

SYMBOL	DESCRIPTION
(Symbol)	EXISTING 2' CONTOURS
(Symbol)	EXISTING 10' CONTOURS
(Symbol)	PROPOSED CONTOUR
(Symbol)	SPOT ELEVATION
(Symbol)	EX. FENCE LINE (WOODEN WIRE & METAL POSTS)
(Symbol)	EX. FENCE LINE (CINDER BLOCK OR SLAT FENCES)
(Symbol)	EX. LINE OF TREES AND FOREST
(Symbol)	PROPOSED TREELINE
(Symbol)	EXISTING TREES
(Symbol)	ROOFTOP DISCONNECTION (N-1) & SHEET FLOW TO NATURAL CONSERVATION AREA (N-3)
(Symbol)	NON-ROOFTOP DISCONNECTION (N-2)
(Symbol)	EXISTING ROAD & PROPOSED DRIVEWAY PAVING
(Symbol)	PROPOSED FOREST CONSERVATION EASEMENT (REFORESTATION)
(Symbol)	PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
(Symbol)	EXISTING & PROPOSED SEWAGE DISPOSAL AREA
(Symbol)	SOIL LINES AND TYPES
(Symbol)	PUBLIC WATER AND UTILITY EASEMENT
(Symbol)	PRIVATE USE-IN-COMMON DRIVEWAY ACCESS STORMWATER MANAGEMENT & DRAINAGE EASEMENT
(Symbol)	LIMITS OF DISTURBANCE
(Symbol)	EXISTING DRIVEWAY TO BE REMOVED
(Symbol)	STABILIZES CONSTRUCTION ENTRANCE
(Symbol)	TYP. TREE PROTECTIVE FENCING
(Symbol)	STREAM BUFFER
(Symbol)	PROPOSED FOREST CONSERVATION EASEMENT SERVICE
(Symbol)	SALT FENCE
(Symbol)	SUPER SALT FENCE
(Symbol)	EARTH DIKE
(Symbol)	SPECIMEN TREE
(Symbol)	PROPOSED EVERGREEN TREES
(Symbol)	EXISTING FENCE TO REMAIN

General Notes:

- SUBJECT PROPERTY IS ZONED RC-DEO PER THE COMPREHENSIVE ZONING PLAN DATED 10/06/13.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY (MESS UTILITY) AT 1-800-297-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THIS PLAN IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT AUGUST, 2015 BY FISHER, COLLINS & CARTER, INC. BOUNDARY SHOWN HEREON IS BASED ON RECORD PLAT NO. 23512 THRU 23515, RECORDED ON OCTOBER 9, 2015. PROPERTY CORNERS LOCATED & VERIFIED, AND EXISTING TOPOGRAPHY OBTAINED BY FIELD SURVEY BY FISHER, COLLINS, & CARTER, INC. IN MAY, 2011.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON NAD 83 COORDINATE SYSTEM. HOWARD COUNTY CONTROL STATION NOS. 1616 & 1618.
- PREVIOUS DPZ FILE NUMBERS: F-76-053, (PLAT #3413); F-98-65, (PLAT #13163); ECP-14-018, F-14-073 & F-14-073-5.
- STORMWATER MANAGEMENT IS IN ACCORDANCE WITH THE P.L.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, (EFFECTIVE OCTOBER 2000, REVISED MAY 2007). STORMWATER MANAGEMENT FOR LOT 1 IS BEING PROVIDED BY ONE MICRO-BIRETENTION FACILITY (N-1) FOR A PORTION OF THE PROPOSED DRIVEWAY AND THE PROPOSED HOUSE. THE REMAINING PORTION OF DRIVEWAY IS BEING TREATED BY NON-ROOFTOP DISCONNECTION (N-2). DECLARATION OF COVENANTS WILL BE REQUIRED FOR THE PROPOSED STORMWATER MANAGEMENT (N-1). A PASSING SEPTIC TEST HOLE IS WITHIN 50 FT. OF THE PROPOSED MICRO-BIRETENTION FACILITY SHOWING ADEQUATE INFILTRATION RATES, SO NO ADDITIONAL BOILING WILL BE NEEDED.
- THIS PROPERTY IS LOCATED INSIDE THE METROPOLITAN DISTRICT. LOT 1 IS TO BE SERVED PUBLIC WATER AND PRIVATE SEWER (SEPTIC), PUBLIC WATER CONTRACT NO. 15-44-4888-0; PRIVATE SEPTIC EASEMENT WILL BE UTILIZED.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- NO STEEP SLOPES EXIST ON-SITE.
- NO ENVIRONMENTAL FEATURES EXISTING ON-SITE, INCLUDING WETLANDS, WETLAND BUFFERS, FOREST, 100 YEAR FLOODPLAIN OR STREAMS PER ENVIRONMENTAL FINDINGS AS DETERMINED BY ECO-SCIENCE PROFESSIONALS, INC. DATED OCTOBER 11, 2013.
- THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THIS PROJECT (FOR LOTS 1-6) COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR FOREST AND AFFORESTATION PLANTING OF 2.23 ACRES (97,139 SQ. FT.) OF FOREST THERE IS ALSO 0.90 ACRES OF ONSITE RETENTION, SURETY IN THE AMOUNT OF \$43,778 (87,556 SQ. FT. x \$500) HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT. AFFORESTATION SURETY BASED ON 2.01 ACRES, WHICH ACCOUNTS FOR LANDSCAPE CREDIT OF 22 SHADE TREES PER F-14-073.
- THE PERMETER LANDSCAPING OBLIGATION FOR LOTS 1-6 WAS PROVIDED IN ACCORDANCE WITH THIS CERTIFIED LANDSCAPE PLAN ON FILE WITH THE FINAL PLAT IN ACCORDANCE WITH SECTION 16.1224 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$14,100.00 BASED ON 36 SHADE TREES @ \$300/SHADE TREE AND 22 EVERGREEN TREES @ \$150/EVERGREEN IS BONDED WITH THE PUBLIC WORKS DEVELOPERS AGREEMENT AND F-14-073.
- THERE ARE NO EXISTING BUILDINGS ON THIS PROPERTY.
- B.E.L. DENOTES BUILDING RESTRICTION LINE.
- ALL AREAS ARE MORE OR LESS (±).
- DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENT.
- THE 65DBA NOISE LINE ESTABLISHED BY HOWARD COUNTY TO ALEST DEVELOPERS, BUILDER AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- NO CONTEMPORARY OR HISTORIC STRUCTURES EXIST WITHIN THE LIMITS OF THIS PLAN SURVEY. THE STRUCTURES WERE DETERMINED BY HISTORICAL COMMISSION DETERMINED THE BUILDINGS DID NOT OFFER SIGNIFICANT HISTORIC VALUE.
- A COMMUNITY MEETING WAS CONDUCTED ON FEBRUARY 26, 2015 FOR THE PURPOSE OF THE DEVELOPER TO PROVIDE INFORMATION TO THE COMMUNITY REGARDING THE PROPOSED RESIDENTIAL DEVELOPMENT AND TO ALLOW THE COMMUNITY TO ASK QUESTIONS AND TO MAKE COMMENT, PER SECTION 16.12(8) OF THE SUBDIVISION REGULATIONS, AT THE TIME OF SUBMISSION.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION 410.531.9533
BGE/CONTRACTOR SERVICES 410.850.4820
BGE/UNDERGROUND DAMAGE CONTROL 410.787.9068
MESS UTILITY 1.800.297.7777
COLONIAL PIPELINE COMPANY 410.789.1390
HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES 410.313.4900
HOWARD COUNTY HEALTH DEPARTMENT 410.313.2940
A&T 1.800.292.1133
VERIZON 1.800.743.0033/410.224.9210
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ADDITION TO MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS AND MESS UTILITY MARKINGS. APPROXIMATE LOCATION OF THE 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 THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAKES NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAY FOR LOT 1 SHALL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R-6.06 IN THE VOL. IV DESIGN MANUAL.
- SOILS SHOWN HEREON ARE BASED ON THE NRCS WEBSOIL SURVEY AND HOWARD COUNTY SOILS MAP #17.
- LIMIT OF DISTURBANCE 23,027 SQ.FT. OR 0.53 ACRES.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE)
SURFACED CRUSHED RUN BASE WITH TAR AND CHIP COATING (1-1 1/2" MIN)
GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS
STRUCTURE (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)
DRAINAGE ELEMENTS - SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- FLAG AND PIPESTAKE LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTAKE AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTAKE LOT DRIVEWAY.
- THIS PROJECT WILL NOT REQUIRE MITIGATION FROM FREDERICK ROAD AS IT IS A SCENIC ROAD BECAUSE OF THE DISTANCE BETWEEN THE ROAD AND HOUSE.
- PRIVATE ROAD STREET NAME SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
- PER COUNTY CODES 2018, PROPOSED SINGLE FAMILY HOUSES REQUIRE THAT ADEQUATE WIRING AND CIRCUITRY BE PROVIDED FOR AN ELECTRIC VEHICLE CHARGING STATION IN THE GARAGE, AND THE ARCHITECTURAL PLANS SHOULD SHOW THIS TO BE PROVIDED.

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.20
GgC	Glenelg loam, 8 to 15 percent slopes	B	0.20
GnB	Glenville-Balke silt loams, 0 to 8 percent slopes	C	0.37

