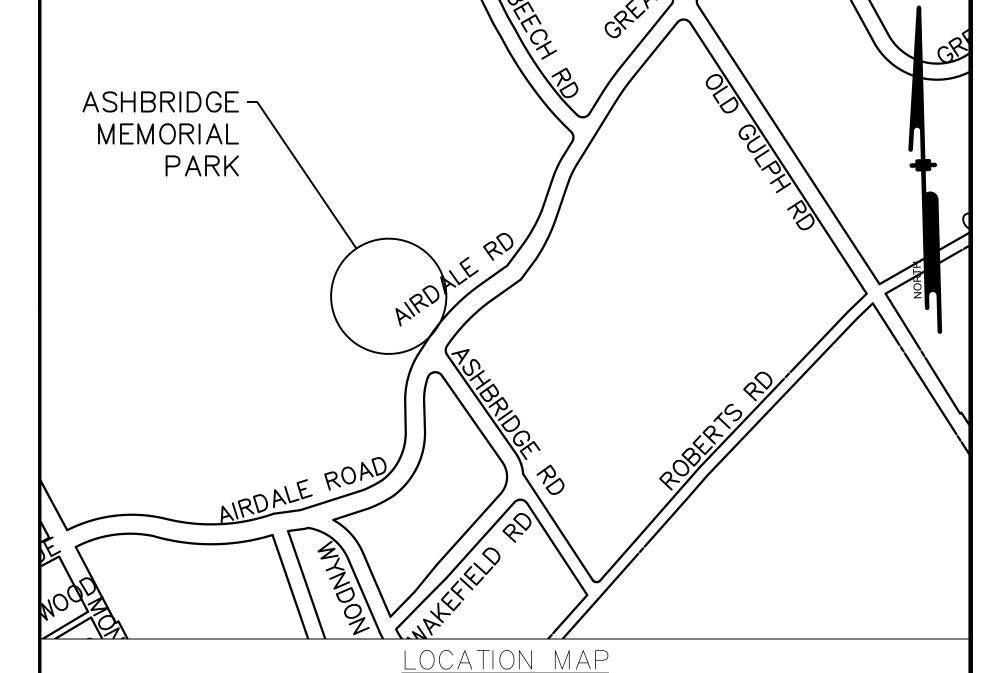
# ASHBRIDGE MEMORIAL PARK STREAM RESTORATION AND BANK STABILIZATION

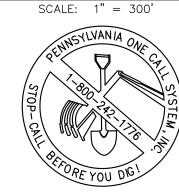
1301 MONTGOMERY AVENUE BRYN MAWR, PA 19010

JANUARY 2024

# TOWNSHIP OF LOWER MERION MONTGOMERY COUNTY, PENNSYLVANIA

75 EAST LANCASTER AVENUE ARDMORE 19003





# CALL BEFORE YOU DIG

PA. ACT 287 OF 1974 REQUIRES THREE WORKING DAYS
NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL O

# UTILITY USERS LIST

ACT 187 PA. ONE CALL SY SERIAL NUMBER: 2023003261

ALL DESIGNERS AND CONTRACTORS UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF PENNSYLVANIA ACT 187 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION."

TOWNSHIP OF LOWER MERION 75 E. LANCASTER AVENUE ARDMORE, PA 19003	PHONE	#:	610-649-4000
COMCAST CABLEVISION OF LOWER MERION INC 205 E LEVERING MILL RD BALA CYNWYD, PA 19004	PHONE	#:	610-667-8880
AQUA PENNSYLVANIA INC 762 LANCASTER AVE. BRYN MAWR, PA 19010-3489	PHONE	#:	610-525-1400
PECO ENERGY 3628 HORIZON DRIVE KING OF PRUSSIA, PA 19406	PHONE	#:	610-292-8057
VERIZON PENNSYLVANIA INC 900 RACE STREET, 6th FLOOR PHILADELPHIA, PA 19107	PHONE	#:	610-280-5585

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# SITE PREPARATION AND REMOVAL NOTES

- 1. A FIELD SURVEY OF THE WORK AREA WAS PERFORMED BY PENNONI ASSOCIATES IN AUGUST 2022 AND REVISED FEBRUARY 2023. ADDITIONAL INFORMATION SHOWN IS TAKEN FROM LOWER MERION GEOGRAPHIC INFORMATION SYSTEM (GIS) PLANS. SITE VERTICAL DATUM IS BASED ON LOWER MERION TOWNSHIP VERTICAL DATUM.
- 2. CONTRACTOR IS RESPONSIBLE FOR LAYOUT OF PROPOSED IMPROVEMENTS. THE ENGINEER MUST BE NOTIFIED OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THIS PLAN WHICH MAY AFFECT THE LAYOUT OF THE PROPOSED IMPROVEMENTS PRIOR TO CONSTRUCTION. THE ENGINEER WILL PROVIDE DIRECTION TO RESOLVE CONFLICTS.
- 3. NO WORK OR ACTIVITIES SHALL BE PERFORMED BEYOND THE LIMIT OF WORK LINE.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION OF WORK AREA DURING CONSTRUCTION. WORK AREA MUST BE SECURELY FENCED AT THE END OF EACH WORK DAY.
- 5. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD LOCATE AND RECORD EXISTING PAVING, SIDEWALK, CURB, UTILITIES OR OTHER ITEMS IN AND AROUND THE WORK AREA INCLUDING ANY EXISTING DAMAGE. ENGINEER MUST VERIFY LOCATION AND EXTENT OF DAMAGE.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING ITEMS WITHIN THE WORK AREA NOTED FOR REMOVAL, INCLUDING EXCESS SOIL. AFTER REMOVALS, CONTRACTOR IS RESPONSIBLE FOR BACKFILL, COMPACTION, AND RESTORATION OF DISTURBED AREAS.
- 7. CONTRACTOR SHALL PROTECT ALL BUILDINGS, UTILITIES, FACADES, ENTRANCE PADS, FENCING, SIGNAGE, PLANT MATERIAL, AND OTHER ITEMS TO REMAIN FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR SHALL REPLACE AND/OR RESTORE DAMAGED OR DISTURBED AREAS AS A RESULT OF HIS NEGLIGENCE AT NO ADDITIONAL COST TO THE OWNER TO THE OWNER'S SATISFACTION.
- 8. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF BY THE CONTRACTOR ON A DAILY BASIS.
- 9. ONLY DISTURB AS MUCH AREA AS CAN BE COMPLETED THE SAME DAY. ALL EXPOSED GRADED AREAS THAT CANNOT BE STABILIZED BY THE END OF THE WORK DAY OR BEFORE A STORM EVENT (WHICHEVER IS SOONER), SHALL HAVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN PLACE.

#### **UTILITY NOTES**

- 1. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES ON SITE PRIOR TO COMMENCEMENT OF WORK.
- 2. ALL EXISTING UTILITIES WITHIN THE WORK AREA ARE TO REMAIN. LOCATE AND PROTECT FROM DAMAGE DURING CONSTRUCTION.
- 3. LOCATIONS OF ON AND OFF SITE UTILITIES AS SHOWN ARE APPROXIMATE AND MAY OR MAY NOT BE COMPLETE. THE NATURE AND EXACT LOCATION OF EXISTING UTILITIES SHOULD BE VERIFIED PRIOR TO INITIATING ANY ACTIVITY THAT MAY AFFECT THEIR USE OR LOCATION.
- 4. THE LOCATION OF THE EXISTING UNDERGROUND UTILITIES SHOWN ON HIS PLAN HAVE BEEN TAKEN FROM EXISTING UTILITY RECORDS AVAILABLE AT THE TIME THESE PLANS WERE PREPARED AND FROM SURFACE OBSERVATION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES IS NOT GUARANTEED. CONTRACTOR IS CAUTIONED THAT OTHER UTILITIES NOT SHOWN MY EXIST WITHIN THE PROJECT LIMITS.
- 5. IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 121 OF 2008 ENTITLED "UNDERGROUND UTILITY LINE PROTECTION LAW". THE CONTRACTOR SHALL NOTIFY ALL UTILITIES WITHIN THE WORK AREA VIA THE PENNSYLVANIA ONE CALL SYSTEM, INC. (800-242-1776) A MINIMUM OF 3 WORKING DAYS BEFORE THE START OF EXCAVATION
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND STRUCTURES AND UTILITIES, SUCH AS WATER, SEWER, TELEPHONE AND ELECTRIC CONDUITS, ETC, AND ABOVE GROUND UTILITIES, WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES.

# TREE PROTECTION AND TRIMMING NOTES

- 1. ALL TREES ON SITE, EXCEPT THOSE NOTED TO BE REMOVED, ARE TO REMAIN AND BE PROTECTED. AVOID OPERATING HEAVY MACHINERY WITHIN DRIPLINE OF ALL TREES.
- 2. INSTALL TREE PROTECTION FENCE AROUND DRIPLINE OF ALL TREES WITHIN LIMIT OF WORK AREA. FENCE MAY SURROUND GROUPINGS OF TREES. FENCING SHOWN ON PLANS IS DIAGRAMMATIC AND MUST BE ADJUSTED TO MEET ACTUAL CONDITIONS.
- 3. INSTALL TREE PROTECTION FENCE (CONSTRUCTION FENCE) AROUND THE LIMIT OF WORK AREA AS INDICATED ON THE PLAN AND DETAIL.
- 4. TREE PROTECTION FENCE MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE AND THE TOWNSHIP ARBORIST BEFORE CONSTRUCTION ACTIVITIES BEGIN. CONTRACTOR SHOULD ALLOW TIME FOR MINOR ADJUSTMENTS TO TREE PROTECTION FENCE LOCATIONS.
- 5. IN AREAS WHERE TREE PROTECTION FENCING CONFLICTS WITH PROPOSED WORK, REMOVE TREE PROTECTION FENCING FOR THE DAY TO PERFORM WORK, AND REPLACE AT END OF DAY.
- 6. IF TREE ROOTS ARE ENCOUNTERED DURING EXCAVATION, PROPER ROOT PRUNING MEASURES MUST BE FOLLOWED PER SPECIFICATIONS.
- 7. IF TREE BRANCHES ARE IN THE WAY OF CONSTRUCTION OPERATIONS, CONTRACTOR MUST DISCUSS AND GET APPROVAL FROM TOWNSHIP ARBORIST BEFORE PRUNING IS DONE.

#### TREE REMOVAL NOTES

- 1. AT START OF PROJECT, CONTRACTOR SHALL WALK PROJECT AREA WITH OWNER'S REPRESENTATIVE TO MARK ALL TREES TO BE REMOVED. REMOVAL SHALL INCLUDED GRINDING OF STUMPS TO 6" BELOW FINISHED GRADE WHERE REGRADING IS SHOWN. IF LIMITED SHALLOW OR NO REGRADING IS PROPOSED, THEN STUMP MAY REMAIN IF NOT IN CONFLICT WITH PROPOSED IMPROVEMENTS. EXACT TREES TO BE REMOVED MAY BE REVISED BY OWNER'S REPRESENTATIVE AS REQUIRED PER CONDITIONS AT TIME OF WORK.
- 2. LARGE CALIPER TREES DESIGNATED FOR REMOVAL SHALL BE CUT TO MAXIMUM 8' LONG LOGS AND BE SPREAD OUT AT DESIGNATED AREAS ONSITE BY THE TOWNSHIP.
- CONTRACTOR SHALL COLLECT THE BRUSH AND PROPERLY DISPOSE OF IT. CONTRACTOR MAY DROP BRUSH OFF, AT NO COST, AT THE ROBERT J KOEGEL PUBLIC WORKS COMPLEX AT 1300 N WOODBINE AVENUE, PENN VALLEY, PA 19072. REFER TO THE TOWNSHIP WEBSITE FOR ADDITIONAL INFORMATION.

#### **GRADING NOTES**

- 1. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SURVEY AND LAYOUT OF PROPOSED ELEVATIONS.
- 2. BENCHMARKS ARE PROVIDED ON DRAWINGS. CONTRACTOR TO CROSS-CHECK AND VERIFY BENCHMARKS PRIOR TO CONSTRUCTION.
- TOPSOIL MUST BE REMOVED AND STOCKPILED BEFORE ROUGH GRADING. EXCAVATED SUBGRADE SOIL MAY BE TEMPORARILY STOCKPILED SEPARATELY AND MUST BE REMOVED OFFSITE AND DISPOSED WITHIN 20 DAYS. AFTER ROUGH GRADING, TOPSOIL TO BE RESPREAD OVER GRADED AREAS.
- 4. CONTRACTOR IS RESPONSIBLE FOR GRADING PROPOSED GRADES INTO EXISTING GRADES WITH SMOOTH, EVEN TRANSITIONS, ROUNDING OUT ALL MOUNDS AND DEPRESSIONS.
- COIR LOG PLACEMENT: ELEVATIONS SHOWN ARE TOP OF COIR LOG. COIR LOGS ARE TO BE SLOPED TO FOLLOW WATER ELEVATIONS. THESE ELEVATIONS MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO MEET FLOW ELEVATIONS, AS DIRECTED BY OWNER'S REPRESENTATIVE. CONTRACTOR MUST ALERT OWNER'S REPRESENTATIVE OF COIR LOG ELEVATIONS NOT MATCHING WATER FLOW BEFORE PLACEMENT OF LOG.
- 6. BOULDER PLACEMENT: ELEVATIONS SHOWN ARE FOR THE TOP OF BOULDER. BOULDERS MUST BE PLACED LEVEL AND STEPPED AS SHOWN. NUMBER OF STACKED BOULDERS IS AS REQUIRED TO PROVIDE ONE FULL BOULDER (2' MIN) BELOW FINISHED GRADE. SEE BOULDER DETAIL FOR MORE INFORMATION.
- 7. AFTER AREAS ARE GRADED, INSTALL SEED, MULCH AND COIR MAT IMMEDIATELY.
- 8. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXCESS SOIL FROM SITE. THE QUANTITY FOR SOIL REMOVAL AND DISPOSAL IS A LUMP SUM ITEM IN THE BID. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITY OF SOIL TO BE REMOVED FROM THE SITE. FOR REFERENCE ONLY, THE ESTIMATED QUANTITY OF SOIL REMOVAL IS 1100 CY TO 1200 CY, AND DOES NOT ACCOUNT FOR SHRINK AND SWELL FACTORS.

