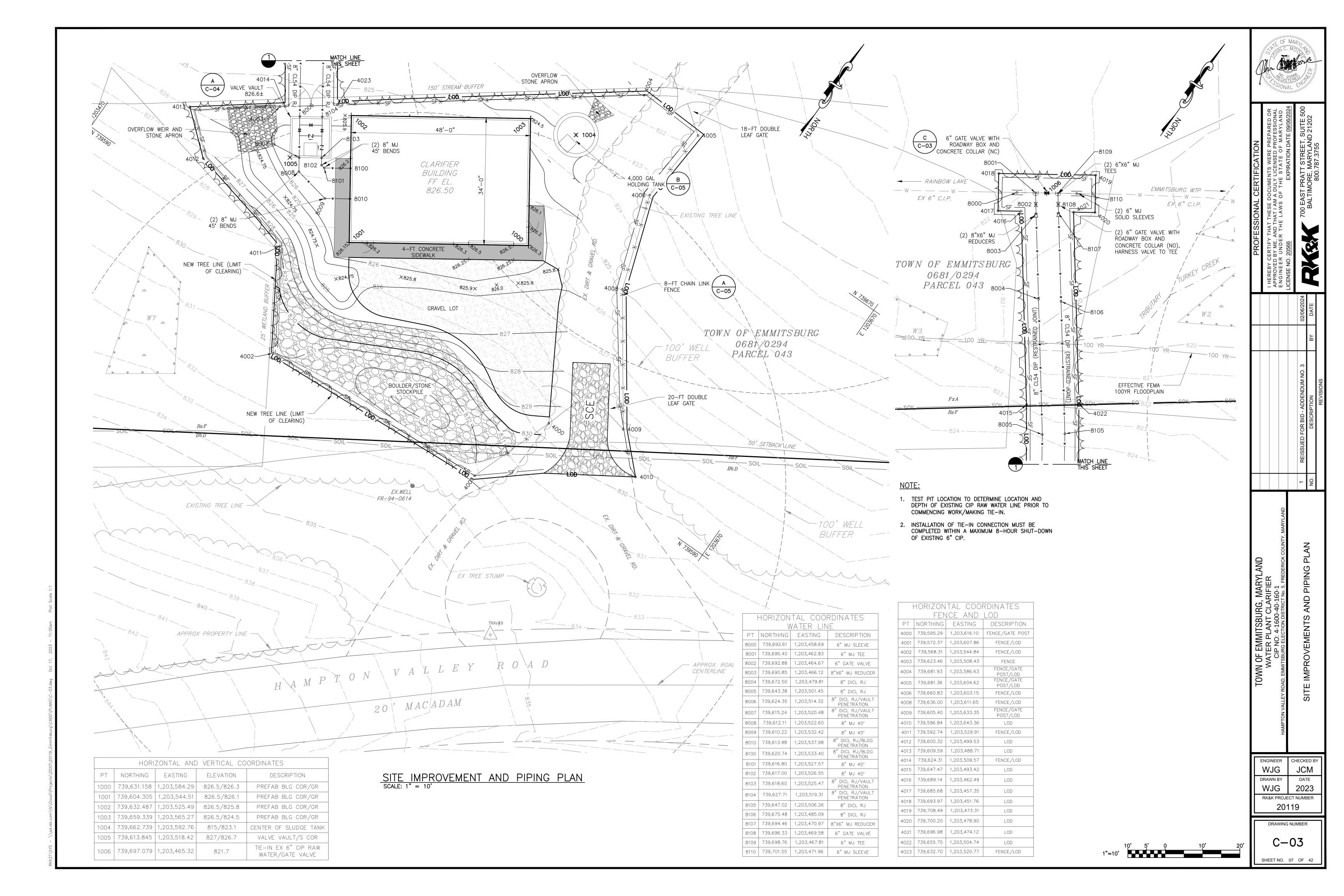
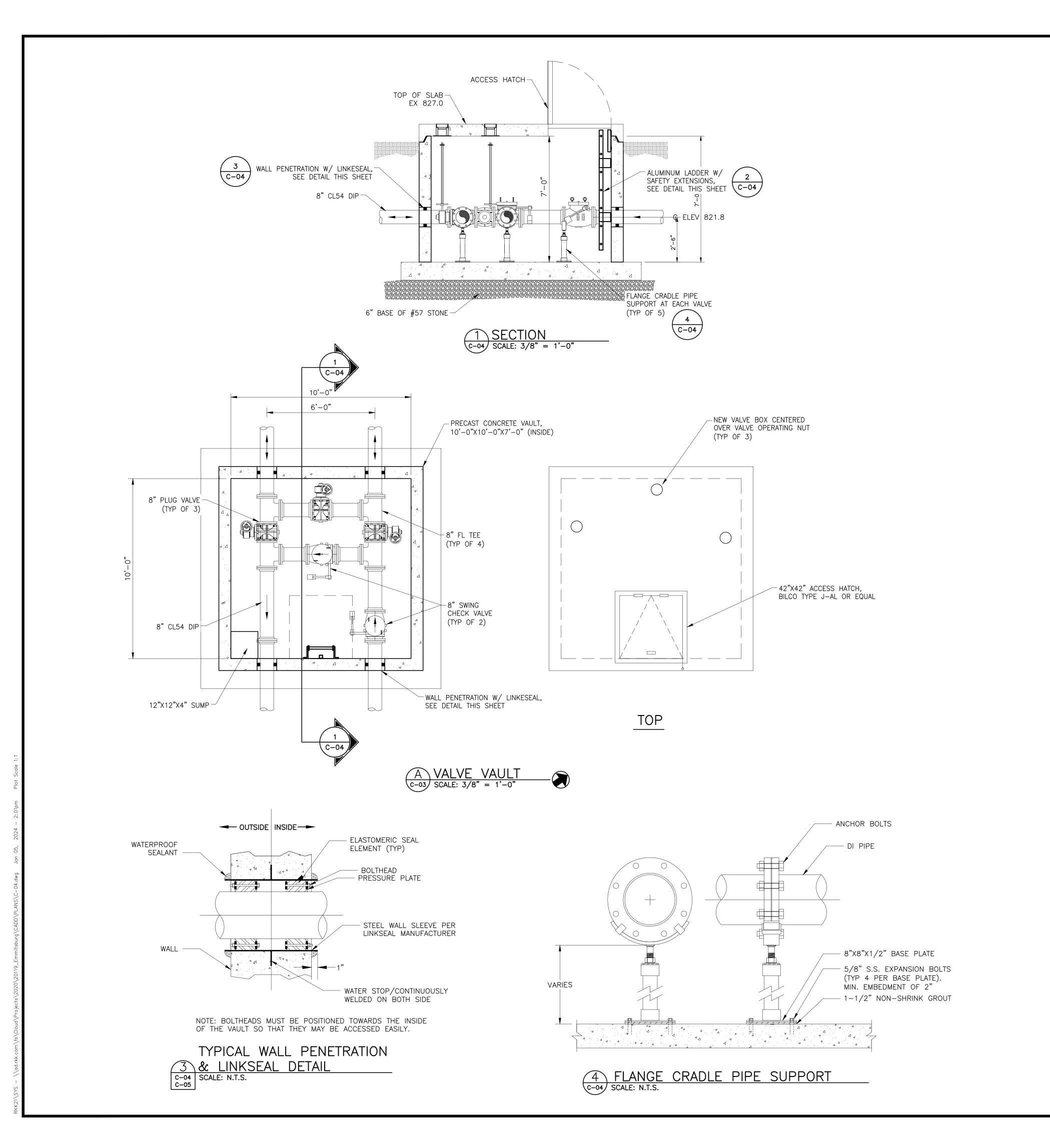
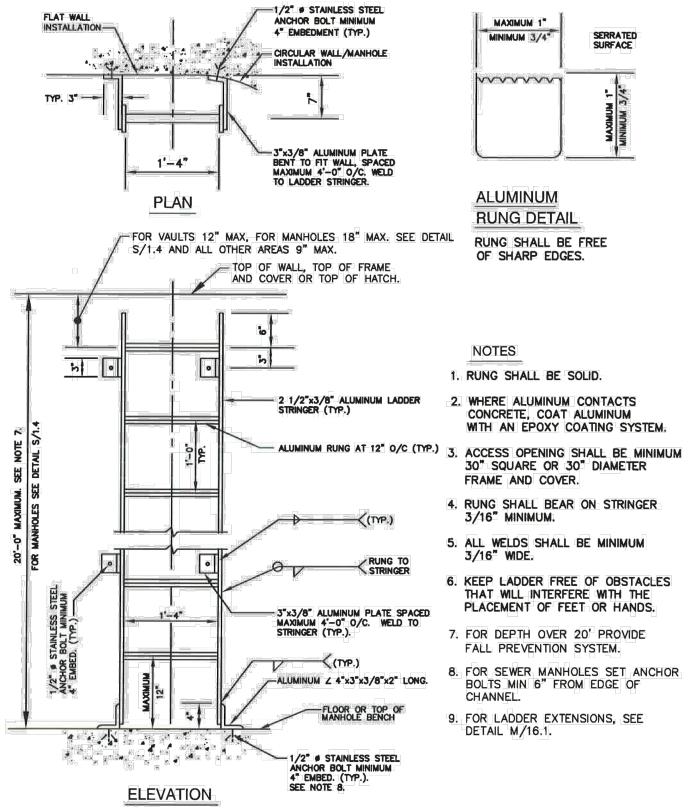


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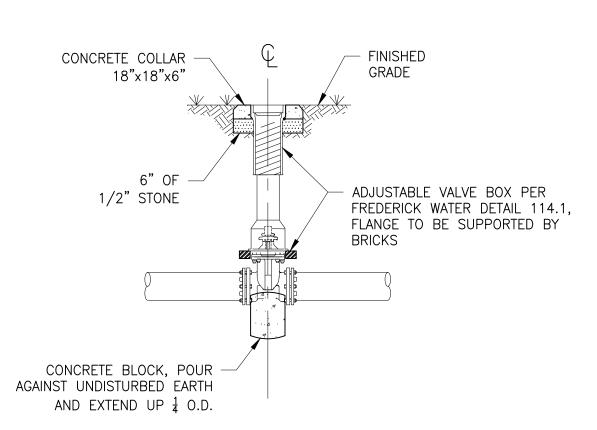




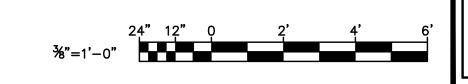


ALUMINUM LADDER &

2 SAFETY EXTENSION COOL SCALE: N.T.S.



C VALVE BOX WITH CONCRETE COLLAR SCALE: N.T.S.



