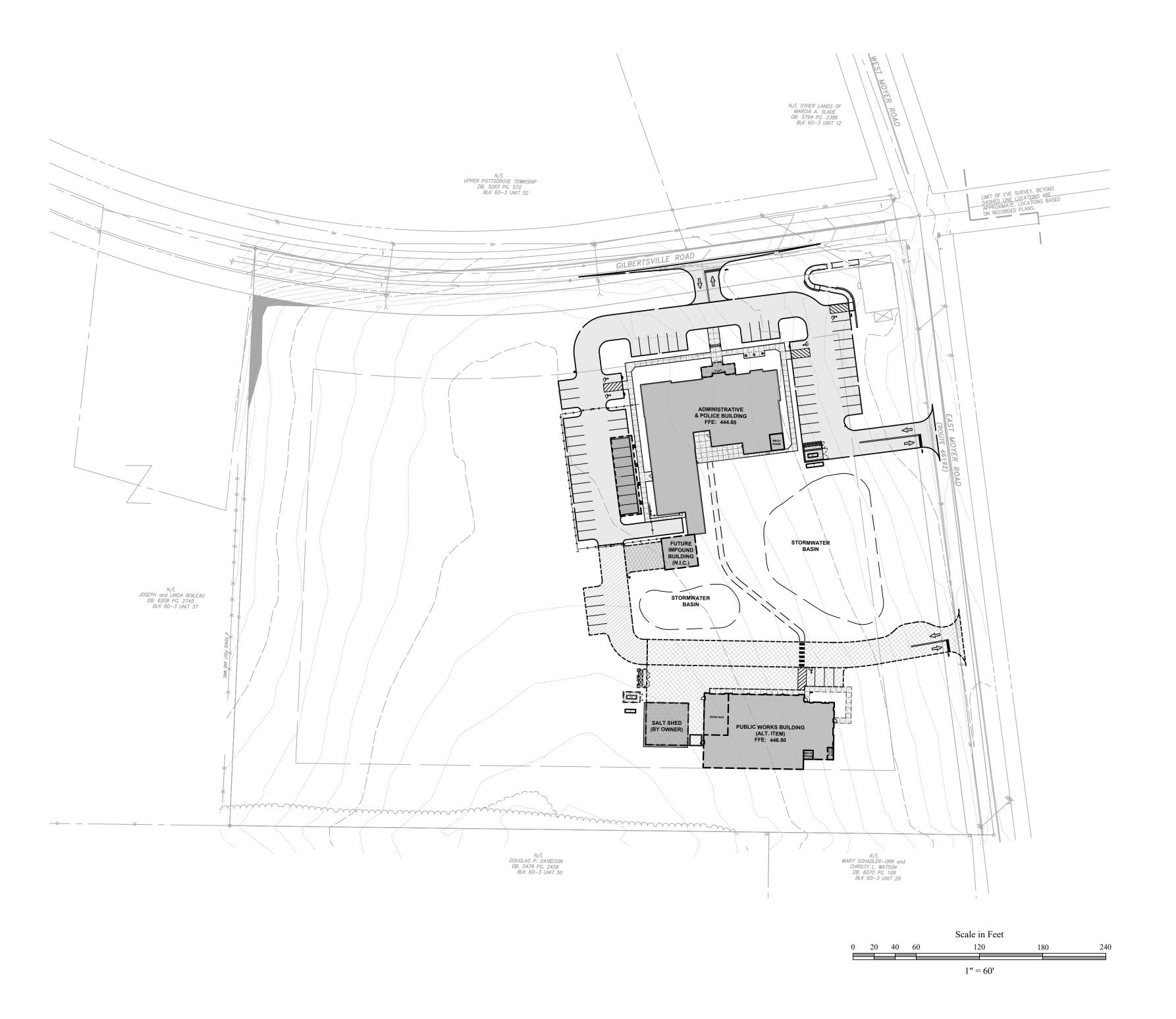


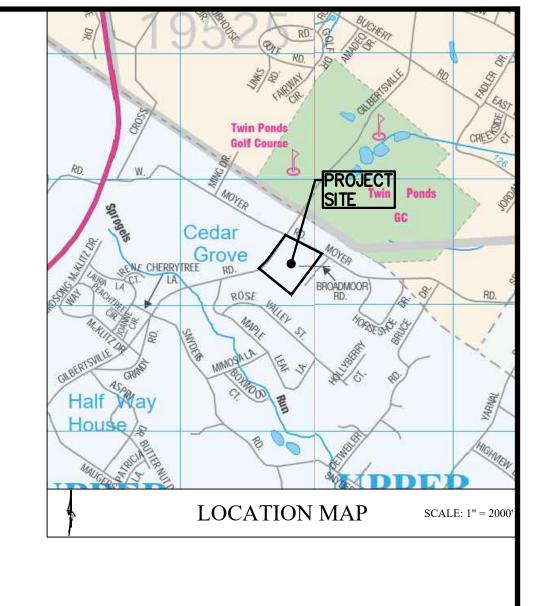
CONSTRUCTION PLANS FOR UPPER POTTSGROVE MUNICIPAL COMPLEX

UPPER POTTSGROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA





112 Moores Road, Suite 200, Malvern, PA 19355 610-644-4623 | 610-889-3143 Fax www.chesterv.com SITE ADDRESS: 2290 GILBERTSVILLE RD, POTTSTOWN, PA 19464 OWNER: UPPER POTTSGROVE TOWNSHIP 1409 FARMINGTON AVENUE, POTTSTOWN, PA, 19464 PHONE - (610) 323-8675



SHEET INDEX

SHEET NO.	LAST REVISED	TITLE
01	03/31/2025	COVER SHEET
02	03/31/2025	NOTES
03	12/09/2024	EXISTING FEATURES PLAN
04	03/31/2025	DEMOLITION PLAN
05	03/31/2025	SITE PLAN & DETAILS
06	03/31/2025	EROSION AND SEDIMENTATION CONTROL PLAN
07	03/31/2025	EROSION AND SEDIMENTATION CONTROL NOTES
08	03/31/2025	EROSION AND SEDIMENTATION CONTROL DETAILS
09	03/31/2025	UTILITY PLAN
10	03/31/2025	UTILITY DETAILS (SANITARY)
11	03/31/2025	UTILITY DETAILS (WATER & ELECTRIC)
12	03/31/2025	UTILITY DETAILS (ELECTRIC & GAS)
13	03/31/2025	GRADING/ STORMWATER MANAGEMENT PLAN
14	03/31/2025	PROFILES
15	03/31/2025	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
16	03/31/2025	POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES/DETAILS
17	03/31/2025	POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS
18	03/31/2025	LANDSCAPE PLAN/ DETAILS
19	03/31/2025	LIGHTING PLAN/ NOTES
20	03/31/2025	LIGHTING DETAILS
21	03/31/2025	CONSTRUCTION DETAILS
22	03/31/2025	CONSTRUCTION DETAILS
23	03/31/2025	CONSTRUCTION DETAILS

(23 SHEETS TOTAL)

CONSTRUCTION PLANS FOR UPPER POTTSGROVE MUNICIPAL COMPLEX ISSUED: MARCH 31, 2025 CVE PROJECT #: 22096-2000

PLANTING NOTES

THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.

- 2. ALL PLANTS SHALL BE NURSERY GROWN.
- ALL PLANTS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST
- 4. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OR GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS.
- 5. SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE OWNER OR HIS REPRESENTATIVE AND THE TOWNSHIP. CONTRACTOR SHALL NOTIFY THE OWNER, IN WRITING OF ANY PLANT MATERIALS WHICH THEY FEEL WILL NOT BE AVAILABLE OR LIKELY TO THRIVE IN THE LOCATIONS INDICATED ON THE PLAN.
- 6. MEASUREMENT: DIMENSIONS OF TREES AND SHRUBS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
- 7. SIZE: ALL PLANTS SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE PLANT LIST, UNLESS AUTHORIZED IN WRITING BY AND THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER.
- 8. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER FIRM & WHOLE. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.
- 9. PLANT MATERIALS NOT PLANTED THE DAY OF DELIVERY ARE TO BE HEALED IN SO THAT ROOT SYSTEMS ARE PROTECTED FROM THE DRYING FORCES OF THE WIND AND SUN. TEMPORARY WATER SYSTEMS ARE TO BE USED FOR PLANT MATERIALS WHICH WILL BE STORED FOR MORE THAN ONE WEEK.
- 10. THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS, IN WRITING.
- 11. PLANTS WITH DAMAGED OR BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN AS DETERMINED BY THE TOWNSHIP LANDSCAPE ARCHITECT/ENGINEER WILL NOT BE ACCEPTED AND ARE TO BE REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL.
- 12. TREE STAPLING SHALL BE INSTALLED ACCORDING TO THE PLANTING DETAILS. TREE STAPLES SHALL BE INSTALLED ON ALL DECIDUOUS AND EVERGREEN TREES. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT TREES ARE MAINTAINED STRAIGHT AND UPRIGHT THROUGHOUT THE GUARANTEE PERIOD. THE TREE STAPLES REMAIN INSTALLED AS THEY WILL DETERIORATE WITHIN
- 13. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA) STANDARDS TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ONLY DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED AT TIME OF PLANTING. TREES AND SHRUBS ARE TO BE PRUNED ONE YEAR AFTER PLANTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PRUNE TREES AND SHRUBS AT THE APPROPRIATE TIME.
- 14. MULCH FOR TREES, SHRUBS AND GROUND COVER SHALL BE FINELY SHREDDED OAK BARK, DARK BROWN IN COLOR: AGED AT LEAST ONE YEAR AND CLEAN AND FREE OF WEEDS. PRE-EMERGENT WEED KILLER SHALL BE 'TREFLAN' OR APPROVED EQUAL. APPLY WEED KILLER TO TOPSOIL PRIOR TO MULCHING BED PLANTINGS. ALL SHRUBS TO BE PLANTED IN CONTINUOUS BEDS UNLESS OTHERWISE NOTED. ALL SHRUB BEDS TO RECEIVE 3" DEEP CONTINUOUS MULCH COVER. MULCH MAY NOT TOUCH THE TRUNKS OF TREES OR THE MAIN STEMS OF SHRUBS.
- 15. TREES IN LEAF WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICANT SUCH AS WILT-PROOF.
- 16. PREPARATION OF PLANTING SOIL BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, PLANTS, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH. SOIL (BACKFILL) FOR TREES. SHRUBS. AND GROUNDCOVER SHALL BE A MIXTURE BY VOLUME OF THE FOLLOWING MATERIALS IN QUANTITIES SPECIFIED: 20% PEAT MOSS, 75% TOPSOIL AND 5% ORGANIC MATTER. ADD AN ORGANIC FERTILIZER TO THE ABOVE MIXTURE AT THE RATES SPECIFIED BY THE MANUFACTURER. FOR NEW TREES AND SHRUBS.
- 17. WARRANT TREES AND SHRUBS FOR A PERIOD OF 12 MONTHS AFTER WRITTEN DATE OF ACCEPTANCE BY THE TOWNSHIP LANDSCAPE ARCHITECT AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. PLANTS THAT DIE DURING THE WARRANTY PERIOD SHALL BE REMOVED IMMEDIATELY. REPLACEMENTS SHALL BE PLACED UNDER WARRANTY AN ADDITIONAL 12 MONTH PERIOD. A PLANT SHALL BE CONSIDERED DEAD IF 25% OR MORE OF THE PLANT HAS DIED.
- 18. CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE AND THE TOWNSHIP ENGINEER IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.
- 19. MINOR ADJUSTMENTS TO TREE LOCATION MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP'S REPRESENTATIVE IF MAJOR ADJUSTMENTS ARE REQUIRED.
- 20. TOPSOIL SHALL BE REPLACED AT A THICKNESS OF APPROXIMATELY EIGHT (8) INCHES. MINIMUM OF SIX (6) INCHES IN ALL NEWLY ESTABLISHED LAWN AREAS AND A MINIMUM OF TWELVE (12) INCHES IN FOUNDATION PLANTING AREAS. THE MATERIAL MUST MEET THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408 SPECIFICATIONS, AS AMENDED. ANY EXCAVATED ROCK DUE TO LANDSCAPE INSTALLATION MUST BE DISPOSED OF OFF SITE.
- 21. THE CONTRACTOR SHALL CONTACT THE TOWNSHIP IN WRITING TO REQUEST A FINAL INSPECTION FOR ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THESE INSPECTIONS WILL BE PERFORMED WHEN MATERIALS ARE IN FULL LEAF ONLY (MAY 1 THROUGH NOVEMBER 15). ALL GUARANTEE ESCROW FUNDS WILL BE RELEASED UPON ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THE GUARANTEE WILL BE EXTENDED UNTIL THIRTY (30) DAYS AFTER RECEIPT OF THE REQUEST LETTER FOLLOWING MAY 1. SHOULD THE END OF THE GUARANTEE PERIOD OCCUR AFTER NOVEMBER 15, THE GUARANTEE SHALL BE EXTENDED TO MAY 15.
- 22. PERMANENT SEED MIX SHALL BE AS NOTED ON EROSION AND SEDIMENTATION NOTES. THE FALL PLANTING SEASON SHALL EXTEND FROM SEPTEMBER 1 TO OCTOBER 15. THE SPRING PLANTING SEASON SHALL EXTEND FROM APRIL 1 TO MAY 15.

CONSTRUCTION NOTES

- WORK IN THE SITEWORK CONSTRUCTION CONTRACT INCLUDES ALL LABOR, MATERIALS EQUIPMENT, AND SERVICES NECESSARY FOR THE CIVIL CONSTRUCTION. WORK SHALL BE DEFINED IN THE CIVIL (C-SERIES) AND HIGHWAY OCCUPANCY PERMIT (HOP) DRAWINGS, AS DESCRIBED IN THE GENERAL CONDITIONS AND SPECIFICATIONS DIVISIONS 01, 31, 32, AND 33. WORK OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
- 1.1. SITE PREPARATION, INCLUDING CLEARING, EARTHWORK, DEMOLITION, AND GRADING. IMPORT AND/OR EXPORT OF FILL MATERIAL
- THIS INCLUDES LOADING, HAULING, INSTALLATION, IMPORT, EXPORT, AND DISPOSAL OF FILL MATERIAL LOCATED ON THE FARM PROPERTY ACROSS MOYER ROAD AT THE EVANS SITE.
- THIS INCLUDES IMPORT OF FILL MATERIAL TO THE EVANS SITE, AND EXPORT OF FILL MATERIAL FROM THE GILBERTSVILLE SITE. SITE CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY STOCKPILING APPROXIMATELY 3,600CY OF MATERIAL AND THE APPROPRIATE E&S MEASURES AT THE GILBERTSVILLE SITE AS SHOWN ON THE CVE CIVIL PLANS. IN LATE FALL OR WINTER, AS DIRECTED BY THE CONSTRUCTION MANAGER, THE SITE CONTRACTOR IS RESPONSIBLE FOR LOADING, HAULING AND DUMPING ALL MATERIAL TO 370 EVANS ROAD, POTTSTOWN, PA.
- 1.3. SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, ROADWAYS, PARKING LOTS, PEDESTRIAN PAVING WHERE NOT ASSIGNED TO THE GC, SITE DEVELOPMENT FURNISHINGS, EQUIPMENT, AND LANDSCAPING. ALL CURBS, ISLANDS, ACCESS ROADS, RETAINING WALLS, FENCING, OPERABLE GATES, RAIN GARDENS, UTILITY INSTALLATION UP TO WITHIN 5 FEET OF THE BUILDING.
- ESTABLISHMENT OF BUILDING PAD TO BE PROVIDED AT FINISH FLOOR MINUS CONCRETE STAB
- AND STONE THICKNESS. SANITARY, STORM, AND WATER PIPING TO WITHIN 5 FEET OUTSIDE THE BUILDING FOOTPRINT. INCLUDING EXCAVATION, PATCHING IF REQUIRED, AND BACKFILL.
- AQUA AMERICA WILL INSTALL THE PROPOSED COPPER WATER SUPPLY PIPE, LOCATED BETWEEN THE CONNECTION WITH THE MAIN AND THE PROPOSED WATER METER, ALONG WITH MAKING THE CONNECTION AT THE MAIN. THE SITE CONTRACTOR SHALL PERFORM ALL OTHER WATER RELATED UTILITY WORK IN SUPPORT OF AQUA AMERICA'S WORK INCLUDING BUT NOT LIMITED TO ROADWAY AND NON-ROADWAY EXCAVATION/REPAIR, METER PIT/BACKFLOW PREVENTER INSTALLATION, AND ALL ON SITE WATER COMPONENTS. SITE CONTRACTOR WILL BE RE-SPONSIBLE FOR ALL SAW CUTTING, TRENCH EXCAVATION, BACKFILLING OF TRENCH, AND RESTORE EITHER IN GRASS OR PAVED AREAS FROM THE MAIN CONNECTION TO THE METER PIT. THE SITE CONTRACTOR IS RESPONSIBLE FOR FULL INSTALLATION METHODS OF THE WATER FROM THE METER PIT TO 5 FEET FROM THE BUILDING
- 2. 2. THE PUBLIC WORKS AND IMPOUND BUILDINGS, ALONG WITH THE ASSOCIATED ENTRY DRIVE AND PARKING LOT, ARE DESIGNATED AS ALTERNATE BID ITEMS: HOWEVER, ALL UTILITIES, STORMWATER MANAGEMENT FACILITIES, AND FINAL GRADING SHALL BE COMPLETED AS PART OF THE BASE BID.
- 3. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY, FOR RESOLUTION.
- 4. COST OF BUILDING REPAIRS ASSESSED TO CONTRACTOR RESPONSIBLE FOR BUILDING & FACADE DAMAGE DURING CONSTRUCTION.
- 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT SEALED DRAWINGS AND CALCULATIONS FOR THE RETAINING WALL TO THE TOWNSHIP AND LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. ALL SUCH DOCUMENTS SHALL BE SEALED BY A PENNSYLVANIA-LICENSED STRUCTURAL ENGINEER.

DEMOLITION NOTES:

- REMOVAL OF EXISTING SANITARY INCLUDES THE REMOVAL OF THE ENTIRE SEPTIC SYSTEM AND ANY UNSUITABLE SOILS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.
- 3. IF REQUIRED, CONTRACTOR IS RESPONSIBLE FOR GRADE ADJUSTMENT OF ALL SURFACE UTILITIES, INCLUDING BUT NOT LIMITED TO VALVES, LIDS, GRATES, RIMS, CAPS, STORM AND SANAITARY STRUCTURES WITHIN THE LIMITS OF WORK. GRADE ADJUSTMENTS SHALL BE MADE PRIOR TO THE INSTALLATION OF PAVEMENT WEARING COURSE OR PLACEMENT OF TOPSOIL IN UNPAVED AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL EXISTING FEATURES WHICH ARE DAMAGED DURING CONSTRUCTION AND ARE INDICATED TO REMAIN.
- 5. REMOVAL OF EXISTING PAVED SURFACES INCLUDES THE REMOVAL OF CRUSHED STONE BASE
- DEMOLITION OF TREES AND OTHER VEGETATION INCLUDES REMOVAL OF ALL STUMPS AND ROOT SYSTEMS WITHIN 24" OF EXISTING GRADE.

GRADING NOTES:

- ALL GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS.
- 2. ADA RAMP TO EXISTING RESIDENCE IS AN ALTERNATE ITEM. IF NOT SELECTED. A 3:1 FILL SLOPE AND SWALE AT BUILDING SHALL BE INSTALLED AS PART OF THE BASE BID.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING SITE AND SUBSURFACE CONDITIONS PRIOR TO PROCEEDING AND WHILE PROGRESSING WITH THE WORK.
- 4. CLASSIFICATION OF EXCAVATION: IF ROCK AS HEREIN DEFINED, IS ENCOUNTERED WITHIN THE LIMITS OF EXCAVATION, THE CONTRACT PRICE WILL BE ADJUSTED UPON AN AGREED UNIT PRICE PER CUBIC YARD AND INFORM THE TOWNSHIP REPRESENTATIVE IMMEDIATELY. ROCK EXCAVATION WILL CONSIST OF THE REMOVAL AND DISPOSAL OF BOULDERS ONE CUBIC YARD OR MORE IN VOLUME: SOLID ROCK; MATERIALS THAT CANNOT BE REMOVED WITHOUT SYSTEMATIC DRILLING AND BLASTING SUCH AS ROCK MATERIAL IN LEDGES OR AGGREGATE CONGLOMERATE DEPOSITS THAT ARE SO FIRMLY CEMENTED AS TO POSSESS THE CHARACTERISTICS OF SOLID ROCK; AND CONCRETE OR MASONRY STRUCTURES EXCEEDING ONE CUBIC YARD IN VOLUME, EXCEPT SIDEWALKS AND PAVING.
- 5. HARD AND COMPACT MATERIALS SUCH AS CEMENTED-GRAVEL, GLACIAL TILL, AND RELATIVELY SOFT OR DISINTEGRATED ROCK THAT CAN BE REMOVED WITHOUT CONTINUOUS AND SYSTEMATIC DRILLING AND BLASTING WILL NOT BE CONSIDERED AS ROCK EXCAVATION. ROCK EXCAVATION WILL NOT BE CONSIDERED SUCH BECAUSE OF INTERMITTENT DRILLING AND BLASTING THAT IS PERFORMED MERELY TO INCREASE PRODUCTION. EXCAVATION OF THE MATERIAL CLAIMED AS ROCK WILL NOT BE PERFORMED UNTIL THE MATERIAL HAS BEEN CROSS-SECTIONED AND CLASSIFIED BY THE ENGINEER.
- 6. ALL PROPOSED SLOPES SHALL BE ROUNDED INTO THE EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
- 7. ALL PROPOSED CONTOUR GRADES AND SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING, FINISHED FLOOR OR FINISH GRADE IN LANDSCAPED AREAS.

PA ONE CALL OWNERS LIST:

COMPANY:COMCAST ADDRESS:1250 HADDONFIELD-BERLIN RD. CHERRY HILL, NJ. 08034 **CONTACT:WYATT PARRISH** EMAIL:WYATT_PARRISH@CABLE.COMCAST.COM PHONE:484-368-4391

COMPANY:AQUA PENNSYLVANIA ADDRESS:762 LANCASTER AVE. BRYN MAWR, PA. 19010 CONTACT: THOMAS WADDY EMAIL:TBWADDY@AQUAAMERICA.COM PHONE:610-525-1400 EXT. 52105

COMPANY:PECO AN EXELON COMPANY C/O USIC ADDRESS:450 S HENDERSON ROAD SUITE B KING OF PRUSSIA, PA. 19406 CONTACT:NIKKIA SIMPKINS EMAIL:NIKKIASIMPKINS@USICLLC.COM PHONE:484-681-5720

COMPANY:FIRSTENERGY CORPORATION ADDRESS:21 S MAIN ST. AKRON, OH. 44308 CONTACT: MELLYSSA ADAMS EMAIL:MADAMS@FIRSTENERGYCORP.COM PHONE:330-604-4073

COMPANY:UGI UTILITIES INC ADDRESS:225 MORGANTOWN RD. READING, PA. 19611 CONTACT:KURT ZIELASKOWSKI EMAIL:KZIELASKOWSKI@UGI.COM PHONE:610-736-5571

COMPANY: UPPER POTTSGROVE TOWNSHIP ADDRESS:1409 FARMINGTON AVE. POTTSTOWN, PA. 19464 CONTACT: KEVIN SNYDER EMAIL:PUBLICWORKS@UPTOWNSHIP.ORG PHONE:610-326-9938

LEGENDS PROPOSED GRADING FEATURES EXISTING FEATURES PROPOSED SPOT ELEVATION PROPOSED SLOPE __ __ -205 ___ _ EXISTING 5' CONTOURS

PROPOSED STORMWATER FEATURES PROPOSED STORM PIPE PROPOSED YARD DRAIN PROPOSED TYPE 'M' INLET BOX PROPOSED TRENCH DRAIN PROPOSED STORM MANHOLE PROPOSED FLARED END SECTION & RIPRAP APRON

PROPOSED 1' CONTOURS

PROPOSED 5' CONTOURS

PROPOSED LANDSCAPING FEATURES



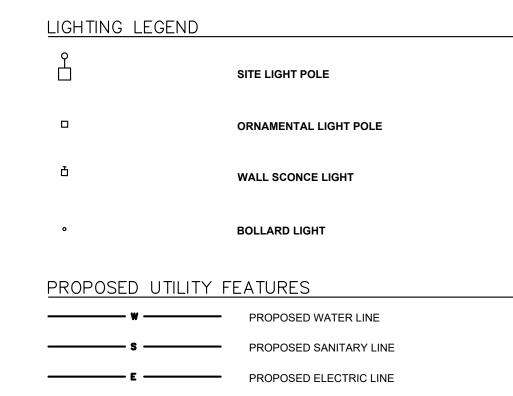
PROPOSED SHRUB

PROPOSED DECIDUOUS TREE

PROPOSED PERENNIAL & GRASS

 \times 443.50

2%



PROPOSED XFMR VAULT

PROPOSED GENERATOR

PROPOSED PROPANE TANK

==== EXISTING HDPE PIPE EXISTING FIRE HYDRANT EXISTING INLETS EXISTING UTILITY POLE EXISTING TRAFFIC CONTROL SIGNS INFILTRATION TESTING LOCATION EXISTING DECIDUOUS TREE EXISTING CONIFEROUS TREE EDGE OF BRUSH EXISTING MANHOLE (SAN, STORM, GAS, WATER, WATER, ELECTRIC, TELEPHONE, ETC.) STEEP SLOPES 15-> PROPOSED DEMOLITION FEATURES EXISTING PAVING TO BE DEMOLISHED EXISTING PLANTS TO BE DEMOLISHED

EXISTING 1' CONTOURS

BUILDING SETBACK

EXISTING WATER LINE

XXXXXXXXXX EXISTING FENCE LINE

EcB2

BdA

EXISTING SPOT ELEVATION

EXISTING EDGE OF PAVING

SOILS LINE AND DESCRIPTION

EXISTING PROPERTY BOUNDARY

EXISTING RIGHT OF WAY (LEGAL R/W)

PROPOSED STANDARD ASPHALT PAVING PROPOSED STANDARD BITUMINOUS PAVEMENT (ALT. ITEM) PROPOSED HEAVY DUTY BITUMINOUS PAVEMENT ****** ********* -----FUTURE STANDARD BITUMINOUS PAVEMENT (N.I.C PROPOSED CONCRETE PAVING

PROPOSED BUILDING PROPOSED PARKING OVERHANG PROPOSED PATIO PROPOSED PAVEMENT MARKING PROPOSED FENCE/GATE ---- PROPOSED SPARE CONDUIT PROPOSED DRIVE PAVEMENT MARKING

PROPOSED DUMPSTER PROPOSED SIGN PROPOSED WHEEL STOP PROPOSED HANDICAP MARKING PROPOSED BOLLARD PROPOSED FLAG POLE PARKING STALL QUANTITY

FUTURE E.V. CHARGING STATION PROPOSED POLICE PARKING ACCESS KEY PAD

PROPOSED E&S FEATURES PROPOSED CONSTRUCTION ENTRANCE PROPOSED CONCRETE WASHOUT PROPOSED TEMPORARY TOPSOIL STOCKPILE PROPOSED EROSION CONTROL BLANKET PROPOSED LIMIT OF DISTURBANCE

NPDES PROJECT SITE AREA PROPOSED TREE PROTECTION FENCE/ ********** ORANGE CONSTRUCTION FENCE PROPOSED COMPOST FILTER SOCK PROPOSED INLET PROTECTION

PROPOSED TEMPORARY INLET SEAL DISCHARGE POINT

NOTES

DATE **CONSTRUCTION PLANS UPPER POTTSGROVE MUNICIPAL COMPLEX** 2290 GILBERTSVILLE ROAD JPPER POTTSGROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

