

RECEIVED

Mar 08 2024

MOUNT JOY TOWNSHIP

November 27, 2023 Revised March 4, 2024

Justin Evans
Community Development Director/Zoning Officer
Mount Joy Township
8853 Elizabethtown Road
Elizabethtown, PA 17022

RE: Cloverleaf Self Storage

Modification/Waiver Request Letter Mount Joy Township, Lancaster County Project No. 2023108-001

Dear Mr. Evans,

Bitner Engineering, LLC, on behalf of Hearthfire Holdings, requests the following waivers of the Mount Joy Township Subdivision and Land Development Ordinance and Roadway Ordinance:

The following modifications have been withdrawn: SALDO 119-32.A – Sewer/Water Feasibility Report SWMO 113-32.A(2)(c) – Loading Ratios SWMO 113-31.L(1) – Limiting Zone

Subdivision and Land Development Ordinance:

SECTION 119-25: SUBMISSION OF A PRELIMINARY PLAN

Requirement:

Submission of a Preliminary Plan.

Requested Relief:

This waiver is being requested to allow for the plan to be processed as a Preliminary/Final Plan.

Justification:

The project will be completed as a single phase, there is no subdivision or new streets proposed. It is requested that the filing and review process be considered as a single preliminary/final plan. All the preliminary and final plan requirements in the Subdivision and Land Development Ordinance will be provided as part of the preliminary/final plan submission, avoiding duplicate review by the Township. It is for the reason stated above that we feel the waiver is justified and meets the intent of the ordinance by providing an equal or better alternative.

SECTION 119-32.C(6): CONTRIBUTION IN LIEU OF TRAFFIC IMPACT STUDY

Requirement:

Contribution in lieu of preparation of the traffic study – the estimated contribution shall be \$1.50 per square foot of usable building floor area in a commercial, industrial, or institutional subdivision or land development.

Requested Relief:

To pay a fee-in-lieu based on the cost to prepare a Traffic Impact Study.

Justification:

This request is to pay the fee-in-lieu based on the cost to prepare a Traffic Impact Study, as an alternative of the \$1.50 per square foot of usable building floor. Enclosed is an estimate of \$5,500 from Traffic Resources Group to prepare a Traffic Impact Study per the requirements of the Subdivision and Land Development Ordinance. Traffic generated from a self-storage facility is minimal and a TIS is typically not warranted.

SECTION 119-31.C(3) – EXISTING FEATURES WITHIN 200' OF THE SITE

Requirement:

Easements shall have a minimum width of 30 feet and shall be adequately designed to provide area for the collection and discharge of water, the maintenance, repair and reconstruction of the drainage facilities and the passage of machinery for such work.

Requested Relief:

To provide significant features within with 200' of the site with the exception of the eastern portion of the property.

Justification:

Existing features within a 200-foot radius of the site are shown, excluding the northern and southern regions of the eastern portion of the property. These areas have not proposed improvements, and the plan does not require any offsite impacts in their vicinity.

SECTION 119-56.E – MINIMUM EASEMENT WIDTH

Requirement:

Requires existing features within 200 feet of the site to be shown on the plan.

Requested Relief:

To provide an easement between 15' and 26' wide.

Justification:

One corner of Building A in the proposed layout aligns with the northern building setback line, positioned at a distance of 15 feet from the property line. Additionally, a small swale is planned along the northern property boundary, necessitating an easement ranging from 15 to 26 feet in width. The remaining proposed easements will maintain a consistent width of 30 feet.

Stormwater Management Ordinance:

SECTION 113-43.I(5) – EXISTING FEATURES WITHIN 200' OF THE SITE

Requirement:

All existing man-made features within 200 feet of the development site boundary shall be shown.

Requested Relief:

To provide significant features within with 200' of the site with the exception of the eastern portion of the property.

Justification:

Existing features within a 200-foot radius of the site are shown, excluding the northern and southern regions of the eastern portion of the property. These areas have not proposed improvements, and the plan does not require any offsite impacts in their vicinity.

Please do not hesitate to contact me if you have any questions. Thank you for your assistance in this process.

Sincerely,

Bitner Engineering, LLC

David Bitner, PE

President

Cc: Ben Craddock, Lancaster Civil (via email)

FINAL LAND DEVELOPMENT PLAN CLOVERLEAF SELF-STORAGE

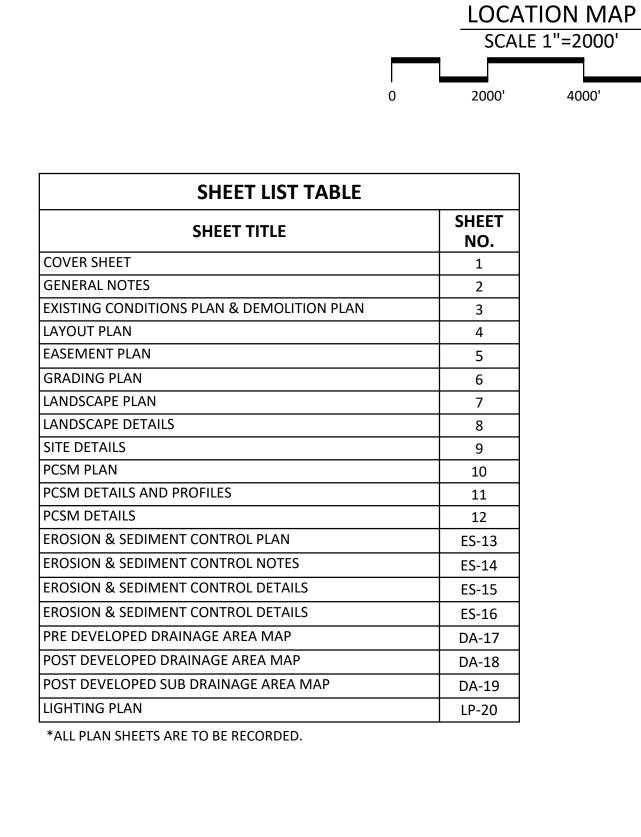
MOUNT JOY TOWNSHIP, LANCASTER COUNTY, PA

LANCASTER COUNTY PLANNING DEPARTMENT'S REVIEW CERTIFICATE	OWNER LANGASTER PORTFOLIO LA LIG
THIS PLAN, BEARING LCPC FILE NO, WAS REVIEWED BY STAFF OF THE LANCASTER COUNTY PLANNING DEPARTMENT ON , AS REQUIRED BY THE	LANCASTER PORTFOLIO I, LLC 535 N MARKET STREET, STE. 105 WEST CHESTER, PA 19380
PENNSYLVANIA MUNICIPALITIES PLANNING CODE, ACT 247, OF 1968, AS AMENDED. THIS CERTIFICATE DOES NOT REPRESENT NOR GUARANTEE THAT THIS PLAN COMPLIES WITH THE	CITE ADDRECC
VARIOUS ORDINANCES, RULES, REGULATIONS, OR LAWS OF THE LOCAL MUNICIPALITY, THE	SITE ADDRESS 1444 CLOVERLEAF ROAD
COMMONWEALTH, OR THE FEDERAL GOVERNMENT.	MOUNT JOY, PA 17552
* *SIGNATURE OF THE CHAIRPERSON OR THEIR DESIGNEE	SOURCE OF TITLE
	DOCUMENT ID 6578969
MOUNT JOY TOWNSHIP PLANNING COMMISSION APPROVAL CERTIFICATE	TAX ACCOUNT 461-40563-0-0000 SUBDIVISION PLAN J-048-019 SUBDIVISION PLAN J-068-050
AT A MEETING HELD ON, 20, THE MOUNT JOY TOWNSHIP PLANNING COMMISSION APPROVED THIS PROJECT, INCLUDING THE COMPLETE SET OF PLANS AND INFORMATION WHICH ARE FILED WITH THE COMMISSION IN MOUNT JOY TOWNSHIP PLANNING COMMISSION FILE NO, BASED UPON ITS CONFORMITY WITH THE STANDARDS OF CHAPTER 119, SUBDIVISION AND LAND DEVELOPMENT.	SUBDIVISION PLAN J-218-087
	PREVIOUS PLAN APPROVALS:
* * * * * * * * * * * * * * * * * * *	1. FINAL LAND DEVELOPMENT PLAN BRANDT MIN-STORAGE, RECORDED ON DECEMBER 12, 2003 AS SUBDIVISION PLAN BOOK J-218-087.
MOUNT JOY TOWNSHIP SWM SITE PLAN APPROVAL CERTIFICATE	** *DESIGN PROFESSIONAL
AT A MEETING HELD ON, 20, THE MOUNT JOY TOWNSHIP PLANNING COMMISSION APPROVED THIS PROJECT, AND ALL CONDITIONS HAVE BEEN MET. THIS APPROVAL INCLUDES THE COMPLETE SET OF PLANS AND INFORMATION WHICH ARE FILED WITH THE TOWNSHIP IN MOUNT JOY PLANNING COMMISSION FILE NO, BASED UPON ITS CONFORMITY WITH THE STANDARDS OF CHAPTER 113, STORMWATER MANAGEMENT.	EXPECTED PROJECT SCHEDULE: FALL 2024-FALL/WINTER 2024/2025
* *	
*SIGNATURES OF THE CHAIRMAN AND VICE CHAIRMAN OF THEIR DESIGNEES	
CERTIFICATION OF SURVEY ACCURACY	
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE MOUNT JOY TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.	CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN AND OFFER OF DEDICATION (CORPORATE)
, 20	COMMONWEALTH OF PENNSYLVANIA COUNTY OF LANCASTER
	ON THIS, THE DAY OF, 20, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED, BEING*OF
CERTIFICATION OF PLAN ACCURACY	**, WHO BEING DULY SWORN ACCORDING TO LAW DEPOSES AND SAYS THAT THE CORPORATION IS THE *** OF THE PROPERTY SHOWN ON THIS PLAN, THAT HE/SHE IS AUTHORIZED TO EXECUTE SAIR
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE MOUNT JOY TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.	PLAN ON BEHALF OF THE CORPORATION, THAT THE PLAN IS THE ACT AND DEED OF TH CORPORATION, THAT THE CORPORATION DESIRES THE SAME TO BE RECORDED AND OI BEHALF OF THE CORPORATION FURTHER ACKNOWLEDGES, THAT ALL STREETS AND OTHE PROPERTY IDENTIFIED AS PROPOSED PUBLIC PROPERTY ARE HEREBY DEDICATED TO TH
, 20	PUBLIC USE - (EXCEPTING THOSE AREA LABELED "NOT FOR DEDICATION").

STORMWATER MANAGEMENT CERTIFICATION	****** MY COMMISSION EXPIRES , 20
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE STORM DRAINAGE FACILITIES SHOWN AND DESCRIBED HEREON ARE DESIGNED IN CONFORMANCE WITH THE STORM WATER MANAGEMENT REQUIREMENTS OF MOUNT JOY TOWNSHIP.	* INDIVIDUAL'S TITLE ** NAME OF CORPORATION *** IDENTIFY OWNERSHIP OR EQUITABLE OWNERSHIP **** SIGNATURE OF INDIVIDUAL
, 20	***** CORPORATE SEAL ***** SIGNATURE AND SEAL OF NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ACKNOWLEDGE DEEDS.
	STORMWATER FACILITY CERTIFICATE
CARBONATE GEOLOGY CERTIFICATE	I, ACKNOWLEDGE THAT THE STORMWATER FACILITIES ARI
I, CERTIFY THAT THE PROPOSED STORMWATER /BMP FACILITIES IS NOT UNDERLAIN BY CARONATE GEOLOGY.	PERMANENT FIXTURES THAT CANNOT BE ALTERED OR REMOVED UNLESS A REVISED PLANIS APPROVED BY MOUNT JOY TOWNSHIP.
	SIGNATURE OF THE DESIGNEE

______, 20____

ZONING/SITE DATA TOTAL SITE ACREAGE	10.41 AC. (GROSS); 10.08 AC	. (NET)	
EXISTING LAND USE:	COMMERCIAL/MINIWAREHO	DUSE - 132 EXISTING UNITS	5
PROPOSED LAND USE:	COMMERCIAL/MINIWAREHO	OUSE - 260 UNITS (PROPOS	ED)
ZONING DISTRICT:	LIGHT INDUSTRIAL		
TOTAL NO. OF LOTS:	1 1 (OFFICE BUILDING)		
JNITS OF OCCUPANCY: DENSITY (TOTAL SQUARE FEET	1 (OFFICE BUILDING)		
OF BUILDING AREA):	4,758 SF/ACRE		
WATER:	ON-LOT		
SEWER:	ON-LOT		
D.F.O.I	upen ppono	CED	
REQU LOT AREA:	JIRED PROPO 1 AC. MIN.	<u>SED</u> 10.41 AC. (GROSS); 10.	NR ΔC (NFT)
LOT WIDTH:	150 FT. MIN.	423 FT.	00/10/(1121)
LOT DEPTH:	125 FT. MIN.	723 FT.	
FRONT YARD BUILDING SETBACK:	40 FT. MIN.	40 FT.	
REAR YARD BUILDING SETBACK::	30 FT. MIN.	30 FT.	
SIDE YARD BUILDING SETBACK:	15 FT. MIN.	15 FT.	
BUILDING HEIGHT:	20* FT. MIN., 35 FT. MAX.	BLDG. A - 24 FT. MAX.	
		BLDG. B - 22 FT. MAX.	
		BLDG. C - 13 FT. MAX. BLDG. D - 12 FT. MAX.	
		BLDG. E 17 FT. MAX.	
BUILDING AREA:	8,000 SF MAX. (EACH)	±20,500 SF. MAX*	
MIN. BUILDING SEPARATION:	26 FT.	30 FT.	
OFF-STREET PARKING, LOADING ARE	AS AND OUTDOOR STORAGE SETR	۸۲۲۶۰	
FRONT YARD:	15 FT.	15 FT. MIN.	
REAR YARD:	30 FT.	30 FT. MIN.	
SIDE YARD:	15 FT.	15 FT. MIN.	
	REQUIRED	EXISTING	PROPOSED
BUILDING COVERAGE	60% MAX.	5.6%	10.92% (49,530 SF)
IMPERVIOUS COVERAGE	70% MAX.	22.17%	27.52% (124,790 SF)
*VARIANCE APPROVED FOR MIN. BU	ILDING AREA AND MIN. BUILDING	HEIGHT	
PARKING CALCULATION:			
1 PARKING SPACE PER 25 UNITS, PLU	S 1 SPACE PER 250 SF OF OFFICE A	REA	
132 EXISTING UNITS			
260 PROPOSED UNIT	•		
2,888 SF OFFICE SPA TOTAL SPACES REQU			
TOTAL SPACES PROV	IDED: 29		



REQUESTED WAIVERS/DEFERRALS: THE FOLLOWING WAIVERS OF THE MOUNT JOY TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE ARE REQUESTED:

1. SECTION 119-25- REQUEST RELIEF FROM THE SUBMISSION OF A PRELIMINARY PLAN ACTION: APPROVED DATE: 1/22/24 2. SECTION 119-32.C(6)- CONTRIBUTION IN LIEU OF TRAFFIC IMPACT STUDY

ACTION: APPROVED 3. SECTION 119-31.C(3) - EXISTING FEATURES WITHIN 200' OF SITE ACTION: _____

4. SECTION 119-56.E - MINIMUM EASEMENT WIDTH (30') ACTION: _____

1. SECTION 113-43.I(5) - EXISTING FEATURES WITHIN 200' OF SITE

ZONING APPROVALS:

ORDINANCE ARE REQUESTED:

ACTION: _____

THE FOLLOWING SPECIAL EXCEPTION/VARIANCES OF THE MOUNT JOY TOWNSHIP ZONING ORDINANCE WERE APPROVED BY THE ZONING HEARING BOARD AT THEIR MEETING ON JULY 5,

THE FOLLOWING WAIVERS OF THE MOUNT JOY TOWNSHIP STORMWATER MANAGEMENT

- 1. SECTION 135-163.D SPECIAL EXCEPTION TO MODIFY PRIOR SPECIAL EXCEPTION
- APPROVALS TO DEVELOP A MINIWAREHOUSE FACILITY
- 2. SECTION 135-245.F EXCEED MAXIMUM BUILDING AREA
- 3. SECTION 135-165(A)(1) MINIMUM BUILDING HEIGHT



UGI UTILITIES INC

MIDDLETOWN, PA 17057

SHEET NO. ____1__OF___20 JOB. NO. 2023108-001

GENERAL NOTES:

- 1. THE BOUNDARY SURVEY AND TOPOGRAPHIC SURVEY IS BASED ON A SURVEY EXECUTED BY TRIMBLE SURVEYORS, LLC PERFORMED FROM JANUARY 25 THROUGH FEBRUARY, 2021.
- 2. THIS PROPERTY WAS SURVEYED USING THE CURRENT DEED OR DEEDS OF RECORDS AND WITHOUT THE BENEFIT OF A TITLE SEARCH.
- 3. SITE BENCHMARK: MAG NAIL IN BITUMINOUS PARKING-LOT NEAR UTILITY POLE WITH METER. ELEVATION = 514.28
- DATUM: NAVD 1988

 4. HORIZONTAL DATUM IS NORTH AMERICAN DATUM 1983 (NAD83) STATE PLANE
 COORDINATES (SOUTH ZONE) ESTABLISHED BY GPS STATIC SESSION AND SUBMITTED
- TO NGS OPUS SOLUTION.

 5. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, PA ONE CALL UTILITY MARKINGS AND THE BEST AVAILABLE PLAN INFORMATION. THE LOCATIONS ARE APPROXIMATE AND MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION, EXCAVATION OR BLASTING. TRIMBLE SURVEYORS LLC ASSUMES NO RESPONSIBILITY FOR ANY
- DAMAGES INCURRED AS A RESULT OF THE UTILITIES ADMITTED OR INACCURATELY SHOWN.

 6. ANY CHANGES TO THIS PLAN AFTER THE DATE OF PLAN PREPARATION OR LATEST REVISION SHALL NOT BE THE RESPONSIBILITY OF BITNER ENGINEERING, LLC.
- 7. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN AN AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR IN CONFLICT WITH THE EASEMENT AGREEMENT.
- THIS NOTE SHALL ALSO BE INCLUDED IN ALL DEEDS FOR LOTS WHICH CONTAIN AN EASEMENT.

 8. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITIES AT LEAST 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. ALL UTILITIES HAVE BEEN IDENTIFIED BASED ON THE BEST AVAILABLE INFORMATION AND LISTED ON THESE PLANS IN ACCORDANCE WITH ACT 187 REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING UTILITIES AND ALL EFFORTS SHALL BE UNDERTAKEN TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. RESTORATION OF ALL EXISTING SURFACE IMPROVEMENTS DAMAGED OR ALTERED DURING CONSTRUCTION, INCLUDING
- LANDSCAPING, SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

 THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING THE SAFE FLOW OF TRAFFIC DURING CONSTRUCTION WITHIN THE SITE AND THE EXISTING ROAD RIGHTS-OF-WAY WHILE ENTERING AND
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS RELATIVE TO THE CONSTRUCTION PROPOSED ON THIS PLAN.
- THERE SHALL BE NO CHANGES OR DEVIATION FROM THESE PLANS UNLESS APPROVED BY THE ENGINEER.
 SUCH PLAN CHANGES, SHOULD THEY BECOME NECESSARY, ARE SUBJECT TO MUNICIPAL ORDINANCES.
 THE CONTRACTOR SHALL INSPECT EXISTING SITE/PROJECT AREA CONDITIONS AND VERIFY ALL QUANTITIES
- AND MATERIALS PRIOR TO THE START OF CONSTRUCTION.

 13. CURBS AND SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOUNT JOY TOWNSHIP, AS APPLICABLE.
- 14. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING ALL PAVEMENT MARKINGS, STREET SIGNS, TRAFFIC DIRECTIONAL AND CONTROL SIGNS SHOWN ON THIS PLAN IN ACCORDANCE WITH APPLICABLE STATE OR MUNICIPAL REGULATIONS AND SPECIFICATIONS. ALL SIGNAGE SHALL BE CONSISTENT WITH EXISTING SIGNAGE WITHIN MOUNT JOY TOWNSHIP.
- 15. NO STRUCTURES, LANDSCAPING OR GRADING MAY BE CONSTRUCTED, INSTALLED OR PERFORMED WITHIN THE AREA OF THE CLEAR SITE TRIANGLE WHICH WOULD OBSCURE THE VISION OF MOTORIST. DEEDS TO LOTS WHICH CONTAIN CLEAR SITE TRIANGLES SHALL PROVIDE THE SAME RESTRICTIONS.
- 16. ALL ELECTRIC, TELEPHONE, TELEVISION, AND OTHER COMMUNICATION FACILITIES, BOTH MAIN AND SERVICE LINES SERVICING NEW DEVELOPMENTS, SHALL BE PROVIDED BY UNDERGROUND WIRING WITHIN EASEMENTS OR DEDICATED PUBLIC RIGHTS-OF-WAY, INSTALLED IN ACCORDANCE WITH THE PREVAILING STANDARDS AND PRACTICES OF THE LITHITY OR OTHER COMPANIES PROVIDING SUCH SERVICE
- STANDARDS AND PRACTICES OF THE UTILITY OR OTHER COMPANIES PROVIDING SUCH SERVICE.

 17. BACKFILL MATERIAL SHALL BE FREE OF LARGE (NOT EXCEEDING 6"), OBJECTIONABLE, OR DETRITUS MATERIAL. SELECT NON-AGGREGATE MATERIAL SHOULD BE INDIGENOUS TO THE SURROUNDING SOIL MATERIAL FOR NON-VEHICULAR AREAS.
- 18. MONUMENTS AND MARKERS SHALL BE SET PRIOR TO FULL RELEASE OF THE FINANCIAL SECURITY.

TOWNSHIP NOTES :

- THIS PLAN SHOWS ADDITIONAL RIGHT-OF-WAY OFFERED FOR DEDICATION TO MOUNT JOY TOWNSHIP ALONG CLOVERLEAF ROAD. NO OTHER AREAS ON THIS PLAN ARE OFFERED FOR DEDICATION TO MOUNT JOY TOWNSHIP. MOUNT JOY TOWNSHIP IS NOT RESPONSIBLE FOR CONSTRUCTION OR MAINTENANCE OF ANY AREA NOT DEDICATED FOR PUBLIC USE.
- 2. STORMWATER FACILITIES, INCLUDING SWALES, STORM PIPING, AND APPURTENANCES SHALL BE MAINTAINED IN GOOD WORKING CONDITION BY THE DEVELOPER OR THE SUCCESSIVE LAND OWNER. THE MUNICIPALITY SHALL HAVE THE RIGHT TO INSPECT THE FACILITIES AT ANY TIME; REQUIRE THE OWNER TO TAKE CORRECTIVE MEASURES AND ASSIGN THE OWNER REASONABLE TIME PERIODS FOR ANY NECESSARY ACTION; AUTHORIZE MAINTENANCE TO BE DONE AND LIEN ALL COST OF THE WORK AGAINST THE PROPERTIES OF THE OWNER RESPONSIBLE FOR MAINTENANCE.
- 3. THE MUNICIPALITY SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION OR MAINTENANCE OF ANY AREA
- NOT DEDICATED FOR THE PUBLIC USE.

 4. A BLANKET EASEMENT PROVIDED ACROSS THE SITE TO ALLOW THE MUNICIPALITY ACCESS TO INSPECT THE STORMWATER MANAGEMENT FACILITIES. THE MUNICIPALITY SHALL HAVE THE RIGHT TO INSPECT THE FACILITIES AT ANY TIME; REQUIRE THE OWNER TO TAKE CORRECTIVE MEASURES AND ASSIGN THE OWNER REASONABLE TIME PERIODS FOR ANY NECESSARY ACTION.

ENVIRONMENTAL NOTES:

- VORTEX ENVIRONMENTAL CONDUCTED A FIELD INVESTIGATION ON APRIL 15, 2021 TO DETERMINE THE
 EXTENTS OF WETLANDS PRESENT ON THE SITE. WETLAND AREAS WERE SURVEYED AND ARE AS SHOWN ON
 THIS DIAM.
- 2. WETLANDS DELINEATED ON THE PLANS SHALL BE KEPT FREE OF STRUCTURES, FILL AND OTHER ENCROACHMENTS. NO DISTURBANCE SHALL OCCUR WITHIN THE WETLANDS.

STORMWATER NOTES :

- THE PROPERTY OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES.
 STORMSEWER PIPES, CULVERTS, MANHOLES AND INLETS OUTSIDE OF THE PUBLIC RIGHT-OF-WAY SHALL BE
- IN ACCORDANCE WITH PENNDOT RC-34 STANDARDS.

 CONVEYANCE PIPES, CULVERTS, MANHOLES, INLETS AND ENDWALLS WHICH ARE OTHERWISE SUBJECT TO
- CONVEYANCE PIPES, CULVERTS, MANHOLES, INLETS AND ENDWALLS WHICH ARE OTHERWIS
 VEHICULAR LOADING SHALL BE DESIGNED FOR THE HS-35 LOADING CONDITIONS.
- ALL STORMSEWER PIPES SHALL BE WATERTIGHT.
 ALL STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE
- APPROVED PLANS AND TO THE STANDARDS OF THE MUNICIPAL ORDINANCES.

 6. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE OR ALTER SWM FACILITIES AND/OR BMP FACILITIES WHICH MAY HAVE BEEN INSTALLED ON A PROPERTY UNLESS A STORMWATER MANAGEMENT PERMIT HAS BEEN OBTAINED TO PERMIT SUCH MODIFICATION, REMOVAL, FILLING, LANDSCAPING OR ALTERATION. NO

PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING OR VEGETATION INTO A SWM FACILITY, A BMP

- OR WITHIN DRAINAGE EASEMENTS.

