES
 - NET TRACT AREA = 16.312 ACRES

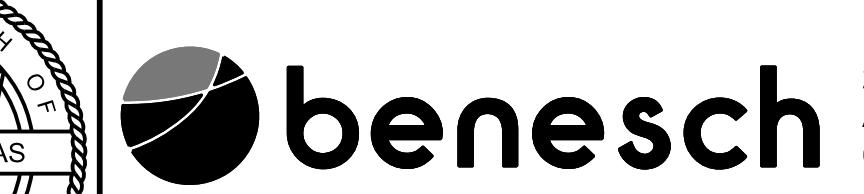
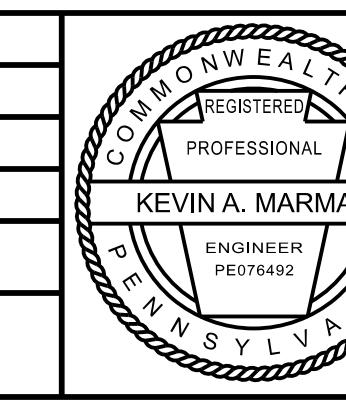
4. RECORD OWNER:

 - MONTGOMERY COUNTY
PO BOX 311
NORRISTOWN, PA 19404

5. DEED BOOK 4989, PAGE 1620, TAX PARCEL NUMBER: 49-00-02741-50-4
6. SEE EXISTING CONDITIONS AND DEMOLITION PLAN NOTES ON SHEET 2.

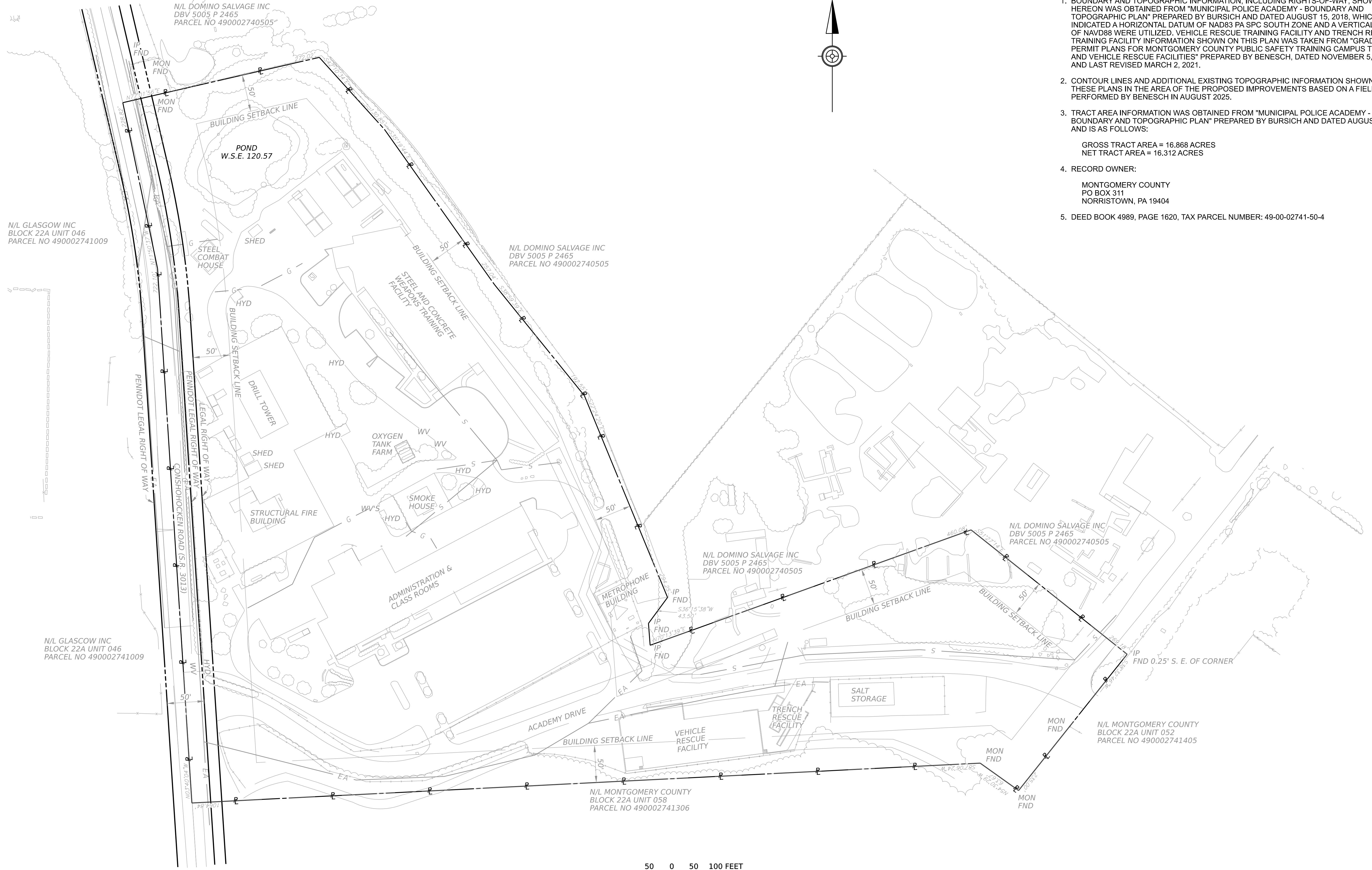


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610-439-7066

MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
EXISTING CONDITIONS
AND DEMOLITION PLAN
Plymouth Township, Montgomery County, Pennsylvania



NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION, INCLUDING RIGHTS-OF-WAY, SHOWN HEREON WAS OBTAINED FROM "MUNICIPAL POLICE ACADEMY - BOUNDARY AND TOPOGRAPHIC PLAN" PREPARED BY BURSICH AND DATED AUGUST 15, 2018, WHICH INDICATED A HORIZONTAL DATUM OF NAD83 PA SPC SOUTH ZONE AND A VERTICAL DATUM OF NAVD88 WERE UTILIZED. VEHICLE RESCUE TRAINING FACILITY AND TRENCH RESCUE TRAINING FACILITY INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM "GRADING PERMIT PLANS FOR MONTGOMERY COUNTY PUBLIC SAFETY TRAINING CAMPUS TRENCH AND VEHICLE RESCUE FACILITIES" PREPARED BY BENESCH, DATED NOVEMBER 5, 2020, AND LAST REVISED MARCH 2, 2021.
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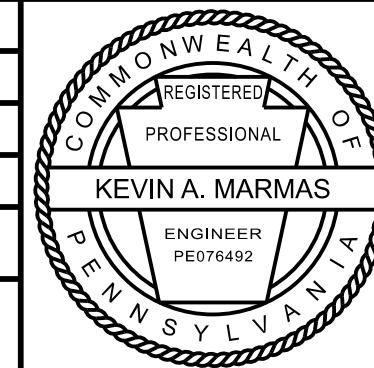
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NET TRACT AREA = 16.312 ACRES
 4. RECORD OWNER:

MONTGOMERY COUNTY
PO BOX 311
NORRISTOWN, PA 19404
 5. DEED BOOK 4989, PAGE 1620, TAX PARCEL NUMBER: 49-00-02741-50-4

LEGEND

— *P* — PROPERTY LINE
— - - - - RIGHT-OF-WAY LINE

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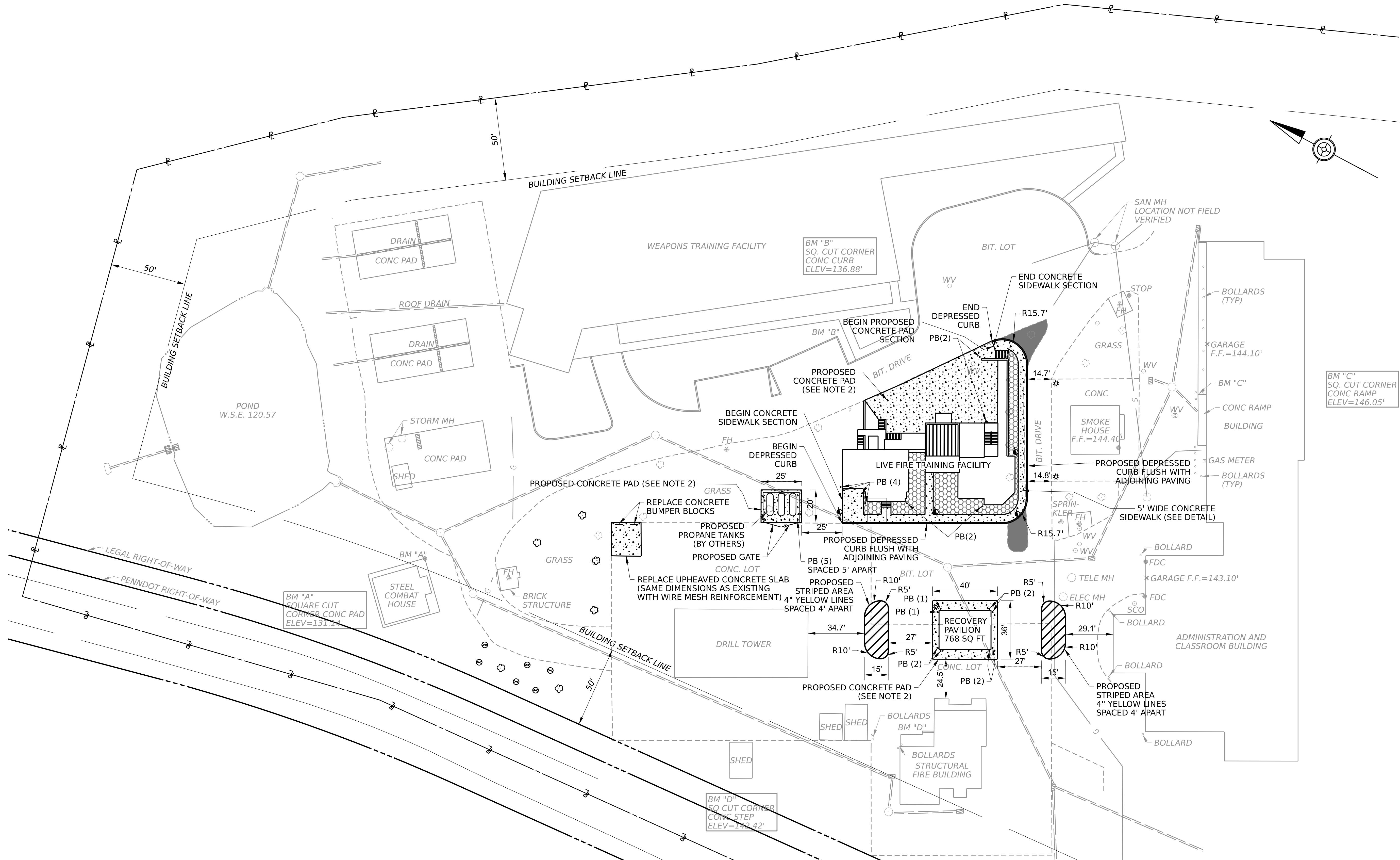
The logo for benesch, featuring a stylized pie chart icon on the left composed of two overlapping circles in light gray and black, followed by the brand name 'benesch' in a bold, lowercase, sans-serif font.

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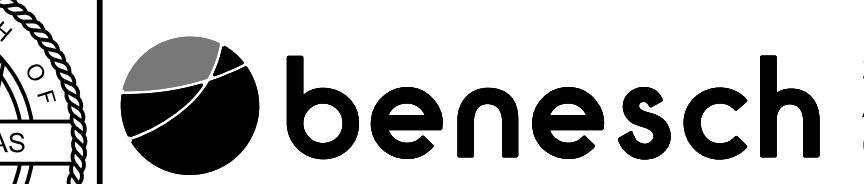
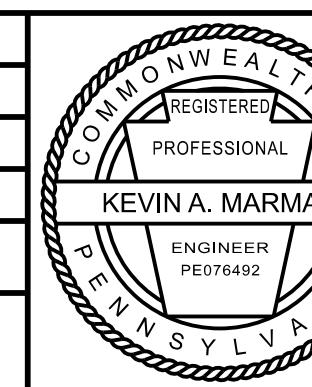
MONTGOMERY COUNTY NEW LIVE FIRE TRAINING BUILDING EXISTING BOUNDARY PLAN

Plymouth Township, Montgomery County, Pennsylvania

Drawn: WSL Designed: KAM Checked: KRR

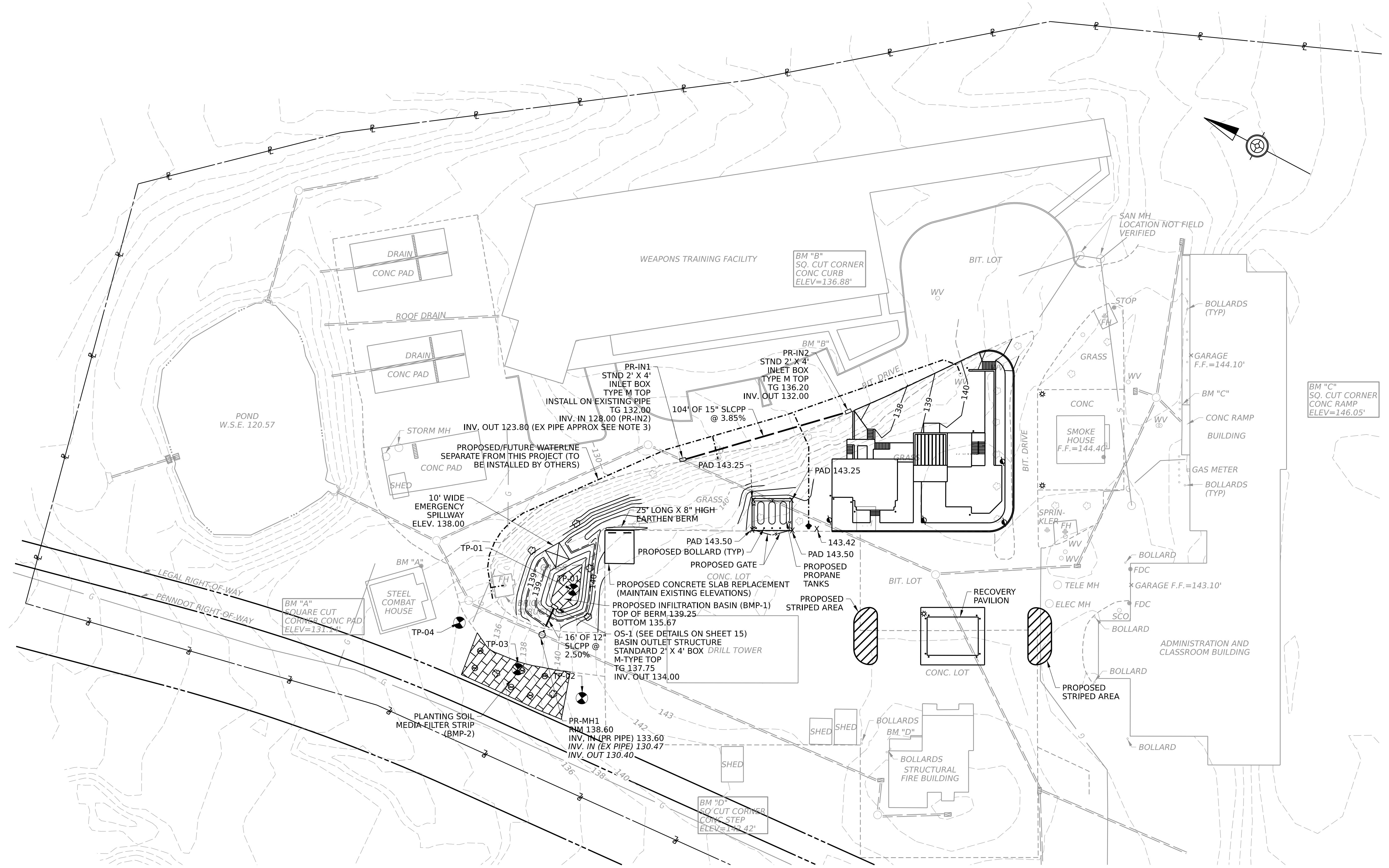


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MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
PROPOSED SITE PLAN
Plymouth Township, Montgomery County, Pennsylvania



LEGEND

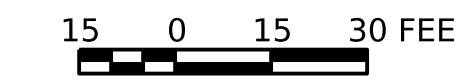
- - 400 — EXISTING CONTOUR
 - 400 — PROPOSED CONTOUR
 - P PROPERTY LINE
 - G — GAS LINE
 - S — SANITARY SEWER
 - FH  PROPOSED FUTURE FIRE HYDRANT PART OF SEPARATE WATERLINE PROJECT
 - x — PROPOSED 6' HIGH CHAIN LINK FENCE



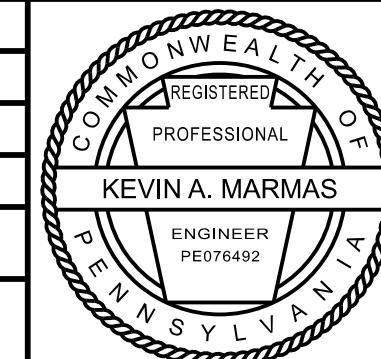
- ☀ PROPOSED POLE MOUNTED LIGHT (SEE LIGHTING PLAN)
- ◐ PROPOSED SIMULATED POWER POLE (FOR TRAINING PURPOSES ONLY)

NOTES

1. SEE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN DETAILS SHEETS FOR ALL PCSM DETAILS AND NOTES.
 2. SEE GRADING AND UTILITY PLAN NOTES ON SHEET 2.
 3. CONTRACTOR TO FIELD VERIFY EXISTING PIPE LOCATION AND EXISTING PIPE INVERT AT PROPOSED PR-IN1 LOCATION PRIOR TO FABRICATION OF PR-IN1.



