SHEET INDEX DESCRIPTION DESCRIPTION COVER SHEET 13 PRIVATE UTILITY PROFILES AND SCHEDULES EXISTING CONDITIONS AND SOILS PLAN 14 STORMWATER MANAGEMENT PLAN SITE DEVELOPMENT PLAN MICRO-BIORETENTION DETAILS 4 PHASE I GRADING AND SEDIMENT CONTROL PLAN 16 STORMWATER MANAGEMENT DETAILS PHASE II GRADING AND SEDIMENT CONTROL PLAN 6 | SEDIMENT CONTROL NOTES STORMWATER MANAGEMENT DETAILS 7 | SEDIMENT CONTROL DETAILS PAVING, STRIPING, AND SIGNAGE PLAN 8 | SEDIMENT CONTROL DETAILS AND SITE DETAILS LANDSCAPE, LIGHTING, AND FOREST CONSERVATION PLAN 9 SITE DETAILS LANDSCAPE AND FOREST CONSERVATION NOTES AND DETAILS 10 STORM DRAIN DRAINAGE AREA MAP 22 SOIL BORING LOGS 11 STORM DRAIN PROFILES AND SCHEDULES SOIL BORING LOGS AND LIGHTING DETAILS 12 STORM DRAIN PROFILES AND SCHEDULES 24 ARCHITECTURAL ELEVATIONS AND LIGHTING DETAILS

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MS STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED
- . THE EXISTING TOPOGRAPHY IS PROVIDED BY PENNONI ASSOCIATES, INC., DATED JANUARY 25, 2018 AND HAS BEEN SUPPLEMENTED BY
- 5. THE BOUNDARY SURVEY IS PROVIDED BY PENNONI ASSOCIATES, INC., DATED JANUARY 24, 2018, AND HAS BEEN SUPPLEMENTED B
- THE COORDINATES SHOWN HEREON ARE IN MARYLAND COORDINATE SYSTEM NAD 83/91 BASED ON THE HOWARD COUNTY GEODETIC CONTROL. HOWARD COUNTY MONUMENT NOS. 43HB AND 43HC WERE USED FOR THIS PROJECT
- 7. WATER IS PUBLIC, CONTRACT 664-D.
- 8. SEWER IS PUBLIC, CONTRACT 664-D.
- 0. NO WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS, STEEP SLOPES (AREAS OF 25% SLOPES DO NOT MEET DEFINITION OF STEEP SLOPES - STEEP SLOPE: A SLOPE THAT AVERAGES 25% OR GREATER OVER 10 VERTICAL FEET) AND FLOODPLAINS ARE PRESENT ON THE PROPERTY. FOREST RESOURCES ARE PRESENT ON THE SITE.
- 1. SUBJECT PROPERTY ZONED M-2 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- 12. ALL ELEVATIONS SHOWN ARE BASED NAVD88
- 13. ALL LIGHTING IS TO BE DIRECTED/REFLECTED DOWNWARD AWAY FROM ADJACENT PUBLIC ROADS. ALL LIGHTING SHALL BE BUILDING MOUNTED. EXCEPT FOR SPOTLIGHTS AND LOW INTENSITY LIGHTS AS DEFINED IN SECTION 134.0. C.2. AND 134.0. C.3., OF THE HOWARD COUNTY ZONING REGULATIONS. ALL LIGHT FIXTURES SHALL BE FULLY OR PARTIALLY SHIFT DEF
- 14. A TRAFFIC STUDY FOR THIS PROJECT HAS BEEN PREPARED BY TRAFFIC CONCEPTS DATED JUNE 14, 2018
- 15. NO BUILDINGS OR STRUCTURES EXIST ON THE PROPERTY
- 17. APPLICABLE DPZ FILE REFERENCES: ECP-18-033. SDP-77-082, F-76-002, WP-19-085, PLAT #3867. PLAT#7405, F-19-085, PLAT #25035
- BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER FOREST NAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED
- 19. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. LANDSCAPE PLANTINGS FOR 38 SHADE TREES AND 15 EVERGREEN TREES HAVE BEEN PROVIDED UNDER THIS PLAN. A FINANCIAL SURETY IN THE AMOUNT OF \$13,650.00 MUST BE POSTED WITH THE DEVELOPER AGREEMENT FOR THIS PROJECT.
- 20. STORMWATER MANAGEMENT FOR THIS PROJECT WILL BE PROVIDED BY 8 MICRO-BIORETENTION FACILITIES AND 1 BIOSWALE. ALL SWM DEVICES WILL BE PRIVATELY OWNED AND MAINTAINED
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- 22. A GEOTECHNICAL REPORT WAS PREPARED FOR THIS PROJECT BY PENNONI ASSOCIATES DATED JULY 18, 2018
- 23. A FOREST STAND DELINEATION FOR THIS PROPERTY WAS COMPLETED BY PENNONI ASSOCIATES, INC. AND APPROVED WITH THE ENVIRONMENTAL CONCEPT PLAN ON APRIL 19, 2018.

24. NO SPECIMEN TREES EXIST ON SITE.

- 25. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- 26. PENNONI SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION, MEANS, METHODS, TECHNIQUES, OR PROCEDURES, UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND STANDARD CONSTRUCTION PRACTICES.
- 27. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE
- 28. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE
- 29. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS
- 30. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- 31. ALL FILL, COMMON BORROW, AND/OR TRENCH BACKFILL SHALL BE COMPACTED ACCORDING TO THE LATEST VERSION OF MSHA STANDARDS AND SPECIFICATIONS.
- 32. AN ACCESSIBLE ROUTE SHALL BE PROVIDED BETWEEN HANDICAPPED PARKING OR PUBLIC RIGHT-OF-WAYS TO THE MAIN BUILDING ENTRANCE IN ACCORDANCE WITH CURRENT ADA AND LOCAL STANDARDS. ALL HANDICAPPED RAMPS SHALL BE CONSTRUCTED ACCORDING TO CURRENT ADA AND LOCAL STANDARDS. EXCEPT AS SUPERCEDED IN CURRENT ADA AND LOCAL STANDARDS, THE FOLLOWING SHALL APPLY:
- a. MAXIMUM SIDEWALK CROSS SLOPES SHALL BE 2%. b. A MINIMUM 5'X5' LANDING AREA WITH A MAXIMUM SLOPE IN ANY DIRECTION OF 2% SHALL BE PROVIDED AT ALL CHANGES IN

HANDLED AS PART OF THE SEPARATION PROCESS FOR THE WASTE THAT IS BROUGHT TO THE SITE.

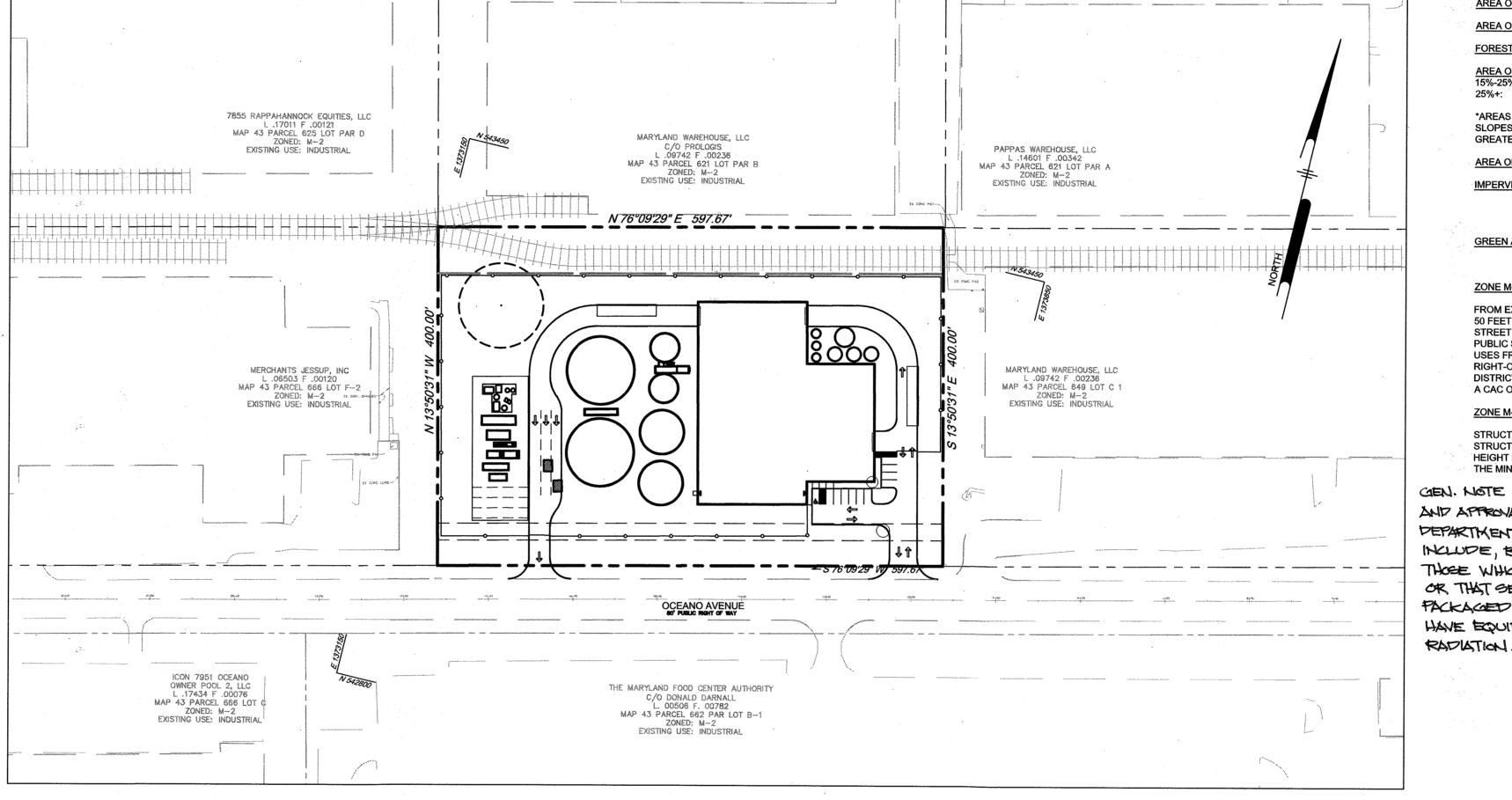
- DIRECTION, TOPS AND BOTTOMS OF RAMPS, AND BUILDING EGRESS POINTS. c. ALL HANDICAPPED PARKING SHALL BE SLOPED NO GREATER THAN 2% IN ANY DIRECTION, INCLUDING A 5' WIDE AREA BEHIND THE
- PARKING SPACES. d. AN ACCESS ROUTE FROM THE PARKING SPACES TO THE MAIN BUILDING ENTRANCE SHALL BE PROVIDED. ALL SLOPES ALONG THE DIRECTION OF TRAVEL SHALL NOT EXCEED 1:20 UNLESS THEY FALL UNDER CONDITION B ABOVE. SLOPES IN EXCESS OF 1:20 EXCEPT CURB RAMPS REQUIRE A HANDRAIL MEETING ADA REQUIREMENTS. SEE SITE DEVELOPMENT PLAN FOR A DETAIL OF THE
- 33. THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT
- 34. SINCE THIS IS A RECYCLING FACILITY, NO ONSITE DUMPSTER WILL BE PROVIDED. TRASH REMOVAL FROM THE PROPERTY WILL BE
- 35. NO GRADING. REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES, SHALL BE PERMITTED WITHIN LIMITS OF

WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.

- 36. HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN. PLANS FOR CERTAIN FACILITIES TO BE CONSTRUCTED WITHIN THE LIMITS DESCRIBED BY THIS PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH DEPARTMENT. SUCH FACILITIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE WHICH HAVE SWIMMING POOLS, OR THAT SELL PREPARED OR PACKAGED FOODS, OR THAT MAY HAVE EQUIPMENT THAT EMITS
- 7. THIS PROJECT WILL REQUIRE AIR QUALITY, UNDERGROUND STORAGE TANK, AND POSSIBLY NOISE PERMITS FROM THE MARYLAND
- 38. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN ON THESE DRAWINGS AND IN THE SPECIFICATION BOOKLET AS WELL AS STANDARD STATE AND LOCAL SPECIFICATIONS WHICHEVER IS MORE RESTRICTIVE.
- 39. DEVIATION FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT FROM THE ENGINEER MAY CAUSE THE WORK
- 40. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK ON THE PROJECT:
- II. COMCAST III. VERIZON

SITE DEVELOPMENT PLAN MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

7900 N OCEANO AVENUE 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



41. CONTRACT SHALL CONTACT MISS UTILITY AT 1-800-257-777 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION WORK ON THE SITE. IN THE EVENT THAT MISS UTILITY WILL NOT MARK UTILITIES ON SITE, A PRIVATE UTILITY LOCATOR SHOULD BE ENGAGED FOR THIS PURPOSE AT THE CONTRACTOR'S

- 42. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING WORK. HE SHALL VERIFY SIZE AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND EXCAVATE TEST PITS AT PROPOSED TIE IN LOCATIONS. DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER WELL IN ADVANCE OF CONSTRUCTION START, START OF CONSTRUCTION BY THE CONTRACTOR SHALL CONSTITUTE FULL ACCEPTANCE OF ALL SITE CONDITIONS BY THE CONTRACTOR. TEST PITTING DEFINED: FOR THE PURPOSES OF THIS PROJECT, EXCAVATION OF UTILITY TRENCHES DOES NOT CONSTITUTE TEST PITTING. TEST PITTING IS A SEPARATE OPERATION COMPLETED AT LEAST SEVEN DAYS BEFORE UTILITY INSTALLATION IS SCHEDULED TO BEGIN, TEST PITTING MEANS EXCAVATION TO EXPOSE EXISTING UTILITIES IN TWO SITUATIONS: (I) WHERE PROPOSED IMPROVEMENTS CROSS EXISTING UTILITIES (PIPES, LINES, STRUCTURES, APPURTENANCES) AND; (II) WHERE PROPOSED UTILITIES ARE DESIGNED TO CONNECT TO EXISTING UTILITIES. TEST PITTING INCLUDES RECORDING THE TYPE, SIZE, LOCATION AND ELEVATION OF THE EXPOSED UTILITIES, AND PROVIDING THE RECORD TO PENNONI AND THE OWNER. THE RECORD MAY BE A LEGIBLE HAND-WRITTEN FIELD SKETCH.
- 43. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR CONSTRUCTION PRIOR TO BEGINNING WORK UNLESS PROVIDED BY OWNER. CONTRACTOR SHALL IDENTIFY ALL REQUIRED PERMITS AND ANTICIPATE OBTAINING ALL PERMITS NOT PROVIDED BY OWNER.
- 44. ALL UTILITIES ARE TO REMAIN UNLESS DESIGNATED TO BE REMOVED AND ALL APPURTENANCES

45. PRIOR TO START OF CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR REQUESTING CONTROL

- CONSTRUCTION STAKE OUT AND VERIFYING LOCATIONS OF ALL IMPROVEMENTS AND UTILITY TIE IN LOCATIONS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES WELL IN ADVANCE OF START OF CONSTRUCTION. IT IS STRONGLY RECOMMENDED THE CONTRACTOR RETAIN THE DESIGN FIRM FOR STAKEOUT
- 46. SCALING OF THESE PLANS IS DISCOURAGED UNLESS DIRECTED BY THE ENGINEER. IN THE EVENT OF A DISCREPANCY BETWEEN THE SCALED AND THE FIGURED DIMENSIONS, THE FIGURED DIMENSIONS
- 47. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 48. THE CONTRACTOR SHALL ENSURE THAT CURRENT AS-BUILT RECORDS ARE MAINTAINED DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION AS-BUILT DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR. FIELD LOCATION OF UTILITIES SHALL BE COORDINATED WITH THE OWNER PRIOR TO COVERING THE LINES. CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF A LICENSED SURVEYOR AND CIVIL ENGINEER TO COMPLETE THE REQUIRED AS-BUILTS.
- 49. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE EXISTING TREES DESIGNATED TO REMAIN OR WITHIN DESIGNATED TREE SAVE AREA.
- 50. MAXIMUM SLOPE ON GRASSED AREAS: 3:1, UNLESS OTHERWISE NOTED.
- MINIMUM SLOPE ON GRASS AREAS: 2.5% (2% SWALES), UNLESS OTHERWISE NOTED.
- 52. MINIMUM CONCRETE PAVEMENT SLOPE: 1%, UNLESS OTHERWISE NOTED. 53. MINIMUM ASPHALT PAVEMENT SLOPE: 2%, UNLESS OTHERWISE NOTED.

LOCATION PLAN

54. CONSTRUCTION OBSERVATION: CONTRACTOR IS RESPONSIBLE FOR RETAINING AND/OR COORDINATING A THIRD PARTY INSPECTOR TO OBSERVE THE SITE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO GRADING, PAVEMENT, UTILITIES, AND STORMWATER DEVICES. CONTRACTOR SHALL PROVIDE OBSERVATION REPORTS AND TESTING RESULTS TO OWNER AND PENNONI AS THEY ARE COMPLETED.

100'

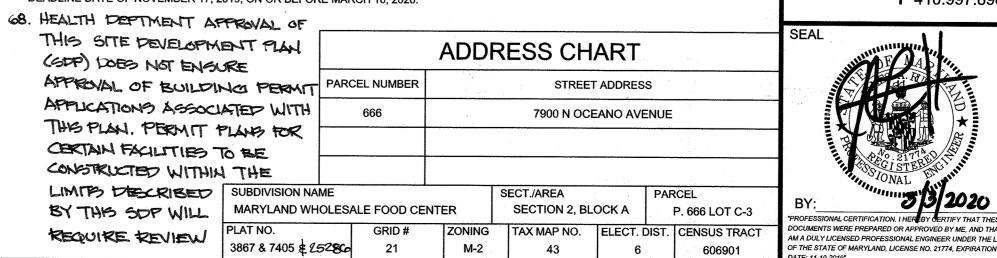
- 55. UNLESS OTHERWISE SPECIFIED, ALL FILL, COMMON BORROW, AND/OR TRENCH BACKFILL MATERIAL SHALL BE A MINIMUM OF 100 LBS/FT3 FOR THE MAXIMUM DRY DENSITY ACCORDING AASHTO T-180 AND SHALL NOT BE MH, CH, OH OR PT AS DETERMINED FROM ASTM D-2487.
- 56. SUB-BASE MATERIAL AND SUB-GRADE CONDITIONS ARE SPECIFICALLY DESIGNED FOR A GIVEN PAVING TYPE. ANY DEVIATION FROM THE DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS AND MAY IMPACT THE FUNCTION OF THE PAVING SURFACE.
- 57. AT THE END OF EACH DAY, ALL TRENCHES SHALL BE BACKFILLED, ALL EQUIPMENT SECURED AND THE AREA LEFT IN A SAFE CONDITION. STEEL PLATES ARE ALLOWED TO REMAIN NO LONGER THAN SEVEN (7) DAYS. PLATES ARE TO BE NOTCHED (RECESSED) AND PINNED TO THE ROADWAY, PLATES MUST BE LARGE ENOUGH TO ALLOW A MINIMUM OF 1-FOOT BEARING ON ALL FOUR (4) SIDES OF THE PAVEMENT SURROUNDING THE EXCAVATION.
- 58. WHEN TYING INTO EXISTING PAVEMENT, SAW CUT EXISTING PAVING EDGE TO PROVIDE A CLEAN. STRAIGHT AND VERTICAL JOINT. ROTOMILL SURFACE COURSE TO PROVIDE TRANSITION BETWEEN EXISTING AND NEW PAVEMENT. WHEN REMOVING EXISTING CURB OR SIDEWALK, REMOVE TO THE NEAREST JOINT
- 59. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PAVEMENT MARKINGS AND SIGNAGE IN ACCORDANCE WITH THE PAVEMENT MARKING AND SIGNAGE PLAN.
- 60. THE CONTRACTOR SHALL ENSURE THAT CURRENT AS-BUILT RECORDS ARE MAINTAINED DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION AS-BUILT DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR. FIELD LOCATION OF UTILITIES SHALL BE COORDINATED WITH THE OWNER PRIOR TO COVERING THE LINES. CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF A LICENSED SURVEYOR AND CIVIL ENGINEER TO COMPLETE THE REQUIRED
- 61. THE PARKING NEEDS STUDY WAS APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING ON MARCH 26, 2019 SUBJECT TO ADDING A SEPARATE DELIVERY/DROP OF AREA FOR 2-3 TRUCKS PER HOUR THAT IS SEPARATE FROM THE PROPOSED 11 SPACE PARKING LOT. THERE WILL BE NO MORE THAN 2-3 TRUCKS DELIVERING PRODUCT TO THE SITE PER HOUR. MONITORING OF THE OFF-LOADING INSIDE THE BUILDING AND ON-SITE IS THE RESPONSIBILITY OF THE OWNER(S).
- 62.ALL UNPAVED AREAS BETWEEN ALL BUILDINGS, TANKS, AND OTHER EQUIPMENT SHALL BE LAWN
- 63. THERE SHALL BE NO DISTURBANCE WITHIN THE EXISTING RAILROAD EASEMENT.
- 64. KNOX BOXES SHALL BE LOCATED WITHIN 6 FEET TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5' IN HEIGHT. THE CONTRACTOR SHOULD CONTACT THE OFFICE OF THE FIRE MARSHALL PRIOR TO PURCHASING AND INSTALLING THE KNOX BOXES TO DETERMINE THE NUMBER, AS WELL AS THE LOCATIONS WHERE THEY ARE TO BE MOUNTED.

65. WP-19-085 ALTERNATIVE COMPLIANCE, APPROVED WITH CONDITIONS ON APRIL 2, 2019: AFTER REVIEW OF THE SUBMITTED INFORMATION REQUESTING AN ALTERNATIVE COMPLIANCE OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.134(A)(1), WHICH REQUIRES THE CONSTRUCTION OF SIDEWALKS AND SECTION16.134(a)(2), WHICH REQUIRES SIGNATURE APPROVAL OF A SITE DEVELOPMENT PLAN ORIGINAL PRIOR TO ISSUANCE OF A BUILDING PERMIT:

THE ALTERNATIVE COMPLIANCE WAS APPROVED SUBJECT TO THE FOLLOWING CONDITIONS AND NOTE:

SIDEWALK IS NOT NEEDED TO SERVE SCHOOL, SHOPPING, OR ACTIVE RECREATION AREAS.

- a. ALL REQUIRED PERMITS FROM THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS MUST BE OBTAINED PRIOR TO ANY MASS GRADING AND /OR CLEARING NO PERMANENT STRUCTURES ARE PERMITTED TO BE CONSTRUCTED UNTIL SDP-18-063 IS APPROVED AND SIGNED AND ALL REQUIRED DEVELOPER AGREEMENTS HAVE BEEN EXECUTED.
- NOTE: THE DEPARTMENT OF PLANNING AND ZONING ELIMINATES THE NEED FOR SIDEWALK FOR THIS PROPOSAL AS PERMITTED UNDER SECTION 16.134(b) BASED ON THE FOLLOWING OBSERVATIONS:
- 1. ADJACENT DEVELOPMENT HAS BEEN COMPLETED WITHOUT SIDEWALK, PURSUANT TO PRIOR APPROVALS AND THERE IS NO NEED TO SERVE COMMERCIAL OR INSTITUTIONAL USES, SCHOOLS, PARKS, OR OTHER PUBLIC FACILITIES OR MAKE CONNECTIONS TO NEARBY STREETS OR TRANSIT SERVICE.
- 66. A WAIVER TO DESIGN MANUAL VOLUME III, SECTION 2.6.D TO REDUCE THE MINIMUM REQUIRED INTERSECTION SPACING FOR COMMERCIAL AND INDUSTRIAL DRIVEWAYS FROM 110 FEET TO 55 FEET WAS APPROVED ON OCTOBER 28, 2019 BASED ON THE FOLLOWING
- THE NEW ACCESS LOCATIONS (TWO) FOR THIS SITE WILL BE SITUATED IN A MANNER THAT WILL ALLOW FOR THRU MOVEMENTS AND STACKING WITHIN THE PROPERTY. THIS WILL ELIMINATE THE NEED FOR STACKING WITHIN THE PUBLIC ROADWAY AND/OR DIFFICULT
- MANEUVERING INTO AND OUT OF THE SITE. b. THE TRAFFIC TO/FROM THIS SITE WILL BE RELATIVELY LOW.
- c. THE MINIMUM SIGHT DISTANCES HAVE BEEN PROVIDED AT EACH ENTRANCE.
- 67. WP-20-047 ALTERNATIVE COMPLIANCE, APPROVED WITH CONDITIONS ON DECEMBER 4, 2019: AFTER REVIEW OF THE SUBMITTED INFORMATION REQUESTING AN ALTERNATIVE COMPLIANCE OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.156(I) AND 16.156(m), WHICH ESTABLISHES DEADLINES FOR THE SUBMISSION OF DEVELOPER AGREEMENTS AND POSTING OF FEES RELATED TO SITE DEVELOPMENT PLANS AND WHICH ESTABLISHES DEADLINES FOR THE SUBMISSION OF PLAN ORIGINALS IN RELATION TO SITE DEVELOPMENT PLANS, APPROVAL WAS GRANTED SUBJECT TO THE FOLLOWING CONDITIONS:
- I. THE DEVELOPER'S CONSULTANT MUST SUBMIT DEVELOPER AGREEMENTS AND ANY FEES FOR SDP-18-063 WITHIN 120 DAYS OF THE CURRENT DEADLINE DATE OF NOVEMBER 17, 2019, ON OR BEFORE MARCH 16, 2020.
- 2. THE DEVELOPER'S CONSULTANT MUST SUBMIT SITE DEVELOPMENT PLAN MYLARS FOR SDP-18-063 WITHIN 120 DAYS OF THE CURRENT DEADLINE DATE OF NOVEMBER 17, 2019, ON OR BEFORE MARCH 16, 2020.