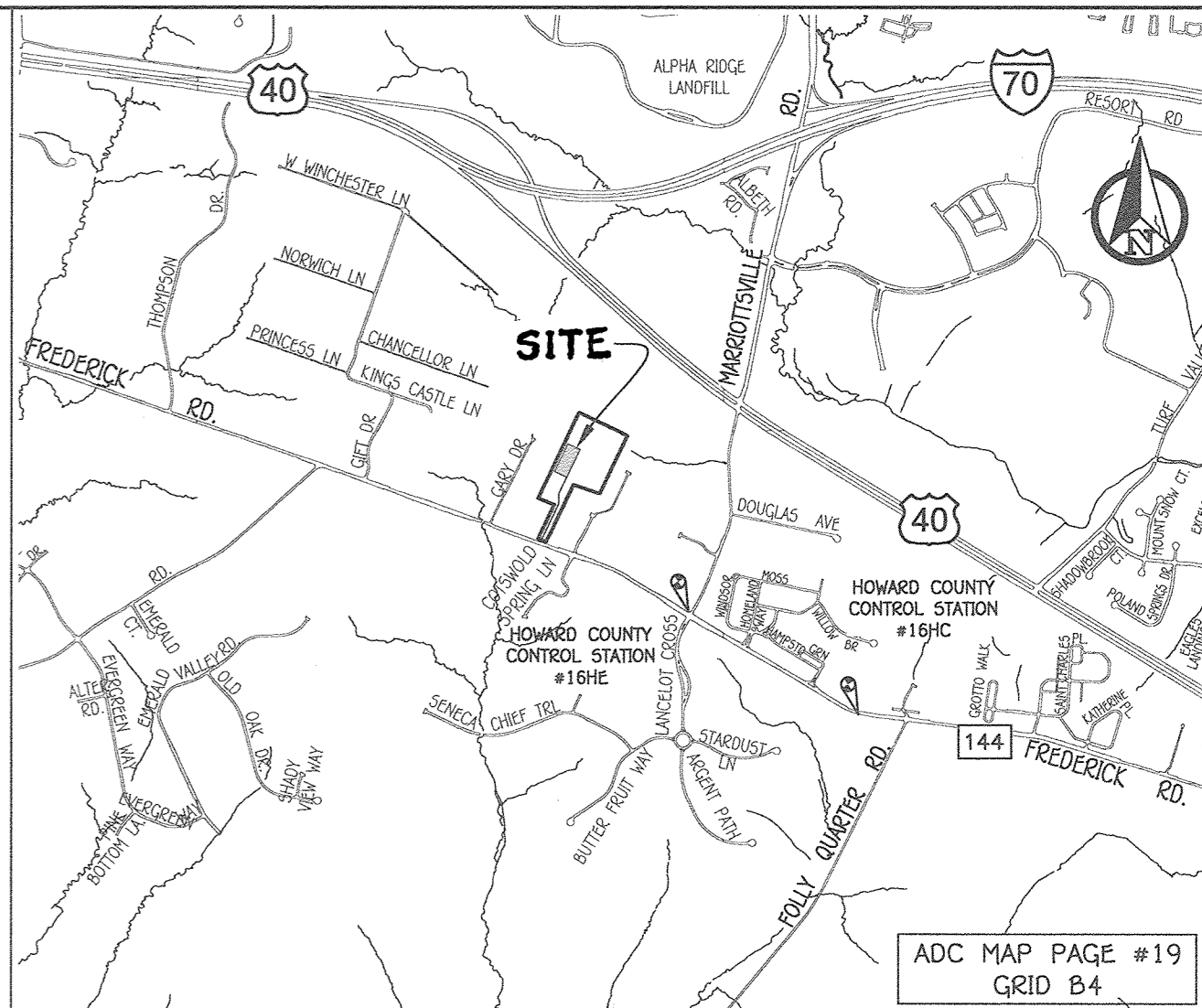
ROADWAY INFORMATION CHART			
ROAD NAME	CLASSIFICATION	DESIGN SPEED	EASEMENT WIDTH
MAPLE LEAF WAY	USE-IN-COMMON	15 MPH	36' - 40'

SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION = 1.317 AC.
- LIMIT OF DISTURBED AREA = 38768 SQ.FT. OR 0.89 AC.
- PERCENT ZONING DESIGNATION = RC-DEO (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- PROPOSED USE: RESIDENTIAL
- PREVIOUS HOWARD COUNTY FILES: F-14-073, PLATS 23512 THRU 23515, ECP-14-018
- TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.00 AC
- TOTAL AREA OF MODERATE STEEP SLOPES (15% TO 24.9%) = 0.00 AC
- TOTAL AREA OF STEEP SLOPES (25% OR GREATER) = 0 AC
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC
- TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC
- TOTAL AREA OF EXISTING FOREST = 0.00 AC
- TOTAL GREEN OPEN AREA = 1.143 AC
- TOTAL IMPERVIOUS AREA = 0.174 AC
- TOTAL AREA OF GOODIBLE SOILS = 0.00 AC
- TOTAL AREA OF ROAD DEDICATION = 0.00 AC.

BENCHMARK INFORMATION

- 161C - HOWARD COUNTY CONTROL STATION #160C - HORIZONTAL - NAD '83
N 989,780.345E
E 1,341,530.901
ELEVATION = 448.633 - VERTICAL - (NAVD '88)
- 161E - HOWARD COUNTY CONTROL STATION #160A - HORIZONTAL - (NAD '83)
N 990,948.709E
E 1,335,998.977E
ELEVATION = 537.982 - VERTICAL - (NAVD '88)



SHEET INDEX	
SHEET NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT & EROSION CONTROL NOTES & DETAILS
3	SEPTIC INSTALL PLAN
4	STORMDRAIN PROFILES & DETAILS AND STORMWATER MANAGEMENT DETAILS

APPROVED FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT.
Bethan M. Roseman
COUNTY HEALTH OFFICER
DATE: 4/22/2019

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 LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/20.

Stephan J. Tute
DATE: 3/28/19

DEVELOPER'S 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 THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOILS AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-CENTER FOR PERIODIC ON-SITE EVALUATION OF HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

Sridhar P. Banala
DATE: 3/27/2019

BUILDER
CARUSO HOMES
2120 BALDWIN AVENUE
SUITE 200
CROFTON, MARYLAND 21114
301-832-6426

OWNERS / DEVELOPER
SRIDHAR & ANITHA BANALA
10717 HILLINGDON ROAD
WOODSTOCK, MARYLAND 21163
443-829-8905

This Development Plan is approved for Soil Erosion and Sediment Control by the HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
John R. Blanton
DATE: 4/3/19

PROJECT	SECTION	LOTS NO.
MAPLE VIEW	N/A	LOT 1

PLAT	GRID NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23512 - 23515	15	RC-DEO	16	3	6030.04

WATER CODE	SEWER CODE
XXXX	N/A

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
1	2911 MAPLE LEAF WAY

SITE DEVELOPMENT PLAN
MAPLE VIEW
LOT 1
A RESUBDIVISION OF POLANSKY SUBDIVISION, LOT 3
ZONED RC-DEO
TAX MAP No. 16 GRID No. 15 P/O PARCEL No. 08
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 27, 2019
SHEET 1 OF 4

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL PARK
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2895



SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

- ### A. Soil Preparation
- Temporary Stabilization
 - Seeded 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 be rolled or disced smooth and left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
 - Permanent Stabilization
 - A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH between 6.0 and 7.0.
 - Soluble salts less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loess is to be planted, then a silty soil (less than 30 percent silt plus clay) will be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
 - Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - 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.
 - Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
 - 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 seeded 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. Seeded loosening may be unnecessary on newly disturbed areas.

- ### B. Topsoiling
- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
 - Topsoil obtained from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, topsoil to be obtained for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
 - Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
 - Areas having slopes steeper than 2:1 require special consideration and design.
 - Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, silty 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 seeded 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. Seeded loosening may be unnecessary on newly disturbed areas.
 - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Topsoil Application
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 4 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that grading or seeding can proceed with a minimum of additional soil preparation resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

- ### C. Soil Amendments (Fertilizer and Lime Specifications)
- Soil tests must be performed to determine the exact rates 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 analysis. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Fertilizers may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark, and warranty of the producer.
 - Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
 - 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.
 - Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 6 tons/acre (200-600 pounds per 1,000 square feet) prior to the placement of topsoil.

- ### B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING
- Definition**
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**
- General Specifications
 - All seed must meet the requirement 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.
 - Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
 - Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
 - Soil 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 phytotoxic materials.
 - Application
 - Dry Seeding: This includes use of conventional drop or broadcast seeders.
 - Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with weighted roller to provide good seed to soil contact.
 - Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
 - Outdrilling seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
 - 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).
 - 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; P₂O₅ (phosphorus), 200 pounds per acre; K₂O (potassium), 200 pounds per acre.
 - Lime: Use only regular agricultural limestones (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.
 - Mix seed and fertilizer on site and seed immediately and without interruption.
 - When hydroseeding do not incorporate seed into the soil.
 - Mulching
 - Mulch Materials (in order of preference)
 - 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, colored, decayed, or excessively discolored. Note: Use only sterile straw mulch in areas where one species of grass is desired.
 - Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state.

- WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniform green slurry.
 - WCFM, including dye, must contain no germination or growth inhibiting factors.
 - 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 batter-like ground cover, on application, having moisture absorption and sequestration properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material must not contain elements or compounds of concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: 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.
- Application
 - Apply mulch to all seeded areas immediately after seeding.
 - When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
 - Wood cellulose fiber mulch used on mulch must be applied to 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.
 - Anchor
 - Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water to a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Synthetic binders such as Acrylic Dux (Agra-Tack), DCA-70, Petro-Tac, Terra Tex or Terra Tack AF 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 much such as in valleys and on crests of banks. Use of liquid binders is strictly prohibited.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet long.

TEMPORARY SEEDING NOTES (B-4-4)

Definition
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.

Criteria

- 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.
- For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- 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

Hardness Zone (from Figure B.3):	Seed Mixture (from Table B.1):	Fertilizer Rate (10-20-20)	Lime Rate
Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths
BARLEY	96	3/1 - 5/15, 8/15 - 10/15	1"
RYE	112	1"	1"

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

- A pre-construction meeting must occur with the Howard County Department of Public Construction Inspection Division (CID), 410-313-1855 after the future LDD and protected areas are marked clearly in the field. A minimum of 48 hours 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.
 - Prior to the removal or modification of sediment control practices.

- ### PERMANENT SEEDING NOTES (B-4-5)
- #### A. Seed Mixtures
- General Use
 - 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 mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - 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 included in USDA-NRCS Technical Field Office Guide, Section 342.
 - For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas requiring low maintenance, apply urea 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.
 - Turfgrass Mixtures
 - Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
 - Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
 - Kentucky Bluegrass/Fine Fescue: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass 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.
 - Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and where 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.
 - 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 includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 2 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in bluegrass lawns. For establishment in high quality, intensive managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Permanent Seeding Summary

Hardness Zone (from Figure B.3):	Seed Mixture (from Table B.3):	Fertilizer Rate (10-20-20)	Lime Rate				
No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K ₂ O
B	TALL FESCUE	100	Mar. 1 - May 15, Aug. 15 - Oct. 15	1 1/4 - 1/2 in.	45 lbs./acre (1.0 lb./1000 sq. ft.)	90 lb./acre (2.0 lb./1000 sq. ft.)	2 tons/acre (50 lb./1000 sq. ft.)

- Notes:
 - Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland".
 - Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.
 - Ideal Times of Seeding for Turf Grass Mixtures: Western MD: March 15 to June 1, August 1 to October 1 (Hardness Zones 5b, 6b) Central MD: March 15 to May 15, August 15 to October 15 (Hardness Zones: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)
 - Fill 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 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
 - If soil moisture is deficient, supply new seedlings 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 seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

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 LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36386, EXPIRATION DATE: 01/12/20.

DEVELOPER'S 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, MAINTAINING, AND REPAIRING EROSION CONTROL DEVICES INSTALLED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY THAT I AM NOT PROVIDING FOR PERIODIC ON-SITE EVALUATION OF HOWARD SOIL CONSERVATION DISTRICT ADVISOR PDS.