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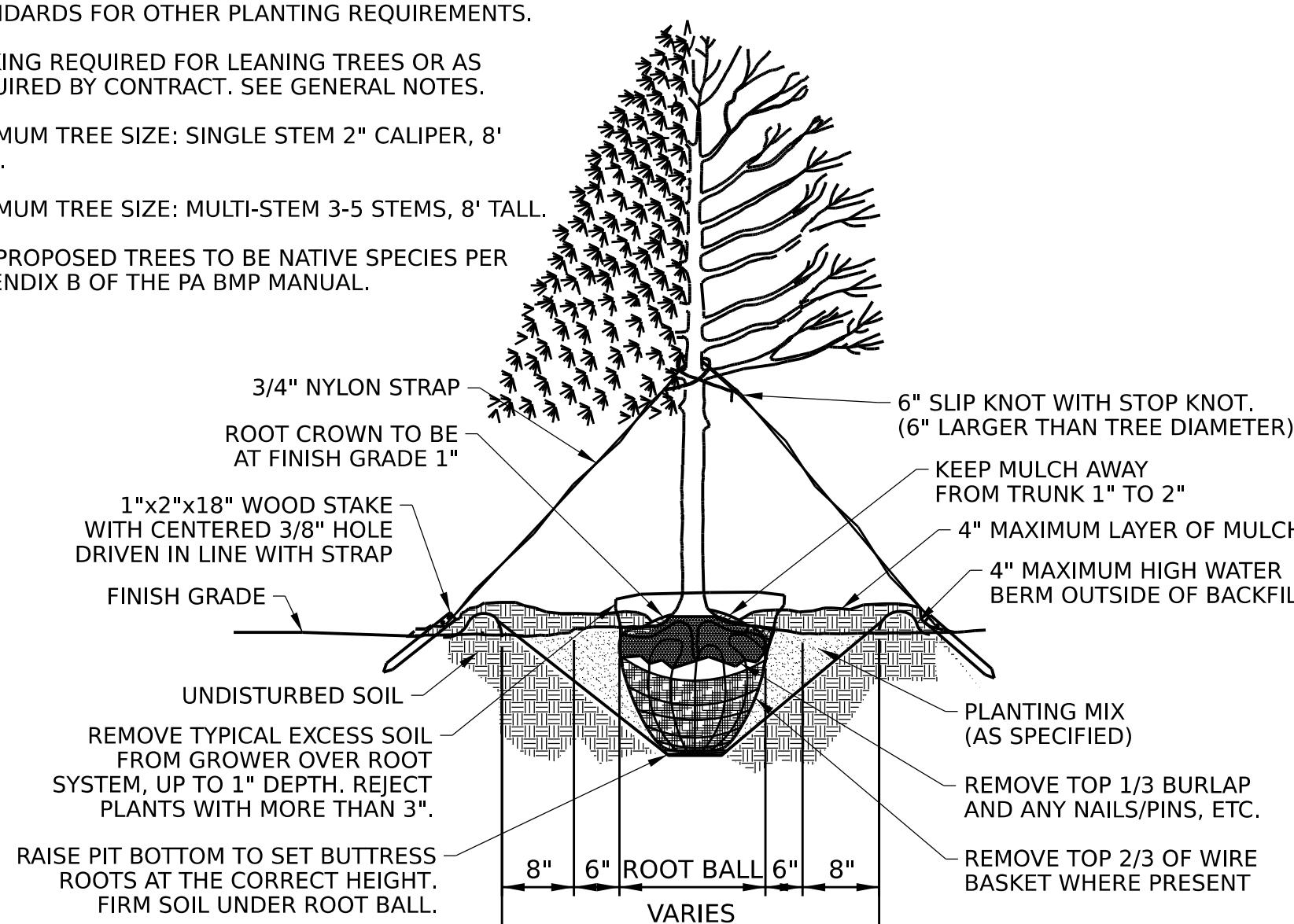
MONTGOMERY COUNTY NEW LIVE FIRE TRAINING BUILDING ZONING AND UTILITY PLAN AND POST CONSTRUCTION WATER MANAGEMENT PLAN South Township, Montgomery County, Pennsylvania

LANDSCAPE NOTES

- PROPOSED TREES AND OTHER VEGETATION SHALL BE GROWN IN A CLIMATE SIMILAR TO THE PROJECT SITE / MONTGOMERY COUNTY, PENNSYLVANIA. PLANTS SHALL BE IN GOOD HEALTH AND VIGOROUS, FREE OF DISEASE, LARVAE, INSECTS, AND INSECT EGGS.
- THE REQUIREMENTS FOR THE MEASUREMENTS, BRANCHING, QUALITY, AND BALLING AND BURLAPPING OF TREES SHALL FOLLOW THE CODE OF STANDARDS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI/Z60.1-1973, AS AMENDED.
- PROPOSED TREES SHALL BE PLANTED, GUYED, STAKED, AND HANDLED IN COMPLIANCE WITH ACCEPTED HORTICULTURAL STANDARDS AND STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI/Z60.1-1973, AS AMENDED.
- MINIMUM TREE SIZE AT PLANTING IS AS SHOWN, SEE PLANT SCHEDULE. LARGE MATURING TREES SHALL HAVE A GOOD BRANCH FORMS WITH A SINGLE STRONG CENTRAL LEADER AND FULL CANOPIES. ALL MULTI-STEM PLANTS MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS AND MINIMUM 6-8 FEET TALL. EVERGREEN TREES SHALL HAVE FULL CANOPIES WITH A SINGLE STEM AND STRONG CENTRAL LEADER TO THE GROUND.
- FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 24" NEW TOPSOIL, OR TILL AND AMEND THE TOP 24" OF EXISTING SOIL TO MEET TOPSOIL/ PLANTING MIX STANDARDS FOR TREES.
- TREES LESS THAN 3" IN CALIPER SHALL BE PROPERLY STAKED AND TREES GREATER THAN 3" SHALL BE GUYED AND PROPERLY PROTECTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING. SEE TREE PLANTING DETAIL.
- ALL SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING PLANTING. INSTALL MULCH 4" OFF OF TREE TRUNK.
- THE TOP OF ALL ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE, AS BORN TO PREVIOUS GROWING CONDITIONS.
- ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
- ALL STRAPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM ROOT BALL PRIOR TO BACKFILLING PLANTING PIT. REMOVE TOP 1/3 OF THE BURLAP FROM ROOT BALL.
- MULCH A MINIMUM 4 FOOT AREA AROUND EACH TREE AND - MULCH A CONTINUOUS AREA AROUND ALL SHRUB BEDS, AS INDICATED ON THE PLAN. MULCH SHALL BE 3-4" THICK.
- FERTILIZE ALL PLANTINGS IN ACCORDANCE WITH PENNDOT, PUBLICATION 408 SPECIFICATIONS AND MULCH WITH MIN. 3" SHREDDED HARDWOOD MULCH AROUND ALL NEW PLANTS IN CONTINUOUS BEDS (FERTILIZE IN SPRING ONLY). A SOIL TEST SHALL BE PERFORMED BY A QUALIFIED LABORATORY. ADJUSTMENT TO PLANT AND FERTILIZER MATERIAL AND APPLICATION SHALL BE MADE AS AUTHORIZED BY OWNER, UNDER THE DIRECTION OF THE DESIGN PROFESSIONAL, IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- ALL DISTURBED AREAS NOT LANDSCAPED, PAVED OR BUILT UPON SHALL BE SEEDED, FERTILIZED AND MULCHED IN ACCORDANCE WITH PENNDOT SPECIFICATIONS, PUBLICATION 408 FOR THE FORMULA SPECIFIED UNLESS OTHERWISE NOTED. REFER TO SEEDING SCHEDULE AND EROSION AND SEDIMENTATION CONTROL PLAN FOR OTHER REQUIREMENTS.
- ALL PLANTING AREAS AND BEDS TO BE MULCHED SHALL CONFORM TO SPECIFICATIONS DEFINED IN PENNDOT PUBLICATION 408, SECTION 805.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUANTITY OF PLANTS SHOWN ON THE PLAN. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR DESIGN ENGINEER AND ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO PLANTING.

NOTES:

- REMOVE WIRE OR NYLON TWINE FROM BALL.
- SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
- SEE ATTACHED LANDSCAPE CONSTRUCTION STANDARDS FOR OTHER PLANTING REQUIREMENTS.
- STAKING REQUIRED FOR LEANING TREES OR AS REQUIRED BY CONTRACT. SEE GENERAL NOTES.
- MINIMUM TREE SIZE: SINGLE STEM 2" CALIPER, 8' TALL.
- MINIMUM TREE SIZE: MULTI-STEM 3-5 STEMS, 8' TALL.
- ALL PROPOSED TREES TO BE NATIVE SPECIES PER APPENDIX B OF THE PA BMP MANUAL.



TREE PLANTING

NOT TO SCALE

TREE PLANT SCHEDULE				
TREE	QTY	BOTANICAL NAME	COMMON NAME	CALIPER/ROOT CONTD.
AR	3	ACER RUBRUM	RED MAPLE	2.5" CAL/CONT
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	2.0" CAL/CONT

REMARKS

HEIGHT/SPREAD

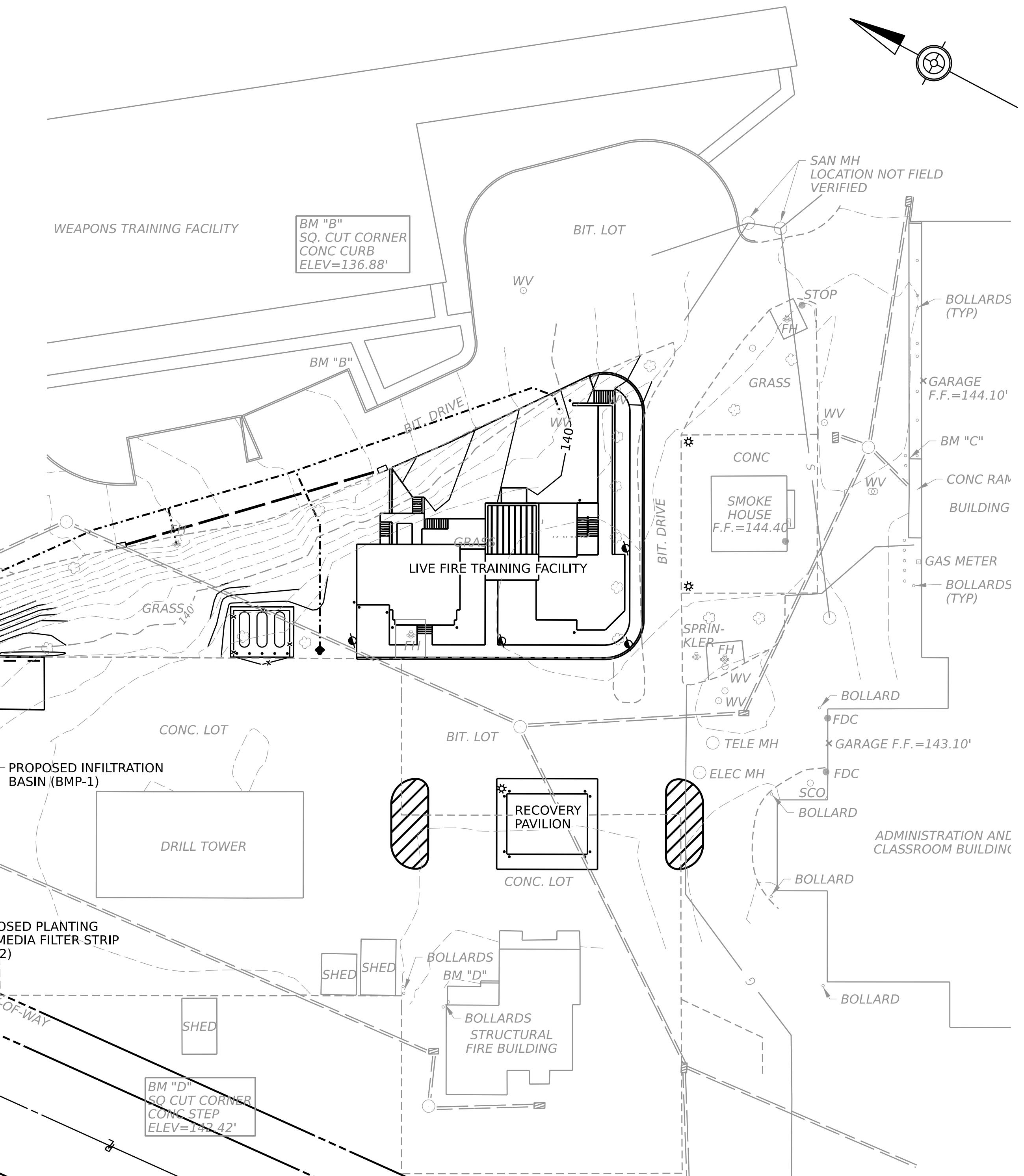
LEGEND

- PLANTING SOIL MEDIA
- AR PROPOSED DECIDUOUS TREE (SEE PLANT SCHEDULE)
- ◎ PROPOSED SHRUBS AND GRASSES (SEE NOTE 29)
- * PROPOSED LIGHTING (SEE LIGHTING NOTES)
- PROPOSED SIMULATED POWER POLE (FOR TRAINING PURPOSES ONLY)

15 0 15 30 FEET

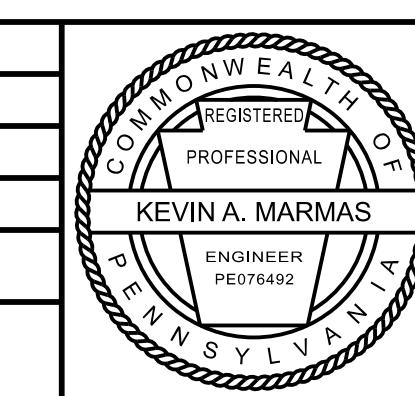
LIGHTING NOTES

- SEE ELECTRICAL DRAWING FOR ALL INTERIOR AND EXTERIOR LIGHTING AND ELECTRICAL LAYOUT INFORMATION.



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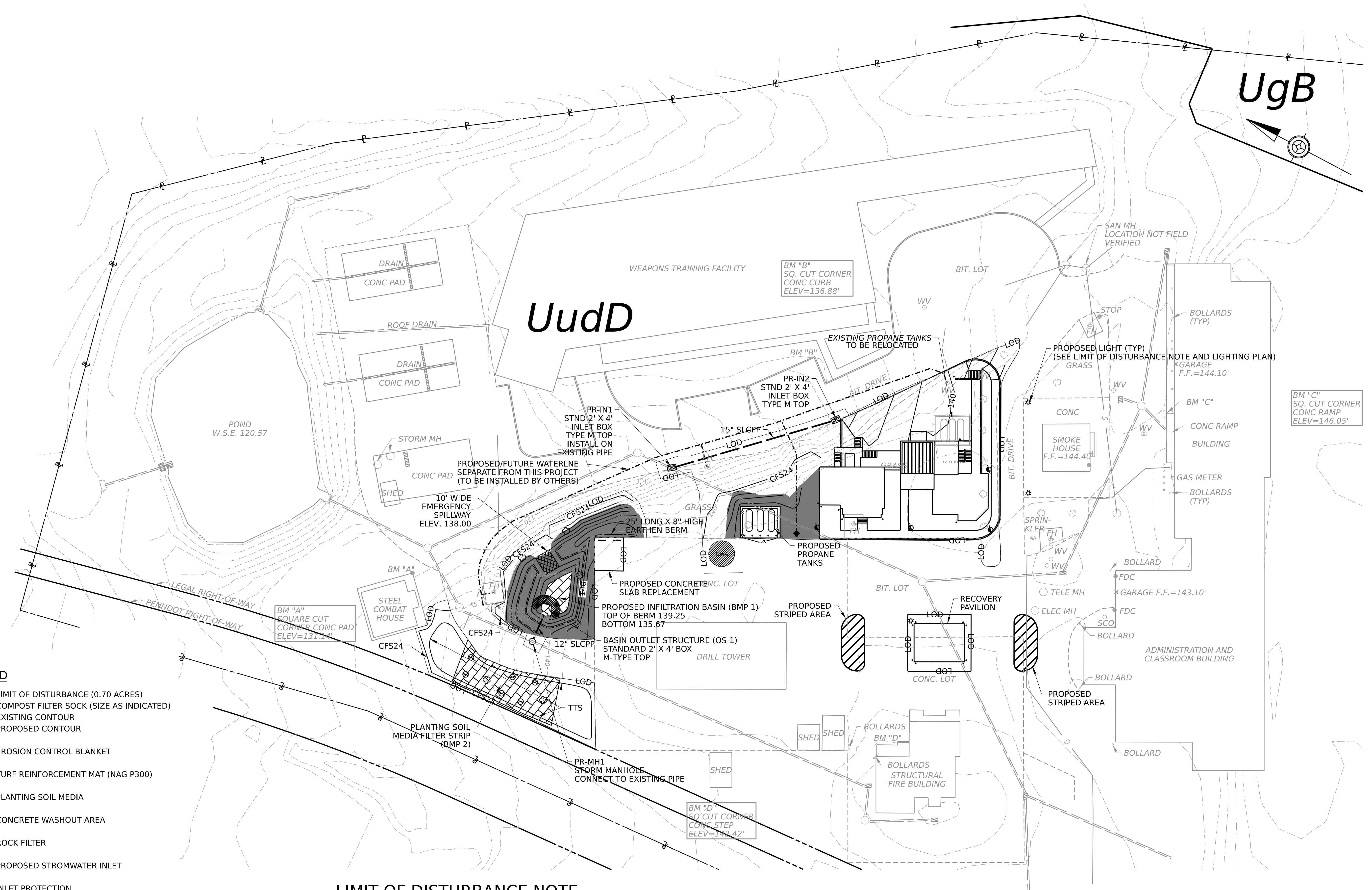
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MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
LANDSCAPE AND LIGHTING PLAN
Plymouth Township, Montgomery County, Pennsylvania

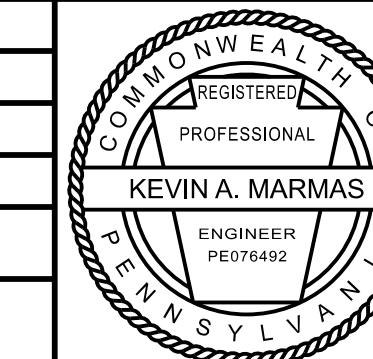


LIMIT OF DISTURBANCE NOTE

1. THE TOTAL LIMIT OF DISTURBANCE AREA INCLUDES APPROXIMATELY AN ADDITIONAL 2,000 SQUARE FEET OF DISTURBED AREA IN ADDITION TO WHAT IS SHOWN ON THE PLANS TO ACCOUNT FOR ANY ELECTRICAL CONDUIT TRENCHING FOR LIGHTING AND TRENCHING FOR WATER SERVICE TO THE HOSE BIB PROPOSED ON THE RECOVERY PAVILION.

15 0 15 30 FEE

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MONTGOMERY COUNTY NEW LIVE FIRE TRAINING BUILDING EROSION AND SEDIMENT POLLUTION CONTROL PLAN

EROSION AND SEDIMENTATION CONTROL POLICIES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
 2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN TO AN ON-SITE PRECONSTRUCTION MEETING.
 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
 4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM PLYMOUTH TOWNSHIP PRIOR TO IMPLEMENTATION.
 5. AREAS TO BE FILLED SHOULD BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
 6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
 7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF IN CERTAIN LOCATIONS AS NOTED ON THE PLAN BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
 8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2H:1V OR FLATTER.
 9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY PLYMOUTH TOWNSHIP.
 10. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
 11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY PLYMOUTH TOWNSHIP IMPLEMENTED PRIOR TO BEING ACTIVATED.
 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
 13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
 14. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT OF 0.25 INCHES OR GREATER, AND ON A WEEKLY BASIS UNLESS INDICATED MORE FREQUENTLY FOR A SPECIFIC BMP. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
 15. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
 16. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
 17. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
 18. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES 6 TO 12 INCHES ON COMPACTED SOILS PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
 19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
 20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
 21. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
 22. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
 23. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
 24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
 25. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
 26. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
 27. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT

EROSION AND SEDIMENTATION CONTROL POLICIES (CONT'D)

28. E&S BMPS MUST REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY PLYMOUTH TOWNSHIP.
 29. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
 30. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
 31. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
 32. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
 33. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS.
 34. AS DISTURBED AREAS WITHIN THE PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). THE DISTURBED AREAS WHICH ARE TO BE STABILIZED WITH VEGETATION ONCE FINAL GRADE IS REACHED SHOULD BE MINIMIZED TO THE GREATEST EXTENT POSSIBLE.
 35. EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS.
 36. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT PLYMOUTH TOWNSHIP TO SCHEDULE A FINAL INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
 37. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS SHOULD BE DONE ONLY DURING THE GERMINATING SEASON.
 38. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

MAINTENANCE OF E&S CONTROL DEVICES

THE SOIL EROSION AND SEDIMENTATION CONTROLS UTILIZED IN THE DEVELOPMENT OF THIS PLAN SHALL BE ROUTINELY MAINTAINED IN ORDER TO KEEP THEM FUNCTIONING PROPERLY UNTIL SITE STABILIZATION OCCURS. THE CONTRACTOR SHALL PERFORM CERTAIN PERIODIC DUTIES IN ORDER TO ASSURE PROPER CONTROL. MAINTENANCE OF THE VARIOUS EROSION AND SEDIMENTATION CONTROLS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING GENERAL MAINTENANCE PROCEDURES OUTLINED BELOW.

MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION MEASURES AFTER EACH SIGNIFICANT RUNOFF EVENT OF AT LEAST 0.25 INCHES AND ON A WEEKLY BASIS, UNLESS INDICATED MORE FREQUENTLY FOR A SPECIFIC BMP, BY A QUALIFIED PERSON TRAINED AND EXPERIENCED IN EROSION AND SEDIMENTATION CONTROL AND WHO HAS SITE SUPERVISION RESPONSIBILITIES, TO ASCERTAIN THAT THE EROSION CONTROL MEASURES ARE OPERATIONAL AND EFFECTIVE IN PREVENTING SEDIMENT FROM LEAVING THE SITE. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE: A SUMMARY OF SITE CONDITIONS, BMPS AND COMPLIANCE, AND THE DATE, TIME, AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INCLUDING THE COMPLIANCE ACTIONS, DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG SHALL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE CONSERVATION DISTRICT UPON REQUEST.

