

EROSION AND SEDIMENT CONTROL PLAN NOTES:

- All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved erosion and sediment control plan must be available at the project site at all times.
- 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 preconstruction meeting.
- 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.
- 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 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 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 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 and notify the local conservation district
- Construction wastes include, but are not limited to, excess soil materials, building materials, concrete wash water, sanitary wastes, etc. 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. seq. 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.
- All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
- An erosion control blanket will be installed on all disturbed slopes steeper than 3:1 and all areas of concentrated flows.
- Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspection 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, mulching 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.
- A log showing dated that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory officials at the time of inspection.
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, 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 topsoiled shall be scarified to a minimum depth of 3 to 5 inches – 6 to 12 inches on compacted soils – prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill out slopes shall have a minimum of 2 inches of topsoil.
- 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.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- 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.
- Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- All channels must be kept free of obstructions such as fill ground, fallen leaves & woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all weedy, brushy or woody growth. Any underground utilities running across/ through the channel(s) shall be immediately backfilled and the channel(s) repaired and stabilized per the channel cross-section detail.

EROSION AND SEDIMENT CONTROL PLAN NOTES CONT'D:

- Vegetated channels shall be constructed free of rocks, tree roots, stumps or other projections that will impede normal channel flow and/or prevent good lining to soil contact. The channel shall be initially over-excavated to allow for the placement of topsoil.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Any sediment removed from BMP's during construction will be returned to upland areas on site and incorporated into the site grading.

TEMPORARY CONTROL MEASURES AND MAINTENANCE

All BMPs shall be inspected on a weekly basis and after each measurable rainfall event. Any BMPs that have failed shall be repaired or replaced immediately.

Compost Filter Sock:

- Compost filter sock shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.
- Traffic shall not be permitted to cross compost filter socks.
- Accumulated sediment shall be removed when it reaches 1/2 the above ground height of the barrier and disposed in the manner described elsewhere in the plan.
- Follow manufacturer's recommendations for replacing filter sock.
- Upon stabilization of the area tributary to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mulch spread as a soil supplement.

Permanent Vegetative Stabilization:

- Inspect seeded areas for failure and if repairs or reseeding is necessary, do them immediately. Reinspect the seeded areas after a year.
- If an area is covered less than 70 percent, reevaluate the choice of plant material and the quantities of lime and fertilizer used. Reestablish the stand after the seedbed is prepared. Follow the recommendations, and do not use lime and fertilizer if the results of a soil test are not available. If the season prevents resewing, mulch or erosion netting is an effective temporary cover.

Erosion Control Matting:

- Erosion mats shall at a minimum be inspected weekly and within 24 hours after every precipitation event that produces 0.5 inches of rain or more during a 24-hour period.
- If there are signs of rilling under the mat, install more staples or more frequent anchoring trenches.
- If rilling becomes severe enough to prevent establishment of vegetation, remove the section of mat where damage has occurred. Fill the eroded area with topsoil, compact, reseed and replace the section of mat, trenching and overlapping ends per manufacturer's recommendations. Additional staking is recommended near where rilling was filled.
- If the reinforced plastic netting has separated from the mat, remove the plastic and if necessary replace the mat.

OWNERSHIP AND MAINTENANCE RESPONSIBILITY:

Unless otherwise noted, the owner shall be required to maintain the installed Post Construction Stormwater Management Best Management Practices (BMPs)

STORMWATER BEST MANAGEMENT PRACTICES (BMPs) OPERATION AND MAINTENANCE

The owner is responsible for the disposal and recycling of all wastes associated with the Post Construction Stormwater Management Best Management Practices. Garbage shall be collected on-site and disposed of properly. To the maximum extent practicable, organic matter shall be properly disposed of at a local composting facility.

THE OWNER IS RESPONSIBLE FOR OPERATION AND MAINTENANCE IN THE FOLLOWING AREAS:

PERMANENT VEGETATIVE STABILIZATION

Inspect seeded areas for failure and if repairs or reseeding is necessary, do them immediately. Reinspect the seeded areas after a year.