610-644-4623 www.chesterv.com DRAWN BY CHECKED BY

03/31/2025

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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA

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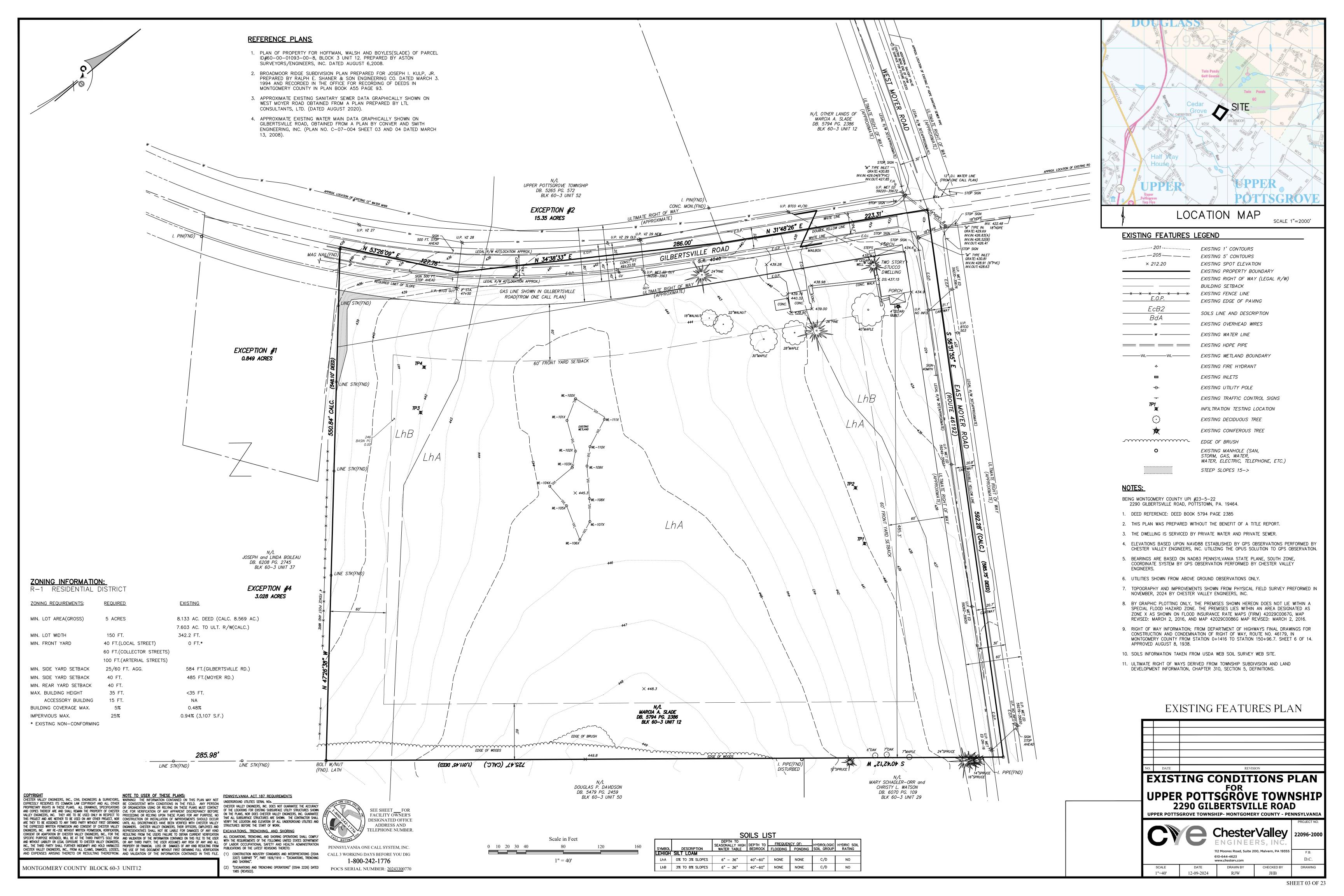
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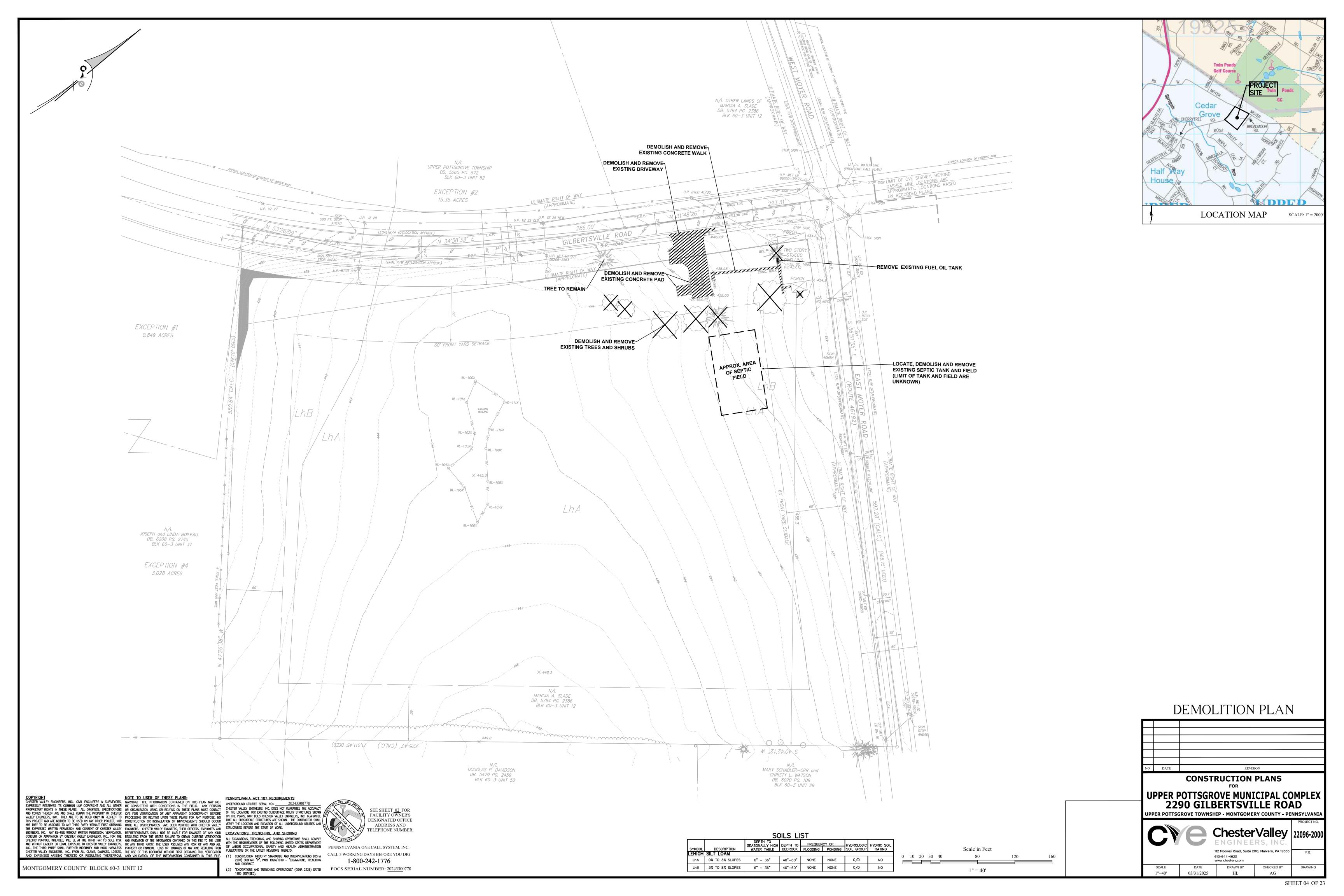
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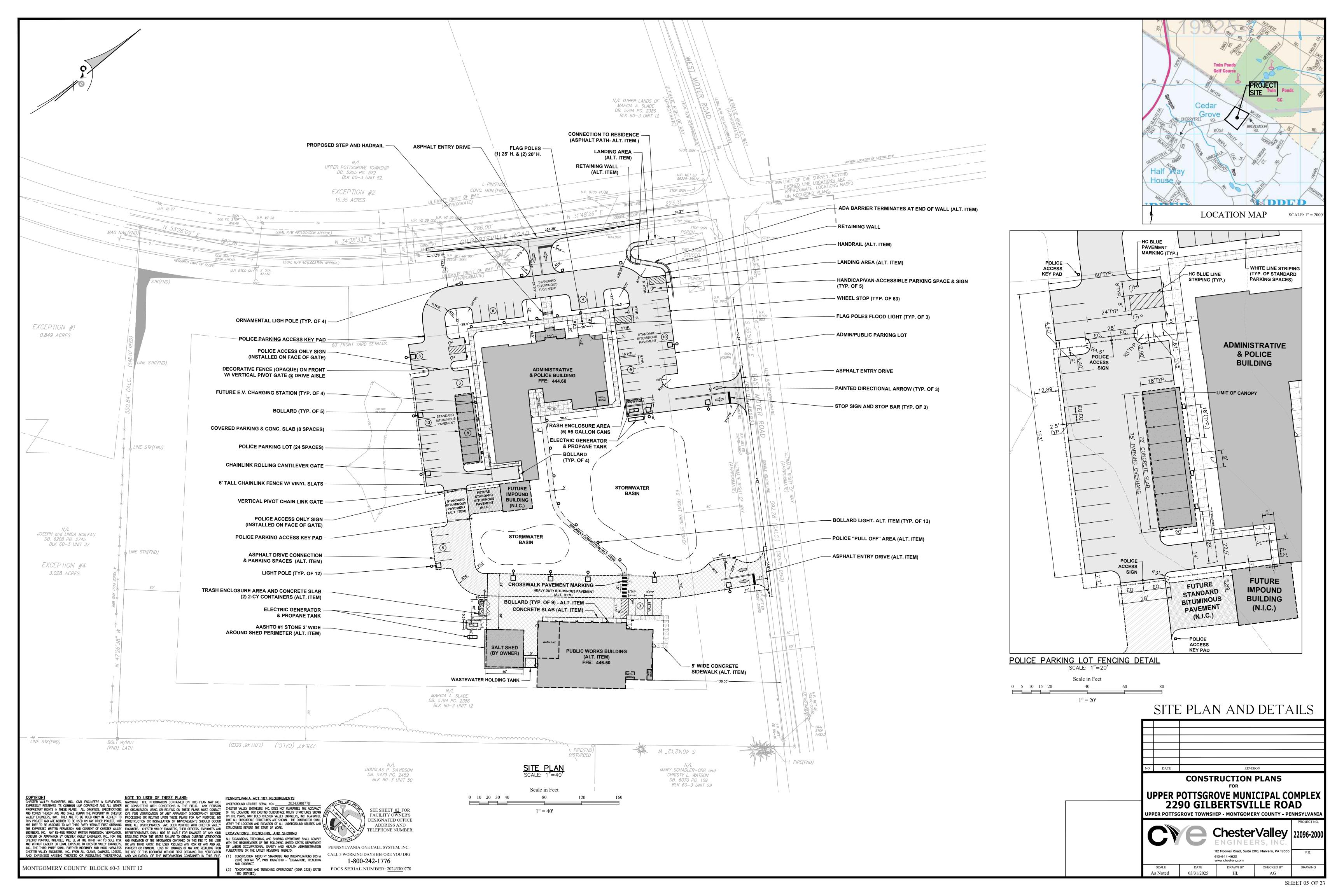
07) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING

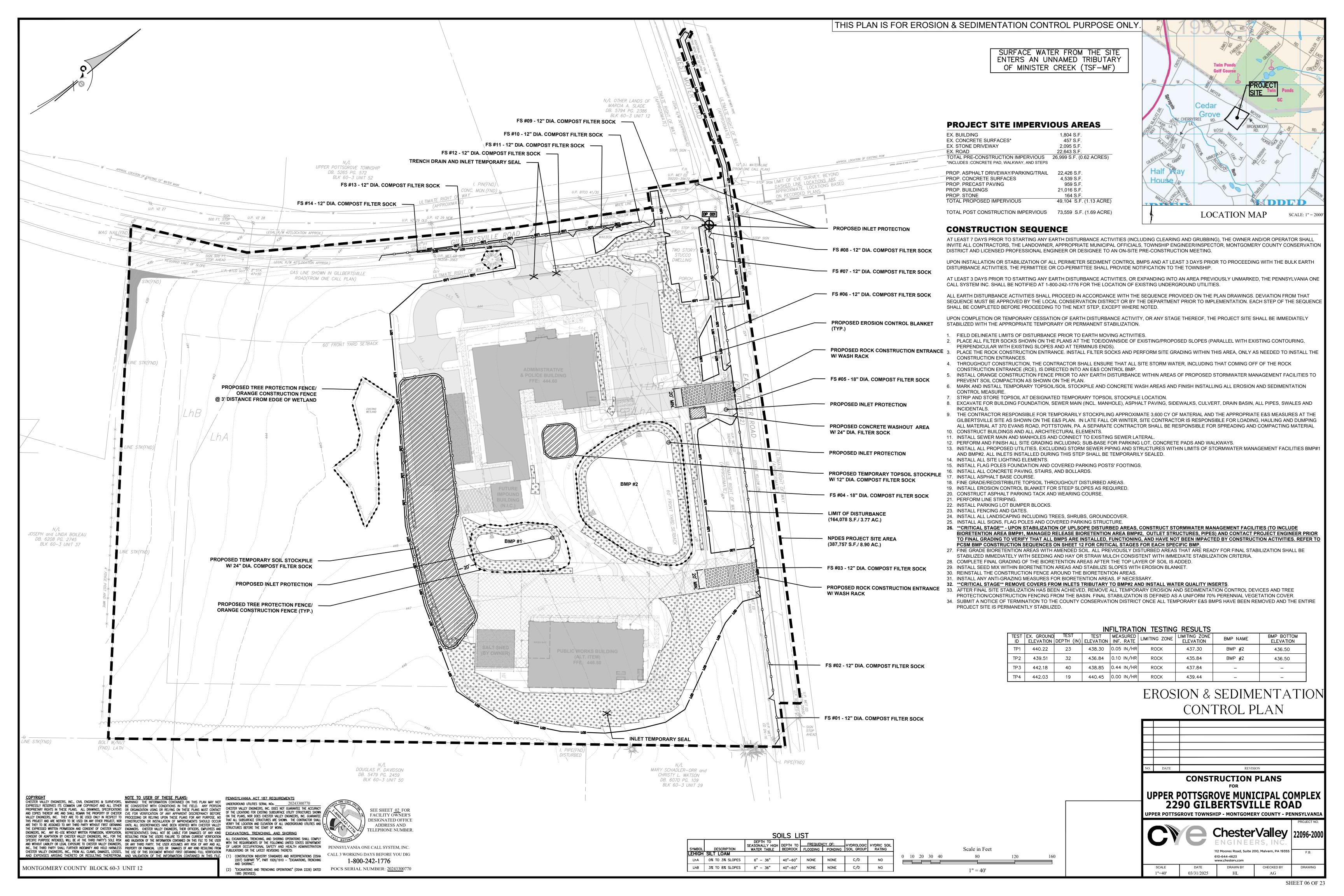


PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG









GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY EROSIVE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DENUDED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY, IMMEDIATELY DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED, PREFERABLY WITH A PERMANENT TREATMENT AS FOLLOWS:

1. FIT THE LAND-DISTURBING ACTIVITY TO THE TERRAIN THROUGH MATCHING PROPOSED GRADES AS CLOSE TO EXISTING AS

- POSSIBLE.
 MINIMIZE BARE SOIL EXPOSURE AND THE EXTENT AND DURATION OF EARTH DISTURBANCE THROUGH THE USE OF TEMPORARY STABILIZATION TECHNIQUES AND A DETAILED CONSTRUCTION SEQUENCE.
- 3. RETAIN EXISTING VEGETATION WHENEVER FEASIBLE AND APPROPRIATE BY MAXIMIZING PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
- 4. MINIMIZE SOIL COMPACTION BY DELINEATING LIMITS OF DISTURBANCE IN ONLY THOSE AREAS NECESSARY FOR CONSTRUCTION.
- 5. STABILIZE DISTURBED AREAS IMMEDIATELY AFTER GRADING WITH TEMPORARY SEEDING AND MULCHING.
- 6. DIRECT RUNOFF AWAY FROM BARE SOIL AREAS.
 7. MINIMIZE LENGTH AND STEEPNESS OF SLOPES BY IMPLEMENTING THE APPROPRIATE TEMPORARY E&S BMP.
- 8. UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF.
- PREPARE DRAINAGE WAYS AND OUTLETS TO HANDLE INCREASED RUNOFF AND CONCENTRATION FLOWS.
 REDUCE SEDIMENTATION BY APPLYING EROSION CONTROL AND WATER QUALITY PRACTICES ON-SITE.
 AVOID, MINIMIZE OR MITIGATE THERMAL IMPACTS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THESE PLANS.

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

THE MONTGOMERY COUNTY CONSERVATION DISTRICT (MCCD)

- 143 LEVEL ROAD COLLEGEVILLE, PA 19426
- PHONE: (610) 489-4506 FAX: (610) 489-9795

CHAPTER 93 CLASSIFICATION OF WATERBODIES: THE RECEIVING WATERCOURSE FOR THIS PROJECT IS AN UNNAMED TRIBUTARY OF MINISTER CREEK (TSF-MF).

NOTIFY THE LOCAL COUNTY CONSERVATION DISTRICT AND ARRANGE A PRE-CONSTRUCTION MEETING FOR ALL INVOLVED PARTIES (INCLUDING MCCD, APPLICANT, ENGINEER, AND TOWNSHIP OFFICIALS).

NOTIFY THE TOWNSHIP ENGINEER AT LEAST 48 HOURS PRIOR TO ANY EARTH DISTURBANCE ACTIVITIES.

CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER SUCH THAT ALL EROSION AND AIR/WATER POLLUTION IS MINIMIZED. STATE AND LOCAL LAWS CONCERNING ABATEMENT SHALL BE FOLLOWED.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- 1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRÜBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- 2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.
- 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
 CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE
- CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE 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.

 AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER APEAS OUTSIDE THE LIMIT OF DISTURBANCE.
- 7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- 8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(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 SLOPES SHALL BE 2H:1V OR FLATTER. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET.
- 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 THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- 10. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.

 11. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN
- 11. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEG. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR
 THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
 THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST
- BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

 14. VEHICLES AND EQUIPMENT MUST ONLY ENTER THE SITE DIRECTLY FROM MOYER ROAD AT THE SHOWN CONSTRUCTION FNTRANCES
- 15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS, THE COMPLIANCE INSPECTIONS, AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE VERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS
- EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION AND SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:

 15.1. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.

 15.2. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
- 15.3. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING THEIR REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
 16. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN,
- OVER UNDISTURBED VEGETATED AREAS.

 17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE SITE IMMEDIATELY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
 AREAS WHICH ARE TO BE TOP SOILED 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.
- 20. 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.
- 21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
 22. 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.

 23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
 25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

 26. 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.
- 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.
 IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING 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.

 29. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT
- NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

 30. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR
- 30. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
 31. E&S BMP'S MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN THE TRIBUTARY AREAS

- 32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
- 33. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- 34. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS,
 THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
 35. 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.
 36. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE ALL SUCH PROBLEMS. THE MONTGOMERY COUNTY CONSERVATION DISTRICT MUST BE NOTIFIED BY THE DEVELOPER OF ANY AND ALL CHANGES OR MODIFICATIONS TO THE
- CONTROLS.

 37. ALL COMPOST FILTER SOCK MUST BE INSTALLED ON UNDISTURBED GROUND, AT LEAST 8 FEET BELOW THE TOE OF THE SLOPE, AND PARALLEL TO EXISTING ELEVATION CONTOURS WITH BOTH ENDS EXTENDING UP SLOPE AT LEAST 8' AT A 45
- DEGREE ANGLE.

 38. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISION OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION SUB-PART C, PROTECTION OF NATURAL RESOURCES. ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
- 39. THE PROPOSED CONSERVATION MEASURES MUST BE IN COMPLIANCE WITH PADEP CHAPTER 102 REGULATIONS.
 40. A COPY OF THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT
- ALL TIMES.

 41. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE
- NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. 42. 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 A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULA TED 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. 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 A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
- 43. 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.
- 44. 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.
- 45. 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.
- 46. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
- 47. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO PROCEDURES DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
 48. 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.

 49. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.

 50. SEDIMENT BASIN TRAPS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
- 51. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
- 52. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 8 INCH
- 53. THE PROJECT WILL MINIMIZE THE EXTENT AND DURATION OF DISTURBANCE BY SEQUENCING THE THE CONSTRUCTION SUCH THAT THE ENTIRE SITE IS NOT DISTURBED AT ONE TIME AND BY STABILIZING DISTURBANCE AS SOON AS PRACTICAL
 54. POST-CONSTRUCTION RUNOFF FROM THE PROPOSED IMPROVEMENTS WILL BE ROUTED THROUGH BMPS TO REDUCE
- RUNOFF VOLUME AND RATE. REDUCTION IN POST-DEVELOPMENT VOLUMES AND RATES WILL ASSIST IN MAINTAINING THE INTEGRITY OF THE RECEIVING WATERWAYS.

 55. SOIL COMPACTION WILL BE MINIMIZED TO THE EXTENT PRACTICAL, AIDED BY THE REDUCTION IN IMPERVIOUS SURFACE
- 56. MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES IS THE RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION.
- 57. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DIVERSION TRENCHES, EROSION CHECKS, BERMS, ETC., OR OTHER MEANS OF ACCEPTED PRACTICE AS REQUIRED ON THE SITE TO PREVENT ACCELERATED RUNOFF AND EROSION, WHICH MAY NOT BE INDICATED, BUT IS WITHIN THE INTENT OF THIS PLAN.
- 58. THE CONTRACTOR MUST ENSURE THE PROPER OPERATION OF THE DEVICES IS NOT HINDERED DUE TO EXCESSIVE SEDIMENT BUILDUP OR UNAUTHORIZED ACTS OF THIRD PARTIES.
 59. A LOG SHOWING DATES THAT E&S BMP'S WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY
- A LOG SHOWING DATES THAT E&S BMP'S 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.
- 60. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

MAINTENANCE PROGRAM FOR TEMPORARY SEDIMENTATION CONTROLS STRUCTURES

1. MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE IN ACCORDANCE WITH THESE PLANS AND THE "EROSION AND CONTROL CONTROL NARRATIVE." INSPECTION AND MAINTENANCE OF ALL FACILITIES SHALL BE MADE AFTER EACH RAIN STORM EVENT AND ON A WEEKLY BASIS.

2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE

- SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S ON A DAILY BASIS AND AFTER EACH RUNOFF EVENT. ALL SITE INSPECTIONS SHALL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION SHALL BE NOTED. THE INSPECTION SOCK SHALL BE KEPT ON SITE AT ALL TIMES. AND MADE AVAILABLE TO THE TOWNSHIP UPON REQUEST.

 3. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING.
- ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
 SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF THE EFFECTIVE HEIGHT OF COMPOST FILTER
- SOCKS.
 5. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAP WHEN THE SEDIMENT REACHES THE DESIGNATED CLEANOUT
- ELEVATION.

 6. SEDIMENT MUST BE REMOVED FROM ROCK FILTERS WHEN COLLECTED SEDIMENT BEGINS TO AFFECT THE FILTER'S ELINCTION.
- FUNCTION.
 7. INLET PROTECTION FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT. BAGS
- CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED.

 8. SEDIMENT REMOVED FROM THE FACILITIES MAY BE REINCORPORATED INTO THE SITE'S EARTHWORK AS FILL OR TAKEN TO A SAFE, APPROVED LOCATION.UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE, REGRADING, RESEEDING, REMULCHING AND

SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO

- RENETTING MUST BE PERFORMED IMMEDIATELY.

 9. ALL SILT AND FOREIGN MATTER SHALL BE REMOVED FROM THE TOP OF THE BINDER COURSE AND PROPERLY DISPOSED OF
- BEFORE WEARING SURFACE IS INSTALLED.

 10. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SUMP PIT AND A PUMPED WATER FILTER BAG,

 10. ALL PUMPING WATER OVER NOW BISTURDED AREA.
- DISCHARGING WATER OVER NON-DISTURBED AREAS.

 11. SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.

<u>DUST CONTROL</u> DUST AND OTHER PARTICULATES SHALL BE KEPT WITHIN TOLERABLE LIMITS BY USING WATER. APPLICATION SHALL BE AS

NEEDED OR AS DIRECTED BY THE TOWNSHIP ENGINEER OR THE CONSERVATION DISTRICT.

CRITICAL VEGETATION AREAS (C.V.A.):
CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1 AND IN ALL DRAINAGE SWALES.

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS

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

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

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

- ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION.
 THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL
- THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
 STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE.
- 4. THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.
- WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION AND SEDIMENTATION POLLUTION, THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION:
- A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
- B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
 C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

D. TERMINATION OF COVERAGE
UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE
AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE
AND/OR CO PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C,
SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE
DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME,
ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT
FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH
THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN
ACKNOWLEDGEMENT OF THE NOT, THE PERMITTEE WILL REMAIN AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE
PROJECT SITE. FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE.

E. COMPLETION CERTIFICATE AND FINAL PLANS

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

SOIL TYPE USE LIMITATIONS AND RESOLUTIONS

- 1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH. RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL
- ACIDITY: ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.
 RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- 3. POOR SOURCE OF TOPSOIL: LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITROGEN, PHOSPHOROUS, POTASSIUM, SULFUR, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

 RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING: SELECTIVE
- VEGETATIVE SPECIES TOLERANT TO LOW FERTILITY SOIL CONDITIONS, AND IMPLEMENTING COMBINATIONS OF THESE AND OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.

 EASILY ERODIBLE: ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF CHANNELS.
- RESOLUTIONS: PROVIDING TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL PUBLISHED BY PADEP.
- HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.
 RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS, TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.

WETNESS: WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS

- DROUGHTY: DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.
 RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS, IRRIGATING VEGETATED AREAS AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
- LIMITATIONS ON LOCATING RESERVOIR AREAS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND STORMWATER DETENTION BASINS.

 RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LINING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

POTENTIAL SINKHOLE: SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE

- PIPING: SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

 RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS
- 9. FROST ACTION: SOILS THAT ARE DIFFICULT TO COMPACT, UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORM WATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

 RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOILS TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS

VEGETATIVE STABILIZATION NOTES

OF THESE AND/OR OTHER METHODS.

VEGETATIVE BUFFERING AT THE BOTTOM OF THE SLOPE.

- 1. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. THIS REQUIREMENT SHOULD BE CLEARLY STATED IN THE SEEDING AND MULCHING SPECIFICATIONS CONTAINED ON THE PLAN DRAWINGS.
- BEFORE THE SEEDING BEGINS, TOPSOIL SHOULD BE APPLIED AND ANY REQUIRED SOIL AMENDMENTS WORKED INTO THE SOIL TO A DEPTH OF 4 TO 6 INCHES. IF COMPOST IS TO BE ADDED TO THE TOPSOIL, IT SHOULD BE WORKED INTO THE SOIL WITH THE OTHER SOIL AMENDMENTS UNLESS IT IS BEING APPLIED AS AN EROSION CONTROL BMP.
 UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY IN A SPECIAL PROTECTION
- WATERSHED, THAT PORTION OF THE PROJECT SITE TRIBUTARY TO THE SPECIAL PROTECTION WATERS MUST BE IMMEDIATELY STABILIZED. IN ALL OTHER WATERSHEDS, CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION.

 4. SURFACE ROUGHENING SHOULD BE APPLIED TO SLOPES 3H:1V OR STEEPER UNLESS A STABLE ROCK FACE IS PROVIDED.

OR IT CAN BE SHOWN THAT THERE IS NOT A POTENTIAL FOR SEDIMENT POLLUTION TO SURFACE WATERS. FOR

- ROUGHENED SURFACES WITHIN 50 FEET OF A SURFACE WATER, AND WHERE BLANKETING OF SEEDED AREAS IS PROPOSED AS THE MEANS TO ACHIEVING PERMANENT STABILIZATION, SPRAY ON TYPE BLANKETS ARE RECOMMENDED.