MISCELLANEOUS ADJUSTMENTS AND CORRECTIONS SHALL BE MADE TO ANY EROSION CONTROL STRUCTURE AS DEEMED NECESSARY BY THE ENGINEER, TOWNSHIP OFFICIAL, OR COUNTY CONSERVATION DISTRICT REPRESENTATIVE IN ORDER TO CORRECT UNFORESEEN PROBLEMS CAUSED BY A STORM PRIOR TO STABILIZATION.

FILTER SC

1. THE FILTER SOCK SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT OF AT LEAST 0.25 INCHES. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
 2. ACCUMULATED SEDIMENT SHALL BE REMOVED AS REQUIRED TO KEEP THE DEVICES FUNCTIONAL. IN ALL CASES, REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 ABOVE THE GROUND HEIGHT OF THE DEVICE.
 3. ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR OR BASE SHALL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIAL.
 4. ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FILTER SOCK.
 5. ANY DEBRIS ACCUMULATED AT SILT SOCK BARRIERS SHALL BE REMOVED AND PROPERLY DISPOSED IN A RESPONSIBLE MANNER. BARRIERS SHALL BE CHECKED AND REALIGNED OR RESET AS REQUIRED. ANY DEBRIS OR SOLID WASTE MATERIAL ACCUMULATED FROM CONSTRUCTION ACTIVITIES SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED LANDFILL. CONSTRUCTION WASTE SHALL NOT BE BURIED ON THE SUBJECT SITE.

ROCK FILT

1. ROCK FILTERS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT OF AT LEAST 0.25 INCHES.
 2. CLOGGED FILTER STONE (AASHTO # 57) SHOULD BE REPLACED..
 3. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.
 4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTER.

PUMPED WATER FILTERS

1. FILTER BAGS SHALL BE INSPECTED DAILY. IMMEDIATELY DISPOSE OF BAGS WHICH ARE SPLIT OR TORN
 2. DO NOT USE BAGS WHICH ARE GREATER THAN 1/2 FULL. WHEN BAGS REACH THAT CAPACITY, THEY SHALL BE REPLACED AND THE SEDIMENT SHALL BE PROPERLY DISPOSED.
 3. REGULARLY INSPECT THE OPERATION OF FILTER BAGS TO ENSURE THAT THEY ARE LOCATED ON RELATIVELY FLAT, WELL VEGETATED AREAS AND THAT THE OUTLET IS BEING DISCHARGED TO A STABLE, EROSION RESISTANT AREA.

CONCRETE WASHOUT

- CONCRETE WASHOUT:

 1. INSPECT WASHOUT FACILITIES DAILY. DEACTIVATE AND REPAIR OR REPLACE DAMAGED OR LEAKING WASHOUTS IMMEDIATELY.
 2. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.

3. PLASTIC LINERS SHOULD

- ## STORM SEWER SYSTEMS

1. STORM SEWER SYSTEMS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT OF AT LEAST 0.25 INCHES.
2. REMOVE ANY BLOCKAGES OF INLETS OR PIPES IMMEDIATELY.

2. REMOVE ANY BEGUMA

- EROSIONS CONTROL LININGS

1. LININGS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT OF AT LEAST 0.25 INCHES.

2. REPAIR ANY TORN OR DAMAGED LININGS IMMEDIATELY.

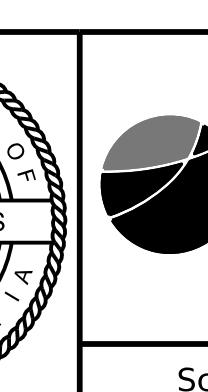
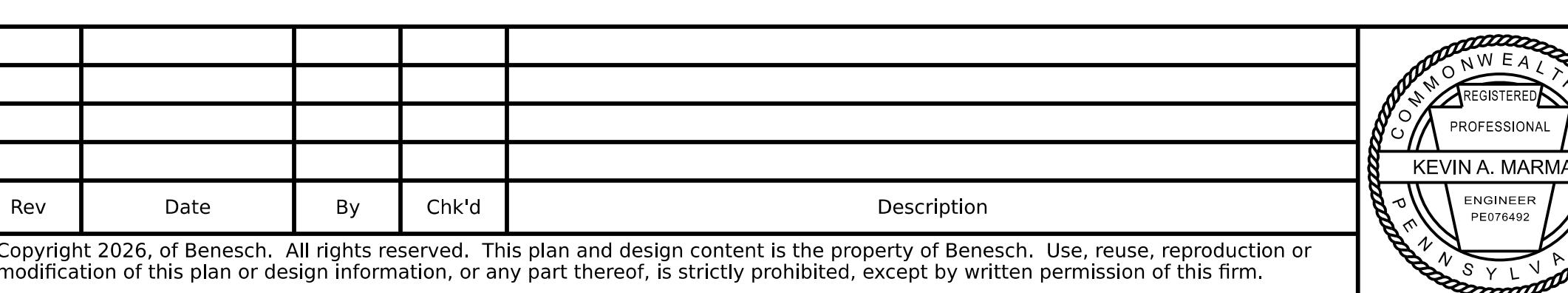
3. REPAIR AND RESECURE A

- #### **INLET PROTECTION:**

1. STANDARD TYPE C AND STANDARD CONSTRUCTION

- STANDARD CONSTRUCTION DETAILS SHOWN ON THE APPROVED SOIL EROSION AND SEDIMENTATION CONTROL PLAN.

 2. INLET PROTECTION DEVICES SHALL BE INSPECTED REGULARLY AND AFTER EACH MEASURABLE PRECIPITATION EVENT.
 3. SEDIMENT SHALL BE REMOVED FROM THE DEVICE WHEN THE DEPTH OF SEDIMENT IS 1/3 OF THE TOTAL HEIGHT.
 4. STONE WHICH BECOMES CHOKED WITH SEDIMENT AND IS NOT FUNCTIONAL SHALL BE REMOVED AND REPLACED WITH CLEAN STONE.
 5. REMOVE INLET PROTECTION ONCE SUBBASE MATERIAL HAS BEEN INSTALLED AND PAVING OF THE SITE IS ABOUT TO OCCUR.



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Allentown, PA 18104
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MONTGOMERY COUNTY NEW LIVE FIRE TRAINING BUILDING EROSION AND SEDIMENT POLLUTION CONTROL PLAN DETAILS

Drawn: WSL Designed: KAM Checked: KRR

CONSTRUCTION SEQUENCE

THE OPERATOR SHALL ENSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.

FOR ALL OFFSITE SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS, THE OPERATOR/CONTRACTOR SHALL ASSURE THAT, IF APPLICABLE, AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, SUBMITTED TO AND APPROVED BY THE LOCAL CONSERVATION DISTRICT, AND IS BEING PROPERLY AND COMPLETELY IMPLEMENTED AND MAINTAINED.

BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY IMPACT THE EFFECTIVENESS OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM PLYMOUTH TOWNSHIP.

AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE FROM PLYMOUTH TOWNSHIP TO AN ON-SITE PRECONSTRUCTION MEETING.

UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMP'S AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO PLYMOUTH TOWNSHIP.

AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

LIMIT CLEARING, GRUBBING, AND TOPSOIL STRIPPING TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. DO NOT COMMENCE GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMP'S SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS DOCUMENT.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE AS PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THE SEQUENCE MUST BE APPROVED BY THE PLYMOUTH TOWNSHIP PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE.

CESSATION OF ANY ACTIVITY SPECIFIED IN THE BELOW SEQUENCE FOR FOUR (4) DAYS OR LONGER REQUIRE TEMPORARY STABILIZATION.

THE MINIMAL EXTENT OF DISTURBED AREA AND PROXIMITY TO EXISTING DRIVE AISLES AND PARKING AREAS ELIMINATES ANY FEASIBLE LOCATION FOR A ROCK CONSTRUCTION ENTRANCE. THEREFORE, CONTRACTOR SHALL ENSURE NO DIRT OR SEDIMENT IS TRACKED ONTO THE PUBLIC ROADWAYS AND SHALL PROVIDE AN ALTERNATE MEANS OF REMOVING DIRT AND SEDIMENT FROM TIRES LEAVING THE CONSTRUCTION SITE. THIS CAN ALSO BE ACCOMPLISHED BY ONLY ALLOWING CONSTRUCTION EQUIPMENT THAT WILL BE TRUCKED INTO AND OUT OF THE SITE TO ACCESS DISTURBED AREAS, WITH ALL OTHER VEHICLES AND EQUIPMENT THAT WILL ACCESS PUBLIC ROADS RESTRICTED TO ADJACENT PAVED/CONCRETE OR UNDISTURBED AREAS.

1. FIELD MARK THE LIMITS OF DISTURBANCE AS SHOWN ON THE E&SPC PLANS PRIOR TO PROPOSED EARTH MOVING ACTIVITIES WITH SURVEY RIBBON AND/OR SURVEY STAKES. UNLESS OTHERWISE NOTED ON THE PLAN, CONSTRUCTION VEHICLES ARE NOT PERMITTED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE DRAWINGS THAT ARE NOT MEANT FOR TRAVEL.

2. INSTALL CONCRETE WASHOUT AREA AND ALL COMPOST FILTER SOCK AS SHOWN ON THE E&S CONTROL PLAN AND DETAILS.

3. CLEAR AND GRUB ANY APPLICABLE AREAS ON SITE NEEDED TO BE CLEARED AND GRUBBED TO COMPLETE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

NOTE: STEPS 4 AND 5 CAN BE COMPLETED SIMULTANEOUSLY.

4. BEGIN ROUGH GRADING OF THE AREAS PROPOSED FOR IMPROVEMENTS. ANY AREA TO CONTAIN LAWN SHALL BE BROUGHT TO FINAL GRADE BY THE PLACEMENT OF TOPSOIL UNLESS SPECIFIED ON THE PLANS TO CONTAIN PLANTING SOIL MEDIA. IMMEDIATELY IMPLEMENT PERMANENT VEGETATIVE STABILIZATION OF ALL DISTURBED AREAS THAT HAVE ACHIEVED FINAL GRADE. CONSTRUCTION OF THE PROPOSED LIVE FIRE BUILDING FACILITY AND ANY ASSOCIATED RETAINING WALLS, THE RECOVERY PAVILION, PROPANE TANK PAD RELOCATION, AND EXISTING HEAVED CONCRETE SLAB REPLACEMENT, CAN BEGIN AT APPROPRIATE TIME DURING THIS STEP.

5. IN CONJUNCTION WITH ROUGH GRADING, INSTALL PROPOSED STORMWATER MANAGEMENT INFILTRATION BASIN BMP-1 BEGINNING AT PR-MH1 CONNECTION TO EXISTING STORM SEWER PIPE, AND CONTINUING UPSTREAM TO OUTLET STRUCTURE OS-1. BEGIN BASIN BERM GRADING INCLUDING EMERGENCY SPILLWAY AND EXCAVATION OF BASIN AREA BEHIND THE BERM, INSTALL BASIN BOTTOM PLANTING SOIL MEDIA, AND IMMEDIATELY INSTALL ROCK FILTER 1 AS SPECIFIED ON THE PLANS. ALSO IN CONJUNCTION WITH ROUGH GRADING, INSTALL PROPOSED STORM SEWER SYSTEM FROM PR-IN1 CONNECTION TO EXISTING STORM SEWER PIPE TO PR-IN2, AND IMMEDIATELY INSTALL INLET FILTER BAGS ON ALL INSTALLED INLETS AS SPECIFIED ON E&S CONTROL PLAN. ALSO, IN CONJUNCTION WITH SITE GRADING, INSTALL PLANTING SOIL MEDIA FILTER STRIP BMP-2 AREA AS SHOWN ON THE PLANS. IMMEDIATELY IMPLEMENT PERMANENT VEGETATIVE STABILIZATION OF ANY AREA THAT HAS REACHED FINAL GRADE AND INSTALL EROSION CONTROL LINING ON ANY DISTURBED AREA AS SPECIFIED TO CONTAIN EROSION CONTROL LINING ON THE E&S CONTROL PLAN OR WITH SLOPES 3:1 OR STEEPER. DORMANT SEEDING TO BE USED FOR AREAS REACHING FINAL GRADE OUTSIDE OF THE PLANTING DATES SPECIFIED ON THE PLANS. FOR ANY PROPOSED PAVED OR CONCRETE AREA, UPON REACHING FINAL SUBGRADE ELEVATION, IMMEDIATELY INSTALL STONE SUBBASE, PAVING AND CONCRETE CAN BE DONE AT THIS POINT OR ANY POINT AFTER AT DEVELOPER'S DISCRETION. ALSO INSTALL BASIN BOTTOM SEED MIX ALONG INFILTRATION BASIN 1 BOTTOM AS SPECIFIED.

6. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT PLYMOUTH TOWNSHIP FOR A PRE-FINAL INSPECTION PRIOR TO THE REMOVAL OR CONVERSION OF ALL PERIMETER CONTROL BMP'S.

7. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, ALL TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED INCLUDING COMPOST FILTER SOCK, INLET FILTER BAGS, CONCRETE WASHOUT AREAS, ROCK FILTER 1, ETC. AREAS DISTURBED DURING REMOVAL OF THE BMP'S SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS SHOULD BE DONE ONLY DURING THE GERMINATING SEASON. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

SEEDING & MULCHING SPECIFICATIONS

SEEDING, MULCHING AND SOIL SUPPLEMENTS SHALL MEET THE REQUIREMENTS OF THE PA DEPARTMENT OF TRANSPORTATION (PADOT) SPECIFICATIONS, PUBLICATION 408, LATEST EDITION, SECTIONS 804 AND 805 AND SHALL BE APPLIED DURING THE PRESCRIBED PLANTING PERIOD.

SEEDING:

1. TEMPORARY SEEDING SHALL CONSIST OF 100 PERCENT ANNUAL RYE GRASS AND SHALL CONFORM TO THE REQUIREMENTS OF THE PA DEPARTMENT OF TRANSPORTATION (PADOT) SPECIFICATIONS FOR FORMULA T SEED MIXTURE. THE SEEDING APPLICATION RATE SHALL BE 10 LBS./1,000 SQ. YDS.
2. PERMANENT SEEDING SHALL CONSIST OF PERENNIAL GRASSES (I.E., KENTUCKY BLUEGRASS, FESCUE, PERENNIAL RYE) AND SHALL MEET THE REQUIREMENTS OF PADOT FOR THE FOLLOWING APPLICATIONS:
3. LAWN AREAS - FORMULA B SEED MIXTURE WITH A SEEDING APPLICATION RATE OF 42 LBS./1,000 SQ. YDS.
4. ALL OTHER AREAS - SEE LANDSCAPING PLAN AND BMP SEEDING SCHEDULE FOR SEEDING APPLICATIONS.

3. BOTTOM OF THE SWM / BMP FACILITIES - REFERENCE THE PLANTING SCHEDULE ON THE LAND DEVELOPMENT PLANS FOR THE PLACEMENT OF GRASSES AND VEGETATION WITHIN THESE FACILITIES.

MULCHING:

1. MULCHING SHALL CONSIST OF STRAW MULCH AND SHALL MEET THE SPECIFICATIONS AND APPLICATION RATES AS PRESCRIBED IN SECTION 805 OF PUBLICATION 408.
2. THE MULCHING SHALL ALSO BE UTILIZED DURING WINTER MONTHS FOR GROUND COVER STABILIZATION ON TOPSOIL STOCKPILES, GRADED SLOPES AND OTHER AREAS TO BE GRASSED IN THE FUTURE.
3. STRAW MULCH SHALL BE APPLIED AT THE RATE OF 1,200 POUNDS PER 1,000 SQUARE YARDS AND APPLIED WITHIN 48 HOURS OF PLACING SEEDING. ON STEEP SLOPES OF 3:1 OR GREATER, MULCH SHALL BE SECURED THROUGH THE USE OF SPECIFIED NETTING MATERIAL.
4. MULCH SHOULD BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. ANCHOR MULCH WITH SPECIFIED MULCH BINDERS APPLIED IN ACCORDANCE WITH SECTION 805.3.

SOIL SUPPLEMENTS:

1. SUPPLEMENTS SHALL CONFORM TO THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 804 AND SHALL BE APPLIED DURING THE APPROPRIATE TIMES.

TEMPORARY APPLICATION:

LIME: AGRICULTURAL LIME AT 410 LBS./1,000 SQ. YDS.
FERTILIZER: 10-10-10 ANALYSIS COMMERCIAL FERTILIZER TO BE APPLIED AT 100 LBS./1,000 SQ. YDS.

PERMANENT APPLICATION:

LIME: AGRICULTURAL LIME AT 2,480 LBS./1,000 SQ. YDS.
FERTILIZER: 10-10-20 ANALYSIS COMMERCIAL FERTILIZER TO BE APPLIED AT 210 LBS./1,000 SQ. YDS.

PREPAREDNESS, PREVENTION AND CONTINGENCY PLANS

IF THE POTENTIAL EXISTS FOR CAUSING ACCIDENTAL POLLUTION OF AIR, LAND, OR WATER, OR FOR CAUSING ENDANGERMENT OF PUBLIC HEALTH AND SAFETY THROUGH ACCIDENTAL RELEASE OF TOXIC, HAZARDOUS, OR OTHER POLLUTING MATERIALS, THE PERMITTEE OR CO-PERMITTEE MUST DEVELOP A PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN. THE PPC PLAN SHALL BE DEVELOPED IN ACCORDANCE WITH APPLICABLE DEP REGULATIONS. THE PPC PLAN SHALL IDENTIFY AREAS WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, WASTE MANAGEMENT AREAS, RAW MATERIAL STORAGE AREAS, TEMPORARY AND PERMANENT SPOILS STORAGE AREAS, MAINTENANCE AREAS, AND ANY OTHER AREAS THAT MAY HAVE THE POTENTIAL TO CAUSE ACCIDENTAL POLLUTION DUE TO THE STORAGE, HANDLING OR DISPOSAL OF ANY TOXIC OR HAZARDOUS SUBSTANCES SUCH AS OIL, GASOLINE, PESTICIDES, HERBICIDES, SOLVENTS, ETC. BMP'S SHALL BE DEVELOPED AND IMPLEMENTED FOR EACH IDENTIFIED AREA. THE PPC PLAN SHALL BE MAINTAINED ON SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE FOR REVIEW AT THE TOWNSHIP, DEP, OR AUTHORIZED COUNTY CONSERVATION DISTRICT'S REQUEST.

