GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MDOT SHA STANDARDS AND SPECIFICAITONS. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK. HE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
- - 1-800-743-0033 BUREAU OF UTILITIES: 410-313-4900 1-800-252-1133
 - 410-637-8713 B.G.&E. (CONSTRUCTION SERVICES):
- 410-685-0123 B.G.&E. (EMERGENCY): STATE HIGHWAY ADMINISTRATION: 410-531-5533
- COLONIAL PIPELINE CO.: 410-795-1390
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR AND DEVÈLOPER OR A REPRESENTATIVE SHALL HAVE, ON THE JOB SITE, THE LATEST EDITION OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO HOWARD COUNTY DESIGN MANUAL, VOLUME IV, S.H.A. SPECIFICATION BOOK, AND LATEST MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- A. THE R1—1 SIGN FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
- B. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
- C. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON D. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED
- STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED IN TO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)-3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST. ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST
- THE COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM - NAD83(1991). HOWARD COUNTY MONUMENT NUMBERS 43BB AND 43BA WERE USED FOR THIS
- THE PROPERTY LINES SHOWN HEREON ARE BASED ON A BOUNDARY SURVEY PERFORMED BY VOGEL ENGINEERING + TIMMONS GROUP; DATED . THE EXISTING TOPOGRAPHY SHOWN HEREON IS A COMBINATION OF A TOPOGRAPHIC SURVEY PREPARED BY VOGEL ENGINEERING + TIMMONS GROUP.
- PERFORMED IN AUGUST, 2019 AND JUNE 2022, AND HOWARD COUNTY GIS. . GEOTECHNICAL/TEST PIT REPORT PREPARED BY VOGEL ENGINEERING + TIMMONS GROUP; DATED MARCH 03, 2022.
- 5. THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION, REFERENCE SHEET 4 FOR PAVING SECTIONS.
- 6. ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL (R-3.01) UNLESS OTHERWISE NOTED. . WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- 18. ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- 19. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. D. CONTRACTOR RESPONSIBLE FOR CONSTRUCTING ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS. 21. ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3,500 P.S.I.
- 22. ALL STORMDRAIN PIPE BEDDING IS TO BE CLASS 'C', AS REQUIRED BY AASHTO-180.
- 3. ALL BUILDINGS TO HAVE ROOF LEADERS WHICH EMPTY INTO STORM DRAIN SYSTEM. 14. 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, ALTERNATIVE COMPLIANCE APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS. APFO TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED DECEMBER 15, 2021 (REV. JUNE 29, 2022), AND WAS APPROVED ON OCTOBER 28, 2022.
- SUMMARY OF FINDINGS FOR APFO TRAFFIC ANALYSIS: A. DATE OF REPORT: DATED DECEMBER 15, 2021 (REV. JUNE 29, 2022)
- B. DATE OF COUNT(S): BETWEEN THE HOURS OF 7-9 AM AND 4-6 PM ON TUESDAY, JUNE 7TH, 2022
- C. REPORT SUBMITTED AS PART OF PLAN NUMBER: SDP-22-025 D. PROVIDE STATEMENT THAT SCHOOLS WERE IN SESSION ON THAT DATE(S)
- SCHOOLS WERE IN SESSON ON JUNE 7, 2022 E. LIST INTERSECTIONS STUDIED, IDENTIFY JURISDICTION, AND LABEL LOS FOR THE HORIZON YEAR OF EACH INTERSECTION:
- US 1 (STATE JURISDICTION) AND KIT KAT RD (COUNTY JURISDICTION), LOS "A" FOR WEEKDAY MORNING & EVENING FOR 2025 - US 1 (STATE JURISDICTION) AND MONTEVIDEO RD (COUNTY JURISDICTION), LOS "A" FOR WEEKDAY MORNING & EVENING FOR 2025 - US 1 (STATE JURISDICTION) AND PORT CAPITAL DRIVE (COUNTY JURISDICTION), LOS "B" FOR WEEKDAY MORNING & LOS "E" FOR WEEKDAY EVENING FOR 2025
- F. PROVIDE A STATEMENT AS TO WHETHER MITIGATION IS REQUIRED AND EXPLAIN THE METHOD OF MITIGATION/IN LIEU FEE: - THE RESULTS OF THE CAPACITY ANALYSES FOR THE STUDY INTERSECTIONS SHOW THAT THE STUDY INTERSECTIONS ARE PROJECTED TO MAINTAIN LEVEL OF SERVICE "E" OR BETTER CONDITIONS DURING BOTH THE WEEKDAY MORNING AND EVENING PEAK HOURS. BASED UPON THIS INFORMATION, THE PROPOSED DEVELOPMENT SATISIFIES HOWARD COUNTY ADEQUATE ROAD FACILITIES TEST EVALUATION REQUIREMENTS.
- AND THEREFORE, MITIGATION IS NOT REQUIRED FOR THE PROPOSED DEVELOPMENT AT 7561 WASHINGTON BOULEVARD. 26. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- 7. THE SUBJECT PROPERTY IS ZONED "B-1" (BUSINESS: LOCAL) DISTRICT PER THE 10/06/2013 COMPREHENSIVE ZONING PLAN. 28. THERE ARE NO STEEP SLOPES LOCATED WITHIN THE LIMITS OF DISTURBANCE WHERE THE ON-SITE AND OFF-SITE CONTIGUOUS AREA OF STEEP SLOPES IS GREATER THAN 20,000 SQUARE FEET.
- 9. THERE ARE NO WETLANDS OR STREAMS WITHIN THE BOUNDARIES OF THIS SITE. . NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAMS, OR
- THEIR REQUIRED BUFFERS, OR 100-YEAR FLOODPLAIN. NO FOREST OR SPECIMEN TREES ARE PRESENT ON THE SITE. REDEVELOPMENT OF THE SITE WILL REQUIRE COMPLIANCE WITH THE FOREST CONSERVATION ACT. SINCE NO FOREST IS PRESENT ON THE PROPERTY, CURRENT COMPLIANCE WOULD REQUIRE MEETING THE AFFORESTATION OBLIGATION OF 15 PERCENT. THOUGH MUCH OF THE SITE IS IMPERVIOUS, BECAUSE THERE ARE NO RECORDS OF PREVIOUS PERMITTING FOR THESE SURFACES, THEY CANNOT BE DEDUCTED FROM THE FCA CALCULATIONS AS DESCRIBED IN COUNTY CODE SECTION 16.1202(B)(Xiii). THEREFORE, 0.2 ACRES OF AFFORESTATION OBLIGATION IS REQUIRED FOR THIS SITE. IN ACCORDANCE WITH SECTION 16.1200 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND CB-66-2021 THAT WENT INTO EFFECT ON JAN. 3, 2022, THIS PROJECT IS SUBJECT TO FOREST CONSERVATION.
- THE AFFORESTATION REQUIREMENT OF 0.20 ACRES HAS BEEN FULFILLED THROUGH THE PURCHASE OF CREDITS FROM THE HIMEL PROPERTY RETENTION BANK (SDP-05-132). 2. THIS PLAN HAS BÈEN PREPAREÓ IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE LANDSCAPE MANUAL.
- 3. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN IN THE AMOUNT OF \$8,520,00 FOR THE REQUIRED 22 SHADE TREES, 7 EVERGREEN TREES AND 29 SHRUBS.
- 4. ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR. 5. LANDSCAPING NOT PERMITTED WITHIN 7-1/2' OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR UNOBSTRUCTED ACCESS
- 36. FIRE LANES SHOULD BE PROVIDED IN THIS SITE TO ALLOW EMERGENCY VEHICLE ACCESS. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND STENCILED TO IDENTIFY THE ROAD AS A FIRE LANE.
- 37. A FIRE DEPARTMENT CONNECTION FOR FIRE PROTECTION SYSTEMS SHALL BE LOCATED: A. ON THE SIDE OF THE STRUCTURE DISPLAYING THE ADDRESS (UNLESS OTHERWISE APPROVED BY THE AHJ) AND BE CLEARLY VISIBLE TO THE
- RESPONDING UNITS: B. WITHIN 100 FT. OF A FIRE HYDRANT;

PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-1 13.1.4

- (II) THE APPROPRIATE SIGN SHALL BE MOUNTED ON THE BUILDING'S WALL BETWEEN 8 AND 12 FEET ABOVE THE FIRE DEPARTMENT CONNECTION; (III) A FREE-STANDING FIRE DEPARTMENT CONNECTION SHALL HAVE THE SIGN MOUNTED ON A POLE DIRECTLY BEHIND THE CONNECTION APPROXIMATELY 6 FEET HIGH: (IV) SIGNS SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH A RED REFLECTIVE BORDER, RED REFLECTIVE LETTERS AND A RED REFLECTIVE
- ARROW. THE BORDER SHALL HAVE A 3/8" STROKE. THE LETTERS SHALL BE 6" HIGH WITH A 1" STROKE. THE ARROW SHALL HAVE A STROKE NOTE LESS THAN 2". THE OVERALL SIGN MEASUREMENTS SHALL BE 12" BY 18"; (V) ANY OBSTRUCTION OR CONDITION THAT DETERS OR HINDERS ACCESS TO A FDC IS PROHIBITED. A MINIMUM CLEAR SPACE OF 15 FEET (7.5 FEET ON ALL SIDES) SHALL BE MAINTAINED. 38. A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A
- RANGE OF 4-5' IN HEIGHT AND NO MORE THAN 6' LATERALLY FROM THE DOOR. IT'S LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM). PRIOR TO ORDERING AND PLACING KNOX BOXES, IT IS RECOMMENDED THAT THE CONTRACTOR CONTACT THE OFFICE OF THE FIRE MARSHAL TO DETERMINE THE REQUIRED NUMBER AND PLACEMENT OF KNOX BOXES.
- 9. THE PROPOSED BUILDING WILL HAVE AN INSIDE METER SETTING, AND AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM. 40. PUBLIC WATER IS AVAILABLE THROUGH CONTRACT NO. 44-3805 & 14-1850-D. PUBLIC SEWER IS AVAILABLE THROUGH CONTRACT NO. 14-1850-D.
- 1. THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- 42. THE SUBJECT PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. 43. EXISTING WASHINGTON BOULEVARD (US 1) IS CLASSIFIED AS AN INTERMEDIATE ARTERIAL. THE SUBJECT PROPERTY HAS FRONTAGE ALONG US 1, HOWEVER, ACCESS TO THE SUBJECT PROPERTY IS GAINED VIA AN EXISTING UNNAMED PRIVATE ROAD. THE EXISTING PRIVATE ROAD ALSO PROVIDES

ACCESS TO PROPERTIES IMMEDIATELY EAST AND SOUTH OF THE SUBJECT PROPERTY (7575-7595 WASHINGTON BLVD).

- 4. ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. 45. TRASH AND RECYCLING COLLECTION TO BE PRIVATE. 46. STORMWATER MANAGEMENT TO BE DESIGNED IN ACCORDANCE WITH THE 2007 MDE STORMWATER DESIGN MANUAL, CHAPTER 5, ENVIRONMENTAL SITE DESIGN. THIS PROJECT QUALIFIES FOR REDEVELOPMENT. STORMWATER MANAGEMENT IS BEING PROVIDED FOR A LARGE MAJORITY OF THE IMPERVIOUS
- SURFACES. THE PRACTICE USED FOR STORMWATER MANAGEMENT FOR THIS PROJECT IS MICRO-BIORETENTION (M-6). THE SWM FACILITY IS TO BE .7. THE SITE ULTIMATELY DISCHARGES TO THE DEEP RUN. TRIBUTARY DRAINAGE AREAS TO THE DEEP RUN SHALL BE REQUIRED TO PROVIDE 10—YEAR AND 100-YEAR PEAK MANAGEMENT CONTROL. POST-DEVELOPMENT PEAK DISCHARGE RATES HAVE BEEN REDUCED THROUGH THE USE OF
- STORMWATER MANAGEMENT PRACTICES AND THE 10-YEAR AND 100-YEAR PEAK DISCHARGE RATES ARE NOT INCREASING. B. THE OFFICIAL PRE-SUBMISSION COMMUNITY MEETING FOR THIS PROJECT WAS HELD VIRTUALLY ON JANUARY 4, 2022 (WP-22-044, 7561

