

GENERAL NOTES

- SUBJECT PROPERTY ZONED RR-DEP 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 RW = 0.95 AC ±
- PROPOSED AREA OF NON-BUILDABLE PARCEL A = 0.59 AC ±
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE
- 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 SEWAGE 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.
- PREVIOUS HOWARD COUNTY FILE NUMBERS: ECP-12-063, SP-13-002 AND WP-13-005
- REFERENCE: LIBER 072, FOLIO 161
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC ON FEBRUARY 27, 2012.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN WITH 2' CONTOUR INTERVALS BY SILL, ADCOCK & ASSOCIATES, LLC ON APRIL 13, 2012. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY VEGSITE.
- A WETLAND AND STREAM STUDY HAS BEEN PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC IN MAY 2012 AND WAS APPROVED UNDER ECP-12-063.
- THERE ARE NO STEEP SLOPES, FLOODPLAINS OR CEMETERIES ON-SITE.
- NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, DATED JULY 2012 AND WAS APPROVED UNDER SP-13-002.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NUMBERS 35GC AND 41AC WERE USED FOR THIS PROJECT.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- 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 SEPTIC 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 UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION 410.313.1880
 STATE HIGHWAY ADMINISTRATION 410.531.5533
 BGE(CONTRACTOR SERVICES) 410.850.4630
 BGE(UNDERGROUND DAMAGE CONTROL) 410.787.9096
 COLONIAL PIPELINE COMPANY 410.795.1390
 HOWARD COUNTY HEALTH DEPARTMENT 410.313.2640
 AT&T 1.800.262.1133
 VERIZON 1.800.743.0033/410.224.9210
- GEOTECHNICAL INFORMATION HAS BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE, FIELD INVESTIGATIONS AND GEOTECHNICAL REPORT PERFORMED BY HERSTENSON & ASSOCIATES DATE NOVEMBER 13, 2012. IF FUTURE INVESTIGATIONS SHOW UNSATISFACTORY SOIL CONDITIONS FOR ANY OF THE STORMWATER MANAGEMENT TREATMENTS SHOWN, EITHER UNDERDRAINS WILL BE PROVIDED OR A DIFFERENT PRACTICE WILL BE SUBSTITUTED.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
- STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET BY BIORETENTION FACILITIES (M-6), (F-6) FOR THE ROAD, OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION, AND NON ROOFTOP DISCONNECTS (N-2) AND MICRO-BIORETENTION FACILITIES (M-6) ON THE LOTS. ON LOT FACILITIES SHALL BE OWNED AND MAINTAINED BY THE LOT OWNER.
- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 18.1205(9) 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 \$8,900 FOR THE REQUIRED PLANTINGS. SURETY FOR THE ON-SITE RETENTION IS NOT REQUIRED.
- ALL SWALES TO HAVE EROSION CONTROL MATTING.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ADDITION TO MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- 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(2) (d) (ii) (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(6) (i) AND (j) FOR THE REMOVAL OF ONE (1) SPECIMEN TREE OR TREE 30' DBH OR GREATER. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 • FOREST CONSERVATION SIGNS MUST BE POSTED EVERY 50 FEET ALONG THE ENTIRE PERIMETER OF THE FOREST CONSERVATION EASEMENT.
 • THE WAIVER PETITION NUMBER AND ITS CONDITIONS OF APPROVAL MUST BE ADDED TO THE PLAT AND ALL SUBDIVISION PLANS.
 • 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 THE FOREST CONSERVATION EASEMENT, STREAM AND THEIR BUFFERS.
 • COMPLIANCE WITH ALL SUBDIVISION COMMENTS.
 • AT THE BUILDING PERMIT APPLICATION PROCESS, THE BUILDER SHOULD STRIVE TO MAINTAIN A MINIMUM OF 100-FOOT SEPARATION BETWEEN ANY PROPOSED HOUSE AND THE FOREST CONSERVATION EASEMENT.
- ON DECEMBER 20, 2012, THE DIRECTOR APPROVED AN ADDITIONAL WAIVER TO SECTION 16.120(8)(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 FOLLOWING CONDITION:
 • COMPLIANCE WITH THE SIX (6) PREVIOUS APPROVAL CONDITIONS FOR WP-13-005.
- ON JANUARY 31, 2014 A RECONSIDERATION REQUEST OF WP-13-005 TO WAIVE SECTION 16.1205(9)(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(4)(ii)(b) WHICH PROHIBITS FOREST CONSERVATION EASEMENTS ON LOTS LESS THAN 10 ACRES IN SIZE, AND FROM SECTION 16.144(h) 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 THE FOLLOWING CONDITIONS:
 • 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.
 • WAIVER 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 REQUEST.
 • THE REFORESTATION EASEMENT MUST BE PLANTED WITH 2" CALIPER TREES TO COMPENSATE FOR THE REMOVAL OF THE FOUR (4) SPECIMEN TREES.
 • ALL DWELLINGS MUST BE CONSTRUCTED A MINIMUM OF 100' FROM THE EDGE OF THE FOREST CONSERVATION EASEMENT.
- 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 THE COUNTY ROADWAY.
- PER SECTION 16.121(9)(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.
- 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.
- 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.
- THE SAID MOUND AREA(S) 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 SAID MOUND AREAS BE EVALUATED AND FOUND TO BE UNSATISFACTORY FOR THE INTENDED USE.
- 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.
- TRAFFIC CONTROL DEVICES.
 40. THE R-1 ("STOP") SIGN AND THE STREET SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
 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 IN 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.
 44. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2009), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

FINAL ROAD CONSTRUCTION PLANS

BLEVINS PROPERTY

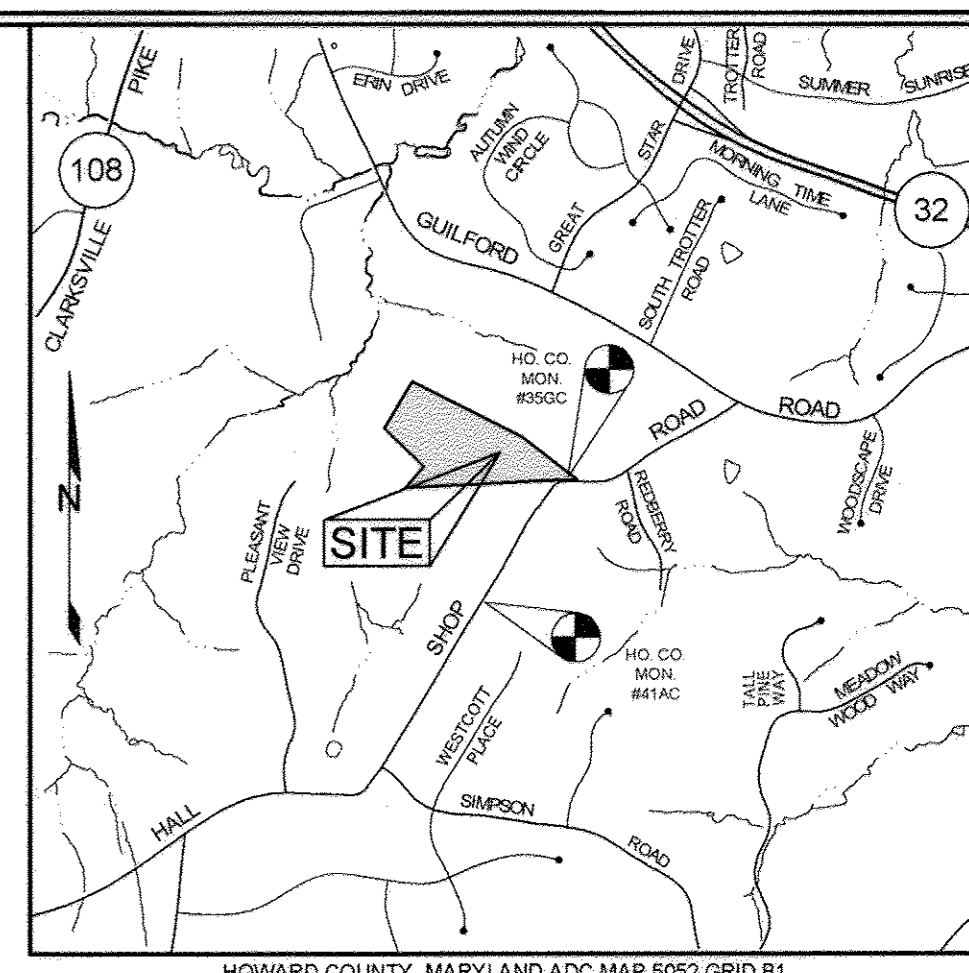
LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A HOWARD COUNTY, MARYLAND

LEGEND

- APPROXIMATE FOREST CONSERVATION EASEMENT
- EXISTING SPECIMEN TREE
- STREAM BUFFER
- EXISTING FENCE

SITE ANALYSIS DATA SHEET

ENVIRONMENTAL AREA	SIZE OR USE
TOTAL PROJECT AREA	26.02 ACRES ±
LIMIT OF DISTURBANCE	12.00 ACRES ±
GREEN OPEN AREA (LAWN)	11.05 ACRES ±
IMPERVIOUS AREA	0.95 ACRES ±
PROPOSED SITE USES	26.02 ACRES ±
WETLANDS	0.00 ACRES ±
WETLAND BUFFERS	0.00 ACRES ±
FLOODPLAIN	0.00 ACRES ±
FLOODPLAIN BUFFERS	0.00 ACRES ±
EXISTING FOREST	19.35 ACRES ±
SLOPES GREATER THAN 15%	3.33 ACRES ±
HIGHLY ERODIBLE SOILS	0.00 ACRES (1)



BENCHMARKS

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 #12401
41AC	551,969.6	1,331,695.3	488.34	E SIDE OF HALL SHOP ROAD, 1/3 N OF POLE #112411, 111' S OF POLE #112410

ROAD CLASSIFICATION

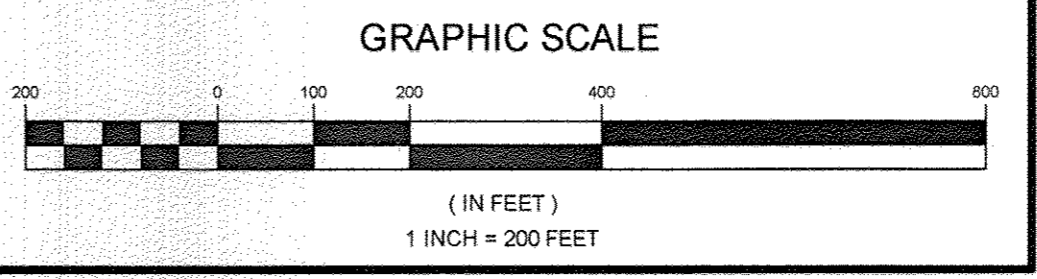
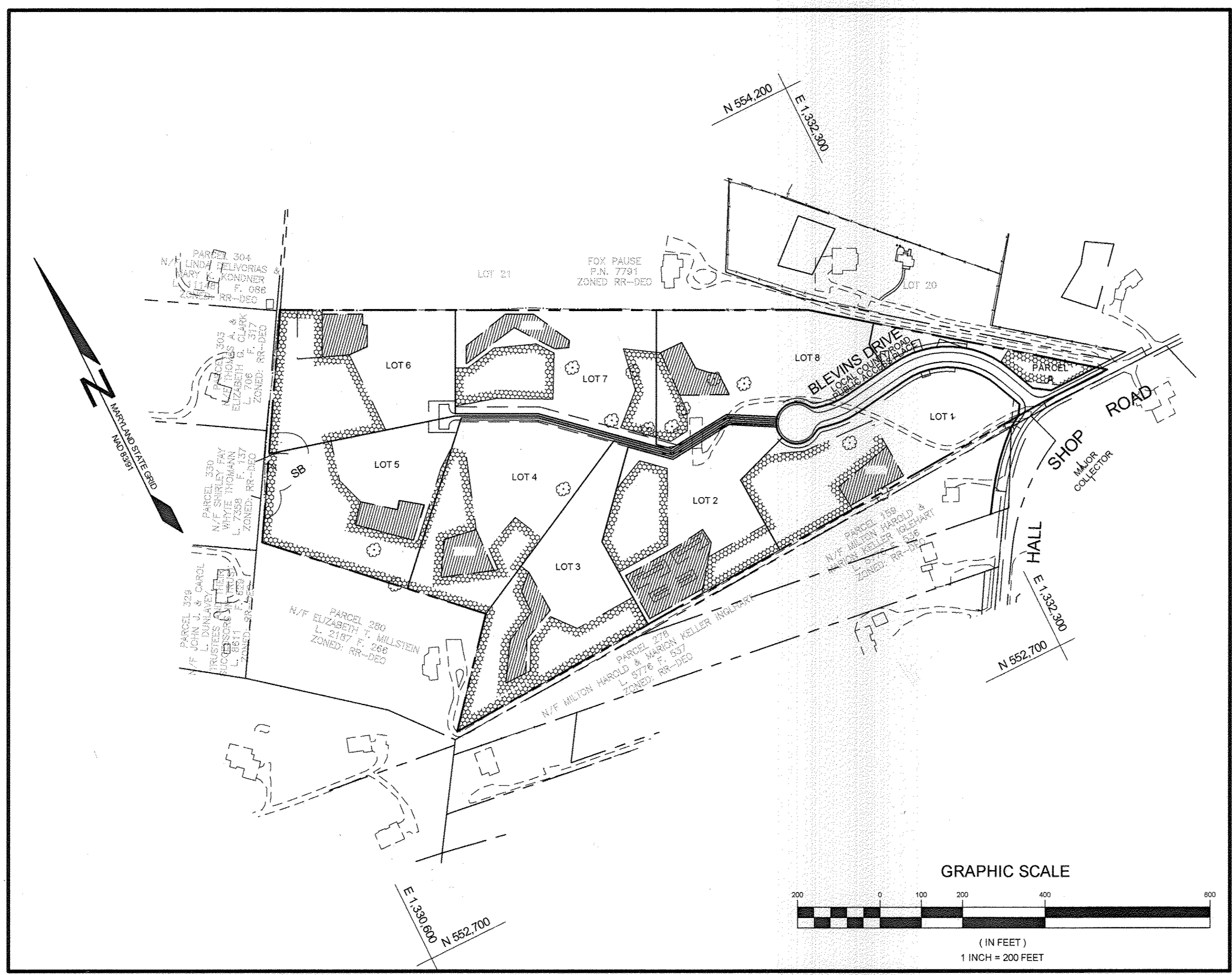
ROAD NAME	CLASSIFICATION	PAVING TYPE	DESIGN SPEED	LIMITS OF CONSTRUCTION	R/W
BLEVINS DRIVE	LOCAL ROAD (ACCESS PLACES)	P-2	25	0+00 TO 6+75.95	50'

STREET LIGHT TABLE

FIXTURE TYPE	POLE TYPE	LOCATION	STREET
150 WATT LED POST TOP COLONIAL FIXTURE MOUNTED	1 1/4" BLACK FIBERGLASS	Q STA. 0+38.8, 22.8' RIGHT	BLEVINS DRIVE
150 WATT LED POST TOP COLONIAL FIXTURE MOUNTED	1 1/4" BLACK FIBERGLASS	N 553477.8, E 1331920.8	BLEVINS DRIVE

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



LOCATION MAP
SCALE: 1"=200'

STORMWATER MANAGEMENT PRACTICES

LOT #	ADDRESS	MICRO BIORETENTION M-6 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (Y/N)
1	11005 BLEVINS DRIVE	1	Y
2	11011 BLEVINS DRIVE	1	Y
3	11017 BLEVINS DRIVE	1	Y
4	11023 BLEVINS DRIVE	1	Y
5	11029 BLEVINS DRIVE	1	Y
6	11028 BLEVINS DRIVE	1	Y
7	11022 BLEVINS DRIVE	1	Y
8	11010 BLEVINS DRIVE	1	Y

- NOTES CONTINUED:**
- DRIVEWAYS 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 DRIVEWAY SURFACE;
 6) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
 - 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.
 - THIS PROPERTY IS NOT IN THE METROPOLITAN DISTRICT.
 - THIS PROJECT IS CONSIDERED GRANDFATHERED TO THE SUSTAINABLE GROWTH AND AGRICULTURAL PRESERVATION ACT OF 2012, OR SENATE BILL 238, AND IS LOCATED IN THE DESIGNATED GROWTH TIER AREA II.
 - 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 \$8,900 FOR THE REQUIRED LANDSCAPING (17 SHADE TREES AND 22 EVERGREEN TREES).

MINIMUM LOT SIZE CHART

LOT NUMBER	GROSS AREA (AC)	PIPESTEM AREA (AC)	MINIMUM LOT SIZE (AC)
3	3.0470±	0.0427±	3.0043±
4	3.1361±	0.0468±	3.0899±
5	3.0897±	0.0880±	3.0017±
6	3.0984±	0.0880±	3.0086±
7	3.0933±	0.0350±	3.0583±

NO.	DESCRIPTION	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Kate DeLoach 8-13-14
 CHIEF, DIVISION OF LAND DEVELOPMENT

Chad Edwards 8-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Alga Sullivan 7-3-14
 CHIEF, BUREAU OF HIGHWAYS

AS-BUILT CERTIFICATION
 There is no as-built information on this sheet.