FILL MATERIALS NOTES AND ENVIRONMENTAL DUE DILIGENCE

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

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

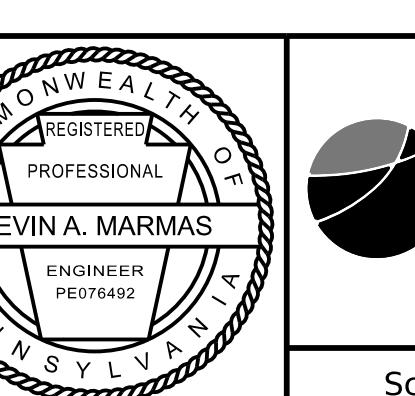
CLEAN FILL AFFECTED BY SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS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

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

ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

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

Rev	Date	By	Chk'd	Description
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MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
EROSION AND SEDIMENT POLLUTION
CONTROL PLAN DETAILS
Plymouth Township, Montgomery County, Pennsylvania

(TEMPORARY)	SPECIES: FORMULA T	%
% PURE LIVE SEED: SEE TABLE A	6.0	LB/1000 SY
APPLICATION RATE: 10-20-20 AND 38-0-0 UREA/FORM	32-0-0 TO 38-0-0 SULFER COATED UREA	31-0-0 (X-X)
FERTILIZER TYPE: 140 50	59 TO 50 AS DIRECTED	61 LB/1000 SY
FERTILIZER APPL RATE: 800		LB/1000 SY
LIMING RATE: HAY		
MULCH TYPE: 1200		LB/1000 SY
MULCHING RATE: 3/15 TO 6/1 & 8/1 TO 10/15		
SEEDING SEASON DATES: (PERMANENT, <3:1 SLOPES)	SPECIES: FORMULA B	%
% PURE LIVE SEED: SEE TABLE A	B: 42.0	LB/1000 SY
APPLICATION RATE: 10-20-20 AND 38-0-0 UREA/FORM	32-0-0 TO 38-0-0 SULFER COATED UREA	31-0-0 (X-X)
FERTILIZER TYPE: 140 50	59 TO 50 AS DIRECTED	61 LB/1000 SY
FERTILIZER APPL RATE: 800		LB/1000 SY
LIMING RATE: STRAW		
MULCH TYPE: 1200		LB/1000 SY
ANCHOR MATERIAL: RECYCLED CELLULOSE FIBER AND WOOD FIBER OR NONASPHALTIC EMULSION	160 160	PER MANUFACTURERS' INSTRUCTIONS LB/1000 SY
RATE OF ANCHOR MATERIAL APPL: OR POLYVINYL ACETATE OR RECYCLED CELLULOSE FIBER/WOOD FIBER MIXTURE	160	LB/1000 SY
ANCHORING METHOD: PER MANUFACTURERS' INSTRUCTIONS		
SEEDING SEASON DATES: 3/15 TO 6/1 & 8/1 TO 10/15		
(PERMANENT, SLOPES/SWALES)	SPECIES: FORMULA N	%
% PURE LIVE SEED: SEE TABLE A	8.0	LB/1000 SY
APPLICATION RATE: AS INDICATED BY SOIL TESTS (X-X)		
FERTILIZER TYPE: AS INDICATED BY SOIL TESTS		LB/1000 SY
FERTILIZER APPL RATE: AS INDICATED BY SOIL TESTS		LB/1000 SY
LIMING RATE: AS INDICATED BY SOIL TESTS		LB/1000 SY
MULCH TYPE: ROLLED EROSION CONTROL PRODUCT		
MULCHING RATE: PER MANUFACTURERS' INSTRUCTIONS		LB/1000 SY
ANCHOR MATERIAL: PER MANUFACTURERS' INSTRUCTIONS		
ANCHORING METHOD: PER MANUFACTURERS' INSTRUCTIONS		
RATE OF ANCHOR MATERIAL APPL: PER MANUFACTURERS' INSTRUCTIONS		LB/1000 SY
SEEDING SEASON DATES: NURSERY CROPS: ANYTIME ~ NATIVE: 10/15 TO 5/15		

SOIL AMENDMENT	PER ACRE	PER 1000 SF	PER 1000 SY	NOTES
PERMANENT SEEDING APPLICATION RATE				
AGRICULTURAL LIME	6 TONS	240 LB	2,480 LB	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10-10-20 FERTILIZER	1,000 LB	25 LB	210 LB	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
TEMPORARY SEEDING APPLICATION RATE				
AGRICULTURAL LIME	1 TON	40 LB	410 LB	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES
10-10-10 FERTILIZER	500 LB	12.5 LB	100 LB	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES

SOIL AMENDMENT APPLICATION RATES EQUIVALENTS

1. A COMPOST BLANKET WHICH MEETS THE STANDARDS OF THE MANUAL MAY BE SUBSTITUTED FOR THE SOIL AMENDMENTS SHOWN IN THE ABOVE TABLE.

MULCH TYPE	PER ACRE	PER 1000 SF	PER 1000 SY	NOTES
APPLICATION RATE FOR SLOPES LESS THAN 3:1				
STRAW	3 TONS	140 LB	1240 LB	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LB	1240 LB	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4-6 TONS	185-275 LB	1650-2500 LB	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 LB	415 LB	SEE NOTES
SLOPES 3:1 AND GREATER				
EROSION CONTROL MULCH BLANKET	APPLY BLANKET AND ANCHOR PER MANUFACTURERS' INSTRUCTIONS	NORTH AMERICAN GREEN S150 (3:1) AND SC150 (2:1) OR APPROVED EQUALS		

MULCH APPLICATION RATES

NOTES:
 1. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%.
 2. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED.
 3. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LB/ACRE AT A MINIMUM.

TABLE B	
FORMULA	APPLICATION
B	NON-STEEP, HIGHLY MAINTAINED SURFACES, LAWN
N	SLOPES STEEPER THAN 3:1
T	TEMPORARY SEEDING

SCHEDULE OF SEEDING AND SOIL SUPPLEMENTS

TABLE A					
FORMULA AND SPECIES	% BY WEIGHT	MINIMUM PURITY	MAX GERMINATION	WEED SEED	SEEDING RATE LB/1000 SQ YD (LB/ACRE)
FORMULA B RESIDENTIAL MIX: PERENNIAL RYEGRASS MIXTURE (LOLIUM PERENNE), A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL RYEGRASS COMPONENT.	20	97	90	0.10	42.0 (210) TOTAL
CREEPING RED FESCUE OR CHEWING FESCUE (FESTUCA RUBRA OR SSP COMMUTATE) (IMPROVED AND CERTIFIED)	30	97	85	0.10	12.5 (62.5)
KENTUCKY BLUEGRASS MIXTURE (POA PRATENSIS), A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL BLUEGRASS COMPONENT.	50	97	80	0.15	21.0 (105)
FORMULA N CONSERVATION MIX: *					8 (40.0) TOTAL
NURSERY CROPS					
OATS (AVENA SATIVA) (SPRING)	75	97	85	0.10	6 (30)
CEREAL RYE (SECALE CEREALE) (FALL)	75	97	85	0.10	6 (30)
PERMANENT SPECIES					
PURPLE TOP (TRIDENS FLAVUS)	2.5	80	70	0.20	0.2 (1.0)
LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)	6.25	85	70	0.20	0.5 (2.5)
CANADA WILDRYE (ELYMUS CANADENSIS)	1.25	85	70	0.20	0.1 (0.5)
SWITCHGRASS (PANICUM VIRGATUM)	0.625	80	60	0.20	0.05 (0.25)
INDIANGRASS	0.625	80	60	0.20	0.05 (0.25)
ROUNDSEED PANICGRASS (PANICUM SPAEROCARPUM)	1.25	-	-	-	0.1 (0.5)
BLACK-EYED SUSAN (RUDBECKIA HIRTA)	4	80	60	0.20	0.32 (1.6)
OX-EYE SUNFLOWER (HELIOPSIS HELIANTHOIDES)	2.5	-	-	-	0.2 (1.0)
WHITE AVENS (GEUM CANADENSE)	0.25	-	-	-	0.02 (0.1)
COMMON MILKWEED (ASCLEPIAS SYRIACA)	0.75	-	-	-	0.06 (0.3)
PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)	2.5	-	-	-	0.2 (1.0)
SHOWY TICK-TREFOIL (DESMODIUM CANADENSE)	2.5	-	-	-	0.2 (1.0)
FORMULA T TEMPORARY GRASS MIX: OATS (AVENA SATIVA) (SPRING)	100	97	85	0.1	6 (30) TOTAL
CEREAL RYE (SECALE CEREALE) (FALL)	100	97	85	0.1	6 (30)

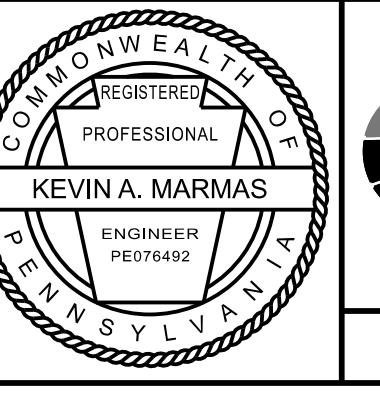
* IF A SPECIES IS UNAVAILABLE IN THIS MIX, SUBSTITUTE BY INCREASING THE PERCENTAGE OF OTHER ITEMS IN THE MIX.

SEED FORMULA SPECIFICATIONS

BASIN BOTTOM SEEDING MIXTURE

- SEED WITH ERNST CONSERVATION SEEDS RAIN GARDEN MIX, OR APPROVED EQUAL (ERNSTMX-180) AT A RATE OF 20 LB PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE.
- AREA OF APPLICATION INCLUDES BOTTOM OF INFILTRATION BASIN 1.

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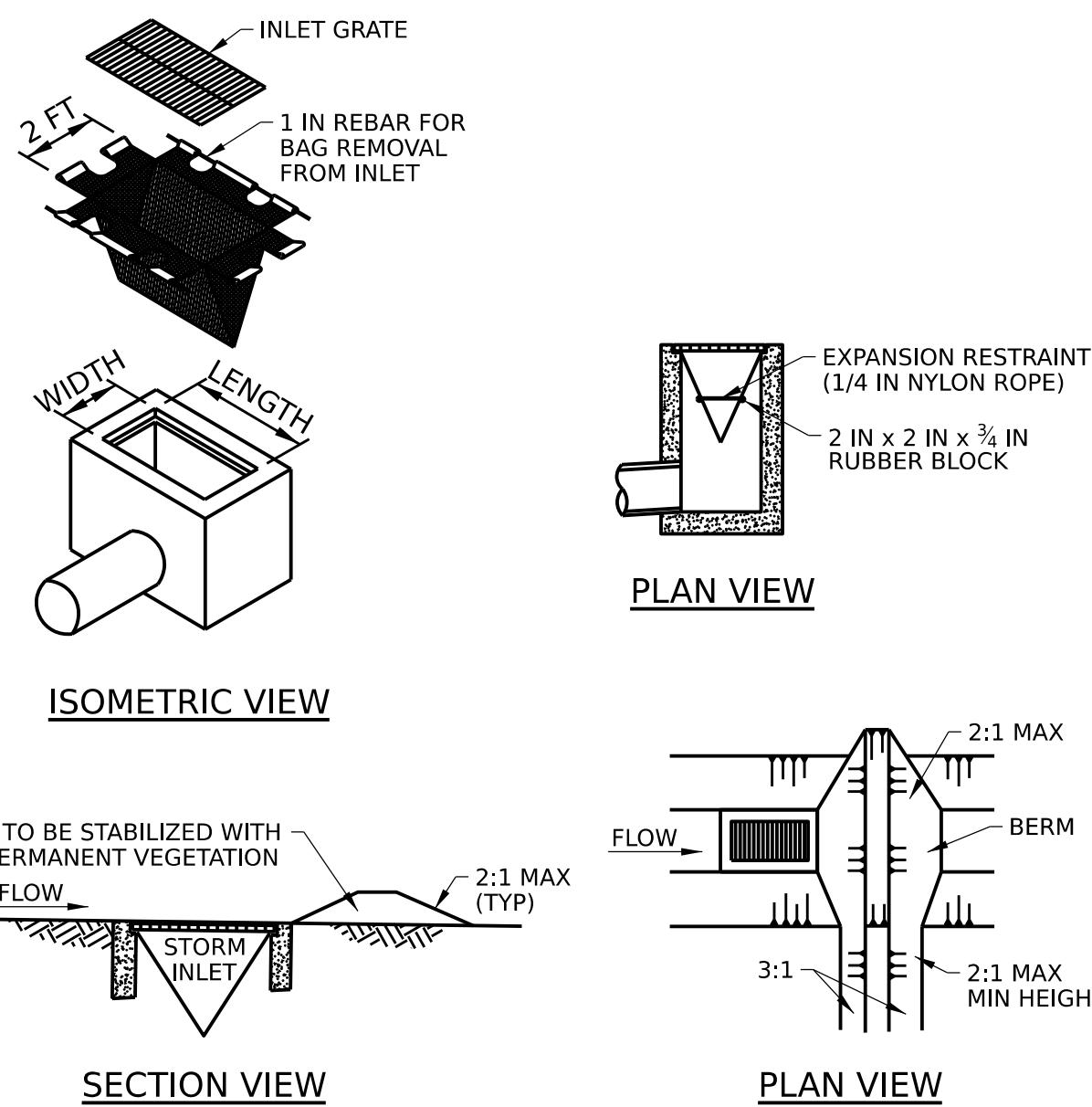
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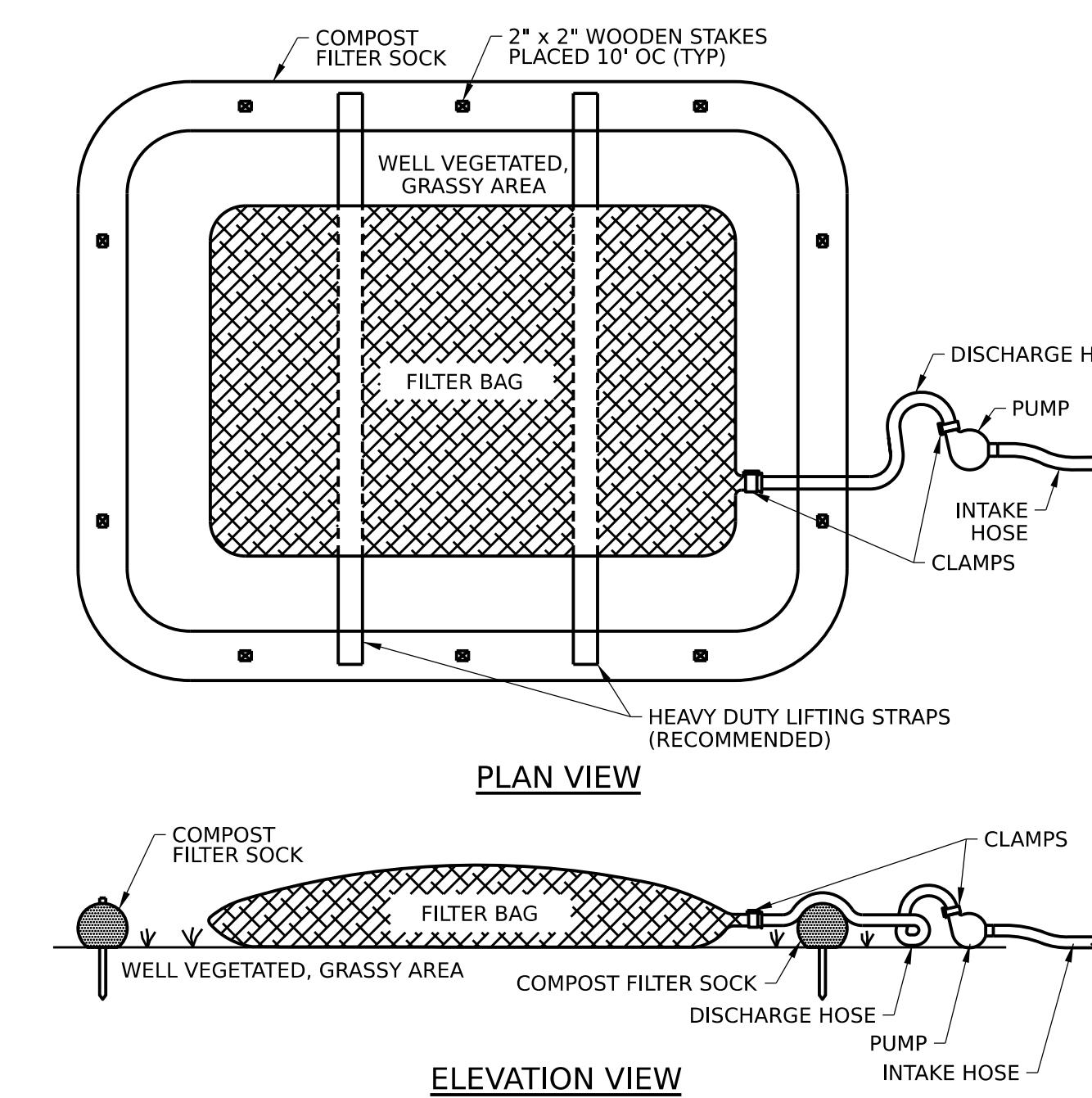
MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
EROSION AND SEDIMENT POLLUTION
CONTROL PLAN DETAILS
Plymouth Township, Montgomery County, Pennsylvania



FILTER BAG INLET PROTECTION - TYPE M INLET

NOT TO SCALE

- NOTES:
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
 2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 3. ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
 4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
 5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
 6. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.



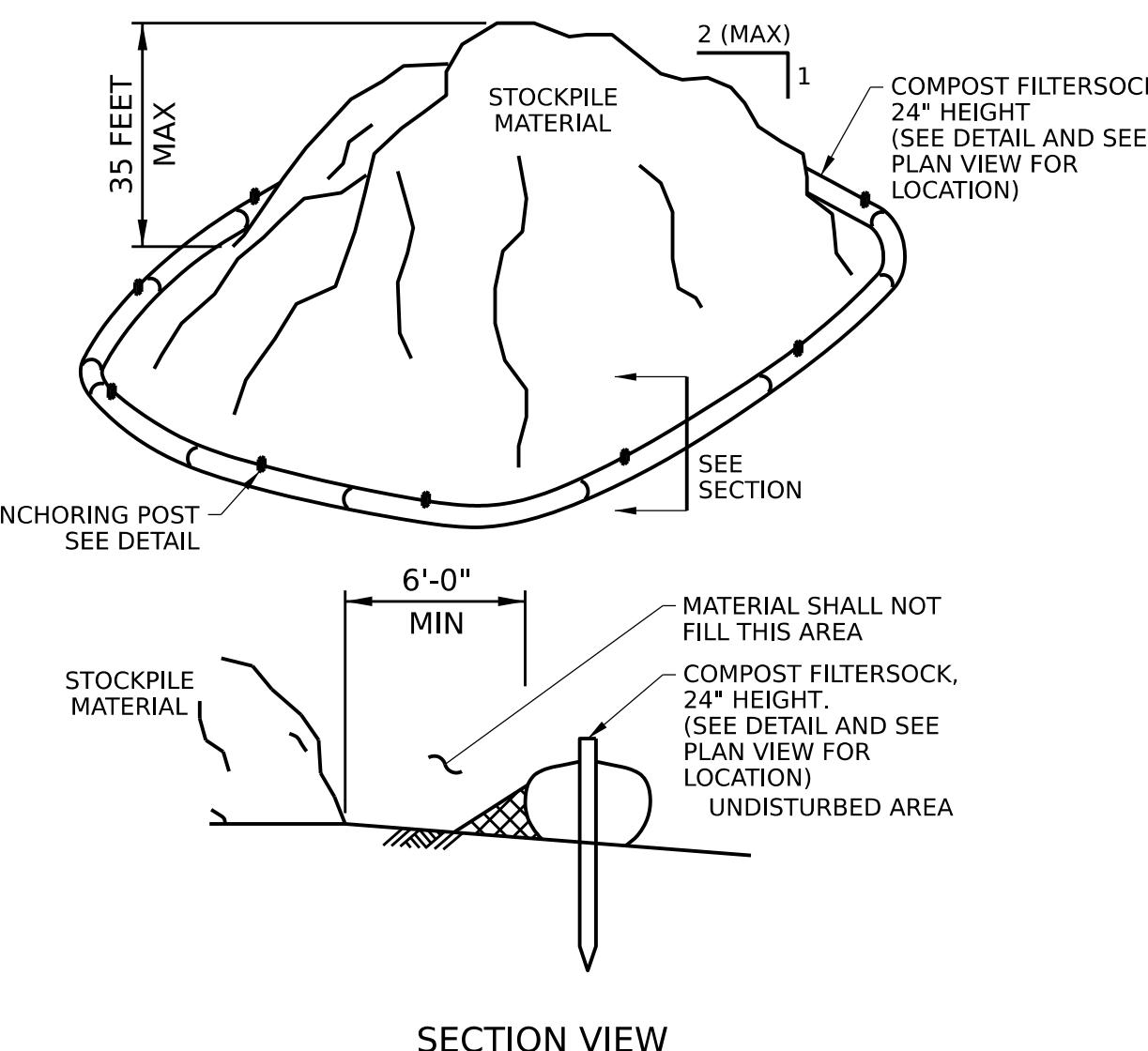
PUMPED WATER FILTER BAG

NOT TO SCALE

NOTES:

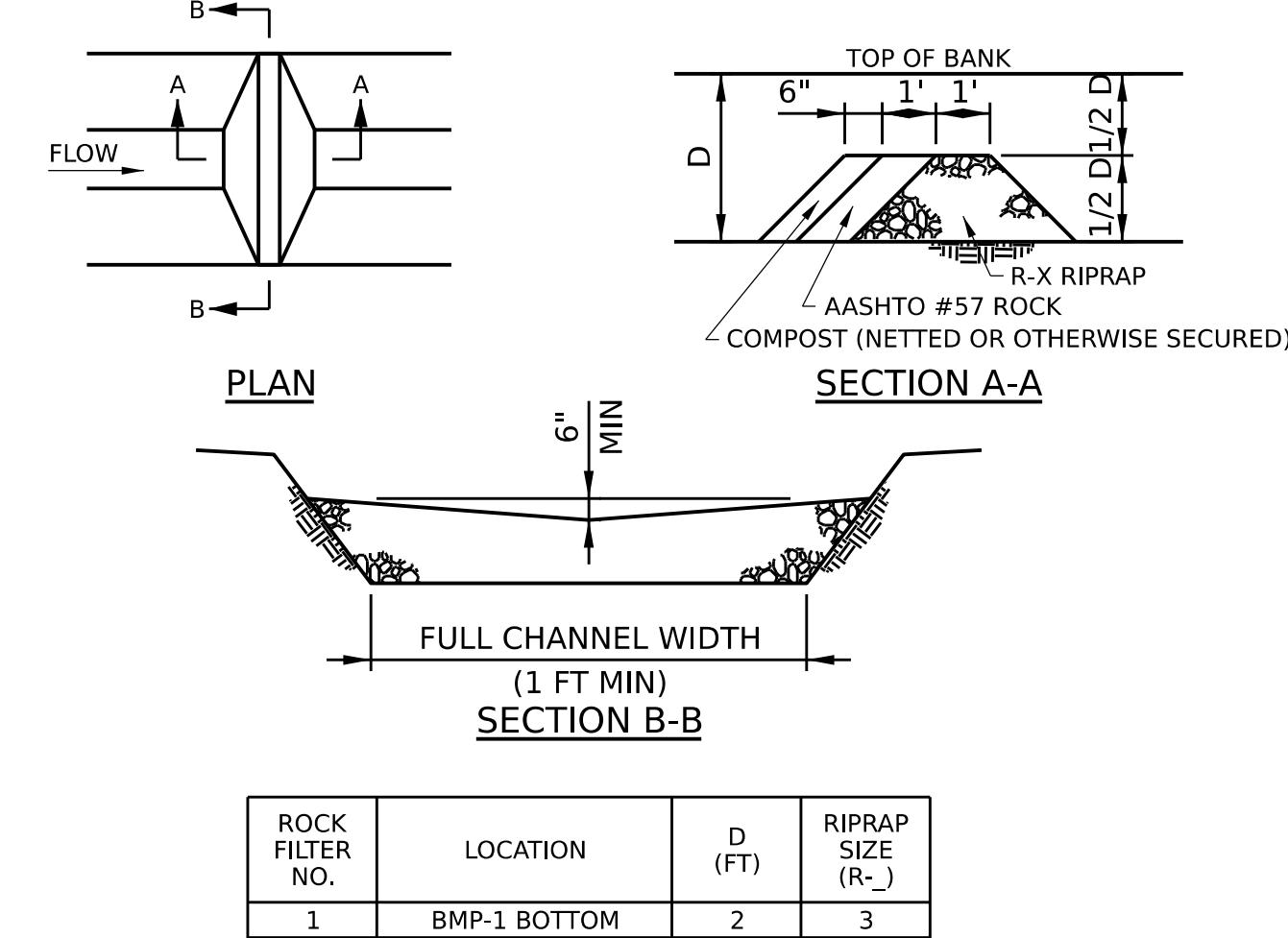
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG WIDE WIDTH STRENGTH	ASTM-D-4884	60 LB/IN
GRAB TENSILE	ASTM-D-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. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



STOCKPILE CONTROL DETAIL

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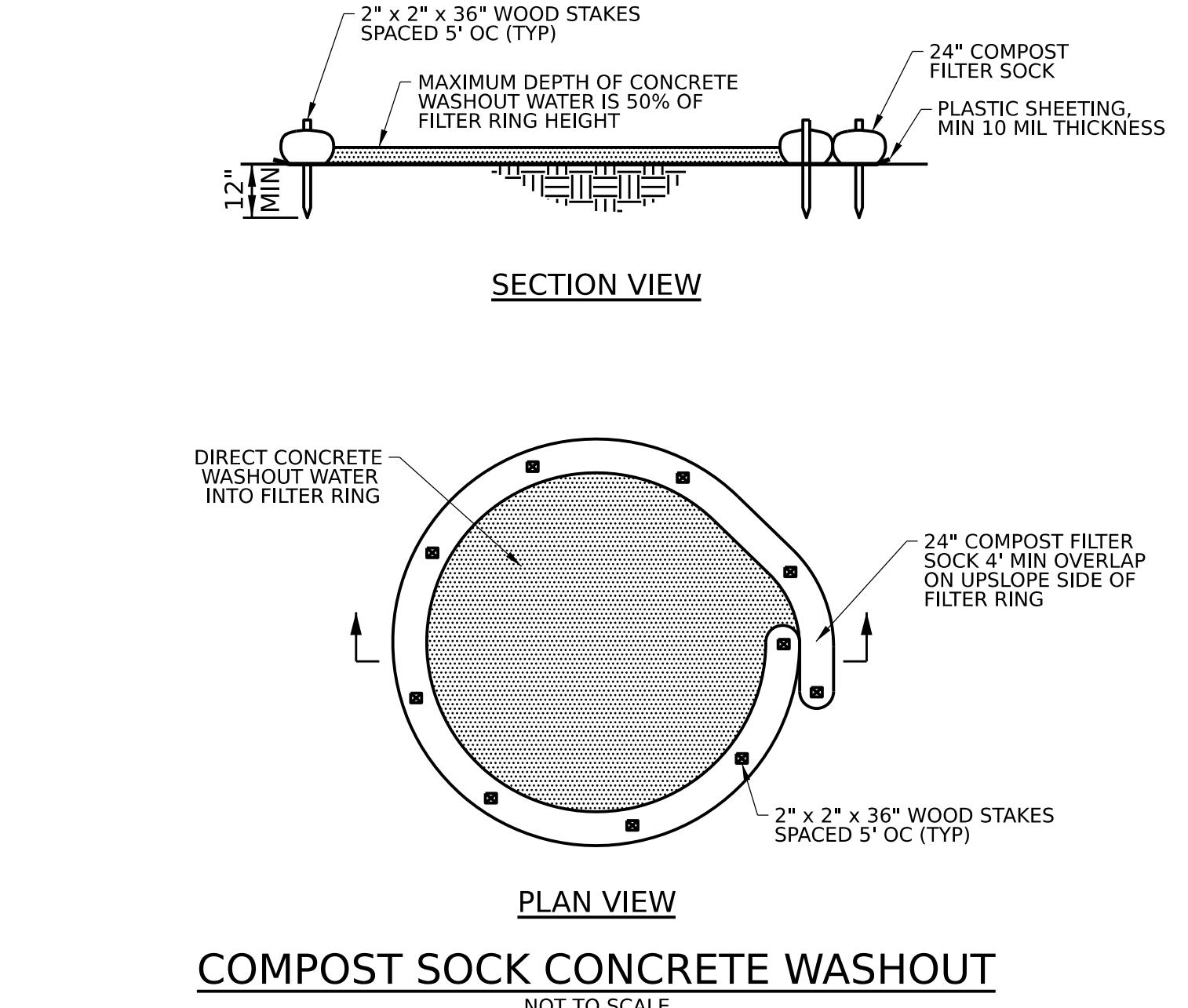


ROCK FILTER

NOT TO SCALE

NOTES:

1. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTER.
2. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, INSTALLER SHALL REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER AND STABILIZE DISTURBED AREAS.



COMPOST SOCK CONCRETE WASHOUT

NOT TO SCALE

NOTES:

PREFABRICATED WASHOUT CONTAINERS MAY BE USED AS A SUITABLE ALTERNATIVE. CARE SHOULD BE TAKEN TO ENSURE THAT THE CONTAINERS ARE INTENDED BY THE MANUFACTURER FOR USE AS CONCRETE WASHOUT BMPs, THAT THEY ARE WATERTIGHT, AND APPROPRIATELY SIZED. ACCUMULATED MATERIALS MUST BE PROPERLY DISPOSED OF WHEN THEY REACH THE CLEANOUT LEVEL.

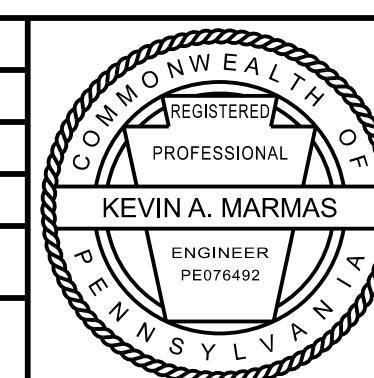
INSPECT WASHOUT FACILITIES DAILY. DEACTIVATE AND REPAIR OR REPLACE DAMAGE OR LEAKING WASHOUTS IMMEDIATELY.

ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.

PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

COMPOST SOCKS MAY BE STACKED AND STAKED SO AS TO FORM A TRIANGULAR CROSS SECTION. 18-INCH DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

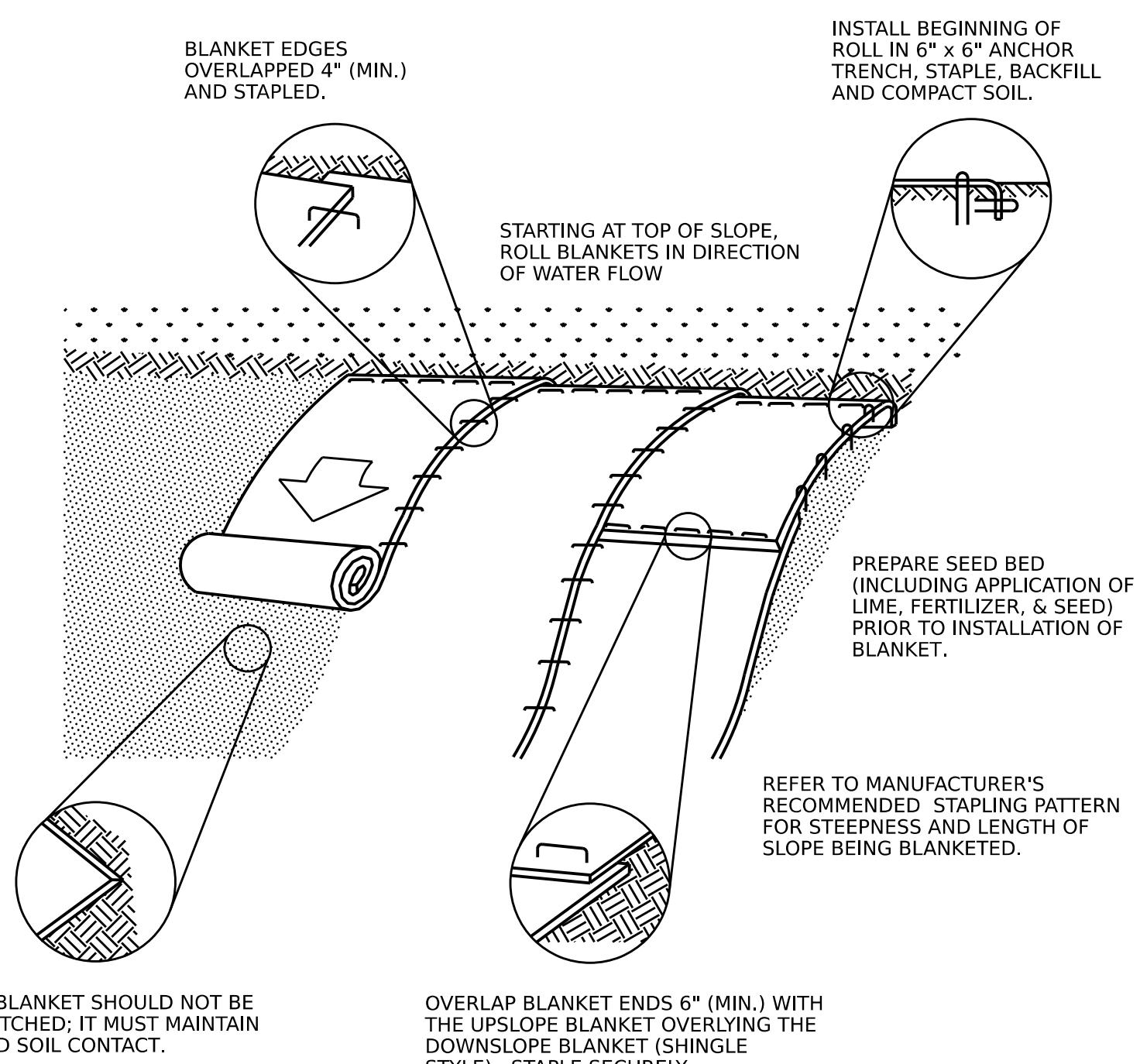
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MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
EROSION AND SEDIMENT POLLUTION
CONTROL PLAN DETAILS
Plymouth Township, Montgomery County, Pennsylvania

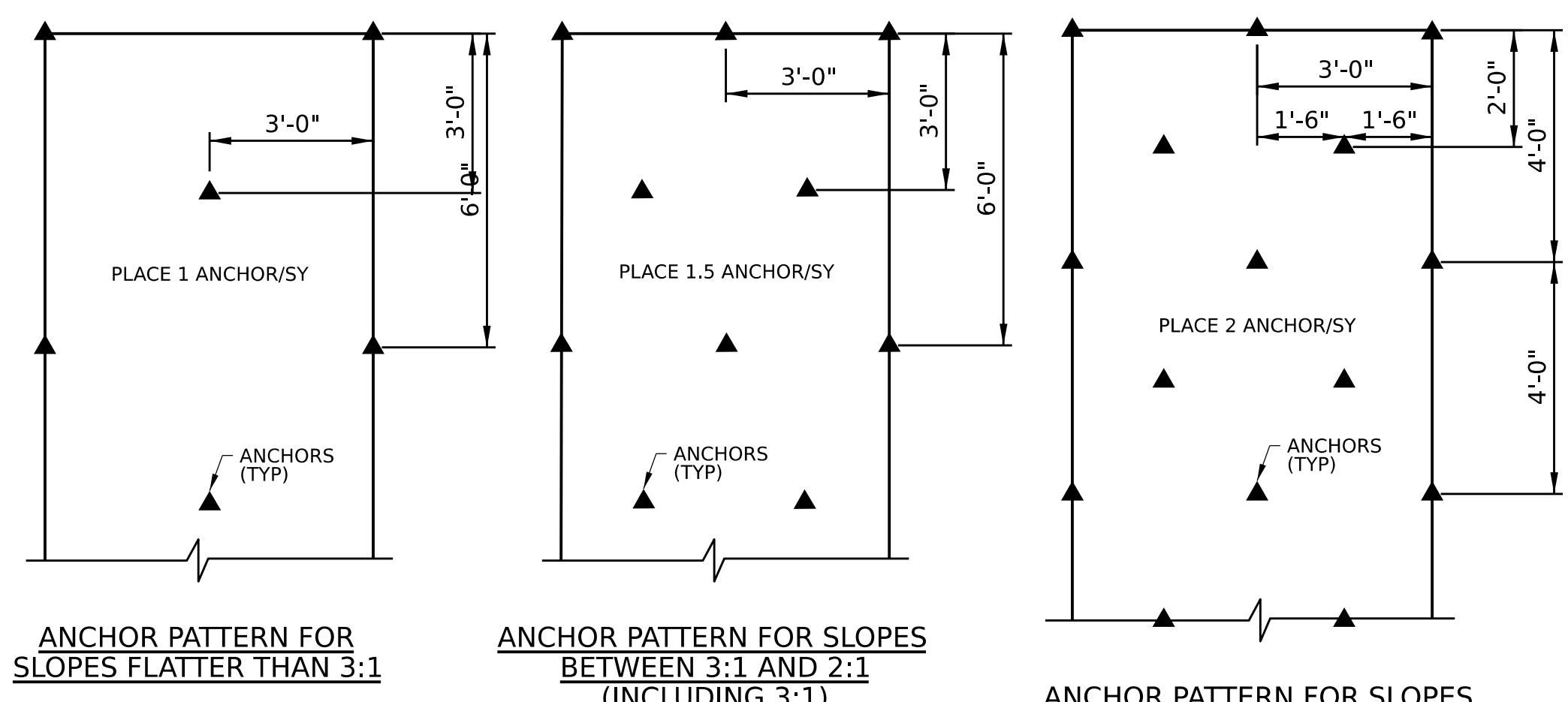


EROSION CONTROL BLANKET INSTALLATION

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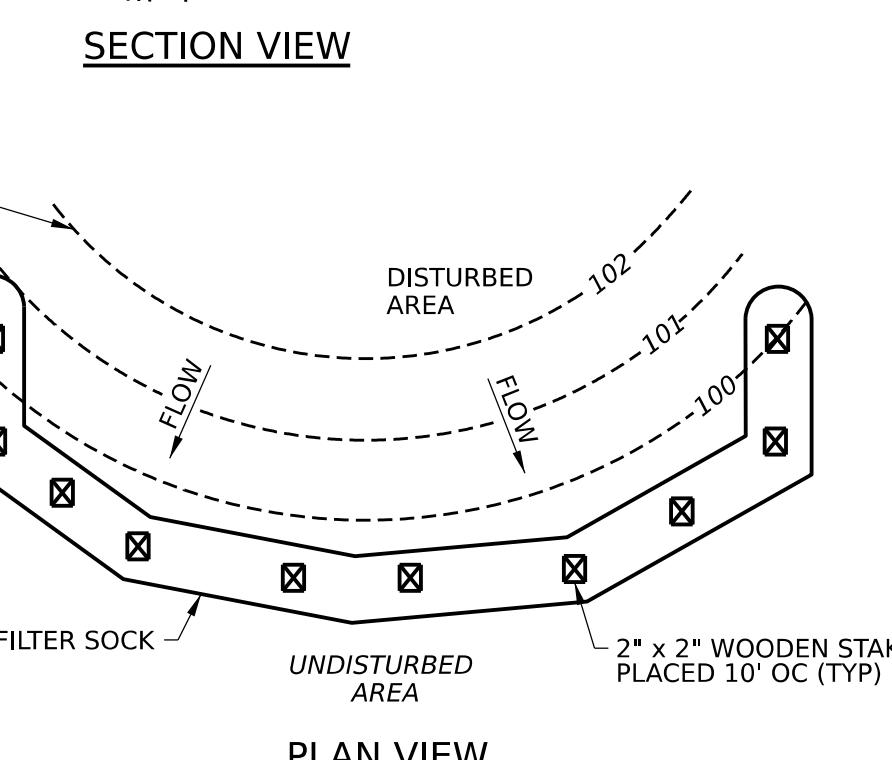
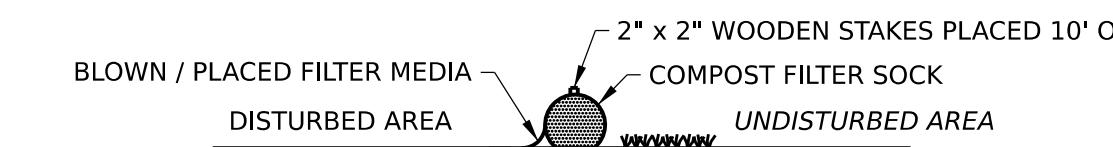
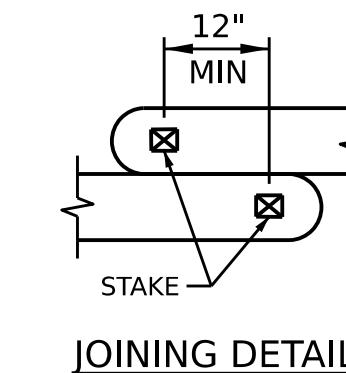
NOTE:

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



EROSION CONTROL BLANKET STAPLE PATTERNS

NOT TO SCALE



COMPOST FILTER SOCK

NOT TO SCALE

NOTES:

1. SOCK FABRIC SHALL MEET STANDARDS AS SHOWN IN TABLE BELOW. COMPOST SHALL MEET THE STANDARDS AS SHOWN IN TABLE BELOW.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT IN THE EROSION AND SEDIMENT CONTROL REPORT AND/OR THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (363-2134-008). STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

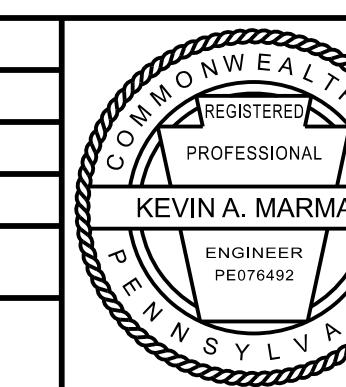
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18"	12" 18"	12" 18"	12" 18"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM-G-155)	23% AT 1000 HR	23% AT 1000 HR		100% AT 1000 HR	100% AT 1000 HR
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
HDPE BIAXIAL NET					
CONTINUOUSLY WOUND					
FUSION-WELDED JUNCTURES					
3/4" X 3/4" MAX APERTURE SIZE					
COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)					
3/16" MAX APERTURE SIZE					
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS					

COMPOST SHOULD BE A WELL DECOMPOSED, WEED-FREE ORGANIC MATTER DERIVED FROM AGRICULTURE, FOOD, STUMP GRINDINGS, AND YARD OR WOOD/BARK ORGANIC MATTER SOURCES. THE COMPOST SHOULD BE AEROBICALLY COMPOSTED. THE COMPOST SHOULD POSSESS NO OBJECTIONABLE odors and should be seasonably free (<1% by dry weight) of man-made foreign matter. The compost product should not resemble the raw material from which it was derived. Wood and bark chips, ground construction debris or reprocessed wood products are not acceptable as the organic component of the mix.