 5. FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS 15 TO 25 FEET MAXIMUM AS THE FILL IS BEING CONSTRUCTED. THIS WILL ALLOW THE BOTTOM OF THE FILL TO PROGRESS TOWARD STABILIZATION WHILE WORK CONTINUES ON THE UPPER PORTION, MAKING FINAL STABILIZATION EASIER TO ACHIEVE AND PROVIDING SOME
- WHEREVER SEED AND MULCH IS APPLIED BY HYDROSEEDING METHODS, THE SEED AND MULCH SHOULD BE APPLIED IN SEPARATE APPLICATIONS WITH THE SEED BEING APPLIED FIRST AND THE MULCH SPRAYED ON TOP OF THE SEED. THIS IS TO ENSURE THAT THE SEED MAKES CONTACT WITH THE UNDERLYING SOIL. SOIL PREPARATION SHOULD BE COMPLETED PRIOR TO ADDING SEED TO THE HYDROSEEDING EQUIPMENT. RUNNING SEED THROUGH THE PUMPING SYSTEM CAN RESULT IN EXCESSIVE ABRASION OF THE SEED AND REDUCE THE PERCENTAGE OF PURE LIVE SEED IN THE APPLICATION. THEREFORE ALL SITE PREPARATION SHOULD BE COMPLETED PRIOR TO THE ARRIVAL OF THE HYDROSEEDER.
 IN CRITICAL AREAS (E.G. ADJACENT TO OR WITHIN 50 FEET OF STREAMS, PONDS, OR WETLANDS) A PROTECTIVE BLANKET
- SHOULD BE PROVIDED FOR ALL SEEDED AREAS. CONSIDERATION SHOULD BE GIVEN TO USE OF MULCH WITH NETTING OR PROTECTIVE BLANKETS FOR ALL SEEDED AREAS ON SLOPES 3H:1V OR STEEPER.

 8. VEHICULAR TRAFFIC SHOULD BE RESTRICTED FROM AREAS TO BE SEEDED TO PREVENT SOIL COMPACTION.

 9. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER AREAS DISTURBED DURING CONSTRUCTION, REACH FINAL GRADE,
- STABILIZE IMMEDIATELY, IN ACCORDANCE WITH SEEDING, MULCHING AND STABILIZATION SPECIFICATIONS.

 10. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS.

SEEDING SPECIFICATIONSSEEDING SHALL BE PLACED IN ACCORDANCE WITH PENNDOT PUBL. 408, SECTION 804.

2.	SEED FORMULAS:					
	FORMULA AND SPECIES	% BY WT	MIN. % PURITY	MIN. % GERMIN- ATION	MAX. % WEED	SEEDING RATE LBS/1000 SQ.YDS
FO	RMULA B					21.0 TOTAL
•	PERENNIAL RYEGRASS MIXTURE	20	98	90	0.15	4.0
•	CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	85	0.15	6.0
•	KENTUCKY BLUEGRASS MIXTURE	50	98	80	0.20	11.0
FO	RMULA C (NOT APPROVED FOR USE)					9.0 TOTAL
•	CROWNVETCH	45	99	70	0.10	4.0
•	ANNUAL RYEGRASS	55	98	90	0.15	5.0
FO	RMULA D					21.0 TOTAL
•	TALL FESCUE	70	98	85	0.15	15.0
•	CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	85	0.15	6.0
FO	RMULA E					10.0 TOTAL
•	ANNUAL RYEGRASS	100	98	90	0.15	10.0
FO	RMULA L					24.0 TOTAL
•	HARD FESCUE MIXTURE	55	98	85	0.15	13.0
•	CREEPING RED FESCUE	35	98	85	0.15	8.5
•	ANNUAL RYEGRASS	10	98	90	0.15	2.5
FO	RMULA W					10.5 TOTAL
•	TALL FESCUE	70	98	85	0.15	7.5
•	BIRDSFOOT TREFOIL MIXTURE	20	98	80*	0.10	2.0
•	REDTOP	10	92	80	0.15	1.0

*MINIMUM 20% HARD SEED AND 60% NORMAL SPROUTS.

3. APPLICATION DATES:
FORMULA B, D, & L - MARCH 15 TO JUNE 1
AUGUST 1 TO OCTOBER 15

LIME - AGRICULTURAL LIMESTONE

FORMULA C - NOT PERMITTED
FORMULA E - MARCH 15 TO OCTOBER 15
FORMULA W - APRIL 1 TO JUNE 15

AUGUST 16 TO SEPTEMBER 15
4. SOIL SUPPLEMENTS MAY BE ADDED IN ACCORDANCE WITH SECTION 804 OR AS FOLLOWS:

FERTILIZER - STANDARD QUALITY
0-20-20 BASIC FERTILIZER 200 LBS. PER 1000 S.Y.
10-10-10 STARTER FERTILIZER 100 LBS. PER 1000 S.Y.

90% MINIMUM OF CARBONATES 500 LBS. PER 1000 S.Y.

- 5. FORMULA B SHALL BE USED TO ESTABLISH PERMANENT STABILIZATION AND FORMULA E SHALL BE USED TO ESTABLISH TEMPORARY STABILIZATION.
- MULCHING SPECIFICATION

 1. MULCHING OF DISTURBED OR SEEDED AREA SHALL BE FURNISHED, PLACED, ANCHORED AND MAINTAINED IN ACCORDANCE WITH PENNDOT PUBL. 408,
- 2. MULCHING SHALL BE PLACED IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETE.
- HAY OR STRAW SHALL BE UNIFORMLY PLACED IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 3.0 TONS PER ACRE.
 STRAW MULCH SHOULD BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

SEEDING AND MULCHING SCHEDULE

- THE DIVERSIONS, CHANNELS, SEDIMENT BASINS, SEDIMENT TRAPS, AND STOCKPILES, WHEN USED, MUST BE STABILIZED IMMEDIATELY.
 IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR MUST BE STABILIZED
- IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

 3. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

TOPSOIL APPLICATION NOTE

- GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.
 TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF SIX (6) INCHES MINIMUM. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH
- DEPRESSIONS ARE PART OF THE PCSM PLAN.

 3. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

SOIL AMENDMENT APPLICATION RATE EQUIVALENTS

SOIL	PERMANENT SI	EEDING APPLICATI	ON RATE (MIN.)	
AMENDMENT	PER ACRE	PER 1,000 SF	PER 1,000 SY	
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 SI	EEDING APPLICATI	ION RATE (MIN.)	
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

MULCH APPLICATION RATES

MULCH APPLIC	CATION RATES			
	APF	PLICATION RATE (N	IIN.)	
MULCH TYPE	PER ACRE	PER 1,000 SF	PER 1,000 SY	
STRAW	3 TONS	140 LB.	1,240 LB.	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LB.	1,240 LB.	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4-6 TONS	185-275 LB.	1,650-2,500 LB.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HADBOWIII CH	1 TON	47 I B	/15 I R	SEELIMITATIONS ABOVE

TOPSOIL APPLICATION RATES

TOPSOIL APPL	ICATION RATE	<u>:S</u>
DEPTH (IN)	PER 1,000 SF	PER ACRE
1	3.1 CY	134 CY
2	6.2 CY	268 CY
3	9.3 CY	403 CY
4	12.4 CY	537 CY
5	15.5 CY	672 CY
6	18.6 CY	806 CY
7	21.7 CY	940 CY

24.8 CY

DISPOSAL AND RECYCLING

DISPOSAL AND RECYCLING

CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED OR UNUSED

CONSTRUCTION MATERIALS. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED

DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS. LIKELY

- WASTE TO BE GENERATED DURING CONSTRUCTION ON THIS SITE:

 CONCRETE, ASPHALT, STONE AND BASE COURSE FROM DEMOLITION PROCESS;
- EXISTING PLANTS FROM DEMOLITION PROCESS;
 EXCESS SILT SOCK;
 MISCELLANFOLIS SCRAP MATERIALS FROM BUILDING CONSTRUCTION:
- MISCELLANEOUS SCRAP MATERIALS FROM BUILDING CONSTRUCTION;
 GENERAL RUBBISH AND DEBRIS.

SPECIAL GEOLOGIC AND SOIL CONDITIONS

THERMAL IMPACTSTHE RUNOFF FROM THE PROJECT AREA THAT OUTLETS TO SURFACE WATERS FLOWS THROUGH COMPOST FILTER SOCKS, AND RIPRAP APRON.

COMPOST FILTER SOCKS HELP MITIGATE THERMAL IMPACTS BY SLOWING

1,074 CY

STORMWATER FLOW, ALLOWING NATURAL INFILTRATION TO PREVENT HEATED RUNOFF FROM REACHING WATERWAYS. THEY ACT AS AN INSULATING BUFFER, REDUCING DIRECT SUNLIGHT EXPOSURE AND RETAINING SOIL MOISTURE, WHICH HELPS KEEP SURROUNDING AREAS COOLER. THE ORGANIC MATERIAL HOLDS WATER, PREVENTING SOIL FROM DRYING OUT AND REDUCING HEAT STRESS ON PLANTS AND WILDLIFE. BY STABILIZING SOIL AND MINIMIZING SEDIMENT TRANSPORT, THEY PREVENT HEAT-ABSORBING PARTICLES FROM ENTERING WATER BODIES. ADDITIONALLY, THEY SUPPORT VEGETATION GROWTH, WHICH FURTHER PROVIDES SHADE AND NATURAL COOLING OVER

TIME.

RIPRAP APRONS MITIGATE THERMAL IMPACTS BY REDUCING HEAT RETENTION, PROVIDING PARTIAL SHADING TO WATER, AND PROMOTING INFILTRATION THROUGH VOID SPACES BETWEEN STONES. UNLIKE IMPERVIOUS SURFACES, RIPRAP ALLOWS AIR CIRCULATION, MINIMIZING TEMPERATURE SPIKES IN RUNOFF. IT ALSO SLOWS WATER VELOCITY, PREVENTING THE RAPID

RUNOFF. IT ALSO SLOWS WATER VELOCITY, PREVENTING THE RAPID TRANSPORT OF HEATED STORMWATER INTO STREAMS, WHILE STABILIZING BANKS TO REDUCE SEDIMENT TRANSPORT, WHICH CAN CONTRIBUTE TO TEMPERATURE INCREASES. THESE COMBINED EFFECTS HELP REGULATE WATER TEMPERATURE AND PROTECT AQUATIC ECOSYSTEMS FROM THERMAL STRESS.

EROSION & SEDIMENTATION CONTROL NOTES

NO. DATE REVISION

CONSTRUCTION PLANS FOR UPPER POTTSGROVE MUNICIPAL COMPLEX

Chester Valley
ENGINEERS, INC.

112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chesterv.com

SCALE
As Noted

DATE
DRAWN BY
DRAWING
AS Noted

O3/31/2025
HI
AG

PROJECT NO.
22096-2000

PROJECT NO.
22096-2000

DRAWING

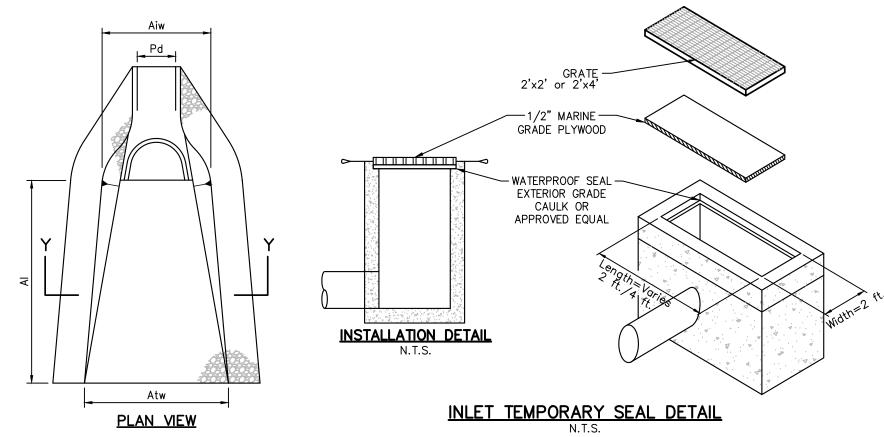
F.B.

THIS PLAN IS FOR EROSION & SEDIMENTATION CONTROL PURPOSE ONLY

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

OF THOSE BMP'S.

SHEET 07 OF 23



WOOD POSTS -

AASHTO No. 57

STABILIZED -

AREA

UP SLOPE FACE

WOOD POST

LR−3 ROCK

OUTLET CROSS-SECTION

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH

ROCK FILTER OUTLET DETAIL

1/3 THE HEIGHT OF THE OUTLETS.

BX2051

FENCING ATTACHED TO EACH-

POSTS MUST BE SET AT

LEAST 18" INTO GROUND

POST IN AT LEAST 3 PLACES

TENSAR SAFETY FENCE BX 2051, 4' HT., ORANGE

TENSAR SAFETY FENCE UX 4250, 4' HT., ORANGE

INSTALLATION: ATTACH FENCE TO 2" x 2" PINE STAKES DRIVEN AT LEAST 18" INTO

THE GROUND, SPACED 8' ON CENTER, WITH WIRE FASTENERS IN 3 PLACES PER STAKE.

ORANGE CONSTRUCTION FENCE DETAIL

MAX. 8' SPACING

-ANCHOR POSTS MUST BE MIN.

2" STEEL "U" CHANNEL

FOR GENERAL USE:

FOR EXTRA PROTECTION:

ELEVATION VIEW <u>RIPRAP APRON AT PIPE OUTLET</u> WITH FLARED END SECTION OR ENDWALL DETAIL

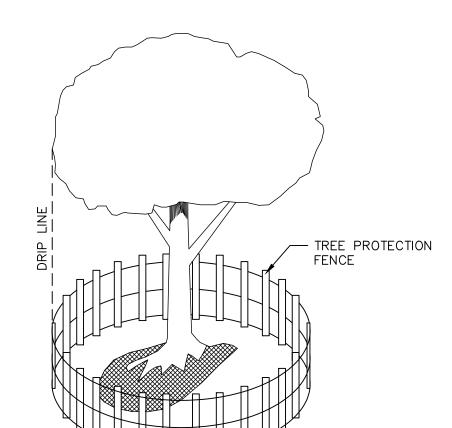
SECTION Y-Y

<0% SLOPE>

		RIF	PRAP		APRON	
	PIPE				INITIAL	TERMINAL
	DIA		THICK.	LENGTH	WIDTH	WIDTH
OUTLET	Pd	SIZE	Rt	Al	Aiw	Atw
NO.	(IN)	(R)	(IN)	(FT)	(FT)	(FT)
FES100	8"	3	9	6	2	4.4
FES200	15"	3	9	6	3.75	6.15
FES201	10"	3	9	6	2.5	4.9
FES202	15"	3	9	6	3.75	6.15
FES206	12"	3	9	6	3	5.4
FES300	8"	3	9	6	2	4.4

. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



TREE PROTECTION FENCE DETAIL

ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FEET OF A BUILDING SITE, PARKING AREA, DRIVEWAY OR OTHER PROPOSED IMPROVEMENT SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING OR OTHER EFFECTIVE BARRIERS APPROVED BY THE TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT. FENCING OR BARRIERS SHALL BE PLACED AS NOTED BELOW, UNLESS PRIOR DETERMINATION HAS BEEN MADE BY THE TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT REGARDING A MORE APPROPRIATE

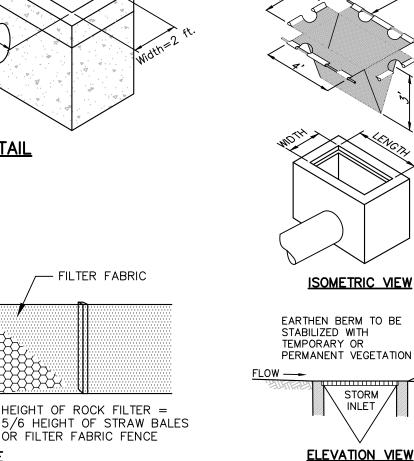
DESCRIPTION: TREES ARE OFTEN DAMAGED BY MOVING CONSTRUCTION EQUIPMENT OR BY SEDIMENT BUILDUP AROUND THE ROOTS. TREE PROTECTION FENCING, WHEN PLACED ALONG OR AROUND TREES, SERVES AS A BOUNDARY MARKER TO INDICATE THAT CLEARING AND STOCKPILING ARE NOT PERMITTED BEYOND THAT POINT.

WHEN USED: TREE PROTECTION FENCE MAY BE USED WHENEVER THERE ARE SPECIFIC TREES OR WOODED AREAS THAT MUST BE PROTECTED.

REQUIREMENTS FOR INSTALLATION: THE TREE PROTECTION FENCE IS INSTALLED BY HAMMERING WOOD OR METAL STAKES INTO THE GROUND AND CONNECTING THE FENCING MATERIAL SECURELY TO THE POSTS PER THE MANUFACTURERS' INSTRUCTIONS.

PLACE THE TREE PROTECTION FENCE ALONG THE DRIPLINES OF TREES OR 1 FOOT FROM THE TREE TRUNK FOR EVERY INCH OF TRUNK DIAMETER, WHICHEVER IS GREATER. A DRIPLINE IS AN IMAGINARY LINE EXTENDING DOWN FROM THE OUTER-MOST BRANCHES OF A TREE TO THE GROUND. THIS IS GENERALLY THE OUTER BOUNDARY FOR TREE ROOTS. IF THE TREE PROTECTION FENCE IS PLACED ANY CLOSER TO A TREE, ITS PURPOSE MAY BE DEFEATED.

MAINTENANCE: INSPECT THE TREE PROTECTION FENCING PERIODICALLY DURING CONSTRUCTION TO MAKE SURE THAT IT IS POSITIONED SECURELY.



-AASHTO #57

UX4250

FILTER BAG INLET PROTECTION - TYPE M INLET DETAIL

-INLET GRATE

STORM

\ INLET

FOR BAG RFMOVAL FROM INLE

> EXPANSION RESTRAINT (1/4" NYLON ROPE)

RUBBER BLOCK

INSTALLATION DETAIL

6" MIN. HEIGHT-

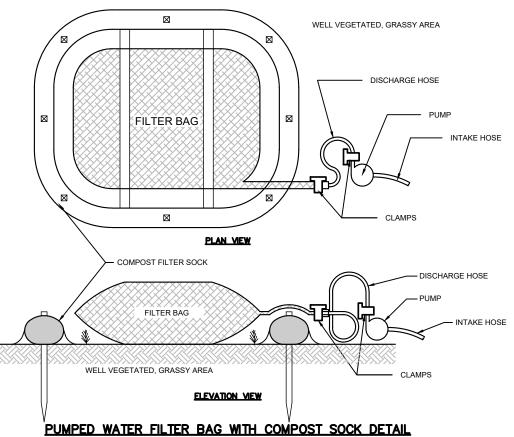
PLAN VIEW

MAXIMUM DRAINAGE AREA = $\frac{1}{2}$ ACRE.
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. 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 OF ACCUMULATED SEDIMENT AS

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

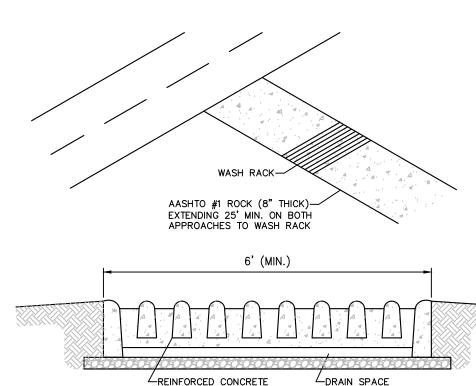


<u>NOTES:</u> I. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.

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

- . A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME & 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 ½ 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.



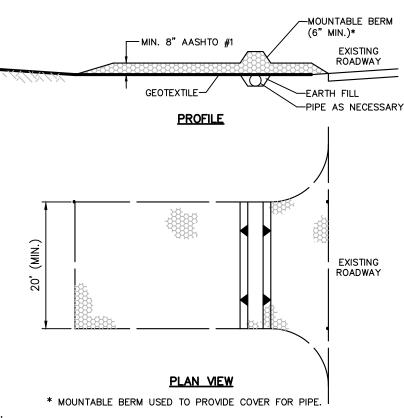
ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL

OR WELDED STEEL PIPE

DRAINAGE COURSES IS NOT ACCEPTABLE.

WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:
ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED
TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK
MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE
UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. A SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO HE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER



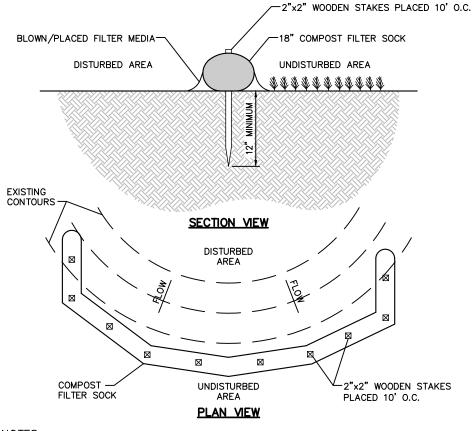
NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE OR MINIMUM OF 20 FEET.

- 2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTELYNAUSE.

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT



STANDARDS OF TABLE 4.2.

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. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF

SO SPECIFIED BY THE MANUFACTURER.
TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS 4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF TECH SOCK AND DISPOSED IN THE MATTER 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

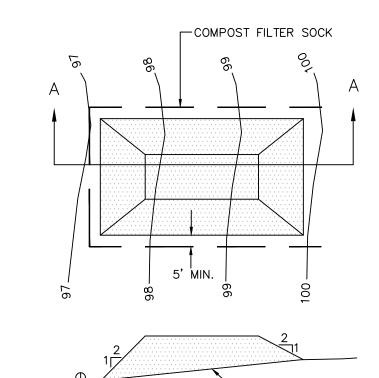
 BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

8. REFER TO E&S PLAN FOR COMPOST SOCK LOCATIONS, SIZE, IDENTIFICATIONS AND CONSTRUCTION SPECIFICATIONS.

CONSTRUCTION SPECIFICATIONS COMPOST FILTER SOCK DETAIL

TABLE 4	1.1 - COMP	OST SOCK F	FABRIC MININ	MUM SPECIFIC	CATIONS
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO- DEGRADABLE	PHOTO- DEGRADABLE	BIO- DEGRADABLE	PHOTO- DEGRADABLE	PHOTO- DEGRADABLE
		12"	12"	12"	12"
soc	12"	18"	18"	18"	18"
DIAMETERS	18"	24"	24"	24"	24"
		32"	32"	32"	32"
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	6 MONTHS	6 MONTHS	1 YEAR	2 YEARS
		TWO-PLY	SYSTEMS		
				HDPE BIAXIAL NE	Γ
INNER	CONTAMINANT N	ETTING	С	ontinuously wou	ND
INNER	CONTAMINANT		FUSI	ON-WELDING JUNC	TURES
			<u> </u>	3/4" MAX. APERT	
ОИТ	ER FILTRATION M	ESH	(WOVEN LA	ITE POLYPROPYLEN YER AND NON-WO LLY FUSED VIA NEI	VEN FLEECE
			3/16	6" MAX. APERTURE	SIZE
SOCK FABRICS	COMPOSED OF	BURLAP MAY BE	JSED ON PROJECT	rs lasting 6 mon	THS OR LESS.
				= . = = =	

<u>TABLE 4.2 - COM</u>	IPOST STANDARDS
ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
рН	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



SECTION A-A 1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.

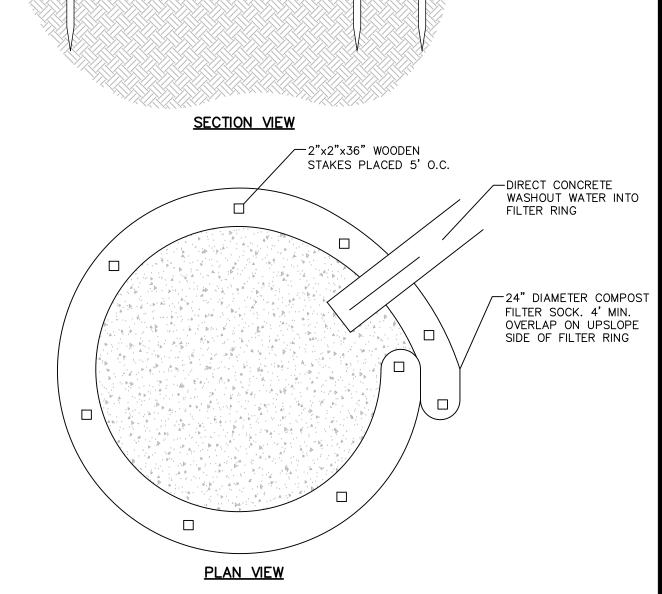
-COMPOST FILTER SOCK

ALL SIDE SLOPES SHALL BE 2 TO 1 OR FLATTER. 3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS. 4. COMPOST FILTER SOCK SHALL BE INSTALLED AS DETAILED HEREON.

5. LOCATION OF PROPOSED STOCKPILE WHICH AFFECT EROSION CONTROLS ARE SHOWN SCHEMATICALLY ONLY. ACTUAL STOCKPILE LOCATION MAY CHANGE DURING CONSTRUCTION. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET

STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FORE MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

<u>STOCKPILE DETAIL</u>



-MAXIMUM DEPTH OF CONCRETE

-24" DIAMETER COMPOST FILTER

SOCK

WASHOUT WATER IS 50% OF

FILTER RING HEIGHT

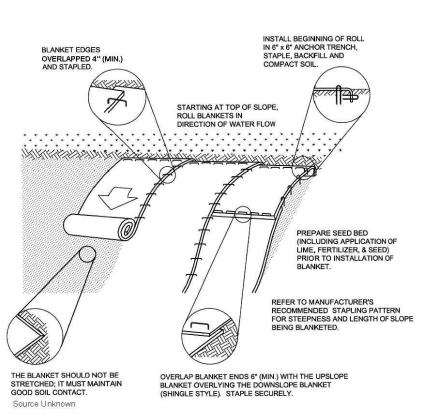
TYPICAL COMPOST SOCK WASHOUT INSTALLATION DETAIL

2"x2"x36" WOODEN

STAKES PLACED 5' O.C.

. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE. 2. 18" DIAMETER SILT SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER

SILK SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT. 3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.



Seed and soil amendments shall be applied according to the rates in the plan drawings prior to installing the blanket.

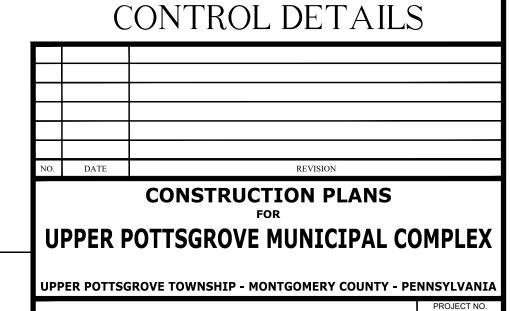
Provide anchor trench at toe of slope in similar fashion as at top of slope. Slope surface shall be free of rocks, clods, sticks, and grass

Blanket shall have good continuous contact with underlying soil throughout entire length. Lay blanket loosely and stake or staple to maintain direct contact with soil. Do not stretch blanket.

The blanket shall be stapled in accordance with the manufacturer's recommendation 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.

