# **GENERAL NOTES**

- SUBJECT PROPERTY ZONED RR-DEO PER 02/02/04 COMPREHENSIVE ZONING PLAN.
- PROPERTY ADDRESS: 11986 HALL SHOP ROAD TOTAL AREA OF PROPERTY = 26.02 AC.±
- PROPOSED NUMBER OF LOTS = 8
- PROPOSED AREA OF LOTS = 24.48 AC.± PROPOSED AREA OF R/W = 0.95 AC. ±
- PROPOSED AREA OF NON-BUILDABLE PARCEL A = 0.59 AC. ±
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE
- TXX THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY 10. PREVIOUS HOWARD COUNTY FILE NUMBERS: ECP-12-063, SP-13-002 AND WP-13-005
- 12. THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC ON
- 12. THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN WITH 2' CONTOUR INTERVALS BY SILL, ADCOCK & ASSOCIATES, LLC. ON
- 15. THERE ARE NO STEEP SLOPES, FLOODPLAINS OR CEMETERIES ONSITE
- 16. NO NOISE STUDY IS REQUIRED FOR THIS PROJECT. 17. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, DATED JULY 2012 AND WAS APPROVED UNDER SP-13-002
- 18. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NUMBERS 35GC AND 41AC WERE USED FOR THIS
- 20. ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND
- ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN-GRADIENT OF EXISTING OR PROPOSED SEPTIO SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED. 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. 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
- 23. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE

410.850.4620

- PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION
- BGE(UNDERGROUND DAMAGE CONTROL COLONIAL PIPELINE COMPANY HOWARD COUNTY HEALTH DEPARTMENT
- 410.795.1390 24. GEOTECHNICAL INFORMATION HAS BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION
- SERVICE, WEB SOIL SURVEY WEBSITE, FIELD INVESTIGATIONS AND GEOTECHNICAL REPORT PREFORMED BY HERBST/BENSON & ASSOCIATES DATE NOVEMBER 13, 2012. IF FUTURE INVESTIGATIONS SHOW UNSATISFACTORY SOIL CONDITIONS FOR ANY OF THE
- OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS
- DWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION: AND NON ROOFTOP DISCONNECTS (N-2) AND MICRO-BIORETENTION
- 27. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 8.76 ACRES OF FOREST AND 0.41 ACRES OF REFORESTATION. FINANCIAL SURETY FOR THE REQUIRED PLANTINGS, SURETY FOR THE ON-SITE RETENTION IS NOT REQUIRED.
- 28. ALL SWALES TO HAVE EROSION CONTROL MATTING
- 29. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN
- 31. THIS PROJECT IS SUBJECT TO WP.13.005 FROM THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING ON OCTOBER 12 2012. THE DIRECTOR APPROVED THE REQUEST TO WAIVE SECTIONS 16.120(b) (4) (iii) (b) WHICH PROHIBITS FLOODPLAIN, WETLAND, STREAMS, THEIR BUFFERS AND FOREST CONSERVATION EASEMENTS ON LOTS OR PARCELS LESS THAN 10 ACRES IN SIZE, AND SECTION 16.1205(a) (7) AND (10) FOR THE REMOVAL OF ONE (1) SPECIMEN TREE OR TREE 30" DBH OR GREATER. APPROVAL IS
- FOREST CONSERVATION SIGNS MUST BE POSTED EVERY 50 FEET ALONG THE ENTIRE PERIMETER OF THE FOREST
- . NO GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURES ARE PERMITTED WITHIN THE STREAM, FOREST CONSERVATION EASEMENT AND REQUIRED BUFFERS.
- . DISTRIBUTING EDUCATIONAL MATERIAL TO EACH LOT PURCHASER EXPLAINING THE RESTRICTIONS ON ENCROACHMENT INTO
- COMPLIANCE WITH ALL SUBDIVISION COMMENTS.
- AT THE BUILDING PERMIT APPLICATION PROCESS, THE BUILDER SHOULD STRIVE TO MAINTAIN A MINIMUM OF 100-FEET SEPARATION BETWEEN ANY PROPOSED HOUSE AND THE FOREST CONSERVATION EASEMENT. ON DECEMBER 20, 2012, THE DIRECTOR APPROVED AN ADDITIONAL WAIVER TO SECTION 16.120(b)(6)(v)(c) SUBDIVISION LAYOUT, WHICH STATES PIPESTEM LOTS SHALL NOT BE CREATED ON BOTH SIDES OF A FRONTAGE LOT IN THE SAME SUBDIVISION WITH THE
- COMPLIANCE WITH THE SIX (6) PREVIOUS APPROVAL CONDITIONS FOR WP-13-005.
- 32. ON JANUARY 31, 2014 A RECONSIDERATION REQUEST OF WP-13-005 TO WAIVE SECTION 16.1205(a)(7) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WHICH OUTLINES THE FOREST RETENTION PRIORITIES WHEN ADHERING TO THE FOREST CONSERVATION ACT, ALLOWING FOUR (4)OF THE TWELVE (12) SPECIMEN TREES ON SITE TO BE REMOVED, SECTION 16.120(b)(4)(iii)b WHICH PROHIBITS FOREST CONSERVATION EASEMENTS ON LOTS LESS THAN 10 ACRES IN SIZE, AND FROM SECTION 16.144(m) WHICH REQUIRES THE PETITIONER TO RESUBMIT REVISED PLANS WITHIN 45-DAYS FROM THE REQUESTED DATE BY THE SUBDIVISION REVIEW COMMITTEE WAS APPROVED BY THE DIRECTOR OF PLANNING AND ZONING ON JANUARY 31, 2014 SUBJECT TO
- COMPLIANCE WITH THE SIX (6) PREVIOUS APPROVAL CONDITIONS FOR WP-13-005 PER THE FINAL PLAN, F-13-094, MUST BE RESUBMITTED ON OR BEFORE APRIL 10, 2014.
- IF ANY NEW WAIVER REQUEST ARE NEEDED, A NEW WAIVER PETITION AND REQUIRED FEES MUST BE SUBMITTED FOR REVIEW
- BY THE SRC, NO RECONSIDERATION MAY BE SUBMITTED FOR WP-13-005. • ON ALL FUTURE SUBDIVISION PLANS AND BUILDING PERMIT PLANS, A BRIEF DESCRIPTION OF WAIVER PETITION, WP-13-005,
- MUST BE PROVIDED AS A GENERAL NOTE TO INCLUDING REQUEST, SECTIONS OF THE REGULATIONS, ACTION AND DATE. WAVIER APPROVAL IS LIMITED TO THE REMOVAL OF SPECIMEN TREES #2,#3, #7 & #9 AS DEPICTED ON THE WAIVER EXHIBIT
- RECEIVED ON JANUARY 6, 2014. ANY PROPOSAL TO REMOVE ADDITIONAL SPECIMEN TREES WILL REQUIRE A NEW WAIVER THE REFORESTATION EASEMENT MUST BE PLANTED WITH 2" CALIPER TREES TO COMPENSATE FOR THE REMOVAL OF THE
- ALL DWELLINGS MUST BE CONSTRUCTED A MINIMUM OF 100' FROM THE EDGE OF THE FOREST CONSERVATION EASEMENT. 33. REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE FOR PIPESTEM LOTS ARE PROVIDED TO THE JUNCTION OF THE PUBLIC ROAD AND THE PIPESTEM DRIVEWAY. COUNTY TRASH AND RECYCLING COLLECTION WILL BE AT BLEVINS DRIVE WITHIN 5' OF
- 34. PER SECTION 16.121(a)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THIS SITE CONSISTING OF 8 NON CLUSTER LOTS WILL PAY A FEE-IN-LIEU OF \$12,000 (8 X\$1,500) TO MEET OPEN SPACE REQUIREMENTS. 35. ALL WELLS TO BE DRILLED PRIOR TO FINAL PLAT APPROVAL. IT IS THE DEVELOPER'S RESPONSIBILITY TO SCHEDULE WELL DRILLING
- PRIOR TO FINAL PLAT SUBMISSION, IT WILL NOT BE CONSIDERED GOVERNMENT DELAY IF THE WELL-DRILLING HOLDS UP THE HEALTH DEPARTMENT SIGNATURE OF THE FINAL PLAT MYLAR. 36. DEFINED SEPTIC AREAS ARE APPROVED AND INTENDED FOR INSTALLATION OF DRAINFIELD TRENCHES FOR WASTEWATER TREATMENT AND DISPOSAL. LOCALLY INTENSIVE DISRUPTION OF THE SOIL AND DISTURBANCE OF VEGETATION WILL OCCUR, AND LIKELY WILL RESULT IN DAMAGE OR DESTRUCTION OF TREES AND OTHER VEGETATION WITHIN THE BOUNDARIES OF THE SEPTIC
- AREA, INCLUDING ROOTS OF TREES THAT EXTEND INTO THE SEPTIC AREA. IN ADDITION, NO PERMANENT STRUCTURES OR BURIED DEVICES ARE ALLOWED IN AN APPROVED SEPTIC AREA. 37. THE SAND MOUND AREA(\$) DELINEATED AND IDENTIFIED ON THIS PARCEL MUST BE STAKED BY A SURVEYOR AND A FIELD REVIEW CONDUCTED BY THE HOWARD COUNTY HEALTH DEPARTMENT TO VERIFY THE AREAS HAVE NOT BEEN IMPACTED PRIOR TO FINAL PLAT APPROVAL AND PRIOR TO BUILDING PERMIT APPROVAL. IN ADDITION, THESE AREAS MUST BE PROTECTED BY A FIXED BARRIER AT ALL TIMES DURING DEMOLITION, GRADING, AND CONSTRUCTION ACTIVITIES. THEREAFTER PROTECTIVE MEASURES SHOULD BE IMPLEMENTED TO PROTECT THESE AREAS FROM EROSION AND ENCROACHMENT BY WHEELED VEHICLES, SUBSEQUENT BUILDING
- PERMIT APPLICATIONS MAY BE DENIED SHOULD THE SAND MOUND AREAS BE EVALUATED AND FOUND TO BE UNSATISFACTORY FOR 38. A PRIVATE RANGE OF ADDRESS SIGN 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, SIGN SHALL BE PLACED AT THE INTERSECTION OF BLEVINS DRIVE AND THE USE-IN-COMMON DRIVEWAY.
- 40. THE R1-1 ("STOP") SIGN AND THE STREET SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE
- 41. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY THE HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
- 42. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD) 43. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2"
- GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO 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.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

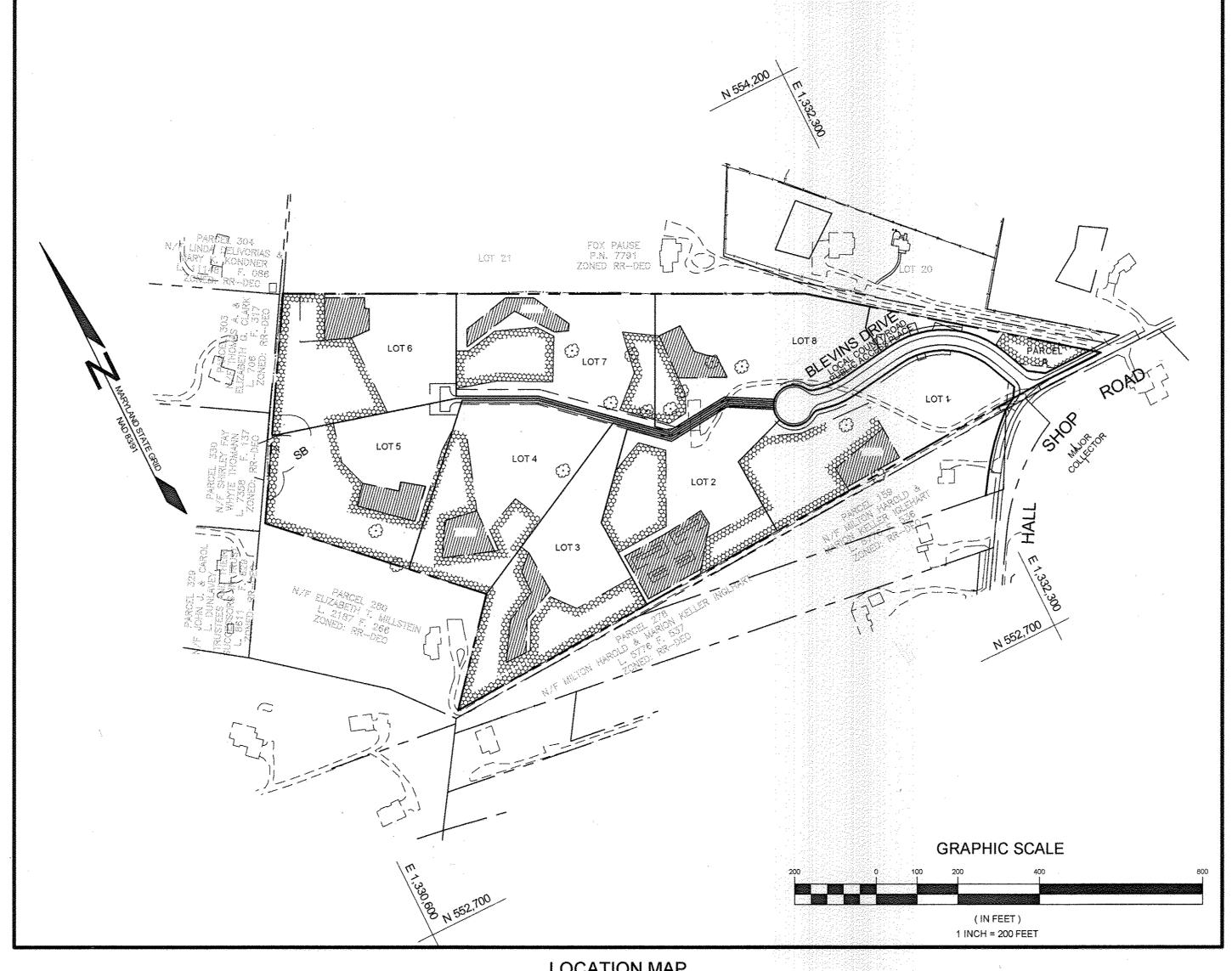
44. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS

# FINAL ROAD CONSTRUCTION PLANS BLEVINS PROPERTY

LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A HOWARD COUNTY, MARYLAND



**LOCATION MAP** 

- 45. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS: 1) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
- 2) SURFACE SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM); 3) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS; 4) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING); 5) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER
- 6) MAINTENANCE SUFFICIENT TO ENSURE ALL WEATHER USE 46. THE FOREST STAND DELINEATION FOR THIS PROJECT WAS PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC., DATED
- JANUARY 22, 2013, AND WAS APPROVED ON JANUARY 28, 2013. 47. THIS PROPERTY IS NOT IN THE METROPOLITAN DISTRICT.
- 48. THIS PROJECT IS CONSIDERED GRANDFATHERED TO THE SUSTAINABLE GROWTH AND AGRICULTURAL PRESERVATION ACT OF 2012, OR SENATE BILL 236, AND IS LOCATED IN THE DESIGNATED GROWTH TIER AREA III.
- 49. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$3,400 FOR THE REQUIRED LANDSCAPING (17 SHADE TREES, AND 22 EVERGREEN TREES.)