DATE: 3/28/19

DATE: 3/27/2019

- ### B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).
- General Specifications
 - Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
 - Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/8 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.
 - 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 grip on the upper 10 percent of the section.
 - Sod must not be harvested or transported when moisture content (excessively dry) wet may adversely affect its survival.
 - Sod must be harvested, delivered and installed within a period of 36 hours. Sod not transported within this period must be approved by an agronomist or soil scientist prior to its installation.
 - Sod Installation
 - During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
 - 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 weeds 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 stamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
 - Water the sod immediately following rolling and stamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, stamping, and irrigating for any piece of sod within eight hours.
 - Sod Maintenance
 - 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 last of the day to prevent wilting.
 - After the first week, sod watering is required as necessary to maintain adequate moisture content.
 - Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

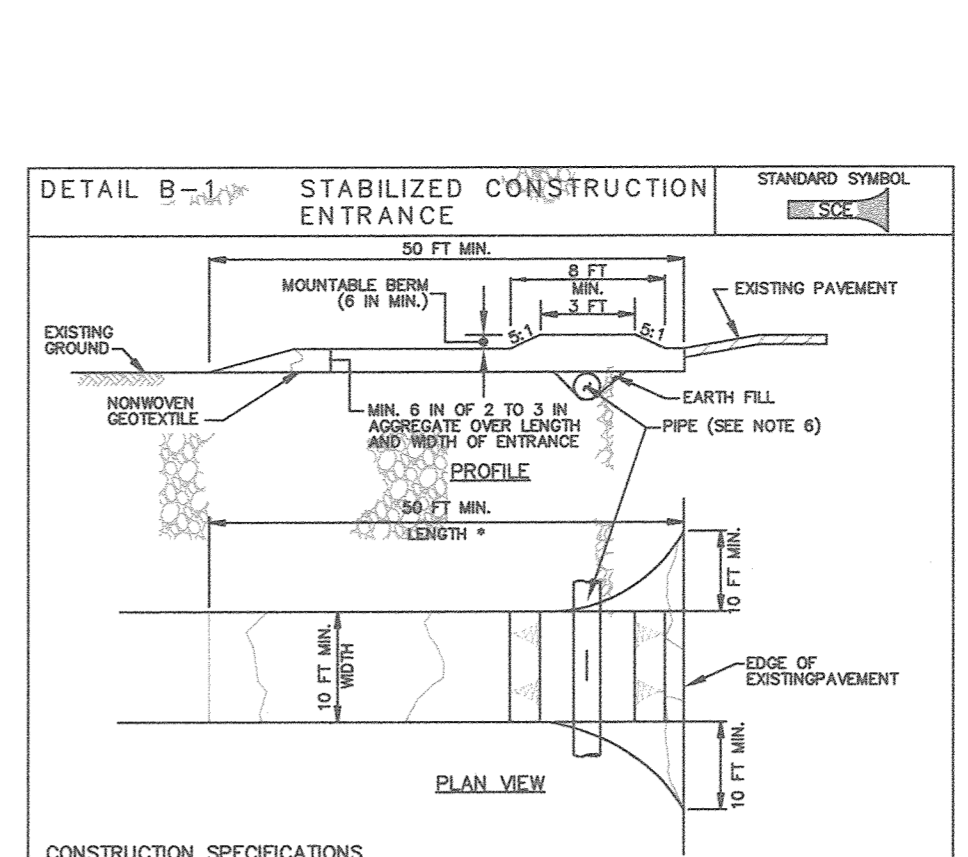
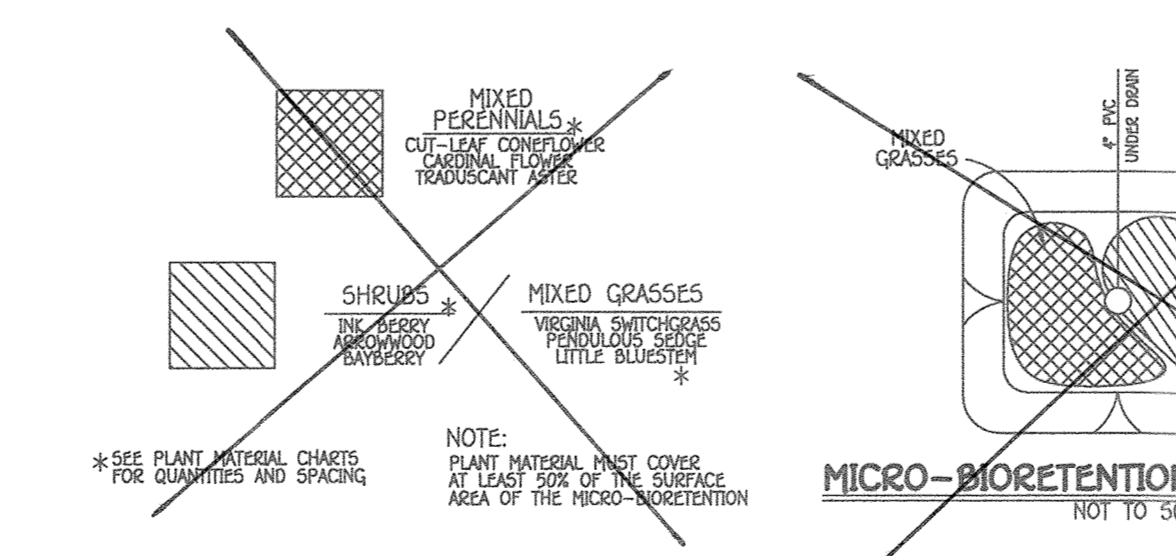
- ### B-4-6 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS
- Definition**
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.
- Purpose**
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.
- Conditions Where Practice Applies**
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.
- Criteria**
- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
 - 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.
 - Runoff from the stockpile area must drain to a suitable sediment control device.
 - Access the stockpile area from the upgrade side.
 - Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth ditch, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
 - Where runoff concentrates along the toe of the stockpile (fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
 - 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.
 - 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.

- ### HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES
- A pre-construction meeting must occur with the Howard County Department of Public Construction Inspection Division (CID), 410-313-1855 after the future LDD and protected areas are marked clearly in the field. A minimum of 48 hours 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.
 - Prior to the removal or modification of sediment control practices.

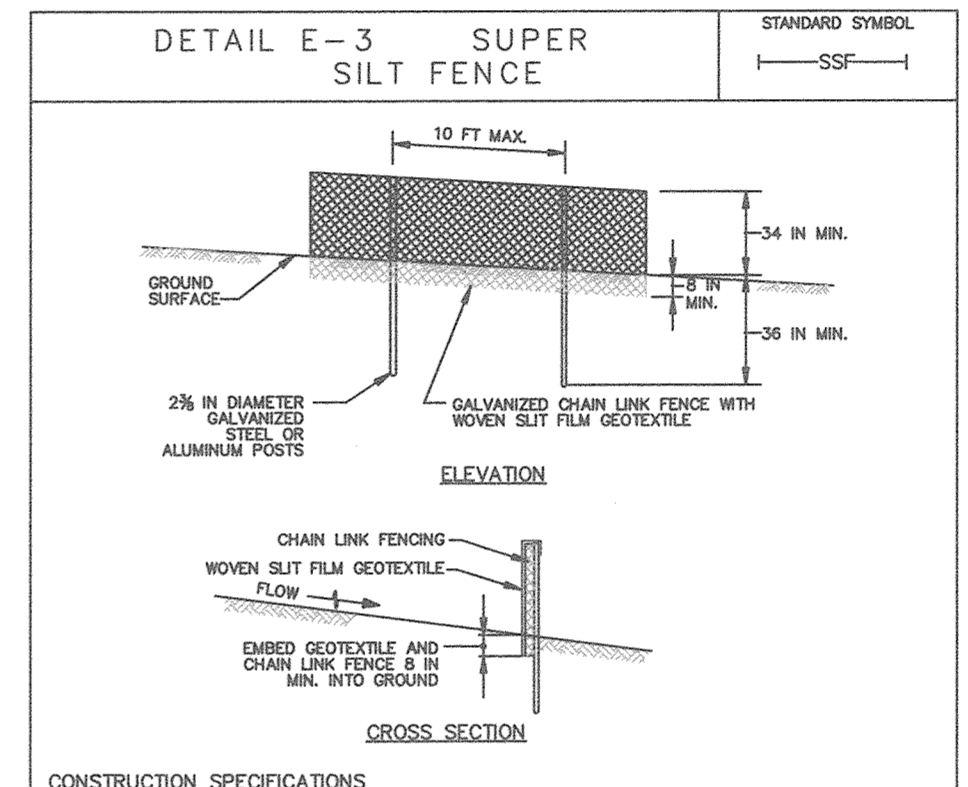
- Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.
- All vegetative and structural practices are 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 to the surface of all perimeter controls, ditches, berms, slopes, perimeter slopes, and all slopes steeper than 5 horizontal to 1 vertical (5:1); and seven (7) calendar days to all other disturbed areas on the project 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, and revisions thereto. Temporary seeding (Sec. B-4-5) and mulching (Sec. B-4-3) practices must be used in areas with a slope of 1:1 or steeper. 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-4-4) specifications shall be enforced in areas with a slope of 1:1 or steeper. (Sec. B-4-5) in excess of 80 ft. must be benched with stable soil. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization meeting (Sec. B-4-5).
- 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.

Site Address:	1.32	Acres
Total Area of Site:	0.172	Acres
Area to be seeded or paved:	0.172	Acres
Area to be vegetatively stabilized:	0.172	Acres
Total Cu:	824	Cu. Yds.
Total Cu:	824	Cu. Yds.
- Off-site water/runoff areas: N/A
- 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 time (include 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).
 - Location of project within (e.g., percent complete and/or current activities).
 - Existence of sediment discharges.
 - Identification of silt and/or debris.
 - Identification of sediment control that require maintenance.
 - Identification of missing or improperly installed sediment controls.
 - Consensus status regarding the sequence of construction and stabilization requirements.
 - Photographs.
 - Monitoring/inspecting.
 - Maintenance and/or corrective action performed.
 - Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, H2L).
- Amend for the construction of utilities is limited to three pipe lengths or that which can be laid and back-filled and stabilized by the end of each workday, whichever is shorter.
- 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 be allowed by the CID per the list of HSCD-approved field changes.
- Construction shall not occur outside the LDD. A project is to be sequenced so that grading activities begin on one grading unit (maximum average 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 established and approved by the CID. Unless otherwise specified, no more than 50 acres cumulatively may be disturbed at a given time.
- Topsoil water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved without structure.
- Topsoil shall be stockpiled and preserved on-site for redistribution until the end of the project.
- All 50' Fence and Super 50' Fence shall be placed on-site-concrete, and be installed at 25' minimum intervals, with lower ends curved uphill by 2" in elevation.

