#### **PURPOSE OF PLAN NOTE**

HE PURPOSE OF THIS PLAN IS TO CONSTRUCT A NEW PLASTICS MANUFACTURING FACILITY ALONG WITH SUPPORTING RAILROAD ACCESS SPUR, TRUCK ACCESS AND EMPLOYEE ACCESS PARKING AREAS. THIS PLAN ALSO PROPOSES A RECONFIGURED 21.67 ACRE LOT RESULTING FROM CONSOLIDATING SEVERAL LOTS AND TRACTS OWNED BY LEBANON VALLEY ECONOMIC DEVELOPMENT CORPORATION.

### CONTRACTOR NOTES

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS ON SITE PRIOR TO THE START OF CONSTRUCTION. UNDERGROUND UTILITIES HAVE BEEN SHOWN ACCORDING INFORMATION PROVIDED BY OTHERS AND MUST BE FIELD VERIFIED PRIOR CONSTRUCTION, EXCAVATION OR BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. STECKBECK ENGINEERING & SURVEYING, INC. (SESI) DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION INFORMATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS IS CORRECT AND ACCURATE. SESI ASSUMES NO LIABILITY FOR ANY DAMAGE INCURRED AS A RESULT OF UNDERGROUND UTILITIES OMITTED OR INACCURATELY SHOWN.

- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. DAMAGE TO ANY UTILITY SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER, UTILITY COMPANY OR AUTHORITY, AT THE CONTRACTOR'S EXPENSE.
- . THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS FROM THE MUNICIPALITY, COUNTY, STATE OR AUTHORITY RELATIVE TO CONSTRUCTION SHOWN ON THIS

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING AND RECORD DRAWINGS AS MAY BE REQUIRED BY THE MUNICIPALITY AND/OR THE VARIOUS AUTHORITIES RELATIVE TO THE CONSTRUCTION SHOWN ON THESE PLANS. 5. PROVIDE 95% MODIFIED PROCTOR DENSITY PER ASTMD-698 IN AREAS WHERE PROPOSED

#### UTILITIES ARE LOCATED ON FILL. STANDARD STORM WATER NOTES

- ALL STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED BY THE DEVELOPER IN ACCORDANCE WITH THE DESIGN, CONDITIONS AND SPECIFICATIONS IDENTIFIED ON THIS PLAN. OWNERSHIP AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE LANDOWNER, HIS SUCCESSORS, AND ASSIGNS, UNLESS SPECIFICALLY IDENTIFIED OTHERWISE HEREIN.
- STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED IN GOOD WORKING CONDITION SC HAT THEY ARE PERFORMING THEIR DESIGN FUNCTION, IN A MANNER ACCEPTABLE TO NORTH LEBANON TOWNSHIP, AS REQUIRED BY NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE. MAINTENANCE SHALL INCLUDE PERFORMING ROUTINE MAINTENANCE AND REPAIR OR REPLACEMENT OF DAMAGED FACILITIES, VEGETATION, OR STORMWATER AREAS TO CONDITIONS AS SHOWN ON THE APPROVED PLAN AND IN ACCORDANCE WITH NORTH LEBANON TOWNSHIP
- STORMWATER MANAGEMENT ORDINANCE. ANY DRAINAGE AND UTILITY EASEMENTS SHOWN ON THE PLAN SHALL BE CONSTRUCTED, OWNED,
- AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLAN AND SHALL BE REFERENCED WITHIN THE PROPERTY DEED. RUNOFF FROM THE LOT IMPROVEMENTS SHALL BE DIRECTED TO THE STORMWATER MANAGEMENT FACILITIES. STORMWATER RUNOFF FROM EXISTING NATURAL SWALES AND/OR OTHER EXISTING
- DRAINAGE CONVEYORS SHALL NOT BE DIRECTED TOWARDS OR INTERCEPTED BY THE STORMWATER MANAGEMENT FACILITIES. TOWNSHIP OFFICIALS AND THEIR AGENTS OR EMPLOYEES HAVE THE RIGHT OF ACCESS FOR
- INSPECTION AND, IN CASES OF CONSTRUCTION DEFAULT, CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES. CONTACT NORTH LEBANON TOWNSHIP AT (717) 273-7132 PRIOR TO CONSTRUCTION TO COORDINATE INSPECTIONS OF STORMWATER MANAGEMENT FACILITIES BY THE TOWNSHIP ENGINEER. NO OCCUPANCY IS PERMITTED UNTIL STORMWATER MANAGEMENT FACILITIES HAVE BEEN INSTALLED
- AND APPROVED THROUGH INSPECTION BY THE TOWNSHIP ENGINEER. NO OCCUPANCY PERMITTED UNTIL STORM WATER MANAGEMENT FACILITIES HAVE BEEN INSTALLED AND APPROVED THROUGH INSPECTION BY THE TOWNSHIP ENGINEER. THE ENGINEER SHALL INSPECT ALL PHASES OF DEVELOPMENT OF THE SITE, IN ACCORDANCE WITH THE COUNTY'S CONSTRUCTION OBSERVATION SCHEDULE AND SHALL BE NOTIFIED OF THE COMMENCEMENT OF SUCH WORK AT LEAST 5 BUSINESS DAYS PRIOR TO BEGINNING IT IS THE RESPONSIBILITY OF THE OWNER, SUBDIVIDER, DEVELOPER OR HIS AGENT TO NOTIFY THE COUNTY ENGINEER 24 HOURS IN ADVANCE OF THE COMPLETION OF EACH IDENTIFIED PHASE OF DEVELOPMENT. ANY PORTION OF THE WORK WHICH DOES NOT COMPLY WITH THE APPROVED PLAN MUST BE CORRECTED BY THE DEVELOPER. NO WORK MAY PROCEED ON ANY SUBDIVISION OR LAND DEVELOPMENT OR BUILDING CONSTRUCTION UNTIL THE REQUIRED CORRECTIONS HAVE BEEN MADE. IF AT ANY STAGE OF THE WORK, THE TOWNSHIP OR ITS ENGINEER DETERMINES THAT THE SOIL OR OTHER CONDITIONS ARE NOT AS STATED OR SHOWN ON THE PLAN, IT MAY REFUSE TO APPROVE FURTHER
- STONE MUST BE MOUNDED TO PROVIDE A MINIMUM OF 2' COVER OVER THE STORM SEWER PIPING WHERE THE PIPE IS SUBJECT TO ANY VEHICLE CROSSINGS DURING CONSTRUCTION. STORMWATER INLETS, PIPES, CULVERTS AND SWALES (CUMULATIVELY REFERRED TO
- AS DRAINAGE IMPROVEMENTS) CONSTRUCTED ON THIS PLAN HAVE BEEN DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS OF MUNICIPAL ORDINANCES GOVERNING LAND DEVELOPMENT OR IN ACCORDANCE WITH REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FOR ANY DRAINAGE IMPROVEMENTS TO STATE HIGHWAYS. THESE ORDINANCES AND REGULATIONS STIPULATE SIZES AND CAPACITIES FOR THESE DRAINAGE IMPROVEMENTS, WHICH SIZES AND CAPACITIES MAY HAVE LIMITED ABILITY TO CARRY AND TRANSFER STORMWATER DRAINAGE FROM CERTAIN SEVERE OR INTENSE STORMS. STECKBECK ENGINEERING & SURVEYING, INC. SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY SURFACE RUN-OFF OR FLOODING FROM STORMS WHICH GENERATE MORE RUNOFF THAN AS REQUIRED TO BE COLLECTED AND CONVEYED BY MUNICIPAL OR PENNDOT REGULATIONS
- 10. ALL STORMWATER MAINS AND RELATED STRUCTURES WITHIN THE DEVELOPMENT SHALL BE CONSTRUCTED BY THE DEVELOPER. THE STORM WATER MANAGEMENT FACULTIES (SWME) SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONS ON THE SITE. STORM SEWER MAINS SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP) AND SHALL BE CONCRETE ENCASED WHEN COVER IS LESS THAN 12" TO SUBGRADE.
- STORM WATER MAINS WHICH ARE LOCATED WITHIN A PUBLIC RIGHT-OF WAY SHALL BE OWNED AND MAINTAINED BY NORTH LEBANON TOWNSHIP. STORM SEWER MAINS WHICH ARE LOCATED WITHIN ANY LOTS SHALL BE OWNED AND MAINTAINED BY THE INDIVIDUAL LOT OWNER
- 12. TOWNSHIP AND COUNTY OFFICIALS WILL HAVE THE RIGHT TO INSPECT AND/OR CORRECT ANY DEFICIENCIES IN THE STORM WATER COLLECTION SYSTEM WHICH IS LOCATED IN ANY OPEN SPACE OR EASEMENT WITHIN THE DEVELOPMENT AT ANY TIME IF DEEMED NECESSARY
- 100% OF THE ROOF AREA OF THE PROPOSED BUILDING SHALL BE DIRECTED TO STORMWATER MANAGEMENT FACILITIES THROUGH ROOF LEADER PIPING. ALL BASINS SHALL BE CONSTRUCTED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST LICENSED BY THE COMMONWEALTH. A PROFESSIONALLY SEALED AS-BUILT CONSTRUCTION REPORT, AND PLAN INCLUDING RELATIVE DATES, NAME(S) OF CONTRACTOR(S), METHODS OF CONSTRUCTION, AND VERIFICATION OF CONFORMANCE TO PLAN SPÉCIFICATIONS AND GOOD ENGINEERING
- PRACTICES SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER PRIOR TO BOND REDUCTION REQUESTS RELATED TO THE BASIN(S), SECTION 305.N. ALL KNOWN SURFACE DEPRESSIONS THAT WILL BE DISTURBED ON SITE SHALL BE OVER-EXCAVATED AND REPACKED.

**BMP/OUTFALL LOCATIONS** 

LAT: 40°20'35.03" LON: -76°27'41.62"

LONGITUDE

LON: -76°27'42.51"

LATITUDE

LAT: 40°10'32.30"

CERTIFICATE OF OWNERSHIP, ACKNOWLEDGEMENT

OF PLAN, AND OFFER OF DEDICATION

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF LEBANON

UN THIS, THE \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED \_\_\_\_\_

BMP

INFILTRATION BASIN 1

INFILTRATION BASIN 2 &

DETENTION BASIN 1

MY COMMISSION EXPIRES \_\_\_\_\_, 20\_\_\_\_

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## WAIVERS/MODIFICATIONS

SECTION 3.04 PRELIMINARY PLAN PROCESS

CONDITIONS: NONE

JUSTIFICATION: DUE TO PLAN REQUIREMENTS AND PROCEDURES FOR A PRELIMINARY PLAN, PROCEEDING DIRECTLY TO A FINAL PLAN SUBMISSION WOULD PREVENT REDUNDANT PLAN SUBMISSIONS. CONDITIONS: NON

APPROVED / NOT APPROVED

SECTION 4.02.C.1 LOCATION DRAWING OR MAP SECTION. AT A SCALE OF 1"=800', SHOWING THE LOCATION OF THE PROPOSED SUBDIVISION IN RELATION TO NAMED STREETS, BOUNDARIES, PREVIOUS SUBDIVISIONS, ETC. JUSTIFICATION: DUE TO THE LARGE SIZE OF THE PROPERTY, 1"=800' SCALE IS NOT SUITABLE TO SHOW LOCATIONS OF STREETS AND BOUNDARIES SURROUNDING THE PROPERTY. A SCALE OF 1"=1000' IS PROPOSED AND SHOWN ON THE COVER SHEET.

APPROVED / NOT APPROVED

SECTION 4.02.C.2 ANY EXISTING OR PROPOSED EASEMENTS SHALL BE SHOWN ON THE PLAN. JUSTIFICATION: ALL EXISTING EASEMENTS ARE SHOWN ON THE PLAN. THE PROPOSED STORMWATER DRAINAGE EASEMENT IS BEING PROPOSED AS A BLANKET EASEMENT OVER THE ENTIRE PROPERTY AS THE BEARINGS AND DISTANCES WOULD BE VERY LONG AND COMPLEX. CONDITIONS: NONE

SECTION 21-606.1.C ALL DRIVEWAYS ON THE PROPERTY WILL BE INTERCONNECTED WITH AN INTERNAL CIRCULATION NETWORK. JUSTIFICATION: WE DO NOT WANT CARS AND PEDESTRIANS TO BE MOVING AROUND THE TRUCK LOADING AND PARKING AREAS FOR SAFETY REASONS. CONDITIONS: NON

ANY CLOSED DEPRESSION USTIFICATION: IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, ANY EXISTING SURFACE DEPRESSION WILL BE EXPLORED WITH A TEST PIT UNDER HE SUPERVISION OF ECS PRIOR TO CONSTRUCTION AT THE SITE IN ORDER TO DETERMINE IF POTENTIAL REPAIRS ARE NECESSARY. THIS LANGUAGE HAS BEEN INCLUDED IN THE KARST NOTES ON SHEET 10. ANY NECESSARY REPAIRS WILL BE MADE PRIOR TO CONSTRUCTION OF

THE INFILTRATION FACILITY TO ENSURE GEOLOGICAL RISKS ARE MINIMIZED.

APPROVED / NOT APPROVED

DRIVEWAY PERMITS

CONDITIONS: NONE

A PERMIT SHALL BE ACQUIRED FOR THE TWO DRIVEWAYS TO THE WAREHOUSE PRIOR TO FINAL PLAN APPROVAL.

BUILDING PHASING NOTE

THE PROPOSED BUILDING WILL BE BUILT IN THREE (3) PHASES. HOWEVER, THE ENTIRE BUILDING PAD, GRADING, UTILITIES, AND STORMWATER FACILITIES SHALL BE BUILT AT ONCE. RUNOFF FROM THE PAD WILL BE CAPTURED BY THE PROPOSED SWALES ON THE NORTH AND EAST SIDES OF THE BUILDING.

**FLOODPLAIN NOTE** 

IN ACCORDANCE WITH THE FLOOD INSURANCE RATE MAP NUMBERS 42075C0251E, 42075C252E, 42075C0253E, 42075C0254E, EFFECTIVE DATE JULY 8, 2020, THE ENTIRE SITE IS IN THE ZONE "X" FLOOD CLASSIFICATION

WETLAND NOTE NO WETLANDS EXIST ON THE SUBJECT PROPERTY ACCORDING TO THE NATIONAL WETLANDS INVENTORY.

**BUILDING CODE NOTE** 

ALL CONSTRUCTION OF THE RESIDENTIAL STRUCTURES SHALL BE SUBJECT TO THE REQUIREMENTS OF THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE, AS ADOPTED BY THE MUNICIPALITY. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10 FEET.

#### **KARST NOTE**

BASED ON INFORMATION PROVIDED BY THE PA DEP'S eMapPA. THE PROJECT SITE IS UNDERLAIN BY THE ONTELAUNEE SEQUENCE ROCKS WHICH IS COMPRISED OF DOLOMITE, LIMESTONE, AND CHERT. ONE (1) KARST FEATURE WAS FOUND ON eMapPA, BASED ON THIS INFORMATION, THE PROPOSED STORMWATER BASIN IS BUILT OVER KARST GEOLOGY.

NPDES APPROVAL THE NPDES PERMIT WAS ISSUED ON

STORMWATER EASEMENT

LICENSED PROFESSIONAL CERTIFICATION

THE PERMIT WILL EXPIRE ON \_\_\_\_, DISTRICT FILE \_\_\_\_\_ \_\_\_\_. NPDES PERMIT #\_\_\_\_\_

VIA BLANKET AUTHORIZATION, ALLOWING THE TOWNSHIP, COUNTY, AND CONSERVATION DISTRICT STAFF TO INSPECT THE PROPERTY'S STORMWATER MANAGEMENT FACILITIES AT ANY

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT AND COMPLIES WITH THE PROVISIONS OF THE NORTH LEBANON TOWNSHIP & LEBANON COUNTY ORDINANCES. , CERTIFY THAT THE PROPOSED STORMWATER BMP(S) (CIRCLE ONE) IS/ARE (OR IS/ARE NOT) UNDERLAIN BY LIMESTONE.

BEING DULY SWORN ACCORDING TO LAW DEPOSES AND SAYS THAT THE			Ť	2161
CORPORATION IS THE *** OF THE PROPERTY				
SHOWN ON THIS PLAN, THAT HE IS AUTHORIZED TO EXECUTE SAID PLAN ON				
BEHALF OF THE CORPORATION, THAT THE PLAN THEREOF WAS MADE AT ITS				SU
DIRECTION, THAT IT ACKNOWLEDGES THE SAME TO BE ITS ACT AND PLAN, THAT				•••
THAT IT DESIRES THE SAME TO BE RECORDED, AND THAT IT ACKNOWLEDGES				ΑΤ Α
RE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED STORMWATER				JF N
MANAGEMENT SITE PLAN BY THE TOWNSHIP.				
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****	(PRINTED NAME AND LICENSURE)	DATE	SEAL	PERS
				UNC
	* SIGNATURE AND SEAL OF A QUALIFIED PR	OFESSIONAL LICENSED IN T	HE COMMONWEALTH OF PENNSYLVANIA	
*****	QUALIFIED TO PERFORM SUCH DUTIES AND	) RESPONSIBLE FOR THE PF	REPARATION OF THE PLAN.	
	SUD//E		τιοΝ	FXPF
	JURVE	TUR 3 CERTIFICA	TION	-/// L
	I HEREBY CERTIFY THAT TO THE BEST OF M	IY KNOWLEDGE, THE EXISTIN	IG	
	BOUNDARY AND TOPOGRAPHIC INFORMATION	SHOWN AND DESCRIBED H	EREON	

IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NORTH LEBANON TOWNSHIP & LEBANON COUNTY ORDINANCES.

INDIVIDUAL'S TITLE NAME OF CORPORATION IDENTIFY OWNERSHIP OR EQUITABLE OWNERSHIP SIGNATURE OF INDIVIDUAL CORPORATE SEAL SIGNATURE AND SEAL OF NOTARY PUBLIC OR

OTHER OFFICER AUTHORIZED TO ACKNOWLEDGE DEEDS

(PRINTED NAME AND LICENSURE)

DATE

SEAL

## PRELIMINARY/FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT PLAN

SECTION 308.Q.1 DETENTION BASINS SHALL BE PLACED AT LEAST 100 FEET FROM THE RIM OF

PROPOSED STORMWATER EASEMENT FOR THE 21.67 ACRE SUBJECT TRACT IS PROPOSED

## NORTH LEBANON TOWNSHIP ENGINEER **REVIEW CERTIFICATE**

**PROJECT TIME SCHEDULE** 

NOVEMBER 14, 2024 - GROUND BREAKING

OCTOBER 31, 2026 - BUILDING OCCUPANCY

MAY 1, 2025 - PAVING & BUILDING CONSTRUCTION

APRIL 1, 2025 - GRADING & SEEDING

REVIEWED BY THE NORTH LEBANON TOWNSHIP ENGINEER THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_.

\* SIGNATURE OF THE NORTH LEBANON TOWNSHIP ENGINEER.

NORTH LEBANON TOWNSHIP BOARD OF IPERVISORS SITE PLAN APPROVAL CERTIFICATE MEETING HELD ON \_\_\_\_\_, 20\_\_\_, THE BOARD OF SUPERVISORS

DEVELOPMENT SITE PLAN FOR THE PROPERTY AS SHOWN HEREON. NO R STORMWATER MANAGEMENT SITE PLAN OR PLANS SHALL BE RECOGNIZED OVAL INCLUDES ALL DOCUMENTATION, INCLUDING THE COMMENTS OR IREMENTS OF OFFICIAL REVIEWING INDIVIDUALS OR AGENCIES. APPROVAL IS ED ON COMPLIANCE WITH APPLICABLE ORDINANCES, RULES, AND JLATIONS, AND SHALL NOT BE CONSTRUED AS A GUARANTEE TO ANY SON OR ORGANIZATION THAT THE DESIGN OF ANY PART OF THE PLAN WILL TION AS ANTICIPATED UNDER ANY OR ALL CONDITIONS OR SITUATIONS. IONALLY. THAT BY REVIEW AND/OR APPROVAL OF THE PLAN, THE TOWNSHIP ESSLY DÉCLINES THE ASSUMPTIÓN OF LIABILITY ERRORS, OMISSIONS, OR KES IN JUDGEMENT IN THE DESIGN, ENGINEERING, CONSTRUCTION, OR ECTED FUNCTION OF THE MATTERS REVIEWED AND/OR APPROVED.

\* SIGNATURES OF THE BOARD OF SUPERVISORS.

FLEXO-PACK USA, INC. LOCATED IN

FOR

NORTH LEBANON TOWNSHIP LEBANON COUNTY, PENNSYLVANIA

## DECEMBER 29, 2023

REVISION	DATE	ΒY
LCPD COMMENTS — 1/30/24	2/8/24	JMK
ARRO COMMENTS – 1/18/24	3/11/24	JMK/EJG
NLTMA COMMENTS – 1/16/24	3/11/24	JMK

SITE MAP 1"=500



Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A Lebanon, Pennsylvania 17042 Phone: (717) 272–7110 Fax: (717) 272–7348 OCTOBER 31, 2024 – PLAN/NPDES/SEWER APPROVAL

LEBANON COUNTY PLANNING DEPARTMENT

REVIEWED DATE LEBANON COUNTY ENGINEER

REVIEWED DATE NORTH LEBANON TOWNSHIP PLANNING COMMISSION

REVIEWED DATE **RECORDER OF DEEDS** RECORDED IN THE OFFICE FOR RECORDING OF DEEDS, IN AND FOR LEBANON COUNTY, PENNSYLVANIA, IN SUBDIVISION PLAN BOOK VOLUME \_\_\_\_\_ PAGE \_\_\_\_\_ WITNESS MY HAND AND SEAL OF OFFICE THIS \_\_\_\_\_DAY OF \_\_\_\_\_ A.D., 20\_\_\_\_\_.

371574.24 NORTHING: 2326830.31 EASTING: ELEVATION: 481.74 BM2: MAG NAIL ON SOUTH SIDE OF HANFORD DRIVE. NOR THING: 371501.95 2327546.90 EASTING: ELEVATION: 460.89 VERTICAL DATUM: NAVD 88 HORIZONTAL DATUM: NAD83 - PA SOUTH ZONE INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. ENTIRE SITE IS IN THE ZONE "X" FLOOD CLASSIFICATION. 4. IN ACCORDANCE WITH THE U.S. FISH AND WILDLIFE SERVICES NATIONAL WETLANDS INVENTORY THERE ARE NO WETLANDS ON THE SUBJECT PREMISES. 1. ANY REVISION TO THESE PLANS AFTER THE DATE OF PLAN PREPARATION OR LATEST SURVEYING. INC FNFORCFABIE AS IF IT APPEARED IN TOTAL HEREIN.