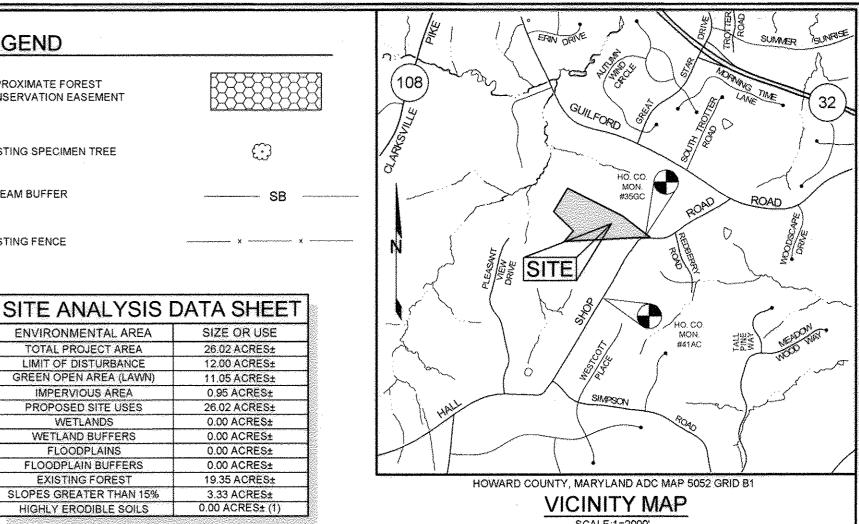


LOT NUMBER	GROSS AREA (AC)	PIPESTEM AREA (AC)	MINIMUM LO SIZE (AC)
3	3.0470±	0.0427±	3.0043±
4	3.1361±	0.0465±	3,0896±
5	3.0897±	0.0880±	3,0017±
6	3.0984±	0.0898±	3.0086±
7	3.0933±	0.0350±	3.0583±

# STORMWATER MANAGEMENT PRACTICES **BIORETENTION** NON-ROOFTOP ADDRESS **RUNOFF N-2** (NUMBER) (Y/N) 11011 BLEVINS DRIVE 11017 BLEVINS DRIVE 11023 BLEVINS DRIVE 11029 BLEVINS DRIVE

REVISIONS

NO.



NOTE: (1) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K GREATER THAN 0.35 AND WITH A SLOPE GREATER

LEGEND

STREAM BUFFER

**EXISTING FENCE** 

APPROXIMATE FOREST

CONSERVATION EASEMENT

**EXISTING SPECIMEN TREE** 

ENVIRONMENTAL AREA TOTAL PROJECT AREA

WETLANDS

FLOODPLAIN BUFFERS

OPES GREATER THAN 15%

		BEI	NCHMAR	KS
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
35GC	553,244.4	1,332,505.9	482.40	N SIDE OF HALL SHOP ROAD, 1/3 MILE SW OF GUILFORD ROAD, 30' NE OF POLE#112401
41AC	551,969.6	1,331,695,3	488.34	E SIDE OF HALL SHOP ROAD, 135' N OF POLE #112411, 111' S OF POLE #112410

	RC	AD CLAS	SSIFICATION	ON	
ROAD NAME	CLASSIFICATION	PAVING TYPE	DESIGN SPEED	LIMITS OF CONSTRUCTION	R٨
BLEVINS DRIVE	LOCAL ROAD (ACCESS PLACE)	P-2	25	0+00 TO 6+75.95	50

· · · · · · · · · · · · · · · · · · ·	STREET LIG	HT TABLE	
FIXTURE TYPE	POLE TYPE	LOCATION	STREET
150 WATT LED POST TOP COLONIAL FIXTURE MOUNTED*	14' BLACK FIBERGLASS	Ç STA. 0+38.8, 22.8¹ RIGHT	BLEVINS DRIVE
150 WATT LED POST TOP COLONIAL FIXTURE MOUNTED*	14' BLACK FIBERGLASS	N 553477.8, E 1331920.8	BLEVINS DRIVE

\*MUST BE HOWARD COUNTY APPROVED

	SHEET INDEX			
SHEET NO.	DESCRIPTION			
1	COVER SHEET			
2	FINAL ROAD PLAN & PROFILE BLEVINS ROAD			
3	FINAL GRADING & SEDIMENT CONTROL PLAN			
4	FINAL GRADING & SEDIMENT CONTROL PLAN			
5	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS			
6	STORM DRAIN DRAINAGE AREA MAP			
7	STORM DRAIN PROFILES, CHARTS & BORING LOGS			
8	STORMWATER MANAGEMENT - BIORETENTION PLAN, PROFILES, AND CHARTS			
9	FINAL FOREST CONSERVATION & LANDSCAPE PLAN			
10	FINAL FOREST CONSERVATION & LANDSCAPE PLAN			
11	FINAL FOREST CONSERVATION & LANDSCAPE NOTES AND DETAILS			
12	ULTIMATE ON LOT BIORETENTION PLAN & DETAILS			

# CONTRACT PURCHASER **DEVELOPER**

OWNER

**GILBERT BLEVINS** 11986 HALL SHOP ROAD CLARKSVILLE, MD 21029 C/O ROBERT CORBETT 410.997.8800

C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 AS-BUILT

# **COVER SHEET**

**BLEVINS PROPERTY** LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A A SUBDIVISION OF PARCEL 310

**5TH ELECTION DISTRICT** 

TAX MAP 35 GRID 19

|Sill Adcock &

3300 North Ridge Road, Suite 160 Ellicott City, Maryland 21043

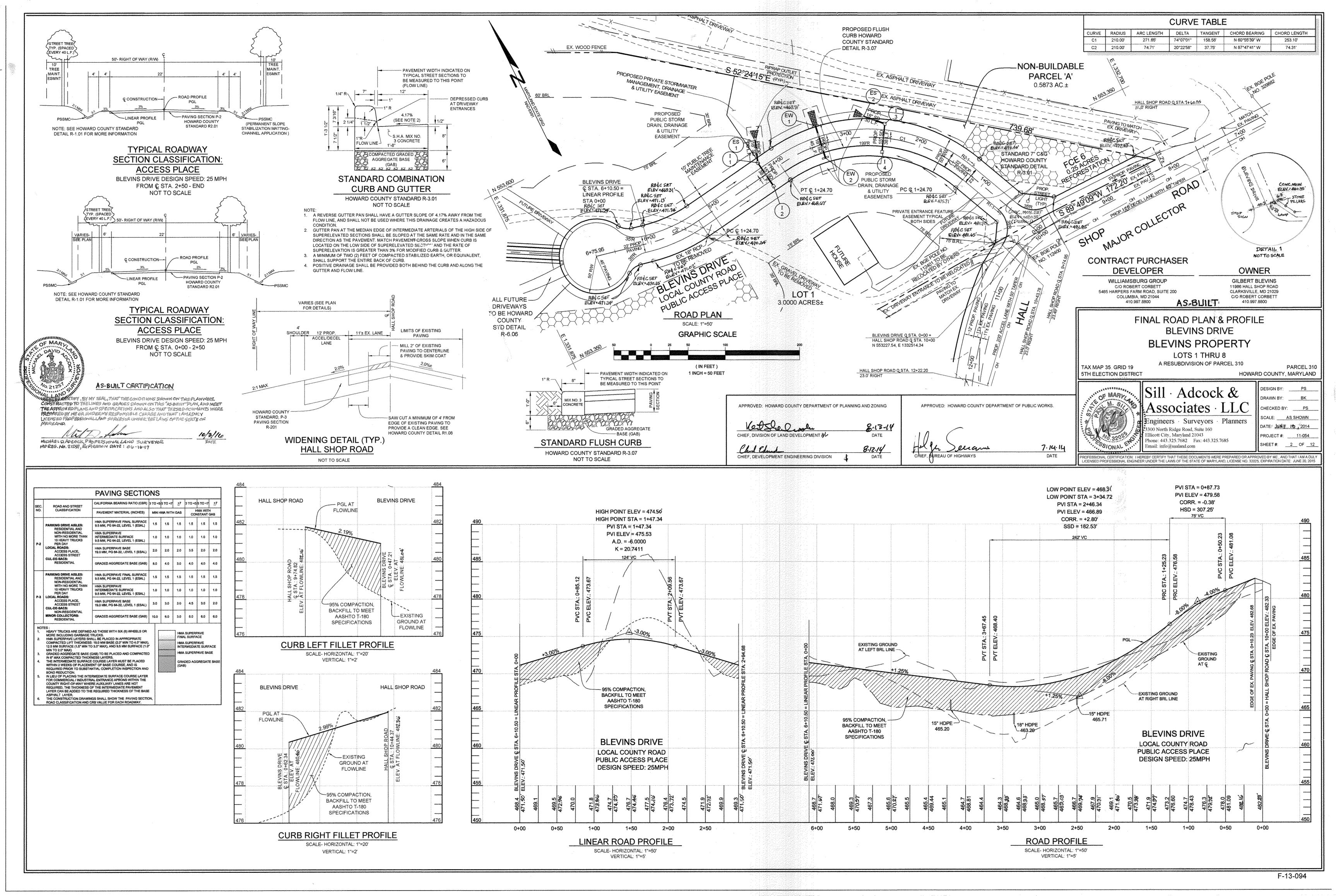
Engineers Surveyors Planners DATE: JUNE 13, 2014 PROJECT#: 11-054 Phone: 443.325.7682 Fax: 443.325.7685 Email: info@saaland.com

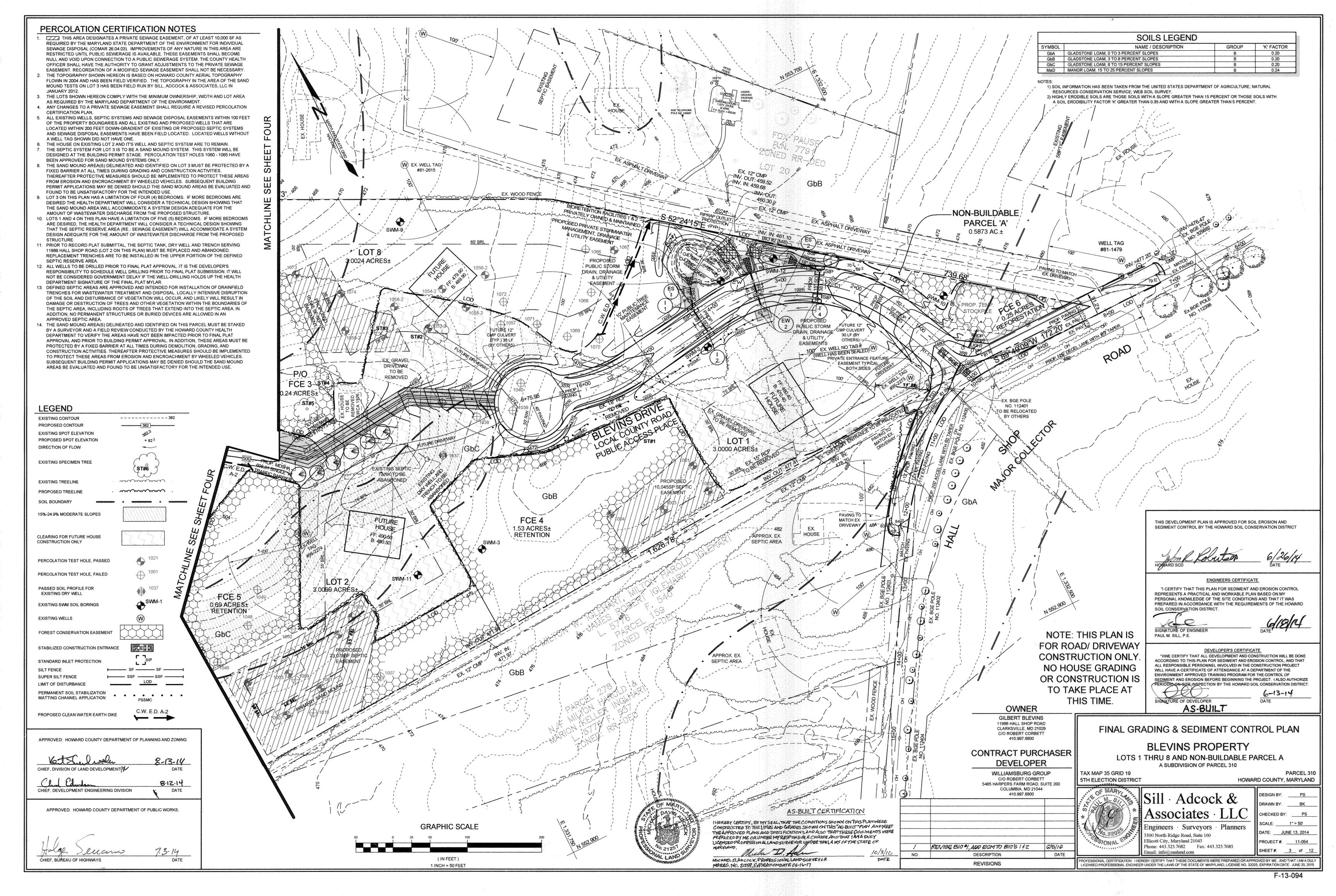
ENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015