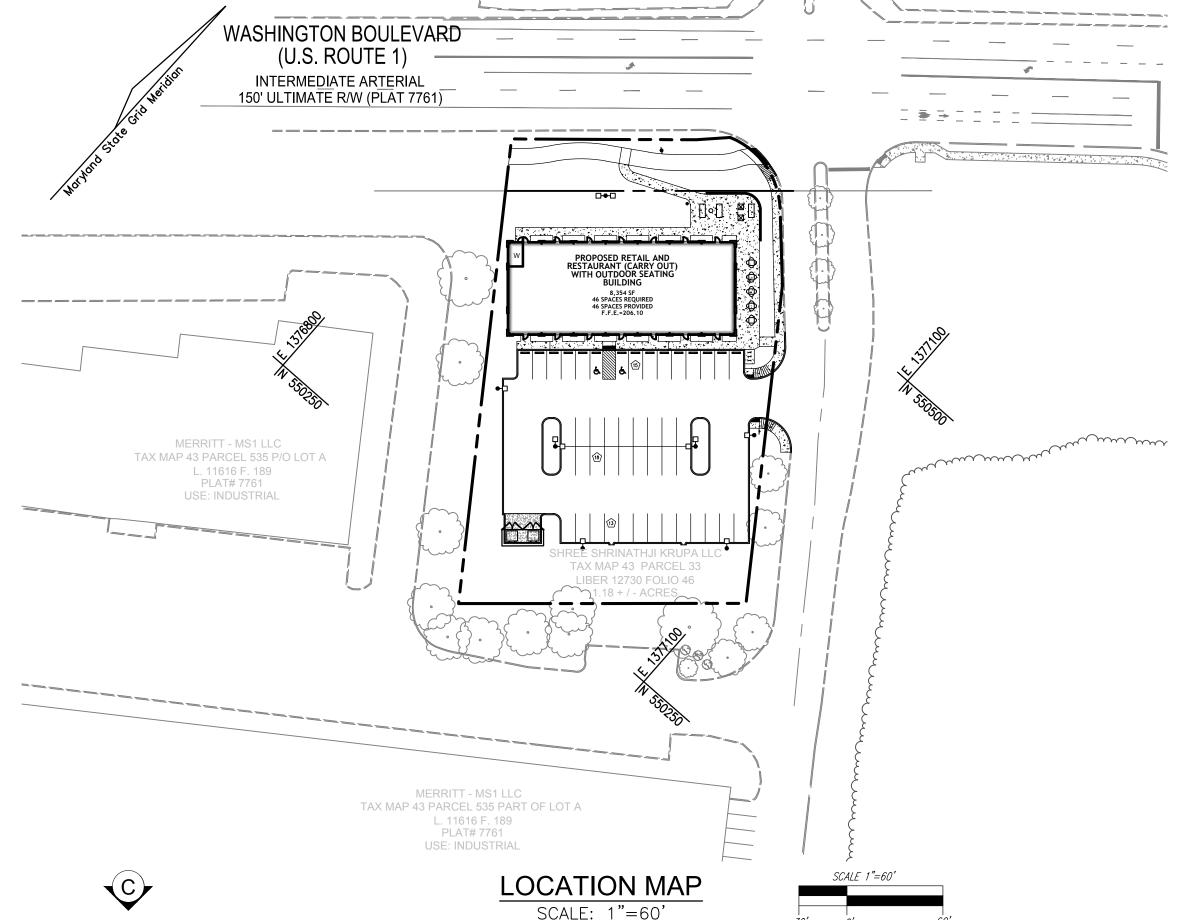
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

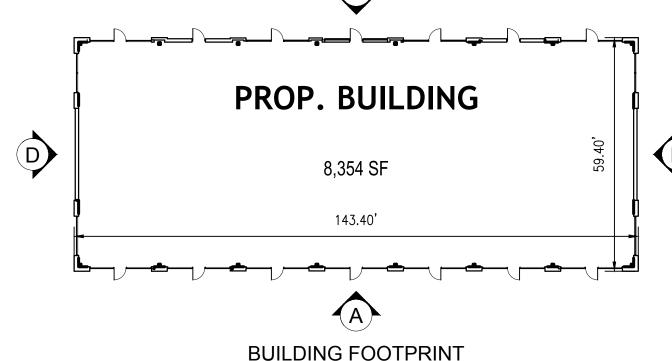
Michael J. Davis	5/1/2024
COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT	DATE
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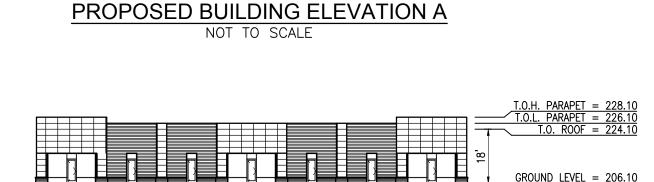
APPROVED: HOWARD COUNTY DEPARTMENT OF	PLANNING AND ZONING
CHAD Edmondson	5/3/2024
CHIEF, DEVELORMENT ENGINEERING DIVISION	DATE 4/30/2024
CHIEF, DIVISION STREET OF BEVELOPMENT	DATE 5/3/2024
DIRECTOR 4220B635863942E	DATE

SITE DEVELOPMENT PLAN 7561 WASHINGTON BLVD

SAMSON'S REALTY LLC, PROPERTY ELKRIDGE, MARYLAND 21075 HOWARD COUNTY (SHA TRACKING NO. 22APHO005XX)









GENERAL NOTES (CONT'D...)

- 49. THERE IS NO FLOODPLAIN ON THIS SITE. 53. AN ALTERNATIVE COMPLIANCE PETITION (WP-24-064) WAS APPROVED ON JANUARY 29, 2024 WITH RESPECT TO SECTION 50. PUBLIC WATER PROVIDED THROUGH THE ADVANCED DEPOSIT ORDER PROCEDURE. THE FOLLOWING MDOT SHA STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR
- a. MD 578.01 REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES b. MD 104.03-01 - SHOULDER WORK/MULTILANE UNDIV. GREATER THAN 40 MPH FOR ALL MDOT SHA STANDARDS REFERRED TO ON THE PLANS THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT: - http://apps.roads.maryland.gov/businesswithsha/bizstdsspecs/desmanualstdpub/publicationsonline/ohd/bookstd/index.asp
- ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE 52. AN ALTERNATIVE COMPLIANCE PETITION (WP-23-097) WAS APPROVED ON MAY 15, 2023, WITH RESPECT TO SECTION 15.156(k) AND SECTION 16.156(m) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO EXTEND THE APRIL 26, 2023. DEADLINE DATE BY 60 DAYS FOR COMPLETION OF THE DEVELOPER'S AGREEMENT AND PAYMENT OF FEES AND

GENERAL NOTES (CONT'D...

THIS PROJECT:

- SUBMISSION OF THE SITE DEVELOPMENT PLAN ORIGINALS FOR SDP-22-025. APPROVAL OF THIS ALTERNATIVE COMPLIANCE IS SUBJECT TO THE FOLLOWING CONDITIONS: THE DEVELOPER'S AGREEMENT AND PAYMENT OF FEES FOR THE SITE DEVELOPMENT PLAN (SDP-22-025) MUST BE
- COMPLETED ON OR BEFORE AUGUST 26, 2023. THE ORIGINAL PLANS FOR THE SITE DEVELOPMENT PLAN (SDP-22-025) MUST BE SUBMITTED FOR SIGNATURE ON OR BEFORE AUGUST 26, 2023.

16.156(m) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO EXTEND THE DEADLINE DATE FOR THE SUBMISSION OF THE SITE DEVELOPMENT PLAN MYLAR ORIGINAL FOR SDP-22-025. APPROVAL OF THIS ALTERNATIVE COMPLIANCE IS SUBJECT TO THE FOLLOWING CONDITIONS:

STORMWATER MANAGEMENT INFORMATION

LOT/PARCEL# FACILITY NAME & NUMBER PRACTICE TYPE (QUALITY) PUBLIC PRIVATE MAINTENANCE BY NOTES

M-6 Micro-Bioretention

THE ORIGINAL PLANS FOR THE SITE DEVELOPMENT PLAN (SDP-22-025) MUST BE SUBMITTED FOR SIGNATURE WITHIN 180 DAYS OF THE ORIGINAL MILESTONE DEADLINE, ON OR BEFORE APRIL 20, 2024. HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN (SDP) DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN. PERMIT PLANS FOR CERTAIN FACILITIES TO BE CONSTRUCTED WITHIN THE LIMITS DESCRIBED BY THIS SDP 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 RADIATION.



PROPOSED BUILDING ELEVATION B

NOT TO SCALE

PARKING TABULATION

HANDICAP PARKING PROVIDED:

REQUIRED PER CODE PROPOSED RETAIL, RESTAURANT (CARRY OUT) & RESTAURANT (CARRY OUT) WITH OUTDOOR SEATING BUILDING 1,857 SF RESTAURANT (CARRY OUT) WITH OUTDOOR SEATING @ 7 SPACES PER 1,000 SF 13 SPACES

6,497 SF RETAIL @ 5 SPACES PER 1,000 SF 33 SPACES TOTAL SPACES REQUIRED (PER CODE): 46 SPACES TOTAL SPACES PROVIDED: 46 SPACES HANDICAP PARKING REQUIREMENT: 2 FOR 26-50 REGULAR SPACES 2 SPACES

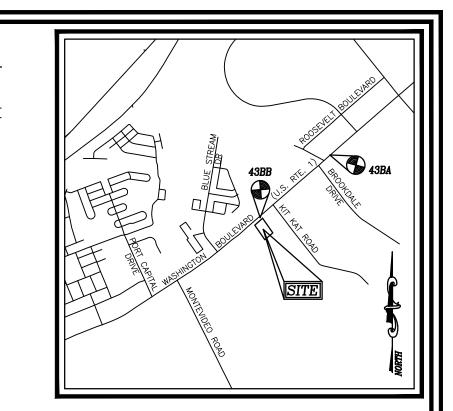
> ADDRESS CHART STREET ADDRESS BUILDING NO. 7561 WASHINGTON BOULEVARD PERMIT INFORMATION CHART LOTS/PARCEL # PARCEL 33 SUBDIVISION NAME SECTION/AREA BLOCK NO. ZONE TAX MAP ELECT. DIST. CENSUS TR 1ST WATER CODE: SEWER CODE:

BENCHMARKS

HOWARD COUNTY BENCHMARK - 43BB N 550534.18 E 1376905.39 ELEV.: 209.01 ALONG WASHINGTON BLVD @ NE CORNER OF SITE

HOWARD COUNTY BENCHMARK - 43BA N 551676.38 E 1378108.49 ELEV.: 209.47 ALONG WASHINGTON BLVD @ INTERSECTION WITH CEMETERY LANE

"5/8" REBAR AND CAP SET AS SHOWN HEREON CONSISTS OF A 5/8" IRON ROD IN THE GROUND WITH A YELLOW PLASTIC CAP MARKED "PROP MARK 21876.



VICINITY MAP SCALE: 1"=2,000' ADC MAP COORDINATE: MAP 5054, GRID G2

51,586 SF OR 1.18 AC.

0.00 AC. (REFER TO SFSD)

0.00 AC.

0.00 AC.

0.00 AC.

0.00 AC.

SITE ANALYSIS DATA CHART

- TOTAL PROJECT AREA: AREA OF WETLANDS AND WETLAND BUFFERS:
- AREA OF FLOODPLAIN:
- AREA OF FOREST: AREA OF MODERATE SLOPES (15% TO 24.99%):
- AREA OF STEEP SLOPES (25% OR GREATER): FRODIBLE SOILS:
- 0.00 AC. 55,206 SF OR 1.27 AC. LIMIT OF DISTURBED AREA:
- PROPOSED USES FOR SITE AND STRUCTURES: RESTAURANT (CARRY OUT) WITH OUTDOOR SEATING:
- 1.857 SF * BUILDING AREA:
- * OUTDOOR SEATING INCLUDES TWENTY (20) PROPOSED SEATS
- GREEN OPEN AREA (LOD): PROPOSED IMPERVIOUS AREA (LOD):
- PRESENT ZONING DESIGNATION: DPZ FILE REFERENCES:

22,741 SF OR 0.52 AC. 32,465 SF OR 0.75 AC. B-1 (BUSINESS: LOCAL) ECP-21-014, WP-22-044, WP-23-097, PLAT NO. 26463 & WP-24-064

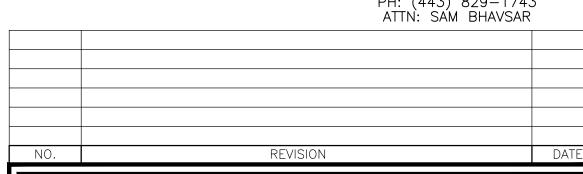
LEGEND

LLOLIND	
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	PROPOSED SIDEWALK

SHEET INDEX				
DESCRIPTION	SHEET NO.			
COVER SHEET	1 OF 12			
EXISTING CONDITIONS AND DEMOLITION PLAN	2 OF 12			
SITE LAYOUT PLAN	3 OF 12			
SITE DETAILS	4 OF 12			
GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP	5 OF 12			
SEDIMENT AND EROSION CONTROL NOTES & DETAILS	6 OF 12			
SEDIMENT AND EROSION CONTROL NOTES & DETAILS	7 OF 12			
STORM DRAIN DRAINAGE AREA MAP	8 OF 12			
STORM DRAIN AND UTILITY PROFILES	9 OF 12			
STORMWATER MANAGEMENT DRAINAGE AREA MAP	10 OF 12			
STORMWATER MANAGEMENT NOTES AND DETAILS	11 OF 12			
LANDSCAPE PLAN, NOTES AND DETAILS; FOREST CONSERVATION PLAN	12 OF 12			

