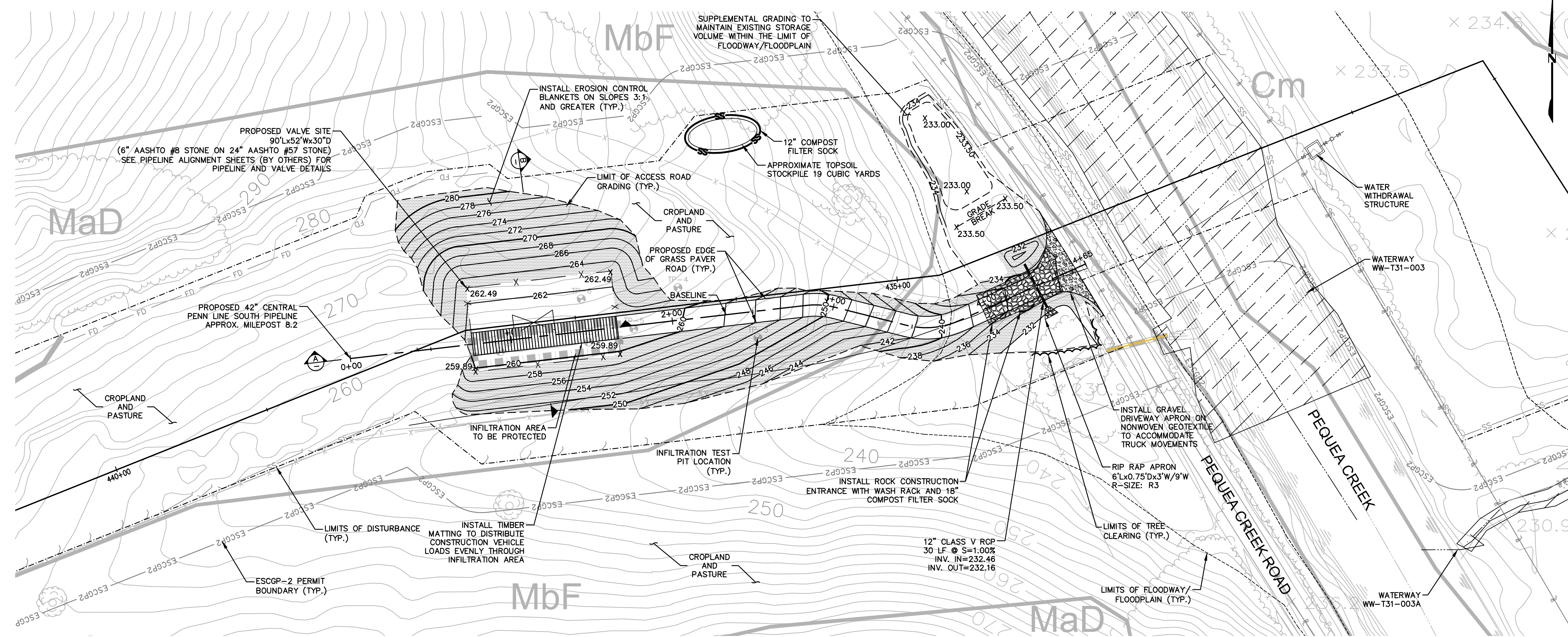
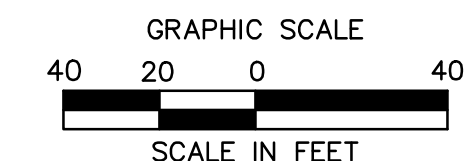


ROAD SPECIFIC CONSTRUCTION SEQUENCE:

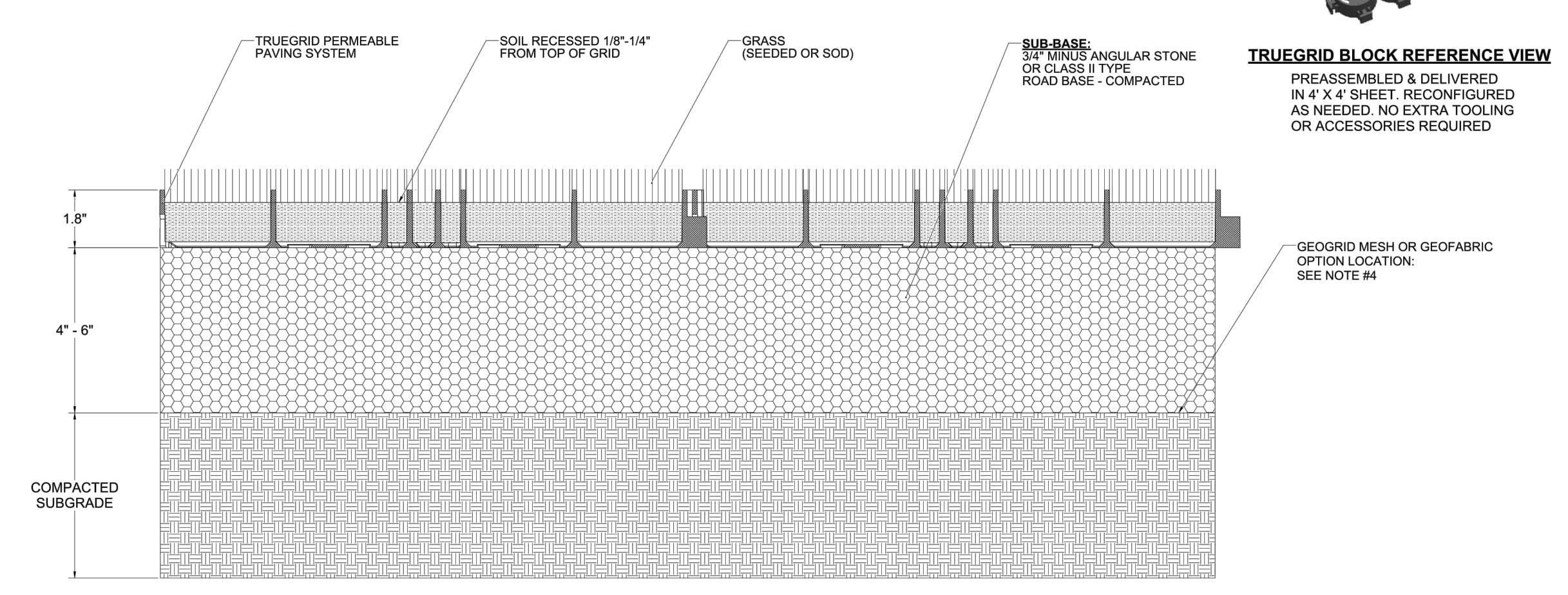
- AT LEAST 7 DAYS PRIOR TO STARTING EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE CONTRACTORS, ENVIRONMENTAL INSPECTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING 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.
- HOLD PRE-CONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL INSPECTORS, LOCAL COUNTY CONSERVATION DISTRICT (CCD), PADEP AND DESIGN ENGINEER.
- SURVEY CREWS LOCATE AND STAKE SPECIAL AREAS OF CONCERN (I.E., WETLANDS, STREAMS, CULVERTS, OTHER UTILITIES, ETC.), EDGE OF PROPOSED ACCESS ROAD, AND FIELD LOCATE THE LIMIT OF DISTURBANCE.
- INSTALL ORANGE CONSTRUCTION FENCE AROUND AREAS TO BE PRESERVED, INCLUDING INFILTRATION AREAS TO BE PROTECTED.
- LOCATE STAGING AREAS AND ACCESS POINTS INCLUDING THE ROCK CONSTRUCTION ENTRANCE WITH WASH RACK. INSTALL SEDIMENT BARRIERS (COMPOST FILTER SOCK) DOWN SLOPE OF THESE AREAS.
- PERFORM TREE CUTTING WHERE REQUIRED. (AREAS WITH TREE CUTTING SHALL BE RESTORED TO MEADOW IN GOOD CONDITION).
- STRIP AND STOCKPILE TOPSOIL; INSTALL COMPOST FILTER SOCK AROUND STOCKPILES. SOIL STOCKPILED SHALL NOT EXCEED 35 FEET IN HEIGHT, HAVE MAXIMUM SIDE SLOPES OF 2:1, AND BE SURROUNDED BY 12" COMPOST FILTER SOCK. EXCAVATED MATERIAL IS NOT TO BE REUSED IN THE WORK AREA IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF AT AN APPROVED FACILITY OR PERMITTED WASTE AREA.
- INSTALL ROCK CONSTRUCTION ENTRANCE WITH WASH RACK AND GRAVEL DRIVEWAY APRON.
- INSTALL CULVERT AND ASSOCIATED RIP RAP APRON.
- REMOVE BRUSH TO EFFECTIVELY INSTALL SEDIMENT BARRIERS AS SHOWN ON THE PIPELINE E&S PLANS UNDER SEPARATE COVER.
- THE COMPLIANCE MANAGER SHALL PROVIDE PADEP AT LEAST THREE DAYS' NOTICE PRIOR TO BULK EARTH DISTURBANCE AND UPON COMPLETED INSTALLATION OF SEDIMENT BARRIERS.
- IF APPLICABLE, INSTALL SECURITY FENCE. THE NECESSITY OF A SECURITY FENCE WILL BE AT THE DISCRETION OF THE CONTRACTOR.
- INSTALL SEDIMENT BARRIERS AS SHOWN ON THE PIPELINE E&S PLANS. THE PIPELINE IMPROVEMENTS WILL BE INSTALLED PRIOR TO THE MLV SITE AND PERMANENT ACCESS ROAD IMPROVEMENTS.
- INSTALL TIMBER MATTING OVER INFILTRATION AREA AS SHOWN ON THE E&S PLANS TO MINIMIZE COMPACTION DUE TO CONSTRUCTION TRAFFIC. MINIMIZE TRAFFIC THROUGH THIS AREA.