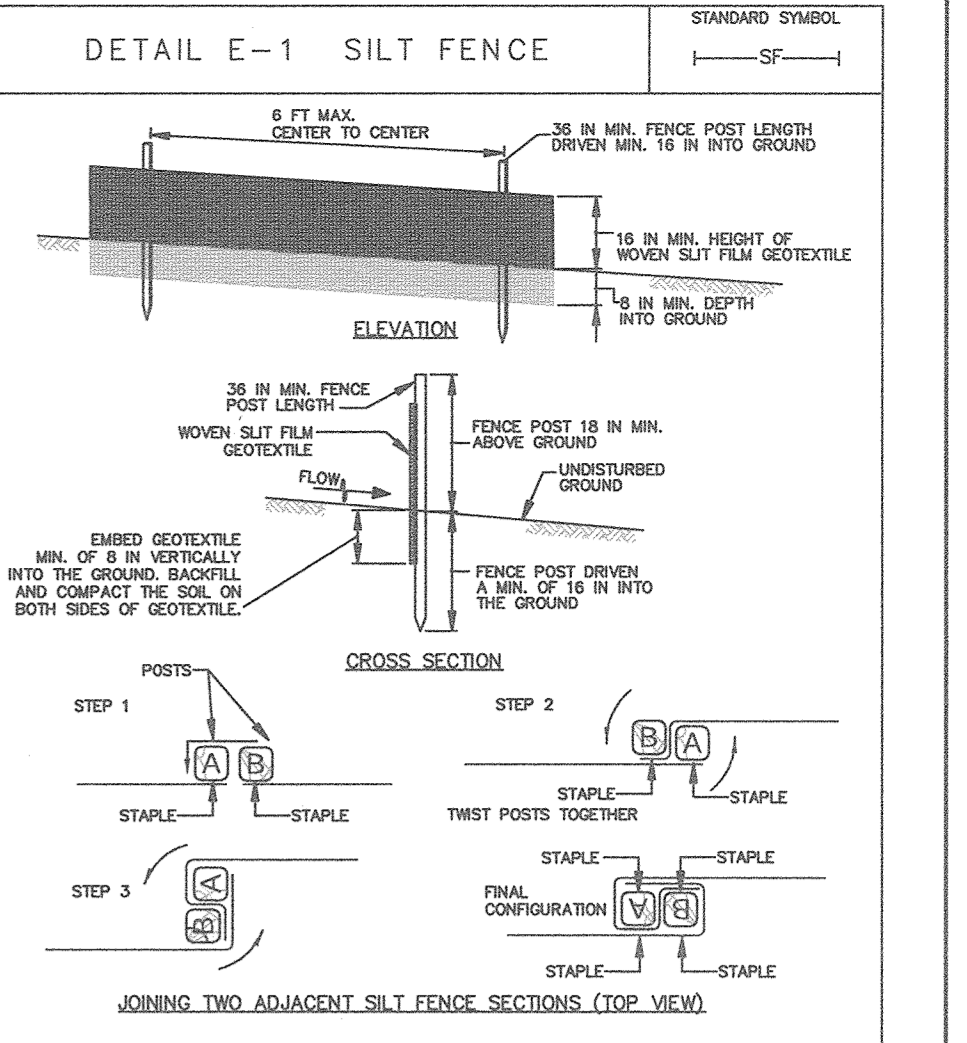
Use 2 and 1/2" March 1 - June 15
Use 2 and 1/2" March 1 - April 30
Use 1/2" March 1 - May 31
- A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.



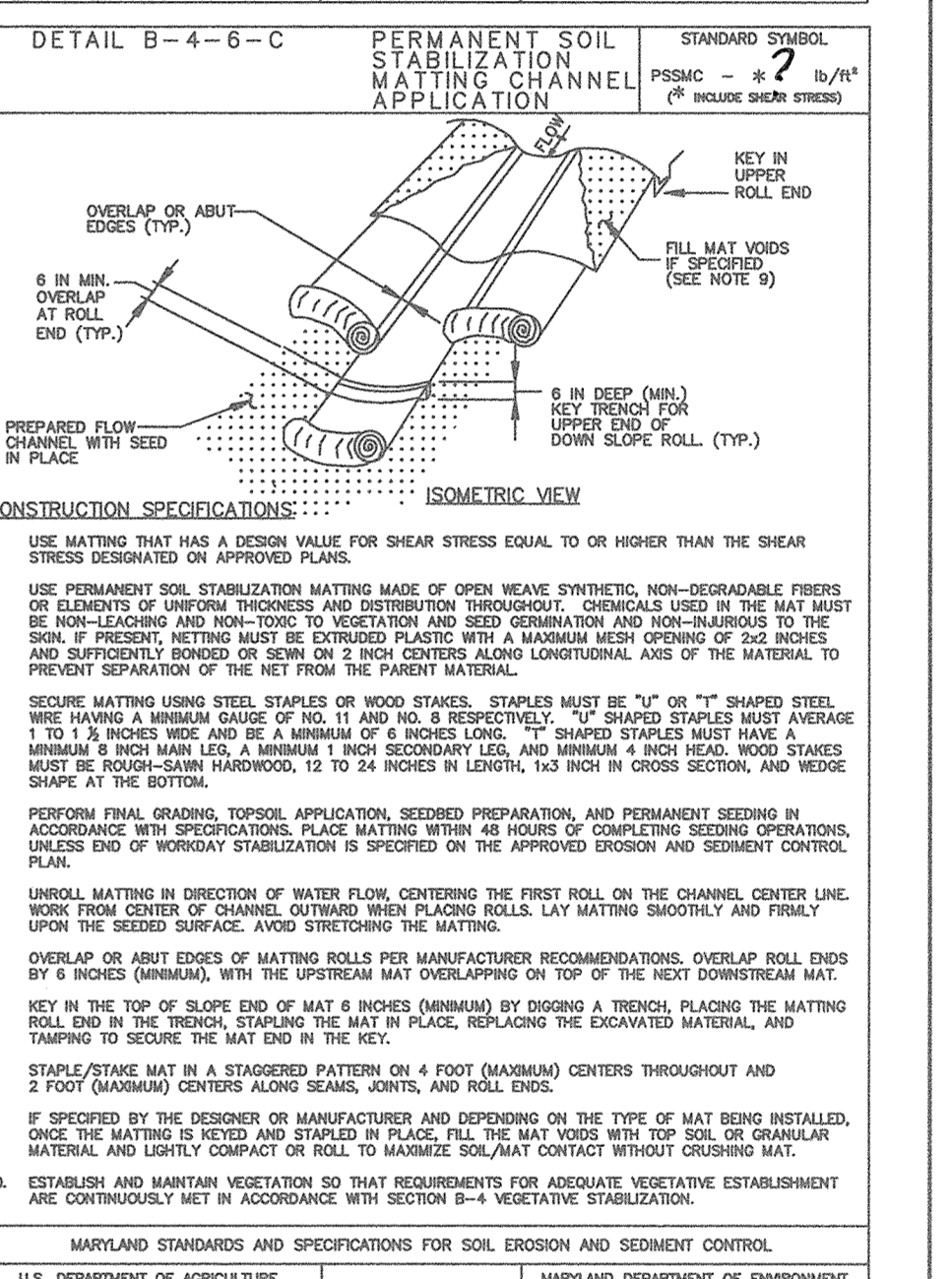
- ### CONSTRUCTION SPECIFICATIONS
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES SHOULD BE KEPT OFF THE ENTRANCE. THE ENTRANCE SHALL BE A MINIMUM OF 50 FEET (20 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SIDE TO FEET MINIMUM AT THE EXISTING ROAD TO EXISTING ROAD.
 - PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SIDE UNDER THE ENTRANCE. MAINTAINING POSITIVE GRADIENT. PROTECT PIPE INSTALLED THROUGH THE SOE WITH A MOUNTABLE BERM WITH 2:1 SLOPE AND 8 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SOE.
 - PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SOE.
 - MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, AND STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIC TO OPERATE IMMEDIATELY AFTER STORMS AND/OR SEDIMENT DROPPING.
 - TRACKED AND ADJACENT ROADWAY BY VACUATING, SCRAPING, AND/OR SLEEPING. WASHING ROADWAY TO REMOVE TRACKED PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
- U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION



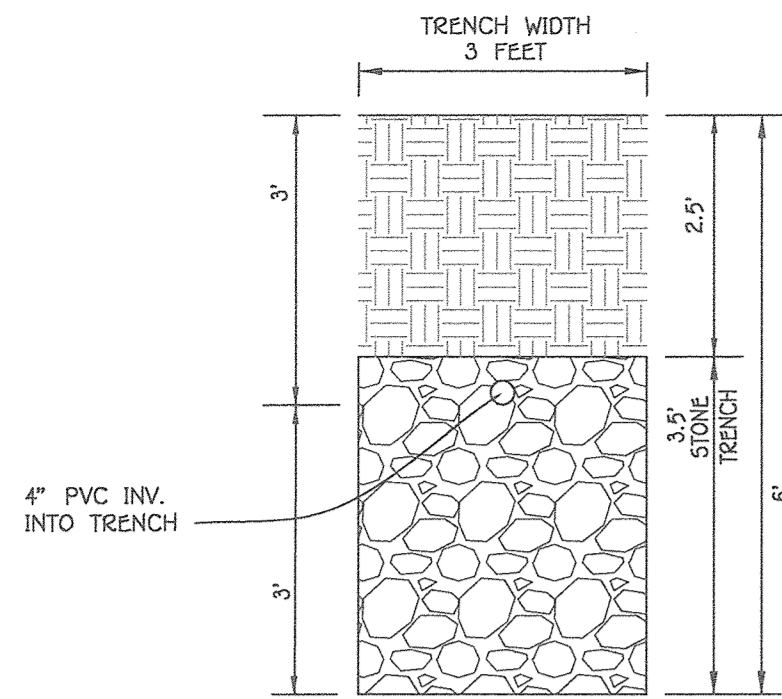
- ### CONSTRUCTION SPECIFICATIONS
- INSTALL 2 1/2" DIAMETER GALVANIZED STEEL POSTS OF SOLID IRON WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
 - FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (6 1/2" MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR RAZOR RINGS.
 - FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH THE SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. ENDED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 6 INCHES INTO THE GROUND.
 - WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
 - EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
 - PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USE MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
 - REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT 2 FOOT MAXIMUM DEPTH BEHIND BEAMS, KNOTS AND ROLLERS OF THE EXISTING MATERIAL, AND STAPLING TO SECURE THE MAT END IN THE KEY.
 - STAPLE/STAKE MAT IN A STAGGERED PATTERN ON A FOOT MAXIMUM CENTER THROUGHOUT AND 2 FOOT MAXIMUM CENTER ALONG BEAMS, KNOTS AND ROLLERS.
 - IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONE OR MORE ENDS OF MATTER SHALL BE PER MANUFACTURER RECOMMENDATIONS, OVERLAP END ENDS BY 6 INCHES (MINIMUM) WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
 - KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAKING THE MAT IN PLACE, REPLACING THE EXISTING MATERIAL, AND STAPLING TO SECURE THE MAT END IN THE KEY.
 - ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4-1 VEGETATIVE STABILIZATION.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
- U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION



- ### CONSTRUCTION SPECIFICATIONS
- USE WOOD POSTS 1 1/2 x 1 1/2 x 3/4 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, NO LESS THAN 1 POUND PER LINEAR FOOT.
 - USE 36 INCH MINIMUM POSTS SPACED IN 8 INCH MINIMUM HOLE MORE THAN 6 FEET APART.
 - USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
 - PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USE MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
 - ENDED GEOTEXTILE A MINIMUM OF 6 INCHES VERTICALLY INTO THE GROUND, BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FENCE.
 - WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN, OVERLAP, TRIM, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
 - EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
 - REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT 2 FOOT MAXIMUM DEPTH BEHIND BEAMS, KNOTS AND ROLLERS OF THE EXISTING MATERIAL, AND STAPLING TO SECURE THE MAT END IN THE KEY.
 - ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4-1 VEGETATIVE STABILIZATION.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
- U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION



- ### CONSTRUCTION SPECIFICATIONS
- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON THE PLAN.
 - USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM GEOMETRY AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-TOXIC AND NON-CORROSIVE TO METALS AND BEYOND DEGRADABLE TO 10% OF ORIGINAL STRENGTH AND SUITABILITY FOR USE ON SOILS IN 30 CENTIGRADE ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEEDS FROM THE PASTURE BEING WASHED AWAY.
 - SECURE MATTING USING STEEL STAPLES OR WOOD STAPLES. STAPLES MUST BE "U" OR "T" SHAPED STEEL NAILS HAVING A MINIMUM GAUGE OF NO. 10 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 1/2 TO 2 INCHES IN LENGTH TO SECURE AND BEYOND DEGRADABLE TO 10% OF ORIGINAL STRENGTH AND SUITABILITY FOR USE ON SOILS IN 30 CENTIGRADE ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEEDS FROM THE PASTURE BEING WASHED AWAY.
 - SECURE MATTING USING STEEL STAPLES OR WOOD STAPLES. STAPLES MUST BE "U" OR "T" SHAPED STEEL NAILS HAVING A MINIMUM GAUGE OF NO. 10 AND NO. 8 RESPECTIVELY. "



INITIAL TRENCH DETAIL
SCALE: 1"=2'

FFE 532.7
BSE 522.7
INV. OUT OF HOUSE = 520.69
PROP. GROUND AT CLEANOUT #1 = 524.4
INV. INTO CLEANOUT = 520.52
INV. OUT OF CLEANOUT = 520.42
EX. GROUND AT SEPTIC TANK = 522.2
PROP. GRADE ABOVE SEPTIC TANK = 522.8
TOP OF SEPTIC TANK = 520.71
INV. INTO SEPTIC TANK = 519.71
EX. GROUND AT DISTRIBUTION BOX = 519.46
INV. INTO DISTRIBUTION BOX = 518.9
INV. OUT OF DISTRIBUTION BOX = 518.0

NOTES

- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
- THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 6 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2*2)) = 0.625$
TRENCH LENGTH = 206.33 SF x 0.625 = 130.21 FEET
(USE 4 TRENCHES AT 32.55 LF.)
TRENCH SPACING = 2D+W = ((2*2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 4 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2*4)) = 0.416$
TRENCH LENGTH = 312.50 SF x 0.416 = 195.31 FEET
(USE 4 TRENCHES AT 32.50 LF.)
TRENCH SPACING = 2D+W = ((2*4) + 3) = 11' USE 11'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 4 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2*4)) = 0.416$
TRENCH LENGTH = 312.50 SF x 0.416 = 195.31 FEET
(USE 4 TRENCHES AT 32.50 LF.)
TRENCH SPACING = 2D+W = ((2*4) + 3) = 11' USE 11'

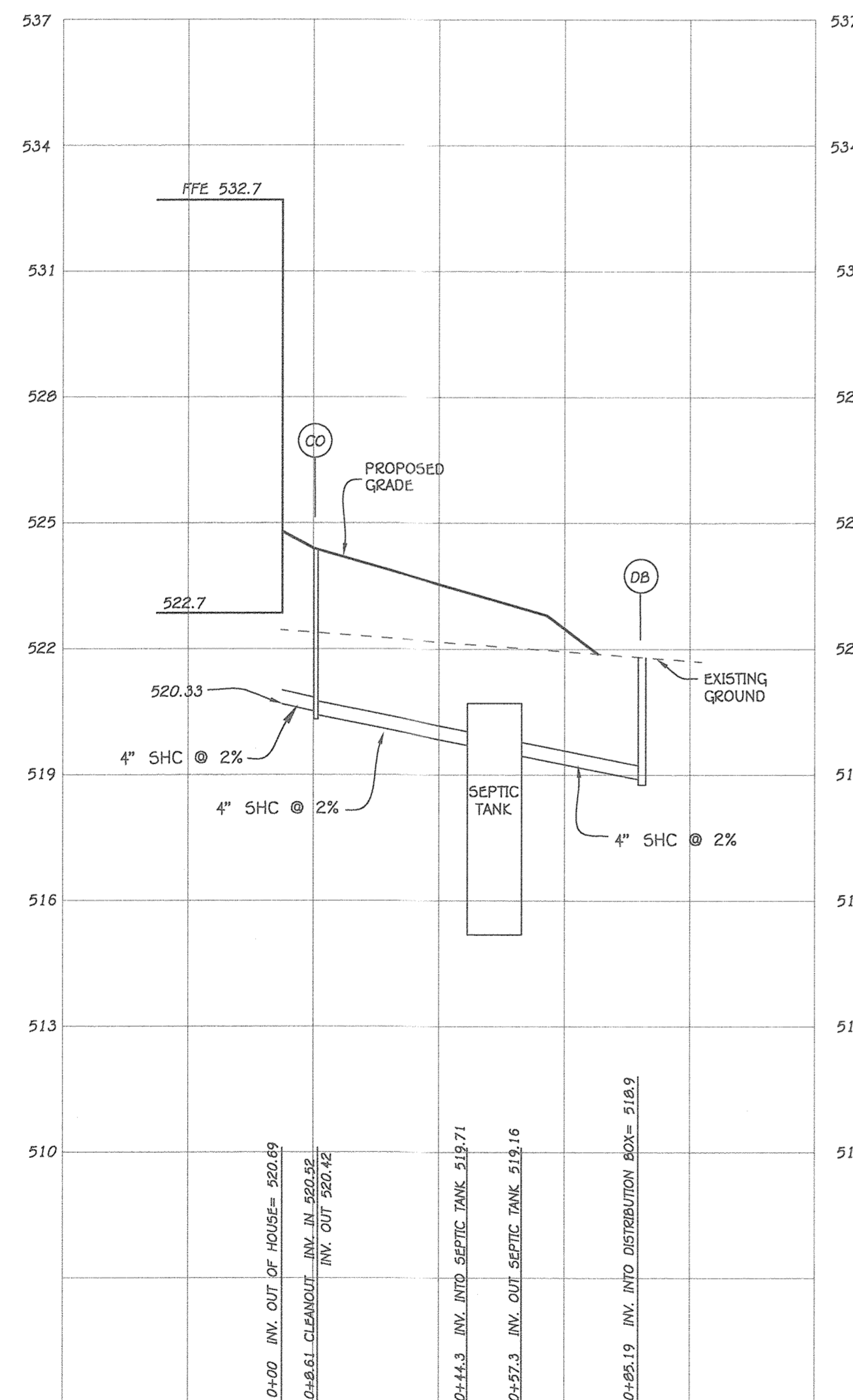
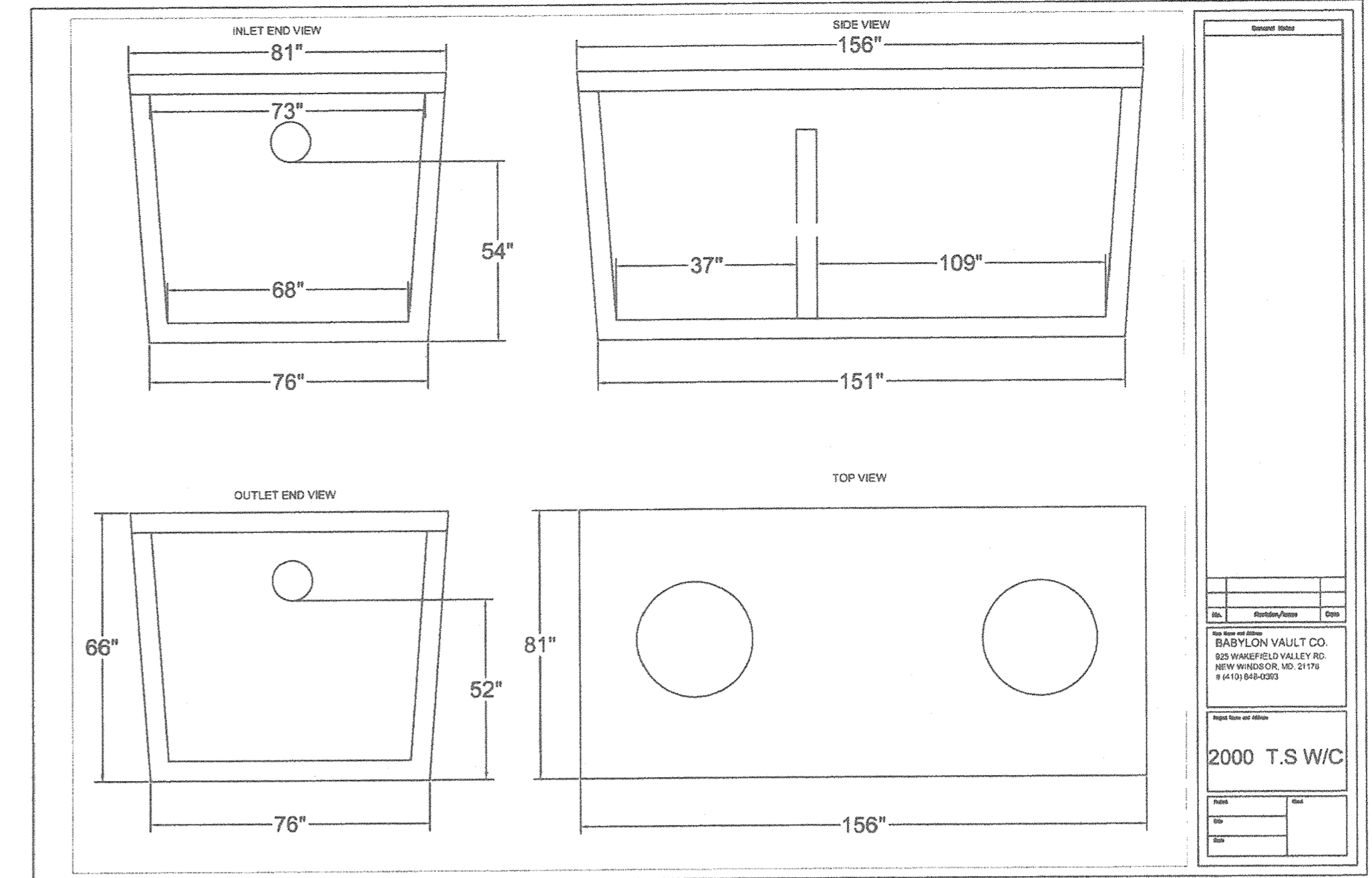
TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE = 521.9
INV. IN = 518.9
BOTTOM TRENCH = 515.9