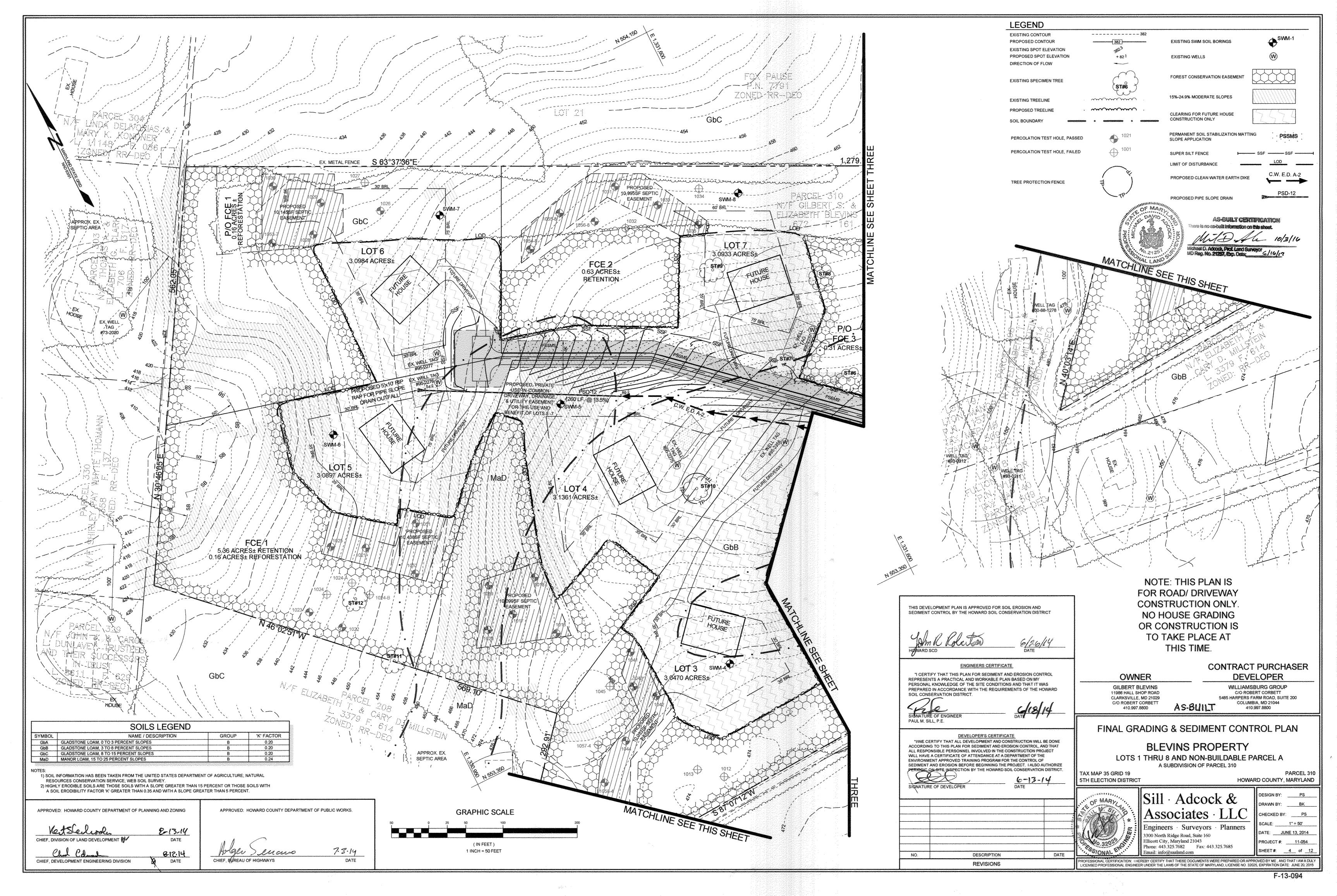
PARCEL 310

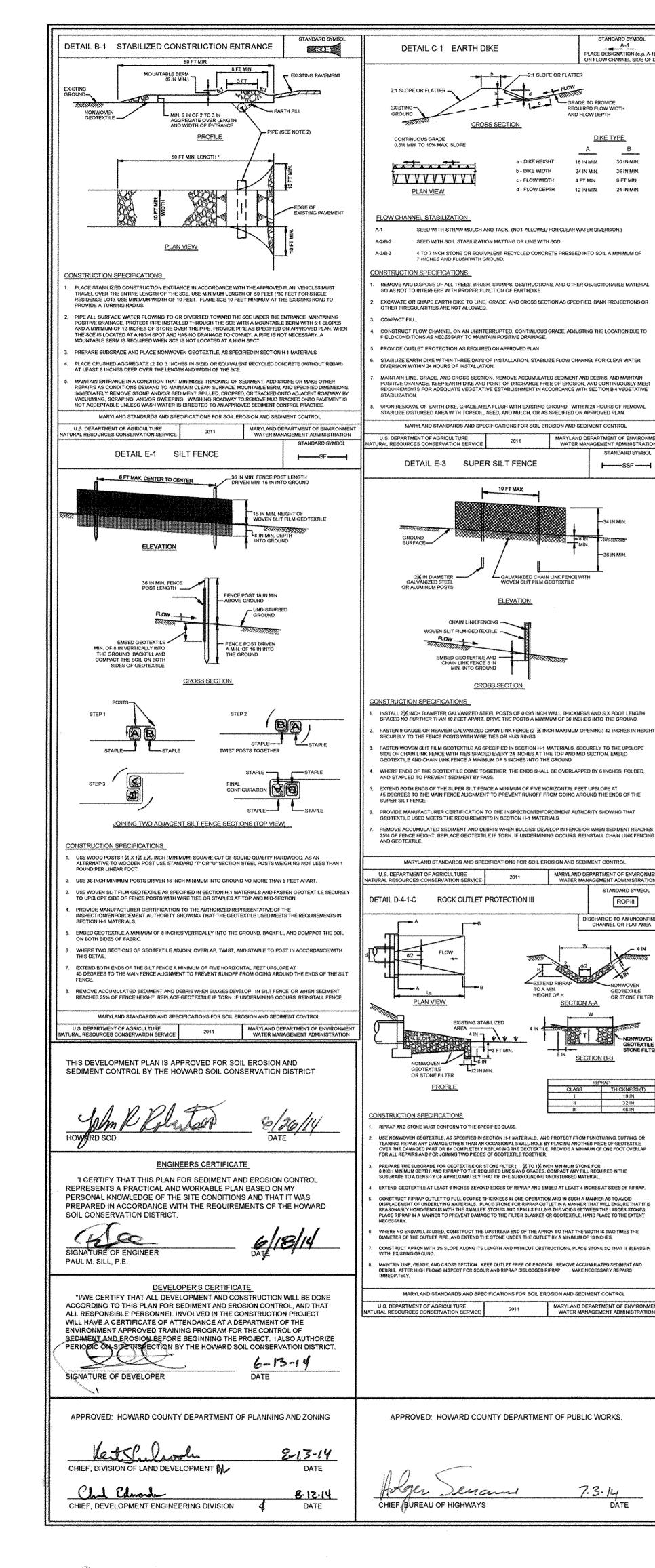
HOWARD COUNTY, MARYLAND

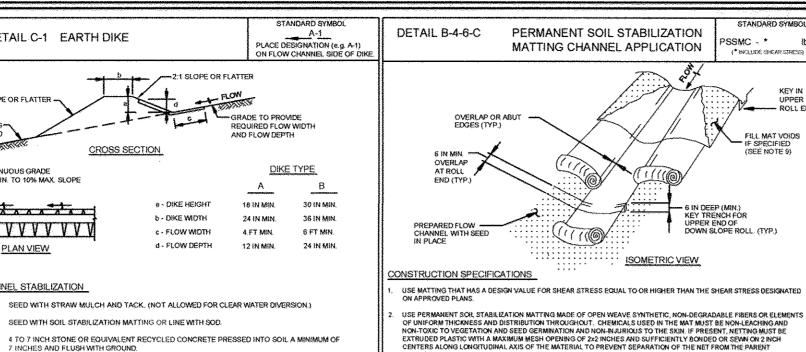
CHECKED BY:











AND FLOW DEPTH

18 IN MIN.

12 IN MIN.

24 IN MIN.

DIKE TYPE

CROSS SECTION

PLAN VIEW

a - DIKE HEIGHT

b - DIKE WIDTH

SEED WITH STRAW MULCH AND TACK, (NOT ALLOWED FOR CLEAR WATER DIVERSION.)

2011

ELEVATION

CROSS SECTION

CHAIN LINK FENCING -

WOVEN SLIT FILM GEOTEXTILE .

PLAN VIEW

OR STONE FILTER

PROFILE

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE

MARYLAND DEPARTMENT OF ENVIRONM

SECTION A-A

SECTION B-B

DATE

STANDARD SYMBOL

ROPIII

ISCHARGE TO AN UNCONFIN CHANNEL OR FLAT AREA

SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOE

INCHES AND FLUSH WITH GROUND

c - FLOW WIDTH

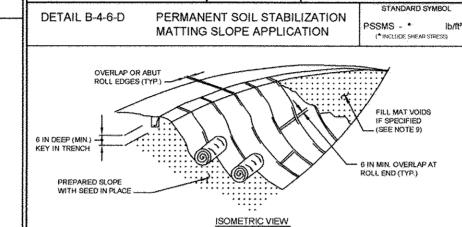
d - FLOW DEPTH

SECURE MATTING USING STEEL STAPLES OR WOOD STAKES, STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 9 RESPECTIVELY, "U" SHAPED STAPLES MUST AVERAGE
1 TO 1 % NOLES WIDE AND BE A MINIMUM OF 8 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS, PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF

WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE, WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS, LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE AVOID STRETCHING THE MATTING. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS, OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM 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, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MA

ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT 2011 WATER MANAGEMENT ADMINISTRATION DETAIL B-4-6-D PERMANENT SOIL STABILIZATION



CONSTRUCTION SPECIFICATIONS

USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPRICAGO PLANS USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT, CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-ITOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2X INCHES AND SUFFICIENTLY BONDED OR SEVAN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL

SECURE MATTING USING STEEL STAPLES OR WOOD STAKES, STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 // INCHES WIDE AND BE A MINIMUM OF 6 NICHES LONG." "T SHAPED STAPLES MUST HAVE A MINIMUM B INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND HINIMUM 4 INCH SECONDARY LEG, AND MINIMUM 4 INCH SELD STARES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LEMOTH, 123 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.

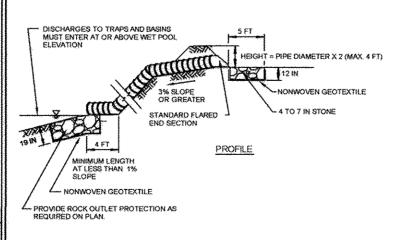
ERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS, PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. UNROLI, MATTING DOWN SLOPE, LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.

OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS, OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE 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, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.

STADERSTAKE MAT IN A STAGGERED PATTERN ON A FOOT (MAXIMUM CENTERS THROUGHOUT AND FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOILMAT CONTACT WITHOUT CRUSHING MAT.

FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THI GROUND AT EACH CORNER OF THE INJET, PLACE NAIL STRIPS BETWEEN THE ROSTS ON THE ENDS OF THE INJET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN, STRETCH X INCH GALVANIZED HARDWARE CLOTH IGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION, EMBED GEOTEXTILE AND HARDWAR MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST. FOR TYPE B, USE 2 % INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. PSD - 12 DETAIL D-1 PIPE SLOPE DRAIN FASTEN 9 GAUGE OF HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH HE TOP AND MID SECTION, EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE 4 TO 7 IN STONE APRONON BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES. TORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE, REMOVE ACCUMULATED SEDIMEN IFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

ISOMETRIC VIEW



ONSTRUCTION SPECIFICATIONS THE HEIGHT OF THE EARTH DIKE MUST BE AT LEAST 2 TIMES THE PIPE DIAMETER MEASURED FROM THE INVERT OF THE PIPE. EXTEND THE TOP ELEVATION OF DIKE AT ZERO PERCENT GRADE UNTIL IT INTERCEPTS THE TOP OF THE FLEXIBLE PIPE IS PREFERRED. HOWEVER, CORRUGATED METAL PIPE OR EQUIVALENT PVC PIPE CAN BE USED. ALL

ATTACH A FLARED END SECTION TO THE INLET END OF PIPE WITH A WATERTIGHT CONNECTION, AT THE INLET OF THE PIPE SLOPE DRAIN, INSTALL 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PLACED 12 INCHES IN DEPTH ON NONWOVEN GEOTEXTILE AND EXTEND OUT 5 FEET FROM THE INLET IN ALL DIRECTIONS. ROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG

SECURELY ANCHOR THE PIPE SLOPE DRAIN (PSD) TO THE SLOPE. SPACE THE ANCHORS EVERY 10 FEET. HAND TAMP THE SOIL AROUND AND UNDER THE PIPE AND END SECTION IN 4 INCH LIFTS TO THE TOP OF THE EARTH UPON COMPLETING INSTALLATION OF THE PSD, STABILIZE ASSOCIATED DISTURBANCES WITH SEED, MULCH, AND

INSTALL OUTLET PROTECTION AS SPECIFIED ON APPROVED PLAY KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION. MAINTAIN WATER TIGHT CONNECTIONS AND POSITIVE DRAINAGE. REMOVE ACCUMULATED SEDIMENT AND DEBRI MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

SEDIMENT CONTROL NOTES

WITH AN APPROVED AND ACTIVE GRADING PERMIT

CONSTRUCTION SPECIFICATION

SEQUENCE OF CONSTRUCTION

CLEAR AND GRUB SITE. (2 WEEKS)

DIKES AND PIPE SLOPE DRAIN. (1 WEEK)

ROUGH GRADE REMAINDER OF SITE. (1 MONTH)

OBTAIN GRADING PERMIT.

TIME). (2 WEEKS)

PLANT SPECIES

ANNUAL RYEGRA

OATS (AVENA SATIVA)

**COOL-SEASON GRASSES** 

BARLEY (HORDEUM VULGARE)

WHEAT (TRITICUM AESTIVUM

CEREAL RYE (SECALE CEREALE)

FOXTAIL MILLET (SETARIA ITALICA)

(LOLIUM PERENNE SSP. MULTIFLORUM

USE WOVEN SUT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION

NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSE AND PERMITS AT

ROUGH GRADE BLEVINS DRIVE TO STA. 4+00 AND INSTALL CULVERT EW-1 TO EW-2.

INSTALL STORM DRAINS AND ROUGH GRADE BIOS (DO NOT CONSTRUCT BIO AT THIS

FINE GRADE AND INSTALL USE-IN-COMMON DRIVEWAY AND BLEVINS DRIVE BASE COAT.

SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND

DEPTH

1.0

(INCHES)

5b & 6a

MARCH 15 TO MAY 31:

AUG 1 TO SEP 30

MARCH 15 TO MAY 31:

MARCH 15 TO MAY 31

AUG 1 TO SEP 30

MARCH 15 TO MAY 31

AUG 1 TO OCT 31

0.5 JUN 1 TO JUL 31

0.5 JUN 1 TO JUL 31

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 PERMANEN

PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX, CEREAL RYE

SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS

SENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER

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.

THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR

IPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST

AUG 1 TO SEP 30

13. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE PERMISSION OF THE

LB/AC LB/1000 FT<sup>2</sup>

1.7

2.8

2.8

INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, EARTH

PROVIDING FOR TEMPORARY ROAD GRADE OVER IT. STABILIZE AREA AROUND EW-1 AND

(410) 313-1880 AT LEAST 24 HOURS BEFORE STARTING ANY WORK

EW-2 UPON COMPLETION AND INSTALL SILT FENCE AT EW-2. (1 WEEK)

PERFORM ROAD IMPROVEMENTS FOR HALL SHOP ROAD. (1 MONTH)

FINAL CONSTRUCT ALL MICRO-BIORETENTION FACILITIES. (2 MONTHS)

TABLE B.1: TEMPORARY SEEDING FOR SITE STABILIZATION

112

FERTILIZER RATE (10-20-20): 438 LB/AC (10LB/1000SF) LIME RATE: 2 TONS/AC (90LB/1000SF)

FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.