- PROCEED WITH MAJOR CLEARING AND GRUBBING.
- INSTALL THE PIPELINE.
- UPON COMPLETION OF BACKFILLING THE PIPELINE TRENCH, TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY, OR STAGE OF AN ACTIVITY WHERE THE CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED FOUR DAYS, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES. FOR AN EARTH DISTURBANCE ACTIVITY OR STAGE OF AN ACTIVITY TO BE CONSIDERED TEMPORARILY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM COVERAGE OF MULCH AND SEED, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION; TEMPORARY STABILIZATION WILL NOT OCCUR ON ACTIVE VEHICULAR TRAVEL WAYS WITHIN THE RIGHT OF WAY. THE ON-SITE ENVIRONMENTAL INSPECTOR WILL LOG DAILY ACTIVITY WITHIN THE LIMITS OF DISTURBANCE AND NOTIFY THE CONTRACTOR OF AREAS REQUIRING TEMPORARY STABILIZATION (I.E., AREAS WHERE WORK HAS CEASED FOR AT LEAST FOUR DAYS).
- BEGIN CONSTRUCTION STAKING FOR LAYOUT OF ACCESS ROAD.
- REMOVE THE TIMBER MATTING IN THE MLV SITE.
- GRADE THE ACCESS ROAD AND MLV SITE AS SHOWN ON THE E&S PLANS.
- REMOVE EXCESS EXCAVATED SOIL FROM THE SITE AND PROPERLY DISPOSED OF THE MATERIAL AT AN APPROVED FACILITY OR PERMITTED WASTE AREA.
- TILL THE TOP 20 INCHES OF SOIL WITHIN THE FOOTPRINT OF THE TIMBER MATTING INSTALLED ACROSS THE MLV INFILTRATION AREA WITH A SOLID-SHANK RIPPER TO LOOSEN THE SOIL AND PROMOTE INFILTRATION. EXTEND TILLING OPERATIONS TO THE OTHER INFILTRATION AREAS IF COMPACTION HAS OCCURRED DURING INSTALLATION OF THE PIPELINE AND/OR GRADING OF THE ACCESS ROAD AND MLV SITE. TILLING SHALL BE PERFORMED WHEN THE SOIL IS DRY.
- THE COMPLIANCE MANAGER SHALL PROVIDE PADEP AT LEAST THREE DAYS' NOTICE PRIOR TO INSTALLING THE STONE AND GEOTEXTILE FABRIC WITHIN THE MLV PADS.
 - ROUGH GRADE THE MLV PAD. EQUIPMENT SHALL AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE. IF EXCAVATION LEADS TO SUBSTANTIAL COMPACTION OF THE SUBGRADE, 18 INCHES SHALL BE REMOVED AND REPLACED WITH A BLEND OF TOPSOIL AND SAND TO PROMOTE INFILTRATION AND BIOLOGICAL GROWTH. AT THE VERY LEAST, TOPSOIL SHALL BE THOROUGHLY DEEP PLOWED INTO THE SUBGRADE IN ORDER TO PENETRATE THE COMPACTION ZONE AND PROMOTE AERATION AND THE FORMATION OF MACROPORES. FOLLOWING THIS, THE AREA SHOULD BE DISKED PRIOR TO FINAL GRADING.