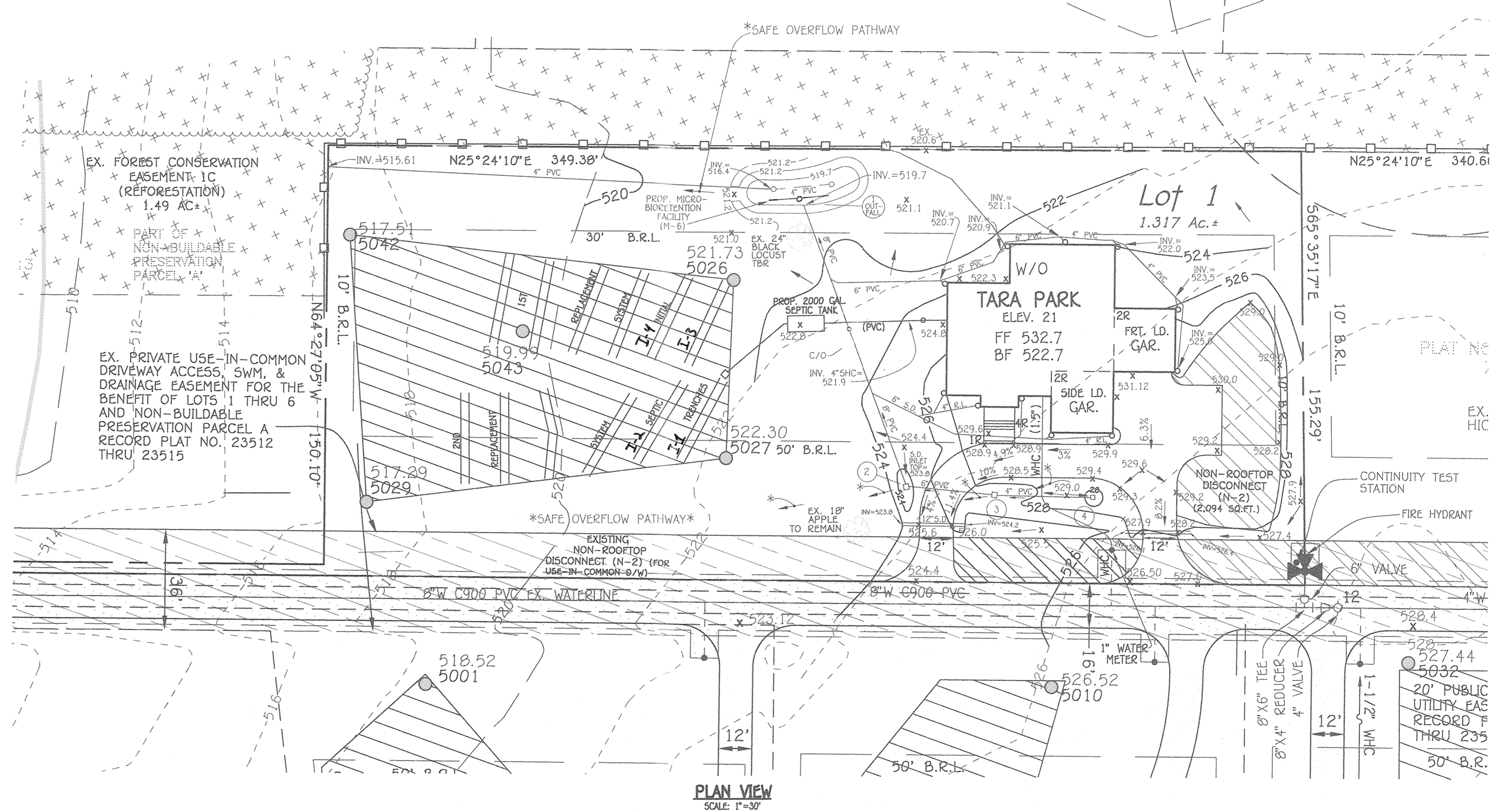
TRENCH 2:
EX. GROUND ABOVE = 521.7
INV. IN = 518.7
BOTTOM TRENCH = 515.7

TRENCH 3:
EX. GROUND ABOVE = 521.7
INV. IN = 518.7
BOTTOM TRENCH = 515.7

TRENCH 4:
EX. GROUND ABOVE = 521.3
INV. IN = 518.3
BOTTOM TRENCH = 515.3



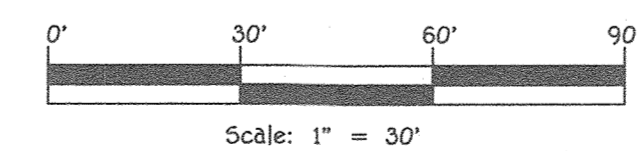
SEPTIC PROFILE
SCALE: 1"=30'



PLAN VIEW
SCALE: 1"=30'

LEGEND	
SYMBOL	DESCRIPTION
(Symbol)	EXISTING 2' CONTOUR
(Symbol)	EXISTING 10' CONTOUR
(Symbol)	PROPOSED CONTOUR
(Symbol)	SPOT ELEVATION
(Symbol)	EX. FENCE LINE (CHAIN WIRE & METAL POSTS)
(Symbol)	EX. FENCE LINE (SPLIT RAIL OR SLAT FENCE)
(Symbol)	EX. LIMIT OF TREES AND FOREST
(Symbol)	PROPOSED TREZELING
(Symbol)	EXISTING TREES
(Symbol)	ROOFTOP DISCONNECT (N-1) & SHEET PILE TO RURAL CONSERVATION AREA (N-3)
(Symbol)	NON-ROOFTOP DISCONNECT (N-2)
(Symbol)	EXISTING ROAD & PROPOSED DRIVEWAY PAVING
(Symbol)	PROPOSED FOREST CONSERVATION EASEMENT (REFORESTATION)
(Symbol)	PROPOSED FOREST CONSERVATION EASEMENT (RETENTION)
(Symbol)	EXISTING & PROPOSED SEWAGE DISPOSAL AREA
(Symbol)	SOIL LINES AND TYPES
(Symbol)	PUBLIC WATER AND UTILITY EASEMENT
(Symbol)	PRIVATE USE-IN-COMMON DRIVEWAY ACCESS, STORMWATER MANAGEMENT & SEWERAGE EASEMENT

APPROVED FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT.
Barbara L. Mauer
COUNTY HEALTH OFFICER
DATE: 4/22/2019



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2895

NO.	REVISION	DATE



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 LAWS OF THE STATE OF MARYLAND, LICENSE NO. 28326, EXPIRATION DATE: 01/12/20.

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Stephen J. Tute
STEPHEN J. TUTE
DATE: 3/28/19

DEVELOPER'S 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 THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-CENTER FOR PROPOSED ON-SITE EVALUATION BY HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

Sridhar P. Banala
SRIDHAR P. BANALA
DATE: 3/27/2019

BUILDER
CARUSO HOMES
2120 BALDWIN AVENUE
SUITE 200
CROFTON, MARYLAND 21114
301-832-6426

OWNERS / DEVELOPER
SEIDHAR & ANITHA BANALA
10717 HILLINGDON ROAD
WOODSTOCK, MARYLAND 21163
443-829-8905

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kentle Ouel
Chief, Division of Land Development
Date: 5-2-19

Chad...
Chief, Development Engineering Division
Date: 5-1-19

...
Director - Department of Planning and Zoning
Date: 5-2-19

PROJECT	SECTION	LOTS NO.
MAPLE VIEW	N/A	LOT 1

PLAT	GRID NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23512 - 23515	15	RC-DEO	16	3	6030.04

SEPTIC SYSTEM INSTALLATION SITE PLAN

MAPLE VIEW
LOT 1
A RESUBDIVISION OF POLANSKY SUBDIVISION, LOT 3
ZONED RC-DEO

TAX MAP No. 16 GRID No. 15 P/O PARCEL No. 88
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 27, 2019
SHEET 3 OF 4

SDP-19-041

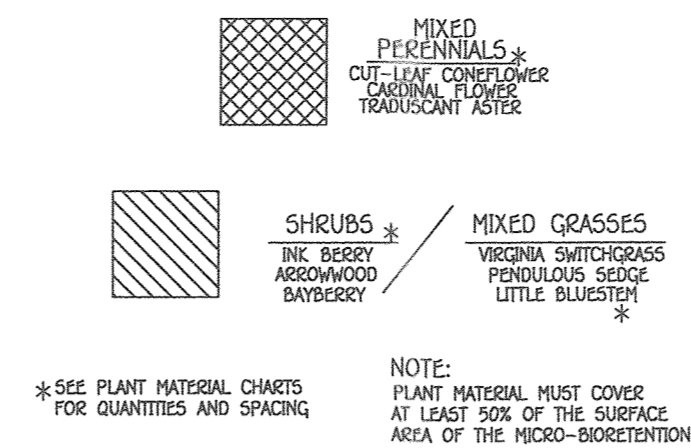
SIZE	CLASS	LENGTH/QUANTITY
6"	PVC SCH. 40	34 L.F.
8"	PVC SCH. 40	31 L.F.
8"	HDPE CORRUGATED	158 L.F.
6" x 8" WYE	PVC SCH. 40	QUANTITY= 2

NOTE: PVC PIPE MAY BE SUBSTITUTED WITH HDPE PIPE AND HDPE PIPE MAY BE SUBSTITUTED WITH PVC PIPE.

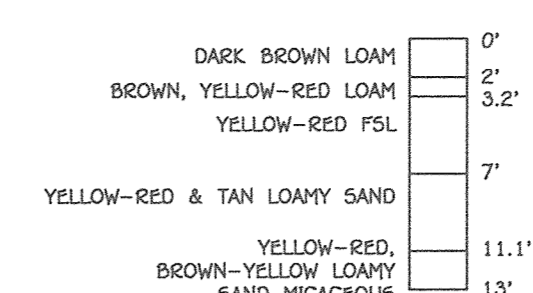
STORMWATER MANAGEMENT PRACTICES					
LOT NO.	ADDRESS	DISCONNECTION OF ROOFTOP RUNOFF (N-1) Y/N, NUMBER	DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) Y/N	DRY WELLS (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER
1	2911 MAPLE LEAF WAY	0	1	NO	1

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDV REQUIRED CU.FT.	ESDV PROVIDED CU.FT.	REMARKS
SITE	562	678	MICRO-BIORETENTION FACILITY (M-6) NON-ROOFTOP DISCONNECTION (N-2)
TOTAL	562	678	

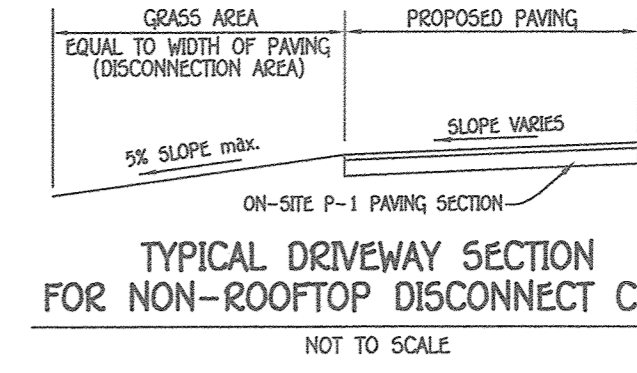
GROSS AREA = 1.32 ACRES. LOD = 0.89 ACRES
RCN = 55 TARGET Pe = 1"



NOTE: SOIL PROFILES TAKEN FROM PERC TEST RESULTS ISSUED BY HOWARD COUNTY HEALTH DEPARTMENT DATED JULY 29, 2012. PER LETTER, "TYPICALLY, SOIL PROFILES ARE SANDY."



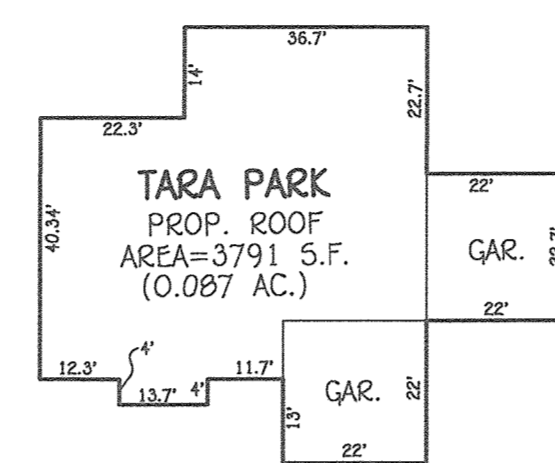
PERC SITE #5026 (LOT 1)
STORMWATER MANAGEMENT BORING INFO.