OWNER/DEVELOPER SAMSON'S REALTY, LLC

5128 BRITTEN LANE ELLICOTT CITY, MD 21043 PH: (443) 829-1743 ATTN: SÁM BHAVSAR



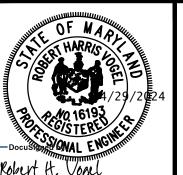
SITE DEVELOPMENT PLAN **COVER SHEET**

7561 WASHINGTON BOULEVARD ELKRIDGE, MD 21075

12730 / F. 46 TAX MAP 43 BLOCK 04 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com



ROBERPOH. 2VOGEL, PE No.16193

2 SPACES

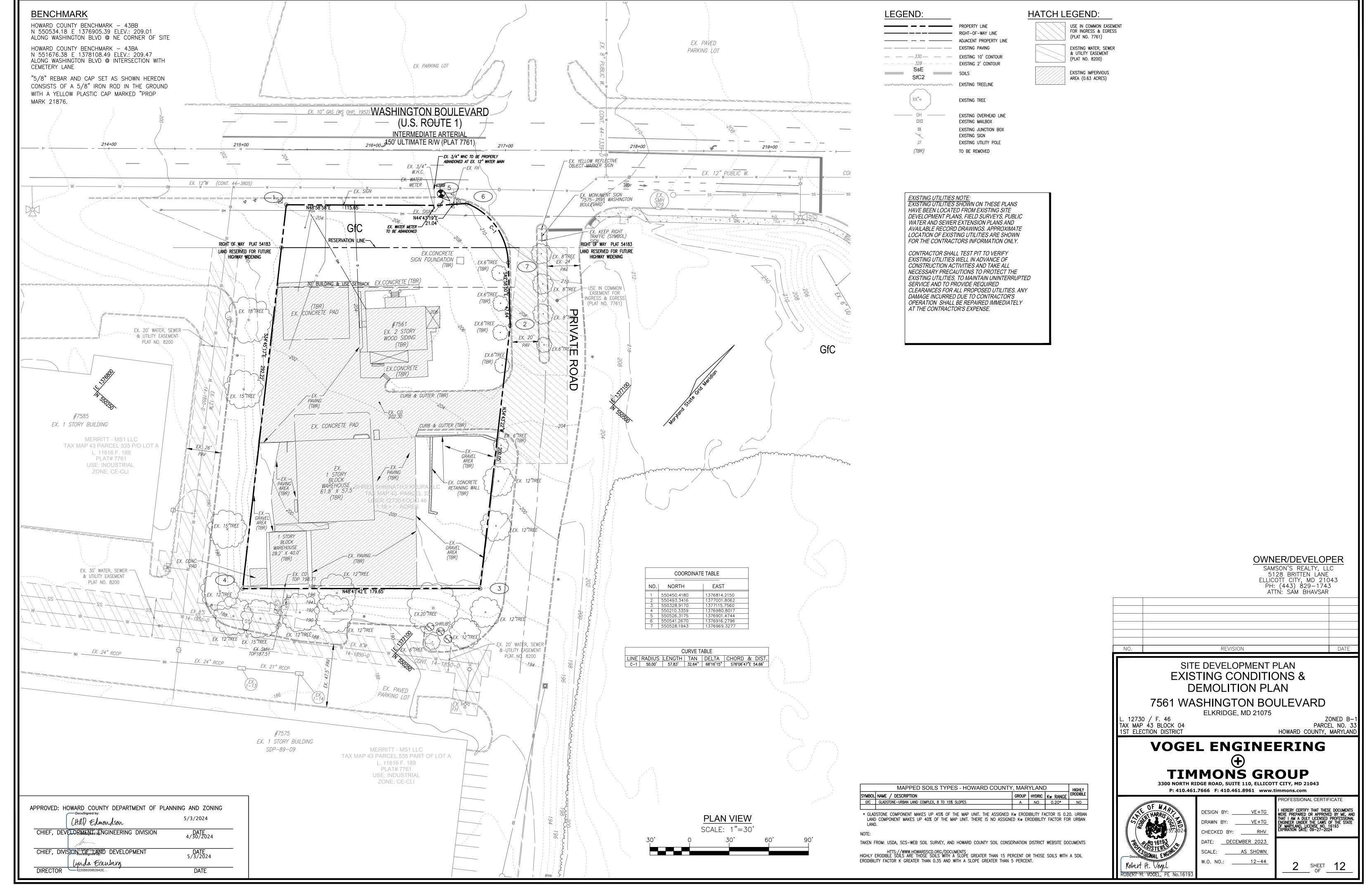
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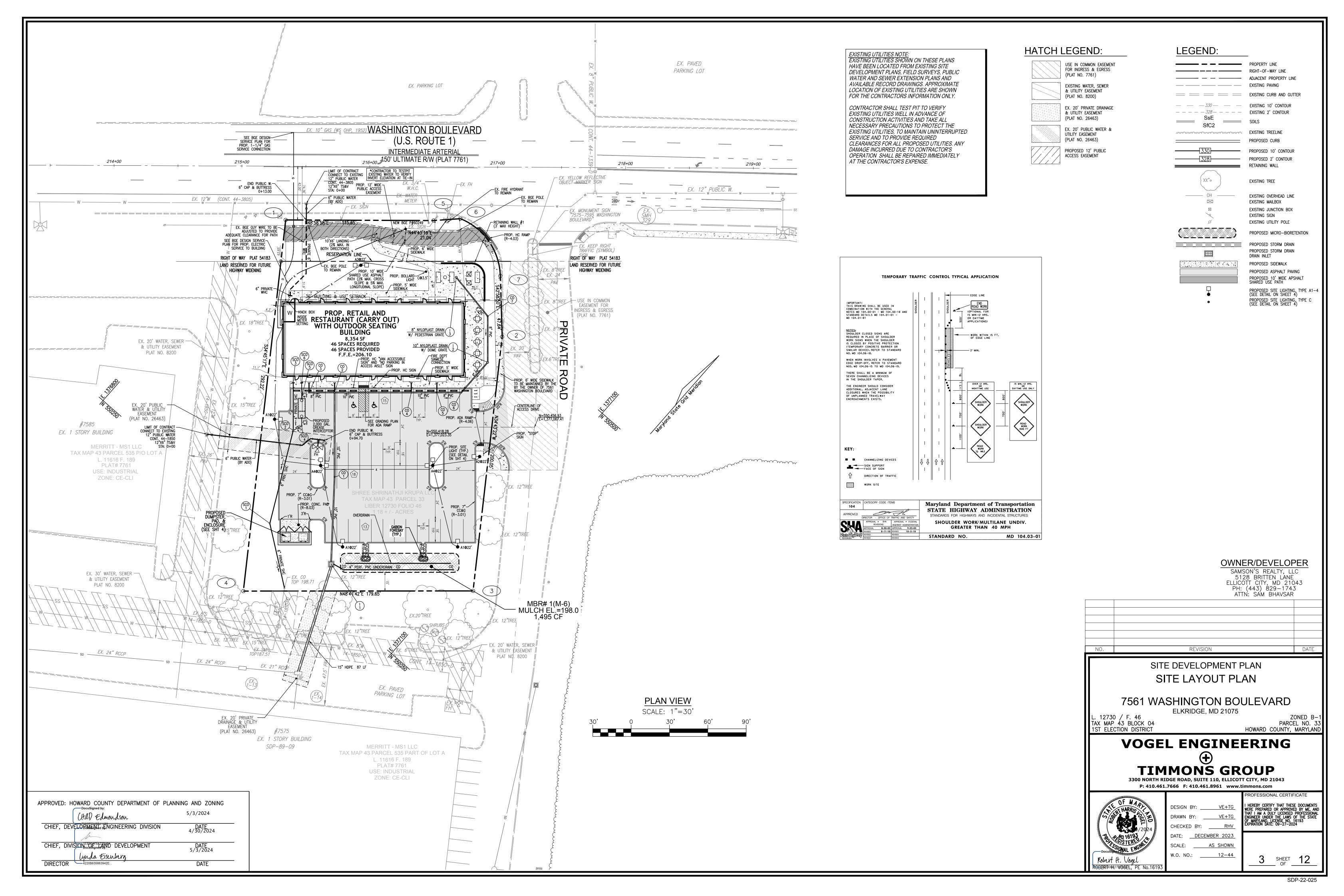
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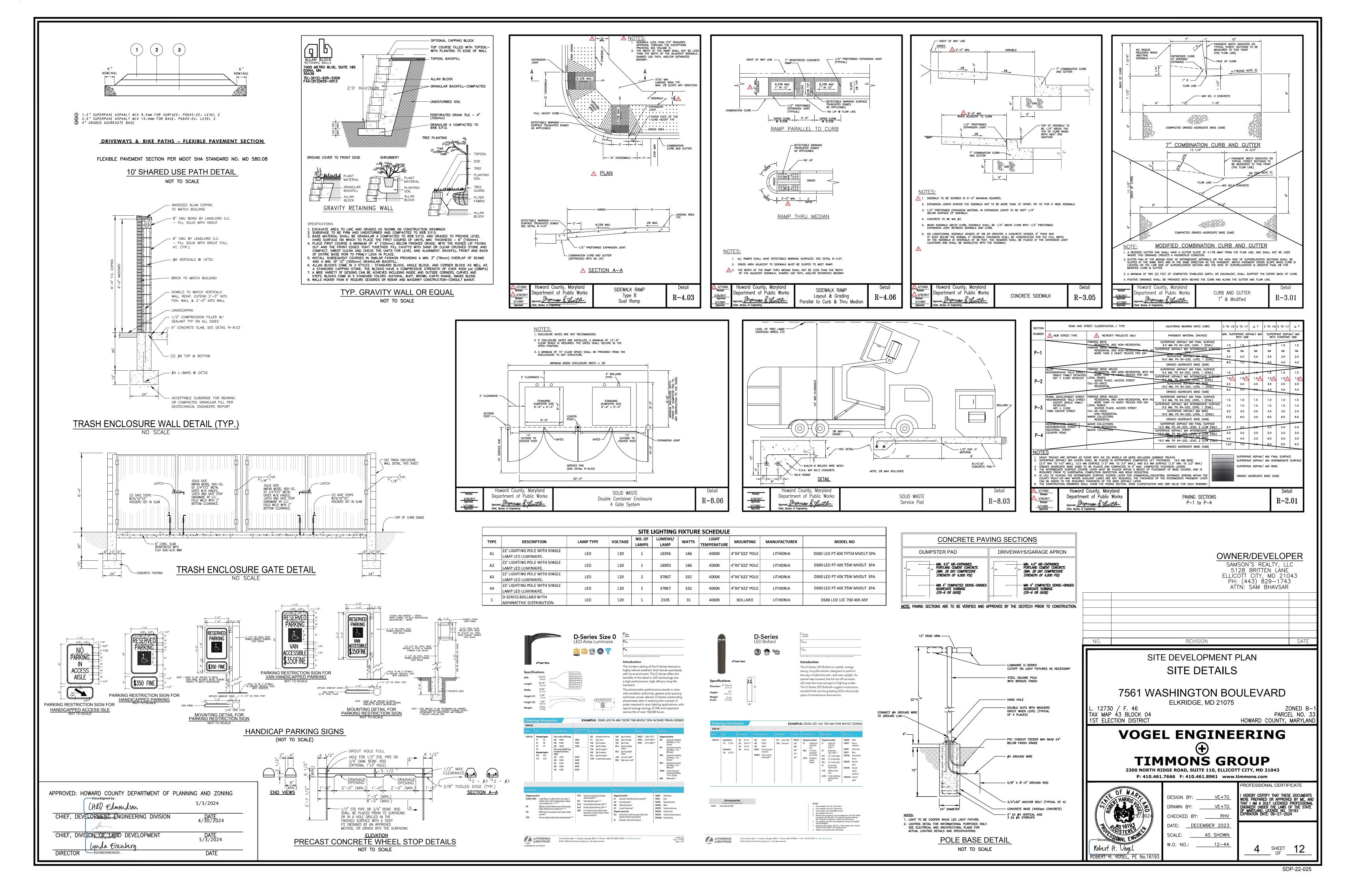
SHEET