 - CAUTION SHALL BE OBSERVED WHEN EXCAVATING ABOVE THE RECENTLY INSTALLED GAS PIPELINE. PRIOR TO EXCAVATION OVER THE GAS PIPELINE, CONFIRM THE DEPTH OF COVER OVER THE PIPE. DECOMPACT THE PIPE TRENCH BACKFILL AS DESCRIBED IN THE PREVIOUS STEP.
 - PLACE THE STONE AND GEOTEXTILE FABRIC WITHIN THE MLV PAD AS SPECIFIED ON THE E&S & PSM PLANS. NOTE: THIS IS A CRITICAL STAGE OF PSM PLAN TO BE OBSERVED BY A LICENSED PROFESSIONAL OR DESIGNED.
- INSTALL THE GRASS PAVER ROADWAY PER THE MANUFACTURER'S GUIDELINES.
- REPLACE STOCKPILED TOPSOIL AS APPLICABLE AND FINAL GRADE THE DISTURBED AREAS. IMMEDIATELY FERTILIZE, SEED AND STABILIZE DISTURBED AREAS AT FINISHED GRADE.
- UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF DISTURBED AREAS, THE OWNER SHALL CONTACT THE LOCAL CCD FOR AN INSPECTION PRIOR TO THE REMOVAL OF THE SEDIMENT BARRIERS. VEGETATED AREAS MUST ACHIEVE A MINIMUM UNIFORM 70% PERENNIAL COVER OVER THE ENTIRE DISTURBED AREA TO BE CONSIDERED STABILIZED. ROADWAYS AND PARKING AREAS SHOULD HAVE AT LEAST A CLEAN SUBBASE IN PLACE TO BE CONSIDERED STABILIZED. IN AGRICULTURAL USE AREAS, AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION IF THE ABOVE CONDITIONS ARE MET OR IF AN AREA EXHIBITS ANY GROUND COVER CONDITIONS NORMALLY ASSOCIATED WITH ACTIVE AGRICULTURAL PRACTICES, INCLUDING BUT NOT LIMITED TO BARE EARTH ON CULTIVATED LAND, TEMPORARY VEGETATIVE COVER ON CULTIVATED LAND, OR PASTURE NOT MEETING A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER.
- UPON LOCAL CCD AND TRANSCO APPROVAL OF STABILIZATION AND RE-VEGETATION, EITHER:
 - LEAVE THE COMPOST FILTER SOCK IN PLACE, CUT OPEN THE MESH, AND SPREAD THE MULCH AS A SOIL SUPPLEMENT; OR
 - REMOVE THE COMPOST FILTER SOCK, STABILIZE AREAS DISTURBED BY REMOVAL, AND PROPERLY DISPOSE/RECYCLE THE COMPOST FILTER SOCK.
- REMOVE ORANGE CONSTRUCTION FENCING AND SECURITY FENCE.
- UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES, REMOVAL OF THE SEDIMENT BARRIERS, AND PERMANENT STABILIZATION OF DISTURBED AREAS, THE OWNER SHALL CONTACT THE LOCAL CCD FOR A FINAL INSPECTION.

