

U.S. Army Corps of Engineers

Baltimore District PN-23-18

# **Public Notice**

In Reply to Application Number NAB-2021-00412-E04 (Ritz Craft - Unauthorized Wetland Impact)

Comment Period: April 3, 2023 to May 3, 2023

THE PURPOSE OF THIS PUBLIC NOTICE IS TO INFORM INTERESTED PARTIES OF THE PROPOSED ACTIVITY AND TO SOLICIT COMMENTS. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

This District has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 USC 1344), as described below:

#### APPLICANT:

Mr. David Kazibwe Ritz-Craft Corporation 15 Industrial Park Road Mifflinburg, Pennsylvania 17844

#### WATERWAY AND LOCATION OF THE PROPOSED WORK:

The proposed project is located in Wetland 1 adjacent to an unnamed tributary to Buffalo Creek and north of the intersection of Industrial Park Road and Watercress Drive in Mifflinburg, Union County, Pennsylvania. Project coordinates are: 40.918805-77.059466.

#### **OVERALL PROJECT PURPOSE:**

To expand the existing 60,000 square foot modular home construction plant to an up to date 200,000 square foot construction plant to accommodate present day means and methods of building practices and safety protocols, along with proper access for mobilization of units and trucks.

#### PROJECT DESCRIPTION:

Ritz-Craft Inc. is proposing to expand and improve Building 1 at their existing facility in Mifflinburg, Pennsylvania. The present Building 1 facility was constructed in 1968 and does not support the present day means and methods of building practices and safety protocols. Key additions include additional workspace for current construction practices and home designs within the facility and additional parking and storage space outside of the facility. The proposed expansion will increase workflow, improve material deliveries, and improve workplace safety within the building. The proposed expansion will result in an impact to 1.42 acres of Palustrine Forested Wetland.

#### **EFFECTS ON AQUATIC RESOURCES:**

Activity (i.e.	Stream Impact (If)	Wetland Impact (Sq.	Authority (Section
culvert)		Ft.)	10/404/408)
Placement of Fill	N/A	61,855	404

#### **LEAD FEDERAL AGENCY:**

The United States Army Corps of Engineers is the lead federal agency and is responsible for coordination pursuant to applicable federal authorities.

# APPLICANT'S PROPOSED AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION:

Minimization efforts have been incorporated into the proposed design. The footprint of the building expansion and accompanying gravel drive have been reduced to the minimum needed for the building and turning movements of the trucks/units and for staff parking. Also, stormwater management is needed for the project and has been designed to be placed under the gravel pad to eliminate any additional impacts from stormwater BMPs. The slopes of the fill have been reduced to the minimum needed for stability of the project.

An alternative analysis was conducted by the applicant with potential alternatives along with a no action alternative where the project would not be built (Alternative 1). Alternative 2 was to relocate the plant to a different location. Due to an established already present and the impact the facility has on the local economy and community relocating the project was not a feasible option. On site alternatives were explored to the east (Alternative 2), south (Alternative 3) and west (Alternative 4) of the existing facility. Onsite constraints such to the east, west and south included encroaching on existing roads, existing structures that would need to be relocated elsewhere within the complex along with potentially resulting in additional aquatic impacts and these proposed alternatives did not provide the adequate turning radius for truck/unit mobilization. The northern expansion at the existing facility is the preferred alternative due to it allowing for the expansion of the existing facility to the 200,000 square foot building along with being the only alternative onsite that allows for the efficient removal of units from the assembly process when needed. It also allows for the necessary turning movements for trucks pulling units out of or placing units back into the facility.

The applicant is proposing to mitigate at an off-site location at a 4:1 ratio for the 1.42 acres of impacted Palustrine Forested Wetland. The proposed mitigation site is located 2 miles north of the existing facility in West Buffalo Township, Union County, Pennsylvania.

#### **CORPS EVALUATION REQUIREMENTS:**

This project will be evaluated pursuant to Corps Regulatory Program Regulations (33) CFR Parts 320-332). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people. The evaluation of the impact of this project will also include application of the Clean Water Act Section 404(b)(1) Guidelines promulgated by the Administrator, United States Environmental Protection Agency.

#### **ENDANGERED SPECIES:**

A preliminary review of this application indicates that the proposed work will have no effect federally listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

#### **ESSENTIAL FISH HABITAT:**

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH), including species of concern, life cycle habitat, or Habitat Areas of Particular Concern. The project site lies in or adjacent to EFH as described under MSFCMA for managed species under the MSFCMA. The Baltimore District has made a preliminary determination that the project will have no adverse effecton EFH. The Baltimore District has made a preliminary determination that mitigative measures are required to minimize adverse effects on EFH at this time. This determination may be modified if additional information indicates otherwise.

#### **HISTORIC RESOURCES:**

Pursuant to Section 106 of the National Historic Preservation Act of 1966 and applicable guidance, the Corps has reviewed the latest published version of the National Register of Historic Places and initially determined that no registered properties listed as eligible for inclusion, therein, are located at the site of the proposed work. The Corps has made the preliminary determination that the proposed project would have no effect on historic properties. The Corps final eligibility and effect determination will be based on coordination with the Pennsylvania State Historic Preservation Office as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps' identified permit area.

#### TRIBAL RESOURCES:

Section 106 of the National Historic Preservation Act also requires federal agencies to consult with federally recognized American Indian tribes that attach religious and cultural significance to historic properties that may be affected by the agency's undertaking. Corps Tribal Consultation Policy mandates an open, timely, meaningful, collaborative, and effective deliberative communication process that emphasizes trust, respect, and shared responsibility. The policy further emphasizes that, to the extent practicable and permitted by law, consultation works toward mutual consensus and begins at the earliest planning stages before decisions are made and actions taken. The Corps final eligibility and effect determination will be based on coordination with interested tribes, in accordance with the Corps current tribal standard operating procedures as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on tribal resources.

#### **MODIFICATION OF CIVIL WORKS PROJECTS: 33 USC 408 (SECTION 408):**

All Section 408 proposals will be coordinated internally at USACE. The Section 408 decision will be issued along with the Section 404 and/or Section 10 decision. Please see the following link for more information regarding Section 408: <a href="https://www.nab.usace.army.mil/Missions/Regulatory/Section-408-Requests/">https://www.nab.usace.army.mil/Missions/Regulatory/Section-408-Requests/</a>.

#### WATER QUALITY CERTIFICATION:

The applicant is required to obtain a Water Quality Certification in accordance with Section 401 of the Clean Water Act.

#### **COASTAL ZONE MANAGEMENT PROGRAMS:**

Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management Program.

By this public notice, we are requesting the state concurrence or objection to the applicant's consistency statement. The applicant must obtain any state or local government permits which may be required.

#### SUBMISSION OF COMMENTS:

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action and are subject to release to the public through the Freedom of Information Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the United States Army Corps of Engineers, Baltimore District within the comment period specified above through postal mail at the address below or electronic submission to the project manager email address below. Written comments should reference the Application Number NAB-2021-00412-E04.

#### **PUBLIC HEARING REQUESTS:**

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received within the comment period as specified above to receive consideration. Also, it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected. The public hearing request may be submitted by electronic mail or mailed to the following address:

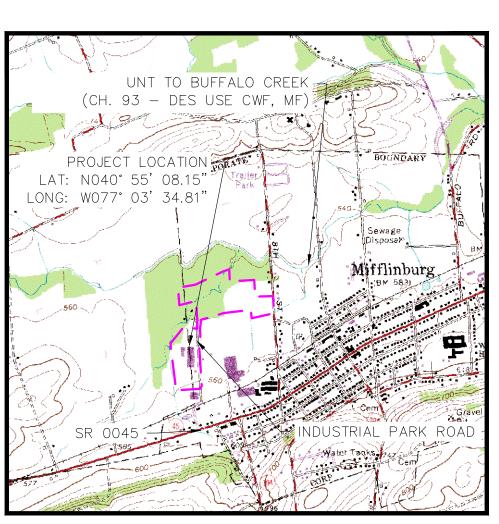
Mr. Matt Gall matt.gall@usace.army.mil

U.S. Army Corps of Engineers, Baltimore District State College Field Office 1631 South Atherton Street, Suite 101 State College, PA 16801

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested, who did not receive a copy of this notice.

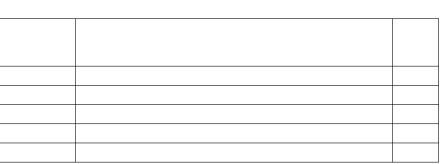
General information regarding the Corps' permitting process can be found on our website at <a href="https://www.nab.usace.army.mil/Missions/Regulatory.aspx">https://www.nab.usace.army.mil/Missions/Regulatory.aspx</a>. This public notice has been prepared in accordance with Corps implementing regulations at 33 CFR 325.3. If you have any questions concerning this specific project or would like to request a paper copy of this public notice, please contact Mr. Richard Kibby at (443) 254-6984 or by email at <a href="mailto:richard.kibby@usace.army.mil">richard.kibby@usace.army.mil</a>. This public notice is issued by the Chief, Regulatory Branch.







LOCATION MAP





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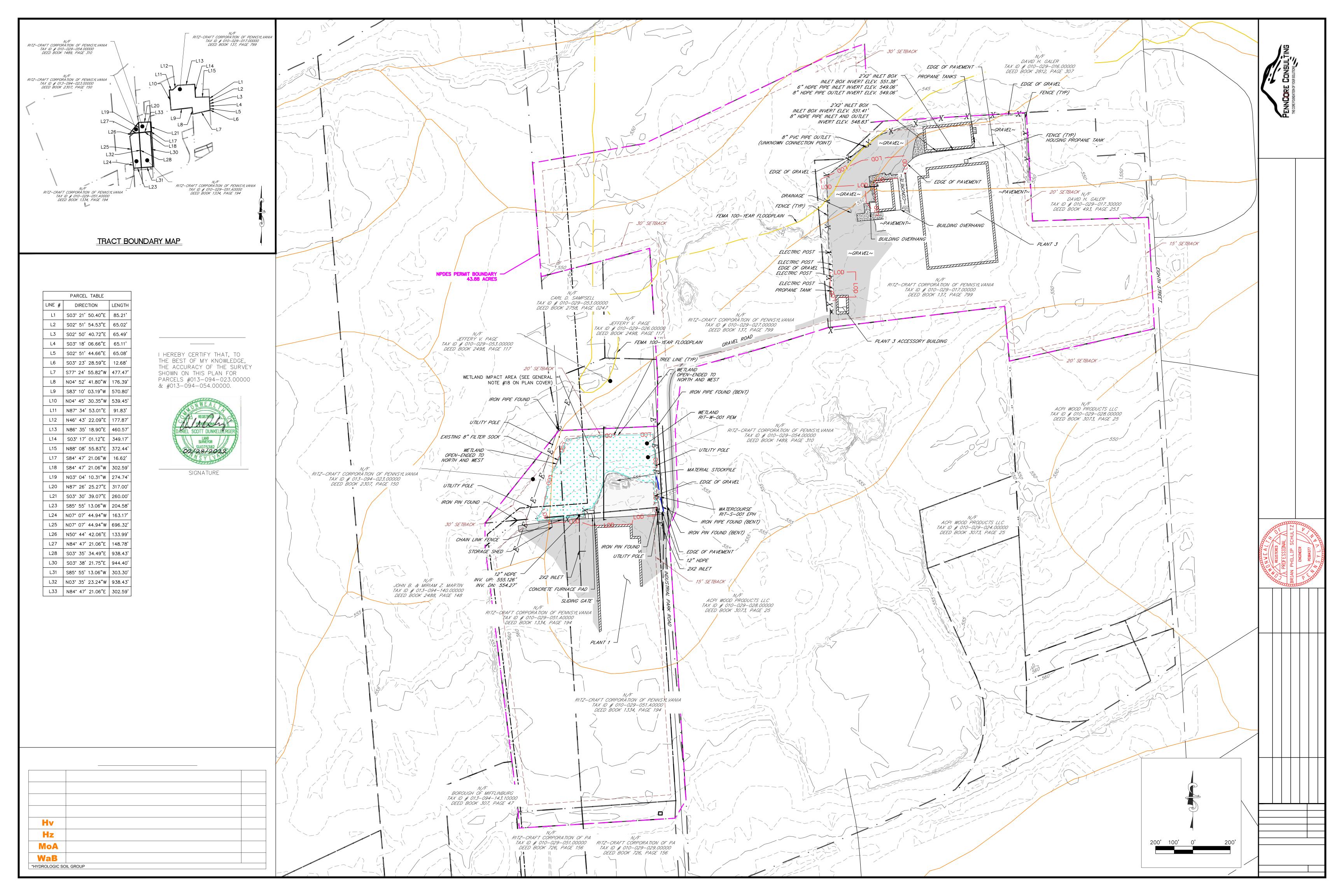
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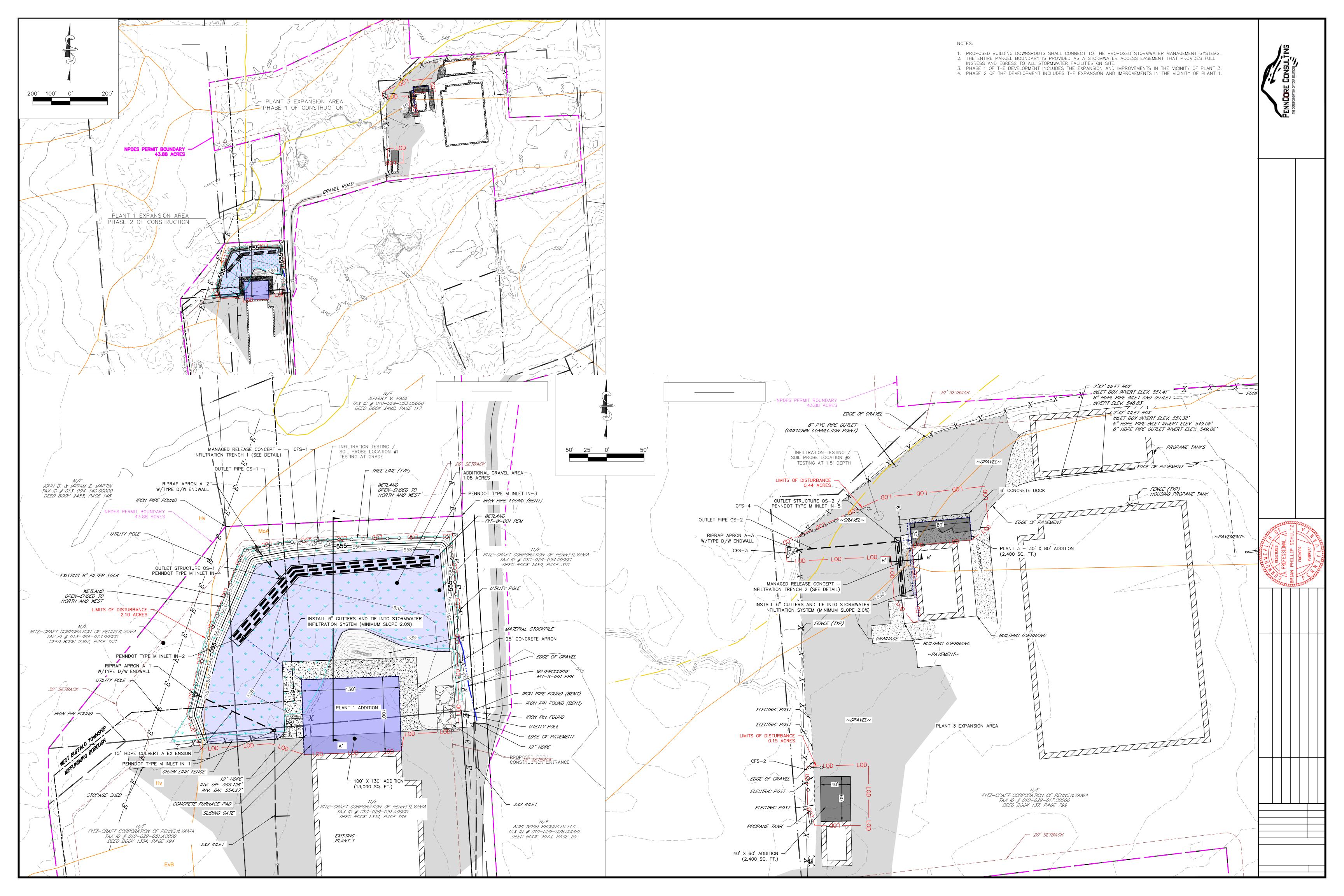