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APPROVED BY ME, AND					CIP NO: 4-1600-40-160-1
I HEREBY CERTIFY THA					WATER PLANT CLARIFIER
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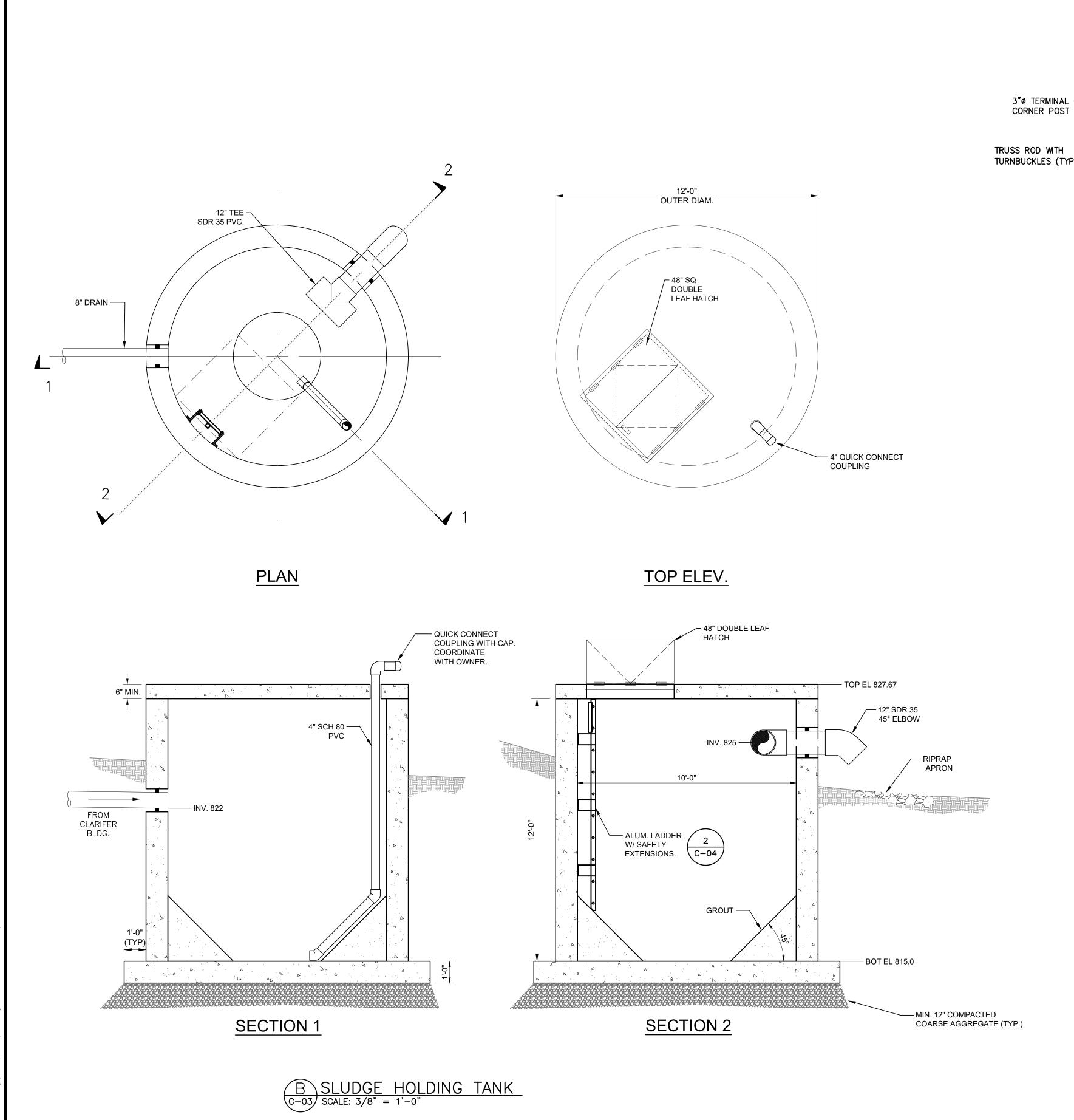
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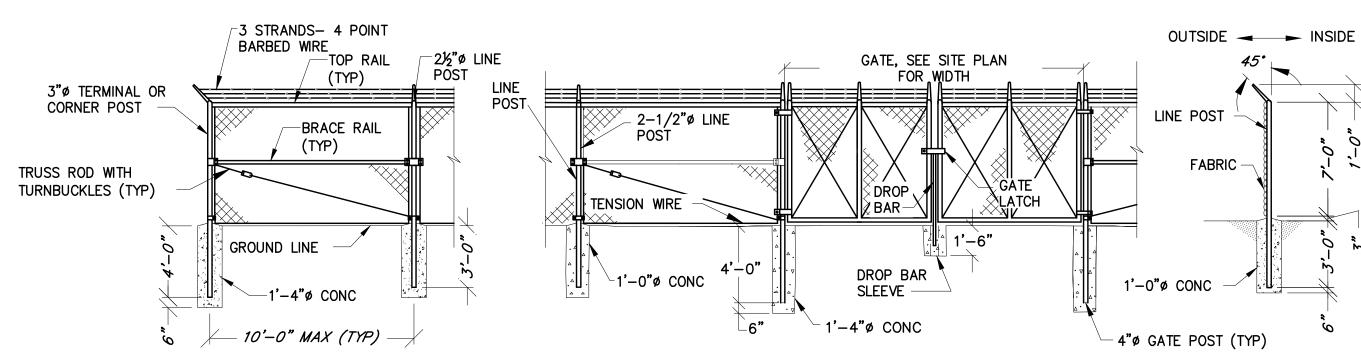
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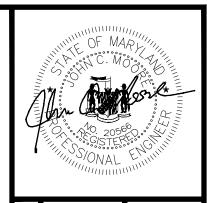




NOTE

1. THE BOTTOM OF THE FABRIC SHALL BE TO FINISHED GRADE, BUT NOT MORE THAN 2" ABOVE THE GROUND.

A CHAIN-LINK FENCE DETAIL C-03 SCALE: NTS



TIFY THAT THESE DOCUMENTS WERE PREPARED OR ME, AND THAT I AM A DULY LICENSED PROFESSIONAL NDER THE LAWS OF THE STATE OF MARYLAND.

EXPIRATION DATE 09/06/2024

TOO EAST PRATT STREET, SUITE 500
BALTIMORE, MARYLAND 21202

ARYLAND

1 REISSUED FOR BID - ADDENDUM NO. 3

NO. DESCRIPTION

REVISIONS

1 HEREBY CERTIFY
APPROVED BY ME, ENGINEER UNDE CONDENS

1 REISSUED FOR BID - ADDENDUM NO. 3

NO. DESCRIPTION

REVISIONS

ENGINEER	CHECKED BY
WJG	JCM
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RK&K PROJE	CT NUMBER
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TOWN OF EMMITSBURG, MARYLAND WATER PLANT CLARIFIER CIP NO: 4-1600-40-160-1

C-05

B-4-2 STANDARDS AND SPECIFICATIONS SOIL PREPARATION. TOPSOILING. AND SOIL AMENDMENTS

THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

<u>PURPOSE</u>

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

A. SOIL PREPARATION

1. TEMPORARY STABILIZATION

- a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
- b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
- c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

2. PERMANENT STABILIZATION

- a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
- I. SOIL PH BETWEEN 6.0 AND 7.0.
- II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
- SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
- IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
- V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
- b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE
- c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
- d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS
- OF A SOIL TEST. e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE, LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE, SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING

- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT. LOW NUTRIENT LEVELS. LOW PH. MATERIALS TOXIC TO PLANTS. AND/OR UNACCEPTABLE SOIL GRADATION.
- TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY
- 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
- c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
- d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
- TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 - TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 11/2 INCHES IN DIAMETER.
 - TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

TOPSOIL APPLICATION

- a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL
- b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE, ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE

CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
- FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY, FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
- LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
- 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

B-4-3 STANDARDS AND SPECIFICATIONS SEEDING AND MULCHING

DEFINITION

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

<u>PURPOSE</u>

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION,

CONDITIONS WHERE PRACTICE APPLIES

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

SPECIFICATIONS

- a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
- b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
- INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
- d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

2. APPLICATION

- a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE—SPECIFIC SEEDING SUMMARIES.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD
- b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
 - II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION
- c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
- I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE: K20 (POTASSIUM), 200 POUNDS PER ACRE.
- II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
- III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
- IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

- a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
- WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING
- WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
- IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
- V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

2. APPLICATION

- a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
- b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
- WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

ANCHORING

- PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
- A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
- WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
- IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

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Frederick Soil Conservation District Erosion and Sediment Control Plan Approval

District Manager or Designee Date: 12/13/1023 Plan is valid for 2 years from date of approval

Bv: And

SCD approval for sediment and erosion control is in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control and is contingent upon issuance of all applicable regulatory permits.

CHECKED B JCM WJG DRAWN BY DATE 2023 KMR RK&K PROJECT NUMBER 20119

SHEET NO. 10 OF 42

DRAWING NUMBER

SIGNATURE JOHN C. MOORE, PE PRINT NAME

SOIL EROSION AND SEDIMENT CONTROL NOTES:

INSPECTED AND LEFT IN OPERATIONAL CONDITION.

FEDERAL, STATE OR MUNICIPAL REGULATIONS.

REQUIRED.

UTILITY NOTES:

IMMEDIATELY.

SECTION I - CERTIFICATIONS:

PRINT NAME

CONSULTANT'S CERTIFICATION:

PLAN WITH THE OWNER / DEVELOPER."

OWNER'S DEVELOPER'S CERTIFICATION

SUPERVISORS OR THEIR AUTHORIZED AGENTS."

SIGNATURE OF OWNER DEVELOPER

OF EACH PRACTICE SPECIFIED HEREIN.

UNDER ACTIVE GRADING.

REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION

WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD

AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS

ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT.

SEDIMENT CONTROL INSPECTOR AND THE CATOCTIN & FREDERICK SOIL CONSERVATION DISTRICTS.

SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL

CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT

CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE

AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY

STABILIZATION MUST BE COMPLETED WITHIN: A.) THREE (3) CALENDAR DAYS AS TO THE

SLOPES STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1), AND B.) SEVEN (7)

ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO

DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG H.22, FOR

ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES

THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE CATOCTIN & FREDERICK SOIL

EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH

THE FOLLOWING ITEM MAY BE USED AS APPLICABLE: REFER TO "MARYLAND'S GUIDELINES TO

WATERWAY CONSTRUCTION" BY THE WATER MANAGEMENT ADMINISTRATION OF THE MARYLAND

DEPARTMENT OF THE ENVIRONMENT, REVISED NOVEMBER 2000, FOR STANDARD DETAILS AND

PUMPING SEDIMENT-LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY

PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.

12. NO PUMPING FROM FOUNDATION EXCAVATIONS WILL BE ALLOWED DIRECTLY INTO THE

NOTHING HEREIN RELIEVES THE CONTRACTOR FROM COMPLYING WITH ANY AND ALL OTHER

TOWN SYSTEM UNLESS IT IS FILTERED BY WAY OF SEDIMENT TRAPS OR DEWATERING DEVICE.

ALL EXCAVATION MATERIAL SHALL BE PLACED ON THE HIGH SIDE WHENEVER POSSIBLE AND

CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OF DRAINAGE

14. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES WILL BE

THE CONTRACTOR SHALL NOT DEVIATE FROM THE APPROVED SEDIMENT AND EROSION

CONSERVATION DISTRICTS. VARIATIONS TO THE PLAN MUST BE SUBMITTED IN WRITING,

ACCOMPANIED BY A COPY OF THE ORIGINALLY APPROVED PLAN MODIFIED TO SHOW THE

CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED

AND STABILIZED EACH DAY, IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY.

ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT

DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT, I/WE ALSO CERTIFY THAT THE SITE WILL BE

INSPECTED AT THE END OF EACH WORKING DAY, AND THAT ANY NEEDED MAINTENANCE WILL BE

TITLE

THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND

COMPLETED SO AS TO INSURE THAT ALL SEDIMENT CONTROL PRACTICES ARE LEFT IN

OPERATIONAL CONDITION. I/WE AUTHORIZÉ THE RIGHT OF ENTRY FOR PERIODIC ON-SITE

EVALUATION BY THE CATOCTIN & FREDERICK SOIL CONSERVATION DISTRICTS BOARD OF

WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN

REQUESTED CHANGES, FOR THIS APPROVAL. SUBSTANTIAL CHANGES WILL NECESSITATE

CONTROL PLANS WITHOUT PRIOR APPROVAL OF THE CATOCTIN & FREDERICK SOIL

AMENDING THE BUILDING AND/OR GRADING PERMIT IF APPLICABLE.

SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.

PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH

DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.

CATOCTIN & FREDERICK COUNTY SOIL CONSERVATION DISTRICTS FOR APPROVAL.

ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.

CONSERVATION DISTRICTS PRIOR TO THE INITIATION OF THE CHANGE.

AN OPEN GRADING PERMIT AND APPROVED SEDIMENT AND CONTROL PLAN.