1. USE JUTE OR COIR MATTING W/ WOOD STAKES. 2. NO PLASTIC/ POLYPROPYLENE MATERIALS ARE ALLOWED. EROSION CONTROL BLANKET DETAIL

EROSION & SEDIMENTATION



ChesterValley | 22096-2000 610-644-4623 www.chesterv.cor DRAWN BY CHECKED BY 03/31/2025

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

TREE PROTECTION BARRIER FENCE DETAIL

AND/OR SNOW-FENCE MAY BE USED). 2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE

AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE

(OR APPROVED EQUAL) -EXPANSION RESTRAINT <u>FLOW</u> **INSTALLATION DETAIL** PLAN VIEW SANDBAG, FILTER LOG, COMPOST SOCK OR FILTER TUBE 6" MIN. HEIGHT (TYP.) DRAIN /

-ACF ENVIRONMENT SILTSACK

SIZED FOR 2'X2' INLET BOX

FILTER BAG INLET PROTECTION - 2'X2' YARD DRAIN DETAIL

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.

MAY CAUSE TRAFFIC HAZARDS.

ELEVATION VIEW

2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL

3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM 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 OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING

ROCK CONSTRUCTION ENTRANCE DETAIL

THIS PLAN IS FOR EROSION & SEDIMENTATION CONTROL PURPOSE ONLY

SHEET 08 OF 23

1.2 staples/yd

3:1 SLOPES

XX X X XX

4 * * * * * * * *

-** X X X X

3.8 staples/yd

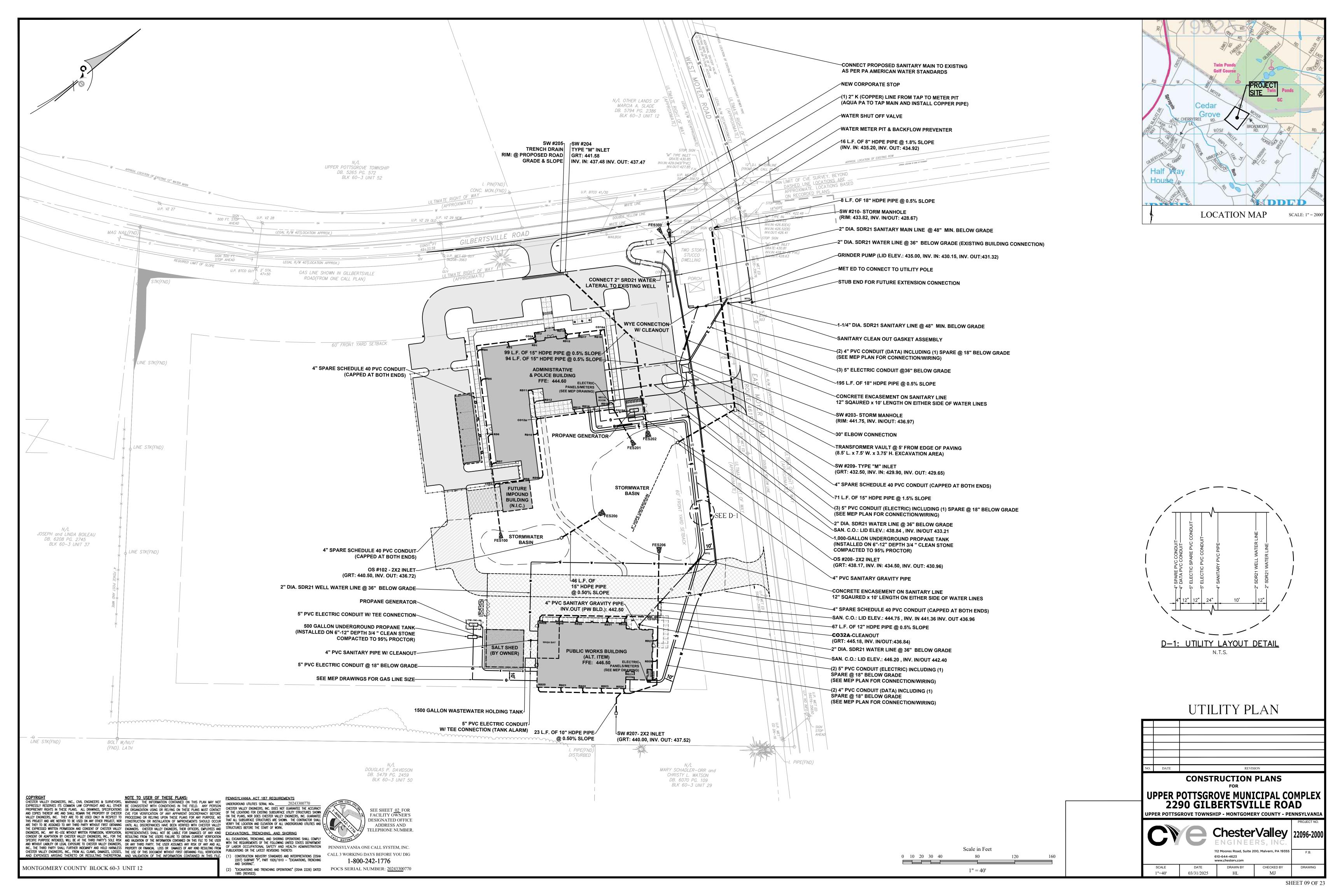
1:1 SLOPES

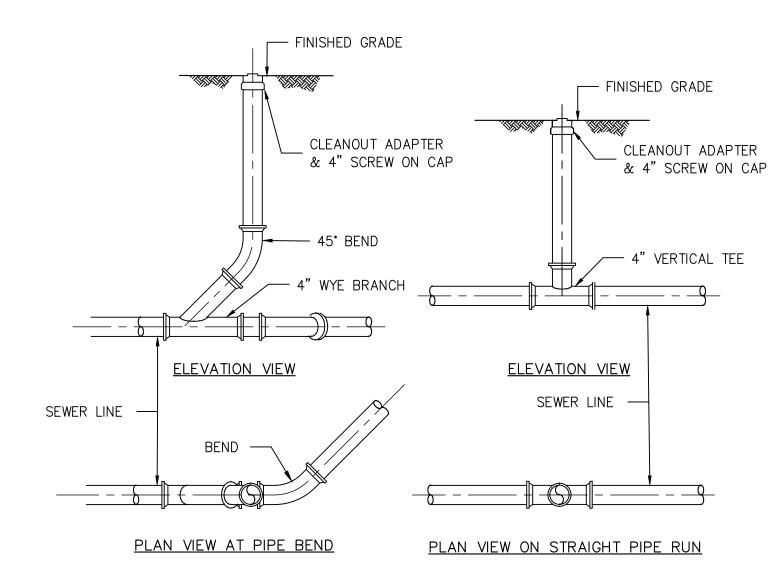
4:1 SLOPES

1.75 staples/vd2

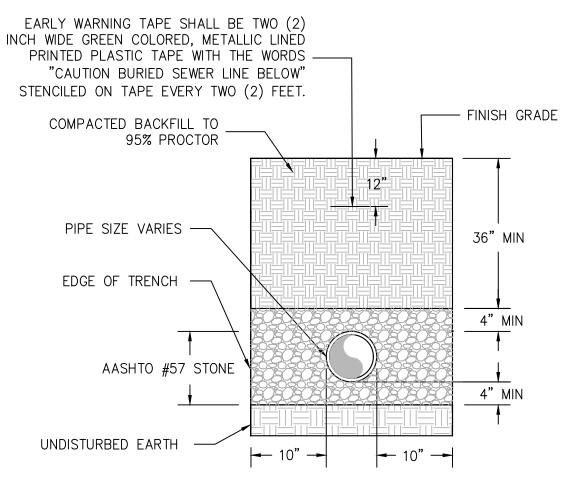
2:1 SLOPES

STAPLE PATTERN

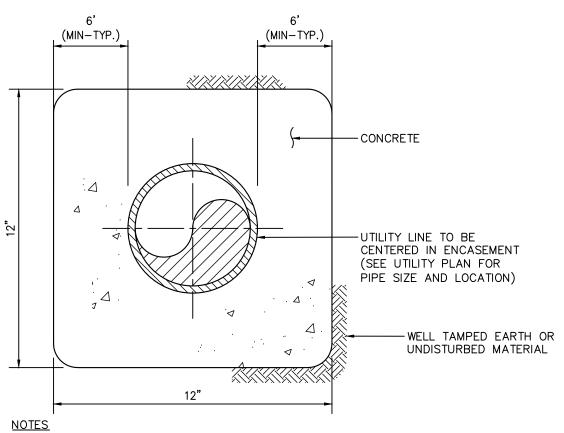




SANITARY CLEAN OUT DETAILS - GRAVITY PIPES



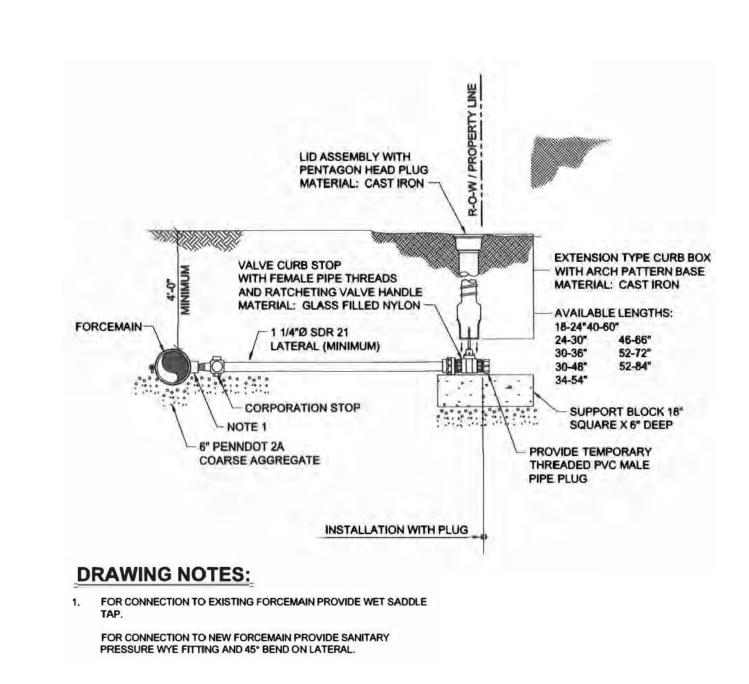
STANDARD SANITARY SEWER PIPE BEDDING DETAIL



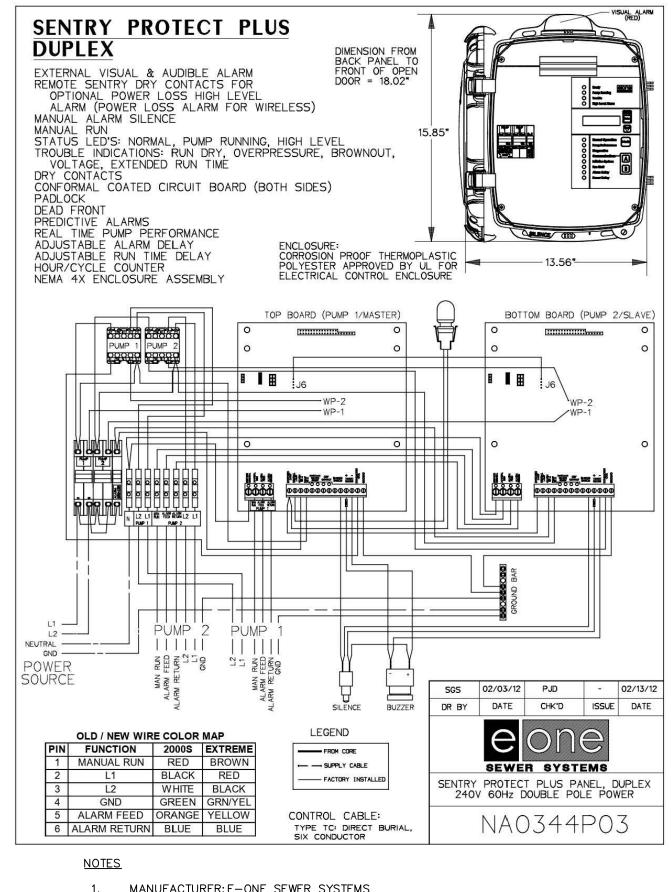
1. 20 FT. LONG ENCASEMENT SHALL BE CENTERED OVER CROSSING UTILITY.

UTILITY PIPE CONCRETE ENCASEMENT DETAIL

N.T.S.

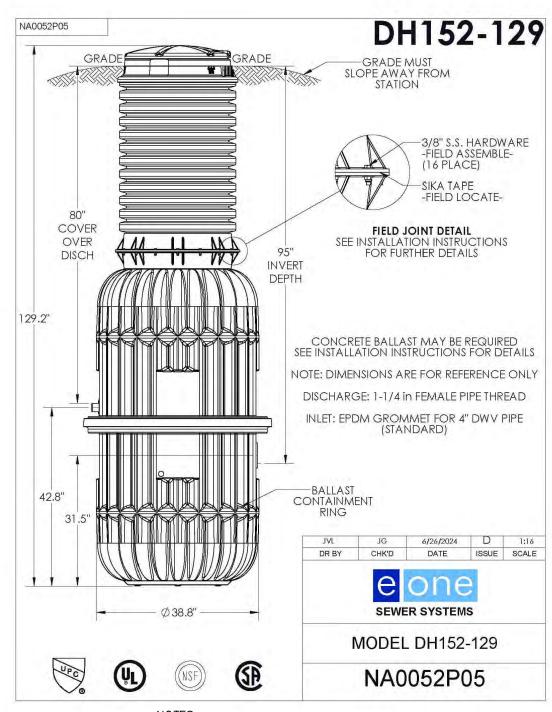


SANITARY FORCE MAIN DETAIL



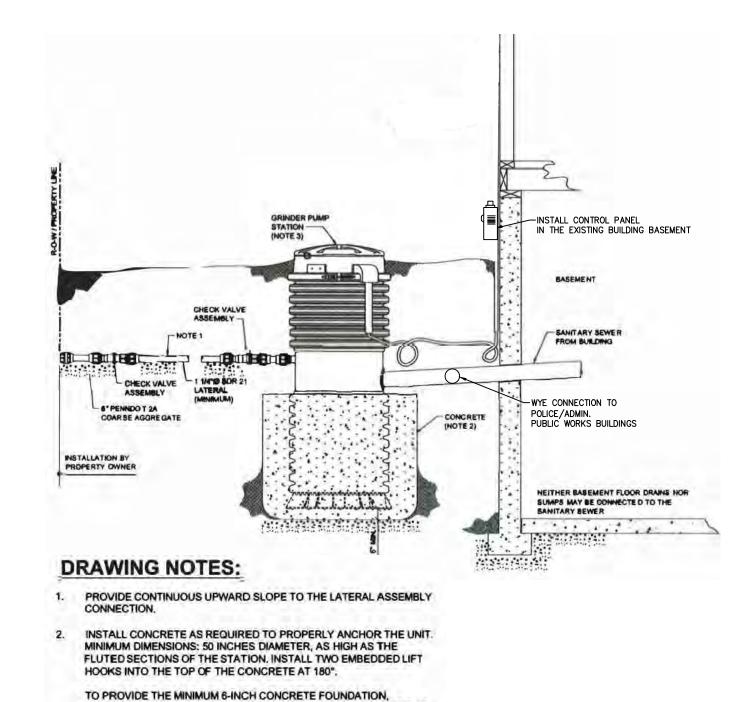
MANUFACTURER: E-ONE SEWER SYSTEMS MODEL: SENTRY PROTECT PLUS PANEL, DUPLEX, 240V, 60Hz, DOUBLE POLE POWER

GRINDER PUMP ALARM PANEL DETAILS



MANUFACTURER: E-ONE SEWER SYSTEMS MODEL: DH152-93

GRINDER PUMP DETAILS N.T.S.



GRINDER PUMP INSTALLATION DETAIL

PRECAST CONCRETE BASES MAY ALSO BE USED. THEY MUST BE AT LEAST 6 INCHES THICK BY 50 INCHES IN DIAMETER, AND CAST WITH AT LEAST 6 NUMBER 4 REBARS EXTENDING AT LEAST 4 INCHES (AND

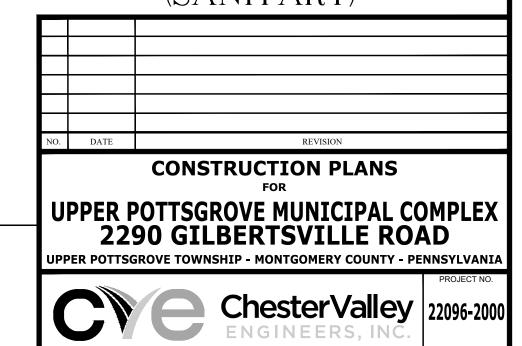
HOOKED) INTO THE BASE AND AT LEAST 8 INCHES (AND HOOKED)

3. GRINDER PUMP SHALL BE SIZED TO EXCEED THE PRESSURE IN THE

INTO THE COLLAR.

SANITARY SEWER FORCEMAIN.

UTILITY DETAILS (SANITARY)



610-644-4623

03/31/2025

DRAWN BY

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

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20243300770

OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CONTACT

PENNSYLVANIA ONE CALL SYSTEM, INC.

CALL 3 WORKING DAYS BEFORE YOU DIG (2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED POCS SERIAL NUMBER: $\underline{2024330}$ 0770 1985 (REVISED).

SEE SHEET <u>02</u> FOR

FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND

TELEPHONE NUMBER.

SHEET 10 OF 23

CHECKED BY

- The contractor shall contact the Company prior to beginning work to discuss the details of the transformer foundation such as position, orientation, working clearances, barrier protection, construction specifications, and inspection procedures. The contractor is responsible for purchasing, as well as, installing, and maintaining the pre-cast transformer foundation and associated secondary rack equipment (if needed). The contractor/developer shall coordinate site preparations with the desired delivery date. The contractor shall provide a clear and firm (e.g., concrete, asphalt, or grasscrete) approach to within ten (10) feet of the point of delivery and keep the area clear of obstructions that may block the use of delivery vehicles or Company vehicles (e.g., crane access to the transformer).
- The developer /contractor is responsible for the excavation to install the transformer foundation and for backfilling afterward. The excavation shall be two (2) feet wider than the vault dimensions (shown Exhibit 25, page 2). The excavation depth shall be 45- inches deep for 42-inch high foundations bases or 57-inches deep for 54-inch high foundation bases. Six (6) inches of AASHTO #57 crushed stone shall be leveled and compacted in the bottom of the excavation as a base. Pavement (concrete, asphalt, or grass-crete) shall be provided to within ten (10) feet of the installation for Company trucks. The contractor should provide three (3) pieces of 4" X 4" X 8' lumber off to the side for temporarily unloading the foundation top at delivery time.
- Conduits shall enter near the corners of the foundation (refer to Exhibit 25, page 1) through knockouts to provide for proper cable bending radius and pulling set-up and to facilitate cable racking (when needed). Conduits shall have end bells and shall be terminated flush with the inside surface of the foundation. The customer/contractor shall re-mortar the knockout area around the conduit penetration into transformer foundation to prevent water migration.
- The developer/contractor will furnish and install all service cables as required per Exhibit 1. The developer /contractor shall allow sufficient slack, approximately five (5) feet, in the service lateral cables after they are racked. The slack allows the service cables to be trained so that the weight of the cables is supported by the cable racks and not supported by the transformer bushings. When requested, the developer /contractor shall supply and install cable racks (e.g., 30-inch rack made by A. B. Chance (Hubbell), using the inserts, on the side(s) of the foundation to support the service cables a minimum of 12 inches above floor level (per NEC Article 300.32). Refer to ANSI C135.35 for galvanized cable rack and hooks, and ASTM A153 for zinc coating (hot dip) on iron and steel hardware.
- The contractor shall seal around the service cables inside the conduits (with approved foam) to prevent migration of water or gases. All unused ducts shall also be caped. Backfill on all sides up to finish grade with 6" minimum of AASHTO #57 crushed stone to form a reservoir to contain the transformer oil in case of a leak.
- The contractor shall install a continuous loop of #2 bare, seven (7) strand, soft drawn copper ground wire connected to two (2) 5/8" X 8' ground rods installed in opposite corners of the vault excavation in undisturbed earth (refer to Exhibit 25, page 1). Both ends of the ground wire shall enter the foundation through a one (1) inch diameter hole to be drilled or chiseled in the upper right-hand corner of the knockout panel. Each ground wire tail shall extend fifteen (15) feet inside the vault beyond the knockout point.
- The decision to open the sump drainage or leave it closed will be made by the Company based on field conditions. The contractor is responsible for taking corrective action (improve drainage, sump pump, etc.) for a foundation that fills with water and water is leaking through service conduits into the customer's building. The area surrounding the foundation shall be graded so that ground water will
- The contractor shall install protective barriers when the transformer is located in an area exposed to vehicular traffic (refer to Exhibit 30), consult the Company for details.

0. The deeper base for the 1500-2000 kVA transformer is used when secondary conduit configuration

requires a deeper wall to maintain NEC/NESC minimum cover over the conduit. . Foundation for 34.5 kV live-front transformer includes a six-inch thick dividing wall between the high voltage and the low voltage compartments centered 55-1/2" from the inside edge of the low voltage compartment side wall.

TRANSFORMER PRE-CAST CONCRETE FOUNDATION

AND VAULT NOTES

FT. ELEVATION. INCLUDING INSTALLING ELECTRIC WIRES

4. CAUTION: ONLY QUALIFIED PERSONNEL ARE PERMITTED

ENERGIZED ELECTRICAL LINES AS DESCRIBED IN OSHA

THE ELECTRIC COMPANY SHALL PROVIDE THE CONDUIT,

SERVICE. THE FIRST TEN (10) FEET OF CONDUIT SHALL

BE SCHEDULE 80 PVC OR RIGID METALLIC CONDUIT. IF

REQUIRED BY EXHIBIT 1. THE ELECTRIC COMPANY W

COORDINATE THE INSTALLATION WITH THE COMPANY

FOR CONDUIT DIAMETER GREATER THAN 4", SEE EX

10A OF THE MET ED CUSTOMER GUIDE FOR ELECTR

OF THE MET ED CUSTOMER GUIDE FOR ELECTRIC

COMPLETE THE INSTALLATION. CUSTOMER SHALL

8. CONDUIT SIZE LIMITED TO 4" DIAMETER CONDUIT SIZ

9. PENN POWER CUSTOMERS SHALL CONTEXT ENGINEE!

FROM POLE TO TRANSFORMER.

BELOW 10 FT. ELEVATION.

1910 SUBPART R. AND S.

SERVICE.

TELEPHONE CO. ATTACHMENTS.

AND LOCAL CODES AND REGULATIONS.

2. THE CONTRACTOR IS RESPONSIBLE FOR THE

6. MET-ED SHALL CONNECT ALL WIRES TO THE

5. THE ELECTRIC COMPANY SHALL DETERMINE THE

Pre-Cast Concrete Transformer Foundation Dimensions Top Code Wb Db Hb Tb WT. Wt Dt Ht WT. Wo Do Ow Oo 22,940 GrdY/14,400 Volt & Below J1 72" 54" 42" 4" 4,275# 72" 54" 6" 1,725# 55" 14" 8.5" 6 J2 78" 66" 42" 4" 8,000# 78" 66" 6" 2,400# 60" 19" 9" 6" J3 96" 96" 42" 6" 12,000# 96" 96" 9" 6,400# 60" 19" 18" 9") J4 96" 96" 54" 6" 14,000# 96" 96" 9" 6,400# 60" 19" 18" 9" 34,500 GrdY/19,920 Volt J3 | 96" | 96" | 42" | 6" | 12,000# | 96" | 96" | 9" | 6,400# | 60" | 19" | 18" | 9"

1500 - 2500 (Note 7)	J4	96" 96"	54"	6"	14,000#	96"	96"	9"	6,400#	60"	19"	18"	9
,	34,500	Delta Volt	Live-	-Fro	nt (Include	s CE	36 1	«V Sy	/stem)				
All Sizes (Note 8)	J5	138" 120"	54"	6"	24,655#	138"	120"	9"	10,270#	102"	36"	18"	18
Pre-Ca	st Cond	rete Trans	forme	r Fo	undation -	- Exc	avatio	n Di	mensions	-			
Transformer	Found.	Wid	lh.		Dept	h		H	leight		Stone	Ras	_
Size (kVA)	Code				Борс	3 0.			loigitt		otono	Duo	<u> </u>
		22,94	O Gro	IY/1	4,400 Volt	& B	elow						
45 - 150	J1	96	5"		78	n			45"			6 "	
225 - 1000	J2	10	2"		90	»			45"		0	6"	
1500 - 2500	J3	12	:O"		12	o "			45"		3	6 "	
1500 - 2500 (Note 7)	J4	12	:0 "		12	o "			57"	1	- 9	6 "	
	3		34,500) Gr	dY/19,920	Volt							
1500 - 2500	J3	12	0"		12)"			45"		3	6"	
1500 - 2500 (Note 7)	J4	12	.O"	1	12)"			57"		9	6"	
	34,500	Delta Volt	Live-	-Fro	nt (Include	s CE	36	vV Sy	/stem)				
All Sizes (Note 8)	J5	16	2"		144	4"			57"		- 6	5 "	_

TRANSFORMER PRE-CAST CONCRETE FOUNDATION AND VAULT DETAIL

18" Deep excavation area for grounding Grounding See Note Conduit excavation See Notes 3 & 4 See Notes 3 & 4 Oil Spill Reservoir See Notes 6 #67 (3/4") Crushed limestone backfill over grounding Final grade Backfill with excavated soil free of large rocks & debris See Note 6 6" AASHTO #57 crushed stone bed, leveled, & placed at appropriate depth

TRANSFORMER PRE-CAST CONCRETE FOUNDATION AND VAULT DETAIL

DANGER HIGH VOLTAGE ABOVE DO NOT CLIMB OR EXTEND CONDUIT/WIRES ABOVE 10 FEET FROM GROUNDLINE SEE NOTES 2 & 5 MET-ED IS RESPONSIBLE FOR ALL UTILITIES ABOVE 10 COMPANY shall supply a sufficient length (consult the Company) of continuous cable that will reach the secondary/neutral position CATV or communication cable plus an additional 5 feet to allow for (If present) INSTALLATION OF ALL PROPOSED UTILITY IMPROVEMENTS connection by Company to overhead power TRANSFORMER, INCLUDING TRANSFORMER INSTALLATION. TO INSTALL ELECTRICAL EQUIPMENT IN THE VICINITY OF __________ Schedule 80 PVC or rigid metallic conduit is required for the first 10 feet above final grade. (Installed by contractor) LOCATION/POSITION OF VERTICAL RISERS ON THE POLE BASED ON TRAFFIC FLOW AND LOCATION OF CATV, OR Contractor shall provide metal clamps or straps and secure with drive point lags. 3. ALL SERVICE INSTALLATIONS SHALL MEET NEC, STATE, (See Note 5) Approved ground clamp and bonding . jumpers are required when conduit is (Installed by contractor) BRACKETS, WEATHERHEAD(S), IF REQUIRED BY EXHIBIT Contractor supplied/installed Conduit minimum 6" above final grade. warning tape 12" above customer service lateral per -Customer-owned service lateral ─ Bushing PER NEC 300.5(H)

DIRECT ATTCHEMENT OF CUSTOMER-OWNED UNDERGROUND SECONDARY SERVICE LATERAL(S) ON PA OPERATING COMPANY'S POLES DETAIL

N.T.S.

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OR ANY THIPD PARTY THE USER ASSIMES ANY PIPP PARTY AND ALL
WITH THE SEPANS FOR ANY PURPOSE. NO
THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL
VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND
STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS. TRENCHING, AND SHORING OPERATIONS SHALL COMPLY
AND WITHOUT HABILITY OF LEGAL EXPOSIBLE TO CHESTER VALLEY ENGINEERS.