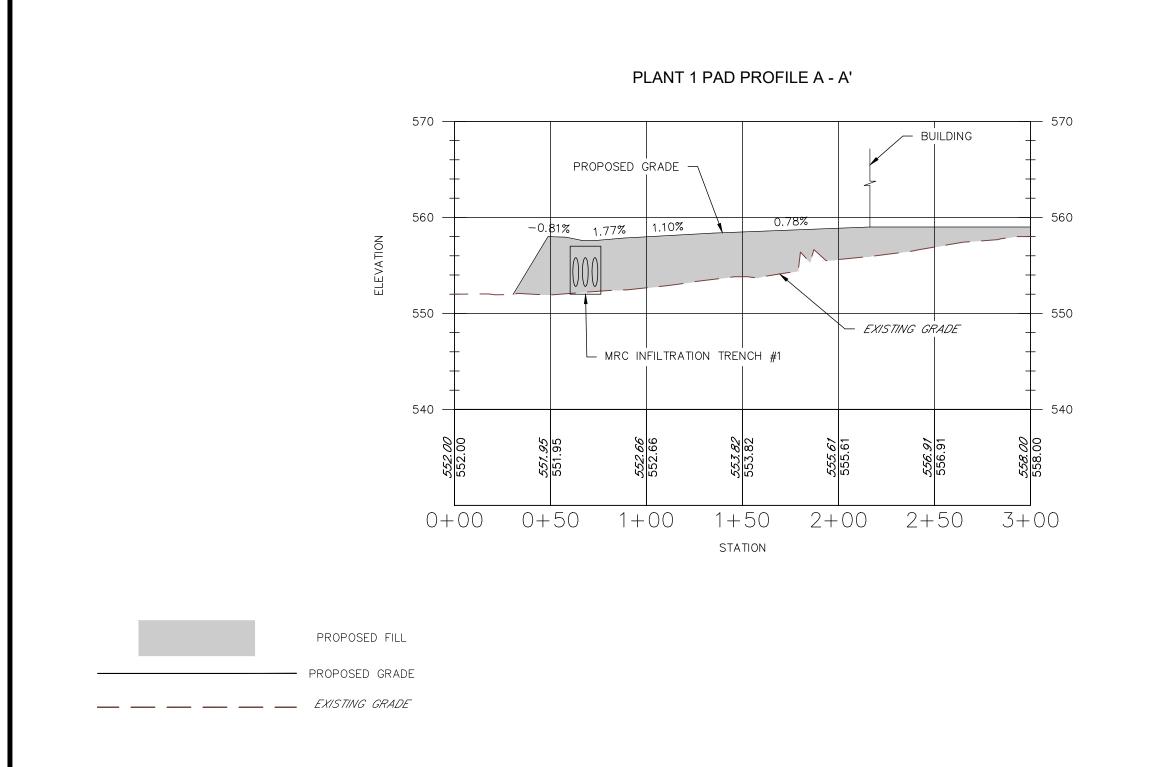


THE LOCATION OF ALL UTILITIES (ABOVE OR BELOW GROUND) SHOWN ON THESE DRAWINGS ARE APPROXIMATE & WERE OBTAINED FROM USGS TOPO MAPS AND/OR UTILITY OWNERS. PENNCORE CONSULTING LLC DOES NOT GUARANTEE THAT LOCATION SHOWN ON THE DRAWINGS ARE CORRECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE LOCATIONS OF EXISTING UTILITIES (ABOVE OR BELOW GROUND) & TO NOTIFY THE RESPECTIVE UTILITY OWNERS BEFORE BEGINNING CONSTRUCTION.

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE — STOP CALL
Pennsylvania One Call System Inc.
1-800-242-1776

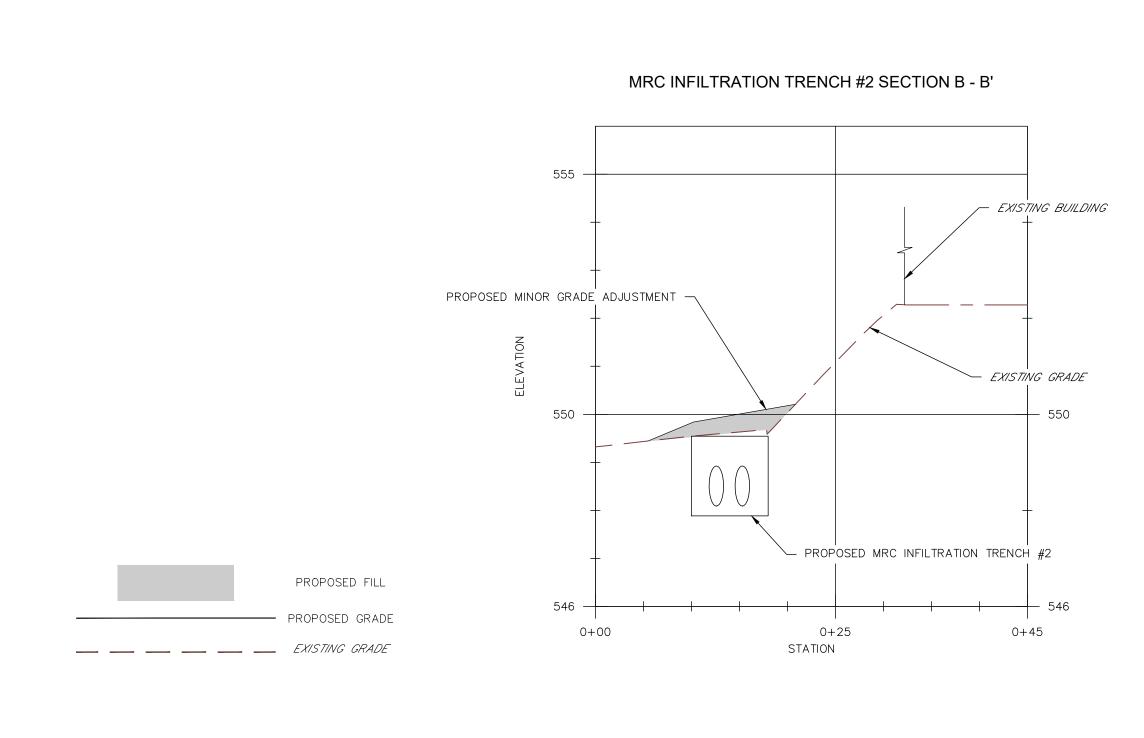


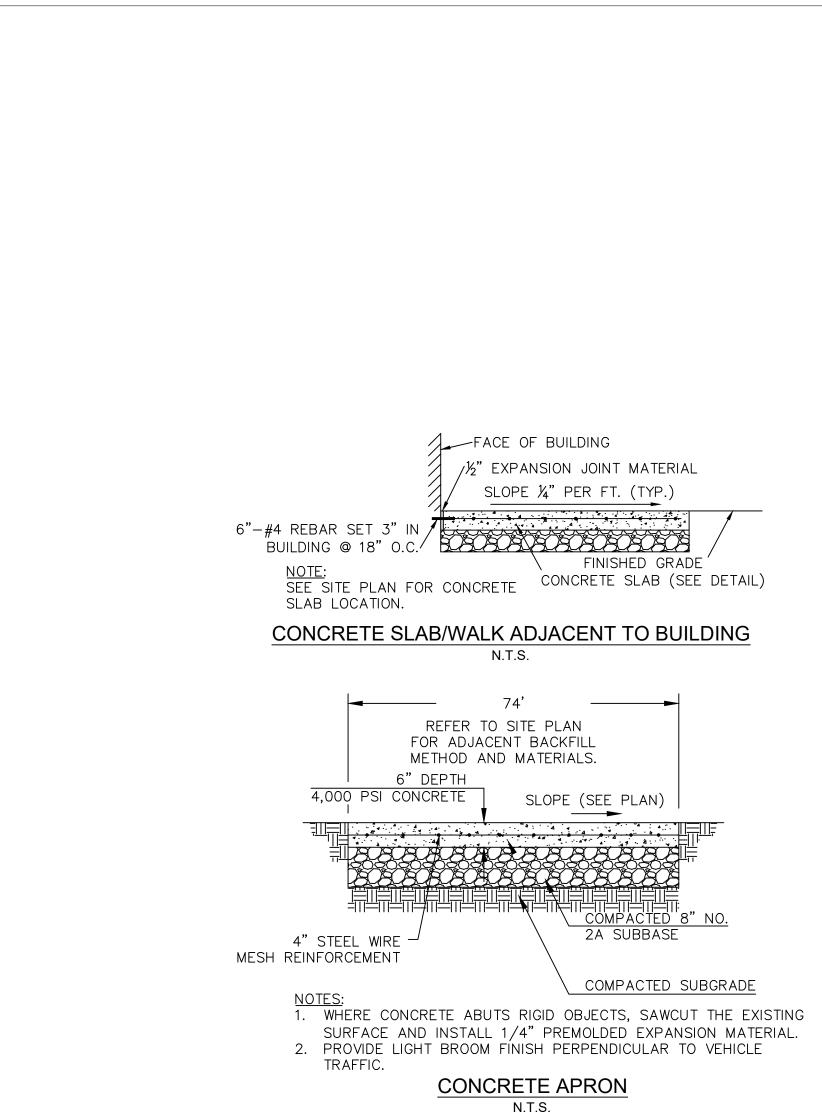




HORIZ SCALE: 50' 25' 0'

HORIZ SCALE: 50' 25' 0' 50'





CULVERT A - IN-1 TO APRON A-1 PROFILE

STATION

INLET IN-1 -

EXISTING GRADE

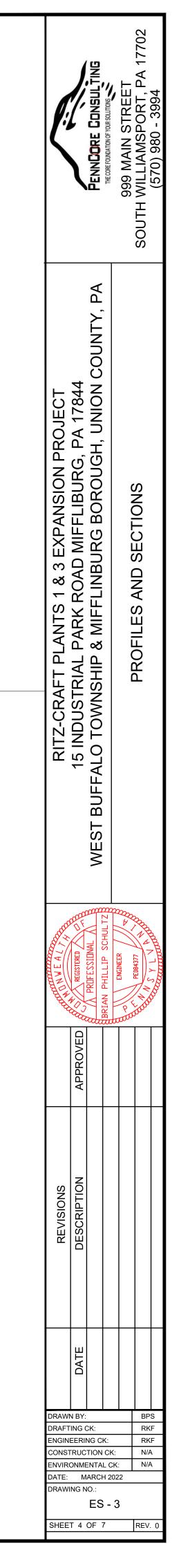
- 550

1+13.35

PROPOSED GRADE —

CULVERT A —

0+00

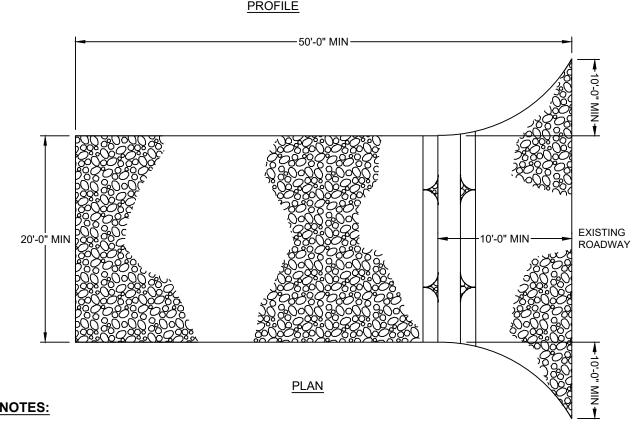


PROPOSED FILL

--- PROPOSED GRADE

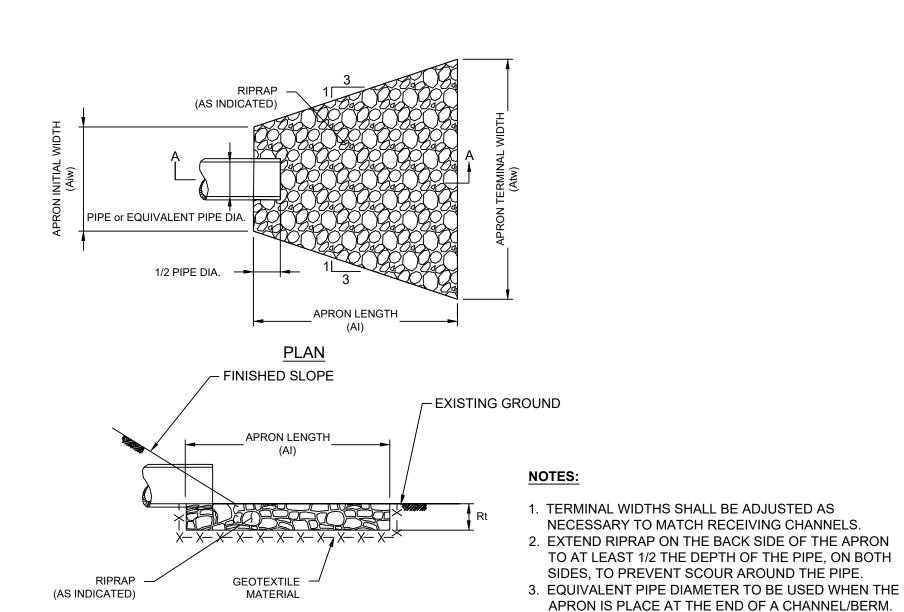
PROPOSED CULVERT

\_\_\_ \_\_ EXISTING GRADE



- 1. TOPSOIL SHOULD BE REMOVED PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.
- 2. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- 3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- 4. MOUNTABLE BERM SHOULD BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED. PIPE TO BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
- 5. MAINTENANCE: 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 FEET INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWER, CULVERTS, OR OTHER DRAINAGEWAYS IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE



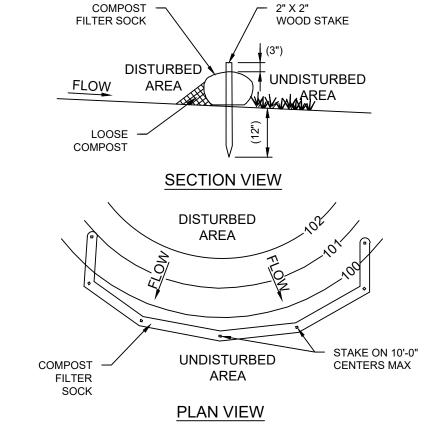
SECTION A-A

	PIPE or	RIP	RAP		APRON	
RIPRAP APRON OUTLET NO.	EQUIV. PIPE DIA Pd (IN)	SIZE (R)	THICK. Rt (IN)	LENGTH AI (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
A-1 (DET BASIN 1)	15	R-3	9	8	3.8	11.8
A-2 (PIPE A-1)	15	R-3	9	8	3.8	11.8
A-3 (PIPE B-1)	15	R-3	9	8	3.8	11.8

4. USE TYPE D-W ENDWALL WITH BLOCKS AND TRASH

RACK WITH HEADWALLS C TO K.

RIPRAP APRON DETAIL



1" REBAR FOR BAG

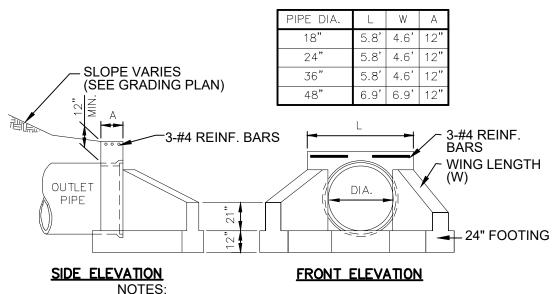
REMOVAL FROM INLET

- 1. 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 (SEE ABOVE). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2 IN APPENDIX A OF THE E&S PLAN.
- 2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- 4. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 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.

SOCK NO.	DIA. (IN)	SOCK LENGTH (FT)
CFS-1	12	772
CFS-2	12	78
CFS-3	12	35
CEC 4	40	114

C.F.S. = COMPOST FILTER SOCK

COMPOST FILTER SOCK DETAIL



1. CONSTRUCT IN ACCORDANCE WITH PENNDOT

PUBLICATION 72 RC-31 2. FOR PIPE SIZES LESS THAN 36" CONSTRUCT WING WALL TO DIMENSIONS FOR 36" PIPE DIAMETER AS LISTED IN PENNDOT RC-31.