⊕ 1. BENCHMARK

- ANY EASEMENT
- COUNTY, AND TOWNSHIP STANDARDS AND REQUIREMENTS. ALL PROPOSED SIGNS SHALL BE IN ACCORDANCE WITH APPLICABLE NORTH LEBANON TOWNSHIP ORDINANCES.
- CLAUSE (1) OF SECTION 4. TELEPHONE, CABLE, ELECTRIC, GAS, WATER, AND SANITARY SEWER. ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE ENVIRONMENTAL RIGHTS FOUND THERE ARE NO NATIONAL REGISTER ELIGIBLE OR LISTED HISTORIC OR ARCHEOLOGICAL PROPERTIES IN THE AREA OF THIS PROJECT SITE.
- 12. STECKBECK ENGINEERING & SURVEYING, INC. (SESI) HAS PERFORMED LIMITED NOR HAS PERFORMED, ANY DETAILED GEOLOGICAL STUDIES, SOUNDINGS OR EVALUATIONS OF THE SUBSURFACE CONDITIONS PRESENT AT ALL LOCATIONS THROUGHOUT THE SITE. NUMEROUS UNKNOWN GEOLOGICAL SITE CONDITIONS AND THE
- ANY PORTION OF THE SITE DEPICTED ON THIS PLAN TO PERFORM THEIR OWN INDIVIDUAL EVALUATION OF THE GEOLOGY OF THIS SITE TO ASCERTAIN THE FORMATION(S) MAY HAVE UPON THEIR LAND OR ANY CONSTRUCTION PROPOSED
- ROCK FRACTURES. SESI ADVISES ALL POTENTIAL LOT BUYERS THAT SPECIFIC CONDITIONS ON ANY PORTION OF THE SITE WHICH IS THE SUBJECT OF THIS PLAN MAY VARY DRAMATICALLY FROM LOCATION TO LOCATION, INCLUDING LOTS THAT ABUT FACH OTHER. SEDIMENT CONTROL PLAN.
- AND STRUCTURES WITHIN THE EASEMENT 15. ALL STORM SEWER AND SANITARY SEWER PIPING SHALL BE CONSTRUCTED UTILIZING A LASER TO ENSURE PROPER SLOPE.
- DURING CONSTRUCTION WITHOUT WRITTEN APPROVAL BY THE TOWNSHIP. WILL BE SET (WITH REBAR) AS PART OF THIS PLAN WHEN APPROVED.
- THE UNDERSIGNED CERTIFICATE OF ACCURACY (SURVEY & PLAN).

Recorder of Deeds

## APPLICANT/EQUITABLE OWNER

FLEXO-PACK USA, INC. (FLEXOPACK S.A.) C/O DIMITRIS GINOSATIS IFESTOU 37. THESI TZIMA, KOROPI ATTIKI, 19400, GREECE  $+30\ 210-668-0000$ DIMITRIS.GINOSATIS@FLEXOPACK.COM

## OWNER

LEBANON VALLEY ECONOMIC DEVELOPMENT CORPORATION C/O SUSAN EBERLY 16 LEBANON VALLEY PARKWAY LEBANON, PA 17042 717-274-3180 SEBERLY@LVEDC.ORG

BM1: MAG NAIL ON NORTH SIDE OF HANFORD DRIVE.

UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION PROVIDED BY OTHERS AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION. EXCAVATION OR BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. STECKBECK ENGINEERING & SURVEYING, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE. OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS ARE CORRECT AND ACCURATE. STECKBECK ENGINEERING & SURVEYING, INC. ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES 3. IN ACCORDANCE WITH THE FLOOD INSURANCE RATE MAP NUMBERS 42075C0251E. 42075C252E, 42075C0253E, 42075C0254E, EFFECTIVE DATE JULY 8, 2020, THE

REVISION DATE SHALL NOT BE THE RESPONSIBILITY OF STECKBECK ENGINEERING AND NO ONE SHALL SCALE FROM THESE PLANS FOR CONSTRUCTION PURPOSES. . THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT DATED

20 . SHALL BE CONSIDERED A PART OF THIS PLAN AND IS NOTHING SHALL BE PLACED, PLANTED, SET, PUT OR MAINTAINED WITHIN THE AREA OF

THE INFORMATION SHOWN ON THIS DRAWING MAY HAVE ALSO BEEN PROVIDED IN A DIGITAL DRAWING FORMAT. ONCE A DRAWING IS RELEASED FROM STECKBECK ENGINEERING & SURVEYING, INC. IN A DIGITAL FORMAT, WE HAVE NO CONTROL OVER MANIPULATION OR MISUSE OF THE DATA CONTAINED IN THAT FILE. THE VIEWER IS THEREFORE CAUTIONED TO COMPARE ANY SUBSEQUENT REPRODUCTIONS OR MANIPULATIONS OF THIS DATA WITH THE ORIGINAL HARD COPY SEALED PLAN PROVIDED BY STECKBECK ENGINEERING & SURVEYING, INC. THE USER IS ALSO CAUTIONED THAT ANY USE OF THE DATA CONTAINED IN THE DIGITAL FILE THAT IS NOT SHOWN ON THE HARD COPY DRAWING. MUST BE AT THE RISK OF THE USER. ALL SITE DEVELOPMENT SHALL BE DONE IN ACCORDANCE WITH FEDERAL, STATE,

NORTH LEBANON TOWNSHIP SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ANY AREA THAT IS NOT OFFERED FOR DEDICATION TO PUBLIC USE AND SUCH OFFER ACCEPTED BY NORTH LEBANON TOWNSHIP. NO ALTERATION TO SWALES, BASINS, OR OTHER DRAINAGE STRUCTURES SHALL BE PERMITTED WITHIN DRAINAGE EASEMENTS UTILITY TYPE AND LOCATION NOTICE: ALL EXISTING UTILITIES ARE SHOWN AS FOUND IN THE FIELD AND/OR ILLUSTRATED ON VARIOUS USER DRAWINGS. TO THE BEST OF OUR KNOWLEDGE THE LOCATIONS AND TYPES ARE CORRECT AND ACCURATE, BUT STECKBECK ENGINEERING & SURVEYING, INC. DOES NOT MAKE ANY REPRESENTATION. WARRANTY, ASSURANCE, OR GUARANTEE THE INFORMATION RECEIVED ND REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE. PURSUANT TO SECTION 5 CLAUSE (1) OF ACT 172 AMENDING ACT 287 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN THE LOCATION AND TYPE OF USERS LINES AT THE CONSTRUCTION SITE, EITHER BY INSPECTION OF THE DESIGNER'S DRAWING OR IF THERE BE NO SUCH DRAWINGS, THEN BY THE SAME MANNER AS THAT PRESCRIBED FOR A DESIGNER IN CLAUSE (1) AND (2) OF SECTION 4. PURSUANT TO SECTION 5 CLAUSE (2) IT WILL BE THE CONTRACTORS RESPONSIBILITY NOT LESS THAN THREE THAN TEN WORKING DAYS PRIOR TO THE DAY OF REGINNING SUCH WORK TO NOTIFY EACH USER OF THE CONTRACTOR'S INTENT TO PERFORM SUCH WORK AT ITS SITE OR SITES AND REQUEST THE INFORMATION PRESCRIBED BY SUBCLAUSES II AND III ] OR CLAUSE (5) OF SECTION 2. FROM EACH USER'S OFFICE DESIGNATED ON THE DESIGNERS DRAWINGS OR ON THE LIST OF USERS OBTAINED PURSUANT TO

). ALL UTILITIES SHALL BE INSTALLED UNDERGROUND INCLUDING BUT NOT LIMITED TO THE COMMONWEALTH OF PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION PERFORMED A SURVEY OF THE SUBJECT SITE IN ACCORDANCE WITH STATE AND FEDERAL LAWS, SPECIFICALLY SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966, AND THE IMPLEMENTING REGULATIONS (36 CFR PART 800) OF THE AMENDMENT, ARTICLE 1, SECTION 27 OF THE PENNSYLVANIA CONSTITUTION AND THE PENNSYLVANIA HISTORY CODE, 37 PA. CONS. STAT. SECTION 500 ET SEQ. (1988) AND

SUBSURFACE INVESTIGATIONS FOR THIS PROJECT ON LIMITED PORTIONS OF THE SITE. THE LIMITED SUBSURFACE INVESTIGATIONS HAVE BEEN SUFFICIENT, TO A REASONABLE DEGREE OF ENGINEERING CERTAINTY, TO ALLOW FOR THE PREPARATION OF A SUBDIVISION AND LAND DEVELOPMENT PLAN MEETING THE MINIMUM REQUIREMENTS OF ALL RELEVANT PERMITTING AGENCIES (AS EVIDENCED BY THE APPROVALS GRANTED FOR THE DEVELOPMENT ENVISIONED BY THE PLAN). SESI HAS NOT BEEN HIRED TO,

UTILIZATION OF NUMEROUS CONSTRUCTION PRACTICES MEAN THAT SESI CANNOT CONSIDER EVERY POTENTIAL GEOLOGICAL IMPACT CAUSED BY CONSTRUCTION ON ANY PORTION OF THE SITE WHICH IS THE SUBJECT OF THIS PLAN. IT IS THE RESPONSIBILITY OF THE LANDOWNER, LAND PURCHASER, OR PROSPECTIVE BUYER OF GEOLOGICAL FORMATION(S) WHICH UNDERLAY IT, AND THE IMPACT WHICH THOSE

THEREON, INCLUDING THE ABILITY TO CONSTRUCT THE REQUIRED STORM WATER MANAGEMENT FACILITIES AND OTHER SITE WORK IN ACCORDANCE WITH THE APPROVED SUBDIVISION PLAN. SESI SHALL NOT BE RESPONSIBLE FOR THE COST OF ANY ROCK REMOVAL, SINKHOLES, SOLUTION CHANNELS OR ROCK FRACTURES, OR FOR THE CONSTRUCTION, ENGINEERING, PERMITTING AND INSPECTION COST IMPACT WHICH ANY OF THESE GEOLOGICAL FEATURES MAY HAVE UPON THE LAND OWNER, BUILDER OR ANY OTHER PERSON OR ENTITY WHO HAS AN INTEREST IN THE SITE, INCLUDING, WITHOUT LIMITATION, MORTGAGE LENDERS. THE STORM WATER MANAGEMENT FACILITIES AND OTHER SITE WORK FOR THE PROPERTY WHICH IS THE SUBJECT OF THIS PLAN HAVE BEEN DESIGNED TO MEET THE MINIMUM PERMITTING REQUIREMENTS AND ASSUME SITE CONDITIONS DEVOID OF EXCESSIVE ROCK, SINKHOLES, SOLUTION CHANNELS OR

13. SITE IMPROVEMENTS AND DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL DETAILS WITHIN THIS PLAN AND THE APPROVED EROSION

14. ALL DRAINAGE AND UTILITY EASEMENTS SHOWN ON THIS PLAN SHALL BE MAINTAINED IN GRASSED OR OTHERWISE IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON THE APPROVED PRELIMINARY/FINAL PLANS AND SHALL BE KEPT FREE OF ALL OBSTRUCTIONS, INCLUDING, BUT NOT LIMITED TO, FILL, TEMPORARY OR PERMANENT STRUCTURES, AND PLANTS OTHER THAN GRASS. MAINTENANCE OF SUCH EASEMENT SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNER. DRAINAGE EASEMENTS SHALL ALLOW PASSAGE OF STORM WATER IN UNDERGROUND STORM WATER SEWER PIPING AND ASSOCIATED STRUCTURES, AND/OR ALLOW PASSAGE OF STORM WATER OVER THE SURFACE OF THE GROUND AND SHALL ALLOW ACCESS ACROSS THE AREA FOR PURPOSES OF MAINTENANCE OF THE STORM CONVEYANCE SYSTEMS. EXISTING AND PROPOSED ROADSIDE GUTTERS OR SWALES SHALL NOT BE OBSTRUCTED BY DRIVEWAYS, FILL, OR STRUCTURES. ALL DEEDS FOR THE LOT(S) SHALL INCLUDE A REFERENCE TO THE EASEMENT(S) THAT ARE LOCATED WITHIN THE LOT ALONG WITH ANY RIGHTS AND RESTRICTIONS OF EACH EASEMENT INCLUDING LOT OWNER RESPONSIBILITY FOR OWNERSHIP AND MAINTENANCE OF THE EASEMENT, PIPES

16. MATERIALS AND DETAILS SPECIFIED ON THE APPROVED PLAN SHALL NOT BE ALTERED 17. ALL PERMANENT MARKER DESIGNATIONS THAT ARE FOLLOWED BY (SET) ON THE PLAN 18. THE FIELD SURVEY WAS PERFORMED ON NOVEMBER 22, 2023 AND RESPONSIBLE BY



## SOURCE OF TITLES

DEED: 2041-1061, TRACTS 1&2; 374-765; INST: 201908367 DEED: 2038-769 UPI: 27-2325395-369825-0000 PLAN: 90–24, EX. TRACT 2, LOT ADDITIONS D,E,& F UPI: 27-2328595-370905-0000; 27-2326108-370968-0000 AREA: 172,105 S.F.; 3.951 ACRES AREA: 735,791 S.F.; 16.891 ACRES DEED: 2041-1061, TR. 1 DEED: 2055-1620, TR. 2 UPI: 27-2326108-370968-0000 UPI: 27-2325395-369825-0000 AREA: 773,014 S.F.; 17.746 ACRES AREA: 11,517 S.F.; 0.264 ACRES DEED: 2041-1061, TR. 2 UPI: 27-2326108-370968-0000 DEED: 2055–1620, TR. 1 UPI: 27-2325395-369825-0000 PLAN 90-24 AREA: 9,060 S.F.; 0.208 ACRES AREA: 58,493 S.F.; 1.343 ACRES DEED: 374-765 UPI: 27-2328595-370905-0000 DEED: 2055–1620, TR. 3 UPI: 27-2325395-369825-0000 PLAN: 90-24 AREA: 20,686 S.F.; 0.475 ACRES AREA: 62,159 S.F.; 1.427 ACRES DEED: 2057-5431 DEED: 2054-6139 UPI: 27-2325395-369825-0000 UPI: 27-2325395-369825-0000 AREA: 39,954 S.F.; 0.917 ACRES AREA: 7,564 S.F.; 0.174 ACRES

## ZONING COMPLIANCE CHART (NORTH LEBANON TOWNSHIP)

ZONING

ZONING DISTRICT: I - INDUSTRIAL		
MIN. LOT AREA MIN. LOT WIDTH MAX. LOT COVERAGE	<u>REQUIRED</u> 2 AC. 200' 50%	PROPOSED 21.67 AC. 430' 22%
YARD REQUIREMENTS	FRONT – 100' SIDE (EACH) – 20' REAR – 30'	758' 23' 217'
MAX. BUILDING HEIGHT	75'	<75'
SITE DATA		
SITE AREA: SITE ZONING: EXISTING LISE:		21.667 AC. I – INDUSTRIAL

INDUSTRIAL

NOT YET ASSIGNED

PUBLIC

PUBLIC

MIN.

MIN. I

MAX.

SITE AREA:
SITE ZONING:
EXISTING USE:
PROPOSED USE:
SOURCE OF WATER:
SOURCE OF SEWER:
SITE ADDRESS:

## PARKING & TRAFFIC DATA

MANUFACTURING PLANT 1 SPACE PER EVERY 1 EMPLOYEE ON THE LARGEST SHIFT

50 EMPLOYEES = 50 PARKING SPACES REQUIRED62 SPACES PROVIDED (3 ADA PARKING SPACES PROPOSED) LOADING/UNLOADING SPACE: -

GROSS FLOOR AREA 2,001 - 10,000 SQ. FT. = 1 SPACE -GROSS FLOOR AREA 10,001 - 50,000 SQ. FT. = 2 SPACES -GROSS FLOOR AREA 50,001 SQ. FT. AND OVER = 3 SPACES

PLUS 1 ADDITIONAL SPACE FOR EA. 40,000 SQ.FT. IN EXCESS OF 50,000 SQ.FT.

|OADING SPACES REQUIRED : 3 + 4 = 7LOADING SPACES PROPOSED : 7

AVERAGE DAILY TRAFFIC (ADT) = 100 CARS & 0.57 TRUCKS PER DAY

## LIST OF DRAWINGS

	Sheet List Table
Sheet Number	Sheet Title
1 *	COVER
2 *	EXISTING CONDITIONS & DEMOLITION PLAN
3 *	EXISTING CONDITIONS & DEMOLITION PLAN
4 *	SUBDIVISION PLAN
5*	LAYOUT PLAN
6 *	LAYOUT PLAN
7 *	GRADING PLAN
8*	GRADING PLAN
9 *	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
10*	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
11*	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN DETAILS
12*	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN DETAILS
13*	STORMWATER BASIN OUTLET PROFILES
14*	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN NOTES
15*	STORMWATER PROFILES
16*	STORMWATER PROFILES
17*	UTILITY PLAN
18*	UTILITY PLAN
19*	UTILITY PROFILES
20*	UTILITY DETAILS
21*	CONSTRUCTION DETAILS
22*	LIGHTING PLAN
23*	LIGHTING PLAN
24*	LANDSCAPING PLAN
25*	LANDSCAPING PLAN
26	EROSION & SEDIMENT CONTROL PLAN
27	EROSION & SEDIMENT CONTROL PLAN
28	EROSION & SEDIMENT CONTROL PLAN DETAILS
29	EROSION & SEDIMENT CONTROL PLAN DETAILS
30	EROSION & SEDIMENT CONTROL PLAN NOTES

\* DENOTES SHEET TO BE RECORDED.











![](_page_5_Figure_0.jpeg)

![](_page_6_Figure_1.jpeg)

#### **EXISTING FEATURES**

EXISTING ADJOINER LINE EXISTING BOUNDARY LINE AND CORNERS EXISTING EDGE OF PAVEMENT AND CURB LINE EXISTING RIGHT-OF-WAY EXISTING FENCE EXISTING SEWER

EXISTING STORMWATER

EXISTING GASLINE

EXISTING SIDEWALK/CONCRETE

EXISTING CONTOURS

EXISTING TREELINE

EXISTING TOWNSHIP BOUNDARY

LIMITS OF FIELD SURVEY EXISTING SOILS

EXISTING UTLITY POLE EXISTING LIGHT POLE

#### PROPOSED FEATURES

PROPOSED BUILDING SETBACK PROPOSED BOUNDARY LINE AND CORNERS PROPOSED EDGE OF PAVEMENT AND CURB LINE

PROPOSED RIGHT-OF-WAY PROPOSED FENCE

PROPOSED SEWER

PROPOSED STORMWATER

FIRE PROPOSED DOMESTIC WATERLINE PROPOSED GASLINE

PROPOSED CONCRETE/SIDEWALK

PROPOSED CONTOURS

PROPOSED UTLITY POLE

STEEP SLOPES (>15%)

INFILTRATION TEST PIT

![](_page_6_Figure_23.jpeg)

![](_page_6_Figure_24.jpeg)

![](_page_6_Figure_25.jpeg)

энw —

![](_page_7_Figure_0.jpeg)

![](_page_7_Figure_1.jpeg)

CKA — CLARKSBURG SILT LOAM, 0—3% SLOPES
CmB — COMLY SILT LOAM, 3—8% SLOPES
DfB – DUFFIELD SILT LOAM, 3–8% SLOPES
HaA — HAGERSTOWN SILT LOAM, 3—8% SLOPES
HaB — HAGERSTOWN SILT LOAM, 3—8% SLOPES
HbC – HAGERSTOWN SILTY CLAY LOAM, 8–15% SLOPES
HeB - HAGERSTOWN-ROCK OUTCROP COMPLEX, 3-8% SLOF
No — NOLIN VARIANT SILT LOAM
LIS - LIDDAN LAND HACEDSTOWN COMPLEY

![](_page_7_Figure_22.jpeg)

![](_page_7_Figure_23.jpeg)

![](_page_8_Figure_0.jpeg)

![](_page_9_Figure_1.jpeg)

#### **EXISTING FEATURES**

EXISTING ADJOINER LINE EXISTING BOUNDARY LINE AND CORNERS EXISTING EDGE OF PAVEMENT AND CURB LINE EXISTING RIGHT-OF-WAY EXISTING FENCE

EXISTING SEWER

EXISTING STORMWATER

EXISTING WATERLINE

EXISTING GASLINE

EXISTING SIDEWALK/CONCRETE

EXISTING CONTOURS

EXISTING TREELINE

EXISTING TOWNSHIP BOUNDARY

LIMITS OF FIELD SURVEY

EXISTING SOILS EXISTING UTLITY POLE

EXISTING LIGHT POLE

SURFACE DEPRESSION

#### **PROPOSED FEATURES**

PROPOSED BUILDING SETBACK PROPOSED BOUNDARY LINE

AND CORNERS PROPOSED EDGE OF PAVEMENT

AND CURB LINE

PROPOSED RIGHT-OF-WAY

PROPOSED FENCE

PROPOSED SEWER

PROPOSED STORMWATER

PROPOSED DOMESTIC WATERLINE PROPOSED GASLINE

PROPOSED CONCRETE/SIDEWALK

PROPOSED CONTOURS

PROPOSED TREELINE

PROPOSED UTLITY POLE

12" OF AMENDED SOILS W/ERNST SEEDS RETENTION BASIN FLOOR MIX-LOW MAINTENANCE (ERNMX-126)

24" OF AMENDED SOILS W/ERNST SEEDS RETENTION BASIN FLOOR MIX-LOW MAINTENANCE (ERNMX-126) & PLUG PLANTINGS

INFILTRATION TEST PIT

#### KARST NOTES

THE PA DEP'S EMAPPA DOES IDENTIFIES THREE (3) SURFACE DEPRESSIONS ON SITE AND VARIOUS OTHERS WITHIN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE ONTELAUNEE FORMATION WHICH IS COMPRISED OF DOLOMITE, LIMESTONE, AND CHERT. AS SUCH, THERE IS POTENTIAL FOR KARST ACTIVITY ON THE SITE. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.

THE GEOTECHNICAL ENGINEERING REPORT FOR STORMWATER MANAGEMENT PREPARED BY ECS MID-ATLANTIC, LLC IDENTIFIES ONE EXISTING SURFICIAL DEPRESSION ON SITE THAT IS APPROXIMATELY 1' DEEP AND 4' ACROSS. IN ACCORDANCE WITH THE ECS RECOMMENDATIONS, THE EXISTING SURFACE DEPRESSION WILL BE EXPLORED WITH A TEST PIT UNDER THE SUPERVISION OF ECS PRIOR TO CONSTRUCTION AT THE SITE IN ORDER TO DETERMINE IF POTENTIAL REPAIRS ARE NECESSARY.