M-2 (MANUFACTURING: HEAVY) MAXIMUM 6 EMPLOYEES ON SITE EMPLOYEES (5) AND ANTICIPATED VISITORS THAT MAY BE ON SITE AT ANY ONE TIME. ADDITIONALLY, THERE ARE UNMARKED PAVED AREAS ON SITE AVAILABLE FOR OTHER PARKING, SHOULD

VICINITY MAP

SCALE: 1"=2,000" HOWARD COUNTY ADC MAP 41 GRID D-1 **ADC MAP USE LICENSE #3652**

BENCHMARKS

HOWARD COUNTY SURVEY CONTROL: 43HB N 543,166.735 E 1,374,425,118 LOCATION IS 5.3' FROM FACE OF CURB ALONG OCEANO AVENUE.

HOWARD COUNTY SURVEY CONTROL: 43HC ELEVATION 253.918 N 543,386.118 E 1,374,935.892 LOCATION IS 2.5' FROM FACE OF CURB ALONG

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY HEALTH DEPARTMENT

HEIGHT FOR EVERY 2 FEET OF SETBACK ABOVE THE MINIMUM: 100 FEET GEN. NOTE 68 CONTINUED: AND APPROVAL BY THE HEALTH DEPARTMENT SUCH FACILITIES MAY

INCLUDE, BUT ARE NOT LIMITED TO THOSE WHICH HAVE SWIMMING FOOLS OR THAT SELL PREPARED OR PACKAGED FOODS, OR THAT MAY HAVE EQUIPMENT THAT EMIPS

SITE ANALYSIS DATA

5.49 ACRES (239,060 SF)

4.81 ACRES (209,353 SF)

VACANT WOODED LOT

ENERGY FACILITY

AT ANY GIVEN TIME

11 SPACES PROVIDED*

11 SPACES*

*THE PROPOSED USE DOES NOT HAVE A DEFINED PARKING

AREAS OF 25% SLOPES DO NOT MEET DEFINITION OF STEEP

SLOPES (STEEP SLOPE: A SLOPE THAT AVERAGES 25% OR

REFORE, PARKING HAS BEEN BASED ON THE NUMBER OF

RECYCLING/WASTE TO

FIRST FLOOR: ± 39,757

SECOND FLOOR: 1 3900

(00,549: SF / 239,060 SF = 42%

ECP-18-033, SDP-77-082, F-76-002

PLAT #3867, PLAT #7405

0.00 ACRES (0.00 SF)

0.00 ACRES (0.00 SF)

0.00 ACRES (0.00 SF)

4.71 ACRES (205,296 SF)

0.27 ACRES ± (11,614 SF ±)

0.11 ACRES ± (4,749 SF ±)*

0.00 ACRES (0.00 SF)

0.00 SF (0.00 ACRES)

101,98 SF (2.34 ACRES)

AREA OF SITE:

PRESENT ZONING

EXISTING USES:

PROPOSED USES

LIMIT OF DISTURBANCE

PROPOSED FLOOR AREA

PARKING REQUIRED

BUILDING COVERAGE

AREA OF WETLANDS

AREA OF FLOODPLAIN

FOREST AREA:

AREA OF WETLAND BUFFERS:

GREATER OVER 10 VERTICAL FEET).

PROPOSED:

FROM EXTERNAL PUBLIC STREET RIGHT-OF-WAY:

50 FEET PARKING USES FROM EXTERNAL PUBLIC

STREET RIGHT-OF-WAY: 30 FEET FROM INTERNAL

RIGHT-OF-WAY: 10 FEET FROM ANY RESIDENTIA

DISTRICT: 150 FEET FROM RESIDENTIAL USES IN

STRUCTURE WITH MINIMUM SETBACK: 50 FEET

STRUCTURE WITH AN ADDITIONAL 1 FOOT IN

USES FROM INTERNAL PUBLIC STREET

A CAC OR TOD DISTRICT: 100 FEET

ZONE M-2 BUILDING HEIGHT:

PUBLIC STREET RIGHT-OF-WAY: 50 FEET PARKING

AREA OF ERODIBLE SOILS:

ZONE M-2 SETBACKS:

PPROVED: DEPARTMENT OF PLANNING AND ZONING 4.1.20 CHIÉF, BÍVISION OF LAND DEVELOPMENT DATE 4-17-2021 PIRECTOR PLANNING ? ZONING DATE 1/4/4 3 REVISE ROOF DRAINS PJS (0/8/20 1 REVISE SITE DATA 1755 DATE NO. REVISION BY **DEVELOPER** MORF I, LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK PHONE: 860-462-9533 OWNER MARYLAND FOOD **CENTER AUTHORITY** 7801 OCEANO AVENUE JESSUP, MD 20794-9411 ATTN: PEGGY TORRE PHONE: 410-379-5760

PROJECT

MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2 GRID NO. 21 6TH ELECTION DISTRICT 7900 N OCEANO AVENUE JESSUP, MARYLAND 20794 HOWARD COUNTY, MARYLAND

TITLE

COVER SHEET



Pennoni) Engineers • Surveyors • Planners Landscape Architects

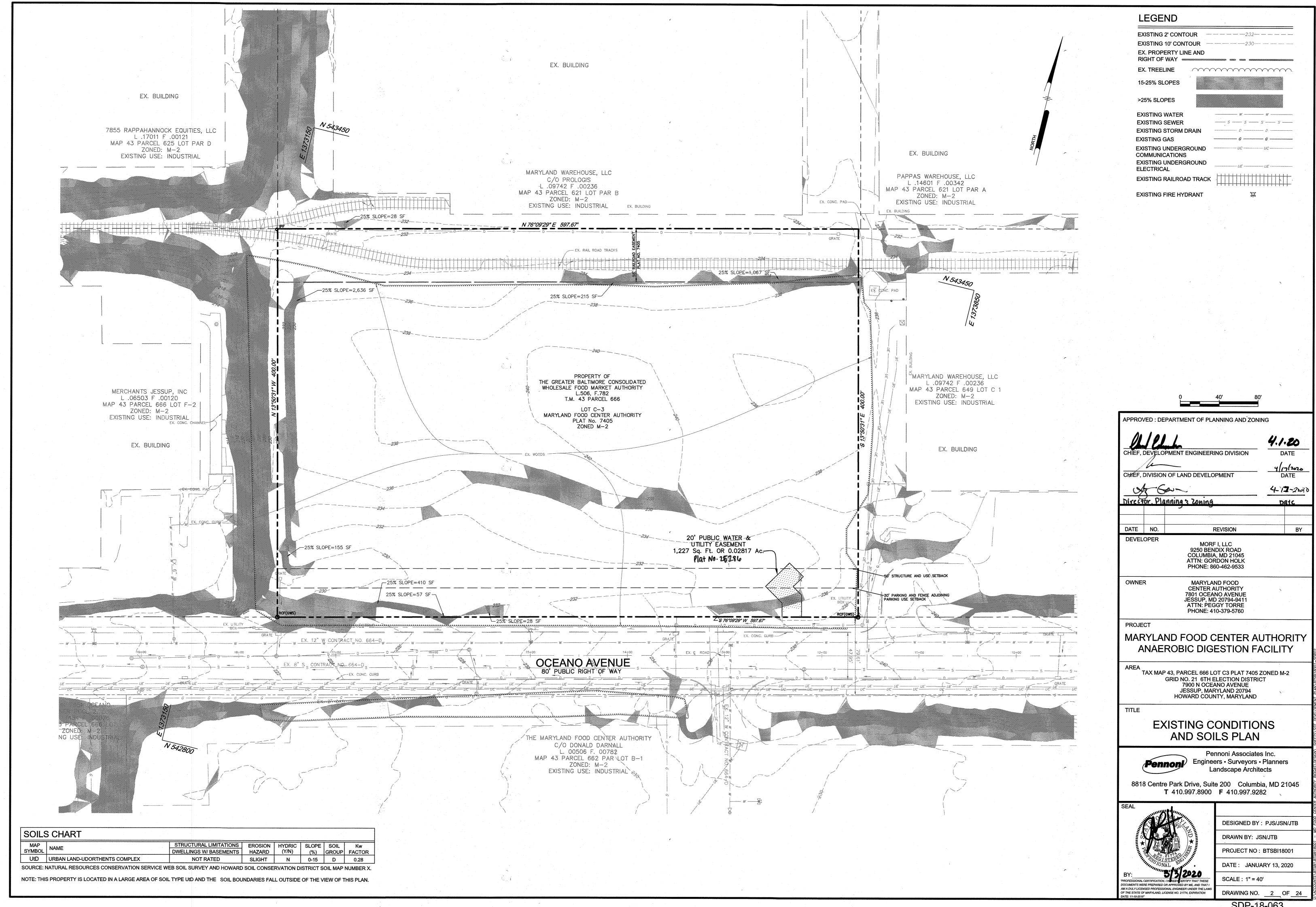
Pennoni Associates Inc.

8818 Centre Park Drive, Suite 200 Columbia, MD 21045 **T** 410.997.8900 **F** 410.997.9282

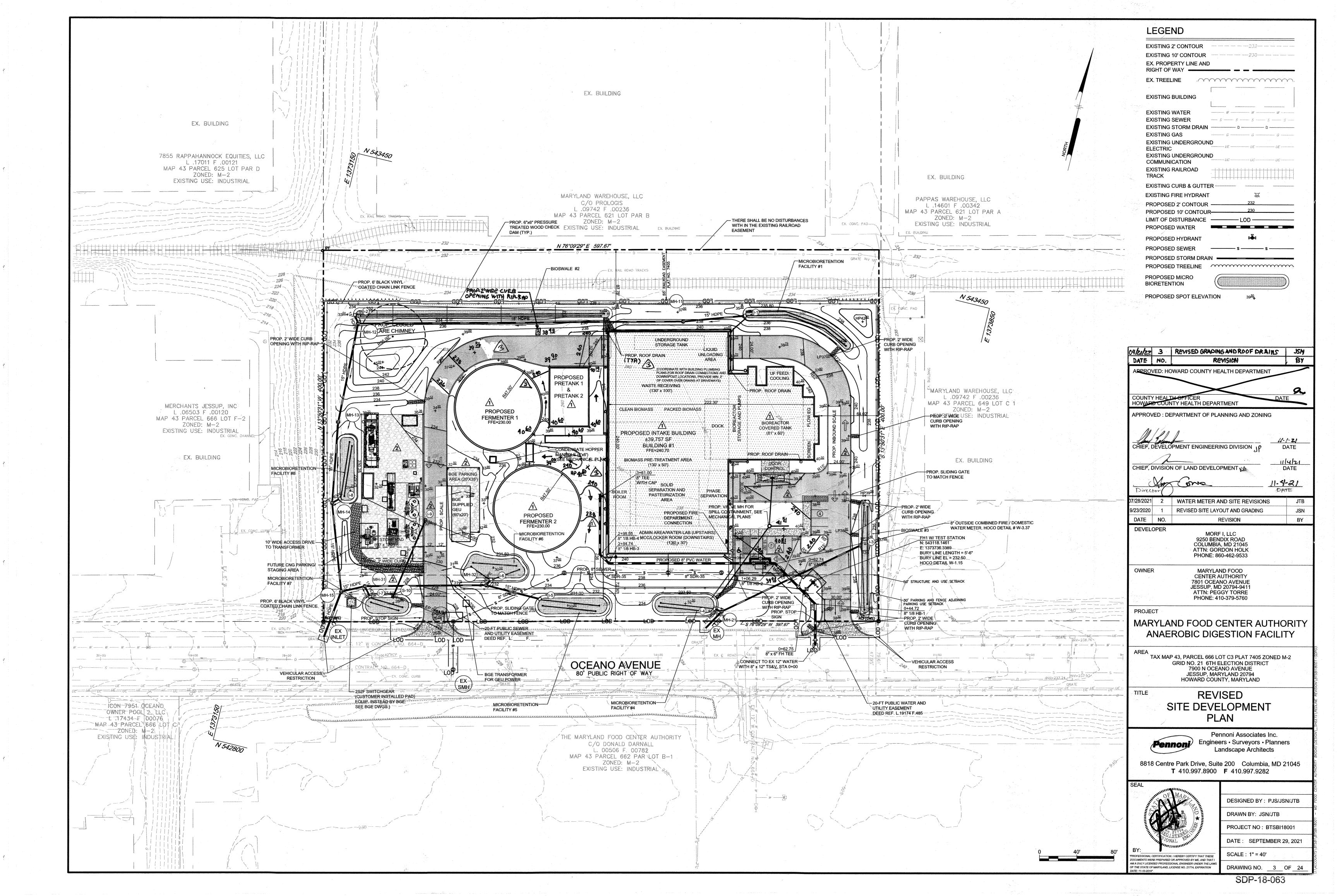


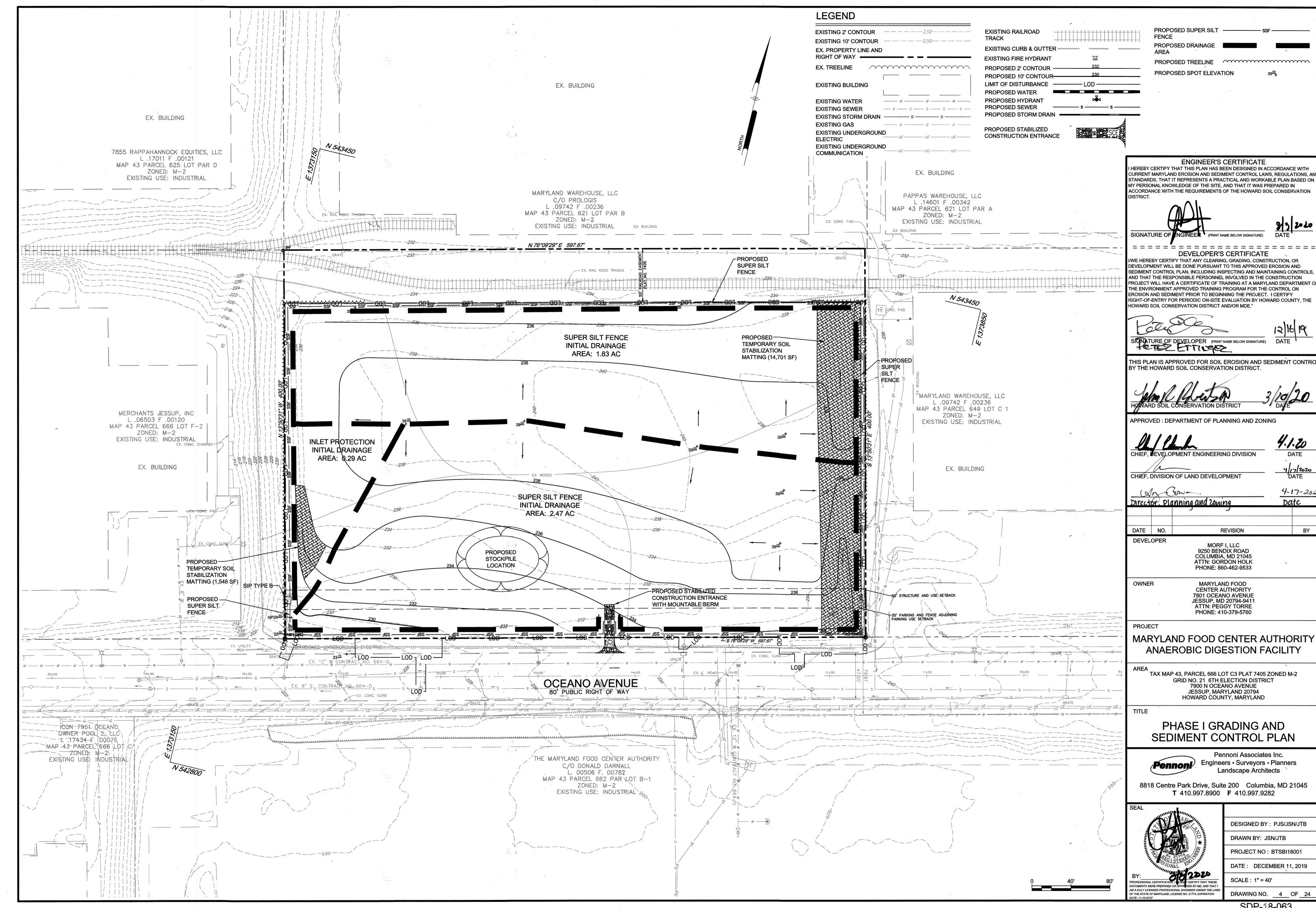
DESIGNED BY: PJS/JSN/JTB DRAWN BY: JSN/JTB PROJECT NO: BTSBI18001 DATE: MARCH 2, 2020 SCALE: 1" = 100'

DRAWING NO. 1 OF 24

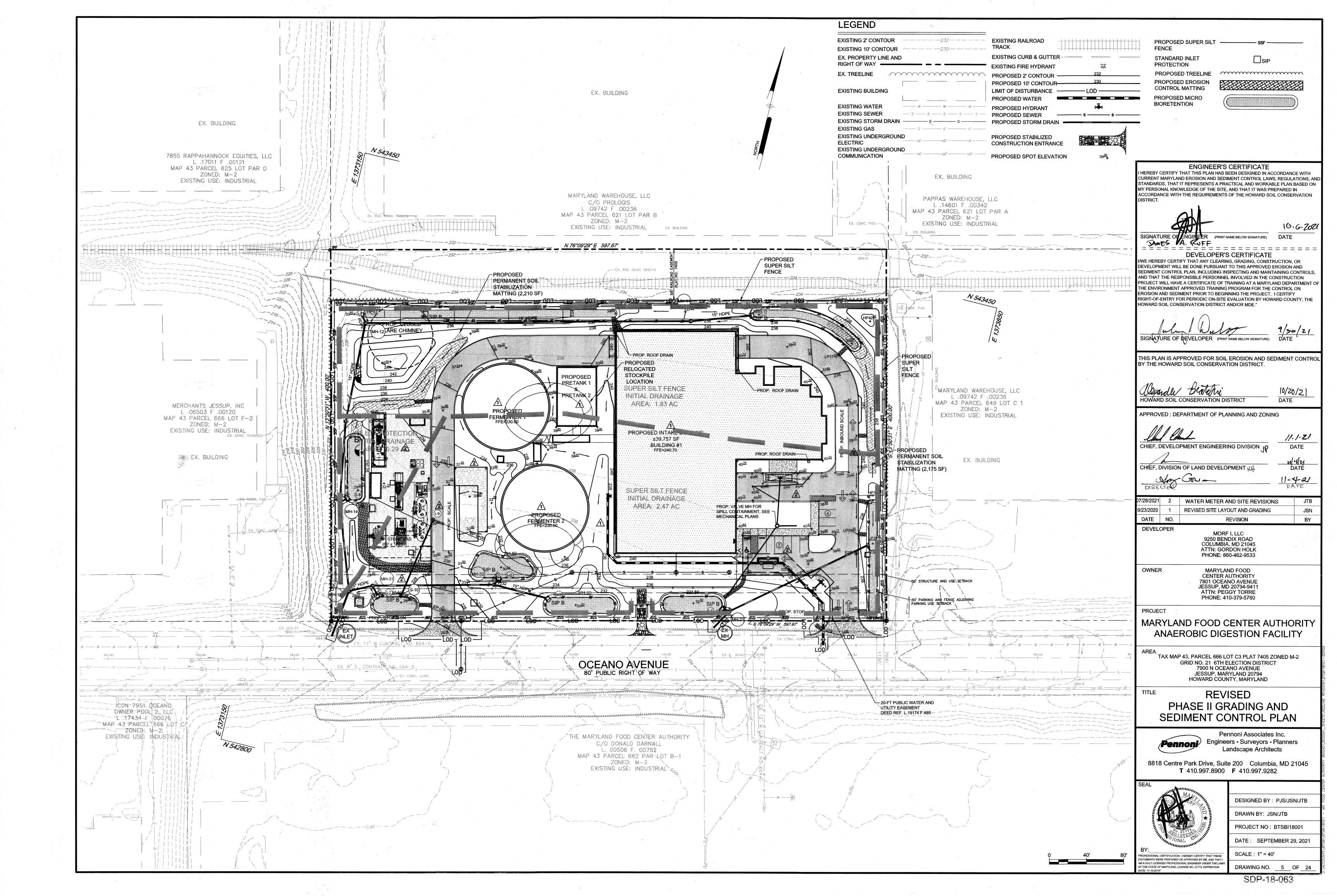


SDP-18-063





SDP-18-063



B-4-2 STANDARDS AND SPECIFICATIONS FOR

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).
- iii. 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 CONDITIONS.
- 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

- 1. 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.
- 2. 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 USDA-NRCS.
- 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.
- b. 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
- d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- 4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND
- 5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING
- a. 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.
- b. 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.
- c. 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.
- 6. TOPSOIL APPLICATION
- a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN
- 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
- c. 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

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- 1. 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.
- 2. 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.
- 3. 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
- 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

FOR SEEDING AND MULCHING

DEFINITION THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

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.

CRITERIA

A. SEEDING

- 1. 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.
- c. 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

SEED WITH SOIL.

- a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
- i. 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.
- ii. 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 SEED TO SOIL CONTACT
- b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER
- i. 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.
- b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
- i. 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
- III. 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

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.

a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

c. 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.

3. ANCHORING

- a. 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:
- i. 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.
- II. 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.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

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

PURPOSE 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.

- 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
- 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.

TEMPORARY SEEDING SUMMARY

		(mail mailm = m)			1	r	i
	HARDINESS ZONE	(FROM FIGURE B.3):	6B		FERTILIZER		l
	SEED MIXTURE	(FROM TABLE B.1):			RATE (10-20-20)	LIME RATE	
NO.	SPECIES	APPLICATION RATE (Ib/ac)	SEEDING DATES	SEEDING DEPTHS	(10-20-20)		
	ANNUAL RYEGRASS	40	MAR 1 TO MAY 15; AUG 1 TO OCT 15	0.5			
	BARLEY	96	MAR 1 TO MAY 15; AUG 1 TO OCT 15	1.0	436 lb/ac	2 tons/ac	
	OATS	72	MAR 1 TO MAY 15; AUG 1 TO OCT 15	1.0	(10 lb/1000 sf)	(90 lb/1000 sf)	
	PEARL MILLET	20	MAY 16 TO JULY 31	0.5			

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

<u>PURPOSE</u>

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER

ON DISTURBED SOILS. <u>CONDITIONS WHERE PRACTICE APPLIES</u>

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

A. SEED MIXTURES

1. GENERAL USE

- a. 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 AGENCY.
- d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 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: 13 TO 3 POUNDS PER 1000 square feet.

- SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND 2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATE 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)

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 11/2 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 (1/2 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. PERMANENT SEEDING SUMMARY

HA	,	FROM FIGURE B.3): (FROM TABLE B.3):	6B			FERTILIZER RATE (10-20-20)		
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P205	K ₂ 0	LIME RAT
8	TALL FESCUE	100	MAR 1-MAY 15; AUG 15-OCT 15*	1/4-1/2 IN	45 POUNDS	OO DOUBLE	oo poliking	0. 701/0
9	TALL FESCUE Kentucky Bluegrass Perennal Ryegrass	60 40 20	MAR 1-MAY 15; AUG 15-OCT 15*	1/4-1/2 IN	PER ACRE (1.01b/1000 sf)	90 POUNDS PER ACRE	90 POUNDS PER ACRE (2 ib/1000 sf)	2 TONS PER ACE
11	CREEPING RED FESCUE CHEWINGS FESCUE KENTUCKY BLUEGRASS	30 30 20	MAR 1-MAY 15; AUG 15-OCT 15*	1/4-1/2 IN	(I.UD/IUU SI)	(2 10/1000 81)	(2 ID/1000 ST)	(30 10/100

* FOR MAY 1 TO AUGUST 14, PLANT WITH NURSE CROP OF PEARL MILLET BASED ON 5% OF THE PERMANENT SEED MIX APPLICATION RATE.

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

1. 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

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.

AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

- 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
- 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
- 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

STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

DEFINITION

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.

CONDITIONS WHERE PRACTICE APPLIES

- Director, Planning & Zoning CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.

VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1.

BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

- 3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL

STANDARD B-4-4 TEMPORARY STABILIZATION.

THE DISCHARGE.

4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. 5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE.

PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A

- NON-EROSIVE MANNER. 6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AND APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE SUED TO INTERCEPT
- 7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND
- 8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING

MAINTENANCE

CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUA VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND

NOTE TO CONTRACTOR

DISTRICT

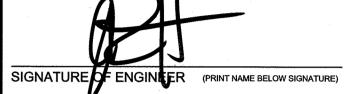
ALL SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS AND THE MDE INSPECTOR. ALL SEDIMENT CONTROL REQUIREMENTS SHALL BE STRICTLY ENFORCED.

ALL CONTROLS INTERCEPTED BY UTILITY INSTALLATIONS ARE TO BE REPAIRED IMMEDIATELY.

ENGINEER'S CERTIFICATE HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION

カソン

Date



HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

DEVELOPER'S CERTIFICATE I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS. AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE



HIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTRO BY THE HOWARD SOIL CONSERVATION DISTRICT.