NOTE:

- ACCESS ROAD IS LOCATED ENTIRELY WITHIN PIPELINE ROW. SEE PIPELINE E&S ALIGNMENT SHEETS FOR E&S MEASURES.

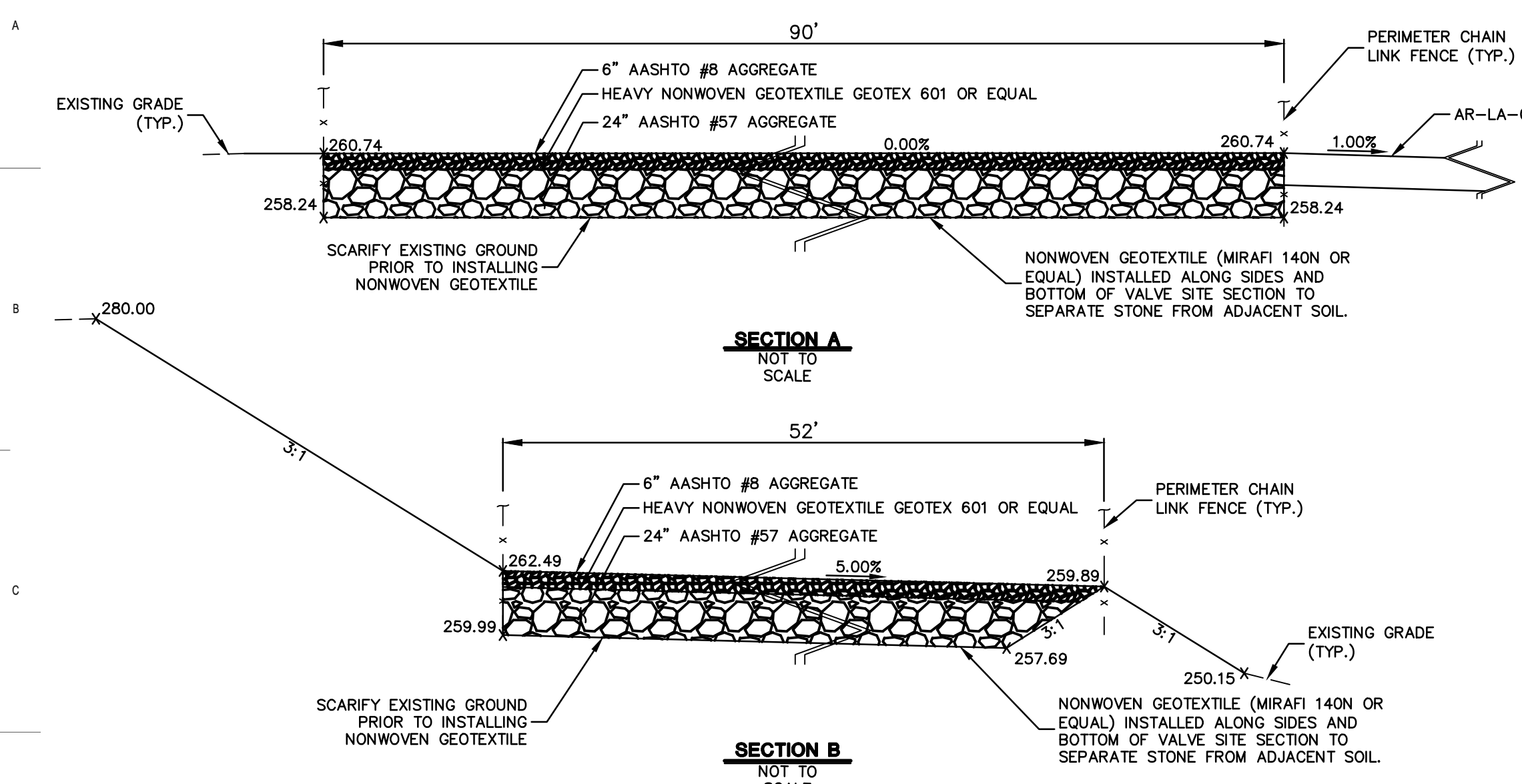


- NOTES:**
- TYPICAL SEEDING OR HYDROSEEDING METHODS FOR GRASS GROWTH ARE ACCEPTABLE WITH TRUEGRID.
 - SOD CAN BE LAID ON SOIL FILLED GRID FOR IMMEDIATE GRASS (TYPICAL FOR FIRE LANES)
 - FOR HIGHER TRAFFIC SOD INSTALLATIONS, RECESS SOIL LEVEL WITHIN TRUEGRID AND PRESS IN SOD SO THAT TOP OF GRID IS AT SOIL LEVEL.
 - GEOTEXTILE MESH OR GEOFABRIC MAY BE REQUIRED BETWEEN SUBGRADE & SUBBASE FOR CERTAIN SOILS AND SITE SPECIFIC REQUIREMENTS.
 - FILTER FABRIC MAY BE REQUIRED BETWEEN TRUEGRID AND SUB-BASE MATERIAL IF HIGH VOID RATIO IN SUB-BASE MATERIAL.
 - NO STAKING NECESSARY WITH TRUEGRID



| | | | |
|---|--|----------------------|--|
| CLIENT / PROJECT | | APPROVAL INFORMATION | |
| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. | | DATE: 01/20/15 | |
| TRUEGRID GRASS FILL | | DATE: 01/20/15 | |
| INSTALLATION HEAVY LOAD | | DATE: 01/20/15 | |
| SEED OR SOD | | DATE: 01/20/15 | |
| TG-SEED-HL | | DATE: 01/20/15 | |