PEARL MILLET (PENNISETUM GLAUCUM) 20 0.5

12. FINE GRADE REMAINDER OF SITE AND COMPLETE PAVING. (1 MONTH)

STABILIZE ANY REMAINING DISTURBED AREA. (1 WEEK)

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855). . ALL VEGETATION 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

D SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL; AND REVISIONS THERETO. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING), TEMPORARY TABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION.

AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR

GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. 5. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR

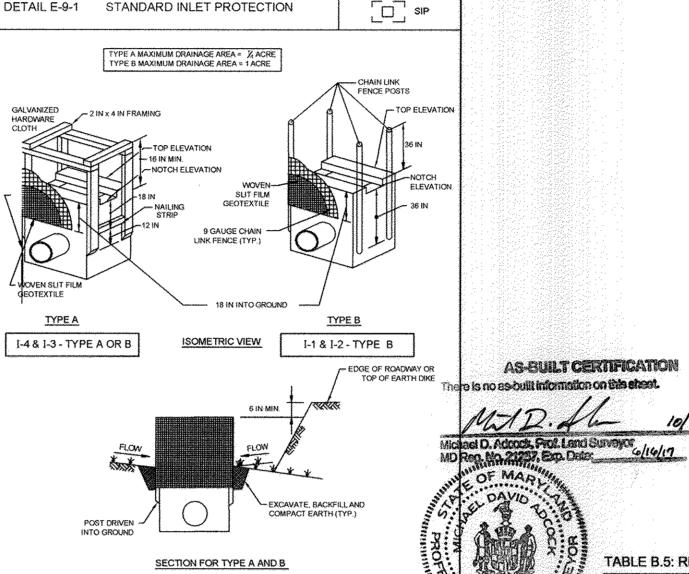
PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM 6. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED. IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

8. 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 HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. SITE ANALYSIS

AREA DISTURBED AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED TOTAL CUT: TOTAL FILL OFFSITE WASTE/BORROW AREA LOCATION

\* EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION. \*\* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR



MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

SEEDING RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE

MARCH 1 TO MAY 15:

AUG 1 TO OCT 15

AUG 1 TO OCT 15

AUG 1 TO OCT 15

MARCH 1 TO MAY 15;

MARCH 1 TO MAY 15

AUG 1 TO NOV 15

MAY 16 TO JUL 31

MARCH 1 TO MAY 15

7a & 7b

FEB 15 TO APR 30

AUG 15 TO NOV 3

FEB 15 TO APR 30

AUG 15 TO NOV 3

FEB 15 TO APR 30

AUG 15 TO NOV 3

FEB 15 TO APR 3

AUG 15 TO NOV 3

FEB 15 TO APR 30

AUG 15 TO DEC 1

MAY 1 TO AUG 14

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 ½ 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

TABLE B.5: RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND PLANT HARDINESS ZONES TYPE OF PLANT MATERIAL 7a & 7b FEB 15 TO APR 30 SEEDS- COOL-SEASON GRASSES AUG 15 TO OCT 3 AUG 1 TO SEP 3 AUG 1 TO OCT 15 (INCLUDES MIXES WITH FORBS AND/OR LEGUMES) NOV 1 TO NOV 30 SEEDS- WARM-SEASON/ COOL-SEASON GRASS MIXE FEB 15 TO APR 30 (INCLUDES MIXES WITH FORBS AND/OR LEGUMES) JUN 1 TO JUN 15\* MAY 16 TO JUN 15\* MAY 1 TO MAY 31\* FEB 15 TO APR 30 JUN 1 TO AUG 31 SEP 1 TO NOV 120 **SEP 15 TO NOV 15\*** OCT 1 TO DEC 1º UNROOTED WOODY MATERIALS; BARE-ROOT PLANTS; MARCH 15 TO MAY 3 MARCH 1 TO MAY JUN 1 TO JUN 30° **MAY 16 TO JUN 30\*** MAY 1 TO JUN 3 MAR 1 TO MAY 15 MAR 15 TO MAY 31 **FER 15 TO APR 30** CONTAINERIZED STOCK; BALLED-AND-BURLAPPED STOCK JUN 1 TO JUN 30\* MAY 16 TO JUN 30 MAY 1 TO JUN 30\*

STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

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

SUMMARY, THE SUMMARY IS TO BE PLACED ON THE PLAN.

OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.

WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE

SEEDING SUMMARY, THE SUMMARY IS TO BE PLACED ON THE PLAN.

SHOWN IN THE PERMANENT SEEDING SUMMARY.

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

A SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT

HARDINESS ZONE (FROM FIGURE 8.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE

B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING

B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR

C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL

1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS

A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES

MANAGEMENT, IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE.

1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH

II, KENTUCKY BLUEGRASS/PERENNIAL RYE; FULL SUN MIXTURE; FOR USE IN FULL SUN ARFAS WHFRE

RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY

RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT

CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT, SEEDING RATE: 5 TO 8 POUNDS PER

IV, KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS

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

D. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL

AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1/4 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL

LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA, MIXTURE INCLUDES;

B.22 RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIV

RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER

MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING

BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGH

III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS

CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT

NOTES: SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND

E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (% TO 1 INCH EVERY 3 TO 4

A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN

MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH, BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT

B. SOD MUST BE MACHINE OUT AT A UNIFORM SOIL THICKNESS OF % INCHIPLUS OR MINUS % INCHIAT THE TIME OF CUTTING

C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR

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

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

E. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS

A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL

ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS

: WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND

D. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE

SEP 15 TO NOV 30"

OCT 1 TO DEC 15°

BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF

A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES, WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.

DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE

PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED

MATERIAL CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CUI TIVAR PURITY THE CERTIFICATION PROGRAM OF THE

MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER

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

I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE

RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE.

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 58, 6A)

LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SUPPAGE ON SLOPES, ENSURE

SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.

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

1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.

SEEDING RATE: 1% TO 3 POUNDS PER 1000 SQUARE-FEET

PROTECTION AND ASSURES A PURE GENETIC LINE

C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES:

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

POSE NO DIFFICULTY

1. GENERAL SPECIFICATIONS

AND INSPECTOR

AFFECT ITS SURVIVAL

SOD WITHIN EIGHT HOURS.

IMMEDIATELY PRIOR TO LAYING THE SOD.

WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.

2. SOD INSTALLATION

3. SOD MAINTENANCE

D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY LIREA FORM FERTILIZER (48-0-0) AT 3 ½ POUNDS PER

DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

CONDITIONS WHERE PRACTICE APPLIES

TESTING AGENCY

2. TURFGRASS MIXTURES

A. SEED MIXTURES

1. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE, THESE DATES MAY REQUIRE AD JUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING ME 2. WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT CONDITION UNTIL PLANTING

SEP 1 TO NOV 15\*0

BARE-ROOT GRASSES ARE THE EXCEPTION—THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT) PLANTS. ADDITIONAL PLANTING DATES FOR THE LOWER COASTAL PLAIN, DEPENDENT ON ANNUAL RAINFALL AND TEMPERATURE TRENDS, RECOMMEND ADDING A NURSE CROP, AS NOTED ABOVE, IF PLANTING DURING THIS PERIOD. ♦♦ WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL TEMPERATURES ARE COLDER THAN 50

DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WEED EMERGENCE AND WEED CONTROL PRIOR TO PLANTING, WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WEED CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE FOR LATER PLANTINGS, ESPECIALLY ON DROUGHTY SITES.

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS

ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT FREQUENT FREEZING AND THAWING OF WET SOILS MAY RESULT IN FROST-HEAVING OF MATERIALS PLANTED IN LATE FALL, IF PLANTS HAVE NOT SUFFICIENTLY ROOTED IN PLACE, SOD USUALLY NEEDS 4 TO 6 WEEKS TO BECOME SUFFICIENTLY ROOTED, LARGE CONTAINERIZED AND BALLED-AND-BURLAPPED STOCK MAY BE PLANTED INTO THE WINTER MONTHS AS LONG AS THE GROUND IS NOT FROZEN AND SOIL MOISTURE IS ADEQUATE

> STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS

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

1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B 1 FOR THE APPROPRIATE PLANT

HARDINESS ZONE (FROM FIGURE 8.3), 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 STRAWMULCH ALONE AS PRESCRIBED IN SECTION 8-4-3.A.1.8 AND MAINTAIN UNTIL, THE NEXT SEEDING SEASON.

> STANDARD STABILIZATION NOTE FOLLOWING INITIAL SOIL DISTURBANCE OF REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER

SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN. NO. DESCRIPTION DATE REVISIONS

DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES

STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION. TOPSOILING. AND OIL AMENDMENT . 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 1. TEMPORARY STABILIZATION a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS

LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS P. PERMANENT STABILIZATION

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I. SOIL PH BETWEEN 6.0 AND 7.0.

II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM). III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL

(GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE. IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. 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

d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE, LEAVE THE TOP 1 TO 3 INCHES OF SOIL

LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED 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 OXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION. 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS, TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS. 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO

SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. 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 SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1% INCHES IN DIAMETER.

TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

6. TOPSOIL APPLICATION a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL, 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 THE AGE ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS. MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER

c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED 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. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE

APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER. 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM

OXIDE PLUS MAGNESIUM OXIDE), LIMESTONE MUST BE GROUND TO SUCH EINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 NCHES 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-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

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 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 PRACTICE.

ACCESS THE STOCKPILE AREA FROM THE LIPGRADE SIDE CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH

AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE, PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER. 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

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

> CONTRACT PURCHASER DEVELOPER WILLIAMSBURG GROUP

AS-BUIL

C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 410.997,8800

SEDIMENT & EROSION CONTROL NOTES & DETAILS

**BLEVINS PROPERTY** LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A A SUBDIVISION OF PARCEL 310

TAX MAP 35 GRID 19 **5TH ELECTION DISTRICT** 

3300 North Ridge Road, Suite 160 Ellicott City, Maryland 21043 Phone: 443.325.7682 Fax: 443.325.7685

JUNE 13, 2014 PROJECT#: 11-054 SHEET#: mail: info@saaland.com ROFESSIONAL CERTIFICATION: THEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DUL ICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015

F-13-094

PARCEL 310

HOWARD COUNTY, MARYLAND

DESIGN BY:

DRAWN BY:

CHECKED BY:

MMOKE

**OWNER** 

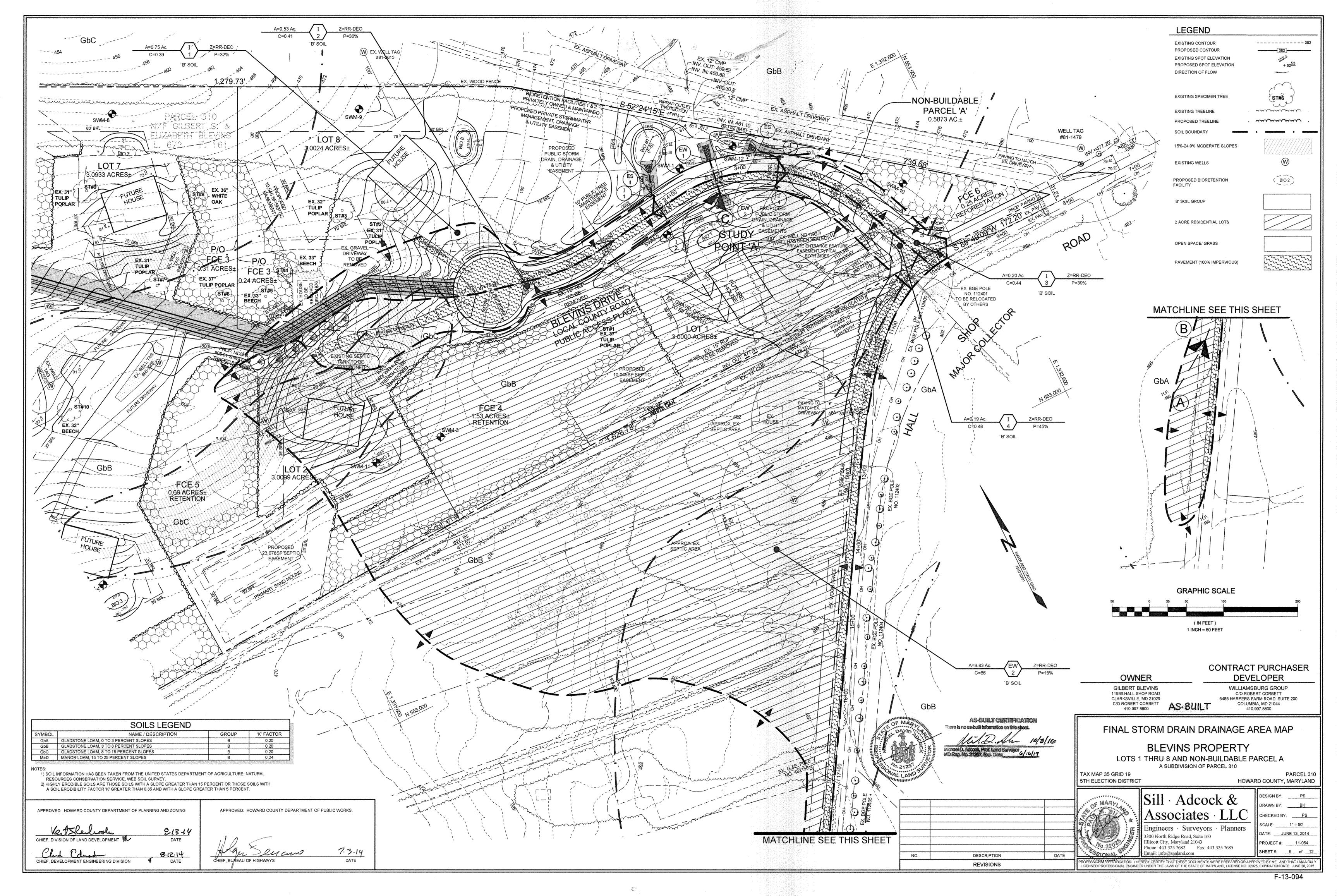
**GILBERT BLEVINS** 

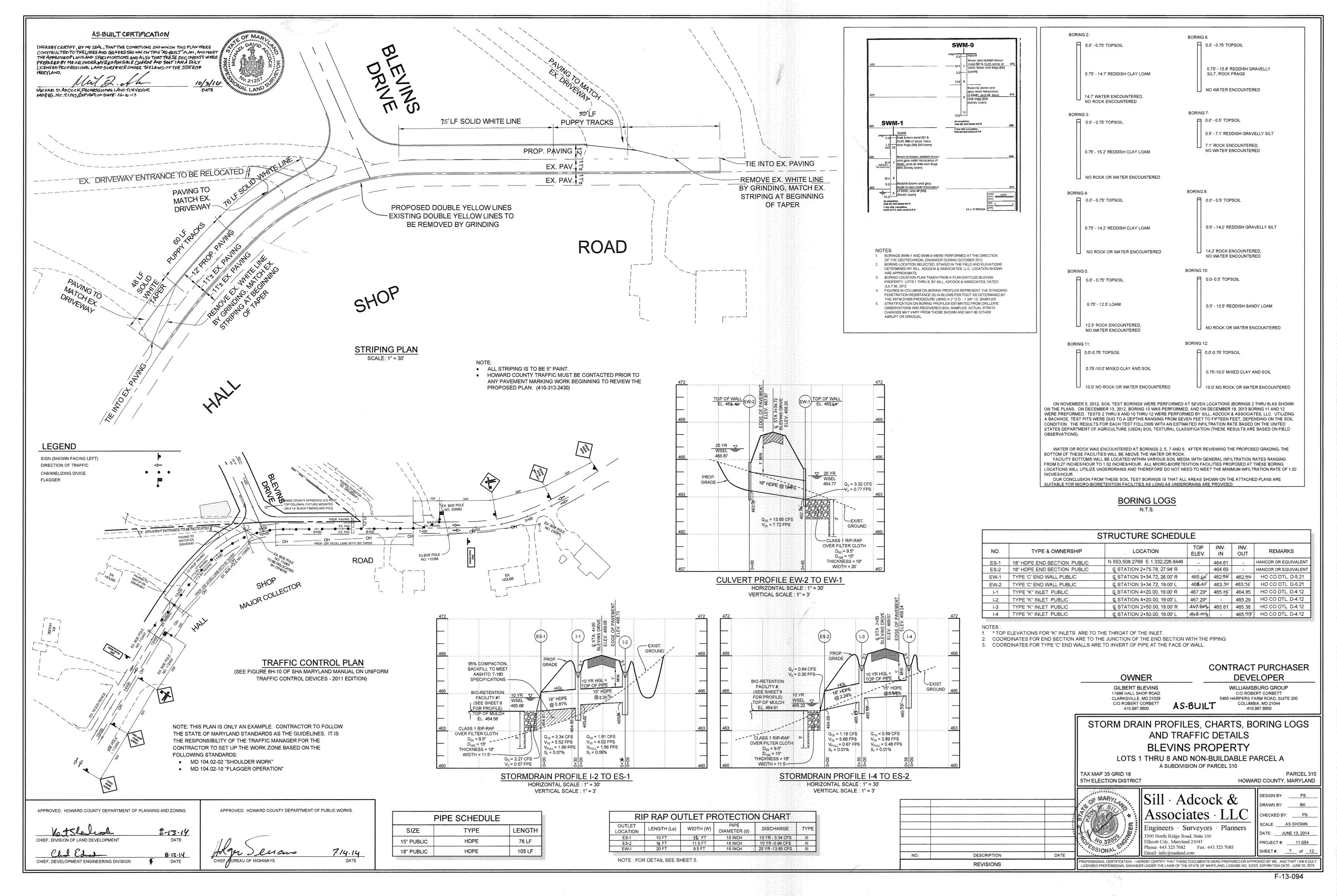
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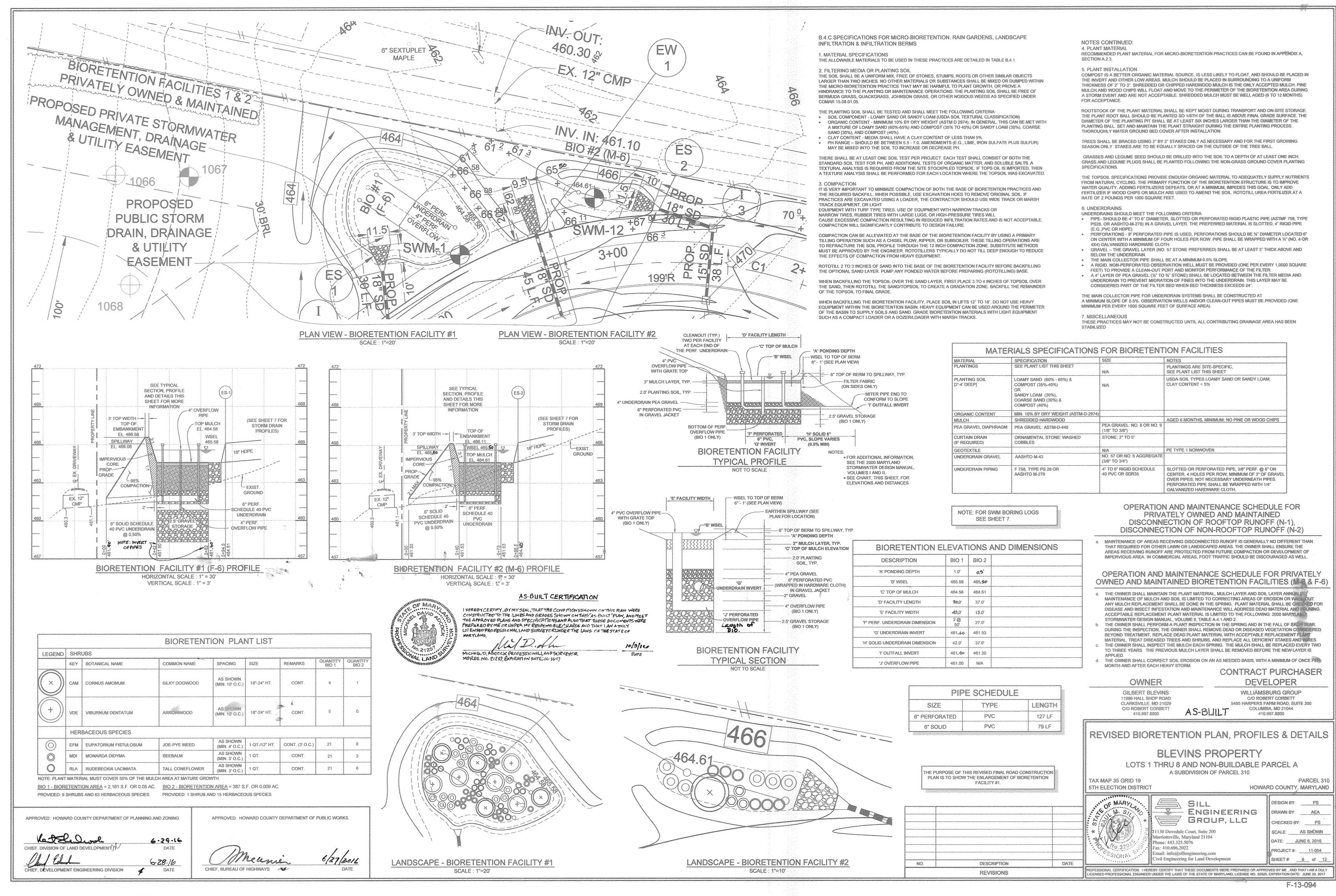
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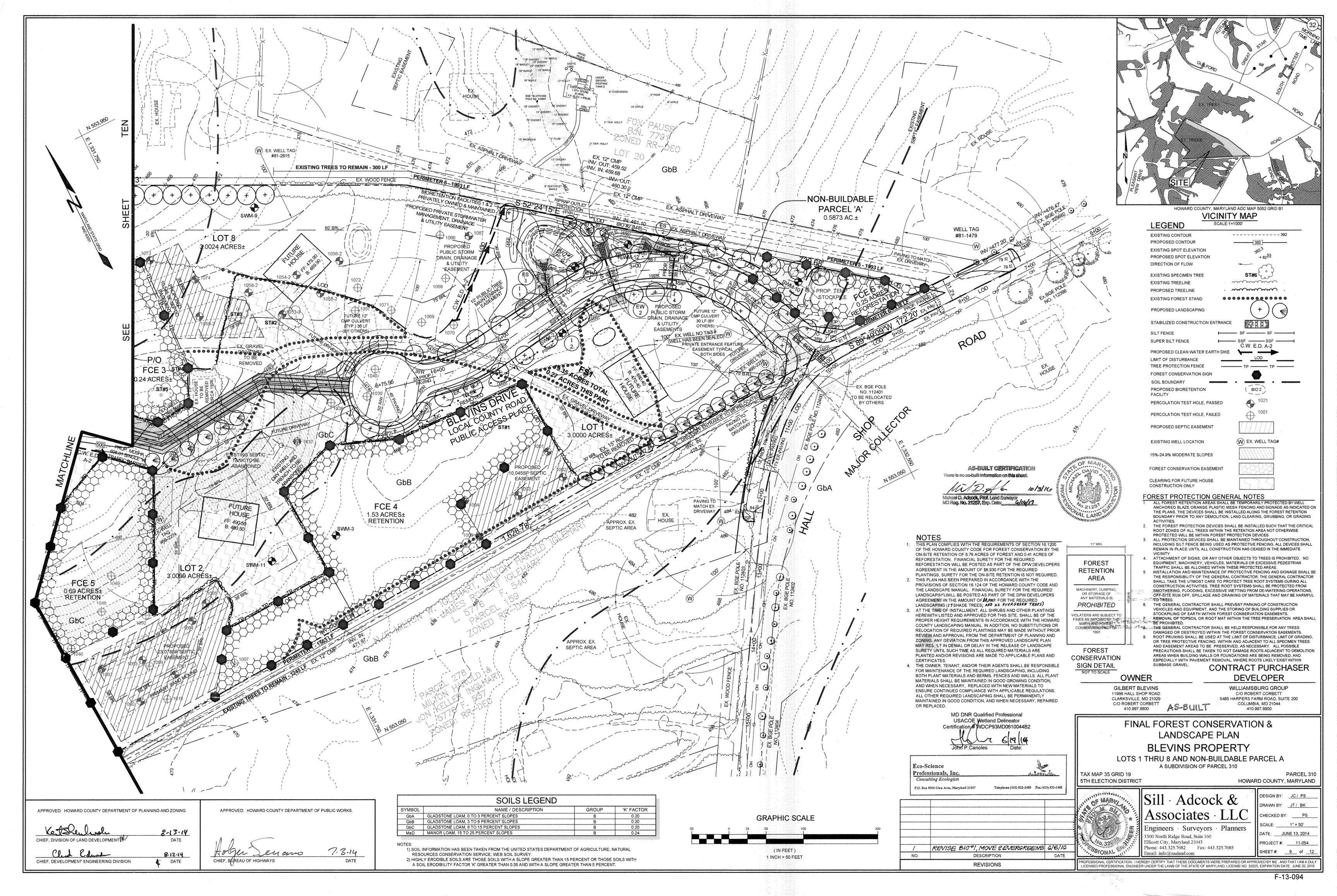
C/O ROBERT CORBETT

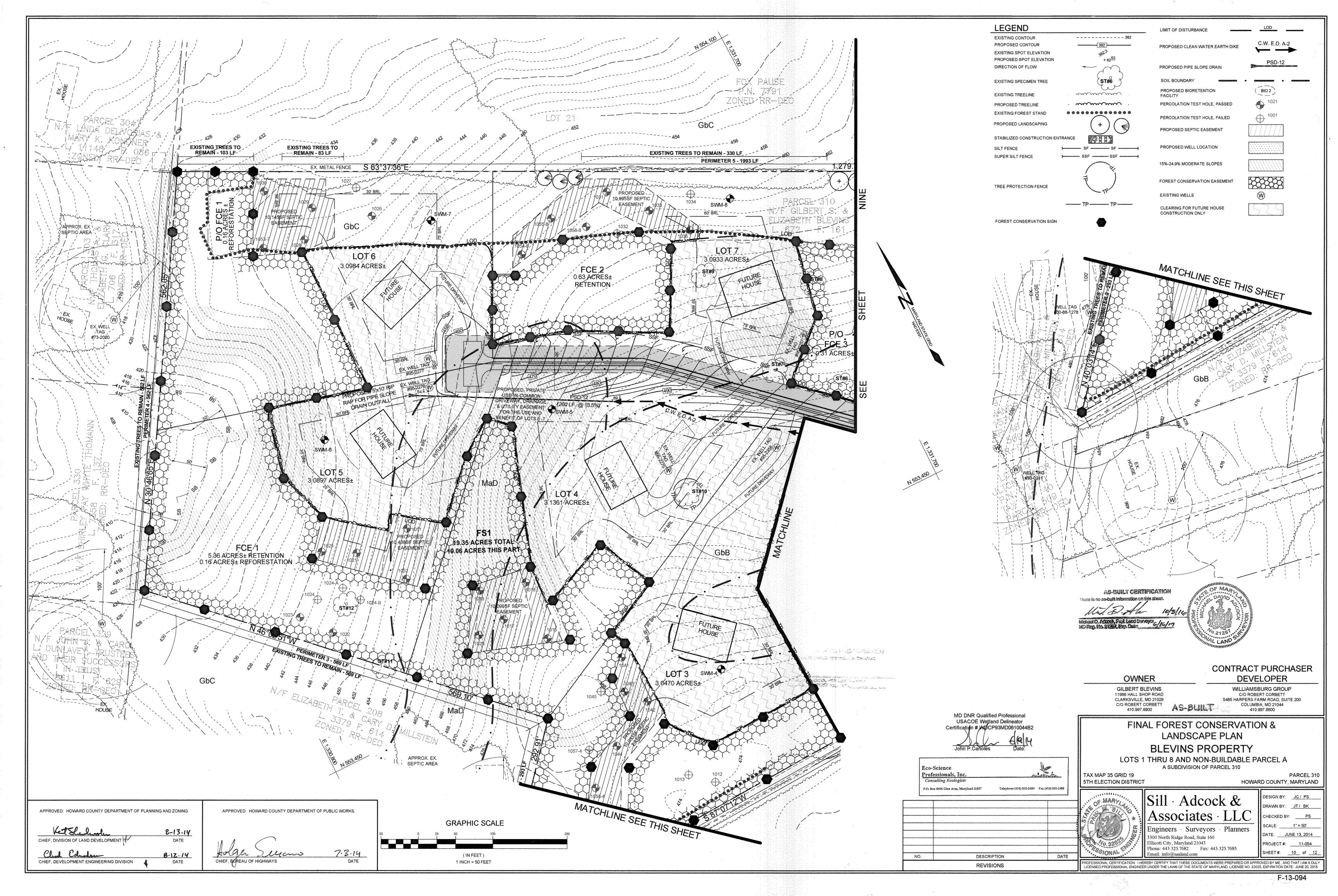
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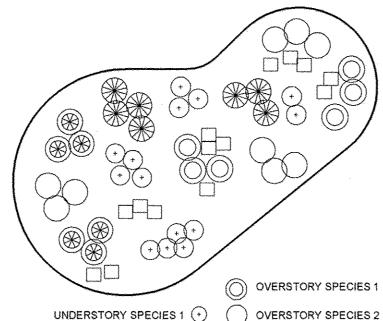