# **EROSION AND SEDIMENT CONTROL MEASURE NOTES**

- 1. ALL EARTH DISTURBANCES. INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE E&S PLAN. A COPY OF THE DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. NOTIFY THE ENGINEER OF ANY CHANGES TO THE E&S PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES.
- 2. 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
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE OFFICE OF THE TOWNSHIP ENGINEER PRIOR TO IMPLEMENTATION.
- 4. PLASTIC BARRIER FENCE IS TO BE ERECTED AROUND ALL TREES IN WORK AREA LARGER THAN 2" DBH.
- 5. 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.
- 6. 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.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION.
- 9. ALL DEMOLISHED / EXCAVATED MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH THE PADEP SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO MATERIALS OR WASTES OR UNUSED MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

- 10. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO PADEP STANDARD PROCEDURES, OVER UNDISTURBED VEGETATED AREAS.
- 11. THE FILTER BAG IN THE STREAM MUST BE REMOVED NIGHTLY. FILTER BAG IS TO BE PLACED WHERE WATER DISCHARGE FROM FILTER BAG WILL NOT CAUSE FURTHER EROSION.
- 12. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 13. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE UPON REQUEST.
- 14. SEDIMENT TRACKED ONTO ANY DRIVEWAY AND PUBLIC ROADWAY SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- 15. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF PROPERLY.
- 16. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL.
- 17. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. SEED, PLANT, ETC. PER LANDSCAPE AND SITE PLANS.
- 18. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- 19. 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.
- 20. 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.
- 21. 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.
- 22. 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.
- 23. 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.
- 24. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE TOWNSHIP ENGINEER FOR AN INSPECTION PRIOR TO THE REMOVAL/ CONVERSION OF THE E&S BMPS.
- 25. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE TOWNSHIP ENGINEER TO SCHEDULE A FINAL INSPECTION.

# TEMPORARY AND PERMANENT STABILIZATION

- 1. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- 2. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGARDING, RESEEDING, REMULCHING, AND RENETTING, MUST BE DONE IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED. E&SPCPM P. 168

#### STREAM DIVERSION NOTES

- 1. PROPOSED STAGING AND LOCATION OF STREAM DIVERSION MEASURES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR MAY PROVIDE AN ALTERNATE WORK PLAN WITH ADJUSTMENTS TO THE LOCATION, NUMBER OF STAGES, ETC FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO START OF WORK.
- 2. REFER TO DETAILS ON SHEET CS-6002.

#### PREPAREDNESS PREVENTION AND CONTINGENCY PLAN

- 1. THE ONLY POTENTIAL FOR AN ACCIDENTAL DISCHARGE OF CHEMICALS. OR OTHER HAZARDOUS MATERIALS ARE THOSE ASSOCIATED WITH THE OPERATION OF EARTH MOVING EQUIPMENT. EQUIPMENT MAY BE PARKED ON SITE OVERNIGHT AT AREAS WITHIN WORK AREA AND AT LEAST 20 FEET AWAY FROM ANY STREAM EDGE. IF THERE IS AN ACCIDENTAL DISCHARGE FROM EARTH MOVING EQUIPMENT THE CONTRACTOR IS RESPONSIBLE FOR DEPLOYING IMMEDIATE ACTION TO CONTAIN THE DISCHARGE. WHILE CONTAINING THE DISCHARGE THE CONTRACTOR WILL CONTACT A LICENSED AND BONDED FIRM TO CLEANUP AND MITIGATE DISCHARGE.
- CONTRACTOR WILL HAVE ON SITE A CONTAINMENT KIT WITH AT LEAST A CONTAINMENT BOOM AND ABSORBENT AT A MINIMUM. THE EMERGENCY CONTACT PHONE NUMBERS ARE:
  - 24 HOUR RESPONSE: (717) 705-4700
  - NATIONAL RESPONSE CENTER: (800) 424-8802

#### SEQUENCE OF CONSTRUCTION

- 1. CONSTRUCTION WILL BEGIN UPON RECEIPT OF ALL NECESSARY APPROVALS AND PERMITS FROM ALL APPLICABLE GOVERNMENTAL AGENCIES.
- 2. CONTRACTOR MUST CONTACT UNDERGROUND UTILITIES AS PER ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996, NOT LESS THAN THREE DAYS, NOR MORE THAN 10 WORKING DAYS BEFORE COMMENCING WITH ANY EARTHWORK OR CONSTRUCTION.
- CONDUCT A PRECONSTRUCTION MEETING WITH OFFICE OF TOWNSHIP ENGINEER, LOWER MERION TOWNSHIP, AND OTHER PARTIES INVITED BY TOWNSHIP, PRIOR TO ANY DISTURBANCE. THE PRECONSTRUCTION MEETING WILL BE HELD ONSITE TO REVIEW THE STAGING AREAS. SCHEDULE, FIELD CONFIRM LOCATION OF TEMPORARY STREAM ACCESS POINTS, FIELD CONFIRM TREES TO BE REMOVED, ETC. AT LEAST ONE EXISTING STREAM ACCESS POINT SHALL BE AVAILABLE FOR PUBLIC USE AT ALL TIMES. SUGGESTED STAGING FOR SUCH IS SHOWN AND CAN BE ADJUSTED BASED ON SEQUENCE OF WORK, ETC.
- PRIOR TO PROCEEDING WITH CONSTRUCTION, CONFIRM LOCATION AND ELEVATION OF ALL EXISTING UTILITIES. MAINTAIN AND PROTECT EXISTING UTILITIES TO REMAIN.
- CONTRACTOR TO LIMIT WORK AREA TO THAT AREA WHICH CAN BE STABILIZED IN ONE DAY.
- 6. EROSION AND SEDIMENTATION CONTROL MUST BE INSTALLED AND STABILIZED PRIOR TO ANY DISTURBANCE.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
- 8. INSTALL TEMPORARY TREE PROTECTION AND ORANGE CONSTRUCTION FENCE. CONTRACTOR MUST MAINTAIN COMPLETE ENCLOSURE AROUND EACH ACTIVE WORK AREA. THE CONTRACTOR, AT THEIR DISCRETION. MAY FURTHER STAGE INTO SMALLER WORK AREAS, AND ADJUST THE FENCE ACCORDINGLY. CLOSE CONSTRUCTION ACCESS POINTS AT ANY TIME CONTRACTORS ARE NOT ACTIVELY WORKING ON SITE.
- 9. INSTALL TEMPORARY STREAM CROSSING AS NECESSARY.
- 10. REMOVE ALL SELECTED TREES FROM THE STREAMBANK; REMOVE TREE ROOTS THAT WILL INTERFERE WITH CONSTRUCTION.
- 11. INSTALL TEMPORARY COFFERDAM AND PUMPS FOR APPLICABLE STAGE.
- 12. MOW ALL PROPOSED GRADING AREAS TO GROUND LEVEL AND REMOVE VEGETATION.
- 13. DEEP ROTOTILL ALL AREAS BEFORE GRADING.
- 14. ROUGH GRADE.
- 15. INSTALL SILT FENCE AT EDGE OF STREAM BED AT END OF EACH WORK DAY OR BEFORE STORM EVENT (WHICHEVER IS SOONER) WHERE EARTHWORK IS UNDERWAY AND NOT STABILIZED YET. STABILIZATION SHALL BE CONSIDERED IN THE FORM OF COIR MAT, VEGETATION, STONE, PAVING, OR UNIT CONSTRUCTION.
- CONSTRUCT INSTREAM IMPROVEMENTS.
- 17. INSTALL BOULDERS AND/OR COIR LOGS AT EDGE OF STREAM.
- 18. FINISH GRADE AND RAKE SMOOTH.
- 19. PLANTED AREAS: INSTALL COIR MAT AND PLANT MATERIAL PER SPECIFICATIONS.
- 20. RESTORE DISTURBED AREAS FROM CONSTRUCTION ACTIVITIES.
- 21. CLEAN UP ALL DEBRIS AT THE END OF EACH DAY.
- 22. REMOVAL OF EROSION CONTROL MEASURES SHALL OCCUR UPON 75% UNIFORM STABILIZATION OF DISTURBED TRIBUTARY AREA OF CONTROL.
- 23. REMOVE EXCESS CONSTRUCTION MATERIAL AND DEMOBILIZE.

# **EXISTING LEGEND:**

——- 100 · — EXISTING CONTOUR

———— EXISTING EDGE OF WATER

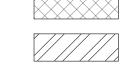
EXISTING GUIDERAIL

—— – EXISTING STREAM CENTERLINE **EXISTING TREE EXISTING WETLAND AREA** 5+00 STREAM CENTERLINE STATIONING APPROXIMATE PROPERTY LINE **EXISTING STONE BANK** EXISTING STORM PIPE EXISTING SANITARY PIPE ----- OE ----- EXISTING OVERHEAD POWER LINE

#### DEMO AND E&S LEGEND:

—— SF-18 —— 18" SILT FENCE TREE PROTECTION FENCE ——■ CONSTRUCTION FENCE LIMIT OF WORK

## SITE IMPROVEMENT LEGEND:



PROPOSED COIR MAT

PROPOSED PERMANENT MAT

PROPOSED RIPRAP APRON

PROPOSED IMBRICATED RIPRAP

**EXISTING SANITARY MANHOLE** 

**EXISTING STORM MANHOLE** 







——100—— PROPOSED MAJOR CONTOUR

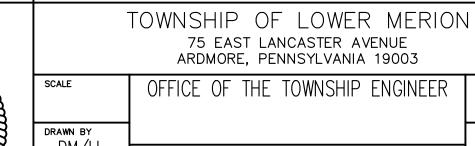
—— PROPOSED MINOR CONTOUR

ADDED TREE REMOVAL NOTE 3. & 02/14/2024 REVISED GRADING NOTE 8. BY APPR DATE REVISIONS ASHBRIDGE MEMORIAL PARK

1301 MONTGOMERY AVENUE

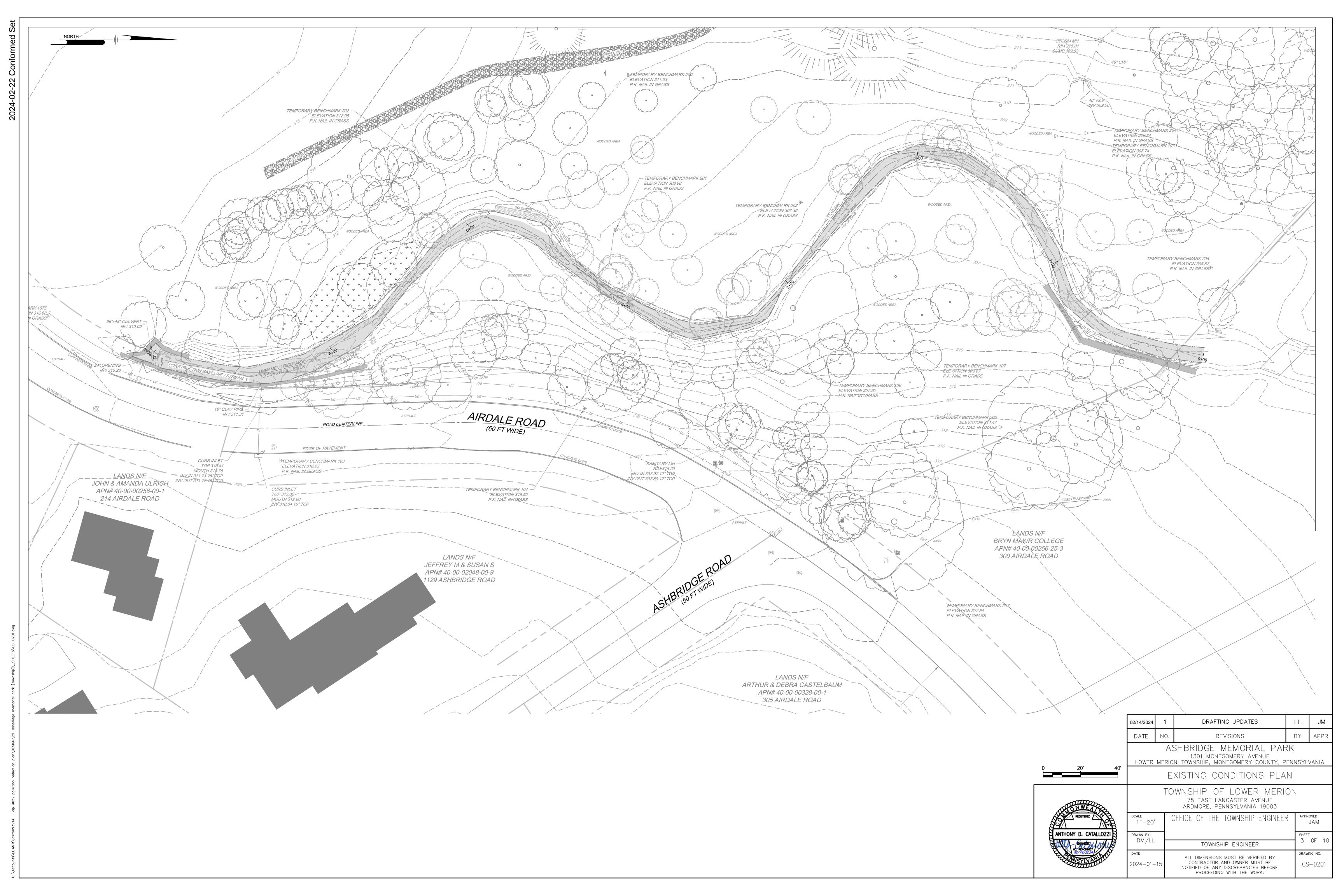
LOWER MERION TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