PPROVED: DEPARTMENT OF PLANNING AND ZONING

VELOPMENT ENGINEERING DIVISION

STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR 4/17/2020 CHIEF, DIVISION OF LAND DEVELOPMENT DATE Day Gon-4-17-2020 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE

> DATE NO. REVISION

MORF I. LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK PHONE: 860-462-9533

MARYLAND FOOD **CENTER AUTHORITY** 7801 OCEANO AVENUE JESSUP, MD 20794-9411

DEVELOPER

PROJECT MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

ATTN: PEGGY TORRE

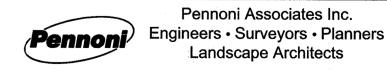
PHONE: 410-379-5760

TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2 GRID NO. 21 6TH ELECTION DISTRICT 7900 N OCEANO AVENUE JESSUP, MARYLAND 20794

HOWARD COUNTY, MARYLAND

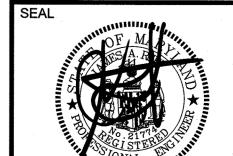
TITLE

SEDIMENT CONTROL NOTES



8818 Centre Park Drive, Suite 200 Columbia, MD 21045

T 410.997.8900 F 410.997.9282



PROFESSIONAL CERTIFICATION, I PEREBY PROFESSIONAL CERTIFICATION. AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LA

OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION

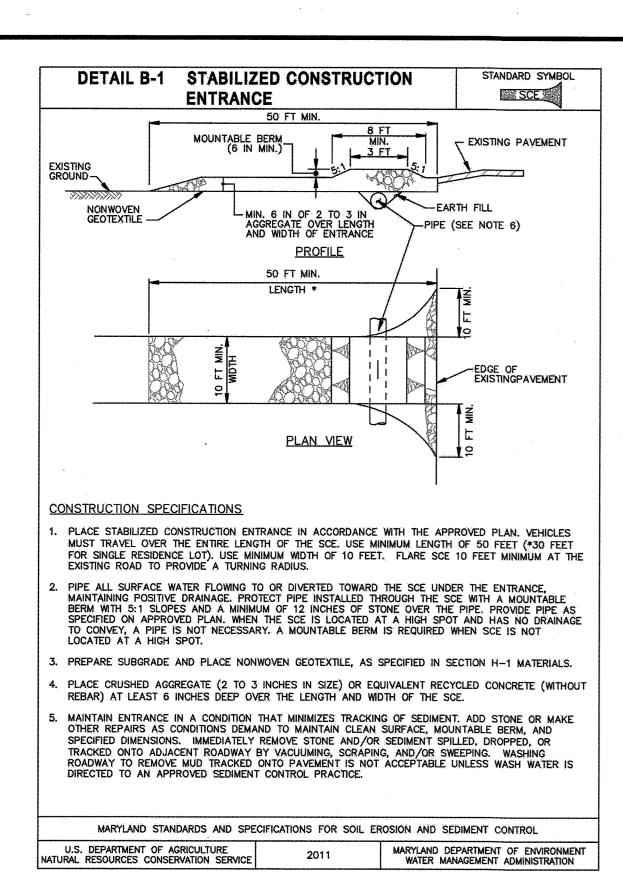
DESIGNED BY: PJS/JSN/JTB DRAWN BY: JSN/JTB

DATE: DECEMBER 11, 2019 SCALE: AS SHOWN

PROJECT NO: BTSBI18001

SDP-18-063

DRAWING NO. 6 OF 24



HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES 1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:

A. PRIOR TO THE START OF EARTH DISTURBANCE, B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT, D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND

REVISIONS THERETO. 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE 3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND AI

SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS. AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING. 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND

STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR

FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).

5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.

6. SITE ANALYSIS: TOTAL AREA OF SITE: 5.49 ACRES AREA DISTURBED: 4.81 ACRES

AREA TO BE ROOFED OR PAVED: 2.34 ACRES AREA TO BE VEGETATIVELY STABILIZED: 2.47 ACRES

TOTAL CUT: 8,200 CU, YDS, TOTAL FILL: 7,700 CU. YDS.

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY; AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:

INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)

 NAME AND TITLE OF INSPECTOR • WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)

• BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES EVIDENCE OF SEDIMENT DISCHARGES

• IDENTIFICATION OF PLAN DEFICIENCIES • IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE

• IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS

 PHOTOGRAPHS MONITORING/SAMPLING

FIELD CHANGES.

• MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED

• OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).

9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.

10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED

11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED

12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.

13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON—SITE FOR REDISTRIBUTION ONTO FINAL GRADE,

14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.

15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE): • USE I AND IP MARCH 1 - JUNE 15

• USE III AND IIIP OCTOBER 1 — APRIL 30 • USE IV MARCH 1 - MAY 31

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

DETAIL C-8 MOUNTABLE BERM MB -EARTH DIKE ROADWAY ROADWAY ISOMETRIC VIEW -25 FT (A DIKE) / 35 FT (B DIKE)-S IN MIN. COMPACTED EARTH 18 IN MIN/A DIKE 30 IN MIN/B DIKE SECTION A-A CONSTRUCTION SPECIFICATIONS . USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE. 2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND 5. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

H-5 STANDARDS AND SPECIFICATIONS

DUST CONTROL

Definition

Controlling the suspension of dust particles from construction activities.

Purpose

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including health and traffic hazards.

Conditions Where Practice Applies

Areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

- Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to
- Vegetative Cover: See Section B-4-4 Temporary Stabilization.
- Tillage: Till to roughen surface and bring clock to the surface. Begin plowing on windward ide of site. Chiscl-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.
- Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must not be irrigated to the point that runoff occurs.
- Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing.
- Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan

H.22

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT. (1 DAY)
- 2. STAKEOUT LIMITS OF DISTURBANCE. (1 DAY) 3. CONDUCT A PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (1 DAY)
- PHASE 1 MASS GRADING
- 4. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CLEAR AND GRUB AS NECESSARY TO INSTALL PERIMETER SUPER SILT FENCES. ALL SEDIMENT CONTROL DEVICES TO BE INSTALLED SIMULTANEOUSLY. (3 DAYS)
- 5. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, BEGIN CLEARING AND GRADING. FOLLOW DUST CONTROL PRACTICES PER MDE DETAIL. (3 MONTHS)
- 6. WITH COMPLETION OF BUILDING AND TANK PADS, BEGIN BUILDING CONSTRUCTION. (9 MONTHS)
- 7. UPON ESTABLISHMENT OF SUBGRADE, INSTALL WATER MAIN, PRIVATE SANITARY CONNECTIONS. WATER & SEWER HOUSE CONNECTIONS, AND STORM DRAIN. ANY CONTROLS INTERCEPTED BY UTILITY INSTALLATION ARE TO BE REPAIRED THE SAME
- 8. PHASE 2 FINAL GRADING
- 9. WITH COMPLETION OF SUBGRADE AND UTILITY INSTALLATION, INSTALL CURB AND GUTTER. BEGIN PARKING LOT AND LOOP ROAD CONSTRUCTION. CONSTRUCT THE STONE SUBGRADE OF THE ASPHALT AND CONCRETE PAVEMENT ON THE SITE, (1 WEEK)
- 10. INSTALL ASPHALT AND CONCRETE PAVEMENT. (1 WEEK)
- 11. PERFORM FINE GRADING, CONSTRUCT SIDEWALKS, AND ANY OTHER CONSTRUCTION ACTIVITY. MAINTAIN FLOWS TO SEDIMENT BASIN DURING FINE GRADING AND PAVING OPERATIONS. (2 WEEKS)
- 12. STABILIZE ALL DISTURBED AREAS. (1 DAY)
- 13. CONSTRUCT MICRO BIORETENTION FACILITIES AND BIOSWALE AND ALL ASSOCIATED UNDERDRAIN/OVERDRAINS. CONTACT PENNONI ENGINEER AND QUALIFIED GEOTECHNICAL ENGINEER TO OBSERVE INSTALLATION OF SWM FACILITIES. UPON INSTALLATION OF FILTER MEDIA, INSTALL SILT FENCE AROUND FACILITIES, AND INLET PROTECTION AT OVERFLOW INLETS. (6 WEEKS)
- 14. COMPLETE PAVING AND LANDSCAPING ON THE SITE. (2 WEEKS)
- 15. UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)

- 240 GRADE 230 230 MB#7 12" HOPE @ 0.5% 220 220 STORM DRAIN PROFILE 19 TO 5-10

VBLT SCALE: 1"=5"

CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH

SIGNATURE OF (PRINT NAME BELOW SIGNATURE)

HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

DEVELOPER'S CERTIFICATE I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS. AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE

TENATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATÉ

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTRO BY THE HOWARD SOIL CONSERVATION DISTRICT.



APPROVED : DEPARTMENT OF PLANNING AND ZONING

CHIEF, DÉVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT DATE W/x Gr-4-17-2027

Director Diannina & Zonina Datc 10.6.21 2 ATTO STORM DRAIN PROFILE DATE NO. REVISION

PHONE: 860-462-9533

4/17/2020

DEVELOPER MORF I, LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK

OWNER

MARYLAND FOOD CENTER AUTHORITY 7801 OCEANO AVENUE JESSUP, MD 20794-941 ATTN: PEGGY TORRE PHONE: 410-379-5760

PROJECT

MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2 GRID NO. 21 6TH ELECTION DISTRICT 7900 N OCEANO AVENUE JESSUP, MARYLAND 20794 HOWARD COUNTY, MARYLAND

TITLE

SEDIMENT CONTROL **DETAILS**



Pennoni Associates Inc. Engineers • Surveyors • Planners Landscape Architects

8818 Centre Park Drive, Suite 200 Columbia, MD 21045 **T** 410.997.8900 **F** 410.997.9282



OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION

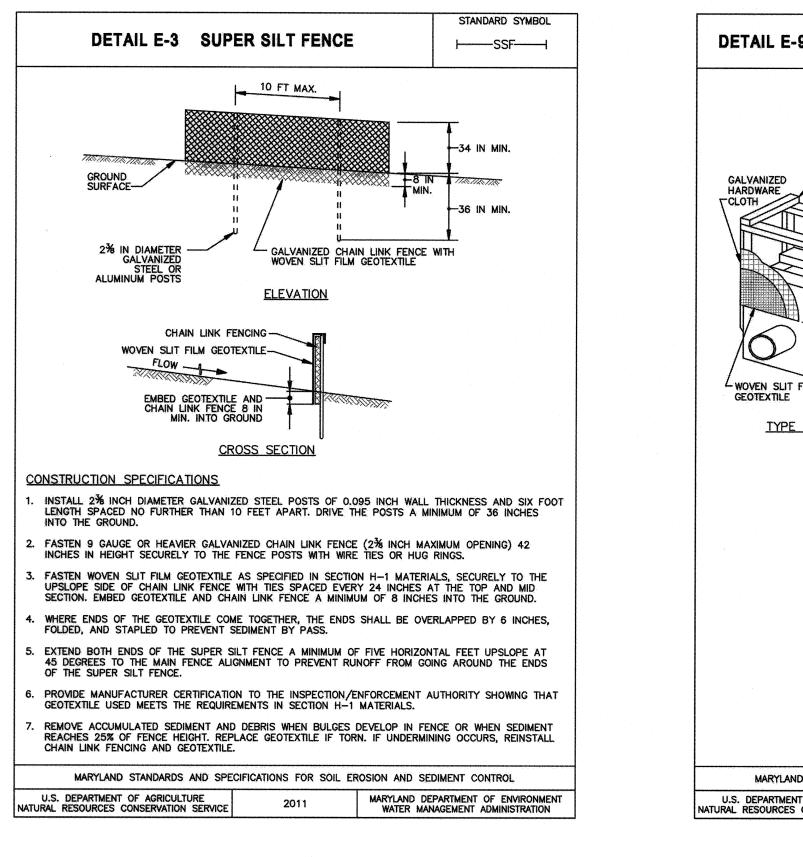
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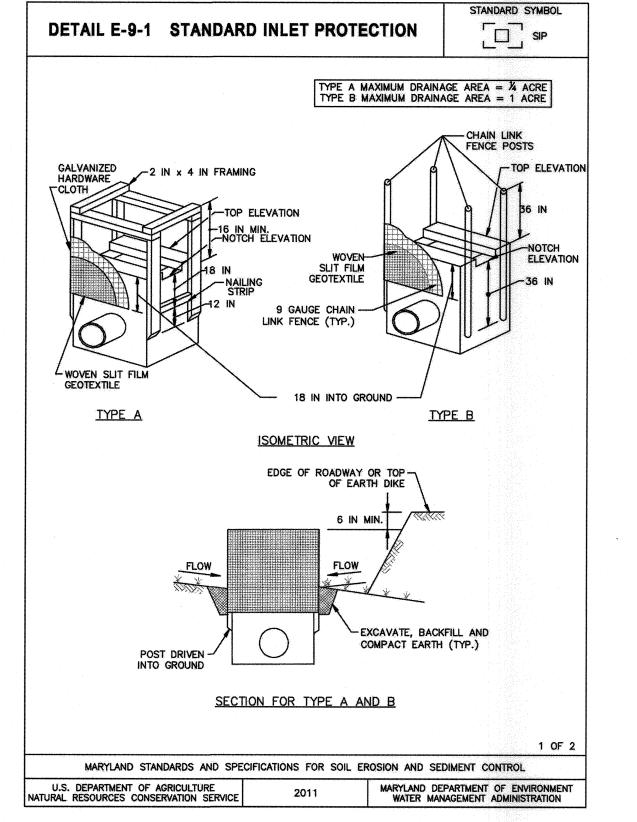
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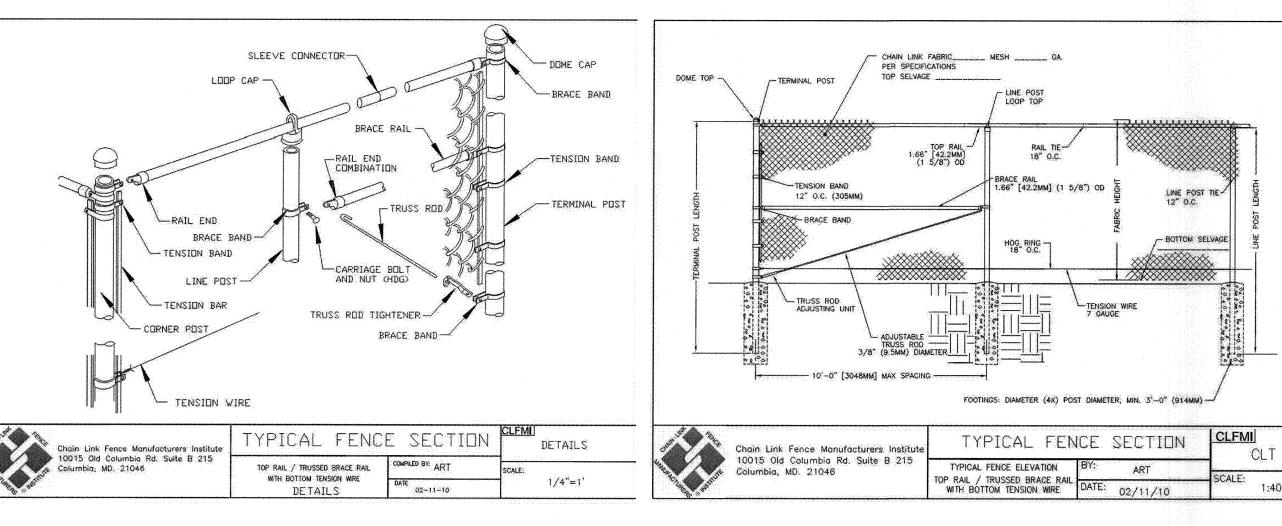
SCALE: AS SHOWN

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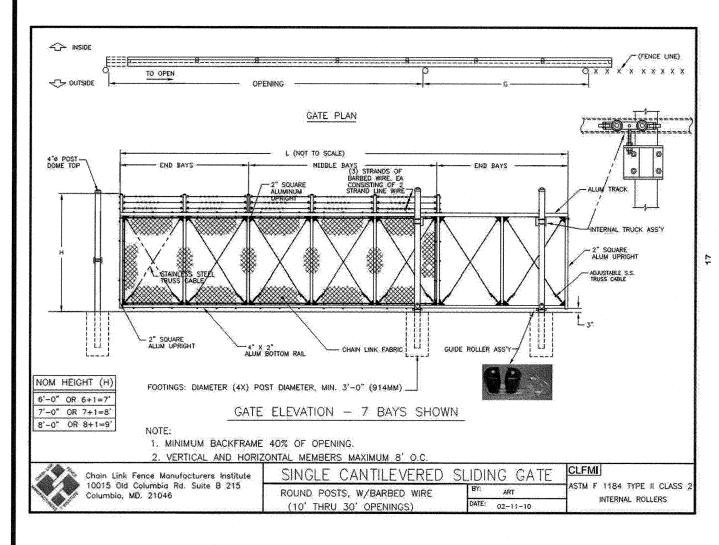
DRAWING NO. 7 OF 24







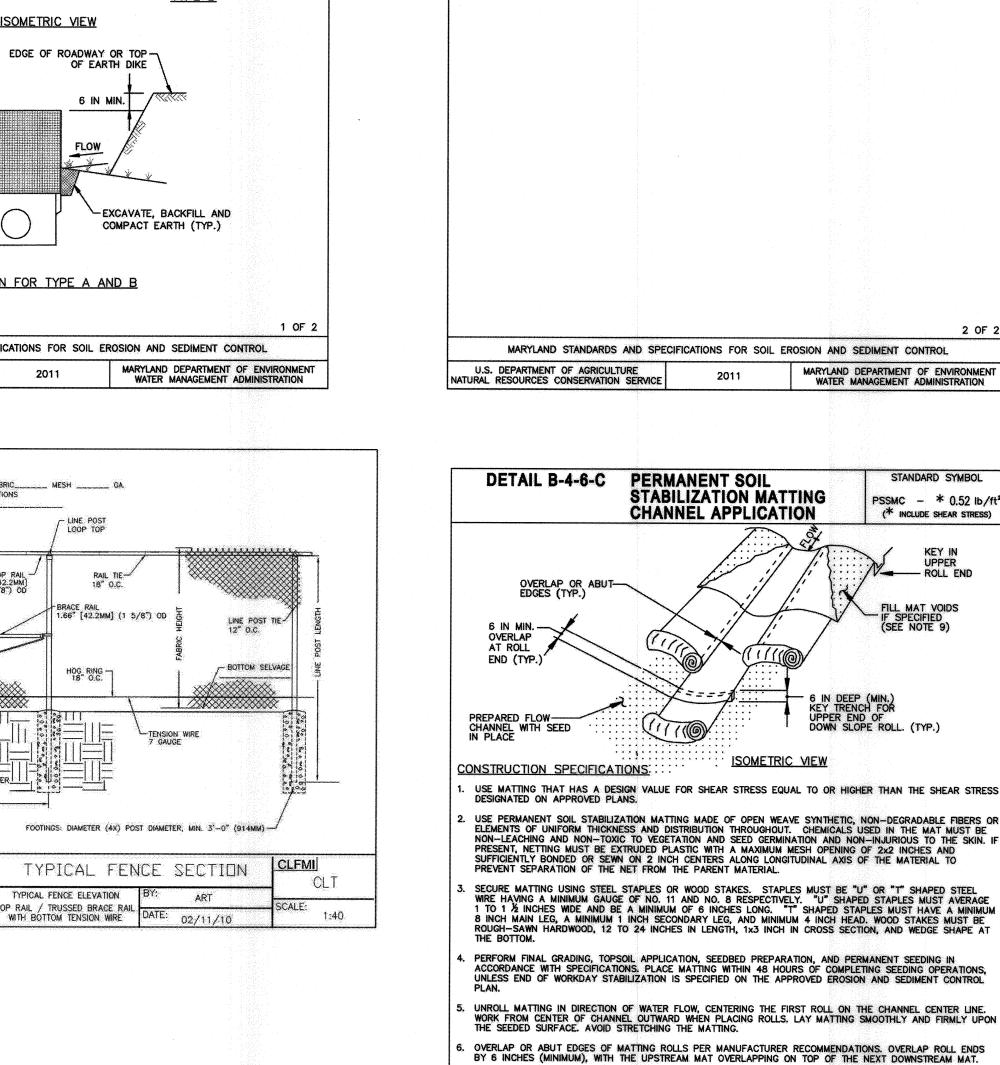


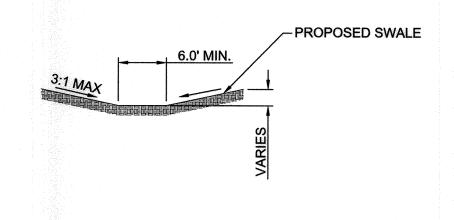


SLIDING GATE

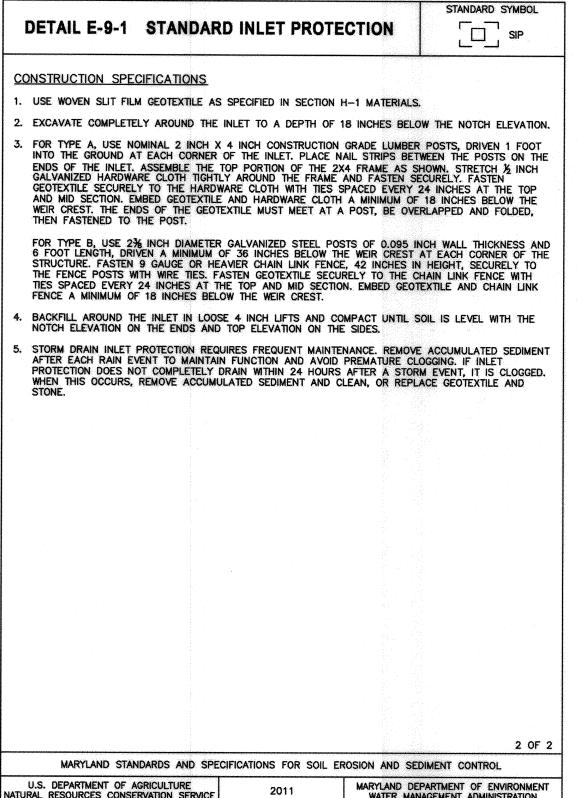
8 NOT TO SCALE

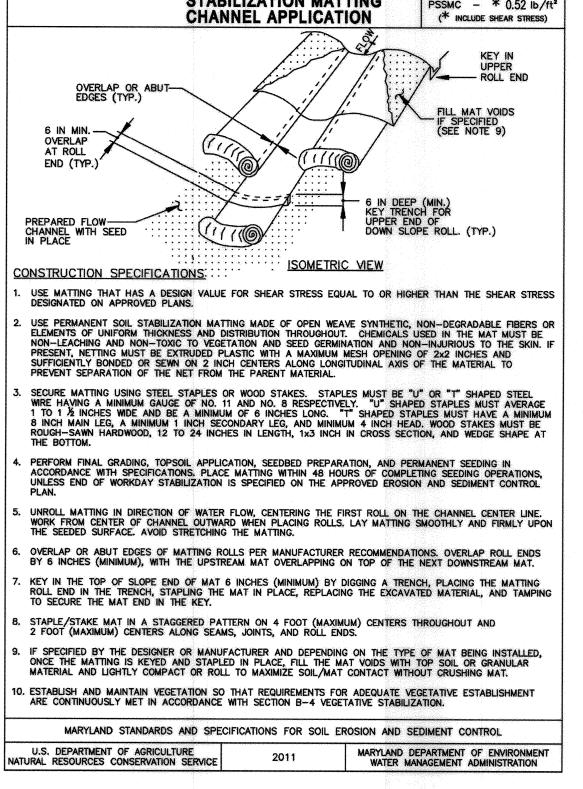
FENCE NOTES: 1. FENCE SHALL BE BLACK VINYL COATED CHAINLINK FENCE. 2. FENCE HEIGHT SHALL BE DIAG. 6 TALL. 3. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR FENCES AND GATES FOR ENGINEER APPROVAL PRIOR TO INSTALLATION.

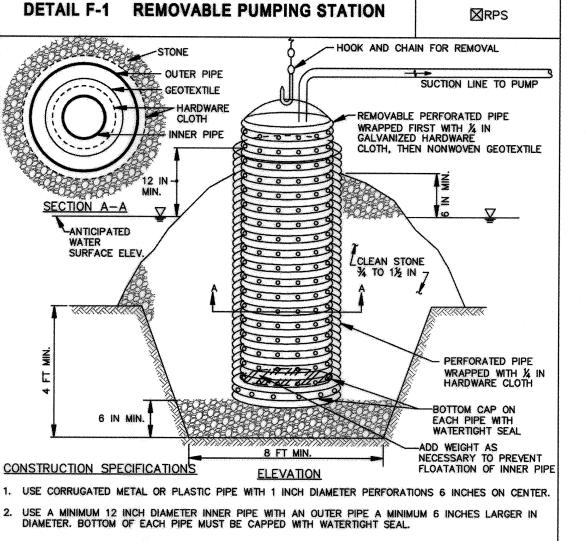




2 TYPICAL SWALE SECTION







STANDARD SYMBOL

USE A MINIMUM 12 INCH DIAMETER INNER PIPE WITH AN OUTER PIPE A MINIMUM 6 INCHES LARGER IN DIAMETER. BOTTOM OF EACH PIPE MUST BE CAPPED WITH WATERTIGHT SEAL.

WRAP EACH PIPE WITH 1/2 INCH GALVANIZED HARDWARE CLOTH. ON INNER PIPE WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.

EXCAVATE 8 FEET X 8 FEET X 4 FEET DEEP PIT FOR PIPE PLACEMENT. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT. SET TOP OF INNER AND OUTER PIPES MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE

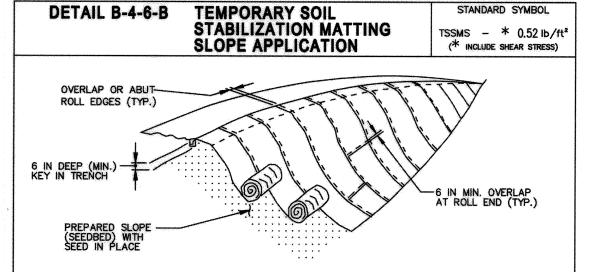
BACKFILL PIT AROUND THE OUTER PIPE WITH 1/4 TO 11/2 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.

ELEVATION (OR RISER CREST ELEVATION WHEN DEWATERING A BASIN)

DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.

A REMOVABLE PUMPING STATION REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, PULL OUT INNER PIPE AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



ISOMETRIC VIEW CONSTRUCTION SPECIFICATIONS

. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.

2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2X2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.

3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.

4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.

5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.

6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.

7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.

8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.