IN ORDER TO REDUCE THE RATE OF SINKHOLE DEVELOPMENT AND IN KEEPING WITH THE GUIDELINES AND RECOMMENDATIONS OF THE PA BMP MANUAL, ECS RECOMMENDS THAT THE FOLLOWING DESIGN PRINCIPLES BE INCORPORATED:

- USE EXISTING DRAINAGE PATTERNS •• THE EXISTING SITE IS LOCATED WITHIN A LARGE BOWL SUCH THAT DRAINAGE ENTERS THE SITE FROM ALL DIRECTIONS. THE MAIN INFILTRATION BASIN ON THE SITE IS LOCATED WITHIN AN
- EXISTING BROAD DRAINAGE WAY. • KEEP STORMWATER AWAY FROM KNOWN SINKHOLES OR PROBLEMATIC SUBSIDENCE AREAS: •• THERE ARE NO KNOWN SINHOLES ON SITE.
- AVOID CONCENTRATING STORMWATER: •• RUNOFF WILL BE NATURALLY CONCENTRATED IN THE PROPOSED BASINS WHICH ARE DESIGNED IN ACCORDANCE WITH THE BELOW PRINCIPLES TO REDUCE THE RISK OF SINKHOLE FORMATIONS.
- BYPASS FLOWS WILL UTILIZE WATER TIGHT PIPING. • REDUCE RUNOFF VOLUME AND VELOCITY: •• ON-SITE RUNOFF VOLUME WILL BE REDUCED IN ACCORDANCE WITH TOWNSHIP AND CHAPTER
- 102 REQUIREMENTS. USE BROAD SHALLOW BASINS
- •• INFILTRATION BASIN 1 HAS A MAXIMUM PONDING DEPTH OF LESS THAN 3' AND INFILTRATION BASIN 2 HAS A MAXIMUM PONDING DEPTH OF LESS THAN 1'. • MAINTAIN THE FACILITIES POST CONSTRUCTION:
- •• POST-CONSTRUCTION STORMWATER MANAGEMENT FACILITIES WILL BE MAINTAINED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE AGREEMENT REQUIRED BY THE TOWNSHIP AND RECORDED WITH THE PLAN. • PROVIDE UNDERDRAINS OR OTHER MEANS FOR DEWATERING IN STORMWATER MANAGEMENT
- FACILITIES IF NEEDED: •• UNDERDRAINS ARE PROVIDED FOR ALL BASINS.

#### SCHEDULE OF MUNICIPAL INSPECTIONS

A. THE TOWNSHIP ENGINEER SHALL INSPECT ALL PHASES OF CONSTRUCTION OF THE STORMWATER MANAGEMENT IMPROVEMENTS. INSPECTIONS SHALL INCLUDE THE FOLLOWING:

- a. STORM SEWER PIPE TRENCHING AND INSTALLATION
- b. SWALE EXCAVATION AND INSTALLATION
- c. INFILTRATION BASINS 1-2 & DETENTION BASIN 1 ROUGH GRADING
  - EXCAVATION TO SUBGRADE
  - UNDERDRAIN SYSTEM INSTALLATION
  - AMENDED SOIL INSTALLATION
- OUTLET STRUCTURE AND OUTLET PIPE INSTALLATION (INCLUDING ANTI-SEEP COLLARS AND CLAY CORE)
- d. FINAL SITE STABILIZATION

B. DURING ANY STAGE OF THE WORK, IF THE TOWNSHIP ENGINEER DETERMINES THAT THE SWM BMPS ARE NOT BEING INSTALLED IN ACCORDANCE WITH THE APPROVED SWM SITE PLAN, NORTH LEBANON TOWNSHIP SHALL PROVIDE WRITTEN NOTIFICATION TO THE LAND OWNER AND/OR DEVELOPER AND THE STIPULATING THE DEFICIENCIES AND REQUIRE THAT THE DEFICIENCIES BE CORRECTED WITHIN 30 DAYS (OR LONGER AS MAY BE REQUIRED). IF THE DEFICIENCIES ARE NOT CORRECTED WITHIN THE SPECIFIED PERIOD OF TIME, NORTH LEBANON TOWNSHIP MAY:

- 1. REVOKE ANY EXISTING PERMITS UNTIL SUCH DEFICIENCIES ARE CORRECTED TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.
- 2. UTILIZE FINANCIAL SECURITY POSTED BY THE OWNER AND/OR DEVELOPER AS PART OF THE DEVELOPER'S IMPROVEMENT GUARANTEE AGREEMENT TO INSTALL ANY UNFINISHED FACILITIES OR REMEDY ANY IMPROPERLY CONSTRUCTED FACILITIES.
- 3. PURSUE OTHER LEGAL REMEDIES PURSUANT TO ARTICLE XI OF THIS ORDINANCE. 4. AFTER RECEIPT OF THE CERTIFICATE OF COMPLETION LETTER AND AS-BUILT PLAN BY NORTH LEBANON TOWNSHIP, A FINAL INSPECTION SHALL BE CONDUCTED BY THE TOWNSHIP ENGINEER OR DESIGNATED REPRESENTATIVE TO CERTIFY COMPLIANCE WITH THIS ORDINANCE.

C. SWM BMPS SHOULD BE INSPECTED BY THE LANDOWNER, OR THE OWNER'S DESIGNEE (INCLUDING THE TOWNSHIP FOR DEDICATED AND OWNED FACILITIES), ACCORDING TO THE FOLLOWING LIST OF MINIMUM FREQUENCIES:

- 1. ANNUALLY FOR THE FIRST FIVE (5) YEARS FOLLOWING CONSTRUCTION.
- 2. ONCE EVERY THREE (3) YEARS THEREAFTER.
- 3. DURING OR IMMEDIATELY FOLLOWING A 10-YEAR OR GREATER STORM. THE 10-YEAR STORM IS 4.6 INCHES OF RAINFALL IN A 24-HOUR PERIOD.

-RELOCATED END WALL

NV=454.80

![](_page_9_Picture_62.jpeg)

HaA - HAGERSTOWN SILT LOAM, 3-8% SLOPES HaB — HAGERSTOWN SILT LOAM, 3—8% SLOPES HbC - HAGERSTOWN SILTY CLAY LOAM, 8-15% SLOPES HeB - HAGERSTOWN-ROCK OUTCROP COMPLEX, 3-8% SLOPES No – NOLIN VARIANT SILT LOAM

CKA – CLARKSBURG SILT LOAM, 0-3% SLOPES

CmB - COMLY SILT LOAM, 3-8% SLOPES

DfB – DUFFIELD SILT LOAM, 3–8% SLOPES

OILS LEGEND

## + + + + + + + + + + Ð

![](_page_9_Figure_68.jpeg)

![](_page_9_Figure_69.jpeg)

![](_page_10_Figure_0.jpeg)

![](_page_10_Figure_1.jpeg)

![](_page_10_Figure_5.jpeg)

![](_page_10_Figure_7.jpeg)

![](_page_10_Figure_12.jpeg)

![](_page_10_Figure_13.jpeg)

![](_page_10_Figure_14.jpeg)

![](_page_10_Figure_15.jpeg)

![](_page_11_Figure_0.jpeg)

12 OF 30 SHEETS

![](_page_12_Figure_0.jpeg)

	STMH-9 RIM = 457.04' INV IN (15") = 449.75' INV IN (18") = 449.50' INV OUT (30") = 448.50'	458
SED GRADEEXISTING GRADE		456
EMERGENCY SPILLWAY: 453.25'		454
		452
		450
		448
T CROSS SECTION VIEW		446

IOT : 432.00 INV. IN (18") OUTLET PIPE = 443.90' INV. IN (3X30") = 444.00'	45
INV. OUT (2X42") = 443.90'	
	45
	4
	4
	4
^^ ^ [2] 김 사람이 가는 것 수요? 이 가슴	.
	44

\_\_\_\_ S ш  $\exists$ ОF  $\square$ PR( () $\vdash$ ш OUTL Ζ  $\sim \circ \sim$ BASI  $\overline{\mathcal{O}}$  $\triangleleft$ RMWATER XO-⊃ш  $\square$ LL 0 Z ST  $\alpha$ IELD CREW: SS/TB BASE MAP: DY RAWN: ABK/JMK ESIGN: ABK/EJG CHECKED: ABK )ATE: 3/12/24 ROJECT #132-23-007

13 OF 30 SHEETS

442

## STORM WATER MANAGEMENT OWNERSHIP & MAINTENANCE PROGRAM:

- ASSIGNS. THIS INCLUDES ALL STORM WATER BMP'S AS SHOWN ON THESE PLAN . ALL DRAINAGE COURSES, SWALES, STORM WATER INLETS, PIPES, CONDUITS, DETENTION BASINS AND OTHER STORM WATER MANAGEMENT FACILITIES SHALL BE INSTALLED, CONSTRUCTED AND MAINTAINED BY THE GRANTOR, ITS SUCCESSORS AND ASSIGNS, IN A FIRST-CLASS CONDITION IN CONFORMANCE WITH THE PLAN, AS APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF SUPERVISORS, AND IN A MANNER SUFFICIENT TO MEET OR EXCEED THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH ON THE PLAN. A. LIMING, FERTILIZING, SEEDING AND MULCHING OF VEGETATED CHANNELS AND ALL OTHER
- UNSTABILIZIED SOILS OR AREAS ACCORDING TO THE SPECIFICATIONS IN THE "EROSION AND SEDIMENT POLLUTION CONTROL MANUAL" PUBLISHED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OR SUCH SIMILAR ACCEPTED STANDARD. B. REESTABLISHMENT OF VEGETATION BY SEEDING, MULCHING, AND USE OF EROSION MATTING OR SODDING OF SCOURED AREAS OR AREAS WHERE VEGETATION HAS NOT BEEN
- C. MOWING AS NECESSARY TO MAINTAIN ADEQUATE STANDS OF GRASS AND TO CONTROL WEEDS. CHEMICAL WEED CONTROL MAY BE USED IF FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS ARE MET. SELECTION OF SEED MIXTURES SHALL BE SUBJECT TO APPROVAL D. REMOVAL OF SILT FROM ALL PERMANENT STRUCTURES WHICH TRAP SILT OR SEDIMENT IN
- ORDER TO KEEP THE MATERIAL FROM BUILDING UP IN GRASS WATERWAYS AND THUS E. REGULAR INSPECTION OF THE AREAS IN QUESTION TO ASSURE PROPER MAINTENANCE AND
- F. ALL PIPES, SWALES, AND DETENTION FACILITIES SHALL BE KEPT FREE OF ANY DEBRIS OR OTHER OBSTRUCTION. GRANTOR, ITS SUCCESSORS AND ASSIGNS, SHALL BE RESPONSIBLE FOR PERFORMING THE FOREGOING MAINTENANCE.
- 3. GRANTOR, FOR ITSELF, ITS SUCCESSORS AND ASSIGNS, AGREES THAT THE FAILURE TO MAINTAIN ALL DRAINAGE COURSES, SWALES, STORM WATER INLETS, PIPES, CONDUITS, DETENTION BASINS, AND OTHER STORM WATER MANAGEMENT FACILITIES IN A FIRST-CLASS CONDITION IN CONFORMANCE WITH THE AGREEMENT AND THE PLAN SHALL CONSTITUTE A NUISANCE AND SHALL BE ABATABLE BY THE NORTH LEBANON TOWNSHIP AS SUCH. . GRANTOR, FOR ITSELF, ITS SUCCESSORS AND ASSIGNS, AUTHORIZES NORTH LEBANON TOWNSHIP, AT ANY TIME AND FROM TIME TO TIME, BY ITS AUTHORIZED REPRESENTATIVES, TO
- ENTER UPON THE PREMISES TO INSPECT THE STORM WATER MANAGEMENT FACILITIES ASSIGNS, OR ANY FUTURE OWNER OR OCCUPIER OF THE PREMISES, OR ANY PART THEREOF REASONABLY NECESSARY TO BRING THE PREMISES INTO COMPLIANCE WITH THIS AGREEMENT AND WITH THE PLAN, AS APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF 6 LIPON THE FAILURE OF THE OWNER OR OCCUPIER OF THE PREMISES TO COMPLY WITH THE
- TERMS OF THE STORM WATER MANAGEMENT AGREEMENT OR TO TAKE CORRECTIVE MEASURES FOLLOWING THIRTY (30) DAYS' NOTICE FROM THE NORTH LEBANON TOWNSHIP, THE NORTH EBANON TOWNSHIP, THROUGH ITS AUTHORIZED REPRESENTATIVES, MAY TAKE SUCH. CORRECTIVE MEASURES AS IT DEEMS REASONABLY NECESSARY TO BRING THE PREMISES INTO COMPLIANCE WITH THE AGREEMENT AND WITH THE PLAN, INCLUDING, BUT NOT LIMITED TO, THE REMOVAL OF ANY BLOCKAGE OR OBSTRUCTION FROM DRAINAGE PIPES, SWALES AND DETENTION BASINS, AND MAY CHARGE THE COST THEREOF TO GRANTOR, ITS SUCCESSORS OR ASSIGNS, OR ANY OWNER OF THE PREMISES AND, IN DEFAULT OF SUCH PAYMENT, MAY CAUSE A MUNICIPAL LIEN TO BE IMPOSED UPON THE PREMISES OR ANY PART THEREOF.
- GRANTOR HEREBY IMPOSES UPON THE PREMISES FOR THE BENEFIT OF ALL PRESENT AND FUTURE OWNERS OF THE PREMISES OR ANY PART OF THE PREMISES, NORTH LEBANON TOWNSHIP AND ALL OTHER PROPERTY OWNERS AFFECTED BY THE STORM WATER MANAGEMENT FACILITIES, THE PERPETUAL NONEXCLUSIVE RIGHT, PRIVILEGE AND EASEMENT FOR THE DRAINING OF STORM WATER IN AND THROUGH THE DRAINAGE COURSES, SWALES, STORM WATER INLETS, PIPES, CONDUITS, DETENTION BASINS AND OTHER STORM WATER MANAGEMEN FACILITIES DEPICTED ON THE PLAN OR PLANS SUBMITTED TO NORTH LEBANON TOWNSHIP OR HEREAFTER MADE OF RECORD AND NOW OR HEREAFTER INSTALLED ON OR CONSTRUCTED UPON THE PREMISES AND, IN ADDITION, EASEMENTS OF ACCESS TO THE STORM WATER MANAGEMENT FACILITIES.
- 8. GRANTOR SHALL INCLUDE A SPECIFIC REFERENCE TO THE STORM WATER MANAGEMENT AGREEMENT AND DECLARATION OF EASEMENT IN ANY DEED OF CONVEYANCE FOR THE PREMISES OR ANY PART THEREOF. 9. GRANTOR AGREES TO INDEMNIFY NORTH LEBANON TOWNSHIP, LEBANON CO., AND ALL OF IT'S
- ELECTED AND APPOINTED OFFICIALS; AGENTS AND EMPLOYEES (HEREINAFTER COLLECTIVELY REFERRED TO AS THE "INDEMNITEES") AGAINST AND HOLD INDEMNITEES HARMLESS FROM ANY AND ALL LIABILITY, LOSS OR DAMAGE, INCLUDING ATTORNEYS' FEES AND COSTS OF INVESTIGATION AND DEFENSE, AS A RESULT OF CLAIMS, DEMANDS, COSTS OR JUDGMENTS AGAINST INDEMNITEES WHICH ARISE AS A RESULT OF THE DESIGN, INSTALLATION, CONSTRUCTION OR MAINTENANCE OF THE STORM WATER MANAGEMENT FACILITIES.
- PROCEED WITH ANY ACTION AT LAW OR IN EQUITY TO BRING ABOUT COMPLIANCE WITH THE NORTH LEBANON TOWNSHIP STORM WATER MANAGEMENT ORDINANCE AND THE AGREEMENT. . GRANTOR'S PERSONAL LIABILITY UNDER THE AGREEMENT SHALL CEASE AT SUCH TIME AS (A) ALL STORM WATER MANAGEMENT FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE NORTH LEBANON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND THE APPROVED PLANS; (B) THE STORMWATER MANAGEMENT FACILITIES HAVE BEEN INSPECTED AND APPROVED BY THE NORTH LEBANON TOWNSHIP ENGINEER: (C) ALL FINANCIAL SECURITY, INCLUDING ANY MAINTENANCE SECURITY, POSTED BY GRANTOR HAS BEEN RELEASED BY NORTH LEBANON TOWNSHIP; AND (D) GRANTOR HAS TRANSFERRED ALI OTS TO BE CREATED FROM THE PREMISES TO THIRD PARTIES. NOTWITHSTANDING TH FOREGOING, GRANTOR'S PERSONAL LIABILITY SHALL CONTINUE FOR ANY VIOLATIONS OF THI AGREEMENT AND DECLARATION OF EASEMENT WHICH OCCURRED DURING THE TIME THAT GRANTOR OWNED THE PREMISES OR ANY LOT CREATED FROM THE PREMISES OR IN THE EVENT
- AS SET FORTH HEREIN 2. IT IS THE INTENT OF THE PARTIES TO THE AGREEMENT THAT PERSONAL LIABILITY AND MAINTENANCE OBLIGATIONS SHALL PASS TO SUBSEQUENT TITLE OWNERS UPON CHANGE IN OWNERSHIP OF THE PREMISES OR ANY LOT CREATED FROM THE PREMISES, AND SUCH SUBSEQUENT OWNERS SHALL ASSUME ALL PERSONAL LIABILITY AND MAINTENANCE OBLIGATIONS FOR THE TIME PERIOD DURING WHICH THEY HOLD TITLE. PERSONAL LIABILITY SHALL REMAIN FOR ANY VIOLATIONS OF THE AGREEMENT AND DECLARATION OF EASEMENT, WHICH OCCURRED DURING THE PERIOD IN WHICH AN OWNER HELD TITLE

THE STORM WATER MANAGEMENT FACILITIES WERE NOT COMPLETED, INSPECTED OR APPROVED

3. THIS AGREEMENT AND DECLARATION OF EASEMENT SHALL BE BINDING UPON GRANTOR, THE SUCCESSORS AND ASSIGNS OF GRANTOR, AND ALL PRESENT AND FUTURE OWNERS OF THE PREMISES, OR ANY PART THEREOF, AND IS INTENDED TO BE RECORDED IN ORDER TO GIVE NOTICE TO FUTURE OWNERS OF THE PREMISES, OR ANY PART THEREOF, OF THEIR DUTIES AND RESPONSIBILITIES WITH RESPECT TO THE STORM WATER MANAGEMENT FACILITIES.

#### POST CONSTRUCTION STORMWATER MANAGEMENT NARRATIVE FLEXO-PACK, USA INC.

HIS NARRATIVE IS INTENDED TO ACCOMPANY THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN FOR THE PROPOSED PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN FOR THE FLEXO-PACK USA, INC., LOCATED ALONG THE SOUTH SIDE OF HANFORD DRIVE IN NORTH LEBANON TOWNSHIP, LEBANON COUNTY. THIS NARRATIVE SHALL BE CONSIDERED A PART F THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.

#### PROJECT DESCRIPTION

THE TOTAL SITE AND FARTH DISTURBANCE AS PART OF THIS PROJECT IS APPROXIMATELY 19.11 ACRES. THE CURRENT SITE CONSISTS OF OPEN AGRICULTURAL FIELDS AND VARIOUS SMALL AREAS OF WOODS AND MEADOW. THERE IS AN OLD ROADBED THAT CROSSES HE SOUTHERN PORTION OF THE SITE AND IS THE ONLY EXISTING IMPERVIOUS AREA ON SITE. BASED ON GOOGLE EARTH HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL SINCE THE FARLY 1990'S. IN 1992 THERE WERE A FEW HOMES ALONG THE SOUTH SIDE OF THE OLD ROADBED THAT HAVE SINCE BEEN DEMOLISHED. BASED ON PENN PILOT HISTORICAL IMAGERY. THE SITE HAS BEEN AGRICULTURAL IN USE SINCE THE 1930'S. PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF A 212.000 S.F. MANUFACTURING BUILDING WITH ASSOCIATED ACCESS DRIVES ONTO HANFORD DRIVE, PARKING AREAS, TRUCK LOADING AREAS, RAILROAD SPUR EXTENSION, CONNECTION TO PUBLIC SEWER AND WATER, AND STORMWATER MANAGEMENT FACILITIES. THE ANTICIPATED SITE DISTURBANCE SHALL INCLUDE GRADING AS WELL AS ADDITIONAL IMPERVIOUS AREA WHICH WILL BE TREATED N—SITE BY STORMWATER MANAGEMENT BMPS. TWO (2) INFILTRATION BASINS AND ONE (1) DETENTION BASIN ARE PROPOSED TO MANAGE THE SITE RUNOFF. STORMWATER RUNOFF FROM THE SITE WILL REACH THE QUITTAPAHILLA CREEK WHICH IS DESIGNATED AS TROUT STOCKED FISHES (TSF) AND IMPAIRED ACCORDING TO CATEGORY 4C OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE: STREAMBANK MODIFICATIONS/DESTABILIZATION – HABITAT ALTERATIONS AND URBAN RUNOFF STORM SEWERS - FLOW REGIME MODIFICATION. THE QUITTAPAHILLA CREEK IS ALSO IMPAIRED ACCORDING TO CATEGORY 5 OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR RECREATIONAL: SOURCE UNKNOWN -PATHOGENS.

#### CALCULATIONS

POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES WERE DESIGNED IN ACCORDANCE WITH THE STANDARDS ESTABLISHED IN THE PENNSYLVANIA STORMWATER MANAGEMENT BMP MANUAL (PA DEP BUREAU OF WATERSHED MANAGEMENT, DECEMBER 2006), PA CODE CHAPTER 102, AND THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE (ORDINANCE NO. 6-2022).

#### HYDROLOGY

A STORMWATER MANAGEMENT CONTROL SYSTEM IS PROPOSED TO MINIMIZE THE ADDITIONAL RUNOFF VOLUME GENERATED BY THE PROPOSED IMPROVEMENTS AND TO CONTROL THE FLOW TO A RATE LESSER THAN OR EQUAL TO THE PRE-DEVELOPMENT RUNOFF OLLOWING THE REQUIREMENTS OF THE PA CODE CHAPTER 102.8 AND THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE. IN ORDER TO PROVIDE WATER QUALITY, VOLUME CONTROL, AND RATE CONTROL, THE SITE WILL BE SERVED BY ONE (1) DETENTION BASIN, AND TWO (2) INFILTRATION BASINS. THE STRUCTURAL BMPS ARE DESIGNED TO MANAGE THE DISCHARGE RATE A RATE EQUAL OR LOWER THAN THE PRE-DEVELOPMENT RATE AND TO MANAGE THE 2-YR 24-HOUR VOLUME INCREASE THROUGH NFILTRATION AND EVAPOTRANSPIRATION. THE CURVE NUMBERS ARE TAKEN FROM THE NORTH LEBANON TOWNSHIP SWM ORDINANCE. SUPPORTING CALCULATIONS CAN BE SEEN IN THE DEP PCSM SPREADSHEETS.

PER THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE, THE SITE IS LOCATED WITHIN THE LEBANON COUNTY RESIDUAL – STORMWATER MANAGEMENT DISTRICT AND AS SUCH, POST-DEVELOPMENT DISCHARGE FLOW RATES MUST MEET THE FOLLOWING CRITERIA.