 7. ALL PIPES MUSH ENTER INLETS COMPLETELY THROUGH ONE OF THE SIDES ON INLETS. NO CORNER ENTRY
- OF PIPES IS PERMITTED.

 8. UPON COMPLETION OF THE PLAN IMPROVEMENTS AND PRIOR TO RELEASE OF FINANCIAL SECURITY, THE APPLICANT SHALL SUBMIT AN AS-BUILT PLAN TO THE TOWNSHIP. THE AS-BUILT PLAN SHALL BE REVIEWED AN APPROVED BY THE TOWNSHIP ENGINEER AND RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS.
- 9. THE EXISTING STORMWATER FACILITES ARE GOVERNED BY THE STORMWATER MANAGEMENT AGREEMENT AND DECLARATION OF EASEMENT RECORDED AT DOCUMENT NO. 5275020 IN THE OFFICE OF THE RECORDER OF DEEDS. A NEW STORMWATER MANAGEMENT SHALL BE PREPARED AND NOTE THAT DOCUMENT 5275020 HAS NO FURTHER FORCE AND EFFECT.
- 10. THE STORMWATER MANAGEMENT BASIN IS DESIGNED FOR 62,243 SF OF IMPERVIOUS AREA.

GEOTECHNICAL NOTES:

THE FOLLOWING RECOMMENDATIONS ARE BASED ON THE INFORMATION CONTAINED IN THE "GEOTECHNICAL REPORT FOR STORMWATER MANAGEMENT FOR MOUNT JOY MINI-STORAGE" BY ECS MID-ATLANTIC (PROJ. NO. 18:5290), LLC DATED JULY 9,2021:

IT HAS BEEN OUR EXPERIENCE THAT CONSTRUCTION OF BASINS MAY ENCOUNTER CONDITIONS THAT WERE NOT ANTICIPATED AS A RESULT OF THE SUBSURFACE EXPLORATION. AS A RESULT, WE HAVE DEVELOPED THE FOLLOWING SEQUENCE OF ITEMS FOR ADDRESSING CONSTRUCTION RELATED DIFFICULTIES OR DISCREPANCIES WITH THE DESIGN ASSUMPTIONS. WE RECOMMEND THAT THESE RECOMMENDATIONS BE INCLUDED IN THE STORMWATER MANAGEMENT FEATURE CONSTRUCTION NOTES ON THE PLANS.

- A) IF REDOXIMORPHIC FEATURES (SOIL MOTTLING AND COLORATION PATTERNS FORMED BY THE REDUCTION OF IRON AND/OR MANGANESE FROM SATURATED CONDITIONS IN THE SOIL) ARE ENCOUNTERED:
- A QUALIFIED PROFESSIONAL SHOULD DETERMINE IF THE FEATURES OBSERVED ARE ASSOCIATED WITH A
 HISTORIC CONDITION (ASSOCIATED WITH FILL, PREVIOUS SITE CONDITION, OR NATURAL COLORATION) OR
 ARE ASSOCIATED WITH CONDITIONS THAT COULD PRESENTLY OCCUR (SEASONAL VARIATIONS IN THE
 WATER TABLE)
- EVALUATE THE ELEVATION OF THE FEATURES RELATIVE TO THE PROPOSED DESIGN ELEVATION OF THE SWM FEATURE AND DETERMINE IF THE SIZE AND ELEVATION OF THE SWM FEATURE CAN BE ADJUSTED TO ALLEVIATE THE CONFLICT.
- RETAIN ECS AND CIVIL ENGINEER TO EVALUATE ALTERNATE DESIGN CONCEPTS. ALTERNATE DESIGNS PROPOSED BY THE PROFESSIONAL SHOULD BE SEALED AND SUBMITTED TO THE TOWNSHIP FOR
- B) IF THE FIELD VERIFIED INFILTRATION RATES ARE EXCESSIVELY HIGH (GREATER THAN 6 INCHES PER HOUR):

 DETERMINE THE EXTENT OF THE MATERIALS EXHIBITING THE HIGH INFILTRATION RATES THROUGH A COMBINATION OF VISUAL-MANUAL CLASSIFICATION, HAND PROBING, DENSITY TESTING, OR OTHER SUITABLE METHODS AS DETERMINED BY ECS.
- SUITABLE METHODS AS DETERMINED BY ECS.

 OVEREXCAVATE THE MATERIALS TO THE DEPTH WHERE THE MATERIAL TYPE CHANGES OR A MAXIMUM DEPTH OF 2 FEET, WHICHEVER IS ENCOUNTERED FIRST.
- IF EXCESSIVE RATES ARE ASSOCIATED WITH WEATHERED OR BROKEN ROCK, THE ROCK SURFACE SHOULD BE EXAMINED BY ECS, PRIOR TO REPLACEMENT OF SUITABLE MATERIAL.
- REPLACE THE EXCAVATED MATERIAL WITH FINER GRAINED MATERIALS APPROVED BY ECS. SUITABLE SOIL
 MIXTURES CAN CONSIST OF A BLEND OF ON-SITE AND/OR OFF-SITE MATERIALS AVAILABLE TO THE
 CONTRACTOR GENERALLY CONFORMING TO THE TABLE BELOW, WITH FIELD INFILTRATION RATES POST
 PLACEMENT DETERMINED AND APPROVED BY ECS.

		RECOMM	ENDED SO	OIL MEDIA	BLEND					
Permissible Soil Types for Soil Media, based on	Ranges of USDA Particle Size Percentages Rat					Ranges of USDA Particle Size Percentages Rate		Ranges of USDA Particle Size Percentages Rates for P		nfiltration Permissible es (in/hr)*
UDSA Classification	Sand Silt			ilt	Cl	ay	Min	Max		
	Min	Max	Min	Max	Min	Max	IVIII	IVIAX		
Sand, Loamy Sand, Sandy Loam, Loam	50	100	0	50	0	20	0.5	6.0		

- MATERIALS SHOULD BE LIGHTLY TRACKED INTO PLACE IN NON-STRUCTURAL AREAS.
- IF MATERIAL REPLACEMENT IS REQUIRED IN STRUCTURAL AREAS (EX: BELOW-GRADE SWM FACILITIES IN PAVED AREAS), MATERIAL PLACEMENT SPECIFICATIONS, INCLUDING MATERIALS TYPE, MIX RATIO, COMPACTIVE EFFORT AND REQUIRED DENSITY SHOULD BE DETERMINED BY ECS. TECHNICAL RECOMMENDATIONS SHOULD BE SEALED BY ECS AND SUBMITTED TO THE TOWNSHIP FOR APPROVAL.
- C) IF THE FIELD VERIFIED INFILTRATION RATES ARE EXCESSIVELY LOW (LESS THAN 0.1 IN/HR):
 DETERMINE THE EXTENT OF THE MATERIALS EXHIBITING THE LOW INFILTRATION RATES THROUGH A COMBINATION OF VISUAL-MANUAL CLASSIFICATION, HAND PROBING, DENSITY TESTING, OR OTHER SUITABLE METHODS AS DETERMINED BY THE ECS.
- OVEREXCAVATE THE MATERIALS TO THE DEPTH WHERE THE MATERIAL TYPE CHANGES OR A MAXIMUM DEPTH OF 2 FEET, WHICHEVER IS ENCOUNTERED FIRST.
- IF ROCK IS ENCOUNTERED, THE ROCK SHOULD BE REMOVED TO A MINIMUM DEPTH OF 2 FEET BELOW THE BOTTOM OF BASIN AND SHOULD BE EXAMINED BY ECS, PRIOR TO REPLACEMENT OF SUITABLE MATERIAL.
- REPLACE THE EXCAVATED MATERIAL WITH MORE COARSELY GRAINED MATERIALS APPROVED BY ECS.
 SUITABLE SOIL MIXTURES CAN CONSIST OF A BLEND OF ON-SITE AND/OR OFF-SITE MATERIALS AVAILABLE
 TO THE CONTRACTOR, AND SUBJECT TO TESTING AND APPROVAL OF ECS.
- SUITABLE SOIL MIXTURES MAY CONSIST OF MATERIALS BLENDED BY VOLUME RATIOS AS DETERMINED BY

 ECS.
- MATERIALS SHOULD BE LIGHTLY TRACKED INTO PLACE IN NON-STRUCTURAL AREAS.

IF MATERIAL REPLACEMENT IS REQUIRED IN STRUCTURAL AREAS (EX: BELOW-GRADE SWM FACILITIES IN PAVED AREAS), MATERIAL PLACEMENT SPECIFICATIONS, INCLUDING MATERIALS TYPE, MIX RATIO, COMPACTIVE EFFORT AND REQUIRED DENSITY SHOULD BE DETERMINED BY ECS. SUITABLE SOIL MIXTURES CAN CONSIST OF A BLEND OF ON-SITE AND/OR OFF-SITE MATERIALS AVAILABLE TO THE CONTRACTOR GENERALLY CONFORMING THE TABLE ABOVE, WITH FIELD INFILTRATION RATES POST PLACEMENT DETERMINED AND APPROVED BY ECS.

CONSTRUCTION RECOMMENDATIONS

IT IS RECOMMENDED THAT VERIFICATION OF THE SUBGRADE CONDITIONS AT THE TIME OF CONSTRUCTION BE CONDUCTED BY AN AUTHORIZED ECS REPRESENTATIVE.

DURING EXCAVATION OF THE BASIN, THE MATERIALS AT THE BOTTOM OF BASIN SHOULD BE VERIFIED TO BE CONSISTENT WITH THOSE ENCOUNTERED IN THE EXPLORATION. PROPER PERFORMANCE OF INFILTRATION FACILITIES WILL BE INFLUENCED BY THE VARIABILITY IN THE SUBSURFACE. IT WILL BE IMPORTANT THAT CONSTRUCTION EQUIPMENT DOES NOT TRAFFIC ON THE MATERIALS AT THE INFILTRATION BED ELEVATION, AND THAT HAND PROBING ON AN APPROXIMATELY 25 FOOT GRID OR ISOLATED TEST PITS BE PROVIDED TO EVALUATE PROPER OFFSET DISTANCES FROM BEDROCK LIMITING ZONES.

STORMWATER MANAGEMENT FACILITIES SHOULD GENERALLY NOT BE LOCATED WITH 20 FEET OF A BUILDING. IF SITE CONSTRAINTS PROHIBIT THE RECOMMENDATION, THE FACILITY MAY BE LOCATED CLOSER TO A BUILDING SUBJECT TO THE REVIEW AND APPROVAL OF ECS.

STEEP SLOPE NOTES:

ANY DISTURBANCE OF STEEP SLOPES SHALL BE COMPLETED WITHIN ONE CONSTRUCTION SEASON, AND DISTURBED AREAS SHALL NOT BE LEFT BARE AND EXPOSED DURING THE WINTER AND SPRING THAW PERIODS. PERMANENT VEGETATIVE COVER SHALL BE PLANTED WITHIN THREE DAYS AFTER COMPLETION OF GRADING.

D. GRADING REQUIREMENTS.

- (1) GRADING AND EARTHMOVING ON ALL STEEP SLOPES SHALL NOT RESULT IN EARTH CUTS OR FILLS WHOSE HIGHEST VERTICAL DIMENSIONS EXCEED 10 FEET, EXCEPT IF
- ONE OF THE FOLLOWING APPLIES:

 (a) WHERE NO REASONABLE ALTERNATIVES EXIST FOR CONSTRUCTION OF ROADS,
 DRAINAGE STRUCTURES, AND OTHER PUBLIC IMPROVEMENTS, EARTH CUTS AND
 FILLS' HIGHEST VERTICAL DIMENSIONS SHALL NOT EXCEED 20 FEET.
- (b) THE MAXIMUM VERTICAL DIMENSION OF CUTS OR FILLS DOES NOT APPLY IF AN ENGINEERED RETAINING WALL IS CONSTRUCTED. THE RETAINING WALL SHALL BE SUBJECT TO REVIEW AND APPROVAL UNDER THE UNIFORM CONSTRUCTION
- (2) FINISHED SLOPES OF ALL CUTS AND FILLS SHALL NOT EXCEED 3:1, UNLESS THE APPLICANT CAN SATISFACTORILY DEMONSTRATE TO THE ZONING OFFICER THAT STEEPER SLOPES CAN BE STABILIZED AND MAINTAINED ADEQUATELY. THE ZONING OFFICER MAY CONSULT WITH THE TOWNSHIP ENGINEER IF NEEDED. THE LANDSCAPE
- SHALL BE PRESERVED IN ITS NATURAL STATE INSOFAR AS PRACTICABLE.

 E. ANY FILL PLACED ON A LOT SHALL BE PROPERLY STABILIZED AND, WHEN FOUND NECESSARY DEPENDING UPON EXISTING SLOPES AND SOIL TYPES, SUPPORTED BY RETAINING WALLS OR OTHER APPROPRIATE STRUCTURES AS APPROVED BY THE TOWNSHIP ZONING OFFICER. THE ZONING OFFICER MAY CONSULT WITH THE TOWNSHIP ENGINEER IF NEEDED. ANY RETAINING WALLS SHALL MEET THE STANDARDS OF THE PENNSYLVANIA UNIFORM CONSTRUCTION
- . ANY CUTS SHALL BE SUPPORTED BY RETAINING WALLS OR OTHER APPROPRIATE RETAINING STRUCTURES, WHEN, DEPENDING UPON THE NATURE OF THE SOIL CHARACTERISTICS, SUCH STRUCTURES ARE REQUIRED IN ORDER TO PREVENT EROSION AND ARE APPROVED BY THE TOWNSHIP ZONING OFFICER. THE ZONING OFFICER MAY CONSULT WITH THE TOWNSHIP ENGINEER IF NEEDED.

ZONING HEARING BOARD DECISION

AS A RESULT OF A PUBLIC HEARING HELD ON JULY 5, 2023, THE MOUNT JOY TOWNSHIP ZONING HEARING BOARD (THE "BOARD") VOTED UNANIMOUSLY TO GRANT THE FOLLOWING REQUESTS ON THE APPLICATION FOR THE PROPERTY LOCATED AT 1444 CLOVERLEAF ROAD, MOUNT JOY, PA 17552, TAX PARCEL ID #461-40563-0-0000 (THE "PROPERTY") IN ACCORDANCE WITH THE MOUNT JOY TOWNSHIP ZONING ORDINANCE OF 2012, AS AMENDED (THE "ORDINANCE"):

- (i) A SPECIAL EXCEPTION PURSUANT TO SECTION 135-163.D OF THE ORDINANCE TO MODIFY PRIOR SPECIAL EXCEPTION APPROVALS TO DEVELOP A MINIWAREHOUSE FACILITY;
- (ii) A VARIANCE FROM SECTION 135-245.F. OF THE ORDINANCE TO EXCEED THE MAXIMUM BUILDING AREA; AND
- (iii) A VARIANCE FROM SECTION 135-165(A)(1) REGARDING MINIMUM BUILDING HEIGHT.

THE PROPERTY IS LOCATED WITHIN THE LI - LIGHT INDUSTRIAL DISTRICT AND CONSISTS OF APPROXIMATELY 10.41 ACRES. APPLICANT'S PREDECESSOR-IN-INTEREST OBTAINED SPECIAL EXCEPTION APPROVAL ON OCTOBER 3, 2002 TO CONSTRUCT MINI WAREHOUSE UNITS IN TWO PHASES, BUT ONLY ONE PHASE WAS ULTIMATELY COMPLETED. ON JUNE 9, 2021, APPLICANT OBTAINED SPECIAL EXCEPTION APPROVAL TO RECONFIGURE THE REMAINING DEVELOPMENT WITH A NEW SITE PLAN, WHICH DIVIDED THE REMAINING PHASE INTO TWO NEW PHASES. SUBSEQUENTLY, APPLICANT RECEIVED TIME EXTENSION APPROVALS FROM THE BOARD WHILE THEY WORKED THROUGH LAND DEVELOPMENT ISSUES. FROM AND AFTER THE 2021 APPROVAL, APPLICANT ENCOUNTERED SIGNIFICANT CHALLENGES IN PROCEEDING WITH THE DEVELOPMENT DUE TO AN OPEN PENNSYLVANIA DEP E&S PERMIT REQUIRING REMEDIATION RELATING TO A STORM BASIN ON THE PROPERTY.

IN THE INSTANT APPLICATION, APPLICANT PROPOSES TO RECONFIGURE THE DEVELOPMENT TO INCLUDE ONLY 1 FINAL PHASE (REPLACING THE PRIOR CONTEMPLATED PHASES), CONSISTING OF FIVE MINIWAREHOUSE BUILDINGS. A TOTAL OF 260 STORAGE UNITS WILL BE ADDED. THREE OF THE FIVE BUILDINGS ARE "STANDARD" DRIVE-UP STORAGE UNIT BUILDINGS WITH HEIGHTS AROUND 9'6", WHICH IS STANDARD INDUSTRY SIZE. ONE OF THE BUILDINGS (BUILDING B) WILL BE A TWO-FLOOR DRIVE-UP STRUCTURE HAVING 8,200 SQUARE FEET, DESIGNED AS SUCH DUE TO THE SLOPE OF THE PROPERTY. THE REMAINING BUILDING (BUILDING A) WILL REPLACE EXISTING STRUCTURES AND IMPERVIOUS AREAS TO THE NORTH OF THE PROPERTY, AND WILL CONTAIN 20,500 SQUARE FEET. BUILDING A WILL BE AN INDOOR, SINGLE ENTRY-POINT BUILDING WITH INTERIOR HALLWAYS TO ACCOMMODATE SMALLER CONSUMER STORAGE NEEDS. BUILDINGS A AND B TO THE NORTH OF BUILDING A IS EXISTING ROBUST LANDSCAPE SCREENING. BUILDINGS A AND B WILL BE CLOSE TO, BUT MIGHT FALL SHY OF, TWENTY FEET IN HEIGHT. THE REQUESTED DIMENSIONAL VARIANCES ARE DUE TO CHANGES IN THE INDUSTRY TRENDS AND THE HARDSHIPS FACED BY APPLICANT DUE TO THE UNIQUE GRADE/TOPOGRAPHY OF THE PROPERTY AND LARGE SWATHS OF THE PROPERTY PRECLUDED FROM PRODUCTIVE USE (WETLAND AREAS). THE VARIANCES WILL HAVE NO ADVERSE EFFECT ON THE COMMUNITY OR ADJOINING PROPERTIES. APPLICANT DEMONSTRATED COMPLIANCE WITH THE OBJECTIVE CRITERIA REGARDING MINIWAREHOUSES IN THE LI DISTRICT, WITH THE EXCEPTION OF THE REQUESTED VARIANCES. PURSUANT TO THE APPLICATION NARRATIVE, AND TESTIMONY AND EXHIBITS AT THE HEARING, APPLICANT DEMONSTRATED COMPLIANCE WITH THE GENERAL VARIANCE CRITERIA AND APPLICABLE LAW REGARDING DIMENSIONAL VARIANCES.

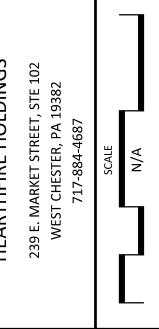
THE RELIEF GRANTED SHALL BE SUBJECT TO THE FOLLOWING CONDITIONS AND SAFEGUARDS WHICH THE BOARD DEEMS REASONABLE AND NECESSARY TO IMPLEMENT THE PURPOSE OF THE ORDINANCE AND THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE:

- 1. THE APPLICANT AND/OR THE OWNER(S) OF THE PROPERTY SHALL COMPLY WITH ALL OTHER PROVISIONS CONTAINED IN THE ORDINANCE FOR WHICH RELIEF HAS NOT BEEN REQUESTED OR GRANTED;
- 2. THE APPLICANT SHALL FILE AND OBTAIN APPROVAL OF A LAND DEVELOPMENT PLAN FROM THE MOUNT JOY TOWNSHIP PLANNING COMMISSION;
- 3. THE APPLICANT AND ANY REPRESENTATIVE OF THE APPLICANT SHALL COMPLY WITH AND ADHERE TO THE TESTIMONY AND ANY EVIDENCE PRESENTED TO THE BOARD AT THE HEARING HELD ON JULY 5, 2023 EXCEPT TO THE EXTENT MODIFIED BY CONDITIONS IMPOSED BY THE BOARD HEREIN.

MOUNT JOY TOWNSHIP ZONING HEARING BOARD

			PER TOWNSHIP ENGINEER COMMENTS	PER LCCD COMMENTS	REVISION	
			3/4/24	2/23/24	DATE	
			2	1	NO.	