OR ANY THEO PROJECT ANY AND ALL
WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA

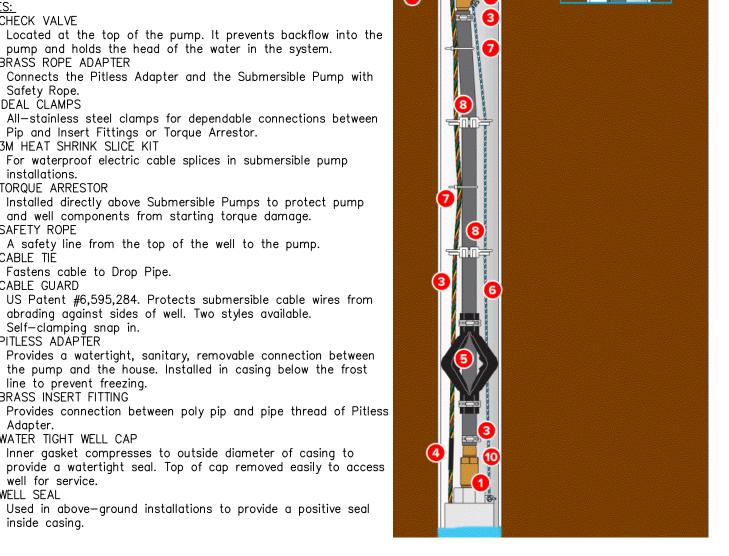
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED POCS SERIAL NUMBER: $\underline{20243300770}$ 1985 (REVISED).



-Contractor to install 90"-30" radius PVC elbow, Schedule 80

(See Exhibit 24)

PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG 1-800-242-1776



WELL WATER CONNECTION DETAIL

PUMP POWER SUPPLY-

NOTES: 1. CHECK VALVE

BRASS ROPE ADAPTER

4. 3M HEAT SHRINK SLICE KIT

Fastens cable to Drop Pipe.

Self-clamping snap in.

line to prevent freezing.

Safety Rope.

installations.

SAFETY ROPE

7. CABLE TIÉ

8. CABLE GUARD

9. PITLESS ADAPTER

Adapter

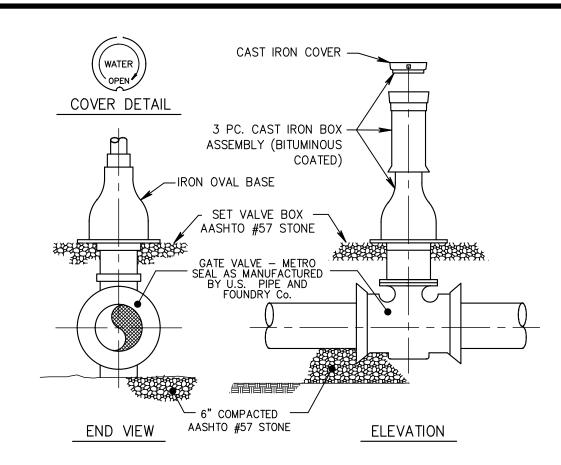
12. WELL SEAL

10. BRASS INSERT FITTING

11. WATER TIGHT WELL CAP

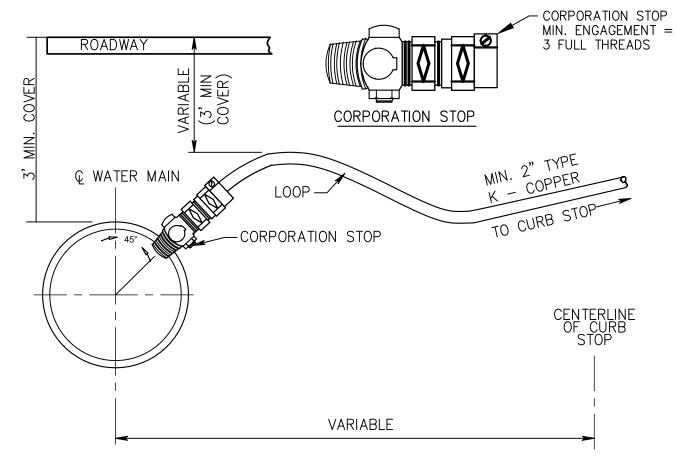
well for service.

IDEAL CLAMPS



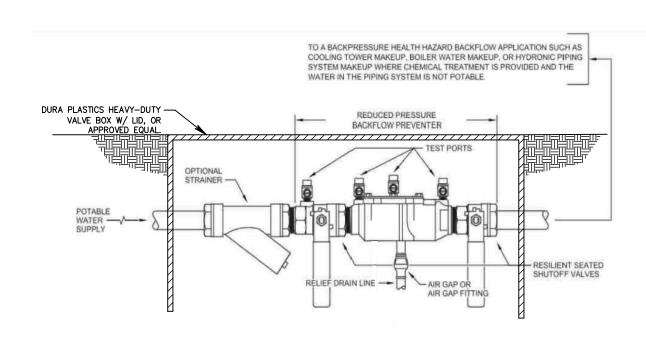
- 1. FOR STANDARD 2" CONNECTION, PROVIDE A TAPPED COUPLING WITH THREADED INSERT OR DOUBLE-STRAPPED SADDLE CLAMP.
- 2. DO NOT PLACE CURB BOX IN PAVED AREAS. 3. ALL SERVICE CONNECTIONS SHALL BE LOCATED AT THE MIDPOINT
- BETWEEN SIDE LOT LINES. 4. WHERE SIDEWALK PARALLELS ROADWAY, THE CURB BOX SHALL BE PLACED BETWEEN THE CURB AND SIDEWALK. ALL OTHER LOCATIONS, CURB BOX TO BE PLACED WHERE DIRECTED BY AUTHORITY.

GATE VALVE DETAILS



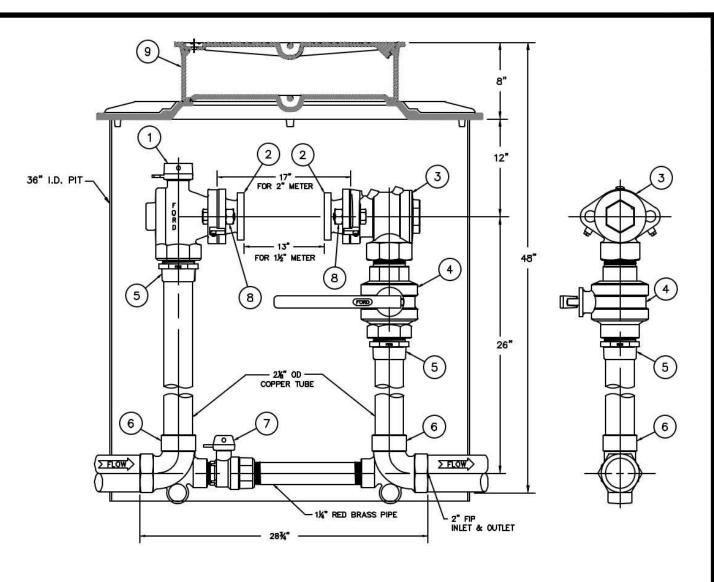
- 1. FOR STANDARD 2" CONNECTION, PROVIDE A TAPPED COUPLING WITH THREADED INSERT OR DOUBLE-STRAPPED SADDLE CLAMP.
- 2. DO NOT PLACE CURB BOX IN PAVED AREAS. 3. ALL SERVICE CONNECTIONS SHALL BE LOCATED AT THE MIDPOINT BETWEEN SIDE LOT
- 4. WHERE SIDEWALK PARALLELS ROADWAY, THE CURB BOX SHALL BE PLACED BETWEEN THE CURB AND SIDEWALK. ALL OTHER LOCATIONS, CURB BOX TO BE PLACED WHERE DIRECTED BY AUTHORITY.

CORPORATION STOP DETAILS



- Double check valve assemblies are not permitted for health hazard applications.
- RP devices must not be installed in a pit or other area subject to flooding. The relief vent will create a cross connection if submerged.
- 3. If occasional spillage from the relief vent will cause damage or be a nuisance, the vent must be equipped with an air gap fitting and indirectly drained to an acceptable point of disposal.

BACKFLOW PREVENTER DETAILS - IN METER PIT



6. MARK INLET, OUTLET, & DIRECTION OF FLOW ON UNIT.

- DOMESTIC SERVICE REGIRES BACKFLOW DEVICE, BACKFLOW DEVICE TO BE LOCATED ON SERVICE LINE AT ENTRY POINT INTO BLDG. BEFORE JAY CONFESTIONS

7. ALL BRASS OF 85-5-5-5 RED BRASS AWWA C800-89 ASTM 862-93.

4 BALL VALVE 5 SOLDER BUSHING 2 CSTEE-7B-T 6 TEE 7 BALL VALVE

ANGLE BALL VALVE

2 METER ADAPTERS/PAIR

QTY. CAT. NO.

(ASSE) 1024 1 HFFA3X-777-MSB

BFAX3-777W-MSB

BXX-777-HB-67

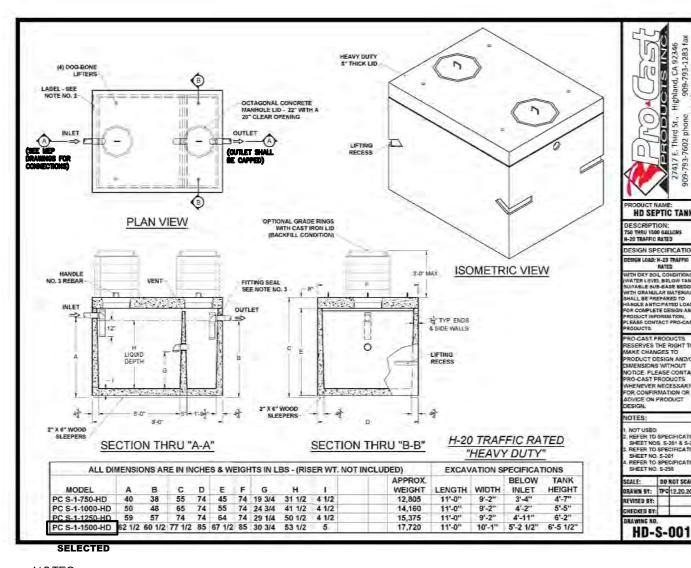
BXX-455W

PSB

9 MONITOR COVER W/ INNER LID * 1 MC-36-MB

8 BOLT & NUT / PR

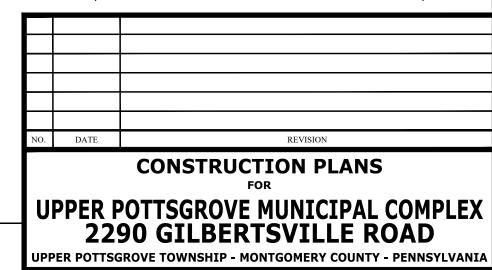
WATER METER PIT DETAIL



- 1. TANK SHALL BE INSTALLED SUBSURFACE AND SHALL BE H-20 TRAFFIC RATED "HEAVY DUTY". 2. BACK FILLING SHALL BE 8" LIFTS TO 95% COMPACTION WITH NATIVE SOIL.
- 3. TANKS TO BE INSTALLED AS PER MANUFACTORIES' SPECIFICATIONS.

HOLDING TANK DETAIL

UTILITY DETAILS (WATER & ELECTRIC)



ChesterValley | 22096-2000 610-644-4623 DRAWN BY CHECKED BY

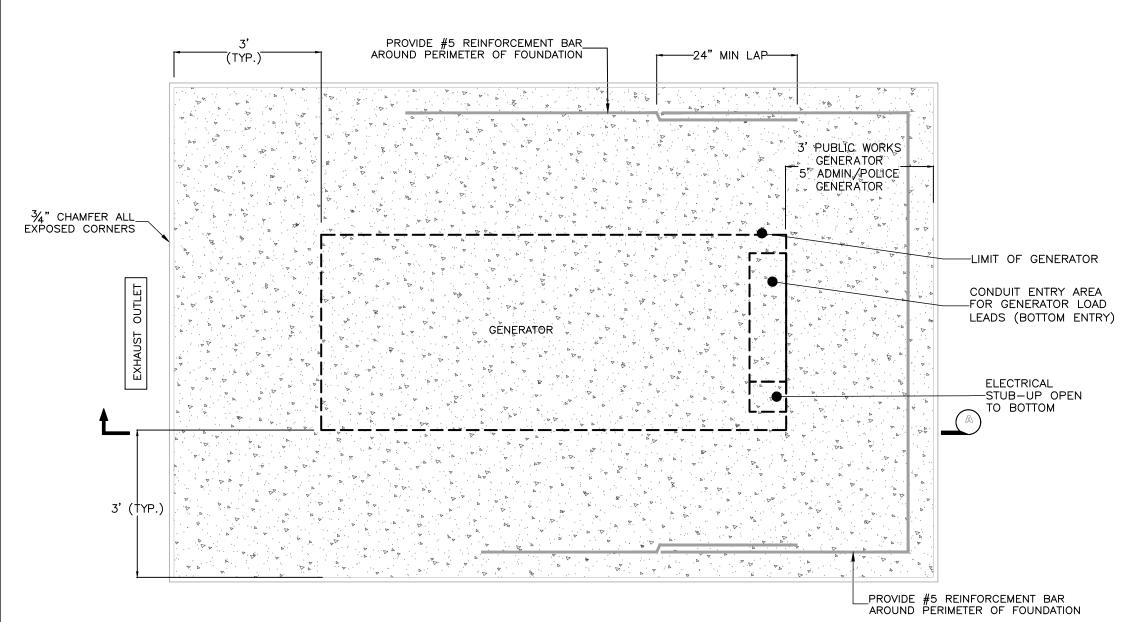
03/31/2025

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

SHEET 11 OF 23

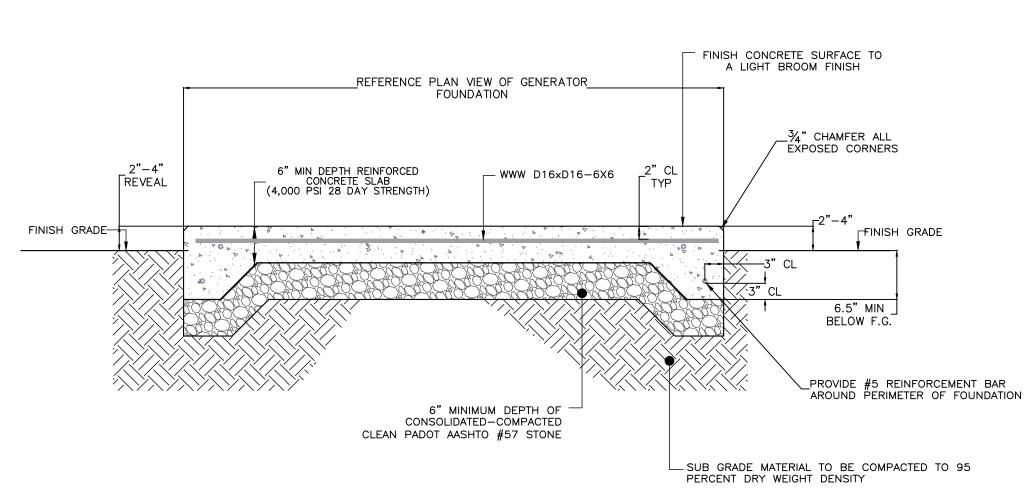
-GALVANIZED DOME LID DOWNGRADE-AWAY FROM DOME ∕-3" TO 6" MIN. 6" FOR NON-VEHICULAR TRAFFIC-BACKFILL WITH TOPSOIL CADWELD TO TANK MANUFACTURER'S PAD -500 GALLON TANK ONE #17 ANODE (MIN) 1000 GALLON TANK ONE TWO #17 ANODE (MIN) BACKFILL AASHTO #7 STONE FOR BEDDING USE 6" TO 12" OF COARSE SAND IF BACKFILL HAS ROCKS OR SIMILAR ABRASIVES IN IT MAGNESIUM BAGSINATTAGHED FO LIFTING LUC INSTALL JUST BELOW BOTTOM OF TAN

UNDERGROUND PROPANE TANK BEDDING DETAIL



CONTRACTOR TO VERIFY THE CONDUIT STUB-UP AREAS, CONDUIT ENTRY AREA AND GENERATOR DIMENSIONS PRIOR TO PLACING CONCRETE.

PLAN VIEW GENERATOR SLAB



SECTION A-A GENERATOR SLAB (POLICE/ADMIN)

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MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

SEE SHEET 02 FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER PENNSYLVANIA ONE CALL SYSTEM, INC. CALL 3 WORKING DAYS BEFORE YOU DIG

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED POCS SERIAL NUMBER: $\underline{20243300}770$ 1985 (REVISED).

STANDBY POWER RATING

Model RG10090 - 100 kW, 60 Hz Emergency Standby Power Generator

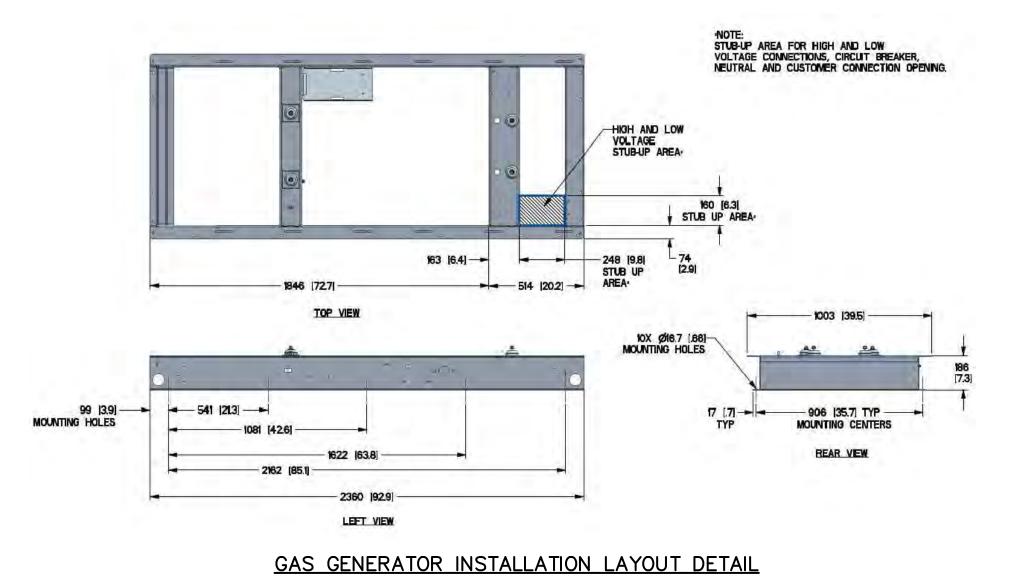


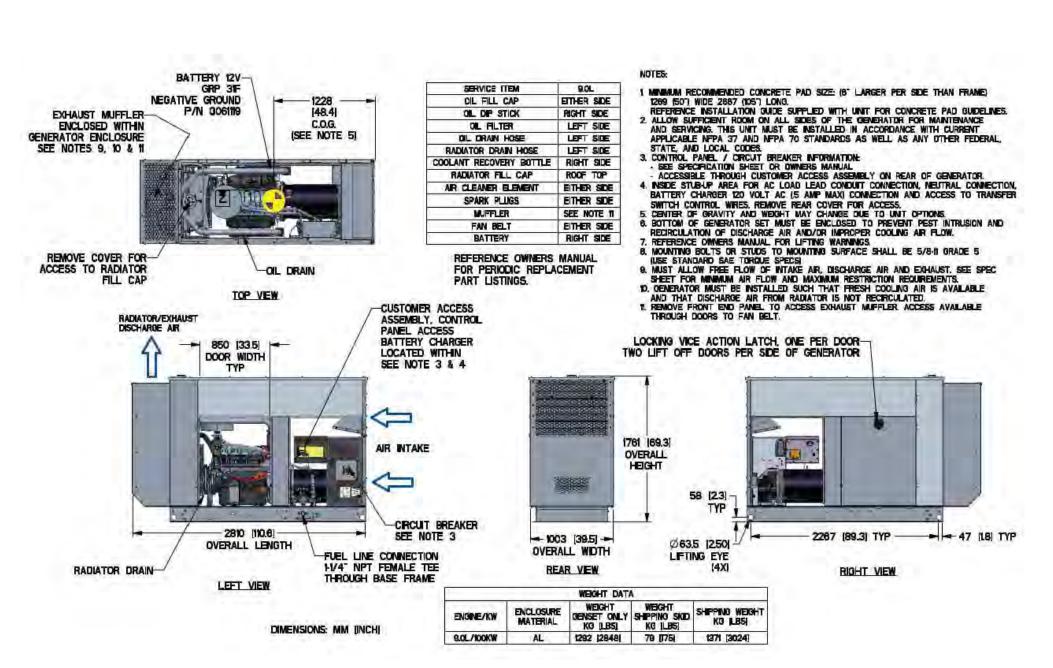
<u>NOTES</u>

MANUFACTURER: GENERAC MODEL: PROTECTOR SERIES, RG10090- 100 kW, 60Hz EMERGENCY

STANDY POWER GENERATOR

GAS GENERATOR BOX DETAIL





GAS GENERATOR INSTALLATION LAYOUT DETAIL

if facilities need to be relocated or project delays

- 1. Contractor shall provide trenching, conduit, and backfill to Company specifications.
- 2. The contractor shall contact the Company for placement of both Company and customer electrical facilities and the approved trench route for connecting them.
- 3. The contractors hall not deviate from the Company's approved trench route unless expressly approved in writing by the Company's engineering group representative. It shall be the contractor's responsibility to notify the Company of any conflicts that the proposed electrical design creates with obstacles, other facilities, or easements. Changes requested following the design acceptance by the contractor may require the Company to be compensated
- 4. Before excavation begins, the excavator shall mark the proposed facilities (in white) and then notify the appropriate state One-Call agency to mark other underground facilities (refer to Sections 3.13 and 3.14).
- 5. The contractor shall also coordinate the installation of all other buried utilities that are installing their facilities nearby, jointly occupying the trench (with Company approval), or crossing the electrical supply trench.
- 6. Below are the Company's required minimum clearances between electric supply lines and the following utility lines: • Steam or cryogenic lines - six (6) feet (use of an approved thermal barrier may reduce this clearance).
- · Fuel lines: four (4) feet for low-pressure natural gas, oil, propane, or other like fuels or ten (10) feet for
- gas lines that are high-pressure lines or are greater than four (4) inches in diameter. • Water, sewer, and telecommunication (i.e., telephone & CATV) lines - one (1) foot.
- Clearances from telephone and CATV lines may be reduced to zero (0) feet or no deliberate separation (a.k.a. - random lay) if all involved parties agree and NESC [2017] Rule 354 is met.
- Other utility companies (e.g., local steam, water, communication, sewer, and fuel companies) may require greater clearances than stated above.
- If required clearances cannot be met (e.g., trenching through solid rock), clearances may be reduced to one (1) foot minimum if all involved parties agree.
- · Other facilities are prohibited from running above/below and parallel to the electrical cable without specific Company's approval.
- 7. The Company's minimum cover requirements for the primary (>600 V) and secondary (<600 V) conduits are based on providing adequate cover per NESC Code (depth). It shall be the responsibility of the customer to ensure that the minimum required coverages over the conduits are always maintained. Any necessary corrections to the depth of cover or required mechanical protection to prevent damage to the conduits from surface activity shall be the responsibility of the customer. Minimum cover over the conduits shall be maintained until all stages of the construction are completed.

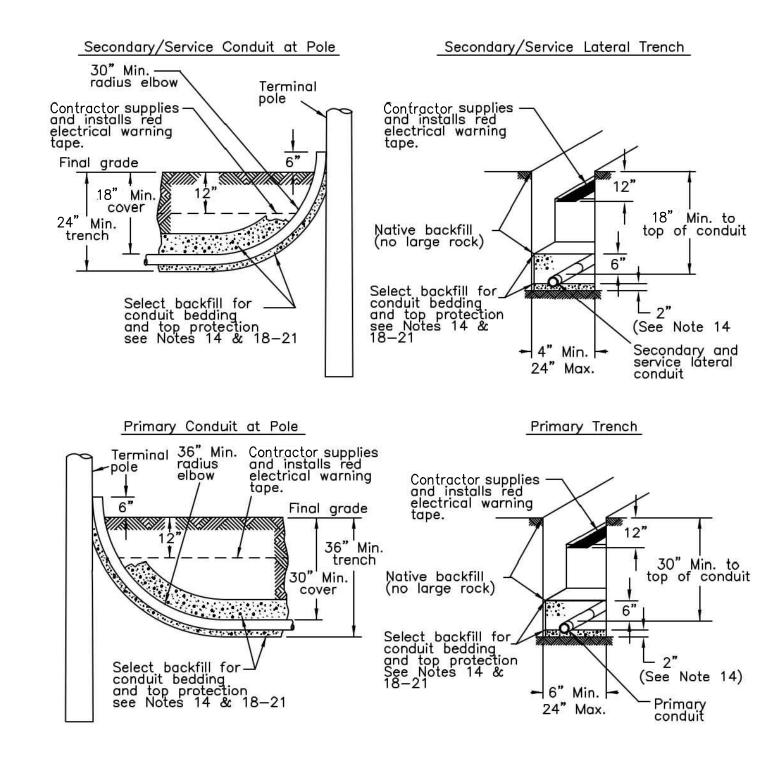
Minimum Cove	er Requirements
VoltageV (Ф-Ф)	Minimum Cover Over Conduit(s)
< 600 V	24 inches
> 600 V to 50 kV	30 inches

- 8. When primary (> 600 V to 50 kV) and secondary (< 600 V) conduits share the same trench and are located side-by-side, the depth of cover for both conduits shall be to the primary conduit requirement with a minimum of two (2) inches of separation. If the conduits are stacked, the primary conduit(s) shall be on the bottom at the required primary depth. The secondary/service conduit(s) shall be on top of the primary conduit(s) with a minimum separation of two (2) inches between the conduits.
- 9. See Exhibit 24, page 1 for details on the trench dimensions (width and depth requirements). Contractor shall contact the Company representative if the trench must be more than four (4) feet deep.

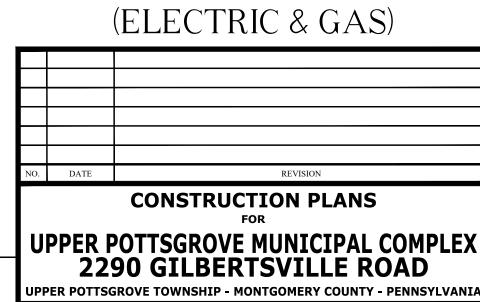
- 10. The contractor shall clear the cable route of trees, tree stumps, boulders, or other obstructions at and below grade. The excavator shall grade the trench route to final grade level. The contractor shall be responsible for any damage caused by the excavator. This includes damage to any tree whose root system is subsequently damaged from the trenching operations. The excavator shall grade all trench routes to final
- 11. The contractor shall not use power-excavating equipment within 18 inches of any existing buried cables or other electrical or communications facilities.
- 12. Excavated material ("spoils") should be placed on the field side of the trench (unless directed by the Company otherwise), two (2) feet from the edge of excavations (per OSHA Standard 1926.651(j) (2)).
- 13. Standing water in the trench should be removed by pumping or draining (per OSHA Standard 1926.651(h)). 14. The bottom of the trench shall be relatively smooth, undisturbed earth, sand, or well-tamped earth which is free of rock, cinders, or sharp objects. Trench excavations in rocky soil may require a two-inch layer of select backfill on the bottom of the trench as determined by the Company.
- 15. Buried conduits shall be rigid PVC, heavy wall, sunlight resistant, listed and labeled, Schedule 40 conduit per NEMA TC2 (i.e., electrical grade). Additional requirements, such as concrete encasement of elbows or galvanized steel elbows, may be specified by the Company based on the specific design parameters of the conduit system and will be detailed in the electrical layout drawing. Contractor shall contact the Company for the proper minimum conduit diameters.