> TYPE D-W ENDWALL DETAIL N.T.S.

# MULCH APPLICATION RATE DETAIL

MULCH TYPE	RATE	NOTES
STRAW	3 TON/ACRE	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED
HAY	3 TON/ACRE	TIMOTHY, MIXED CLOVER, OR OTHER NATIVE FORAGE GRASSES
WOOD FIBER HYDROMULCH	VARIABLE	APPLY PER PRODUCT MANUFACTURER RECOMMENDATIONS
HYDRAULIC EROSION CONTROL PRODUCTS	VARIABLE	APPLY PER PRODUCT MANUFACTURER RECOMMENDATIONS

2"X2"X3/4"

3:1

- RUBBER BLOCK

- 1. PLACE MULCH IMMEDIATELY AFTER SEEDING OR, AT A MAXIMUM, WITHIN 48 HOURS AFTER SEEDING IS COMPLETED.
- 2. LOOSE MULCH SHALL BE ANCHORED IN CONFORMANCE WITH PROJECT SPECIFICATIONS IMMEDIATELY AFTER APPLICATION.
- 3. DURING PERIODS OF NON-GERMINATION, THE ABOVE LISTED MULCH TYPES (APPLIED AT THE SPECIFIED RATE) MAY BE USED FOR TEMPORARY STABILIZATION.
- 4. EROSION CONTROL MATTING SHALL BE INSTALLED IN PLACE OF MULCHING AT ALL LOCATIONS SPECIFIED IN THE EROSION CONTROL MATTING DETAIL AND ALL OTHER DISTURBED AREAS SPECIFICALLY IDENTIFIED ON THE PLAN DRAWINGS.

TEMPORARY SO	OIL SUPPLEMENTS RATES					
SUPPLEMENTS						
AGRICULTURAL LIME	1 TON/ACRE					
10-10-10 FERTILIZER	500 LBS/ACRE					
DEDMANIENT OC	U CUDDI EMENTO DATEC					
	DIL SUPPLEMENTS RATES					
SU	IPPLEMENTS					

#### SUPPLEMENTS AND TOPSOIL NOTES:

- SPREAD TOPSOIL AT A MINIMUM DEPTH OF 6 INCHES ACROSS ALL DISTURBED AREAS TO BE SEEDED. ADD FERTILIZER/SOIL AMENDMENTS AND SEED ALL DISTURBED AREAS. REFER TO TABLE 1.
- 2. FERTILIZATION/SOIL SUPPLEMENT RATES SHALL MATCH THE RATES IDENTIFIED IN TABLE 1 UNLESS SOIL SAMPLES ARE ANALYZED FOR THE ACTUAL REQUIRED RATES.
- 3. APPLY FERTILIZERS AND SOIL SUPPLEMENTS IN ACCORDANCE WITH THE 2012 PENNSYLVANIA EROSION AND SEDIMENT
- 4. APPLY SEED MIXTURES IN ACCORDANCE WITH THE 2012 PENNSYLVANIA EROSION AND SEDIMENT CONTROL MANUAL
- 5. ALL TOPSOIL AREAS LESS THAN 3:1 SLOPES MUST BE CULTIMULCHED WITH OWNERS APPROVED EQUIPMENT TO BE DRAGGED BEHIND WHEELED EQUIPMENT
- ALL TOPSOIL AREAS GREATER THAN 3:1 SLOPES MUST BE TRACKED WITH TRACKED EQUIPMENT AND HYDROSEEDED WITH FELXTERRA OR APPROVED EQUAL OR MUST USE ECM.

# RECOMMENDED TEMPORARY COVER OR NURSE CROPS

RESTRAINT 1/4

NYLON ROPE

SILTSACK DETAIL

EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM

ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE

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

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

REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT BAGS. ALL NEEDED REPAIRS

SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS

REDUCED SO AS TO CAUSE FLOODING OR BYPASSING THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE

INLET PROTECTION IS NOT REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP.

MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.

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

SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

BERMS REQUIRED FOR ALL INSTALLATIONS.

SPECIES	NURSE CROP SEEDING RATE (LB/ACRE)	TEMPORARY COVER SEEDING RATE (LB/ACRE)
FOR SPRING SEEDING (UP TO JUNE 15)		
ANNUAL RYEGRASS, OR SPRING OATS, OR WINTER WHEAT, OR WINTER RYE, OR SPRING OATS PLUS RYEGRASS (ANNUAL OR PERENNIAL)	5 64 30 56 64 (OATS) 10 (RYE)	40 96 180 168 64 (OATS) 20 (RYE)
FOR LATE SPRING & SUMMER SEEDING (JUNE 16 - AUGUS	T 15)	
ANNUAL RYEGRASS, OR JAPANESE OR FOXTAIL MILLET, OR SUDANGRASS, OR SPRING OATS, OR WINTER WHEAT, OR WINTER RYE	5 12 10 64 30 56	40 35 40 96 180 168
FOR LATE SUMMER & FALL SEEDING (AUGUST 16 AND LA	TER)	1
ANNUAL RYEGRASS, OR WINTER WHEAT, OR WINTER RYE	5 56 30	40 168 180

- 1. SEEDING APPLICATION RATES ARE STATED AS POUNDS PER ACRE OF PURE LIVE SEED (PERCENTAGE OF PURE SEED MULTIPLIED BY THE PERCENTAGE OF GERMINATION) FOR EACH SPECIES. APPLIED SEEDING RATES SHALL MEET, OR EXCEED, THE HIGHEST CALCULATED INDIVIDUAL SPECIES SEEDING RATE BASED ON THE SEED MIX UTILIZED.
- 2. CONTRACTOR SHALL SELECT SEED MIXTURES APPROPRIATE FOR SITE SPECIFIC CONDITIONS INCLUDING SLOPE OF THE WORK AREA, SOIL PH AND FERTILITY, AVAILABLE SUNLIGHT AND ANTICIPATED USE OF THE
- AREAS THAT MAY BE SUBJECT TO EARTHMOVING WITHIN 12 MONTHS MAY BE STABILIZED WITH TEMPORARY SEED MIXTURES. ALL OTHERS SHOULD BE STABILIZED WITH PERMANENT SEED MIXTURES.
- 4. CONTRACTOR SHALL MAKE PREPARATIONS FOR SEEDING AND MULCHING AS DISTURBED AREAS APPROACH FINAL GRADE. 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.
- 5. CONTRACTOR SHALL APPLY TOPSOIL AND PREPARE THE SEED BED IN CONFORMANCE WITH PROJECT SPECIFICATIONS PRIOR TO APPLICATION OF SEED FOR PERMANENT STABILIZATION.

# STABILIZATION DURING NON-GROWING SEASONS:

ALL CONSTRUCTION SHOULD BE PLANNED FOR COMPLETION WITHIN THE RECOMMENDED DATES FOR THE APPLICATION OF PERMANENT SEEDING AND ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER, HOWEVER, WHEN CONSTRUCTION MUST BE DONE AND IS COMPLETED DURING A NON-GROWING SEASON (WINTER TIME, ETC.), TEMPORARY STABILIZATION BMPs MUST BE IMPLEMENTED AND ADEQUATELY MAINTAINED. THE APPLICATION OF STRAW MULCH AT THE RATE OF THREE (3) TONS PER ACRE IS RECOMMENDED. THE BMPs SHOULD BE CHECKED WEEKLY (UNLESS SNOW COVERED) TO IDENTIFY AREAS THAT BECOME BARE. THESE BARE AREAS SHOULD BE COVERED WITH A PROPERLY INSTALLED EROSION CONTROL MATTING OR MULCH.

ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROLS MUST BE MAINTAINED UNTIL 70% PERENNIAL VEGETATIVE COVER IS ACHIEVED.

# RECOMMENDED PERMANENT SEED MIXTURES

TAKEN FROM PADEP OIL AND GAS OPERATORS MANUAL								
MIXTURE NUMBER	SEASON	SPECIES	SEEDING RATE lb./ac.					
1	COOL	TALL FESCUE*, OR FINE FESCUE, PLUS REDTOP, OR PERENNIAL RYEGRASS, PLUS BIRDSFOOT TREFOIL	79 46 4 19 8					
2	COOL	BIRDSFOOT TREFOIL, PLUS TALL FESCUE*	8 40					
3	COOL	ORCHARDGRASS, OR SMOOTH BROMEGRASS, PLUS BIRDSFOOT TREFOIL	26 33 8					
4	WARM	FLATPEA, PLUS TALL FESCUE*, OR PERENNIAL RYEGRASS	27 26 25					
5	WARM	DEERTONGUE, PLUS BIRDSFOOT TREFOIL	21 8					
6	WARM	SWITCHGRASS, OR BIG BLUESTEM, PLUS BIRDSFOOT TREFOIL	15 15 8					

\* USE ONLY ENDOPHYTE FREE VARIETIES SUCH AS JOHNSTONE, BARCEL, OR FESTORINA.

# SEED MIXTURES FOR STABILIZING DISTURBED AREAS

SITE CONDITION	SEED MIXTURE (SELECT ONE MIXTURE)
CUT SLOPES AND FILLS (NOT MOWED)	
WELL-DRAINED	2, 4, OR 6
VARIABLE DRAINAGE	2
CUT SLOPES AND FILLS (MOWED)	1
CUT SLOPES AND FILLS (GRAZED/HAY)	1, 2, OR 3
GULLIES AND ERODED AREAS	2 OR 6
EROSION CONTROL BMPS	
CHANNELS, DRAINAGE DITCHES, TRAP EMBANKMENTS, ETC.	1 OR 2
FOR HAY OR SILAGE	2 OR 3
RIGHT-OF-WAY	
WELL-DRAINED	4 OR 6
VARIABLE DRAINAGE	2
WELL-DRAINED AREAS FOR GRAZING / HAY	2 OR 3
STRIP MINED AREAS	
SPOILS, WASTE AREAS, FLY ASH, SLAG, ETC	2, 4, OR 5
FOR GRAZING / HAY.	2, 3, OR 6



DRAFTING CK: NGINEERING CK:

INSTRUCTION CK: ENVIRONMENTAL CK: N// ATE: MARCH 2022 AWING NO.

SHEET 5 OF 77 REV.

- A. A COPY OF THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
- B. PENNSYLVANIA LAW REQUIRES THE CONTRACTOR TO NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING ANY EXCAVATION WORK.
- C. THE CONTRACTOR MUST DEVELOP, AND HAVE APPROVED BY THE CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA OCCURRING OUTSIDE THE LIMITS OF DISTURBANCE OUTLINED IN THE APPROVED
- D. THIS PLAN WAS DEVELOPED TO COMPLY WITH THE REQUIREMENTS OF PADEP CHAPTER 102 AND THE COMMONWEALTH OF PENNSYLVANIA CODE, TITLE 25, ENVIRONMENTAL PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE PERMANENT STABILIZATION OF THE SITE UPON COMPLETION OF ALL WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ANY ADDITIONAL E&S MEASURES BEYOND THOSE SHOWN IN THIS PLAN IN ORDER TO ACHIEVE PERMANENT STABILIZATION.
- E. ALL BMP'S SHALL BE INSPECTED A MINIMUM ONCE A WEEK AND AFTER EACH MEASURABLE RAINFALL EVENT. REPAIRS OF BMP'S TO ENSURE EFFECTIVE AND EFFICIENT OPERATION SHALL BE IMMEDIATE.
- F. THE TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE. THE TOPSOIL STOCKPILES SHALL NOT EXCEED 35-FEET IN HEIGHT WITH SIDE SLOPES OF 2:1 OR FLATTER. SILTSOXX SHALL BE PLACED ON THE DOWN-SLOPE SIDE(S) OF THE STOCKPILES IMMEDIATELY UPON THE INITIATION OF STORAGE. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHALL BE REPLACED AS PER THE TOPSOILING SPECIFICATIONS. NO TOPSOIL SHALL BE REMOVED FROM THE SITE. ANY EXCESS TOPSOIL SHALL BE GRADED TO A SAFE CONFIGURATION AND PERMANENTLY SEEDED AND MULCHED.
- G. UPON TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY OR ANY STAGE THEREOF OR PHASE OF ANY ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.
- H. THE EROSION AND SEDIMENT POLLUTION CONTROL BMP'S MUST REMAIN INSTALLED AND FUNCTIONAL UNTIL UPSLOPE DISTURBED AREAS ARE STABILIZED WITH MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER STABILE COVER
- I. AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES IN ACCORDANCE WITH THE DIRECTIONS FOR MAINTENANCE PROGRAM FOR CONTROL MEASURES.
- J. ALL TRENCH EXCAVATION SHALL CONFORM TO PA CHAPTER 102 UTILITY LINE CONSTRUCTION STANDARDS. IF WATER IS ENCOUNTERED DURING EXCAVATION AND/OR UTILITY LINE INSTALLATION, THE USE OF A PUMPED WATER FILTER BAG SHALL BE EMPLOYED.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND DISPOSED OF MATERIALS IN A MANNER CONSISTENT WITH THE REQUIREMENTS OF PADEP CHAPTER 102 AND THE COMMONWEALTH OF PENNSYLVANIA CODE, TITLE 25, ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL RECYCLE AND/OR DISPOSE OF ALL EXCESS CONSTRUCTION MATERIALS AND WASTES IN ACCORDANCE WITH THE
- BEFORE DISPOSING OF SPOIL OR RECEIVING BORROW FOR THE SITE, THE CONTRACTOR MUST ENSURE THAT EACH SPOIL OR BORROW AREA HAS
- THE CONTRACTOR MUST VERIFY AND/OR OBTAIN AN NPDES PERMIT FOR ANY OFFSITE SPOIL/BORROW AREAS WHERE EARTH DISTURBANCE
- L. IN ORDER TO MINIMIZE THE POTENTIAL FOR SOIL EROSION AND RESULTING POLLUTION DURING THE WINTER MONTHS, THE FOLLOWING E&S POLLUTION CONTROL MEASURES SHALL BE TAKEN FOR ALL SOILS LOCATED ON THE SITE.
  - WHEN FROZEN SOILS ARE ENCOUNTERED, THEY MUST BE STABILIZED WITHIN THREE DAYS OF DISTURBANCE WITH THE MEASURES CALLED OUT IN THE CONSTRUCTION SEQUENCE AND SHOWN ON THE PLAN. AREAS THAT ARE NOT TO BE PERMANENTLY STABILIZED WITH STONE SHALL BE STABILIZED WITH MULCH AND JUTE NETTING UNTIL TEMPORARY OR FINAL SEEDING CAN BE ACCOMPLISHED. THE BASIN BERM SHALL ALSO BE
- M. AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES IN ACCORDANCE WITH THE DIRECTIONS FOR MAINTENANCE OF CONTROLS.
- O. CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM ENVIRONMENTAL DUE DILIGENCE AND DETERMINE THAT ALL FILL IMPORTED TO THE SITE MEETS PADEP'S DEFINITION OF CLEAN FILL.

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.

DEFINITION OF ENVIRONMENTAL DUE DILIGENCE: ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATABASE 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 OF 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". FILL MATERIAL THAT DOES NOT WHICHEVER IS APPLICABLE.

# GENERAL MAINTENANCE NOTES FOR ALL BMPs:

ROUTINE MAINTENANCE INSPECTIONS WILL BE REQUIRED TO ENSURE THE PERFORMANCE OF ALL THE SEDIMENT CONTROL BMP DEVICES. AT A MINIMUM, ALL STRUCTURES AND DEVICES SHALL BE INSPECTED ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM WATER EVENT. THIS INSPECTION SHALL BE FOLLOWED WITH A REPAIR SCHEDULE OF ALL NOTED DEFICIENCIES. VEGETATION PROGRESS SHALL ALSO BE INCLUDED IN THIS INSPECTION. VOID AREAS SHALL PROMPTLY BE RESEEDED AND MULCHED TO ESTABLISH PROTECTION.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL 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 DONE IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS TO THOSE INSTALLED, WILL BE REQUIRED.

SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF WITHIN THE LIMIT OF DISTURBANCE IN LANDSCAPE AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN STOCKPILES

ALL CHANNELS/BERMS MUST BE KEPT FREE OF OBSTRUCTIONS SUCH AS FILL, FALLEN LEAVES & WOODY DEBRIS, ACCUMULATED SEDIMENT, AND CONSTRUCTION MATERIALS/WASTES WITH EXCEPTION TO OTHER REQUIRED BMPs (I.E., CHECK DAMS). CHANNELS/BERMS SHOULD BE KEPT MOWED AND/OR FREE OF ALL WEEDY, BRUSHY OR WOODY GROWTH. ALL NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.

#### ROCK CONSTRUCTION ENTRANCE MAINTENANCE SCHEDULE:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING THE REQUIRED STONE. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE UPSLOPE OF APPROPRIATE BMPs.

# COMPOST FILTER SOCK MAINTENANCE SCHEDULE:

- SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER.
- ANY SECTION OF THE BARRIER WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
- 3. CHECK COMPOST FILTER SOCK FOR TORN OR OTHERWISE DAMAGED SECTIONS ALLOWING WATER TO FLOW UNDER OR
- AROUND THE BARRIER. REPAIR ANY DEFICIENCIES IMMEDIATELY.
- REPLACE BIODEGRADABLE COMPOST FILTER SOCKS 6 MONTHS AFTER INSTALLATION AND REPLACE PHOTODEGRADABLE COMPOST FILTER SOCKS 12 MONTHS AFTER INSTALLATION.

# **CULVERT MAINTENANCE**

 INSPECT CULVERT FOR FLOW OBSTRUCTIONS, SCOUR AT THE INLET AND OUTLET, AND DAMAGE TO THE CULVERT FLOW OBSTRUCTIONS SHALL BE REMOVED IMMEDIATELY; SUITABLE INLET AND/OR OUTLET PROTECTION SHOULD BE PROVIDED WHERE SCOUR IS OBSERVED; AND, DAMAGED CULVERTS SHALL BE REPAIRED, OR REPLACED IMMEDIATELY.

#### EROSION CONTROL MATTING / TURF REINFORCEMENT MATTING MAINTENANCE SCHEDULE:

CHECK VEGETATION GROWTH DURING INSPECTION.

PARALLEL TO THE DIRECTION OF FLOW AND

ANCHOR SECURELY.

- 2. IMMEDIATELY RE-GRADE AND REPAIR ANY UNDERMINED OR WASHED OUT AREAS.
- 3. THE MAT SHALL BE CHECKED FOR TORN OR LOOSE STAPLED AREAS. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

#### SEEDING AND MULCHING:

1. REPAIR AND RE-SEED ANY ERODED AREAS DISTURBED BY EROSION OR SLOPE MOVEMENT IMMEDIATELY.

#### **E&S CONTROL BMP REMOVAL:**

1. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY.

#### **ESTIMATED PROJECT SCHEDULE:**

- CONSTRUCTION STARTS MAY 2022
- 2. PHASE 1 COMPLETE JUNE 2022 3. PHASE 2 COMPLETE - JULY 2022

# **CONSTRUCTION SEQUENCE:**

IN ORDER TO MINIMIZE THE POTENTIAL FOR SOIL EROSION AND RESULTING SEDIMENT POLLUTION FROM LEAVING THE SITE, THE FOLLOWING CONSTRUCTION SEQUENCE HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL AT ANY ONE TIME BY FOLLOWING THE CONSTRUCTION SEQUENCE AND PREVENT SEDIMENT POLLUTION BY INSTALLING MEASURES AS SHOWN ON THE PLAN. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. DISTURBANCE SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH PHASE BELOW.

#### PHASE 1: (PLANT 3 EXPANSION)

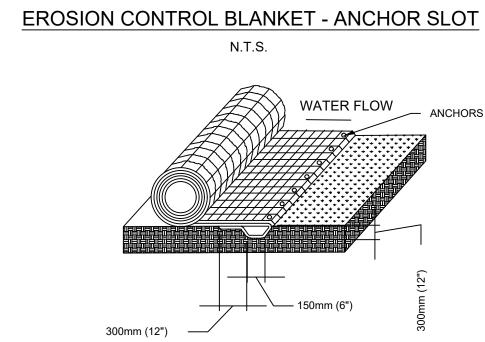
- A. PENNSYLVANIA LAW REQUIRES THE CONTRACTOR TO NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING ANY EXCAVATION WORK.
- B. THE UNION COUNTY CONSERVATION DISTRICT (UCCD) SHALL BE NOTIFIED A MINIMUM OF SEVEN WORKING DAYS PRIOR TO BEGINNING ANY EXCAVATION WORK TO DETERMINE IF A PRE-CONSTRUCTION CONFERENCE IS REQUIRED.
- C. THE CONTRACTOR SHALL USE EXISTING STABILIZED AREA OR INSTALL A ROCK CONSTRUCTION ENTRANCE IF NEEDED TO PROVIDE ACCESS TO THE PROJECT AREA. THE CONTRACTOR SHALL KEEP THE PROJECT AREA CLEAR OF SEDIMENT AND DEBRIS AT ALL TIMES IN ORDER TO PREVENT TRACKING ONTO THE PUBLIC ACCESS.
- 1. THE CONTRACTOR SHALL STAKE THE LIMITS OF DISTURBANCE PRIOR TO ANY EARTHWORK. ALL EARTHWORK MUST REMAIN WITHIN THE STAKED LIMITS OF DISTURBANCE. AS THE DISTURBANCE IS OVER 1 ACRE, AN NPDES PERMIT IS REQUIRED.
- 2. THE CONTRACTOR SHALL INSTALL THE COMPOST FILTER SOCK PER THE PLAN AND DETAIL.
- THE CONTRACTOR SHALL PLACE ALL PERIMETER AND DOWNSLOPE COMPOST FILTER SOCK AS INDICATED ON THE PLAN.
- 4. THE CONTRACTOR SHALL BEGIN CONSTRUCTION OF THE PROPOSED INFILTRATION TRENCH. THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION ASSOCIATED WITH THE PROPOSED DEVELOPMENT
- 6. ALL EROSION AND SEDIMENT POLLUTION CONTROL BMP'S MUST REMAIN INSTALLED AND FUNCTIONAL UNTIL UPSLOPE DISTURBED AREAS ARE

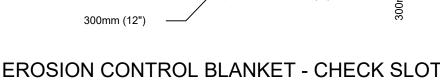
# STABILIZED WITH MINIMUM UNIFORM 70% PERENNIAL VEGETATED COVER OR OTHER STABLE COVER.

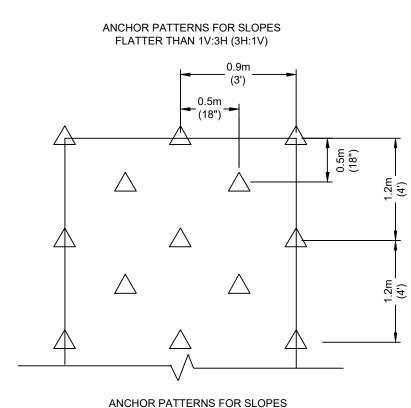
# PHASE 2: (PLANT 1 EXPANSION)

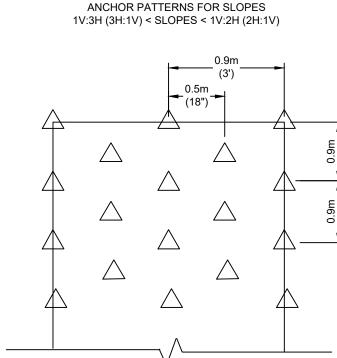
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- C. THE CONTRACTOR SHALL USE THE ROCK CONSTRUCTION ENTRANCE DEPICTED ON THE PLAN TO PROVIDE ACCESS TO THE PROJECT AREA. THE CONTRACTOR SHALL KEEP THE PROJECT AREA CLEAR OF SEDIMENT AND DEBRIS AT ALL TIMES IN ORDER TO PREVENT TRACKING ONTO THE PUBLIC
- 1. THE CONTRACTOR SHALL STAKE THE LIMITS OF DISTURBANCE PRIOR TO ANY EARTHWORK. ALL EARTHWORK MUST REMAIN WITHIN THE STAKED LIMITS OF DISTURBANCE. AS THE DISTURBANCE IS OVER 1 ACRE, AN NPDES PERMIT IS REQUIRED.
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- 4. THE CONTRACTOR SHALL PLACE ALL PERIMETER AND DOWNSLOPE COMPOST FILTER SOCK AS INDICATED ON THE PLAN
- PERFORM TOPSOIL STRIPPING TO THOSE AREAS DESCRIBED IN EACH WORK AREA AND CONTINUE GRADING ACTIVITIES. STOCKPILE TOPSOIL AND INSTALL COMPOST FILTER SOCK DOWNSLOPE OF STOCKPILES.
- 6. THE CONTRACTOR SHALL COMPLETE GRADING OPERATIONS ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND BEGIN CONSTRUCTION OF THE PROPOSED INFILTRATION TRENCH SYSTEM. INLET PROTECTION SHALL BE PLACED IN ALL INLETS TO PROTECT AGAINST SEDIMENTATION DURING A
- 7. THE CONTRACTOR SHALL CONTINUE THE CONSTRUCTION ASSOCIATED WITH THE PROJECT. ALL DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED
- IN PROPOSED IMPERVIOUS AREAS AND SEEDED/MULCHED IN PERVIOUS AREAS 8. THE CONTRACTOR SHALL COMPLETE FINAL GRADING, SPREAD TOPSOIL ON ALL PROPOSED UNPAVED AREAS, AND PAVE OR STABILIZE ALL REQUIRED
- AREAS. SEED AND PLANT ALL UNPAVED AREAS WITH PERMANENT GRASS OR GROUND COVER. DURING ESTABLISHMENT OF PERMANENT GROUND COVER, RESEED, RE-MULCH AND/OR RE-MAT ANY AREAS THAT BECOME ERODED. ALL AREAS DISTURBED DURING THE REMOVAL OF THE EROSION AND SEDIMENT POLLUTION CONTROL MEASURES SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS FOR PERMANENT SEEDING.
- 9. ALL EROSION AND SEDIMENT POLLUTION CONTROL BMP'S MUST REMAIN INSTALLED AND FUNCTIONAL UNTIL UPSLOPE DISTURBED AREAS ARE STABILIZED WITH MINIMUM UNIFORM 70% PERENNIAL VEGETATED COVER OR OTHER STABLE COVER.

# **EROSION CONTROL BLANKET - ANCHOR PATTERN**









ANCHOR PATTERNS FOR SLOPES

STEEPER THAN 1V:1H (1H:1V) & CHANNELS

RAFTING CK: NGINEERING CK: INSTRUCTION CK: NVIRONMENTAL CK: N// TE: MARCH 2022 AWING NO. ES-5

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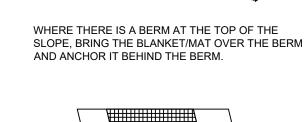
WATER FLOW 150mm (6")

2V:1H (1H:2V) < SLOPES < 1V:1H (1H:1V)

# 150mm (6") SLOPES STEEPER THAN 1V:3H (3H:1V) ON STEEP SLOPES, APPLY STRIPS IF BLANKET/MAT BRING THE BLANKET/MAT TO A LEVEL AREA BEFORE

# SLOPES FLATTER THAN 1V:3H (3H:1V) ON SHALLOW SLOPES STRIPS OF BLANKET/MAT IN SWALES, APPLY BLANKET/MAT PARALLEL TO THE MAY BE APPLIED ACROSS THE SLOPE DIRECTION OF FLOW. USE CHECK SLOTS EVERY 5m (15ft). DO NOT JOIN STRIPS IN THE CENTER OF THE

**EROSION CONTROL BLANKET - ORIENTATION** 



TERMINATING THE INSTALLATION. TURN THE END UNDER 150mm (6") AND STAPLE AT 300mm (12") INTERVALS.

DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SHALL BE MAINTAINED IN ACCORDANCE WITH THE REGULATIONS OF CHAPTER 102.

EXCEEDS 1-ACRE.

- STABILIZED BY THIS METHOD IF CONSTRUCTION COMMENCES DURING THE WINTER/NON-GROWING SEASON
- 2. ADDITIONAL STONE SHALL BE PLACED ON THE CONSTRUCTION ENTRANCE IF REQUIRED TO MAINTAIN ITS EFFECTIVENESS.
- N. EACH STAGE OF CONSTRUCTION SEQUENCE MUST BE COMPLETED PRIOR TO THE NEXT STAGE IN THE CONSTRUCTION SEQUENCE

DEFINITION OF CLEAN FILL: 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

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.

# **EROSION CONTROL BLANKET NOTES**

- 1. EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER, WITHIN 100 FEET OF SPECIAL PROTECTION SURFACE WATERS, AND WITHIN 50 FEET OF ALL OTHER SURFACE WATERS.
- 2. THIS DETAIL PROVIDES GENERAL GUIDELINES REGARDING INSTALLATION AND ANCHORING OF EROSION CONTROL BLANKET. INSTALLATION AND ANCHORING OF THE EROSION CONTROL BLANKET SHALL BE COMPLETED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 3. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING EROSION CONTROL BLANKET.
- 4. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE. 5. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS,

AND GRASS.

6. 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.

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 5 CALENDAR DAYS.

#### SOIL LIMITATIONS

#### THE SOIL TYPES AND THEIR LIMITATIONS PRESENT WITHIN THE LIMIT OF DISTURBANCE ARE:

SOIL CODE	SOIL NAME		CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLES	PONDING	WETNESS
Bd	BASHER SOILS, FREQUENTLY FLOODED	С	X	C/S			X	X	X	X	X	X	X	X				×
EvB	EVENDALE CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES	D	X	C/S				X	X	X	X	X	X	X	X	X		X
НаВ	HAGERSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES	В	X	S		X		X	X	X	X	X	X	X	X	X		
Hv	HOLLY SILT LOAM	D	X	C/S			X	×	X	X	X	X	X	X			X	X
Hz	HOLLY SILT LOAM, RARELY FLOODED	D	X	C/S			X	×	X	X	X	X	X	X			X	X
MoA	MONONGAHELA SILT LOAM, 0 TO 3 PERCENT SLOPES	D	X	c/s		X		X	X	X	X	X		X	X			X
WaB	WASHINGTON SILT LOAM, WET SUBSTRATUM, 3 TO 8 PERCENT SLOPES	С	X	S				X	X	X	X	X		X	X	X		

## 1. CUT BANKS CAVE

CUT BANKS WILL BE LAID BACK NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL TO PRODUCE STABLE SLOPES THAT WILL BE FURTHER STABILIZED WITH EROSION CONTROL BLANKET.

# 2. CORROSIVE TO CONCRETE/STEEL

ANY CONCRETE USED IN THE DEVELOPMENT OF THE SITE WILL CONSIST OF MIXES RESISTANT TO CORROSION. STEEL CASINGS WILL BE PROTECTED WITH COATINGS WHICH RESIST CORROSION.

# 3. <u>DROUGHTY</u>

SEEDING AND MULCHING WILL BE ACCOMPANIED WITH SUFFICIENT WATERING TO PROMOTE DEVELOPMENT OF VEGETATION.

# 4. EASILY ERODIBLE

EROSION PROTECTION BLANKETS WILL BE USED TO PREVENT ACCELERATED EROSION. IF NEEDED, TEMPORARY STABILIZATION (SEEDING AND MULCHING) OF DISTURBED AREAS WILL BE DONE AS SOON AS POSSIBLE AFTER ESTABLISHING FINAL CONTOURS. DISTURBED AREAS WILL BE INSPECTED AND MAINTAINED BY RE-SEEDING AS NEEDED UNTIL THE SITE IS STABILIZED WITH A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER.

# 5. <u>FLOODING</u>

ANY WATER INCURRED WHILE CONSTRUCTING THE SITE WILL BE PUMPED AND DISCHARGED THROUGH A PUMPED WATER FILTER BAG. FILTER BAGS SHALL BE INSTALLED ACCORDING TO THE DETAILS SHOWN ON THE PLAN DRAWINGS.

# 6. DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE

ANY WATER INCURRED WHILE CONSTRUCTING THE SITE WILL BE PUMPED AND DISCHARGED THROUGH A PUMPED WATER FILTER BAG. FILTER BAGS SHALL BE INSTALLED ACCORDING TO THE DETAILS SHOWN ON THE PLAN DRAWINGS.