Michael D. Adcock 10/31/14
 Michael D. Adcock, Principal Land Surveyor
 MD Reg. No. 21207, Exp. Date: 6/16/17



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

DEVELOPER
WILLIAMSBURG GROUP
 C/O ROBERT CORBETT
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MD 21044
 410.997.8800

As-BUILT

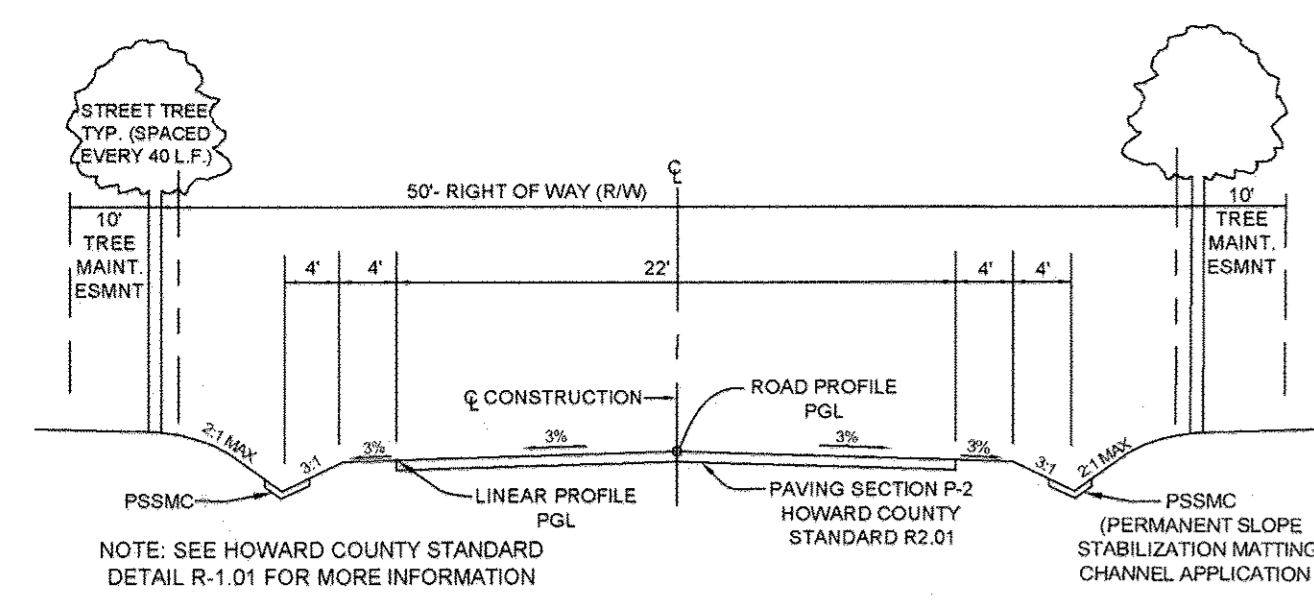
COVER SHEET
BLEVINS PROPERTY
 LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A
 A SUBDIVISION OF PARCEL 310

TAX MAP 35 GRID 19
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

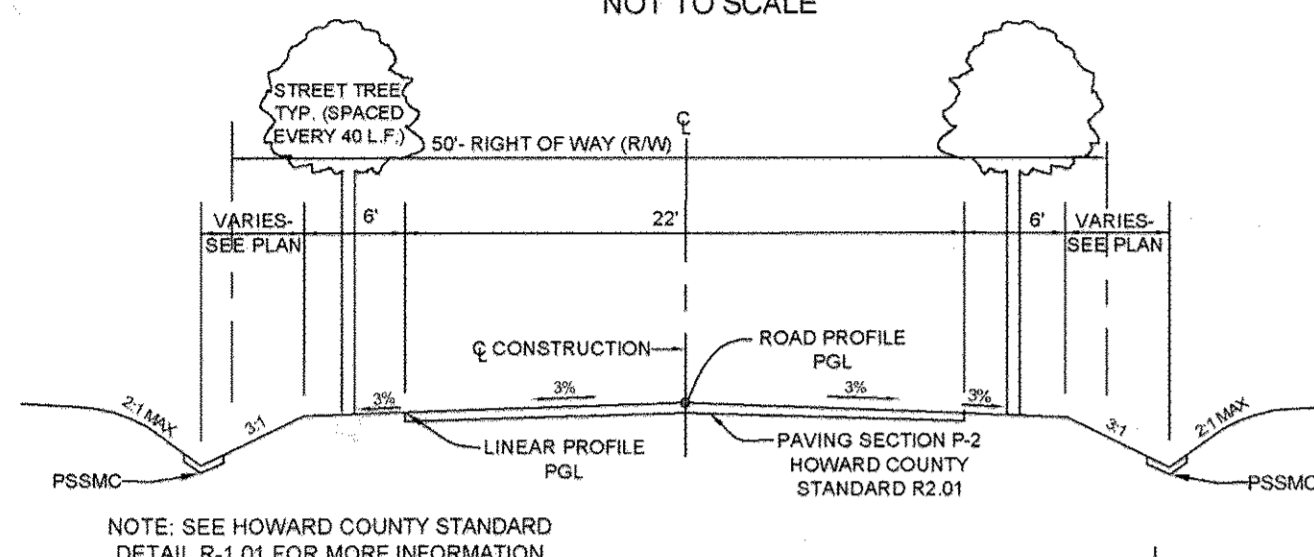
DESIGN BY: PS
 DRAWN BY: BK
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: JUNE 13, 2014
 DATE: 11-054
 SHEET #: 1 of 12

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
 Email: info@sasandl.com

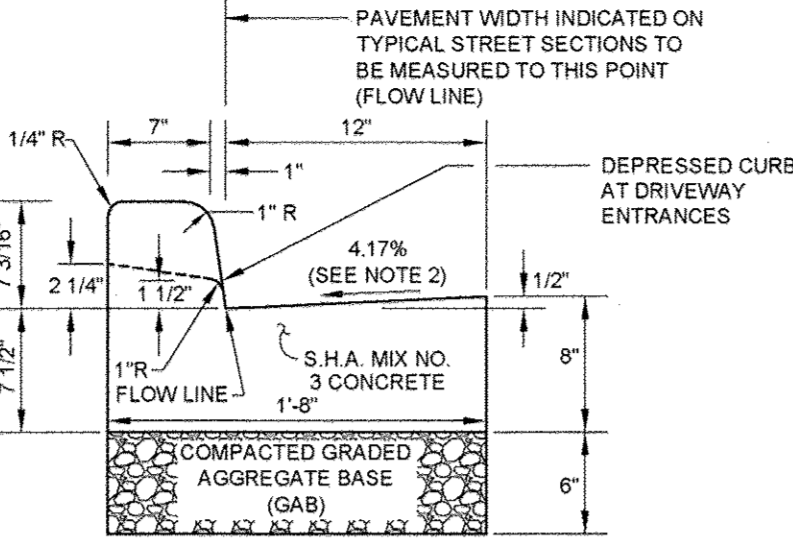
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015



TYPICAL ROADWAY SECTION CLASSIFICATION: ACCESS PLACE
BLEVINS DRIVE DESIGN SPEED: 25 MPH
FROM STA. 2+50 - END NOT TO SCALE

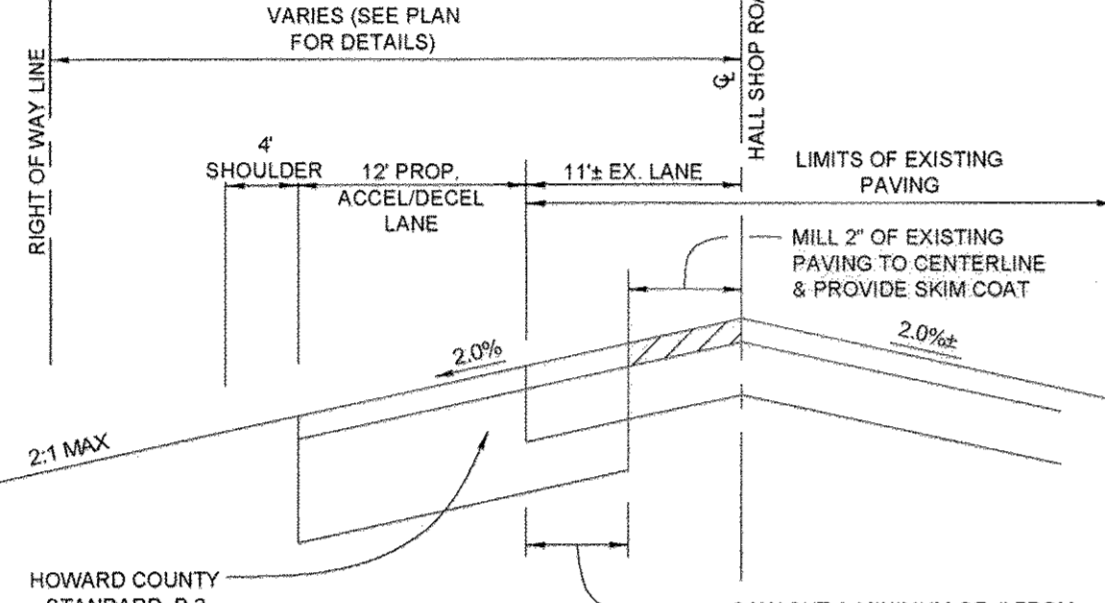


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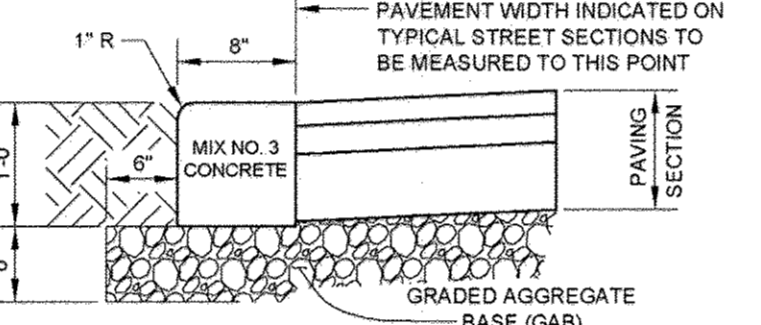


STANDARD COMBINATION CURB AND GUTTER
HOWARD COUNTY STANDARD R-3.01
NOT TO SCALE

- NOTE:
- A REVERSE GUTTER PAN SHALL HAVE A GUTTER SLOPE OF 4.17% AWAY FROM THE FLOW LINE, AND SHALL NOT BE USED WHERE THIS DRAINAGE CREATES A HAZARDOUS CONDITION.
 - GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OF THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB & GUTTER.
 - A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
 - POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOWLINE.

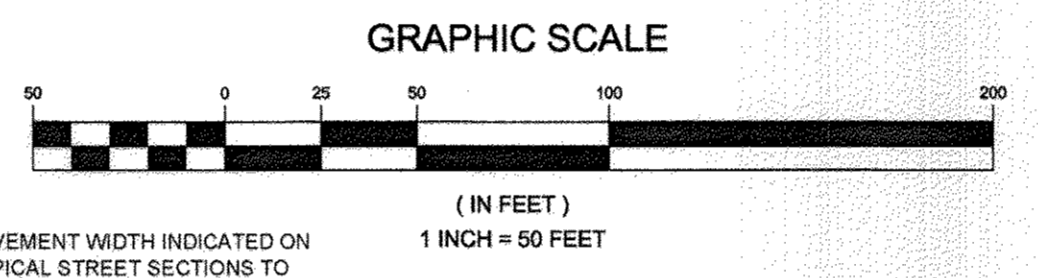
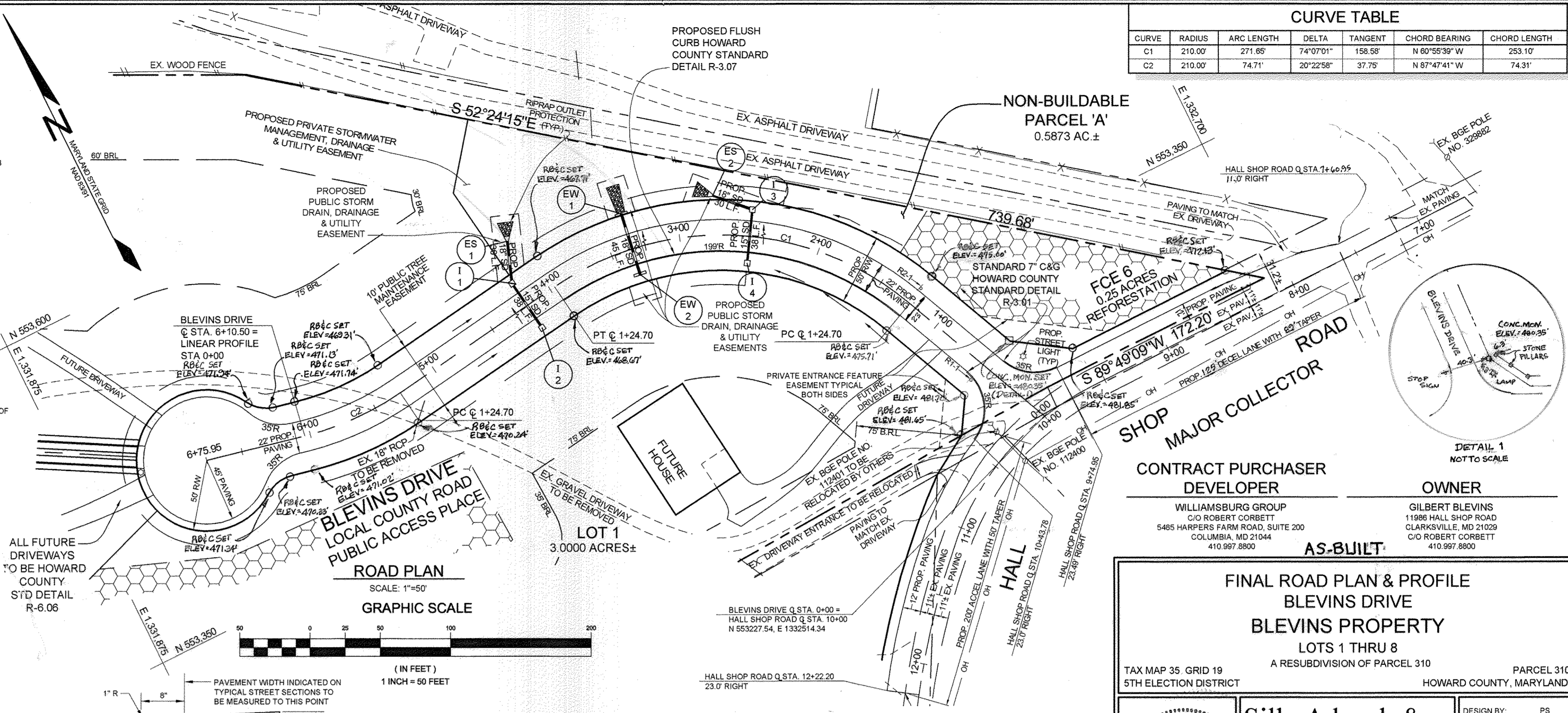


WIDENING DETAIL (TYP.) HALL SHOP ROAD
NOT TO SCALE



STANDARD FLUSH CURB
HOWARD COUNTY STANDARD R-3.07
NOT TO SCALE

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD LENGTH
C1	210.00'	271.65'	74°07'01"	158.58'	N 60°55'39" W	253.10'
C2	210.00'	74.71'	20°22'58"	37.75'	N 67°47'41" W	74.31'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Ketshel 8-13-14
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Hilfer 7-14-14
CHIEF, BUREAU OF HIGHWAYS
DATE

NON-BUILDABLE PARCEL 'A'
0.5873 AC.±

SHOP MAJOR COLLECTOR ROAD

HALL SHOP ROAD

CONTRACT PURCHASER DEVELOPER
WILLIAMSBURG GROUP
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

OWNER
GILBERT BLEVINS
1188 HALL SHOP ROAD
CLARKSVILLE, MD 21029
C/O ROBERT CORBETT
410.997.8800

AS-BUILT

FINAL ROAD PLAN & PROFILE
BLEVINS DRIVE
BLEVINS PROPERTY
LOTS 1 THRU 8
A RESUBDIVISION OF PARCEL 310

TAX MAP 35, GRID 19
5TH ELECTION DISTRICT

PARCEL 310
HOWARD COUNTY, MARYLAND

Sill Adcock & Associates, LLC
Engineers - Surveyors - Planners
3300 North Ridge Road, Suite 100
Fellsmere City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@silladcock.com