СНКD ВҮ:	снкр ву:	DATE	
DWB	DWB	11/27/2023	
DESIGN BY:	DRAWN BY:	SURV. CHIEF:	
DWB	DWB	TRIMBLE	
		7	



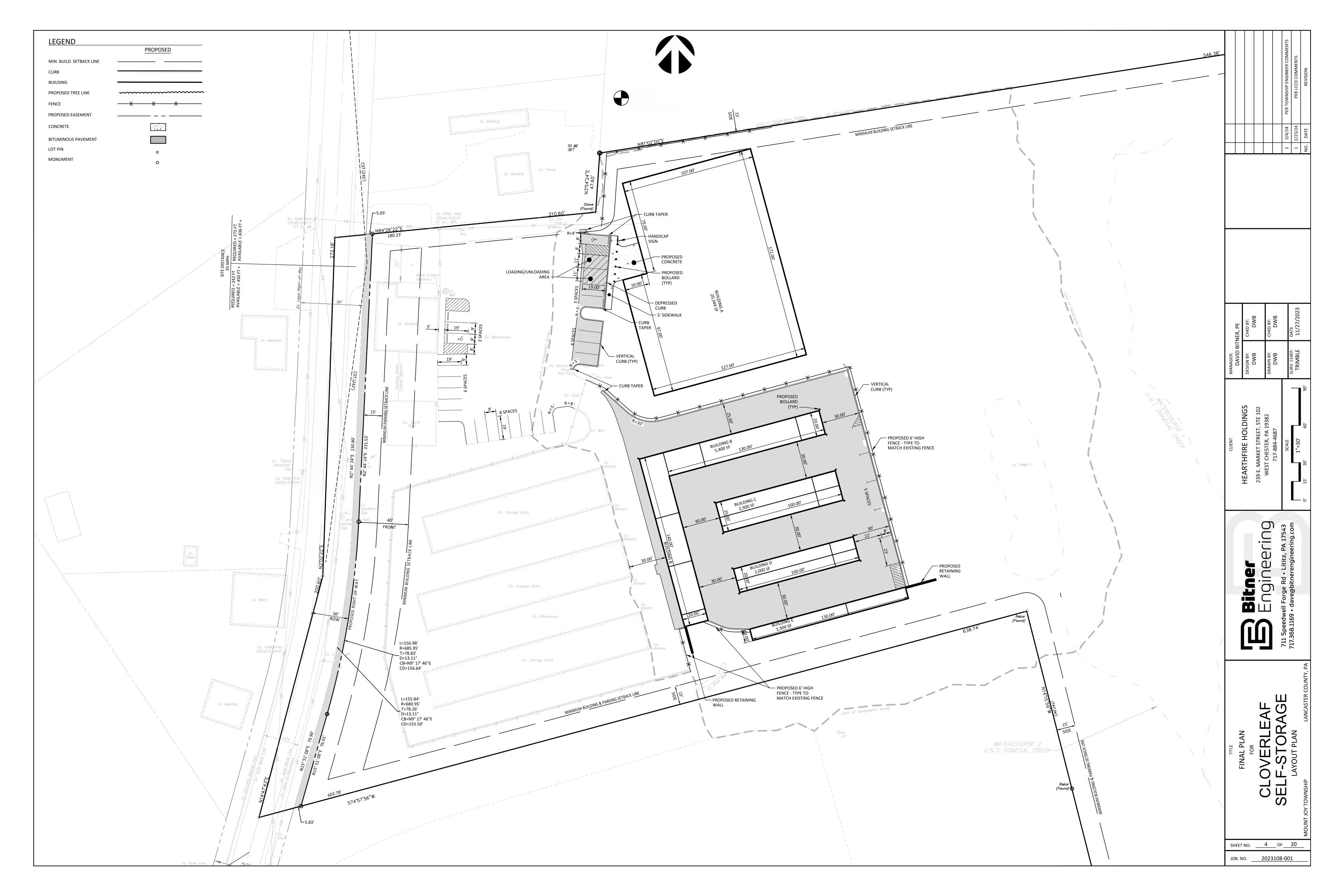
Engineering.com

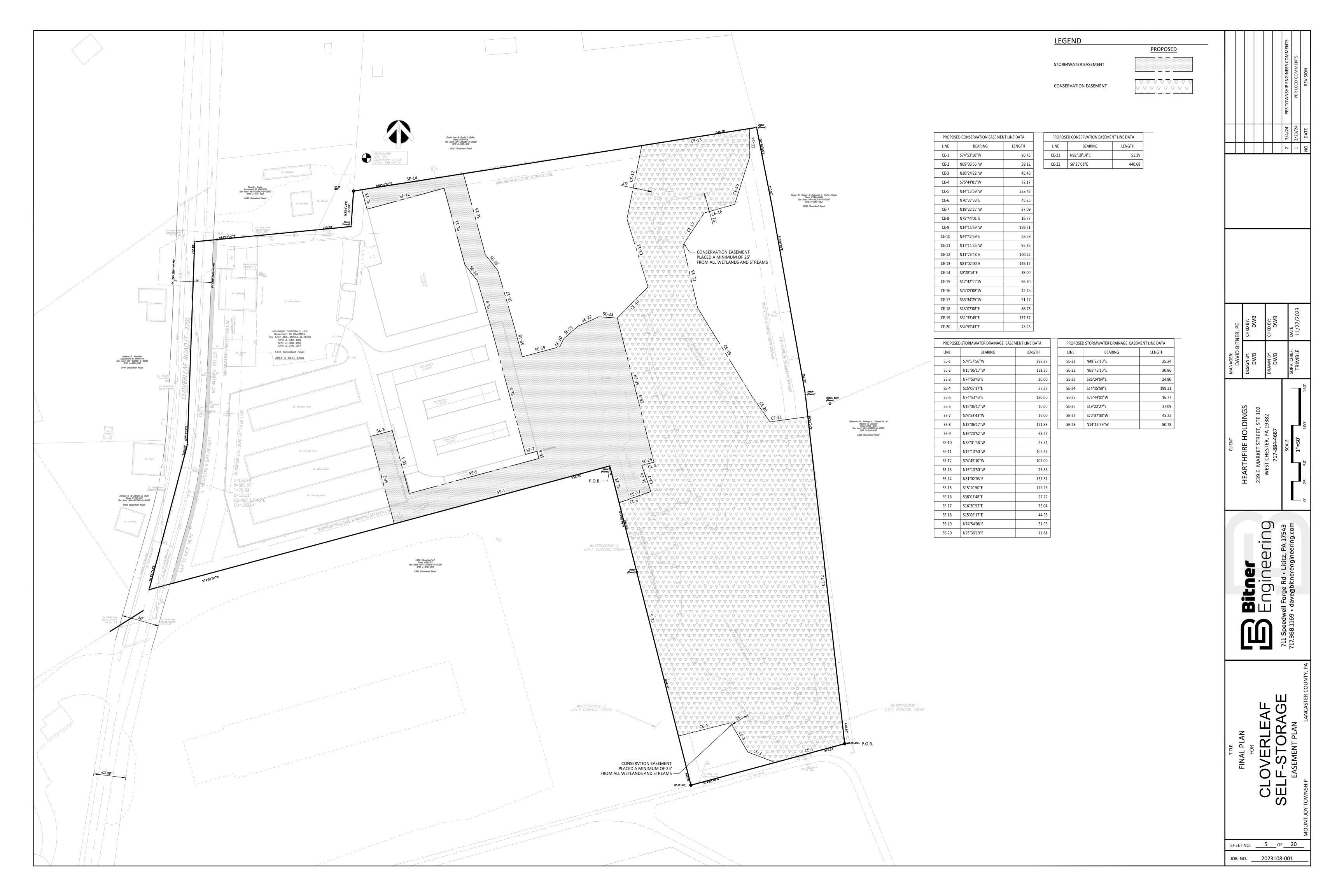
CLOVERLEAF
SELF-STORAGE

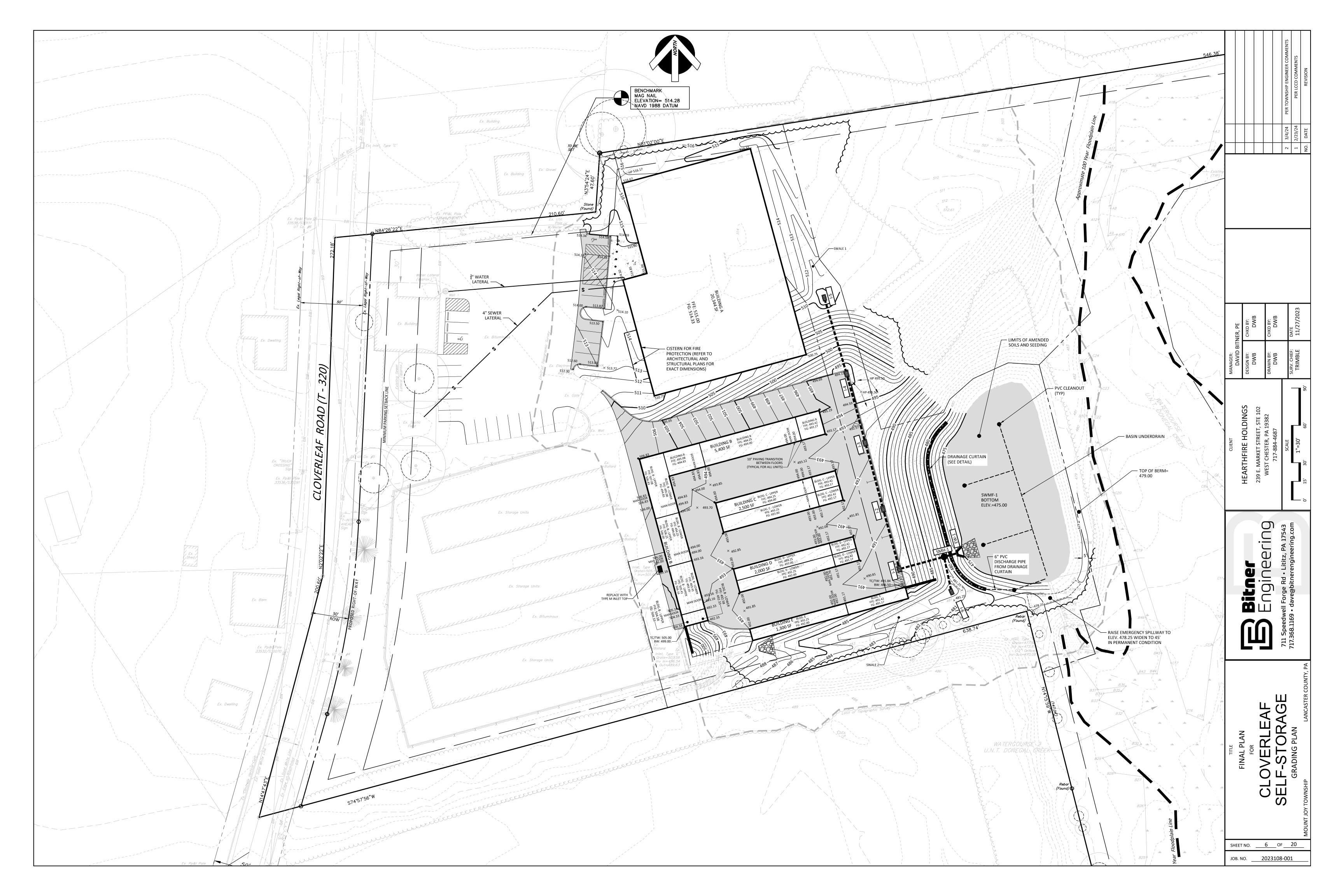
SHEET NO. 2 OF 20

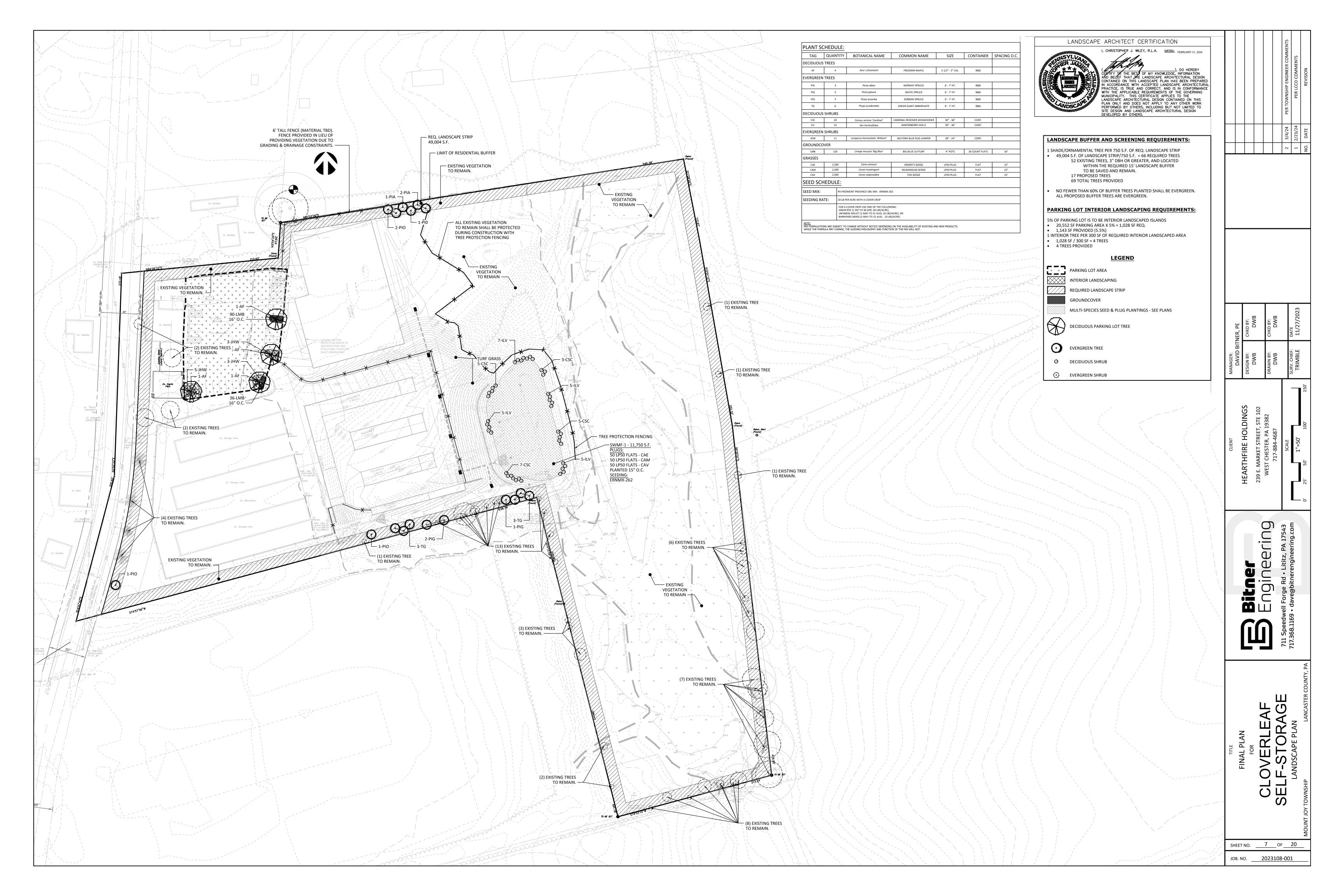
JOB. NO. 2023108-001











CONTRACTOR NOTES:

- . CONTRACTOR SHALL CONTACT PA ONE CALL (8-1-1), AND REQUEST THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE PROJECT AREA TO BE MARKED PRIOR TO ANY PLANTING BED PREPARATION OR
- INSTALLATION OF PLANT MATERIALS. 2. THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO PLANTING. IF ANY DISCREPANCIES ARE IDENTIFIED FROM THE INFORMATION SHOWN ON THE APPROVED PLANS, AND THE REVISED SITE CONDITIONS WOULD RESULT IN REVISIONS TO THE PLANTING DESIGN, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT OF RECORD FOR INSTRUCTIONS.
- 3. THE LANDSCAPE CONTRACTOR SHALL FIELD-ADJUST THE LOCATIONS OF TREES AND SHRUBS, IF NECESSARY, TO AVOID ANY CONFLICTS WITH UTILITIES (OVERHEAD OR UNDERGROUND). ALL PROPOSED DESIGN CHANGES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD PRIOR TO PLANTING
- 4. THIS PLAN IS FOR PLANTING INFORMATION PURPOSES ONLY, AND SHALL NOT BE USED FOR ANY WORK RELATED TO EARTHWORK GRADING, UTILITY INSTALLATION, SITE WORK IMPROVEMENTS OR SEDIMENT EROSION CONTROL PLACEMENT.
- 5. ALL PLANT MATERIALS SHALL BE SUBJECT TO THE APPROVAL OR REJECTION BY THE LANDSCAPE ARCHITECT OF RECORD, OR THE OWNER'S REPRESENTATIVE, PRIOR TO INSTALLATION. UNSATISFACTORY PLANT MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE. PLANT MATERIALS INSTALLED WITHOUT PRIOR APPROVAL ARE SUBJECT TO REJECTION AND REPLACEMENT BY THE CONTRACTORS AT THE CONTRACTORS EXPENSE.
- PROPOSED PLANTING BED OUTLINES SHALL BE STAKED OR OUTLINED IN THE FIELD BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OF RECORD, OR OWNER'S REPRESENTATIVE, PRIOR TO PLANTING.
- 7. ALL TREES, SHRUBS, AND OTHER PLANT MATERIALS SHALL ONLY BE PLANTED/SEEDED AFTER FINISHED GRADES HAVE BEEN ESTABLISHED (INCLUDING TOPSOIL PLACEMENT).
- 8. THE CONTRACTOR SHALL VERIFY THAT ALL PLANTING AREAS HAVE ADEQUATE DRAINAGE. IF ANY AREAS TO BE PLANTED SHOW EVIDENCE OF POOR DRAINAGE, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF RECORD IMMEDIATELY FOR CORRECTIVE ACTIONS. PLANT MATERIAL THAT DIES DUE TO POOR OR INADEQUATE
- DRAINAGE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. 9. THE TOP OF OF THE MAIN ORDER ROOT (FIRST LARGE SET OF ROOTS THAT DIVIDE FROM THE TRUNK) SHALL BE PLANTED NO LOWER THAN ONE OR TWO INCHES INTO THE SOIL. REMOVE ANY EXCESS SOIL FROM PLANT ROOT FLARES, IF PRESENT.
- 10. PLANT QUANTITIES NOTED ON THE PLANT SCHEDULE SHOULD MATCH THE GRAPHIC DRAWING SYMBOLS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IF ANY DIFFERENCES ARE FOUND BETWEEN THE QUANTITIES NOTED IN THE PLANT SCHEDULE AND THE GRAPHIC DRAWING SYMBOLS. GRAPHIC
- SYMBOL QUANTITIES TAKE PRECEDENCE OVER THE PLANT SCHEDULE QUANTITIES. 11. ALL SITE AREAS DISTURBED BY PLANTING OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER

EXPENSE, AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. 12. ALL PLANTS AND SHRUBS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS, SPECIFICATIONS AND COMMENTS NOTED ON THESE DRAWINGS.

- ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE INSTALLATION CONTRACTOR FOR THE DURATION OF 18 MONTHS FOLLOWING FINAL INSPECTION AND ACCEPTANCE OF THE WORK. PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD.
- THE CONTRACTOR SHALL GUARANTEE THAT PLANTS SHALL BE IN VIGOROUS AND THRIVING CONDITION AT THE END OF THE GUARANTEE PERIOD. ANY PLANTS APPEARING TO BE IN POOR HEALTH OR LACKING NORMAL GROWTH HABIT, AS DETERMINED BY THE LANDSCAPE ARCHITECT, SHALL BE REMOVED AND REPLACED. 3. DURING THE TIME BETWEEN THE INSTALLATION OF PLANTS AND THE BEGINNING OF THE GUARANTEE PERIOD
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL OVERSIGHT AND CARE OF THE PLANTINGS INCLUDING BUT NOT LIMITED TO, WATERING, FERTILIZING, FACILITATING DISEASE CONTROL MEASURES (IF REQUIRED), PRUNING, AND WEEDING. THE GUARANTEE PERIOD WILL BEGIN ONLY WHEN ALL PLANTS ARE INSTALLED AS SHOWN AND SPECIFIED IN THESE PLANS.
- 4. SITE INSPECTION TO DETERMINE WORK COMPLETION FOR BEGINNING THE GUARANTEE PERIOD SHALL BE MADE EITHER BY THE OWNER OR THE LANDSCAPE ARCHITECT OF RECORD. THE CONTRACTOR WILL BE NOTIFIED OF ANY DEFICIENCIES TO BE CORRECTED. A SECOND INSPECTION WITH THE CONTRACTOR TO DETERMINE WORK COMPLETION FOR BEGINNING THE GUARANTEE PERIOD MAY BE NECESSARY.
- ONLY AFTER ALL DEFICIENCIES ARE ADDRESSED. SHALL THE GUARANTEE PERIOD BEGIN. 6. 18 MONTHS FROM THE FROM THE START OF THE PLANT GUARANTEE PERIOD, THE CONTRACTOR, OWNER AND LANDSCAPE ARCHITECT WILL INSPECT THE SITE TO LOCATE ANY PLANTS THAT ARE NOT IN HEALTHY CONDITION OR HAVE DIED. A SITE INSPECTION REPORT WILL BE ISSUED TO THE CONTRACTOR AND THE CONTRACTOR WILL HAVE 30 DAYS TO REPLACE ANY PLANTS IDENTIFIED AS FAILING THE GUARANTEE STANDARD.

ALL TREES SHALL BE NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE PROJECT SITE.

- 2. ALL PLANTS SHALL HAVE A NORMAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY, AND VIGOROUS; THEY SHALL BE FREE FROM DISEASE, INSECTS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES,
- ABRASIONS, AND DISFIGUREMENT ALL PLANTING SHALL BE PERFORMED IN CONFORMANCE WITH GOOD NURSERY AND LANDSCAPE PRACTICE.
- 4. REQUIREMENTS FOR PLANT MEASUREMENTS & SIZING, BRANCHING, GRADING, QUALITY, AND BALLING AND BURLAPPING SHALL FOLLOW THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1), CURRENT EDITION,
- AS AMENDED AND PUBLISHED BY AMERICAN HORTICULTURE INDUSTRY ASSOCIATION D/B/A AMERICAN HORT. 5. SPECIES OF THE SAME PLANT STOCK SHOULD BE SELECTED TO PROVIDE A UNIFORM PLANTING HEIGHT AND SPREAD.

- 1. THE CONTRACTOR SHALL APPLY A PRE-EMERGENT HERBICIDE (PER THE MANUFACTURERS SPECIFICATIONS) TO ALL PLANTING BED AREAS FOR THE CONTROL OF WEED GERMINATION. . A LAYER OF NATURAL, NON-COLORED ORGANIC MULCH SHALL BE APPLIED ACROSS THE ENTIRE PLANTING BED AREA UNLESS OTHERWISE INDICATED ON THE PLAN. MULCH DEPTHS SHALL NOT BE GREATER THAN 3" NOR
- MULCH SHALL NOT BE PLACED WITHIN 3" OF ANY ROOT FLARES OR TREE TRUNKS. 4. MULCH SHALL BE ORGANIC, DOUBLE-CUT, NATURAL, UN-DYED AND FREE FROM DELETERIOUS MATERIALS.

- GRASS SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH AOSA'S "RULING FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.
- 2. RECOMMENDED TIME FOR TURFGRASS SEEDING: 2.1. FALL: SEPTEMBER 1ST TO OCTOBER 15TH
- 2.2. SPRING: SEED NO LATER THAN APRIL 1ST FOR BEST RESULTS.
- SOW RECOMMENDED SEED MIXTURE ADAPTED TO USE IN CLIMATIC CONDITIONS OF THE SPECIFIC SITE AREA. PRIOR TO SEEDING, REMOVE ANY EXISTING VEGETATION FROM PROPOSED LAWN AREAS.
- IF TOPSOIL HAS BEEN DEPLETED OR REMOVED IN THE AREA TO BE SEEDED, PROVIDE SOIL AMENDMENTS PER THE SOIL AGRONOMY REPORT.
- 6. DIVIDE TOTAL SEED QUANTITY INTO TWO EQUAL LOTS, SOWING ONE LOT IN ONE DIRECTION, AND THE SECOND LOT AT RIGHT ANGLES TO THE FIRST WITH A MECHANICAL SEEDER OR SPREADER.
- 7. MULCHING WITH STRAW, HYDROMULCH, OR FIBER MATS IS RECOMMENDED TO PROTECT SEED FROM DRYING OUT OR WASHING AWAY. HEAVY MULCHES SHOULD BE REMOVED FROM THE AREA WITHIN A FEW DAYS AFTER SEED GERMINATION. CONTRACTOR IS RESPONSIBLE FOR TURF MAINTENANCE UNTIL SATISFACTORY TURF IS ESTABLISHED, AS DETERMINED BY THE LANDSCAPE ARCHITECT. MAINTENANCE TO INCLUDE WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURE
- 8. WATERING: SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.
- 9. TURF POST-FERTILIZATION: APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY. USE FERTILIZER THAT PROVIDES ACTUAL NITROGEN OF AT LEAST 1 LB/1000 SQ. FT. TO TURF AREA.

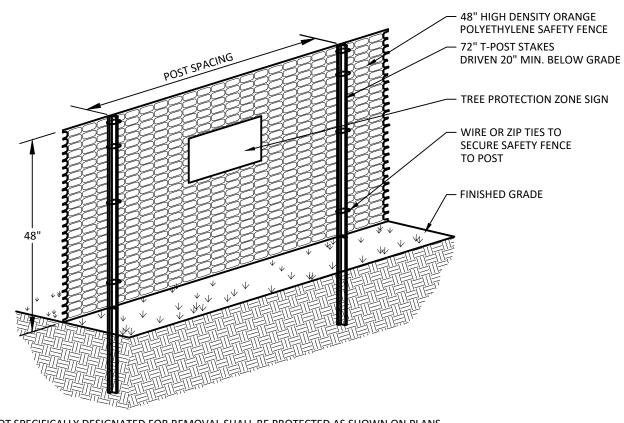
- PRIOR TO FINAL SEEDING/PLANTING OF THE STORMWATER MANAGEMENT FACILITIES, THE CONTRACTOR SHALL PROVIDE POST-CONSTRUCTION INFILTRATION TESTING IN THE BIO-RETENTION FACILITIES TO DETERMINE ACTUAL DEWATERING RATES. RESULTS TO BE PROVIDED TO PROJECT'S LANDSCAPE ARCHITECT AND/OR CIVIL ENGINEER WHO WILL THEN RECOMMEND ANY REQUIRED ADJUSTMENTS TO PROPOSED PLANTINGS. FINAL PLANT SPECIES SELECTIONS MAY BE MODIFIED AS NECESSARY BASED UPON ACTUAL FIELD-CONDITION INFILTRATION RATES.
- 2. PLUGS SHALL ONLY BE INSTALLED WHEN THEY ARE IN ACTIVE GROWTH. PROPER INSTALLATION PERIODS VARY BY SPECIES. CONSULT PLANT SUPPLIER FOR GUIDANCE ON PLANTING PERIODS AND TIMING. INSTALLATION OUTSIDE OPTIMAL PLANTING PERIODS COULD RESULT IN PLANT LOSS.
- 3. PROCEED WITH WORK ONLY WHEN PRESENT AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING WITHOUT EXCESSIVE SOIL COMPACTION AND/OR UNNECESSARY PLANT DAMAGE. AVOID PLANTING IN
- EXCESSIVELY MOIST CONDITIONS UNLESS PLANTING IN HYDRIC SOILS.
- 4. CONTRACTOR TO LAYOUT AND INSTALL PLUGS AS SOON AS POSSIBLE FOLLOWING PLANT DELIVERY TO SITE. 5. IF PLANTING MUST BE DELAYED DUE TO WEATHER OR CONSTRUCTION DELAYS, MOVE PLUGS TO A PROTECTED
- AND SHADED AREA. IRRIGATE AS NEEDED. THOROUGHLY WATER PLUG TRAYS PRIOR TO PLUG REMOVAL AND PLANTING.
- 7. PLUG SPECIES ARE TO BE DISTRIBUTED ACROSS THE FACILITY AT THE SPECIFIED SPACING, AND SHALL BE COMBINED WITH OTHER SPECIES (IF SO NOTED) IN A RANDOM FASHION.
- FOR PLANTING AREAS TO BE MULCHED, APPLY MULCH PRIOR TO INSTALLATION OF THE PLUGS. WHERE APPLICABLE, SECURE EROSION CONTROL MATTING PRIOR TO PLANTING. PLANT PLUGS DIRECTLY
- THROUGH THE EROSION CONTROL MATTING. 10. CONTRACTOR SHALL ONLY REMOVE PLUGS FROM TRAYS BY PUSHING PLANTS UP THROUGH THE BOTTOM OF
- THE LINER. DO NOT PULL THE PLANTS BY THEIR FOLIAGE. 11. CONTRACTOR SHALL NOT 'TEASE' THE PLUG ROOT SYSTEMS APART AS IS CUSTOMARY WITH OTHER CONTAINERIZED PLANTS WITH DENSE ROOT SYSTEMS.
- 12. PLUGS SHALL BE PLANTED SO THAT THE TOP OF THE PLUG SOIL MEDIA IS FLUSH WITH THE FINISHED GRADE. LIGHTLY TAMP SURROUNDING SOIL TO INCREASE SOIL-ROOT CONTACT AND TO MINIMIZE FROST HEAVING
- 13. PLUGS SHALL BE WATERED IMMEDIATELY FOLLOWING PLANTING TO REDUCE AIR POCKETS AND TO MAXIMIZE
- CONTACT BETWEEN THE PLUG ROOTS AND PREPARED SOIL. 14. MONITOR NEW PLANTINGS FOR SIGNS OF DISEASES, PESTS AND WATER STRESS. 15. KEEP NEW PLANTINGS FREE OF UNDESIRABLE AND INVASIVE SPECIES.
- 16. CONTRACTOR SHALL REMOVE ALL CUT VEGETATION TO ENSURE STORMWATER MANAGEMENT CONTROL STRUCTURES ARE KEPT CLEAR AND FREE OF DEBRIS.