9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE INTURAL RESOURCES CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AN STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. SIGNATURE d I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND EDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION ROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT O THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL ON ROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY DATE NO. DEVELOPER **OWNER PROJECT**

RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE." SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) PETEZ ETTIMOS THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF. DEVELOPMENT ENGINEERING DIVISION CHJÉF, DIVISION OF LAND DEVELOPMENT Why Gora Director Planning & Loning 10/8/20 1 REVISE FENCE MOTE REVISION MORF I, LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK PHONE: 860-462-9533 MARYLAND FOOD **CENTER AUTHORITY** 7801 OCEANO AVENUE JESSUP, MD 20794-941 ATTN: PEGGY TORRE PHONE: 410-379-5760 MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2

ENGINEER'S CERTIFICATE

(PRINT NAME BELOW SIGNATURE)

4/17/2020

DATE

417-2020

PJS

BY

Date

DEVELOPER'S CERTIFICATE

Landscape Architects 8818 Centre Park Drive, Suite 200 Columbia, MD 21045 **T** 410.997.8900 **F** 410.997.9282 DESIGNED BY: PJS/JSN/JTB DRAWN BY: JSN/JTB PROJECT NO: BTSBI18001 DATE: DECEMBER 11, 2019 SCALE: AS SHOWN DRAWING NO. 8 OF 24 THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION

GRID NO. 21 6TH ELECTION DISTRICT 7900 N OCEANO AVENUE

JESSUP, MARYLAND 20794 HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL DETAILS

AND SITE DETAILS

Pennoni Associates Inc.

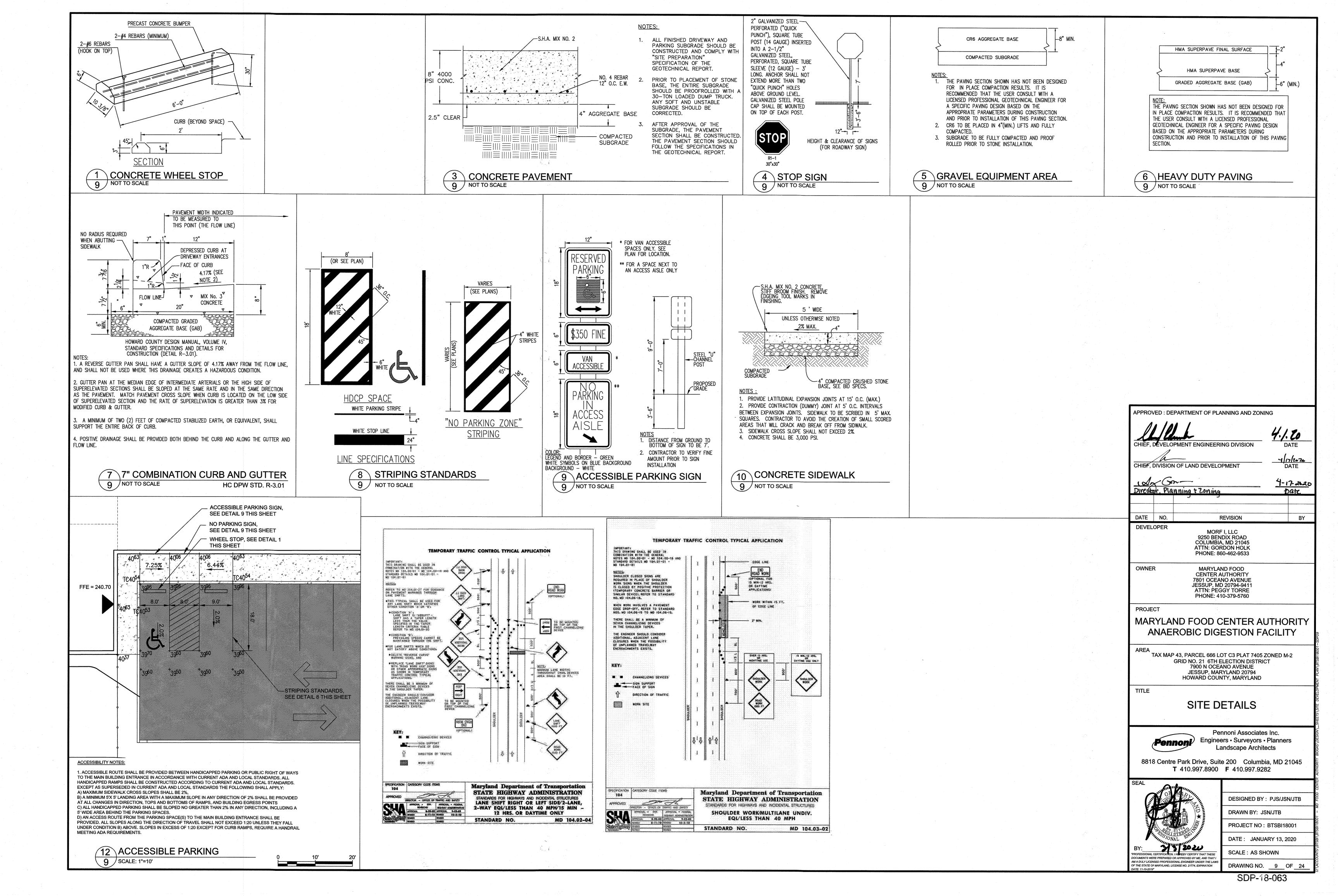
Engineers • Surveyors • Planners

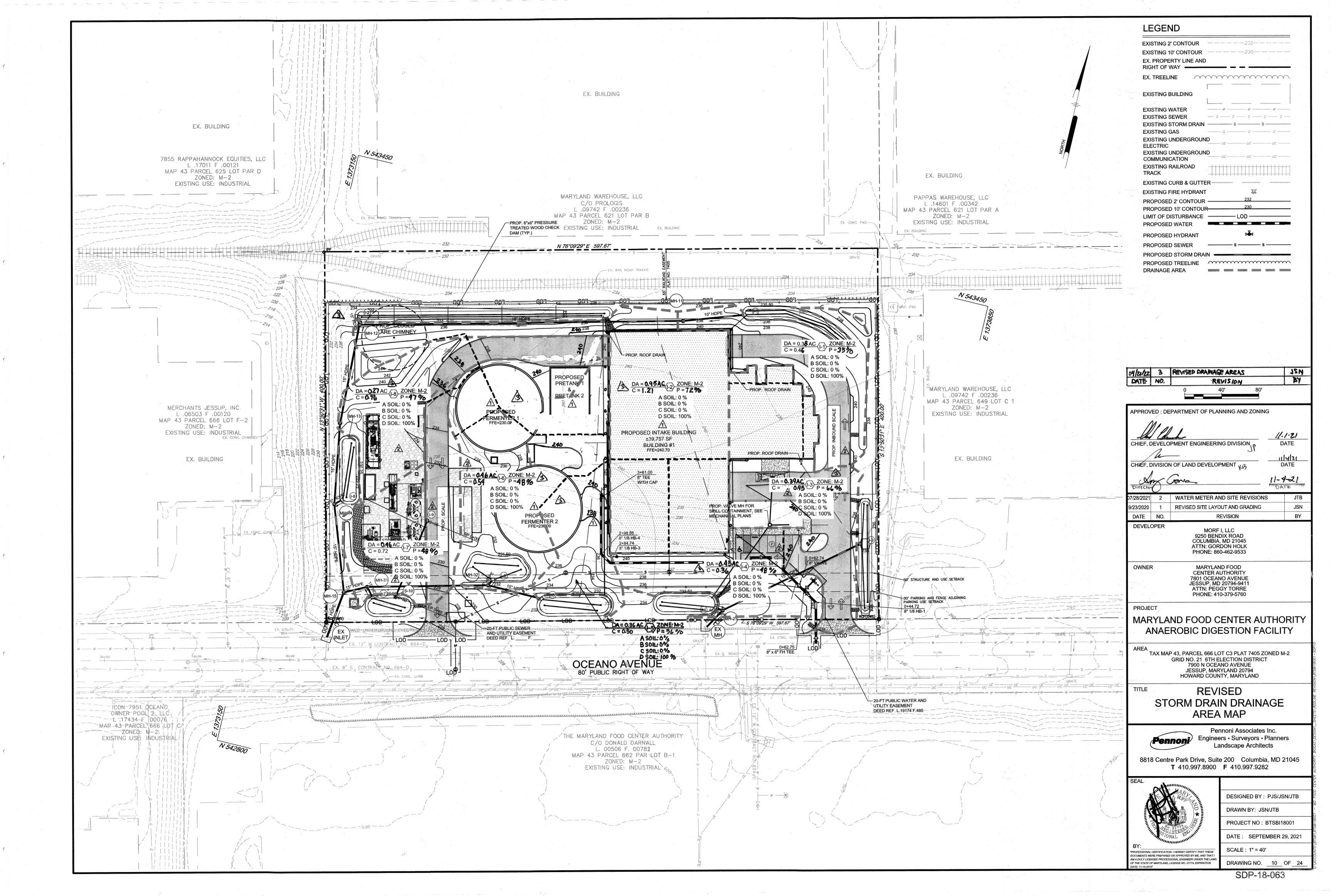
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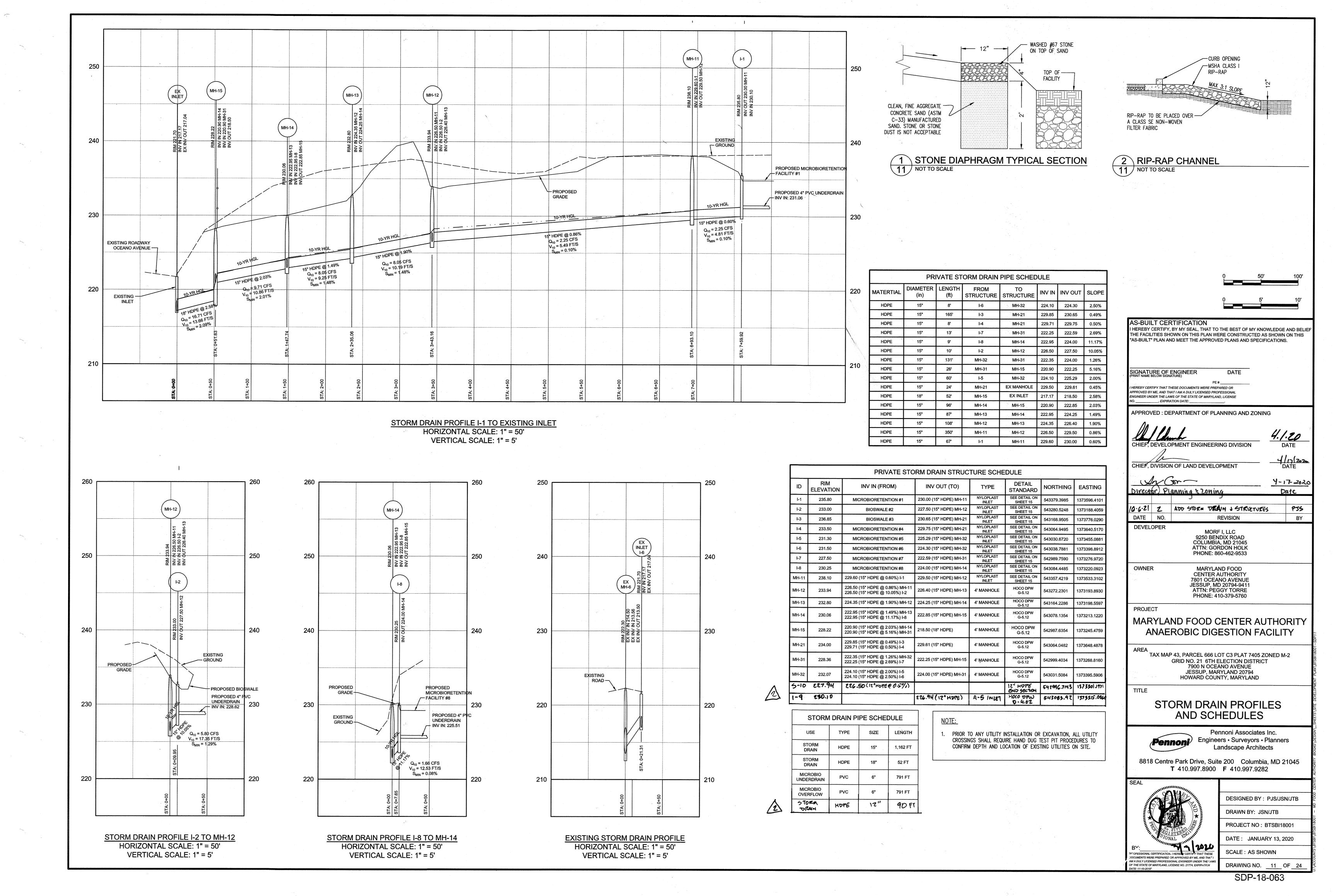
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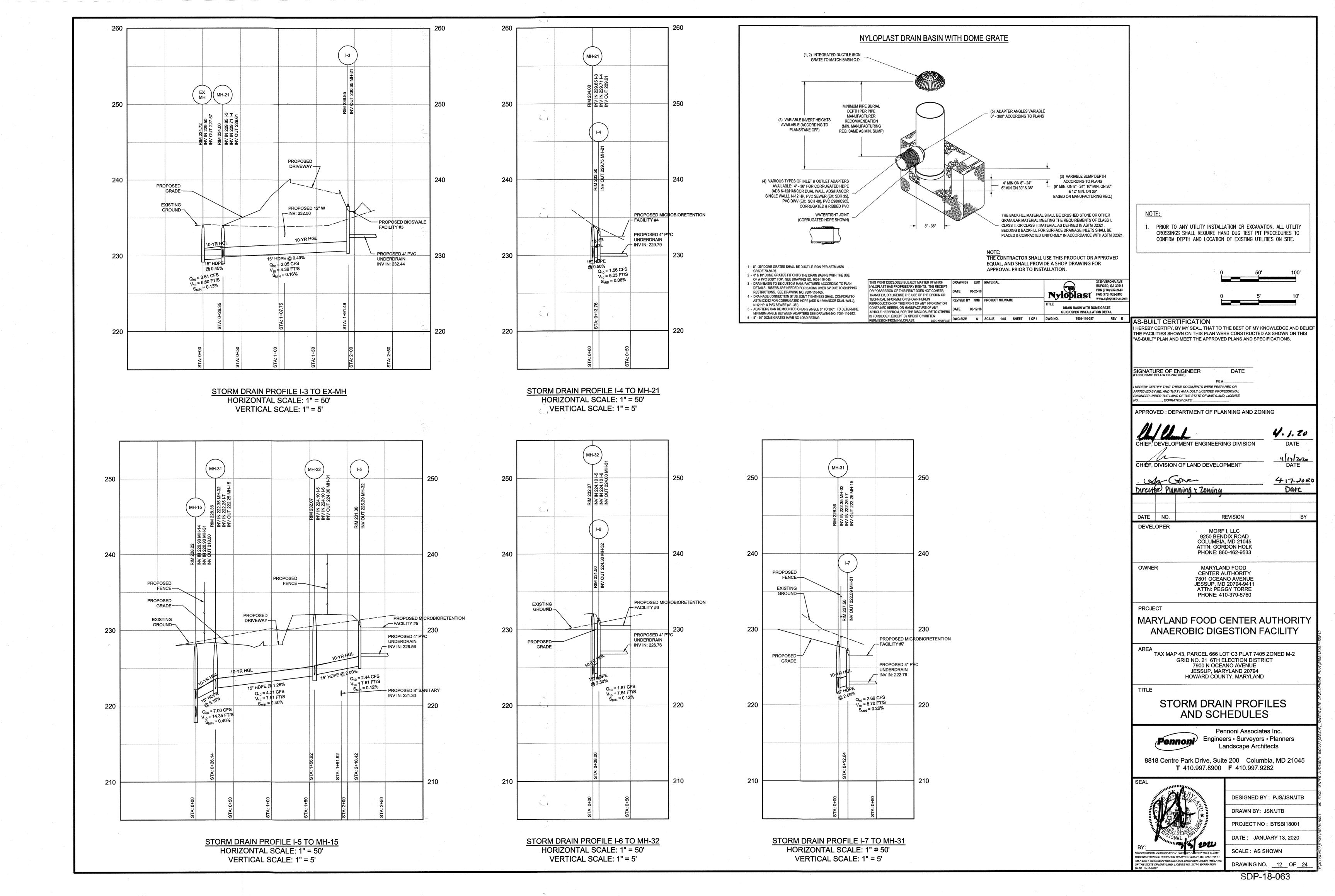
ROFESSIONAL CERTIFICATION, I HEREBY CERTIF

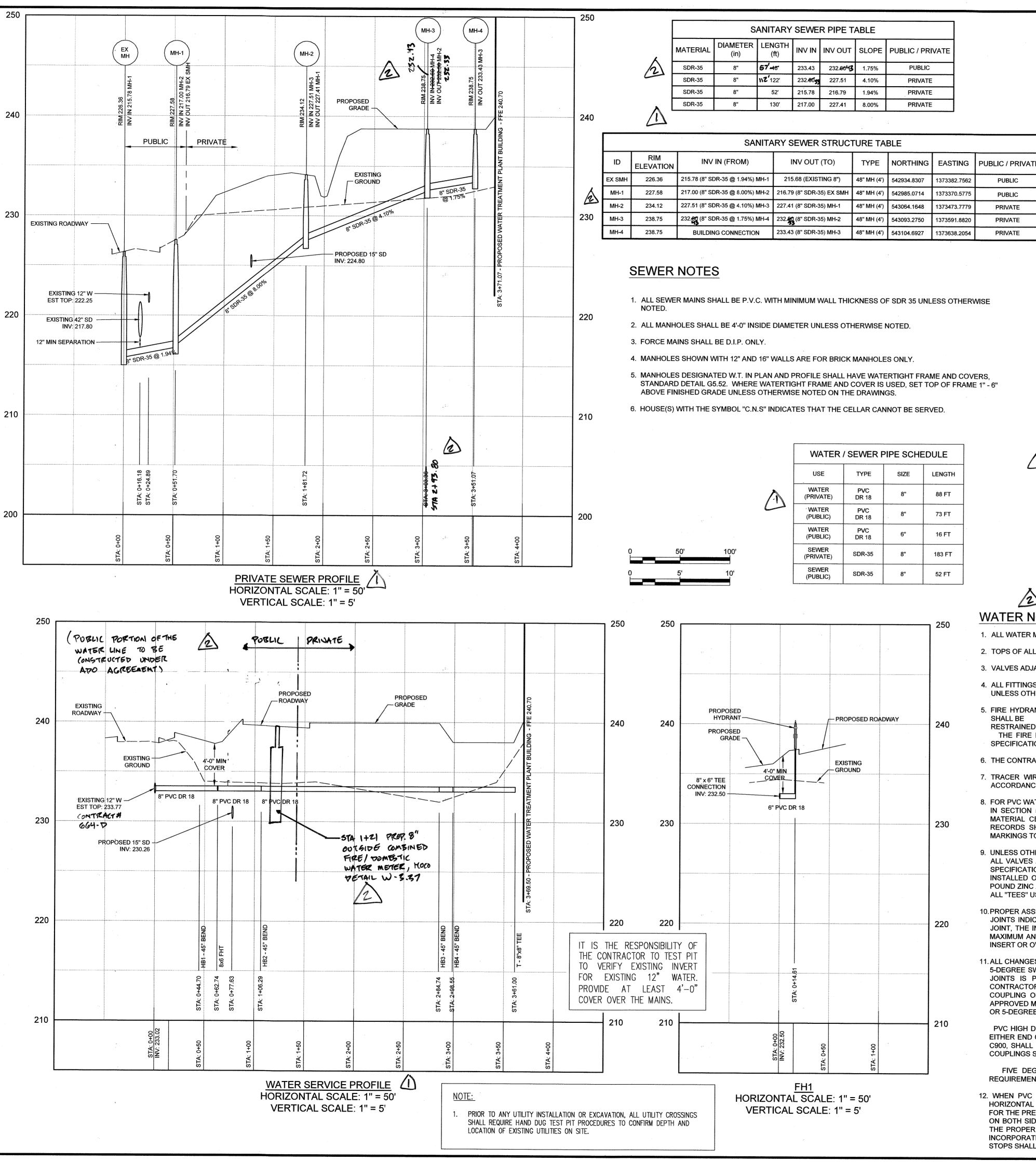
SEAL











GENERAL NOTES

- 1. Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- 2. Topographic field surveys were performed in January 2018 by Pennoni Associates The boundary survey is provided by Pennoni Associates, Inc., dated January 2018.
- 3. Horizontal and Vertical Survey Controls:
- The coordinates shown on the drawings are based on Maryland State Reference System NAD '83/91 as projected by Howard County Geodetic Control Stations No. 43CE and No. 43FC.
- 4. All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- 5. Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for the bracing of additional poles or damages shall be deducted from monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- 6. For details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- 7. Where test pits have been made on existing utilities, they are noted by the symbol at the locations of the test pits. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own
- 8. The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

1-800-252-1133 BGE (contractor services) 410-637-8713 BGE (emergency) 410-685-0123 **Bureau of Utilities** 410-313-4900 Colonial Pipeline Co. 410-795-1390 Miss Utility 1-800-257-7777 State Highway Administration 410-531-5533 1-800-743-0033

- 9. Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- 10. The contractor shall remove trees, stumps, and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- 11. The contractor shall notify the Bureau of Highways, Howard County, at 410-313-7450 at least five working days before open cutting or boring/jacking of any County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.
- 12. The contractor shall notify the Department of Public Works Construction Inspection Division (C.I.D.) at (410) 313.1800 at least five (5) days prior to the start of any ADO construction activities to schedule a pre-construction site meeting and inspection. All work must be performed under the continuous inspection of Department of Public Works C.I.D.

MW	water meter w3.37	SEE	RAN	1+21
HB-4	8" VALVE (PUBLIC)	543092.5142	1373605.5142	2+98.55
HB-3	8" VALVE (PUBLIC)	543085.4611	1373518.0823	2+84.74
HB-2	8" VALVE (PUBLIC)	543138.4354	1373674.2303	1+06.29
HB-1	8" VALVE (PUBLIC)	543096.2140	1373744.2468	0+44.72
FH1	HYDRANT	543062.0905	1373572.6822	0+14.61
Т	8" x 8" TEE	543153.3568	1373491.7390	3+61.00
FHT-1	8" x 6" TEE	543118.0934	1373736.3108	0+62.75
TS&V1	8" x 12" TS&V	543052.7299	1373754.9013	0+00
ID	ITEM	NORTHING	EASTING	STATION
***************************************	WATE	R LINE APPURTE	ENCES TABLE	*

WATER NOTES

PUBLIC

PUBLIC

PRIVATE

PRIVATE

- 1. ALL WATER MAINS TO BE C900 PVC WITH MINIMUM WALL THICKNESS SDR 18 UNLESS OTHERWISE NOTED.
- 2. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- 3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAIL UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRAN RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDAI SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 7. TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- 8. FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTI IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- 9. UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.
- 10. PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF THE PVC PIPE.
- 11. ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS. 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED. THE CONTRACTOR SHALL PROVIDE ON FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THAT CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING.

PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 1/2 -DEGREE ON EITHER END OF THE COUPLING.), SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900. SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTEED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.

FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR 18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (IPEX) BLUE BRUTE DR18 OR EQUAL.

12. WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C900 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATES AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBAA IRON, INC. OR APPROVED EQUAL.