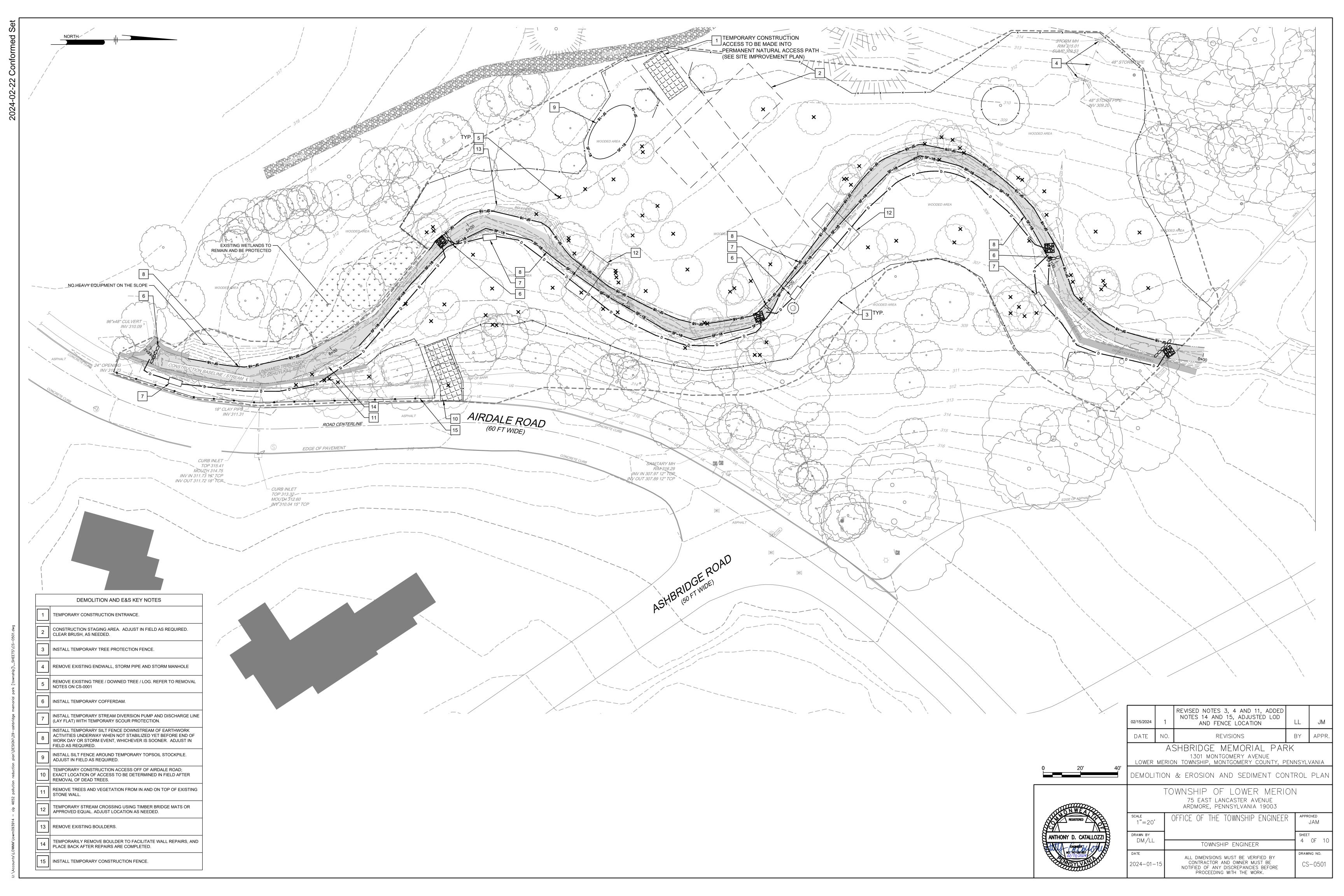
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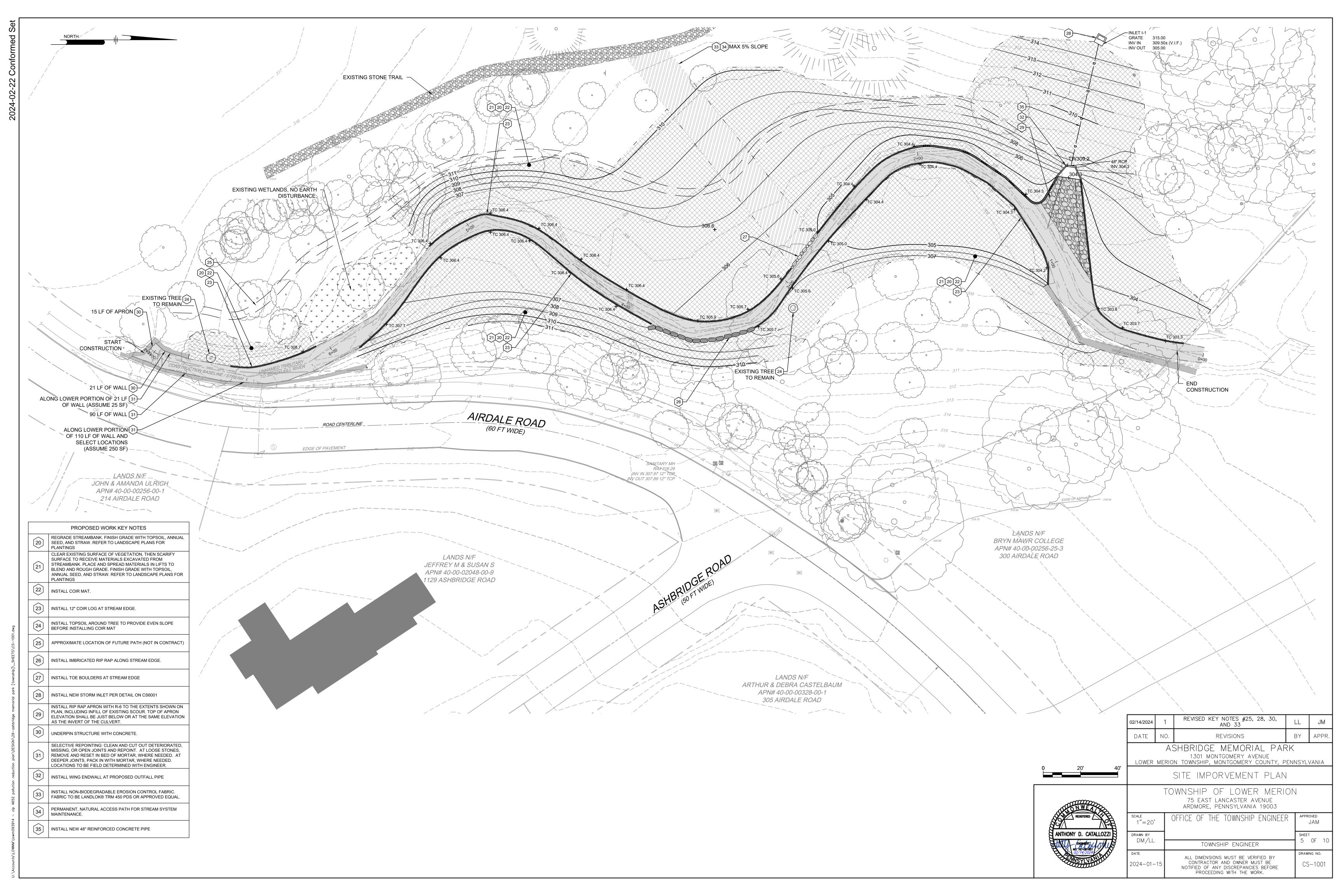


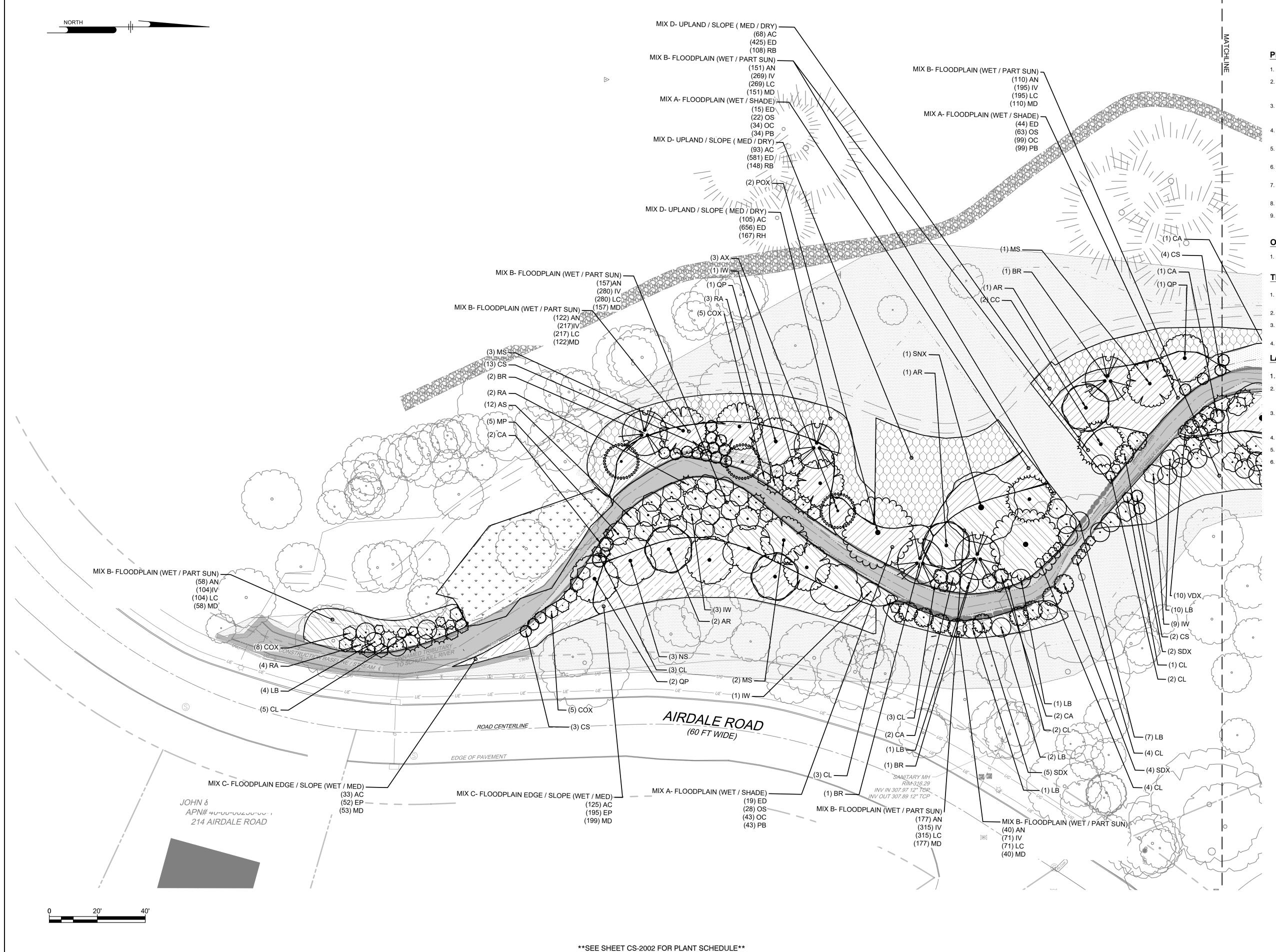
ARDMORE, PENNSYLVANIA 19003 OFFICE OF THE TOWNSHIP ENGINEER 2 OF 10 DM/LL TOWNSHIP ENGINEER DRAWING NO. ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE 2024-01-15 CS-0101 NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.