BMP VEGETATION MAINTENANCE:

ERNST SEED MIX: PA PIEDMONT FACULTATIVE WETLAND MIX (ERNMX-261)

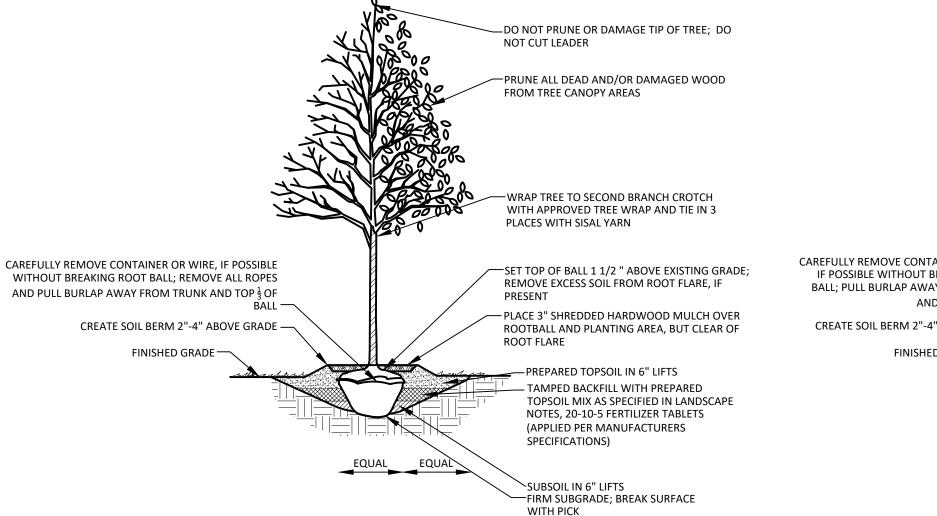
- FOR THE FIRST GROWING SEASON: • ONCE THE VEGETATION REACHES 18"-24", TRIM TO A HEIGHT OF 8".
- ALL TRIMMING IS TO CEASE ON SEPTEMBER 15TH. • WHEN FEASIBLE. ALL TRIMMING SHALL BE COMPLETED DURING PERIODS WHICH ARE FORECASTED FOR DRY WEATHER TO AVOID SLIPPERY OR MUCKY CONDITIONS.
- FOR THE SECOND AND SUBSEQUENT GROWING SEASONS: NO FURTHER TRIMMING SHOULD BE DONE.

- FOR THE FIRST 2-3 MONTHS OF FIRST GROWING SEASON: WITHIN STORMWATER MANAGEMENT FACILITIES, A LICENSED SPRAY TECHNICIAN MAY APPLY RODEO OR GARLON
- 3A TO CONTROL WEEDS. READ LABEL PRIOR TO USE. FOR SUBSEQUENT GROWING SEASONS:
- PROBLEMATIC WEEDS MAY BECOME PRESENT AND SHOULD BE SPOT SPRAYED WITH AN APPLICATION OF RODEO OR GARLON 3A HERBICIDE BY A LICENSED SPRAY TECHNICIAN.



1. ALL TREES NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PROTECTED AS SHOWN ON PLANS. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED WITH ORANGE POLYETHYLENE SAFETY/CONSTRUCTION FENCE. INSTALL ORANGE CONSTRUCTION FENCE OUTSIDE THE TREE PROTECTION ZONE (TPZ) NOTED ON THE PLANS, SEE SHEET 3. ORANGE CONSTRUCTION FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION. 4. POST SPACING TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

TREE POTECTION FENCE DETAIL



BACKELL WITH TOPSOIL PREPARED

PER LANDSCAPE NOTES AND SOIL

AGRONOMY REPORT

I. ALL TREES SHALL HAVE BEEN NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE FINAL PLANTING SITE.

- 2. ALL TREES SHALL HAVE A NORMAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY AND VIGOROUS; THEY SHALL BE FREE FROM DISEASE, INSECTS, INSECT EGGS, AND LARVAE.
- 3. ALL PLANTING SHALL BE PERFORMED IN CONFORMANCE WITH GOOD NURSERY AND LANDSCAPE PRACTICE. 4. REQUIREMENTS FOR TREE MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALLING, AND BURLAPPING SHALL FOLLOW THE CODE OF STANDARDS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSIZ60, CURRENT EDITION, AS AMENDED.
 - TYPICAL DECIDUOUS TREE PLANTING DETAIL

5. SEE LANDSCAPE NOTES FOR REQUIRED SOIL TESTING. PREPARATION AND AMENDMENT

3" MULCH PLACED OVER ROOTBALL

AND PLANTING AREA, BUT CLEAR OF

ROOT FLARE-

WITH TOPSOIL—

FORMED SAUCER

FINISHED GRADE-

ANY POT-BOUND ROOTS—

SET PLANTS AT SAME FINISHED GRADE AS GROWN IN THE NURSERY.

NURSERY STOCK, ANSIZ60, CURRENT EDITION, AS AMENDED.

ALL SHRUBS SHALL HAVE BEEN NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE FINAL PLANTING SITE.

4. ALL PLANTING SHALL BE PERFORMED IN CONFORMANCE WITH GOOD NURSERY AND LANDSCAPE PRACTICE.

TYPICAL SHRUB PLANTING DETAIL

ALL SHRUBS SHALL HAVE A NORMAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY AND VIGOROUS; THEY SHALL BE FREE FROM

REQUIREMENTS FOR SHRUB MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALLING, AND BURLAPPING OF SHRUBS SHALL FOLLOW

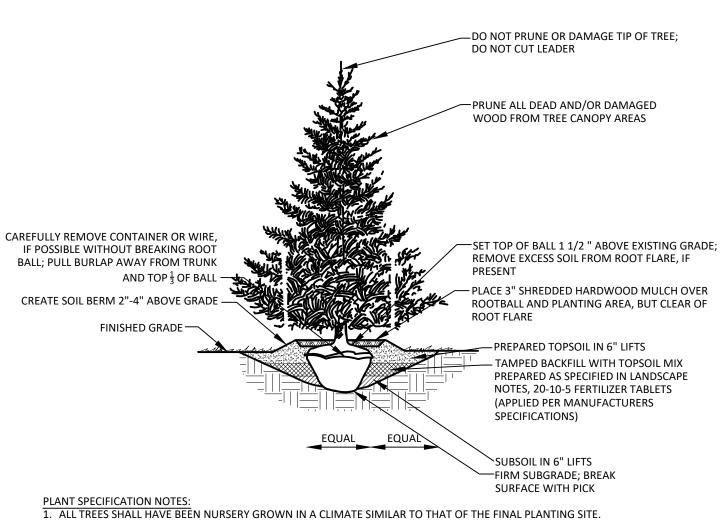
THE CODE OF STANDARDS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., IN THE AMERICAN STANDARD FOR

REMOVE ALL BURLAP, CONTAINERS,

STEM; CAREFULLY LOOSEN & SPREAD

AND CORDS AROUND ROOTBALL &

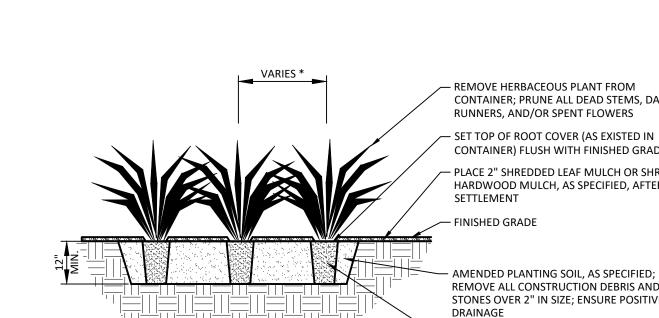
DISEASE, INSECTS, INSECT EGGS, AND LARVAE.



l. ALL TREES SHALL HAVE A NORMAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY AND VIGOROUS; THEY SHALL BE FREE FROM DISEASE, INSECTS, INSECT EGGS, AND LARVAE.

3. ALL PLANTING SHALL BE PERFORMED IN CONFORMANCE WITH GOOD NURSERY AND LANDSCAPE PRACTICE. 4. REQUIREMENTS FOR TREE MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALLING, AND BURLAPPING SHALL FOLLOW THE CODE OF STANDARDS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSIZ60, CURRENT EDITION, AS AMENDED.

TYPICAL EVERGREEN TREE PLANTING DETAIL



SET TOP OF ROOT COVER (AS EXISTED IN CONTAINER) FLUSH WITH FINISHED GRADE - PLACE 2" SHREDDED LEAF MULCH OR SHREDDED HARDWOOD MULCH, AS SPECIFIED, AFTER SOIL - FINISHED GRAD

- UNDISTURBED SOIL

STONES OVER 2" IN SIZE; ENSURE POSITIVE BED - CAREFULLY SEPARATE AND SPREAD ANY POT-BOUND ROOTS

* SEE PLANT SCHEDULE FOR SPACING

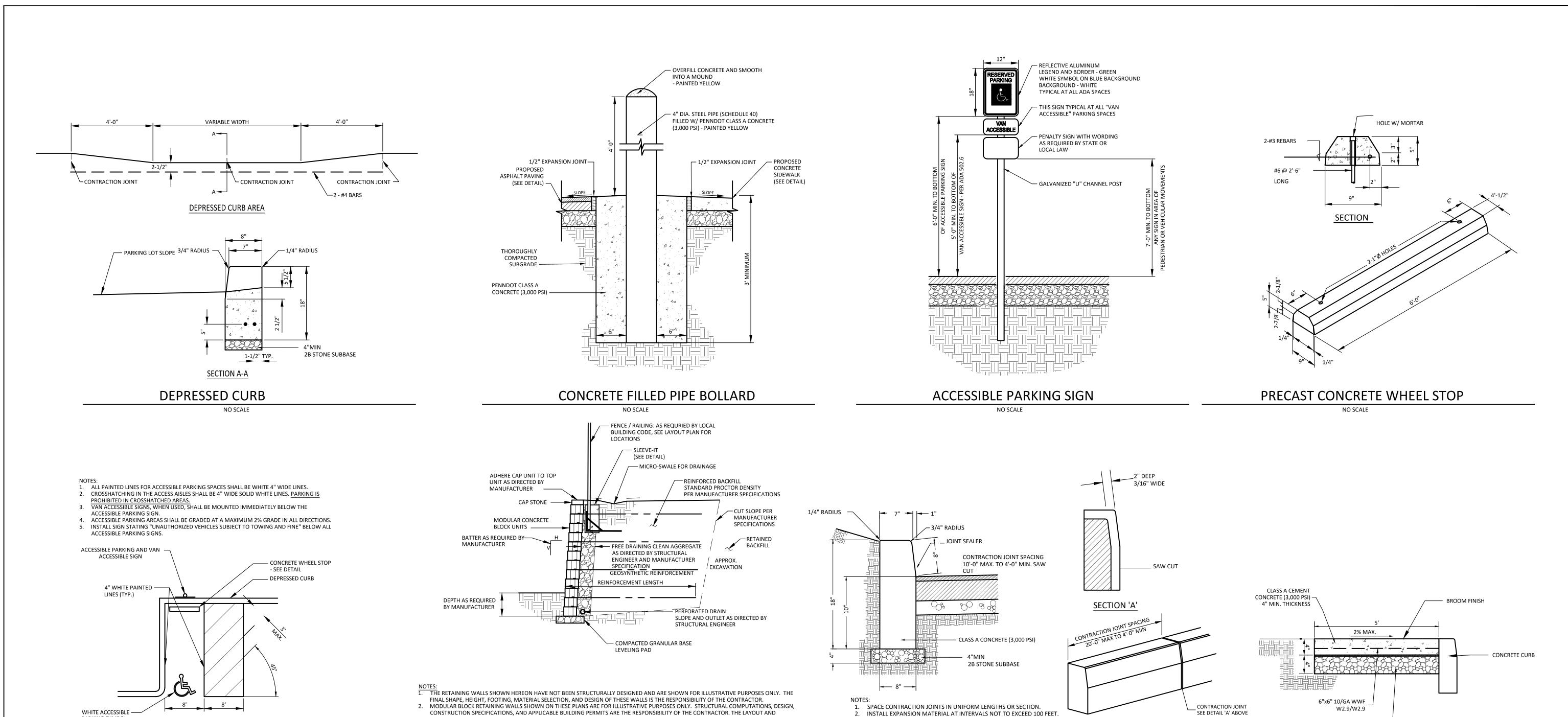
CONTAINER; PRUNE ALL DEAD STEMS, DAMAGED REMOVE ALL CONSTRUCTION DEBRIS AND

HERBACEOUS PERENNIAL PLANTING DETAIL

erin

SHEET NO. _____8 OF 20

JOB. NO. <u>2023108-001</u>



NO SCALE

PARKING SYMBOL

ACCESSIBLE PARKING LAYOUT

CONTACT THE DESIGN ENGINEER PRIOR TO CONSTRUCTION OF THE RETAINING WALL.

TYPICAL RETAINING WALL DETAIL

NO SCALE

GRADING OF THE RETAINING WALLS ASSUMES NO STORM RUNOFF OVER THE TOP OF THE WALL. IF SITE CONDITIONS ARE NOT AS ASSUMED

ADJACENT TO ALL INLETS AND OTHER STRUCTURES.

EXPANSION MATERIAL SHALL BE $\frac{1}{2}$ " THICK PREMOULDED, NON-EXTRUDING,

RESILIENT BITUMINOUS JOINT FIBER. INSTALL EXPANSION MATERIAL

CONCRETE CURB DETAIL

- LAST CURB SECTION — CONTRACTION JOINT

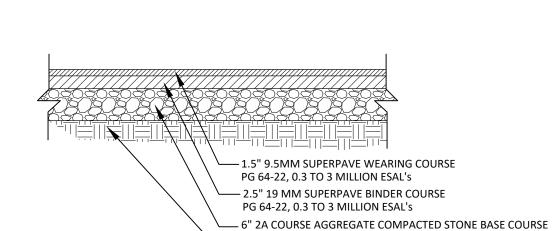
EXPANSION JOINTS SHALL CONSIST OF 1/2" THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL. EXPANSION JOINTS SHALL BE LOCATED AT ALL STRUCTURES AT THE END OF THE WORK DAY AND AT INTERVALS OF 100 FEET.

CUT MATERIAL TO CONFORM WITH CROSS SECTIONAL AREA OF CURB.

2. CONTRACTION JOINTS SHALL CONSIST OF A 2" DEEP, 3/16" WIDE SAW CUT AND BE PLACED AT UNIFORM LENGTHS OF 20 FOOT INTERVALS MAXIMUM AND 4 FOOT INTERVALS MINIMUM.

VERTICAL CURB TERMINATION

NO SCALE



NOTE:

1. TACK COAT TO BE APPLIED BETWEEN LAYERS OF ASPHALT.

PARKING LOT PAVEMENT SECTION

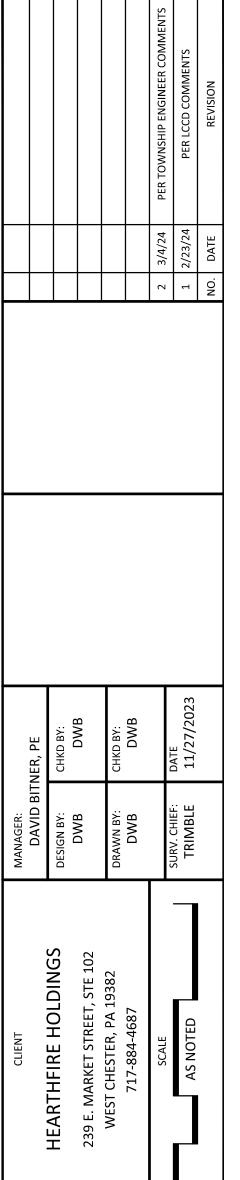
— COMPACTED SUBGRADE (95% MODIFIED PROCTOR)

AASHTO NO. 57 (2B) COURSE——

AGGREGATE 4" DEPTH

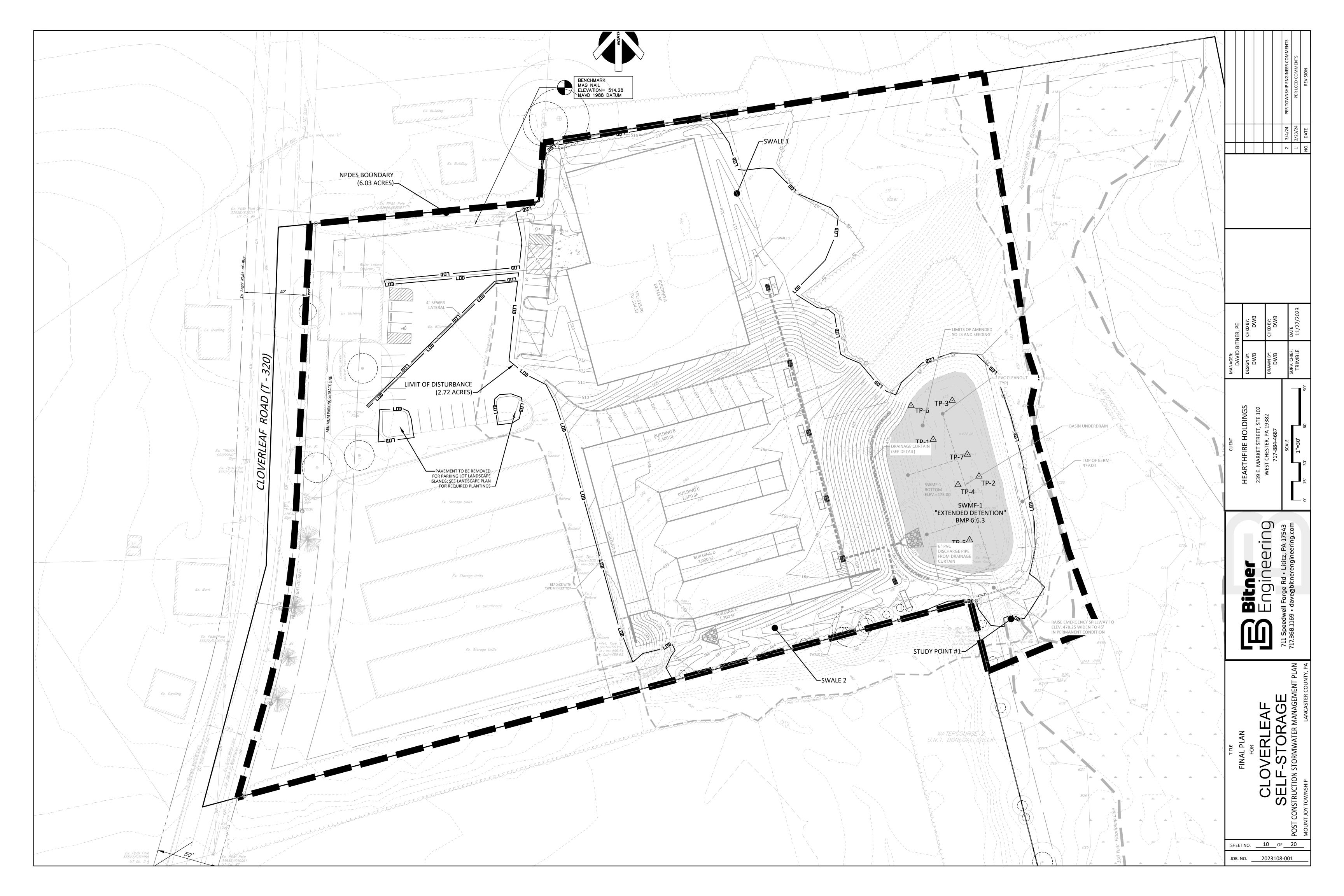
CONCRETE SIDEWALK DETAIL

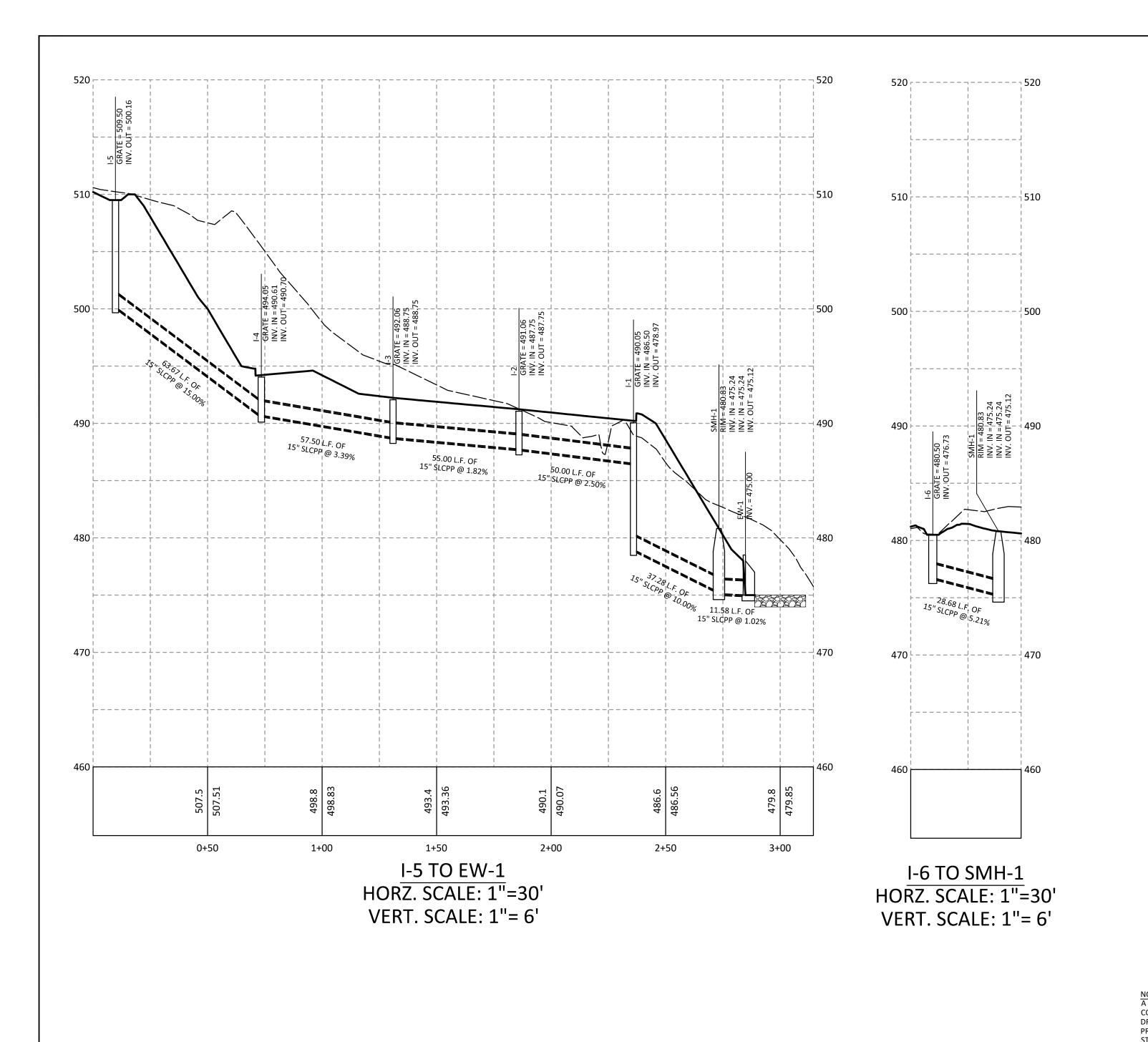
NO SCALE



Bitner Engineering

SHEET NO. 9 OF 20 JOB. NO. 2023108-001





EXISTING BASIN

EXISTING OUTLET

EXISTING INVERT=470.08

STRUCTURE

14" ORIFICE ELÈV.=475.63

0.94" ORIFICE ELEV.=474.00

BOTTOM ELEV. OF SOIL MIX=473.00

SURFACE ELEV.=475.00

RAISE TOP ELEVATION OF STRUCTURE TO 477.75

(TYPE M INLET TOP) _

TOP OF EXISTING OUTLET -STRUCTURE=477.07

14" ORIFICE CAST IN BOX —

CAP EXISTING 12" ORIFICE — WITH WATERTIGHT SEAL

IL) UPTURNED ELBOW, CAPPED WITH 0.94" ORIFICE

STORMWATER MANAGMENT FACILITY 1 (EXTENDED DETENSION) DETAIL

NO SCALE

DRILLED IN CAP —

(SEE SPECIFICATION)

4" PERFORATED PVC UNDERDRAIN @ 0%

(SEE UNDERDRAIN DETAIL)

ELEV.=473.00

SEED LANDSCAPE PLAN FOR

UNDISTURBED OR

PROVIDE SOIL MEDIA BETWEEN BOTTOM OF

UNDERDRAIN TO EXISTING BASIN ELEVATION. REFER

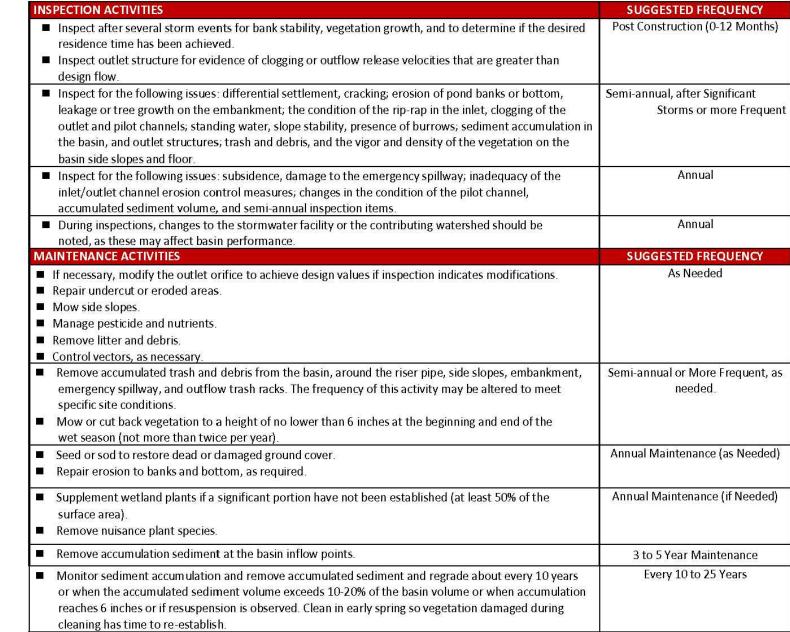
TO GETOTECHNICAL NOTES ON SHEET 2. ECS (OR