DATE 20566 MD LICENSE NUMBER

"I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL

PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CATOCTIN & FREDERICK SOIL

CONSERVATION DISTRICTS AND THE CURRENT STATE OF MARYLAND SPECIFICATIONS FOR SOIL

EROSION AND SEDIMENT CONTROL. HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL

AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THIS PLAN WAS

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

URPOSE

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA

- 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
- 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

		TEMPORAR	Y SEEDING SUMMARY			
		ARDINESS ZONE: 7A NG MIXTURE TABLE B.			FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
	BARLEY (HORDEUM VULGARE)	96	FEB 15 TO APR 30; AUG 15 TO NOV 30	1.0"	400 1 10/40 440	2 TONS/AC
	CEREAL RYE (SECALE CEREALE)	112	FEB 15 TO APR 30; AUG 15 TO DEC 15	1.0"	436 LB/AC (10 LB/1,000 SF)	(90 LB/1,000 SF)
	FOXTAIL MILLET (SETARIA ITALICA)	30	MAY 1 TO AUG 14	0.5"		

NOTES:

1. SEEDING RATES FOR THE WARM—SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL—SEASON GRASSES.

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER—SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE.

OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

- 2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
- 3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.



Frederick Soil Conservation District Erosion and Sediment Control Plan Approval

District Manager or Designee

Plan is valid for 2 years from date of approval

SCD approval for sediment and erosion control is in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control and is contingent upon issuance of all applicable regulatory permits.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

A. SEED MIXTURES

- 1. GENERAL USE
 - G. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA—NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 — CRITICAL AREA PLANTING.
 - c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING
 - d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 ½ POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

2. TURFGRASS MIXTURES

- a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
- b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
 - IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1½ TO 3 POUNDS PER 1000 SQUARE FEET.

NOTES:

SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77,

"TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE

c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)

CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)

SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)

- d. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1½ INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
- e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (½ TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

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	HARDI SEEDING N	NESS ZONE: 7A MIXTURE TABLE B	.3			FERTILIZER RATE (10-20-20)		1 114E DATE	
NO. SPECIES APPLICATION RATE (LB/AC)		APPLICATION RATE (LB/AC)	* SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K₂O	LIME RATE	
	TALL FESCUE (LOLIUM ARUNDINACEUM)	60							
9	KENTUCKY BLUEGRASS (POA PRATENSIS)	40	2/15-4/30 8/15-10/31	2/15-4/30 8/15-10/31 ¼-½ IN	45 LB/AC (1.0 LB/1,000 SF)	90 LB/AC (2 LB/1,000 SF)	90 LB/AC (2 LB/1,000 SF)	2 TONS/AC (90 LB/1,000 SF)	
	PERENNIAL RYEGRASS (LOLIUM PERENNE)	20							

* FOR SEEDING DATES 5/1-8/14, PLEASE ADD 6.0 LBS PER ACRE OF FOXTAIL MILLET TO SEED MIXTURE NO. 9.

B: SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

GENERAL SPECIFICATIONS

- a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
- b. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- c. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
- d. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
- e. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

2. SOD INSTALLATION

- a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
- c. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
- d. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

3. SOD MAINTENANCE

- a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- b. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
- c. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

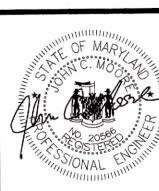
SEDIMENT CONTROL/STORM WATER MANAGEMENT REQUIRED INSPECTIONS

YOU MUST NOTIFY THE SEDIMENT CONTROL AND STORMWATER MANAGEMENT OFFICE AT 301-694-1679 BEFORE 9:00 AM - 24 HOURS PRIOR TO THE REQUIRED INSPECTION. FAILURE TO NOTIFY THIS OFFICE WILL RESULT IN A STOP WORK ORDER OR OTHER PENALTIES AS OUTLINED IN FREDERICK COUNTY CODES.

********NOTICE******

THIS LIST IS FOR SEQUENCE OF CONSTRUCTION ONLY. THIS OFFICE ASSUMES NO RESPONSIBILITY OR LIABILITY FOR IMPROPER INSTALLATION OF ANY ITEMS ON THIS CHECKLIST, THIS OFFICE RECOMMENDS THAT A PROFESSION

2. COMPLETION OF SEDIMENT CONTROL MEASURE (IF USING BASIN SEE #6 BELOW)	1. PRECONSTRUCTION MEETING 2. COMPLETION OF SEDIMENT CONTROL MEASURE (IF USING BASIN SEE #6 BELOW) 3. PRIOR TO MODIFICATION OR REMOVAL OF SED CONTROL. 4. INFILTRATION SYSTEMS A. SITE READINESS PER SEQUENCE OF CONSTRUCTION B. INFILTRATION AREA. PROTECTED FROM SEDIMENTATION	THAT A PROFESSION	
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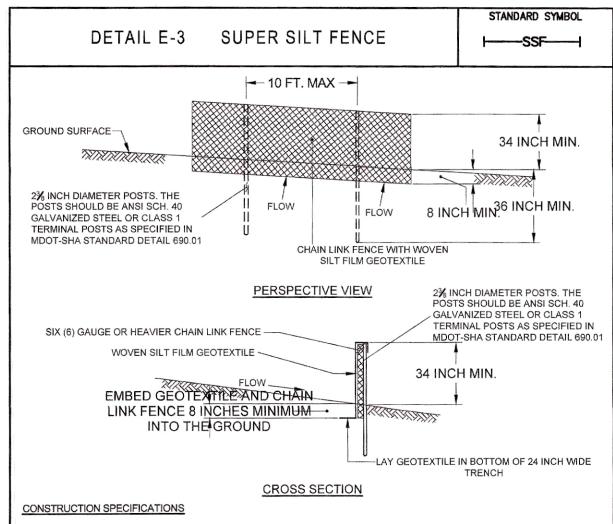


| WATER PLANT CLARIFIER
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RK&K PROJECT NUMBER

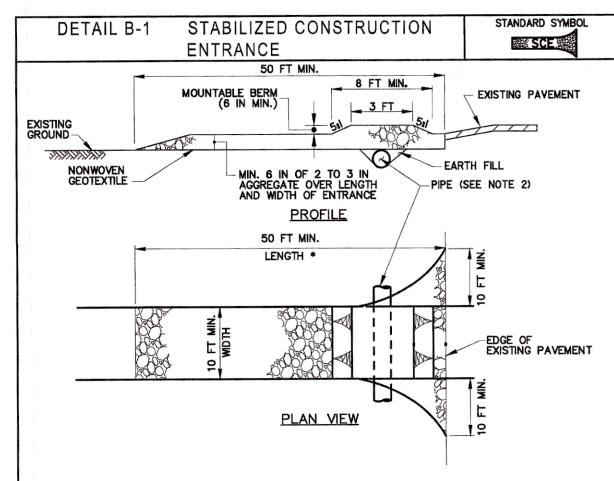
DRAWING NUMBER

SHEET NO. 11 OF 42



- INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 6 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. LAY THE GEOTEXTILE IN THE BOTTOM OF THE 24
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE UPHILL A MINIMUM OF 3 VERTICAL FEET TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURERS CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING

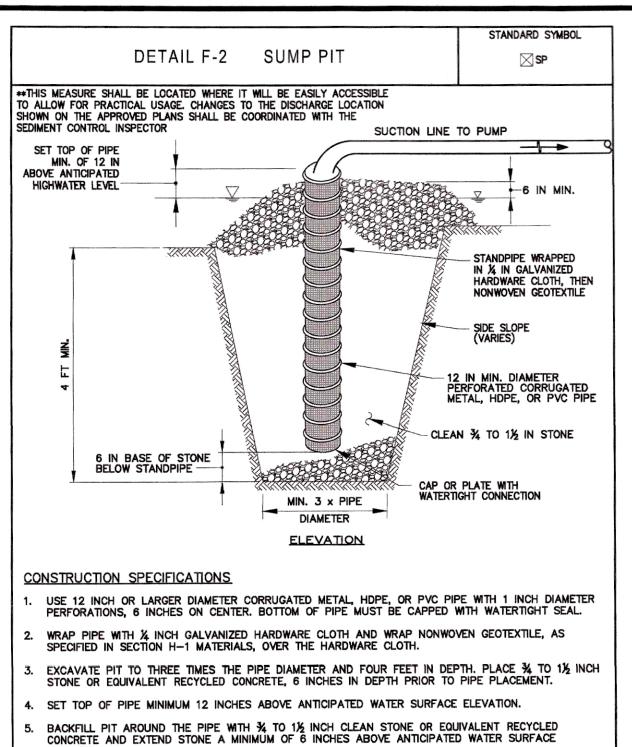
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MODIFIED FOR USE IN BALTIMORE COUNTY MARYLAND DEPARTMENT OF THE ENVIRONMEN MODIFIED - 2012 WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS

- I. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5: SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-I MATERIALS.
- . PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO

MARYLAND STAN	IDARDS AND SPECIFICA	TIONS FOR SOIL I	EROSION AND SEDIMEN	T CONTROL
	MODIFIED FOR	USE IN BALTIMOR	RE COUNTY	
U.S. DEPARTMENT OF A		2011	MARYLAND DEPARTMEN WATER MANAGEM	T OF THE ENVIRONMENT ADMINISTRATION



NATURAL RESOURCES CONSERVATION SERVICE

H-1 STANDARDS AND SPECIFICATIONS

A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

MODIFIED FOR USE IN BALTIMORE COUNTY

MODIFIED - 2012

MARYLAND DEPARTMENT OF THE ENVIRONMENT

REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

6. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.

U.S. DEPARTMENT OF AGRICULTURE

TABLE H.1: GEOTEXTILE FABRICS

MATERIALS

		SLIT	VEN FILM EXTILE	WOY MONOFII GEOTE	LAMENT		NONWOVEN GEOTEXTILE	
			MINIM	UM AVERA	GE ROLL V	ALUE 1		
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD	
GRAB TENSILE STRENGTH	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb	
GRAB TENSILE ELONGATION	ASTM D-4632	15%	10%	15%	15%	50%	50%	
TRAPEZOIDAL TEAR STRENGTH	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb	
PUNCTURE STRENGTH	ASTM D-6241	450) lb	900 lb		450 lb		
APPARENT OPENING SIZE 2	ASTM D-4751		EVE 30 mm)	U.S. SIEVE 70 (0.21 mm)		U.S. SIEVE 70 (0.21 mm)		
PERMITTIVITY	ASTM D-4491	0.05	0.05 SEC ⁻¹		SEC ⁻¹	1.1 SEC -1		
ULTRAVIOLET RESISTANCE RETAINED AT 500 HOURS	ASTM D-4355	70% S1	RENGTH	70% ST	RENGTH	70% STRENGTH		

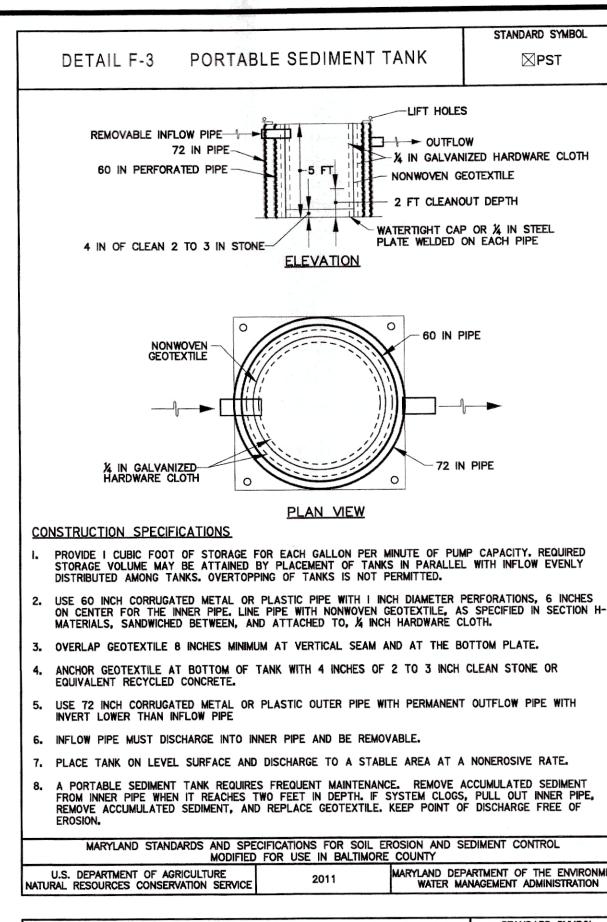
ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.