Conduit Requirements Conduit Size | Conduit Type | Conduit Bend Radius UTILITY POLE TO-6"-8" Sch40 PVC Sch40 PVC TRANSFORMER TO BUILDINGS Sch40 PVC

- 16. Customer-owned service lateral conduits (if used) shall be sized per NEC. Those conduits shall be supplied, installed, and covered by the contractor. Conduit for service laterals shall be a minimum of 3-inch diameter
- 17. Secondary/service conduit elbows shall have a minimum radius of 30 inches. Service riser conduit shall be rigid PVC, heavy wall, sunlight resistant, listed and labeled, Schedule 80 conduit per NEMA TC2. Primary conduit elbows shall have a minimum radius of 36 inches for sizes from 3" to 5". For conduits 6 inch and larger, the elbows shall have a minimum radius of 48 inches.
- 18. All joints shall be glued together. Conduit shall be cleaned and confirmed with a mandrel 1/2 inch smaller than the conduit inside diameter. Unused conduits shall be plugged at each end to keep water and dirt out. When conduit runs are greater than twenty (20) feet, a 1/4-inch unbroken nylon or polypropylene pulling rope shall be installed in each conduit. If the Company cannot pull conductors through the conduit run, or if the pulling rope is broken or unusable because it is glued to the conduit, the contractor shall make the necessary
- 19. Before backfilling, the contractor shall verify that the Company and local electrical inspector have completed all required inspections of the trench and conduit. In addition, the customer shall verify other utilities that were approved to use joint trench have completed their work.
- 20. The contractor shall backfill around all conduits with six (6) inches of select backfill. Select backfill shall be graded sand, stone dust, limestone dust, rock free earth or topsoil. Materials that "set up" such as fly ash, culm and foundry waste are not acceptable. The remainder of the trench shall be backfilled with native soil and not contain large rocks (greater than two (2) inch diameter), rocks with sharp edges or other debris. An additional six (6) inches of mounded backfill is recommended to allow for settling.
- 21. Backfill should be compacted in six-inch layers by hand or using a pneumatic or vibrating tamping equipment to lessen the effects of settling. Note: machine compaction should not be used within six inches of the conduit (per NESC Rule 353A). Do not run wheels or tracks of equipment along the trench to compact the backfill as this could damage the conduits.
- 22. The contractor shall provide and bury a red "electrical" warning tape at least three (3) inches wide directly above all conduits twelve (12) inches below final grade as shown in Exhibit 24 (refer to NEC 300.5(D)(3).
- 24 For cables located beneath roads under PennDOT jurisdiction, cables shall be installed in conduit, have a minimum of 36 inches of cover, and shall be completely backfilled with #2 RC aggregate.



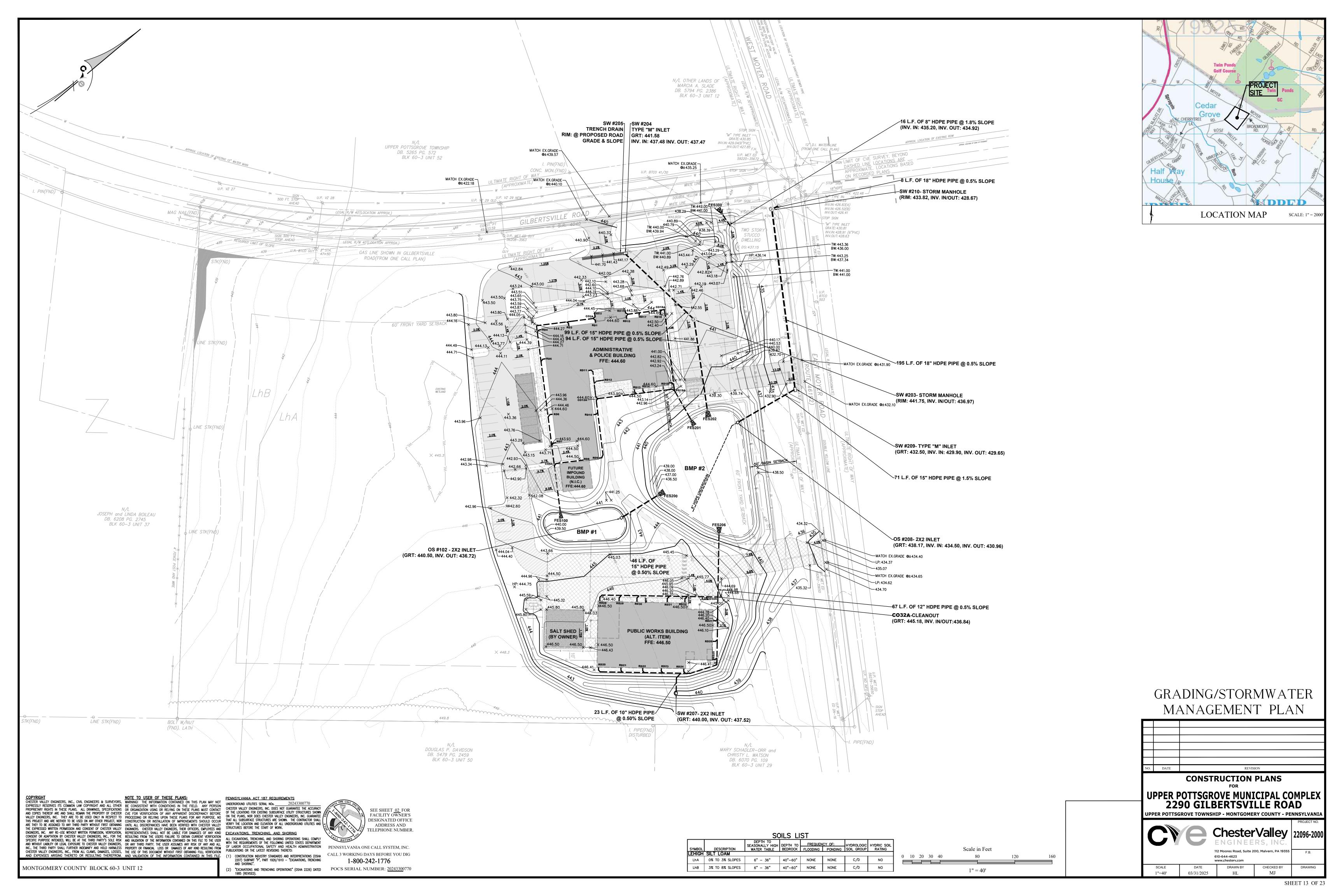
ELECTRIC CONDUIT TRENCHING AND BACKFILL DETAIL AND NOTES

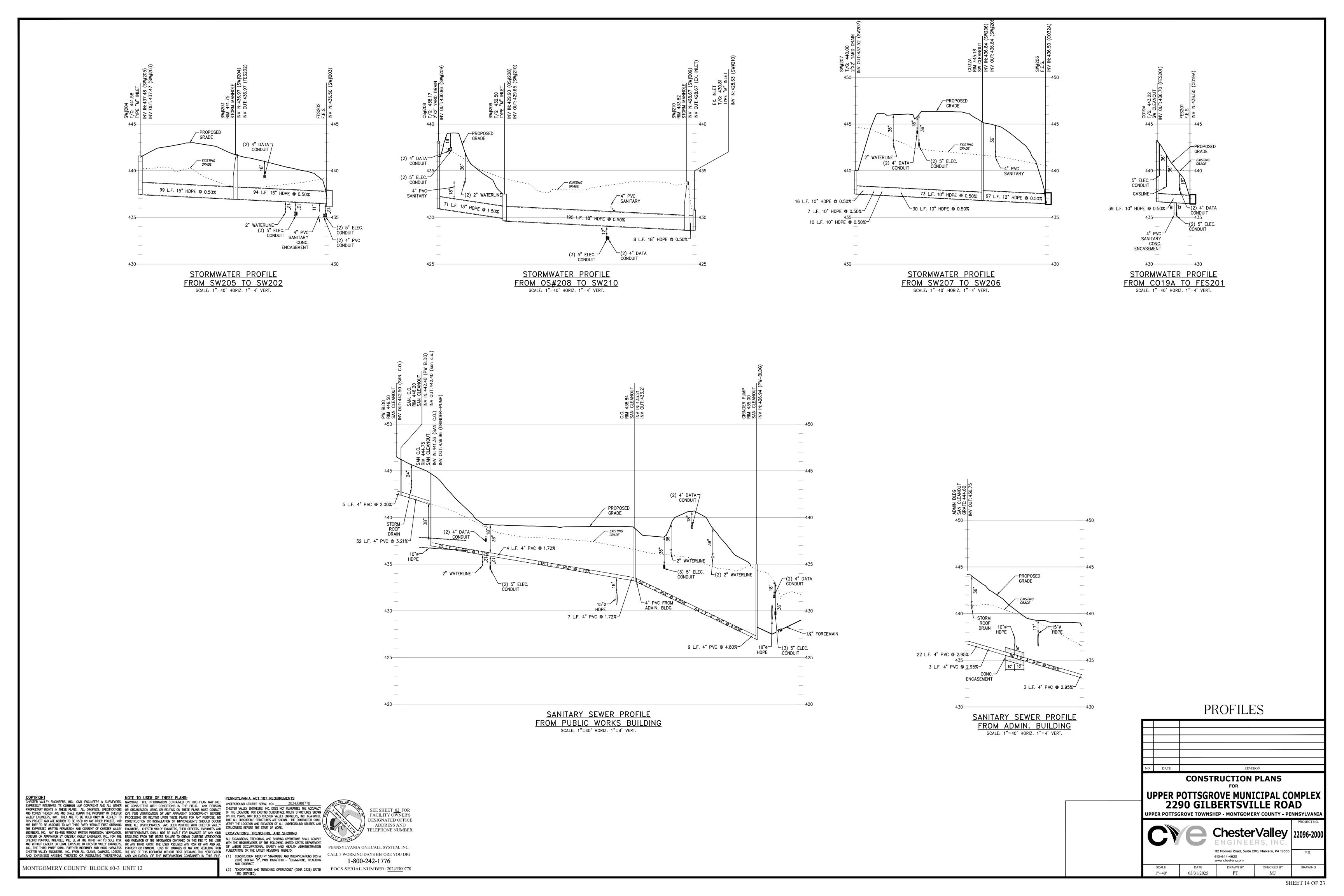


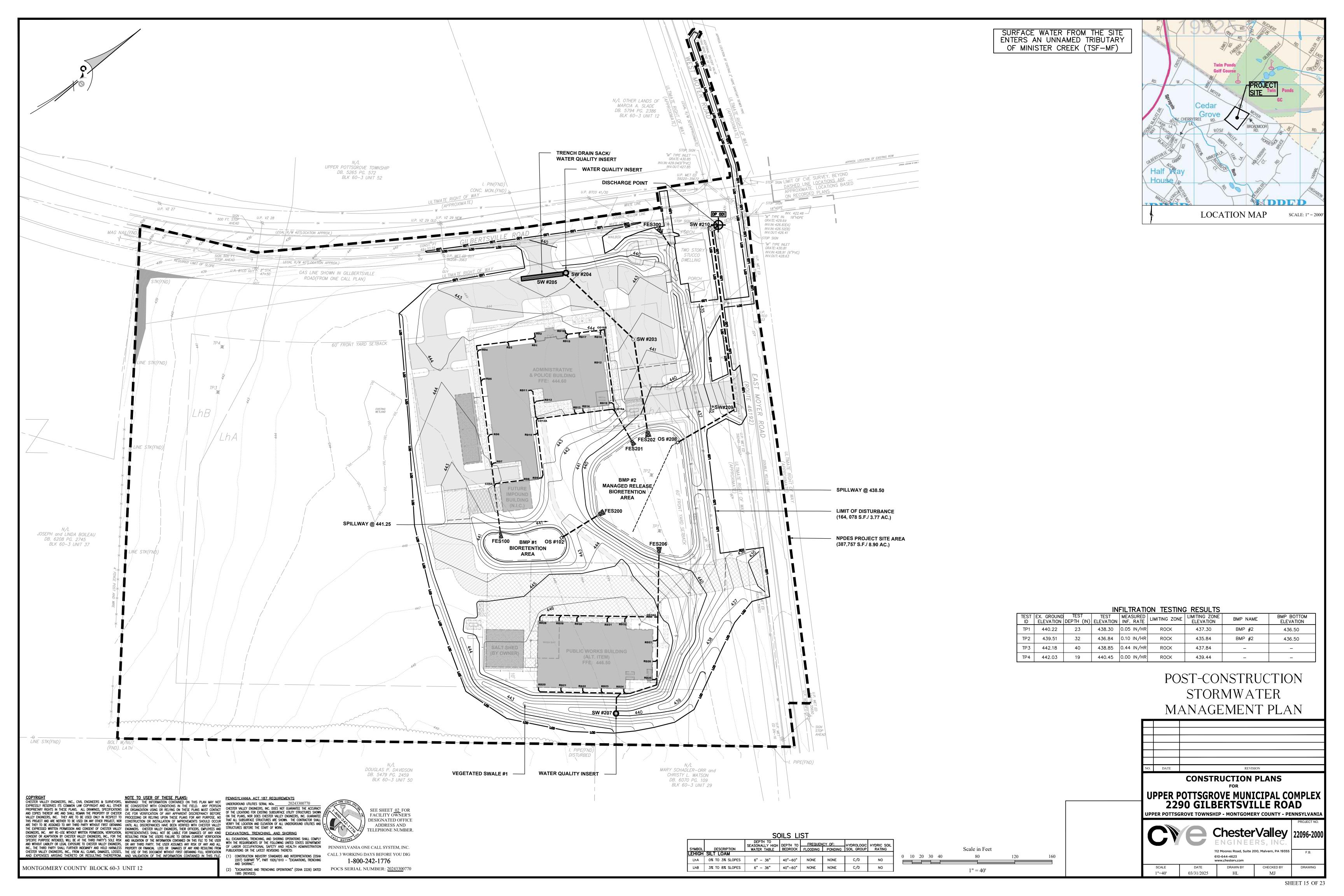
UTILITY DETAILS

610-644-4623 DRAWN BY CHECKED BY 03/31/2025

SHEET 12 OF 23







SENERAL NOTES:

IT SHALL BE THE SOLE RESPONSIBILITY OF THE <u>PROPERTY OWNER</u> TO MAINTAIN THE POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES.

STORMWATER MANAGEMENT DESIGN:

REFER TO "POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT FOR PROPOSED MUNICIPAL COMPLEX," PREPARED BY CHESTER VALLEY ENGINEERS.

EROSION AND SEDIMENTATION CONTROL:

REFER TO "EROSION AND SEDIMENTATION CONTROL PLAN", PREPARED BY CHESTER VALLEY ENGINEERS.

A. THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.

BIORETENTION AREAS STORM SEWER AND ASSOCIATED STRUCTURES

THE PARTY RESPONSIBLE FOR THE LONG TERM OPERATIONS AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL MAKE RECORDS OF THE INSTALLATION AND ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST TEN (10) YEARS. THESE RECORDS SHALL BE SUBMITTED TO THE TOWNSHIP AS ESTABLISHED BY THE OPERATION AND MAINTENANCE PLAN OR IF OTHERWISE REQUIRED BY THE TOWNSHIP

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:

- PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS THROUGH THE IMPLEMENTATION OF WATER QUALITY BMP'S TO
- PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF AT THE DISCHARGE POINTS.
- MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME. MINIMIZE IMPERVIOUS AREAS TO ONLY THOSE WHICH ARE NECESSARY FOR THE SITE TO FUNCTION AS INTENDED.

TREAT THE RUNOFF PRODUCED BY THE PROPOSED DEVELOPMENT BEFORE DISCHARGING FROM THE SITE.

- MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
- MINIMIZE LAND CLEARING AND GRADING. MINIMIZE SOIL COMPACTION.
- UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMP'S TO PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF RESULTING FROM THE CHANGE IN IMPERVIOUS AREA.

THE RECEIVING WATERCOURSE FOR THIS PROJECT IS AN UNNAMED TRIBUTARY OF MINISTER CREEK (TSF-MF).

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.

THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPS. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.

- AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.
- A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP'S.
- PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.
- FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND RELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN. (2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS.

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION). AND INSTALLATION OF BMPS IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:

- (1) THE FACILITY NAME, ADDRESS AND LOCATION
- (2) THE OPERATOR NAME AND ADDRESS. (3) THE PERMIT NUMBER
- (4) THE REASON FOR PERMIT TERMINATION.
- (5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH §102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY EROSIVE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE

APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY. IMMEDIATELY DURING NON-GERMINATION PERIODS. MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED. PREFERABLY WITH A PERMANENT TREATMENT.

THE OWNER IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTES ONSITE. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

SILT REMOVED FROM POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF VEGETATED RAIN GARDEN AREAS. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED CRITICAL VEGETATION AREAS (CVA).

LIKELY WASTE TO BE GENERATED DURING MAINTENANCE OF THE POST-CONSTRUCTION BMP'S ARE:

 ACCUMULATED SEDIMENT IN THE BIORETENTION AREAS AND STORM SYSTEM. ACCUMULATED GARBAGE AND DEBRIS IN THE BIORETENTION AREAS AND STORM SEWER

CRITICAL STAGES OF CONSTRUCTION

THE PROFESSIONAL DESIGN ENGINEER, GEOTECHNICAL ENGINEER, OR SOILS PROFESSIONAL MUST BE PRESENT ON-SITE FOR THE ENTIRE INSTALLATION AND INSPECTION OF THE STORMWATER BMPs. THE SPECIFIC CRITICAL STAGES OF CONSTRUCTION FOR EACH

FOR BIORETENTION AREAS: EXCAVATION OF BIORETENTION AREA, PREPARATION OF THE SUBGRADE, PLACEMENT OF THE GEOTEXTILE FABRIC, INSTALLATION OF THE UNDERDRAIN, INSTALLATION OF AMENDED SOILS, CONSTRUCTION OF THE BIORETENTION BERM, AND INSTALLATION OF THE OUTLET STRUCTURE.

FOR ALL WATER QUALITY INLETS: VERIFY INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

CRITICAL VEGETATION AREAS (CVA)

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED, AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1, IN ALL DRAINAGE SWALES, BASIN AND RAIN GARDEN AREAS.

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

NWRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE

AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

BMP #1 & BMP #2, AS INDICATED ON PCSM PLAN

PLANTING NOTES AND SPECIFICATIONS:

1. DEVELOP A PLANTING MEDIUM IN ACCORDANCE WITH THE APPROVED DETAIL SHOWN ON POST-CONSTRUCTION STORMWATER MANAGEMENT DETAIL SHEET.

I. ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER, FOR ACCUMULATION OF SEDIMENT, TRASH AND DEBRIS, DAMAGE TO OUTLET STRUCTURES, EROSION, SIGNS OF CONTAMINATION OR

SPILLS AND BERM STABILITY.

I. THE SUGGESTED ITEMS IN THIS SECTION INCLUDE, BUT ARE NOT LIMITED TO THE THOSE LISTED

- ACCUMULATED SEDIMENT SHALL BE RESPREAD ON-SITE AS DESCRIBED IN THE DISPOSAL AND RECYCLING SECTION OF THIS PLAN SHEET;
- ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY;
- REPAIR OR REPLACE OUTLET STRUCTURE AS NEEDED; STABILIZE ERODED AREAS IN ACCORDANCE WITH APPROVED E&S SEEDING AND MULCHING
- IN THE EVENT OF CONTAMINATION OR SPILL, IMMEDIATELY CONTACT AN ENVIRONMENTAL PROFESSIONAL QUALIFIED TO IDENTIFY AND EXECUTE THE REQUIRED CLEANUP METHODS
- THAT ADHERE TO LOCAL, STATE AND FEDERAL REGULATIONS; IMMEDIATELY AFTER DISCOVERY OF BERM INSTABILITY, CONTACT A GEOTECHNICAL ENGINEER AND SITE CONTRACTOR TO DETERMINE AND EXECUTE METHODS TO REMEDY THE UNSTABLE BERM.

GENERAL MAINTENANCE NOTES:

- 1. INSPECT BMP FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC.
- 2. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MY BE REQUIRED.
- 3. RE-SPREAD MULCH WHEN EROSION IS EVIDENT AND REPLENISH AS NEEDED. REPLENISH MULCH ONCE EVERY 2 TO 3 YEARS.
- 4. INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION).
- WATER AS NEEDED DURING PERIODS OF EXTENDED DROUGHT
- 6. INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED.
- 7. INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
- 8. TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY, MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING.
- 9. INSPECT FOR LITTER; REMOVE PRIOR TO TRIMMING.

OR BLOCKAGE, CORRECT AS NEEDED.

APPROPRIATE FOR VEGETATIVE SPECIES.

- 10. INSPECT FOR UNIFORMITY IN CROSS-SECTION, CORRECT AS NEEDED.
- 11. INSPECT INFLOW POINTS (CURB CUTS, INLETS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION
- 12. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
- 13. THE VEGETATION (FOR BMP CONTRIBUTING DRAINAGE AREA) SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED.
- 14. CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. MOW ONLY AS
- 15. INSPECT BMP #2 AT LEAST TWO TIMES PER YEAR AFTER RUNOFF EVENTS GREATER THAN 0.8 INCH AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN THE DESIGN PARAMETERS (THE LICENSED PROFESSIONAL ENGINEER SHOULD CLEARLY IDENTIFY WHAT THESE PARAMETERS ARE).
- 16. ALL CATCH BASINS AND INLETS SHOULD BE INSPECTED AND CLEANED AT LEAST TWO (2) TIMES PER YEAR.
- 17. AS NEEDED, REMOVE ACCUMULATED SEDIMENT AS REQUIRED TO MAINTAIN INFILTRATION HROUGH THE MRC STONE MEDIA AND TO MAINTAIN WATER QUALITY FUNCTIONALITY. RESTORE ORIGINAL CROSS SECTION. PROPERLY DISPOSE OF SEDIMENT.
- 18. ALL MRC BMP COMPONENTS SHOULD BE MAINTAINED AS INDICATED IN THE STORMWATER BMP
- 19. AT LEAST TWO TIMES PER YEAR, OR MORE IF HISTORICAL MAINTENANCE INDICATE IT IS NECESSARY, INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION, SIGNS OF WATER CONTAMINATION/SPILLS, AND INSTABILITY.
- 20. LEAF LITTER NEEDS TO BE REMOVED ANNUALLY.

21. BMP SHOULD BE INSPECTED IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS AND REPLACE DAMAGED VEGETATION.

- 22. IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE BMP, MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE THE IMPACTS OF DEICING AGENTS.
- 23. USE NONTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT.
- 24. USE SALT-TOLERANT VEGETATION.
- 25. CLOSE MOW OR TRIM PERENNIAL MATERIAL TO ALLOW PROPER GERMINATION AND TO CONTROL
- 26. REPLENISH MULCH IN AREAS WHERE EROSION IS EVIDENT. REPLENISH MULCH IN ENTIRE INFILTRATION AREA AT LEAST EVERY 2 TO 3 YEARS.

INVASIVE SPECIES (TO BE DONE ONCE IN LATE FALL, WINTER OR EARLY SPRING).

I. INSTALL FILTER SOCK AND/OR OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.

- 2. PRIOR TO CONSTRUCTION, BIORETENTION AREA/BIO-FILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OR REPEATED MOVEMENT OF CONSTRUCTION TRAFFIC.
- 3. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
- 4. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
- 5. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF BIORETENTION DEVICE. 6. ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT

BASINS LEAVE A MINIMUM OF 1 FOOT OF COVER OVER THE PRACTICE TO PROTECT THE

- UNDERLYING SOILS FROM CLOGGING. PERFORM ALL OTHER SITE IMPROVEMENTS.
- 8. TRIM AND MULCH ALL AREAS AFTER DISTURBANCE.
- 9. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA
- 10. CONSTRUCT CURB CUTS OR OTHER INFLOW BUT PROVIDE PROTECTION TO PROHIBIT SEDIMENT LADEN WATER FROM ENTERING THE BMP.
- 11. CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF BIORETENTION AREA.
- 12. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
- 13. PLANT AND MULCH BIORETENTION DEVICE.
- 14. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP MANUAL)

THE TERM "FAILURE" FOR THE PROPOSED BIORETENTION AREAS SHALL BE DEFINED AS:

- 1) THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE, DISCHARGE PIPE, UNDERDRAIN SYSTEM OR ANY OTHER DRAINAGE STRUCTURE/PIPE WITHIN THE BMP
- 2) THE LOSS OF STRUCTURAL INTEGRITY OF THE PROPOSED BERM 3) THE INABILITY OF THE BIORETENTION AREA TO SUPPORT SURFACE VEGETATION DUE TO TOO MUCH OR TOO LITTLE
- 4) EXCESSIVE EROSION OR ACCUMULATION OF SEDIMENT OR DEBRIS 5) STANDING WATER IS OBSERVED IN THE BIORETENTION AREA AFTER 72-HOURS.

THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE, DISCHARGE PIPING, UNDERDRAIN SYSTEM, OTHER DRAINAGE STRUCTURES/PIPES WITHIN THE BMP, SURFACE VEGETATION, AND BERM AS NEEDED. REMOVE SEDIMENT OR DEBRIS THAT HAS ACCUMULATED IN THE BMP BOTTOM AND STABILIZE EROSION USING PERMANENT STABILIZATION TECHNIQUES INDICATED ON THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN. DEWATER BIORETENTION AREAS.

THE TERM "FAILURE' FOR THE PROPOSED WATER QUALITY INLETS (FILTER INSERTS) SHALL BE DEFINED AS: DISCOVER EVIDENCE OF DAMAGED FILTER MEDIA

2) DISCOVER EVIDENCE OF THE FILTER MEDIA'S INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.

THE PERMITTEE SHALL REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

THERE ARE SEVERAL PROPOSED/IN PLACE MEASURES INTENDED TO TREAT RUNOFF FOR THERMAL IMPACTS. FIRSTLY, THE PROPOSED LANDSCAPING TREES WITHIN AND BORDERING THE NEW BUILDING AND SIDEWALK AREAS WILL SHADE THE ADJACENT IMPERVIOUS SURFACES WHICH WILL KEEP THE AREAS COOL. SECONDLY, THE STORMWATER RUNOFF COLLECTED BY THE STORM SEWER SYSTEM WILL BE COOLED BY THE LOWER UNDERGROUND TEMPERATURE AS THE RUNOFF FLOWS THROUGH THE SYSTEM. THIRDLY, THE WATER DETAINED IN THE BIORETENTION AMENDED SOILS WILL BE COOLED AS IT IS SLOWLY RELEASED AS A RESULT OF THE LOWER UNDERGROUND TEMPERATURE AS THE POST DEVELOPMENT FLOWS ARE LOWER THAN THE PRE-DEVELOPMENT FLOWS THE REDUCED RATE MEANS THE RUNOFF

NEUTRALIZE/REMOVE THE HEAT ENERGY ABSORBED BY THE PROJECT SITE RUNOFF PRIOR TO DISCHARGE INTO THE RECEIVING

WILL HAVE MORE TIME TO COOL IN THE PROPOSED BMPS. THE COOLING INFLUENCES OF THE ONSITE BMPS WILL

STORM SEWER

WATERCOURSE.

1. ALL DRAINAGE COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER, FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY; IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

GENERAL MAINTENANCE NOTES:

- ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL OR OTHER APPROVED RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR
- ANY NECESSARY ENTRY. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

-PLANTING MEDIUM

(REFER TO

AMENDED SOIL

SPECIFICATION)

AMENDED SOIL MIX

DISCHARGE PIPE

INV. ELEV. 434.07

DIAMETER 15"

√5"W X 2"H WEIR

A WELL BLENDED MIXTURE (BY VOLUME)

THE MIXTURE AND PERMEABILITY.

INV. ELEV. 437.08

TOP OF BERM =

ELEV. 442.00

BIORETENTION AREA

' WIDE X 1' DEEP

= ELEV. 439.00

ANCHOR TRENCH

- IF SEDIMENT/TRASH/DEBRIS IS FOUND IN THE CONVEYANCE SYSTEM, THE SYSTEM SHALL BE JETTED AND VACUUMED TO
- REMOVE ALL SEDIMENT/TRASH/DEBRIS AND DISPOSED OF APPROPRIATELY. REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.