OTHER QUALIFIED GEOTECHINICAL ENGINEER)

UNCOMPACTED SUBGRADE

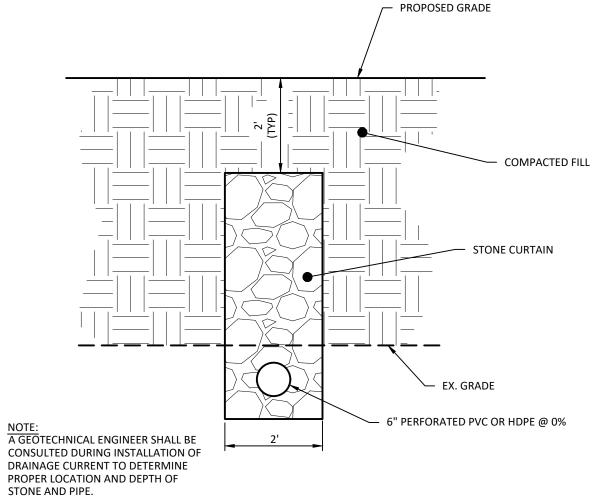
PVC CLEANOUT (CAPPED) -

BASIN PLANTINGS—



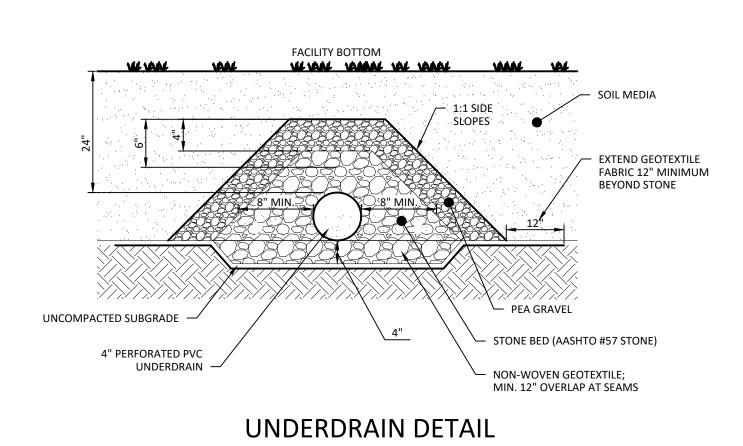
**A WRITTEN REPORT IS TO BE COMPLTED DOUCMENTING EACH PCSM BMP INPSECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES UNDERTAKEN

SWMF-1 OPERATION AND MAINTENANCE NOTES



DRAINAGE CURRENT DETAIL

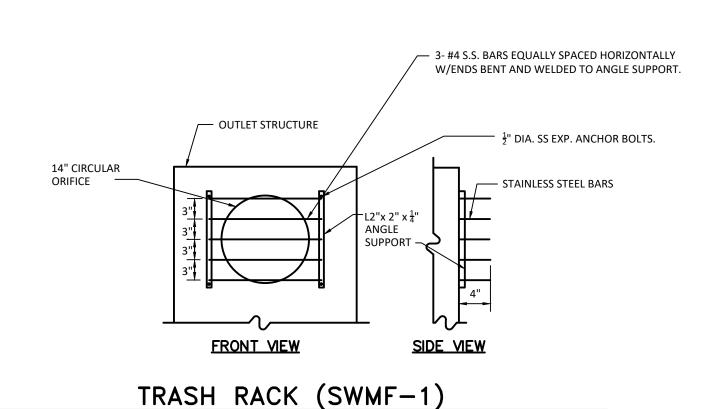
NO SCALE



- SEED WITH GRASS ELEV. 479.00 ELEV. 478.25

EMERGENCY SPILLWAY DETAIL

EXISTING T	OP OF BERM = 479.00
EMERGENO	CY SPILLWAY=478.25
ELEV.=475.6	3
.EV.=475.00	
CE ELEV.=474	.00
EV. OF SOIL N	MIX=473.00
	SOIL MIX:
RCP	SOIL MIX SHALL BE A MIXTURE OF
	40% TOPSOIL, 30% COMPOST AND 30% SAND BY VOLUME, A MIN. OF
	12" THICK.
	NOTE: THE COMPOST SHALL HAVE A
	PH BETWEEN 5.5 AND 6.5, A CLAY
	CONTENT LESS THAN 10%, BE FREE OF TOXIC SUBSTANCES AND
	UNWANTED PLANT MATERAL AND
- A 11	HAVE A 5-10% ORGANIC MATTER



NO SCALE

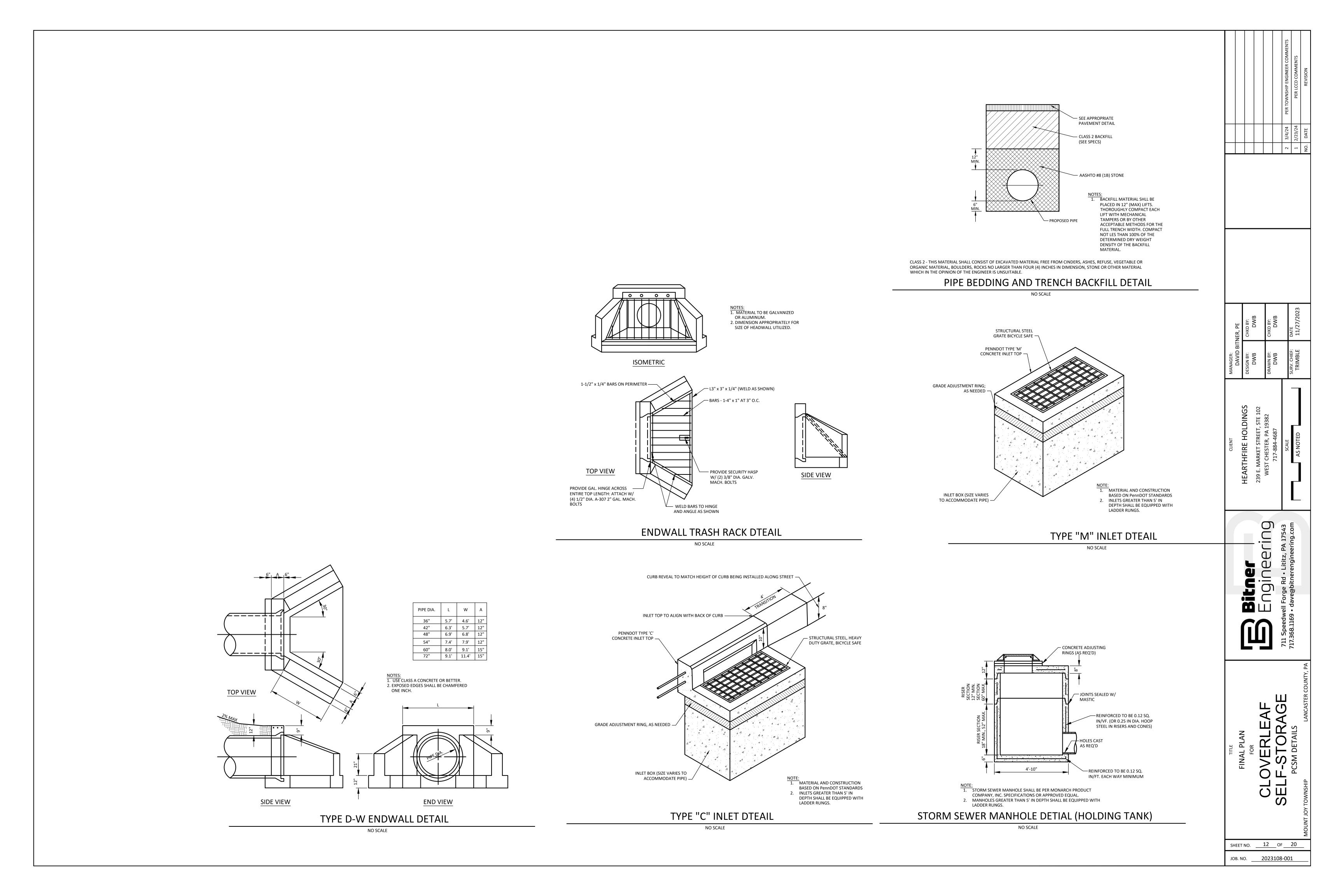
ELEV. 479.00

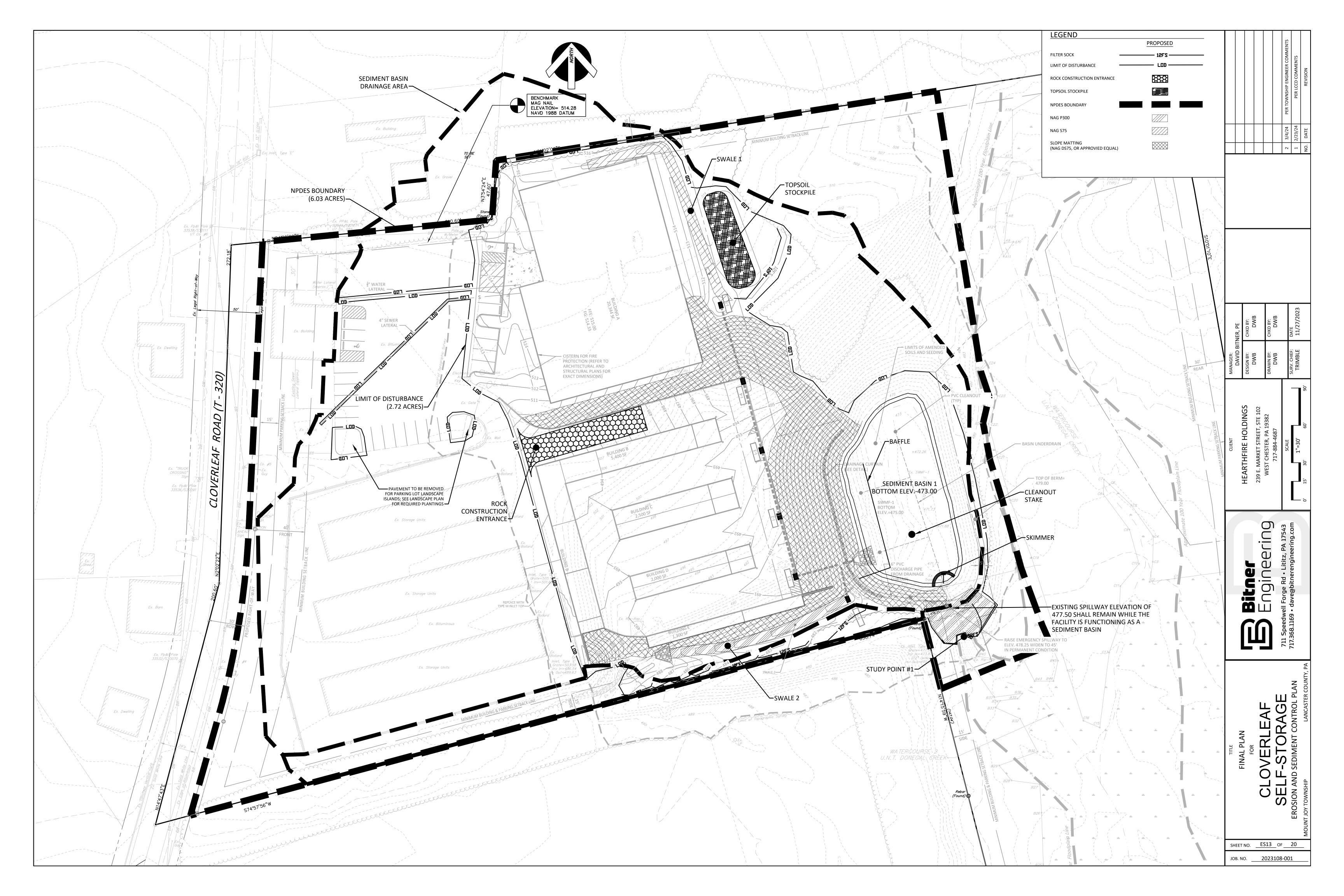
LINE SPILLWAY TO TOE

OF SLOPE WITH NAG P300

NER, PE	СНКD ВУ: DWB	снкр ву: DWB	DATE 11 / 2003	11/2//2023		
MANAGER: DAVID BITNER, PE	DESIGN BY: DWB	DRAWN BY: DWB	SURV. CHIEF:	INIMPLE		
CLIENT	HEARTHFIRE HOLDINGS 239 E. MARKET STREET, STE 102	WEST CHESTER, PA 19382 717-884-4687	SCALE	AS NOTED		
Bitner 711 Speedwell Forge Rd • Lititz, PA 17543 717.368.1169 • dave@bitnerengineering.com						
				JUNTY, PA		

SHEET NO. ____11___OF___20 JOB. NO. 2023108-001





CONSTRUCTION SEQUENCE

- 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 MUST BE APPROVED IN WRITING FROM THE LANCASTER COUNTY CONSERVATION DISTRICT.
- 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 LANCASTER COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.
- 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.**
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- ALL STAGES OF CONSTRUCTION IDENTIFIED IN BOLD TEXT DENOTE A CRITICAL STAGE OF IMPLEMENTATION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN FOR WHICH A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ON THE PROJECT SITE.

SEQUENCE OF CONSTRUCTION

- . FIELD LOCATE THE PROPOSED LIMITS OF DISTURBANCE AND MARK WITH ORANGE CONSTRUCTION FENCE, CONSTRUCTION STAKES, OR EQUIVALENT.
- 2. INSTALL ROCK CONSTRUCTION ENTRANCE AT LOCATION SHOWN ON THE PLANS.
- 3. INSTALL FILTER SOCK AS SHOWN ON THE PLANS. DO NOT GRUB AND/OR STRIP TOPSOIL TO INSTALL FILTER SOCK OR SILT
- 3.1. IF CONCENTRATED FLOW AREAS FORM, REPLACE THE FILTER SOCK IN THE CONCENTRATED FLOW AREA WITH A ROCK FILTER OUTLET. REMOVE SEDIMENT FROM THE FILTER SOCK WHEN ACCUMULATION REACHES THE MANUFACTURER'S SPECIFICATIONS FOR MAINTENANCE.
- 4. CLEAR AND GRUB VEGETATION IN THE AREA OF SEDIMENT BASIN NO. 1. STRIP TOPSOIL IN THE AREA OF THE SEDIMENT BASIN AND STOCKPILE AT THE LOCATION SHOWN ON THE PLANS. IMMEDIATELY PLACE FILTER SOCK ON THE DOWN SLOPE
- 5. EXCAVATE SEDIMENT BASIN 1 IN ACCORDANCE WITH GRADES AND DETAILS SHOWN ON THE PLANS. IMMEDIATELY INSTALL SKIMMER, CLEANOUT STAKE AND BAFFLES IN THE SEDIMENT BASIN. EXCAVATED MATERIAL SHALL BE PLACED UPSTREAM OF THE SEDIMENT BASIN. SEED AND MULCH THE DISTURBED AREAS AND PLACE EROSION CONTROL BLANKETS AT THE LOCATIONS INDICATED ON THE PLANS.
- 4. CLEAR AND GRUB VEGETATION IN THE AREA OF SWALE 1 AND 2. STRIP TOPSOIL IN THE AREA OF PROPOSED SWALES 1 AND 2 AND STOCKPILE AT THE LOCATION SHOWN ON THE PLANS. INSTALL SWALES 1 AND 2, IMMEDIATELY STABILIZE WITH SEED,
- MULCH AND MATTING AS SPECIFIED ON THE PLANS. i. During installation of the swales, install proposed stormsewer. Immediately install rip-rap at endwalls,
- 6. CLEAR AND GRUB THE REMAINING PORTION OF THE SITE TO THE EXTENT DELINEATED ON THE PLAN.
- 7. STRIP REMAINING TOPSOIL AND STOCKPILE AT THE LOCATION SHOWN ON THE PLANS.
- 8. MASS GRADE THE REMAINING PORTION OF THE SITE TO THE PROPOSED GRADES SHOWN ON THE PLANS. AS GRADING OPERATIONS PROGRESS, THE CONTRACTOR SHALL ENSURE THAT ALL SEDIMENT LADEN RUNOFF IS CONTAINED WITHIN THE AREA OF DISTURBANCE AND PREVENTED FROM ENTERING ANY DOWNSTREAM WATERCOURSES, EXISTING STORMWATER CONVEYANCE SYSTEMS, OR PERMITTED TO LEAVE THE SITE.
- 16. PLACE CURBING AND STONE BASE MATERIAL IN THE AREAS OF PAVING AS SOON AS PRACTICAL.
- 20. PLACE BINDER COURSE ON ALL PAVED AREAS. DO NOT PLACE FINAL WEARING COURSE.
- 21. ESTABLISH BUILDING PADS AND BEGIN BUILDING CONSTRUCTION.
- 22. INSTALL RETAINING WALLS IN THE LOCATIONS IDENTIFIED ON THE PLANS.
- 23. INSTALL FINAL WEARING COURSE AFTER BUILDING CONSTRUCTION IS FINALIZED.
- 24. FINALIZE ANY GRADING AS SHOWN ON THE PLAN, ENSURING POSITIVE DRAINAGE TO THE INLETS. IMMEDIATELY SEED AND MULCH THE DISTURBED AREAS AND PLACE EROSION CONTROL BLANKETS AS INDICATED ON THE PLANS.
- 25. FOLLOWING FINAL GRADES BEING ESTABLISHED, SPREAD TOPSOIL OVER AND IMMEDIATELY SEED AND MULCH ALL DISTURBED AREAS.
- 26. COMPLETE ANY REMAINING LANDSCAPING AS SHOWN ON THE APPROVED PLANS.
- 27. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE LANCASTER CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO THE REMOVAL/CONVERSION OF THE E&S BMP'S.
- 28. UPON APPROVAL BY THE LOCAL CONSERVATION DISTRICT, THE CONTRACTOR SHALL CONVERT SEDIMENT BASIN NO. 1 TO STORMWATER MANAGEMENT FACILITY NO. 1 IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS INCLUDED ON THIS PLAN. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ON THE PROJECT SITE TO OVERSEE THE INSTALLATION OF THE OUTFALL STRUCTURE, OBSERVE THE BASIN BOTTOM PRIOR TO AMENDED SOIL INSTALLATION, AS WELL AS THE
- 28.1. CONVERSION OF THE FACILITY TO ITS PERMANENT CONDITION SHOULD BE RESTRICTED TO THE GROWING SEASON. THE CONVERSION SHOULD PROCEED AS FOLLOWS (SEE NOTES ON THIS SHEET REGARDING PROCEDURES FOR RECYCLING AND DISPOSAL OF MATERIAL ASSOCIATED WITH OR FROM PCSM BMP'S):
- 28.1.1. FLUSHING ACCUMULATED SEDIMENT FROM THE CONTRIBUTING STORM SEWER SYSTEM
- 28.1.2. ANY REMAINING WATER IN THE FACILITY SHALL BE PUMPED THROUGH A PUMPED WATER FILTER BAG. 28.1.3. REMOVE AND DISPOSE OF SEDIMENT PER REQUIREMENTS NOTED ON THIS PLAN.
- 28.1.4. REMOVE ALL TEMPORARY FACILITIES I.E.-CLEANOUT STAKE, SKIMMER, ETC.

TERMINATION TO THE LANCASTER COUNTY CONSERVATION DISTRICT FOR THE NPDES PERMIT.

- 28.1.5. PROVIDE ROCK FILTER AROUND OUTLET STRUCTURE UNTIL THE FACILITY IF PERMANENTLY STABILIZED. 28.1.6. INSTALL BASIN UNDERDRAIN AND AMENDED SOILS.
- 28.1.7. RAISE EMERGENCY SPILLWAY AND PROVIDE MATTING AS SPECIFIED.
- 28.1.8. STABILIZE THE INTERIOR OF THE FACILITY WITH PLUGS AND SEEDED AS SPECIFIED ON THE LANDSCAPE PLAN.
- 29. REPAIR/STABILIZE ANY AREAS WHICH DO NOT HAVE A UNIFORM VEGETATIVE COVER AND MAY HAVE BEEN DISTURBED DURING THE FACILITY CONVERSION
- 30. ANY REMAINING E&S CONTROLS ON-SITE SHALL BE REMOVED AND ALL AREAS DISTURBED DURING SUCH ACTIVITIES SHALL BE PERMANENTLY STABILIZED
- 31. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES, THE OWNER AND/OR OPERATOR SHALL SUBMIT A NOTICE OF

TEMPORARY SEEDING SPECIFICATIONS

- 1. IN ORDER TO ESTABLISH A QUICK GRASS COVER OVER DISTURBED AREAS, A TEMPORARY SEED MIXTURE SHALL BE USED. STABILIZATION EFFORTS DURING THE NON-GERMINATING PERIOD, OCT. 15 TO MARCH 15, SHOULD BE MULCHED WITH CLEAN STRAW AT A RATE OF 3 TONS/AC. (EQUIVALENT TO 0.75" TO 1" DEEP). CLEAN STRAW MULCH SHOULD NOT BE FINELY CHOPPED OR BROKEN DURING APPLICATION.
 - SEED MIXES ARE FROM THE PENN STATE AGRONOMY GUIDE AND THE MIX TO BE USED DEPENDS ON THE DATE

FEDING SCHEDULE FOR TEMPORARY COVER

NNUAL RYEGRASS 1 LB./1000 SF WINTER RYE 100% 4.0 LBS./1000 SF AUG. 15 TO OCT. 15

- STRAW MULCH SHALL BE REQUIRED IN ALL DISTURBED AREAS AND APPLIED AT 3 TONS/ACRE. STRAW AND HAY MILLCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT
- BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR.
- MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- FERTILIZER MIX OF 10 10 10 AT AN APPLICATION RATE OF 500 LB./ACRE SHALL BE USED WITH TEMPORARY LIME RATES OF 1 TON/ACRE OF AGRICULTURAL GRADE LIME SHALL BE USED WITH TEMPORARY SEEDING. ALL AREAS SHALL BE TEMPORARILY STABILIZED UPON CESSATION OF WORK FOR 4 DAYS OR MORE, OR AS SOON AS

PERMANENT SEEDING SPECIFICATIONS

ANY DISTURBED AREA REACHES ITS FINAL GRADE.

- 1. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED SHALL BE COVERED WITH GRASS OR A LEGUME IN ORDER TO MINIMIZE EROSION, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- 2. MULCHING SHALL BE USED TO PROTECT SEEDING AND HELP IN PREVENTING RUNOFF.
- A. CLEAN STRAW MULCH SHALL BE REQUIRED IN ALL DISTURBED AREAS AND APPLIED AT A RATE OF 3 TONS/ACRE (EQUIVALENT TO 0.75" TO 1" DEEP). CLEAN STRAW MULCH SHOULD NOT BE FINELY CHOPPED OR BROKEN DURING APPLICATION. B. STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT
- BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR.
- POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH.
- SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE ΡΙ ΔΝΤ ΔΝΟ ΔΝΙΜΔΙ SPECIES
- MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY
- HYDROMULCH SHOULD BE 2,000 LB/ACRE AT A MINIMUM. 3. SEED MIXTURES ARE FROM THE PENN STATE AGRONOMY GUIDE. THE SEED MIXTURES SHALL CONSIST OF:

LAWN MIX (USED THROUGHOUT SITE)

SEED TYPE <u>% BY WT.</u> SEEDING RATE	SEEDING DATES
KY. BLUEGRASS 30% 4 LBS./1000 SF CREEP RED FESCUE 55% PERENNIAL RYEGRASS 15%	AUG. 15 TO OCT. 15

- 4. FOR FURTHER INFORMATION ON SEED MIXES, SEE THE E & S WORKSHEETS IN THE CHAPTER 102 REGULATIONS. 5. CONTRACTOR SHALL EVALUATE SOIL ACIDITY. ALL SOILS WITH A PH LESS THAN 5.5 SHALL BE TREATED WITH LIME AT 6
- TONS/ACRE 6. IN THE ABSENCE OF SOIL TESTING, FERTILIZER OF 10-20-20, AT AN APPLICATION RATE OF 1000 LB./ACRE SHALL BE USED
- WITH PERMANENT SEEDING 7. IN THE ABSENCE OF SOIL TESTING, LIME RATES OF 6 TONS/ACRE OF AGRICULTURAL GRADE LIME SHALL BE USED WITH
 - PERMANENT SEEDING.

EROSION AND SEDIMENT CONTROL NOTES

MACHINERY

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- 2. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- 3. CLEARING. GRUBBING. AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- 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 PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- IN ORDER TO MINIMIZE SOIL COMPACTION IN NON-STRUCTURAL AREAS, THE CONTRACTOR SHALL UTILIZE SMALLER, TRACKED EQUIPMENT WHEN POSSIBLE, IN PLACE OF STANDARD HEAVY EARTHMOVING
- 6. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND
- FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS AND STABILIZED IN ACCORDANCE WITH THE DETAILS INCLUDED. ON THIS PLAN. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- 10. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, THROUGH A SEDIMENT CONTROL BEST MANAGEMENT PRACTICE SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE OVER UNDISTURBED VEGETATED AREAS. 11. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY.
- MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED
- 12. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- 13. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER. OR SURFACE WATER. 14. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN
- DRAWINGS. 15. 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. 16. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS, OR AS
- OTHERWISE SPECIFIED IN THE GEOTECHNICAL REPORT FOR THE PROJECT SITE. 17. 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
- 18. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED
- 19. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

ACCORDING TO THE STANDARDS OF THIS PLAN.