# 7. HYDRIC / HYDRIC INCLUSIONS

AN ENVIRONMENTAL INVESTIGATION WAS CONDUCTED THROUGHOUT THE PROJECT AREA TO VERIFY ALL WETLANDS AND STREAMS WILL BE AVOIDED WITH THE LIMIT OF DISTURBANCE. ALL WETLANDS AND STREAM CROSSINGS ARE DETAILED IN THE PLAN DRAWINGS FOUND HEREIN. THE WETLAND / WATER RESOURCE REPORT IS INCLUDED WITH THE NPDES PERMIT APPLICATION.

# 8. LOW STRENGTH / LANDSLIDE PRONE

CUT AND FILL SLOPES WILL BE CONSTRUCTED AT A SLOPE ADEQUATE TO PREVENT LANDSLIDES. SLOPES WILL BE INSPECTED DURING CONSTRUCTION FOR FAILURES.

# 9. SLOW PERCOLATION

THROUGHOUT THE PROPOSED PROJECT SITE, RUNOFF WILL BE FILTERED THROUGH FILTER SOCKS, FILTER BAG INLET PROTECTION, ETC. THEREFORE, SLOW PERCOLATION OF THE SOIL WILL NOT POSE A LIMITATION TO THE PROJECT.

#### 10. PIPING

PIPING IS NOT ANTICIPATED TO BE A SIGNIFICANT ISSUE WITH THE PROPOSED DEVELOPMENT.

#### 11. POOR SOURCE OF TOPSOIL

ADDITIONAL FERTILIZER, LIME AND MULCH WILL BE APPLIED AS NEEDED TO ESTABLISH THE REQUIRED 70% UNIFORM PERENNIAL VEGETATIVE GROWTH TO STABILIZE DISTURBED AREAS. TOPSOIL WILL BE TESTED TO CONFIRM RATES OF APPLICATION NECESSARY.

## 12. FROST ACTION

PERMANENT STRUCTURES REQUIRING FOUNDATIONS WILL BE FORMED AT LEAST 48" BELOW FINISHED GRADE FOR FROST PROTECTION.

# 13. SHRINK - SWELL

SHRINKING AND SWELLING OF SOILS CAN CAUSE DAMAGE TO BUILDING FOUNDATIONS, BASEMENT WALLS, ROADS, AND OTHER STRUCTURES. THE PROPOSED SITE IS ADEQUATELY DESIGNED TO ADDRESS SHRINK-SWELL POTENTIAL.

# 14. POTENTIAL SINKHOLE

VISUAL INSPECTION OF THE EXCAVATION AREA SHALL BE PERFORMED TO IDENTIFY ANY POTENTIAL KARST AREAS. IF KARST AREAS ARE IDENTIFIED, APPROPRIATE REMEDIAL ACTIONS SHALL BE PERFORMED IMMEDIATELY.

# 15. PONDING

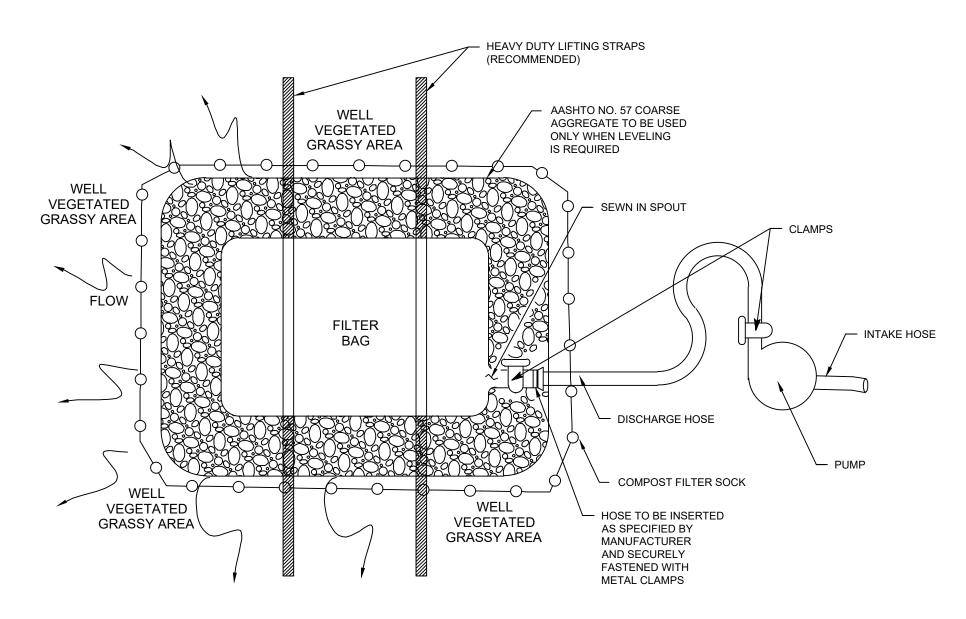
ANY WATER INCURRED WHILE CONSTRUCTING THE SITE WILL BE PUMPED AND DISCHARGED THROUGH A PUMPED WATER FILTER BAG. FILTER BAGS SHALL BE INSTALLED ACCORDING TO THE DETAILS SHOWN ON THE PLAN DRAWINGS.

# 16. WETNESS

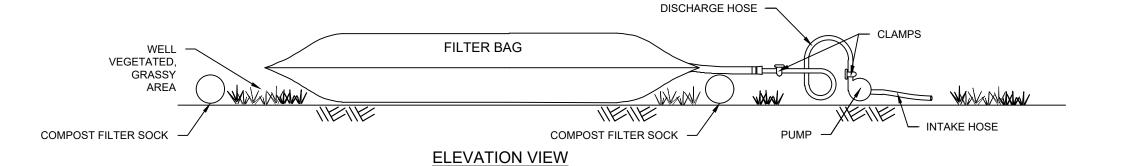
THE PADS/ROADS WILL BE COVERED WITH COARSE GRAVEL TO ESTABLISH DRY WORKING AREAS.

# 17. THERMAL IMPACTS

BMPS ARE PROPOSED FOR THE POST CONSTRUCTION DESIGN WHICH MINIMIZE ANY THERMAL IMPACTS TO SURFACE WATERS OF THE COMMONWEALTH OF PENNSYLVANIA FROM THE EARTH DISTURBANCE ACTIVITIES.



#### **PLAN VIEW**



#### NOTES:

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

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 lb/in
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 lb
MULLEN BURST	ASTM D-3786	350 psi
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

- 2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. IT IS RECOMMENDED THAT BAGS BE PLACED ON STRAPS TO FACILITATE REMOVAL.
- 3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE IT 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 SHOULD BE INSTALLED BELOW BAGS LOCATED WITHIN 50 FEET OF RECEIVING STREAM OR WHERE GRASSY AREA IS NOT AVAILABLE. A COMPOST BERM OR COMPOST FILTER SOCK SHALL BE PLACED BELOW ANY BAG DISCHARGING TO A SPECIAL PROTECTION SURFACE WATER.
- 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 SHOULD 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.
- 8. TO QUALIFY FOR AN ABACT FOR SPECIAL PROTECTION WATERSHEDS, THE PUMPED WATER FILTER BAG MUST BE SURROUNDED BY A COMPOST SOCK RING OR OPERATED IN CONJUNCTION WITH A SUMP PIT..

# PUMPED WATER FILTER BAG DETAIL

N.T.S.

PENNCORE CONSULTING
THE CORE FOUNDATION OF YOUR SOLUTIONS
999 MAIN STREET
H WILLIAMSPORT, PA 1770

SIAL PARK ROAD MIFFLIBURG, PA 17844
SHIP & MIFFLINBURG BOROUGH, UNION COUNTY,
ID SFDIMFNT CONTROL NOTES & DETAILS

APPROVED

REGISTERED

PROFESSIONAL

BRIAN PHILLIP SCHULTZ

ENGINEER

FORMANT

FORMAN

DATE DESCRIPTION A BASA

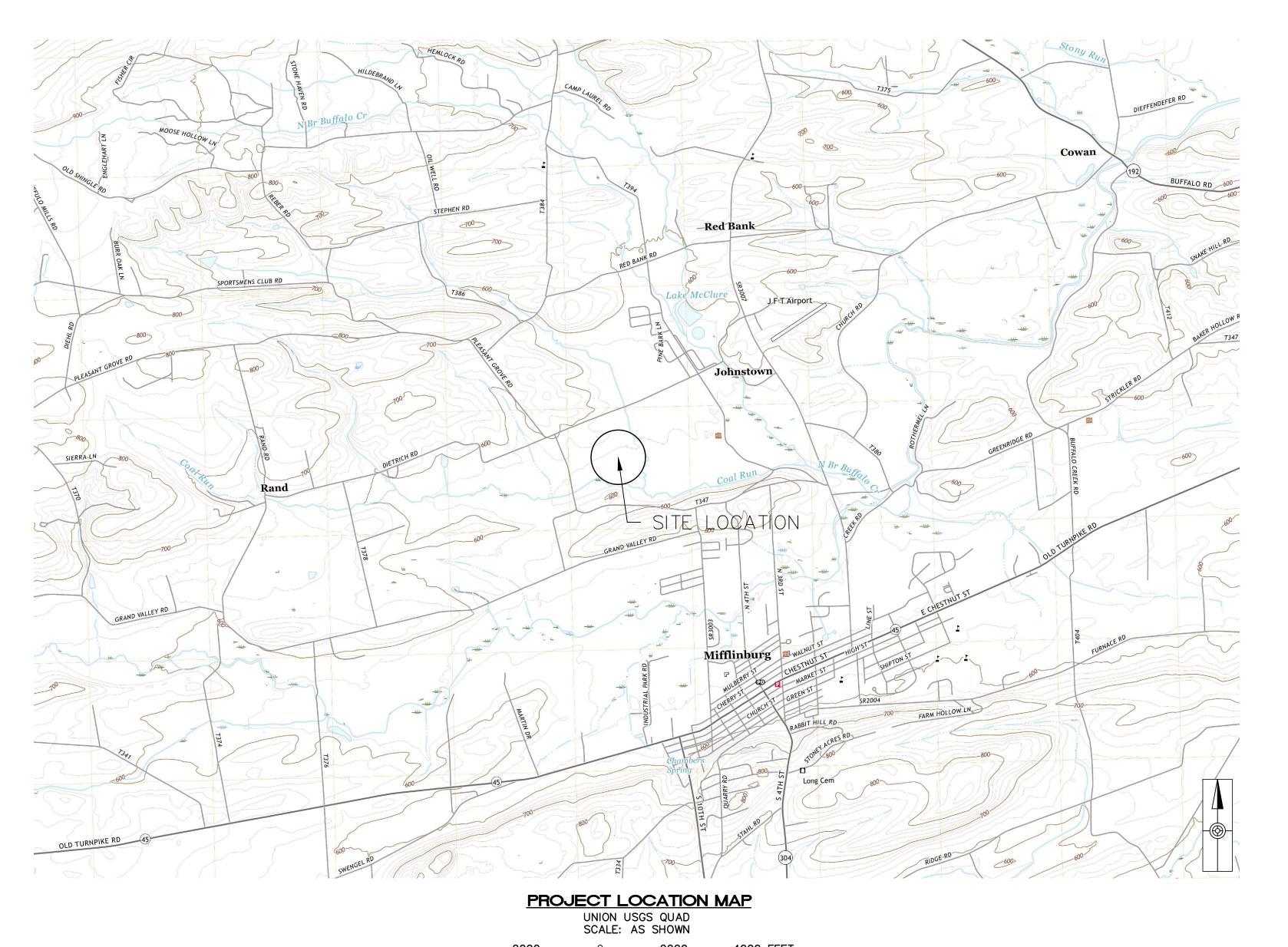
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ENGINEERING CK: RK
CONSTRUCTION CK: N/A
ENVIRONMENTAL CK: N/A
DATE: MARCH 2022
DRAWING NO.:

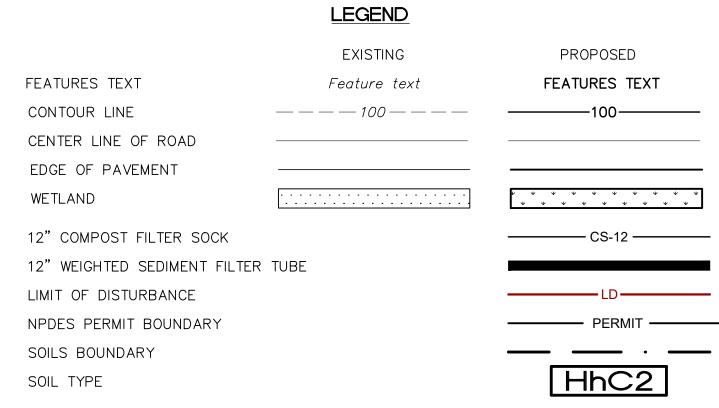
SHEET 7 OF

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# WETLANDS MITIGATION PLAN FOR

# RITZ-CRAFT BUILDING 1 EXPANSION - MITIGATION AREA WEST BUFFALO TOWNSHIP, UNION COUNTY, PENNSYLVANIA





# NOTES:

- 1. PROPERTY LINE LOCATIONS AND CORNERS ARE BASED ON GIS DATA.
- 2. ALL STREAM AND ROAD CROSSINGS ELEVATIONS AND LOCATIONS ARE BASED ON GIS DATA.
- 3. CONTOURS PROVIDED ON THE PLANS ARE CREATED FROM SURVEY POINTS AND LIDAR DATA

# LIST OF DRAWINGS

MO COVER SHEET
M1 GRADING PLAN
M2 SECTION VIEW KEY PLAN
M3 SECTION VIEWS
M4 PLANTING SCHEME PLAN
M5 NOTES AND DETAILS
ES1 EROSION AND SEDIMENT CON

ES1 EROSION AND SEDIMENT CONTROL PLAN
PCSM1 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
D1 NOTES AND DETAILS

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			11.16.2022	07.26.2022	DATE		
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ON COUNTY, PENNSYLVANIA