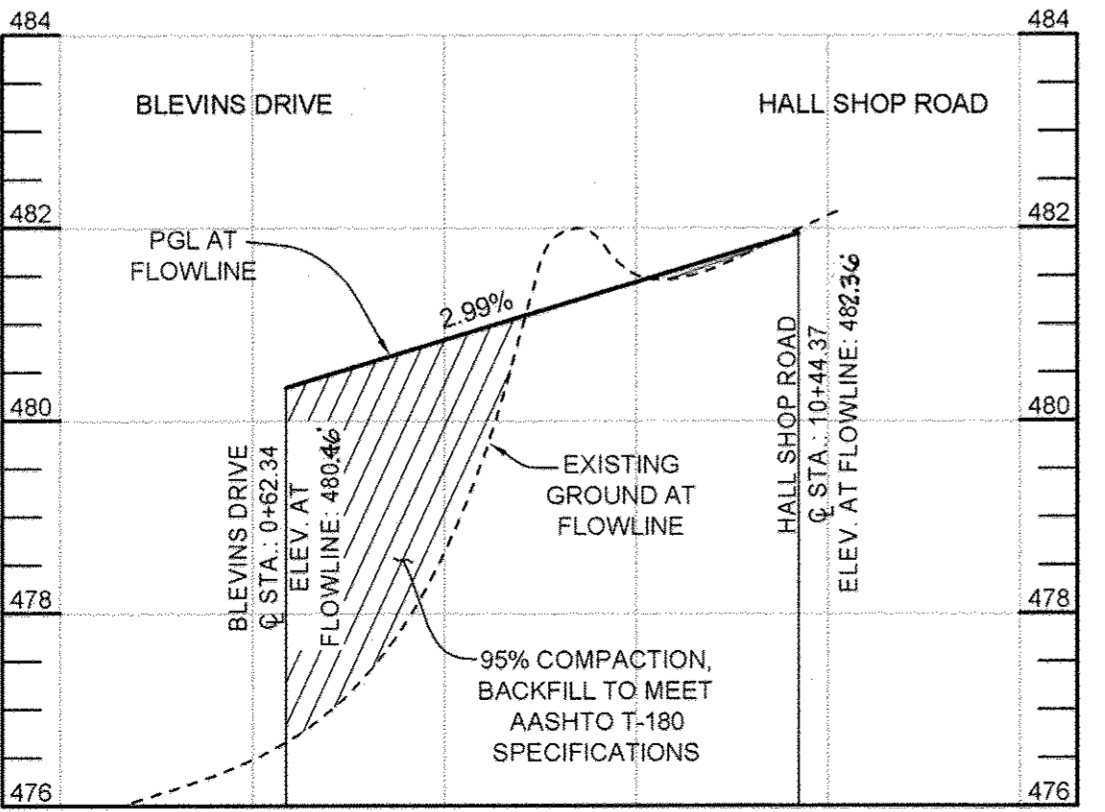
DESIGN BY: PS
DRAWN BY: BK
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JUNE 10, 2014
PROJECT #: 11-054
SHEET #: 2 OF 12

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. 30205, EXPIRATION DATE: JUNE 20, 2015.

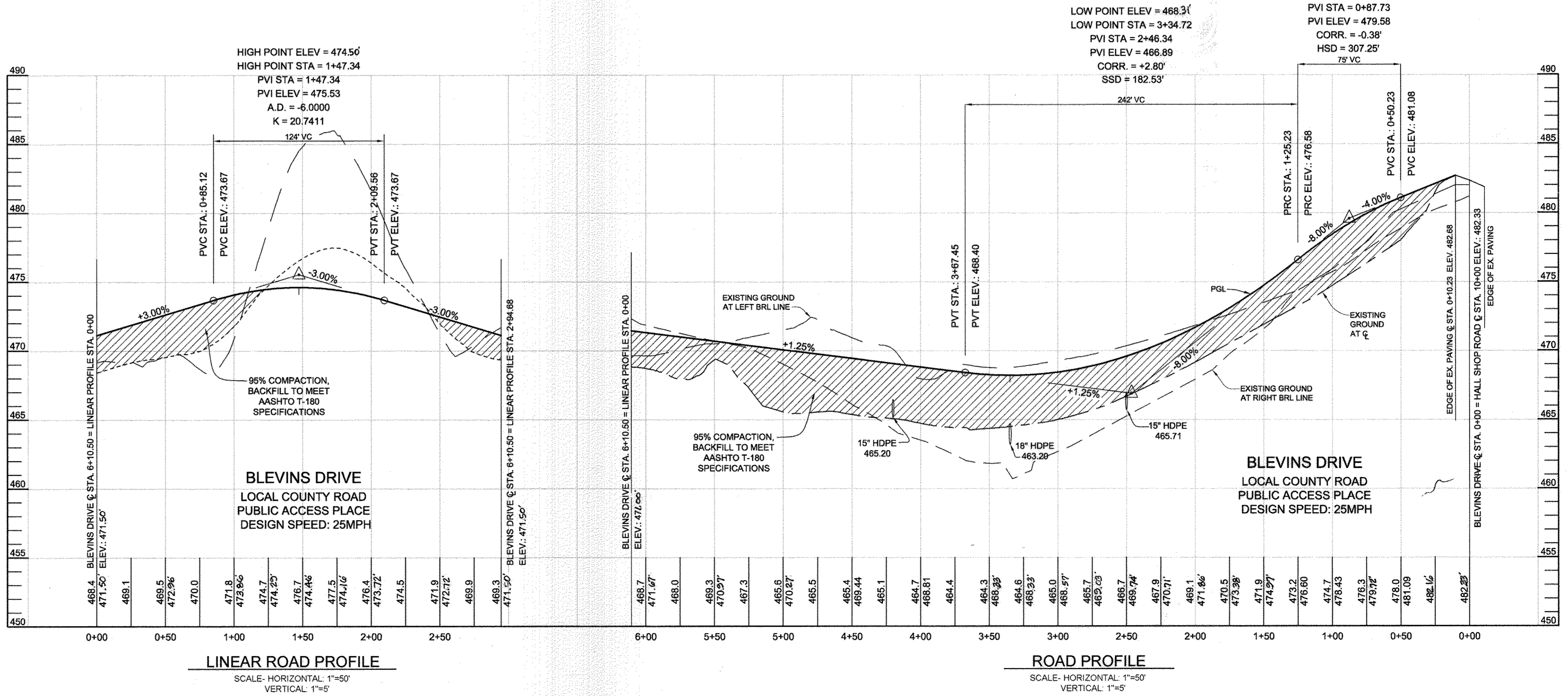
PAVING SECTIONS						
SEC. NO.	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIAL (INCHES)	MIN HMA WITH GAB	MIN HMA WITH GAB	HMA WITH CONSTANT GAB	HMA WITH CONSTANT GAB
P-2	PARKING DRIVE ABLERS, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (BSAL)	2.0	2.0	3.0	2.0
P-3	PARKING DRIVE ABLERS, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (BSAL)	3.0	3.0	4.5	3.0
P-3	LOCAL ROADS: ACCESS PLACE, ACCESS STREET, CUL-DE-SACS, RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (BSAL)	3.0	3.0	4.5	3.0
P-3	LOCAL ROADS: ACCESS PLACE, ACCESS STREET, CUL-DE-SACS, NON-RESIDENTIAL, MINOR COLLECTORS, RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (BSAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (BSAL)	3.0	3.0	4.5	3.0



CURB LEFT FILLET PROFILE
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



CURB RIGHT FILLET PROFILE
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



LINEAR ROAD PROFILE
SCALE: HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

ROAD PROFILE
SCALE: HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

PERCOLATION CERTIFICATION NOTES

- 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 RECOGNITION AND MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY. THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004 AND HAS BEEN FIELD VERIFIED. THE TOPOGRAPHY IN THE AREA OF THE SAND MOUND TESTS ON LOT 3 HAS BEEN FIELD RUN BY SILL, ADCOCK & ASSOCIATES, LLC IN JANUARY 2012.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- 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-GRADE OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED. LOCATED WELLS WITHOUT A WELL TAG SHOWN DID NOT HAVE ONE.
- THE HOUSE ON EXISTING LOT 2 AND ITS WELL AND SEPTIC SYSTEM ARE TO REMAIN.
- THE SEPTIC SYSTEM FOR LOT 3 IS TO BE A SAND MOUND SYSTEM. THIS SYSTEM WILL BE DESIGNED AT THE BUILDING PERMIT STAGE. PERCOLATION TEST HOLES 1060 - 1065 HAVE BEEN APPROVED FOR SAND MOUND SYSTEMS ONLY.
- THE SAND MOUND AREA(S) DELINEATED AND IDENTIFIED ON LOT 3 MUST BE PROTECTED BY A FIXED BARRIER AT ALL TIMES DURING 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 THE INTENDED USE.
- LOT 3 ON THIS PLAN HAS A LIMITATION OF FOUR (4) BEDROOMS. IF MORE BEDROOMS ARE DESIRED, THE HEALTH DEPARTMENT WILL CONSIDER A TECHNICAL DESIGN SHOWING THAT THE SAND MOUND AREA WILL ACCOMMODATE A SYSTEM DESIGN ADEQUATE FOR THE AMOUNT OF WASTEWATER DISCHARGE FROM THE PROPOSED STRUCTURE.
- LOTS 1 AND 4 ON THIS PLAN HAVE A LIMITATION OF FIVE (5) BEDROOMS. IF MORE BEDROOMS ARE DESIRED, THE HEALTH DEPARTMENT WILL CONSIDER A TECHNICAL DESIGN SHOWING THAT THE SEPTIC RESERVE AREA (RE: SEWAGE EASEMENT) WILL ACCOMMODATE A SYSTEM DESIGN ADEQUATE FOR THE AMOUNT OF WASTEWATER DISCHARGE FROM THE PROPOSED STRUCTURE.
- PRIOR TO RECORD PLAT SUBMITTAL, THE SEPTIC TANK, DRY WELL AND TRENCH SERVING 11986 HALL SHOP ROAD (LOT 2 ON THIS PLAN) MUST BE REPLACED AND ABANDONED. REPLACEMENT TRENCHES ARE TO BE INSTALLED IN THE UPPER PORTION OF THE DEFINED SEPTIC RESERVE AREA.
- 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.
- 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.
- THE SAND MOUND AREA(S) 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 THE INTENDED USE.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING SPECIMEN TREE
- EXISTING TREELINE
- PROPOSED TREELINE
- SOIL BOUNDARY
- 15%-24.9% MODERATE SLOPES
- CLEARING FOR FUTURE HOUSE CONSTRUCTION ONLY
- PERCOLATION TEST HOLE, PASSED
- PERCOLATION TEST HOLE, FAILED
- PASSED SOIL PROFILE FOR EXISTING DRY WELL
- EXISTING SWM SOIL BORINGS
- EXISTING WELLS
- FOREST CONSERVATION EASEMENT
- STABILIZED CONSTRUCTION ENTRANCE
- STANDARD INLET PROTECTION
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION
- PROPOSED CLEAN WATER EARTH DIKE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 8-13-14
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 8-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

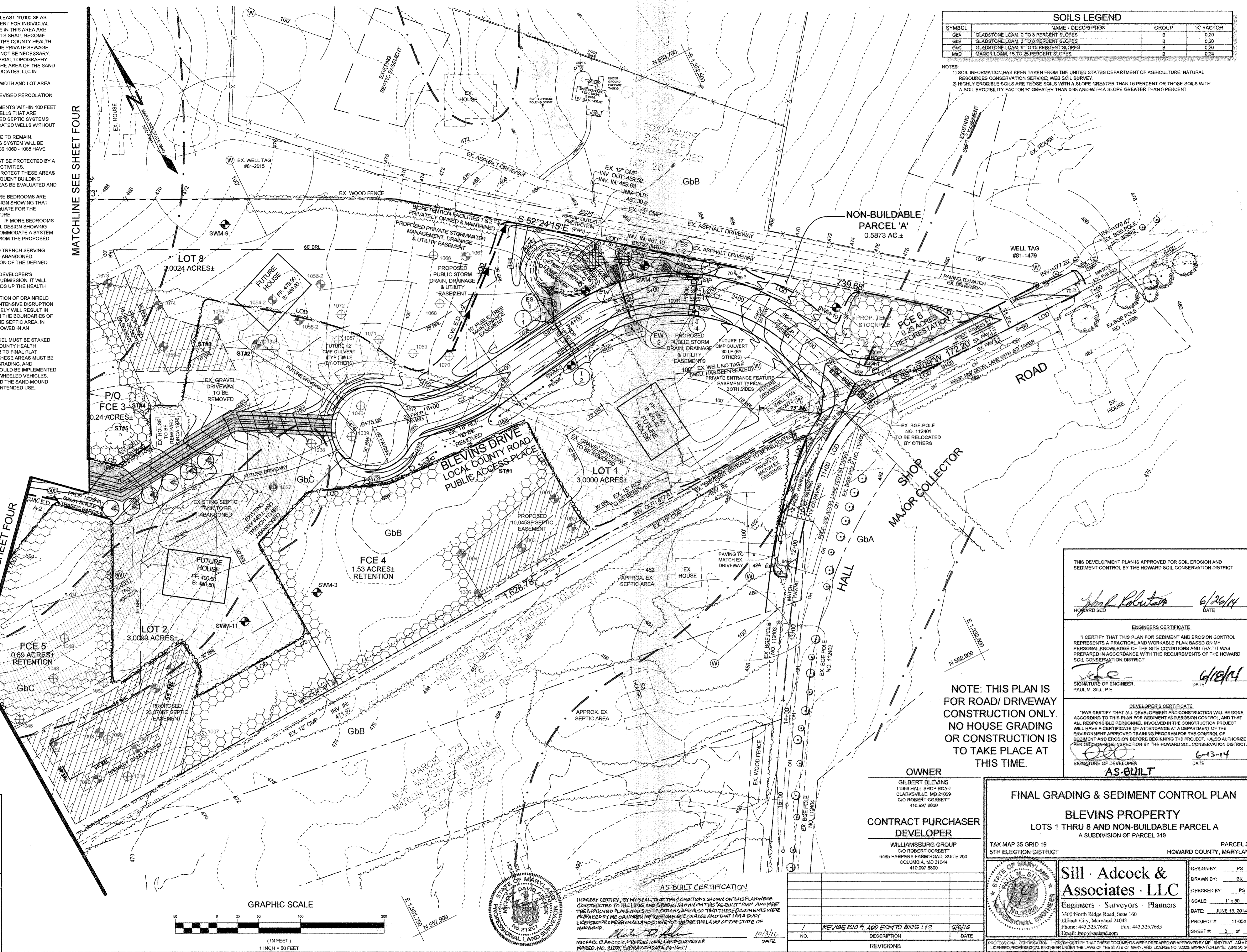
[Signature] 7-3-14
 CHIEF, BUREAU OF HIGHWAYS

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GbA	GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES	B	0.20
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.
 2) 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 THAN 5 PERCENT.

MATCHLINE SEE SHEET FOUR

MATCHLINE SEE SHEET FOUR



NOTE: THIS PLAN IS FOR ROAD/ DRIVEWAY CONSTRUCTION ONLY. NO HOUSE GRADING OR CONSTRUCTION IS TO TAKE PLACE AT THIS TIME.