THE PHYSICAL PARAMETERS OF THE COMPOST SHOULD COMPLY WITH THE STANDARDS AS SHOWN IN THE TABLE BELOW. THE STANDARDS CONTAINED IN THE PENNDOT PUBLICATION 408 ARE AN ACCEPTABLE ALTERNATIVE.

COMPOST STANDARDS	
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 DS/M (MMHOS/CM) MAXIMUM

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MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
EROSION AND SEDIMENT POLLUTION
CONTROL PLAN DETAILS
Plymouth Township, Montgomery County, Pennsylvania

OWNERSHIP AND MAINTENANCE OF STORMWATER BMP/FACILITIES

SHORT- AND LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, IT'S HEIRS OR ASSIGNS. ONCE PERMANENT STABILIZATION OCCURS, THE PROPERTY OWNER WILL MAINTAIN THE PCSM BMP'S THROUGH PERIODIC INSPECTIONS AND ROUTINE MAINTENANCE. DEBRIS SHALL BE REMOVED FROM ALL POST CONSTRUCTION BMP'S AS RECOGNIZED DURING INSPECTIONS. IN THE CASE WHERE ANY OBSTRUCTIONS AFFECT THE PERFORMANCE OF BMP'S, SUCH BMP'S WILL BE CLEANED BY MEANS OF PUMPING OR MANUAL REMOVAL AND DISPOSED TO AN APPROVED SITE.

INFILTRATION BASIN (BMP-1)

CONSTRUCTION SEQUENCE:

1. THE DESIGN PROFESSIONAL SHALL BE ON-SITE FOR CONSTRUCTION OF THESE BMP'S.
2. CONNECT BASIN DISCHARGE PIPE TO EXISTING STORM SEWER SYSTEM AND INSTALL OUTLET STRUCTURE. PLACE TEMPORARY ROCK FILTER AROUND OUTLET STRUCTURE.
3. DURING INITIAL EXCAVATION, CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE LIMITED TO LIGHTEST EQUIPMENT AVAILABLE TO THE GREATEST EXTENT POSSIBLE.
4. EXCAVATE TO ELEVATION OF BOTTOM OF PLANTING SOIL. SEE PLANTING SOIL MEDIA NOTES DETAIL AND PLAN SHEETS FOR AREAS OF OVER-EXCAVATION AS NECESSARY.
5. PLACE PLANTING SOIL MEDIA ALONG BASIN BOTTOM AND PLACE SPECIFIED SEED MIXTURE THROUGHOUT ENTIRE BASIN.
6. WHEN BASIN HAS ACHIEVED PERMANENT STABILIZATION, REMOVE TEMPORARY ROCK FILTER.
7. SEE CRITICAL STAGES OF BMP IMPLEMENTATION PROVIDED TO THESE PLANS FOR ALL TIMES THAT A LICENSED PROFESSIONAL SHALL BE PRESENT DURING BASIN CONSTRUCTION.

MAINTENANCE:

1. MUST BE INSPECTED AT A MINIMUM OF 1 TIME PER YEAR AND AFTER EVERY MAJOR RAINFALL EVENT OF 2-YEAR STORM OR GREATER.
2. BASIN STRUCTURES (BASIN BOTTOM, TRASH RACKS, OUTLET STRUCTURE) SHALL BE INSPECTED FOR CLOGGING, EXCESS DEBRIS, AND SEDIMENT ACCUMULATION.
3. INLET BLOCKAGES AND SEDIMENT ACCUMULATION WILL BE REMOVED AND DISPOSED TO AN APPROVED LOCATION WHEN THE BASIN IS DRY.
4. AREAS DISTURBED FOR MAINTENANCE ACTIVITIES MUST BE IMMEDIATELY STABILIZED AND RE-VEGETATED.
5. MOWING AND/OR TRIMMING OF VEGETATION SHALL BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, WHICH CAN BE PART OF REGULAR MOWING ACTIVITY.
6. IF INADEQUATE VEGETATIVE COVER IS ENCOUNTERED, IT SHALL BE ADDRESSED BY RESTORING THESE AREAS TO FULL PERMANENT STABILIZATION THROUGH THE APPLICATION OF SEEDING, SOIL SUPPLEMENTS AND MULCH OR MULCH BLANKET IN ACCORDANCE WITH THE PCSM PLAN.
7. IF PRESENT, INVASIVE PLANT SPECIES SHALL BE REMOVED.
8. FAILURE OF THE FACILITY IS IDENTIFIED AS THE BOTTOM AREA OF THE BASIN NOT Dewatering WITHIN 72 HOURS AFTER A STORM EVENT. THIS IS IDENTIFIED IN THE FIELD BY OBSERVING STANDING WATER FOR MORE THAN 72 HOURS WITHIN THE BOTTOM AREA OF THE BASIN. CORRECTIVE MEASURES SHALL BE TAKEN WHICH INCLUDE TILLING OF THE BASIN BOTTOM, TILLING SAND AND ORGANIC MATERIAL INTO THE BASIN BOTTOM SOIL, CLEANING OF THE DISCHARGE PIPE, OR EVEN REMOVAL AND REPLACEMENT OF THE BASIN BOTTOM SOIL TO AN ADEQUATE DEPTH. THE ORIGINAL DESIGN PROFESSIONAL OR OTHER QUALIFIED PROFESSIONAL SHALL BE CONTACTED TO DETERMINE THE PROPER CORRECTIVE MEASURE TO BE TAKEN TO REMEDIATE ANY FAILURE.

PLANTING SOIL MEDIA FILTER STRIP (BMP-2)

CONSTRUCTION SEQUENCE

1. THE DESIGN PROFESSIONAL SHALL BE ON-SITE FOR PLACEMENT OF THIS BMP.
2. ALL CONSTRUCTION AREAS SHOULD BE COMPLETED AND STABILIZED PRIOR TO BEGINNING PLACEMENT OF PLANTING SOIL MEDIA.
3. EXCAVATE AREA TO DEPTH SPECIFIED FOR PLANTING SOIL MEDIA PLACEMENT. PLACE PLANTING SOIL MEDIA TO BRING THE AREA UP TO GRADE. PLANT SPECIFIED LANDSCAPING AND SEED WITH FORMULA B SEEDING MIX.

MAINTENANCE:

1. MUST BE INSPECTED AT A MINIMUM OF 1 TIME PER YEAR AND AFTER EVERY MAJOR RAINFALL EVENT.
2. AREAS DISTURBED FOR MAINTENANCE ACTIVITIES MUST BE IMMEDIATELY STABILIZED AND RE-VEGETATED.
3. REGULAR MOWING AND/OR TRIMMING OF VEGETATION IN BMP-2 AREA IS PERMITTED; HOWEVER, IT IS NOT REQUIRED.
4. IF INADEQUATE VEGETATIVE COVER IS ENCOUNTERED, IT SHALL BE ADDRESSED BY RESTORING THESE AREAS TO FULL PERMANENT STABILIZATION THROUGH THE APPLICATION OF SEEDING, SOIL SUPPLEMENTS AND MULCH OR MULCH BLANKET IN ACCORDANCE WITH THE PCSM PLAN.
5. IF PRESENT, INVASIVE PLANT SPECIES SHALL BE REMOVED.

6. FAILURE OF THE FILTER STRIP IS IDENTIFIED BY FIELD OBSERVATION AS OBSERVING PONDING, SOGGY SOILS, OR STANDING WATER FOR MORE THAN 72 HOURS. THIS CAN BE A SIGN OF COMPACTION TO THE PLANTING SOIL MEDIA. CORRECTIVE MEASURES SHALL BE TAKEN WHICH INCLUDE TILLING OF THE PLANTING SOIL MEDIA AREAS, OR EVEN REMOVAL AND REPLACEMENT OF THE PLANTING SOIL MEDIA AREAS EXHIBITING FAILURE. IF FAILURE CONTINUES AFTER REMEDIATION, THE ORIGINAL DESIGN PROFESSIONAL OR OTHER QUALIFIED PROFESSIONAL SHALL BE CONTACTED TO DETERMINE THE PROPER CORRECTIVE MEASURE TO BE TAKEN TO REMEDIATE ANY FAILURE.

CRITICAL STAGES OF BMP IMPLEMENTATION

TO ENSURE PROPER SWM BMP INSTALLATION, THE PCSM PLAN MUST IDENTIFY THE CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN THAT A LICENSED PROFESSIONAL OR A DESIGNEE OF THE APPLICANT MUST BE PRESENT ONSITE DURING SPECIFIC STAGE AND TIMES OF CONSTRUCTION OF BMP'S. THESE CRITICAL STAGES ARE AS FOLLOWS:

1. INSTALLATION OF OUTLET STRUCTURE OS-1 AND CONNECTION TO EXISTING DISCHARGE PIPE.
2. PLACEMENT OF PLANTING SOIL MEDIA IN BMP-1 TO CONFIRM PLACEMENT DEPTH. CONTRACTOR TO PROVIDE LICENSED PROFESSIONAL WITH COMPONENTS AND PERCENTAGES OF PLANTING SOIL MEDIA.
3. CONFIGURATION OF OUTLET STRUCTURE TO PERMANENT CONDITIONS FOR BMP-1 TO CONFIRM ORIFICE SIZES AND BOX SIZES.
4. INSTALLATION OF PLANTING SOIL MEDIA FILTER STRIP BMP-2 AREA. VERIFY COMPOSITION OF SOIL AND PLACEMENT.

SWM BASIN CONSTRUCTION NOTES

1. DURING BASIN CONSTRUCTION AND CONVERSION, CAUTION SHALL BE TAKEN TO REDUCE COMPACTION TO THE BASIN BOTTOM AS BEST POSSIBLE, WHICH WOULD INCLUDE EXCAVATING WITH EQUIPMENT OUTSIDE OF THE BOTTOM AREA AS BEST POSSIBLE, PREVENTING ANY VEHICLES OR EQUIPMENT FROM DRIVING ALONG THE BOTTOM OF THE BASIN AS BEST POSSIBLE, AND IF EQUIPMENT IS ABSOLUTELY NEEDED TO BE ON THE BASIN BOTTOM, THE VEHICLES OR EQUIPMENT UTILIZED SHALL BE LOW GROUND PRESSURE EQUIPMENT.
2. ALL EARTH FILL SHALL BE FREE OF WOOD, STUMPS, BRUSH, ROOTS, AND OTHER ORGANIC MATERIAL SUBJECT TO DECOMPOSITION. ALSO, NO FILL SHALL BE PERMITTED THAT CONTAINS ANY STONES LARGER THAN 3 INCHES MEASURED IN ANY DIRECTION.
3. AREAS WHERE FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT. FILL MATERIALS FOR THE EMBANKMENT OF DETENTION AND INFILTRATION BASINS SHALL BE PLACED IN MAXIMUM 12-INCH LIFTS AND EACH LIFT SHOULD BE COMPACTED WITH A ROLLER TO A LEAST 95% OF THE MAXIMUM DENSITY OBTAINED FROM THE COMPACTION TESTS PERFORMED BY THE APPROPRIATE METHOD IN ASTM D698. FURTHERMORE, THE CENTER OF THE EMBANKMENT SHALL CONTAIN A CLAY CORE OF RELATIVELY IMPERVIOUS MATERIAL.

PLANTING SOIL MEDIA SPECIFICATIONS AND NOTES

(PLACEMENT AT BMP-1 BOTTOM AND ENTIRE BMP-2 AREA)

PLANTING SOIL MIXTURE TO BE A WELL BLENDED SANDY LOAM TOPSOIL CONSISTING OF THE FOLLOWING:

50% SAND
30% NATIVE TOPSOIL
20% ORGANIC MATERIAL (COMPOST)

1. PLANTING SOIL MEDIA OF DEPTH SPECIFIED TO BE PLACED IN BMP-1 BOTTOM AREA AND ENTIRE BMP-2 AREA TO PROVIDE ADDITIONAL WATER QUALITY AND EVAPOTRANSPIRATION BENEFITS
2. THE PLANTING SOIL MIXTURE SHALL BE APPLIED TO THE AREAS SPECIFIED ON THE PLANS.
3. THE PLANTING SOIL MIXTURE SHOULD BE FREE OF SUBSOIL, CLAY LUMPS, BRUSH, ROOTS, WEEDS AND ANY OTHER FOREIGN MATTER.
4. THE SAND BEING USED IN THE PLANTING MIX SHOULD BE WASHED SHARP SAND PER ASTM C-33
5. IT IS IMPORTANT TO NOTE THAT THE SAND SHOULD ALWAYS BE COURSE, SHARP SAND. IT SHOULD NEVER BE A CONTRACTOR BUILDING SAND.
6. PLANTING SOIL MIXTURE FOR BMP-1 TO PROVIDE INFILTRATION RATE BETWEEN 1 AND 10 INCHES PER HOUR.
7. PLACE PLANTING SOIL MIXTURE ONLY AFTER STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
8. INSTALLATION OF PLANTING SOIL MEDIA SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF SOIL MEDIA.
9. SOIL MEDIA TO BE WELL BLENDED.

SOILS INFORMATION, LIMITATIONS & RESOLUTIONS

SOIL LIMITATIONS AND RATINGS												
MAP UNIT SYMBOL	MAP UNIT NAME	LOCAL ROADS AND STREETS	SHALLOW EXCAVATIONS	TOPSOIL SOURCE	EMBANKMENTS	CORROSION TO CONCRETE/STEEL	DEPTH TO BEDROCK (CM)	FROST ACTION	DROUGHT VULNERABILITY	INFILTRATION SYSTEMS, SHALLOW	PIPING	SMALL COMMERCIAL BUILDINGS
UudD*	Urban land - Urdorhents, limestone complex, 8-25% Slopes	VERY LIMITED	NOT RATED	NOT RATED	NOT RATED	NOT RATED	138	NOT RATED	NOT RATED	NOT RATED	NOT RATED	VERY LIMITED

* ALL IMPROVEMENTS FALL WITHIN THIS SOIL TYPE.

THE SOIL LIMITATIONS FOR ROADS & STREETS & FILL MATERIAL WILL BE ACCOMMODATED BY REMOVING THE UNSUITABLE MATERIAL, COMPACTING THE EXISTING SUBGRADE AND PLACING SUBBASE MATERIAL TO ACHIEVE A STABLE BASE. IN THE EVENT A SEASONABLY HIGH WATER TABLE IS ENCOUNTERED OR SURFACE RUNOFF REACHES THE WORK AREAS, Dewatering WILL BE COMPLETED WITH PUMPS AND PUMPED WATER FILTER BAGS. IF THE ONSITE MATERIAL IS DEEMED UNACCEPTABLE FOR THE USE OF TOPSOIL, SUITABLE FILL MATERIAL AND TOPSOIL WILL BE IMPORTED FROM OFFSITE SOURCES AS NEEDED.

TO ACCOMODATE CORROSION OF CONCRETE OR STEEL, BOTH WILL BE COATED WITH EPOXY OR OTHER CORROSION PREVENTATIVE MEASURES.

TO ACCOMMODATE EMBANKMENT LIMITATIONS, SUITABLE MATERIAL WILL BE USED FOR EMBANKMENT CONSTRUCTION AND PROPER MEASURES TO PREVENT PIPING OR WATER/SOIL MIGRATION THROUGH THE EMBANKMENT.

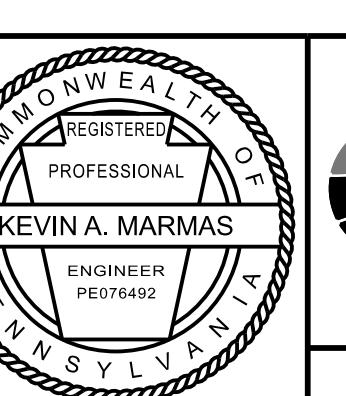
EXCAVATIONS AND TRENCHING WILL BE DUG AND/OR SHORED IN ACCORDANCE WITH OSHA AND ALL OTHER APPLICABLE SAFETY REQUIREMENTS.

TO PREVENT PIPING, ANTI-SEEP COLLARS WILL BE UTILIZED ON THE PIPES DISCHARGING THROUGH BERMS, AND KEY TRENCHES AND CLAY CORES WILL BE UTILIZED.

WINTER GRADING WILL BE AVOIDED OR COMPLETED DURING WARM PERIODS TO AVOID FROST ACTION.

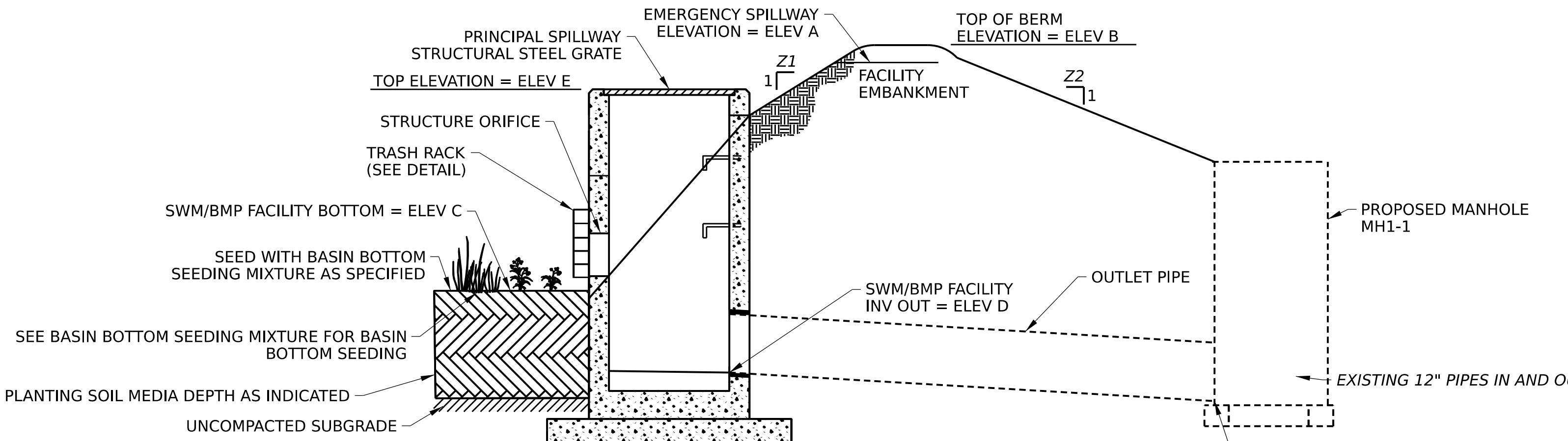
IF DROUGHT CONDITIONS EXIST, IRRIGATION OF VEGETATED AREAS WILL BE DONE TO PROMOTE GRASS AND VEGETATION GROWTH.