arson Design Group • Architects Engineers Survey

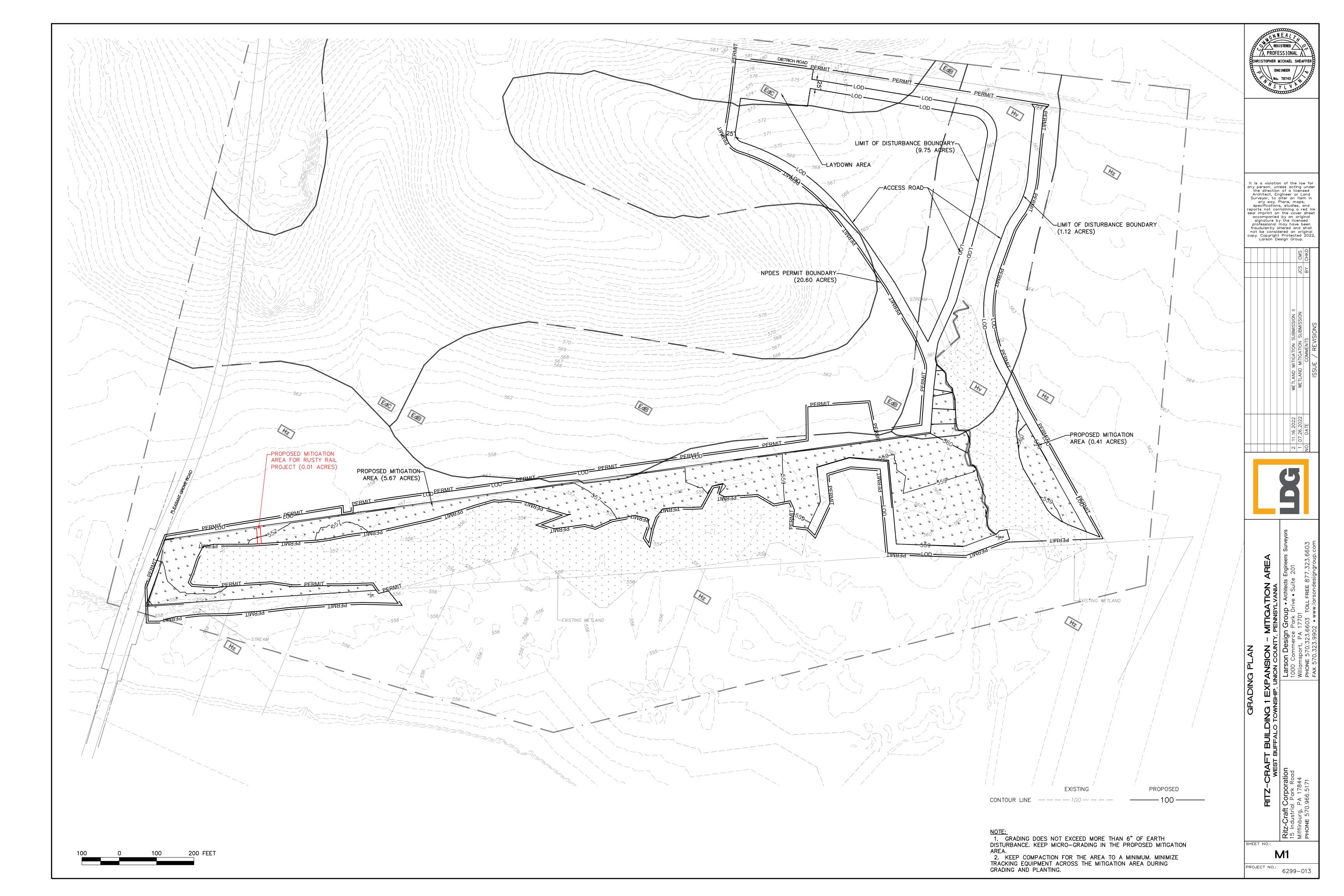
300 Commerce Park Drive • Suite 201

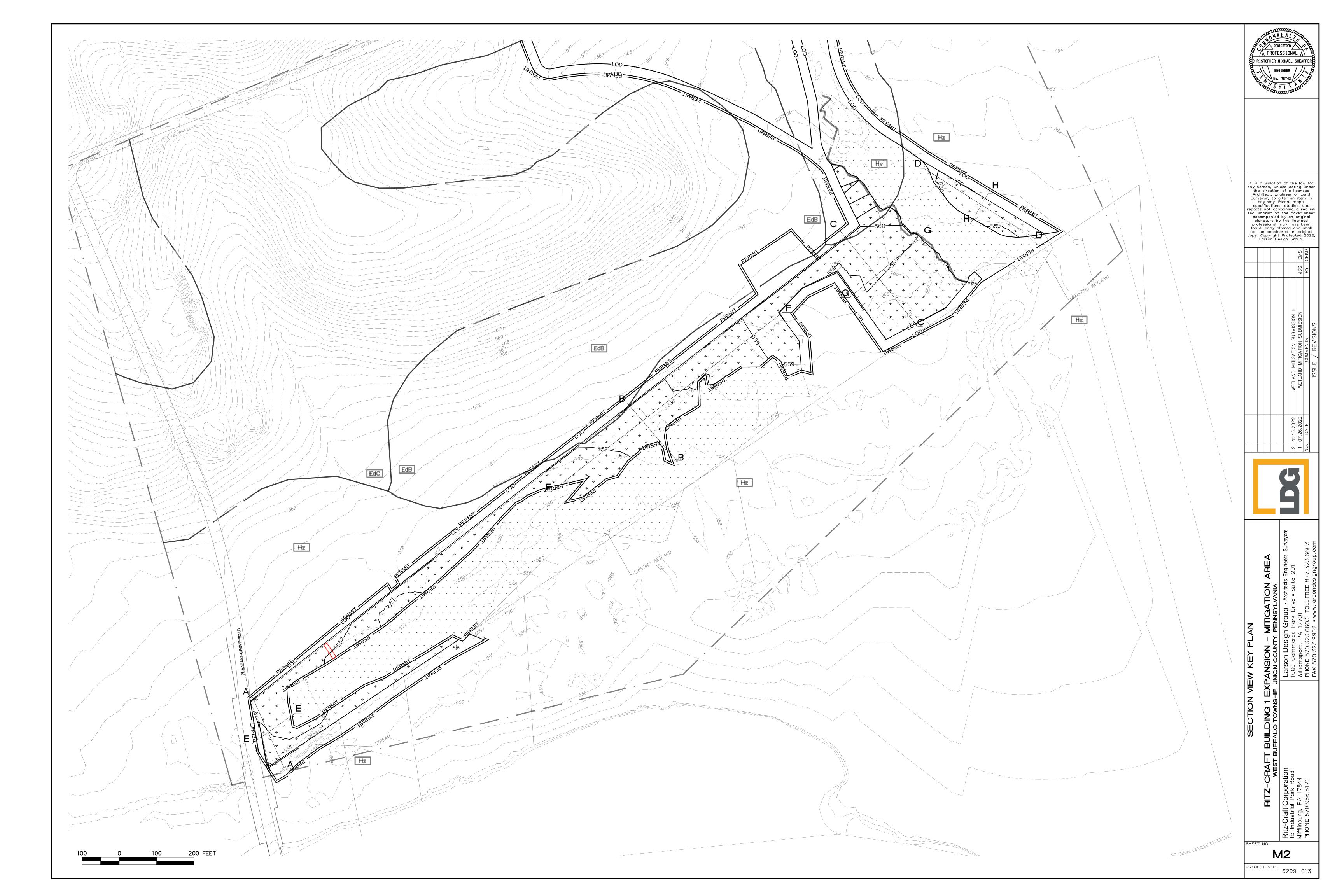
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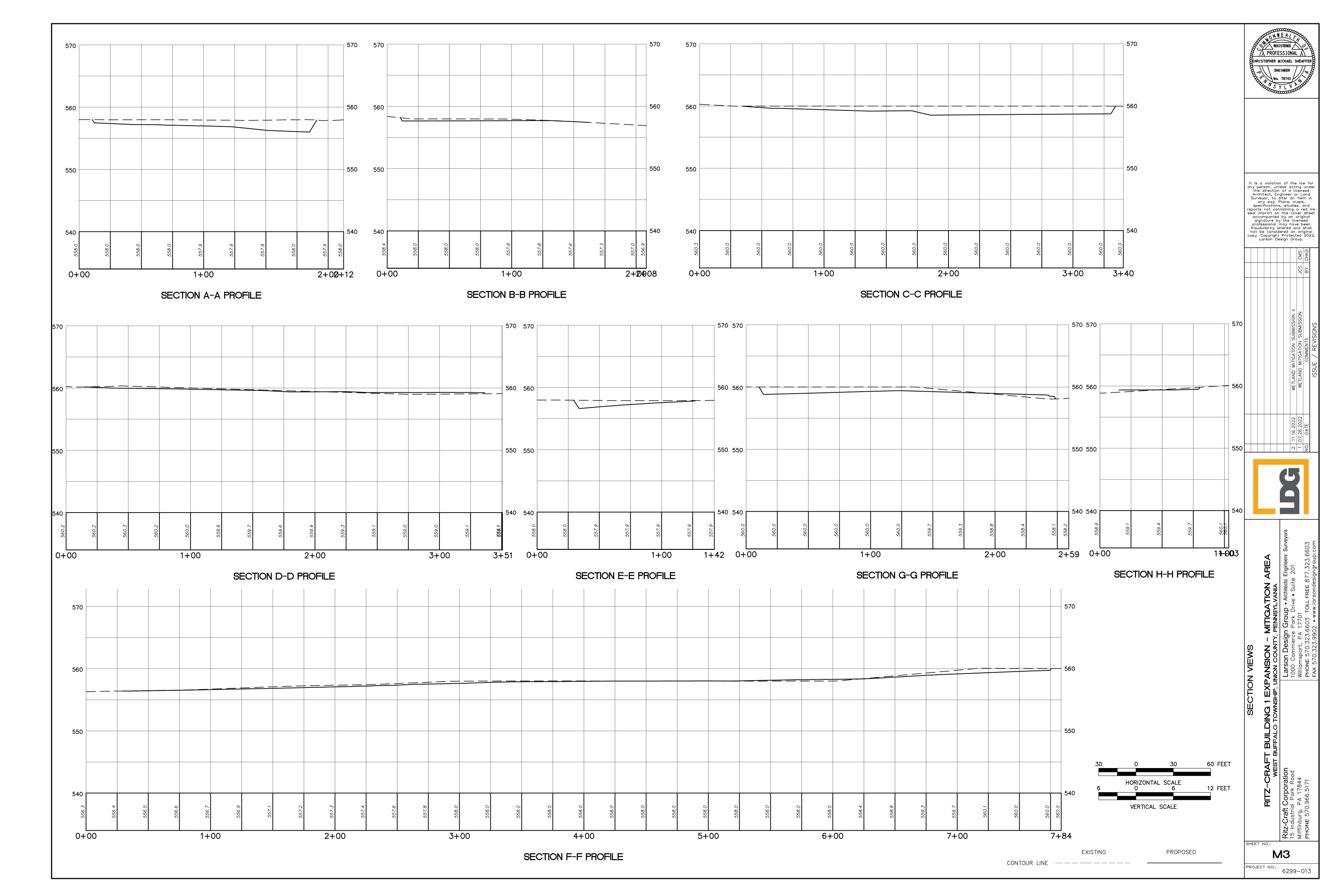
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WEST BUFFALO TO
-Craft Corporation
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inburg, PA 17844

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PROJECT NO.: 6299-013







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FOX SEDGE (CAREX VULPINOIDEA)  ERNMX-122: WET MEADOWS AND WETLANDS MIX  WRINKLELEAF GOLDENROD (SOLIDAGO RUGOSA)	HICKORY		REGISTERED PROFESSIONAL
20% (CAREX VULPINOIDEA) U.6% (SOLIDAGO RUGOSA)  VIRGINIA WILDRYE (EL YMUS VIRGINICUS) 0.6% (VERBENA URTICIFOLIA)	(GENUS CARYA)  SWAMP WHITE OAK  (OUERCUS PICCUS PI		CHRISTOPHER MICHAEL SHEAFFER
LURID SEDGE (CAREX LURIDA)  16%    CAREX LURIDA     CAREX CRIMITA	IRONWOOD		No. 78743 No. 78743 S Y L V AUGUSTUS
HOP SEDGE BONESET (CAREX LUPULINA) 0.5% (EUPATORIUM PERFOLIATUM)	(OSTRYA VIRGINIANA) 40 SYCAMORE	DIETRICH ROAD  PERMIT  13  PER	
BLUNT BROOM SEDGE (CAREX SCOPARIA) 0.5% COMMON SNEEZEWEED (HELENIUM AUTUMNALE)	(PLATANUS OCCIDENTALIS) 45	576————————————————————————————————————	
3.0% BLUE VERVAIN (VERBENA HASTATA) 0.5% MONKEYFLOWER (MIMULUS RINGENS)	SILVER MAPLE (ACER SACCHARINUM) 50	LOD LOD PERMIT	
SWAMP MILKWEED  (ASCLEPIAS INCARNATA)  O.3%  GREAT BLUE LOBELIA  (LOBELIA SIPHILITICA)	SHRUBS OTY. BOX ELDER	LOD - 513	
SOFT RUSH WOOLGRASS (SCIRPUS CYPERINUS)	$ \begin{pmatrix} 7 & 7 & 7 & 7 & 7 \\ 7 & 7 & 7 & 7 & 7 & 7 \\ 7 & 7 & 7 & 7 & 7 & 7 & 7 \\ 7 & 7 & 7 & 7 & 7 & 7 & 7 \end{pmatrix} $ $ (ACER NEGUNDO) $		
20% GOLDEN ALEXANDERS (ZIZIA AUREA) 0.2% MUD PLANTAIN (ALISMA SUBCORDATUM)	REDOSIER DOGWOOD  CORNUS SERICEA  120	LIMIT OF DISTURBANCE BOUNDARY— (9.75 ACRES)	It is a violation of the law for any person, unless acting under the direction of a licensed Architect. Engineer or Land
NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE)  O.2%  PURPLESTEM ASTER (ASTER PUNICEUS)	ELDERBERRY  V V V V V V V V V V V V V V V V V V V	(9.75 ACRES)	any person, unless acting under the direction of a licensed Architect, Engineer or Land Surveyor, to alter an item in any way. Plans, maps, specifications, studies, and reports not containing a red ink seal imprint on the cover sheet
AWL SEDGE (CAREX STIPATA)  O.2%  FLAT TOPPED WHITE ASTER (ASTER UMBELLATUS)	SERVICE BERRY	-567 -ACCESS ROAD	accompanied by an original signature by the licensed professional may have been fraudulently altered and shall
NODDING BUR MARIGOLD (BIDENS CERNUA)  O.12  DITCH STONECROP (SPENTHORUM SEDOIDES)	RED BUD		not be considered an original copy. Copyright Protected 2022, Larson Design Group.
PATH RUSH (JUNCUS TENUIS)	(CEACIS OCCIDENTALIS)	LIMIT OF DISTURBANCE BOUNDARY	CHKD
SEEDING RATE: 22 LBS PER ACRE OF THE WETLAND SEED MIX SEEDED WITH A COVER CROP. FALL PLANTING COVER CROP IS GRAIN RYE AT 30LBS PER ACRE AND SHOULD TAKE PLACE FROM	ACORN PLANTING: COLLECT PIN OAK ACORNS THAT HAVE FALLEN OFF OF THE TREES ADJACENT TO THE SITE.	(1.12 ACRES)	JCS BY
SEPTEMBER 1 TO NOVEMBER 15 OR MARCH 1 TO APRIL 30.  SPRING PLANTING OF A COVER CROP IS JAPANESE MILLET AT  10LBS PER ACRE AND SHOULD BE PLANTED FROM MAY 1 TO	CONDUCT THE FLOAT TEST OF COLLECTED ACORNS  - PLACE ACORNS IN A BUCKET FILLED WITH WATER  - ALLOW ACORNS TO SETTLE		
AUGUST 31.SEED ARE TO BE DRILLED OR BROADCAST.	<ul> <li>DISCARD ACORNS THAT FLOAT</li> <li>PLANT ACORNS THAT SANK</li> <li>PLANT THE ACORNS IN A RANDOM PATTERN AROUND THE</li> </ul>	NPDES PERMIT BOUNDARY	
	MITIGATION AREA  — ACORNS SHOULD NOT BE PLANTED DEEPER THAN 2 INCHES	(20.60 ACRES)	JBMISSIG NUBMISSIG
	AND SHOULD BE COVERED WITH SOIL.	SIREAM	ATION SU
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# PLANTING - "HOW TO" RECOMMENDATIONS:

#### 1. TREE SELECTION AND ARRANGEMENT

THE NORTHEAST REGION OF PENNSYLVANIA IS A HARDWOOD REGION THAT IS EXTENSIVE IN NATURE AND SUPPORTS A DIVERSE SELECTION OF NATIVE SPECIES THAT ARE KNOWN TO THRIVE IN THEIR NATIVE ENVIRONMENTS. WHEN SELECTING WHAT TREE SPECIES ARE TO BE PLANTED, IT IS IMPORTANT TO FACTOR IN THE OBJECTIVES THAT YOU ARE TRYING TO MEET. FOR PIPELINE PROJECTS OF THIS NATURE, THE OBJECTIVES ARE TO REPLACE AND ENHANCE THE HABITAT THAT HAS BEEN TEMPORARILY ALTERED DURING THE CONSTRUCTION OF THE PIPELINE WITHIN AND AROUND WETLANDS AND RIPARIAN CORRIDORS.

OFTEN, TIME OF YEAR AND AVAILABILITY OF SPECIES CAN AFFECT A RESTORATION PROJECT. LARSON DESIGN GROUP RECOMMENDS THAT PROPER PROJECT MANAGEMENT SHOULD BE USED WHEN PLANNING A RESTORATION PROJECT TO ENSURE THAT SPECIFIED SPECIES ARE AVAILABLE TO ENSURE A HIGHER RATE OF SUCCESS IN THE RESTORATIONS.

DIVERSITY IS IMPORTANT TO MAINTAIN WITHIN THE RESTORATION AREAS TO ENSURE THAT ENHANCEMENTS TO WILDLIFE HABITAT ARE OBTAINED, THE RESTORATION IS SUCCESSFUL, AND TO MINIMIZE DISEASE AND FATALITIES THAT COULD OCCUR IN A HOMOGENOUS FOREST HABITAT.