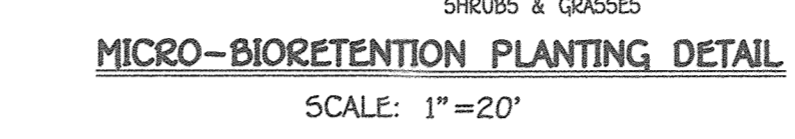
OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)
1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREAS IN COMPOSSAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

MICRO-BIORETENTION FACILITY PLANTING		
QUANTITY	NAME	MAXIMUM SPACING (FT.)
56	MIXED PERENNIALS	1 FT.
39	SHRUBS	2 FT.

PRIVATE STORMDRAIN SYSTEM STRUCTURE SCHEDULE							
STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	TYPE - SIZE	PIPE SIZE OUT	PIPE SIZE IN	REMARKS
1	-----	519.5 (8")	-----	-----	8"	8"	END OF HOPE @ MICRO-BIORETENTION FACILITY
2	523.8	522.4 (6")	522.3 (8")	NDS CATCH BASIN 24" x 24" SQUARE GRATE	8"	6"	
3	527.0	525.6 (4")	525.5 (6")	NDS CATCH BASIN 24" x 24" SQUARE GRATE	6"	4"	
4	527.9	-----	526.5 (4")	NDS CATCH BASIN 12" x 12" SQUARE GRATE	4"	-----	

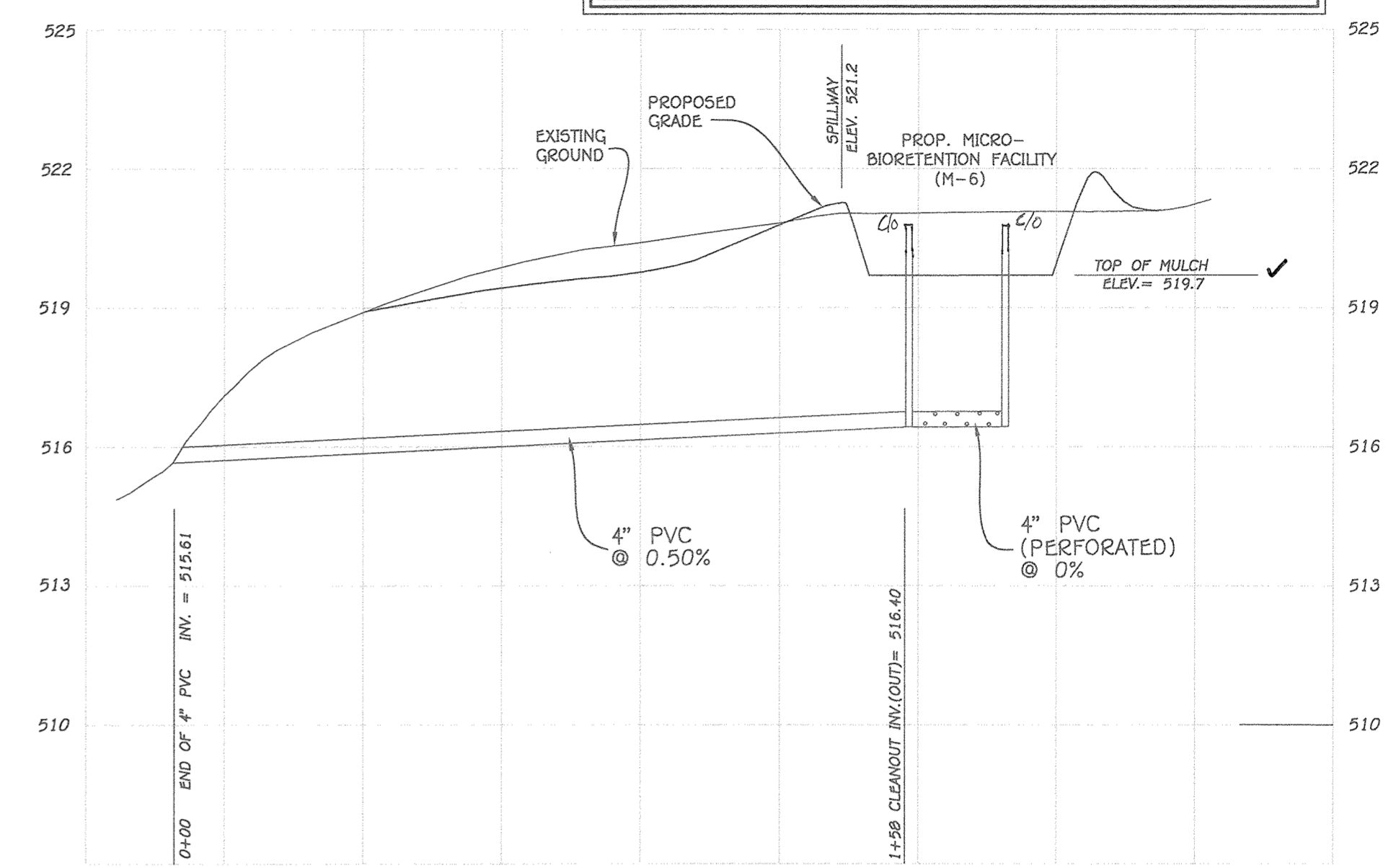


HOUSE TEMPLATE & DRAINAGE AREA FOR HOUSE (TO MICRO-BIORETENTION FACILITY)
SCALE: 1"=30'

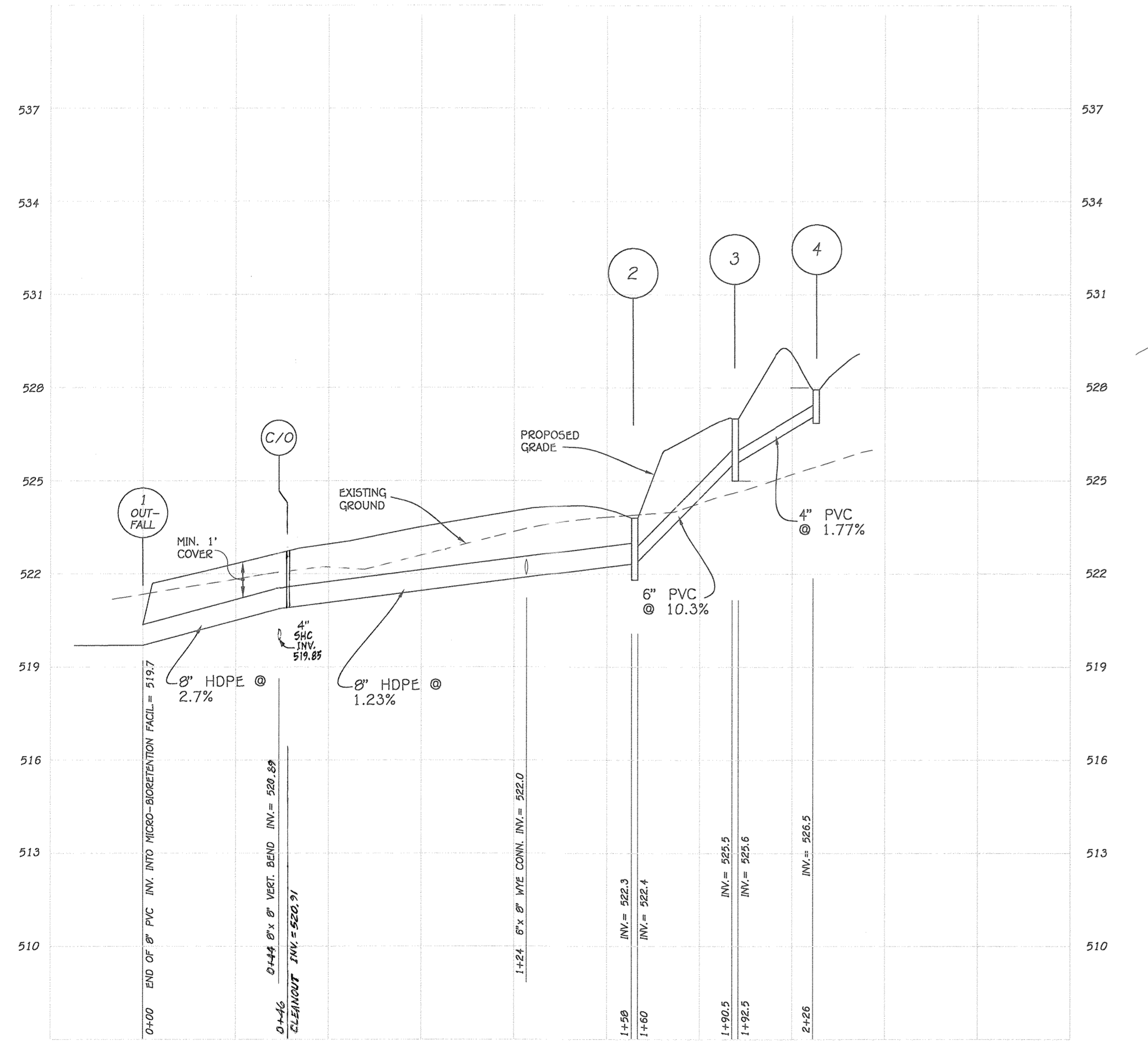


STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- PART OF THE PROPOSED DRIVEWAY IS BEING TREATED BY NON-ROOFTOP DISCONNECTION (N-2) AND THE REMAINDER IS AND THE PROPOSED HOUSE ROOF AREA IS BEING CONVEYED TO THE MICRO-BIORETENTION FACILITY (M-6).
- FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.