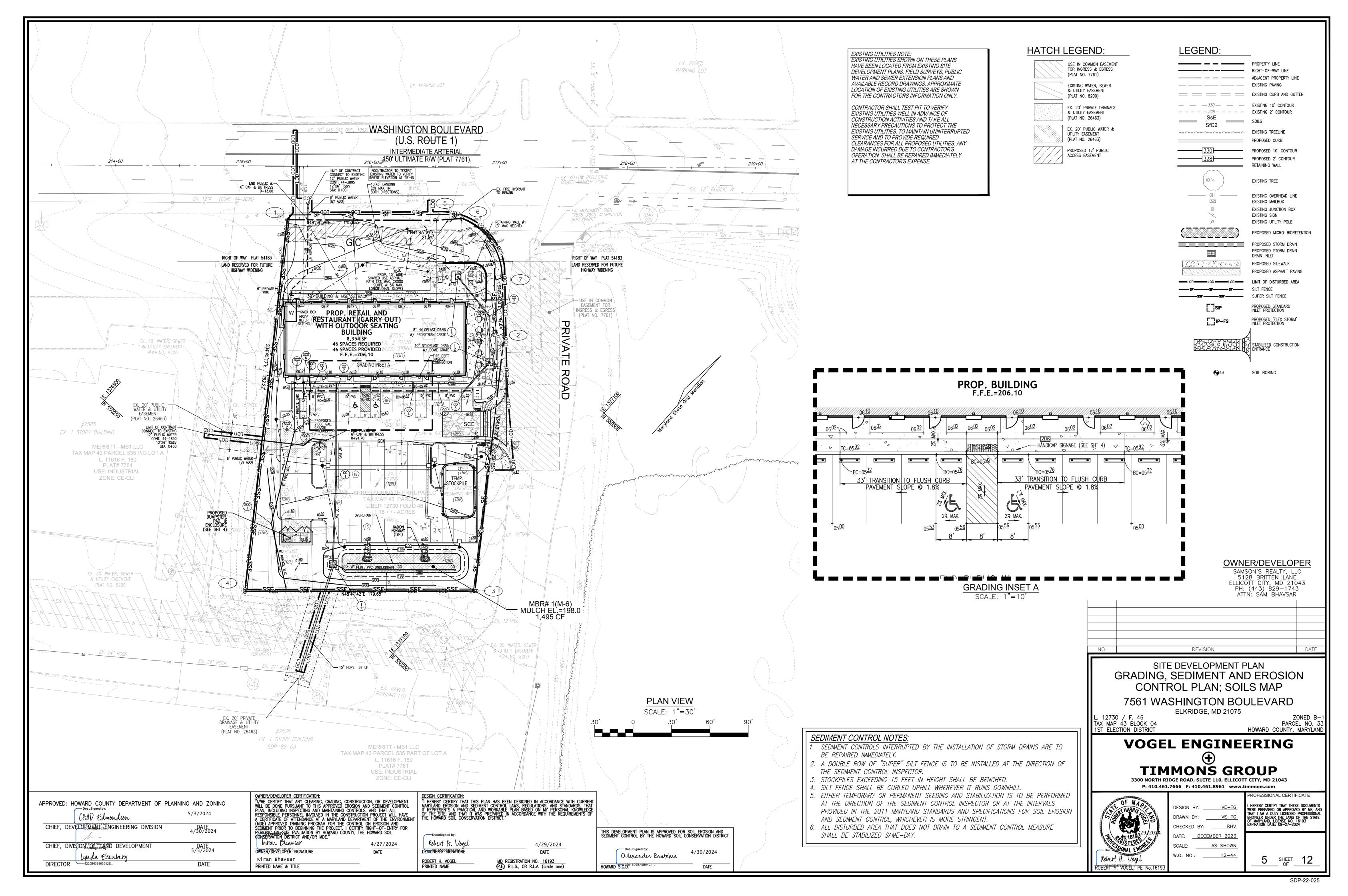
SDP-22-025

PARCEL NO. 33









B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

A. SOIL PREPARATION

- 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 DISCHARROWS 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 PLAN
- 2. PERMANENT STABILIZATION A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL DITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I. SOIL PH BETWEEN 6.0 AND 7.0.

C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER

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

L 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 : 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 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 FOLLIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF
- . 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 CONCEM HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET

BE UNNECESSARY ON NEWLY DISTURBED AREAS.

THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY

FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FLIRNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

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,

- C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE. 4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN. 5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAI OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED
- SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 11/2 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 INTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF
- 6. TOPSOIL APPLICATION A. FROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE, ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE
- CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

 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 PREPARATION. 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
- RADEMARK 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 MAGNESHIM OXIDE) LIMESTONE MILST BE GROHND TO SHICH FINENESS THAT AT LEAST 50 PERCENT WI PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

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

PURPOSE TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS. <u>CONDITIONS WHERE PRACTICE APPLIES</u> EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER

- DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED CRITERIA

 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE 8.1 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 8.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

TEMPORARY SEEDING SUMMARY

HARDINESS ZONE (FROM FIGURE B.3): _ FELIZER SEED MIXTURE (FROM TABLE B.1): LIME RATE APPLICATION SEEDING SEEDING (10-20-20)
RATE (LB/AC) DATES DEPTHS NO SPECIES RATE (LB/AC) 40 LB / AC 436 LB/AC : TONS/AC

MAY 16 TO JUL 31

(10 LB PER (90 LB PER

1000 SF) | 1000 SF)

DESIGN CERTIFICATION:

ROBERT H. VOGEL PRINTED NAME

SEDIMENT CONTROL NOTES:

30 LB / AC

WARM SEAS

- . SEDIMENT CONTROLS INTERRUPTED BY THE INSTALLATION OF STORM DRAINS ARE T BE REPAIRED IMMEDIATELY. 2. A DOUBLE ROW OF "SUPER" SILT FENCE IS TO BE INSTALLED AT THE DIRECTION
- OF THE SEDIMENT CONTROL INSPECTOR. 3. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED. . SILT FENCE SHALL BE CURLED UPHILL WHEREVER IT RUNS DOWNHILL.
- 5. EITHER TEMPORARY OR PERMANENT SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVALS PROVIDED IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, WHICHEVER IS MORE STRINGENT.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

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

- <u>PURPOSE</u>
 TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION. CONDITIONS WHERE PRACTICE APPLIES
 TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.
- 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 SLICH 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
- ROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS . INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CUITURI OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USE 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
- NOCULANT 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.
- 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 8.1, PERMANENT SEEDING TABLE 8.3, 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
- B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. 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. . HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

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 HYDROSEEDIN III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION. IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED

MULCH MATERIALS (IN ORDER OF PREFERENCE)

- A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, LYE, 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 FACTORS. III. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD FILLULOSE FIBER MULCH WILL REMAIN IN LINIFORM SUSPENSION IN WATER LINDER 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 THOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMFTERS, 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.
- A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO HAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION PATE TO 2.5 TONS PER ACRE
- 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. A PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR
- . 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 AND. THIS PRACTICE SHOULD FOLLOW THE CONTOUR

WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON

- 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. II. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET TERRA TAX II, TERRA TACK AR OR OTHER APPRÒVED 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

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

- <u>PURPOSE</u>

 TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR 3. SOD MAINTENANCE

 A IN THE ABSENCI EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS. CONDITIONS WHERE PRACTICE APPLIES STOCKPILE AREAS ARE UTILILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE. <u>CRITERIA</u>

 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
- 2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED 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 PRACTICE. 4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
- 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, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE. 7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION. 8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE. A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH
- IMPERMEABLE SHEETING. MAINTENANCE
 THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE 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 A 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 GRADING.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

<u>DEFINITION</u>
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. CONDITIONS WHERE PRACTICE APPLIES

 EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.
- A. SEED MIXTURES A SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 8.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE
- (FROM FIGURE 8.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE 8.2. ENTER SELECTED MIXTURE(S APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 — CRITICAL AREA PLANTING. C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING
- D FOR ARFAS 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 7 TUREGRASS 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
- 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 CILITIVARS 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 35PERCENT OF THE TOTAL MIXTURE BY WEIGHT. II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT S 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
- 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 ESCUE 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: 11/2
- TO 3 POUNDS PER 1000 SQUARE FEET SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77. "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND". CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION
- PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE. C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES WESTEM MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
- CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B) <u>DUTHERN MD, EASTERN SHORE</u>: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7E 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 11/4 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							
		ONE (FROM FIGURE E (FROM TABLE B.3			FELIZER RATE (10–20–20)		LIME RATE	
NO	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K ₂ 0	
1	COOL SEASON TALL FESCUE & KENTUCKY BLUEGRASS OR EQUAL	T.F. 60 LB / AC K.B. 40 LB / AC		1/4-1/2 IN.	(1 LB PER	(2 LB PER	90 LB/AC (2 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)

- SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).
- 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 TOM 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
- F SOD MILST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS, SOD NOT TRANSPLANTED WITHIN IS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION. 2. SOD INSTALLATION A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL
- 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 SO IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS. . 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. DEFINITION
 A MOUND OR PILE OF SOIL PROTECTION BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

 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. 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

SEQUENCE OF CONSTRUCTION OBTAIN GRADING PERMIT. (1 DAY)

- 2. DEVELOPER/CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO ANY LAND DISTURBANCE. (1 DAY) 3. NOTIFY HOWARD COUNTY BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION (410-313-1880) AT LEAST 24 HRS BEFORE STARTING WORK. (1 DAY)
- 4. STAKEOUT LIMITS OF DISTURBANCE. (2 DAYS) INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM. (1 DAY) . CLEAR AND GRUB FOR THE INSTALLATION OF ALL PERIMETER CONTROLS. (2 DAYS)
- INSTALL PERIMETER CONTROLS INCLUDING SUPER SILT FENCE AND SILT FENCE. (2 DAYS) WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE EXISTING STRUCTURES AND PAVING WITHIN LIMITS OF DISTURBANCE. (3 WEEKS) BEGIN SITE ROUGH GRADING.
- 10. AS SITE IS BROUGHT TO PROPOSED GRADE, BEGIN CONSTRUCTION OF BUILDING FOUNDATION. (1 MONTH) 11. BEGIN INSTALLATION OF SITE UTILITIES (SEWER, STORM DRAIN AND WATER). STORM DRAIN STRUCTURES TO BE INSTALLED WITHIN MICRO-BIORENTION. PROVIDE INLET PROTECTION AS
- SHOWN ON THESE PLANS. (8 WEEKS) 12. WHEN UTILITIES ARE INSTALLED, BUILDING IS SUBSTANTIALLY COMPLETED AND SITE IS BROUGHT TO APPROPRIATE GRADES AND DRAINAGE AREAS TO THE RESPECTIVE SWM FACILITIES ARE STABILIZED, BEGIN INSTALLATION OF MICRO-BIORETENTION. PROTECT MICRO-BIORETENTION WITH PLASTIC. (2 WEEKS)
- 13. BEGIN INSTALLATION OF CURB AND GUTTER AND INSTALL BASE COURSE PAVING. (1 WEEK) 14. COMPLETE CONSTRUCTION OF BUILDING. (12 MONTHS)
- 15. COMPLETE INSTALLATION OF MICRO-BIORETENTION. (1 MONTH) 16. INSTALL PAVING SURFACE COURSE. (1 WEEK) 17. INSTALL SIDEWALKS. (1 MONTH)
- 18. WITH INSPECTOR'S APPROVAL. FINE GRADE SITE AND STABILIZE ALL AREAS DISTURBED AREAS WITH PERMANENT SEEDING. REMOVE ALL TRASH, JUNK AND DEBRIS FROM ENTIRE 19. INSTALL LANDSCAPING. (3 WEEKS)
- 20. AFTER PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR REMOVE ANY CONTROLS AND STABILIZE DISTURBED AREAS WITH PERMANENT SEEDING MIXTURE AND STRAW AND MULCH. (1 WEEK)

- . DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN. 2. FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
- A. THREE (7) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- B. SEVEN (14) CALENDAR DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. 3. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.