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

CONTRACT PURCHASER DEVELOPER
 WILLIAMSBURG GROUP
 C/O ROBERT CORBETT
 5485 HARRIS FARM ROAD, SUITE 200
 COLUMBIA, MD 21044
 410.997.8800

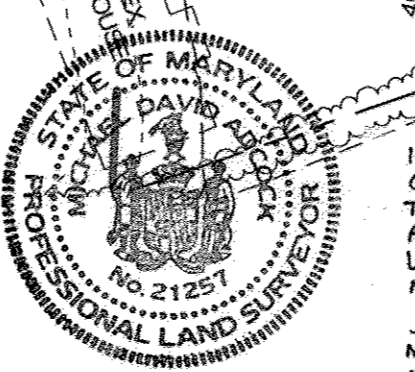
FINAL GRADING & SEDIMENT CONTROL PLAN
BLEVINS PROPERTY
 LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A
 A SUBDIVISION OF PARCEL 310

TAX MAP 35 GRID 19
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Hillcott City, Maryland 21043
 Phone: 413.325.7082 Fax: 443.325.7685
 Email: info@silladcock.com

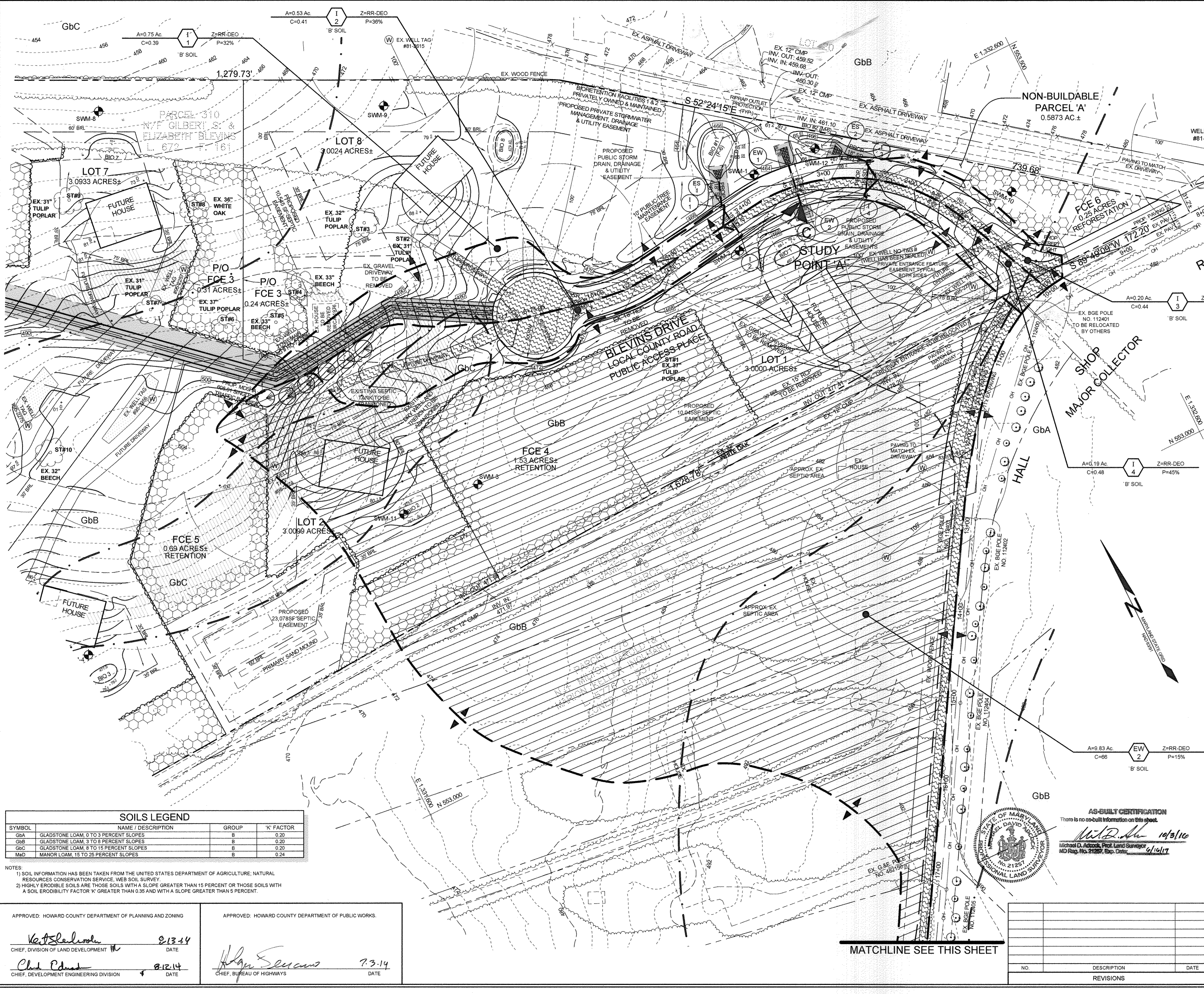
DESIGN BY: PS
 DRAWN BY: BK
 CHECKED BY: PS
 SCALE: 1" = 50'
 DATE: JUNE 13, 2014
 PROJECT #: 11-054
 SHEET #: 3 of 12

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015



AS-BUILT CERTIFICATION
 I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-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 I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.
[Signature] 10/3/16
 MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
 MREG. NO. 2891, EXPIRATION DATE 06-14-17

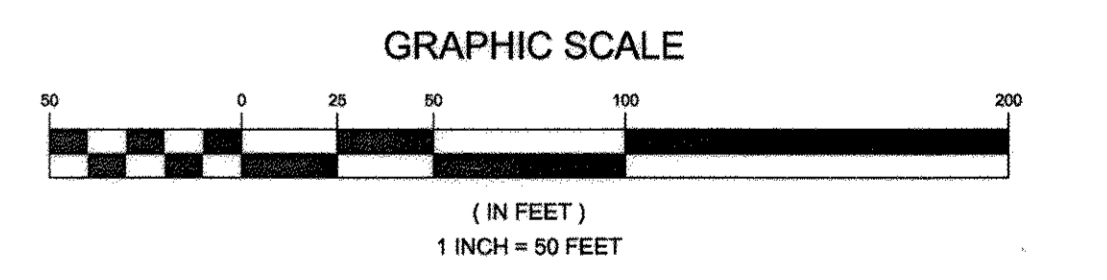
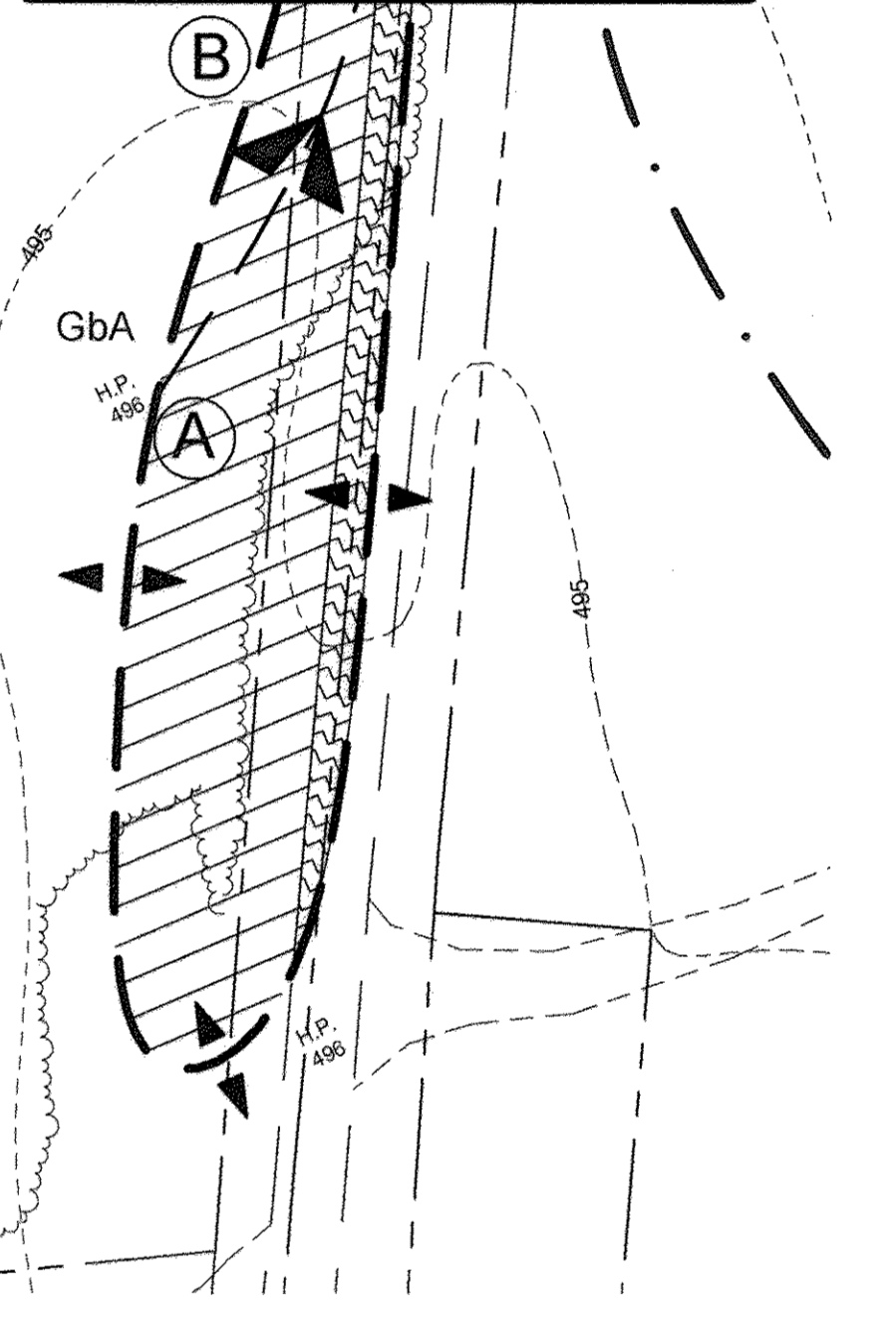
NO.	REVISIONS	DATE
1	REVISE BIO #1, ADD EQM TO BIO'S 1 & 2	6/6/16



LEGEND

EXISTING CONTOUR	---
PROPOSED CONTOUR	---
EXISTING SPOT ELEVATION	382.3
PROPOSED SPOT ELEVATION	+82.52
DIRECTION OF FLOW	→
EXISTING SPECIMEN TREE	ST#6
EXISTING TREELINE	---
PROPOSED TREELINE	---
SOIL BOUNDARY	---
15%-24.9% MODERATE SLOPES	▨
EXISTING WELLS	W
PROPOSED BIORETENTION FACILITY	BIO 2
1' SOIL GROUP	□
2 ACRE RESIDENTIAL LOTS	▨
OPEN SPACE/GRASS	□
PAVEMENT (100% IMPERVIOUS)	▨

MATCHLINE SEE THIS SHEET



SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GbA	GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES	B	0.20
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEB SOIL SURVEY.
 2) 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 THAN 5 PERCENT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Katschke 8-13-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edmunt 8-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Alan Sencus 7-3-14
 CHIEF, BUREAU OF HIGHWAYS DATE



AS-BUILT CERTIFICATION
 There is no as-built information on this sheet.

M.D. Adcock 10/31/14
 Michael D. Adcock, Prof. Land Surveyor
 MD Reg. No. 21257, Exp. Date 1/1/17

OWNER
 GILBERT BLEVINS
 11886 HALL SHOP ROAD
 CLARKSVILLE, MD 21029
 C/O ROBERT CORBETT
 410.997.8800

CONTRACT PURCHASER DEVELOPER
 WILLIAMSBURG GROUP
 C/O ROBERT CORBETT
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MD 21044
 410.997.8800

AS-BUILT

FINAL STORM DRAIN DRAINAGE AREA MAP

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

TAX MAP 35 GRID 19 5TH ELECTION DISTRICT PARCEL 310
 HOWARD COUNTY, MARYLAND

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
 Email: info@silladcock.com

DESIGN BY: PS
 DRAWN BY: BK
 CHECKED BY: PS
 SCALE: 1" = 50'
 DATE: JUNE 13, 2014
 PROJECT #: 11-054
 SHEET #: 5 of 12

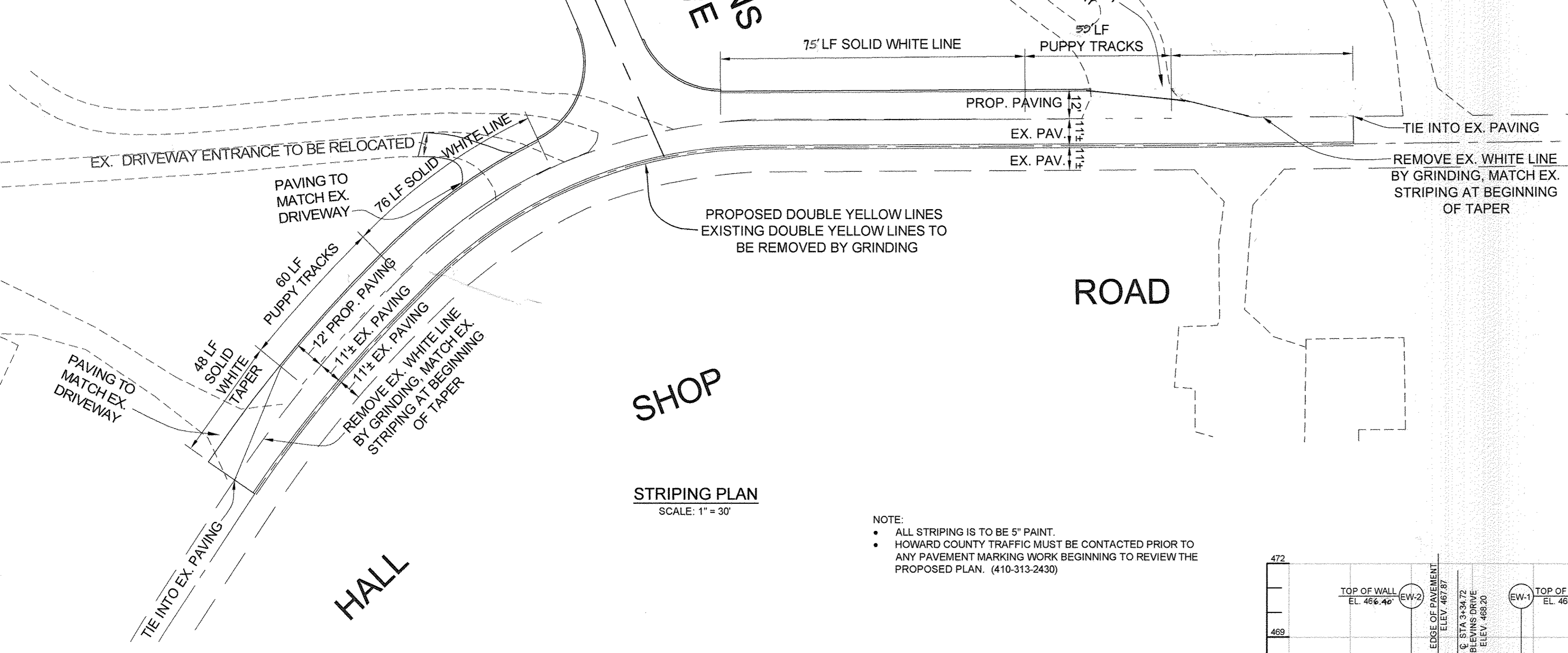
NO.	DESCRIPTION	DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRABES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Michael D. Adcock, PROFESSIONAL LAND SURVEYOR
 MDEG. NO. 21257, EXPIRATION DATE: 06-16-17.

10/31/16
 DATE

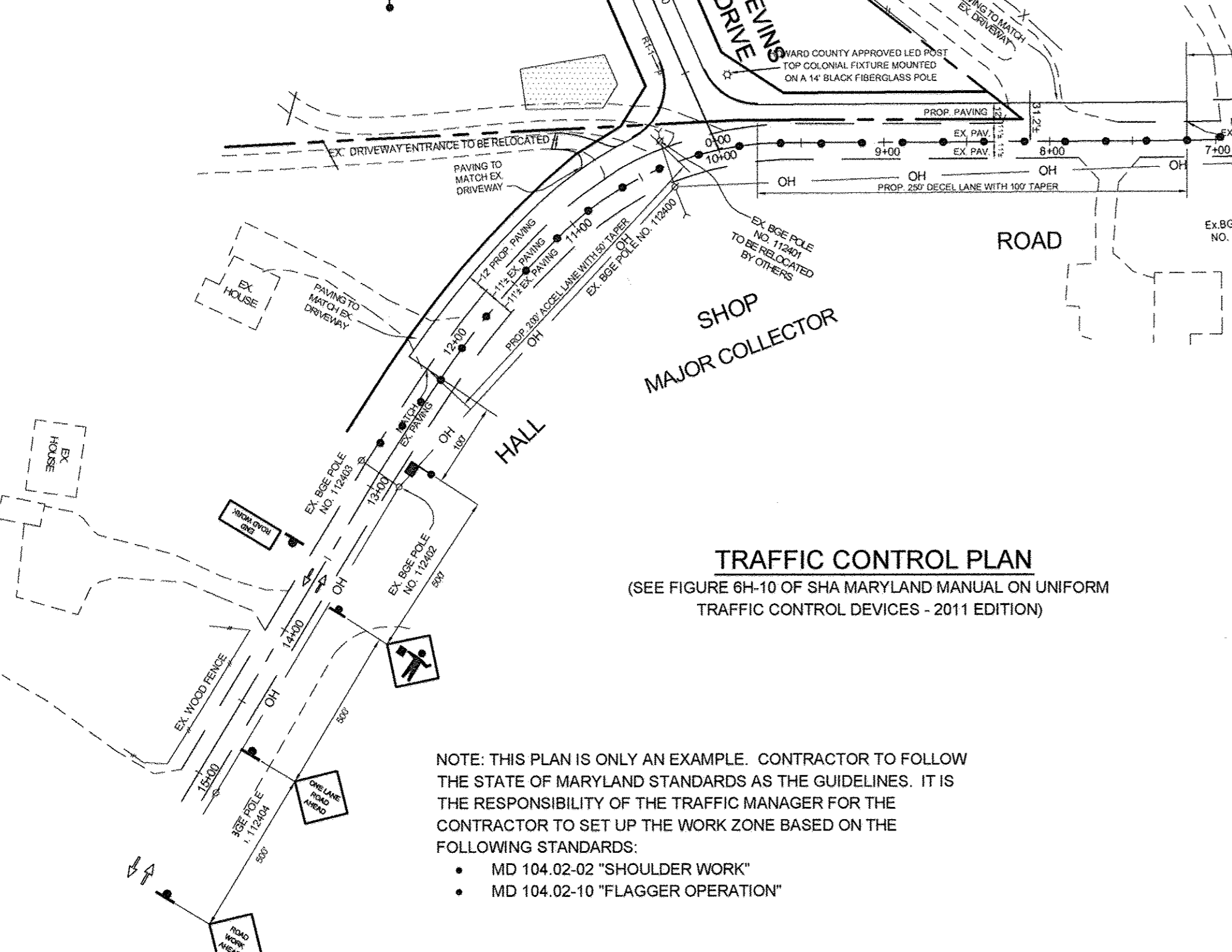


STRIPING PLAN
 SCALE: 1" = 30'