MICRO-BIORETENTION PROFILE
SCALE: HORIZ: 1"=30' VERT: 1"=3'

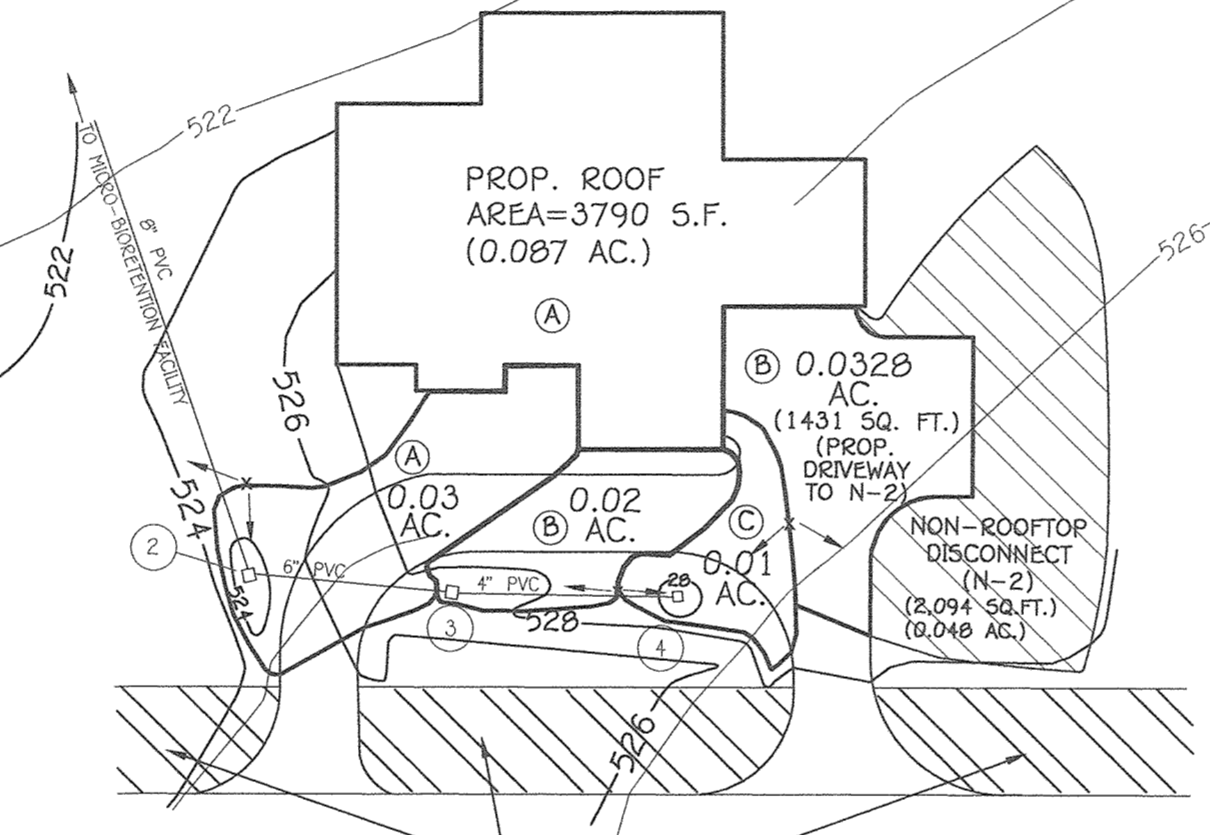


PRIVATE STORMDRAIN PROFILES
SCALE: HORIZ. 1"=30' VERT. 1"=3'

NOTE: AREAS (A) (B) & (C) AND PROPOSED HOUSE, DRAIN TO PROPOSED PROPOSED MICRO-BIORETENTION FACILITY.

TOTAL AREA TO MICRO-BIORETENTION FACILITY=6316.2 SQ. FT. (0.145 AC.)

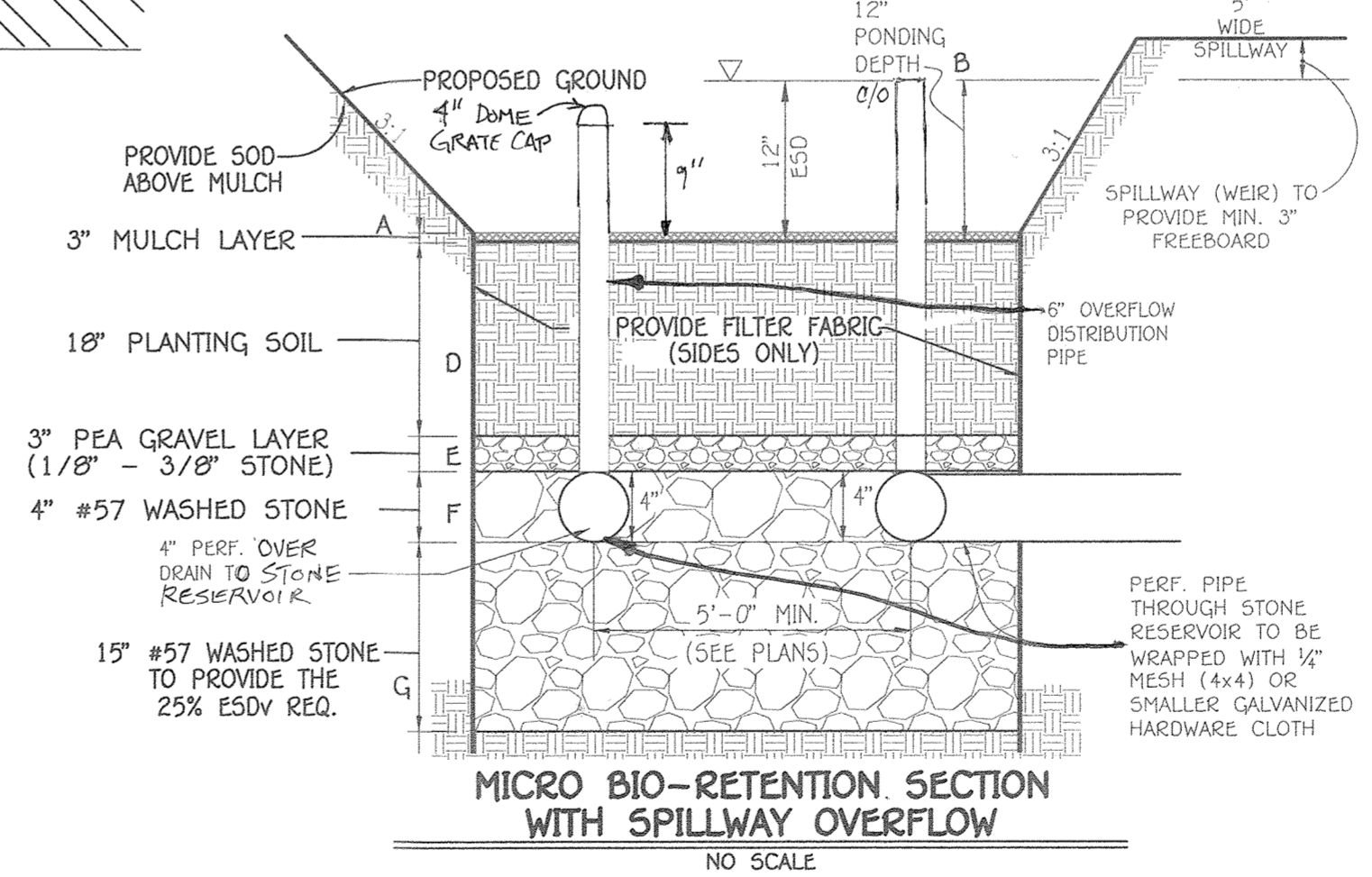
TOTALS FOR AREAS (A) (B) & (C)
PAVED AREA=0.029 AC.
GRASS AREA=0.029 AC.



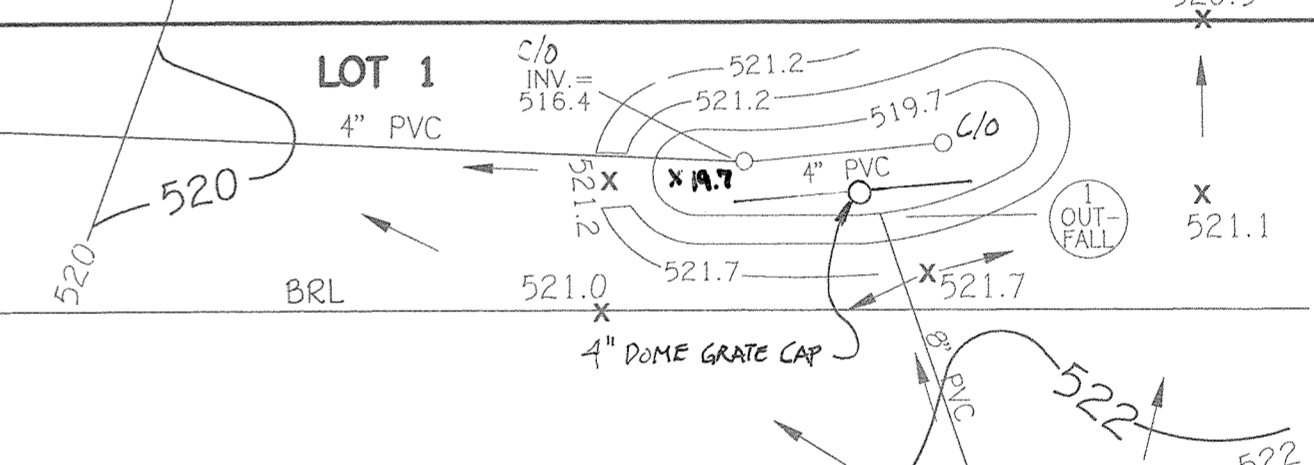
DRAINAGE AREA MAP MICRO-BIORETENTION FACILITY
SCALE: 1"=30'

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

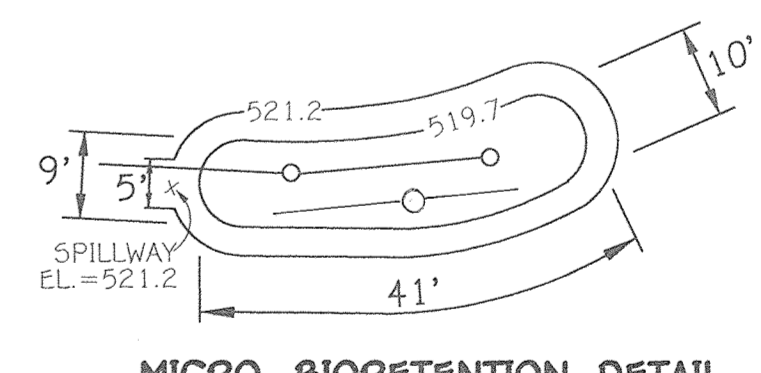
- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 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 DISEASED 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.
- 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.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



MICRO BIO-RETENTION SECTION WITH SPILLWAY OVERFLOW
NO SCALE



MICRO-BIORETENTION GRADING DETAIL
SCALE: 1"=20'



MICRO-BIORETENTION DETAIL
SCALE: 1"=20'

This Development Plan is Approved for Soil Erosion and Sediment Control by the HOWARD COUNTY SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development: *[Signature]* 5-2-19 Date

Chief, Development Engineering Division: *[Signature]* 5-1-19 Date

Director of Department of Planning and Zoning: *[Signature]* 5-2-19 Date

PLAT	GRID NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
MAPLE VIEW	23512 - 23515	15	RC-DEO	16	3 6030.04

STORMDRAIN PROFILES & DETAILS AND STORMWATER MANAGEMENT DETAILS

MAPLE VIEW
LOT 1
A RESUBDIVISION OF POLANSKY SUBDIVISION, LOT 3 ZONED RC-DEO

TAX MAP No. 16 GRID No. 15 P/O PARCEL No. 88
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 27, 2019
SHEET 4 OF 4

SDP-19-041

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ELLIOTT CITY, MARYLAND 21142
(410) 461 - 2895



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[Signature] 3/28/19
STEPHANIE J. TUTTLE DATE

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[Signature] 3/27/2019
SRIDHAR P. BANALA DATE

BUILDER

CARUSO HOMES
2120 BALDWIN AVENUE
SUITE 200
CROFTON, MARYLAND 21114
301-832-6426

OWNERS / DEVELOPER

SRIDHAR & ANITHA BANALA
10717 HILLINGTON ROAD
WOODSTOCK, MARYLAND 21163
443-829-8905

NO.	REVISION	DATE