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MONTGOMERY COUNTY
NEW LIVE FIRE TRAINING BUILDING
POST CONSTRUCTION STORMWATER
MANAGEMENT PLAN DETAILS
Plymouth Township, Montgomery County, Pennsylvania



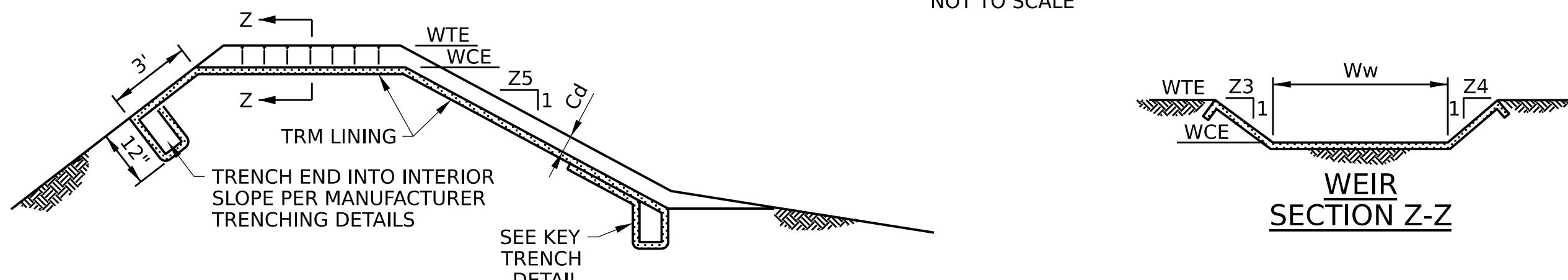
FACILITY NO.	A	B	C	D	E	F	BOX TYPE	STRUCTURE ORIFICES	OUTLET PIPE	Z1	Z2	BERM WIDTH	SOIL DEPTH
BMP-1	138.00	139.25	135.67	134.00	137.75	133.60	STANDARD 4'X2'	2.5" DIAMETER @136.00	16' OF 12" SLCPP @ 2.50%	3	3	5	2.50'

NOTES:

1. CONSTRUCT BMP-1 AFTER SABLIZATION OF CONTRIBUTING DRAINAGE AREA.
2. SEE BASIN BOTTOM SEEDING MIXTURE AND PLANTING SOIL MEDIA NOTES.
3. CONTRACTOR TO SUBMIT SHOP DRAWING FOR OUTLET STRUCTURE PRIOR TO FABRICATION.

INFILTRATION BASIN (BMP-1)

NOT TO SCALE



WEIR SECTION Z-Z

EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY SECTION X-X

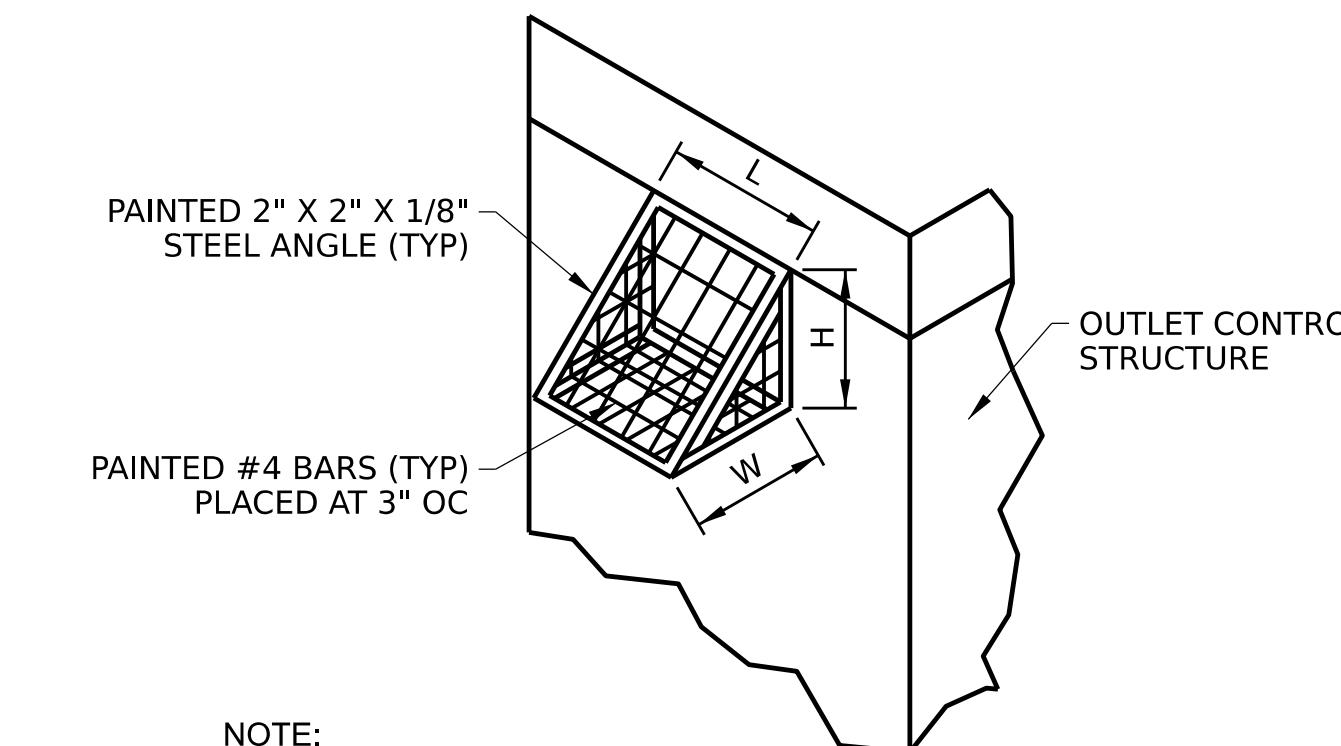
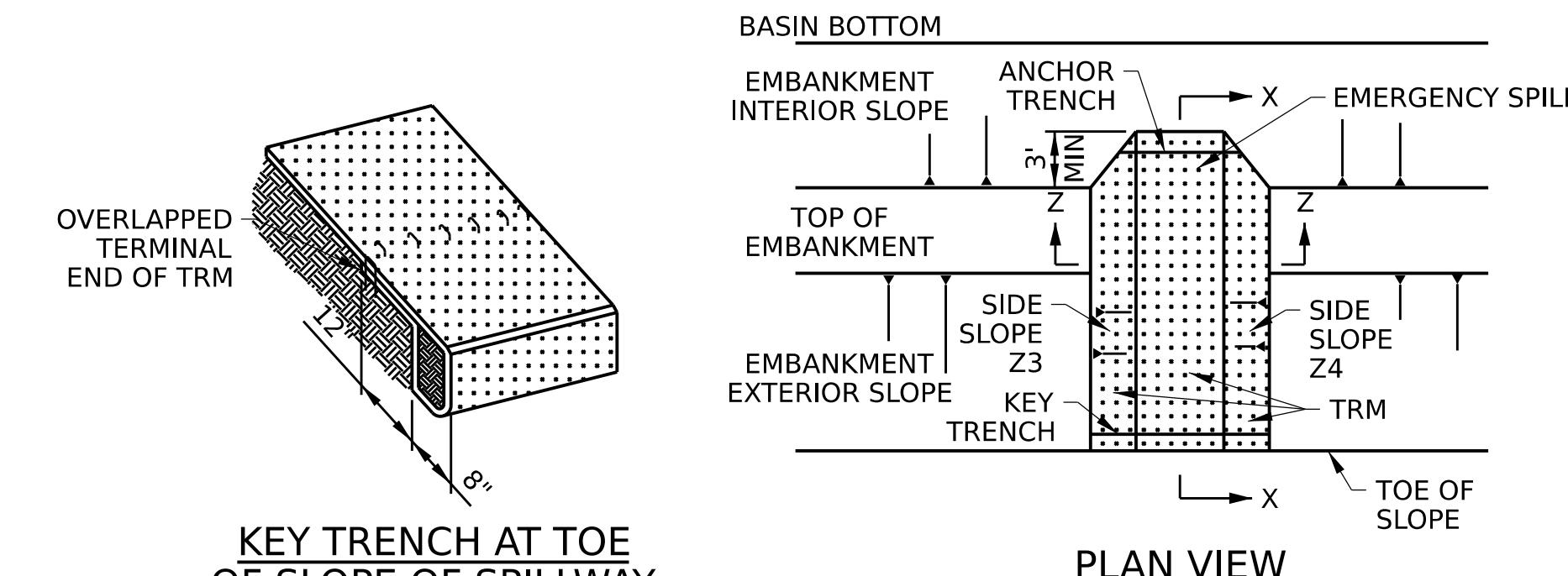
FACILITY NO.	WEIR				LINING		CHANNEL		
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	TRM TYPE	STAPLE PATTERN	Z5 (FT)	DEPTH Cd (FT)
BMP-1	3	3	139.25	138.00	10	NAG P300	SHINGLE	3	1.25

NOTES:

1. HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING.
2. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.
3. NORTH AMERICAN GREEN P-300 OR APPROVED ALTERNATE MUST BE USED.

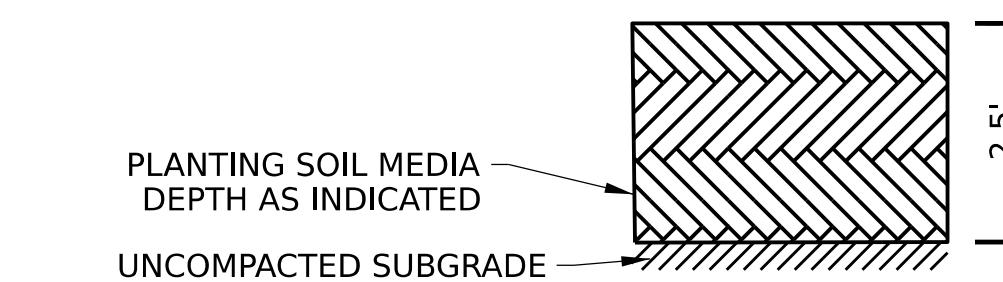
EMERGENCY SPILLWAY WITH TRM LINING

NOT TO SCALE



ORIFICE TRASH RACK

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PLANTING SOIL MEDIA FILTER STRIP (BMP-2)

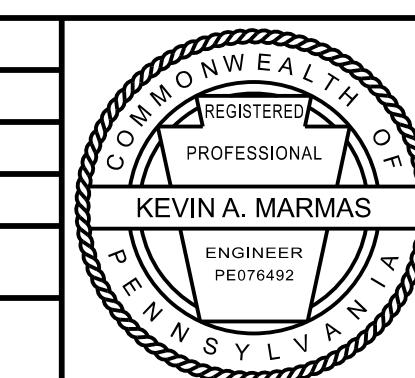
NOT TO SCALE

1. SEE SHEET 6 FOR LOCATION OF BMP-2.
2. BMP-2 PLANTING SOIL MEDIA AREA TO BE 1,600 SQUARE FEET.
3. SEE LANDSCAPE PLAN FOR PLANTINGS IN THE BMP-2 AREA.
4. BMP-2 AREA TO BE STABILIZED WITH FORMULA B SEEDING MIX.

BASIN BOTTOM SEEDING MIXTURE

1. SEED WITH ERNST CONSERVATION SEEDS RAIN GARDEN MIX, OR APPROVED EQUAL(ERNMX-180) AT A RATE OF 20 LB PER ACRE WITH A COVER CROP OF GRAIN RYE AT 30 LB PER ACRE.
2. AREAS INCLUDE INFILTRATION BASIN 1 BMP-1.

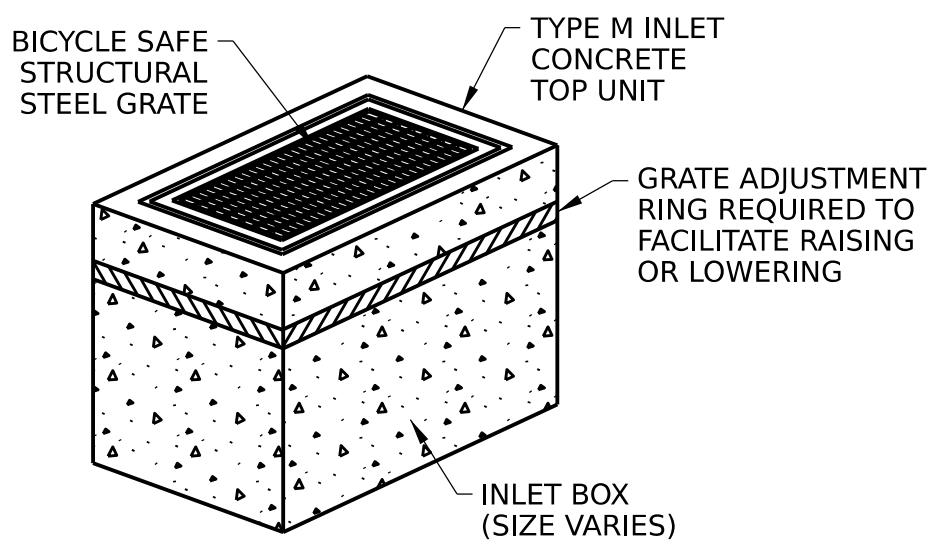
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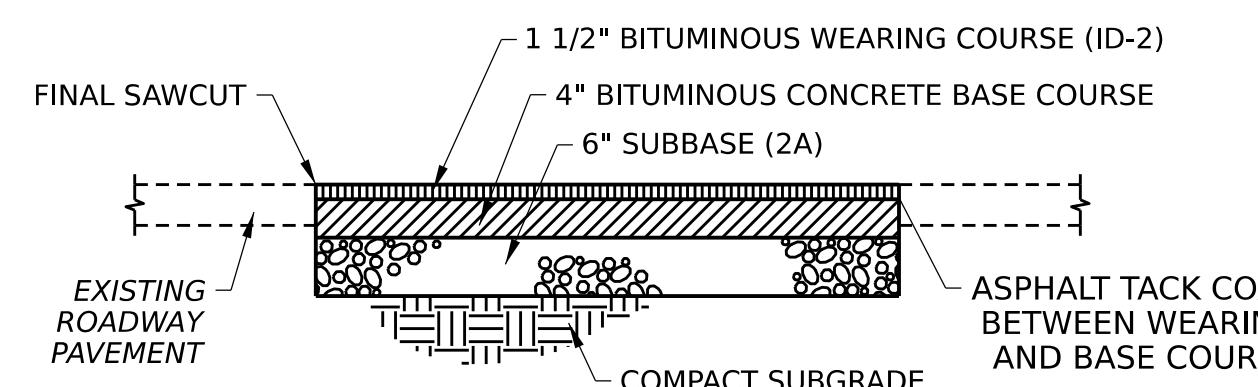
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Plymouth Township, Montgomery County, Pennsylvania



- NOTES:
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-45M & 46M. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES.
 2. NO PIPES SHALL ENTER INLET BOX AT CORNER.
 3. PLACE CONTINUOUS GROUT AROUND PIPE PRIOR TO BACKFILLING. (TYP.)
 4. SEE PLAN FOR INLET AND BOX TYPE.
 5. PROVIDE MANHOLE STEPS IN ALL INLET BOXES OVER 5 FEET IN DEPTH.
 6. ALL INLETS TO BE FABRICATED TO HAVE A SUMP OF MINIMUM OF 1 FOOT AND SHALL HAVE WEEP HOLES COVERED WITH GEOTEXTILE FABRIC TO PROVIDE COMPLETE DRAINAGE OF THE INLET.
 7. ALL INLETS SHALL BE CONSTRUCTED ON A BASE OF A MINIMUM OF 12" COMPACTED NO. 2A MODIFIED STONE.
 8. PROPOSED INLET PR-IN1 CAN BE A DOGHOUSE STRUCTURE.

TYPE M INLET

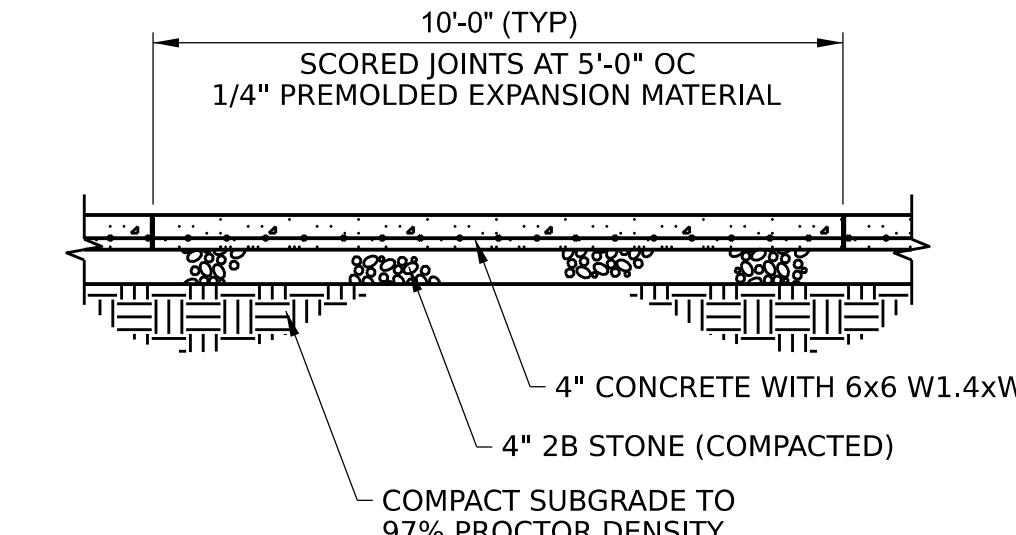
NOT TO SCALE



NOTE: ALL PAVING MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST PA DOT FORM 408 MANUAL, UNLESS OTHERWISE NOTED.

ASPHALT PAVEMENT RESTORATION

NOT TO SCALE

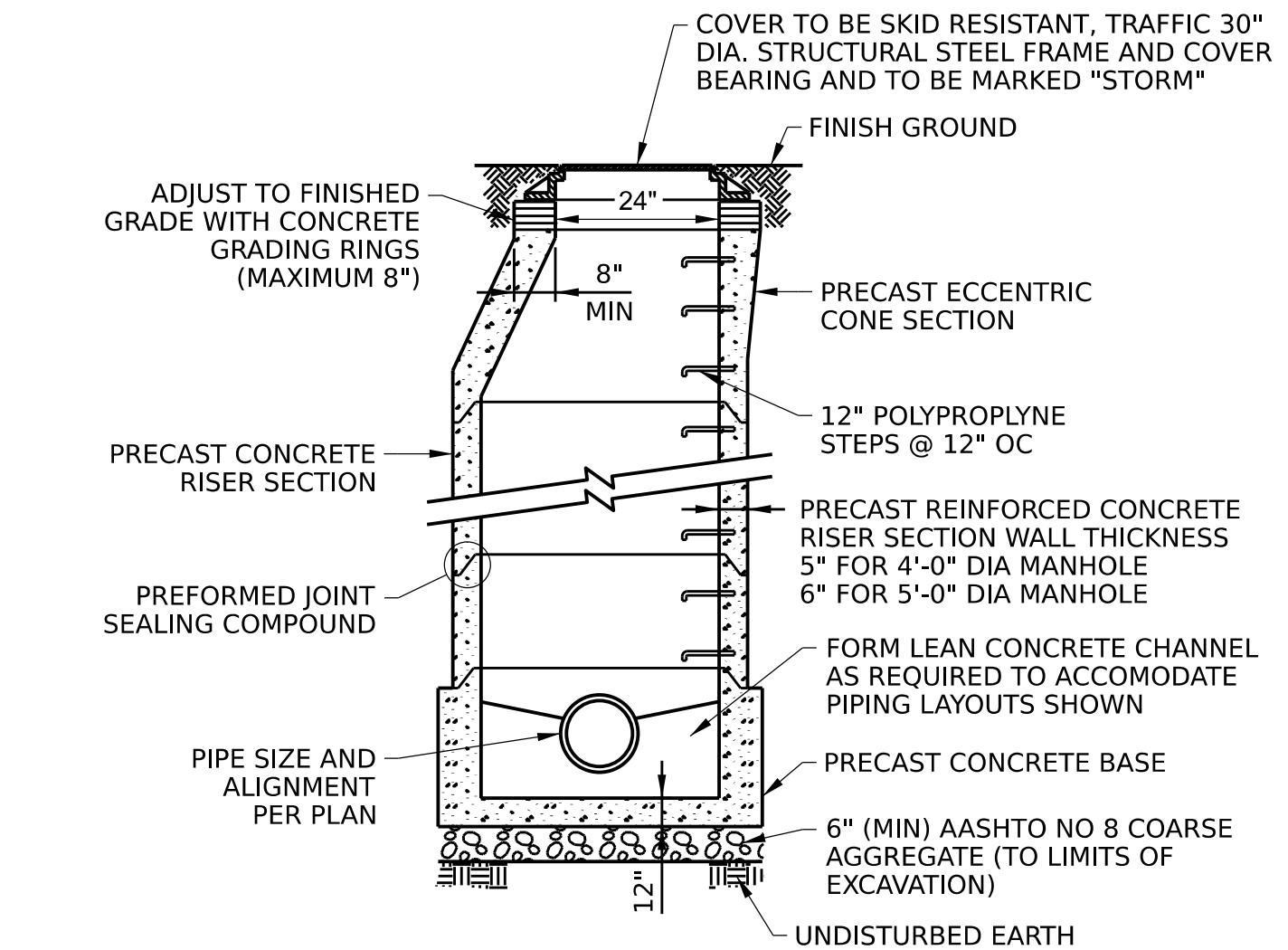


NOTE: SIDEWALK SHALL SLOPE 1/8" PER FOOT AWAY FROM WALL/BUILDING. PLACE 1/4" EXPANSION MATERIAL AT ALL LOCATIONS ABUTTING EXISTING CONCRETE OR BITUMINOUS PAVING AND AT ALL PROPOSED WALLS AND BUILDINGS.