NOTE:
 • ALL STRIPING IS TO BE 5" PAINT.
 • HOWARD COUNTY TRAFFIC MUST BE CONTACTED PRIOR TO ANY PAVEMENT MARKING WORK BEGINNING TO REVIEW THE PROPOSED PLAN. (410-313-2430)

LEGEND

- SIGN (SHOWN FACING LEFT)
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICE
- FLAGGER



TRAFFIC CONTROL PLAN
 (SEE FIGURE 6H-10 OF SHA MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - 2011 EDITION)

NOTE: THIS PLAN IS ONLY AN EXAMPLE. CONTRACTOR TO FOLLOW THE STATE OF MARYLAND STANDARDS AS THE GUIDELINES. IT IS THE RESPONSIBILITY OF THE TRAFFIC MANAGER FOR THE CONTRACTOR TO SET UP THE WORK ZONE BASED ON THE FOLLOWING STANDARDS:
 • MD 104.02-02 "SHOULDER WORK"
 • MD 104.02-10 "FLAGGER OPERATION"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Karl Schelkopf
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8-13-14

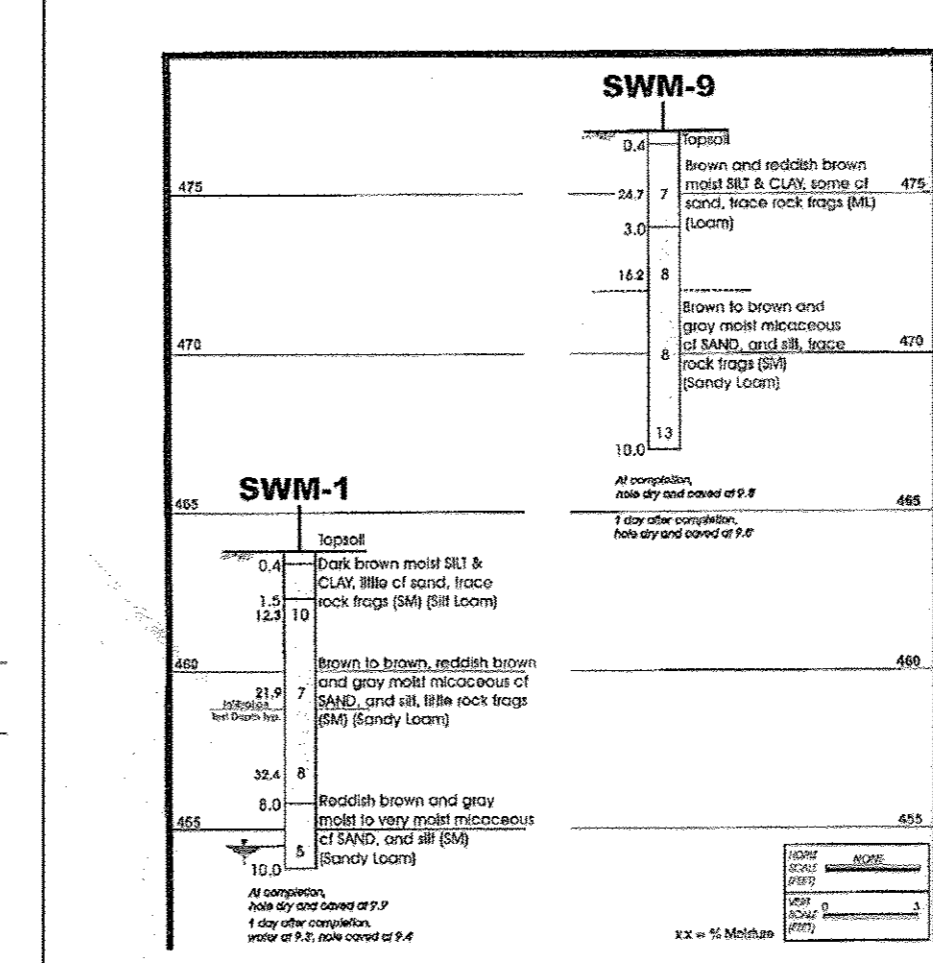
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Allyn Seaman
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 7-14-14

SIZE	TYPE	LENGTH
15" PUBLIC	HDPE	78 LF
18" PUBLIC	HDPE	105 LF

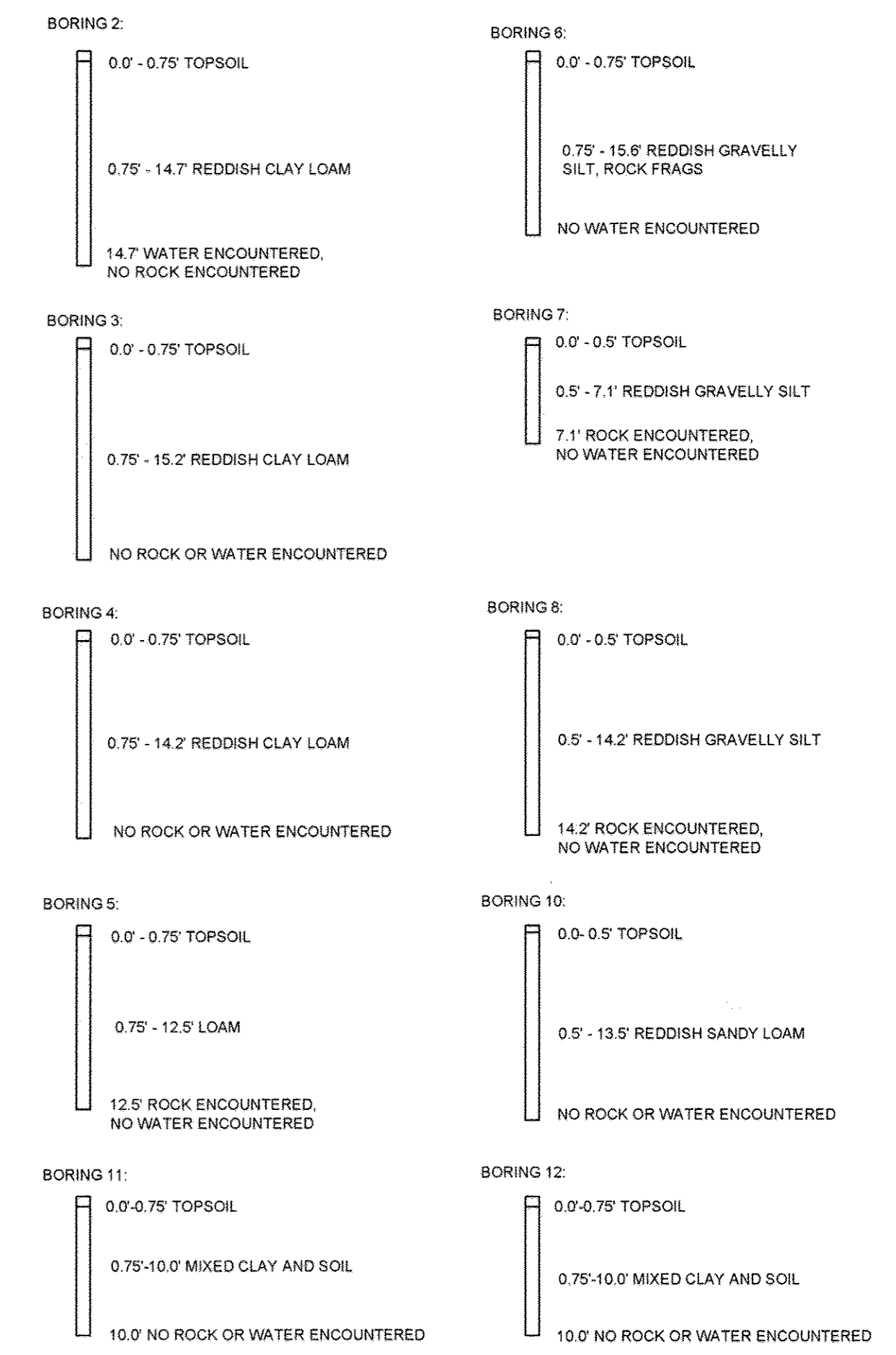
OUTLET LOCATION	LENGTH (L _a)	WIDTH (W)	PIPE DIAMETER (d)	DISCHARGE	TYPE
ES-1	10 FT	10 FT	18 INCH	10 YR - 3.34 CFS	III
ES-2	14 FT	11.5 FT	18 INCH	10 YR - 0.98 CFS	III
EW-1	20 FT	9.5 FT	18 INCH	25 YR - 13.65 CFS	III

NOTE: FOR DETAIL SEE SHEET 5.



NOTES:

- BORINGS SWM-1 AND SWM-9 WERE PERFORMED AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER DURING OCTOBER 2012.
- BORING LOCATION SELECTED, STAKED IN THE FIELD AND ELEVATIONS DETERMINED BY SILL, ADCOCK & ASSOCIATES, LLC. LOCATION SHOWN ARE APPROXIMATE.
- BORING LOCATION PLAN TAKEN FROM A PLAN ENTITLED BLEVINS PROPERTY, LOTS 1 THRU 8, BY SILL, ADCOCK & ASSOCIATES, DATED JULY 30, 2012.
- FIGURES IN COLUMNS ON BORING PROFILES REPRESENT THE STANDARD PENETRATION RESISTANCE (IN) IN BLOWS PER FOOT AS DETERMINED BY THE ASTM D1586 PROCEDURE USING A 2" O.D. - 1.38" I.D. SAMPLER. STRATIFICATION ON BORING PROFILES ESTIMATED FROM DRILLERS OBSERVATIONS AND RECOVERED SOIL SAMPLES. ACTUAL STRATIFICATION CHANGES MAY VARY FROM THOSE SHOWN AND MAY BE EITHER ABRUPT OR GRADUAL.



ON NOVEMBER 5, 2012, SOIL TEST BORINGS WERE PERFORMED AT SEVEN LOCATIONS (BORINGS 2 THRU 8) AS SHOWN ON THE PLANS. ON DECEMBER 13, 2012, BORING 10 WAS PERFORMED, AND ON DECEMBER 19, 2013 BORING 11 AND 12 WERE PERFORMED. TESTS 2 THRU 8 AND 10 THRU 12 WERE PERFORMED BY SILL, ADCOCK & ASSOCIATES, LLC. UTILIZING A BACKHOE. TEST FITS WERE DUG TO A DEPTHS RANGING FROM SEVEN FEET TO FIFTEEN FEET, DEPENDING ON THE SOIL CONDITION. THE RESULTS FOR EACH TEST FOLLOWS WITH AN ESTIMATED INFILTRATION RATE BASED ON THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) SOIL TEXTURAL CLASSIFICATION (THESE RESULTS ARE BASED ON FIELD OBSERVATIONS).

WATER OR ROCK WAS ENCOUNTERED AT BORINGS 2, 5, 7 AND 8. AFTER REVIEWING THE PROPOSED GRADING, THE BOTTOM OF THESE FACILITIES WILL BE ABOVE THE WATER OR ROCK. FACILITY BOTTOMS WILL BE LOCATED WITHIN VARIOUS SOIL MEDIA WITH GENERAL INFILTRATION RATES RANGING FROM 0.27 INCHES/HOUR TO 1.02 INCHES/HOUR. ALL MICRO-BIORETENTION FACILITIES PROPOSED AT THESE BORING LOCATIONS WILL UTILIZE UNDERDRAINS AND THEREFORE DO NOT NEED TO MEET THE MINIMUM INFILTRATION RATE OF 1.02 INCHES/HOUR. OUR CONCLUSION FROM THESE SOIL TEST BORINGS IS THAT ALL AREAS SHOWN ON THE ATTACHED PLANS ARE SUITABLE FOR MICRO-BIORETENTION FACILITIES AS LONG AS UNDERDRAINS ARE PROVIDED.

BORING LOGS
 N.T.S.

STRUCTURE SCHEDULE

NO.	TYPE & OWNERSHIP	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
ES-1	18" HDPE END SECTION PUBLIC	N 553,508.2768 E 1,332,226.8446	-	464.61	-	HANCOR OR EQUIVALENT
ES-2	18" HDPE END SECTION PUBLIC	STATION 2+75.78, 27.94' R	-	464.69	-	HANCOR OR EQUIVALENT
EW-1	TYPE 'C' END WALL PUBLIC	STATION 3+34.72, 26.00' R	465.60	462.96	462.96	HO CO DTL D-5.21
EW-2	TYPE 'K' END WALL PUBLIC	STATION 3+34.72, 19.00' L	466.40	463.70	463.70	HO CO DTL D-5.21
I-1	TYPE 'K' INLET PUBLIC	STATION 4+20.00, 19.00' R	467.29	465.05	464.85	HO CO DTL D-4.12
I-2	TYPE 'K' INLET PUBLIC	STATION 4+20.00, 19.00' L	467.29	-	465.29	HO CO DTL D-4.12
I-3	TYPE 'K' INLET PUBLIC	STATION 2+50.00, 19.00' R	467.60	465.61	465.36	HO CO DTL D-4.12
I-4	TYPE 'K' INLET PUBLIC	STATION 2+50.00, 19.00' L	466.00	-	465.93	HO CO DTL D-4.12

- NOTES:
 1. * TOP ELEVATIONS FOR "K" INLETS ARE TO THE THROAT OF THE INLET.
 2. COORDINATES FOR END SECTION ARE TO THE JUNCTION OF THE END SECTION WITH THE PIPING.
 3. COORDINATES FOR TYPE 'C' END WALLS ARE TO INVERT OF PIPE AT THE FACE OF WALL.

OWNER
 GILBERT BLEVINS
 11985 HALL SHOP ROAD
 CLARKSVILLE, MD 21029
 C/O ROBERT CORBETT
 410.997.8800

CONTRACT PURCHASER DEVELOPER
 WILLIAMSBURG GROUP
 C/O ROBERT CORBETT
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MD 21044
 410.997.8800

AS-BUILT

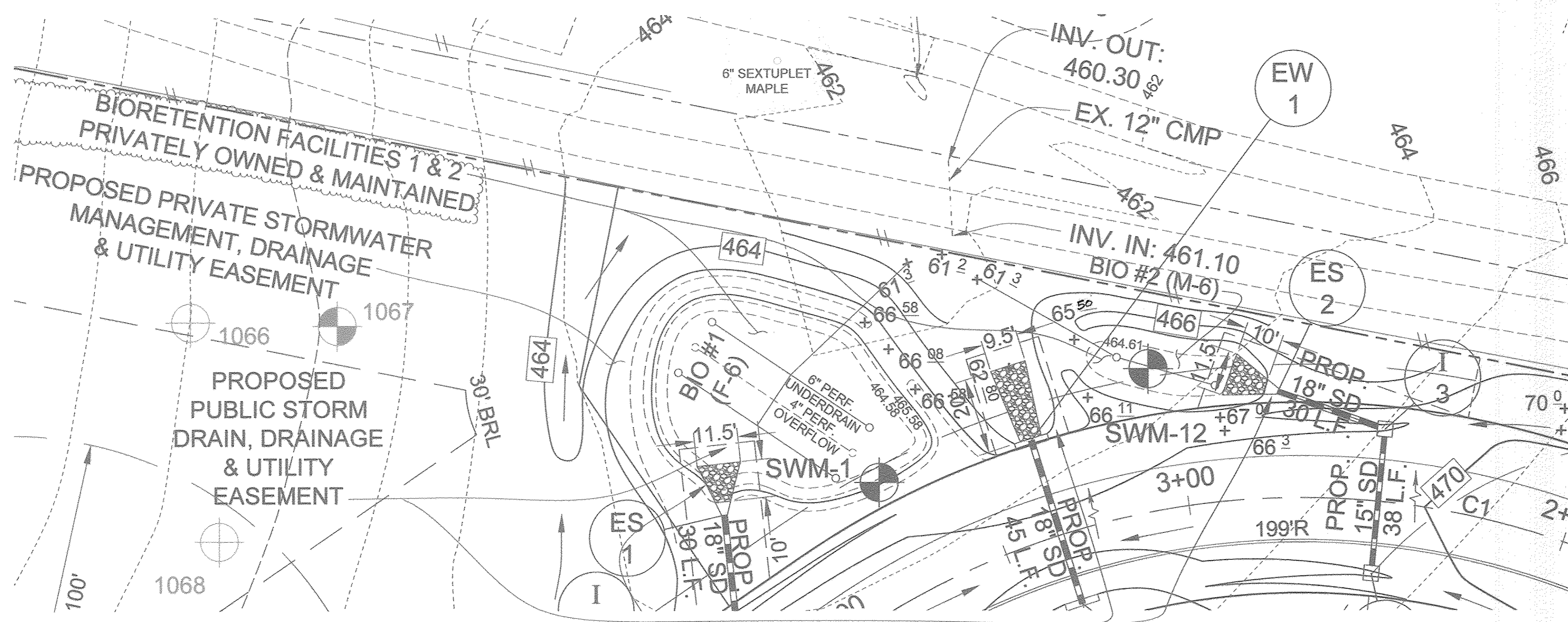
STORM DRAIN PROFILES, CHARTS, BORING LOGS AND TRAFFIC DETAILS
BLEVINS PROPERTY
 LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A
 A SUBDIVISION OF PARCEL 310

TAX MAP 35 GRID 19
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 310

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
 Email: info@silladcock.com

DESIGN BY: PS
 DRAWN BY: BK
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: JUNE 13, 2014
 PROJECT #: 11-054
 SHEET #: 7 OF 12

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33025, EXPIRATION DATE: JUNE 20, 2015



PLAN VIEW - BIORETENTION FACILITY #1
SCALE: 1"=20'

PLAN VIEW - BIORETENTION FACILITY #2
SCALE: 1"=20'

B.I.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDENS, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.1.