Pre - Developed	Post Developed
2 - year	< or = to 1-yr Pre
5 - year	< or = to 2-yr Pre
10 - year	< or = to 5-yr Pre
25 - year	< or = to 25-yr Pre
100 - vear	< or = to 100-yr Pre

THE SCS METHOD WAS USED TO DETERMINE PEAK FLOW RATES FOR BOTH PRE- AND POST-DEVELOPED CONDITIONS. THE RESULTING POST DEVELOPMENT RUNOFF FLOW RATES HAVE BEEN REDUCED TO REQUIRED PRE-DEVELOPMENT RELEASE RATES AS SHOWN IN THE TABLE ABOVE. THE STORMWATER FACILITIES WILL SATISFY THE APPLICABLE STORMWATER MANAGEMENT RATE REQUIREMENTS, WHICH CAN BE SEEN IN THE FLOW SUMMARY TABLE. HYDROCAD V10.0 SOFTWARE WAS USED TO PERFORM ALL BASIN ROUTING CALCULATIONS.

THIS PCSM PLAN IS DESIGNED TO MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME AND PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF. IN ORDER TO ANALYZE THE EFFECTIVENESS OF THE PROPOSED STORMWATER MANAGEMENT PLAN THE DRAINAGE PATTERN IS ANALYZED AS TWO (2) POINTS OF INTEREST.

DISCHARGE POINT 001 (DP 001) IS LOCATED TOWARDS THE SOUTHEASTERN PROPERTY CORNER AT AN EXISTING HEADWALL THAT CONVEYS FLOW WITHIN TWO (2) 42" DIAMETER PIPES BENEATH THE OLD ROADBED.

DISCHARGE POINT 002 (DP 002) IS LOCATED TOWARDS THE SOUTHEASTERN PROPERTY CORNER AT AN EXISTING ARCH CULVERT THAT CONVEYS FLOW BENEATH THE RAILROAD BED.

DP 001 IS TRIBUTARY TO AT THE EXISTING ARCH CULVERT AND DP 002.

#### THERMAL IMPACTS ANALYSIS

ALL EXISTING SITE RUNOFF CURRENTLY LEAVES THE SITE UN-DETAINED WITH NO TREATMENT OF THIS RUNOFF IN ANY WAY. STRUCTURAL BMPS ARE PROPOSED TO TREAT THE MAJORITY OF THE DISTURBED SITE AND PROPOSED IMPERVIOUS AREAS. RUNOFF REACHING THE TWO (2) INFILTRATION BASINS WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOMS BEFORE BEING INFILTRATED THROUGH THE ENGINEERED SOIL MIX AND INTO THE GROUND, RUNGEE REACHING THE DETENTION BASIN WILL BE COOLED. THE NATIVE VEGETATION IN THE BASIN BOTTOM BEFORE BEING SLOWLY RELEASED TO THE GROUND SURFACE. TREES ARE ALSO PROPOSED IN AND AROUND THE PARKING LOT AREA PROVIDE SHADE AND TEMPERATURE RELIEF FOR RUNOFF THAT FLOWS OVER THE IMPERVIOUS SURFACES.

#### WATER QUALITY AND NON-DISCHARGE ANALYSIS

THE SITE HAS BEEN DESIGNED TO MEET THE NPDES REQUIREMENTS AS CALCULATED IN THE DEP PCSM SPREADSHEET – QUALITY. HROUGH THE IMPLEMENTATION OF THE STRUCTURAL BMPS, THE WATER QUALITY REQUIREMENTS HAVE BEEN MET FOR THIS SITE PLEASE SEE THE STANDARD DEP PCSM SPREADSHEETS FOR A MORE IN-DEPTH DESCRIPTION OF HOW THE REQUIREMENTS ARE MET FOR THIS SITE.

#### PROPOSED BEST MANAGEMENT PRACTICES

- INFILTRATION BASIN - TWO (2) INFILTRATION BASINS WILL BE UTILIZED TO PROMOTE INFILTRATION EVAPORATION AND VAPOTRANSPIRATION AND CONTROL FLOW AND VOLUME LEAVING THE SITE DETENTION BASIN - ONE (1) DETENTION BASIN WILL BE UTILIZED TO PROMOTE EVAPORATION AND EVAPOTRANSPIRATION, AND INFILTRATION BASIN CONTROL FLOW AND VOLUME LEAVING THE SITE.

#### OFFSITE DISCHARGE ANALYSIS

THE FOLLOWING IS AN EXCERPT FROM THE PA DEP FAQ SHEET LABELED CHAPTER 102 OFF-SITE DISCHARGES OF STORMWATER TC NON-SURFACE WATERS (JANUARY 2, 2019). FAQ #2 STATES, "PERSONS PROPOSING TO DISCHARGE MUST HAVE THE LEGAL JTHORITY TO DISCHARGE THEIR STORMWATER EITHER "THROUGH EITHER A COMMON LAW EASEMENT OR AN EXPRESS EASEMENT. FOR SITES THAT DISCHARGE TO EXISTING SWALES, DITCHES, STORM SEWERS OR SIMILAR STRUCTURES WHERE THE NEW ACTIVITIES WILL OT RESULT IN A CHANGE IN VOLUME OR RATE OF STORMWATER RUNOFF (FOR ALL STORM EVENTS), THE EXISTING COMMON LAW EASEMENT COULD BE RELIED UPON."

THE SITE DISCHARGES IN A SIMILAR MANNER TO ALL DISCHARGE POINTS AT A RATE THAT IS LESS THAN PRE-DEVELOPMENT.

#### CHAPTER 102.8 (B) ANALYSIS

THE STREAM CHANNEL IS PROTECTED BY THE FLOW REDUCTION PROVIDED FROM THE PROPOSED STORMWATER MANAGEMENT FACILTIES. THE STRUCTURAL BMPS ALLOWS FOR REDUCED FLOW TO ALL DISCHARGE POINTS, AND THEREFORE THE DOWNSTREAM CHANNEL WILL NOT BE IMPACTED. THE SAME FLOW REDUCTION AND WATER QUALITY BENEFITS PROVIDED BY THE STRUCTURAL AND NON-STRUCTURAL BMPS WILL ALSO SERVE TO PROTECT THE EXISTING DRAINAGE FEATURES AND DOWNSTREAM VEGETATION.

#### SOIL INFORMATION AND GEOLOGY

THE FOLLOWING SOILS ARE FOUND WITHIN OR ADJACENT TO THE AREA TO BE DISTURBED BY EARTH MOVING ACTIVITIES. THESE SOILS CAN ERODE WHEN DISTURBED. EROSION WILL BE CONTROLLED WITH STANDARD EROSION CONTROLS SUCH AS FILTER SOCK, SLOPE AND SWALE MATTING, RIPRAP OUTLET PROTECTION, INLET PROTECTION, ROCK CONSTRUCTION ENTRANCES, AND SEDIMENT BASINS/TRAPS.

<u>Map Symbol</u>	Soil Name	Slope	Hydrologic Group
DfB	Duffield silt loam	3-8%	В
HaB	Hagerstown silt loam	3-8%	В
HbC	Hagerstown silty clay loam	8-15%	В
HeB	Hagerstown-Rock outcrop complex	3-8%	В
No	Nolin variant silt loam	H	В
US	Urban land-Hagerstown complex	-	В

\*IF SOILS ARE BOLD THEY ARE DISTURBED DURING CONSTRUCTION ON THIS PROJECT

#### <u>KARST NOTES</u>

THE PA DEP'S EMAPPA DOES IDENTIFIES THREE (3) SURFACE DEPRESSIONS ON SITE AND VARIOUS OTHERS WITHIN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE ONTELAUNEE FORMATION WHICH IS COMPRISED OF DOLOMITE, LIMESTONE, AND CHERT. AS SUCH, THERE IS POTENTIAL FOR KARST ACTIVITY ON THE SITE. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.

HE GEOTECHNICAL ENGINEERING REPORT FOR STORMWATER MANAGEMENT PREPARED BY ECS MID-ATLANTIC, LLC IDENTIFIES ONE XISTING SURFICIAL DEPRESSION ON SITE THAT IS APPROXIMATELY 1' DEEP AND 4' ACROSS. IN ACCORDANCE WITH THE ECS RECOMMENDATIONS, THE EXISTING SURFACE DEPRESSION WILL BE EXPLORED WITH A TEST PIT UNDER THE SUPERVISION OF ECS PRIOR O CONSTRUCTION AT THE SITE IN ORDER TO DETERMINE IF POTENTIAL REPAIRS ARE NECESSARY.

IN ORDER TO REDUCE THE RATE OF SINKHOLE DEVELOPMENT AND IN KEEPING WITH THE GUIDELINES AND RECOMMENDATIONS OF THE PA BMP MANUAL, ECS RECOMMENDS THAT THE FOLLOWING DESIGN PRINCIPLES BE INCORPORATED: USE EXISTING DRAINAGE PATTERNS:

O THE EXISTING SITE IS LOCATED WITHIN A LARGE BOWL SUCH THAT DRAINAGE ENTERS THE SITE FROM ALL DIRECTIONS. THE MAIN INFILTRATION BASIN ON THE SITE IS LOCATED WITHIN AN EXISTING BROAD DRAINAGE WAY. • KEEP STORMWATER AWAY FROM KNOWN SINKHOLES OR PROBLEMATIC SUBSIDENCE AREAS:

O THERE ARE NO KNOWN SINHOLES ON SITE. • AVOID CONCENTRATING STORMWATER:

O RUNOFF WILL BE NATURALLY CONCENTRATED IN THE PROPOSED BASINS WHICH ARE DESIGNED IN ACCORDANCE WITH THE BELOW PRINCIPLES TO REDUCE THE RISK OF SINKHOLE FORMATIONS. BYPASS FLOWS WILL UTILIZE WATER TIGHT PIPING. REDUCE RUNOFF VOLUME AND VELOCITY

O ON-SITE RUNOFF VOLUME WILL BE REDUCED IN ACCORDANCE WITH TOWNSHIP AND CHAPTER 102 REQUIREMENTS. • USE BROAD SHALLOW BASINS:

O INFILTRATION BASIN 1 HAS A MAXIMUM PONDING DEPTH OF LESS THAN 3' AND INFILTRATION BASIN 2 HAS A MAXIMUM PONDING DEPTH OF LESS THAN 1'. • MAINTAIN THE FACILITIES POST CONSTRUCTION:

O POST-CONSTRUCTION STORMWATER MANAGEMENT FACILITIES WILL BE MAINTAINED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE AGREEMENT REQUIRED BY THE TOWNSHIP AND RECORDED WITH THE PLAN. • PROVIDE UNDERDRAINS OR OTHER MEANS FOR DEWATERING IN STORMWATER MANAGEMENT FACILITIES IF NEEDED:

O UNDERDRAINS ARE PROVIDED FOR ALL BASINS

DUFFIELD SOILS - THE DUFFIELD SERIES CONSISTS OF DEEP AND VERY DEEP, WELL DRAINED SOILS FORMED IN RESIDUUM FROM LIMESTONE BEDROCK, SLOPES RANGE FROM 0 TO 35 PERCENT, PERMEABILITY IS MODERATE, MEAN ANNUAL PRECIPITATION IS 40 NCHES. MEAN ANNUAL TEMPERATURE IS 53 DEGREES F. DUFFIELD SOILS ARE SUSCEPTIBLE TO CUTBANKS AND CAVE INS AND MAY CORROSIVE TO STEEL AND CONCRETE. THIS SOIL MAY ALSO BE EASILY ERODIBLE AND SUBJECT TO HYDRIC INCLUSIONS, LOW STRENGTH. SLOW PERCOLATION, PIPING, AND A POOR SOURCE OF TOPSOIL. THIS SOIL IS ALSO SUSCEPTIBLE TO SHRINK/SWELL AND HAS THE POTENTIAL FOR SINKHOLE FORMATION. THIS SOIL IS ALSO SUBJECT TO WETNESS BUT NOT PONDING. HAGERSTOWN SOILS - THE HAGERSTOWN SERIES CONSISTS OF DEEP AND VERY DEEP, WELL DRAINED SOILS FORMED IN RESIDUUM OF

HARD GRAY LIMESTONE SLOPE RANGES FROM 0 TO 45 PERCENT PERMEABILITY IS MODERATE MEAN ANNUAL PRECIPITATION IS 30 TO 45 INCHES, MEAN ANNUAL AIR TEMPERATURE IS 45 TO 58 DEGREES, HAGERSTOWN SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS AND CORROSIVE TO STEEL BUT NOT CONCRETE. THIS SOIL MAY ALSO BE EASILY ERODIBLE AND SUBJECT TO A SEASONALLY HIGH WATER TABLE, HYDRIC INCLUSIONS, LOW STRENGTH, SLOW PERCOLATION, PIPING, AND A POOR SOURCE OF TOPSOIL HAGERSTOWN SOILS MAY ALSO BE SUSCEPTIBLE TO FROST ACTION. SHRINK-SWELL AND SINKHOLES NOLIN SOILS - THE NOLIN SERIES CONSISTS OF VERY DEEP, WELL DRAINED SOILS FORMED IN ALLUVIUM DERIVED FROM LIMESTONES. SANDSTONES, SILTSTONES, SHALES, AND LOESS. THESE NEARLY LEVEL TO MODERATELY STEEP SOILS ARE ON FLOOD PLAINS, IN DEPRESSIONS WHICH RECEIVE RUNOFF FROM SURROUNDING SLOPES, OR ON NATURAL LEVEES OF MAJOR STREAMS AND RIVERS. SLOPE RANGES FROM 0 TO 25 PERCENT, BUT IS DOMINANTLY 0 TO 3 PERCENT. MEAN ANNUAL TEMPERATURE IS 56 DEGREES F. AND

## SOIL USE LIMITATIONS AND RESOLUTIONS

- FRENCHING AND EXCAVATION OPERATIONS.
- AGAINST CORROSION, WHICH MAY INCLUDE COATING THESE STRUCTURES WITH CORROSION-RESISTANT MATERIAL. SEDIMENT-LADEN WATER OFF-SITE.

- LANDSLIDES, AND SHALL BE STABILIZED IMMEDIATELY.
- NEGLIGIBLE RESULTS/LIMITING ZONES. PIPING: ANTI-SEEP COLLARS WILL BE PROVIDED AS PART OF THE PCSM AND PIPELINE DESIGNS.
- THE MAJORITY OF THE SITE IS AN AGRICULTURAL FIELD, THE TOPSOIL IS EXPECTED TO BE SUFFICIENT.
- SURFACES SHALL BE PROMPTLY SEALED.
- THE LIKELIHOOD OF WATER INFILTRATING NEAR OR UNDER THESE STRUCTURES.
- CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.
- PUMPED TO AN UNDISTURBED AREA UPSTREAM OF A PERIMETER CONTROL (FILTER SOCK). • FLOODING: THE SITE IS NOT LOCATED WITHIN A MAPPED FLOODPLAIN.

## GENERAL SOIL NOTES

OTHER OBJECTIONABLE MATERIAL NEED TO HAVE APPROPRIATE E&S CONTROLS. PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE

- WITH LOCAL REQUIREMENTS OR CODES. 3. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS. THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- 6.FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

#### INFILTRATION TESTING REQUIREMENTS

INFILTRATION TESTING HAS BEEN CONDUCTED AND HAS YIELDED FAVORABLE RESULTS IN THE PROPOSED INFILTRATION FACILITIES. SHALLOW BEDROCK WAS ENCOUNTERED IN THE AREA OF DETENTION BASIN 1. AS SUCH, THE BASIN IS NOT DESIGNED FOR INFILTRATION. PLEASE REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR STORMWATER MANAGEMENT FOUND LATER IN THIS REPORT FOR FURTHER DISCUSSION AND RESULTS.

#### OWNERSHIP, OPERATIONS AND MAINTENANCE

SHORT-TERM OWNERSHIP, OPERATIONS AND MAINTENANCE OF THE PCSM BMPS IS THE RESPONSIBILITY OF THE CONTRACTOR (UNKNOWN AT THIS TIME), WHO SHALL BE LISTED AS THE CO-PERMITTEE ON THE NPDES PERMIT. LONG-TERM OWNERSHIP, OPERATIONS AND MAINTENANCE OF THE PCSM BMPS IS THE RESPONSIBILITY OF THE PROPERTY OWNER HEREIN IDENTIFIED AS FLEXO-PACK USA, INC.

INDIVIDUAL BMP DESCRIPTION, CONSTRUCTION SEQUENCE, AND MAINTENANCE GENERAL OVERALL BMP DESCRIPTION

AN INFILTRATION BASIN IS A SHALLOW IMPOUNDMENT THAT STORES AND INFILTRATES RUNOFF OVER A LEVEL, UN-COMPACTED (PREFERABLY UNDISTURBED AREA) WITH RELATIVELY PERMEABLE SOILS.

#### CONSTRUCTION SEQUENCE

- 1. PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION. AND PIPES.
- 3.INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. 4.IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE.
- 5.INSTALL OUTLET CONTROL STRUCTURES.

6.SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS) 7.DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

#### MAINTENANCE AND INSPECTION 1. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED.

- GROWING SEASON.
- 4.DURING PERIODS OF EXTENDED DROUGHT, AREAS MAY REQUIRE WATERING.
- PER YEAR AND AFTER MAJOR RUNOFF EVENTS (> 1-INCH RAINFALL DEPTH).
- SPOTS SHALL BE RE-VEGETATED AS SOON AS POSSIBLE.
- COMPACTION BY MOWERS.
- WITH RELATIVELY STATIC WATER LEVELS. 9.ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES,
- SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS.
- FACILITY 11. REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE.
- ALTERNATIVE SOLUTIONS. ALTERNATIVES INCLUDE
- REPLACED PER THE PCSM PLAN SPECIFICATIONS
- DETERMINATION AS TO THE BEST COURSE OF ACTION AS TO RETURN THE SITE TO THE STANDARDS OF THE LOCAL MUNICIPAL AUTHORITY AND THE PA DEP.

#### DETENTION BASIN

A DETENTION BASIN IS AN EARTHEN STRUCTURE CONSTRUCTED EITHER BY IMPOUNDMENT OF A NATURAL DEPRESSION OR EXCAVATION OF EXISTING SOIL, THAT PROVIDES TEMPORARY STORAGE OF RUNOFF AND FUNCTIONS HYDRAULICALLY TO ATTENUATE STORMWATER RUNOFF PEAKS.

RATE AND VOLUME PRIOR TO LEAVING THE SITE. PLEASE SEE THE PCSM PLAN AND REPORT FOR DETAILS, SPECIFICATIONS AND CALCULATIONS.

ONE (1) DETENTION BASIN IS PROPOSED ON SITE. THE PRIMARY FUNCTION OF THIS BMP IS TO MANAGE THE STORMWATER RUNOFF

12. SHOULD ANY INFILTRATION BASIN FAIL TO DEWATER WITHIN A 72-HOUR TIME PERIOD THE OWNER SHALL INVESTIGATE

– REPLACE THE ENGINEERED SOIL LAYER AND / OR THE UNDERDRAIN SYSTEM. THE ENGINEERED SOIL LAYER SHOULD BE REMOVED. E SOIL LAYER AT THE BOTTOM OF THE ENGINEERED SOIL SHALL BE SCARIFIED. THE ENGINEERED SOIL LAYER SHALL BE

-CONDUCT AN INVESTIGATION BY A QUALIFIED INDIVIDUAL IN ORDER TO DETERMINE THE CAUSE OF FAILURE AND MAKE A

10. THE SEED MIXTURE PLANTED IN THE BOTTOM OF THE BASINS SHALL BE MOWED DOWN TO A HEIGHT OF 8-INCHES WHEN IT REACHES A HEIGHT OF 24-INCHES DURING THE FIRST FULL GROWING SEASON ONLY. IN ALL SUBSEQUENT YEARS, ANY MATERIAL STILL STANDING FROM THE PREVIOUS GROWING SEASON SHALL BE MOWED IN EARLY SPRING TO A HEIGHT OF 2-INCHES PRIOR TO THE CURRENT YEAR'S GROWTH REACHING A HEIGHT OF 2-INCHES. THE SEED MIXTURE SHALL NOT BE MOWED AGAIN UNTIL THE FOLLOWING SPRING. IN ALL INSTANCES, CLIPPINGS SHALL BE COMPOSTED OR TAKEN TO AN APPROVED YARD WASTE RECYCLING

7. VEHICLES SHOULD NOT BE PARKED OR DRIVEN OVER AN INFILTRATION AREA, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE 8.INSPECT THE FACILITY AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. MOSQUITOES SHOULD NOT BE A PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD

5.CATCH BASINS AND INLETS (UPGRADIENT OF INFILTRATION FACILITY) SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES 6. THE VEGETATION ALONG THE SURFACE OF THE INFILTRATION FACILITY SHALL BE MAINTAINED IN GOOD CONDITION, AND ANY BARE

2.DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE 3. AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION VEGETATIVE CONDITIONS ETC.

AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LADEN WATER FROM ENTERING INLETS

2.IF POSSIBLE, INSTALL INFILTRATION BASIN DURING THE LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION

TWO (2) INFILTRATION BASINS WILL BE LOCATED ON SITE. THE BOTTOMS WILL BE CONSTRUCTED WITH AN ENGINEERED SOIL MIXTURE TO ASSIST IN THE WATER QUALITY BENEFITS OF FILTRATION AS WELL AS TO PROMOTE VEGETATION GROWTH AND INFILTRATION. BASIN BOTTOMS WILL BE PLANTED WITH ERNST SEEDS RETENTION BASIN FLOOR MIX – LOW MAINTENANCE (ERNMX–126) WHICH WILL PROMOTE POLLUTANT REMOVAL. THE PRIMARY FUNCTION OF THE BMP IS TO MANAGE STORMWATER RUNOÈF VOLUME AND CONTROL THE PEAK RATE LEAVING THE SITE. PLEASE SEE THE PCSM PLAN AND REPORT FOR DETAILS, SPECIFICATIONS AND CALCULATIONS.