#### **PLANTING NOTES:**

- 1. CONTRACTOR MUST TEST AND AMEND EXISTING TOPSOIL. SEE NOTES ON DWG CS6001.
- FINAL GRADING AND INSTALLATION OF COIR MATS MUST BE COMPLETED BEFORE PLANTING. COIR MATS MAY BE CUT TO THE MINIMUM SIZE REQUIRED TO ACCOMMODATE ROOT BALLS OF TREES AND SHRUBS. PLUGS SHALL BE PLANTED IN THE COIR MAT OPENINGS WITH NO CUTTING.
- 3. NOTIFY ALL UTILITY COMPANIES AND LOCATE ALL EXISTING AND NEW UTILITIES PRIOR TO EXCAVATING PLANT PITS. PLANT LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID INTERFERENCE WITH UNDERGROUND UTILITIES, WITH APPROVAL OF THE
- 4. SHOULD ANY DISCREPANCY ARISE BETWEEN THE PLANTING PLAN AND THE PLANTING SCHEDULE, THE PLAN SHALL GOVERN AS TO THE QUANTITY OF PLANT MATERIAL TO BE INSTALLED.
- ALL PLANT MATERIAL SHALL BE OF NURSERY STOCK QUALITY AS DEFINED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. ALL PLANT MATERIAL TO BE GUARANTEED TO LIVE AT LEAST 18 MONTHS AFTER COMPLETION OF THE PROJECT.
- 6. ALL PLANT MATERIAL SHALL BE APPROVED UPON ARRIVAL TO THE SITE. NOTIFY THE LANDSCAPE ARCHITECT A MINIMUM OF THREE
- 7. ALL PLANT LOCATIONS SHALL BE STAKED IN THE FIELD AND LOCATIONS APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO
- 8. PROPOSED PLANT MATERIAL MAY BE SUBSTITUTED BY SIMILAR PLANTS, SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.
- MULCH SHALL BE AN AGED, DOUBLE SHREDDED HARDWOOD BARK MULCH OR COMPOSTED LEAF MULCH. MULCH SHALL BE FREE OF WEEDS. GRASS CLIPPINGS ARE NOT ACCEPTABLE. MULCH SHALL BE PLACED EVEN AND LEVEL TO A DEPTH OF 3". NO MULCH SHALL BE PILED AGAINST TRUNKS, STEMS, CROWNS, OR ROOT FLARES AT BASE OF SHRUBS.

#### **OVERSEEDING NOTES:**

1. IMMEDIATELY AFTER INSTALLATION OF COIR MAT, SEED LANDSCAPE AREAS WITH ANNUAL RYEGRASS AT A RATE OF 5 LBS PER 1,000 SF, FOR IMMEDIATE STABILIZATION. LEAVE SEED/GRASS IN PLACE WHEN INSTALLING PERMANENT PLANTINGS.

#### **TEMPORARY SEEDING NOTES:**

- AFTER FINISHED GRADING OF STREAM BANKS, BUT BEFORE INSTALLATION OF COIR MAT, INSTALL ANNUAL RYEGRASS SEED OVER ENTIRE BANK AREA. USE A QUICK GERMINATING SEED SUCH AS PENNINGTON ANNUAL RYEGRASS SEED OR APPROVED EQUAL.
- SOW THE GRASS SEED BY EVENLY SPREADING SEED, PER SEEDING SPECIFICATIONS. APPLY SEED AT A RATE OF 10 LBS/1,000 SF.
- SPREAD CLEAN STRAW MULCH OVER SEEDED AREAS PER SEEDING SPECIFICATIONS. APPLY STRAW AT A RATE OF 2 TONS/ACRE TO FORM A CONTINUOUS BLANKET OVER SEEDED AREAS.
- 4. KEEP THE AREA WATERED AND MAINTAINED PER SEEDING SPECIFICATIONS.

#### LAWN SEEDING AND LAWN RESTORATION NOTES:

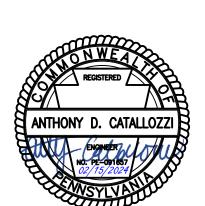
- APPLY LAWN SEED TO ALL AREAS INDICATED ON PLAN AND ALL LAWN AREAS DISTURBED BY CONSTRUCTION.
- RUTS AND TIRE MARKS LEFT BY CONSTRUCTION VEHICLES MUST BE RESTORED, TO INCLUDE LOOSENING OF THE COMPACTED SOIL, REMOVING MOUNDS AND CLUMPS, FILLING DEPRESSIONS, AND RAKING TOPSOIL TO PROVIDE SMOOTH LAWN SURFACE BEFORE
- BEFORE SEEDING, CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO TOPSOIL TESTS, IN LOCATIONS AS APPROVED BY THE ENGINEER. ALL APPLICATIONS OF FERTILIZER OR OTHER SOIL AMENDMENTS SHALL BE MADE PER SOIL TEST RECOMMENDATIONS. TOPSOIL MUST MEET ALL SPECIFICATION REQUIREMENTS.
- REFER TO CS-2002 FOR LAWN SEED NOTES.
- 5. SEED, MULCH, WATER, AND MAINTAIN SEEDED AREAS PER SPECIFICATIONS.
- RESEED BARE OR THIN AREAS AS DIRECTED BY THE ENGINEER/LANDSCAPE ARCHITECT.

02/15/2024	1	LANDSCAPE MODIFICATIONS & DRAFTING UPDATES	LL	JM					
DATE	NO.	REVISIONS	BY	APPR.					
LOWER	ASHBRIDGE MEMORIAL PARK  1301 MONTGOMERY AVENUE LOWER MERION TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA								

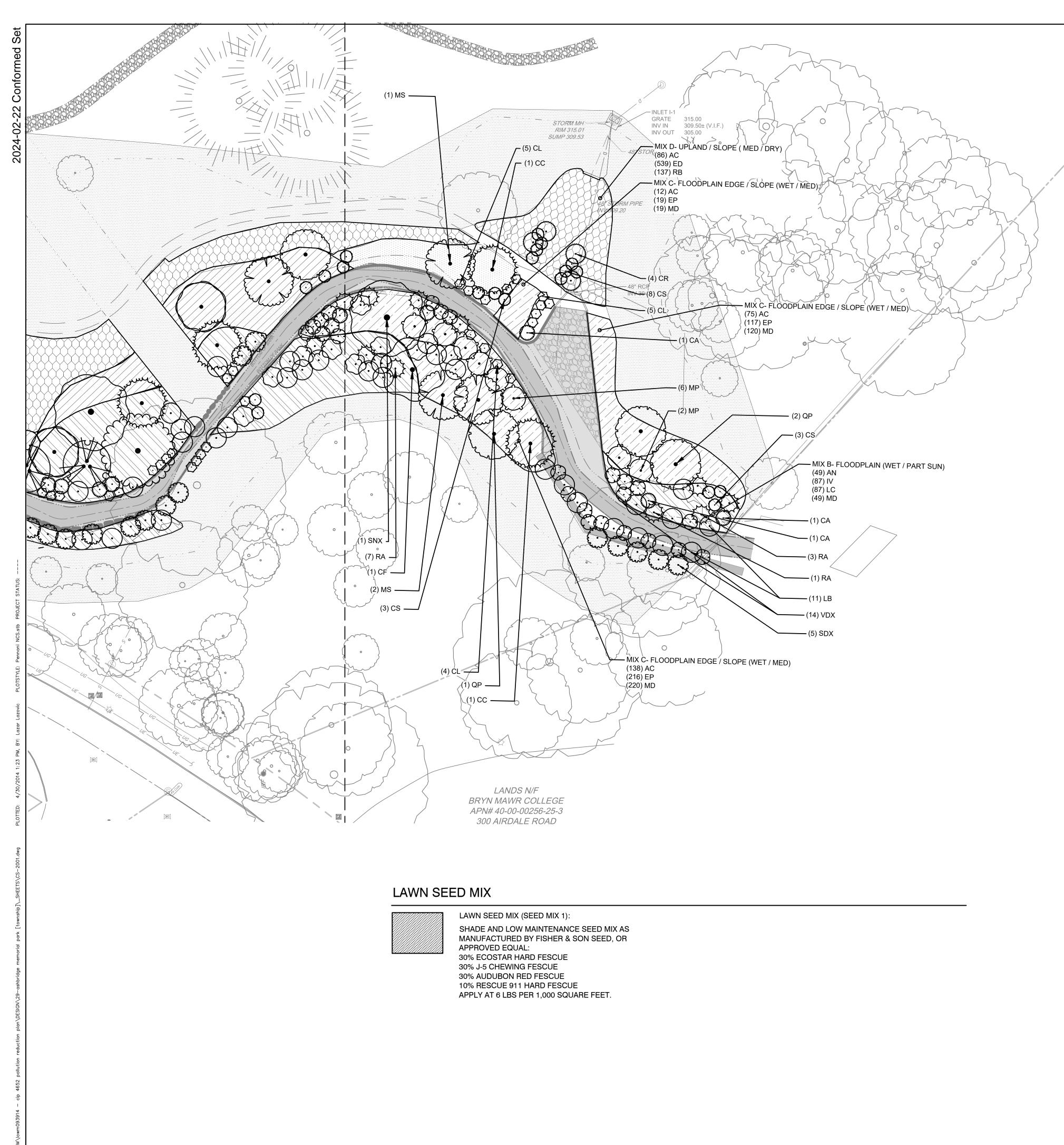


TOWNSHIP OF LOWER MERION
75 EAST LANCASTER AVENUE
ARDMORE, PENNSYLVANIA 19003

SCALE
1"=20" OFFICE OF THE TOWNSHIP ENGINEER



	ARDMORE, PENNSYLVANIA 19003		
1"=20'	OFFICE OF THE TOWNSHIP ENGINEER	approved JAM	
RAWN BY		SHEET 6 OF 10	
DM/LL	TOWNSHIP ENGINEER	6 OF 10	
ATE	ALL DIMENSIONS MUST BE VERIFIED BY	DRAWING NO.	
)24-01-15	CONTRACTOR AND CHANGE AND TO	CS-2001	



# PLANT SCHEDULE - TREES and SHRUBS

KEY	QTY	BOTANICAL NAME	COMMON NAME	INITIAL SIZE	ROOT	NOTES	INUNDATION TOLERANCE	HYDROLOGIC ZONE
		SHADE TREES						
AR	4	Acer rubrum	Red Maple	2"-2 1/2" cal.	B&B		seasonal	3+
BR	5	Betula nigra	River Birch	1 1/2"-2" cal.	B&B	MULTI-STEM	seasonal	5-
NS	3	Nyssa sylvatica	Black Gum	2"-2 1/2" cal.	B&B		seasonal	2-5
QP	7	Quercus phellos	Willow Oak	2"-2 1/2" cal.	B&B		seasonal	5-
		UNDERSTORY TREES						
AX	3	Amalanchier grandiflora	Serviceberry	1 1/2"-2" cal.	B&B	MULTI-STEM	seasonal	4,5,6
CC	4	Cercis canadensis	Eastern Redbud	1 1/2"-2" cal.	B&B		no	4,5,6
CF	1	Cornus florida	Flowering Dogwood	1 1/2"-2" cal.	B&B		no	4,5,6
MV	9	Magnolia virginiana	Sweetbay Magnolia	1 1/2"-2" cal.	B&B		seasonal	5-
		SHRUBS						
AS	12	Alnus serrulata	Hazel (Smooth) Alder	36" ht. min.	#5 Cont.		saturated	3-
CL	41	Clethra alnifolia	Summersweet	24" ht. min.	#3 Cont.		seasonal	5-
CA	11	Cornus amomum	Silky Dogwood	24" ht. min.	#3 Cont.		seasonal	5-
CR	4	Cornus racemosa	Gray Dogwood	36" ht. min.	#5 Cont.		seasonal	3+
CS	36	Cornus sericea	Red Twig Dogwood	24" ht. min.	#3 Cont.		seasonal	5-
IW	14	llex verticillata	Winterberry	24" ht. min.	#3 Cont.		seasonal	5-
LB	37	Lindera benzoin	Spicebush	24" ht. min.	#3 Cont.		seasonal	3,4,5
MP	13	Myrica penslvanica	Northern Bayberry	24" ht. min.	#3 Cont.		seasonal	5-
RA	20	Rhus aromatica	Fragrant Sumac	24" ht. min.	#3 Cont.			dry-med

All trees and shrubs listed above are on the PADEP Pennsylvania Native Plant List, except other native plants noted with an \*.