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

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

4. BACKFILLING
WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

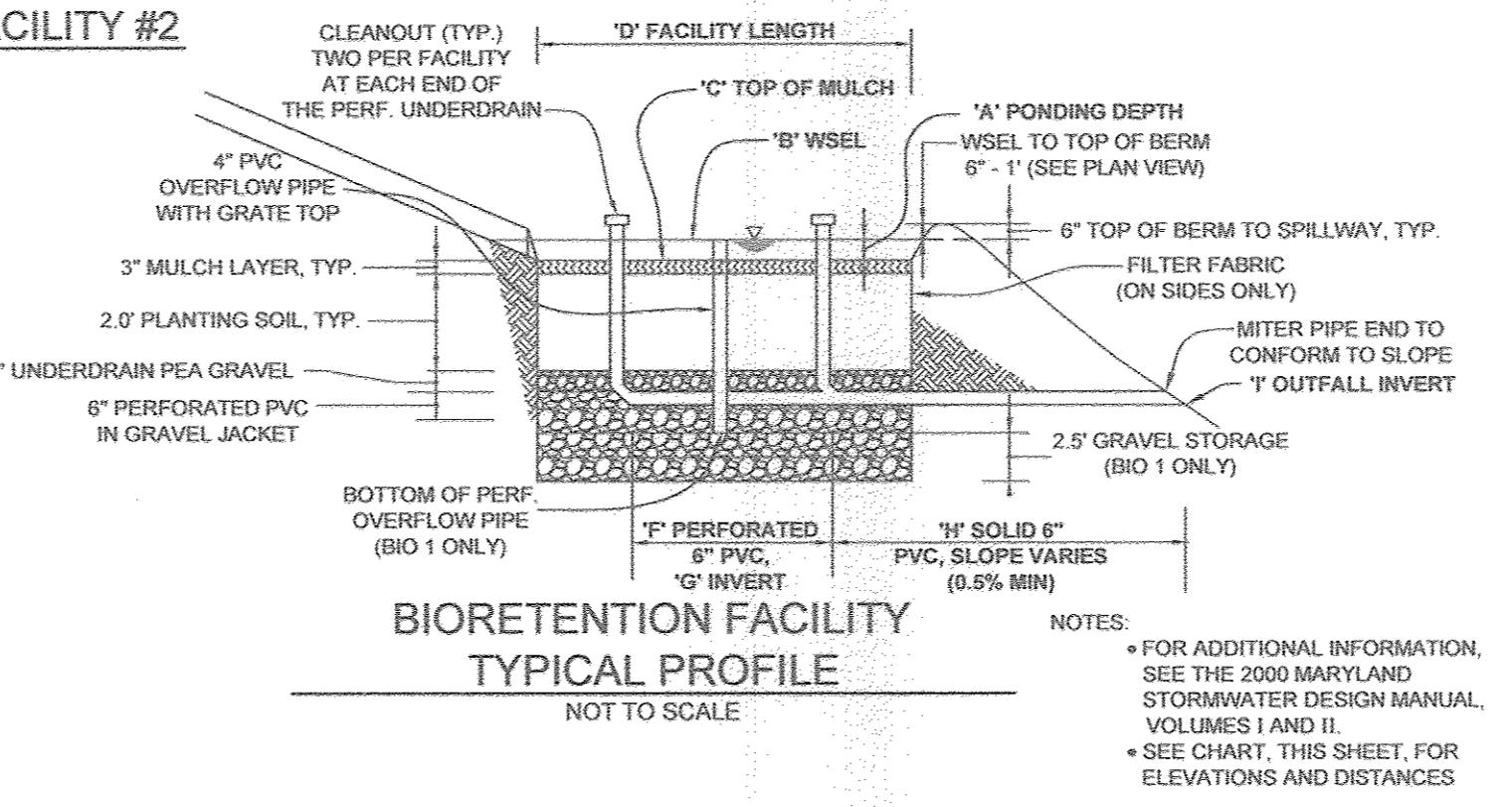
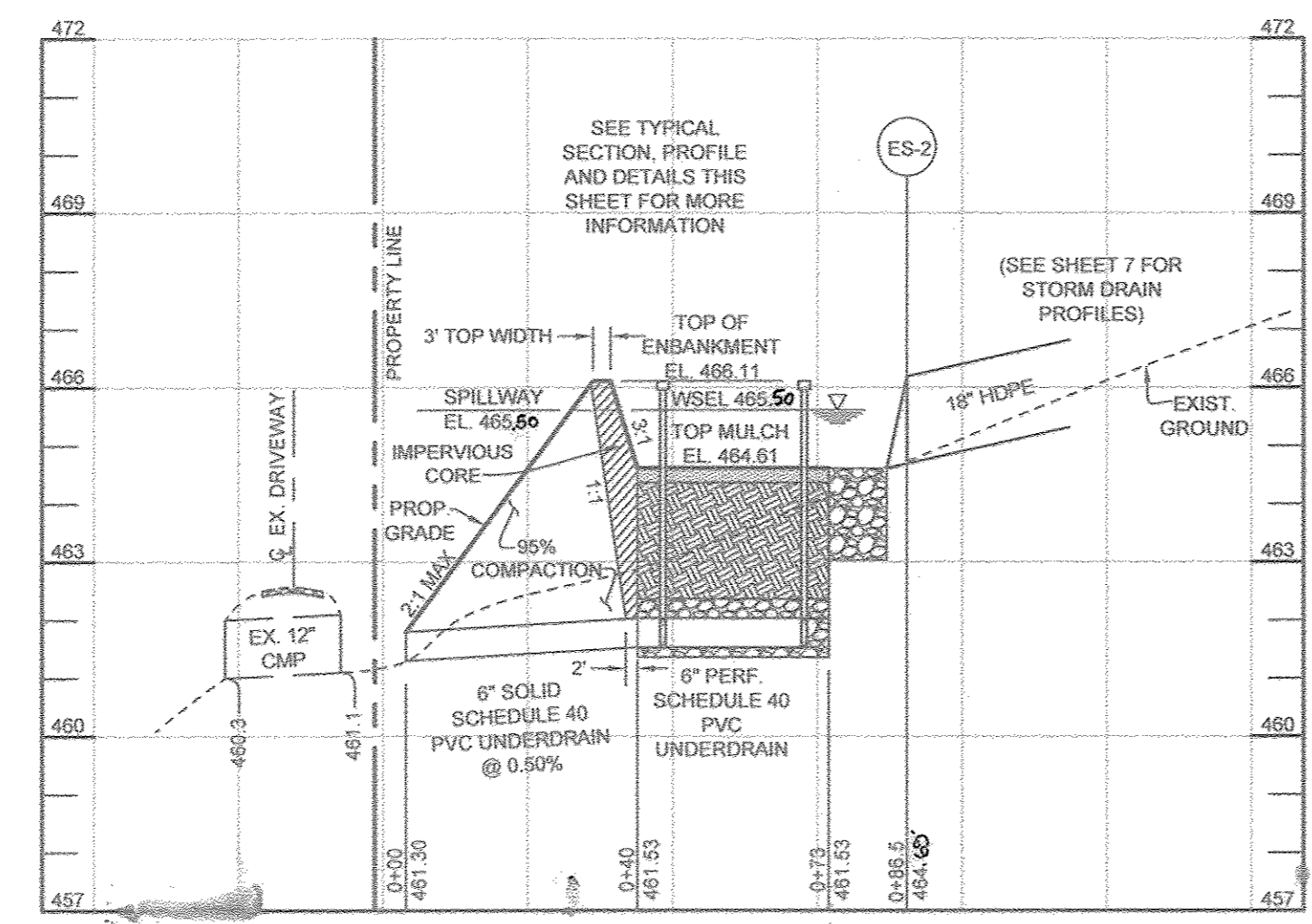
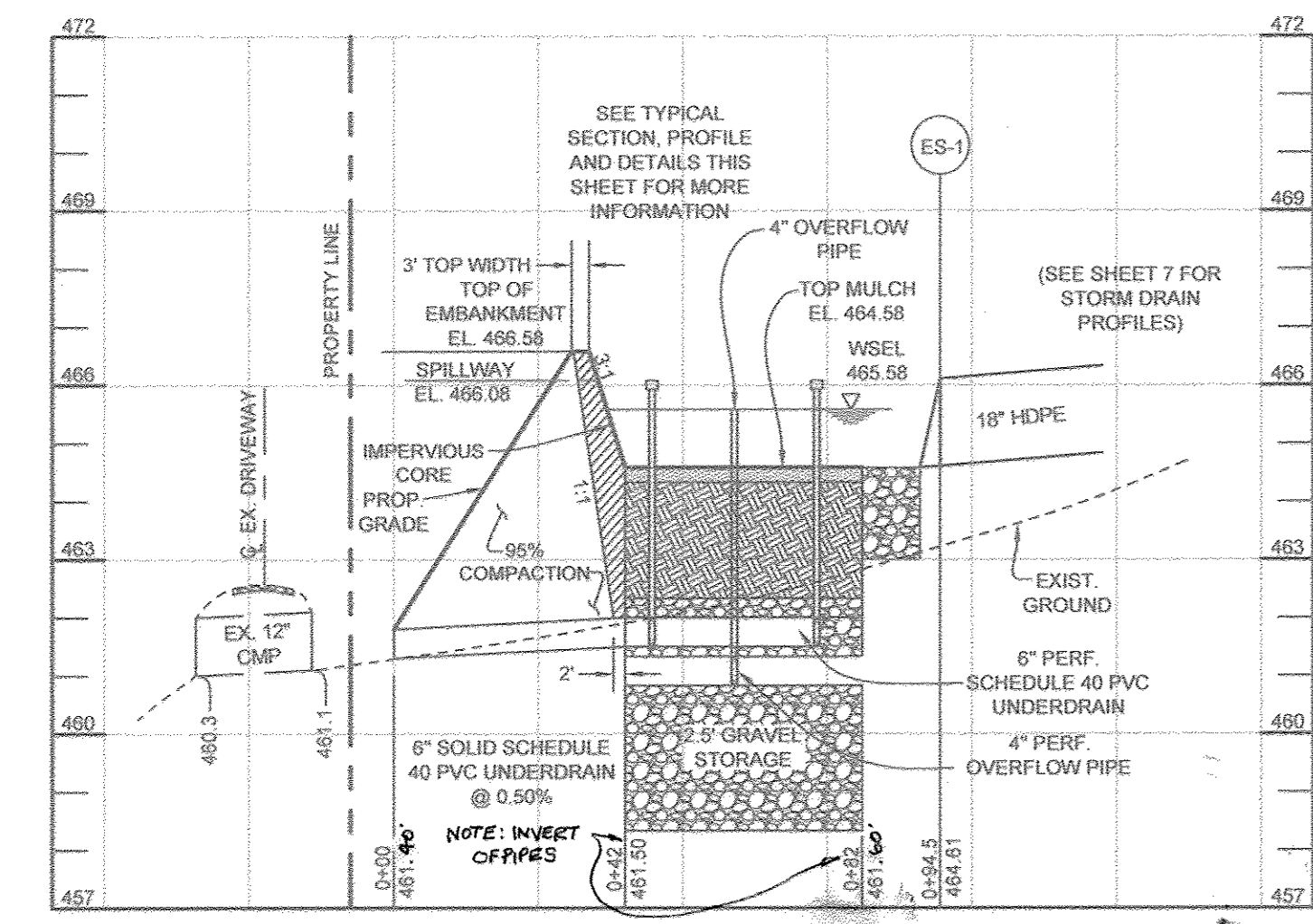
NOTES CONTINUED:

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

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

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
• PIPE SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 758, TYPE PS 28, OR AASHTO M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G. PVC OR HDPE).
• PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 1/2" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.
• GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
• THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
• A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.
• A 4" LAYER OF PEA GRAVEL (1/2" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

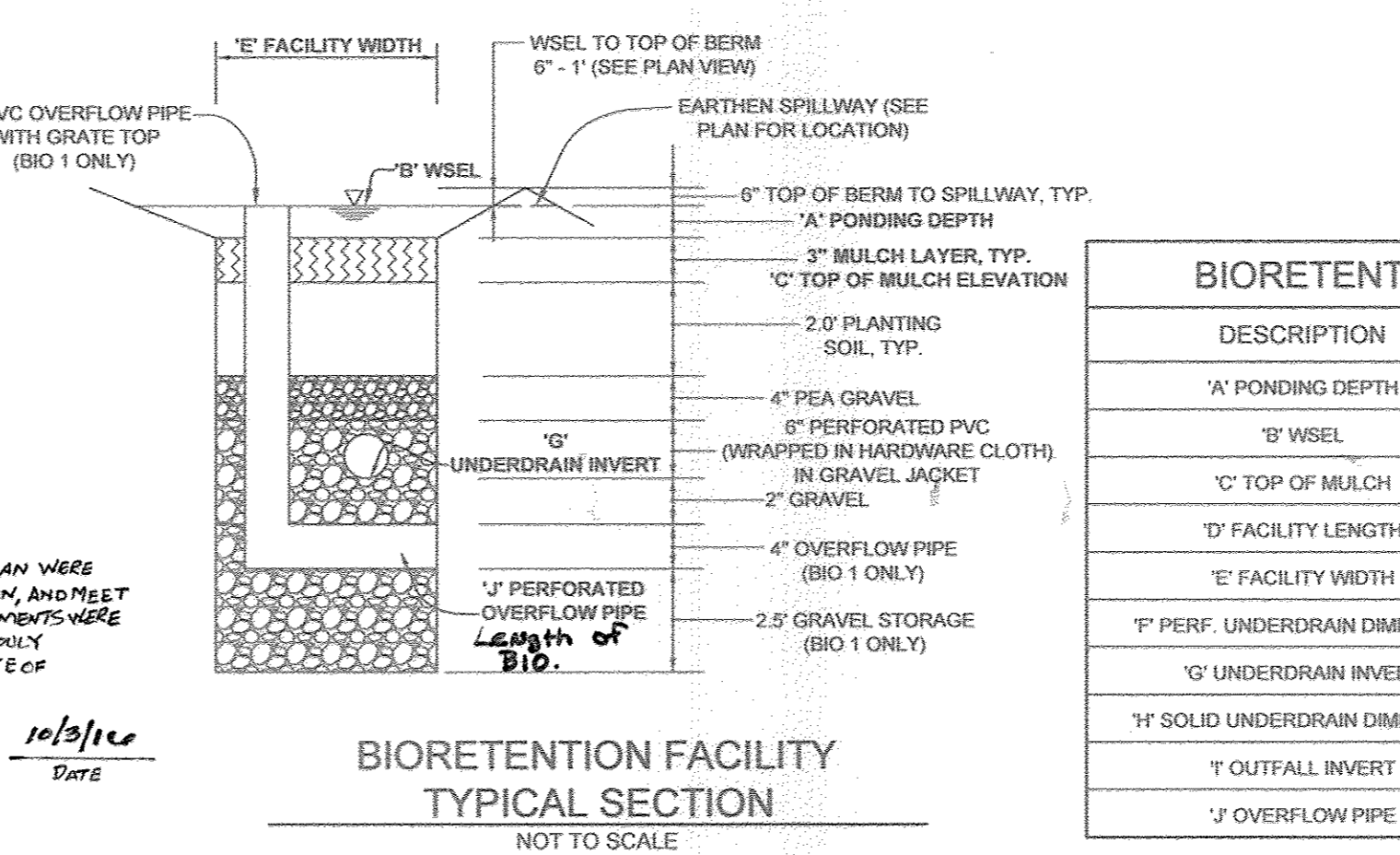
7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.



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 (30% - 40%) OR SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	USDA SOIL TYPES LOAMY SAND OR SANDY LOAM. CLAY CONTENT < 5%.
MULCH	SHREDDED HARDWOOD	N/A	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	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" PER @ 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.

BIORETENTION FACILITY #1 (F-6) PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

BIORETENTION FACILITY #2 (M-6) PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'



DESCRIPTION	BIO 1	BIO 2
'A' PONDING DEPTH	1.0'	0.5'
'B' WSEL	465.58	465.50
'C' TOP OF MULCH	464.58	464.61
'D' FACILITY LENGTH	76.0'	37.0'
'E' FACILITY WIDTH	45.0'	13.0'
'F' PERF. UNDERDRAIN DIMENSION	2 @ 50'	27.0'
'G' UNDERDRAIN INVERT	461.60	461.53
'H' SOLID UNDERDRAIN DIMENSION	42.0'	37.0'
'I' OUTFALL INVERT	461.40	461.30
'J' OVERFLOW PIPE	461.00	N/A

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

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

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 WASHOUT. 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 8, TABLE A.1.1 AND 2.