FC	FOREST CONSERVATION EASEMENT PLANT LIST (0.41 AC)							
(	CTITMAU	(				A COLOR OF THE PROPERTY OF THE		
TOTAL	FCE 1 0.16 AC	FCE 2 0.2 <b>5</b> AC	BOTANICAL NAME	SIZE	SPACING	NOTE		
13	5	8	ACER RUBRUM 'RED SUNSET 'RED SUNSET RED MAPLE	2" CAL.	20' x 20'	8&8		
9	3	6	CORNUS FLORIDA 'FLOWERING DOGWOOD'	2" CAL.	20' x 20'	8&8		
6	2	4	LIRIODENDRON TULIPIFERA 'TULIP POPLAR'	2" CAL.	20' x 20'	B&B		
6	2	4	QUERCUS ALBA "WHITE OAK"	2" CAL.	20' x 20'	8&8		
8	4	4	PRUNUS SEROTINA 'BLACK CHERRY'	2" CAL.	20' x 20'	B&B		
42	16	26	112 TOTAL UNITS CREDITED FOR PLANTING AREA A, - AND 182 TOTAL UNIT CREDITS FOR PLANING AREA B. (TOTAL 2" CALIPER TREES X 7.0 UNITS/TREE = FCA UNIT CREDIT)					

## PLANTING NOTES

PLANTING DENSITY BASED SPACING REQUIREMENTS: 2" CALIPER TREES (AS REQUIRED BY WP-13-005) @ 20' ON CENTER, PLANTING MAY BE MADE IN A CURVILINEAR FASHION ALONG CONTOUR. THE PLANTING SHOULD AVOID A GRID APPEARANCE BUT SHOULD BE SPACED TO FACILITATE MAINTENANCE. MULTIFLORA ROSE/HEAVY BRUSH REMOVAL/CONTROL MAY BE REQUIRED PRIOR TO INSTALLATION OF PLANTING, PLANTING-UNITS DEFINED BY THE SPACING REQUIREMENTS ESTABLISHED IN THE FCA MANUAL, ONE PLANT UNIT IS DEFINED AS 1 SEEDLING OR WHIP WITHOUT



UNDERSTORY SPECIES 2 ( ) OVERSTORY SPECIES 3

RANDOM PLANTING DISTRIBUTION PLAN

OVERSTORY SPECIES 1

THIS DIAGRAM SHOWS A TYPICAL DISPERSAL OF SPECIES WITHIN PLANTING AREA. THE SPACING SHALL BE IN ACCORDANCE WITH THE APPROVED PLANTING SCHEDULE. WHERE THE SIZE OF THE PLANTING STOCK VARIES. THE PLANTING UNITS SHALL INSTALLED AT AVERAGED SPACING TO PROVIDE APPROXIMATELY UNIFORM

# PRE-CONSTRUCTION MEETING

AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS AND ALL SPECIMEN TREES HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS

A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS. SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE

PARKING AREAS AND EQUIPMENT STAGING AREAS; B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION

DEVICES: C. MAKE ALL NECESSARY ADJUSTMENTS; D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS

PENALTIES. CONSTRUCTION MONITORING THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED

PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.

IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST. 3. THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS, ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR

2. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED

STREET TREE SCHEDULE						
YMBOL	STREET NAME	LF REQUIRED	TREES REQUIRED	TREES PROVIDED		
<b>①</b>	BLEVINS DRIVE	1417	35	35		

		LANDSCAPE PLANT LIS	T	
KEY	QUANTITY	BOTANICAL NAME	SIZE	NOTE
$\odot$	35	ACER RUBRUM 'RED SUNSET' 'RED SUNSET RED MAPLE'	2.5"- 3" CAL.	B&B

TOTAL NUMBER OF PLANTS PROVIDED = 35 SHADE TREES

	LA	NDSCAPE PLANT L	IST	
KEY	QUANTITY	BOTANICAL NAME	SIZE	NOTE
$\odot$	17	GINKGO BILOBA 'AUTUMN GOLD'	2.5"- 3" CAL.	B & B
•	22*	PICEA ABIES 'NORWAY SPRUCE'	2.5"- 3" CAL.	8&8

TOTAL NUMBER OF PLANTS REQUIRED= 26 SHADE TREES

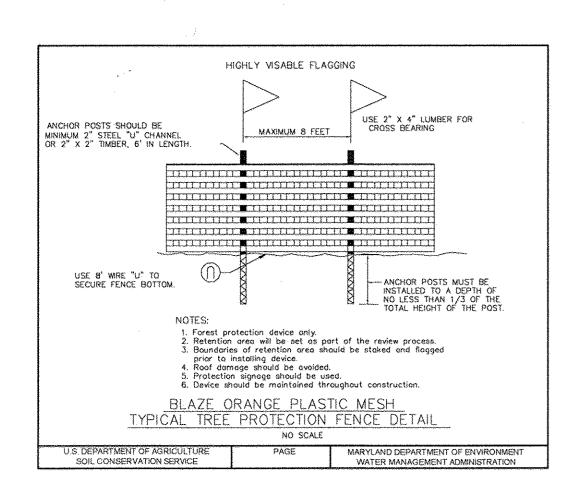
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

Chal Edual

PROVIDED = 17 SHADE TREES AND 22\* EVERGREEN TREES \*4 ADDITIONAL EVERGREEN TREES ARE BEING PROVIDED FOR SCREENING OF THE



DATE

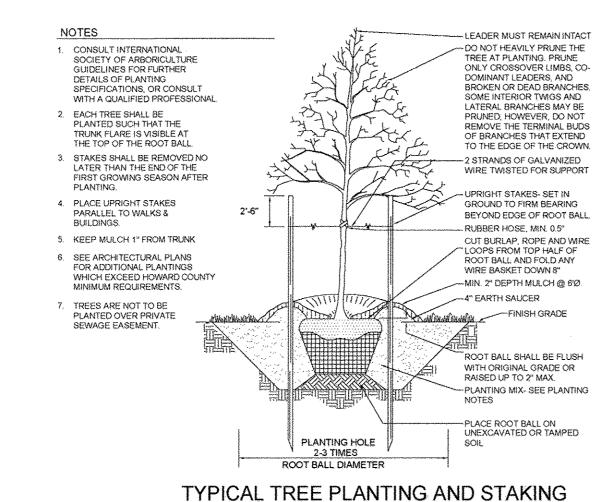
8.12.14

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

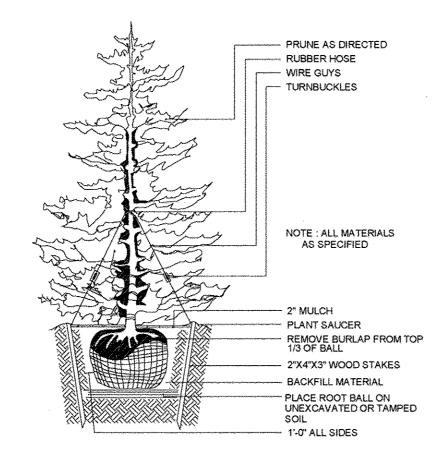
CHIEF, BUREAU OF HIGHWAYS

7.3.14

DATE



DECIDUOUS TREES UP TO 2-1/2" CALIPER



TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE

			NET TRA	CT AREA		
А	TOTAL	TRACT AREA			_	26.02 A
В	DEDUC	TIONS (100 YR FLO	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			0 AC
С	NET T	RACT AREA				26.02 A
			LAND USE	CATEGORY		
А	ARA MDR IDA HDR MPD				MPD	CIA
	0	1	0	0	0	0
,,- <u>-</u> ,	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	, . ,				
D	REFOR	RESTATION THRES	HOLD (NET TRACT	AREA x 25%)		6.51 AC
			EXISTING FO	REST COVER	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	
E	EXIST	NG FOREST COVE	R WITHIN THE NET	TRACT AREA		19.35 A
F	F AREA OF FOREST ABOVE REFORESTATION THRESHOLD					12.84 A
		**************************************	BREAK E	/EN POINT	<del></del>	
G	BREAK	EVEN POINT	<u> </u>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	<u> </u>	9.10 AC
			PROPOSED FO	REST CLEARING	3	
Н	TOTAL AREA OF FOREST TO BE CLEARED					
ı	TOTAL	TOTAL AREA OF FOREST TO BE RETAINED				
			PLANTING RE	QUIREMENTS		
J	REFOR	RESTATION FOR CI	EARING ABOVE TH	E CONSERVATION	THRESHOLD	2.65 AC
К	REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD					0.00 AC
	CRED!	T FOR RETENTION	ABOVE THE CONSI	ERVATION THRESH	HOLD	2.25 AC
М	TOTAL	REFORESTATION	REQUIRED			0.40 AC
N	TOTAL	AFFORESTATION	DECHIDED		·///··· : :!!!· *******	0.00 AC

FOREST CONSERVATION WORKSHEET

\* NOTE: 0.40 ACRES OF REFORESTATION IS REQUIRED. 0.41 ACRES OF PLANING IS PROPOSED TO SATISFY THIS REQUIREMENT

1. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 8,76 ACRES OF FOREST AND 0.41 ACRES OF REFORESTATION, FINANCIAL SURETY FOR THE REQUIRED REFORESTATION WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$8,930 FOR THE REQUIRED PLANTINGS, SURETY FOR THE ON-SITE RETENTION IS NOT REQUIRED. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED

MOSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF 18,400 FOR THE REQUIRED LANDSCAPING (17 SHADE TREES AND 22 EVERGREEN TREES)

		SPECIIV	ICIA IIVE	E TABLE
KEY	SIZE	TYPE	CONDITION	REMARKS
ST-1	37"	TULIP POPLAR	GOOD	
ST-2	31"	TULIP POPLAR	GOOD	
ST-3	32"	TULIP POPLAR	GOOD	
ST-4	33"	BEECH	GOOD	
ST-5	33"	BEECH	GOOD	
ST-6	37"	TULIP POPLAR	FAIR	SPLIT INTO TWO JUST ABOVE DBH
ST-7	31"	TULIP POPLAR	GOOD	SPLIT INTO TWO ABOVE DBH
ST-8	36"	WHITE OAK	GOOD / FAIR	SCARRING ON TREE / BROKEN LOWER BRANCHES
ST-9	31"	TULIP POPLAR	FAIR	HOLE IN BASE OF TRUNK
ST-10	32"	BEECH	FAIR	SPLIT INTO THREE JUST ABOVE DBH HOLE IN BASE OF TRUNK
ST-11	34"	TULIP POPLAR	GOOD	
ST-12	32"	BEECH	GOOD	NICE CANOPY

#### SCHEDULE A: PERIMETER LANDSCAPE EDGE CATEGORY ADJ. TO ROAD ADJACENT TO PERIMETER PROPERTIES PERIMETER/FRONTAGE DESIGNATION TOTAL LANDSCAPE TYPE N/A - OS TO ROA LINEAR FEET OF ROADWAY 1563 293 569 562 118 FRONTAGE/PERIMETER CREDIT FOR EXISTING VEGETATION YES, 1245 LF OF YES, 293 LF OF YES, 569 LF OF YES, 562 LF OF (YES, NO, LINEAR FEET) EX TREES EX. TREES NO EX. TREES EX. TREES EX. TREES CREDIT FOR WALL, FENCE OR BERM NO NO (YES, NO, LINEAR FEET) NO NO REMAINING PERIMETER LENGTH NUMBER OF PLANTS REQUIRED SHADE TREES 1:60 = 6\* 1:60 = 20 **EVERGREEN TREES** SHRUBS NUMBER OF PLANTS PROVIDED SHADE TREES **EVERGREEN TREES** 16\* (2:1 SHADE) 18 REQUIRED: 22 PROVIDED\* 6 (2:1 SHADE)

\*6 REQUIRED SHADE TREES = 12 EVERGREEN TREES AT 2:1,c 4 ADDITIONAL EVERGREEN TREES ARE BEING PROVIDED FOR SCREENING OF THE EXISTING DRIVEWAY.

# **REFORESTATION PLAN**

THE REFORESTATION AREA WILL BE PLACED INTO A FOREST CONSERVATION EASEMENT.

# A. PLANTING PLAN AND METHODS

PLANT SPECIES SELECTION WAS BASED ON OUR KNOWLEDGE REGARDING PLANT COMMUNITIES IN MARYLAND'S PIEDMONT PLATEAU AND INFORMATION PROVIDED IN THE SOIL SURVURSEY ON TYPICAL VEGETATION FOR THE SOIL TYPE ON THE PLANTING SITE. SPECIES SELECTION WAS ALSO BASED ON OUR KNOWLEDGE OF PLANT AVAILABILITY IN THE NERY INDUSTRY.

REFORESTATION WILL BE ACCOMPLISHED THROUGH A MIXED PLANTING OF WHIPS AND BRANCHED TRANSPLANTS. CONTAINER GROWN STOCK IS RECOMMENDED BUT BAREROOT STOCK MAY BE USED. TO HELP CONTROL AFFORESTATION COSTS. IF BAREROOT STOCK IS USED THE ROOT SYSTEMS OF ALL PLANTS WILL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING TO IMPROVE MOISTURE RETENTION IN THE ROOT SYSTEMS

PRIOR TO PLANTING THE PROPOSED FOREST CONSERVATION EASEMENTS ALL MULTIFLORA ROSE IN THE PLANTING AREA SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWING BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS, HERBICIDE USED SHALI BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

# B. PLANTING AND SOIL SPECIFICATIONS

PLANT MATERIAL WILL BE INSTALLED IN ACCORDANCE WITH THE PLANTING DETAIL AND PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN.

AMENDMENTS TO EXISTING SOIL WILL BE IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN. SOIL DISTURBANCE WILL BE LIMITED TO INDIVIDUAL. PLANTING LOCATIONS

#### C. MAINTENANCE OF PLANTINGS

PLANTINGS SHALL BE MAINTAINED DURING THE SECURITY PERIOD. THIS MAY INCLUDE WATERING, WEED REMOVAL, STAKING AND DEER PROTECTION.

A 90 PERCENT SURVIVAL RATE OF THE REFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON, ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON. AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT

#### GROWING SEASON. E. SECURITY FOR REFORESTATION

SECTION 16-1209 OF THE HOWARD COUNTY FOREST CONSERVATION ACT REQUIRES THAT A DEVELOPER SHALL POST A SECURITY (BOND, LETTER OF CREDIT, ETC.) WITH THE COUNTY TO INSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE FCP.

### CONSTRUCTION PERIOD PROTECTION PROGRAM

#### A. FOREST PROTECTION TECHNIQUES 1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE)

THE SOIL PROTECTION AREA, OR CRITICAL ROOT ZONE, OF A TREE IS THAT PORTION OF T HE SOIL COLUMN WHERE MOST OF A ITS ROOTS MAY BE FOUND. THE MAJORITY OF ROOTS RESPONSIBLE FOR WATER AND NUTRIENT UPTAKE ARE LOCATED JUST BELOW THE SOIL SURFACE. TEMPORARY FENCING SHALL BE PLACED AROUND THE CRITICAL ROOT ZONE OF THE FOREST IN AREAS WHERE THE FOREST LIMITS OCCUR WITHIN 25 FEET OF THE LIMIT OF DISTURBANCE.