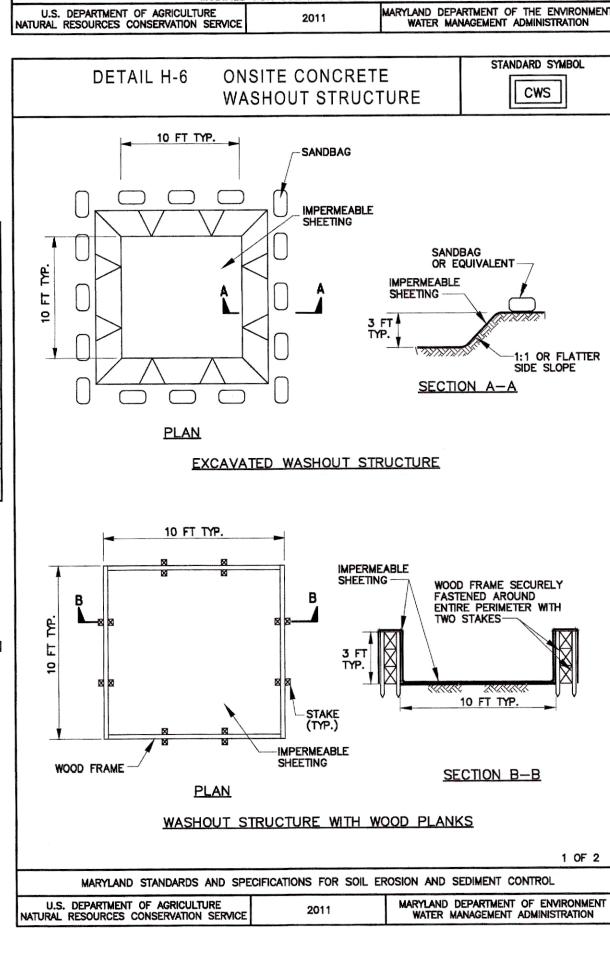
VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

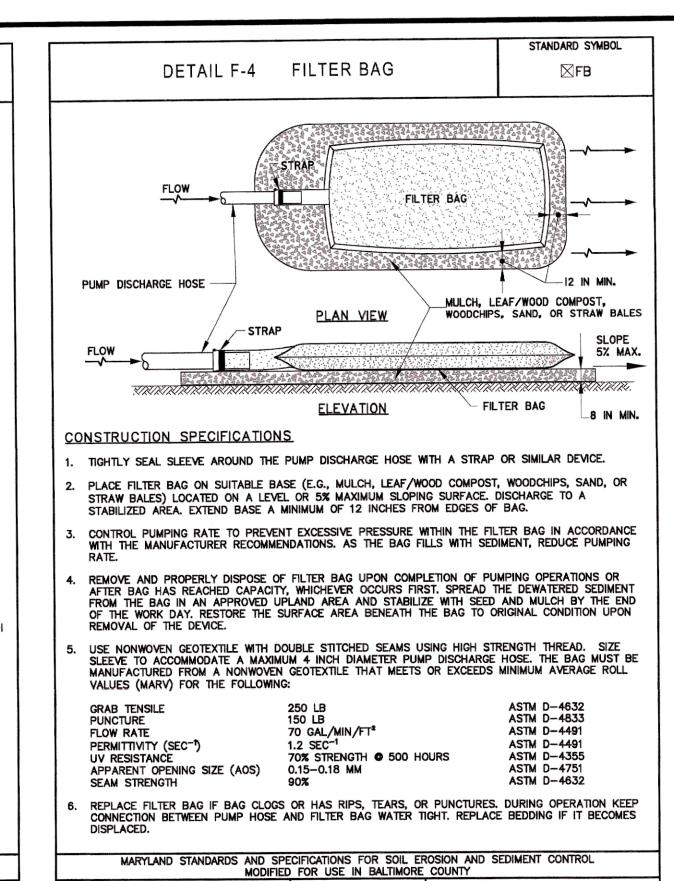
GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM TO THE VALUES IN TABLE H.1.

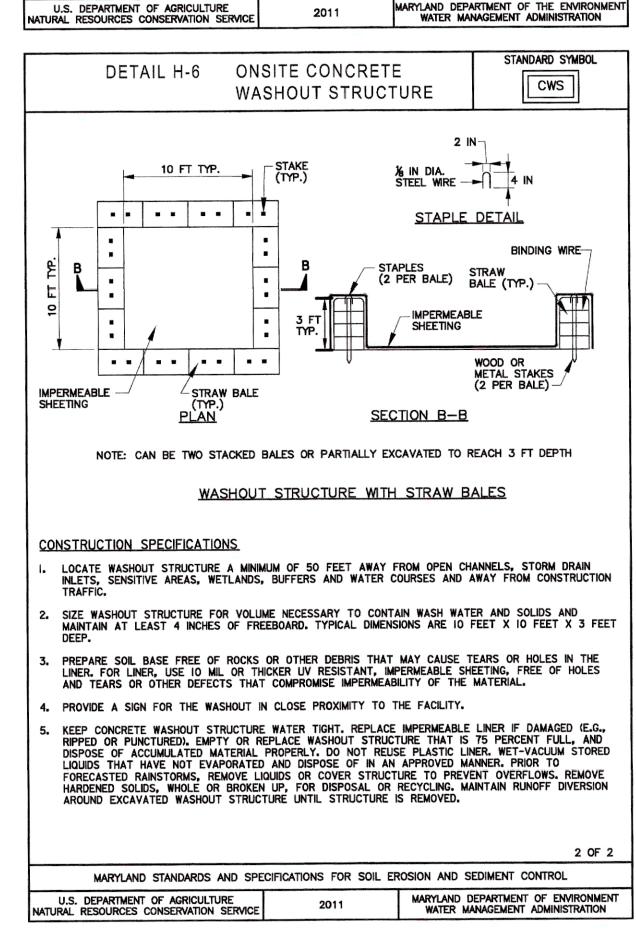
THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS. AND FORMED INTO A STABLE NETWORK SO THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING SELVAGES.

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY, OVERLAP THE SECTIONS BY AT LEAST ONE FOOT. THE GEOTEXTILE MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER EXPOSED FABRIC. WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.











ENGINEER CHECKED BY WJG DRAWN BY DATE 2023 KMR RK&K PROJECT NUMBER 20119

Frederick Soil Conservation District Erosion and Sediment Control Plan Approval

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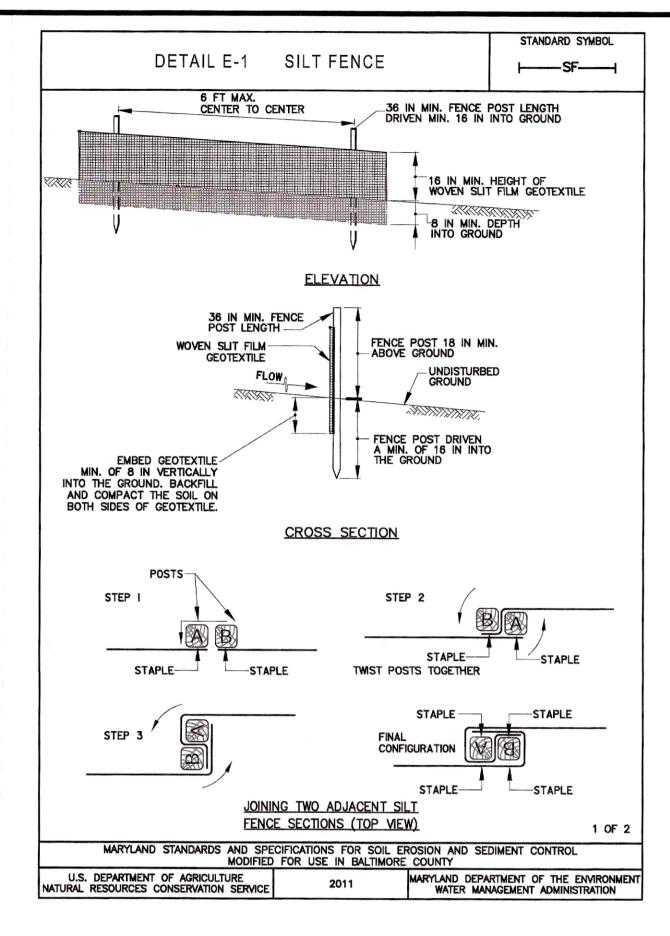
Plan is valid for 2 years from date of approval

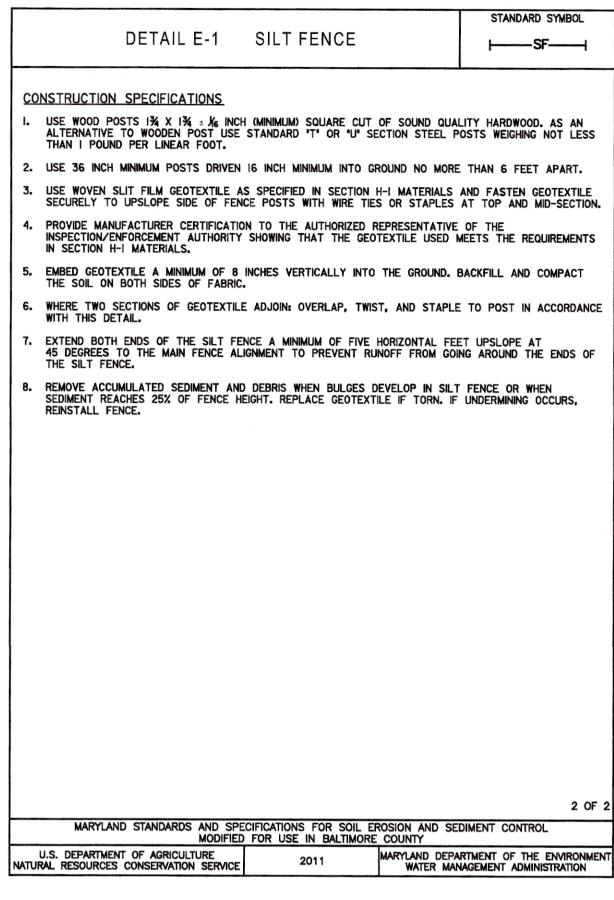
SCD approval for sediment and erosion control is in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control and is contingent upon issuance of all applicable