Table B.1: Temporary Seeding for Site Stabilization

m	Seedi	ng Rate 1/	Seeding	Recommended Seeding	g Dates by Plant Hardine	ess Zone 3/	
Plant Species	lb/ac	lb/1000 ft ²	Depth ^{2/} (inches)	5b and 6a	6b	7a and 7b	
Cool-Season Grasses		ı					
Annual Ryegrass (Lolium perenne ssp. multiflorum)	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Barley (Hordeum vulgare)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Oats (Avena sativa)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	FERTILIZER
Wheat (Triticum aestivum)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	RATE (10-20-20)
Cereal Rye (Secale cereale)	112	2.8	1.0	Mar 15 to May 31; Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Nov 15	Feb 15 to Apr 30; Aug 15 to Dec 15	
Warm-Season Grasses							436 LB/AC (10 LB PER
Foxtail Millet (Setaria italica)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14	1000 SF)
Pearl Millet (Pennisetum glaucum)	20	0.5	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14	

1/ Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxfail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses

2/ For sandy soils, plant seeds at twice the depth listed above. 3/ The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

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: PRIOR TO THE START OF EARTH DISTURBANCE, UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT

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 CONFLICTS WITH THIS PLAN

D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL

- 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. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF
- LL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAF DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PRÒJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING 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 MUICHING (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. INCREMENTA 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). 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. SITE ANALYSIS: TOTAL AREA OF SITE: AREA DISTURBED: AREA TO BE ROOFED OR PAVED: AREA TO BE VEGETATIVELY STABILIZED: 0.52 TOTAL FILL OFFSITE WASTE/BORROW AREA LOCATION:
- ESTIMATE ONLY; CONTRACTOR SHALL VERIFY QUANTITIES TO HIS OWN SATISFACTION. TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, WITH AN APPROVED AND ACTIVE GRADING PERMIT ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE 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 DATE 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 MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES. MDE). 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 FIELD CHANGES. 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 LÉAST 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 THE CID. NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT
- 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. 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. REV. 8/2015

OWNER/DEVELOPER SAMSON'S REALTY, LLC 5128 BRITTEN LANE ELLICOTT CITY, MD 21043 PH: (443) 829-1743

ATTN: SÁM BHAVSAR RFVISION

90 LB PEF

SITE DEVELOPMENT PLAN SEDIMENT AND EROSION CONTROL NOTES & DETAILS

7561 WASHINGTON BOULEVARD ELKRIDGE, MD 21075 12730 / F. 46 TAX MAP 43 BLOCK 04

1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND **VOGEL ENGINEERING**

TIMMONS GROUP 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com



ROBERTPOPF,778/GEEL, PE No.1619

DESIGN BY: ____ VE+TG DRAWN BY: CHECKED BY: DATE: <u>DECEMBER 2023</u> SCALE: AS SHOWN ____12-44 W.O. NO.:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

SHEET

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 5/3/2024 (Hdl) Edmondson CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 4/30/2024

CHIEF, DIVISION CONTINUE DEVELOPMENT

Lynda Eisenberg

tiran Bhansar 3/22/2024 OWNER PREVEEOPER SIGNATURE Kiran Bhavsar PRINTED NAME & TITLE

OWNER/DEVELOPER CERTIFICATION: "I/WE 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 ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) 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 HOWARD SOIL CONSERVATION STRICT AND/OR MDE."

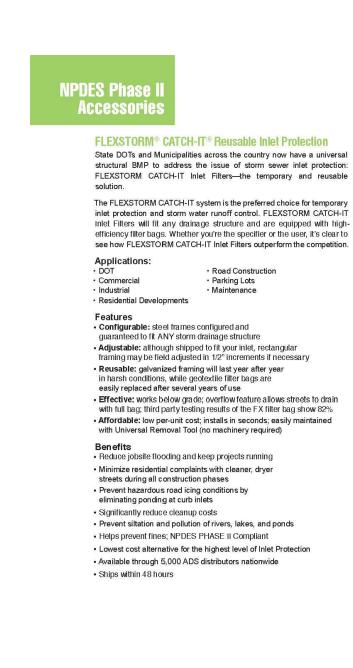
"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF -DocuSigned by: Robert H. Vogel DESIGNER'S SIGNATURE

3/25/2024 MD REGISTRATION NO. 16193 (P.E), R.L.S., OR R.L.A. (circle one) HOWARD S.C.D.

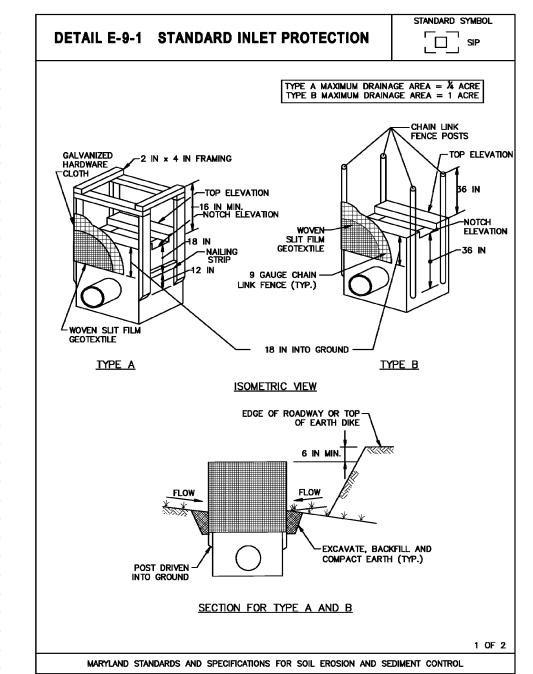
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT 4/30/2024 Olexander Bratchie

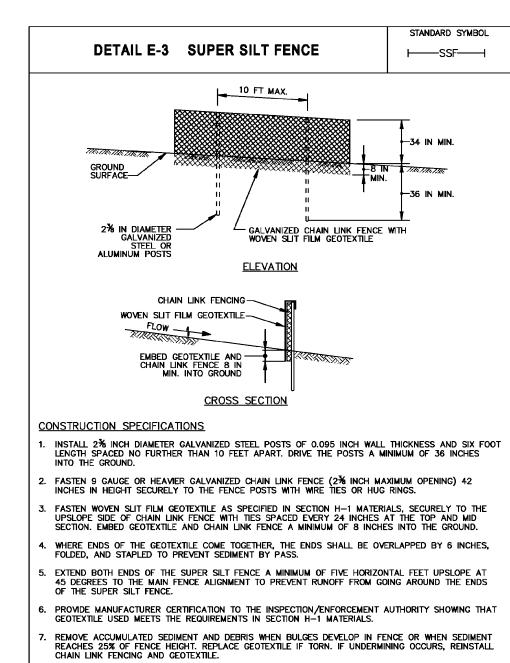
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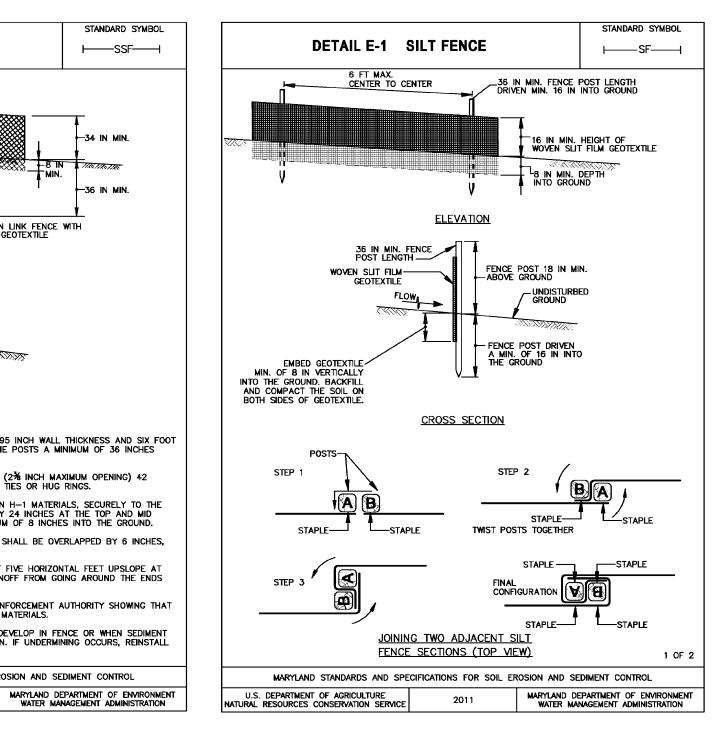
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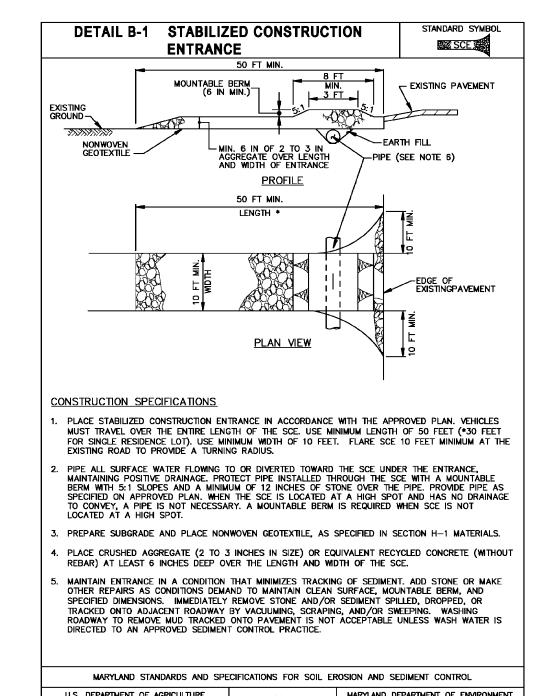


FLE STORM





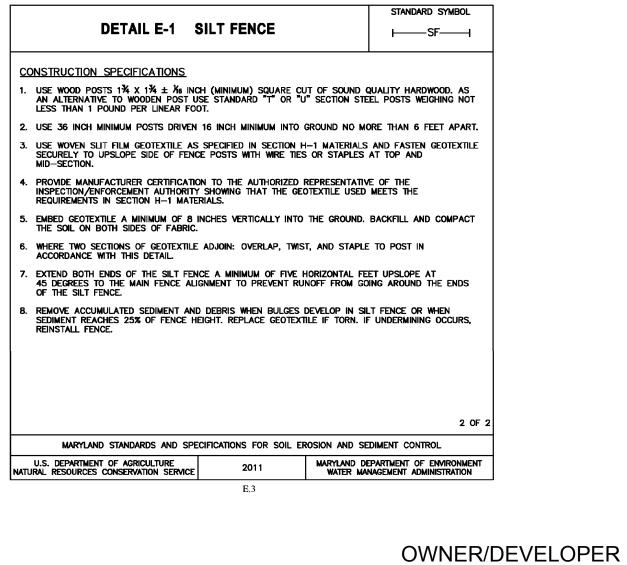


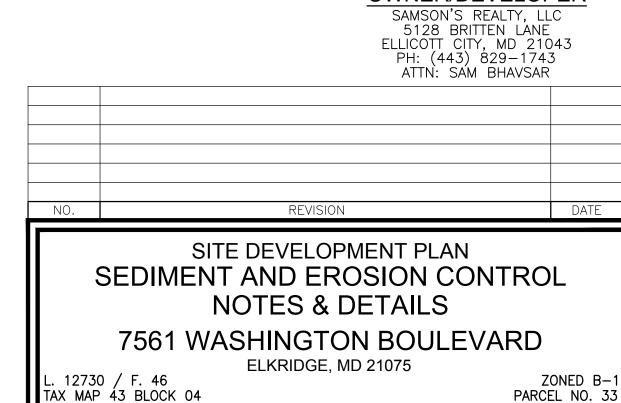


MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE





1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND **VOGEL ENGINEERING**

5/3/2024 (Hd) Edmondson CHIEF, DEVELORMENTALENGINEERING DIVISION DATE 4/30/2024 CHIEF, DIVISION CONTINUE DEVELOPMENT Lynda Eisenberg