#### 2. FENCING AND SIGNAGE

EXISTING FOREST LIMITS OCCURRING WITHIN 25 FEET OF THE LIMITS OF DISTURBANCE SHALL BE PROTECTED USING TEMPORARY PROTECTIVE FENCING. PERMANENT SIGNAGE SHALL BE PLACED AROUND THE AFFORESTATION AREA PRIOR TO PLANT INSTALLATION,

#### AS SHOWN ON THE PLAN. B. PRE-CONSTRUCTION MEETING

UPON STAKING OF LIMITS OF DISTURBANCE A PRE-CONSTRUCTION MEETING WILL BE HELD BETWEEN THE DEVELOPER, CONTRACTOR AND APPROPRIATE COUNTY INSPECTOR. THE PURPOSE OF THE MEETING WILL BE TO VERIFY THAT ALL SEDIMENT CONTROL IS IN ORDER, AND TO NOTIFY THE CONTRACTOR OF POSSIBLE PENALTIES FOR NON-COMPLIANCE WITH THE FCP.

## C. STORAGE FACILITIES/EQUIPMENT CLEANING

ALL EQUIPMENT STORAGE, PARKING, SANITARY FACILITIES, MATERIAL STOCKPILING, ETC. ASSOCIATED WITH CONSTRUCTION OF THE PROJECT WILL BE RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT, CLEANING OF EQUIPMENT WILL BE LIMITED TO AREA WITHIN THE LOD OF THE PROPOSED HOMESITES. WASTEWATER RESULTING FROM EQUIPMENT CLEANING WILL BE CONTROLLED TO PREVENT RUNOFF INTO ENVIRONMENTALLY SENSITIVE AREAS.

## D. SEQUENCE OF CONSTRUCTION

THE FOLLOWING TIMETABLE REPRESENTS THE PROPOSED TIMETABLE FOR DEVELOPMENT. THE ITEMS OUTLINED IN THE FOREST CONSERVATION PLAN WILL BE ENACTED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL

# BELOW FIND A PROPOSED SEQUENCE OF CONSTRUCTION.

1. INSTALL ALL SIGNAGE AND SEDIMENT CONTROL DEVICES. 2. HOLD PRE-CONSTRUCTION MEETING BETWEEN DEVELOPER, CONTRACTOR AND COUNT

#### 3. BUILD ACCESS ROADS, INSTALL WELL AND SEPTIC SYSTEMS, AND CONSTRUCT HOUSES. STABILIZE ALL DISTURBED AREAS ACCORDINGLY.

4. BEGIN MULTIFLORA ROSE REMOVAL. INSTALL PERMANENT PROTECTIVE SIGNAGE FOR EASEMENTS AND INITIATE PLANTINGS IN ACCORDANCE WITH FOREST CONSERVATION PLAN. PLANTINGS WILL BE COMPLETED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL. 5. REMOVE SEDIMENT CONTROL.

6. HOLD POST-CONSTRUCTION MEETING WITH COUNTY INSPECTORS TO ASSURE COMPLIANCE WITH FCP. SUBMIT CERTIFICATION OF INSTALLATION. 7. MONITOR AND MAINTAIN PLANTINGS FOR 2 YEARS.

# E. CONSTRUCTION MONITORING

AS-BUILT CERTIFICATION

nere is no as-built information on this einect.

Michael D. Adcook, Prof. Land Surveyor 6/16/11
MD Reg. No. 21257, Exp. Date: 6/16/11

ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL MONITOR CONSTRUCTION OF THE PROJECT TO ENSURE THAT ALL ACTIVITIES ARE IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN. F. POST-CONSTRUCTION MEETING

UPON COMPLETION OF CONSTRUCTION, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL NOTIFY THE COUNTY THAT CONSTRUCTION HAS BEEN COMPLETED AND ARRANGE FOR A POST-CONSTRUCTION MEETING TO REVIEW THE PROJECT SITE. THE MEETING WILL ALLOW THE COUNTY INSPECTOR TO VERIFY THAT AFFORESTATION PLANTINGS HAVE BEEN INSTALLED.

# POST-CONSTRUCTION MANAGEMENT PLAN

HOWARD COUNTY REQUIRES A TWO YEAR POST-CONSTRUCTION MANAGEMENT PLAN BE PREPARED AS PART OF THE FOREST CONSERVATION PLAN. THE PLAN GOES INTO EFFECT UPON ACCEPTANCE OF THE CONSTRUCTION CERTIFICATION OF COMPLETION BY THE COUNTY. ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PLAN.

#### THE FOLLOWING ITEMS WILL BE INCORPORATED INTO THE PLAN: A. FENCING AND SIGNAGE

PERMANENT SIGNAGE INDICATING THE LIMITS OF THE RETENTION/REFORESTATION AREA SHALL BE MAINTAINED. B. GENERAL SITE INSPECTIONS/MAINTENANCE OF PLANTINGS

SITE INSPECTIONS WILL BE PERFORMED A MINIMUM OF THREE TIMES DURING THE GROWING SEASON. THE PURPOSE OF THE INSPECTIONS WILL BE TO ASSESS THE HEALTH OF THE AFFORESTATION PLANTINGS. APPROPRIATE MEASURES WILL BE TAKEN TO RECTIFY ANY PROBLEMS WHICH MAY ARISE. IN ADDITION, MAINTENANCE OF THE AFFORESTATION PLANTINGS WILL INVOLVE

1. WATERING - ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1ST GROWING SEASON, MORE OR LESS FREQUENTLY DEPENDING ON WEATHER CONDITIONS. DURING THE SECOND GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF

2. REMOVAL OF INVASIVE EXOTICS AND NOXIOUS WEEDS. OLD FIELD SUCCESSIONAL SPECIES

WILL BE RETAINED 3. IDENTIFICATION OF SERIOUS PLANT PESTS AND DISEASES, TREATMENT WITH

#### APPROPRIATE AGENT 4. PRUNING OF DEAD BRANCHES.

5. AFTER 12 AND 24 MONTHS, REPLACEMENT OF PLANTS, IF REQUIRED, IN ACCORDANCE WITH THE GUARANTEE REQUIREMENTS SHOWN ON THE FCP.

### C. EDUCATION THE DEVELOPER WILL PROVIDE APPROPRIATE MATERIALS TO PROPERTY OWNERS INFORMING

THEM OF THE LOCATION AND PURPOSE OF THE AFFORESTATION AREA. MATERIALS MAY INCLUDE SITE PLANS AND INFORMATION EXPLAINING THE INTENT OF THE FOREST CONSERVATION LAW. D. FINAL INSPECTION

AT THE END OF THE TWO YEAR POST-CONSTRUCTION MANAGEMENT PERIOD, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL, WILL SUBMIT TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL RETENTION/ REFORESTATION/AFFORESTATION REQUIREMENTS HAVE BEEN MET. UPON ACCEPTANCE OF THIS CERTIFICATION, THE COUNTY WILL RELEASE THE DEVELOPER FROM ALL FUTURE OBLIGATIONS AND RELEASE THE DEVELOPER'S BOND.

#### PLANTING/SOIL SPECIFICATIONS

1. INSTALLATION OF BAREROOT/PLUG PLANT STOCK SHALL TAKE PLACE BETWEEN MARCH 15 -APRIL 20; B&B/CONTAINER STOCK MARCH 15 -MAY 30 OR SEPTEMBER 15 - NOVEMBER 15.

FALL PLANTING OF B&B STOCK IS NOT RECOMMENDED.

2. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO

ADDITIONAL TOPSOIL INSTALLED. 3. BAREROOT PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. ROOTS SHALL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR

TO 1 PART PINE FINES OR EQUIVALENT. 4. FERTILIZER SHALL CONSIST OF AGRIFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURER'S SPECIFICATIONS, FOR WOODY PLANTS. HERBACEOUS PLANT SHALL

TO PLANTING. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL

BE FERTILIZED WITH OSMOCOTE 8-6-12. 5. PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING

6. THE CONTRACTOR SHALL REMOVE ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION FROM THE SITE.

## SEQUENCE OF CONSTRUCTION

1. SEDIMENT CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION

2. PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND THE PLANTING/SOIL SPECIFICATIONS FOR THE PROJECT.

3. UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS SHOWN.

4. PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.

## MAINTENANCE OF PLANTINGS

1. MAINTENANCE OF PLANTINGS SHALL LAST FOR A PERIOD OF TWO YEARS. 2. PLANTINGS MUST RECEIVE 2 GALLONS OF WATER, EITHER THROUGH PRECIPITATION OR WATERING, WEEKLY DURING THE 1ST GROWING SEASON, AS NEEDED. DURING SECOND

GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF NEEDED. 3. INVASIVE EXOTICS AND NOXIOUS WEEDS WILL BE REMOVED, AS REQUIRED, FROM PLANTING

AREAS MECHANICALLY AND/OR WITH LIMITED HERBICIDE. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.

4. PLANTS SHALL BE EXAMINED A MINIMUM TWO TIMES DURING THE GROWING SEASON FOR SERIOUS PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE APPROPRIATE AGENT.

5. DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS.

# **GUARANTEE REQUIREMENTS**

1. A 90 PERCENT SURVIVAL RATE OF THE REFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON, ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON, AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT GROWING SEASON.

# **EDUCATION OF NEW OCCUPANTS**

. THE DEVELOPER SHALL PROVIDE EDUCATIONAL INFORMATION TO ALL PROPERTY OWNERS WITHIN THE NEW DEVELOPMENT/HOME ABOUT THE PROPER USE OF FOREST CONSERVATION AREAS.

# FINAL INSPECTION AND RELEASE OF OBLIGATIONS

1. AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD THE DEVELOPER SHALL SUBMIT A CERTIFICATION TO THE COUNTY THAT ALL FOREST CONSERVATION AREAS HAVE REMAINED INTACT OR HAVE BEEN RESTORED TO APPROPRIATE CONDITION, THAT THE STIPULATED SURVIVAL RATES HAVE BEEN ACHIEVED, AND THAT ANY PERMANENT PROTECTION MEASURES REQUIRED BY THE PLAN ARE IN PLACE. UPON REVIEW AND ACCEPTANCE, THE COUNTY WILL INFORM THE DEVELOPED OF THEIR RELEASE THE DEVELOPMENT

OF FUTURE OBLIGATIONS RELATED TO THE FOREST CONSERVATION ACT.

Telephone (416) 832-2480 Fax (410) 832-248

DATE

MD DNR Qualified Professional USACOE Wetland Delineator Certification # WDC 93MD0610044B2

DESCRIPTION

REVISIONS

Eco-Science

NO.

Professionals, In

Consulting Ecologist

P.O. Box 5006 Glen Arm, Maryland 21057

CONTRACT PURCHASER **DEVELOPER** 

**GILBERT BLEVINS** 11986 HALL SHOP ROAD CLARKSVILLE, MD 21029 C/O ROBERT CORBETT 410.997.8800

**OWNER** 

AS-SUILT

WILLIAMSBURG GROUP C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044

# FINAL FOREST CONSERVATION & LANDSCAPE NOTES AND DETAILS **BLEVINS PROPERTY**

LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A A SUBDIVISION OF PARCEL 310

TAX MAP 35 GRID 19 **5TH ELECTION DISTRICT** 

OF MARY,

Sill · Adcock &

Associates · LLC Engineers · Surveyors · Planners 3300 North Ridge Road, Suite 160

CHECKED BY: PS SCALE: AS SHOWN DATE: JUNE 13, 2014 Ellicott City, Maryland 21043 PROJECT #: 11-054 Phone: 443.325.7682 Fax: 443.325.7685 info@saaland.com

SHEET#: 11 of 12 ESSIONAL CERTIFICATION: THEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT LAM A DUL NSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015

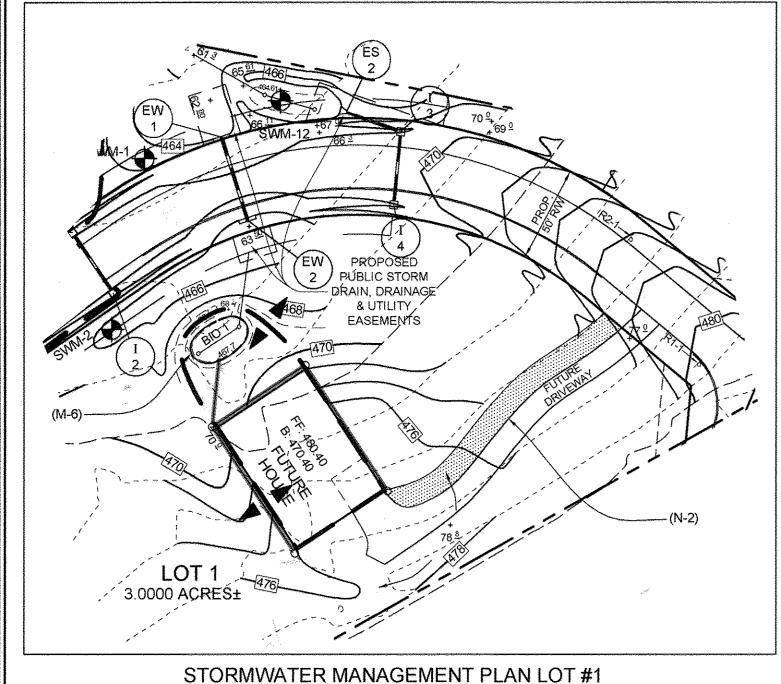
HOWARD COUNTY, MARYLAND

DESIGN BY: JC / PS

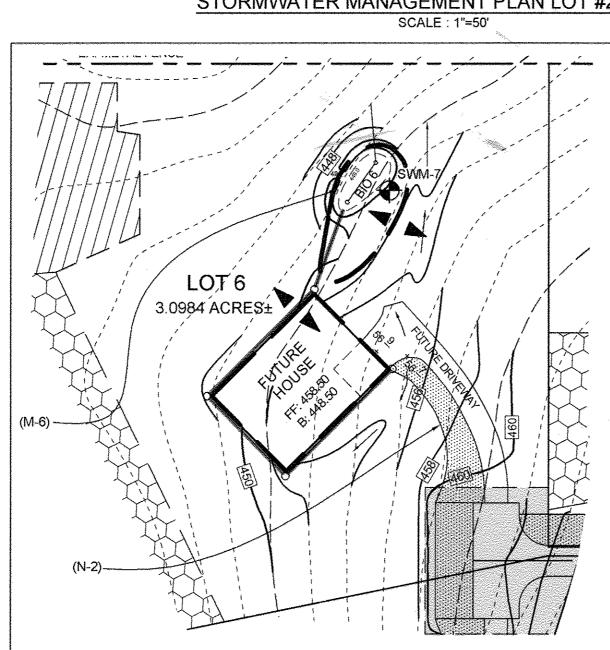
DRAWN BY: JT / BK

F-13-094

PARCEL 310







3.0099 ACRÉS±

STORMWATER MANAGEMENT PLAN LOT #5 SCALE : 1"=50"

**BIORETENTION PLANT LIST** 

REMARKS

CONT.