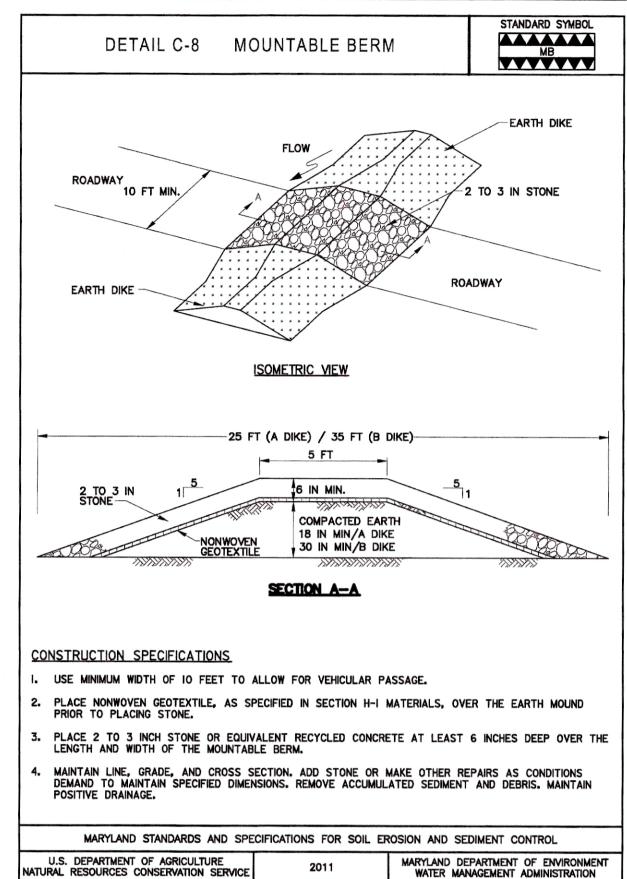
District Manager or Designee 12/17/2023

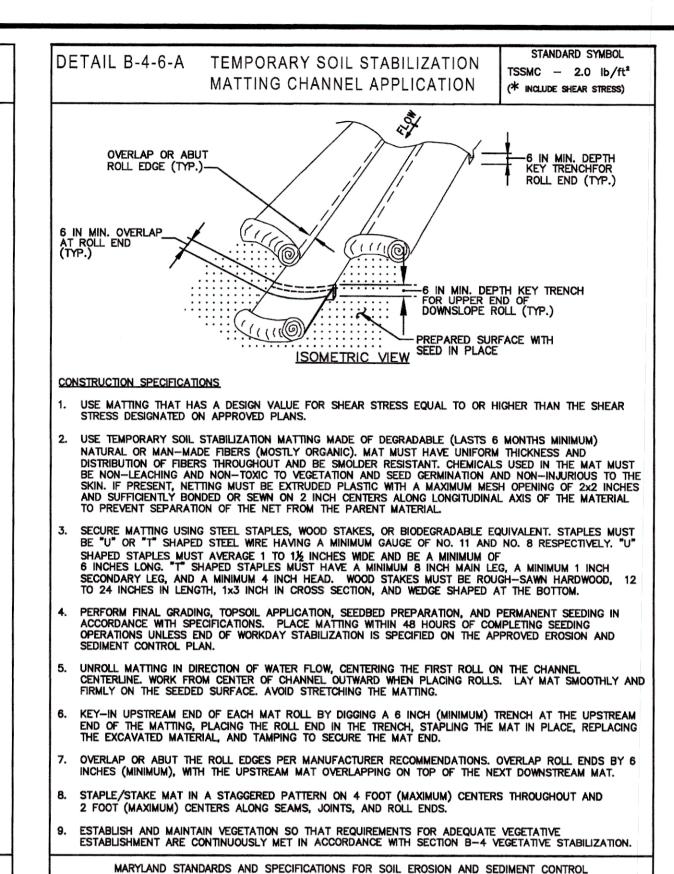
regulatory permits.

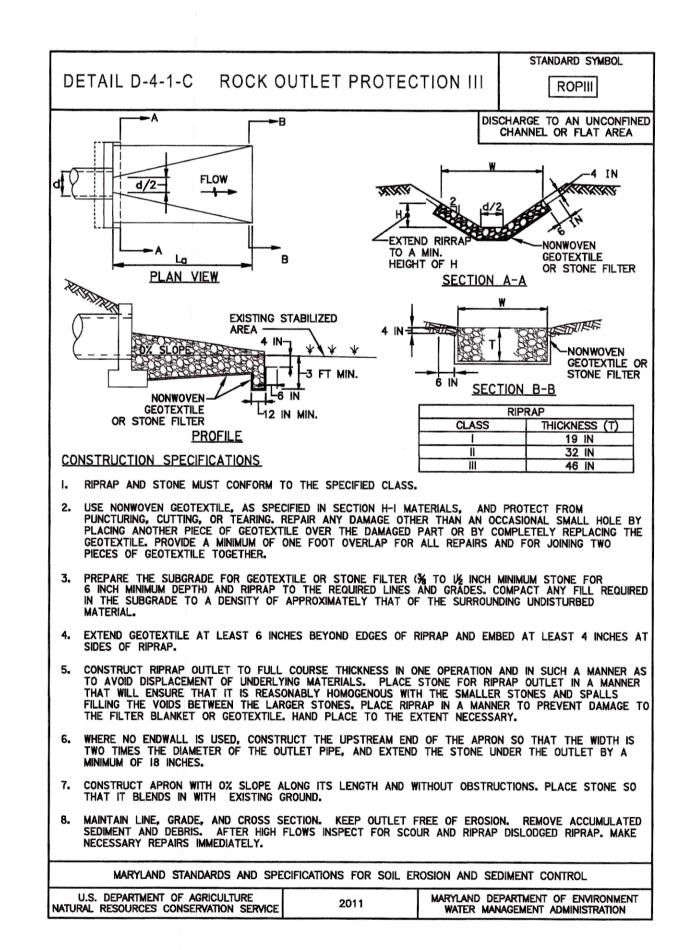
SHEET NO. 12 OF 42

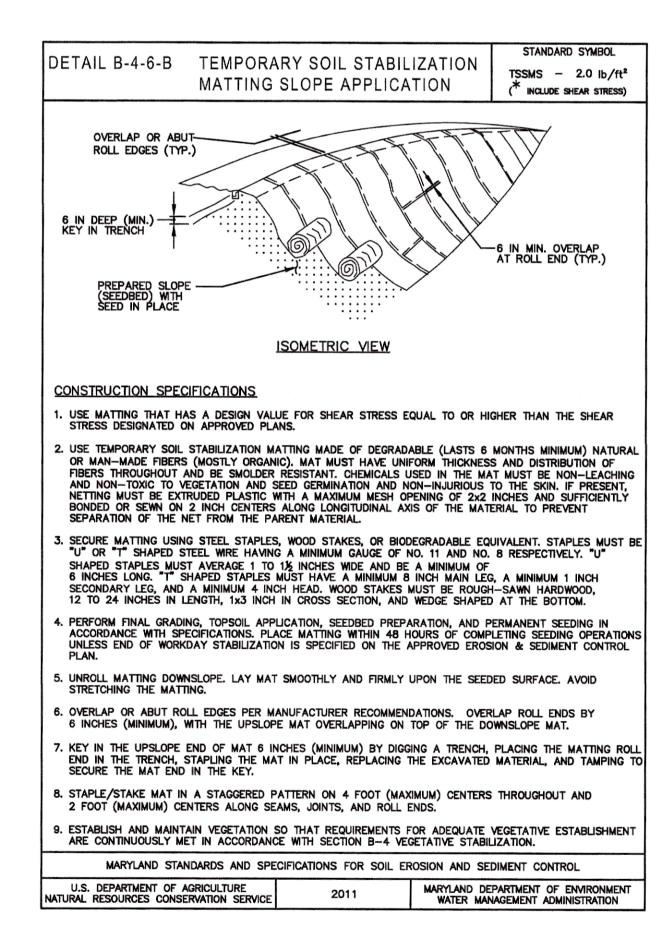


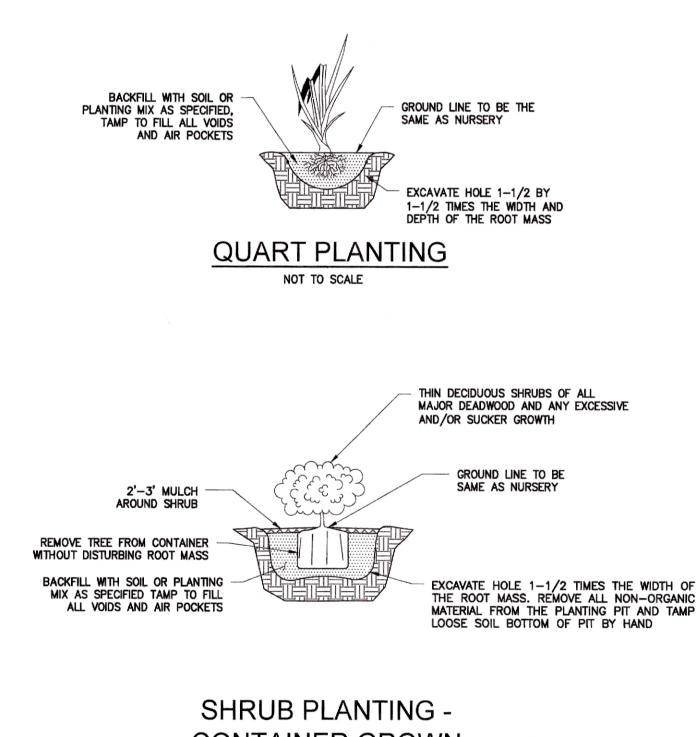




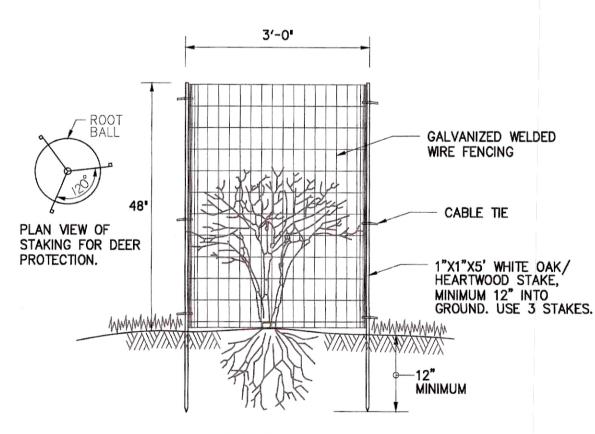








CONTAINER GROWN NOT TO SCALE



MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DEER PROTECTION - SHRUB NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE

ATURAL RESOURCES CONSERVATION SERVICE

- 1. UP TO 2" OF SOIL CAN BE MOUNDED AROUND THE OUTSIDE OF TREE SHELTER.
- 2. REFER TO DEER PROTECTION SPECIFCATION FOR ADDITIONAL INFORMATION.

Frederick Soil Conservation District Erosion and Sediment Control Plan Approval

the Itus District Manager or Designee 12/13/2027

SCD approval for sediment and erosion control is in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control and is contingent upon issuance of all applicable regulatory permits.

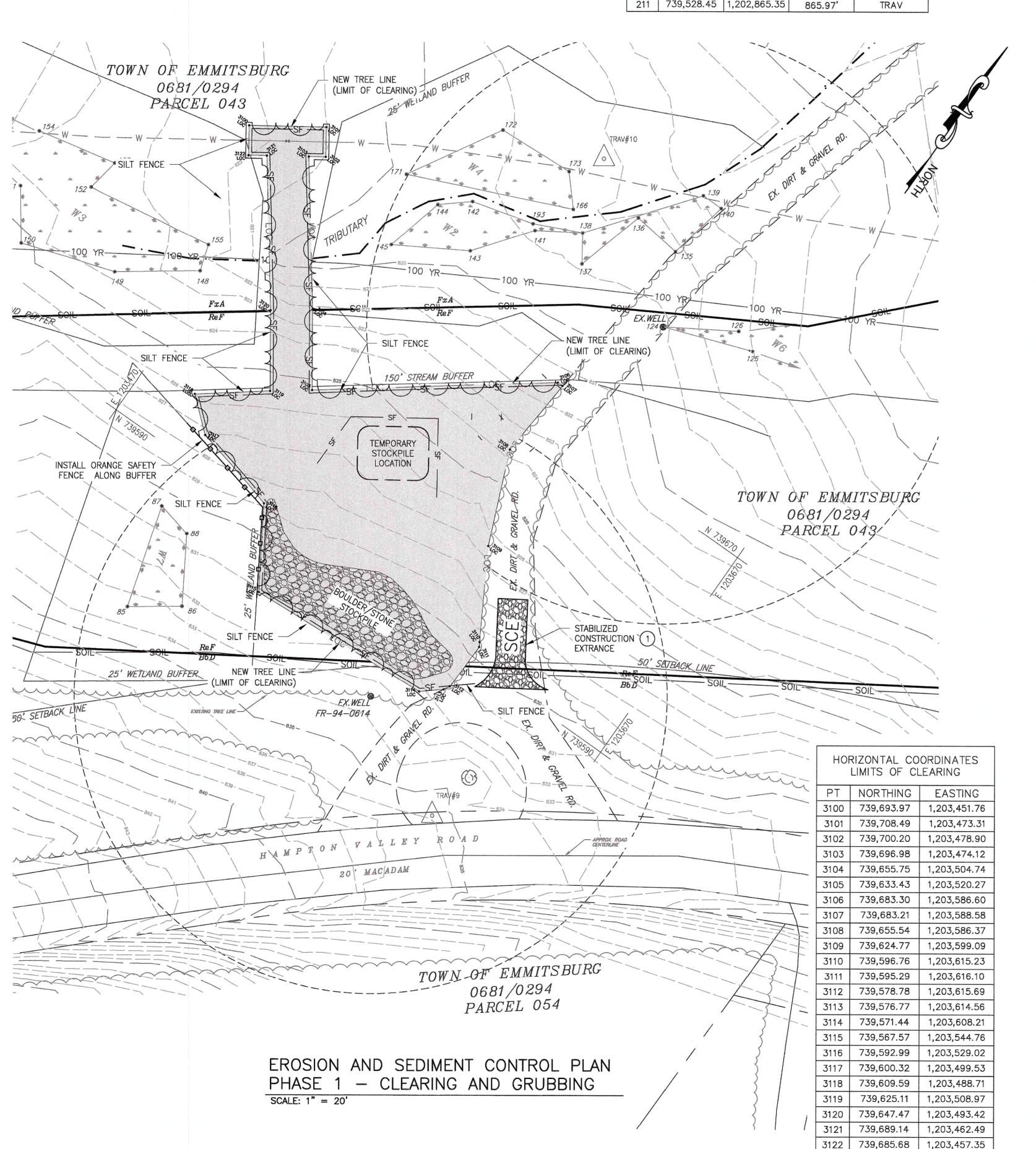
Plan is valid for 2 years from date of approval