AS-BUILT CERTIFICATION I HEREBY CERTIFY, BY MY SEAL, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS. SIGNATURE OF ENGINEER HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR PROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL SINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE EXPIRATION DATE: APPROVED : DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION 12/23/20 CHIEF, DIVISION OF LAND DEVELOPMENT LS

	10.6.21	2	WATER METER REDUISION	PIS
	9/23/2020	1	REVISED SITE LAYOUT AND GRADING	JSN
AILS	DATE	NO.	REVISION	BY
NTS ID . ARD .	DEVELO	OPER	MORF I, LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK PHONE: 860-462-9533	
S IN	OWNER	R	MARYLAND FOOD CENTER AUTHORITY 7801 OCEANO AVENUE JESSUP, MD 20794-9411 ATTN: PEGGY TORRE PHONE: 410-379-5760	
TED	PROJEC	СТ		

MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2 **GRID NO. 21 6TH ELECTION DISTRICT** 7900 N OCEANO AVENUE JESSUP, MARYLAND 20794 HOWARD COUNTY, MARYLAND

TITLE REVISED PRIVATE UTILITY PROFILES AND SCHEDULES



Engineers • Surveyors • Planners Landscape Architects 8818 Centre Park Drive, Suite 200 Columbia, MD 21045

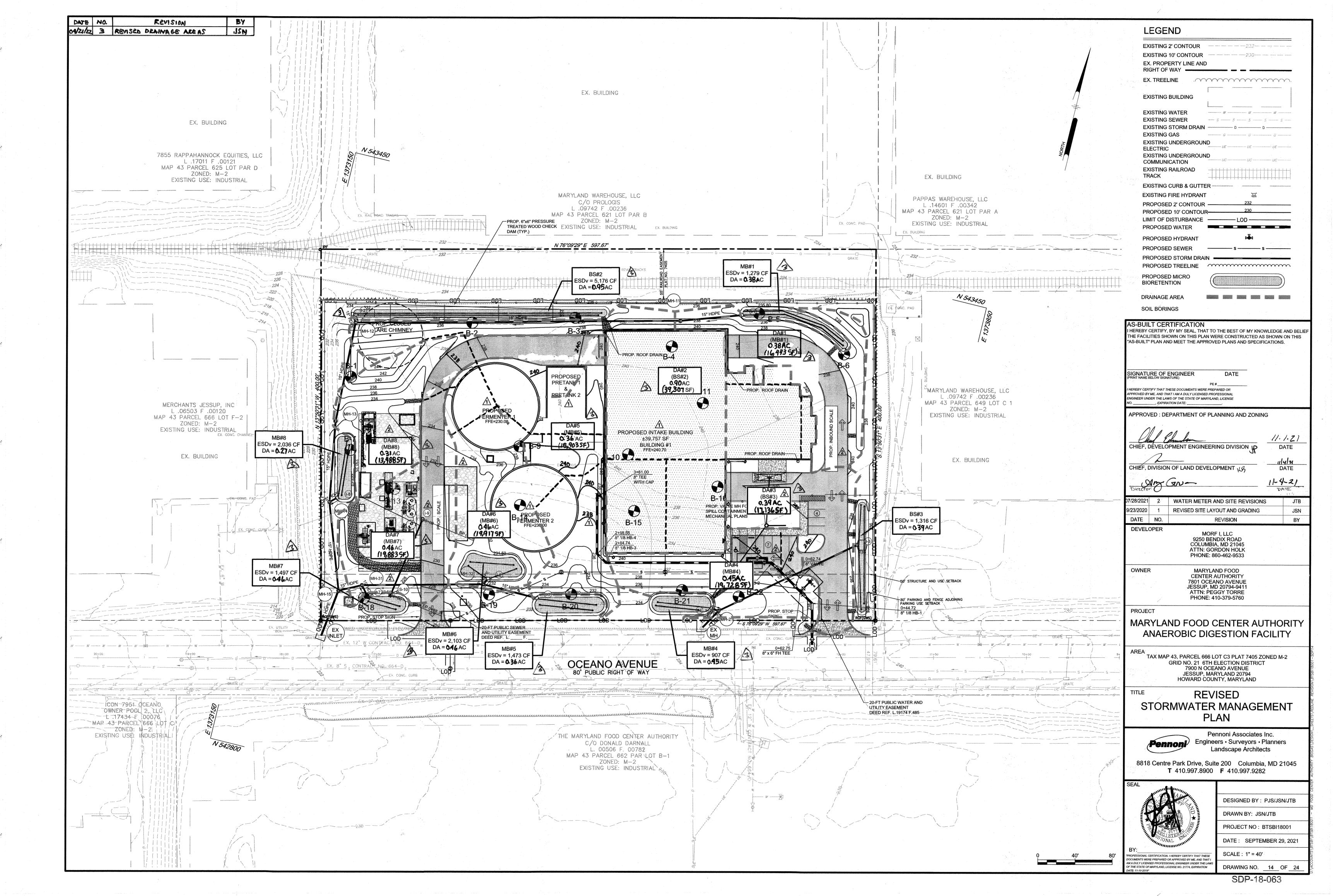
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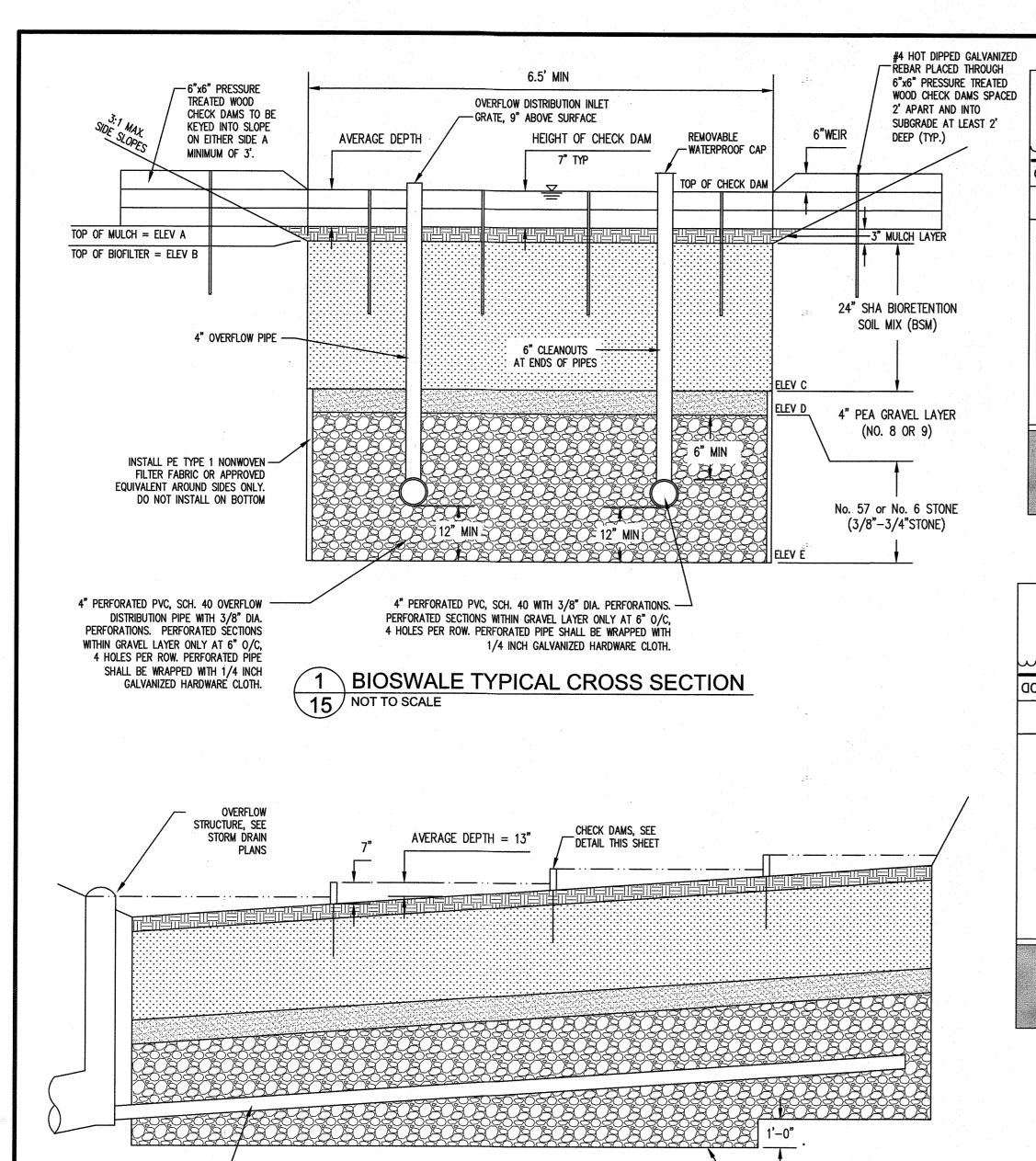
Pennoni Associates Inc.

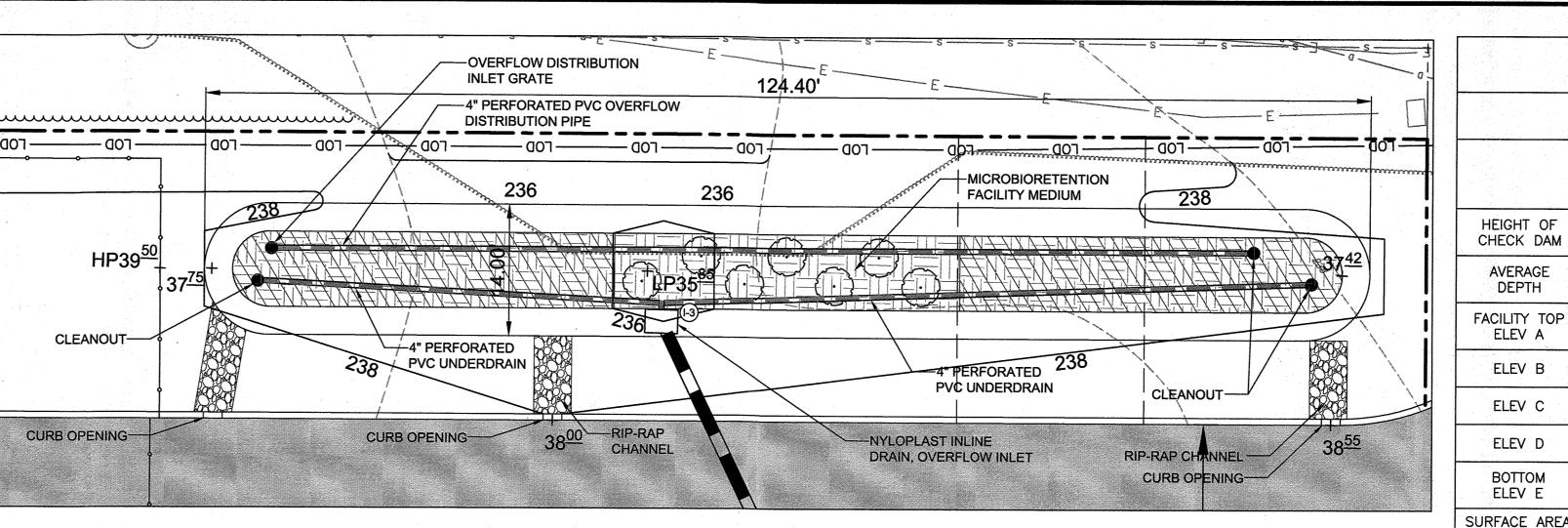
DESIGNED BY: PJS/JSN/JTB DRAWN BY: JSN/JTB PROJECT NO: BTSBI18001

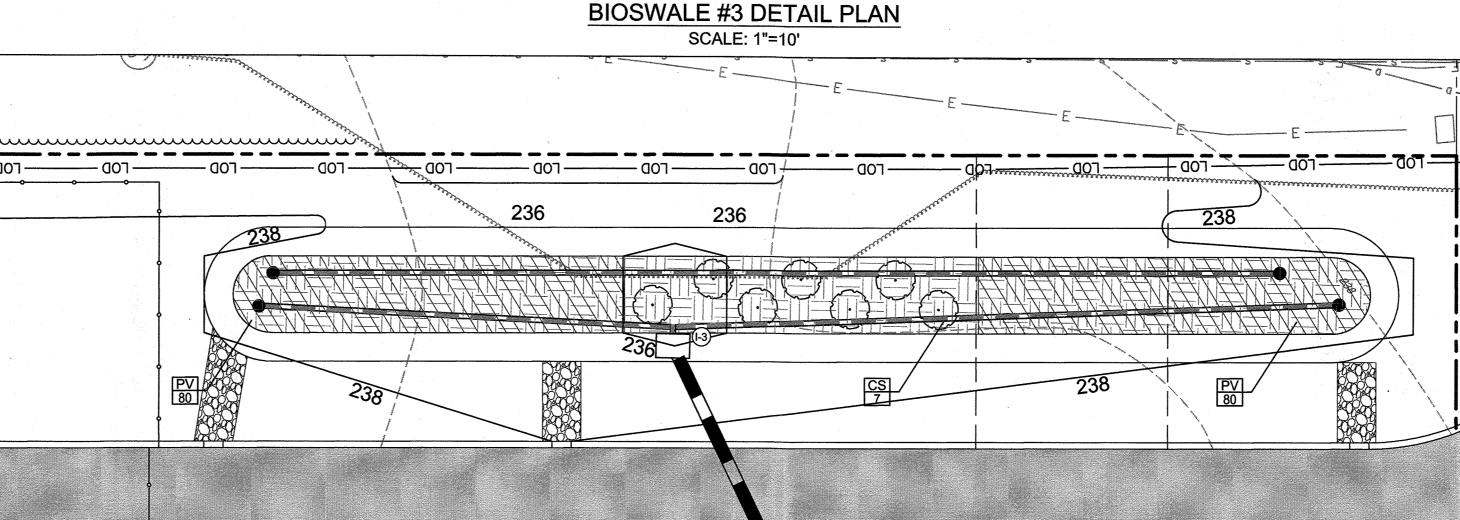
DATE: SEPTEMBER 23, 2020

SCALE: AS SHOWN PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE OCUMENTS WERE PREPARED OR APPROVED BY ME, AND THA M A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAV OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION DRAWING NO. 13 OF 24









BIOSWALE #3 LANDSCAPE PLAN SCALE: 1"=10'

OPERATION AND MAINTENANCE SCHEDULE FOR MICROBIORETENTION FACILITY AND BIOSWALE (M-6 & M-8)

15 NOT TO SCALE

BIOSWALE TYPICAL PROFILE

- 1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, CHECK DAMS, AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH, CHECK DAMS, AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- 2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- 3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- 4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

MICROBIORETENTION/BIOSWALE SPECIFICATIONS

4" PERFORATED -

UNDERDRAIN

- 1. THE UNDERDRAIN PIPE MUST BE 4-INCH DIAMETER SCHEDULE 40 OR STRONGER PERFORATED PVC PIPE AT 0.00% SLOPE FOR THE MICROBIORETENTION FACILITIES. FOR THE BIOSWALE, THE UNDERDRAIN SLOPE SHALL FOLLOW THE SURFACE GRADE. THREE INCHES OF GRAVEL MUST BE PLACED UNDER THE PIPE. WITH A MINIMUM OF 6 INCHES OF GRAVEL OVER THE PIPE. PERFORATIONS MUST BE 3/8 INCH IN DIAMETER AND MUST BE LOCATED 4 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE. PERFORATED PIPE MUST BEGIN AT LEAST 5FT. INSIDE THE FILTER MEDIA. FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE.
- 2. 4" INCH CLEAN-OUTS SHOULD BE USED. CLEANOUTS FOR EACH PIPE SHOULD EXTEND 12 INCHES ABOVE THE TOP OF THE PLANTING MEDIA AND HAVE A REMOVABLE CAP. OVERFLOW PIPES SHALL HAVE A REMOVABLE RATE THAT FITS SNUGLY INSIDE THE PIPE.
- 3. THE GRAVEL LAYER SURROUNDING THE UNDERDRAIN PIPES MUST MEET MSHA SIZE #57 (TABLE 901A), AND MUST PROVIDE A MINIMUM OF 6 INCHES COVER OVER THE PIPE, AND MINIMUM 3 INCHES UNDER THE PIPE. NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED ANYWHERE WITHIN THE FILTER MEDIA (STONE OR SAND).
- 4. A MINIMUM 4-INCH FINE AGGREGATE SAND LAYER SHALL BE PROVIDED BELOW THE SOIL FILTER/PLANTING MEDIA. THE SAND MUST BE ASTM C33 FINE AGGREGATE CONCRETE SAND. MANUFACTURED SAND OR STONE DUST IS NOT ACCEPTABLE.
- 5. A MINIMUM 4-INCH PEA GRAVEL LAYER SHALL BE PROVIDED BETWEEN THE SAND AND THE STONE.
- 6. THE PLANTING MEDIA MIX SHALL MEET SHA BIORETENTION SOIL MIX STANDARDS. THE SOIL SHALL MEET THE FOLLOWING MINIMUM CRITERIA: A HOMOGENEOUS MIXTURE COMPOSED OF 5 PARTS COARSE SAND, 3 PARTS BASE SOIL, AND 2 PARTS FINE BARK. THE SOIL SHALL BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES. SOIL SHALL CONTAIN A MINIMUM ORGANIC MATTER PERCENTAGE OF 5%. THE PLANTING MATERIAL SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.
- 7. THE SURFACE MULCH LAYER WILL CONSIST OF STANDARD FINE SHREDDED AGED HARDWOOD MULCH. THE MULCH SHOULD BE UNIFORMLY TO A DEPTH OF 3 INCHES. YEARLY REPLENISHING MAY BE NECESSARY. PINE BARK IS NOT ACCEPTABLE.

MICROBIORETENTION FACILITY AND BIOSWALE SEQUENCE OF CONSTRUCTION

MAINTAIN LEVEL BOTTOM, STEP AS NECESSARY

IN 1'-0" INCREMENTS. STONE BENEATH

UNDERDRAIN TO BE MINIMUM 12"

- 1. DO NOT BEGIN MICROBIORETENTION FACILITY/BIOSWALE INSTALLATION UNTIL SITE UPSTREAM OF MICROBIORETENTION FACILITY/BIOSWALE IS STABILIZED AND FINE GRADING HAS BEEN COMPLETED. IT IS THE RESPONSIBILITY OF THE OWNER TO ENGAGE A QUALIFIED GEOTECHNICAL ENGINEER TO OBSERVE THE CONSTRUCTION AND INSTALLATION OF THESE FACILITIES AND PROVIDE REPORTS AND CERTIFICATIONS THAT FACILITIES WERE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS.
- 2. STAKEOUT LIMITS OF FACILITY. COORDINATE WITH THE ENGINEER TO VERIFY DIMENSIONS AND ENSURE THAT ENOUGH STAKEOUT INFORMATION IS PROVIDED TO ACCURATELY CONSTRUCT FACILITY. (1 DAY)
- 3. EXCAVATE MICROBIORETENTION FACILITY/BIOSWALE. CONSTRUCTION SHALL BE PERFORMED WITH LIGHTWEIGHT, WIDE-TRACKED EQUIPMENT TO MINIMIZE DISTURBANCE AND COMPACTION. IT IS RECOMMENDED THAT THE ENGINEER BE CONTACTED TO VERIFY AND SURVEY LIMITS OF EXCAVATION UPON COMPLETION OF EXCAVATION, PRIOR TO PIPE AND UNDERDRAIN CONSTRUCTION AND MATERIAL BACKFILL. EXCAVATED MATERIALS SHALL BE PLACED IN A CONTAINED AREA. (1 DAY)
- 4. PLACE STONE AND UNDERDRAINS. (1 DAY).
- 5. PLACE SAND LAYER IN LIFTS OF THREE INCHES. (0.5 DAY)
- 6. PLACE PLANTING SOIL AND OBSERVATION WELLS. (1 DAY)
- 7. PLACE CHECK DAMS (1 DAY)
- 8. PLACE MULCH. (0.5 DAY)
- 9. INSTALL PLANT MATERIAL. (1 DAY)
- 10. STABILIZE MICROBIORETENTION FACILITY/BIOSWALE AREA. (0.5
- 11. PREPARE AND SUBMIT AS-BUILTS TO COUNTY.

		PV	160	PANICUM VIRGATUM VIRGINIA SWITCHGRASS
	6"X6" PRESSURE TREATED WOOD CHECKDAM	OW .		
6"X6" PRESSURE TREATED WOOD CHECKDAM				

6.5 FT WEIR KEY IN GEOTEXTILE SEE PLANS FOR HEIGHT TO KEY IN GEOTEXTILE-NONWOVEN -GEOTEXTILE CROSS SECTION

NONWOVEN — GEOTEXTILE

CHANNEL PROFILE

CHECK DAM CONSTRUCTION SPECIFICATIONS

NONWOVEN -GEOTEXTILE

- 1. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND SIDES OF THE DAM PRIOR TO PLACEMENT OF TIMBERS. PLACE THE TIMBERS SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL AND CHANNEL BANKS. FORM THE WEIR SO THAT TOP OF THE OUTLET CREST IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES. WEIR SHALL BE KEYED INTO SIDE SLOPES OF CHANNEL BY A MINIMUM OF 12".
- 2. SET THE HEIGHT FOR THE WEIR CREST EQUAL TO THE ELEVATION SHOWN ON THE PLANS TO AVOID SCOUR. THE MAXIMUM HEIGHT OF THE WEIR CREST MUST NOT EXCEED 2.0 FFFT.



SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE)	DATE	
	PE#	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE P APPROVED BY ME, AND THAT I AM A DULY LICENSED I ENGINEER UNDER THE LAWS OF THE STATE OF MARY	PROFESSIONAL	
NO, EXPIRATION DATE:	LAND, LICENSE	

HEREBY CERTIFY, BY MY SEAL, THAT TO THE BEST OF MY KNOWLEDGE AND BELL THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS

'AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.

BIOSWALE DESIGN DATA

END

237.42

237.17

235.17

234.84

233.01

1,100

12" MIN. 12" MIN. 12" MIN

AS-BUILT CERTIFICATION

232.44 | 232.44

235.85

235.60

233.60

233.27

231.44

1,100

230.65

(NORTH) | (SOUTH)

END

237.42

237.17

235.17

234.84

233.01

CHECK DAM

AVERAGE

DEPTH

ELEV A

ELEV B

ELEV C

ELEV D

ELEV E

AT 'E' (SF)

OUTFALL PIPE INVERT ELEV

FROM

STRUCTURE

UNDERDRAIN

ELEV AT

CLEANOUT

DEPTH OF

STONE BELOW

UNDERDRAIN

BIOSWALE #3 PLANT SCHEDULE

ESDV SUMMARY TABLE

SITE IMPERVIOUSNESS

AND WATER QUALITY VOLUME

ESDv REQUIRED

TO MEET Way

8,522 cf

SIZE

3 GAL.

ROOT

1 QUART | CONT. | 24" ON CENTER

ESDv PROVIDED

4.81

0.00

2.34

1.0

0.0%

48.7%

4.81

0.49

8,522

597

2,406

4.81 ACRES

(209,353 SF)

17,389 CF

REMARKS

CONT. 24" ON CENTER

SCIENTIFIC/

COMMON NAME

CORNUS SERICEA 'FLAVIRAMEA'

ESD_V REQUIRED

15.339 cf

EXISTING IMPERVIOUS SURFACE AREA (ACRES)

PROPOSED IMPERVIOUS SURFACE AREA (ACRES)

WATER QUALITY CALCULATION FOR NEW DEVELOPMENT

20,759 CF OF ESDv PROVIDES A Pe OF 2.7

SITE AREA (ACRES)

RAINFALL DEPTH (IN)

RUNOFF COEFFICIENT

TOTAL AREA OF SITE

EXISTING IMPERVIOUSNESS

PROPOSED IMPERVIOUSNESS

REQUIRED TREATMENT AREA (ACRES)

WATER QUALITY VOLUME, WQv (CF)

RECHARGE VOLUME REQUIRED (CF)

RECHARGE VOLUME PROVIDED (CF)

YELLOW TWIG DOGWOOD

SYMBOL QTY.

BIOSWALE #3

END

(CENTER) | (NORTH) | (SOUTH) | AS BUILT

AS BUILT AS BUILT

END

CHIEF, DEVELOPMENT ENGINEERING DIVISION CHIEF, DIVISION OF LAND DEVELOPMENT

DATE 417-2021 Director Planning & Zanina Date 04/21/2 2 REVISE DRAINAGE AREAS 274 REVISE ESD, SUMMARY TABLE PJS DATE NO. REVISION DEVELOPER

MORF I, LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK PHONE: 860-462-9533

OWNER

MARYLAND FOOD **CENTER AUTHORITY** 7801 OCEANO AVENUE JESSUP, MD 20794-9411 ATTN: PEGGY TORRE PHONE: 410-379-5760

PROJECT

MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2 GRID NO. 21 6TH ELECTION DISTRICT 7900 N OCEANO AVENUE JESSUP, MARYLAND 20794 HOWARD COUNTY, MARYLAND

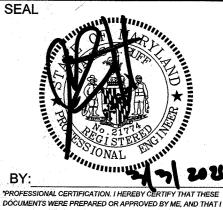
TITLE

STORMWATER MANAGEMENT **DETAILS**



Pennoni Associates Inc. Engineers • Surveyors • Planners Landscape Architects

8818 Centre Park Drive, Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282



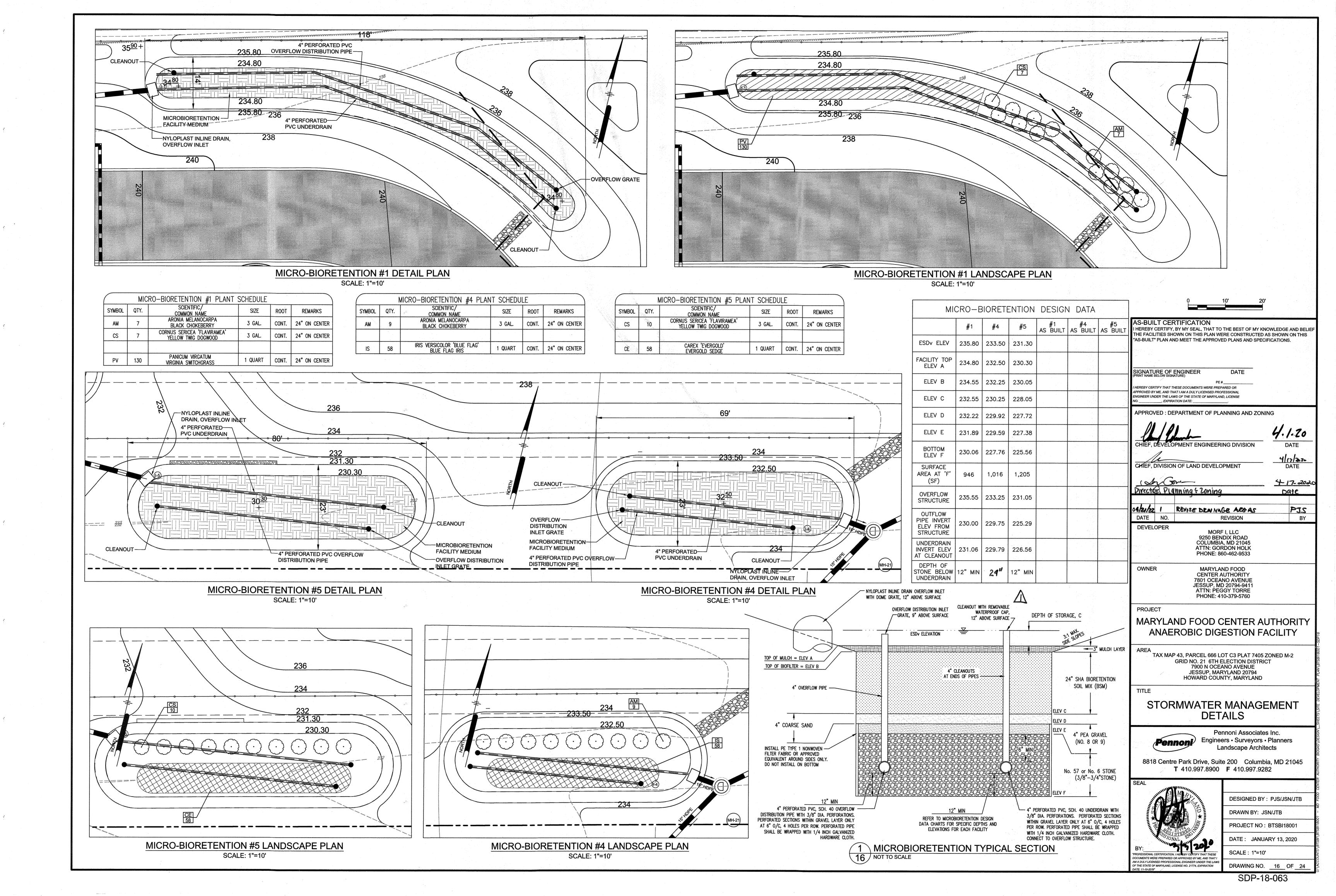
M A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAY

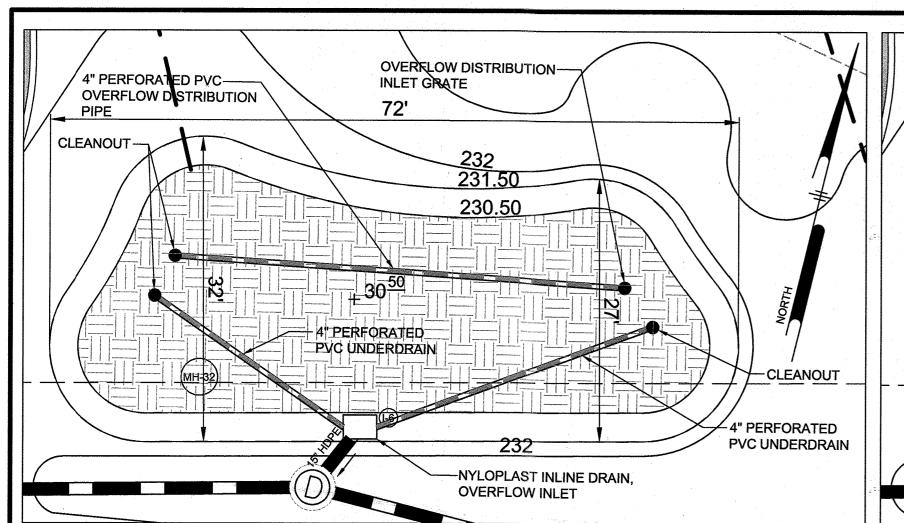
OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION

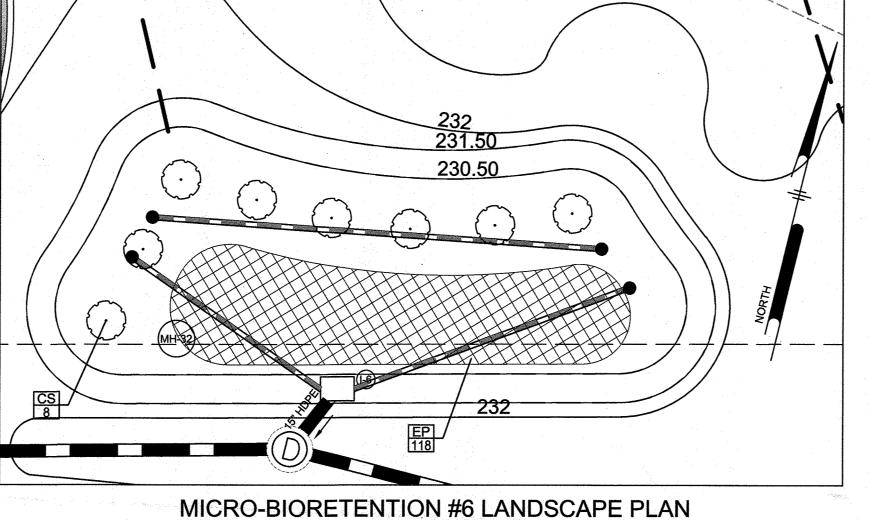
DESIGNED BY: PJS/JSN/JTB DRAWN BY: JSN/JTB PROJECT NO: BTSBI18001 **DATE: JANUARY 13, 2020**

SCALE: AS SHOWN

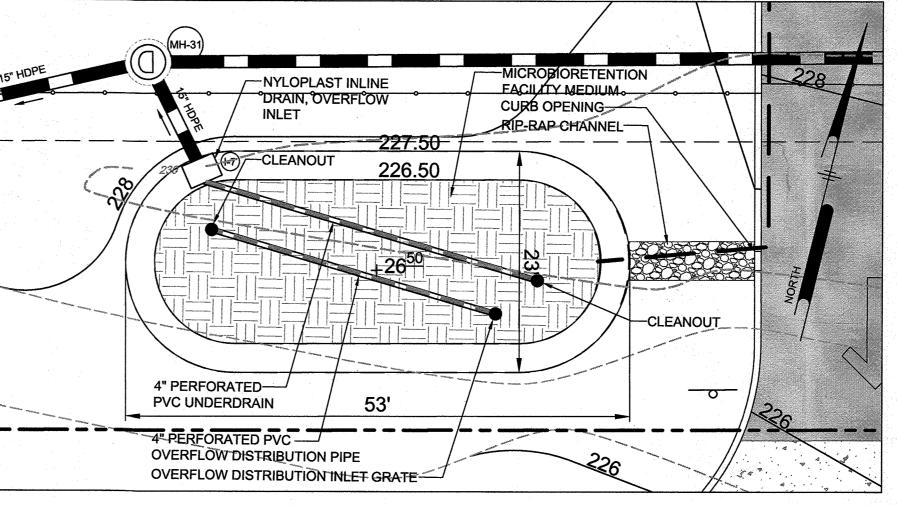
DRAWING NO. 15 OF 24 SDP-18-063







SCALE: 1"=10'



#6 #7 #8
AS AS AS
BUILT BUILT BUILT 231.50 | 227.50 | 230.25 ESDv ELEV FACILITY TOP ELEV A 230.50 | 226.50 | 229.25 ELEV B 230.25 | 226.25 | 229.00 228.25 | 224.25 | 227.00 ELEV C 227.92 | 223.92 | 226.67 ELEV D 227.59 | 223.59 | 226.33 | ELEV E BOTTOM ELEV F 225.76 | 221.26 | 224.50 SURFACE AREA 1,125 730 993 AT 'F' (SF) **OVERFLOW** 231.25 | 227.25 | 230.00 STRUCTURE OUTFLOW PIPE INVERT ELEV FROM STRUCTURE 224.30 | 222.59 | 224.00 UNDERDRAIN INVERT ELEV AT | 226.76 | 222.76 | 225.50 CLEANOUT DEPTH OF STONE BELOW UNDERDRAIN 25" 24"

MICRO-BIORETENTION DESIGN DATA

MICRO-BIORETENTION #6 DETAIL PLAN SCALE: 1"=10"

		MICRO-BIORETENTION #6	PLANT SO	CHEDULI	E
30L	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
6	8	CORNUS SERICEA 'FLAVIRAMEA' YELLOW TWG DOGWOOD	3 GAL.	CONT.	24" ON CENTER
				- -	
)	118	EUPATORIUM PURPUREUM JOE PYE WEED	1 QUART	CONT.	24" ON CENTER

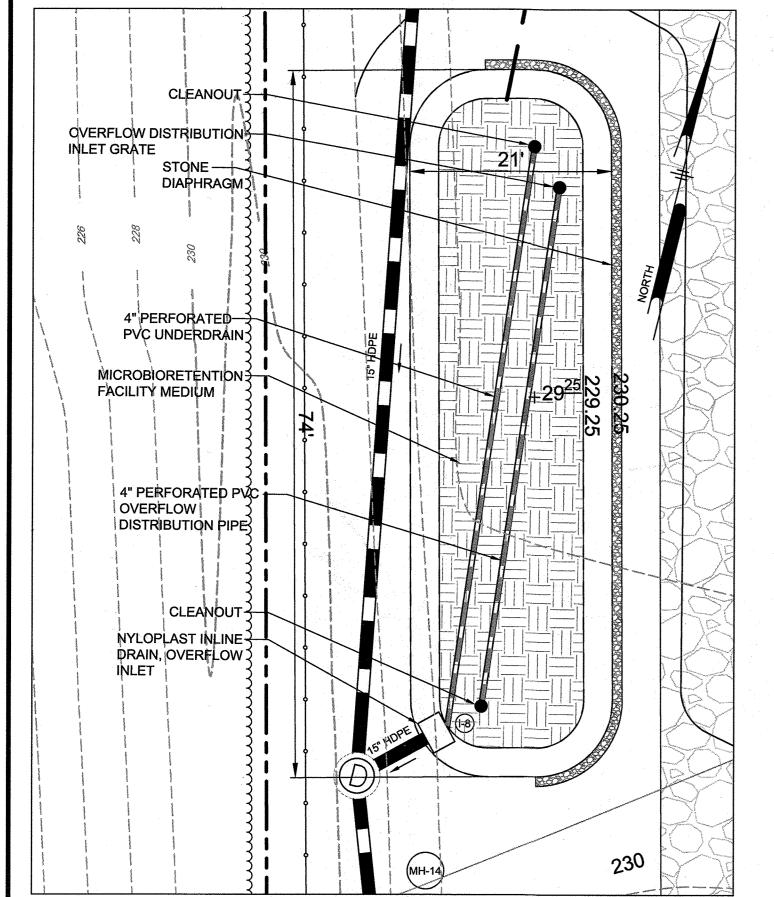
	MICI	RO-BIORETENTION #7 P	LANT SCH	EDULE	
SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
AM	6	ARONIA MELANOCARPA BLACK CHOKEBERRY	3 GAL.	CONT.	24" ON CENTER
				-	
IS	55	IRIS VERSICOLOR 'BLUE FLAG' BLUE FLAG IRIS	1 QUART	CONT.	24" ON CENTER

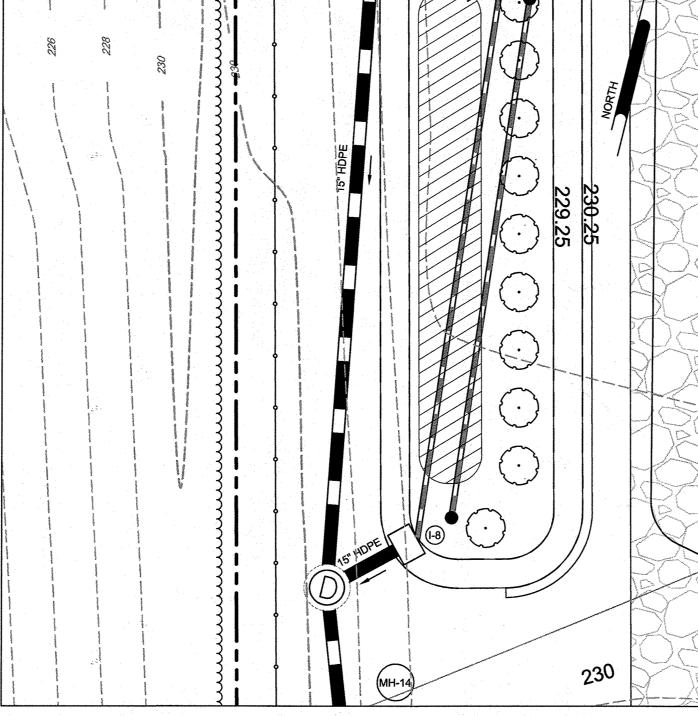
	MI	CRO-BIORETENTION #8	PLANT SC	HEDULE	
SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
АМ	11	ARONIA MELANOCARPA BLACK CHOKEBERRY	3 GAL.	CONT.	24" ON CENTER
PV	82	PANICUM VIRGATUM VIRGINIA SWITCHGRASS	1 QUART	CONT.	24" ON CENTER

MICRO-BIORETENTION #7 DETAIL PLAN

SCALE: 1"=10'

MICRO-BIORETENTION #7 LANDSCAPE PLAN SCALE: 1"=10'





*	ST INLINE DRAIN OVERFLOW INLET IE GRATE, 12" ABOVE SURFACE	
	W DISTRIBUTION INLET WATERPROOF CAI 12" ABOVE SURFACE	DEPTH OF STORAGE, C
	ESDV ELEVATION =	3:1 MAX SIDE SLOPES
TOP OF MULCH = ELEV A		3" MULCH LAYER
TOP OF BIOFILTER = ELEV B	4" CLEANOUTS AT ENDS OF PIPES	24" SHA BIORETENTION
4" OVERFLOW PIPE —		SOIL MIX (BSM)
		ELEV C
4" COARSE SAND		ELEV D
T COARSE SAND		ELEV E 4" PEA GRAVEL (NO. 8 OR 9)
INSTALL PE TYPE 1 NONWOVEN FILTER FABRIC OR APPROVED EQUIVALENT AROUND SIDES ONLY.		6" MIN TO THE TOTAL THE TO
DO NOT INSTALL ON BOTTOM		No. 57 or No. 6 STONE
		(3/8"-3/4"STONE)
12" MIN		ACCORDANGE FILEV F
4" PERFORATED PVC, SCH. 40 OVERFLOW DISTRIBU PIPE WITH 3/8" DIA. PERFORATIONS. PERFORA SECTIONS WITHIN GRAVEL LAYER ONLY AT 6" 0/1	ATED TZ WINY	4" PERFORATED PVC, SCH. 40 UNDERDRAIN WITH 3/8" DIA. PERFORATIONS. PERFORATED SECTIONS WITHIN GRAVEL LAYER ONLY AT 6" O/C. 4 HOLES PER ROW. PERFORATED

MICRO-BIORETENTION #8 DETAIL PLAN SCALE: 1"=10'

MICRO-BIORETENTION #8 LANDSCAPE PLAN SCALE: 1"=10'

7					MICRO-BIORETENTION SUMMARY TABLE							
	FACILITY#	DRAINAGE AREA (SF)	IMPERVIOUS AREA (SF)	% IMPERVIOUS AREA	SOIL TYPE	PE REQUIRED (FROM TABLE 5.3)	ESDv REQUIRED (CF)	ESDv PROVIDED (CF)	FILTER SURFACE AREA (SF)	PONDING DEPTH (IN)	MEDIA DEPTH (FT)	MAINTENANCE
	#1	16,443	5,762	35 %	D	2.6		1,302	946	12"	2	PRIVATE
	#4	19,728	9,435	48%	D	2.6		2,060	1,016	12"	2	PRIVATE
	#5	15,903	8,838	56 %	D	2.6	45 000 **	1,909	1,205	12"	2	PRIVATE
	#6	19,917	9,614	48 %	D	2.6	15,339 **	2,093	1,125	12"	2	PRIVATE
	#7	19,883	15,483	78%	D	2.6		1,497	730	12"	2	PRIVATE
	#8	13,488	6,521	46%	D	2.6		2,036	993	12"	2	PRIVATE

** ESDv VOLUME SHOWN IS THE OVERALL REQUIRED VOLUME FOR THE PROJECT

4 MICROBIORETENTION TYPICAL SECTION 15 NOT TO SCALE

DATA CHARTS FOR SPECIFIC DEPTHS AND

ELEVATIONS FOR EACH FACILITY

SECTIONS WITHIN GRAVEL LAYER ONLY AT 6" O/C, 4

WITH 1/4 INCH GALVANIZED HARDWARE CLOTH.

HOLES PER ROW. PERFORATED PIPE SHALL BE WRAPPED

7			4.5	
	AS-BUILT CERTIFICATION			
	I HEREBY CERTIFY, BY MY SEAL, THAT	TO THE BEST OF N	Y KNOWI F	GE AND BELIE
	THE FACILITIES SHOWN ON THIS PLAN			
	"AS-BUILT" PLAN AND MEET THE APPR			and the same of th
	was to be a first of the second			
	The state of the s			
	SIGNATURE OF ENGINEER	DATE		
	(PRINT NAME BELOW SIGNATURE)	DATE		
		PE#		
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE			
	APPROVED BY ME, AND THAT I AM A DULY LICENSED			
	ENGINEER UNDER THE LAWS OF THE STATE OF MAR NO. EXPIRATION DATE:	YLAND, LICENSE		
		······································		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

alle	4.1.20
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
/u	4/17/2020
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
Wy Gor-	417-2021
Director, Planning 42 oning	Date
04/21/2 2 REVISED DRAWAGE ALBAS	72M
10/8/20 REVISE MICROBIO SUMMA	ARY PJS
DATE NO. REVISION	BY

DEVELOPER MORF I, LLC 9250 BENDIX ROAD COLUMBIA, MD 21045 ATTN: GORDON HOLK PHONE: 860-462-9533

OWNER

MARYLAND FOOD CENTER AUTHORITY 7801 OCEANO AVENUE JESSUP, MD 20794-9411 ATTN: PEGGY TORRE PHONE: 410-379-5760

PROJECT

MARYLAND FOOD CENTER AUTHORITY ANAEROBIC DIGESTION FACILITY

TAX MAP 43, PARCEL 666 LOT C3 PLAT 7405 ZONED M-2 GRID NO. 21 6TH ELECTION DISTRICT 7900 N OCEANO AVENUE JESSUP, MARYLAND 20794 HOWARD COUNTY, MARYLAND

TITLE

LAYER ONLY AT 6" O/C, 4 HOLES PER ROW. PERFORATED

PIPE SHALL BE WRAPPED WITH 1/4 INCH GALVANIZED

HARDWARE CLOTH. CONNECT TO OVERFLOW STRUCTURE.

STORMWATER MANAGEMENT **DETAILS**



Pennoni Associates Inc. Engineers • Surveyors • Planners Landscape Architects

8818 Centre Park Drive, Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282

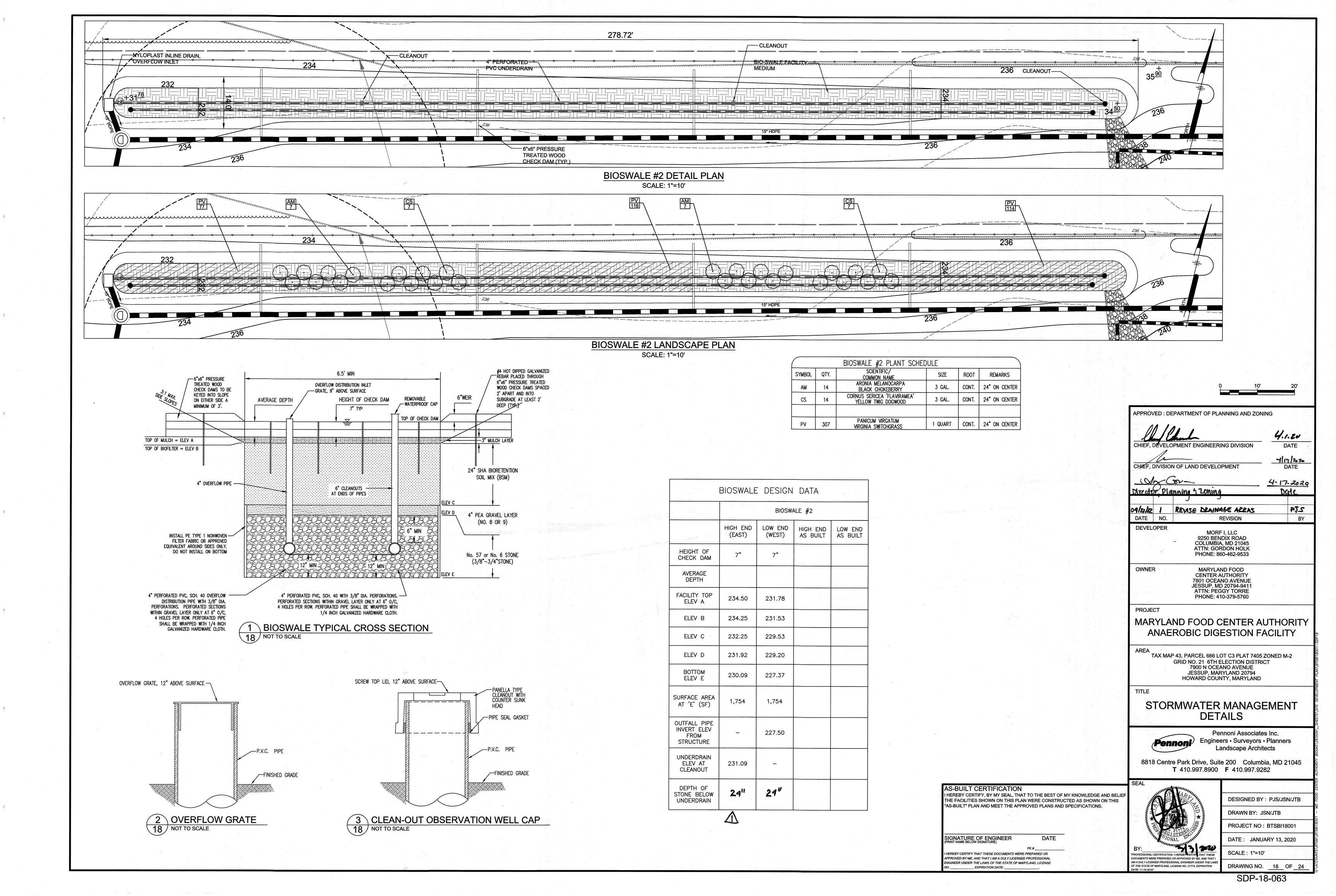


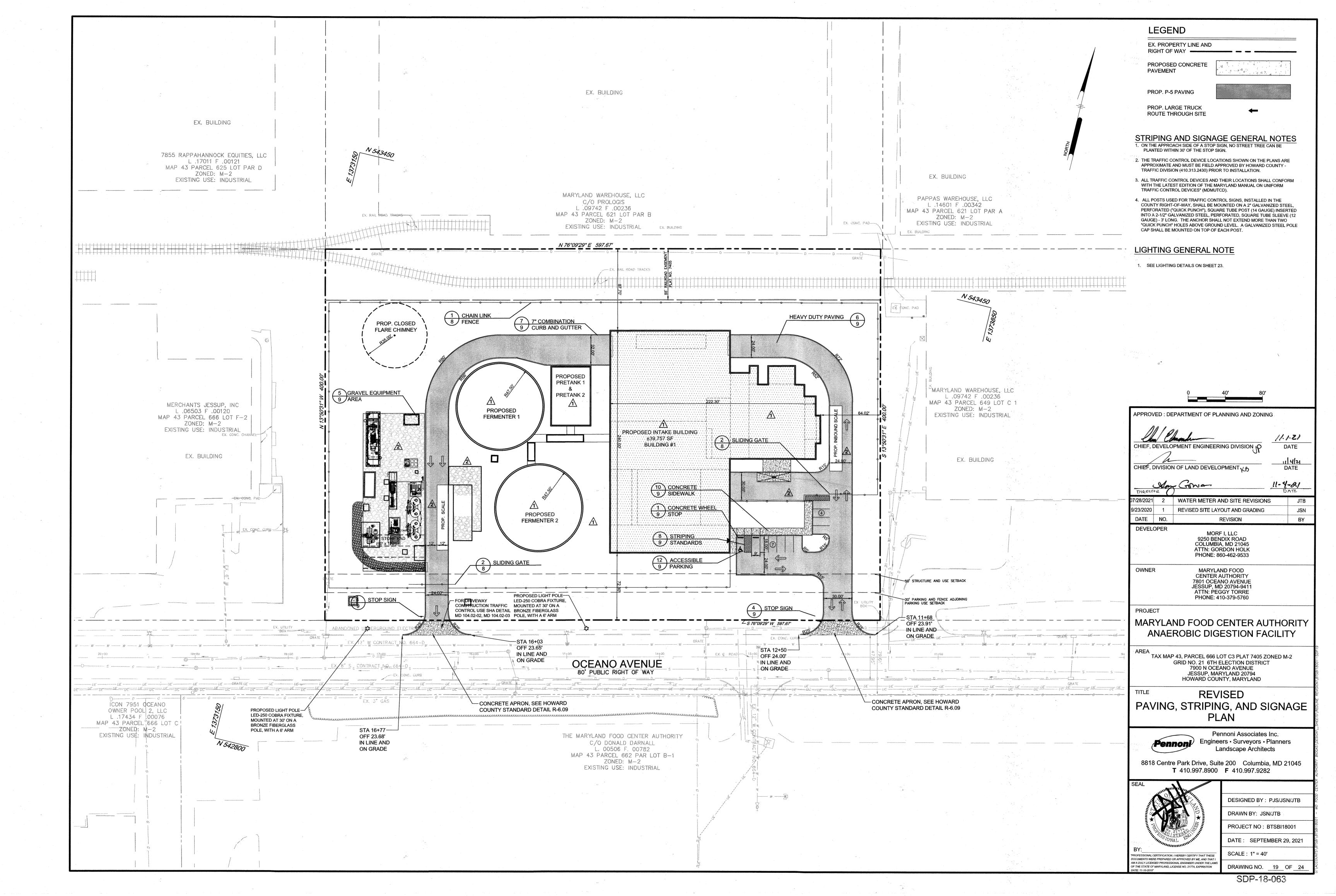
OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION DATE: 11-10-2019*

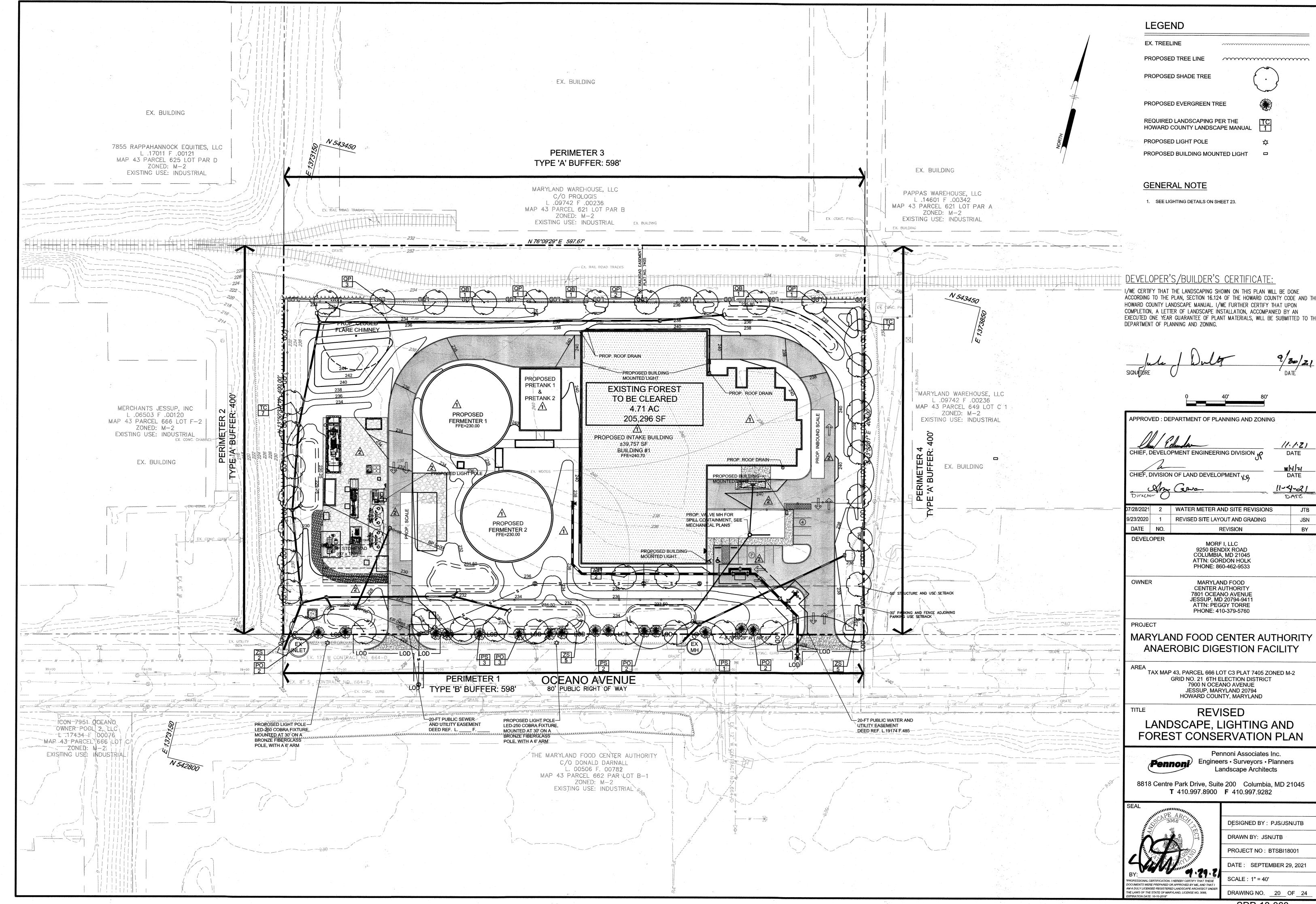
DESIGNED BY: PJS/JSN/JTB DRAWN BY: JSN/JTB PROJECT NO: BTSBI18001 DATE: JANUARY 13, 2020

DRAWING NO. __17__ OF __24__

SCALE: 1"=10'







SDP-18-063

		PLANT SCHEDULE						
SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS			
SHADE	TREES							
AA	2	ACER X FREEMANII 'ARMSTRONG' ARMSTRONG COLUMNAR MAPLE	2.5-3" CAL.	B&B	AS SHOWN			
TC	14	TILIA CORDATA 'GREENSPIRE' GREENSPIRE LITTLELEAF LINDEN	2.5-3" CAL.	B&B	AS SHOWN			
QB	3	QUERCUS BICOLOR SWAMP WHITE OAK	2.5-3" CAL.	B&B	AS SHOWN			
QP	7	QUERCUS PHELLOS WILLOW OAK	2.5-3" CAL.	B&B	AS SHOWN			
ZS	12	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN JAPANESE ZELKOVA	2.5-3" CAL.	B&B	AS SHOWN			
EVERGR	EEN TREES							
PS	6	PINUS STROBUS EASTERN WHITE PINE	6-8' HT.	B&B	AS SHOWN			
P0	9	PICEA OMORIKA SERBIAN SPRUCE	6-8' HT.	B&B	AS SHOWN			

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING.