THE IMPORTANCE AND DETERMINATION OF SPECIFIED SPACING IS BASED ON THE DESIRED RESULTS. PLANTING TREES WITHIN A 5 TO 10 FOOT SPACING CIRCUMFERENCE ENCOURAGES YOUNG TREES TO HAVE FASTER VERTICAL GROWTH, STRAIGHTER TRUNKS, AND NATURALLY PRUNE LOWER GROWING LIMBS. LONG-TERM, THE CLOSER PLANTINGS WILL INCREASE COMPETITION WITH SOME OF THE TREES, RESULTING IN A DIVERSE CANOPY LEVEL. WITH NATURAL OVER-CROWDING, SOME TREES WILL NATURALLY DIE OFF CREATING SNAGS FOR WILDLIFE OR ADD ORGANIC MATTER TO THE WETLANDS/RIPARIAN AREAS.

#### WHEN PLANTING:

- 1.1. MARK DESIGNATED PLANTING LOCATIONS FOR EACH SPECIES.
- 1.2. PLACE PLANTS AT THESE LOCATIONS. 1.3. EVALUATE PLACEMENT OF PLANTS TO ENSURE THAT POST-CONSTRUCTION
- CONDITIONS ARE BEST FIT FOR
- DESIGNATED PLANTINGS. 1.4. PLANTING LOCATIONS TO BE DECIDED "IN FIELD" BASED ON SITE CONDITIONS (SUBJECTIVE TO BEST PROFESSIONAL OPINION OF
- 1.5. PROCEED TO PREP PLANTING LOCATIONS.
- 1.6. PLANT EACH INDIVIDUAL PLANT (SEE SECTION 3 PLANTING GUIDE).

#### 2. WHEN TO PLANT

THE TIME OF YEAR IN WHICH RESTORATION PLANTINGS OCCUR COULD HAVE AN IMPACT ON THE OVERALL SUCCESS OF THE PLANTINGS. AS NOTED IN PENN STATE UNIVERSITY'S COOPERATIVE EXTENSION: FOREST LANDOWNERS GUIDE TO TREE PLANTING SUCCESS:

"IN PENNSYLVANIA, THE BEST TIME TO PLANT IS BETWEEN EARLY MARCH AND EARLY MAY. PLANT ONCE FROST LEAVES THE GROUND AND PRIOR TO BUD BREAK, WHEN SEEDLINGS ARE DORMANT. IT IS ESSENTIAL TO PLANT BARE-ROOT SEEDLINGS BEFORE BUDS BEGIN TO SWELL AND NEW GROWTH STARTS TO EMERGE. PLANT AS EARLY IN SPRING AS POSSIBLE, WHEN THERE IS HIGH SOIL MOISTURE AND

IF PLANTING IS NOT POSSIBLE TO OCCUR IN THE SPRING, IT IS ACCEPTABLE TO PLANT IN THE FALL. TO IMPROVE THE RATE OF SUCCESS WITH FALL PLANTING, IT IS RECOMMENDED THAT PLANTING SHOULD OCCUR UP TO ONE AND A HALF MONTHS BEFORE THE FIRST HARD FROST FOR THE YEAR. IDEAL FALL PLANTING SHOULD BE IN SEPTEMBER THROUGH NOVEMBER.

#### 3. PLANTING GUIDE

WHEN PLANTING LOCATIONS ARE CHOSEN AND PLANTING LOCATIONS ARE BEING PREPPED, IT IS IMPORTANT TO PREPARE EACH HOLE SPECIFIC TO THE PLAN.

- 3.1. WIDTH OF HOLE SHOULD BE 2-3 TIMES THAT OF ROOT BALL OR CONTAINER.
- 3.2. BREAK UP SIDES AND BOTTOM OF HOLE BEFORE INSTALLING TREE/SHRUB.
- 3.3. IF TREE/SHRUB IS IN PLASTIC CONTAINER REMOVE COMPLETELY; IF IN BURLAP REMOVE THE TIE AND ROLL DOWN THE UPPER HALF OF BURLAP ONCE IN THE HOLE.
- 3.4. MAKE SURE TREE/SHRUB IS STANDING UPRIGHT.
- 3.5. BACK FILL.
- 3.6. WATER.
- 3.7. INSTALL PROTECTION (SEE SECTION 4 PROTECTION).
- 3.8. INSTALL MULCH (SEE SECTION 5 WEED CONTROL).
- 3.9. INSTALL WETLAND SIGNS AND/OR FENCING FOR AGRICULTURAL AREAS IF REQUIRED/DESIRED.

# PLANTING "HOW TO" RECOMMENDATIONS (CONTINUED):

PROTECTION OF THE NEWLY PLANTED TREE AND SHRUBS WILL INCLUDE PROTECTION FROM A MULTITUDE OF NATURAL FACTORS LIKE WEATHER, ANIMALS, MOWERS, AND HERBICIDES, IF USED. TREE AND SHRUB PROTECTION IS PRIMARILY DESIGNED AND USED ON HARDWOOD SPECIES. CONIFER SPECIES TYPICALLY DO NOT NEED OR REQUIRE ANY TREE

PROTECTION RECOMMENDED FOR USE FOR TREES AS SPECIFIED IN THIS SPEC SHEET PACKAGE CONSISTS OF A 4.5' TALL TREE TUBE, 5-6' OAK OR REBAR STAKE, AND MULCH FOR A TREE REPLANTING AND/OR A 2' TALL SHRUB TUBE, 3' OAK OR REBAR STAKE, AND MULCH FOR A SHRUB. EACH TREE AND SHRUB, ONCE PLANTED, WILL BE FITTED WITH A TREE/SHRUB TUBE, STAKE, AND MULCH (SEE WEED CONTROL BELOW). FENCING OF PLANTINGS IS ADDITIONAL PROTECTION IF DESIRED.

#### INSTALLATION:

- 4.1. UPON COMPLETION OF PLANTING TREE/SHRUB, INSTALL PLASTIC TUBE AROUND BASE OF PLANT.
- 4.2. INSTALL STAKE ADJACENT TO TREE/SHRUB.
- 4.3. TETHER TUBE TO STAKE WITH REMOVABLE STRAPS. 4.4. MAKE SURE TUBES ARE SECURED TO THE STAKE AND THE GROUND.
- 4.5. UPON INSTALLATION OF PROTECTIVE TUBE, INSTALL MULCH SURROUNDING PLANTINGS.

# 5. WEED CONTROL

WEED CONTROL IS ONE OF THE BIGGEST ISSUES ASSOCIATED WITH RESTORATION PROJECTS WHERE TREES AND SHRUBS ARE PLANTED. WEEDS ARE PROBLEMATIC FOR MULTIPLE ISSUES INCLUDING:

- COMPETITION FOR WATER, NUTRIENTS, AND SUNLIGHT
- VOLE DAMAGE

IF PLANTING IS GOING TO OCCUR IN THE SPRING. IT IS SUGGESTED THAT IN THE FALL PRIOR TO PLANTING THE LOCATIONS OF EACH INDIVIDUAL PLANTING BE SPRAYED WITH AN HERBICIDE. AND THEN TWICE ANNUALLY AFTERWARD. WHEN SPRAYING IT IS VITAL THAT HERBICIDES ARE NOT SPRAYED ON THE PLANTED TREES OR SHRUBS.

IT IS RECOMMENDED THAT AT THE TIME OF PLANTING THE TREES AND SHRUBS THAT A MULCH RING BE SPREAD AROUND THE PERIMETER OF THE TREES AND SHRUBS TO HELP RETAIN MOISTURE, KEEP ROOT SYSTEMS COOL, AND MINIMIZE WEEDS ALONG THE IMMEDIATE SURROUNDINGS OF THE PLANTINGS. AS THE ORGANIC MULCH BREAKS DOWN IT ALSO RELEASES NUTRIENTS BACK INTO THE SOIL FOR THE SHRUBS AND TREES TO UTILIZE.

#### INSTALLATION:

- 5.1. SPREAD MULCH UP TO 3 INCHES THICK WITH A DIAMETER OF 2-3 FEET.
- 5.2. DO NOT HAVE MULCH WITHIN 4 INCHES OR THE TREE/SHRUB TRUNK.
- 5.3. PILE MULCH RING THICKER ALONG THE OUTER PORTION OF THE MULCH CIRCUMFERENCE.

### 6. MAINTENANCE

UPON COMPLETION OF THE INSTALLATION OF TREES AND SHRUBS IT IS RECOMMENDED THAT MULTIPLE INSPECTIONS SHOULD OCCUR EACH YEAR. UP TO 3 INSPECTIONS A YEAR SHOULD BE PLANNED, FOR TWO YEARS AFTER THE PLANTINGS TO ENSURE THAT THE TREES AND SHRUBS ARE SURVIVING. THE IMPORTANCE OF THE INSPECTIONS IS TO IDENTIFY ANY ISSUES THAT COULD OCCUR TO THE NEWLY PLANTS TREES AND SHRUBS. THE ISSUES THAT COULD BE IDENTIFIED CONSISTS OF:

- 6.1. WEED CONTROL ISSUES.
- 6.2. REPAIRING OR REPLACING DAMAGED TREE STAKES.
- 6.3. REPAIRING OR REPLACING DAMAGED TREE/SHRUB TUBES.
- 6.4. REPLACING DEAD TREES AND SHRUBS.
- 6.5. RE-STAKING OR TYING THE STAKES OR TUBES IF BROKEN OR FALLEN OVER.
- 6.6. REMOVAL OF PROTECTIVE DEVICES WHEN TREES/SHRUBS DEEMED NO LONGER NECESSARY.

MAINTENANCE IS VITAL TO THE SUCCESS OF THE RESTORATION AREA AS IT ENSURES THAT ISSUES ARE IDENTIFIED EARLY AND ADDRESSED BEFORE THOSE ISSUES LEAD TO A LOSS OF TREES AND SHRUBS.

<u>TREES</u>	QTY.
	40
SWAMP WHITE OAK	40
IRONWOOD	40
SYCAMORE ( <i>PLATANUS OCCIDENTALIS</i> )	40
SILVER MAPLE ( <i>ACER SACCHARINUM</i> )	40
SHRUBS	QTY.
BOX ELDER ( <i>ACER NEGUNDO)</i>	120
REDOSIER DOGWOOD (CORNUS SERICEA)	120
ELDERBERRY (SAMBUCUS CANADENSIS)	120
(AMELANCHIER)	120
RED BUD	
	HICKORY (GENUS CARYA)  SWAMP WHITE OAK (QUERCUS BICOLOR) IRONWOOD (OSTRYA VIRGINIANA) SYCAMORE (PLATANUS OCCIDENTALIS) SILVER MAPLE (ACER SACCHARINUM)  SHRUBS  BOX ELDER (ACER NEGUNDO) REDOSIER DOGWOOD (CORNUS SERICEA) ELDERBERRY (SAMBUCUS CANADENSIS) SERVICE BERRY (AMELANCHIER)

#### NOTES: TREES AND SHRUBS LISTED ARE OPTIONS FOR REPLANTINGS.

RECOMMENDED 2-3 DIFFERENT SPECIES OF TREES AND 3-4 DIFFERENT SPECIES OF SHRUBS.

IF SPECIFIED SPECIES ARE UNAVAILABLE, CONTACT LICENSED PROFESSIONAL OR THEIR DESIGNEE FOR ALTERNATIVE SPECIES.

TREE AND SHRUBS QUANTITIES CAN VARY UP TO 20% BASED ON AVAILABILITY.

> ROOT BALL TOP HALF OF BURLAP TURNED BACK

TREE PIT EQUAL TO 2 TIMES -DIAMETER OF ROOT BALL

SUBSOIL BROKEN

WITH PICK

PLANTING SOIL

NOTES:

1. FOR DECIDUOUS AND EVERGREEN TREES.

TREE PLANTING

SCALE: NOT TO SCALE

2. TREES WILL BE STAKED ON AN AS NEEDED BASIS.

# DESIGN PLANNING:

- 1. PLANTING GOALS THE OVERALL GOAL FOR THE PLANTING IS TO COMPLETE THE FOLLOWING:
- 1.1. REPLACE VEGETATION/HABITAT LOST DURING
- CONSTRUCTION. 1.2. UTILIZE COMMON SPECIES TYPICALLY FOUND WITHIN
- THE IMPACT AREAS FOR PLANTINGS. 1.3. UTILIZE OTHER SPECIES TO PROVIDE DIVERSITY AND OTHER FUNCTIONAL ELEMENTS (I.E. FORAGING, RESTING,
- BREEDING, AND MIGRATION.) 1.4. MAINTAIN OR ENHANCE ORIGINAL SUBSTRATE
- CONDITIONS. 1.5. CREATE A HABITAT THAT PROVIDES FUNCTIONS BEYOND PRE-DISTURBED CONDITIONS OR BETTER THAN THOSE THAT THE ORIGINAL AREA IS CURRENTLY
- 2. <u>CONSTRUCTION SCHEDULE & SEQUENCE</u> SEEDING AND MULCHING OF IMPACTED AREAS WILL OCCUR IMMEDIATELY AFTER CONSTRUCTION HAS BEEN COMPLETED.
- 2.1. REMOVAL OF VEGETATION AND INVASIVES

CAPABLE OF PROVIDING.

- 2.2. GRADING TO SPECIFIED CONTOURS. 2.3. SEEDING AND MULCHING OF MITIGATION AREA
- 2.4. PLANTING OF TREES AND SHRUBS 2.5. INSPECTION OF MITIGATION AREA

# **VEGETATIVE CONDITIONS:**

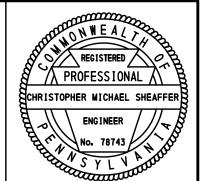
- 1. PROPOSED BENEFIT OF PLANTS SELECTED EACH OF THE SEED MIXES SELECTED WILL SUPPORT INDIVIDUAL FUNCTIONS AS WELL AS OTHER FUNCTIONS TO BE DERIVED FROM THE COMBINATION. THESE FUNCTIONS INCLUDE: THE ABILITY TO ATTRACT SPECIES OF WILDLIFE, PROVIDE SUITABLE HABITAT FOR MIGRATORY SPECIES, SUPPORT NESTING AREAS, AND PROVIDE ESCAPE COVER.EACH AREA WILL BE SEEDED AND SLATED FOR 85 PERCENT COVERAGE WITHIN THE FIRST YEAR.
- 2. SOURCE OF ALL SEED STOCK THE SOURCE OF ALL SEED STOCK WILL COME FROM A REPUTABLE SOURCE.

# PLANTING SCHEME:

- <u>DENSITY</u> EACH AREA WILL BE SEEDED AND SLATED FOR 70 PERCENT COVERAGE WITHIN THE FIRST YEAR.
- 2. ANTICIPATED CONDITIONS IT IS ANTICIPATED THAT RESTORED AREAS WILL BEGIN FUNCTIONING IN MANY CAPACITIES BY YEAR 5 FROM THE DATE OF PLANTING. RESTORED AREAS WILL PROVIDE HABITAT TO INSECT. AMPHIBIANS, REPTILES, MAMMALS, AND AVIAN SPECIES. GROUND COVER SHOULD PROVIDE OPPORTUNITIES FOR RESTING, REARING, FEEDING, AND ESCAPE COVER.