CONT.

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

LOT 6 - BIORETENTION AREA = 100 S.F. OR 0.002 AC.

LOT 2 - BIORETENTION AREA = 450 S.F. OR 0.010 AC.

LOT 5 - BIORETENTION AREA = 450 S.F. OR 0.010 AC.

LOT 8 - BIORETENTION AREA = 450 S.F. OR 0.010 AC.

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

SIZE

18"-24" HT

1 QT.

JOE-PYE WEED AS SHOWN 1 QT./12" HT. CONT. (3' O.C.) 6

AS SHOWN

COMMON NAME SPACING

SILKY DOGWOOD | AS SHOWN |

NOTE: INTERSPERSE PLANTINGS THROUGHOUT BIORETENTION FILTER AREAS, SEE TYPICAL PLANTING DETAIL

BEEBALM

SHRUBS

BOTANICAL NAME

CORNUS AMOMUM

HERBACEOUS SPECIES

EFM EUTROCHIUM PURPUREUM

MONARDA DIDYMA

LOT 1 - BIORETENTION AREA = 450 S.F. OR 0.010 AC.

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

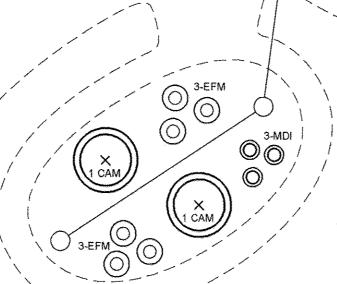
LOT 4 - BIORETENTION AREA = 450 S.F. OR 0.010 AC.

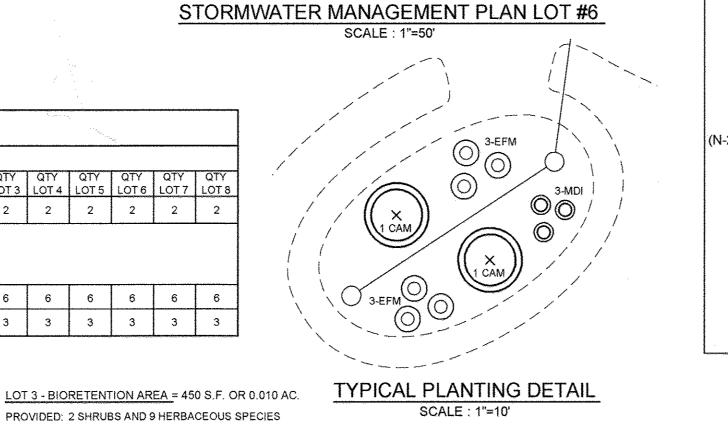
LOT 7 - BIORETENTION AREA = 450 S.F. OR 0.010 AC.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

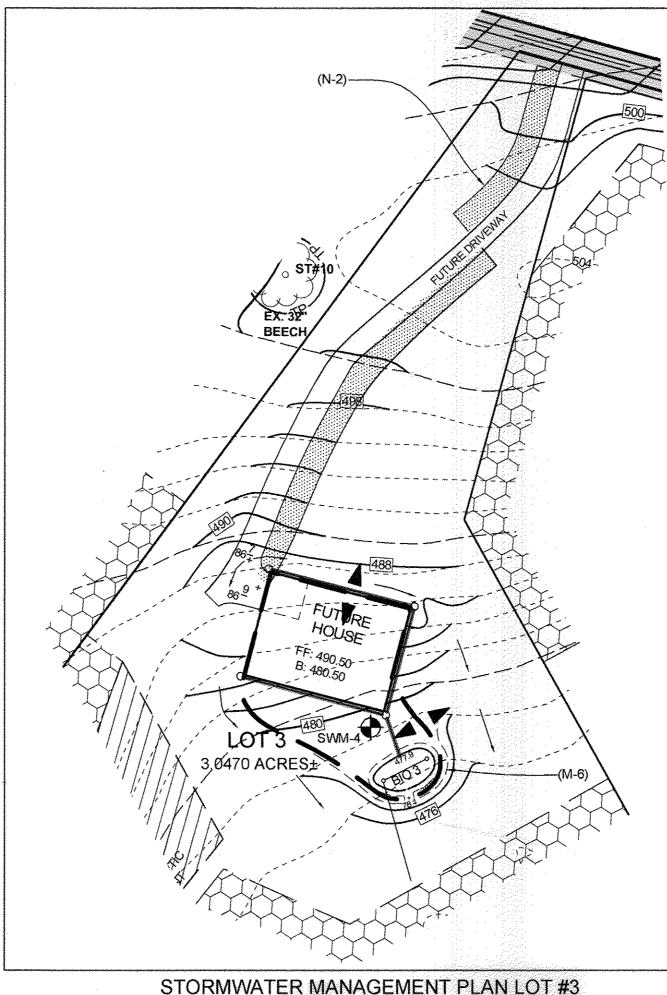
PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES

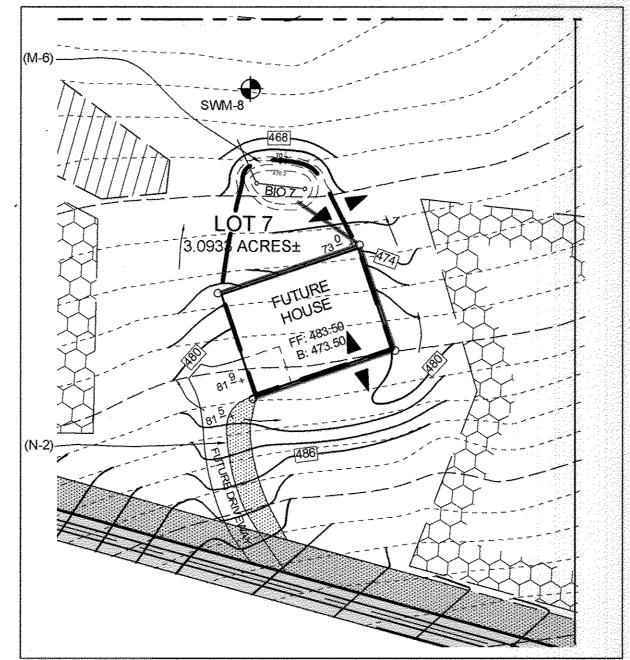


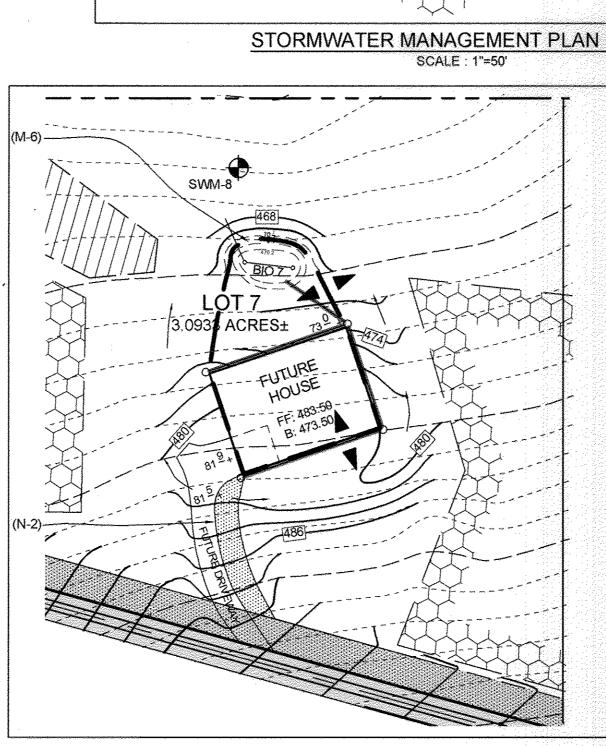


YPICAL PLANTING DETAIL  SCALE: 1"=10"		STORMWATER MANAGEMENT PLAN LOT: SCALE: 1"=50"	
MATER	RIALS SPECIFICATIONS	FOR BIORETENT	ION FACILITIES
MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLANT LIST THIS SHEET	N/A	PLANTINGS ARE SITE-SPECIFIC, SEE PLANT LIST THIS SHEET
PLANTING SOIL [2'-4' DEEP]	LOAMY 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	PEA GRAVEL: NO. 8 OR NO. 9 (1/8" TO 3/8")	
CURTAIN DRAIN (IF REQUIRED)	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 5"	
GEOTEXTILE		N/A	PE TYPE 1 NONWOVEN
UNDERDRAIN GRAVEL	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" GALVANIZED HARDWARE CLOTH:



STORMWATER MANAGEMENT PLAN LOT #3





IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

NOTE: FOR SWM BORING LOGS

SEE SHEET 7.

# OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITIES (M-6)

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1),

DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

a. MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN

THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF

-a. 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. b. THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR.

VOTE:THE PRIVATE STORMWATER MANAGEMENT WAS CERTIFIED LINDER THEDOCAGREEMENT FOR EACH LOT APTER CONSTRUCTION UNDER THE BUILDING PERMIT.

CERTIFICATIONS.

LEGEND

EXISTING CONTOUR

PROPOSED CONTOUR **EXISTING SPOT ELEVATION** PROPOSED SPOT ELEVATION

DIRECTION OF FLOW

PROPOSED SEPTIC EASEMENT

EXISTING SWM SOIL BORINGS

PROPOSED DRAINAGE DIVIDE

PROPOSED NON-ROOFTOP DISCONNECT (N-2)

TREE PROTECTION FENCE

STORMWATER MANAGEMENT PRACTICES

LOT#

100 - 100 -

**ADDRESS** 

11005 BLEVINS DRIVE 11011 BLEVINS DRIVE

11029 BLEVINS DRIVE 11028 BLEVINS DRIVE 11022 BLEVINS DRIVE

3 11017 BLEVINS DRIVE

4 11023 BLEVINS DRIVE

8 11010 BLEVINS DRIVE

BIORETENTION

(NUMBER)

FACILITY (M-6)

FOREST CONSERVATION EASEMENT

PROPOSED MICRO-BIORETENTION

-----382

SWM-1

**DISCONNECTION OF** 

NON-ROOFTOP

**RUNOFF N-2** 

(Y/N)

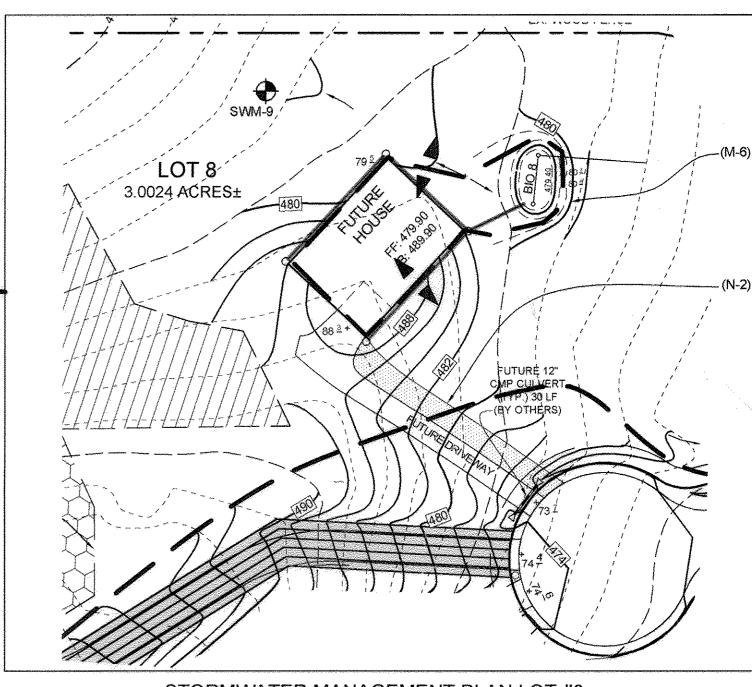
DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD OR DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES. c. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS

d. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

> DESCRIPTION NO. DATE **REVISIONS**

PLEASE REFER TO THE LOT GRADING PERMITFOR GRADE OT 1, LICOS BLEUMS DR. GISCOCGOS, AS-BUILT PATE: 5-10-16 LOT 2, 11011 BLEVINS DR. G15000338, AS-BUILT DATE: 9-28-16 LOT 3, 11017 BLEVINS DR. G15000385, AS-BUILT DATE: 9-08-16 OT 4, 11025 BLEVING DR. GISCOOLIS AS BUILT DATE: 11-03-16 TS, 110298LSVINS DR. 815000345, ASBUILT PATE:6-22-16 T 6, 11023 BLEVINS DR. DISOCO 203, AS-BUILT DATE: 3-29-16 T7. 11022 BLEVINS DR. G15000071, AS-BUILT DATE: 11-03-16 T8, 11010 BLEVINS DR. G15000030, AS-BUILT DATE: 11-03-16 USE IN-COMMON DRIVEWAY, DRAINAGE ORIVEWAT, DISMINENT OSWIN FOR THE USE AND BENEFIT, OF LOTS & 3.1361/ACRES

STORMWATER MANAGEMENT PLAN LOT #4



STORMWATER MANAGEMENT PLAN LOT #8 SCALE : 1"=50"

AS-BUILT CERTIFICATION

IHEREBY CERTIFY. BY MY SEAL, THAT THE CONDITIONS SHOWN ON THE PLAN WERE CONSTRUCTED TO THE LINGS AND GRADES SHOWN ON THIS "AG-BUILT "PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT IAM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR

MOREG. NO. 21257, ESPIRATION DATE: CL-16-17 **CONTRACT PURCHASER** 

**DEVELOPER** OWNER

WILLIAMSBURG GROUP GILBERT BLEVINS C/O ROBERT CORBETT 11986 HALL SHOP ROAD 5485 HARPERS FARM ROAD, SUITE 200 CLARKSVILLE, MD 21029 C/O ROBERT CORBETT COLUMBIA, MD 21044 AS-BUILT 410.997.8800 410.997.8800

# **ULTIMATE ON LOT BIORETENTION PLAN & DETAILS**

# **BLEVINS PROPERTY**

LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A

A SUBDIVISION OF PARCEL 310 TAX MAP 35 GRID 19



**5TH ELECTION DISTRICT** 

Sill Adcock & Associates LLC

Engineers Surveyors Planners 3300 North Ridge Road, Suite 160 Ellicott City, Maryland 21043 Phone: 443.325.7682 Fax: 443.325.7685 mail: info@saaland.com

DRAWN BY: BK CHECKED BY: PS SCALE: AS SHOWN DATE: JUNE 13, 2014 PROJECT #: 11-054 SHEET#: 12 of 12 FESSIONAL CERTIFICATION: THEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT LAM A DUL CENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015

DESIGN BY: PS

HOWARD COUNTY, MARYLAND

PARCEL 310

8-13.14 CHIEF, DIVISION OF LAND DEVELOPMENT Chal Edul 8.12.14 CHIEF, BUREAU OF HIGHWAYS CHIEF, DEVELOPMENT ENGINEERING DIVISION

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