	,
ENGINEER	CHECKED BY
WJG	JCM
DRAWN BY	DATE
KMR	2023
RK&K PROJE	CT NUMBER
201	119

DRAWING NUMBER

SHEET NO. 13 OF 42

TRAVERSE COORDINATES									
TRAV	NORTHING	EASTING	ELEVATION	DESCRIPTION					
8	739,276.55	1,203,344.80	861.32'	NAIL FOUND					
9	739,539.89	1,203,635.75	835.80'	NAIL SET					
10	739,753.78	1,203,555.98	818.54	NAIL SET					
210	739,272.46	1,203,148.10	859.50'	TRAV					
211	730 529 45	1 202 965 75	005 07'	TDAY					



SEQUENCE OF OPERATIONS:

- 1. NOTIFY FREDERICK COUNTY DIVISION OF PLANNING AND PERMITTING 301-600-3507 AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. NOTIFY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, INSPECTION AND COMPLIANCE PROGRAM, (410) 537-3510 AT LEAST 5 DAYS PRIOR TO BEGINNING WORK. SCHEDULE A PRE-CONSTRUCTION MEETING.
- 2. IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE, WHERE THE LIMIT IS WITHIN 50 FEET OF THE WETLAND BUFFER. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRE-CONSTRUCTION MEETING.
- 3. TURKEY CREEK IS A USE IV-P WATERWAY, IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR,
- 4. STOCKPILING OF MATERIAL AND A CONCRETE WASHOUT AREA SHALL BE DISCUSSED WITH THE SEDIMENT CONTROL INSPECTOR DURING THE PRE-CONSTRUCTION MEETING.
- CLEAR AND GRUB (INCLUDING REMOVAL OF EXISTING PAVING) TO ALLOW FOR INSTALLATION OF EROSION & SEDIMENT CONTROL MEASURES OR DEVICES.
- 6. INSTALL ALL EROSION & SEDIMENT CONTROL MEASURES AND DEVICES IN ACCORDANCE WITH DRAWING ESC-05 IF NECESSARY TO ENSURE PRACTICAL USAGE, ADJUSTMENTS CAN BE MADE TO THE SCE WITH COORDINATION WITH THE SC INSPECTOR.
- 7. INSTALL ALL ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES AND DEVICES AROUND STOCKPILE AREA IN COORDINATION WITH THE SC INSPECTOR.
- 8. NOTIFY FREDERICK COUNTY DIVISION OF PLANNING AND PERMITTING UPON COMPLETION OF SAID INSTALLATION.
- 9. WITH APPROVAL OF FREDERICK COUNTY DIVISION OF PLANNING AND PERMITTING AND THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB REMAINDER OF SITE.
- 10. REMOVE TREES AND ROCK TO LIMITS OF CLEARING AS SHOWN, REFER TO DRAWING C-02 FOR LIMITS OF WORK AND AS SHOWN IN THE TABLE ON THIS SHEET.
- 11. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.
- 12. AS CLEARING AND SITE WORK IS COMPLETED, REPAIR SEDIMENT CONTROL MEASURES AS REQUIRED PRIOR TO CONTINUING ONTO NEXT

: .	NON-TID	AL WETLAND	DELINEAT	ION
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
140	739,762.8861	1,203,597.8674	817.33'	W1
139	739,762.9495	1,203,590.5622	817.30'	W1
138	739,729.2814	1,203,564.4530	818.83'	W1
137	739,720.5846	1,203,570.2846	818.50'	W1
136	739,744.2640	1,203,576.8953	818.30'	W1
135	739,742.1224	1,203,593.6972	818.10'	W1
145	739,688.8469	1,203,513.9414	819.22'	W2
144	739,708.9511	1,203,519.0279	818.87'	W2
142	739,716.4811	1,203,527.9929	818.74	W2
143	739,702.4561	1,203,536.9133	819.30'	W2
141	739,720.6669	1,203,550.8108	818.52'	W2
155	739,653.3535	1,203,463.5317	822.99'	W3
154	739,651.6976	1,203,394.9066	824.06'	W3
153	739,657.5508	1,203,421.8732	823.27	W3
151	739,632.9934	1,203,400.3397	824.54'	W3
150	739,617.4317	1,203,411.5906	824.51'	W3
149	739,627.7436	1,203,442.9231	823.27'	W3
148	739,644.5988	1,203,466.2782	822.26'	W3
152	739,646.3146	1,203,420.1026	823.77'	W3
173	739743.4572	1203548.7692	818.24	W4
172	739742.0399	1203522.5714	818.36	W4
171	739711.1468	1203504.4832	819.69	W4
166	739733.9088	1203557.2894	818.19	W4
183	739810.6170	1203542.9143	815.53	W 5
182	739804.9818	1203553.0459	816.00	W5
181	739821.5245	1203566.6449	815.14	W 5
126	739732.5082	1203626.5270	816.93	W6
125	739729.7115	1203634.2739	816.97	W6
124	739719.0737	1203604.7831	818.95	W6
88	739569.6509	1203513.5628	831.09	W7
87	739572.4184	1203501.3133	830.63	W7
86	739548.7642	1203526.3221	832.21	W7
85	739538.0966	1203511.2857	833.06	W7

NOTES:

- 1. TOTAL LIMITS OF CLEARING = 9,029 SF (0.21 AC)

 AREA OF STONE REMOVAL= 6,190 SF (0.14 AC)
- 2. ALL EXISTING FEATURES DENOTED BY SLANTED TEXT.
- 3. SURVEY PERFORMED BY R.F. GAUSS & ASSOCIATES INC. ON MAY 24, 2021. REFER TO DRAWING C-01 FOR DETAILS.
- 4. WETLANDS DELINEATION PERFORMED BY WATERSHED ENVIRONMENTAL, LLC. ON APRIL 23, 2021.
- 5. NO EXCAVATED MATERIAL SHALL BE STOCKPILED ON—SITE FOR LONGER THAN ONE DAY. ALL EXCAVATED MATERIAL SHALL BE HAULED OFF—SITE FOR DISPOSAL OR STORAGE TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.
- 6. THE 100-YEAR FLOODPLAIN IS DELINEATED FROM FEMA'S NATIONAL FLOOD HAZARD LAYER DATASET, MAP PANEL 24021C0035D EFFECTIVE SEPTEMBER 19, 2007.
- 7. THIS PROJECT WILL TEMPORARILY IMPACT WETLAND BUFFERS AND THE 100-YR FLOODPLAIN. A MDE WETLAND/WATERWAY LETTER OF AUTHORIZATION HAS BEEN ISSUED FOR THIS PROJECT. LOA#: 22-NT-3177/202261204
- 8. EXISTING SITE IS FORESTED WITH ERATIC BOULDERS AND STONES (STONE RIVER) WITH AN EXISTING DIRT AND GRAVEL ROAD, NO CURRENT IMPERVIOUS AREA 0.0 SF (0.0 AC.).

EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 2. ALL UTILITIES, SUCH AS STORM DRAIN, PUBLIC WATER, SANITARY SEWER, ELECTRICAL POWER, TELEPHONE CABLE AND GAS LINES THAT ARE NOT IN PAVED AREAS AND ARE NOT UNDERGOING ACTIVE GRADING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 3 DAYS OF INITIAL DISTURBANCE.
- 3. THE OWNER/DEVELOPER OR THEIR DESIGNATE IS RESPONSIBLE FOR CONDUCTING ROUTINE INSPECTIONS AND REQUIRED MAINTENANCE. THE SITE AND CONTROLS SHOULD BE INSPECTED WEEKLY AND THE NEXT DAY AFTER EACH RAIN EVENT. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE AREA AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.

STANDARD STABILIZATION NOTES:

- 1. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTRIBUTION, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
- A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON PROJECT SITE NOT UNDER ACTIVE GRADING.

FOR UTILITY WORK ONLY OR FOR OFF-SITE UTILITY WORK:

- 1. PLACE ALL EXCAVATED MATERIAL ON HIGH SIDE OF TRENCH.
- 2. ONLY DO AS MUCH WORK AS CAN BE DONE IN ONE DAY SO BACKFILLING, FINAL GRADING, SEEDING AND MULCHING CAN OCCUR.
- ANY SEDIMENT CONTROL MEASURES DISTURBED BY CONSTRUCTION WILL BE REPAIRED THE SAME DAY.

STOCKPILE NOTES:

- 1. NO STOCKPILING ALLOWED ON ASPHALT.
- 2. ALL STOCKPILES LEFT AT THE END OF THE DAY NEED TO BE STABILIZED UNTIL THE NEXT REDISTURBANCE.

REVISED UTILITY NOTE FOR SECONDARY UTILITY WORK:

- 1. ALL DISTURBANCES FROM SECONDARY UTILITIES SUCH AS PHONE CABLE, ELECTRIC CABLE, TV CABLE, ETC. WILL BE THE CONTRACTOR'S RESPONSIBILITY TO BRING WORK AREA BACK TO GRADE LEVEL THAT WAS EXISTING AND SEED AND MULCH ANY DISTURBANCE FROM INSTALLATION OF LINES OR CONDUIT.
- 2. CONTRACTOR WILL BE RESPONSIBLE FOR RE—INSTALLING OR REPAIRING ANY SILT FENCE OR SEDIMENT CONTROLS THAT WERE EXISTING TO MAINTAIN PROPER SEDIMENT CONTROL THAT MIGHT HAVE BEEN DAMAGED.



Frederick Soil Conservation District
Erosion and Sediment Control Plan Approval

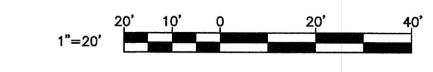
By:

District Manager or Designee

Date: /2//3 /223

Plan is valid for 2 years from date of approval

SCD approval for sediment and erosion control is in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control and is contingent upon issuance of all applicable regulatory permits.



ENGINEER CHECKED BY
WJG JCM
DRAWN BY DATE
WJG 2023
RK&K PROJECT NUMBER
20119

DIMENT

AND 1-CL

EROSION PHASE1

ESC-05

SHEET NO. 14 OF 42

EROSION AND SEDIMENT CONTROL PLAN
PHASE 2 - FINAL GRADING

SCALE: 1" = 20'

NOTES

- TOTAL AREA WITHIN LIMITS OF DISTURBANCE = 11,090 SF (0.26 AC.)