INTO FILLS.

- 20. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD. 21. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED
- 22. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT. THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS. MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRAD WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- 23. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR
- 24. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION
- 25. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT
- FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS. 26. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- 28. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS. 29. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION
- 30. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
- 31. SEDIMENT TRAPS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES. 32. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
- FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT. 34. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL

33. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING)

- 35. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION. EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL THE PERMANENT STABILIZATION IS COMPLETED. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: (1) A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION. (2) AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND
- 36. ALL SUPPLIES AND MATERIALS NECESSARY TO IMPLEMENT E&S AND/OR PCSM PLAN SHALL BE READILY
- AVAILABLE PRIOR TO THE ANTICIPATED CONSTRUCTION OF EACH BMP. 37. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE

THERMAL IMPACTS ANALYSIS

1. THE TEMPERATURE EXTREMES OF STORMWATER RUNOFF CAN SIGNIFICANTLY EFFECT A RECEIVING STREAM'S AQUATIC HABITAT. IMPERVIOUS SURFACES, ESPECIALLY ASPHALT, TEND TO ABSORB HEAT AND LACK THE COOLING PROPERTIES OF VEGETATION. THE DISCHARGE POINTS FROM CONVEYANCE FACILITIES, AS WELL AS THE DESIGN OF PCSM BMPS, SHOULD PROVIDE MITIGATION MEASURES FOR THERMAL IMPACTS PRIOR TO STORMWATER RUNOFF REACHING A RECEIVING WATERCOURSE. PROPOSED MEASURES TO MITIGATE OR MINIMIZE THE TEMPERATURE CHANGES OF STORMWATER RUNOFF FROM THE DEVELOPMENT INCLUDE A.) VEGETATIVE SYSTEMS, BUFFERS OR BMPS TO REPLACE SECTIONS OF PIPE THAT MAY IMPART HEAT TO RUNOFF, AND B.) PRESERVING EXISTING SHADE TREES AND VEGETATION. WHERE PRACTICAL, AND PROPOSING ADDITIONAL VEGETATIVE COVER TO LOWER THE AMBIENT TEMPERATURE OF THE IMPERVIOUS AREAS. THE INTRODUCTION OF SUCH MEASURES WILL GREATLY REDUCE THE THERMAL IMPACTS OF EXISTING OR PROPOSED DEVELOPMENTS AND ENSURE THAT THE DOWNSTREAM RECEIVING WATERCOURSE IS PROTECTED.

- APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL
- 38. THE CONTRACTOR MAY NOT BEGIN CONSTRUCTION UNTIL ALL REQUIRED PERMITS HAVE BEEN ISSUED BY THE CONSERVATION DISTRICT OR PA DEP. IT IS THE CONTRACTORS' RESPONSIBILITY TO VERIFY WITH RGS ASSOCIATES, PRIOR TO BEGINNING CONSTRUCTION, THAT THE MOST CURRENT APPROVED PLANS ARE BEING
- 39. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE DISTRICT MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

MAINTENANCE PROGRAM

- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMP'S AFTER FACH RUNOFF EVENT AND ON A WEFKLY BASIS BY QUALIFIED PERSONNEL. TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL. TO ENSURE FACILITIES ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION TO THE WATERS OF THE COMMONWEALTH. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK. INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING. RESEEDING. REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF ANY FACILITIES ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE, THE REVIEWING AGENCY SHALL BE NOTIFIED BY PHONE OR PERSONAL CONTACT, AND REPLACEMENT BMP'S, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED.
- THE PERMITTEE AND CO-PERMITTEE MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE PRECIPITATION EVENT (0.25 INCHES) BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT THE EROSION AND SEDIMENT CONTROL (E&S) BMP'S ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION TO THE WATERS OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT, AND INCLUDE: (1) A SUMMARY OF SITE CONDITIONS, E&S BMP'S, AND COMPLIANCE; AND
- (2) THE DATE. TIME. AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION. SPECIFIC MAINTENANCE REQUIREMENTS FOR THE RESPECTIVE FACILITIES ARE AS FOLLOWS:
- REPAIR ANY DAMAGE TO MATTING ON THE SWALE.

ANY ACCUMULATED SEDIMENT SHALL BE REMOVED.

- IF SEEDING HAS BEEN WASHED AWAY, RE-SEED AS ORIGINALLY SPECIFIED. PROBLEM AREAS
- B). MULCHING • ANY MULCHING WASHED AWAY SHALL BE REPLACED IN KIND AND TACKED.
- C). FILTER SOCK REPAIR ANY DAMAGE (KNOCKED DOWN SECTION OR UNDERMINED TOE).
- REPLACE ANY SECTIONS WHICH ARE UNABLE TO BE REPAIRED.
- REMOVE SILT WHEN UP TO 1/2 HEIGHT OF SOCK. D). ROCK CONSTRUCTION ENTRANCE
- MAINTAIN THE THICKNESS OF THE STRUCTURE WITH A SUPPLY OF AASHTO #1 STONE AT THE END OF DAY OR MORE OFTEN AS NEEDED. ALL SEDIMENT LOCATED ON ADJACENT
- ROADS SHALL BE REMOVED (WITHOUT WATER) AND DEPOSITED ON-SITE. ANY FILTER SOCK BELOW THESE PILES THAT IS KNOCKED DOWN OR UNDERMINED SHALL BE
- REPLACED WITH STONE FILTER OUTLETS. ANY SEEDING WASHED AWAY SHALL BE REPLACED.
- F). INLET PROTECTION REMOVE SILT WHEN ACCUMULATION REACH 1/2 THE HEIGHT OF INLET PROTECTION. REPAIR ANY DAMAGE AND MAINTAIN HEIGHT.
- INSPECT ALL SEDIMENT TRAPS OR BASINS AT LEAST WEEKLY AND AFTER EACH RUNOFF
- PROVIDE ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE
- ACTIVITIES. REMOVE SEDIMENT AND RESTORE THE TRAP/BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO THE LEVEL SHOWN ON THE SEDIMENT CLEAN-OUT
- STAKE. DISPOSE OF ACCUMULATED MATERIAL CHECK TRAP/BASIN FOR DAMAGE AND IMMEDIATELY REPAIR.
- H). SEDIMENT FILTER BAGS A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL

MOW VEGETATION ON BERM AS NEEDED.

- PURPOSES SHALL BE MAINTAINED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS
- SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
- CONCRETE WASHOUT FACILITIES ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY.
- DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
- ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY
- J). SEDIMENT BASIN/TRAP BAFFLES DAMAGED OR WARPED SHOULD BE REPLACED WITHIN 7 DAYS OF INSPEC 4. WHEN SEDIMENT IS REMOVED FROM THE VARIOUS FACILITIES, IT SHALL BE PLACED IN AREAS ADJACENT TO STOCKPILES. FILTER SOCK SHALL BE PLACED DOWNHILL FROM THE PILE. IMMEDIATELY COVER WITH PLASTIC SHEETING AND ANCHOR FIRMLY OR STABILIZE WITH SEED, LIME, FERTILIZE AND
- MULCH. THIS MATERIAL CAN BE USED AS FILL MATERIAL AND INCORPORATED INTO THE SITE REFER TO THE EROSION AND SEDIMENTATION CONTROL DETAILS FOR SPECIFIC INFORMATION REGARDING THE CONSTRUCTION, INSPECTION SCHEDULE, SEDIMENT CLEANOUT LEVELS, REPAIR
- PARAMETERS AND TIME FRAMES, AND DIRECTIONS FOR SEDIMENT REMOVAL ASSOCIATED WITH PROPOSED E&S BMP'S. SOME OF THE FACILITIES MAY HAVE TO BE EXTENDED OR SUPPLEMENTED DUE TO UNFORESEEN SITE

SPECIFIC SITUATIONS. STEPS SHALL BE TAKEN TO ENSURE THAT SEDIMENT LADEN RUNOFF IS

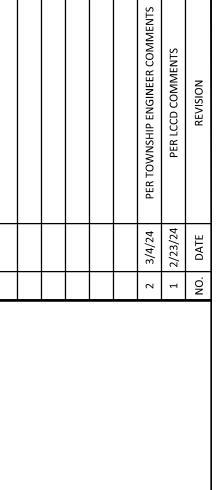
PREVENTED FROM FLOWING FROM THESE AREAS BY USING THE MEASURES NOTED HEREIN. 7. CONTRACTOR SHALL ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS THAT COULD ADVERSELY IMPACT WATER QUALITY. DISPOSAL OR RECYCLING OF EXCESS MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH DEPARTMENT REGULATIONS.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND THE PREVENTION OF SEDIMENT

RUNOFF FROM ENTERING ADJACENT PROPERTIES.

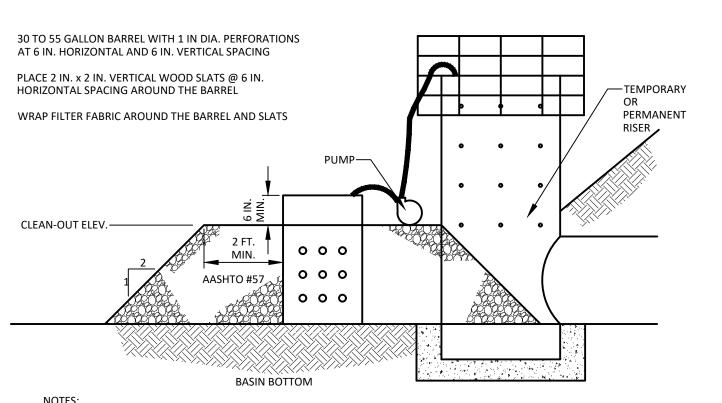
RECYCLING AND DISPOSAL SPECIFICATIONS 27. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL 1. THE RECYCLING AND DISPOSAL OF MATERIAL ASSOCIATED WITH THE INSTALLATION, CONVERSION, REMOVAL AND/OR MAINTENANCE OF THE PCSM BMPs IS ANTICIPATED TO INCLUDE SEDIMENT, VEGETATION, PLASTIC CONVEYANCE PIPING, RIP-RAP, ARBITRARY DEBRIS, AND/OR ANY PACKAGING ASSOCIATED WITH MATERIALS UTILIZED IN THE CONSTRUCTION OF THE PCSM BMP. ANY SEDIMENT REMOVED FROM THE AREA OF THE PROPOSED PCSM BMP, OR FROM A PREVIOUSLY INSTALLED FACILITY BEING CONVERTED AS PART OF THE CONSTRUCTION AND INSTALLATION OF THE PCSM BMP, SHALL BE PLACED IN A LOCATION ON-SITE AND IMMEDIATELY STABILIZED TO MINIMIZE THE POTENTIAL FOR ACCELERATED EROSION. APPROPRIATE EROSION AND SEDIMENTATION CONTROL MEASURES, IMPLEMENTED IN ACCORDANCE WITH CURRENT CHAPTER 102 REGULATIONS. SHALL BE IN PLACE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE DISTURBED AREA. ANY EXISTING VEGETATION SHALL BE COMPOSTED ON-SITE, WHEN PRACTICAL, OR TRANSPORTED TO AN APPROPRIATE FACILITY ABLE TO ACCEPT MATERIAL OF THIS NATURE. THE REMOVAL OF PREVIOUSLY INSTALLED CONVEYANCE PIPING OR RIP-RAP, ARBITRARY DEBRIS, AND/OR ANY PACKAGING ASSOCIATED WITH MATERIALS UTILIZED IN THE INSTALLATION OF THE PCSM BMPs, SHALL BE REMOVED OR RECYCLED IN ACCORDANCE WITH ANY AND ALL APPLICABLE STATE OR FEDERAL REGULATIONS. NO MATERIALS OR WASTES OR UNUSED MATERIALS

- FROM PCSM BMP INSTALLATION SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. CONSTRUCTION WASTE IS ANTICIPATED TO INCLUDE TYPICAL BUILDING MATERIALS (I.E. LUMBER. DRYWALL MASONRY, CARDBOARD AND PAPER, INSULATION, ASPHALT ROOFING, PLASTIC AND VINYL, PAINTS, STAINS, SOLVENTS AND SEALANTS, ETC.). IT IS STRONGLY ENCOURAGED THAT SUCH RECOVERABLE WASTE MATERIALS BE SEPARATED AND APPROPRIATELY RECYCLED. NO POTENTIALLY TOXIC OR HAZARDOUS WASTE IS KNOWN TO BE PRESENT ON-SITE. IF ANY TOXIC OR HAZARDOUS WASTE IS ENCOUNTERED. THE CONTRACTOR SHALL FOLLOW ANY AND ALL APPLICABLE STATE OR FEDERAL REGULATIONS ASSOCIATED WITH THE DISPOSAL OF SUCH
- ALL MATERIALS AND WASTES ASSOCIATED WITH PCSM BMP INSTALLATION AND/OR BUILDING CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1., AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE
- 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 CONDITIONS OF CHAPTER 102 AND/OR OTHER STATE OR FEDERAL REGULATIONS. 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.). 6. 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
- 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 IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL". FILL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM.



SHEET NO. _ES14 OF 20

JOB. NO. <u>2023108-00</u>



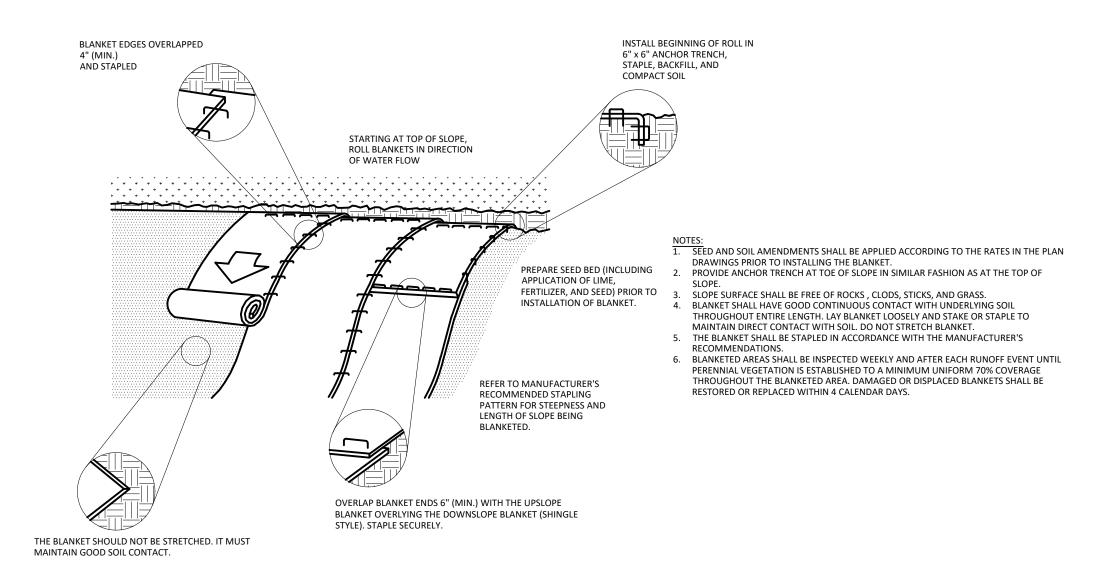
NOTES:

DEWATERING FACILITY SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF BASIN/TRAP. PRIOR TO INITIATING OPERATION OF DEWATERING FACILITY, ALL ACCUMULATED SEDIMENT SHALL BE CLEANED FROM THE INSIDE OF THE BARREL.

DEWATERING FACILITY SHALL BE CONTINUOUSLY MONITORED DURING OPERATION. IF FOR ANY REASON THE DEWATERING FACILITY CEASES TO FUNCTION PROPERLY, IT SHALL BE IMMEDIATELY SHUT DOWN AND NOT RESTARTED UNTIL THE PROBLEM HAS BEEN CORRECTED.

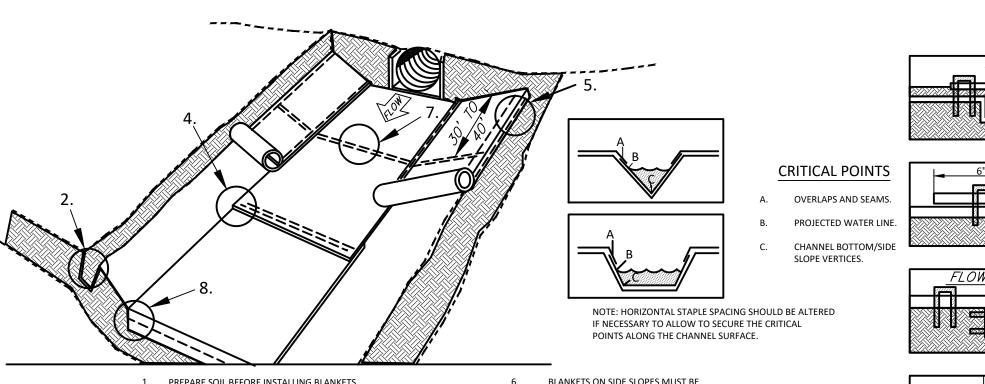
NO SCALE

STANDARD CONSTRUCTION DETAIL #7-18 SEDIMENT BASIN DEWATERING DEVICE

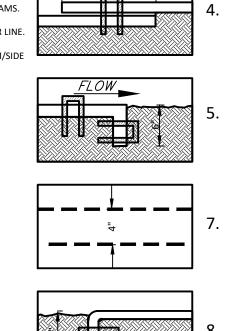


EROSION CONTROL BLANKET INSTALLATION

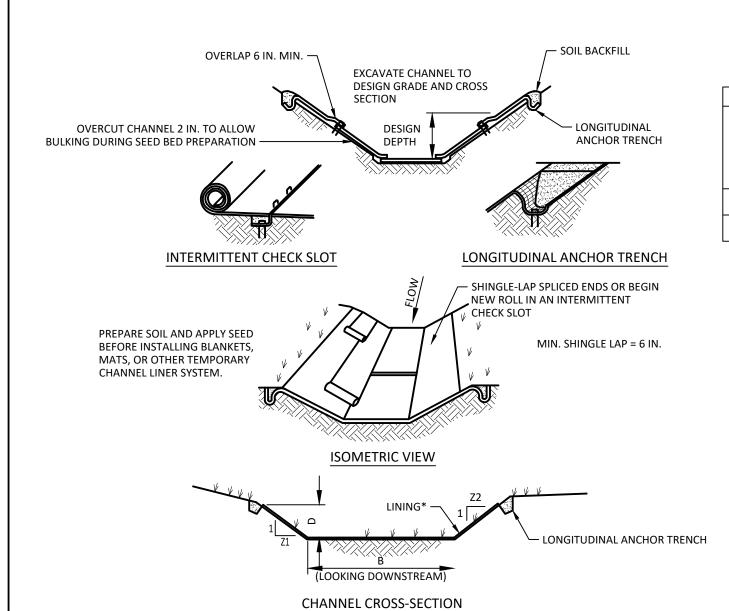
NO SCALE



- INCLUDING APPLICATION OF LIME, FERTILIZER, AND
- 2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER
- 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
- 4. PLACE BLANKET END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE
- 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING)
- 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 CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED
- THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



INSTALLATION GUIDE TO CHANNEL MATTING



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL

COMPOST FILTER SOCK

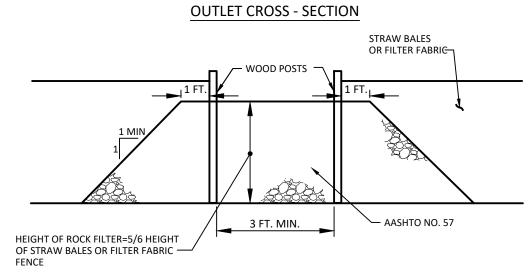
AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

TOP WIDTH WIDTH B (FT) Z1 (FT) | Z2 (FT) LINING * CHANNEL NO. STATIONS W (FT) **ENTIRE SWALE** 10' NAG S75 3.5' **ENTIRE SWALE** 1.25' 11.5' NAG P300

STANDARD CONSTRUCTION DETAIL # 6-1 - VEGETATED CHANNEL

- ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.
- CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF
- 3. NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

← 6 IN. COMPOST LAYER FIRMLY ANCHORED OPTIONAL 6 IN. SUMP **OUTLET CROSS - SECTION** STRAW BALES



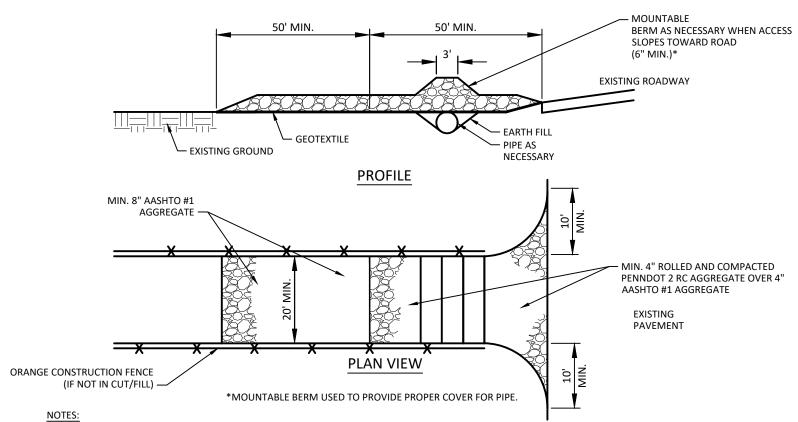
UP - SLOPE FACE

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6 **ROCK FILTER OUTLET**

NO SCALE

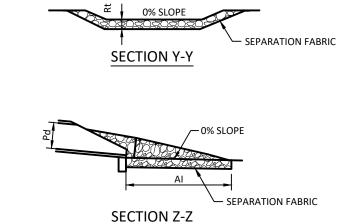


REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

- 3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
- ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER

STANDARD CONSTRUCTION DETAIL #3-1 **ROCK CONSTRUCTION ENTRANCE DETAIL**

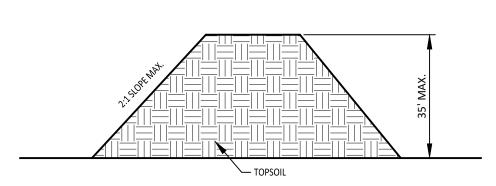
PLAN VIEW



		RIP	RAP		APRO	N
OUTLET NO.	PIPE DIA Pd (IN)	SIZE R	THICK. Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
EX. EW	18	5	27	12	4.5	16.5
EW-1	15	4	18	12	3.75	15.75

. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING 2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

RIP RAP APRON



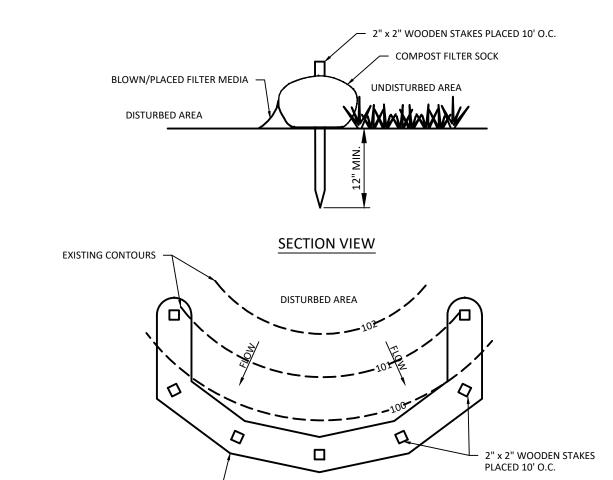
1. STOCKPILES SHALL BE PLACED IN AREAS AS SHOWN ON THE PLANS. 2. STOCKPILES SHALL BE STABILIZED WITH A TEMPORARY COVER CROP OF ANNUAL RYE GRASS (1 LB./1000S.F.) OR WINTER RYE (3 TO 5 LB./1000 SF).

3. ANY EXCESS TOPSOIL SHALL BE RETAINED ON SITE AND SPREAD AS ADDITIONAL LAYER OR FOR CONSTRUCTING BERMS.

4. ANY SEDIMENT CONTROL BMPS DOWN SLOPE OF THESE PILES THAT ARE UNDERMINED SHALL BE REPAIRED. 5. ANY DISPLACED SEED OR MULCH SHALL BE REPLACED.