# PLANT SCHEDULE - LIVE CUTTINGS

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
		TREES			
POX	2	Platanus occidentalis	American Sycamore	4' stake	8' O.C.
SNX	2	Salix nigra	Black Willow	4' stake	8' O.C.
		SHRUBS			
COX	18	Cephalanthus occidentalis	Buttonbush	2' stake	
SDX	16	Salix discolor	Pussywillow	2' stake	
VDX	24	Viburnum dentatum	Arrowwood	4' stake	

# PLANT SCHEDULE - PLUGS - PERENNIALS and ORNAMENTAL GRASSES

	KEY	QTY	BOTANICAL NAME COMMON NAME		SPACING	ROOT	HYDROLOGIC ZONE	EXP.
			MIX A - FLOODPLAIN (WET / SHAI					
	ED	78	Eurybia divaricata	White Wood Aster	36" O.C.	Plug	4+ dry-m	part to full shade
	os	113	Onoclea sensibilis	Sensitive Fern	30" O.C.	Plug	5- m-w	part to full shade
	ОС	176	Osmunda cinnamomea	Cinnamon Fern	24" O.C.	Plug	2+ m-w	part to full shade
*	★ PB 176 Polygonatum biflorum		Solomon's Seal	24" O.C.	Plug	med to wet	part shade to full shade	
			MIX B - FLOODPLAIN (WET / PART	SUN)				
	AN	676	Aster novae-angliae	New England Aster	24" O.C.	Plug	5- med	full sun
	IV	1,202	Iris versicolor	Blue Flag	18" O.C.	Plug	2+ m-w	Full sun to part shade
	LC	1,202	Lobelia cardinalis	Cardinal Flower	18" O.C.	Plug	3,4 m-w	full sun to part shade
	MD 676 Monarda didyma		Bee Balm	24" O.C.	Plug	6- m-w	full sun to part shade	
			MIX C - FLOODPLAIN EDGE / SLO	PE (WET-MED)				
	AC	383	Aquilegia canadensis	Wild Columbine	30" O.C.	Plug	6- med	full sun to part shade
	EP	599	Eupatorium purpureum	Purple Joe-pye-weed	24" O.C.	Plug	3+ med	full sun to part shade
	MD 611 Monarda didyma		Bee Balm	24" O.C.	Plug	6- m-w	full sun to part shade	
			MIX D - UPLAND / SLOPE (MED-D					
	AC	352	Aquilegia canadensis	Wild Columbine	30" O.C.	Plug	6- med	full sun to part shade
	ED 2,201 Eurybia divaricata W		White Wood Aster	12" O.C.	Plug	4+ dry-m	part to full shade	
	RH	560	Rudbeckia hirta	Black-eyed Susan	24" O.C.	Plug	4+ med	full to part sun



1301 MONTGOMERY AVENUE LOWER MERION TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

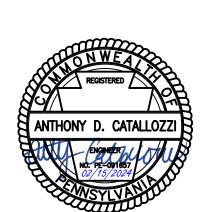
LANDSCAPE NOTES

TOWNSHIP OF LOWER MERION

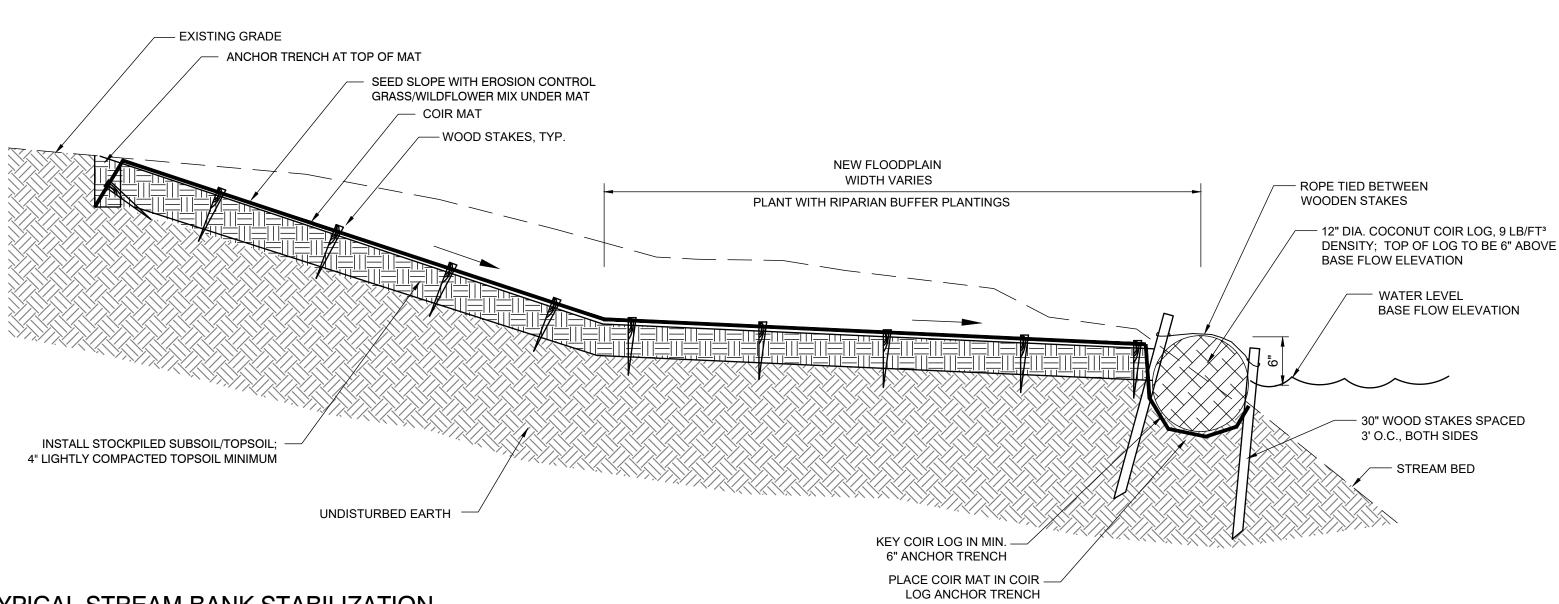
75 EAST LANCASTER AVENUE

ARDMORE PENNSYLVANIA 19003

	ARDMORE, PENNSYLVANIA 19003		
1"=20'	OFFICE OF THE TOWNSHIP ENGINEER	approved JAM	
DRAWN BY  DM/LL		SHEET	
DM/LL	TOWNSHIP ENGINEER	7 OF 10	
DATE	ALL DIMENSIONS MUST BE VERIFIED BY	DRAWING NO.	
024-01-15	CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.	CS-2002	



N.T.S.



# TYPICAL STREAM BANK STABILIZATION COIR LOG ALONG EDGE OF STREAM AND NEW FLOODPLAIN

SLOPE AND FLOODPLAIN STABILIZATION NOTES:

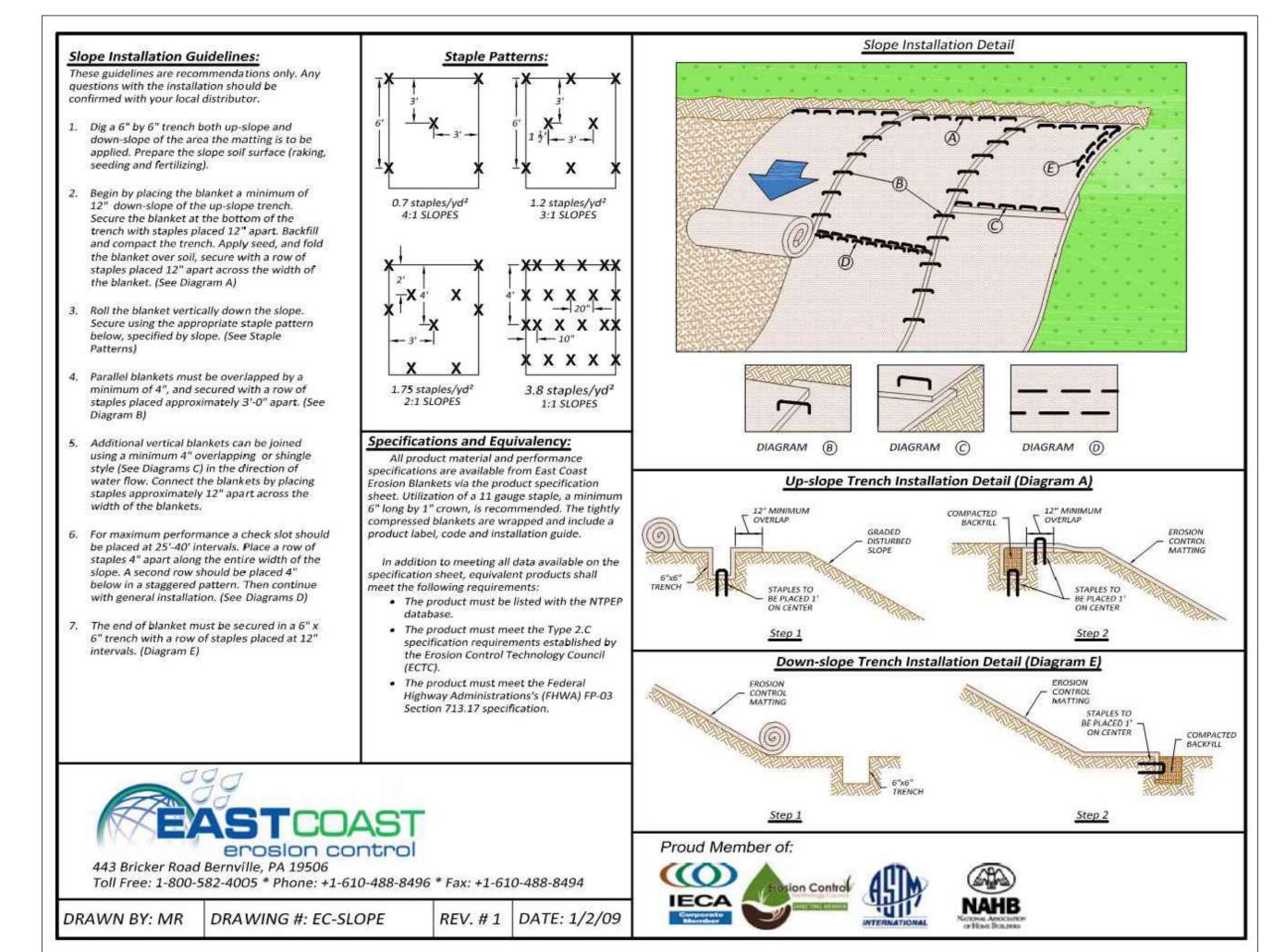
- 1. COIR MAT TO BE A 100% ORGANIC, BIODEGRADABLE MAT MADE FROM COCONUT COIR FIBER, AS SUPPLIED BY EAST COAST EROSION CONTROL, OR APPROVED EQUAL. www.eastcoasterosion.com.
- 1.1. EC-7Y 700 GRAM COIR MAT, TO WITHSTAND SHEAR STRESS OF 4.50 LBS/SF, VELOCITY OF 12.0 FT/S, C FACTOR 0.0033, AND 41% OPEN AREA.
- 2. SITE PREPARATION 2.1. REMOVE AND STOCKPILE TOPSOIL FOR REINSTALLATION.
- 2.2. EXCAVATE TO SUBGRADE USING LIGHT EQUIPMENT. DO NOT COMPACT OR GLAZE SURFACE OF EXISTING SUBGRADE.
- 2.3. SPREAD EXISTING TOPSOIL.
- 2.4. GRADE SURFACE SO THAT GROUND IS SMOOTH AND FREE OF LUMPS AND DEPRESSIONS. REMOVE ALL ROCK, DIRT CLODS, GRASS CLUMPS, TRASH AND OTHER OBSTRUCTIONS WHICH WOULD PREVENT MAT FROM LYING IN DIRECT CONTACT WITH SOIL SURFACE.

2.5. EXCAVATE TOP AND BOTTOM ANCHOR TRENCHES BEFORE PLACING MAT.

- 3.1. SEED IN ACCORDANCE WITH SEEDING NOTES.
- 3.2. COVER SEED WITH  $\frac{1}{8}$  SOIL AND LIGHTLY COMPACT.
- 3.3. MULCH SEED WITH CLEAN STRAW.
- 4. INSTALL COIR MAT PER MANUFACTURER'S DIRECTIONS, SEE DETAIL.

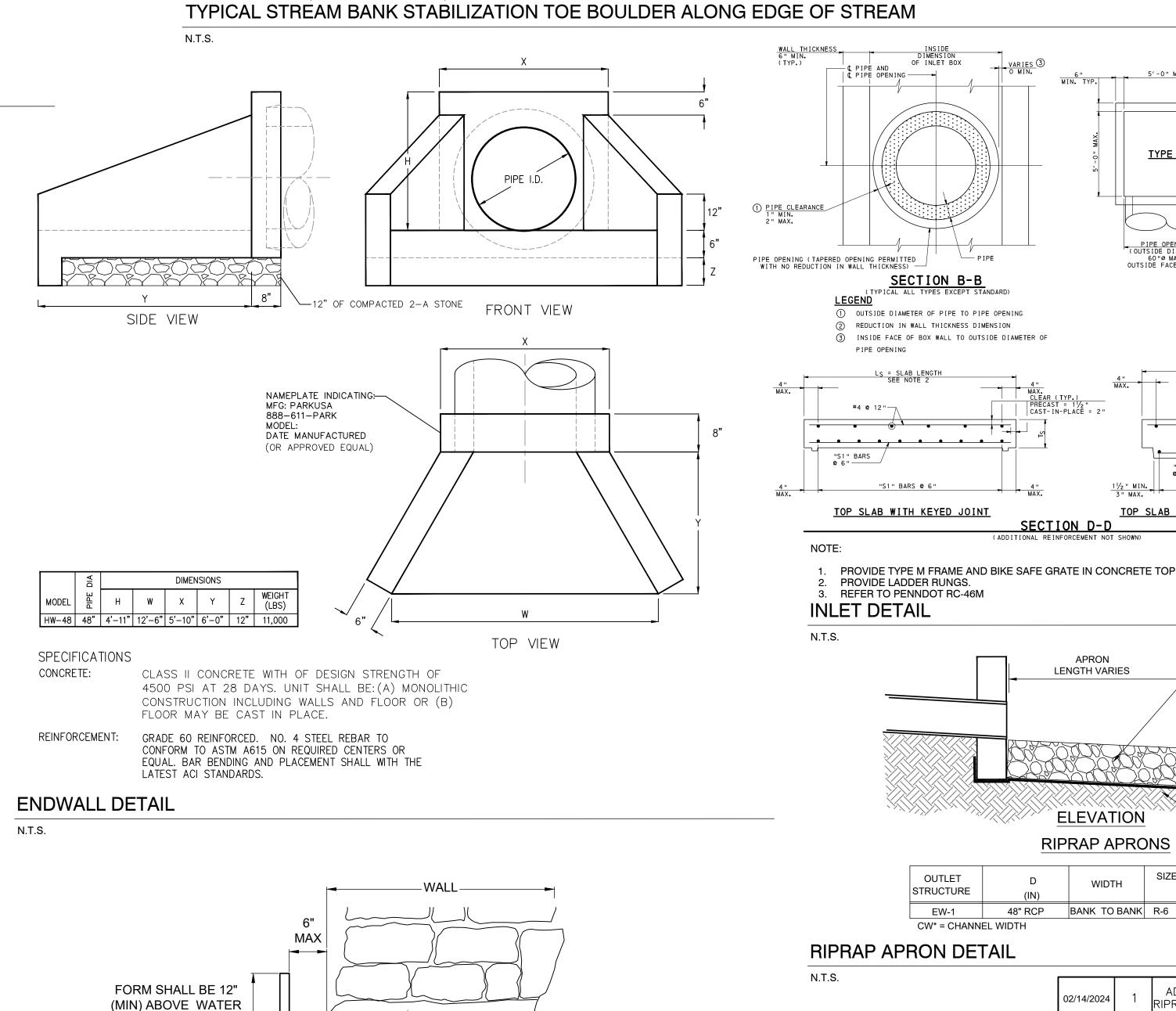
#### 5. 7. PLANTING

a. INSTALL PLANTS IN COIR MAT. CUT MAT ONLY AS REQUIRED AS OUTLINED IN PLANTING NOTES AND RESECURE MAT.