GRASS PAVER DETAIL



EARTHWORK VOLUME WITHIN FLOODWAY

FILL VOLUME: 145.2 CUBIC YARDS
 CUT VOLUME: 147.2 CUBIC YARDS
 BALANCE: 1.4 CUBIC YARDS CUT
 NO NET FILL IN THE FLOODWAY.

105 COORDINATION NOTE:

THE CALCULATION OF FILL VOLUMES PROVIDED WITHIN THE CHAPTER 105 APPLICATION IS BASED ON THE EXTENT OF THE ACCESS ROAD LOD WITHIN THE FLOODWAY FLOODWAY TO ACCOUNT FOR WORST-CASE FIELD SCENARIOS REQUIRING THE ADDITION OF A ONE FOOT-DEPTH OF GRAVEL FOR MAINTENANCE AND/OR MINOR ACCESS ROAD WIDENING FOR IMPROVED ACCESS. AS SUCH, THE FILL VOLUME IS AN OVERESTIMATION AND DOES NOT REFLECT THE ACTUAL VOLUME OF FILL REQUIRED BY THE CURRENT ACCESS ROAD DESIGN, AS PRESENTED WITHIN THE CHAPTER 102 PERMIT. THE INCLUSION OF THE OVERESTIMATED FILL VOLUMES WITHIN THE CHAPTER 105 APPLICATION LIMITS FUTURE REVISIONS TO THE CHAPTER 105 APPLICATION DUE TO MINOR FIELD ADJUSTMENTS. CONVERSELY, REVISIONS TO ACCESS ROAD DESIGN AFTER THE 102 PERMIT ISSUANCE WILL BE COORDINATED WITH PADEP/CCD.



| REVISIONS | | | |
|-----------|------------|----|--|
| NO. | DATE | BY | DESCRIPTION |
| 0 | 07/17/2015 | BL | ISSUED FOR PADEP SUBMITTAL |
| 1 | 12/02/2015 | BL | ISSUED FOR PADEP RESUBMITTAL |
| 2 | OCT. 2016 | BL | PADEP TECHNICAL DEFICIENCY RESPONSE #1 |
| 3 | APRIL 2017 | BL | PADEP TECHNICAL DEFICIENCY RESPONSE #2 |
| 4 | AUG. 2017 | BL | PADEP TECHNICAL DEFICIENCY RESPONSE #3 |

| | | | |
|---|-----------|-----------------|-------------------------------------|
| TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC | | | |
| ATLANTIC SUNRISE PROJECT - PROPOSED 42" CENTRAL PENN LINE SOUTH | | | |
| ACCESS ROADS - SOIL EROSION CONTROL PLAN | | | |
| PROPOSED PERMANENT ACCESS ROAD AR-LA-10.2 | | | |
| CONESTOGA TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA | | | |
| DRAWN BY: | OLC/MS | DATE: | 4/2015 |
| CHECKED BY: | DAK | DATE: | 06/12/15 |
| APPROVED BY: | SMK | DATE: | 07/07/15 |
| NO: | W01161503 | DRAWING NUMBER: | 24-1600-70-28-A/LL113.9-AR-LA-010.2 |
| SCALE: | 1"=40' | REVISION: | 4 |
| | | SHEET | 2 |
| | | OF | 2 |

Drawing Location & Name: C:\DBS1\14C\14C4909\DWG\020-CPLS_VR_EC\14C4909\005-PAR-LA-010-2.dwg
 Drawn By & Date: saking Jul 25, 2017 - 11:05am
 Drawing Location & Name: C:\DBS1\14C\14C4909\DWG\020-CPLS_VR_EC\14C4909\005-PAR-LA-010-2.dwg