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

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 APPLIED.

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

LEGEND	SHRUBS	HERBACEOUS SPECIES
(X)	CAM CORNUS AMOMIUM	EUF EUPATORIUM FISTULOSUM
(+)	VOE VIBURNUM DENTATUM	MDI MONARDA DIDYMA
(O)		RLA RUDEBECKIA LACINATA

AS-BUILT CERTIFICATION

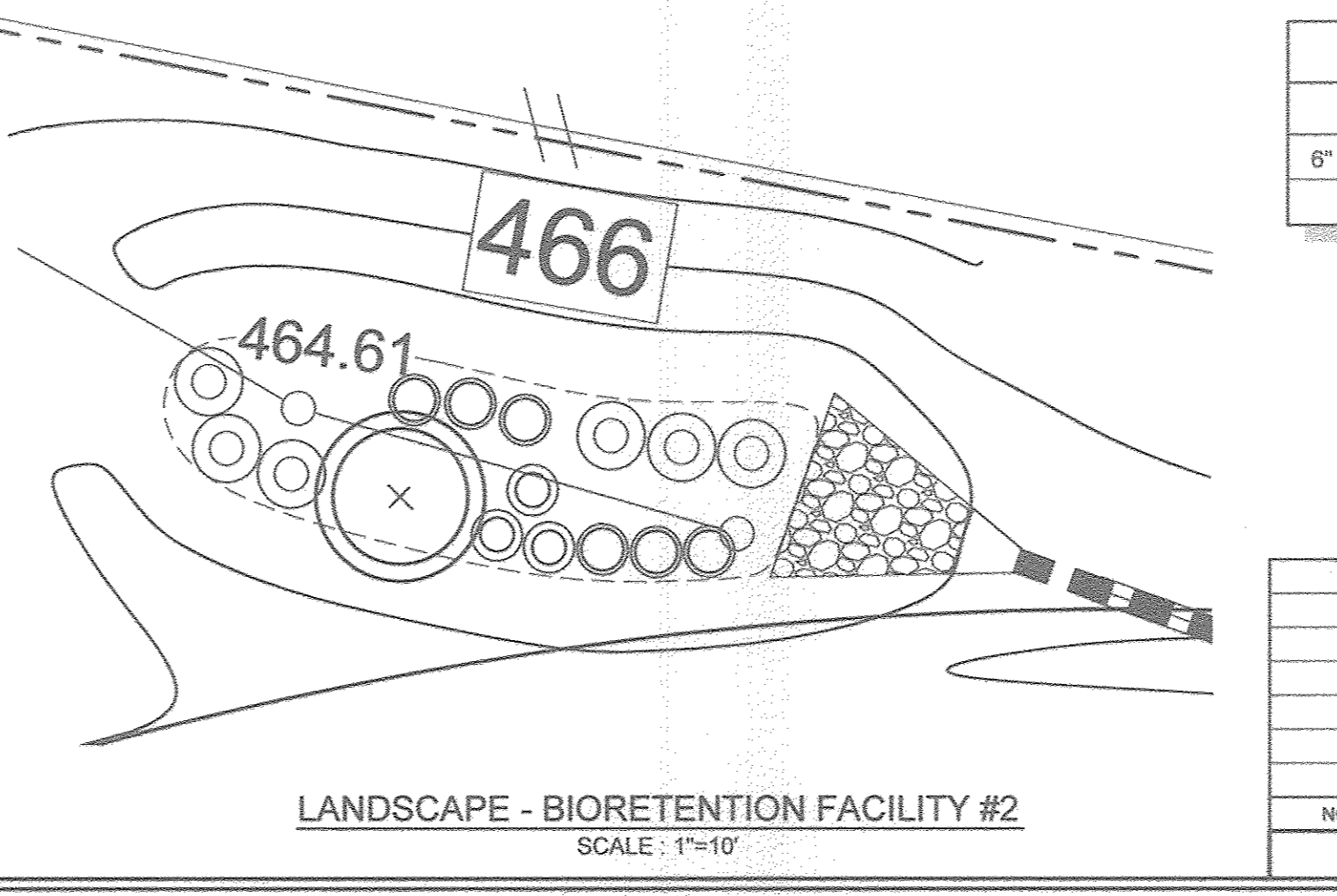
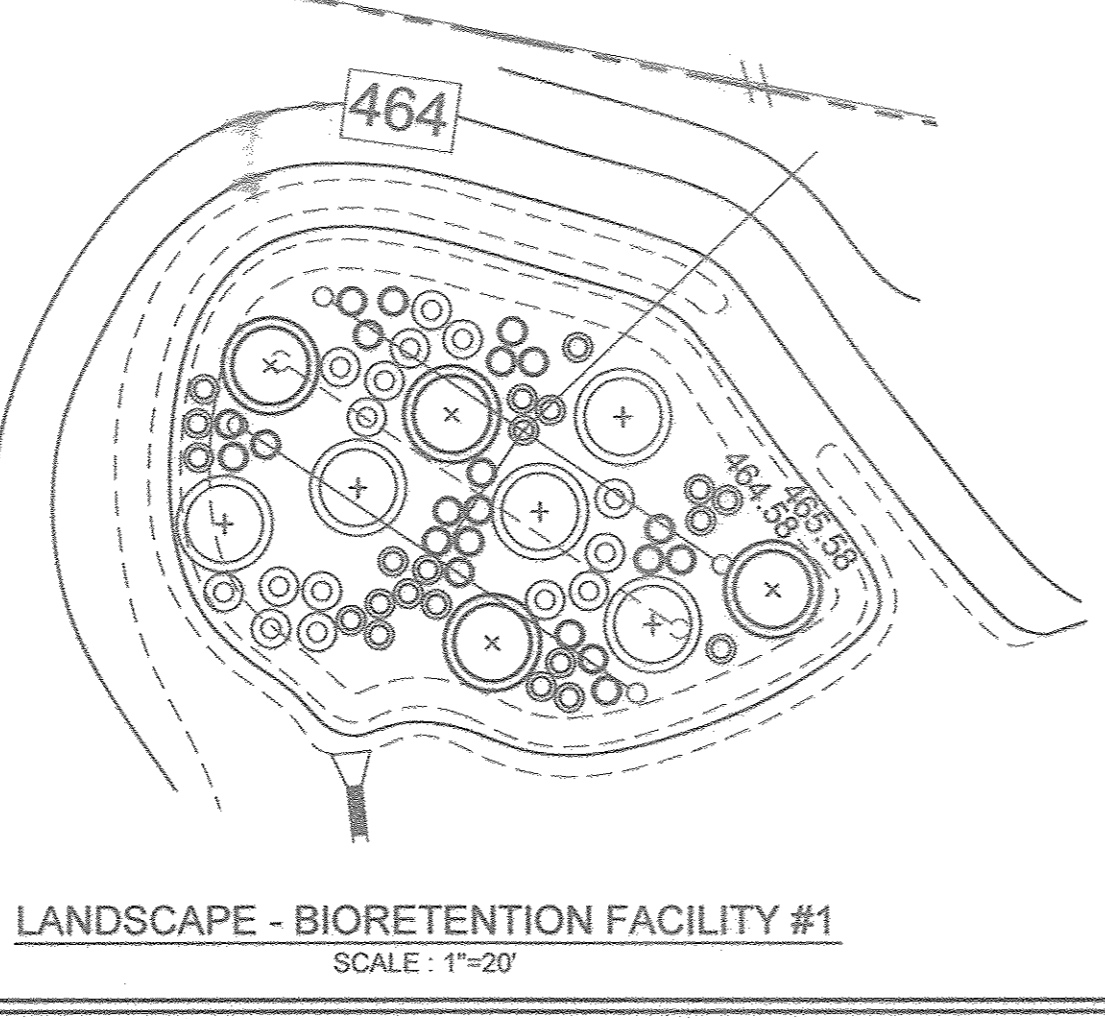
I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Michael D. Adams, Professional Land Surveyor
MOR. No. 2129, EXPIRATION DATE: 06/16/17

NOTE: PLANT MATERIAL MUST COVER 50% OF THE MULCH AREA AT MATURE GROWTH.
BIO 1 - BIORETENTION AREA = 2,181 S.F. OR 0.05 AC. PROVIDED: 9 SHRUBS AND 63 HERBACEOUS SPECIES
BIO 2 - BIORETENTION AREA = 387 S.F. OR 0.009 AC. PROVIDED: 1 SHRUB AND 15 HERBACEOUS SPECIES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 6/29/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE: 6/28/16



SIZE	TYPE	LENGTH
6" PERFORATED	PVC	127 LF
6" SOLID	PVC	79 LF

THE PURPOSE OF THIS REVISED FINAL ROAD CONSTRUCTION PLAN IS TO SHOW THE ENLARGEMENT OF BIORETENTION FACILITY #1.

NO.	DESCRIPTION	DATE

CONTRACT PURCHASER

OWNER
GILBERT BLEVINS
11366 HALL SHOW ROAD
CLARKSVILLE, MD 21029
C/O ROBERT CORBETT
410.997.8800

DEVELOPER
WILLIAMSBURG GROUP
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

AS-BUILT

REVISED BIORETENTION PLAN, PROFILES & DETAILS

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

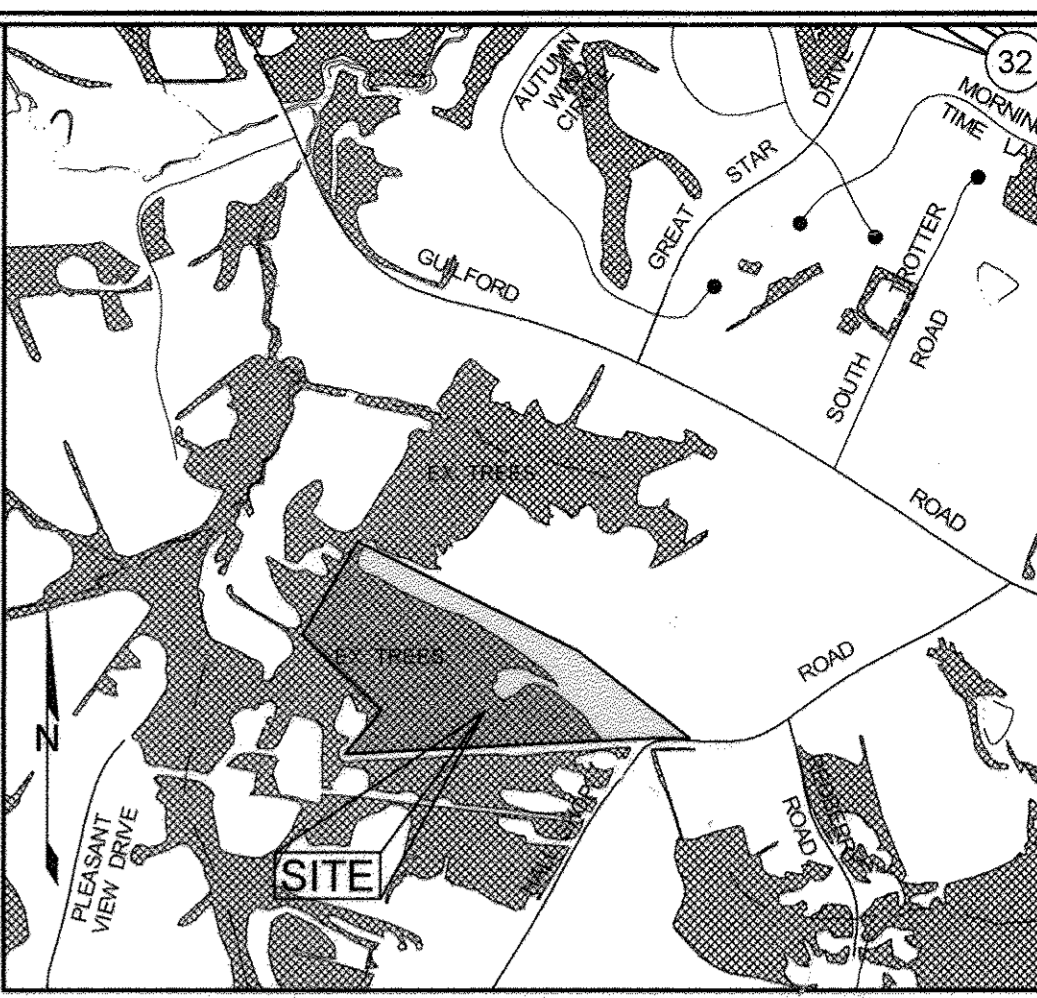
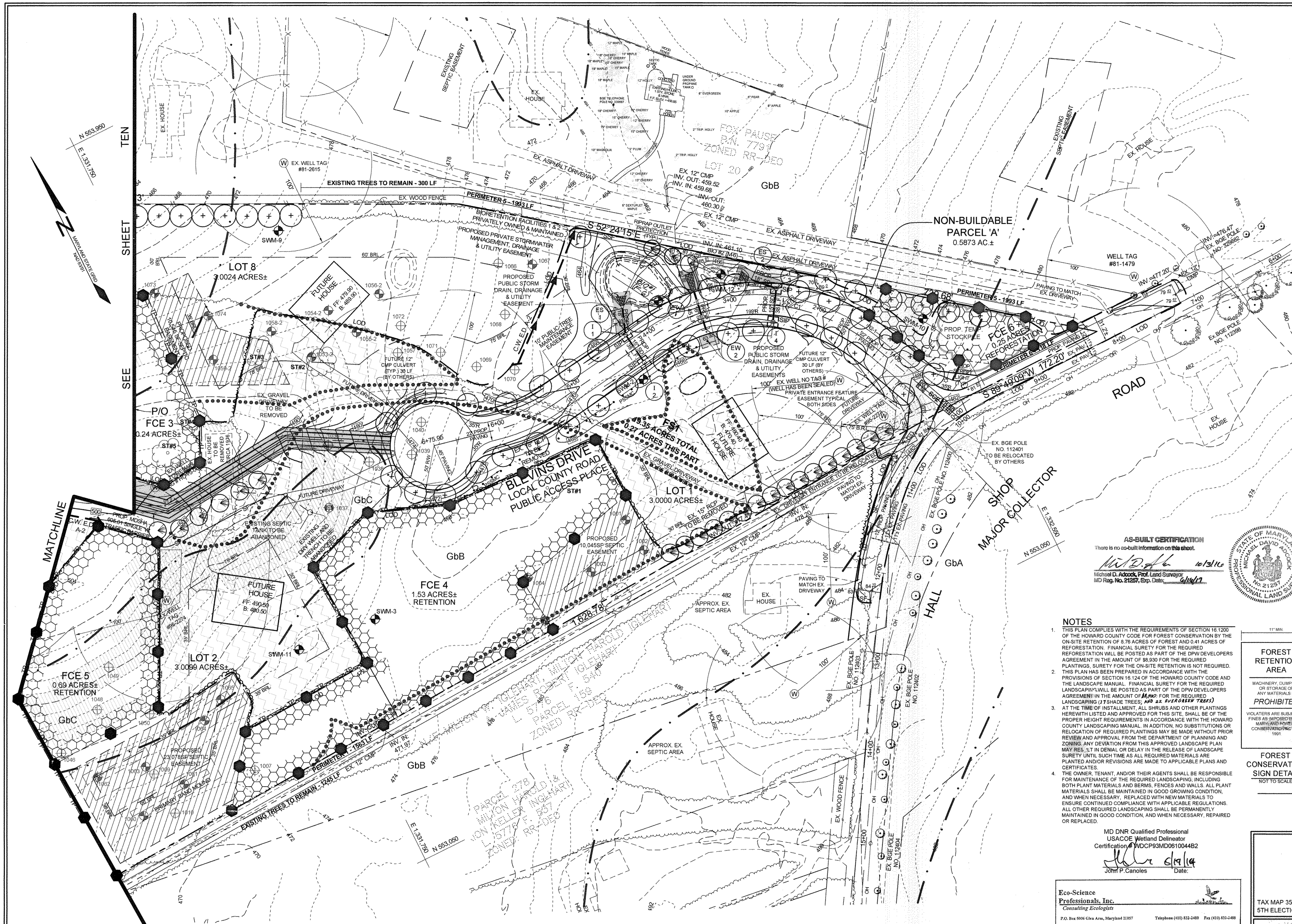
TAX MAP 35 GRID 19
5TH ELECTION DISTRICT

PARCEL 310
HOWARD COUNTY, MARYLAND

DESIGN BY: PS
DRAWN BY: AEA
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JUNE 9, 2016
PROJECT #: 11-054
SHEET #: 8 of 12

SILL ENGINEERING GROUP, LLC
11130 Dovedale Court, Suite 200
Marriottsville, Maryland 21104
Phone: 410.325.5076
Fax: 410.695.2022
Email: info@sillengineering.com
Civil Engineering for Land Development

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32026, EXPIRATION DATE: JUNE 29, 2017



LEGEND
SCALE: 1"=100'

EXISTING CONTOUR	---
PROPOSED CONTOUR	---
EXISTING SPOT ELEVATION	+
PROPOSED SPOT ELEVATION	+
DIRECTION OF FLOW	→
EXISTING SPECIMEN TREE	ST#6
EXISTING TREELINE	---
PROPOSED TREELINE	---
EXISTING FOREST STAND	•••••
PROPOSED LANDSCAPING	+
STABILIZED CONSTRUCTION ENTRANCE	---
SILT FENCE	---
SUPER SILT FENCE	---
PROPOSED CLEAN WATER EARTH DIKE	---
LIMIT OF DISTURBANCE	---
TREE PROTECTION FENCE	---
FOREST CONSERVATION SIGN	+
SOIL BOUNDARY	---
PROPOSED BIORETENTION FACILITY	---
PERCOLATION TEST HOLE, PASSED	1021
PERCOLATION TEST HOLE, FAILED	1001
PROPOSED SEPTIC EASEMENT	---
EXISTING WELL LOCATION	W EX. WELL TAG#
15%-24% MODERATE SLOPES	---
FOREST CONSERVATION EASEMENT	---
CLEARING FOR FUTURE HOUSE CONSTRUCTION ONLY	---

FOREST PROTECTION GENERAL NOTES

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY DEMOLITION, LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
- THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
- ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCING BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
- ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
- INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WATERING FROM DE-WATERING OPERATIONS, OFF-SITE RUN-OFF, SPILLAGE AND DRAININGS OF MATERIALS THAT MAY BE HARMFUL TO TREES.
- THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION EQUIPMENT AND STORAGE OF BUILDING MATERIALS OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
- THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
- ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE. LIMIT OF GRADING OR TREE PROTECTIVE FENCING WITHIN AND ADJACENT TO ALL SPECIMEN TREES AND EASEMENT AREAS TO BE PRESERVED, AS NECESSARY. ALL POSSIBLE PRECAUTIONS SHALL BE TAKEN TO DAMAGE ROOTS ADJACENT TO DEMOLITION AREAS WHEN BUILDING WALLS OR FOUNDATIONS ARE BEING REMOVED, AND ESPECIALLY WITH PAVEMENT REMOVAL, WHERE ROOTS LIKELY EXIST WITHIN SUBBASE GRAVEL.