# **COIR MAT INSTALLATION**

N.T.S.



<-12" MIN-<del>--</del>

-REMOVE / EXCAVATE

**ALL SOFT MATERIALS** 

-4000 PSI CONCRETE WITH

TYPE III CEMENT

-EXISTING VOID VARIES IN

HEIGHT AND DEPTH

- EXISTING GRADE

INSTALL STOCKPILED SUBSOIL/TOPSOIL

1. INSTALL COIR MAT AS DETAILED ON THIS SHEET

UNDISTURBED EARTH

a. NEW BOULDER SIZE: 12" HIGH x 24" LONG x 12" WIDE MINIMUM

4" LIGHTLY COMPACTED TOPSOIL MINIMUM

2. TOE BOULDERS:

SURFACE ELEVATION

FOR 24 HOURS AFTER POUR

**NOTES: ASSUME 2 CF** 

OF EXCAVATION AND

N.T.S.

CONCRETE PER FOOT

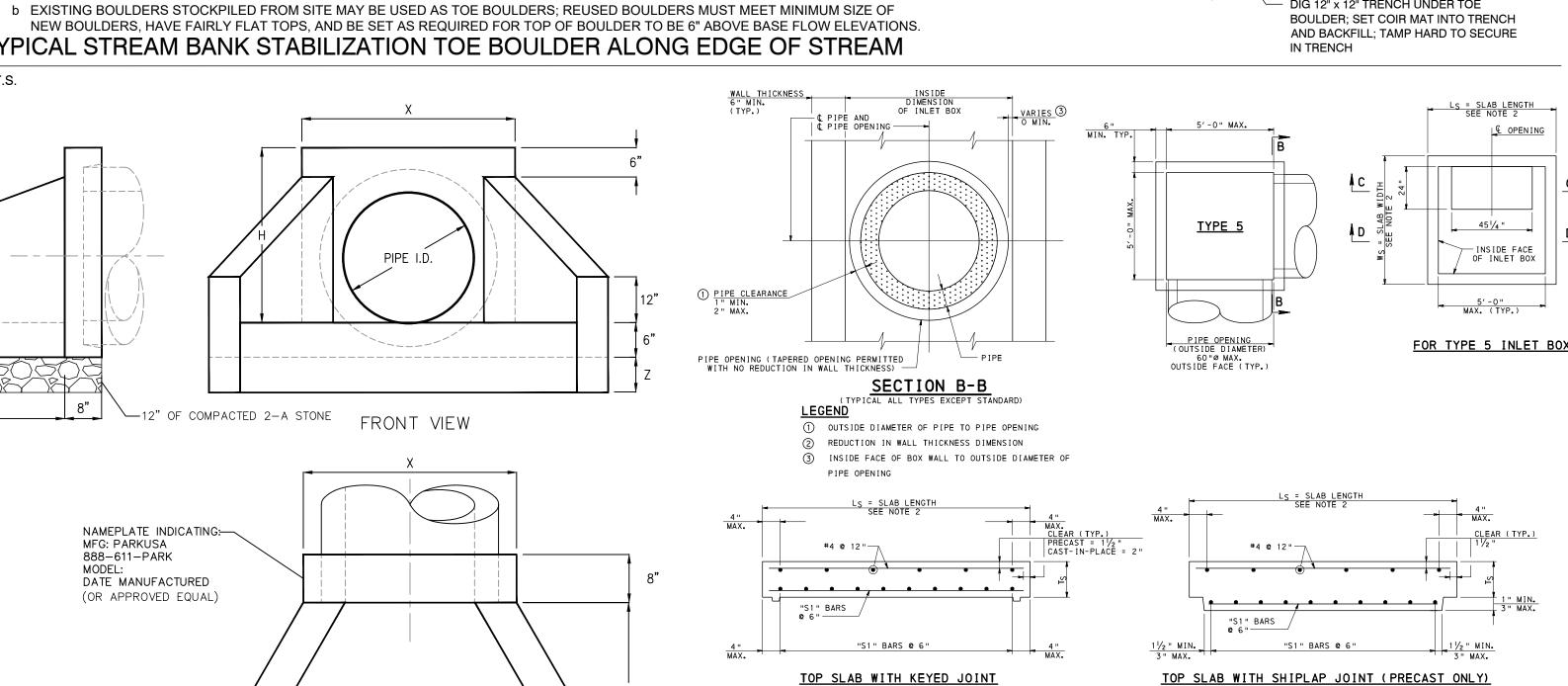
WALL UNDERPINNING DETAIL

ANCHOR TRENCH AT TOP OF MAT

SEED SLOPE UNDER MAT

INSTALL PLANTS PER LANDSCAPE PLAN

- WOOD STAKES, TYP.



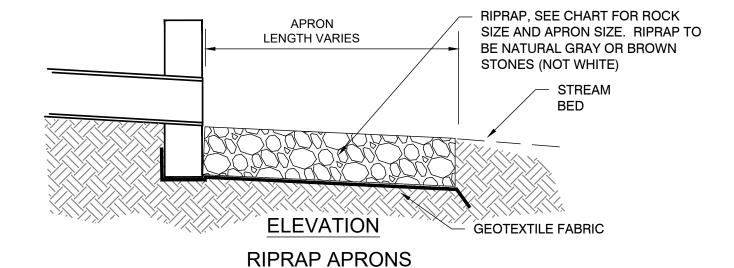
SECTION D-D

REFER TO PENNDOT RC-46M **INLET DETAIL** 

NEW FLOODPLAIN

WIDTH VARIES

PLANT WITH RIPARIAN BUFFER PLANTINGS



SIZE PLACEMENT d50 OUTLET THK. (IN) STRUCTURE 48" RCP BANK TO BANK R-6 EW-1 36 12

# RIPRAP APRON DETAIL

02, 1 1, 202 1	,	RIPRAP APRON, REVISED INLET DETAIL		
DATE	NO.	REVISIONS	BY	API
LOWER	SHBRIDGE MEMORIAL PAF 1301 montgomery avenue n township, montgomery county, p		/ANI/	

CONSTRUCTION DETAILS - 1

ADDED UNDERPINNING DETAIL AND

ROPE TIED BETWEEN WOODEN STAKES

TOE BOULDER, SEE NOTES. TOP OF

WATER LEVEL

**BOULDER 6" ABOVE BASE FLOW ELEVATION** 

BASE FLOW ELEVATION

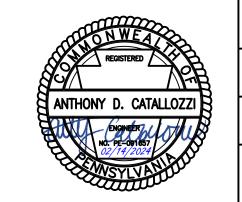
30" WOOD STAKES SPACED

- STREAM BED

3' O.C., BOTH SIDES

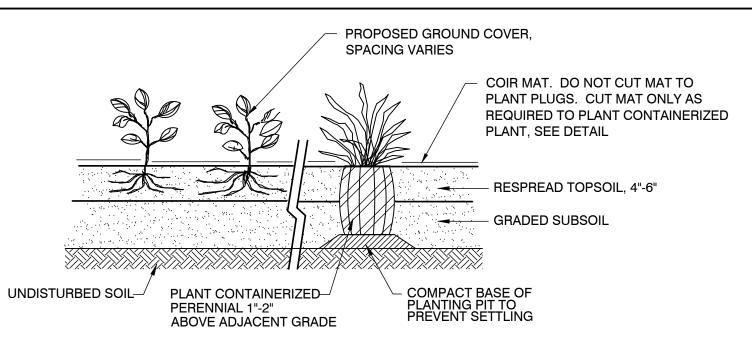
DIG 12" x 12" TRENCH UNDER TOE

TOWNSHIP OF LOWER MERION



CW\* = CHANNEL WIDTH

75 EAST LANCASTER AVENUE ARDMORE, PENNSYLVANIA 19003 OFFICE OF THE TOWNSHIP ENGINEER 1"=20' DRAWN BY DM/LL 8 OF 10 TOWNSHIP ENGINEER ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE CS-6001 2024-01-15 NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.



# CONTAINER AND PLUG PLANTING IN GRADED FLOODPLAIN

N.T.S.

#### PLANTING CONTAINER PLANTS, SHRUBS AND TREES IN COIR MAT:

- 1. CUT COIR MAT STRANDS ALONG HORIZONTAL AXIS (PARALLEL TO STRAM FLOW). CUT ONLY AS REQUIRED TO PLACE PLANT.
- 2. PULL APART STRANDS AND TEMPORARILY HOLD OPEN HOLE IN MAT. 3. EXCAVATE HOLE FOR PLANT. DO NOT PILE EXCAVATED SOIL ON TOP OF COIR
- 4. PLACE AND FIRM IN PLANTED STOCK TO CORRECT ELEVATION. FILL ALL GAPS
- AROUND PLANTING MEDIUM.
- 5. RESPREAD STRAW AROUND PLUG OR ADD MORE STRAW. 6. PULL COIR STRANDS BACK AROUND BASE OF TREE OR SHRUB. USE COIR CORD
- TO SUTURE MAT TOGETHER OR ANCHOR LOOSE ENDS.

#### PLANTING PLUGS IN COIR MAT:

- DO NOT CUT MAT.
- 2. PULL APART STRANDS OF MAT ONLY AS REQUIRED
- TO DIG PLANTING HOLE. 3. DIG PLANTING HOLE WITH DIBBLE OR TROWEL.
- 4. PLANT PLUG AND FIRM SOIL AROUND PLUG. PLUG MEDIUM MUST BE COVERED WITH SOIL.
- 3. RESPREAD STRAW AROUND PLUG OR ADD MORE STRAW.