- PLANTING SOIL MIXTURE

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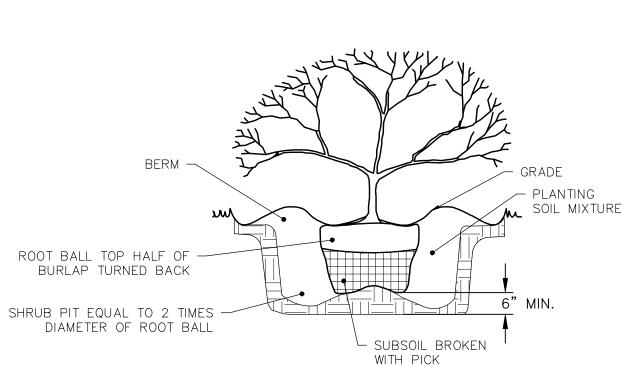
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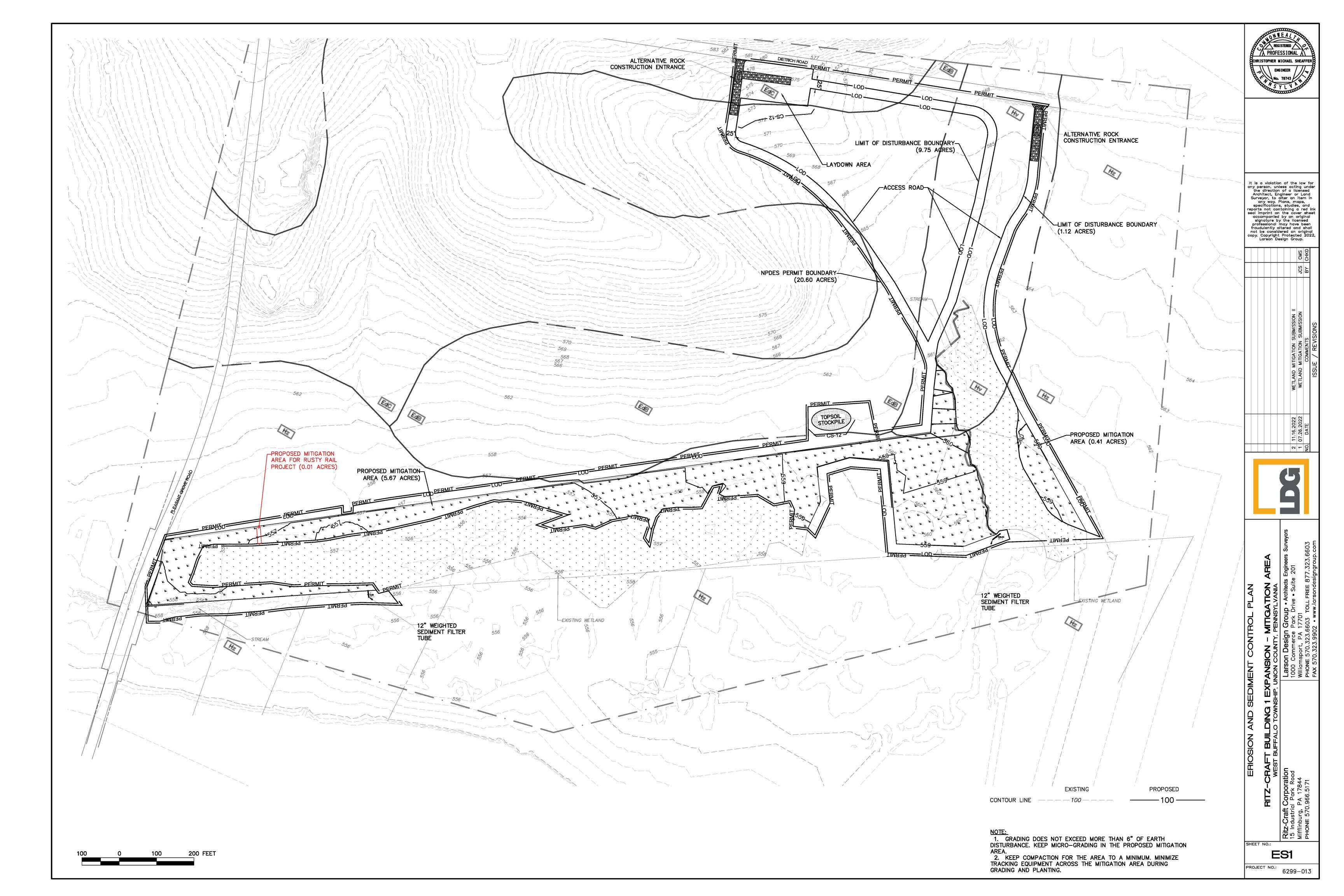
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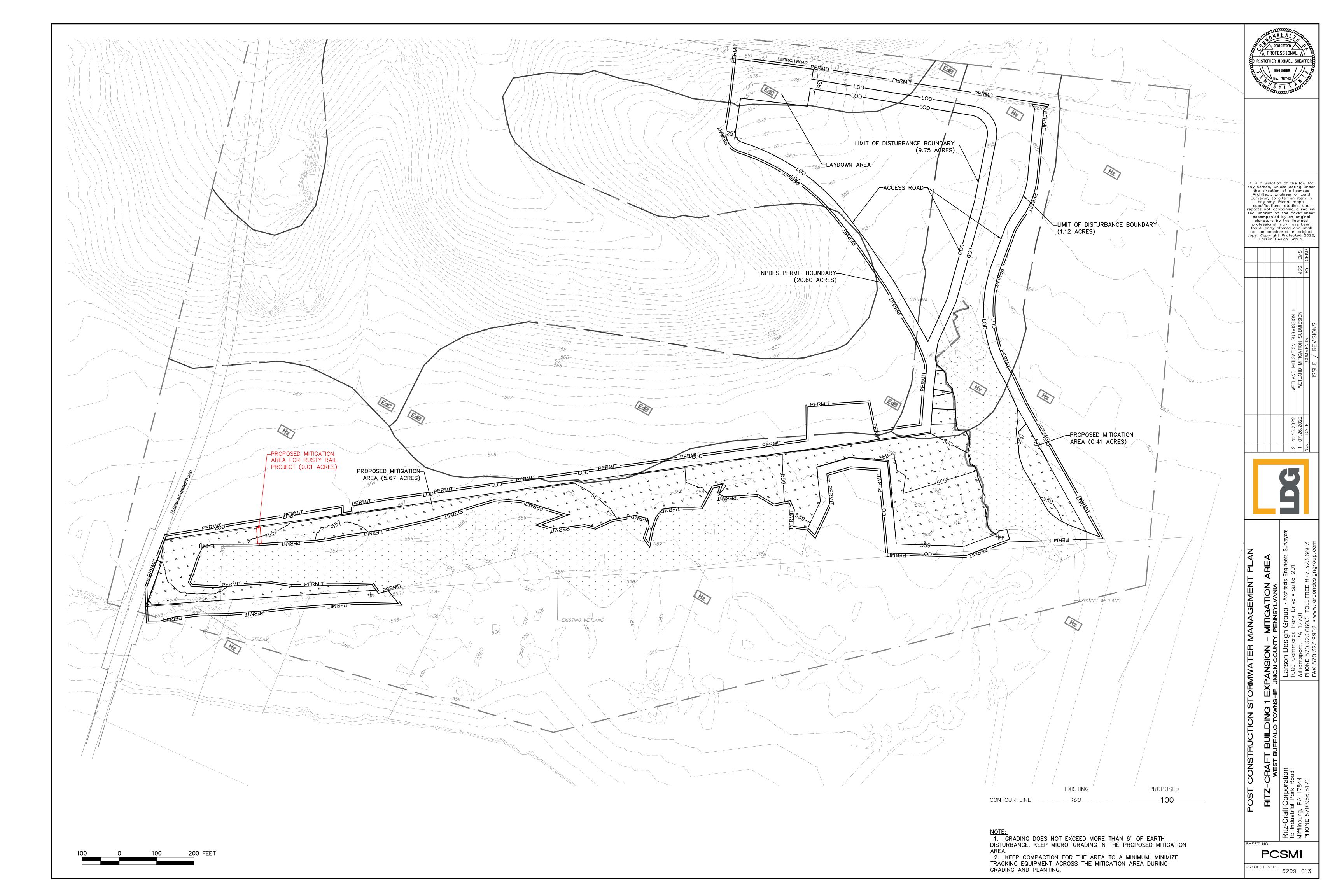
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SHRUB PLANTING SCALE: NOT TO SCALE





### SEEDING

#### **TEMPORARY SEEDING:**

- 1. IF PERMANENT VEGETATION IS NOT PLACED ON DISTURBED AREA FOR 20 OR MORE DAYS, THE DISTURBED AREA SHALL BE SEEDED AS FOLLOWS:
- A. IF SOIL TEST RESULTS ARE NOT AVAILABLE, APPLY AGRICULTURAL GRADE LIME AT A RATE OF 1 TONS/ACRE, OR 45 LBS/1,000 SF AND FERTILIZER 10-10-10 AT A RATE OF 1000 LBS/ACRE OR 23 LB/1,000 SF;
- BROADCAST TEMPORARY SEED MIXTURE OF ANNUAL RYEGRASS AT A RATE OF 44 LBS/ACRE, OR 1 LB/1,000 SF; AND
- C. SPREAD MULCH (STRAW OR HAY) AT A RATE OF 3 TONS/ACRE, OR 133 LBS/1,000 SF.

#### THERMAL IMPACTS

THERMAL IMPACTS ARE REDUCED BY MAINTAINING THE 2-YR RUNOFF VOLUME DIFFERENCE ON THE PROJECT SITE AND DIRECTING IMPERVIOUS RUNOFF TO STORMWATER FACILITIES. RUNOFF IS CAPTURED AND DIRECTED TO AN INFILTRATION BASIN WHICH WILL REDUCE ANY HEAT ISLAND EFFECT FROM IMPERVIOUS SURFACE RUNOFF.

## POTENTIAL POLLUTION FROM GEOLOGIC/SOIL CONDITIONS

THERE ARE NO GEOLOGIC FORMATION CONCERNS; HOWEVER, THE SOILS POSE AN EROSION HAZARD. MINIMIZE THE SUBGRADE EXPOSURE WHEN PERFORMING EARTHWORK OPERATIONS.

#### RECYCLE NOTE

PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH THIS TITLE

[SECTION 102.4(B)(5)(XI)] THE RECYCLING AND DISPOSAL OF MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. COMPLY WITH AIR QUALITY, WATER QUALITY, SOLID WASTE MANAGEMENT POLICIES, ETC.

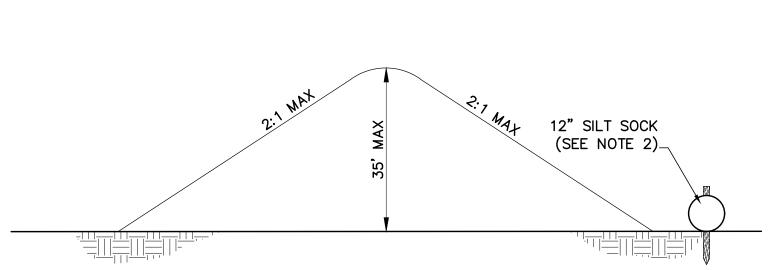
CONSTRUCTION WASTES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- EXCESS SOIL MATERIALS(1) OR SEDIMENT AS A RESULT OF EROSION RUNOFF
- TREES, SHRUBS AND BRUSH REMOVED DURING CLEARING AND GRUBBING(2)
- SANITARY WASTES(3) CONCRETE WASH WATER(3)
- PACKAGING MATERIALS (WOOD, PAPER, PLASTIC, STYROFOAM, ETC.)(3)
- SCRAP OR SURPLUS BUILDING MATERIALS (METALS, RUBBER, PLASTIC, GLASS,
- MASONRY PRODUCTS, AND OTHER SOLID WASTE MATERIALS)(3) • PETROLEUM PRODUCTS, PAINT AND THINNERS, CLEANING SOLVENTS, CURING
- COMPOUNDS AND SIMILAR MATERIALS(3)
- DEMOLITION DEBRIS(3)
- 1. UNLESS OTHERWISE DIRECTED, EXCESS SOIL AND EXCAVATED MATERIAL MAY BE USED FOR FILL MATERIAL ON SITE OR OFF SITE. COORDINATE WITH OWNER AND AGENCIES HAVING JURISDICTION.
- 2. TREES, SHRUBS AND BRUSH SHALL BE CHIPPED WHEN POSSIBLE AND REUSED AS MULCH. DO NOT BURN WITHOUT PERMISSION.
- 3. WHERE POSSIBLE WASTES SHALL BE RECYCLED. WHERE NOT PRACTICAL, WASTES SHALL BE PROPERLY DISPOSED OF AT A PERMITTED LANDFILL FACILITY. THE CONTRACTOR IS ENCOURAGED TO CONSULT THE RECYCLING HOTLINE OR LOCAL SOLID WASTE MANAGEMENT AGENCY.

CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING, INCLUDING BUT ARE NOT LIMITED TO THE FOLLOWING:

- NEAT, ORDERLY AND CENTRALIZED STORAGE OF MATERIALS AND WASTES
- CONTROL OF LITTER PROVIDING CONTAINERS WITH LIDS IF NEEDED
- REGULAR DISPOSAL
- PROMPT CLEANUP OF ANY SPILLS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS OR IN ACCORDANCE WITH REGULATORY REQUIREMENTS. UTILIZE A SPECIALTY FIRM IF REQUIRED
- PROMPT CLEANUP OF SEDIMENTS WITHIN THE SITE AND ONTO ADJACENT ROADWAYS
- ALL SEDIMENT REMOVED FROM E&S BMPS SHALL BE DISTRIBUTED TO A TOPSOIL
- KEEP DUST WITHIN TOLERABLE LIMITS BY USING WATER OR OTHER APPROVED DUST SUPPRESSERS

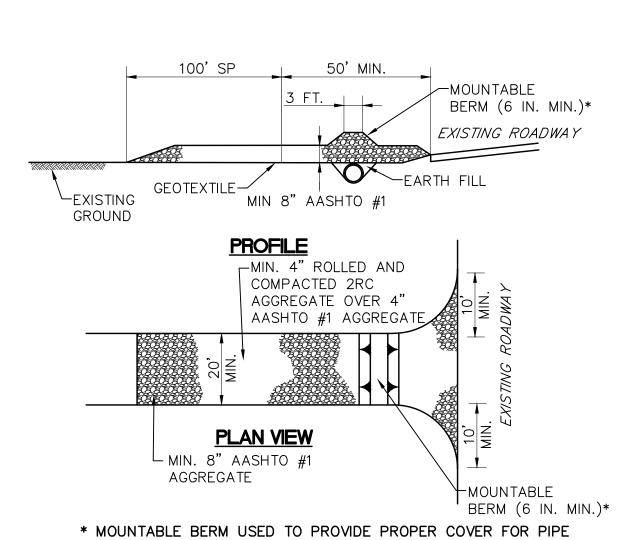
STOCKPILE OR SPREAD ON THE PROJECT SITE, SEEDED, AND MULCHED.



STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

- 2. SILT SOCK SHALL BE INSTALLED AT THE DOWNSLOPE SIDE OF THE MATERIAL STOCKPILE. MATERIAL STOCKPILES SHALL BE TEMPORARILY STABILIZED WITH SEED AND
- MATERIAL STOCKPILE LOCATIONS SHALL BE PROVIDED WHERE INDICATED ON THE PLAN, OR ALTERNATE LOCATION APPROVED BY OWNER.

TOPSOIL STOCKPILE SCALE: NOT TO SCALE



METAL T-POSTS AT 2 FT. MAX

ONE TUBE LENGTH.

2-FOOT SPACING.

SCALE: NOT TO SCALE

SPACING ON DOWNGRADIENT

SIDE OF TUBE. ANGLE POSTS

TOWARD DIRECTION OF FLOW

METAL T-POST→

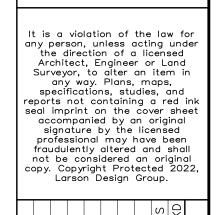
CONCENTRATED FLOW AREA

NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.

- EXTEND ROCK OVER FULL WIDTH OF ENTRANCE. 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.
- 4. MAINTENANCE: 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 FIFTY (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 ACCEPTABLE.

ALTERNATIVE ROCK CONSTRUCION ENTRANCE SCALE: NOT TO SCALE



√λ PROFESSIONAL Λ

No. 78743

CHRISTOPHER MICHAEL SHEAFF ENGINEER

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PLACED ON COMPACTED

-CENTERLINE OF FLOW

PATH AND TUBE

GROUND SURFACE

FRONT VIEW

FLOW PATH WIDTH

<u>PLAN VIEW</u>

NOTES:

1. THIS DETAIL APPLICABLE TO FLOW PATHS WITH WIDTHS LESS THAN OR EQUAL TO

2. METAL T-POSTS SHALL BE INSTALLED AT THE CENTER AND AT EACH END OF THE

SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.

4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT

INSPECTION. A SUPPLY OF TUBES SHALL BE KEPT ON SITE FOR THIS PURPOSE.

WEIGHTED SEDIMENT FILTER TUBE INSTALLATION

OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN.

5. DAMAGED TUBES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF

TUBE. ADDITIONAL T-POSTS SHALL BE INSTALLED AS NEEDED TO MEET THE MAXIMUM

AND

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