7. THE LOCAL CONSERVATION DISTRICT SHALL BE CONTACTED IF SEEPS OR SPRINGS ARE ENCOUNTERED AND THE DESIGNS ARE ALTERED DURING CONSTRUCTION AND THEY SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR

5.FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

4.FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS

1. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED

BASINS, ETC. SHOULD DEWATERING BE REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE

• SHRINK/SWELL: ALL SITE GRADING SHALL DIRECT WATER AWAY FROM BUILDINGS AND OTHER IMPERVIOUS SURFACES TO REDUCE • SINKHOLE FORMATION: THE PA DEP'S EMAPPA DOES IDENTIFIES THREE (3) SURFACE DEPRESSIONS ON SITE AND VARIOUS OTHERS WITHIN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE ONTELAUNEE FORMATION WHICH IS COMPRISED OF DOLOMITE, LIMESTONE, AND CHERT. AS SUCH, THERE IS POTENTIAL FOR KARST ACTIVITY ON THE SITE. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A • WETNESS: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION. I.E. WHEN POURING FOOTERS, DEWATERING

• POOR SOURCE OF TOPSOIL: THE ADEQUACY OF THE TOPSOIL WILL BE EVALUATED UPON THE COMMENCEMENT OF EXCAVATION. AS • FROST ACTION: ALL IMPERVIOUS SURFACES SHALL BE GRADED AT A MINIMUM OF 1% IN ONE DIRECTION, SO THAT WATER WILL NOT COLLECT ON THE SURFACE AND CAUSE DAMAGE DURING FREEZE/THAW CYCLES. CRACKS WHICH DEVELOP IN THE IMPERVIOUS

• SLOW PERCOLATION: ADEQUATE PRECAUTIONS WILL BE TAKEN TO ENSURE THAT THE PCSM BMPS INFILTRATE WITHIN THE REQUIRED TIME PERIOD, INCLUDING INFILTRATION TESTING AND SOIL MODIFICATION/UNDERDRAIN INSTALLATION, IF NECESSARY. INFILTRATION TESTS PREVIOUSLY PERFORMED INDICATED THAT THE INFILTRATION RATE AT THE SITE IS ADEQUATE IN THE PROPOSED INFILTRATION FACILITIES. A DETENTION BASIN IS PROPOSED IN THE AREA WHERE INFILTRATION TESTING YIELDED

• DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, EXCAVATING TRENCHES, DEWATERING BASINS, ETC. THE GEOTECHNICAL REPORT DID NOT IDENTIF ANY AREAS OF HIGH GROUNDWATER. IF DEWATERING IS REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED AREA UPSTREAM OF A PERIMETER CONTROL BMP SUCH AS A FILTER SOCK. • HYDRIC SOILS/HYDRIC INCLUSIONS: A WETLAND FIELD SURVEY WAS CONDUCTED AND NO WETLANDS ARE LOCATED ON SITE. • LOW STRENGTH/LANDSLIDE PRONE: THE MAXIMUM PROPOSED SLOPE ON THE SITE IS 2:1. THIS WILL REDUCE THE POTENTIAL FOR EROSION AND LAND SLIDE ACTION. ALL PROPOSED BERMS SHALL BE COMPACTED FULLY IN ORDER TO PROTECT AGAINST

• EASILY ERODIBLE: EROSION AND SEDIMENT POLLUTION CONTROLS WILL BE IMPLEMENTED TO AVOID THE TRANSPORTATION OF

LOW STRENGTH, SLOW PERCOLATION, AND PIPING. NOLIN SOILS MAY ALSO BE SUSCEPTIBLE TO SINKHOLE FORMATION. • CUT-BANK CAVING: ALL APPLICABLE OSHA STANDARDS AND REGULATIONS SHALL BE IMPLEMENTED AT ALL TIMES DURING • CORROSION OF STEEL AND CONCRETE: ALL UNDERGROUND FOUNDATIONS AND STRUCTURES SHALL BE PROPERLY PROTECTED

CONCRETE BUT NOT STEEL. THIS SOIL MAY ALSO BE SUBJECT TO FLOODING, A SEASONALLY HIGH WATER TABLE, HYDRIC INCLUSIONS,

MEAN ANNUAL PRECIPITATION IS 43 INCHES. NOLIN SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS AND CORROSIVE T

b.CARE SHOULD BE TAKEN TO PREVENT COMPACTION OF THE BASIN BOTTOM. C.IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. REMOVE ALL TREE ROOTS, ROCKS, AND BOULDERS ONLY IN THE EXCAVATION AREA.

3.EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION (IF NECESSARY).

1. INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

2. PREPARE SITE FOR EXCAVATION AND/OR EMBANKMENT CONSTRUCTION.

4.INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.

SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (2000 OR LATEST EDITION) PRIOR TO BASIN CONSTRUCTION.

5.GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE TO PREVENT COMPACTION. COMPACT SURROUNDING EMBANKMENT AREAS AND

a. THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION AND

a.ALL EXISTING VEGETATION SHOULD REMAIN IF FEASIBLE AND SHOULD ONLY BE REMOVED IF NECESSARY FOR CONSTRUCTION.

AROUND INLET AND OUTLET STRUCTURES.

CONSTRUCTION SEQUENCE

6. APPLY AND GRADE PLANTING SOIL.

7.APPLY GEO-TEXTILES AND OTHER EROSION-CONTROL MEASURES.

8.SEED, PLANT AND MULCH ACCORDING TO PLANTING PLAN.

9.INSTALL ANY ANTI-GRAZING MEASURES, IF NECESSARY.

OPERATION AND MAINTENANCE

MAINTENANCE IS NECESSARY TO ENSURE PROPER FUNCTIONALITY OF THE DETENTION BASIN AND SHOULD TAKE PLACE ON A QUARTERLY BASIS. BASIN MAINTENANCE SHALL INCLUDE THE FOLLOWING MEASURES:

1. ALL BASIN STRUCTURES EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION ONCE EVERY THREE MONTHS AND AFTER THE CESSATION OF ALL STORM EVENTS OF 0.25-INCH OR GREATER. DEBRIS AND SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.

UN-VEGETATED AREAS SHALL BE IMMEDIATELY SEEDED AND STABILIZED

2.STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLETS STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS. 3.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. 4. MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE REMOVED FROM THE BASIN.

5. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION.

6. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES. 7. VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95 PERCENT. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%,

VEGETATION SHOULD BE REESTABLISHED. OVERALL PCSM CONSTRUCTION SEQUENCE

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE OF THE COUNTY CONSERVATION DISTRICT TO AN ON-SITE

PRE-CONSTRUCTION MEETING. 2.UPON INSTALLATION OF PERIMETER E&S CONTROLS (SEE CONSTRUCTION SEQUENCE), INSTALL BYPASS PIPING, SWALES A & B,

AND SEDIMENT BASIN/TRAPS.

3.INSTALL SWALES C & D DURING ROUGH GRADING.

4.INSTALL ALL UTILITIES. 5.AFTER THE BUILDINGS AND OTHER IMPROVEMENTS ARE CONSTRUCTED ADD TOPSOIL TO THE POST-CONSTRUCTION PERVIOUS AREAS TO BE PERMANENTLY STABILIZED.

6.AFTER STABILIZATION OF THE SITE AREA, CONVERT SEDIMENT BASIN/TRAPS TO PERMANENT STORMWATER BASINS AS SEEN ON THE PCSM PLAN. CARE SHOULD BE TAKEN TO MINIMIZE SOIL COMPACTION IN THESE AREAS BEFORE AND AFTER CONSTRUCTION. SUCCESS HAS BEEN ACHIEVED WITH MINIMAL COMPACTION UTILIZING A "ROCK SLINGER".

7. APPLY THE SPECIFIED PERMANENT STABILIZATION ACROSS THE SITE.

NPDES PERMIT NOTES

INFILTRATION BASINS 1 & 2

O AMENDED SOILS INSTALLATION

PERMANENT SITE STABILIZATION

DETENTION BASIN

PROJECT WASTES NOTES

(BMPS):

HAULER.

STAGING OF EARTHMOVING

UNDISTURBED VEGETATED AREAS

SEQUENCE OF CONSTRUCTION

UNDERGROUND UTILITIES.

TO IMPLEMENTATION.

EXCAVATION/GRADING.

CONSTRUCTION FENCE, ETC.).

O EXCAVATION / ROUGH GRADING

O EXCAVATION / ROUGH GRADING

O UNDERDRAIN AND AMENDED SOILS INSTALLATION

O OUTLET PIPE, ANTI-SEEP COLLAR, CLAY CORE INSTALLATION

O OUTLET PIPE, ANTI-SEEP COLLAR, CLAY CORE INSTALLATION

BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

EACH STAGE SHALL BE COMPLETED BEFORE A SUBSEQUENT STAGE IS INITIATED.

APPROVED IN WRITING FROM THE COUNTY CONSERVATION DISTRICT.

1. PERMITTEE'S REQUESTING A RENEWAL OF COVERAGE UNDER GENERAL PERMIT MUST SUBMIT TO THE COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOI, AT LEAST 90 DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE.

2.PERMITTEE'S REQUESTING A RENEWAL OF COVERAGE UNDER INDIVIDUAL PERMIT MUST SUBMIT TO THE COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOI, AT LEAST 180 DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE

3.ALL EARTHMOVING CONTRACTORS MUST BE ADDED AS CO-PERMITTEES TO THE NPDES PERMIT.

4.SITE INSPECTIONS AND MONITORING REPORTS - THE PERMITTEE AND CO-PERMITTEE(S) SHALL COMPLY WITH ALL OF THE MONITORING AND REPORTING REQUIREMENTS, AS OUTLINED IN PART A.2 OF THE NPDES PERMIT. THE PERMITTEE AN CO-PERMITTEE(S) SHALL ENSURE THAT SITE INSPECTIONS ARE CONDUCTED AT LEAST WEEKLY AND AFTER EACH MEASURABLE PRECIPITATION EVENT BY QUALIFIED PERSONNEL. A WRITTEN REPORT SHALL BE KEPT FOR EACH INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF PART A.2.A.

5. THE DEP "VISUAL INSPECTION CHECKLIST" SHOULD BE COMPLETED FOR EACH INSPECTION AND SHOULD BE AVAILABLE ON-SITE FOR INSPECTION BY DEP OR COUNTY CONSERVATION DISTRICT PERSONNEL. 6.AFTER ALL EARTHMOVING ACTIVITY HAS CEASED AND THE ENTIRE PERMITTED AREA IS PERMANENTLY STABILIZED. THE PERMITTEE

MUST SUBMIT A NOTICE OF TERMINATION TO THE LOCAL COUNTY CONSERVATION DISTRICT TO CLOSE OUT THE PERMIT. ALLOWING

THE NPDES PERMIT TO EXPIRE IS DETERMINED TO BE A VIOLATION OF THE NPDES PERMIT.

PER REQUIREMENTS OF THE PA DEP A LICENSED PROFESSIONAL OR DESIGNEE MUST BE PRESENT FOR THE INSTALLATION OF ALL BMP AND STORMWATER CONTROLS. PLEASE CONTACT THE DESIGN PROFESSIONAL OR ENSURE A LICENSED PROFESSIONAL IS PRESENT BEFORE BEGINNING THE FOLLOWING CONSTRUCTION ACTIVITIES:

THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE.

THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER,

SANITARY WASTES, EXISTING ON-SITE REFUSE, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. 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 SHALL

• LITTER CLEANED FROM PCSM BMPS SHALL BE DISPOSED OF IN A TRASH RECEPTACLE FOR PICK UP BY THE LOCAL REFUSE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING STAGING OF EARTHMOVING ACTIVITIES.

CONSTRUCTION OF THE SITE IMPROVEMENTS IS EXPECTED TO BEGIN IN THE FALL OF 2024. A COPY OF THE APPROVED EROSION AND

SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. CONSTRUCTION WILL PROCEED IN A TIMELY MANNER IN ORDER TO LIMIT THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENTATION. IMMEDIATELY UPON DISCOVERING

UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR

SEDIMENT POLLUTION. SHOULD ANY SINKHOLES OR GROUNDWATER SOURCES BE ENCOUNTERED DURING CONSTRUCTION, THE

CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER IMMEDIATELY. ALL PUMPING OF SEDIMENT LADEN WATER SHALL E THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER

SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE

COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPIN

SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE

CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVI ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION

2.AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES

SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING

3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS.

5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE,

6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASINS 1 & 2 AND DETENTION BASIN 1). REFER

TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THE INFILTRATION AREAS SHOULD NOT BE

7.INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 1-20 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE

COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR

DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR

WASTE MATERIALS WITH OR FROM THE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BEST MANAGEMENT PRACTICES

• SEDIMENT DEPOSITED AND ACCUMULATED IN PCSM BMPS SHALL BE REMOVED FROM THE BMP AND DISPOSED OF PROPERLY.

• CUTTINGS AND TRIMMINGS FROM PCSM BMPS SHALL BE DISPOSED OF IN A LOCAL COMPOSTING FACILITY.

MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.

4.INSTALL THE ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE ATTACHED PLAN.

BMP CRITICAL STAGES

THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATIONS 21–23 IS TO ENSURE SEDIMENTATION OF THE ENGINEERED SOIL IN EACH BASIN DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASINS IS COMPLETE.						
8.INSTALL ROCK FILTER #1 AT THE EXISTING HEADWALL IN THE SOUTHEAST CORNER OF THE SITE.			-			
9.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."						
10. INSTALL THE BYPASS PIPING FROM HW-4 TO EW-1. INSTALL ROCK FILTER #4 ABOVE HW-4.	) רב					
11. INSTALL SWALES A & B. ENSURE SWALE LINING IS INSTALLED IN ACCORDANCE WITH PLAN DETAILS.	ВΥ	MK	K/EJG	JMK	   	
12. INSTALL THE BYPASS PIPING FROM FES-10 TO EW-6. INSTALL ROCK FILTER #3 ABOVE FES-10.		+	4 JM	4		
13. INSTALL THE RELOCATED BYPASS HEADWALL AND PIPE AT THE WESTERN LIMITS OF THE SITE. INSTALL ROCK FILTER #2 ABOVE THIS HEADWALL.	DATE	2/8/24	3/11/2	3/11/2		
14. INSTALL SEDIMENT BASIN 1 AND SEDIMENT TRAPS 1 & 2 WHICH WILL SERVE AS SEDIMENT REMOVAL FACILITIES DURING CONSTRUCTION AND BE CONVERTED TO PERMANENT STORMWATER BASINS UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL EACH SEDIMENT BASIN/TRAP. THE SEDIMENT BASIN/TRAPS MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM EACH BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORES, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENTS, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN P300 SLOPE PROTECTION AT EMERGENCY SPILLWAYS. INSTALL RIPRAP APRONS AT ALL OUTLETS. INSTALL SEED IN THE INTERIOR SLOPES AND BERMS OF BASIN. INSTALL CLEAN OUT STAKE, BAFFLE, AND SKIMMER WITHIN EACH SEDIMENT BASIN/TRAP. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN/TRAP EXCAVATION AND INSTALLATION OF THE OUTLET PIPES, ANTI-SEEP COLLARS, AND CLAY CORES.		1/30/24	1/18/24	- 1/16/24		
15.IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.	REVISION	MENTS -	MENTS -	AMENTS -		
16. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PAD, ACCESS DRIVE, AND PARKING AREAS AND PLACE ON THE TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK AT LOCATION 24. THE TOPSOIL STOCKPILE MAY BE TEMPORARILY RELOCATED TO BRING THE AREA BELOW THE PILE TO GRADE, WITH APPROVAL BY THE LOCAL CONSERVATION DISTRICT.		LCPD COM	ARRO COM	NLTMA CON		
17. ROUGH GRADE THE DISTURBED AREA AS NECESSARY TO CONSTRUCT THE BUILDING, ACCESS DRIVES, AND OTHER IMPROVEMENTS. INSTALL SWALES C & D DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.						
18. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.		TES	PLAN			
19. INSTALL THE STONE SUB-BASE FOR THE PAVED AREAS AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.		Z Z	$\vdash$			
20.CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.		PLAN	PME			
21. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.		EMENT	DEVELO			
22.DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.		MANAG	LAND	A, INC.	nship	sylvania
23.PAVE THE REQUIRED AREAS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL ALL DOWNSTREAM AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.		WATER	ION &	ACK US	located in tbanon Tow	unty, Penn
24. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN/TRAPS OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.		TION STORM	AL SUBDIVIS	FLEXO-PA	North Le	Lebanon Co
25.UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN 1 AND SEDIMENT TRAPS 1 & 2 AS REQUIRED TO INSTALL INFILTRATION BASINS 1 & 2 AND DETENTION BASIN 1 AS SHOWN ON THE PCSM PLAN. REMOVE ALL BAFFLES, CLEANOUT STAKES, AND SKIMMERS. THE INFILTRATION BASIN BOTTOMS AND AREA OF ENGINEERED SOIL WITHIN DETENTION BASIN 1 SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE INFILTRATION BASIN BOTTOMS, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN EACH BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCKS AT LOCATIONS 21–23 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM (WHERE REQUIRED), ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS 1 & 2 AND DETENTION BASIN 1.		OST CONSTRUC	ELIMINARY/FINA			
26. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.				1 <i>c</i> .		
27.PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."				ring & Surveying I. Mill Road / Suite A	nsylvania 17042 7) 272–7110	) Z/Z-/348
1. 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 DEP PRIOR TO IMPLEMENTATION.				rth Zinns	anon, Peni <sup>2</sup> hone: (71	Fax: (/1/,
2.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."				Steckbeck 279 No.	Let F	
3.IF SOIL IT IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.				· V)		
4.DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.	FIE B <i>A</i> DF	ELD ( ASE N RAWN	CREW: //AP: :	: SS [ ABK	/tb dy (/jmk	
5. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT. ANY WATER PUMPED FROM THE STORMWATER BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF PRIMARY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS).	DE CH	ESIGN HECKE ATE:	: ED:	ABF 4 3/1	ABK 12/24	
6.THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.	PF	ROJEC	CT #1	32-2	:3-00	7
7 PER NEDES REQUIREMENTS "WITHIN 30 DAYS AFTER THE COMPLETION OF FARTH DISTURBANCE ACTIVITIES AUTHODIZED BY THIS						

INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK

SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF

PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

14 OF 30 SHEETS

![](_page_14_Figure_0.jpeg)

![](_page_15_Figure_0.jpeg)

![](_page_16_Figure_0.jpeg)

		-			
DATE BY	2/8/24 JMK	3/11/24 JMK/EJG	3/11/24 JMK		
REVISION	LCPD COMMENTS - 1/30/24	ARRO COMMENTS - 1/18/24	NLTMA COMMENTS - 1/16/24		
		PRELIMINARY/FINAL SUBDIVISION & LAND DEVELOPMENT PLAN	FLEXO-PACK USA, INC.	Iocated in North Lebanon Township	Lebanon County, Pennsylvania
			Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A	Lebanon, Pennsylvania 17042 Phone: (717) 272–7110	Fax: (717) 272–7348
FIE BA DF DE CF	ELD ( ASE M RAWN ESIGN HECK ATE:	CREW MAP: : : ED:	: SS [ ABk ABl , 3/*	5/TB DY ABK 12/24	

	LEGEN	D	
	EXISTING FEATURES		
	EXISTING ADJOINER LINE EXISTING BOUNDARY LINE		EXISTING SIDEWALK/CONCRETE
	AND CORNERS EXISTING EDGE OF PAVEMENT AND CURB LINE	— — — — — — — — — — MAJOR MINOR	EXISTING CONTOURS
	EXISTING RIGHT-OF-WAY	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	EXISTING TREELINE
×	EXISTING FENCE	TWP.	EXISTING TOWNSHIP BOUNDARY
CLEAN OUT MANHOLE RIP-RAP	EXISTING SEWER	<i>twp.</i> SURVEY LIMITS	LIMITS OF FIELD SURVEY
EADWALL MANHOLE INLET ENDWALL	EXISTING STORMWATER	SOIL TYPE	EXISTING SOILS
→ H S CATE FIRE	EXISTING WATERLINE	$\tilde{\mathcal{D}}$	EXISTING UTLITY POLE
VALVE HYDRANT GAS VALVE	EXISTING GASLINE	ф.	EXISTING LIGHT POLE
	PROPOSED FEATURES		
	PROPOSED BUILDING SETBACK		PROPOSED DOMESTIC WATERLINE
DN PIN CONCRETE MONUMENT	PROPOSED BOUNDARY LINE AND CORNERS	VALVE HYDRANT	PROPOSED GASLINE
	PROPOSED EDGE OF PAVEMENT AND CURB LINE		PROPOSED CONCRETE/SIDEWALK
	PROPOSED RIGHT-OF-WAY	100 MAJOR	PROPOSED CONTOURS
X	PROPOSED FENCE	MINOR	
O	PROPOSED SEWER		PROPOSED TREELINE
CLEAN OUT MANHOLE RIP_RAF		Ď	PROPOSED UTLITY POLE
HEADWALL MANHOLE INLET ENDWALL	PROPOSED STORMWATER	-\$-	PROPOSED LIGHT POLE
VATER & SEWER NOTES:		ΝΙ ΤΜΔ ΘΑΝΙΤΑΡΥ	SEWER NOTES

- WATER CONNECTION TO THE PROPOSED BUILDING WILL BE PROVIDED BY AN EXTENSION OF THE EXISTING PUBLIC WATER SYSTEM. 2. SANITARY SEWER CONNECTION TO THE PROPOSED BUILDING WILL BE PROVIDED BY AN EXTENSION OF THE EXISTING PUBLIC SEWER SYSTEM. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH LEBANON
- TOWNSHIP MUNICIPAL AUTHORITY REGULATIONS. 3. ALL SANITARY SEWER WORK SHALL BE COMPLETED ACCORDING TO THE RULES AND REGULATIONS OF THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY. THE PLANS PROPOSE THE USE OF A GRINDER PUMP. PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE DESIGN AND SIZING OF THE GRINDER PUMP. PRIOR TO COMMENCING CONSTRUCTION, DEVELOPER OR CONTRACTOR SHALL SUBMIT CATALOG CUTS AND PUMP PERFORMANCE CURVE OF THE PROPOSED GRINDER PUMP STATION TO NLTMA FOR NLTMA'S RECORDS. THE PERFORMANCE CURVE SHOULD INCLUDE THE PROJECTED PUMP OPERATING POINT. DEVELOPER'S ENGINEER SHALL SUBMIT CALCULATIONS TO SUPPORT PROPOSED DESIGN CONDITIONS.
- THE GRINDER PUMP SHALL REMAIN PRIVATELY OWNED BY THE PROPERTY OWNER. OPERATION AND MAINTENANCE OF GRINDER PUMP SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER.
  THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL FLOW BYPASSING COST ASSOCIATED WITH COMPLETING THE WORK.