#### 4. PUT COIR STRANDS BACK AROUND PLUG.

#### USE DIGGING FORK NOT SPADE TO PREVENT GLAZING OF SUBGRADE

#### PRUNE ONLY TO REMOVE DEAD AND BROKEN BRANCHES.

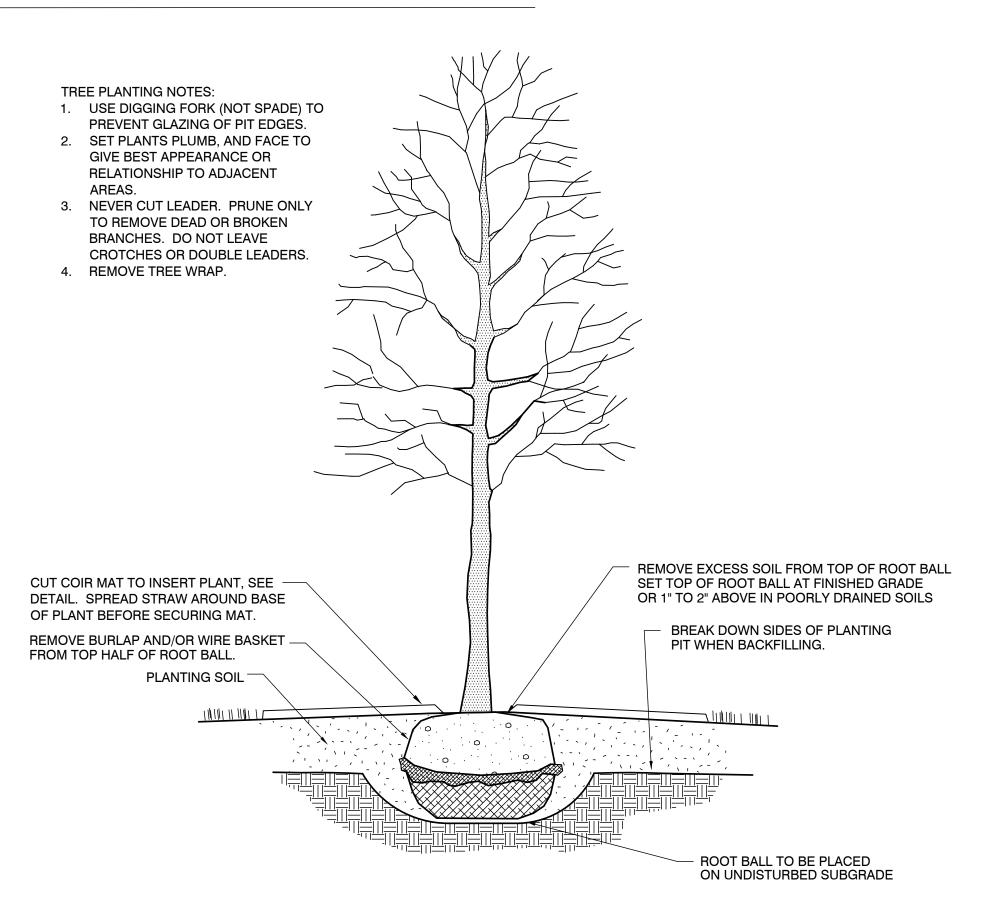
SET PLANTS PLUMB AND FACE TO GIVE THE BEST APPEARANCE OR

RELATIONSHIP TO ADJACENT AREAS. REMOVE EXCESS SOIL FROM TOP OF ROOT BALL AND SET TOP OF ROOT BALL AT FINISHED GRADE OR 1" TO 2" ABOVE IN POORLY DRAINED SOILS CUT COIR MAT TO INSERT PLANT, SEE DETAIL. SPREAD STRAW AROUND BASE OF PLANT BEFORE SECURING MAT. REMOVE BURLAP FROM TOP <sup>1</sup>/<sub>2</sub> OF ROOT BALL OR WITH CONTAINER PLANTS REMOVE POTS AND LOOSEN ROOTS AS SPECIFIED **PLANTING SOIL** SET PLANT ON UNDISTURBED SUBGRADE BALLED AND ----└── BARE ROOT OR

BURLAPPED SHRUBS.

# SHRUB PLANTING IN GRADED FLOODPLAIN

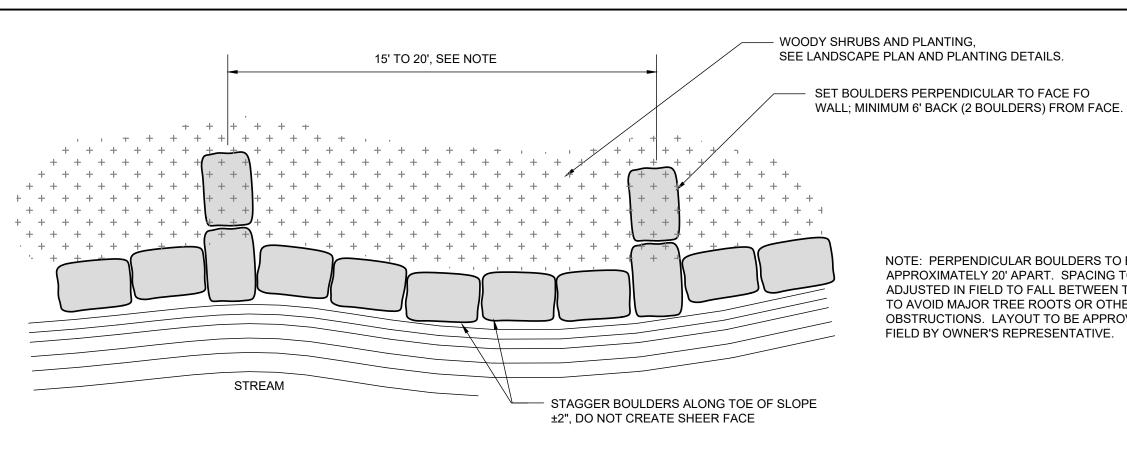
N.T.S.



CONTAINER SHRUBS.

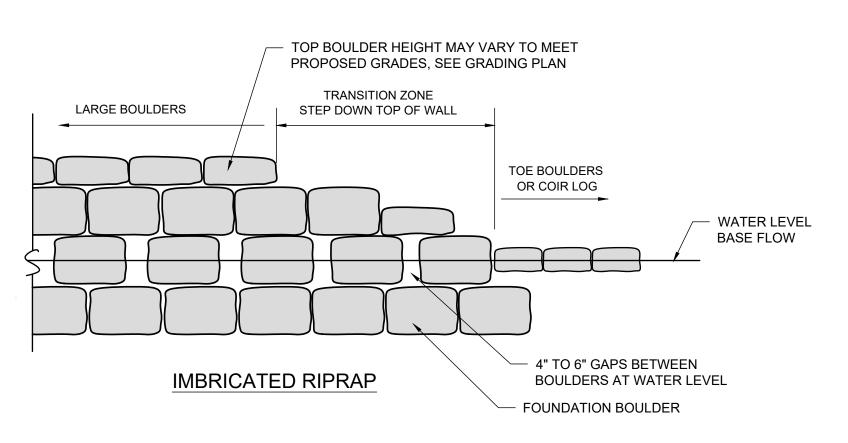
# TREE PLANTING IN GRADED FLOODPLAIN

N.T.S.

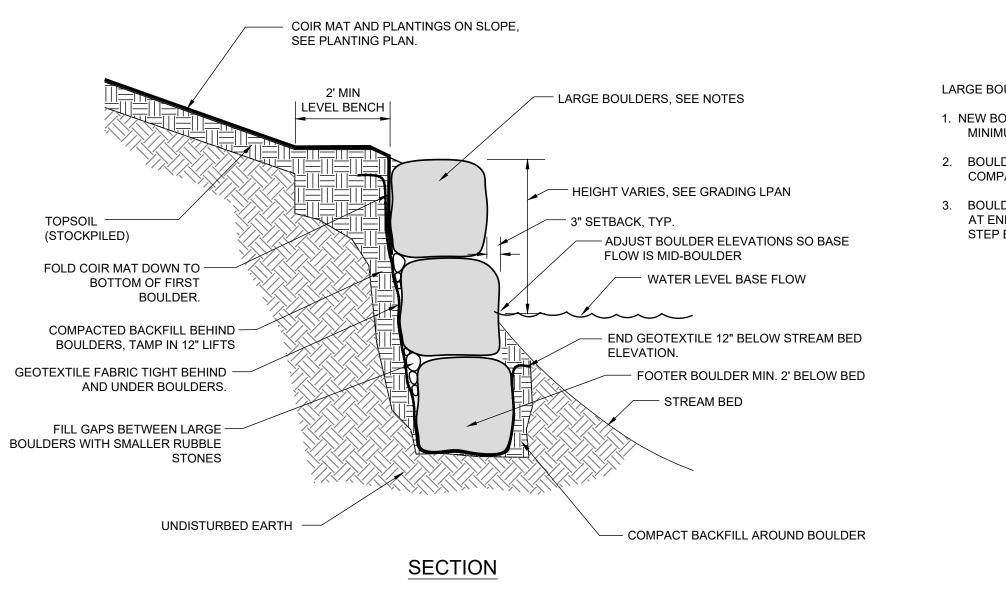


NOTE: PERPENDICULAR BOULDERS TO BE SPACED APPROXIMATELY 20' APART. SPACING TO BE ADJUSTED IN FIELD TO FALL BETWEEN TREES AND TO AVOID MAJOR TREE ROOTS OR OTHER OBSTRUCTIONS. LAYOUT TO BE APPROVED IN FIELD BY OWNER'S REPRESENTATIVE.

#### TYPICAL PLAN VIEW



# **ELEVATION - WALL HEIGHT TRANSITIONS**



### LARGE BOULDER NOTES:

- 1. NEW BOULDER SIZE: 1' HIGH OR 2' HIGH x 3' LONG x 2' WIDE MINIMUM.
- 2. BOULDERS TO BE DRY LAID; STACKED FIRMLY AND COMPACTED INTO STREAM BANK.
- 3. BOULDERS SHOULD BE PLACED LEVEL AND STEP DOWN AT ENDS TO BLEND INTO FINISHED GRADE. MAXIMUM STEP BETWEEN BOULDER TOPS IS 12".

# IMBRICATED RIP RAP INSTALLATION

N.T.S.

02/14/2024	1	ADDED IMBRICATED RIPRAP DETAILS	LL	JM
DATE	NO.	REVISIONS	BY	APPR.
·	. —	BRIDGE MEMORIAL FESTORATION & BANK STA		•

0F 10

DRAWING NO.

CS-6002

1301 MONTGOMERY AVENUE, BRYN MAWR, PA 19010

CONSTRUCTION DETAILS - 2 TOWNSHIP OF LOWER MERION

75 EAST LANCASTER AVENUE ARDMORE, PENNSYLVANIA 19003 OFFICE OF THE TOWNSHIP ENGINEER NTS

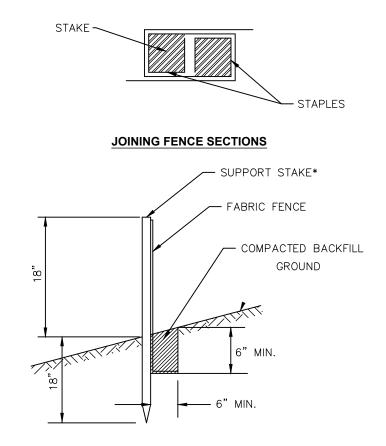
-----TOWNSHIP ENGINEER ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED 2024-01-15 OF ANY DISCREPANCIES BEFORE PROCEEDING

WITH THE WORK.

LOWM 093914

# DEP STANDARD CONSTRUCTION DETAIL #3-15 SANDBAG DIVERSION DAM OR COFFERDAM

N.T.S.

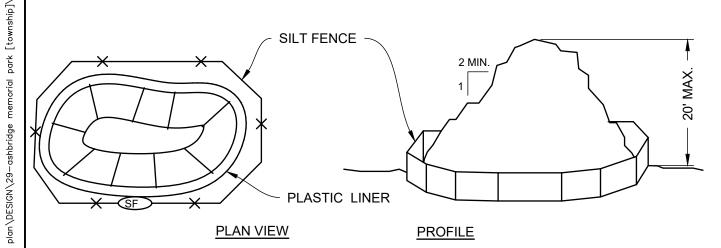


\* STAKES SPACED @ 8' MAXIMUM. USE 2" X 2" WOOD OR EQUIVALENT STEEL STAKES. FILTER FABRIC FENCE MUST BE PLACED AT THE EDGE OF THE LIMIT OF DISTURBANCE. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF FILTER FABRIC FENCE WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPARED.

# 18" FILTER FABRIC FENCE

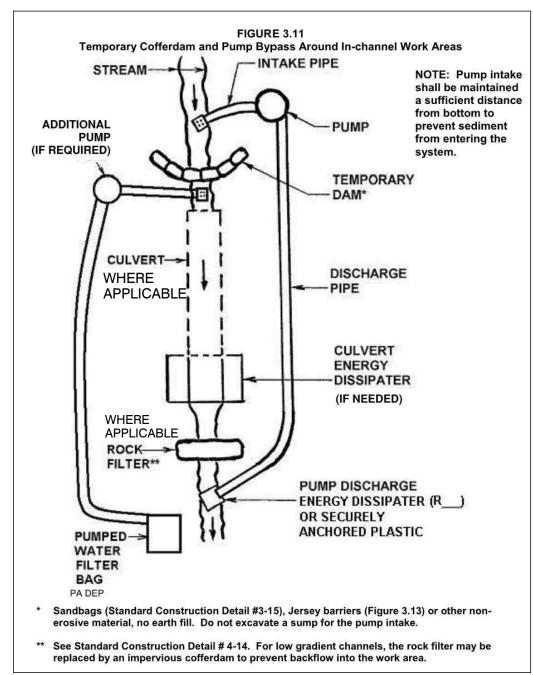
N.T.S.



- SILT FENCE SHALL BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING TO ALL STOCKPILES WHICH WILL REMAIN IN PLACE 20 DAYS OR MORE. TEMPORARY SEEDING SHALL BE PER PENNDOT FORM 408, SECTION 804(B)
- PLASTIC LINER TO BE INSTALLED BELOW TEMPORARY TOPSOIL STOCKPILES FOR SOILS FOUND OR SUSPECTED TO BE CONTAMINATED.

# TOPSOIL STOCKPILE DETAIL

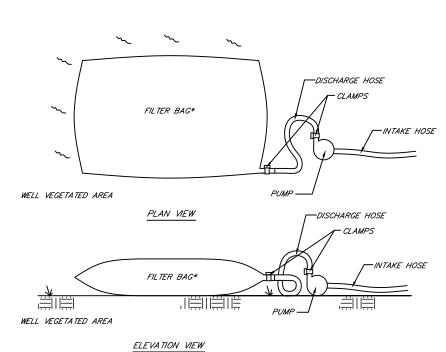
N.T.S.