 AREA OF EXISTING GRAVEL ROAD = 1,784 SF (0.042 AC.)
- AREA OF STONE STOCKPILE = 1,265 SF (0.038 AC.)
- TOTAL DISTURBED AREA = 9,950 SF (0.21 AC.)
- AREA OF NEW GRAVEL LOT = 1,830 SF (0.043 AC.)
- AREA OF NEW STRUCTURES = 245 SF (0.006 AC.)
 AREA OF NEW BUILDING = 1,632 SF (0.038 AC.)
- TOTAL EARTHWORK VOLUME = 275 CY
- CUT VOLUME = 234 CY - FILL VOLUME = 41 CY
- 2. TOTAL IMPERVIOUS AREA = 4,427 (0.10 AC.).
 EXISTING IMPERVIOUS AREA = 0 SF (0.00 AC.).
 PROPOSED IMPERVIOUS AREA (STRUCTURES) = 1,877 SF (0.044 AC.)
 PROPOSED IMPERVIOUS AREA (SIDEWALK) = 720 SF (0.017 AC.)
 PROPOSED IMPERVIOUS AREA (GRAVEL LOT) = 1,830 SF (0.042 AC.)
- 3. WETLANDS DELINEATION PERFORMED BY WATERSHED ENVIRONMENTAL, LLC. ON APRIL 23, 2021.
- 4. NO EXCAVATED MATERIAL SHALL BE STOCKPILED ON—SITE FOR LONGER THAN ONE DAY, ALL EXCAVATED MATERIAL SHALL BE HAULED OFF—SITE FOR DISPOSAL OR STORAGE TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.
- THE 100-YEAR FLOODPLAIN IS DELINEATED FROM FEMA'S NATIONAL FLOOD HAZARD LAYER DATASET, MAP PANEL 24021C0035D EFFECTIVE SEPTEMBER 19, 2007.
- 6. THIS PROJECT WILL TEMPORARILY IMPACT WETLAND BUFFERS AND THE 100-YR FLOODPLAIN. A MDE WETLAND/WATERWAY LETTER OF AUTHORIZATION HAS BEEN ISSUED FOR THIS PROJECT. LOA#: 22-NT-3177/202261204

EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 2. ALL UTILITIES, SUCH AS STORM DRAIN, PUBLIC WATER, SANITARY SEWER, ELECTRICAL POWER, TELEPHONE CABLE AND GAS LINES THAT ARE NOT IN PAVED AREAS AND ARE NOT UNDERGOING ACTIVE GRADING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 3 DAYS OF INITIAL DISTURBANCE.
- THE OWNER/DEVELOPER OR THEIR DESIGNATE IS RESPONSIBLE FOR CONDUCTING ROUTINE INSPECTIONS AND REQUIRED MAINTENANCE. THE SITE AND CONTROLS SHOULD BE INSPECTED WEEKLY AND THE NEXT DAY AFTER EACH RAIN EVENT.
- ** ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE AREA AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.

STANDARD STABILIZATION NOTES:

- 1. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTRIBUTION, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED
- A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON PROJECT SITE NOT UNDER ACTIVE GRADING.

FOR UTILITY WORK ONLY OR FOR OFF-SITE UTILITY WORK:

- 1. PLACE ALL EXCAVATED MATERIAL ON HIGH SIDE OF TRENCH.
- ONLY DO AS MUCH WORK AS CAN BE DONE IN ONE DAY SO BACKFILLING, FINAL GRADING, SEEDING AND MULCHING CAN OCCUR..
- ANY SEDIMENT CONTROL MEASURES DISTURBED BY CONSTRUCTION WILL BE REPAIRED THE SAME DAY.

STOCKPILE NOTES:

- 1. NO STOCKPILING ALLOWED ON ASPHALT.
- 2. ALL STOCKPILES LEFT AT THE END OF THE DAY NEED TO BE STABILIZED UNTIL THE NEXT REDISTURBANCE. REVISED UTILITY

NOTE FOR SECONDARY UTILITY WORK:

- ALL DISTURBANCES FROM SECONDARY UTILITIES SUCH AS PHONE CABLE, ELECTRIC CABLE, TV CABLE, ETC. WILL BE THE CONTRACTOR'S RESPONSIBILITY TO BRING WORK AREA BACK TO GRADE LEVEL THAT WAS EXISTING AND SEED AND MULCH ANY DISTURBANCE FROM INSTALLATION OF LINES OR CONDUIT.
- 2. CONTRACTOR WILL BE RESPONSIBLE FOR RE-INSTALLING OR REPAIRING ANY SILT FENCE OR SEDIMENT CONTROLS THAT WERE EXISTING TO MAINTAIN PROPER SEDIMENT CONTROL THAT MIGHT HAVE BEEN DAMAGED.

SEQUENCE OF OPERATIONS:

- NOTIFY FREDERICK COUNTY DIVISION OF PLANNING AND PERMITTING 301-600-3507 AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. NOTIFY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, INSPECTION AND COMPLIANCE PROGRAM, (410) 537-3510 AT LEAST 5 DAYS PRIOR TO BEGINNING WORK.
- 2. IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE, WHERE THE LIMIT IS WITHIN 50 FEET OF THE WETLAND BUFFER. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRE-CONSTRUCTION MEETING.
- TURKEY CREEK IS A USE IV-P WATERWAY, IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR,
- 4. STOCKPILING OF MATERIAL AND A CONCRETE WASHOUT AREA SHALL BE DISCUSSED WITH THE SEDIMENT CONTROL INSPECTOR DURING THE PRE—CONSTRUCTION MEETING.
- 5. CLEAR AND GRUB (INCLUDING REMOVAL OF EXISTING PAVING) TO ALLOW FOR INSTALLATION OF EROSION & SEDIMENT CONTROL MEASURES OR DEVICES.
- 6. INSTALL ALL EROSION & SEDIMENT CONTROL MEASURES AND DEVICES IN ACCORDANCE WITH DRAWING ESC-06. IF NECESSARY TO ENSURE PRACTICAL USAGE, ADJUSTMENTS CAN BE MADE TO THE SCE WITH COORDINATION WITH THE SC INSPECTOR.
- 7. NOTIFY FREDERICK COUNTY DIVISION OF PLANNING AND PERMITTING UPON COMPLETION OF SAID INSTALLATION.
- 8. WITH APPROVAL OF FREDERICK COUNTY DIVISION OF PLANNING AND PERMITTING AND THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB REMAINDER OF SITE.
- 9. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.
- 10. COORDINATE ALL UTILITY DEMOLITION AND CONSTRUCTION WITH APPROPRIATE AGENCIES.
- 11. EXCAVATE WITHIN THE 100-YR FLOODPLAIN FOR CONNECTION TO EXISTING 6-INCH RAW WATER PIPING AND INSTALLATION OF NEW 8-INCH WATER PIPING. BLASTING IS NOT PERMITTED UNDER ANY CIRCUMSTANCES FOR EXCAVATION.
- 13. INSTALL NEW NEW 8-INCH WATER PIPING TO LOCATION OF VALVE VAULT, REFER TO DRAWING C-02. RE-GRADE AREA WITHIN THE LOD, AS SHOWN, TO PROVIDE ADEQUATE DRAINAGE OF THE SITE.
- 14. AS SITE WORK WITHIN THE 100-FLOODPPLAIN IS COMPLETED, STABILIZE ACCORDINGLY (VEGETABLE STABILIZATION, ETC.).
- 15. EXCAVATE FOR INSTALLATION OF VALVE VAULT, HOLDING TANK, CLARIFIER BUILDING FOUNDATION AND ADDITIONAL 8—INCH WATER MAIN PIPING IN ACCORDANCE WITH DRAWING C—02. INSTALL SUPPORT OF EXCAVATION DEVICES AND DEWATER EXCAVATION AS NECESSARY. BLASTING IS NOT PERMITTED UNDER ANY CIRCUMSTANCES FOR EXCAVATION.
- 16. INSTALL NEW VALVE VAULT, HOLDING TANK, BUILDING AND ASSOCIATED PIPING, ELECTRICAL DUCTBANKS, BOLLARDS AND FENCING AND RE—GRADE AREA WITHIN THE LOD, AS SHOWN, TO PROVIDE ADEQUATE DRAINAGE OF THE SITE.
- 17. AS SITE WORK IS COMPLETED, STABILIZE ACCORDINGLY (STONE SUBBASE, GRAVEL PAVING, VEGETABLE STABILIZATION, ETC.). REFER TO DRAWING C-02 FOR LIMITS OF NEW WORK.
- 18. UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

OF MARY C. MOO STORY CO. MOO S

HAT THESE DOCUMENTS WERE PREPARED OF THAT I AM A DULY LICENSED PROFESSIONAL THE LAWS OF THE STATE OF MARYLAND EXPIRATION DATE 09/06/202

APPROVED BY ME, AND THAT I A ENGINEER UNDER THE LAW.

1 REISSUED FOR BID - ADDENDUM NO. 3
NO. DESCRIPTION
REVISIONS

MENT GRADING

MAL GRADING

TOWN OF EMMITSBURG
WATER PLANT CLA
CIP NO: 4-1600-40IPTON VALLEY ROAD, EMMITSBURG ELECTION DISTRIC
EROSION AND SEDIMENT

ENGINEER CHECKED BY
WJG JCM
DRAWN BY DATE
WJG 2023
RK&K PROJECT NUMBER
20119

DRAWING NUMBER

ESC-06

SHEET NO. 15 OF 42

Frederick Soil Conservation District
Erosion and Sediment Control Plan Approval

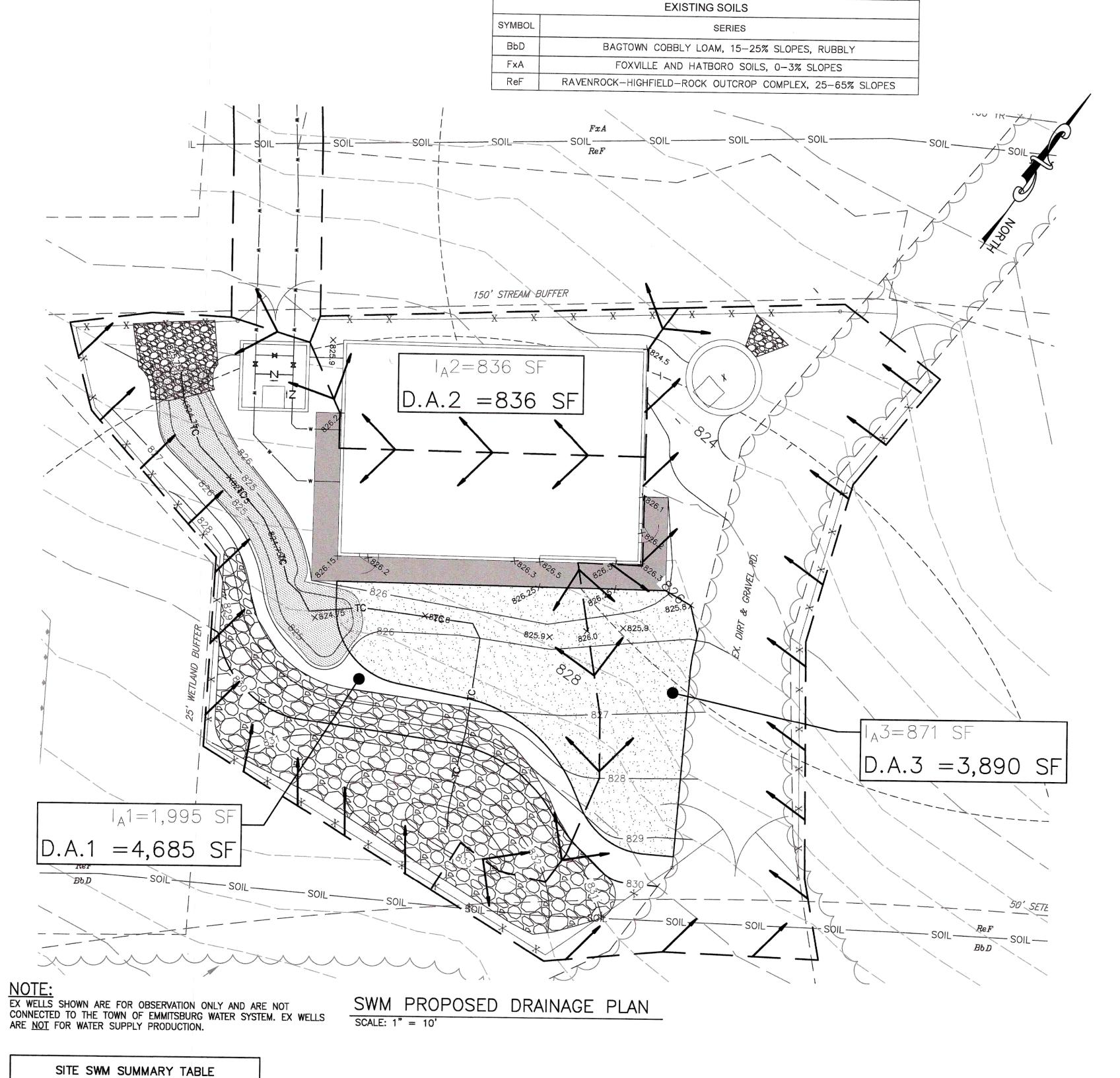
By:

District Manager or Designee

12/13/2023

SCD approval for sediment and erosion control is in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control and is contingent upon issuance of all applicable regulatory permits.