#### **STANDARD WATER NOTES - CITY OF LEBANON AUTHORITY:** CONTACT INFORMATION FOR THE CITY OF LEBANON AUTHORITY

#### CITY OF LEBANON AUTHORITY 2311 RIDGEVIEW ROAD

- LEBANON, PA 17042 CONTACT: BOB SENTZ, BSENTZ@LEBANONAUTHORITY.ORG, 717-272-2841
- 2. WATER SYSTEMS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE CITY OF LEBANON
- AUTHORITY'S "GENERAL SPECIFICATIONS FOR WATER SYSTEM CONSTRUCTION". . THE CONSTRUCTION OF WATER MAINS REQUIRES A WATER MAIN EXTENSION AGREEMENT BETWEEN THE DEVELOPER AND THE AUTHORITY.
- 4. EXISTING WATER MAINS ARE SHOWN AT AN APPROXIMATE LOCATION. THE CONTRACTOR SHALL EXCAVATE TEST PITS TO DETERMINE ACTUAL LOCATIONS AND VERIFY WATER MAIN SIZES AT UTILITY CROSSINGS, EXCAVATED AREAS, AND TIE-IN LOCATIONS. WATER LATERAL CONNECTION REQUIRES AN APPLICATION AND PAYMENT FOR A CAPACITY FEE WITH THE
- AUTHORITY PRIOR TO MAKING THE WATER TAPS 5. FIRE SERVICE CONNECTION REQUIRES AN APPLICATION AND PAYMENT FOR A CAPACITY FEE WITH THE AUTHORITY PRIOR TO MAKING THE FIRE LINE TAP.
- ANY WORK WITHIN PENNDOT RIGHT-OF-WAY REQUIRES A PENNDOT HIGHWAY OCCUPANCY PERMIT (HOP). THE PERMIT TYPICALLY IS REQUIRED TO BE IN THE AUTHORITY'S NAME, AND THE AUTHORITY REQUIRES THE CONTRACTOR TO PROVIDE A REFUNDABLE DEPOSIT TO THE AUTHORITY UNTIL PENNDOT SIGNS OFF ON THE PERMIT AFTER CONSTRUCTION IS COMPLETE. 8. ANY WORK WITHIN MUNICIPAL RIGHT-OF-WAY'S MIGHT REQUIRE A MUNICIPAL PERMIT. THE PERMIT SHALL BE ACQUIRED IN THE CONTRACTOR'S NAME.
- THE AUTHORITY SHALL APPROVE ALL MATERIALS PRIOR TO CONSTRUCTION. 10. A MANDATORY PRE-CONSTRUCTION MEETING SHALL BE HELD BETWEEN THE AUTHORITY, BUREAU OF WATER, AND WATERLINE CONSTRUCTION CONTRACTOR.
- . THE BÚREAU OF WATER WILL INSPECT THE WATER MAIN INSTALLATION AND TESTING. THERE ARE FEES ARGED TO THE DEVELOPER / CONTRACTOR FOR INSPECTION SERVICES. WATER MAIN CONSTRUCTION
- AND FEES SHALL BE COORDINATED WITH THE AUTHORITY. 12. THE PROPERTY OWNER / DEVELOPER SHALL INSTALL THE WATER TAP AND SERVICE LINE TO THE CURB STOP UNDER THE INSPÉCTION OF THE BUREAU OF WATER. THE PROPERTY OWNER IS RESPONSIBLE FOR THE WATER SERVICE AFTER THE CURB STOP. THE BUREAU OF WATER WILL INSTALL THE WATER METER WITHIN THE BUILDING OR AN APPROVED METER PIT AS INSTRUCTED BY THE BUREAU OF WATER. CONTACT THE BUREAU OF WATER METER DEPARTMENT FOR METER INSTALLATION, 2200 WEST CHESTNUT STREET,
- 717-273-2506. 13. WATER SERVICE LATERALS OVER 100-FEET FROM THE CURB STOP TO THE ENTRANCE OF THE BUILDING REQUIRES THE INSTALLATION OF A METER PIT WITHIN 10-FEET OF THE CURB STOP. METER PITS SHALL BE APPROVED BY THE METER DEPARTMENT PRIOR TO INSTALLATION.
- 14. SEWER AND WATER MAINS SHALL HAVE A MINIMUM OF AN 18-INCH SEPARATION, OR THE SEWER MAIN SHALL BE CONCRETE ENCASED IN THE AREA WHERE THE 18-INCH SEPARATION CANNOT BE MAINTAINED.
- 15. WATER MAINS AND LATERALS THAT ARE LESS THAN 18-INCHES FROM A STORM SEWER OR CULVERT
- SHALL BE INSULATED WITH A FOAM WRAP. 16. AT THE CONCLUSION OF THE INSTALLATION OF THE WATER SYSTEM AND SERVICE LINES, AND SUCCESSFUL TESTING THEREOF, THE WATER SYSTEM WILL BE OFFERED FOR DEDICATION TO THE CITY OF LEBANON
- AUTHORITY. 7. ALL EXISTING WATER LATERALS SHALL BE TERMINATED AT THE WATER MAIN BY TURNING OFF THE CORPORATION STOP AT THE MAIN, AND THE SERVICE LINES CUT AND CRIMPED WITHIN ONE FOOT OF THE CORPORATION STOP. ALL WORK, INCLUDING SAW CUTTING, EXCAVATION, LATERAL TERMINATION, BACKFILL

- NLTMA SANITARY SEWER NOTES:
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/NLTMA STANDARDS.
- PROPOSED GRAVITY LATERALS SHALL BE SLOPED AT A MINIMUM 1/4" PER FOOT, UNLESS OTHERWISE NOTED ON THE STANDARD CLEANOUTS MUST BE "SCREWED ON" CAPS (PLUGS) AND THEY ARE TO BE WATER TIGHT.
- SPACE BETWEEN TEST TEE & SEWER MAIN WILL BE AS REQUIRED BY NLTMA. TRENCH MUST REMAIN OPEN FOR INSPECTION. ANY TRENCH THAT IS FILLED MUST BE UNCOVERED FOR INSPECTION. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT NLTMA FOR INSPECTION. A PRE-CONSTRUCTION MEETING WILL BE REQUIRED.
- 3. METAL MARKING TAPE WILL BE PLACED 12" ABOVE THE PIPE FOR THE ENTIRE HORIZONTAL RUN. ). AIR TESTING FOR ALL SEWER MAINS AND LATERALS SHALL BE 5LBS/5 MIN. NO DROP.
- 10. VACUUM TEST OF MANHOLES SHALL BE 10 LBS. VACUUM WITH AN ALLOWABLE DROP OF 1LB/1 MIN. 11. VACUUM TEST UNIT SHALL BE PLACED IN THE FRAME AREA ONLY. 2. LINE WILL BE PLUGGED AT THE COMPLETION OF EACH WORKDAY TO PREVENT DEBRIS AND WATER FROM ENTERING
- 3. AN APPOINTED NLTMA INSPECTOR MUST BE PRESENT AT ALL TIMES WHEN ANY SEWER WORK IS PERFORMED.
- 14. INSPECTORS WILL BE AVAILABLE FROM 8 AM TO 3 PM. A 1/2 HOUR LUNCH BREAK WILL BE TAKEN DAILY DURING WHICH TIME NO SEWER WORK WILL BE ALLOWED.
- 15. ALL LINES SHALL BE FLUSHED WITH FRESH WATER TO CLEAR CONSTRUCTION DEBRIS UPON COMPLETION OF THE
- 16. MANDRELL TESTING WILL BE CONDUCTED FOR ALIGNMENT OF THE PIPE. 17. DAMAGED OR CRACKED MANHOLE SECTIONS WILL BE REJECTED. 18. DOUBLE MASTIC ON ALL JOINTS ON MANHOLES.
- 19. STEPS MUST BE ALIGNED 20. NO CONCRETE PATCHING OF ANY KIND WILL BE ACCEPTED ON LEAKING JOINTS OR ON ANY CRACKED OR DAMAGED
- . GROUTING OF THE INVERT IN ANY INVERT OUT PIPES SHALL BE DONE.
- 2. AFTER CONSTRUCTION IS COMPLETE THE CONSTRUCTED SEWER SHALL NOT BE TESTED UNTIL 30 DAYS HAS PASSED. NO DROP MANHOLES OR INSIDE SPLASH MANHOLES WILL BE ALLOWED. 24. RE-BAR MUST BE INSTALLED AT THE END OF EACH LATERAL CONNECTED TO THE MAIN TO FACILITATE LATERAL
- LOC ATION 5. BUILDING OWNER SHALL BE REQUIRED TO PARTICIPATE IN THE NLTMA "STRONG WASTE MANAGEMENT PROGRAM" WHICH REQUIRES AN AGREEMENT BY THE OWNER TO MONITER, SAMPLE AND TEST SEWAGE DISCHARGE SEMI-ANNUALLY AT OWNER'S EXPENSE AND SUPPLY RESULTS TO NLTMA.
- 26. BUILDING OWNER GRANTS PERPETUAL RIGHT OF ACCESS TO THE SEWER LATERALS AND MANHOLES SHOWN HEREON FOR PURPOSE OF INSPECTION, MONITORING AND/OR SAMPLING. THE APPLICANT ACKNOWLEDGES THAT APPROVAL OF THIS LAND DEVELOPMENT PLAN DOES NOT CONSTITUTE
- APPROVAL OF THE WASTEWATER DISCHARGE FROM THE PROPOSED FACILITY. APPLICANT ACKNOWLEDGES THAT DISCHARGE MUST COMPLY WITH THE CRITERIA SET FORTH IN THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY NLTMA) STRONG WASTE MANAGEMENT ORDINANCE. COMPLIANCE WITH THE ORDINANCE MIGHT NECESSITATE THAT APPLICANT CONSTRUCT PRETREATMENT FACILITIES TO TREAT WASTEWATER PRIOR TO DISCHARGE INTO THE NLTMA SEWER SYSTEM. APPLICANT ACKNOWLEDGES THEY ARE REQUIRED TO MAKE APPLICATION TO NLTMA FOR A STRONG WASTE MANAGEMENT PERMIT AND THAT NO DISCHARGE FROM THE SUBJECT FACILITY CAN COMMENCE UNTIL APPROVAL HAS BEEN GRANTED BY NLTMA AND/OR THE PERMIT HAS BEEN ISSUED IF PERMIT IS DEEMED s a requirement that a new land development plan shall be filed with the township and county. FOR ANY FUTURE EXPANSION OF THE FACILITIES ON THIS SITE. THE TOWNSHIP AND MUNICIPAL AUTHORITY SHALL
- HAVE THE RIGHT TO REVISE OR AMEND THE NOTES AND REQUIREMENTS SET FORTH ON THIS PLAN AND TO REVISE OR AMEND THE DEVELOPER AGREEMENTS WHENEVER A NEW LAND DEVELOPMENT PLAN IS FILED . BUILDING OWNER GRANTS PERPETUAL RIGHT OF ACCESS TO NLTMA, IT'S EMPLOYEES, AGENTS OR ASSIGNS FOR THE SEWER LATERALS AND MANHOLES SHOWN HEREON FOR PURPOSES OF INSPECTION, MONITORING AND/OR SAMPLING. 31. NLTMA HAS GRANTED APPROVAL OF THE SEWER DESIGN DEPICTED ON THIS PLAN UNDER THE FOLLOWING
- 1. ALL FEES SHALL BE PAID BEFORE A SEWER PERMIT WILL BE ISSUED. 2. THE STRONG WASTE PERMIT APPLICATION SHALL BE APPROVED AND ANY PRETREATMENT REQUIRED BY
- NLTMA SHALL BE INSTALLED AND OPERABLE TO THE SATISFACTION OF NLTMA BEFORE CONNECTION OR U 3 THE STRONG WASTE PERMIT MAY BE AMENDED AT ANY TIME BY THE NI TMA BASED LIPON LAB TESTING QUALITY OF THE APPLICANT'S SEWAGE DISCHARGE WHICH IS VARIABLE, WITH SUCH CHANGES TO PRETREATMENT DEEMED NECESSARY TO ASSURE THAT THE APPLICANT'S DISCHARGE MEETS ALL APPLIC

![](_page_17_Figure_39.jpeg)

![](_page_17_Figure_40.jpeg)

![](_page_17_Figure_51.jpeg)

USE	50'	0	25'	50'	100'	200'
AND						
ABLE						

![](_page_17_Figure_53.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_18_Figure_1.jpeg)

![](_page_19_Figure_0.jpeg)

![](_page_20_Figure_0.jpeg)

![](_page_21_Figure_0.jpeg)

- requirements as specified per ANSI/IESNA regulations.
- 4. The Township reserves the right to conduct post-installation nighttime inspections to verify compliance with the requirements of this Ordinance and as otherwise agreed upon by the Township, and if appropriate, to require remedial action at no expense to the Township.
- light fixtures on the property.

	LUMINAIRE SHCEDULE									
QTY.	LABEL	ARRANGEMENT	DESCRIPTION							
31	SF1	SINGLE	PARKING LOT LIGHT							
6	SF2	SINGLE	BUILDING MOUNTED LIGHT							
3	SF3	SINGLE	STREET LIGHT							

![](_page_21_Figure_9.jpeg)

![](_page_21_Picture_10.jpeg)

![](_page_21_Figure_11.jpeg)

![](_page_22_Figure_0.jpeg)

![](_page_22_Figure_5.jpeg)

23 OF 30 SHEET

GENERAL LANDSCAPE NOTES (BY LANDSCAPE CONTRACTOR)	<u>L</u>	LGEND	
1. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL UTILITIES AND SHALL ASSUME RESPONSIBILITY FOR DAMAGE TO UTILITIES AND PROPERTY AS A RESULT OF HIS WORK.	LANSCAF	ING FEATURE	S
2. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF			
INSTALLATION			
AND ACCEPTANCE BY OWNER.	ALA .		
S. PLANT MATERIAL SHALL BE INVE TO SPECIES AND VARIETT AND SHALL CONFORM TO MEASUREMENTS AND		DECIDUOUS TREE	PER
MINIMUM STANDARDS AS SET FURTH IN THE FLANT SCHEDULE.			-IN A
4. ALL PLANTING BEDS ARE TO BE MULCHED WITH A MINIMUM OF 3 OF SHREDDED AGED HARDWOOD BARK	-415		SEC
MULCH. 5. THE CONTRACTOR IS TO PROVIDE ADDITIONAL TORSOLL AS NEEDED FOR DLANTING OPERATIONS			OTO
6 ALL TREES ARE TO BE STAKED AND GUYED ACCORDING TO THE PLANTING OF LANTING OF ALLS AND ACCEPTED			518
DECERSIONAL NUBSERVAN'S STANDARDS TREES WITH LESS THAN A 3" CALIBER SHALL BE DROBERLY	***	EVERGREEN TREE	
STAKED AND MORE THAN A 3" CALIDER DODERLY CLIVED			OLC
THE CONTRACTOR SHALL REMOVE WER BASKETS AND NYLON BURLAP OR ROPE FROM THE ROOT BALL OF ALL			SCE
PLANT MATERIAL	₩₩ +++	SHRUB	
8 APPLY A 50/50 MIX OF CHIPCO RONSTAR 6 AND PENNANT 56 TO SOIL SURFACE IN MULCHED			SEC
AREAS PRIOR TO MULCHING. APPLY AT A RATE OF 7 POUNDS PER 1000 SE.			020
9. PLACE "WEED BLOCK" WATER PERMEABLE FUITRATION FABRIC UNDER MULCHED AREAS EXCEPT FOR AREAS OF		WOOD MOLCH	
GROUND COVER (LE IVY AND VINCA) AND PERENNIAL BEDS			
10 LANDSCAPE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH ALL OTHER CONTRACTORS ON SITE			
11. ALL AREAS OTHER THAN PLANTING BED AREAS SHALL BE CONSIDERED LAWN AREAS.	KXXX	GROUND COVER	
12 THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN AND REMOVE DISPOSE FROM THE SITE ALL		PLANTINGS	
DEBRIS THAT IS A PART OF THE LANDSCAPE CONTRACTOR'S OPERATION			
13. THE CONTRACTOR SHALL INSTALL ORANGE PLASTIC CONSTRUCTION FENCE AROUND EXISTING MATURE TREES TO			
PREVENT ROOT ZONE COMPACTION AND DAMAGE TO TRUNKS AND BRANCHES. THE FENCING SHALL BE			
INSTALLED TO PREVENT DAMAGE AT A MINIMUM OF 2/3 OF THE DIAMETER OF THE TREE CANOPY.	00	PLANT KEY	
AND AFTED INSTALL DE RESPONSIBLE FOR WALENING FLANT MATERIAL AND LAWN AREAS BEFORE, DURING,			
2 NEW LAWN AFFAS SHALL BE MAINTAINED BY THE LANDSCAPE CONTRACTOR INTIL FINAL ACCEPTANCE		1	12" OF A
3 NEWLY INSTALLED PLANTINGS SHALL BE SELECTIVELY PRUNED IF NECESSARY TO PROVIDE A NEAT AND		C.	seeds r
UNIFORM APPEARANCE. ANY DEAD OR BROKEN BRANCHES SHALL BE REMOVED. ALL NOTICEABLY DISEASED		1	MIX-LOW
OR DAMAGED PLANT MATERIAL SHALL BE REMOVED AND REPLACED PRIOR TO FINAL ACCEPTANCE.			
4. LAWN AREAS SHALL BE WATERED ONCE WEEKLY DURING DRY PERIODS OF THE FIRST GROWING SEASON TO			24" OF .
ESTABLISH A HEALTHY TURFGRASS. WATERING SHOULD OCCUR DURING THE EARLY PART OF THE DAY TO AN	+ + + + + + +	+ + +	SEEDS R
EVEN SATURATION DEPTH OF ONE (1) INCH.			
5. ALL GUYING AND STAKING SHALL BE MAINTAINED REGULARLY TO ASSUME PLANT STABILIZATION AND STRAIGHT,		ľ	R DILLO
UNIFORM GROWTH FOR AT LEAST THE FIRST YEAR FOLLOWING THE DATE OF PLANTING.			x FLUG
6. NEWLY PLANTED TREES AND SHRUBS SHALL BE WATERED REGULARLY DURING ANY DRY PERIODS TO			

-----WHOJ

LONG-TERM MAINTENANCE 1. A QUALIFIED LANDSCAPE CONTRACTOR KNOWLEDGEABLE IN PRUNING TECHNIQUES, FERTILIZER APPLICATION, PEST CONTROL, AND LAWN CARE SHALL PERFORM ANNUAL LANDSCAPE MAINTENANCE.

MINIMUM STANDARDS AS SET FORTH IN THE PLANT SCHEDULE.

2. THE OWNER SHALL BE RESPONSIBLE FOR REGULAR MOWING OF ALL LAWN AREAS. THE OWNER SHALL BE RESPONSIBLE FOR REGULAR MOWING OF ALL LAWN AREAS.
 ALL REQUIRED PLANTINGS SHALL BE MAINTAINED IN A GOOD CONDITION TO PRESENT, A HEALTHY, NEAT AND ORDERLY APPEARANCE. SUCH PLANTINGS SHALL BE KEPT FREE FROM REFUSE AND DEBRIS. PLANTS DAMAGED BY INSECTS, DISEASE, VEHICULAR TRAFFIC, ACTS OF NATURE OR VANDALISM SHALL BE REPLACED BY THE NEXT PLANTING PERIOD.

COMPLETELY SATURATE THE ROOT BALL DURING THE FIRST GROWING SEASON.
 ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES AND VARIETY AND SHALL CONFORM TO MEASUREMENTS AND

8. DISEASE: INSECT AND WEED CONTROL AND PREVENTION SHOULD BE PERFORMED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS FOR NEWLY PLANTED LANDSCAPES DURING THE FIRST SEASON. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF INSTALLATION AND ACCEPTANCE BY THE OWNER.

- GENERAL NOTES 1. SIGHT DISTANCE: NO LANDSCAPE ELEMENTS OR OTHER OBJECTS MAY OBSTRUCT VISION ABOVE THE HEIGHT OF TWO-FEET AND BELOW THE HEIGHT OF TEN-FEET MEASURED FROM THE CENTERLINE GRADE OF THE DRIVEWAY AND THE INTERSECTING STREET. SUCH CLEAR SIGHT TRIANGLE SHALL BE BOUND BY TWO POINTS 100-FEET ON EITHER SIDE OF THE POINT OF INTERSECTION OF THE DRIVEWAY AND STREET CENTERLINES ALONG THE STREET, AND A THIRD POINT SHALL BE 100-FEET BACK FROM THE STREET CENTERLINE ON THE CENTERLINE OF THE DRIVEWAY. THE CLEAR SIGHT TRIANGLE SHALL BE CONSIDERED AS A BUILDING SETBACK LINE. MAINTENANCE PROVISIONS: THE OWNER OF THE FACILITY SERVED BY THE PARKING AREA SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PARKING AREA LANDSCAPING IN A HEALTHY AND ATTRACTIVE
- CONDITION. DEAD AND PRUNED PLANT MATERIAL AND DEBRIS SHALL BE ROUTINELY REMOVED WITHIN 30 DAYS OF A DIRECTIVE TO DO SO AS ISSUED BY THE TOWNSHIP CODES ENFORCEMENT OFFICER.

- PLANTING NOTES 1. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICA STANDARD FOR NURSERY STOCK, ANSI 260.1-NURSERY STOCK. 2. ALL PLANT MATERIAL SHALL BE PROVIDED FROM NURSERIES THAT HAVE BEEN STATE CERTIFIED BY STATE
- PLANT INSPECTORS. 3. THE CALIPER OF THE TRUNK, MEASURED AT A HEIGHT OF SIX (6) INCHES ABOVE THE ROOT BALL (BREAST
- HEIGHT) SHALL BE A MINIMUM OF 1.5" FOR ALL TREES (UNLESS OTHERWISE SPECIFIED). 4. A CIRCULAR MULCH BED SHALL BE INSTALLED AT THE BASE OF EACH TREE. EACH MULCH BED SHALL HAVE A DIAMETER OF AT LEAST TWICE THAT OF THE ROOT BALL.

#### SEEDING NOTES

- 1. ALL TOPSOIL SHALL BE FREE OF STONES, LUMPS, PLANTS. ROOTS, AND OTHER DEBRIS OVER 1-1/2". TOPSOIL SHALL BE FREE OF WEEDS, WEED SEEDS, AND TOXIC SUBSTANCES THAT ARE HARMFUL TO PLANT GROWTH. 2. TOPSOIL SHALL BE FRIABLE LOAMY SOIL (AS CLASSIFIED BY THE U.S. DEPARTMENT OF AGRICULTURE, HANDBOOK NO. 18, SOIL; SURVEY MANUAL), FREE OF SUBSOIL, ROOTS, GRASS, AND FOREIGN MATTER WITH AN ACIDITY RANGE OF 5.5 TO 7.5 AND CONTAINING A MINIMUM OF 3% AND A MAXIMUM OF 10% ORGANIC MATTER. NO MORE THAN 15% BY WEIGHT SHALL BE LARGER THAN A NO. 10 U.S. STANDARD SIEVE TO THE EXTENT
- THAT ON-SITE MATERIAL MEETS THE REQUIREMENTS, SUCH MATERIAL MAY BE USED FOR TOPSOIL. . SOIL AMENDMENTS: TOPSOIL AMENDMENTS SHALL BE DETERMINED BY SOIL TESTS AND SHALL BE MADE BASED UPON THE DOMINANT VARIETY IN THE SEED MIX. WHERE SOIL TESTS INDICATE THAT THE TOPSOIL IS SUITABLE AS TESTED, NO ADDITIONAL AMENDMENTS ARE REQUIRED.
- 4. FERTILIZER: ALL FERTILIZER SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING, AN SUITABLE FOR APPLICATION BY MECHANICAL SPREADERS. ALL FERTILIZERS SHALL BE ORGANIC IN COMPOSITION. 5. LIME: LIME MATERIAL SHALL BE GROUND OR PULVERIZED LIMESTONE CONTAINING AT LEAST 50% TOTAL OXIDES,
- CALCIUM OXIDE PLUS MAGNESIUM OXIDE. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A 100-MESH SIEVE AND NOT LESS THAN 98% WILL PASS THROUGH A 20-MESH SIEVE. 6. MULCHING MATERIALS:

A. STRAW FREE OF ROT, MILDEW, NOXIOUS WEED SEEDS, AND SHALL BE SMALL GRAINED, SUCH AS WHEAT OR BARLEY, APPLY AT A RATE TO LIGHTLY COVER SOIL, APPROXIMATELY 100 LBS. PER 1,000 S.F. B. CELLULOSE FIBER: PREPARED CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. THE MATERIAL SHALL BE UNIFORM IN SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENOUS SLURRY. OTHER MULCHES, SUCH AS RECYCLED PAPER AND WOOD BLEND, RECYCLED PAPER, AND BINDING ACCESSORIES MAY BE UTILIZED AT THE CONTRACTOR'S DESCRETION.