OS#208

UNCOMPACTED

24" X 24" "M" INLET

WATER SURFACE-

GRATE ELEV. 438.17 -

BMP #1 BIORETENTION AREA

CROSS-SECTION

SITE RESTORATION O&M REQUIREMENTS

SEED MIX SHALL BE "RAIN GARDEN MIX

ERNMX-180" FROM ERNST CONSERVATION

SEEDS. 8884 MERCER PIKE, MEADVILLE PA

APPROVED EQUAL -

SEED MIX SHALL BE

(TYP.

6" FULLY PERF. HDPE -

PLANTING MEDIUM-

(OR APPROVED EQUAL)

SLOPE = 0.0050 FT/FT

UNDER DRAIN SYSTEM (TYP.)

RAIN GARDEN MIX #ERNMX-180 FROM-

ERNST CONSERVATION SEËDS, 8884 MERCER

ERNSTSEED.COM, OR APPROVED EQUAL

NON-WOVEN GEOTEXTILE

AMENDED SOIL MIX (REFER TO

AMENDED SOIL SPECIFICATION)

HDPE CLEANOUT (WATERTIGHT)

PIKE, MEADVILLE PA 16335, 800-873-3321,

3:1 MAX SLOPE

16335, 800-873-3321, ERNSTSEED.COM, OR

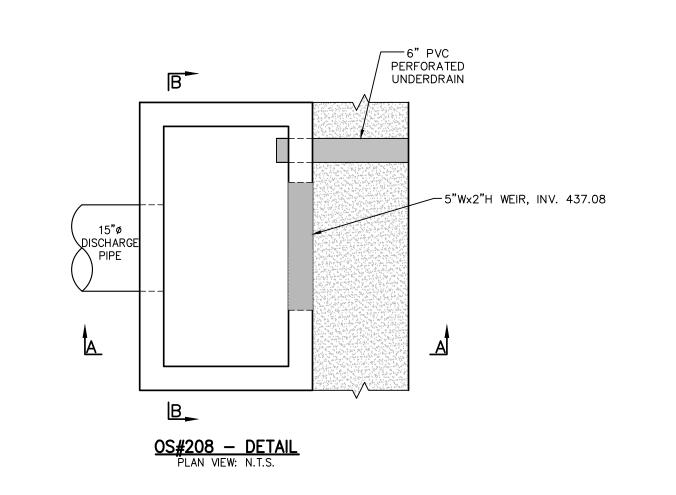
ESTABLISH AND MAINTAIN VEGETATIVE COVER IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

24" X 24" "M" INLET

WATER SURFACE-

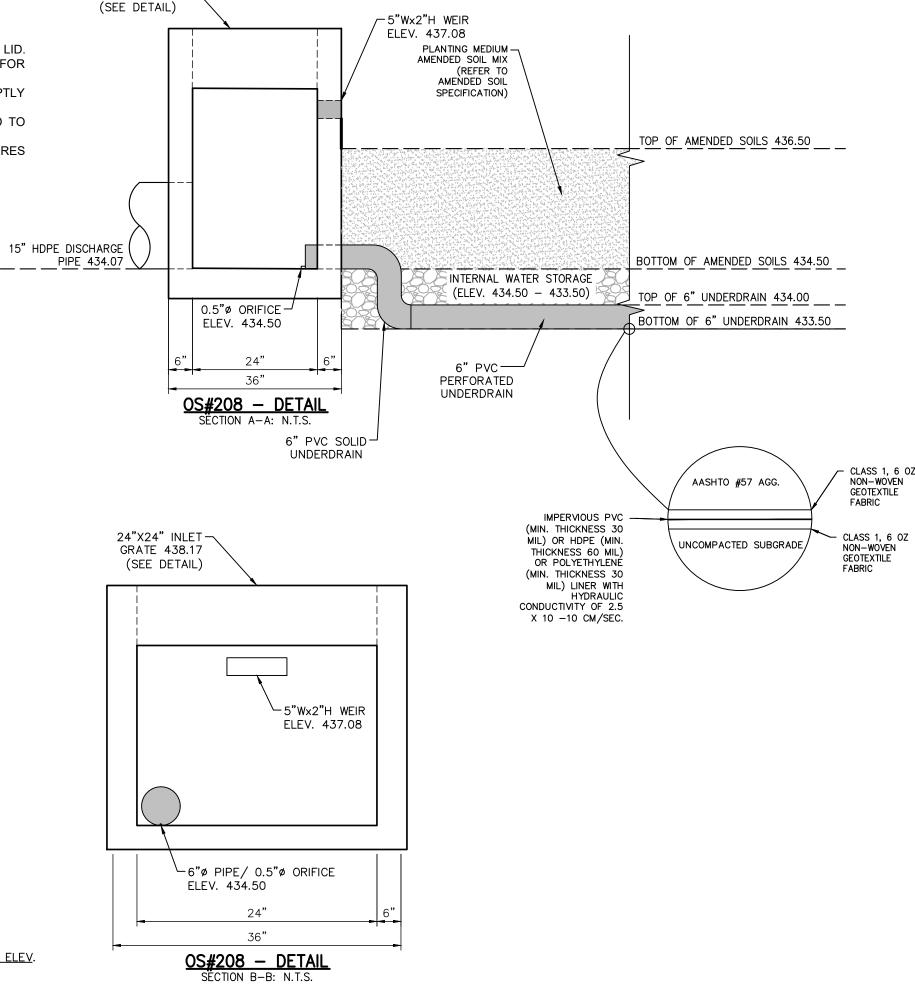
GRATE ELEV. 440.50 -

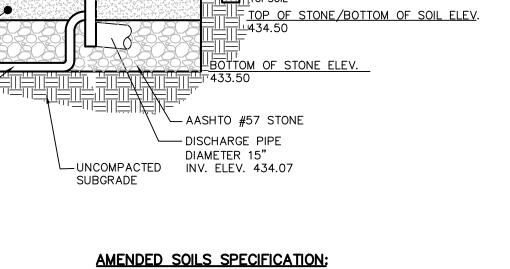
PERFORM ROUTINE INSPECTIONS AND CORRECT EROSION PROBLEMS, IF ENCOUNTERED.



24"X24" INLET -

GRATE 438.17





*THE AMENDED SOIL MIX SHALL BE INSPECTED AND TESTED DURING INSTALLATION BY A GEOTECHNICAL ENGINEER TO VERIFY ACCEPTABILITY OF

BMP #2 M.R. BIORETENTION AREA CROSS-SECTION

TYPICAL BIORETENTION AREA NOTES:

OF UNDERLYING SOILS.

1. CONTRACTOR SHALL TREAT COMPACTED SUBGRADE SOILS AS SPECIFIED IN THE SOIL AMENDMENT SPECIFICATION PRIOR TO PLACEMENT OF THE UNDERDRAIN AND SOIL AMENDMENT SHOWN ON SHEET 9F.

3. GRADING OF AREAS SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION

- 2. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
- 4. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE
- 5. CONTRACTOR SHOULD PROVIDE A ONE-YEAR 100% CARE AND REPLACEMENT WARRANTY FOR ALL PLANTING BEGINNING AFTER INSTALLATION AND INSPECTION OF ALL PLANTS. 6. REFER TO OPERATIONS AND MAINTENANCE PLAN FOR POST-DEVELOPMENT CONSTRUCTION SEQUENCING AND MAINTENANCE
- 7. ALL CONNECTIONS TO INLET/OUTLET STRUCTURES AND CLEANOUT PIPES SHALL HAVE WATERTIGHT SEALS.

POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES/DETAILS

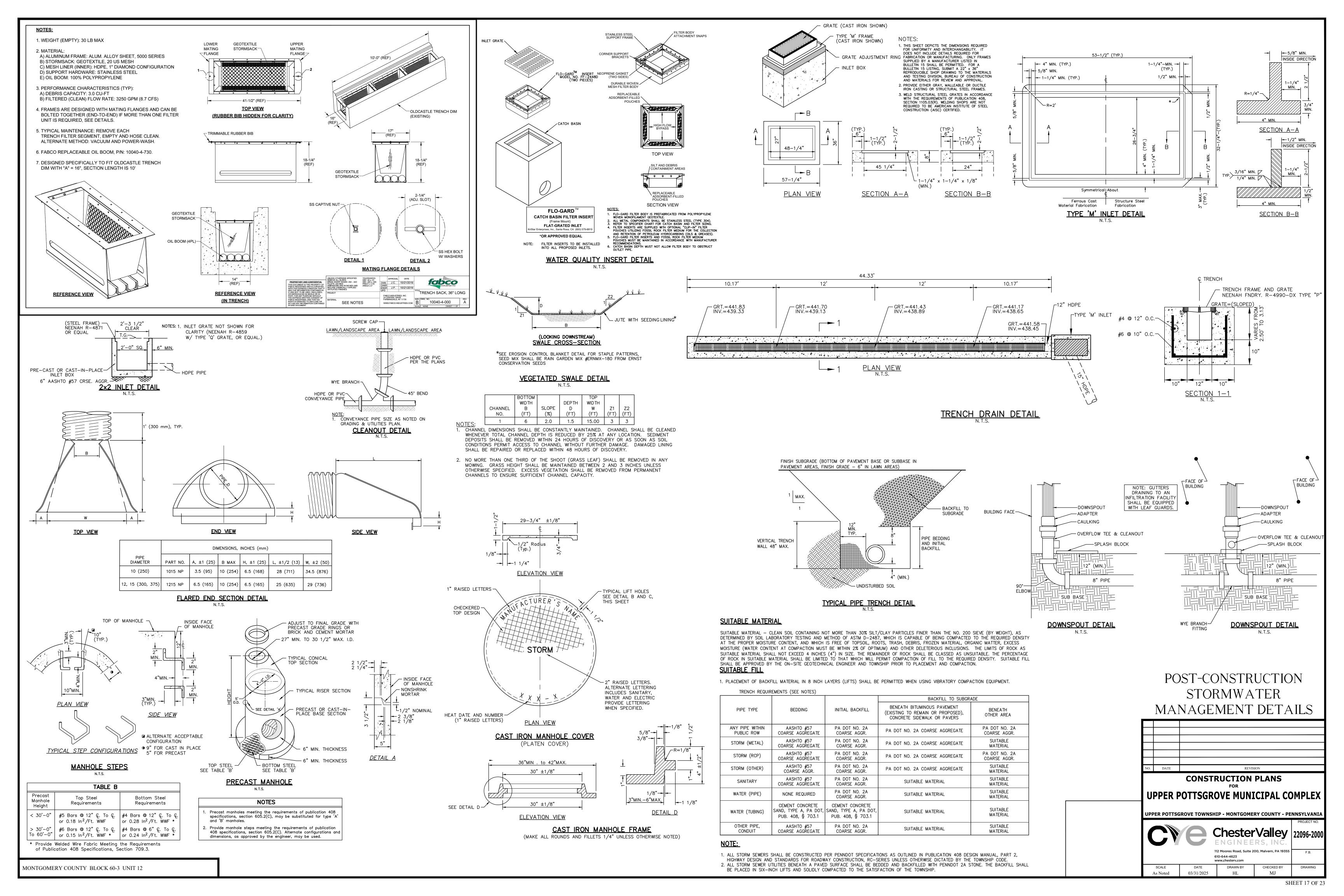
DATE **CONSTRUCTION PLANS** UPPER POTTSGROVE MUNICIPAL COMPLEX UPPER POTTSGROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA 610-644-4623

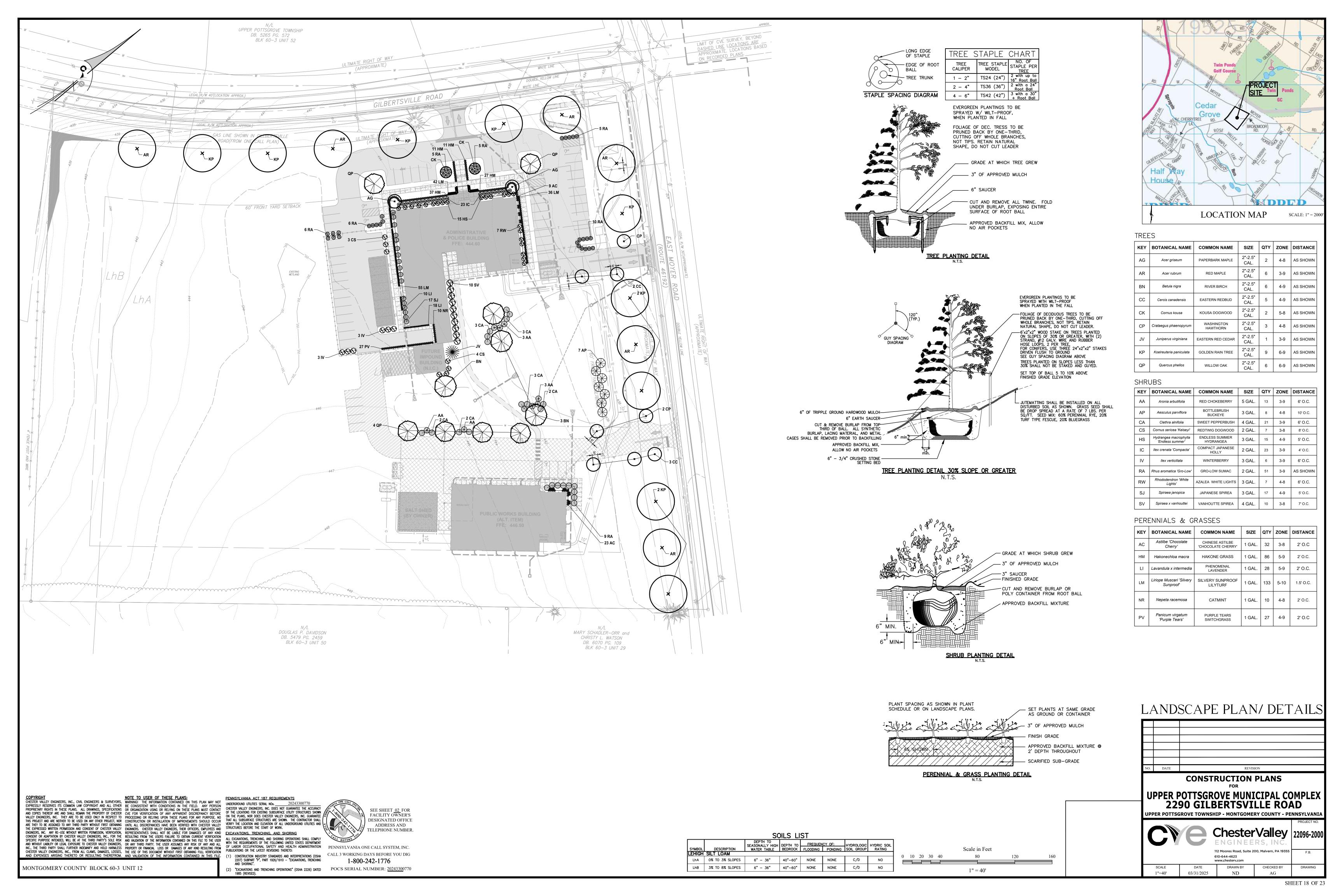
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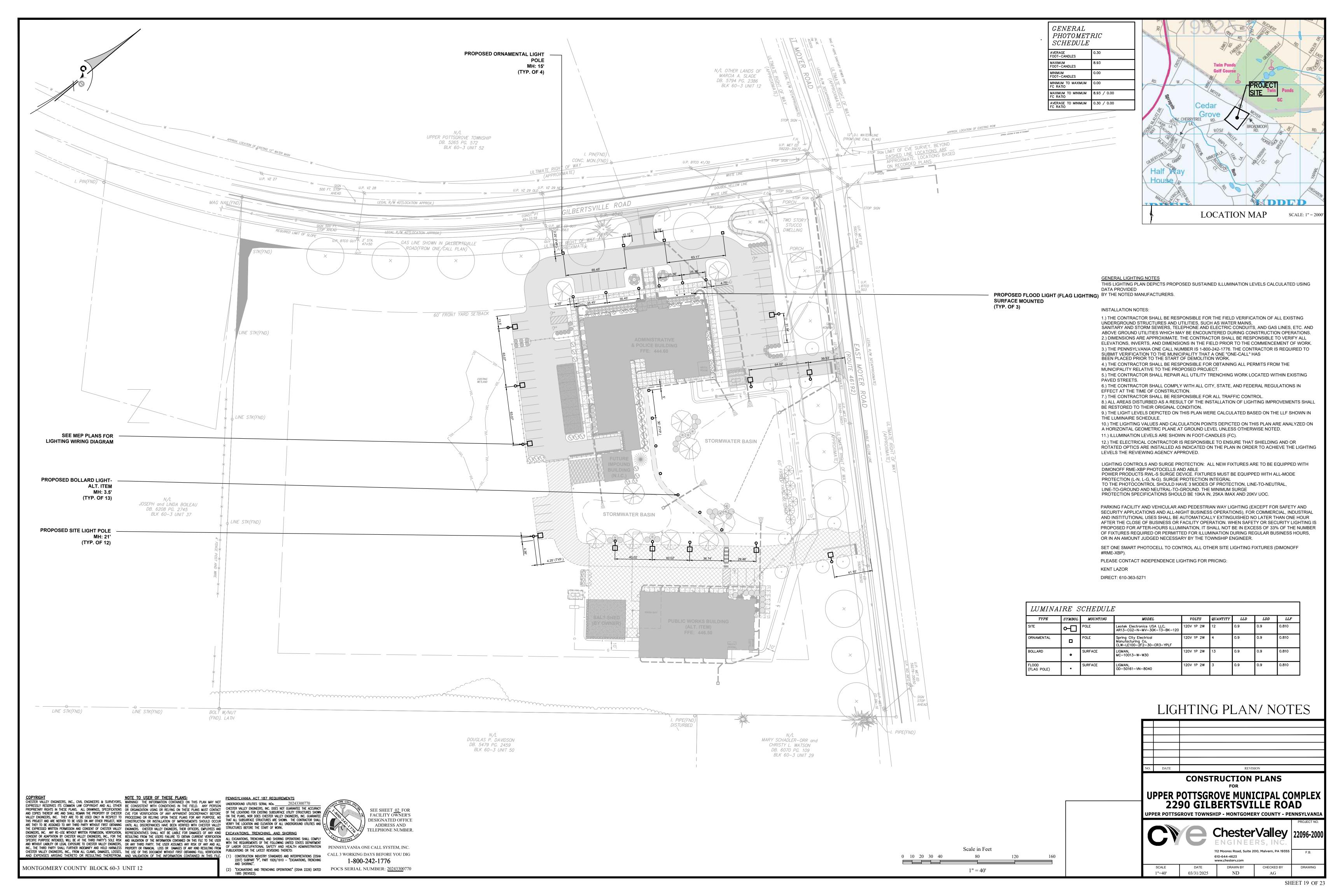
03/31/2025

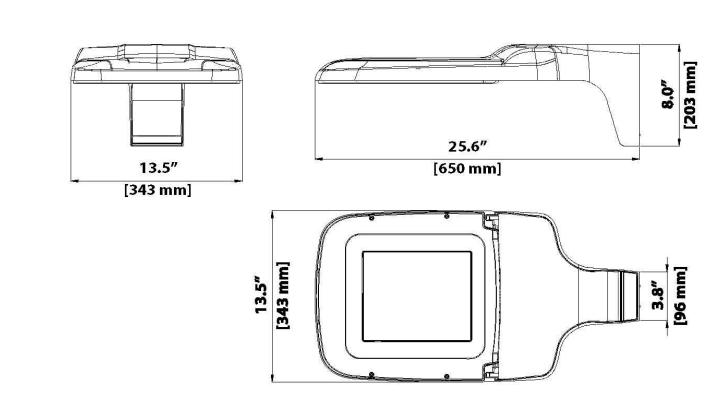
MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

CHECKED BY

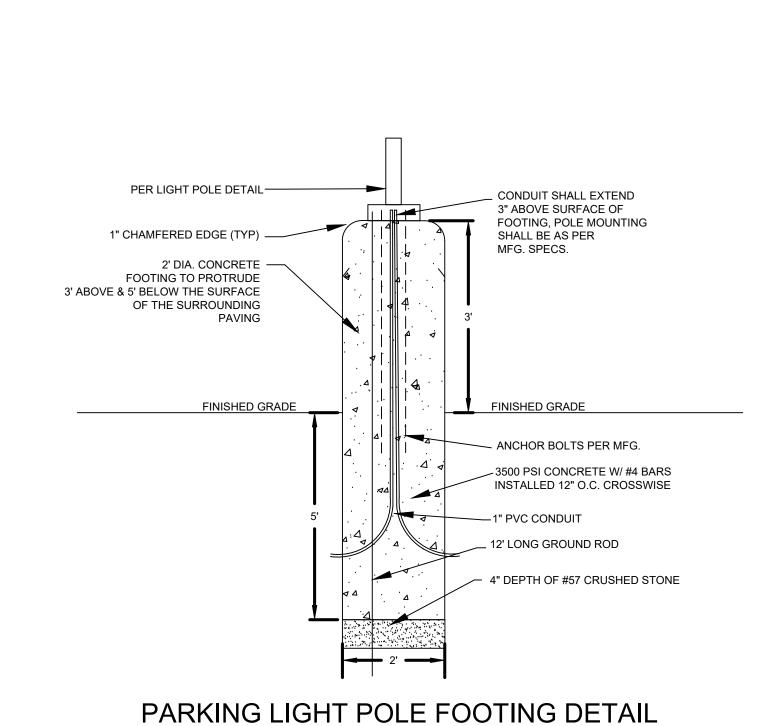


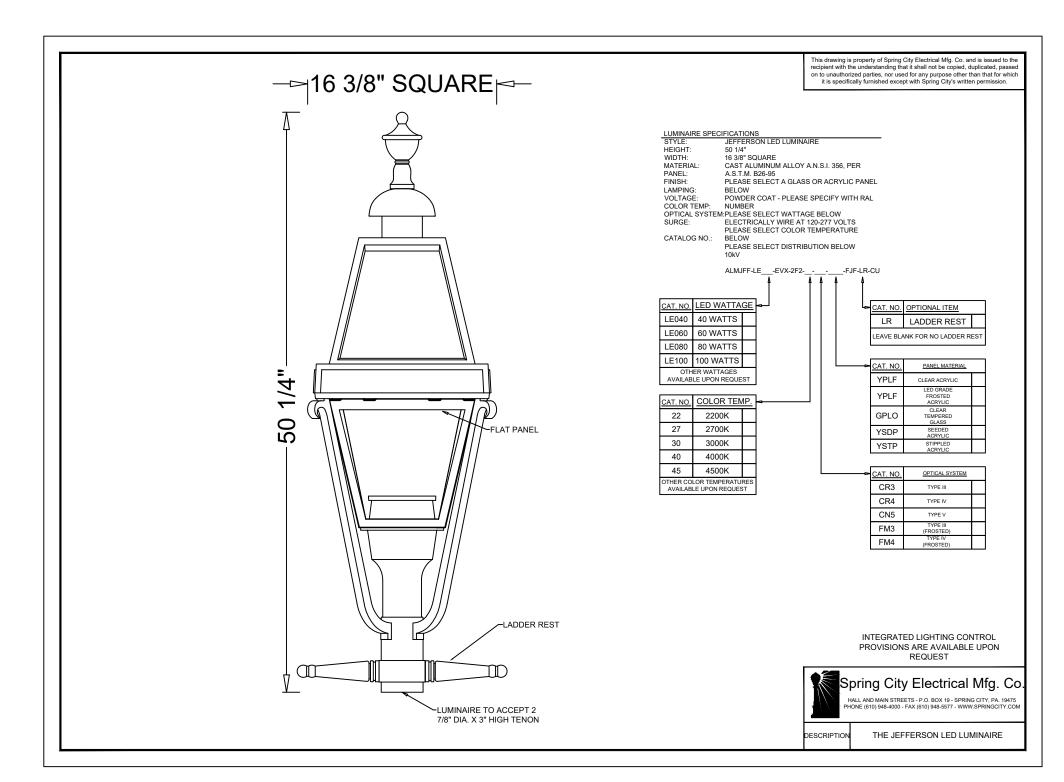




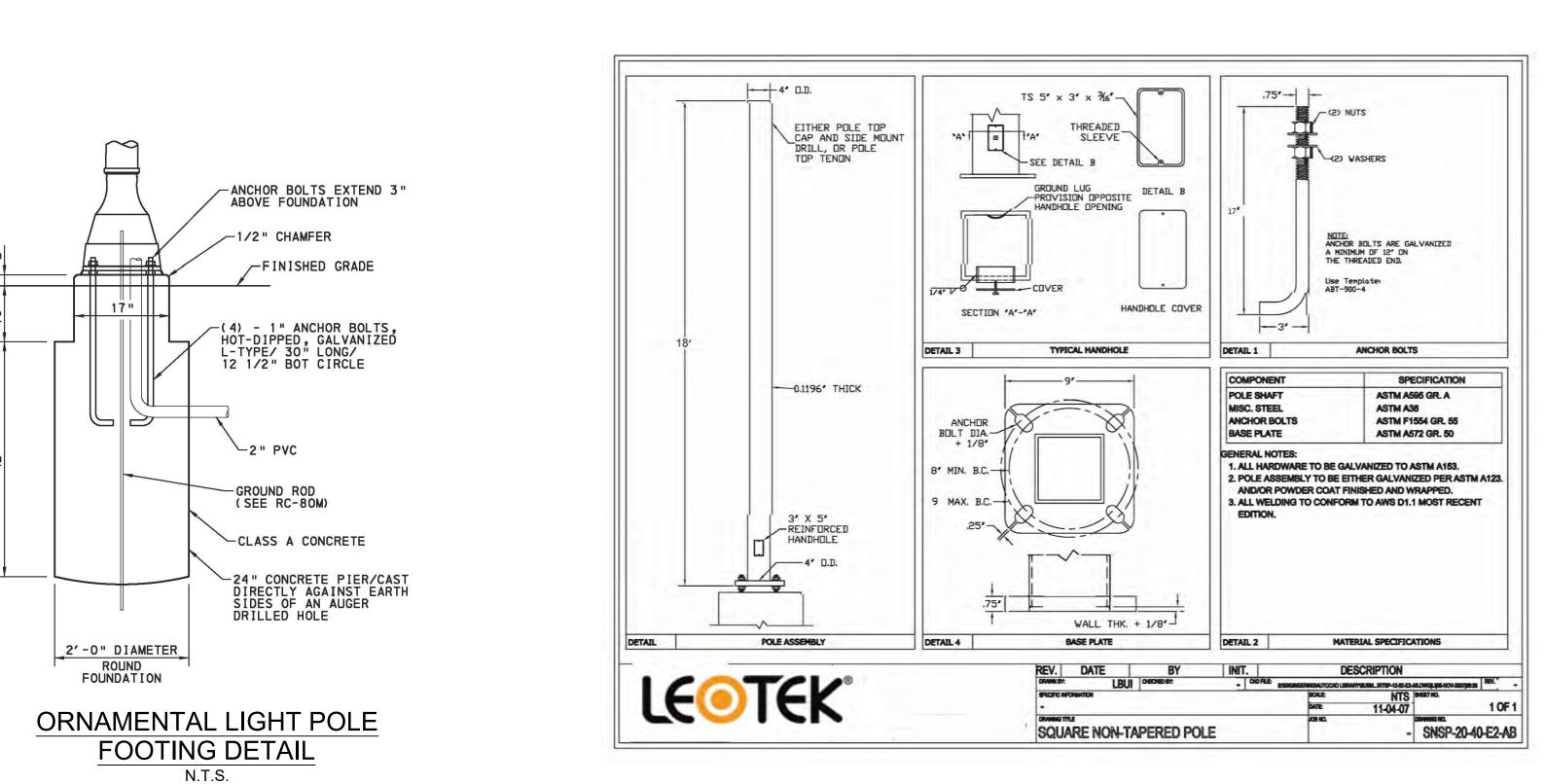


PARKING LIGHT FIXTURE DETAIL



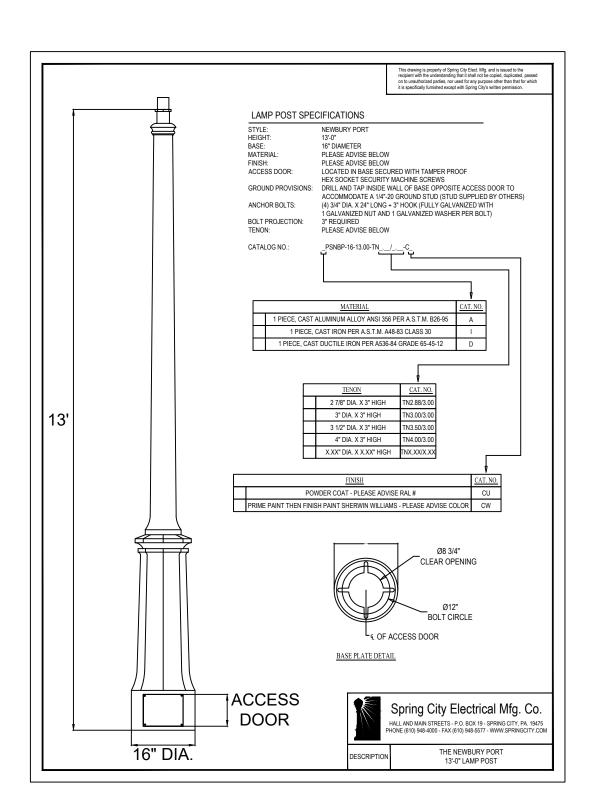


ORNAMENTAL LIGHT FIXTURE DETAIL N.T.S.