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

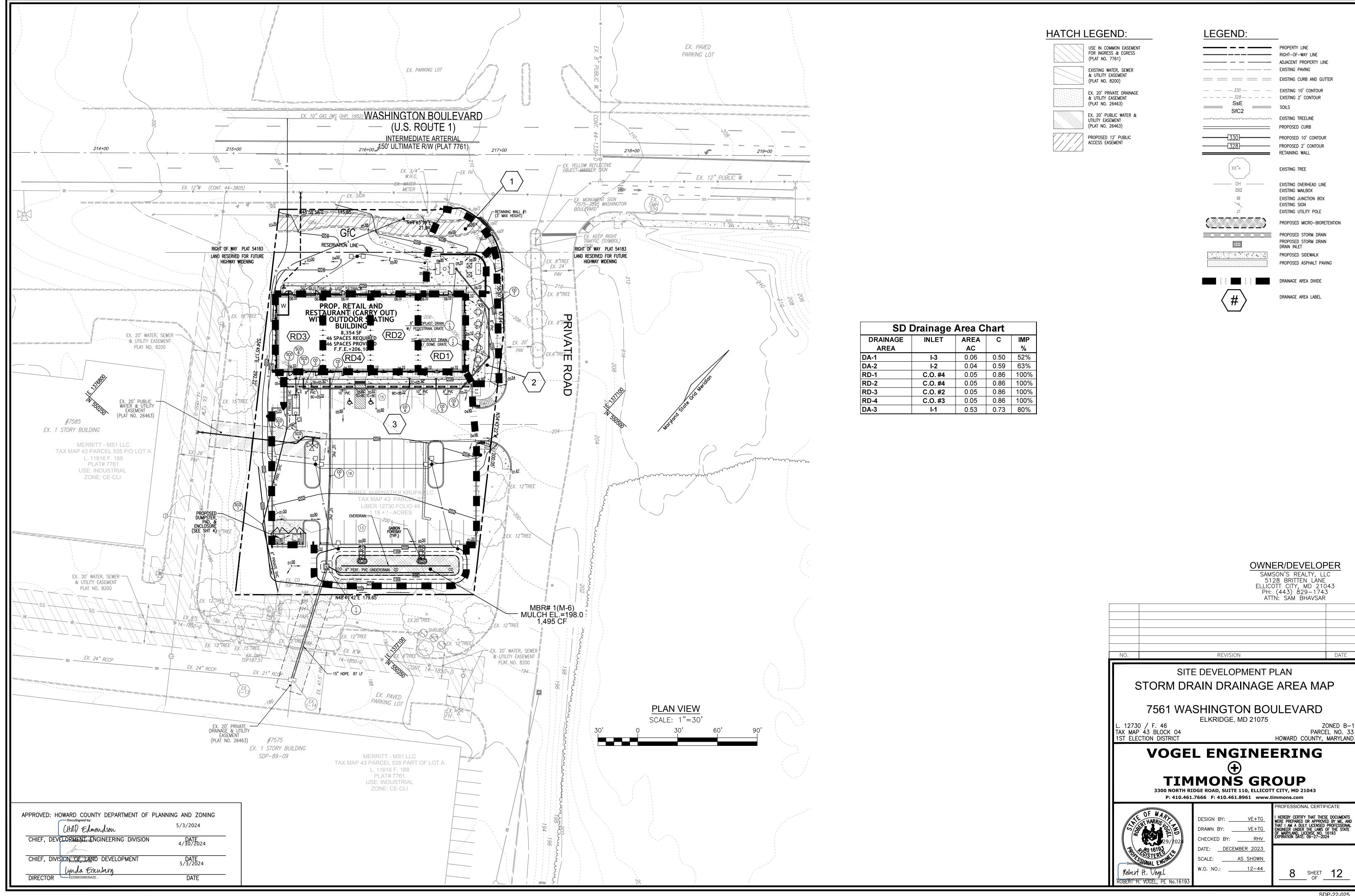
OWNER/DEVELOPER CERTIFICATION:

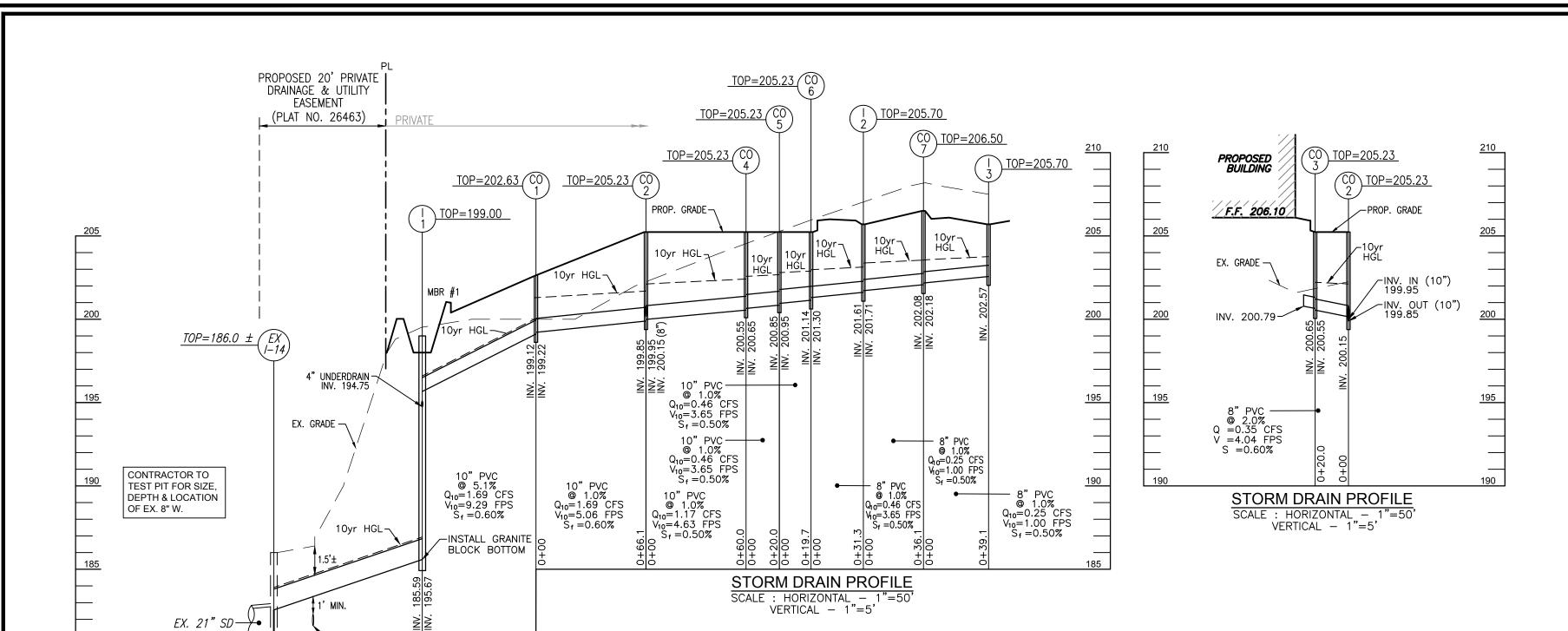
"1/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) 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 HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE." turan Bhausar 3/22/2024 Kiran Bhavsar PRINTED NAME & TITLE

DESIGN CERTIFICATION: "I 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 DISTRICT." -- DocuSigned by:

Robert H. Vogel 3/25/2024 DESIGNER'S SIGNATURE MD REGISTRATION NO. 16193
P.E, R.L.S., OR R.L.A. (circle one) ROBERT H. VOGEL
PRINTED NAME

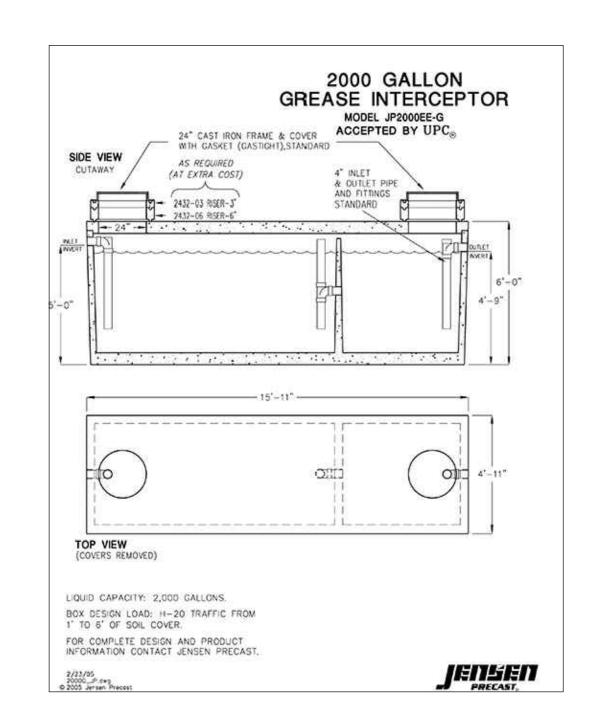
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. 4/30/2024 Olexander Bratchie HOWARD S.C.D.





	STRUCTURE SCHEDULE (PRIVATE)						
NO.	TYPE	LOCATION TOP THROAT INV. INV. ELEV. ELEV. IN OUT			COMMENTS		
I-1	TYPE 'S' INLET	N 550271.50 E 1377018.50	199.00	_	195.67/194.75	185.59	HO. CO. STD D-4.24
1-2	10" NYLOPLAST DRAIN BASIN	N 550470.87 E 1377006.47	205.70	_	201.71	201.61	W/ DOME GRATE
1–3	8" NYLOPLAST DRAIN BASIN	N 550504.66 E 1376944.11				202.57	W/ PEDESTRIAN GRATE
CO-1	CLEANOUT	N 550324.50 E 1376975.59			199.12	199.22	HO. CO. STD. S-2.22
CO-2	CLEANOUT	N 550374.20 E 1376931.98	205.23	_	199.95/200.15	199.85	HO. CO. STD. S-2.22
CO-3	CLEANOUT	N 550361.01 E 1376916.94	205.23	_	200.65	200.55	HO. CO. STD. S-2.22
CO-4	CLEANOUT	N 550413.77 E 1376977.08	205.23	_	200.65	200.55	HO. CO. STD. S-2.22
CO-5	CLEANOUT	N 550426.96 E 1376992.12			200.95	200.85	HO. CO. STD. S-2.22
CO-6	CLEANOUT	N 550439.54 E 1377006.45			201.30	201.14	HO. CO. STD. S-2.22
CO-7	CLEANOUT	N 550498.02 E 1376982.66	206.50	_	202.18	202.08	HO. CO. STD. S-2.22

PRIVATE SD PIPE SCHEDULE							
SIZE	CLASS	TOTAL LENGTH					
4"	SOLID PVC (SWM)	9					
4"	PERF. PVC (SWM)	166					
8"	SOLID PVC	127					
10"	SOLID PVC	234					
15"	RCP CLIII	89					

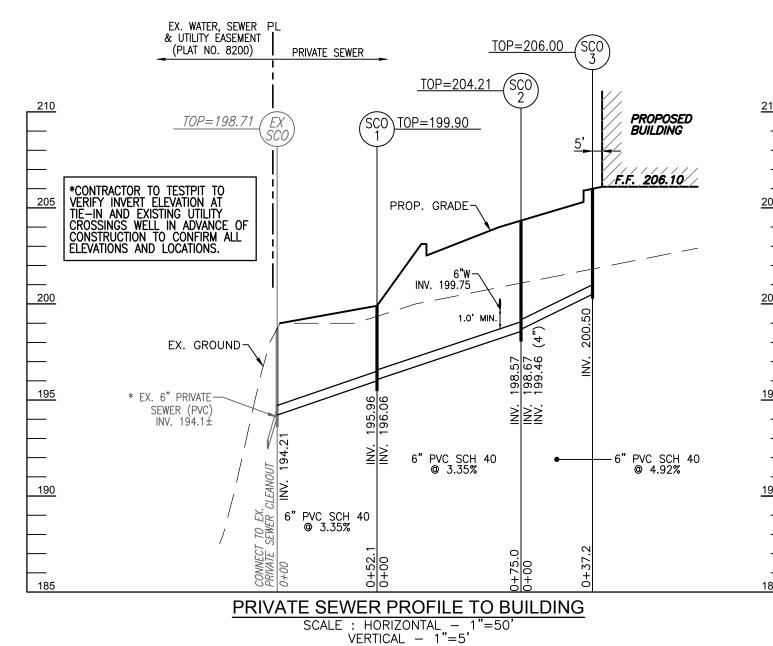


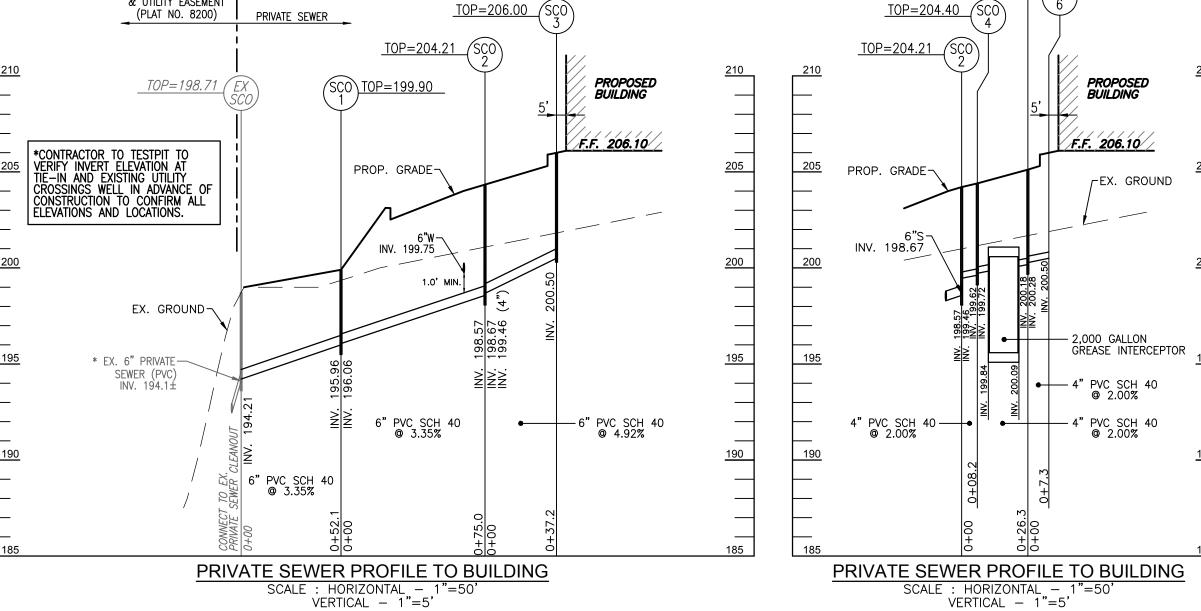
(CONT. 14-4850-D)