Plan is valid for 2 years from date of approval



TIME OF CONCENTRATION (HR)

AC	0.25]											
AC	0.25						ESD Pract	ices (Chapte	r 5 – S	tructural	& Non-	Structure	
AC	0.0	<u> </u>	1				Γ	1		T T T T T T T T T T T T T T T T T T T	- TON	T. T	JI)
AC	0.085		TYPE	NO.	DA (ACRES)	IMPERVIOUS DA (ACRES)	TARGET Pe	ACHIEVED Pe	ESDv	ESDv	WQv	CPv	CPv (
AC	0.085				(To Structure)	(To Structure)	(INCHES)	(INCHES)	REQUIRED	PROVIDED	(CF)	(CF)	(Disch
INCHES	1.6	R.	RAIN GARDEN	1	0.108	0.046		2.29		387	169	N/A	N/
NEW DEVEL	LOPMENT		ROOF DISCONNECT	2	0.019	0.019	1.6	1.0	518	66	66	N/A	N/
CF	518		NON-ROOF	***************************************								14/7	11/
CF	535		DISCONNECT	3	0.09	0.02		1.0		82	82	N/A	N/

SITE AREA

DISTURBANCE AREA

EXISTING IMPERVIOUS

PROPOSED IMPERVIOUS

TOTAL IMPERVIOUS

SITE Pe

DEVELOPMENT TYPE

ESD_V REQUIRED

ESD_v PROVIDED

Pe ACHIEVED

INCHES

1.65

TOWN OF EMMITSBURG 0681/0294 PARCEL 045 100' WELL BUFFER —

DRAINAGE MAP PLAN

SCALE: 1" = 40'

GENERAL NOTES:

Q10 (CFS)

0.69

N/A

N/A

N/A

N/A

N/A

0.1

N/A

N/A

TOWN OF EMMITSBURG 0681/0294 PARCEL 043

- STORMWATER MANAGEMENT REQUIREMENTS AT THE SITE HAVE BEEN ADDRESSED THROUGH USE OF THE PROPOSED RAIN GARDEN FACILITY, DISCONNECTED ROOFTOP AND NON-ROOFTOP AREAS.
- 2. 88% OF SOILS ON SITE ARE ReF, 9% OF SOILS ON THE SITE ARE FXA AND THE REMAINING 3% OF SOILS ON SITE ARE BbD. THE SOILS ON THE SITE ARE CLASSIFIED AS BEING 91% HYDROLOGIC SOIL GROUP TYPE C AND 9% HYDROLOGIC SOIL GROUP TYPE D.
- 3. QUANTITY CONTROL FOR THE PROJECT SITE HAS BEEN ACHIEVED THROUGH MINIMIZING THE AMOUNT OF IMPERVIOUS COVER. THE SITE IS CATEGORIZED AS NEW DEVELOPMENT IN ACCORDANCE WITH THE MDE 2009 STORMWATER DESIGN MANUAL.



Frederick Soil Conservation District Erosion and Sediment Control Plan Approval

By: 14----District Manager or Designee
Date: /2/13/2-23 Plan is valid for 2 years from date of approval

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١	ENGINEER	CHECKED BY	1
	WJG	JCM	
I	DRAWN BY	DATE	1
	WJG	2023	l
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20119

DRAWING NUMBER SWM-01

SHEET NO. 16 OF 42

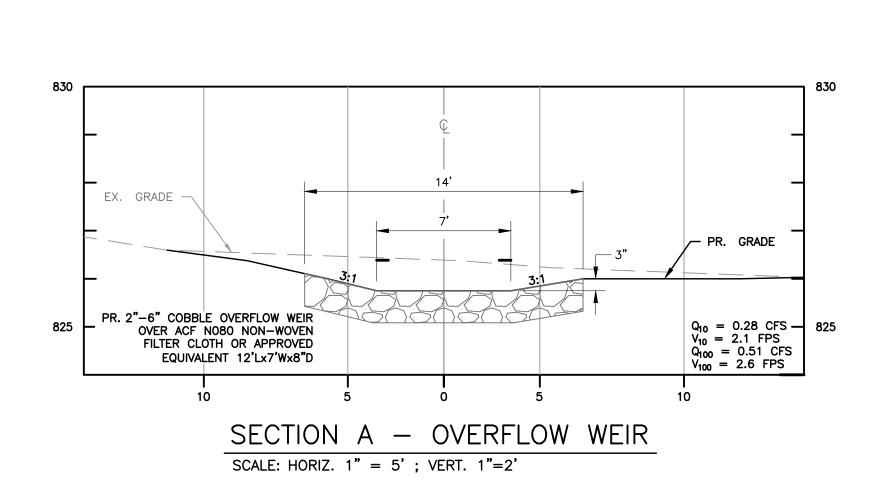
PLANTING NOTES:

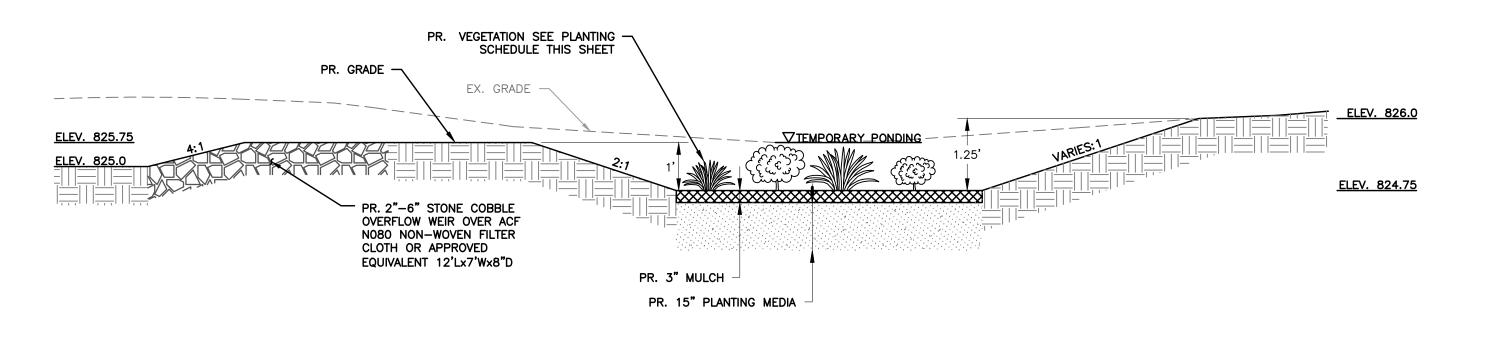
- 1. ALL PLANTS SELECTED ARE SPECIES NATIVE TO THE REGION.
- 2. ALL HERBACEOUS PLANTS SHALL BE PROPERLY IDENTIFIED BY WEATHER PROOF LABELS SECURELY AFFIXED BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTIONS BY A FREDERICK COUNTY REPRESENTATIVE.
- 3. ANY REQUEST TO SUBSTITUTE PLANTS OF DIFFERENT SPECIES, CULTIVARS, SIZE, GROWTH HABIT OR PLANTING STOCK TYPE SHALL BE SUBMITTED IN WRITING TO THE FREDERICK COUNTY REPRESENTATIVE AS A SUBSTITUTION REQUEST. SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL FROM A FREDERICK COUNTY REPRESENTATIVE.
- 4. IF THE PLANTING IS COMPLETED OUTSIDE OF THE DESIGNATED TIME PERIOD, THEN EVALUATION AND POSSIBLE ACCEPTANCE OF THE PLANTING WILL OCCUR NO SOONER THAN ONE YEAR AFTER THE COMPLETION OF ALL PLANTING.
- 5. PLANTS SHALL BE WATERED 3 TIMES PER WEEK DURING THE GROWING SEASON AND 2 TIMES PER MONTH IN THE DORMANT PERIOD IN THE ABSENCE OF SUFFICIENT RAINFALL.
- 6. DEAD PLANTS RESULTING FROM WINTER FREEZES SHALL BE REPLACED IN THE SPRING.

(40) A) (3) CA (40) A) (55) AC (85) 4 75 (85) 4 75 (85) 4 75 (85) 15 828	
STONE COBBLE OVERFLOW WEIR AND ROCK OUTFALL PROTECTION MULCHED BED MULCHED BED	
TSD_DDODOSED_DLANTING_DLAN	

				PLANTING SC	HEDULE		
	KEY	QTY.	BOTANICAL NAME	COMMON NAME	WETLAND INDICATOR STATUS	SIZE/ CONTAINER	SPACING/REMARKS
SRUBS							
\bigcirc	CA	6	Cornus Amomum	Silky Dogwood	FACW	1 GAL	4'O.C. As Shown on Plans
HERBACEOUS							
	AC	55	Aquilegia canadensis	Wild Columbine	FAC	1 QT	18" O.C. Naturalized Spaing
	LS	65	Lobelia siphilitica	Great Blue Lobelia	FACW	1 QT	18" O.C. Naturalized Spaing
// // // // //	OR	60	Osmunda regalis	Royal Fern	OBL	1 QT	18" O.C. Naturalized Spaing
GRASSES/ MLDFLOWERS							
	Al	40	Asclepias Incarnata	Swamp Milkweed	OBL	1 QT	18" O.C. Naturalized Spaing

ESD PROPOSED PLANTING PLAN SCALE: 1" = 5'





RAIN GARDEN DETAIL SCALE: NOT TO SCALE

ſ	MATERIAL	SPECIFICATION	NOTES
ŀ	PLANTING SOIL	LOAMY SAND (60-65%) & COMPOST (35-40%)	USDA SOIL TYPE LOAMY SAND; CLAY CONTENT <5%
Ì	MULCH	SHREDDED HARDWOOD	AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
ĺ	STONE COBBLE OVERFLOW	No. 2 STONE (1.5"-2.5") & GABION STONE (4"-7")	USE LOCAL STONE AS APPROVED, LIMIT FINES <5%

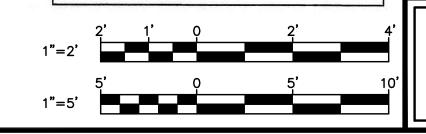
MATERIAL SPECIFICATIONS

Frederick Soil Conservation District
Erosion and Sediment Control Plan Approval
2 11 11

District Manager or Designee

Date: 12/13/22 L3 Plan is valid for 2 years from date of approval

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TOWN OF EMMITSBURG, MARYLAND WATER PLANT CLARIFIER

ENGINEER CHECKED BY WJG JCM WJG 2023 RK&K PROJECT NUMBER 20119

DRAWING NUMBER

SWM-02