TOPSOIL STOCKPILE

SHEET NO. ES15 OF 20 JOB. NO. 2023108-001



UNDISTURBED AREA

PLAN VIEW

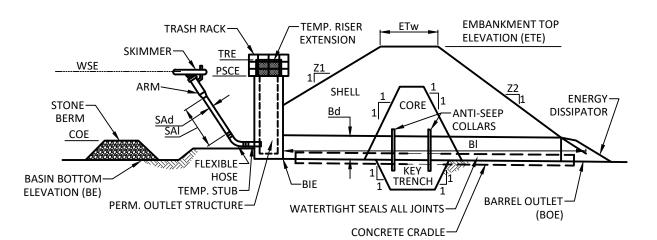
STANDARD CONSTRUCTION DETAIL #6-1

VEGETATED CHANNEL

- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT (FIGURE 4.1). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING
- TO THE MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. 6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

 7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL

COMPOST FILTER BERM



	1	TEMP RISER EXT.		EMBAN	CLEAN	воттом			
BASIN NO.	Z1 (FT)	Z2 (FT)	ELEV TRE (FT)	TOP ELEV ETE (FT)	TOP WIDTH ETW (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)	H COE ELEV	BE
1	3	3	n/a	479.00	8	EXIST.	EXIST.	474.00	473.00

SKIMMER			OUTLET BARREL				
DIA Sad (IN)	LENGTH Sal (FT)	MAT'L	DIA Bd (IN)	INLET ELEV BIE (FT)	MAT'L	LENGTH BI (FT)	OUTLET ELEV BOE (FT)
4.0	4.24	PVC	24	470.08	RCP	40	468.21

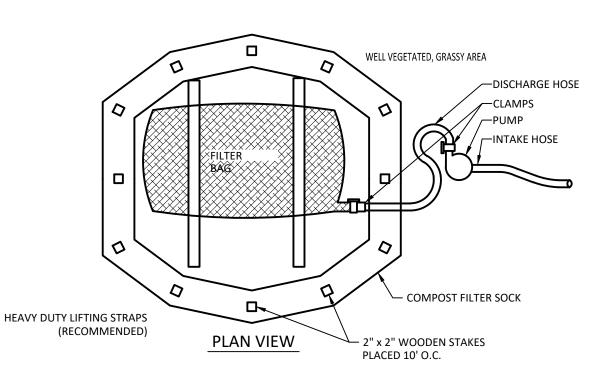
NOTES: 1. SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON

- THE E&S PLAN DRAWINGS. 2. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO FEET PRIOR TO ANY PLACEMENT AND COMPACTION OF EARTHEN FILL. IN ORDER TO FACILITATE MAINTENANCE AND RESTORATION, THE POOL AREA SHALL BE CLEARED OF ALL BRUSH, TREES, AND OBJECTIONABLE MATERIAL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS, THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.
- UPON COMPLETION. THE EMBANKMENT SHALL BE SEEDED, MULCHED, BLANKETED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.
- 4. INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. PROVIDE ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN.
- 5. BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS SHALL BE INSPECTED FOR EROSION, PIPING AND SETTLEMENT. NECESSARY
- 6. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED INSIDE THE BASIN BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 MAY

REPAIRS SHALL BE IMMEDIATELY. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY. BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

STANDARD CONSTRUCTION DETAIL #7-4 SEDIMENT BASIN EMBANKMENT & SPILLWAY WITH SKIMMER NO SCALE

-DISCHARGE HOSE



- 2" x 2" WOODEN STAKES PLACED 10' O.C.

ELEVATION VIEW

- COMPOST FILTER SOCK

WELL VEGETATED, GRASSY AREA

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

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

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE

THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY, BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY

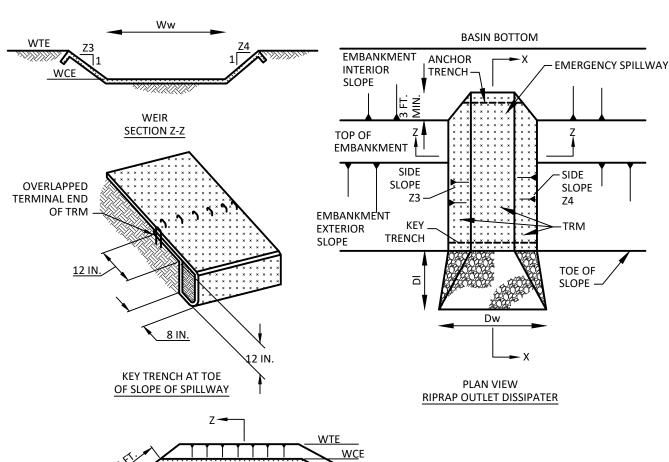
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

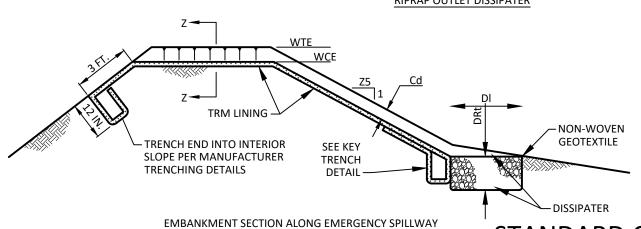
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL

THE PROBLEM IS CORRECTED

STANDARD CONSTRUCTION DETAIL 3-16 PUMPED WATER FILTER BAG

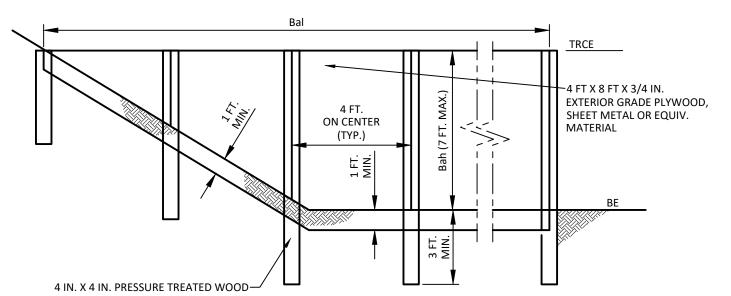


	STANDARD CONSTRUCTION DETAIL #7-13												
		WEIR				LINING		CHANNEL		DISSIPATER			
BASIN NO.	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	TRM TYPE	STAPLE PTRN	Z5 (FT)	DEPTH Cd (FT)	LENGTH DI (FT)	WIDTH Dw (FT)	RIPRAP SIZE (R)	RIPRAP THICK. DRt (IN)
1	4	4	479.00	477.50	25	NAG P300	E	3	1	N/A	N/A	N/A	N/A



HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY. RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR. 4. THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL 7-13 SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING DETAIL



	BAFF	LE	TEMPORARY RISER	воттом	
BASIN OR TRAP NO.	LENGTH Bal (FT)	HEIGHT Bah (FT)	CREST ELEV. TRCE (FT)	BOTTOM ELEV BE (FT)	
1	115	4.00	477.00	473.00	

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE 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.

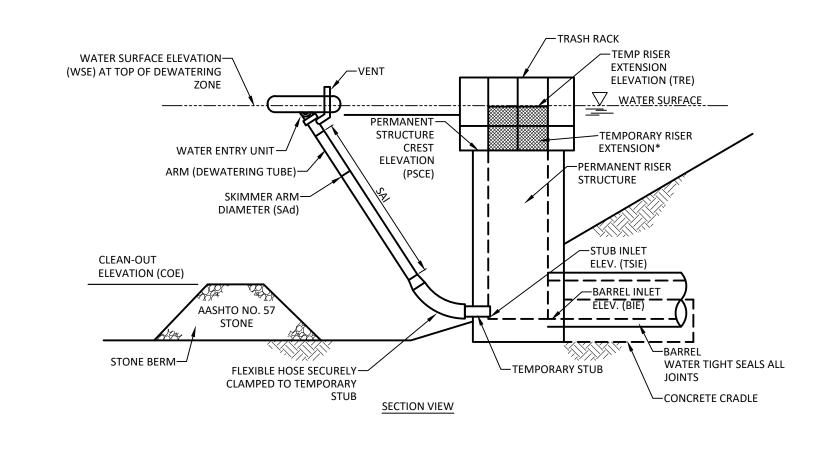
SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

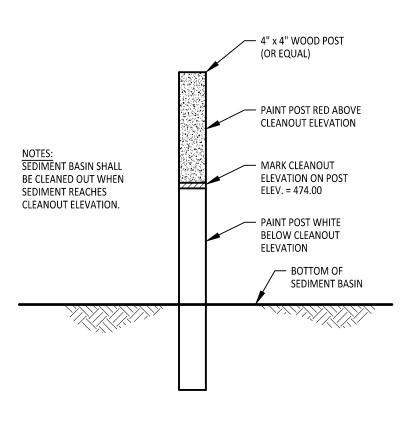
DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-14

BAFFLE





CLEANOUT MARKER

NO SCALE

	\A/ATED	SKIMMER								
	WATER SURFACE	ORII	FICE		ARM		FLEXIBLE HOSE			
	BASIN NO.	ELEV. WSE (FT)	DIA. (IN)	HEAD (FT)	DIA. SAd (IN)	LENGTH SAL (FT)	MAT'L	DIA. (IN)	LENGTH (IN)	MAT'L
	1	477.00	4.24	4	2.1	4.24	PVC	4	24	FLEX

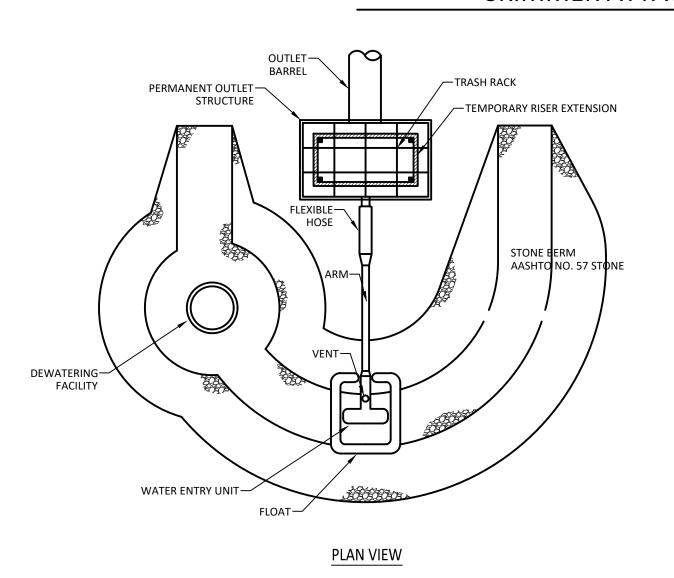
TEMPORARY STUB				PER	MANENT RI	SER	RISER EXTENSION			BARREL
INSIDE DIA (IN)	INVERT ELEV TSIE (FT)	MAT'L	LENGTH (FT)	CREST ELEV. PSCE (FT)	HORIZ O LENGTH EI (FT)	PENING WIDTH Ew (FT)	CREST ELEV. TRE (FT)	HORIZ C LENGTH (FT)	WIDTH (FT)	INLET ELEV. BI (FT)
1	474.00	PVC	2	477.07	4	2	N/A	N/A	N/A	470.08

I. ALL ORIFICES ON PERMANENT RISER BELOW TEMPORARY RISER EXTENSION SHALL HAVE WATER-TIGHT TEMPORARY SEALS PROVIDED. TEMPORARY STUB INVERT ELEVATION SHALL BE SET AT OR BELOW SEDIMENT CLEAN-OUT ELEVATION. 2. A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED. SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER FACH RUNGEF EVENT. ANY MALFLINCTIONING SKIMMER SHALL BE REPAIRED

OR REPLACED WITHIN 24 HOURS OF INSPECTION. 4. ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED SO AS TO ALLOW THE SKIMMER TO RESPOND

TO FLUCTUATING WATER ELEVATIONS. 5. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE STONE BERM. SEE STANDARD CONSTRUCTION DETAIL #7-3 FOR CONFIGURATION OF STONE BERM.

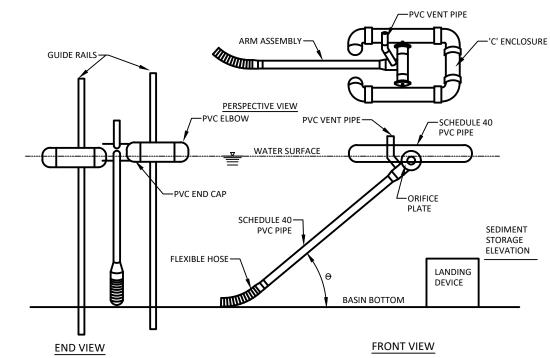
STANDARD CONSTRUCTION DETAIL 7-2 SKIMMER ATTACHED TO PERMANENT RISER



NO GUIDE RAILS SHALL BE REQUIRED FOR THIS INSTALLATION.

THIS DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD CONSTRUCTION DETAILS #7-2 AND #7-4.

STANDARD CONSTRUCTION DETAIL 7-3 SKIMMER WITH STONE LANDING BERM



BASIN NO.	WATER SURFACE ELEVATION (FT)	ARM LENGTH (FT)	ARM DIA. (IN)	ORIFICE DIA. (IN)	TOP OF LANDING DEVICE ELEVATION (FT)	FLEXIBLE HOSE LENGTH (IN)	FLEXIBLE HOSE ATTACHMENT ELEVATION (FT)
1	477.00	4.24	4.0	2.1	474.00	24	474.00

ORIFICE DIAMETER MUST BE EQUAL TO OR LESS THAN ARM DIAMETER. A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED.

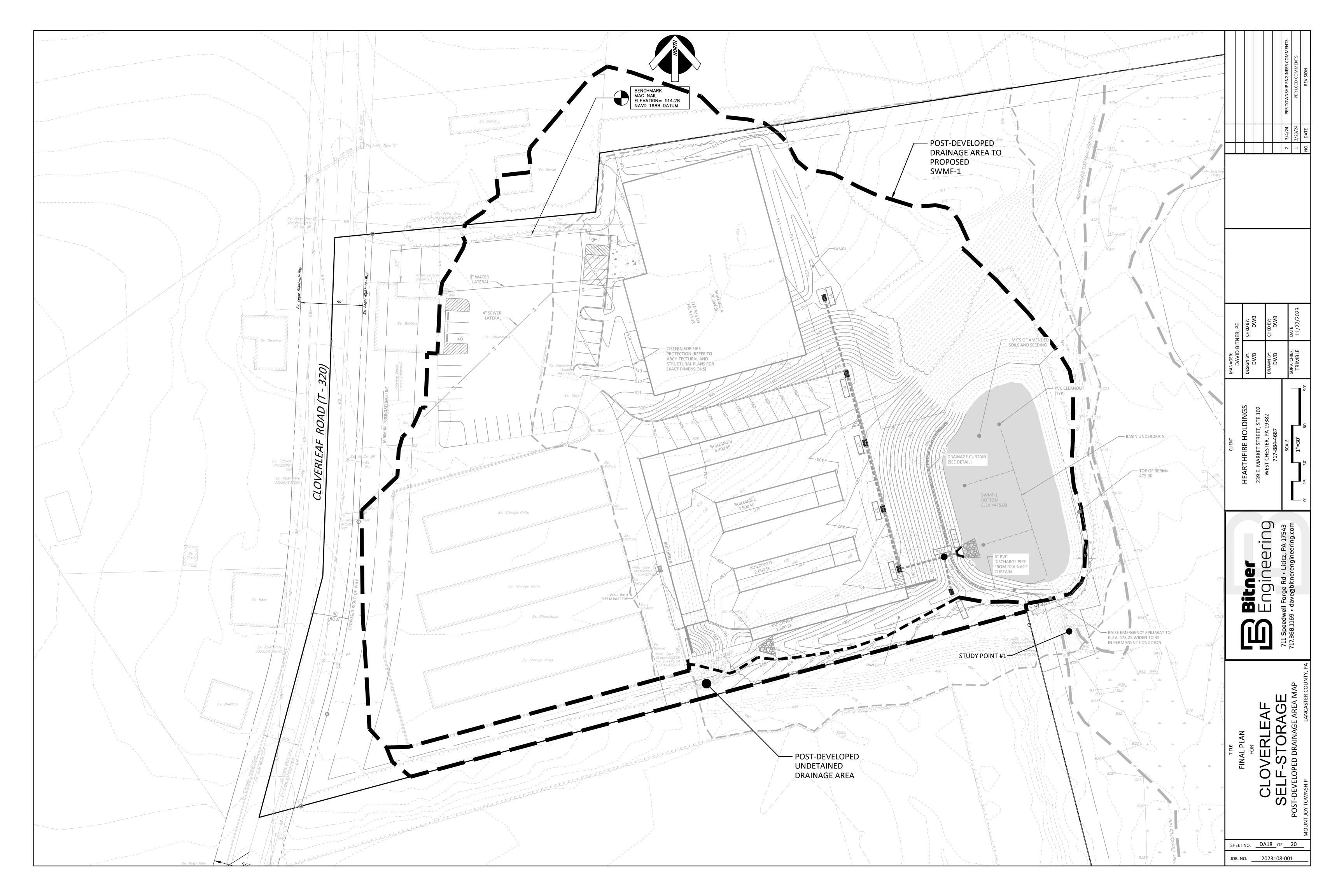
- SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- 5. ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED SO AS TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS
- 7. A SEMI-CIRCULAR LANDING ZONE MAY BE SUBSTITUTED FOR THE GUIDE RAILS (STANDARD CONSTRUCTION DETAIL # 7-3).

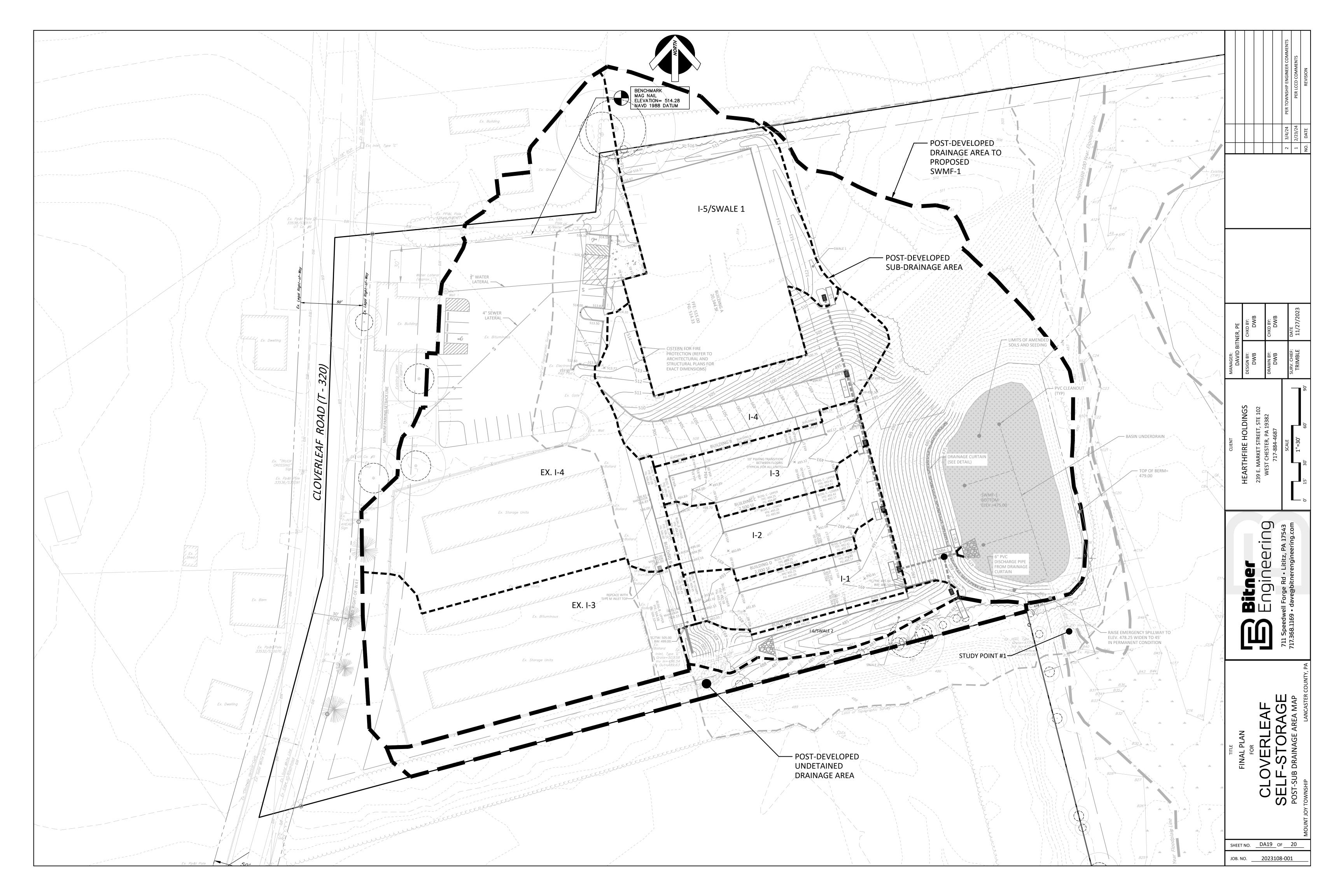
STANDARD CONSTRUCTION DETAIL 7-1 **SKIMMER**