LEADERS, AND BROKEN OR DEAD BRANCHES. SOME

PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL

INTERIOR TWIGS AND LATERAL BRANCHES MAY BE

BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF

2. STAKE TREES ONLY IF RECOMMENDED ON THE

ONLY IF RECOMMENDED.

PLANT SCHEDULE OR UPON THE APPROVAL OF THE

LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN

<u>B&B TREES:</u> DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH

ONTAINERIZED TREES: DIG PLANTING PIT TWO AND

A HALF TIMES AS WIDE AS THE DIAMETER OF THE

A MINIMUM PLANTING PIT DIAMETER OF 5'.

CONTAINER WITH A MINIMUM PLANTING PIT

REJECT MATERIAL WITH UNHEALTHY OR

BASKET DOWN INTO PLANTING PIT.

CONSTRUCT 3" SAUCER ALL -

AROUND PLANTING HOLE. FLOOD

WITH WATER TWICE WITHIN 24

DIAMETER OF 30". REMOVE CONTAINER JUST

BEFORE PLANTING. INSPECT HEALTH OF ROOTS.

INSUFFICIENT ROOTS. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP OF ROOT BALL. DO

NOT REMOVE WIRE BASKET. BEND TOP OF WIRE

PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT

SCHEDULE A -	- PERIME	TER LANDSCAF	PE EDGE	
S	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
PERIMETER	1	2	3	4
LANDSCAPE TYPE	В	A	Α	A
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	598' ±	400' ±	598' ±	400' ±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO -	NO -	NO -	NO _
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO -	NO _	NO -	NO -
LINEAR FEET REMAINING	598' ±	400' ±	598' ±	400' ±
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	12 15 0	7 0 0	10 0 0	7 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SMALL FLOWERING TREES SHRUBS	12 15 0	7.000	10 0 0 0	7 0 0 0

SCHEDULE B - PARKING LOT INTERNAL LANDSCAF	PING
PARKING LOT	1
NUMBER OF PARKING SPACES	11
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	1
NUMBER OF TREES PROVIDED SHADE TREES	1
OTHER TREES (2:1 SUBSTITUTION) NUMBER OF ISLANDS PROVIDED	2

FOREST CONSERVATION GENERAL NOTES:

1. THE SITE IS LOCATED ALONG OCEANO AVENUE IN JESSUP, MD 20794 (TAX MAP 43, PARCEL 666), THE SITE

2. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY PENNONI ASSOCIATES, DATED JANUARY 25, 2018. 3. THERE IS ONLY ONE SOIL TYPE ON THE SITE, WHICH IS URBAN LAND-UDORTHENTS COMPLEX (0-15% SLOPES) - UtD, ACCORDING TO THE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY

4. SUBJECT PROPERTY IS ZONED M-2 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. CURRENTLY, THE SITE IS VACANT AND CONTAINS SCRUB-SHRUB SECOND GROWTH FORESTS.

5. THIS SITE IS LOCATED IN THE LITTLE PATUXENT RIVER WATERSHED.

6. NO STREAMS, STREAM BUFFERS, WETLANDS, WETLAND BUFFERS ,OR FLOODPLAINS ARE LOCATED ON THIS

7. THERE ARE TWO EXISTING FOREST STANDS LOCATED ON SITE. THEY ARE LOW PRIORITY FOREST STANDS DUE TO THE LACK OF ENVIRONMENTAL SYSTEMS PRESENT AND THE SECOND GROWTH NATURE OF THE

8. THERE ARE NO SPECIMEN TREES LOCATED ON SITE, AS SHOWN ON THE PLAN. NO STATE CHAMPION TREES OR TREES 75% THE SIZE OF CHAMPION TREES ARE FOUND ON THE SITE.

9. THE SITE HAS A REFORESTATION THRESHOLD OF 15% AND AN AFFORESTATION THRESHOLD OF 15%.

10. NO EXISTING STRUCTURES OR CEMETERIES ARE PRESENT ON THE SITE.

11. NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN

12. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE

13. A FOREST STAND DELINEATION (FSD) FOR THIS PROPERTY WAS COMPLETED BY PENNONI ASSOCIATES, INC. AND APPROVED ON APRIL 19, 2018 (SEE FILE # ECP-18-033).

14. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE

15. FOREST CONSERVATION FOR THIS PROJECT HAS BEEN PROVIDED THROUGH THE PURCHASE OF CREDITS FOR 5.20 ACRES OF FOREST IN AN OFFSITE BANK. THE FOREST BANK IS KNOWN AS CATTAIL MEADOWS

(SDP-16-027). THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT

16. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

21 NOT TO SCALE

PLANTING SPECIFICATIONS

1. Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.

2. All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed—in plants or plants from cold storage will be accepted.

3. Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD. DC. & VA". (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.

4. Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

5. Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

6. Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.

7. Contractor is responsible for installing all material in the proper planting season for 17. Pruning: Do not heavily prune trees and shrubs at planting. Prune only each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or XCupressacyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.

8. Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.

9. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and

PLANTING SPECIFICATIONS CONTINUNED

10. Plant auantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take

11. All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted. double-shredded hardwood mulch throughout.

12. Positive drainage shall be maintained on planting beds (minimum 2 percent

13. Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.): top dress after planting with iron sulfate or comparable product according to package directions. Taxus baccata 'Repandens' (English weeping yews): Top dress after planting with 1/4 to 1/2 cup lime each.

14. Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.

15. Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For greas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.

16. Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid dessication.

broken, dead, or diseased branches.

18. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted. and covered with straw mulch.

DEVELOPER'S /BUILDER'S CERTIFICATE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.



FOREST CONSERVATION WORKSHEET

VERSION 1.0 (Enter in Yellow Cells)

NET TRACT AREA:

A. Total tract area=	5.49
B. Area within 100 year floodplain=	0.00
C. Area to remain in agricultural production=	0.00
D. Net tract area=	5.49

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

0 E. Afforestation Threshold... 15% x D = 0.80 15% x D = F. Conservation Threshold...

EXISTING FOREST COVER

G. Existing forest cover (excluding floodplain)=	4.71
H. Area of forest above afforestaion threshold=	3.90
I. Area of forest above conservation threshold=	3.90

BREAK EVEN POINT (BEP):

J. Forest retention above threshold with no mitigation (BEP) 1.60 K. Clearing permitted without mitigation... 3.10

PROPOSED FOREST CLEARING

L. Total area of forest to be cleared=	4.71	
M. Total area of forest to be retained=	0.00	

PLANTING REQUIREMENTS:

- N. Reforestation for clearing above conservation threshold...= P. Reforestation for clearing below conservation threshold...= Q. Credit for retention above conservation threshold......=
- R. Total reforestation required.. S. Total afforestation required. T. Total reforestation and afforestation required.

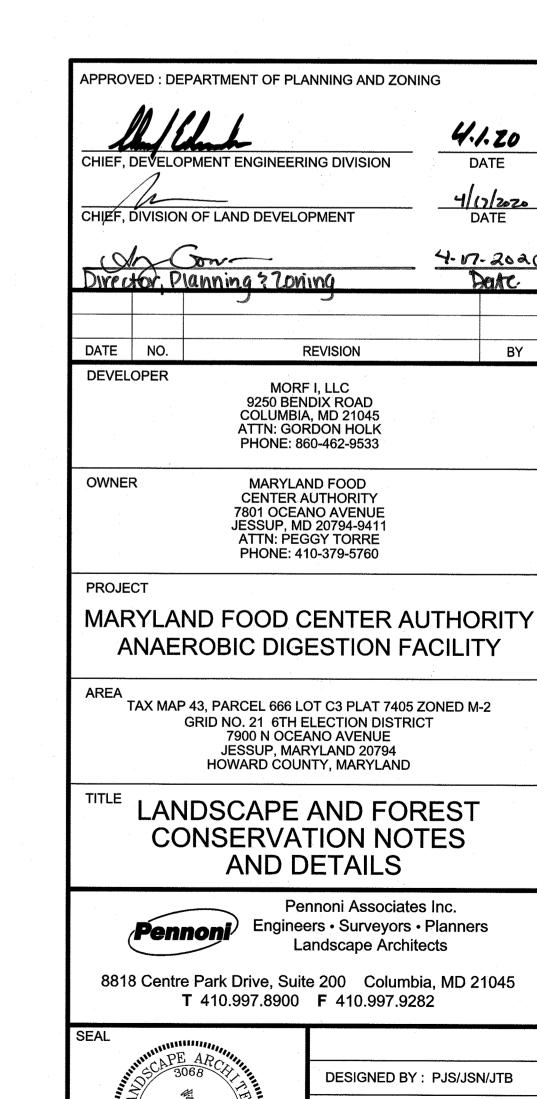
GENERAL NOTES:

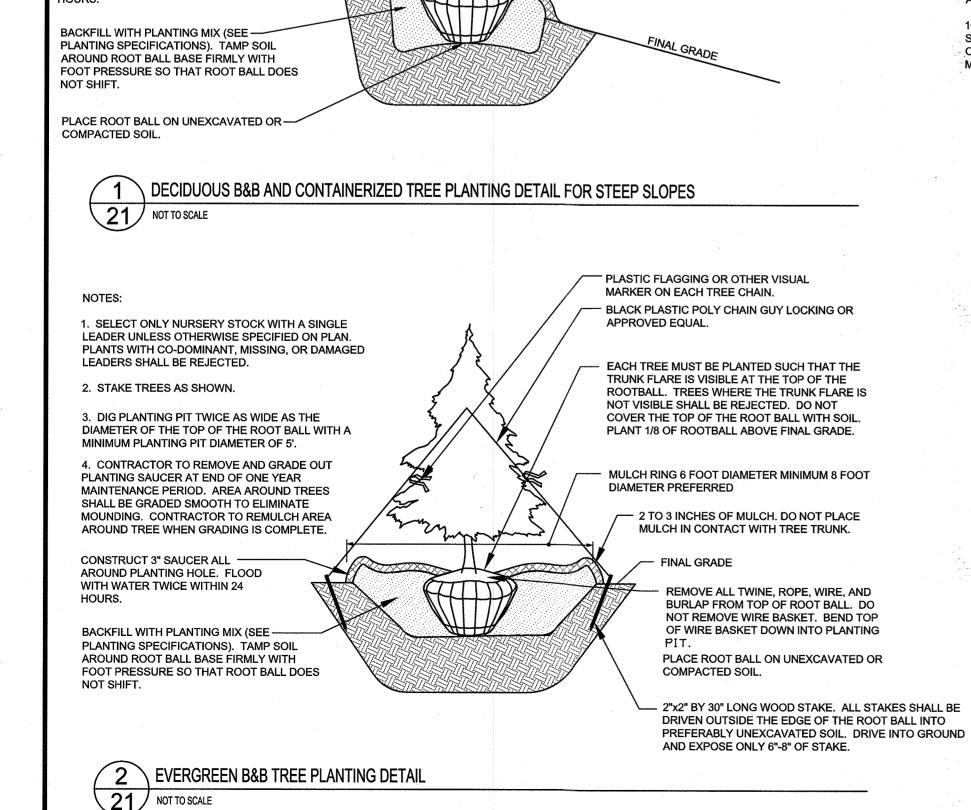
0 SHRUBS @ \$30

- 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$13,650.00.
 - 38 SHADE TREES @ \$300 = \$11,400,00 O ORNAMENTAL TREES @ \$150 = \$0 15 EVERGREEN TREES @ \$150 = \$2,250.00
- 3. THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- 4. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS. TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND

= \$0

- 5. ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK". LATEST EDITION. AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 6. ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- 7. AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- 8. NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY
- 9. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING. INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
- 10. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.





PLACE TOP OF ROOTBALL LEVEL. DO NOT PLANT WITH TOP OF ROOTBALL PARALLEL TO FINAL

GRADE. HEIGHT OF TOP OF ROOTBALL TO BE ADJUSTED ACCORDING TO SLOPE OF FINAL

HOLE SHOULD COVER A MINIMUM OF 1/2 OF THE

COVERAGE IS PREFERRED WHILE MAXIMIZING

AMOUNT OF TOP OF ROOTBALL THAT REMAINS

EXPOSED ON THE HIGH SIDE OF THE PLANTING

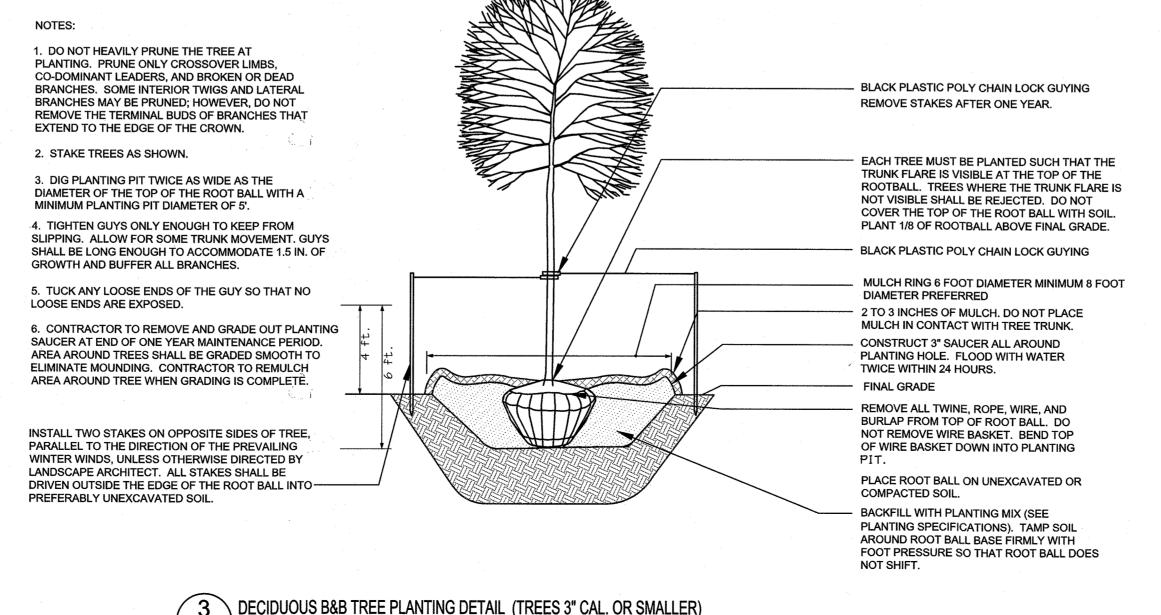
- GRADE. NONE OF THE TRUNK SHOULD BE

ROOTBALL WITH PLANTING MIX. MORE

2 TO 3 INCHES OF MULCH WITH MINIMAL

MULCH ON UPHILL SIDE. DO NOT PLACE

MULCH IN CONTACT WITH TREE TRUNK.