 \bigcirc 3.2% Q₁₀=4.72 CFS V₁₀=10.08 FPS S_f=0.50%

STORM DRAIN PROFILE SCALE: HORIZONTAL - 1"=50

VERTICAL - 1"=5"



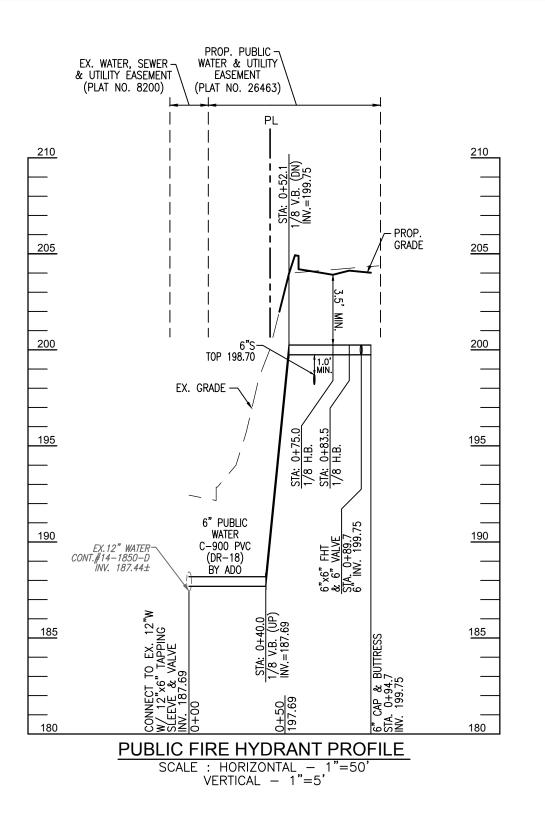


APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE S	YSTEMS
Michael J. Davis	5/1/2024
COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF	PLANNING AND ZONING
CHD Edmondson	5/3/2024
CHIEF, DEVELOPMENT BY SINGINEERING DIVISION	DATE
M-	DATE 4/30/2024

' Lynda Eisenberg

	PRIVATE SEWER PIPE SCHEDULE				
	SIZE TYPE		MATERIAL	LENGTH (LF)	
	6"	PRIVATE SEWER	PVC	164	
ſ	4"	PRIVATE SEWER	PVC	30	

PRIVATE SEWER — STRUCTURE LOCATION CHART						
MH NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
SC0-1	STD. SHC CLEANOUT (S-2.22)	N 550281.16 E 1376952.52	199.90	196.06	195.96	
SC0-2	STD. SHC CLEANOUT (S-2.22)	N 550330.32 E 1376933.58	204.21	198.67/199.46	198.57	
SC0-3	STD. SHC CLEANOUT (S-2.22)	N 550361.57 E 1376906.16	206.00	200.50	200.50	
SCO-4	STD. SHC CLEANOUT (S-2.22)	N 550338.14 E 1376935.95	204.40	199.72	199.62	
SC0-5	STD. SHC CLEANOUT (S-2.22)	N 550357.97 E 1376918.62	205.12	200.28	200.18	
SCO-6	STD. SHC CLEANOUT (S-2.22)	N 550366.18 E 1376911.40	206.00	200.50	200.50	



CONSTRUCTION NOTES FOR ADO
PARTI-GENERAL CONSTRUCTION NOTES
1. 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. 2. THE A.D.O CONSTRUCTION WORK MUST BE PERFORMED UNDER THE CONTINUOUS INSPECTION OF THE CONSTRUCTION INSPECTIONS DIVISION OF HTE DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL NOTIFIY THE CONSTRUCTION INSPECITONS DIVISION (410) 313—1800 AT LEASE (5) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION FOR THIS A.D.O. 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY AND AGENCIES AND MISS UTILITY AT TWO (2) WORKING DAYS BEFORE STARTING WORK

4. WORK PERFORMED WITHIN MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA) RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE MSHA PERMIT ISSUED FOR THE CONTRACT. THE CONTRACTOR SHALL NOTIFIY THE MARYLAND STATE HIGHWAY ADMINISTRATION, 410-531-5533, AT LEAST FIVE (5) WORKING DAYS BEFORE EXCAVATING WITHIN THE MARYLAND STATE HIGHWAY RIGHT-OF-WAY FOR LAYING WATER OR SEWER MAINS OR SERVICE CONNECTIONS.

5. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. 6. 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 DRAWINGS. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE

7. EXCAVATIONS MUST BE SUPPORTED FOR THE PROTECTION OF WORKERS, THE CONSTRUCTION WORK AREA AND ADJACENT PROPERTY REFER TO TEMPORARY EXCAVATION SUPPORT SYSTEMS UNDER SECTION 1000.03.03 OF THE STANDARD SPECIFICATIONS.

8. EXCAVATIONS MUST BE KEPT WELL DRAINED AT ALL TIMES. DEWATERING, DRAINAGE AND PUMPING IS REQUIRED DURING CONSTRUCITON. REFER TO DEWATERING, DRAINAGE AND PUMPING UNDED SECTION 1000.03.03 OF THE STANDAR SPECIFICATIONS. PUMPS MUST BE THE PROPER TYPE AND CAPACITY TO MAINTAIN A DRY WORK AREA.

9. THE USE OF STEEL PLATES TO PROTECT THE TRENCH AND ROADWAY SHALL BE AS SPECIFIED UNDER SECTION 1000.03.05, SECTION 104 AND STANDARD DETAIL G-4.02 OF THE STANDARD SPECIFICATIONS. 10. TEMPORARY AND PERMANENT REPAIR OF ROADWAY OPENINGS SHALL BE AS SPECIFIED UNDER SECTION 1000.03.08 AND STANDARD DETAIL G-4.01 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE SPECIFIFIED BY PERMIT FROM THE AUTHORITY HAVING

JURISDICTION. TEMPORARY PAVING SHALL CONSIST OF NOT LESS THAN 12 (TWELVE) INCHES OF CRUSHED STONE AND 2 (TWO) INCHES OF BITUMINOUS COLD PATCH MATERIAL.

PART II - WATER CONSTRUCTION NOTES

1. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 4'-0" OF COVER UNLESS OTHERWISE NOTED.

2. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.

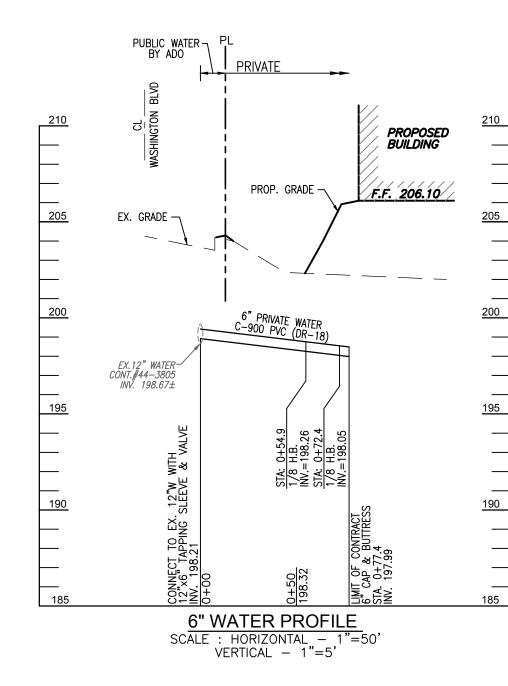
3. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.

4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.

5. THE CONTRACTOR SHALL NOTIFY THE DPW BUREAU OF UTILITIES (410-313-4900) AT LEAST 48 HOURS IN ADVANCE OF SCHEUDLE SHUTDOWNS OF THE EXISTING WATER MAIN. SHUT DOWNS OF THE EXISTING WATER MAIN FOR NEW CONNECTIONS ARE REMOVAL OF EXISTING SERVICE CONNECTIONS SHALL BE AS SPECIFIED UNDER SECTION 1002.06-CONNECTIONS OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. . THE 6-INCH WATER SERVICE SHALL BE D.I.P. AND ALL JOINTS SHALL BE RESTRAINED BETWEEN WATER MAIN AND THE PROPERTY

8. WATER SERVICE CONNECTIONS SHALL BE AS SPECIFIED UNDER SECTION 1004- WATER HOUSE SERVICE AND APPURTENANCES OF 9. THE NEW WATER METER ASSEMBLY SHALL BE THE INSIDE COMBINED FIRE/DOMESTIC PER HOWARD COUNTY DETAIL PLATE W-3.44. INSTALLATION OF THE WATER METER IS NOT PART OF THE A.D.O. CONSTRUCTION WORK.



WATER MAIN LOCATION CHART (PUBLIC-ADO)				
CONN. TO EX. MAIN IN WASHINGTON BLVD.				
WL STA. APPURTENANCE				
WL STA. 0+00.0	12"x6" TAPPING SLEEVE & 6" VALVE			
WL STA. 0+13.0	6" CAP AND BUTTRESS			

WATER MAIN LOCATION CHART (PUBLIC-ADO) ON-SITE FIRE HYDRANT APPURTENANCE WL STA. 0+00.0 | 12"x6" TAPPING SLEEVE & 6" VALVE WL STA. 0+40.0 6" - 1/8 VERTICAL BEND WL STA. 0+52.1 6" - 1/8 VERTICAL BEND WL STA. 0+75.0 6" - 1/8 HORZ. BEND WL STA. 0+83.5 6" - 1/8 HORZ. BEND WL STA. 0+89.7 6"x6" FHT & 6" VALVE WL STA. 0+94.7 6" CAP & BUTTRESS

	PIPE SCHEDULE (PUBLIC-ADO)							
	SIZE	LENGTI						
	6"	PVC (C-900) - WATER	108 LF					
	6"	DIP – WATER	6 LF					

	PRIVATE WATE	R PIPE SCHEDULE							
SIZE	TYPE	MATERIAL	LENGTH (LF)						
6"	PRIVATE WATER	PVC (C-900)	64						

OWNER/DEVELOPER SAMSON'S REALTY, LLC 5128 BRITTEN LÂNE ELLICOTT CITY, MD 21043 PH: (443) 829-1743 ATTN: SÁM BHAVSAR



7561 WASHINGTON BOULEVARD

ELKRIDGE, MD 21075 12730 / F. 46

PARCEL NO. 33 TAX MAP 43 BLOCK 04 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