CONCRETE SIDEWALK

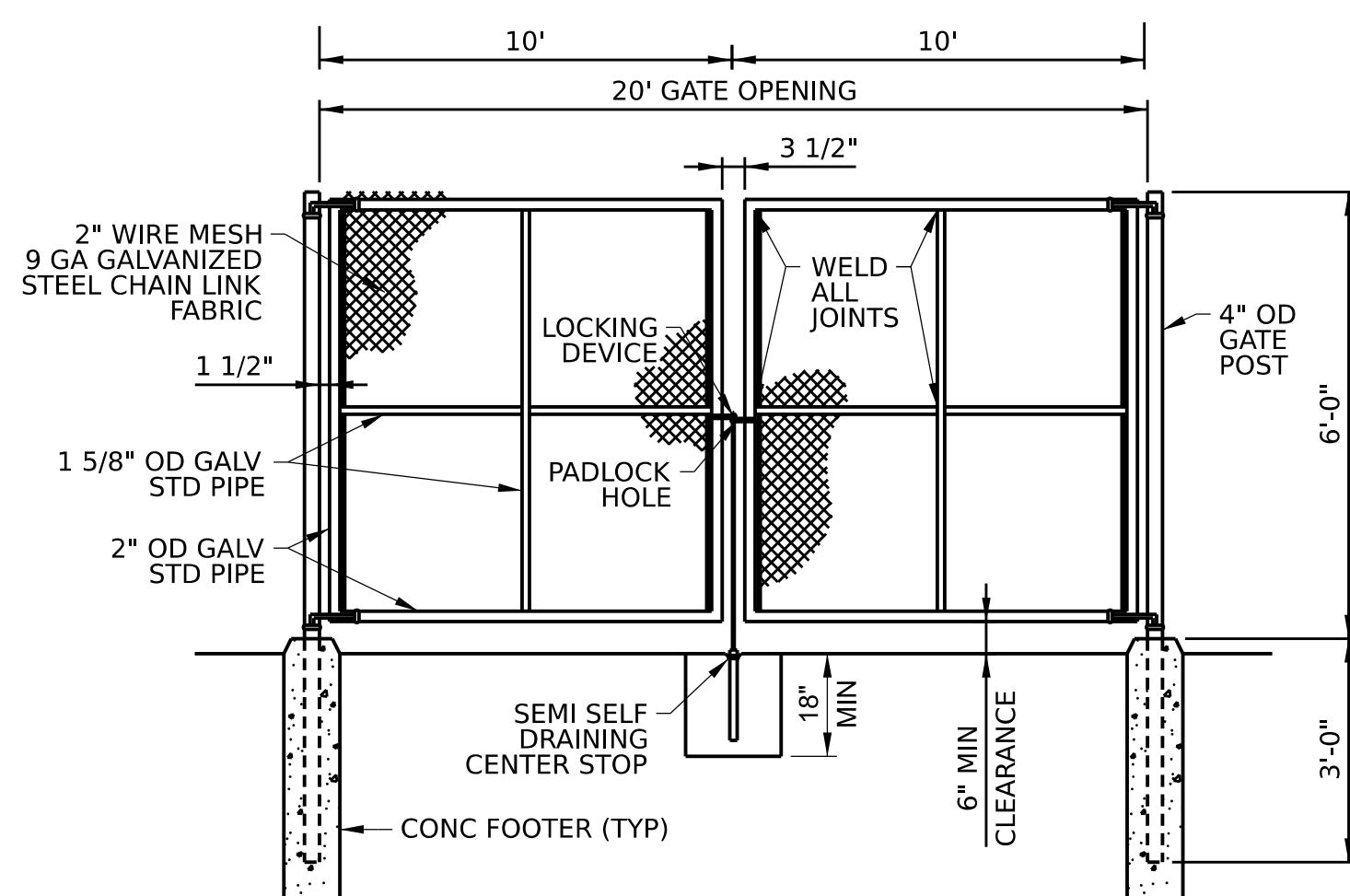
NOT TO SCALE

- NOTES:
1. CONSTRUCT MANHOLE IN ACCORDANCE WITH PENNDOT PUBLICATION 72, RC-39M, LATEST EDITION FOR PRECAST CONCRETE MANHOLES.
 2. ALL MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PENNDOT PUBLICATION 408.
 3. USE FLAT TOP MANHOLES WHERE DEPTHS ARE LESS THAN 6' DEEP.
 4. PROPOSED MANHOLE PR-MH1 CAN BE A DOGHOUSE STRUCTURE.



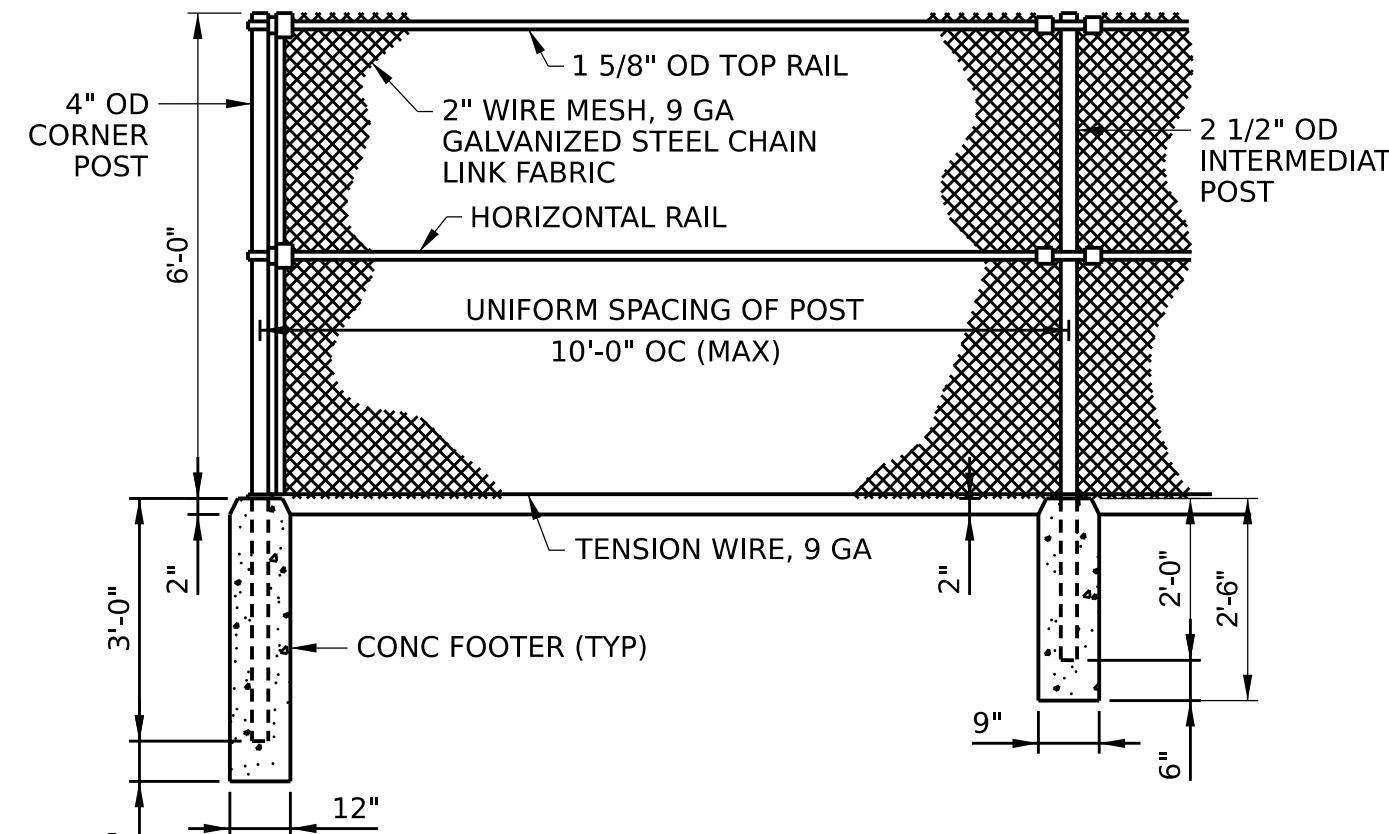
TYPICAL STORM SEWER MANHOLE

NOT TO SCALE



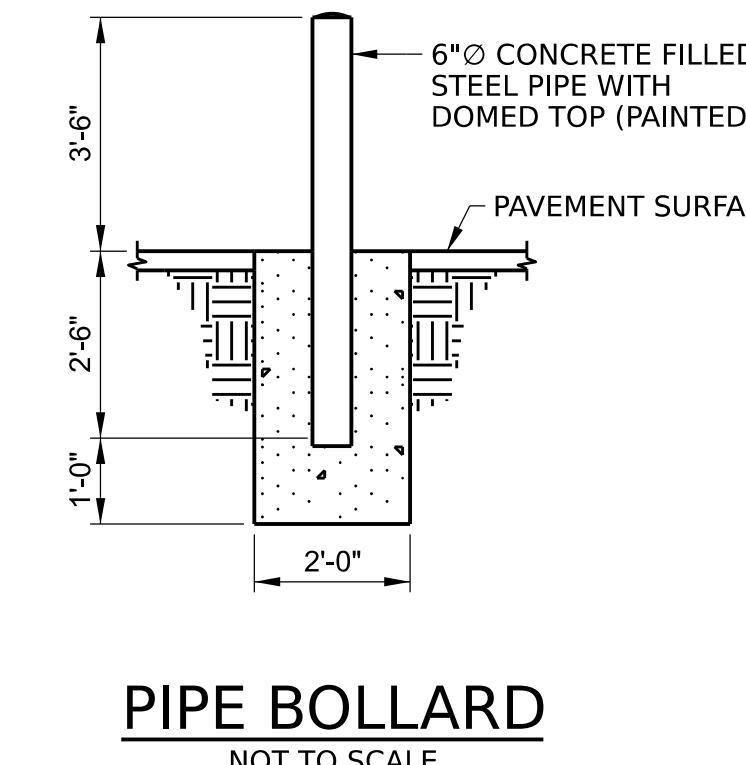
DOUBLE SWING GATE

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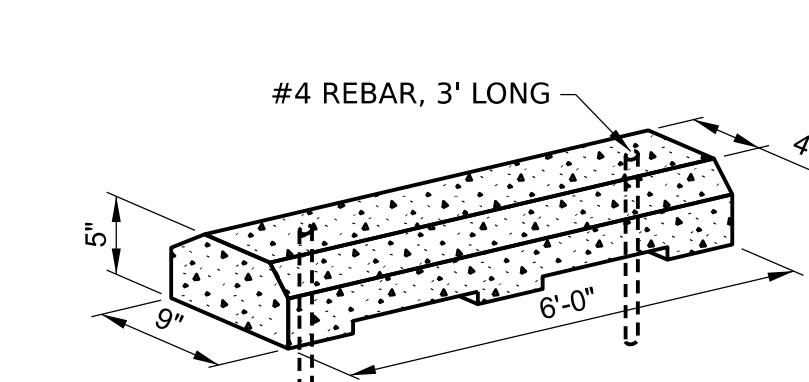
CHAIN LINK FENCE

NOT TO SCALE



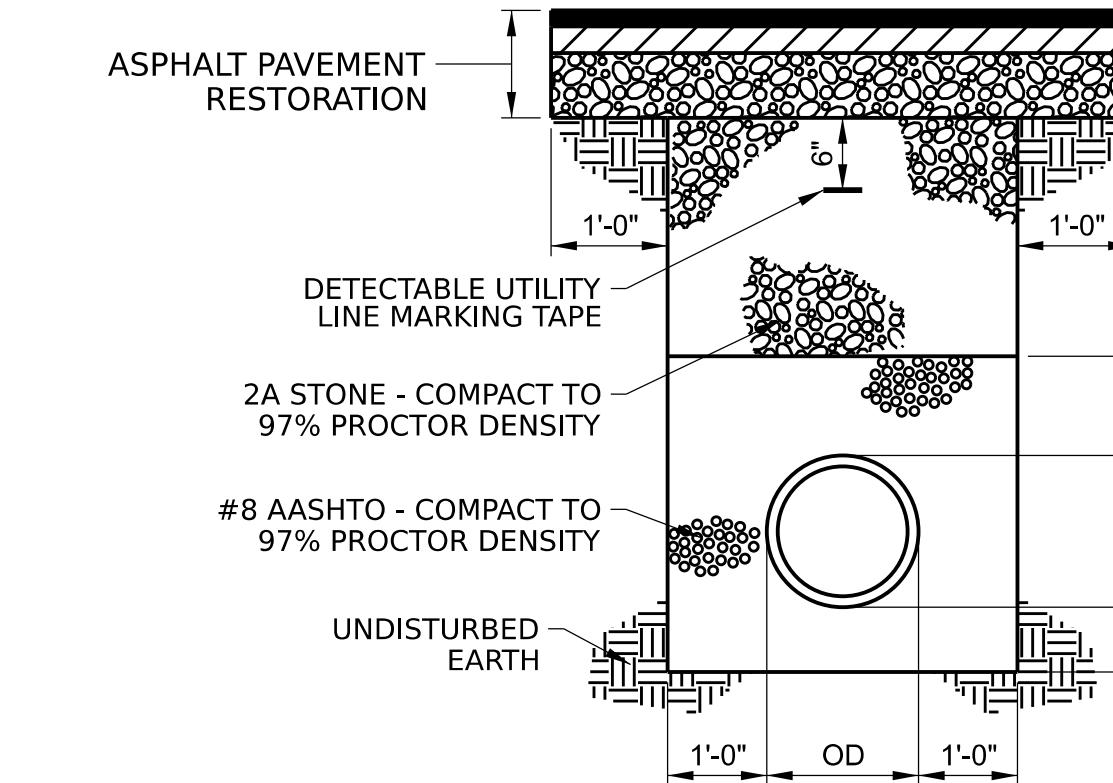
PIPE BOLLARD

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TYPICAL CONCRETE CAR BUMPER

NOT TO SCALE

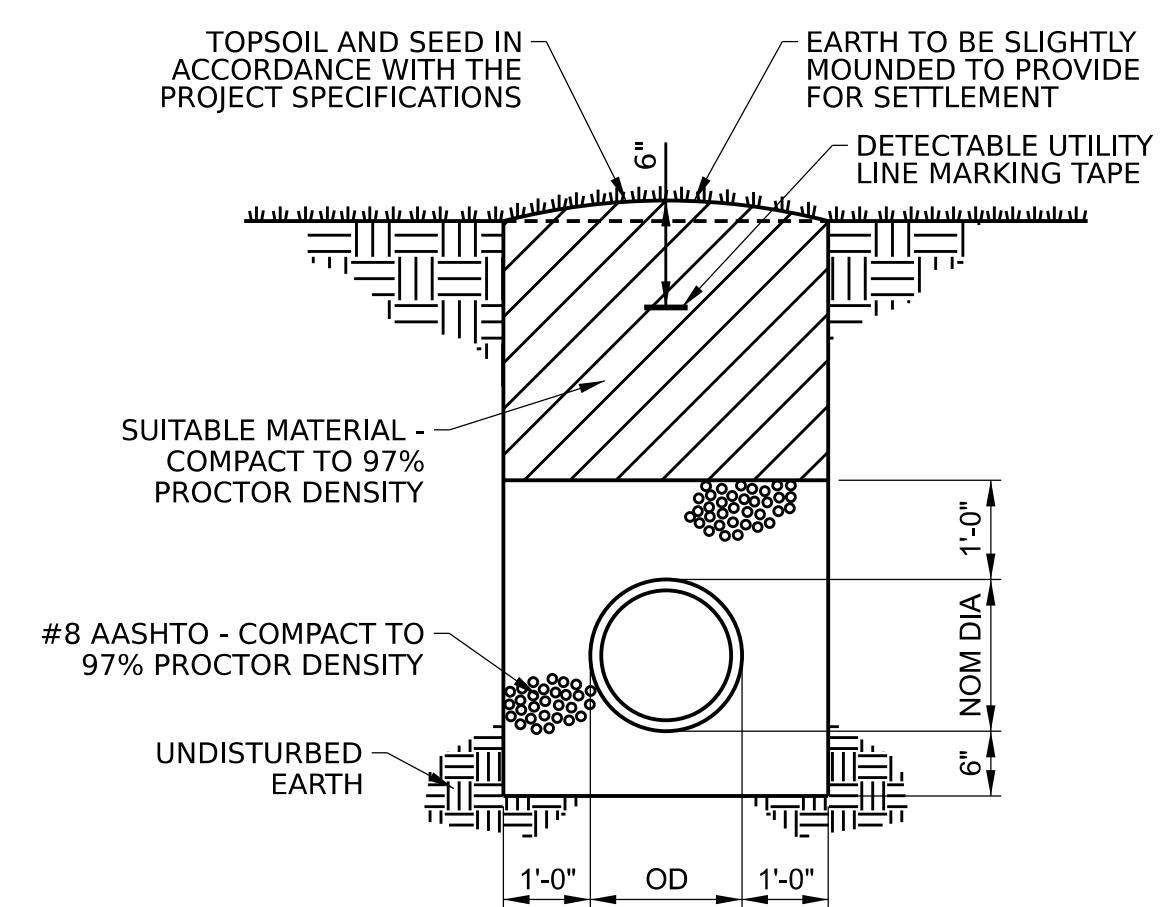


NOTES:

1. 2A STONE MAY BE REPLACED WITH SUITABLE MATERIAL IF PIPE IS IN NEW EMBANKMENT AND DEPTH IS GREATER THAN 4'. MUST MEET REQUIREMENTS OF PENNDOT PUB 408 SECTION 602 AND PUB 72.
2. SUITABLE MATERIAL: MATERIAL CONTAINING NO DEBRIS, ORGANIC MATTER, FROZEN MATERIAL, OR LARGE STONES WITH A DIAMETER GREATER THAN ONE-HALF THE THICKNESS OF THE COMPACTED LAYERS BEING PLACED.
3. ALL BACKFILL MATERIALS MUST BE COMPAKTED TO 97% STANDARD PROCTOR DENSITY.

TRENCH - PAVED SURFACE (IMPROVED SURFACES)

NOT TO SCALE



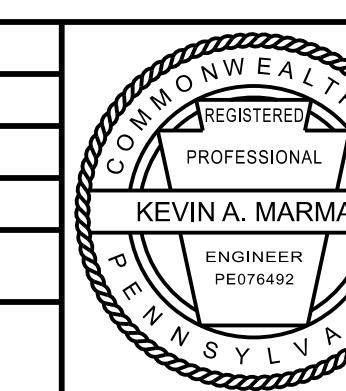
NOTES:

1. ALL BACKFILL MATERIAL IS SUBJECT TO OWNER APPROVAL.
2. SUITABLE MATERIAL: MATERIAL CONTAINING NO DEBRIS, ORGANIC MATTER, FROZEN MATERIAL, OR LARGE STONES WITH A DIAMETER GREATER THAN ONE-HALF THE THICKNESS OF THE COMPACTED LAYERS BEING PLACED.
3. EXCEPT TOPSOIL, ALL BACKFILL MATERIALS MUST BE COMPAKTED TO 97% STANDARD PROCTOR DENSITY.

TRENCH - OFF ROAD (UNIMPROVED SURFACES)

NOT TO SCALE

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