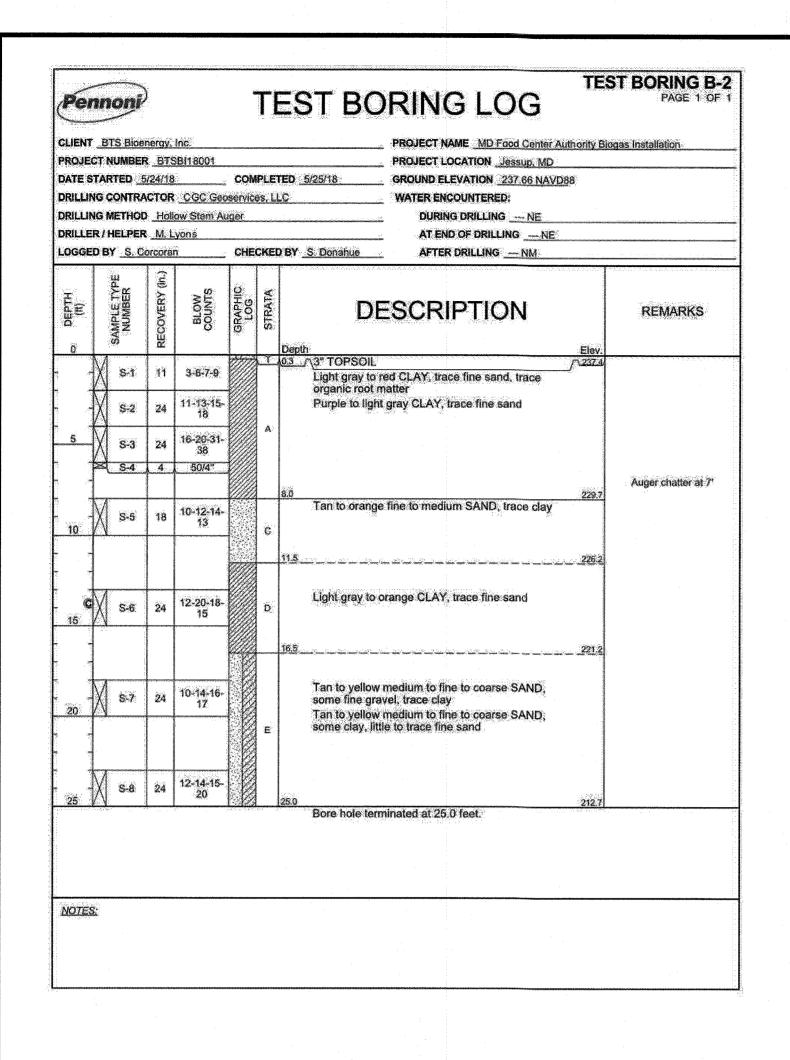
DRAWING NO. 21 OF 24 SDP-18-063

SCALE: AS SHOWN

DRAWN BY: JSN/JTB

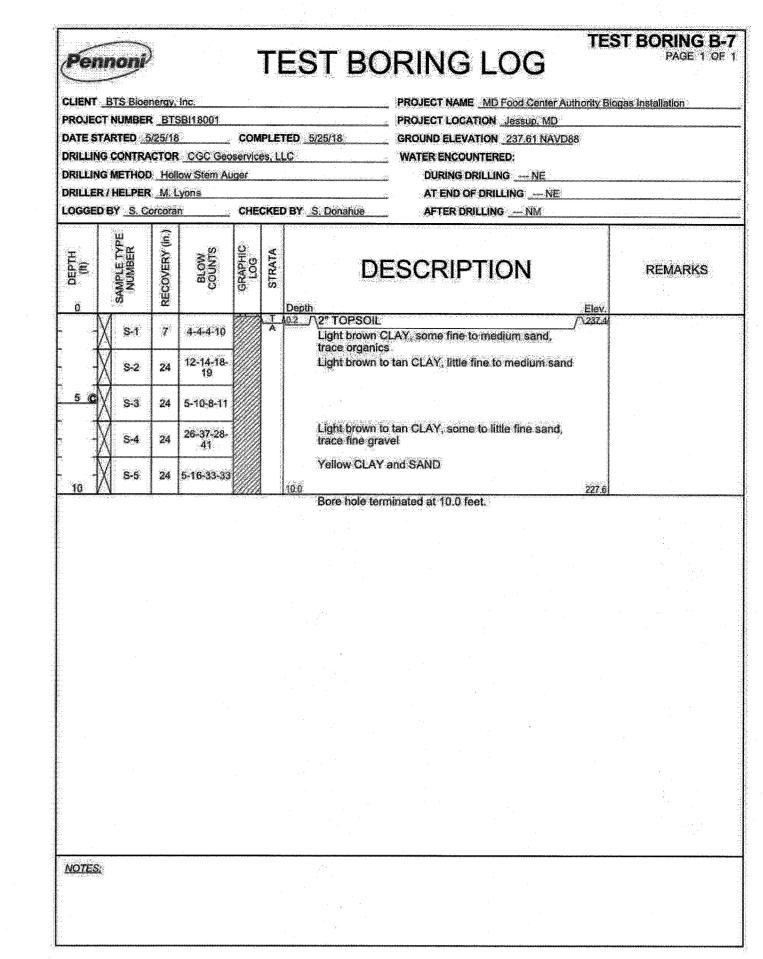
PROJECT NO: BTSBI18001

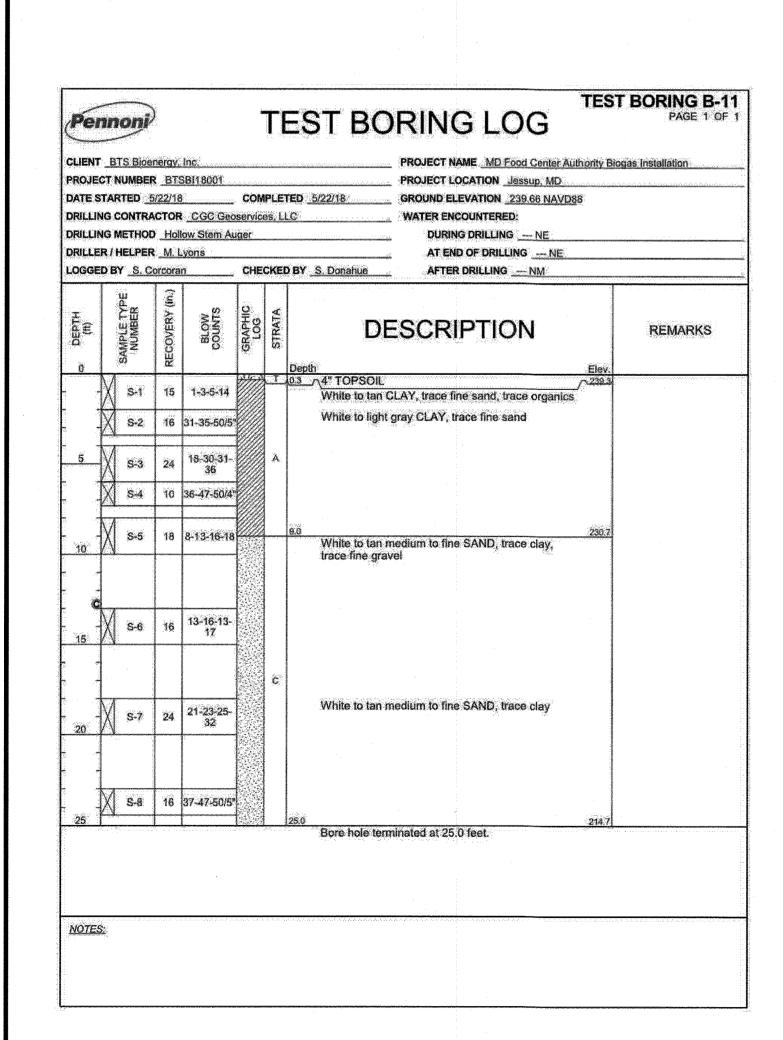
DATE: DECEMBER 11, 2019

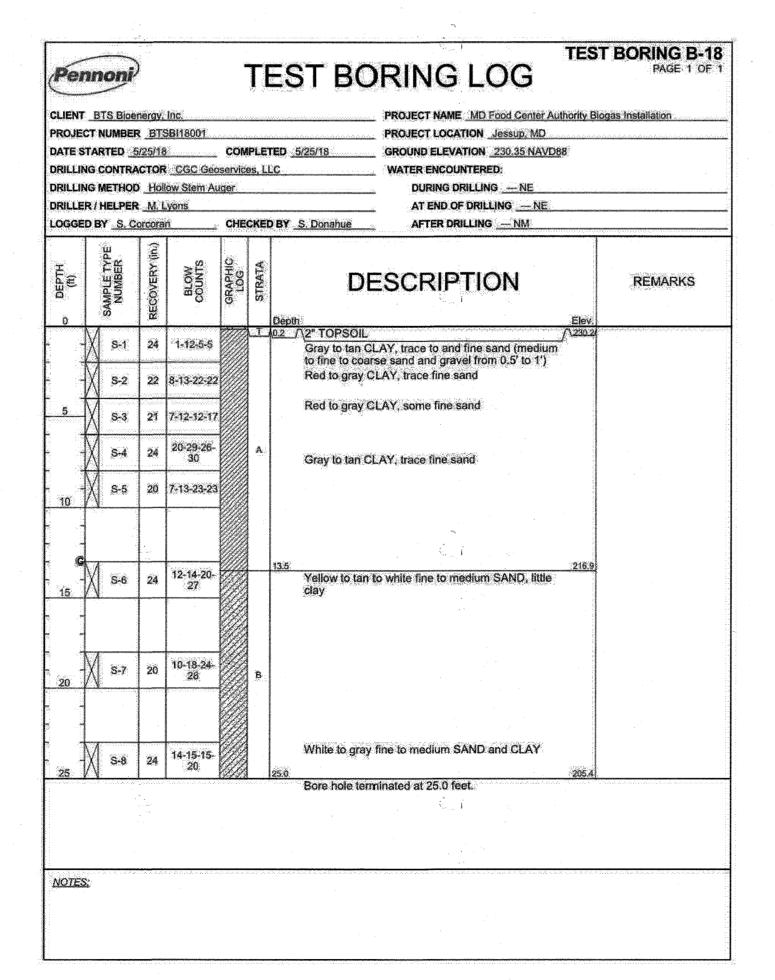


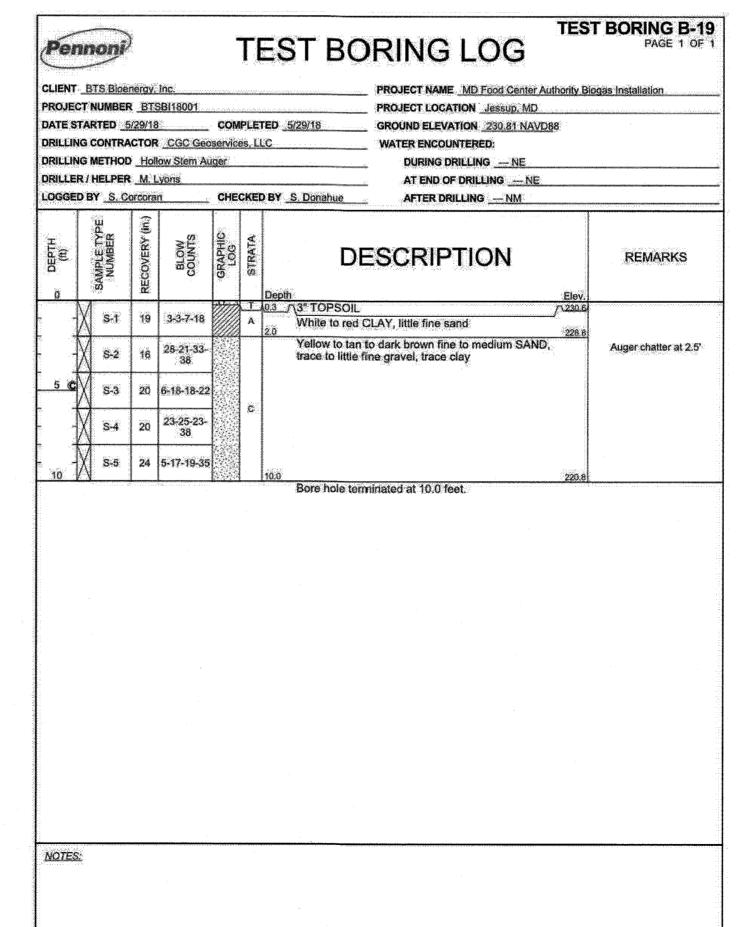
LIENT	В	TS Bloe	nergy.	Inc.	~~~~~	, 445000:n0000000		***************************************	PROJECT NAME MD Food	Center Authority Blog	as Installation
ATE S	TAF	RTED 🔏	124/18	SBI18001 3 CGC Geo			3/2 2/2/2/3	5/24/18	PROJECT LOCATION Jessi GROUND ELEVATION 237 WATER ENCOUNTERED:		
RILLII	NG N) Hol	low Stem At		Total Sales		andre en	DURING DRILLING AT END OF DRILLING	•	
		Y <u>s.</u> c			CHE	CKE	O BY	S. Denahue	AFTER DRILLING]	ĬM	
				GRAPHIC LOG	STRATA		D	ESCRIPTION		REMARKS	
Ö	M			ESSENCE SERVICES	777	<u>∕</u> 2 T ≏	Depti 03	\3" TOPSOIL		Elev. 	************
i i	Ŋ	S-t	21	3-7-8-14		В		Orange fine trace fine gra	to medium SAND, little to son ivel (moist)	ne clay,	
	W	S-2	24	21-22-25- 27			4.0		. <u> </u>	23.7	
5	M	S-3	16	18-26-32- 31		¢	6.0	gravel	to fine SAND, trace clay, trac	ce fine:	
***	M	S-4	15	21-19-23- 24			-	Light gray to	white to tan CLAY, trace fine		
10	M	S-5	24	10-14-20- 25						·	
TU						A	**************************************			-	
- 100		***************************************								**************************************	
15	M	S-6	20	8-14-23-34			14.8			222.9	
								Tan to orang some to and	e medium to fine to coarse S fine gravel, trace to little clay	AND,	
C		***********************					Projektopopopopopopopopopopopopopopopopopopop		San Comment		
20	M	S-7	24	10-12-15- 18		E	· ·				
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25	M	S-8	24	4-8-14-14		D.	25.0	Gray to tan C	LAY, trace fine sand	212.7	
- Facility	<u> </u>				STATA	3.7 · · · · · ·	1 ESSAG	Bore hole ter	minated at 25.0 feet.	212.11	THE THE PARTY OF T
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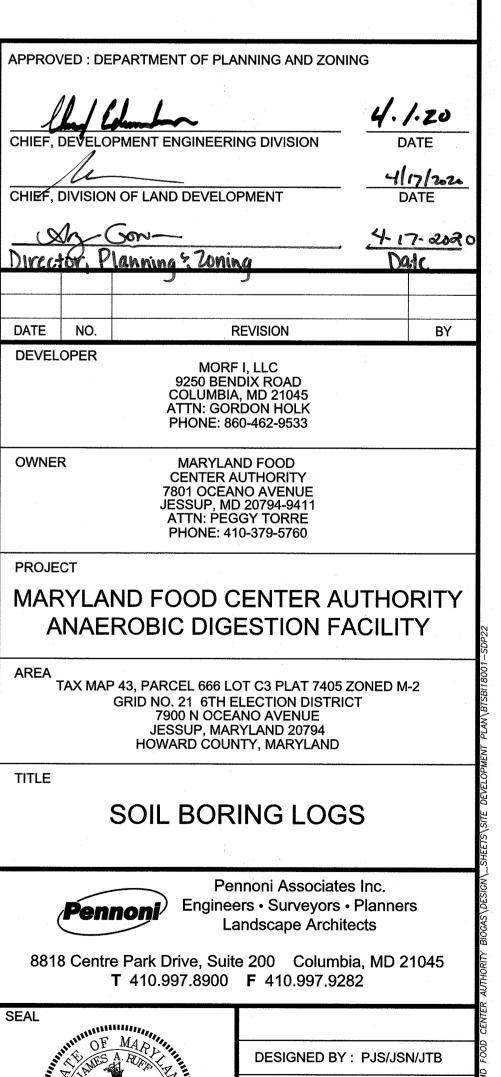
	BTS Bloe			77749CC-98666CC-6866666666	delication of the	***************************************		PROJECT NAME MD Food Cent		as installation
ATE S	CT NUMBER TARTED	5/24/18	,			2.22.2.2.2.29	324/18	PROJECT LOCATION Jessup, N GROUND ELEVATION 237.79 N WATER ENCOUNTERED:	999-	
			low Stem Au		annonena		and the second	DURING DRILLING NE		
	R/HELPER DBY_S_C			cue	~vei	N DV	S. Donahue	AT END OF DRILLING		
.vogE		1	1	1 50C	enc.	, 101 <u>-</u>	5. Lionanue	AFTER DRILLINGNM		
DEPTH (III)	SAMPLE TYPE NUMBER	RECOVERY (III.)	BLOW	SRAPHIC LOS	STRATA	Depth		SCRIPTION		REMARKS
	V s-i	20	5-10-10-17		Ā		4" TOPSOIL		Elev. 237.5 236.8	<u> </u>
9	$\langle \rangle$		25-24-21-		8 C	2.0 3.0	(moist)	CLAY and fine to medium SAND	235.8	
	X S-2	22	25-24-21-			3.0	clay, trace fin	rellow fine to medium SAND, sor e to coarse gravel (moist)		
5	X S-3	24	18-20-30- 40		٨		coarse GRAV	to fine to coarse SAND and fine /EL, trace clay	lo	
	≊ <u>S-4</u>	0	50/3			executive contraction of the con	White to light	gray CLAY, trace fine sand gray CLAY, some fine to coarse	2	
- 77	V-45					6.0	gravel, trace	fine sand i fine to medium SAND, little fine	229.8	
10	X s-5	24	18-24-17- 15				gravel, trace	clay (clay, trace fine sand in tip)		
							White to tan i to some fine	nedium to fine to coarse SAND, gravel, trace to little clay (moist)	little	
35	X 5-6	13	5-10-17-19		c					
7									especialisme de propriede de pr	
20	S-7	24	10-12-14- 15						posiescinaria esta esta esta esta esta esta esta est	
		-	Riversidad (Statement		- 1	21,5	Marie Carles Marie Steven Land Comme		2163	
25	X S-8	24	11-9-16-21		D	25.0	White to gray	CLAY, little fine sand		
					D	EJ.U	Bore hole terr	ninated at 25.0 feet.	212.8	
										· · · · · · · · · · · · · · · · · · ·











DRAWING NO. 22 OF 24

DRAWN BY: JSN/JTB

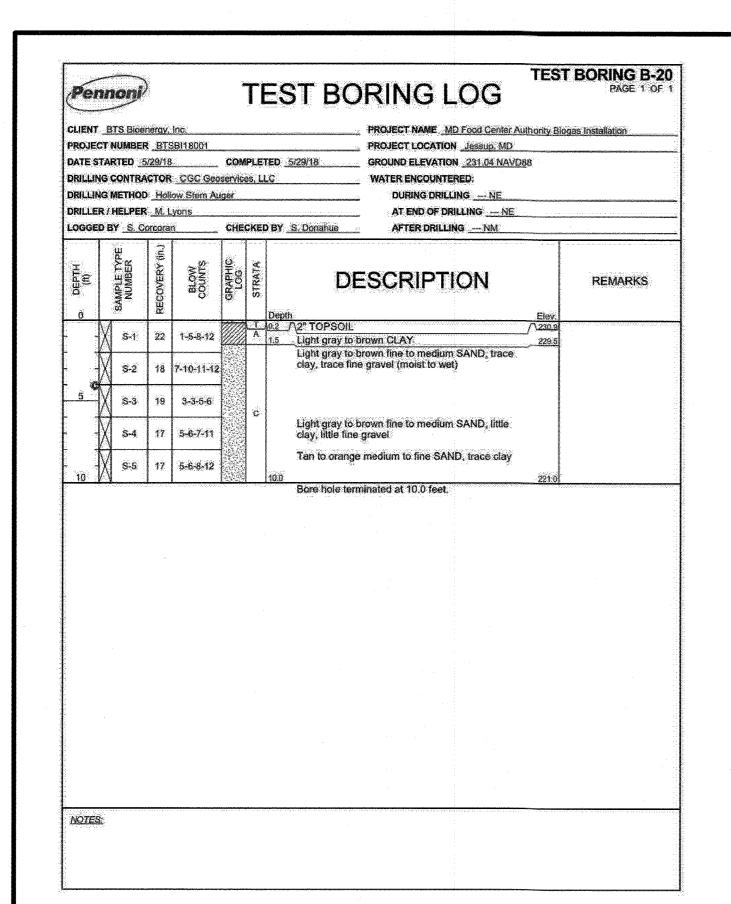
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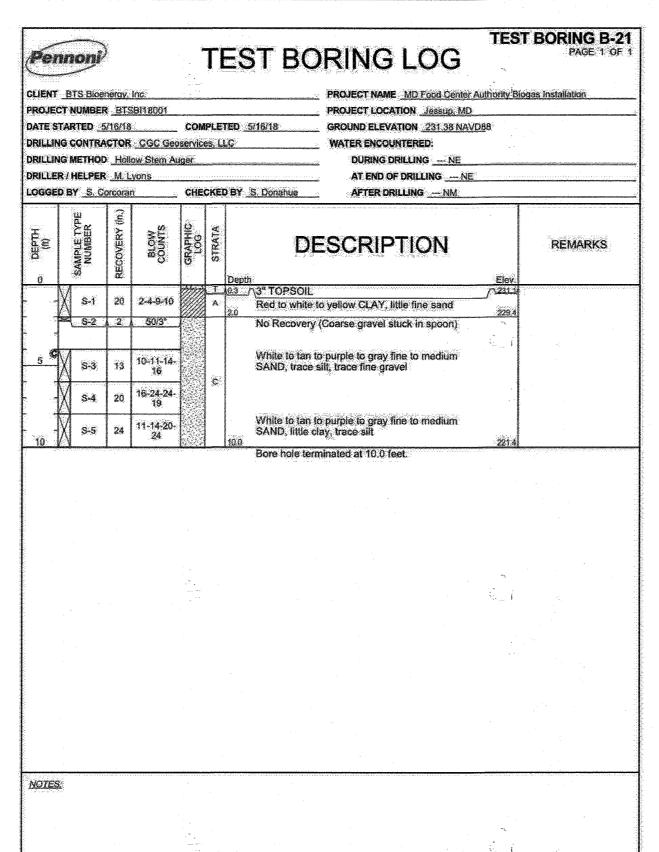
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAW.

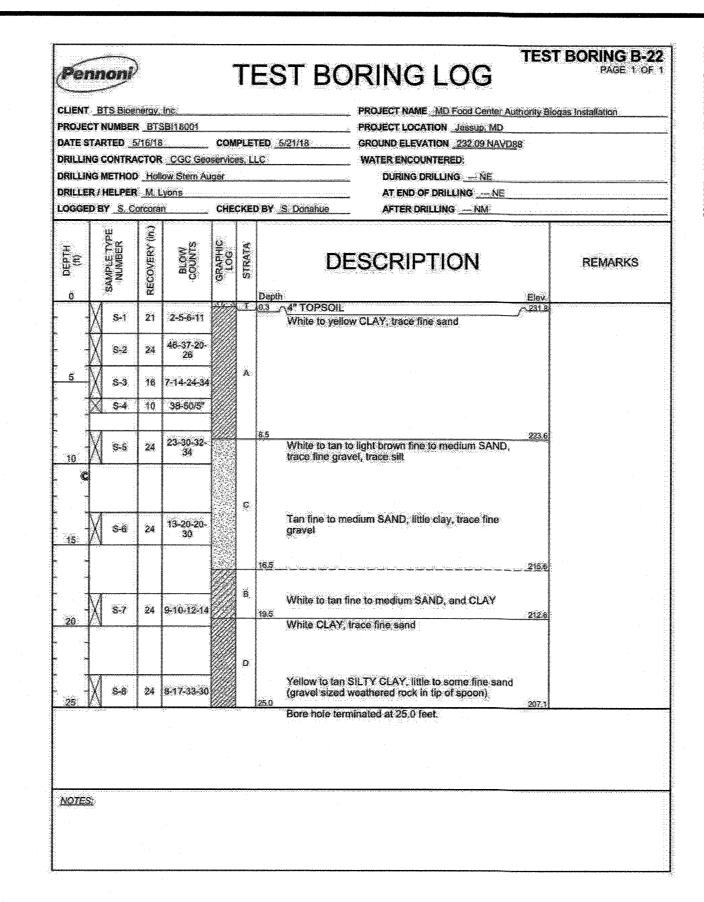
OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION

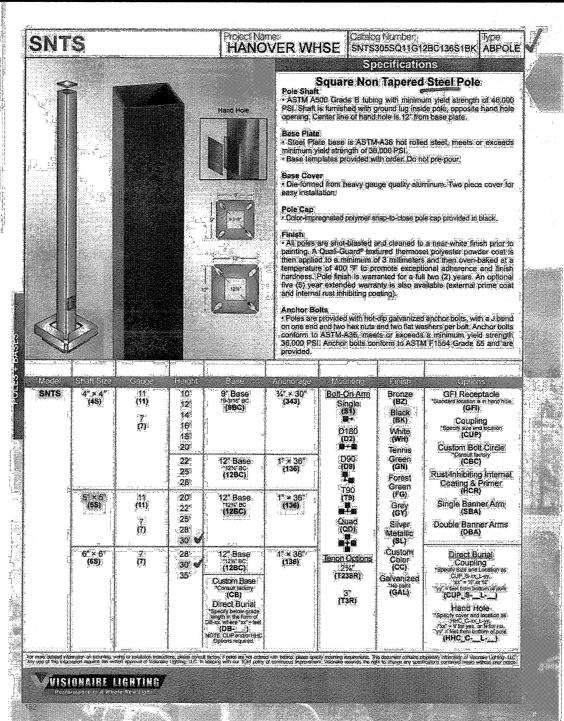
PROJECT NO: BTSBI18001

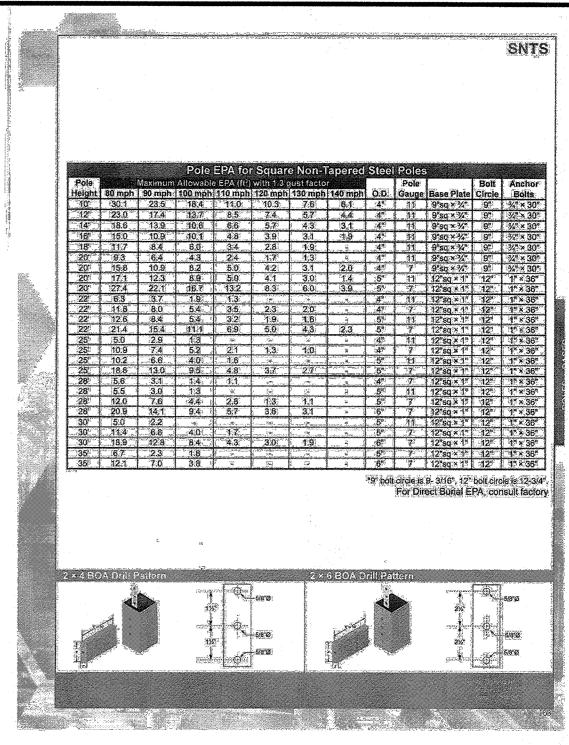
DATE: JANUARY 13, 2020



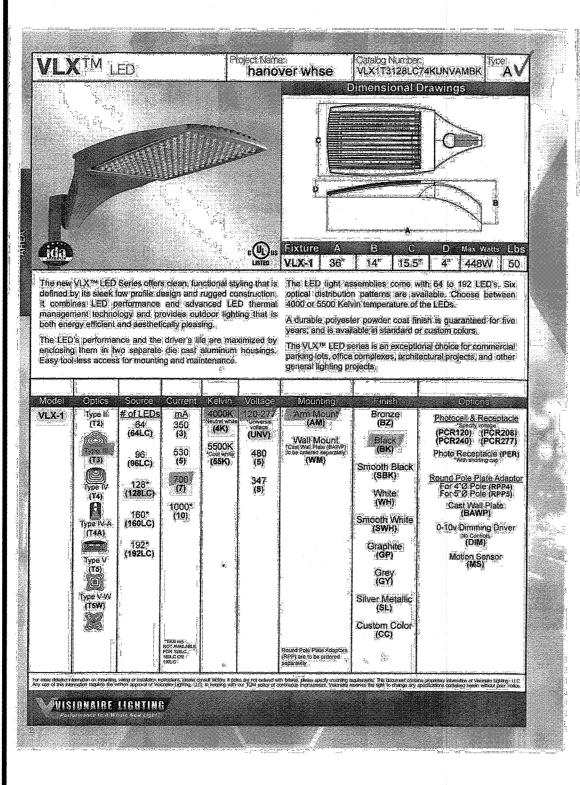


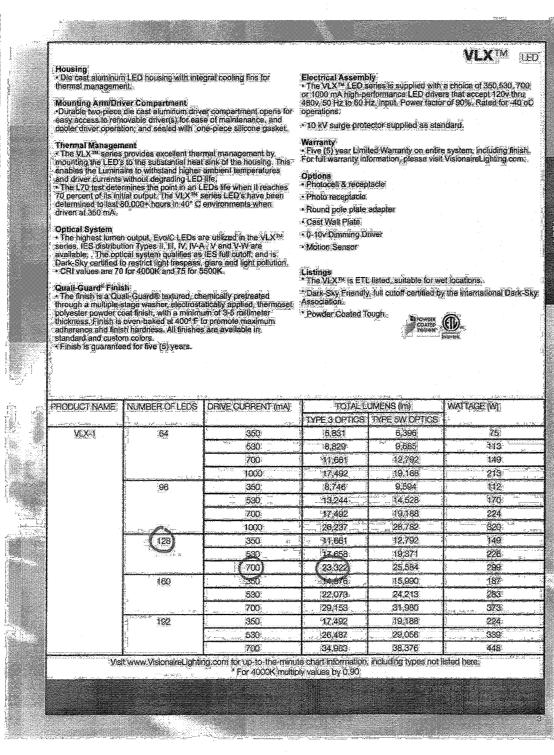


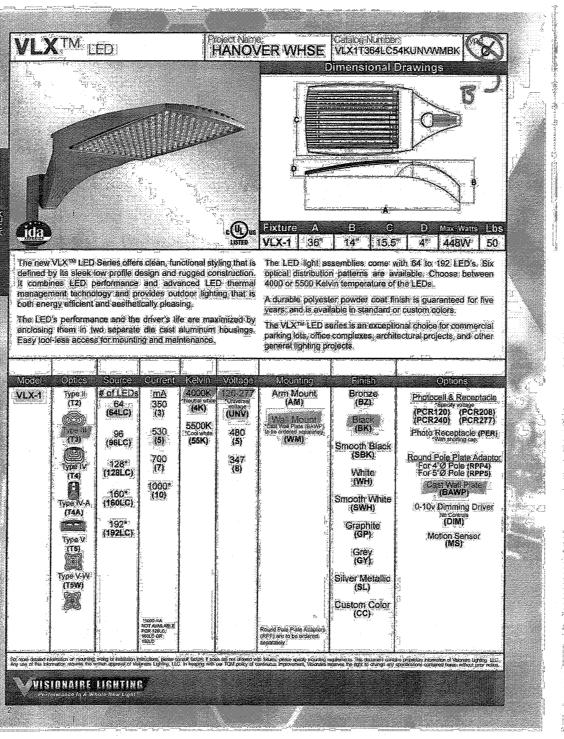


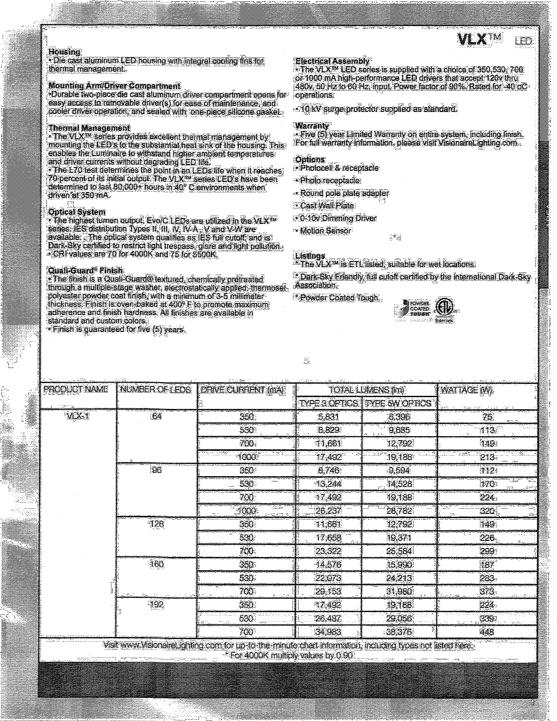


APPROVED : DEPARTMENT OF PLANNING AND ZONING









Symbol	Label	Quantity	Manufactur er	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
ф	Α	1	VISIONAIRE LIGHTING LLC	VLX-1-L-T3- 128LC-7-4K	37-1/4"L. X 17"W. X 10- 3/4"H. LED LUMINAIRE LEDS WITH OPTICS		1	vlx- 1_T3_128LC _7_4K.IES	21398.21	1	287
•	В	4	VISIONAIRE LIGHTING LLC	VLX-1-L-T3- 64LC-5-4K	37-1/4"L. X 17"W. X 10- 3/4"H. LED LUMINAIRE LEDS WITH OPTICS		4	vlx- 1_T3_64LC_ 5_4K.IES	9411.8	1	104.74

GENERAL NOTE

1. EXCEPT FOR SPOTLIGHTS AND LOW INTENSITY LIGHTS AS DEFINED IN SECTION 134.0. C.2. AND 134.0. C.3., OF THE HOWARD COUNTY ZONING REGULATIONS, ALL LIGHT FIXTURES SHALL BE FULLY OR PARTIALLY