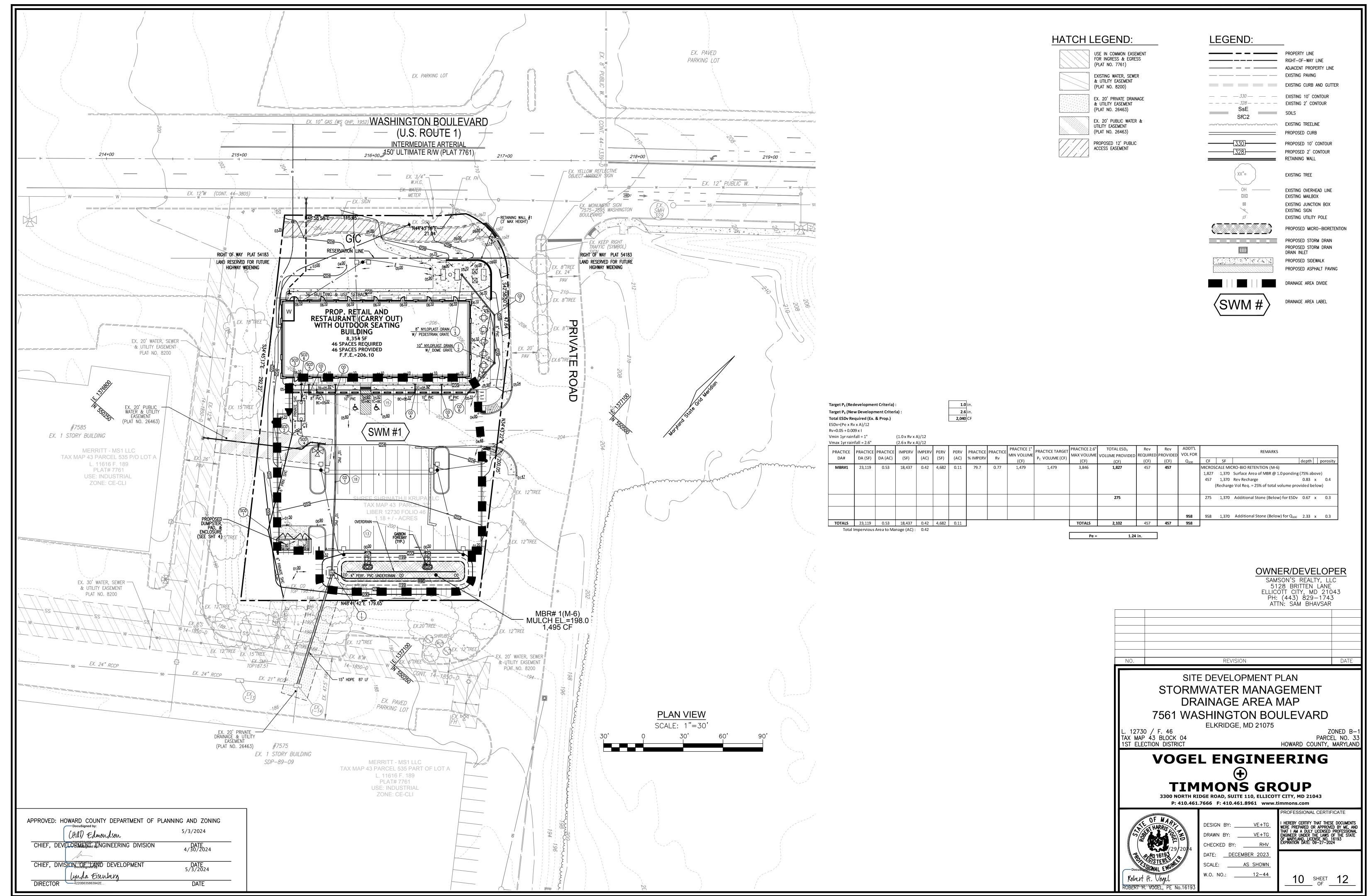
TIMMONS GROUP 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com

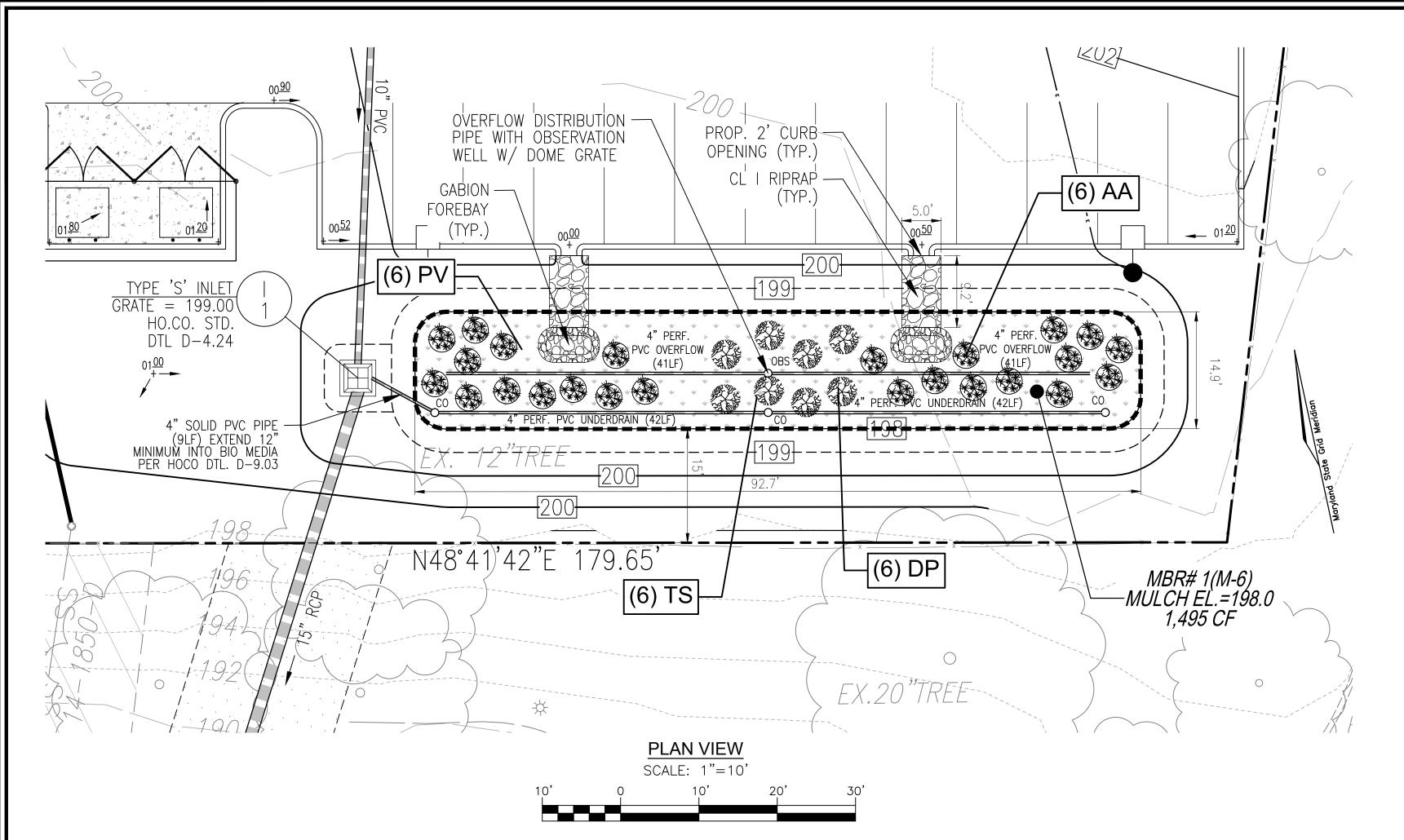


DESIGN BY: _	VE+TG
DRAWN BY:	VE+TG
CHECKED BY:	RHV
DATE: DEC	EMBER 2023
SCALE:	AS SHOWN
W.O. NO.: _	12-44

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024 __SHEET___12_

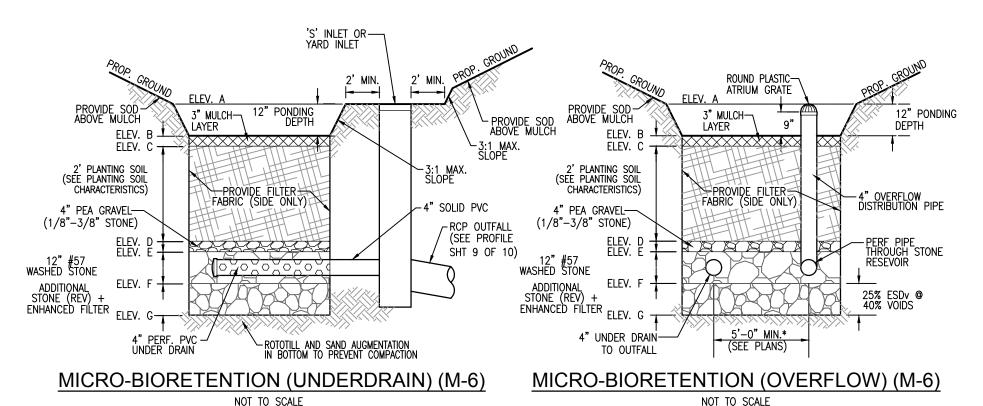
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	pecifications for Micro-Bioret		
Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f' _c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland design to include meeting ACI Code 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand

	MICRO-BIORETENTION DATA CHART														
MBR Facility Number	Ponding Depth (ft)	Ponding Elevation ELEV.	Top of Mulch	Bottom of Mulch ELEV.	Depth of Plant Mix (ft)	Bottom of Plant Mix ELEV.	Depth of Pea Gravel (ft.)	Bottom of Pea Gravel ELEV.	Depth of #57 Stone (ft.)	Invert of Underdrain ELEV.	Invert of Outfall Pipe ELEV	Bottom of #57 Stone ELEV.	Depth of REV Stone (ft.)	Depth of Additional Stone (ft.)	Bottom of Stone ELEV.
		Α	В	С		D		E				F			G
MBR #1 (M-6)	1.00	199.00	198.00	197.75	2.00	195.75	0.33	195.42	1.00	194.75	185.29	194.42	0.83	3.00	190.59



MICRO-BIORETENTION NOTES:

- ONLY THE SIDES OF MICRO-BIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICRO-BIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
- . PROVIDE 5' MINIMUM SPACING BETWEEN UNDERDRAIN AND PERFORÀTED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

MI	CRO BIO-R	ETENTION PLA	PLANT	TINGS	PERRENIALS/GROUND COVER			
MBR#	AREA	STEMS REQUIRED (0.0227)	STEMS PROVIDED	IV	PV	ВА	AG	TOTAL
MBR#1	1152	27	32	24	8	40	40	80
TOTALS:	1152	27	32	24	8	40	40	80
AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.0227 STEMS PER								

- 1. LANDSCAPE CONTRACTOR SHALL INSTALL PLANTINGS SPECIFIED OR USE APPROVED EQUAL WHICH ARE TOLERANT TO FLUCTUATING WATER LEVELS.
- 2. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THIS

PLANTING SCHEDULE (SHRUB/ORNIMENTAL GRASSES)									
LEGEND/KEY	QTY	BOTANICAL NAME/COMMON NAME		S	SIZE REMARKS				
₩ IV	8	SCIRPUS PUNGENS COMMON THREE—SQUARE	PLANT STOCK		т ѕтоск	9-12" SPACE			
PV	8	PANICUM VIRGATUM SWITCHGRASS		1 GAL.		_			
MICRO-BIO	RETE	NTION PERENNIALS/GROUNDO	OVI	ER P	LANTIN	IG SCHEDULE			
LEGEND QTY BOTANICAL NAME/COMMON NAME				ZE	RE	MARKS			
*	40	BAPTISIA AUSTRALIS FALSE INDIGO		POT BOTTOM O VARIETIES RANDOM F		O.C. FOR SIDES AND OF MBR, MIX ALL IN A NATURALIZED PATTERN THROUGHOUT,			
	40	ACORUS GRAMINEUS 'OGON' GOLDEN VARIEGATED SWEET FLAG	1	QT.		GROUPS OF NO LESS PLANTS PER CLUMP			

OPERATION AND MAINTENANCE SCHEDULE FOR LANSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH 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 PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000

2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND EASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES

AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES. 3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL

BE REMOVED BEFORE THE NEW LAYER IS APPLIED. 4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION. RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION 1. MATERIAL SPECIFICATIONS

THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. FILTERING MEDIA OR PLANTING SOIL THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05. THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

- * SOIL COMPONENT LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION). * ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND
- COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%). * CLAY CONTENT — MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
- * PH RANGE SHOULD BE BETWEEN 5.5 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL IF PRACTICES ARE EXCAVATED USING LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION

COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BI BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE

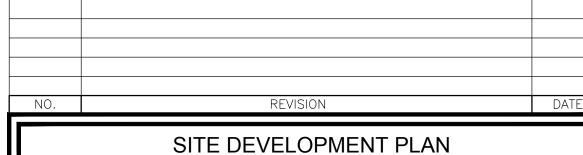
GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

- * PIPE SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTMF 758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OF HDPE). * PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BÉ 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER
- ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4x4) GALVANIZED HARDWARE CLOTH. * GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
- * THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE. * A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,0000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR
- * A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES II TO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".
- THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

> OWNER/DEVELOPER SAMSON'S REALTY, LLC 5128 BRITTEN LANE ELLICOTT CITY, MD 21043 PH: (443) 829-1743 ATTN: SÁM BHAVSAR



STORMWATER MANAGEMENT NOTES AND DETAILS

7561 WASHINGTON BOULEVARD ELKRIDGE, MD 21075

12730 / F. 46

TAX MAP 43 BLOCK 04

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com



1ST ELECTION DISTRICT

VE+TG DRAWN BY: CHECKED BY: DATE: <u>DECEMBER 2023</u>

SCALE: W.O. NO.: __ SHEET ___12

5/3/2024 (Hd) Edmondson CHIEF, DEVELOPMENT BY NGINEERING DIVISION CHIEF, DIVISION CONTROL DEVELOPMENT Lynda Eisenberg

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

PARCEL NO. 33

HOWARD COUNTY, MARYLAND