If an area is covered less than 70 percent, reevaluate the choice of plant materials and the quantities of lime and fertilizer used. Reestablish the stand after the seedbed is prepared. Follow the recommendations, and do not use lime and fertilizer if the results of a soil test are not available. If the season prevents resewing, mulch or erosion netting is a effective temporary cover. Contractors should be held responsible for meeting a performance guarantee.

In the event vegetation is damaged, repair damage by placing topsoil, seed and mulch in accordance with the permanent seeding specification provided.

INFILTRATION BASIN

- The following maintenance activities should be done on a quarterly basis:
- Sediment removal should be conducted when the basin is completely dry. Sediment should be disposed of properly and once sediment is removed, disturbed areas need to be immediately stabilized and revegetated.
 - Inspect the embankments and spillway for settlement and slope erosion.
- The following maintenance activities should be done as needed:
- Mowing and/or trimming of vegetation should be performed as necessary to sustain the system; dispose of cuttings in a local composting facility.
 - Vegetated areas should be inspected annually for erosion
 - Vegetated areas should be inspected annually for unwanted growth of exotic/invasive species.
 - Vegetated cover should be maintained at a minimum of 95 percent. If vegetative cover has been reduced by 10%, vegetation should be reestablished.

In the event that the stormwater basin embankments are damaged, repair embankments with suitable soils and compact. Replace topsoil, seed and much in accordance with the permanent seeding specification provided.

In the event that the stormwater basin does not dewater within 72 hours corrective measures for the basin may be necessary. Deep tilling and aeration may be necessary.

GRASSED SWALE

- The following maintenance activities should be done annually and within 48 hours after every major storm event (>1 inch rainfall depth)
- Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulation (address when >3 inches at any spot or covering vegetation)
 - Inspect vegetation on side slopes for erosion and formation of rills or gullies, correct as needed
 - Inspect for pools of standing water; dewater and discharge to an approved location and restore to design grade
 - Mow and 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
 - Inspect for litter; remove prior to mowing
 - Inspect for uniformity in cross-section and longitudinal slope, correct as needed
 - Inspect swale inlet (curb cuts, pipes, etc.) and outlet for signs of erosion or blockage, correct as needed

- The following maintenance activities should be done as needed:
- Plant alternative grass species in the event of unsuccessful establishment
 - Reseed base areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming
 - Retill and replant swale if draw down time is more than 48 hours
 - Water during dry periods, fertilize, and apply pesticide only when absolutely necessary

In the event of damage to the swale, repair damage by placing topsoil, seed and mulch in accordance with the permanent seeding specification provided. If erosion is persistent within the swale consider an alternative lining.

11/2022/225009 SHI ENGINEERING PLANNING TASK 20 NEW EQUIPMENT BUILDING BUILDING 225009 SHI SITE PLAN - EQUIPMENT BUILDING

All documents prepared by Brehm-Lebo Engineering, Inc., are instruments of service with respect to this project. They are not intended or represented to be suitable for reuse by owners, contractors or others on extensions of this Project or on any other project. Any reuse without written verification or adoption by Brehm-Lebo Engineering, Inc., will be at owners sole risk and without liability or legal exposure to Brehm-Lebo Engineering, Inc., and Owner shall indemnify, and hold harmless, Brehm-Lebo Engineering, Inc., from all claims, damages, losses and expenses arising out of or resulting therefrom.



NO.	REVISION NOTES	DATE
1	As per CCD Comments - 04/17/23	04/17/23

BREHM-LEBO ENGINEERING, INC.
 CIVIL ENGINEERS ► PLANNERS ► SURVEYORS ► STRUCTURAL ENGINEERS

40 NORTH SECOND STREET
 CHAMBERSBURG, PA 17201
 PH: (717) 243-1404
 FAX: (717) 243-3001

15 STATE AVENUE
 CARLISLE, PA 17013
 PH: (717) 243-4114
 FAX: (717) 243-3001

EROSION AND SEDIMENT CONTROL NOTES
 EROSION AND SEDIMENT CONTROL PLAN
 FOR
 SOUTHAMPTON TOWNSHIP EQUIPMENT BUILDING
 SOUTHAMPTON TOWNSHIP
 CUMBERLAND COUNTY

Drawn By: SJT
Designed By: SJT
Checked By: GSL
File: 22SH009
Date: 03/01/23
Scale: N/A
Deed: 237/942
Drawing No.
ES6 of 7