SHEET NO. ES16 OF 20

JOB. NO. 2023108-001







		Luminaire Schedule				<u>Σ</u>
	5.0 5.0 5.0 5.0		Label	[MANUFAC]	Description Arrangement LLD LDD LLF BUG Rating	DAMMEN
t.o t.o t.o t.o	b.o b.o b.o b.o b.o b.o b.o b.o	† 1	Type S2 116	Leotek Electronics USA LLC	AR13-48N-MV-WW-2-BK-150-PCR7-CR/RWL-S/RME-XBP SINGLE 0.900 0.800 0.720 B3-U0-G2	NEER CC
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	5.0	4	Type S4 112	Leotek Electronics USA LLC	AR13-48N-MV-WW-4-BK-150-PCR7-CR/RWL-S/RME-XBP SINGLE 0.900 0.800 0.720 B3-U0-G3	IP ENGI
	0.0 0.0 0.0 0.0 0.0 0.0	- 25	Type WP 29	LEOTEK ELECTRONICS USA LLC	ES1-24H-MV-NW-W-BK-350 SINGLE 0.900 0.800 0.720 B1-U0-G1	DWNSH.
5.0 5.0 <td>5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0</td> <td>t.o t.o t.o t.o</td> <td>5.0 5.0 5.0 5.0 5.0</td> <td></td> <td></td> <td>PER TC</td>	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	t.o t.o t.o t.o	5.0 5.0 5.0 5.0 5.0			PER TC
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		Calculation Summary Label CalcType Units Avg Max Min Avg/Min Max/Min LVRatio Grid Z	24 54 E
5.0 5.0 <td>5.0</td> <td>t.o t.o t.o t.o</td> <td>t.o t.o t.o t.o t.o</td> <td></td> <td>Parking Area Illuminance Fc 0.92 4.2 0.3 3.07 14.00 N.A. 0</td> <td>3/4/ 2/23,</td>	5.0	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		Parking Area Illuminance Fc 0.92 4.2 0.3 3.07 14.00 N.A. 0	3/4/ 2/23,
					Proposed Storage Paved Areas Illuminance Fc 2.31 9.5 0.3 7.70 31.67 N.A. 0	N
5.0 5.0 <td>5.0 5.0 5.0 5.0 5.0 5.0 5.0</td> <td>0.0 0.0 0.0 0.0</td> <td>0.0 0.0 0.0 0.0 0.0</td> <td></td> <td>THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTUREDS.</td> <td></td>	5.0 5.0 5.0 5.0 5.0 5.0 5.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0		THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTUREDS.	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	t.o t.o t.o t.o	to to to to to		BY THE NOTED MANUFACTURERS. ANY SUBSTITUTION REQUESTS MUST BE SUBMITTED 15 DAYS PRIOR TO THE BID AND MUST BE ACCOMPANIED BY A HORIZONTAL	
5.0 5.0 <td>BENCHMARK MAG NAIL ELEVATION 514. 250 5.0 5.0 5.0 5.0 5.0</td> <td>t.o t.o t.o t.o</td> <td>to.0 to.0 to.0 to.0 to.0 to.0</td> <td></td> <td>PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURES IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN.</td> <td></td>	BENCHMARK MAG NAIL ELEVATION 514. 250 5.0 5.0 5.0 5.0 5.0	t.o t.o t.o t.o	to.0 to.0 to.0 to.0 to.0 to.0		PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURES IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN.	
5.0 5.0 <td>NAVD 1988 DATUM No to to to to to to to to to</td> <td>rvey to SEX. Metal. Fence</td> <td></td> <td></td> <td>ALL EXTERIOR LIGHTING PLANS SHALL BE SUBMITTED 15 DAYS PRIOR TO THE BID TO THE LOCAL LIGHTING AUTHORITY TO DETERMINE IF ALL OF THE LOCAL LIGHTING REQUIREMENTS HAVE BEEN MET.</td> <td></td>	NAVD 1988 DATUM No to to to to to to to to to	rvey to SEX. Metal. Fence			ALL EXTERIOR LIGHTING PLANS SHALL BE SUBMITTED 15 DAYS PRIOR TO THE BID TO THE LOCAL LIGHTING AUTHORITY TO DETERMINE IF ALL OF THE LOCAL LIGHTING REQUIREMENTS HAVE BEEN MET.	
Ex. Building	Limit of Topographia Sur	0.0 0.0 0.0	BUILDING SETBACK LINE		INSTALLATION NOTES:	
$\begin{bmatrix} 0.0 & 0.$	0.0	0.0 0.0 MINUM	t.o t.o t.o t.o t.o		1.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES, SUCH AS WATER MAINS, SANITARY AND STORM SEWERS, TELEPHONE AND ELECTRIC CONDUITS, AND GAS LINES, ETC. AND ABOVE GROUND UTILITIES WHICH MAY BE ENCOUNTERED DURING	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5.1 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		CONSTRUCTION OPERATIONS. 2.) DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATIONS, INVERTS, AND DIMENSIONS IN THE FIELD PRIOR TO THE	
5.0 5.0 <td>5.3 5.2 5.0 to 5.0</td> <td>t.o t.o t.o t.o</td> <td>t.o t.o t.o t.o t.o</td> <td></td> <td>COMMENCEMENT OF WORK. 3.) THE PENNSYLVANIA ONE CALL NUMBER IS 1-800-242-1776. THE CONTRACTOR IS REQUIRED TO SUBMIT VERIFICATION TO THE MUNICIPALITY THAT A ONE "ONE-CALL" HAS BEEN PLACED PRIOR TO THE START OF DEMOLITION WORK.</td> <td></td>	5.3 5.2 5.0 to 5.0	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		COMMENCEMENT OF WORK. 3.) THE PENNSYLVANIA ONE CALL NUMBER IS 1-800-242-1776. THE CONTRACTOR IS REQUIRED TO SUBMIT VERIFICATION TO THE MUNICIPALITY THAT A ONE "ONE-CALL" HAS BEEN PLACED PRIOR TO THE START OF DEMOLITION WORK.	
7.75.75					4.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FROM THE MUNICIPALITY RELATIVE TO THE PROPOSED PROJECT. 5.) THE CONTRACTOR SHALL REPAIR ALL UTILITY TRENCHING WORK LOCATED WITHIN EXISTING PAVED STREETS.	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.5 0.4 0.0	D.0 D.0 D.0 D.0	to.0 to.0 to.0 to.0		6.) THE CONTRACTOR SHALL COMPLY WITH ALL CITY, STATE, AND FEDERAL REGULATIONS IN EFFECT AT THE TIME OF CONSTRUCTION. 7.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL.	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5.0 5.0 b.o	t.o t.o t.o t.o	to.0 to.0 to.0 to.0		8.) THE CONTRACTOR SHALL REMOVE ALL TEMPORARY FENCING, GATES, COVERED PEDESTRIAN WALKWAYS, TRAFFIC BARRIERS, AND SIGNAGE AT THE COMPLETION OF THE PROJECT. ALL AREAS DISTURBED AS A RESULT OF THE INSTALLATION OF THESE TEMPORARY CONTROLS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. 9.) THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF SHOWN IN THE LUMINAIRE SCHEDULE.	, in the second
Ex. Pp&l Pole 8 33538/S30111 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	D.O.	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		10.) THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED 11.) ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).	HK HK 17, F
5.0 5.0 5.0 5.0 5.1 5.2 5.4 5.5 5.4 5.3 5.3 5.4 5.5 1.4 3.4	5.0	to to to t-	t.o t.o t.o t.o t.o		12.) THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.	HIN DO TO
	Type S4 112 3				CALCULATION NOTES:	JAGER: DAVID IGN BY: DWB WN BY: DWB V. CHIEF: XIMBLE
0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.3 0.8 2.3 2.0 0.0 0.4 0.4 0.3 0.4 0.6 1.6 3.6	5.0	t.o t.o t.o t.o	to to to to to		THE LIGHT LOSS FACTOR IS A PRODUCT OF MANY VARIABLES. IT IS UP TO THE FINAL REVIEWING AGENCY TO DETERMINE THE APPROPRIATE LIGHT LOSS FACTOR.	MANA DESIG DESIG DRAW TRI
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2.1 2.1	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		ILLUMINATION VALUES SHOWN (IN FOOTCANDLES) ARE THE PREDICTED RESULTS FOR PLANES OF THE CALCULATION EITHER HORIZONTAL, VERTICAL, OR INCLINED AS DESIGNATED IN THE CALCULATION SUMMARY.	
5.0 5.0 <td>1.3 2. 1.3 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.</td> <td>t.o t.o t.o t.o</td> <td>t.o t.o t.o t.o t.o</td> <td></td> <td>POLE NOTES: 25' SQUARE STRAIGHT STEEL POLES SHALL BE SUPPLIED BY ENERGY LIGHT, INC. (FINISH COLOR TO BE BLACK)</td> <td>(0.0)</td>	1.3 2. 1.3 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	t.o t.o t.o t.o	t.o t.o t.o t.o t.o		POLE NOTES: 25' SQUARE STRAIGHT STEEL POLES SHALL BE SUPPLIED BY ENERGY LIGHT, INC. (FINISH COLOR TO BE BLACK)	(0.0)
	\$4.5 \$6.7				LIGHTING CONTROLS AND SURGE PROTECTION: ALL NEW AR13 FIXTURES ARE TO BE EQUIPPED WITH DIMONOFF RME-XBP PHOTOCELLS AND ABLE POWER PRODUCTS RWL-S SURGE DEVICE. FIXTURES MUST BE EQUIPPED WITH ALL-MODE PROTECTION (L-N, L-G, N-G). SURGE PROTECTION INTEGRAL	ING\$
\$\bullet\$ 0.0 \$\bu	1.2	0.0 0.0 0.0 0.0	t.o t.o t.o t.o t.o		TO THE PHOTOCONTROL SHOULD HAVE 3 MODES OF PROTECTION, LINE-TO-NEUTRAL, LINE-TO-GROUND AND NEUTRAL-TO-GROUND. THE MINIMUM SURGE PROTECTION SPECIFICATIONS SHOULD BE 10KA IN, 25KA IMAX AND 20KV UOC.	OLD OLD PA 193 587
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.0 7.7	t.1 t.1 t.1 t.1	to.0 to.0 to.0 to.0		SET ONE SMART PHOTOCELL TO CONTROL ALL AR13 SITE LIGHTING FIXTURES (DIMONOFF #RME-XBP).	RE H STER, STER, 884-46
\$\begin{array}{c c c c c c c c c c c c c c c c c c c	3.7 2.5 0.9	to.2 to.2 to.2 to.1	t.o t.o t.o t.o t.o		FOR PRICING AND COMMISSIONING, PLEASE CONTACT INDEPENDENCE LIGHTING:	THFI MARKE 717- 717- 30'
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	K Tipe Std 112 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 to	to.1 to.0 to.0 to.0 to.0		INDEPENDENCE LIGHTING KENT LAZOR	1EAR 39 E. I. WES
190 Set 112 190 Set 112 190 Set 112 190 Set 112	0.1 0.1 0.2		0.0 0.0 0.0		PHONE: 610-363-5271 EMAIL: KLAZOR@COMCAST.NET	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2.0 1. 0.5 0.1 0.1 0.2 0.2 0.3 0.5 0.6	b.8 b.5	5.1 5.0 5.0 5.0 5.0			■ ō
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	b.8 b.6 t.6 t.6 t.6 t.6 t.6 t.6 t.6 t.6 t.6 t	1.2	to.4 to.1 to.0 to.0 to.0			
0.0 0.0 0.0 0.0 0.0 0.0 0.5 <td>0.5 0.5 0.7 0.8 \tag{5.8}</td> <td>3.2 2.8</td> <td>1.5 to. to.1 to.0 to.0</td> <td></td> <td></td> <td>7543 9.com</td>	0.5 0.5 0.7 0.8 \tag{5.8}	3.2 2.8	1.5 to. to.1 to.0 to.0			7543 9.com
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	MILES 300 31 AMES 2		7,000 S2 V6 0.5 0.1 0.0 0.0			PA 1
0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.3 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.3 0.3 0.5 0.4 0.5 0.5 0.4 0.5	0.3 0 5.1 Tues 30 7.6 3.1 EX. 8 Pollard 9 Poll					P Pititz,
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.1 b.0 b.	6.0 \$3.6	2.7 0.6 0.1 0.0 0.0			
5.0 5.0 5.0 5.0	5.0 5.0 5.0 5.7 1 6 0 D.7 1 6 0 D.7 1 1 6 0 D.7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12 22	1.5 0.5 0.1 0.0 0.0			
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	5.0 Ex. BOHOLING 2,500 St. 2,500 St.	3.5 5.9 1.5	5.9 5.4 5.1 5.0 5.0			
Ex. Storage Units Sign Ex. Storage Units	Mit 9					Sedw 1169
5.0' 5.0 6.0 </td <td>0.0 0.0 0.0 Ex. Bollard</td> <td>1.0 0.7</td> <td>5.6 5.3 5.1 5.0 5.0</td> <td></td> <td></td> <td>.1 Sp.</td>	0.0 0.0 0.0 Ex. Bollard	1.0 0.7	5.6 5.3 5.1 5.0 5.0			.1 Sp.
5.0 5.0 <td>5.0 b.0 b.0 b.0 12</td> <td>3.5</td> <td><u>5.4</u> 5.3 5.2 5.1 5.0</td> <td></td> <td></td> <td></td>	5.0 b.0 b.0 b.0 12	3.5	<u>5.4</u> 5.3 5.2 5.1 5.0			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5.0 t.0 t.0 t.0 t.0 t.2 1.3 06 t.2 1.3 06	t _{0.4}	0.5 0.6 0.3 0.1 0.0			A A
10 10.0 20.0 10.0 20.0 10.0	DO BOTON TO	MH 9	10 to to			TNU X
But the second of the second o						川
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		t.o t.o t.o			Gest
5.0 5.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	t.0 0.0	to to to to to			
to t	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	t.o t.o t.o t.o	t.0 t.0 t.0 t.0	6 2		LAN A OF PLAN
	Society to the	to to to	10 to to to to			NAL P FOR FOR HTING
S.S	0.0 0.0 0.0 0.0 0.0	0.0				
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	to.0 to.0 to.0 to.0	to to to to to to			- I ^ I
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	0.0 St. QACK LINE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	to.0 to.0 to.0 to.0	t.o t.o t.o t.o t.o			SEL
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.0	0.0 0.0 Long of Tonggrap	to 0.0 0.0 0.0 0.0 0.0			T YOU
						DUNT
70.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	to.0 to.0 to.0 to.0			SHEET NO. <u>LP20</u> OF <u>20</u>
t.o.	5.0	t.o \ \ t.o \ t.o \ t.o	to to to to to			JOB. NO
		,				

March 21, 2024

Justin Evans
Township Community Development Director/Zoning Officer
Mount Joy Township
8853 Elizabethtown Road
Elizabethtown, PA 17022

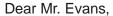
Via email: Justin@mtjoytwp.org

Re: Cloverleaf Self-Storage

Preliminary/Final Land Development Plan

Township Permit No. 23-12-FLDP

LCEC Project No: 25-162



We have received a land development plan submission from Bitner Engineering for the abovereferenced project. The submission consisted of the following documents:

- Comment response letter dated March 4, 2024
- Modification/waiver request letter revised March 4, 2024
- Proposal for Traffic Engineering Services dated January 29, 2024
- Traffic Impact Fee Analysis dated January 29, 2024
- Preliminary/Final Land Development Plan revised March 4, 2024
- Stormwater Management Report dated March 4, 2024
- Wetland Investigation dated February 26, 2024
- Probable Construction Cost Opinion dated March 4, 2024
- Probable Construction Cost Opinion (Fee-in-lieu- Frontage Improvements) dated March 4, 2024
- Water/Sewer Feasibility Narrative dated March 4, 2024
- Geotechnical Engineering Report revised September 30, 2022

Based upon my review of the submitted information, I offer the following comments for the Township to consider:

Zoning Ordinance

- 1. At a Zoning Hearing Board meeting on July 5, 2023, the Board granted the following:
 - a. Special Exception per Section 135-163.D to modify the prior special exception approvals to develop a miniwarehouse facility.
 - b. Variance from Section 135-245.F to exceed the maximum building area.
 - c. Variance from Section 135-165.(A)(1) to permit a building less than the minimum building height.
- 2. The rear yard setback for off-street parking, outdoor storage areas, and loading areas shown in the Zoning/Site Data table shall be corrected (135-165.E(3)).
- 3. The maximum luminaire mounting height shall be 15 feet (135-298.C(4)(b)).



- 4. The applicant shall enter into a recordable agreement with the Township providing for the permanent maintenance of the riparian corridor, in a form acceptable to the Township Solicitor (135-306.F).
- 5. The applicant shall enter into a recordable agreement with the Township providing for the permanent maintenance of the wetland area, in a form acceptable to the Township Solicitor (135-307.E).

Subdivision and Land Development Ordinance

- 6. A preliminary plan is required (119-25). The applicant has requested a modification of this requirement.
 - <u>Modification response</u>: The applicant proposes to process this as a preliminary/final plan which includes both preliminary and final plan requirements. This project is not phased and construction of public improvements is not scheduled to begin prior to plan recordation, therefore I have no objection to this modification.
- 7. The plans shall be signed and sealed by a registered engineer, surveyor or landscape architect (119-31.A(5)).
- 8. The address of the owner of the subtract tract shown on the Cover Sheet is inconsistent with the address of the owner shown in County records (119-31.B(3)).
- 9. The Previous Plan Approvals certificate shall include a statement that such list is complete and correct (119-31.B(14) & 119-51.C).
- 10. Existing features within 200 feet of the subject tract shall be shown on the plans (119-31.C(3) & 113-43.I(5)). The applicant has requested a modification of this requirement.
 - <u>Modification response</u>: The existing features within 200 feet of the subject tract are shown except for the northern and southern regions of the eastern portion of the subject tract. There are no proposed improvements in these areas and no offsite impacts from this development are expected in these areas. Based on these considerations, I have no objections to a modification of this requirement.
- 11. The unit of occupancy (1 unit) shown on the Cover Sheet shall be corrected to reflect the two (2) units shown on the plan (the existing office plus the miniwarehouses). The density shown in the Zoning/Site Data table shall be shown as units / acre (119-31.D(3)).
- 12. The line types of the "Existing Lot Pins" and "Existing Lot Pin To Be Set" in the legend on Sheet 3 of the plans are inconsistent with some of the line types for the corners shown on Sheet 3 of the plans. The name of the "Existing Lot Pin To Be Set" label in the legend of Sheet 3 shall be corrected (i.e. existing pins cannot be set) (119-31.D(14). The applicant shall confirm whether an existing lot marker is located on the southern property line (near the existing rip-rap apron).
- 13. The water and sewer feasibility report shall include the nature of the proposed use, the proposed number of employees and whether water will be used for cleanup and/or processing in connection with the use (119-32.A(9)).
- 14. A traffic impact study is required since the development is a nonresidential development with a building in excess of 1,000 square feet of usable space. The developer intends to make a contribution in lieu of traffic study (119-32.C(2) & 119-32.C(6)). The applicant has requested a modification of the requirement to make a contribution in lieu of traffic study.

<u>Modification response</u>: The applicant is requesting that a contribution in lieu of a traffic study be provided. Per Section 119-32.C(6), the estimated contribution shall be \$1.50 per square foot of usable building floor area. The applicant has provided a January 29, 2024 proposal from

March 21, 2024 Page 2 of 5

Transportation Resource Group, Inc. for a Traffic Impact Study and has requested the total cost of \$9,000.00 listed on the proposal be considered the contribution in lieu of a traffic study. I have no objections to using the proposal as the contribution in lieu of a traffic study provided the proposal includes costs for the following requirements:

- a. The contribution is in addition to all other review fees.
- b. All contributions shall be paid prior to recording of the final plan.
- c. The waiver request letter be updated to reflect the total cost of \$9,000.00 from TRG's TIS proposal.
- 15. All certificates shall be executed prior to final plan approval (119-35.E).
- 16. Written notice shall be provided from the DEP that approval of the sewer planning module has been granted or notice from the Department that such approval is not required (119-35.E(2)(a) & 119-60.A).
- 17. Written notices from the emergency service providers that will serve as the primary responders for the land development shall be submitted indicating that the building layout is satisfactory and will not present any obstacles or other problems for emergency responders to the land development (119-35.E.(2)(h)).
- 18. Legal descriptions for easements to be dedicated to the Township shall be provided (119-35.E(4)(a)).
- 19. Legal descriptions for the right-of-way proposed for dedication to Mount Joy Township shall be provided (119-35.E(4)(b)).
- 20. A Stormwater Management Agreement and Declaration of Easement in a form acceptable to the Township Solicitor shall be executed and recorded (119-35.E(4)(c), 119-56.E & 113-62).
- 21. A land development agreement in a form acceptable to the Township Solicitor shall be executed (119-35.E(4)(f)).
- 22. A construction cost estimate and financial security shall be provided (119-41 & 113-60). The Probable Construction Cost Opinion shall include the topsoil stockpile, bulk grading, finish grading, replacement Type "M" inlet top, 6" PVC discharge pipe, ERNMX-262 seed mix, lot markers, parking lot pavement, retaining wall, endwall/trash rack for the existing 18" SLCPP pipe, and pavement removal. The quantities for the drainage swale and cleanouts should be corrected. The total cost for the concrete wheel stops should be corrected.
- 23. The frontage along Cloverleaf Road (a collector street) shall be improved in accordance with 119-52.J or as indicated on the Township Official Map, whichever is greater. Improvements shall include pavement widening. The required cartway width for a collector street outside of the urban growth area is 32 feet (i.e. 22 feet with 5-foot paved shoulders) (119-52.J(3)(a) & (d)). The applicant has proposed a fee-in-lieu of construction improvements. The developer shall deposit funds with the Township in the amount of \$6,853.55 shown on the Probable Construction Cost Opinion dated March 4, 2024.
- 24. Deeds to lots which contain clear sight triangles shall provide the same restrictions within General Note #15 on Sheet 2 (119-52.L).
- 25. General Note #8 shall be included in all deeds for lots which contain an easement (119-56.B).
- 26. Requirements for the drainage easements shall be included in the new deed (119-56.E).
- 27. Lot line markers shall be set at all angles in property lines (119-57.D).

March 21, 2024 Page 3 of 5

- 28. Plant Guarantee Note #1 shall include the following: "No more than 1/3 of the tree or shrub shall be damaged or dead without replacement. Replacement plants shall conform to all requirements of this section and shall be maintained after replanting for an additional 18 months" (119-59.C).
- 29. A replacement location for the on-lot sewage system shall be provided (if the Township determines connection to the public sewer is not required) (119-60.C(2)).
- 30. Any action taken on waiver requests, dates, and any conditions of approval shall be added to the cover sheet (119-91.C).

Stormwater Management Ordinance

- 31. Evidence of NPDES and E&S permit approval by the Lancaster County Conservation District shall be provided (113-31.D, 113-45.B & 113-45.C).
- 32. The plans shall incorporate the construction recommendation of a "minimum buffer (2 feet in infiltration facilities, and 1 foot in water quality facilities) above limiting zones" described on page 11 of the updated geotechnical engineering report (113-31.L(1)). The revised September 30, 2022 geotechnical engineering report shall be referenced in the Geotechnical Notes on Sheet 2 of the plans.
- 33. The area of the limit of disturbance shown on the plans (2.72 ac) is inconsistent with the area of the "Total Earth Disturbance" shown in the General Information and Volume Management worksheets (2.79 ac) (113-32).
- 34. The incremental & storage volumes shown in the Facility Surface Dewatering Computation SWMF-1 worksheet for elevations 476.00 and 477.00 are inconsistent with the Cumul. Volume shown in the Facility Surface Dewatering Computation worksheet (including the amended soils volume). The dewatering times shown in the SWMF-1 and MRC-Dewatering Facility Surface Dewatering Computation worksheets in the PCSM Report are inconsistent (113-32.D).
- 35. Minimum floor elevations for all structures that would be affected by open conveyance systems where ponding may occur shall be two feet above the one-hundred-year water surface elevation (113-34.F). Currently, there is only 1.08 feet between the 100-year storm ponding depth of Inlet I-1 and the first floor elevation of Building 'E'.
- 36. The locations of the proposed Endwall Trash Racks shall be shown on the plans (i.e. provide for the existing endwall) (113-37.C(9)(a)).
- 37. The landowner shall execute the final documents prior to final plan approval (113-41.B).
- 38. All existing manmade features within 200 feet of the development site boundary shall be shown (113-43.I(5)). The applicant has requested a modification of this requirement.
 - Modification response: The existing features within 200 feet of the subject tract are shown except for the northern and southern regions of the eastern portion of the subject tract. There are no proposed improvements in these areas and no offsite impacts from this development are expected in these areas. Based on these considerations, I have no objections to a waiver of this requirement.
- 39. The diameter of Orifice [C] and the crest elevation of Weir [A] shown in Pond Report No. 3 are inconsistent with the diameter of the orifice and crest elevation of the outlet structure shown in the Stormwater Management Facility 1 (Extended Detention) Detail (113-43.J(5)).
- 40. The crest length of Weir [B] shown in Pond Report No. 3 is inconsistent with the length of the spillway shown in the Emergency Spillway Detail (113-43.J(5)).
- 41. The "six" inch dimension shown in the Underdrain Detail shall be revised (113-43.J(5)).

March 21, 2024 Page 4 of 5

- 42. The proposed outlet structure for SWMF-1 shall be shown on Sheet 6 of the plans (113-43.J(5)).
- 43. An operation and maintenance (O&M) agreement shall be provided (113-62).

Traffic

44. The proposed development is located within the Transportation Service Area established for the Mount Joy Township Traffic Impact Fee Ordinance. However, trip generation reports have been submitted to confirm that the proposed development will result in no more than five (5) P.M. peak hour trips; therefore, this development is a de minimus application and is exempt from the impact fee.

If you should have any questions or need additional information, please do not hesitate to contact me at bencraddock@lancastercivil.com or via telephone at 717-799-8599.

Sincerely,

Benjamin S. Craddock, PE, President

LANCASTER CIVIL

Bayjamin S Cashlock

cc: Patricia Bailey, Township Secretary (via email)

Josele Cleary, Esquire, Township Solicitor (via email)

Dave Bitner, PE, Bitner Engineering (via email)

Len Spencer, Township SEO (via email)

Del Becker, PE, EAWA (via email)

Nick Viscome, ERSA (via email)

Adam Minichelli, PE, CDM Smith (via email)

Renee Addleman, Planner, LCPC (via email)

March 21, 2024 Page 5 of 5

PROPOSED MOTION FOR THE FINAL LAND DEVELOPMENT PLAN FOR CLOVERLEAF SELF-STORAGE M.J.T.P.C. File # 23-12-FLDP

I move that the Township Planning Commission grant waivers of Chapter 119 of the Code of Ordinances of the Township of Mount Joy, i.e. the Mount Joy Township Subdivision and Land Development Ordinance as follows:

- a) §119-31.C(3) Existing features within 200' of the site
- b) §119-56.E Minimum easement width
- c) §113-43.I(5) Existing features within 200' of the site

And having granted such waivers, grant approval of the Final Land Development Plan for Cloverleaf Self-Storage (the "Plan") prepared by Bitner Engineering, Drawing No. 2023108-001, dated November 27, 2023, subject to the following conditions:

- 1. To the extent not otherwise provided in these conditions, Applicant shall address the comments of the Township Engineer's review letter dated March 21, 2024.
- 2. To the extent not otherwise provided in these conditions, Applicant shall address the comments of the Township Solicitor's review letter dated December 3, 2023.
- 3. Applicant shall address and comply with all conditions contained in the Mount Joy Township Zoning Hearing Board (MJTZHB) decision dated July 12, 2023.
- 4. Applicant shall submit a fully executed Storm Water Management Agreement and Declaration of Easement, which shall be acceptable to the Township Solicitor and in recordable form. The Agreement, fully executed, shall be submitted and approved prior to the release of the final plan for recording.
- 5. Applicant shall submit a fully executed Grant of Conservation Easement, which shall be acceptable to the Township Solicitor and in recordable form. The Agreement, fully executed, shall be submitted and approved prior to the release of the final plan for recording.
- 6. Applicant shall submit a fully executed Agreement Providing for Grant of Public Right-of-Way, which shall be acceptable to the Township Solicitor and in recordable form. The Agreement, fully executed, shall be submitted and approved prior to the release of the final plan for recording.
- 7. Applicant shall pay Mount Joy Township a fee-in-lieu of having to prepare and submit a traffic impact study in the total dollar amount of \$5,500.00. Said payment shall occur prior to the release of the final plan for recording.
- 8. Applicant shall provide a fee-in-lieu of constructing road frontage improvements along Cloverleaf Road in the amount of \$6,853.55. An executed agreement or similar instrument shall accompany the fee in a form acceptable to the Township Solicitor, if required.
- 9. Applicant shall submit a fully executed Land Development Agreement, which shall be acceptable to the Township Solicitor. Said Agreement shall be submitted and approved prior to the release of the final plan for recording.

- 10. Applicant shall submit financial security to guarantee the proper installation of all improvements associated with this land development project prior to the release of the final plan for recording and shall be in a form acceptable to the Township Solicitor. The amount of said financial security shall be in the amount consistent with the construction cost opinion approved by the Township Engineer.
- 11. Applicant shall apply for and obtain all necessary permits prior to commencing any construction activities.
- 12. Applicant shall reimburse the Township for all reasonable engineering and legal fees incurred in the review of plans under the Subdivision and Land Development Ordinance, Storm Water Management Ordinance, and other governing ordinances; review or preparation of documentation required in connection with the development; review and approval of financial security and other documentation; inspection of improvements; and for other costs as set forth in these Conditions within 30 days after receipt of an invoice for such fees. If Applicant fails to pay such costs within 30 days after the date of a written invoice for such costs, Applicant shall be in violation of this Condition.

ACCEPTANCE OF CONDITIONS UPON APPROVAL OF A FINAL LAND DEVELOPMENT PLAN IMPOSED BY THE PLANNING COMMISSION OF MOUNT JOY TOWNSHIP FOR

CLOVERLEAF SELF-STORAGE M.J.T.P.C. File # 23-12-FLDP

I have reviewed the conditions imposed by the Planning Commission of Mount Joy Township, Lancaster County, Pennsylvania, at the meeting on March 25, 2024, upon the approval of the Final Land Development Plan for Cloverleaf Self-Storage (the "Plan") prepared by Bitner Engineering, Drawing No. 2023108-001, dated November 27, 2023. In my capacity as developer/developer's agent and being authorized to do so, and intending to be legally bound, I hereby accept the imposition of the conditions attached hereto as part of the approval of the above-described subdivision and/or land development project. I expressly waive any requirements of the Pennsylvania Municipalities Planning Code that the Township provide a section number of a governing ordinance, statute or regulation upon which such conditions are based and a description of the requirements which have not been met. To the extent that any condition is not based upon a specific requirement of a governing ordinance, statute or regulation, I expressly waive any right which I may have to challenge the imposition of such condition. If signing as developer's agent, I expressly state that I have been authorized by developer to agree to the conditions imposed upon the approval of the above-described subdivision and/or land development application.

Date:		
	Signature	
	-	
	Printed Name	
	Title	