1. STREAM DIVERSION PUMP SHALL BE DRI PUMP 6" Ø CRITICALLY SILENCED OR

# DEP STANDARD CONSTRUCTION DETAIL #3-11 TEMPORARY COFFERDAM AND PUMP AROUND

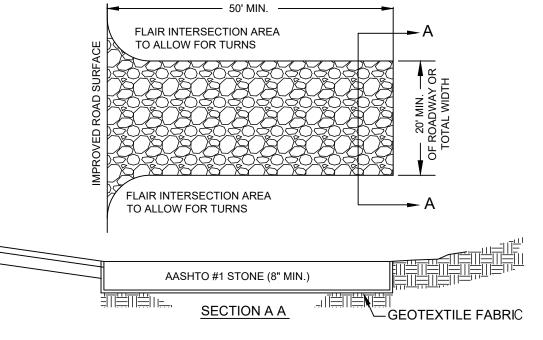
N.T.S.



- 1. \* NON-WOVEN GEOTEXTILE FILTER BAG WHICH RETAINS ALL SEDIMENT PARTICLES
- LARGER THAN 150 MICRONS. 2. PLACE FILTER BAGS ON STABLE OR WELL VEGETATED AREAS WHICH ARE FLATTER
- THAN 5% AND WHICH WILL NOT ERODE WHEN SUBJECTED TO BAG DISCHARGES. 3. CLAMP PUMP DISCHARGE HOSES SECURELY INTO FILTER BAGS.
- 4. LIMIT PUMPING RATE TO 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE
- 5. WHEN SEDIMENTS FILL 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE. PROPERLY DISPOSE OF SPENT BAGS WITH THEIR

# SEDIMENT FILTER BAG for PUMPED WATER

N.T.S.



ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED IMMEDIATELY.

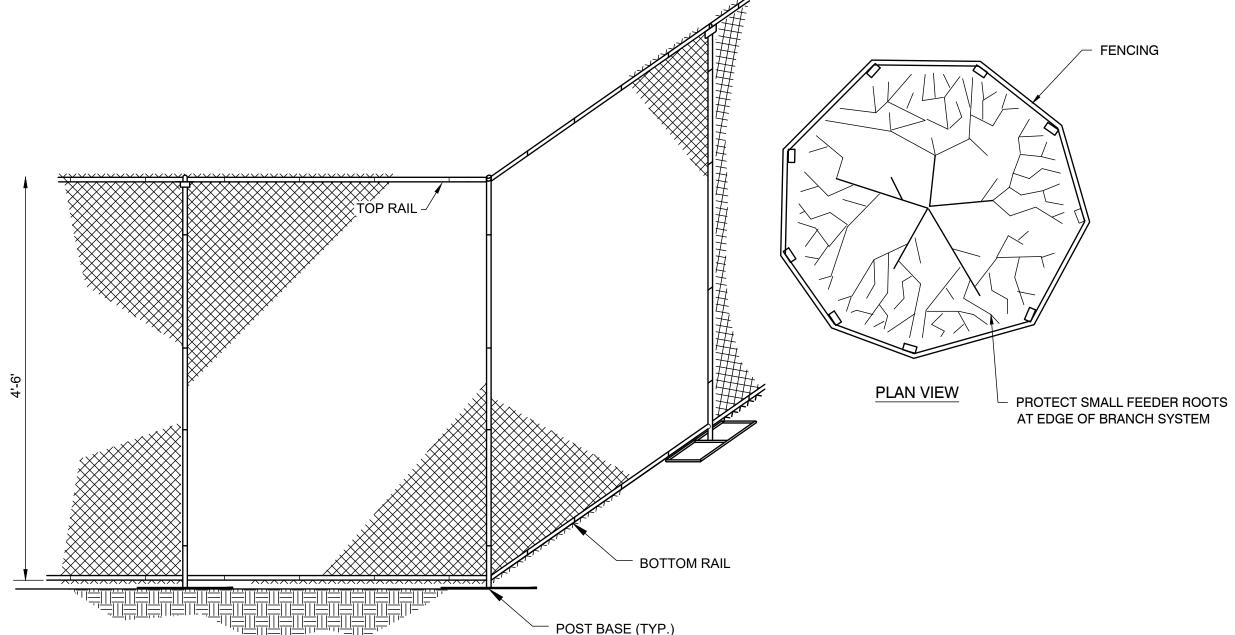
# **ROCK CONSTRUCTION ENTRANCE**

TIRE CLEANING EXIT GRIDS TO BE PLACED IN ACCESS LOCATIONS AS INDICATED ON PLAN. EXIT GRID TO BE STEEL, 12' WIDE x 16' LONG MIN., PLUS END RAMPS. AS MANUFACTURED BY GRISWOLD MACHINE AND ENGINEERING (GME), gme-shields.com, OR APPROVED EQUAL.

# TIRE CLEANING EXIT GRIDS

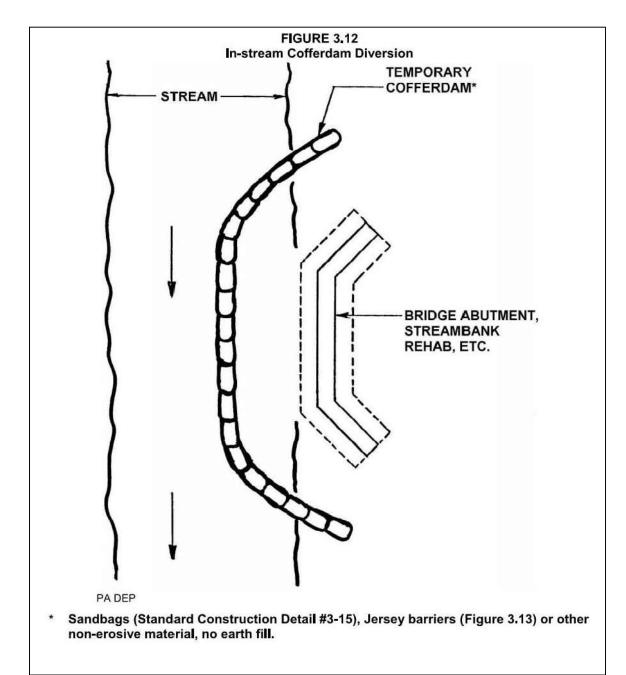
# TEMPORARY CONSTRUCTION ENTRANCE

N.T.S.



# TREE PROTECTION FENCE

N.T.S.



# IN-STREAM COFFERDAM DIVERSION

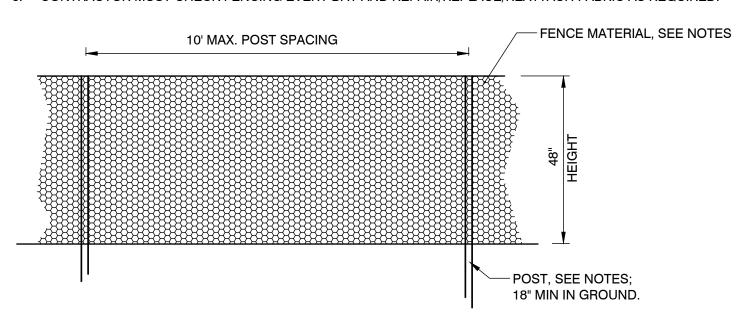
# N.T.S.

# **FENCE NOTES:**

1. INSTALL FENCING AT THE LOCATIONS AS INDICATED ON THE PLAN.

TO SUPPORT FENCE PLACED ACROSS PARKING AREA PAVING.

- 2. FENCE FABRIC TO BE HEAVY DUTY/HIGH DENSITY POLYETHYLENE FABRIC, ORANGE SAFETY FENCING; MINIMUM TENSILE STRENGTH 350 LBS/FT; DIAMOND MESH 3 ½" Lx ½" W.
- 3. FENCE POSTS TO BE HEAVY DUTY 13 GAUGE STEEL T-POST, WITH STABILIZING ANCHOR PLATE, 66" TO 72" HEIGHT. INSTALL PLASTIC OR VINYL SAFETY CAP ON ALL POSTS. PROVIDE SELF-SUPPORTING STANCHIONS
- 4. FENCE FABRIC TO BE ATTACHED TO POSTS AT TOP, BOTTOM AND TWO OTHER POINTS AT 16" SPACING. USE
- 5. SUBMIT PRODUCT INFORMATION ON FABRIC, POSTS, AND CAPS FOR APPROVAL.
- 6. CONTRACTOR MUST CHECK FENCING EVERY DAY AND REPAIR/REPLACE/REATTACH FABRIC AS REQUIRED.

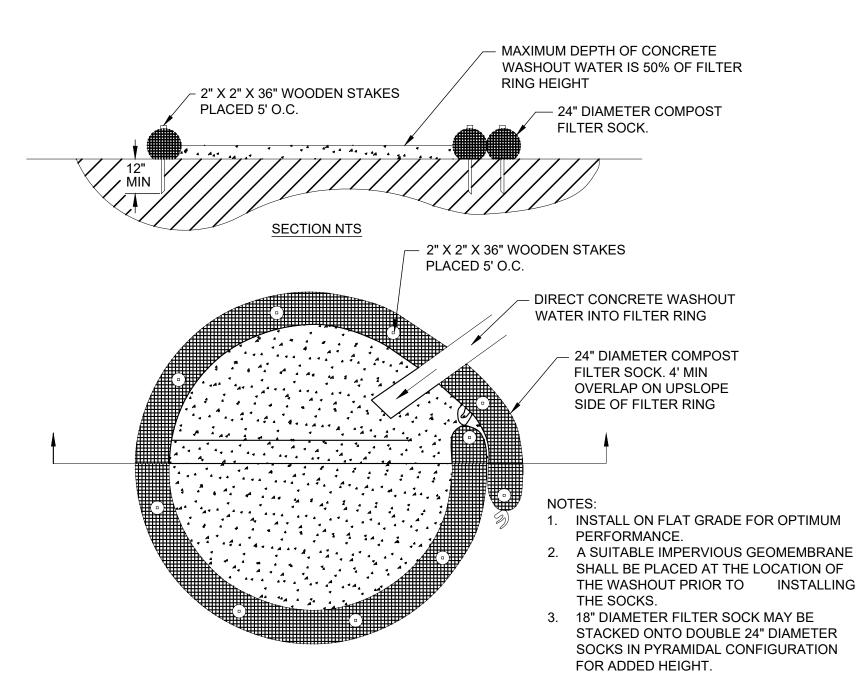


# **CONSTRUCTION FENCE**

N.T.S.

#### TREE PROTECTION NOTES:

- 1. TREE PROTECTION SHALL BE CHAIN LINK OR WIRE MESH MATERIAL
- 2. SUBMIT SHOP DRAWINGS FOR FENCING FOR APPROVAL.
- 3. THOSE TREES WHICH ARE WITHIN 25-FEET OF ANY PROPOSED EXCAVATION OR GRADING OPERATION, OR IN ANY OTHER LOCATION AS NOTED ON THE PLAN, SHALL BE PROTECTED BY INSTALLING AND MAINTAINING A FENCE AT THE DRIP LINE OF THE TREE.
- 4. NO BOARDS OR OTHER MATERIAL SHALL BE NAILED OR ATTACHED
- 5. HEAVY EQUIPMENT OPERATORS SHALL AVOID DAMAGING EXISTING TREE TRUNKS AND ROOTS. FEEDER ROOTS SHALL NOT BE CUT CLOSER THAN 25-FEET FROM TREE TRUNKS WITHOUT PRIOR
- 6. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE BY BEING TREATED IMMEDIATELY BY AN ARBORIST.
- 7. TREE LIMBS DAMAGED DURING CONSTRUCTION SHALL BE PROPERLY PRUNED AND TREATED IMMEDIATELY.
- 8. THE OPERATION OF HEAVY EQUIPMENT OVER ROOT SYSTEMS OF TREES SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION.
- 9. DAMAGED TREES SHALL BE FERTILIZED TO AID IN RECOVERY. FERTILIZATION TO BE APPROVED BY THE TOWNSHIP ARBORIST.
- 9. CONSTRUCTION DEBRIS SHALL NOT BE DISPOSED OF NEAR OR AROUND TREES.



# PREPAREDNESS PREVENTION AND CONTINGENCY PLAN

IF THERE IS AN ACCIDENTAL DISCHARGE FROM CONSTRUCTION EQUIPMENT, THE CONTRACTOR IS RESPONSIBLE FOR DEPLOYING IMMEDIATE ACTION TO CONTAIN THE DISCHARGE. WHILE CONTAINING THE DISCHARGE THE CONTRACTOR WILL CONTACT A LICENSED AND BONDED FIRM TO CLEANUP AND MITIGATE DISCHARGE.

CONTRACTOR WILL HAVE ON SITE A CONTAINMENT KIT WITH AT LEAST A CONTAINMENT BOOM AND ABSORBENT AT A MINIMUM. THE EMERGENCY CONTACT PHONE NUMBER ARE:

P.A.D.E.P. 24 HOUR RESPONSE PHONE: (717) 705-4700 E.P.A.

NATIONAL RESPONSE CENTER PHONE:

(800) 424-8802

# CONCRETE WASHOUT DETAIL

02/14/2024	1 ADDED CONCRETE WASHOUT DETAIL								LL	JM
DATE NO. REVISIONS								ВҮ	APPR	
LOWER		1	301 M	ONTG	 DMEF	RY AVE	AL PA Enue County,		•	VANIA
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	TOWNSHIP OF LOWER MERION 75 east lancaster avenue ardmore, pennsylvania 19003	
)'	OFFICE OF THE TOWNSHIP ENGINEER	approved JAM
I		SHEET

DRAWN BY DM/LL TOWNSHIP ENGINEER DRAWING NO. ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE CS-6003 2024-01-15 NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.