			DECIDUOUS TREE SC	HEDULE	
KEY	QUANTITY	SIZE	BOTANICAL NAME	COMMON NAME	REMARKS
HL	6	$1"-1^{1}_{2}"$ CAL.	GLEDITSIA TRIACANTHOS INERMIS "HALKA"	THORNLESS HONEY LOCUST	B&B
AC	5	$1"-1\frac{1}{2}"$ CAL.	PRUNUS AUTUMNALIS	AUTUMN FLOWERING CHERRY	B&B
AP	3	6-7'	AMELANCHIER X PRINCE WILLIAM	SERVICE BERRY	B&B
			EVERGREEN TREE SC	CHEDULE	
KEY	QUANTITY	SIZE	BOTANICAL NAME	COMMON NAME	REMARKS
DF	14	5–6'	PSEUDOTSUGA	DOUGLAS FIR	B&B

- UFIW -

-OHW OHW-

— OHW —\_\_\_\_

— —<del>pennsyl</del>vania lines llc DEED: 356-0964 UPI: 11-2327299-370058-0000

\_\_\_\_\_\_

THE COMBINATION OF EXISTING WOODS, PROPOSED TREES, PROPOSED BASIN SEED MIX AND PLUG PLANTINGS, THE OVERALL LANDSCAPED AREA 16%

![](_page_23_Figure_18.jpeg)

![](_page_24_Figure_0.jpeg)

![](_page_24_Figure_1.jpeg)

PERENNIAL RYEGRASS KENTUCKY BLUEGRASS 100-200-200 N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O LBS/ACRE ATHLETIC FIELDS 150 AUGUST 30 AG GRADE AND OCTOBER 30 PERENNIAL RYEGRASS 25 AUGUST 30 ERNST MIX 100-200-200 6 N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O AG GRADE RIPARIAN 20 AND OCTOBER 30 BUFFER ERNMX-178 1. PLS IS PURE LIVE SEED. PLS IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. TO SECURE THE ACTUAL PLANTING RATE, DIVIDE THE POUNDS PLS BY THE PLS PERCENTAGE SHOWN ON THE SEED TAG OR AS PREVIOUSLY DISCUSSED.

APPLICATION LIMING FINAL RATE 1 FERTILIZER RATE 2 SEEDING DATE APPLICATION SPECIES ..S. IN LBS/AC) (LBS/ACRE) (TONS/ACRE) TEMPORARY ANNUAL RYE 174 FINE FESCUES 60 PERMANENT AUGUST 30 100-200-200 6 AND N-P205-K20 AG GRADE OCTOBER 30 KENTUCKY BLUEGRASS 90

25

NO SCALE

![](_page_24_Figure_10.jpeg)

![](_page_24_Figure_11.jpeg)

![](_page_25_Figure_1.jpeg)

![](_page_25_Figure_2.jpeg)

![](_page_25_Figure_3.jpeg)

- MAJOR

![](_page_25_Figure_5.jpeg)

![](_page_25_Figure_6.jpeg)

IT CORP

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![](_page_25_Figure_7.jpeg)

EXISTING ADJOINER LINE EXISTING BOUNDARY LINE AND CORNERS EXISTING EDGE OF PAVEMENT AND CURB LINE EXISTING RIGHT-OF-WAY EXISTING FENCE EXISTING SEWER

EXISTING STORMWATER

EXISTING WATERLINE

EXISTING GASLINE

EXISTING SIDEWALK/CONCRETE

EXISTING CONTOURS

EXISTING TREELINE

EXISTING TOWNSHIP BOUNDARY LIMITS OF FIELD SURVEY

EXISTING SOILS EXISTING UTLITY POLE EXISTING LIGHT POLE

#### PROPOSED FEATURES

PROPOSED BUILDING SETBACK PROPOSED BOUNDARY LINE AND CORNERS PROPOSED EDGE OF PAVEMENT AND CURB LINE

PROPOSED RIGHT-OF-WAY PROPOSED FENCE

PROPOSED SEWER

PROPOSED STORMWATER

PROPOSED DOMESTIC WATERLINE PROPOSED GASLINE

PROPOSED CONCRETE/SIDEWALK PROPOSED CONTOURS

PROPOSED TREELINE PROPOSED UTLITY POLE

### E&S LEGEND

ROCK CONST. ENTRANCE

TOPSOIL STOCKPILE

COMPOST FILTER SOCK (SEE PLAN FOR SIZE

NPDES BOUNDARY DISTURBANCE LIMITS

12" SILT SOCK -

LOCATION #20

![](_page_25_Figure_34.jpeg)

![](_page_25_Picture_35.jpeg)

SWALE D LINING

N.A.G. S75 OR EQUAL

<del>- DENNSYI</del> VANIA LINES L DEED:1 356-0964 IPI: 11-2327299-370058-000L

![](_page_26_Figure_1.jpeg)

EXISTING BOUNDARY LINE AND CORNERS AND CURB LINE EXISTING RIGHT-OF-WAY EXISTING FENCE

![](_page_26_Figure_33.jpeg)

![](_page_26_Figure_34.jpeg)

![](_page_27_Figure_0.jpeg)

![](_page_28_Figure_0.jpeg)

	BAF	FLE	RISER	воттом
BASIN OR TRAP NO.	LENGTH Bal (FT)	HEIGHT Bah (FT)	CREST ELEV. TRCE (FT)	BOTTOM ELEV BE (FT)
SEDIMENT BASIN 1	250	2.50	447.50	445.00
SEDIMENT TRAP 1	100	1.50	452.50	451.00
SEDIMENT TRAP 2	140	6.00	453.00	447.00

- SEE APPROPRIATE BASIN DETAIL PROPER LOCATION AND ORIENTATION. AN ACCEPTABLE ALTERNATIVE IS TO INSTALL THE SAME HEIGHT WITH SUPER SILT FENCE OR COMPOST FILTER
- SOCK AT THE BAFFLE LOCATION.
- IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.
- BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS. 5. SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR
- THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.
- DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTIONS. 7. BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

![](_page_28_Figure_9.jpeg)

![](_page_28_Figure_10.jpeg)

![](_page_28_Figure_11.jpeg)

BASIN/TRAP NO.BASIN BOTTOM (FT)INVERT OF SKIMMER ARM (FT)TOP OF GRATE (FT)SPILLWAY ELEVATION (FT)SIZE OF DISCHARGE PIPE (IN)(UPSTREAM) INV OF DISCHARGE PIPE (FT)PIPE LENGTH DISCHARGE PIPE (FT)PIPE LENGTH LENGTH (FT)HEIGHT OF RISER EXT.(FT)SKIMMER SKIMMER SKIMMERSILT SO BARRIEBASIN 1445.00445.00447.50448.5018444.50443.90144YESNOTRAP 1451.00451.00452.50453.2518450.00449.0036YESNO					SEDIME	NT BASIN/TRAP D	ESIGN CHART					
BASIN 1      445.00      445.00      447.50      448.50      18      444.50      443.90      144       YES      NO        TRAP 1      451.00      451.00      452.50      453.25      18      450.00      449.00      36       YES      NO	BASIN/TRAP NO.	BASIN BOTTOM (FT)	INVERT OF SKIMMER ARM (FT)	TOP OF GRATE (FT)	SPILLWAY ELEVATION (FT)	SIZE OF DISCHARGE PIPE (IN)	(UPSTREAM) INV OF DISCHARGE PIPE (FT)	(DOWNSTREAM) INV OF DISCHARGE PIPE (FT)	PIPE LENGTH (FT)	HEIGHT OF RISER EXT.(FT)	SKIMMER	SILT SOCK BARRIER
TRAP 1      451.00      451.00      452.50      453.25      18      450.00      449.00      36       YES      NO	BASIN 1	445.00	445.00	447.50	448.50	18	444.50	443.90	144		YES	NO
	TRAP 1	451.00	451.00	452.50	453.25	18	450.00	449.00	36		YES	NO
TRAP 2    447.00    447.00    453.00    454.00    18    447.00    446.40    23     YES    NO	TRAP 2	447.00	447.00	453.00	454.00	18	447.00	446.40	23		YES	NO

SEDIMENT BASIN/TRAP W/ SKIMMER DETAIL

NO SCALE

![](_page_28_Figure_14.jpeg)

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE. 2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE. 3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY THE 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 OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ALTERNATE ROCK CONSTRUCTION ENTRANCE NO SCALE

SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR

APPLICATION	SPECIES	% PURE LIVE SEED	APPLICATION RATE	FERTILIZER (LBS/AC)	LIMING RATE	FINAL SEEDING DATE
NURSE CROP	ANNUAL RYEGRASS	98%	64 LBS/AC	50-50-50 N-P2O5-K2O	2000 LBS / AC	OCT. 15
	BIRDSFOOT TREFOIL	98%	P.L.S. IN LBS/AC 10	400 000 000	2000 L BS /	MARCH 15
PERMANENT	PLUS CROWN VETCH PLUS	98%	20	N-P2O5-K2O	AC	- OCTOBER 15
	TALL FESCUE	98%	30			

ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER AT A RATE OF 750 LBS/ACRE. STEEP SLOPE SEEDING SPECIFICATIONS NO SCALE

APPLICATION	SPECIES	APPLICATION RATE <sub>1</sub> (P.L.S. IN LBS/AC)	FERTILIZER (LBS/AC)	LIMING RATE <sub>2</sub>	FINAL SEEDING DATE
TEMPORARY	ANNUAL RYE	174	50-50-50 N-P2O5-K2O	2000 LBS / AC	OCTOBER 30
PERMANENT	FINE FESCUES KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	60 90 25	100-200-200 N-P2O5-K2O	12000 LBS / AC	AUGUST 30 - OCTOBER 30
BASIN BOTTOM ERNST SEEDS RETENTION BASIN FLOOR MIX - LOW MAINTENANCE		MANUF SPECI	PER ACTURER'S FICATIONS		

PLS IS PURE LIVE SEED. PLS IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. TO SECURE THE ACTUAL PLANTING RATE, DIVIDE THE POUNDS PLS BY THE PLS PERCENTAGE AS SHOWN ON THE SEED TAG OR AS PREVIOUSLY DISCUSSED. THUS, IF THE PLS CONTENT OF FINE FESCUES IS 50%, DIVIDE 7 PLS BY 0.50 TO OBTAIN 140 LBS OF SEED PER ACRE.

LIMING RATE SHALL BE IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE PER ACRE OF LAND DISTURBED BY DIVERSIONS AND DAMS.

ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 3 TONS PER ACES. MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER AT A RATE OF 750 LBS PER ACRE. 4. ALL DIVERSIONS, CHANNELS, SED TRAPS, AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

**SEEDING & FERTILIZER SPECIFICATIONS** NO SCALE

![](_page_28_Figure_28.jpeg)

CLEANOUT STAKE DETAIL NO SCALE

450.00

TRAP 2

![](_page_28_Figure_30.jpeg)

![](_page_28_Figure_31.jpeg)

NO SCALE

![](_page_28_Figure_33.jpeg)

2. OR APPROVED EQUAL

NO SCALE

![](_page_28_Figure_37.jpeg)

29 OF 30 SHEETS

DY

ABK/JMK

ABK/EJG

ABK

3/12/24

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#### EROSION AND SEDIMENT POLLUTION CONTROL NARRATIVE FLEXO-PACK USA, INC.

HIS NARRATIVE IS INTENDED TO ACCOMPANY THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR THE PROPOSED PRELIMINARY/FINAL MAJOR SUBDIVISION AND LAND DEVELOPMENT PLAN FOR THE FLEXO-PACK USA, INC., LOCATED ALONG THE SOUTH SIDE OF HANFORD DRIVE IN NORTH LEBANON TOWNSHIP, LEBANON COUNTY. THIS NARRATIVE SHALL BE CONSIDERED A PART OF THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN. PROJECT DESCRIPTION

HE TOTAL SITE AND EARTH DISTURBANCE AS PART OF THIS PROJECT IS APPROXIMATELY 19.11 ACRES. THE CURRENT SITE CONSISTS OF OPEN AGRICULTURAL FIELDS AND VARIOUS SMALL AREAS OF WOODS AND MEADOW. THERE IS AN OLD ROADBED THAT CROSSES THE SOUTHERN PORTION OF THE SITE AND IS THE ONLY EXISTING IMPERVIOUS AREA ON SITE. BASED ON GOOGLE EARTH HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL SINCE THE EARLY 1990'S. IN 1992 THERE WERE A FEW HOMES ALONG IE SOUTH SIDE OF THE OLD ROADBED THAT HAVE SINCE BEEN DEMOLISHED. BASED ON PENN PILOT HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL IN USE SINCE THE 1930'S. PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF A 212,000 F. MANUFACTURING BUILDING WITH ASSOCIATED ACCESS DRIVES ONTO HANFORD DRIVE, PARKING AREAS, TRUCK LOADING AREAS, RAILROAD SPUR EXTENSION, CONNECTION TO PUBLIC SEWER AND WATER, AND STORMWATER MANAGEMENT FACILITIES. THE ANTICIPATED SITE DISTURBANCE SHALL INCLUDE GRADING AS WELL AS ADDITIONAL IMPERVIOUS AREA WHICH WILL BE TREATEI ON-SITE BY STORMWATER MANAGEMENT BMPS. TWO (2) INFILTRATION BASINS AND ONE (1) DETENTION BASIN ARE PROPOSED TO MANAGE THE SITE RUNOFF. STORMWATER RUNOFF FROM THE SITE WILL REACH THE QUITTAPAHILLA CREEK WHICH IS DESIGNATED AS TROUT STOCKED FISHES (TSF) AND IMPAIRED ACCORDING TO CATEGORY 4C OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE: STREAMBANK MODIFICATIONS/DESTABILIZATION – HABITAT ALTERATIONS AND URBAN RUNOFF STORM SEWERS - FLOW REGIME MODIFICATION. THE QUITTAPAHILLA CREEK IS ALSO IMPAIRED ACCORDING TO CATEGORY 5 THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR RECREATIONAL: SOURCE UNKNOWN PATHOGENS.

#### HERMAL IMPACTS ANALYSIS

ALL EXISTING SITE RUNOFF CURRENTLY LEAVES THE SITE UN-DETAINED WITH NO TREATMENT OF THIS RUNOFF IN ANY WAY. STRUCTURAL BMPS ARE PROPOSED TO TREAT THE MAJORITY OF THE DISTURBED SITE AND PROPOSED IMPERVIOUS AREAS. RUNOFF REACHING THE TWO (2) INFILTRATION BASINS WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOMS BEFORE BEING INFILTRATED THROUGH THE ENGINEERED SOIL MIX AND INTO THE GROUND. RUNOFF REACHING THE DETENTION BASIN WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOM BEFORE BEING SLOWLY RELEASED TO THE GROUND SURFACE. TREES ARE ALSO PROPOSED IN AND AROUND THE PARKING LOT AREA PROVIDE SHADE AND TEMPERATURE RELIEF FOR RUNOFF THAT FLOWS OVER THE IMPERVIOUS SURFACES

#### DOWNSTREAM WATERCOURSE ANALYSIS

THE FOLLOWING IS AN EXCERPT FROM THE PA DEP FAQ SHEET LABELED CHAPTER 102 OFF-SITE DISCHARGES OF STORMWATER TO NON-SURFACE WATERS (JANUARY 2, 2019). FAQ #2 STATES, "PERSONS PROPOSING TO DISCHARGE MUST HAVE THE LEGAL AUTHORITY TO DISCHARGE THEIR STORMWATER EITHER THROUGH EITHER A COMMON LAW EASEMENT OR AN EXPRESS EASEMENT. FOR SITES THAT DISCHARGE TO EXISTING SWALES, DITCHES, STORM SEWERS OR SIMILAR STRUCTURES WHERE THE NEW ACTIVITIES WILL NOT RESULT IN A CHANGE IN VOLUME OR RATE OF STORMWATER RUNOFF (FOR ALL STORM EVENTS), THE EXISTING COMMON LAW EASEMENT COULD BE RELIED UPON."

THE SITE DISCHARGES TO ALL DISCHARGE POINTS IN A SIMILAR MANNER AT A RATE THAT IS LESS THAN PRE-DEVELOPMENT FOR ALL STORM EVENTS.

DISCHARGE POINT 001 (DP 001) IS LOCATED TOWARDS THE SOUTHEASTERN PROPERTY CORNER AT AN EXISTING HEADWALL THAT CONVEYS FLOW WITHIN TWO (2) 42" DIAMETER PIPES BENEATH THE OLD ROADBED.

DISCHARGE POINT 002 (DP 002) IS LOCATED TOWARDS THE SOUTHEASTERN PROPERTY CORNER AT AN EXISTING ARCH CULVERT HAT CONVEYS FLOW BENEATH THE RAILROAD BED.

DP 001 IS TRIBUTARY TO AT THE EXISTING ARCH CULVERT AND DP 002.

SOIL INFORMATION AND GEOLOGY HE FOLLOWING SOILS ARE FOUND WITHIN OR ADJACENT TO THE AREA TO BE DISTURBED BY EARTH MOVING ACTIVITIES. THESE SOILS CAN ERODE WHEN DISTURBED, EROSION WILL BE CONTROLLED WITH STANDARD EROSION CONTROLS SUCH AS FILTER SOCK. SLOPE AND SWALE MATTING, RIPRAP OUTLET PROTECTION, INLET PROTECTION, ROCK CONSTRUCTION ENTRANCES, AND SEDIMENT BASINS/TRAPS.

<u>Map Symbol</u>	Soil Name	Slope	Hydrologic Group
DfB	Duffield silt loam	3-8%	В
HaB	Hagerstown silt loam	3-8%	В
HbC	Hagerstown silty clay loam	8-15%	В
HeB	Hagerstown-Rock outcrop complex	3-8%	В
No	Nolin variant silt loam		В
US	Urban land-Hagerstown complex	-	В

\*IF SOILS ARE BOLD THEY ARE DISTURBED DURING CONSTRUCTION ON THIS PROJECT.

#### ARST NOTES

THE PA DEP'S EMAPPA DOES IDENTIFIES THREE (3) SURFACE DEPRESSIONS ON SITE AND VARIOUS OTHERS WITHIN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE ONTELAUNEE FORMATION WHICH IS COMPRISED OF DOLOMITE, LIMESTONE, AND CHERT. AS SUCH, THERE IS POTENTIAL FOR KARST ACTIVITY ON THE SITE. SHOULD A GEOTECHNICAL HAZARD B NCOUNTERED. THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.

HE GEOTECHNICAL ENGINEERING REPORT FOR STORMWATER MANAGEMENT PREPARED BY ECS MID-ATLANTIC, LLC IDENTIFIES ONE EXISTING SURFICIAL DEPRESSION ON SITE THAT IS APPROXIMATELY 1' DEEP AND 4' ACROSS. IN ACCORDANCE WITH THE ECS RECOMMENDATIONS, THE EXISTING SURFACE DEPRESSION WILL BE EXPLORED WITH A TEST PIT UNDER THE SUPERVISION OF ECS PRIOR TO CONSTRÚCTION AT THE SITE IN ORDER TO DETERMINE IF POTENTIAL REPAIRS ARE NECESSARY

- I ORDER TO REDUCE THE RATE OF SINKHOLE DEVELOPMENT AND IN KEEPING WITH THE GUIDELINES AND RECOMMENDATIONS OF HE PA BMP MANUAL, ECS RECOMMENDS THAT THE FOLLOWING DESIGN PRINCIPLES BE INCORPORATED: • USE EXISTING DRAINAGE PATTERNS:
- O THE EXISTING SITE IS LOCATED WITHIN A LARGE BOWL SUCH THAT DRAINAGE ENTERS THE SITE FROM ALL DIRECTIONS. THE MAIN INFILTRATION BASIN ON THE SITE IS LOCATED WITHIN AN EXISTING BROAD DRAINAGE WAY. • KEEP STORMWATER AWAY FROM KNOWN SINKHOLES OR PROBLEMATIC SUBSIDENCE AREAS: O THERE ARE NO KNOWN SINHOLES ON SITE.
- AVOID CONCENTRATING STORMWATER
- ORUNOFF WILL BE NATURALLY CONCENTRATED IN THE PROPOSED BASINS WHICH ARE DESIGNED IN ACCORDANCE WITH THE BELOW PRINCIPLES TO REDUCE THE RISK OF SINKHOLE FORMATIONS. BYPASS FLOWS WILL UTILIZE WATER TIGHT PIPING. • REDUCE RUNOFF VOLUME AND VELOCITY O ON-SITE RUNOFF VOLUME WILL BE REDUCED IN ACCORDANCE WITH TOWNSHIP AND CHAPTER 102 REQUIREMENTS.
- USE BROAD SHALLOW BASINS: O INFILTRATION BASIN 1 HAS A MAXIMUM PONDING DEPTH OF LESS THAN 3' AND INFILTRATION BASIN 2 HAS A MAXIMUM PONDING DEPTH OF LESS THAN 1 MAINTAIN THE FACILITIES POST CONSTRUCTION:
- O POST-CONSTRUCTION STORMWATER MANAGEMENT FACILITIES WILL BE MAINTAINED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE AGREEMENT REQUIRED BY THE TOWNSHIP AND RECORDED WITH THE PLAN. • PROVIDE UNDERDRAINS OR OTHER MEANS FOR DEWATERING IN STORMWATER MANAGEMENT FACILITIES IF NEEDED: O UNDERDRAINS ARE PROVIDED FOR ALL BASINS.