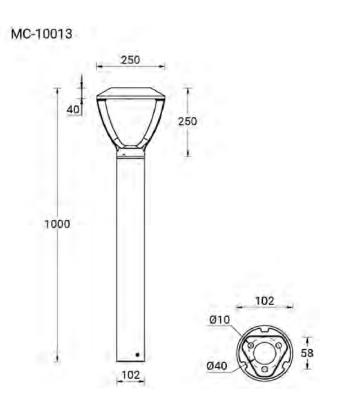


N.T.S.

PARKING LIGHT POLE DETAILS N.T.S.



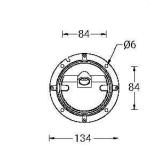
ORNAMENTAL LIGHT POLE DETAIL N.T.S.



BOLLARD LIGHT DETAIL

OD-50161 - 140 - - 1

• OPTIONS: ANTI GLARE VISOR (A54431)



FLOOD LIGHT (FLAG POLE) DETAIL N.T.S.

LIGHTING DETAILS

PARKING LOT LUMINARY SPECIFICATIONS

DISTRIBUTION TYPE (SEE LUMINAIRE SCHEDULE)

OPTIONS: DIMONOFF PHOTOCELL & RWL-S SURGE DEVICE

MODEL: (SEE LUMINAIRE SCHEDULE)

BOLLARD LIGHT SPECIFICATIONS

IES FULL CUTOFF

COLOR: BRONZE

QTY: 13

LIGMAN - MACARON 5 BOLLARD LIGHT MODEL: (SEE LUMINAIRE SCHEDULE)

DISTRIBUTION TYPE (SEE LUMINAIRE SCHEDULE)

FLOOD LIGHT (FLAG POLE) SPECIFICATIONS

LIGMAN - ODESSA 14 OUTDOOR FLOODLIGHT

MODEL: (SEE LUMINAIRE SCHEDULE)

HIGH EFFICIENCY PMMA LENS

DISTRIBUTION TYPE: VNCOLOR: BRONZE

QTY: 3

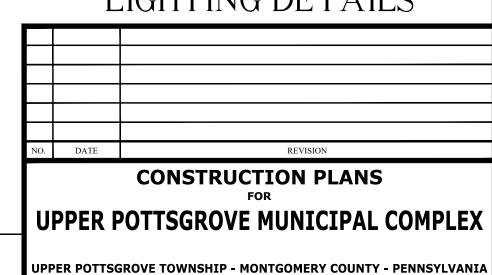
OPTIONS: DIMONOFF PHOTOCELL & RWL-S SURGE DEVICE

LEOTEK ARIETA LUMINARE

IES FULL CUTOFF

COLOR: BRONZE

QTY: 12

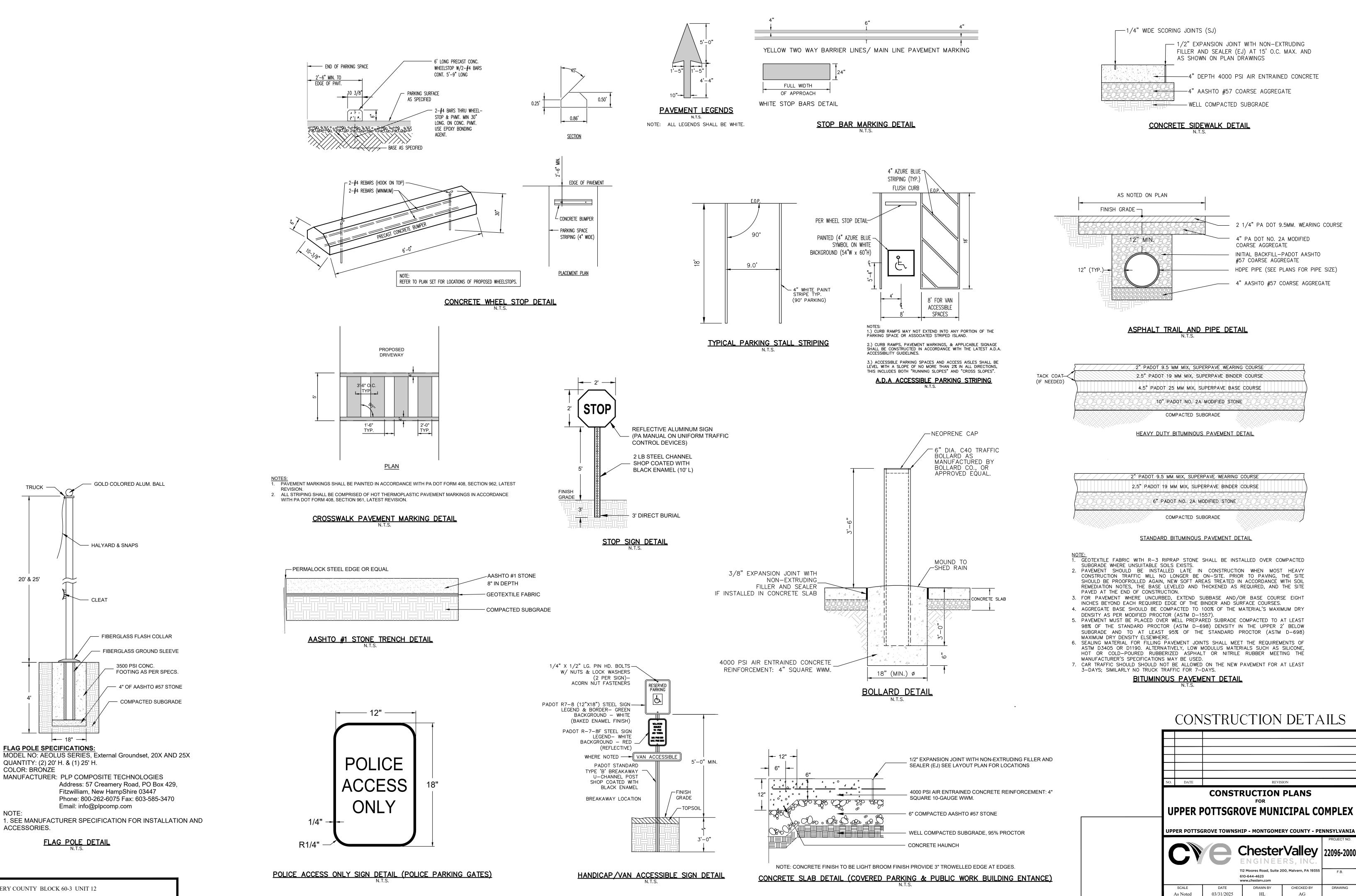


ChesterValley 22096-2000 610-644-4623 DRAWN BY CHECKED BY

03/31/2025

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

SHEET 20 OF 23



MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

FLAG POLE SPECIFICATIONS:

QUANTITY: (2) 20' H. & (1) 25' H.

COLOR: BRONZE

ACCESSORIES.

TRUCK -

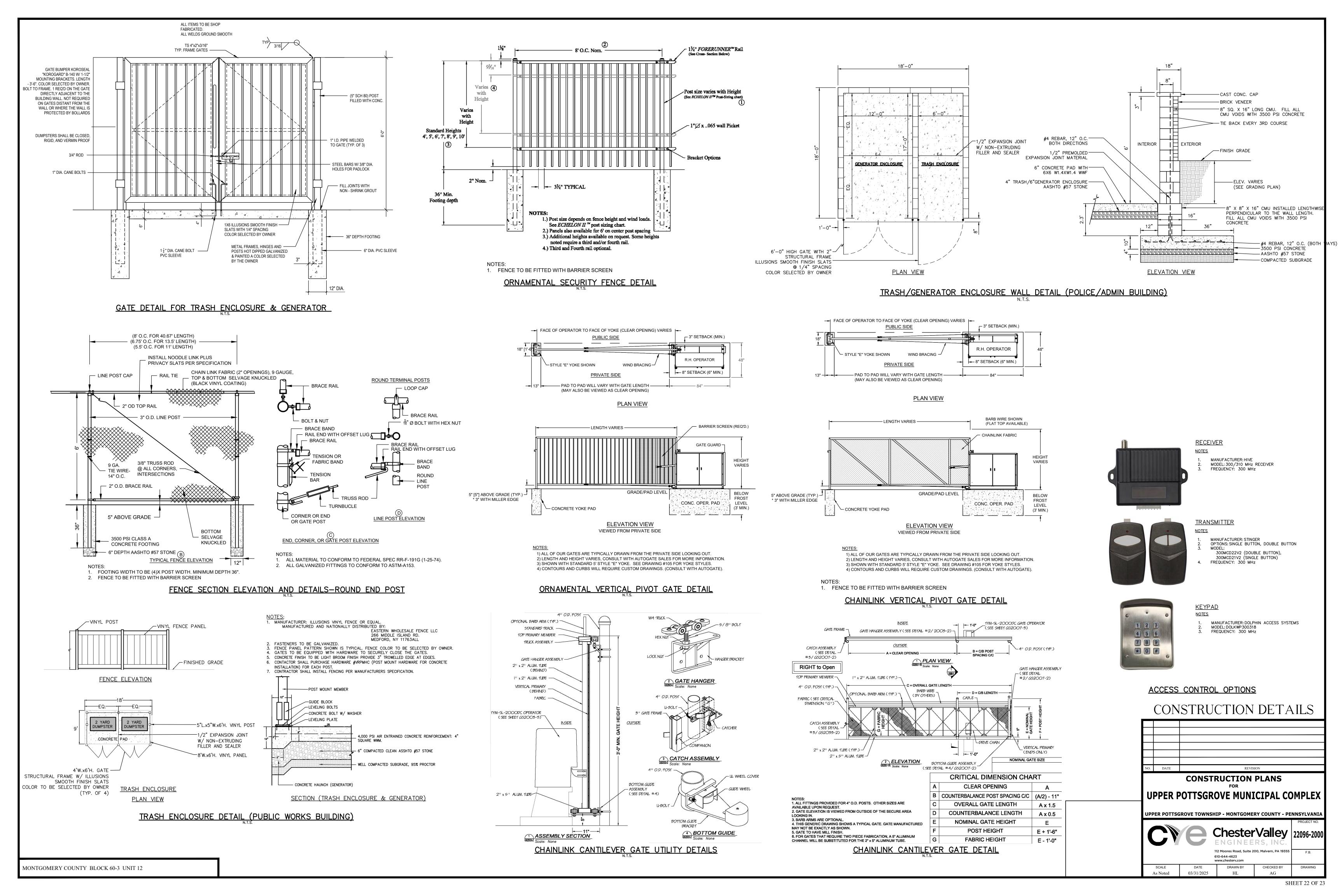
20' & 25'

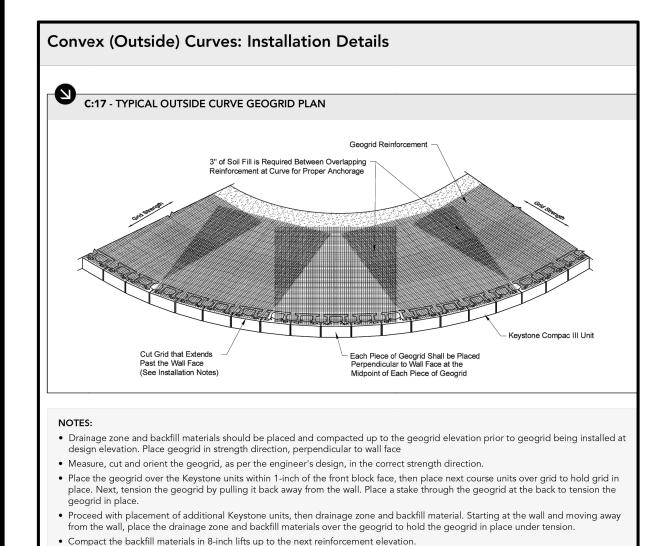
— HALYARD & SNAPS

CLEAT

Email: info@plpcomp.com

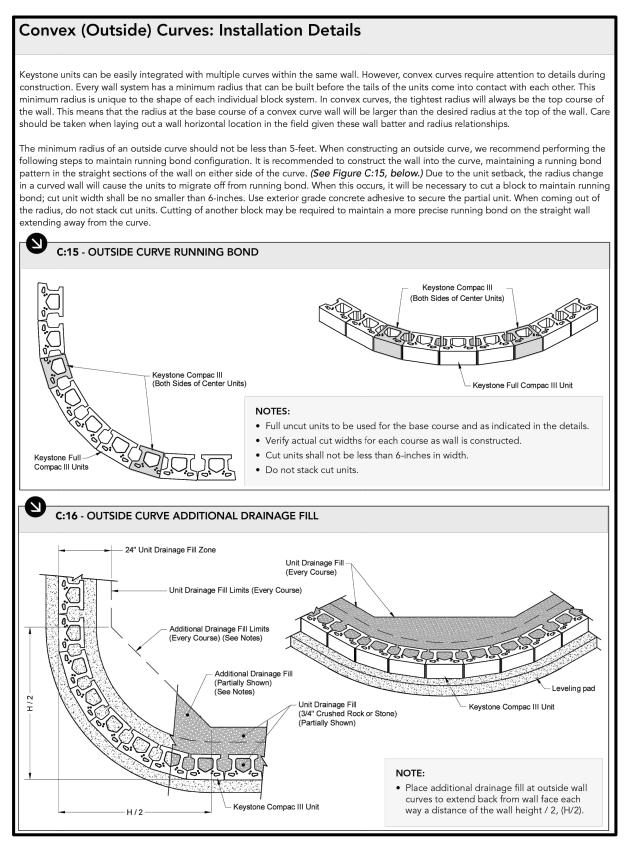
FLAG POLE DETAIL
N.T.S.

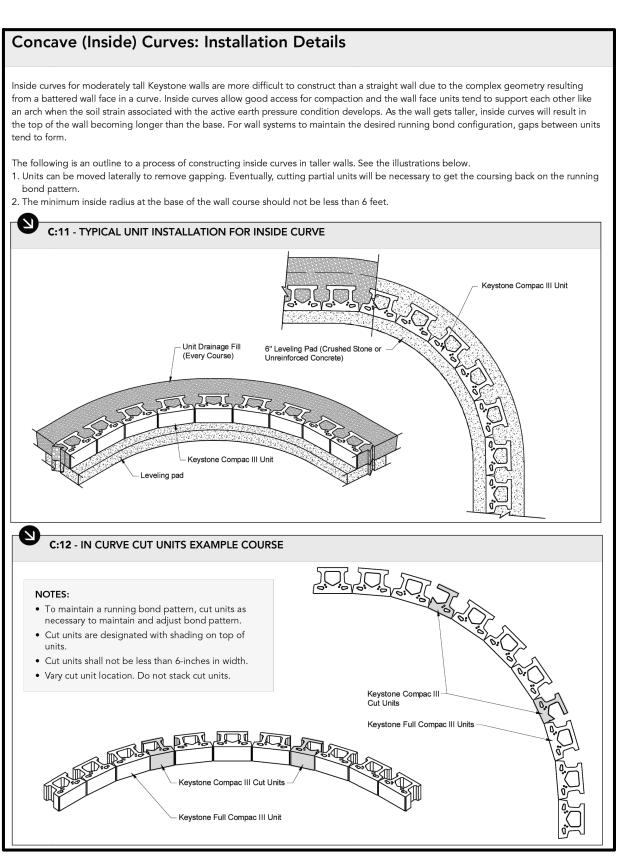


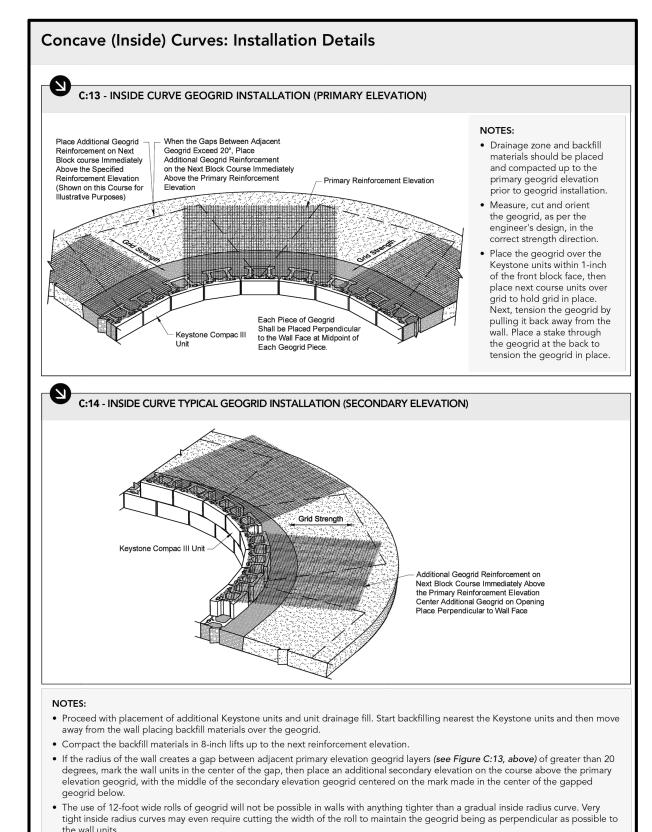


• Cut grid that extends beyond curved wall face 1-inch back from wall face. The minimum geogrid length must match design length.

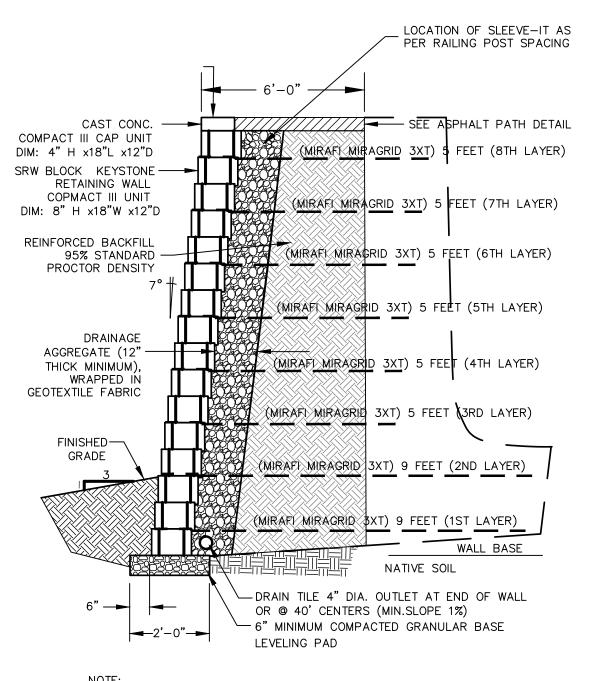
• Where geogrid tail overlap naturally occurs, place 3-inches of rock or soil between the overlapping layers.





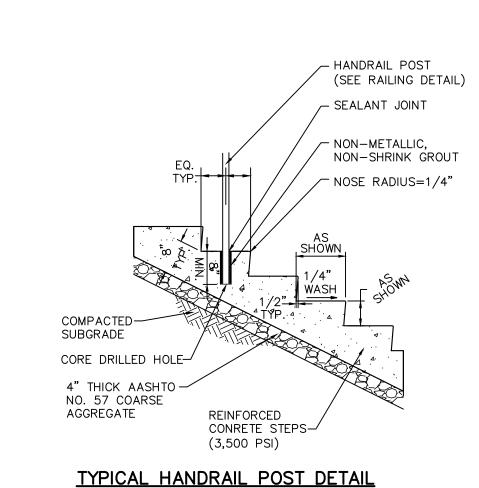


- PIPE, HEIGHT VARIES

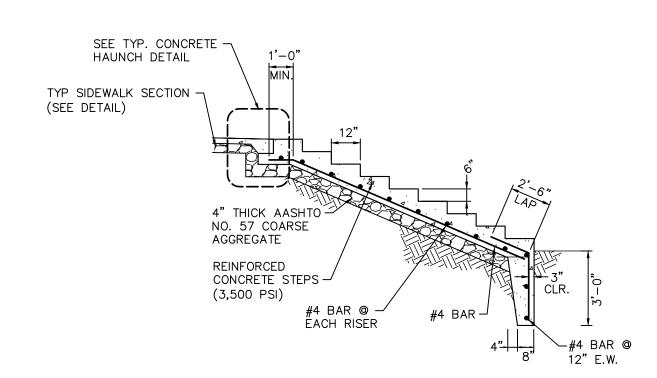


CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (SIGNED & SEALED BY REGISTERED ENGINEER) FOR REVIEW APPROVAL PRIOR TO INSTALLING PROPOSED WALLS. DETAILS SHALL INCLUDE THE PROPOSED SLEEVE AT ANCHORING SYSTEM.

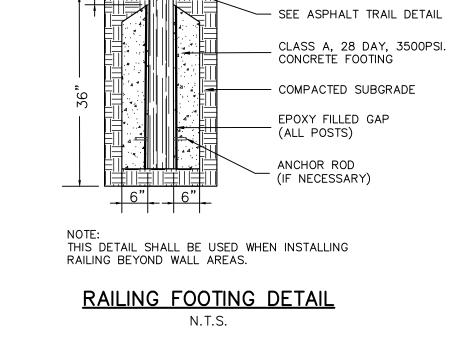
KEYSTONE RETAINING WALL COMPACT III UNIT DETAIL

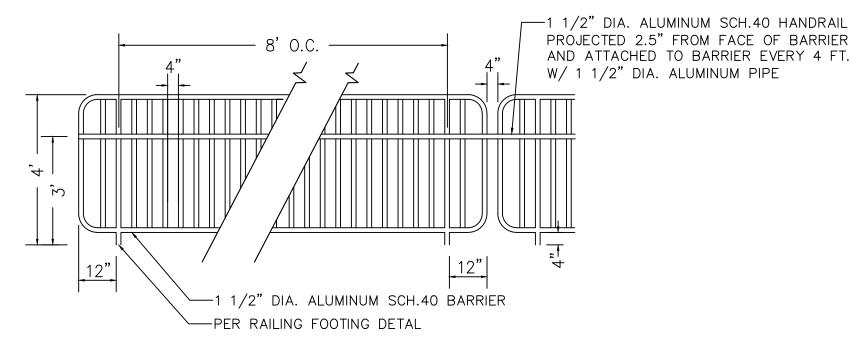


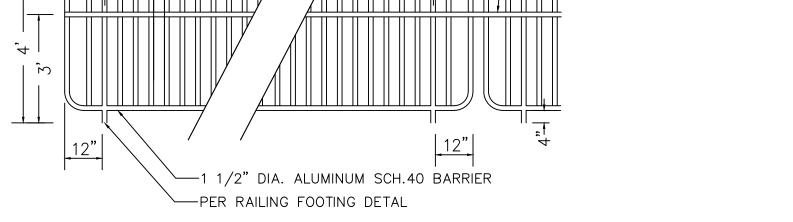
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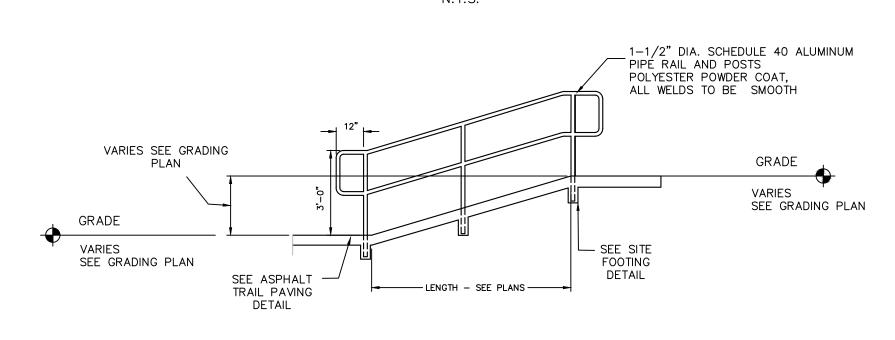
TYPICAL STEPS STRUCTURAL DETAIL N.T.S.





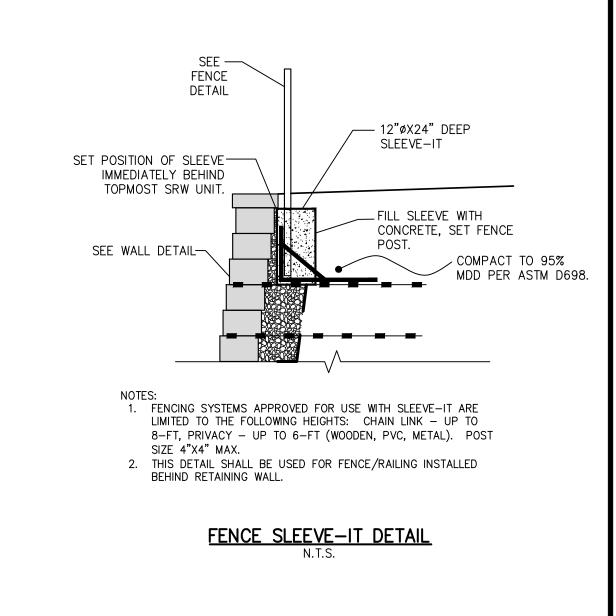


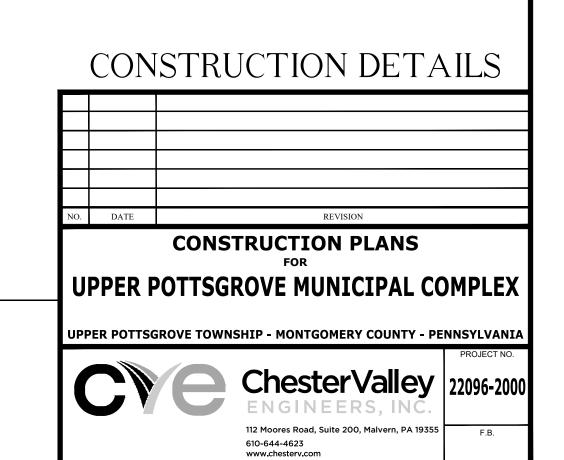
ADA ALUMINUM BARRIER AND HANDRAIL DETAIL



1. ALL RAMPS, LANDINGS AND RAILINGS SHALL COMPLY WITH THE APPROPRIATE BUILDING CODE.

TYPICAL HC RAMP & RAILING DETAIL N.T.S.





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03/31/2025

MONTGOMERY COUNTY BLOCK 60-3 UNIT 12

CHECKED BY