DUFFIELD SOILS – THE DUFFIELD SERIES CONSISTS OF DEEP AND VERY DEEP, WELL DRAINED SOILS FORMED IN RESIDUUM FROM LIMESTONE BEDROCK. SLOPES RANGE FROM 0 TO 35 PERCENT. PERMEABILITY IS MODERATE. MEAN ANNUAL PRECIPITATION IS 40 INCHES. MEAN ANNUAL TEMPERATURE IS 53 DEGREES F. DUFFIELD SOILS ARE SUSCEPTIBLE TO CUTBANKS AND CAVE INS AND MAY BE CORROSIVE TO STEEL AND CONCRETE. THIS SOIL MAY ALSO BE EASILY ERODIBLE AND SUBJECT TO HYDRIC INCLUSIONS, LOW STRENGTH, SLOW PERCOLATION, PIPING, AND A POOR SOURCE OF TOPSOIL. THIS SOIL IS ALSO SUSCEPTIBLE TO SHRINK/SWELL AND HAS THE POTENTIAL FOR SINKHOLE FORMATION. THIS SOIL IS ALSO SUBJECT TO WETNESS BUT NOT PONDING. HAGERSTOWN SOILS - THE HAGERSTOWN SERIES CONSISTS OF DEEP AND VERY DEEP, WELL DRAINED SOILS FORMED IN RESIDUUM OF HARD GRAY LIMESTONE. SLOPE RANGES FROM 0 TO 45 PERCENT. PERMEABILITY IS MODERATE. MEAN ANNUAL PRECIPITATION IS ) TO 45 INCHES MEAN ANNUAL AIR TEMPERATURE IS 45 TO 58 DEGREES HAGERSTOWN SOILS MAY BE SUSCEPTIBLE TO CUI BANKS AND CAVE INS AND CORROSIVE TO STEEL BUT NOT CONCRETE. THIS SOIL MAY ALSO BE EASILY ERODIBLE AND SUBJECT TO A SEASONALLY HIGH WATER TABLE, HYDRIC INCLUSIONS, LOW STRENGTH, SLOW PERCOLATION, PIPING, AND A POOR SOURCE OF OPSOIL. HAGERSTOWN SOILS MAY ALSO BE SUSCEPTIBLE TO FROST ACTION, SHRINK-SWELL, AND SINKHOLES. NOLIN SOILS - THE NOLIN SERIES CONSISTS OF VERY DEEP, WELL DRAINED SOILS FORMED IN ALLUVIUM DERIVED FROM LIMESTONES, SANDSTONES, SILTSTONES, SHALES, AND LOESS. THESE NEARLY LEVEL TO MODERATELY STEEP SOILS ARE ON FLOOD PLAINS, DEPRESSIONS WHICH RECEIVE RUNOFF FROM SURROUNDING SLOPES, OR ON NATURAL LEVEES OF MAJOR STREAMS AND RIVERS. SLOPE RANGES FROM 0 TO 25 PERCENT, BUT IS DOMINANTLY 0 TO 3 PERCENT. MEAN ANNUAL TEMPERATURE IS 56 DEGREES F

ND THE MEAN ANNUAL PRECIPITATION IS 43 INCHES. NOLIN SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS AND CORROSIVE TO CONCRETE BUT NOT STEEL. THIS SOIL MAY ALSO BE SUBJECT TO FLOODING. A SEASONALLY HIGH WATER TABLE HYDRIC INCLUSIONS, LOW STRENGTH, SLOW PERCOLATION, AND PIPING. NOLIN SOILS MAY ALSO BE SUSCEPTIBLE TO SINKHOLE FORMATION.

- SOIL USE LIMITATIONS AND RESOLUTIONS • CUT-BANK CAVING: ALL APPLICABLE OSHA STANDARDS AND REGULATIONS SHALL BE IMPLEMENTED AT ALL TIMES DURING TRENCHING AND EXCAVATION OPERATIONS. • CORROSION OF STEEL AND CONCRETE: ALL UNDERGROUND FOUNDATIONS AND STRUCTURES SHALL BE PROPERLY PROTECTED
- AGAINST CORROSION, WHICH MAY INCLUDE COATING THESE STRUCTURES WITH CORROSION-RESISTANT MATERIAL. • EASILY ERODIBLE: EROSION AND SEDIMENT POLLUTION CONTROLS WILL BE IMPLEMENTED TO AVOID THE TRANSPORTATION OF SEDIMENT-LADEN WATER OFF-SITE.
- DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, EXCAVATING TRENCHES, DEWATERING BASINS, ETC. THE GEOTECHNICAL REPORT DID NOT IDENTIFY ANY AREAS OF HIGH GROUNDWATER. IF DEWATERING IS REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED AREA UPSTREAM OF A PERIMETER CONTROL BMP SUCH AS A FILTER SOCK.
- HYDRIC SOILS/HYDRIC INCLUSIONS: A WETLAND FIELD SURVEY WAS CONDUCTED AND NO WETLANDS ARE LOCATED ON SITE. • LOW STRENGTH/LANDSLIDE PRONE: THE MAXIMUM PROPOSED SLOPE ON THE SITE IS 2:1. THIS WILL REDUCE THE POTENTIAL FOR EROSION AND LAND SLIDE ACTION. ALL PROPOSED BERMS SHALL BE COMPACTED FULLY IN ORDER TO PROTECT AGAINST LANDSLIDES, AND SHALL BE STABILIZED IMMEDIATELY.
- SLOW PERCOLATION: ADEQUATE PRECAUTIONS WILL BE TAKEN TO ENSURE THAT THE PCSM BMPS INFILTRATE WITHIN THE REQUIRED TIME PERIOD, INCLUDING INFILTRATION TESTING AND SOIL MODIFICATION/UNDERDRAIN INSTALLATION, IF NECESSARY. INFILTRATION TESTS PREVIOUSLY PERFORMED INDICATED THAT THE INFILTRATION RATE AT THE SITE IS ADEQUATE IN THE PROPOSED INFILTRATION FACILITIES. A DETENTION BASIN IS PROPOSED IN THE AREA WHERE INFILTRATION TESTING YIELDED NEGLIGIBLE RESULTS/LIMITING ZONES. • PIPING: ANTI-SEEP COLLARS WILL BE PROVIDED AS PART OF THE PCSM AND PIPELINE DESIGNS.
- POOR SOURCE OF TOPSOIL: THE ADEQUACY OF THE TOPSOIL WILL BE EVALUATED UPON THE COMMENCEMENT OF EXCAVATION. AS THE MAJORITY OF THE SITE IS AN AGRICULTURAL FIELD, THE TOPSOIL IS EXPECTED TO BE SUFFICIENT. • FROST ACTION: ALL IMPERVIOUS SURFACES SHALL BE GRADED AT A MINIMUM OF 1% IN ONE DIRECTION, SO THAT WATER WILL NOT COLLECT ON THE SURFACE AND CAUSE DAMAGE DURING FREEZE/THAW CYCLES. CRACKS WHICH DEVELOP IN THE IMPERVIOUS SURFACES SHALL BE PROMPTLY SEALED.
- SHRINK/SWELL: ALL SITE GRADING SHALL DIRECT WATER AWAY FROM BUILDINGS AND OTHER IMPERVIOUS SURFACES TO REDUCE THE LIKELIHOOD OF WATER INFILTRATING NEAR OR UNDER THESE STRUCTURES. • SINKHOLE FORMATION: THE PA DEP'S EMAPPA DOES IDENTIFIES THREE (3) SURFACE DEPRESSIONS ON SITE AND VARIOUS OTHERS WITHIN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIRE SITÉ IS UNDERLAIN BY THE ONTELAUNEE FORMATION
- WHICH IS COMPRISED OF DOLOMITE, LIMESTONE, AND CHERT. AS SUCH, THERE IS POTENTIAL FOR KARST ACTIVITY ON THE SITE SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS. • WETNESS: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, DEWATERING
- BASINS, ETC. SHOULD DEWATERING BE REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED AREA UPSTREAM OF A PERIMETER CONTROL (FILTER SOCK). • FLOODING: THE SITE IS NOT LOCATED WITHIN A MAPPED FLOODPLAIN.

#### FINERAL SOIL NOTES

- 1. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL NEED TO HAVE APPROPRIATE E&S CONTROLS.
- 2.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.

- 3.ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- 6.FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

#### CALCULATIONS

TEMPORARY AND PERMANENT EROSION CONTROL FACILITIES WERE DESIGNED IN ACCORDANCE WITH THE STANDARDS ESTABLISHED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (PA DEP BUREAU OF WATERWAYS ENGINEERING AND WETLANDS, MARCH 2012).

#### CONSERVATION DISTRICT GENERAL E&S NOTES

- APPROVAL AT ITS DISCRETION.
- BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.
- PENALTIES.
- THE SITE.
- CONDITIONS OF CHAPTER 102 AND/OR OTHER STATE OR FEDERAL REGULATIONS.

# IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF CLEAN FILL".

#### TEMPORARY CONTROL MEASURES

#### 1. TOPSOIL STOCKPILE

- MINIMUM
- HEREON.
- C.STOCKPILES SHALL BE LOCATED SO THAT ALL SWALES CAN FUNCTION AS DESIGNED. d.STOCKPILE HEIGHTS MUST NOT EXCEED 35' IN HEIGHT. SIDE SLOPES SHALL BE 2:1 OR FLATTER.

#### 2. SEDIMENT BASINS/TRAPS

- PRESENTED LATER IN THIS REPORT
- AREAS DISTURBED DURING THIS PROCESS SHALL BE MULCHED AND PERMANENTLY STABILIZED WITH SEED.

#### 3.SILT SOCK

- a.SILT SOCK SHALL BE USED TO INTERCEPT SEDIMENT-LADEN RUNOFF FROM SMALL WATERSHEDS. b.SILT SOCK MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF THE SILT SOCK SHALL EXTEND UP-SLOPE AT A 45-DEGREE ANGLE TO THE MAIN FENCE/SOCK ALIGNMENT. c.SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH  $\frac{1}{2}$  THE ABOVE GROUND HEIGHT OF SOCK.
- EXCESSIVE FLOWS, A NEW SECTION OF SOCK SHALL BE INSTALLED.
- 4.ROCK FILTER WITH COMPOST
- b.A 6" LAYER OF COMPOST SHALL BE ANCHORED TO THE UPSLOPE SIDE OF THE ROCK FILTER. C. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE FILTER.
- NEW STONE SHALL BE USED TO REBUILD THE FILTER. 5.INTERIM STABILIZATION / TEMPORARY EROSION CONTROL MATTING
- EXPOSED AREAS.
- b. TEMPORARY SEEDING/MULCHING/MATTING SHALL BE AS APPLIED AS SPECIFIED ON THE SEEDING SCHEDULE CONTAINED ON THE E&SPC PLAN.
- CONTAINED HEREON.
- 6. ALTERNATIVE ROCK CONSTRUCTION ENTRANCE
- EXISTING ROADWAY b.ROCK CONSTRUCTION ENTRANCE SHALL BE A MINIMUM 100'L AND 20'W. REFER TO THE PLAN DETAIL

#### 7.SEDIMENT SKIMMER

- a.A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED. b.SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. C. ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION. d.ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS.
- OR THE TOP OF THE LANDING DEVICE. f. A SEMI-CIRCULAR LANDING ZONE MAY BE SUBSTITUTED FOR THE GUIDE RAILS

#### PERMANENT CONTROL MEASURES

- 1. PERMANENT GRASS / LEGUME COVER
- ATTACHED E&SPC PLAN. CONTAINED ON THE ATTACHED E&SPC PLAN.

#### 2.RIP - RAP OUTLET PROTECTION

- THE OUTLET PIPE.
- 3. CHANNEL LINING INSTALLATION
- COMPACT THE TRENCH AFTER STAPLING. c.ROLL CENTER BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

4. 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. 5.FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

7. THE LEBANON COUNTY CONSERVATION DISTRICT SHALL BE CONTACTED IF SEEPS OR SPRINGS ARE ENCOUNTERED AND THE DESIGNS ARE ALTERED DURING CONSTRUCTION AND THEY SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND

1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR IMPLEMENTATION OF THOSE CHANGES. THE DISTRICT MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND

2.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 ACCELERATED EROSION AND/OR SEDIMENT POLLUTION AND NOTIFY THE COUNTY CONSERVATION DISTRICT.

3.ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER

4.FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE EARTH DISTURBANCE ACTIVITY, 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

5.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

6.THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE(S) RECEIVING THE EXCESS HAS AN APPROVED AND FULLY IMPLEMENTED EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE

7.CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

8.ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

9.ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO; VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A 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

a.A STOCKPILE SHALL BE USED TO CONTAIN ALL STRIPPED TOPSOIL IN A LIMITED AREA IN ORDER TO KEEP DISTURBANCE TO A b.STOCKPILES SHALL BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION CONTAINED

#### THE PROPOSED PERMANENT STORMWATER BASINS WILL SERVE AS SEDIMENT BASINS/TRAPS DURING TH PHASE. REQUIRED SEDIMENT STORAGE AND DEWATERING VOLUMES ARE SPECIFIED ON THE STANDARD E&S WORKSHEETS b.ACCUMULATED SEDIMENT SHALL BE REMOVED FROM EACH FACILITY WHEN IT HAS REACHED THE CLEAN OUT ELEVATION NOTED ON THE CLEANOUT STAKE FOR THAT FACILITY. ALL SEDIMENT REMOVED SHALL BE DISPOSED WITHIN THE LIMITS ( DISTURBANCE, AWAY FROM STEEP SLOPES, AND IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION. ALL

d. ALL AREAS OF CONCENTRATED FLOW AND AT ALL AREAS WHERE THE SILT SOCK HAS COLLAPSED OR UNDERCUT DUE TO

a. A RIPRAP BERM SHALL BE PROVIDED WHERE SHOWN ON THE PLAN AND AT ALL LOCATIONS OF CONCENTRATED FLOWS.

d.ROCK FILTERS WILL BE REMOVED WHEN CLOGGED WITH SEDIMENT. THE STONE SHALL BE WASHED FREE OF ALL SEDIMENT OR

a. TEMPORARY SEEDING/MATTING AND MULCHING SHALL BE APPLIED WHERE INDICATED TO PROVIDE INTERIM STABILIZATION TO

C. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED MUST BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WILL BE RE-DISTURBED WITHIN 1 YEAR MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION CONTAINED HEREON. DISTURBED AREAS THAT ARE AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS

a. A STABILIZED PAD OF CRUSHED STONE SHALL BE LOCATED WHERE CONSTRUCTION TRAFFIC WILL BE ENTERING AND LEAVING THE SITE. THE ROCK CONSTRUCTION ENTRANCE IS USED TO ELIMINATE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE

e.SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE

a. ALL DISTURBED AREAS THAT ARE NOT PAVED SHALL BE PERMANENTLY STABILIZED WITH GRASS TO MINIMIZE EROSION. ALL SWALES SHALL BE PERMANENTLY SEEDED AS REQUIRED IN ACCORDANCE WITH THE SEEDING SPECIFICATION SHOWN ON THE b.PERMANENT GRASS COVER SHALL BE APPLIED AS SPECIFIED IN ACCORDANCE WITH THE SEEDING SCHEDULE AND NOTES

a.RIP-RAP SHALL BE USED AT ALL PIPE OUTLETS TO REDUCE THE OUTFLOW VELOCITY AND MINIMIZE EROSION POTENTIAL AT b.RIP-RAP SHALL BE INSTALLED IN ACCORDANCE WITH THE DIMENSIONS AND MATERIALS SHOWN ON THE ATTACHED PLAN.

a.PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. b.BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH, BACKFILL AND

d.PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP, USE A DOUBLE ROW OF STAGGERED STAPLES 4"

- APART TO SECURE BLANKETS. e.FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING
- f. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING). g.IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40-FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A
- STAGGERED PATTERN. h. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

STABILIZATION SPECIFICATIONS

- 1. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
- 2.PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
- 3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN DRAWINGS IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. TOPSOIL STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.
- 4. AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES (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.
- 5.LIME AND FERTILIZER SHOULD BE APPLIED IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS. IF SOIL TEST RESULTS ARE NOT AVAILABLE, APPLY AT LEAST 6 TONS OF AGRICULTURAL GRADE LIMESTONE AND 1000 POUNDS OF 10-20-20 FERTILIZER PER ACRE.
- 6.APPLY SEED AT REQUIRED RATES. IF LEGUMES ARE PLANTED, BE SURE TO INOCULATE THE SEED WITH THE CORRECT LEGUME INOCULANT. SEED MAY BE BROADCAST ON THE SURFACE AND A LAYER OF MULCH APPLIED AT THE NECESSARY RATES. HYDROSEEDING IS ANOTHER METHOD OF SEEDING, WHERE THE SEED, FERTILIZER, AND MULCH ARE MIXED WITH WATER TO FORM AN EMULSION. THIS METHOD SHOULD ONLY BE DONE WITH THE CORRECT EQUIPMENT OR BY PROFESSIONALS.
- 7. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 12 INCHES ALONG CONTOUR WHENEVER POSSIBLE PRIOR TO SEEDING.
- 8. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE THE DISTURBED AREAS. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- 9.AN EROSION CONTROL BLANKET WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER THAN 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN 50' OF A SURFACE WATER.

## MAINTENANCE

- 1. THE APPLICANT/OR HIS DESIGNEE SHALL BE RESPONSIBLE FOR MAINTAINING ALL FACILITATES SHOWN ON THIS PLAN.
- 2. DIVERSIONS, CHANNELS, AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.
- 3.ANY PERMANENTLY SEEDED AREA THAT BECOMES ERODED OR DISTURBED SHALL HAVE THE TOPSOIL REPLACED, THE GRASS RE-SOWN AND MULCH REAPPLIED, OR, AT THE DISCRETION OF THE OWNER, SOD INSTALLED.
- 4.SILT SOCK MUST BE INSTALLED AT LEVEL GRADE ALONG THE CONTOURS. BOTH ENDS OF EACH SILT SOCK SECTION MUST EXTEND AT LEAST 8 FEET UP-SLOPE AT 45-DEGREE ANGLES TO THE MAIN ALIGNMENT. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH  $\frac{1}{2}$  THE ABOVE GROUND HEIGHT OF THE SILT SOCK.
- 5. ANY SILT SOCK SECTION THAT HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A NEW SECTION OF SILT SOCK.
- 6.STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
- 7.ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED MUST BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE (1) YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.
- 8.AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO TI CONTROLS), TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY.
- 9.UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL 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 CLEANOUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING. RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 10. ANY SEDIMENT REMOVED FROM BMPS DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION. ALL AREAS DISTURBED DURING THIS PROCESS WILL BE MULCHED AND PERMANENTLY STABILIZED WITH SEED.
- 11. E&S BMPS SHALL BE INSPECTED FOLLOWING EACH MEASURABLE RAINFALL THROUGH THE DURATION OF THE PROJECT. INSPECTIONS SHALL BE LOGGED ON DEP FORM 3800-FM-BCW0271D (DATED 12/2019) AND SHALL SHOW THE DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THAT THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO THE COUNTY CONSERVATION DISTRICT OR OTHER REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

## STAGING OF EARTHMOVING

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING STAGING OF EARTHMOVING ACTIVITIES. EACH STAGE SHALL BE COMPLETED BEFORE A SUBSEQUENT STAGE IS INITIATED. CONSTRUCTION OF THE SITE IMPROVEMENTS IS EXPECTED TO BEGIN IN THE FALL OF 2024. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. CONSTRUCTION WILL PROCEED IN A TIMELY MANNER IN ORDER TO LIMIT THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENTATION. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE PPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. SHOULD ANY SINKHOLES OR GROUNDWATER SOURCES BE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER IMMEDIATELY. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE

SEQUENCE OF CONSTRUCTION

- 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 2.AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 3.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 DEP PRIOR TO IMPLEMENTATION.
- 4.INSTALL THE ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE ATTACHED PLAN.

MUST BE APPROVED IN WRITING FROM THE COUNTY CONSERVATION DISTRICT.

- 5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.).
- 6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASINS 1 & 2 AND DETENTION BASIN 1). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THE INFILTRATION AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.
- 7.INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 1–20 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATIONS 21–23 IS TO ENSURE SEDIMENTATION OF THE ENGINEERED SOIL IN EACH BASIN DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASINS IS COMPLETE.

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INSTALL	ROCK	FILIER	#1	ΑI	THE	EXISTING	HEADWALL	IN	THE	SOUTHEAST	CORNER	OF	THE	SHE.

#### 9.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

10. INSTALL THE BYPASS PIPING FROM HW-4 TO EW-1. INSTALL ROCK FILTER #4 ABOVE HW-4.

11. INSTALL SWALES A & B. ENSURE SWALE LINING IS INSTALLED IN ACCORDANCE WITH PLAN DETAILS.

12.INSTALL THE BYPASS PIPING FROM FES-10 TO EW-6. INSTALL ROCK FILTER #3 ABOVE FES-10.

13. INSTALL THE RELOCATED BYPASS HEADWALL AND PIPE AT THE WESTERN LIMITS OF THE SITE. INSTALL ROCK FILTER #2 ABOVE THIS HEADWALL.

14. INSTALL SEDIMENT BASIN 1 AND SEDIMENT TRAPS 1 & 2 WHICH WILL SERVE AS SEDIMENT REMOVAL FACILITIES DURING CONSTRUCTION AND BE CONVERTED TO PERMANENT STORMWATER BASINS UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL EACH SEDIMENT BASIN/TRAP. THE SEDIMENT BASIN/TRAPS MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM EACH BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORES, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENTS, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN P300 SLOPE PROTECTION AT EMERGENCY SPILLWAYS. INSTALL RIPRAP APRONS AT ALL OUTLETS. INSTALL SEED IN THE INTERIOR SLOPES AND BERMS OF BASIN. INSTALL CLEAN OUT STAKE, BAFFLE, AND SKIMMER WITHIN EACH SEDIMENT BASIN/TRAP. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN/TRAP EXCAVATION AND INSTALLATION OF THE OUTLET PIPES, ANTI-SEEP COLLARS, AND CLAY CORES.

15. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

16. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PAD, ACCESS DRIVE, AND PARKING AREAS AND PLACE ON THE TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK AT LOCATION 24. THE TOPSOIL STOCKPILE MAY BE TEMPORARILY RELOCATED TO BRING THE AREA BELOW THE PILE TO GRADE, WITH APPROVAL BY THE LOCAL CONSERVATION DISTRICT.

17. ROUGH GRADE THE DISTURBED AREA AS NECESSARY TO CONSTRUCT THE BUILDING, ACCESS DRIVES, AND OTHER IMPROVEMENTS. INSTALL SWALES C & D DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN ÉACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

18. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

19. INSTALL THE STONE SUB-BASE FOR THE PAVED AREAS AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

20. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

21. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS 'FILL' MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

22.DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

23.PAVE THE REQUIRED AREAS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL ALL DOWNSTREAM AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

24. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN/TRAPS OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER. WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO TH CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

25. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN 1 AND SEDIMENT TRAPS 1 & 2 AS REQUIRED TO INSTALL INFILTRATION BASINS 1 & 2 AND DETENTION BASIN 1 AS SHOWN ON THE PCSM PLAN. REMOVE ALL BAFFLES, CLEANOUT STAKES, AND SKIMMERS. THE INFILTRATION BASIN BOTTOMS AND AREA OF ENGINEERED SOIL WITHIN DETENTION BASIN SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE INFILTRATION BASIN BOTTOMS, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN EACH BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCKS AT LOCATIONS 21-23 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM (WHERE REQUIRED), ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS 1 & 2 AND DETENTION BASIN 1.

26.THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

27.PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED POSM PLAN OR UPON SUBMISSION OF THE NOT IF SOONER THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

CONTRACTOR NOTES

1. 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 DEP PRIOR TO IMPLEMENTATION.

2.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

3.IF SOIL IT IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

4.DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

5.ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT. ANY WATER PUMPED FROM THE STORMWATER BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF PRIMARY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS).

6.THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

7.PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY T PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

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REVISION	LCPD COMMENTS - 1/30/24	ARRO COMMENTS – 1/18/24	NLTMA COMMENTS - 1/16/24		
		PRELIMINARY/FINAL SUBDIVISION & LAND DEVELOPMENT PLAN	FLEXO-PACK USA, INC.	Iocated in North Lebanon Township	Lebanon County, Pennsylvania
			Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A	Lebanon, Pennsylvania 17042 Phone: (717) 272–7110	Fax: (717) 272–7348
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