CONTRACT PURCHASER

OWNER	DEVELOPER
GILBERT BLEVINS 11895 HALL SHOP ROAD CLARKSVILLE, MD 21029 C/O ROBERT CORBETT 410.997.8800	WILLIAMS BURG GROUP C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 410.997.8800

AS-BUILT

FINAL FOREST CONSERVATION & LANDSCAPE PLAN
BLEVINS PROPERTY
LOTS 1 THRU 8 AND NON-BUILDABLE PARCEL A
A SUBDIVISION OF PARCEL 310

TAX MAP 35 GRID 19
5TH ELECTION DISTRICT

PARCEL 310
HOWARD COUNTY, MARYLAND

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
Email: info@silladcock.com

DESIGN BY: JC / PS
DRAWN BY: JT / BK
CHECKED BY: PS
SCALE: 1" = 50'
DATE: JUNE 13, 2014
PROJECT #: 11-054
SHEET #: 9 OF 12

AS-BUILT CERTIFICATION
There is no as-built information on this sheet.

Michael D. Adcock 6/13/14
Michael D. Adcock, Prof. Land Surveyor
MD Reg. No. 21229, Exp. Date: 6/14/17



NOTES

- 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 LANDSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$1,000 FOR THE REQUIRED LANDSCAPING (7 SHADE TREES, AND 22 EVERGREEN TREES).
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

MD DNR Qualified Professional
USACOE Wetland Delimitator
Certification # WDCP93MD061004482

John P. Canoles 6/19/14
John P. Canoles Date

Eco-Science Professionals, Inc.
Consulting Ecologists
P.O. Box 5906 Cira Arva, Maryland 21087 Telephone (410) 532-2480 Fax (410) 532-2488

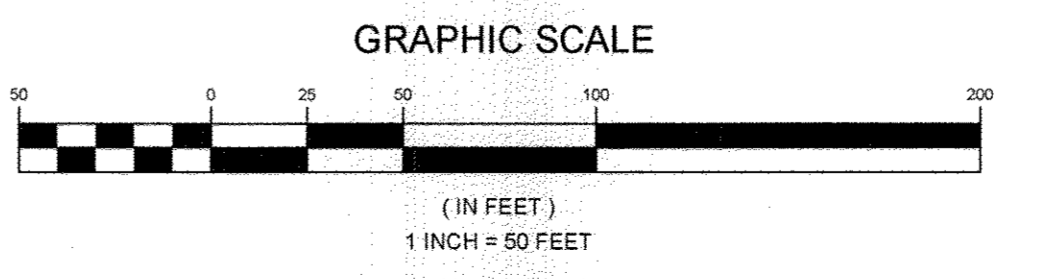
NO.	DESCRIPTION	DATE
1	REVISE BIO 11, MOVE 2 EVERGREENS	6/16/14

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GbA	GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES	B	0.20
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.20
Md	MAJOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24

NOTES:

- SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; AND SOIL SURVEY.
- 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 THAN 5 PERCENT.



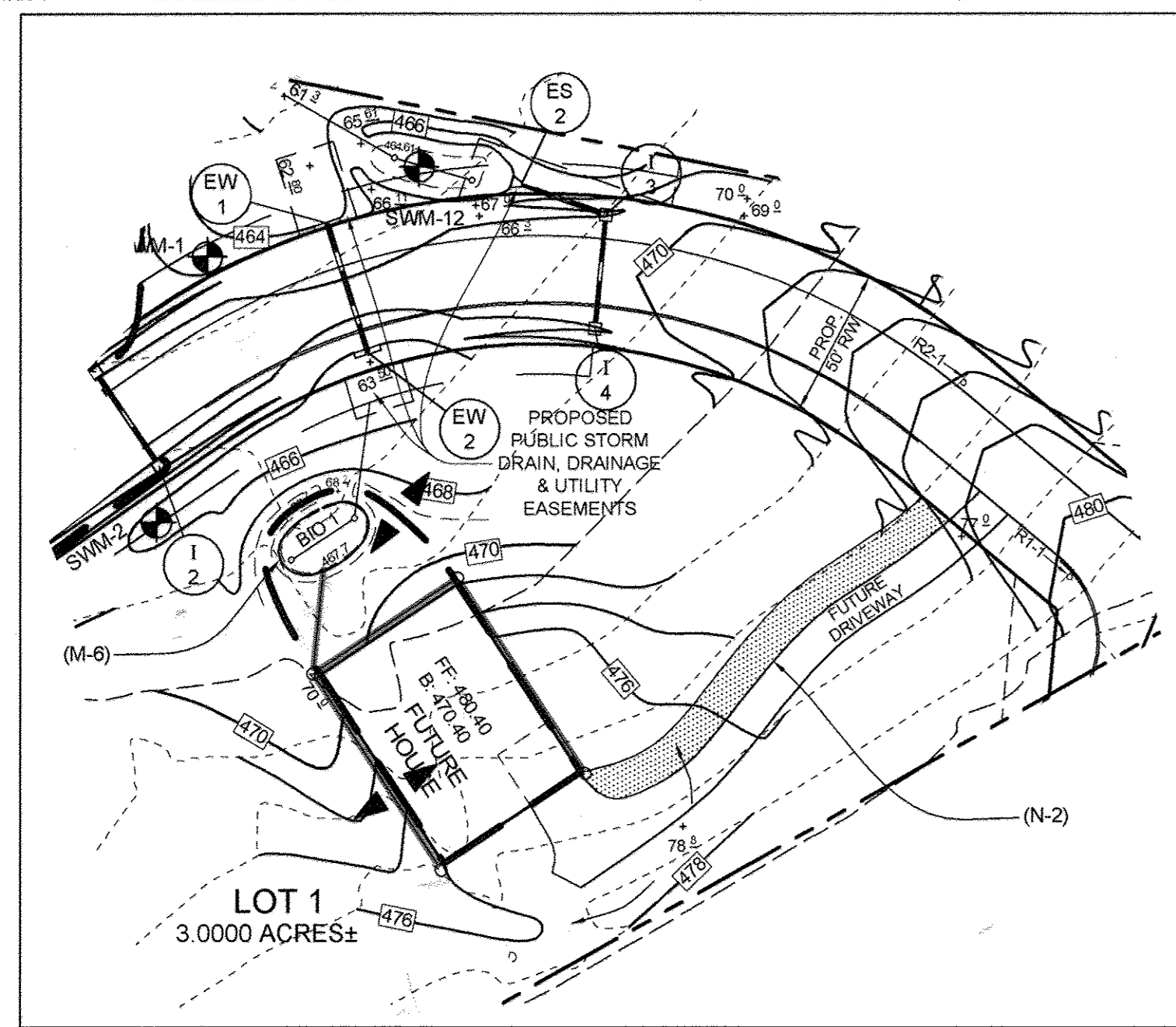
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kurt Reinhardt 8-13-14
Kurt Reinhardt
CHIEF, DIVISION OF LAND DEVELOPMENT

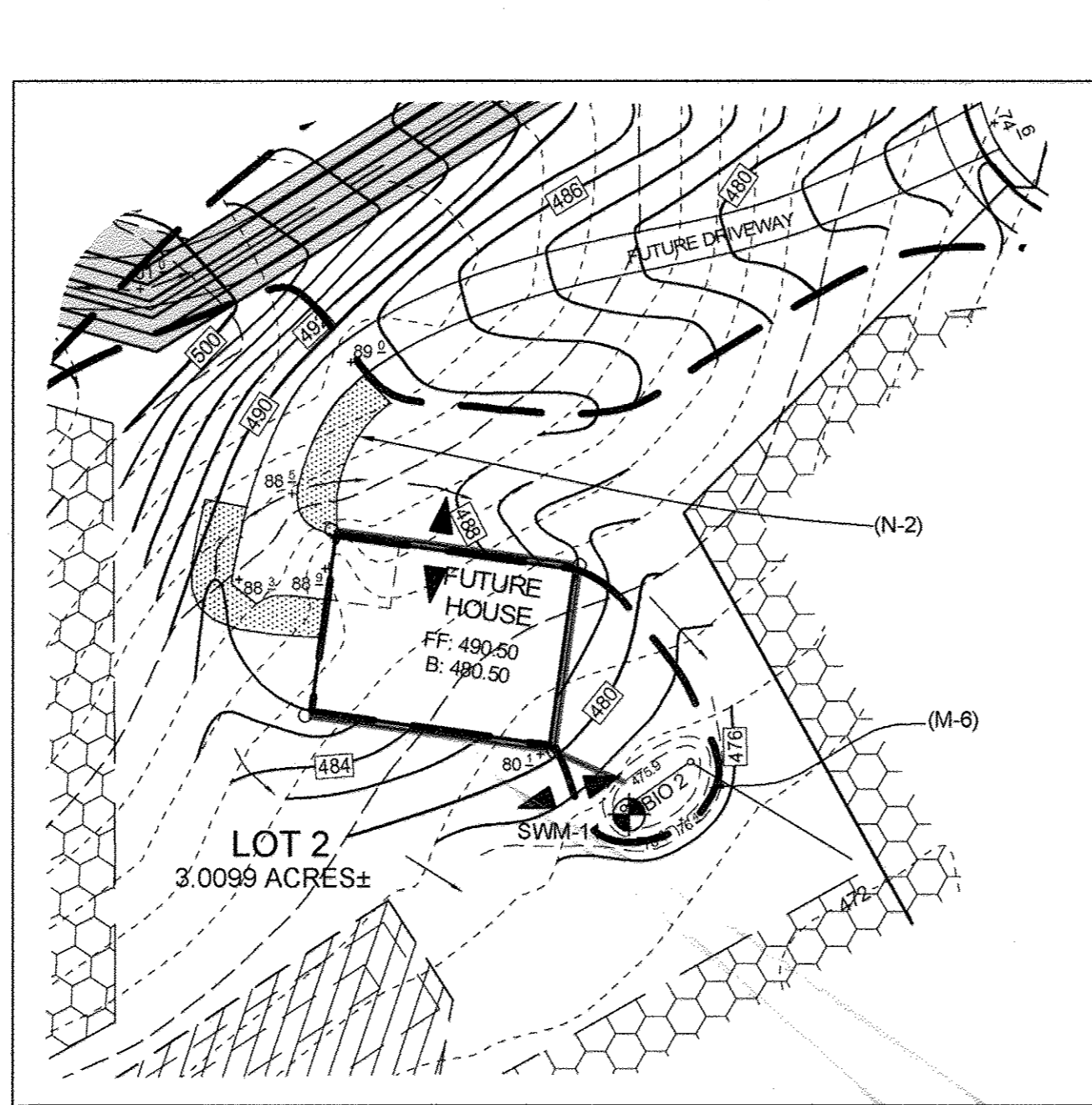
Chris Edwards 8-12-14
Chris Edwards
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

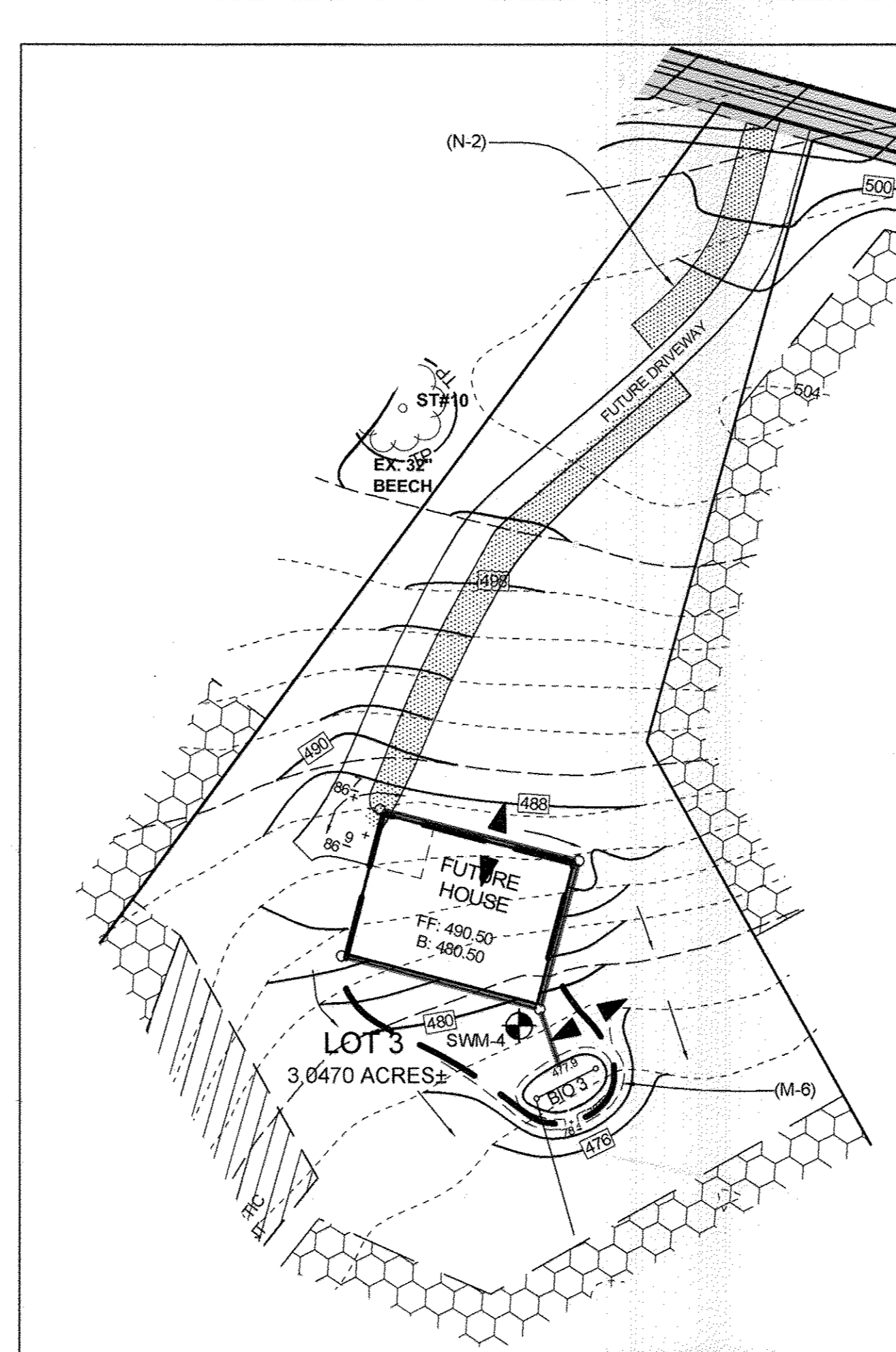
Robert Senawo 7-3-14
Robert Senawo
CHIEF, BUREAU OF HIGHWAYS



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



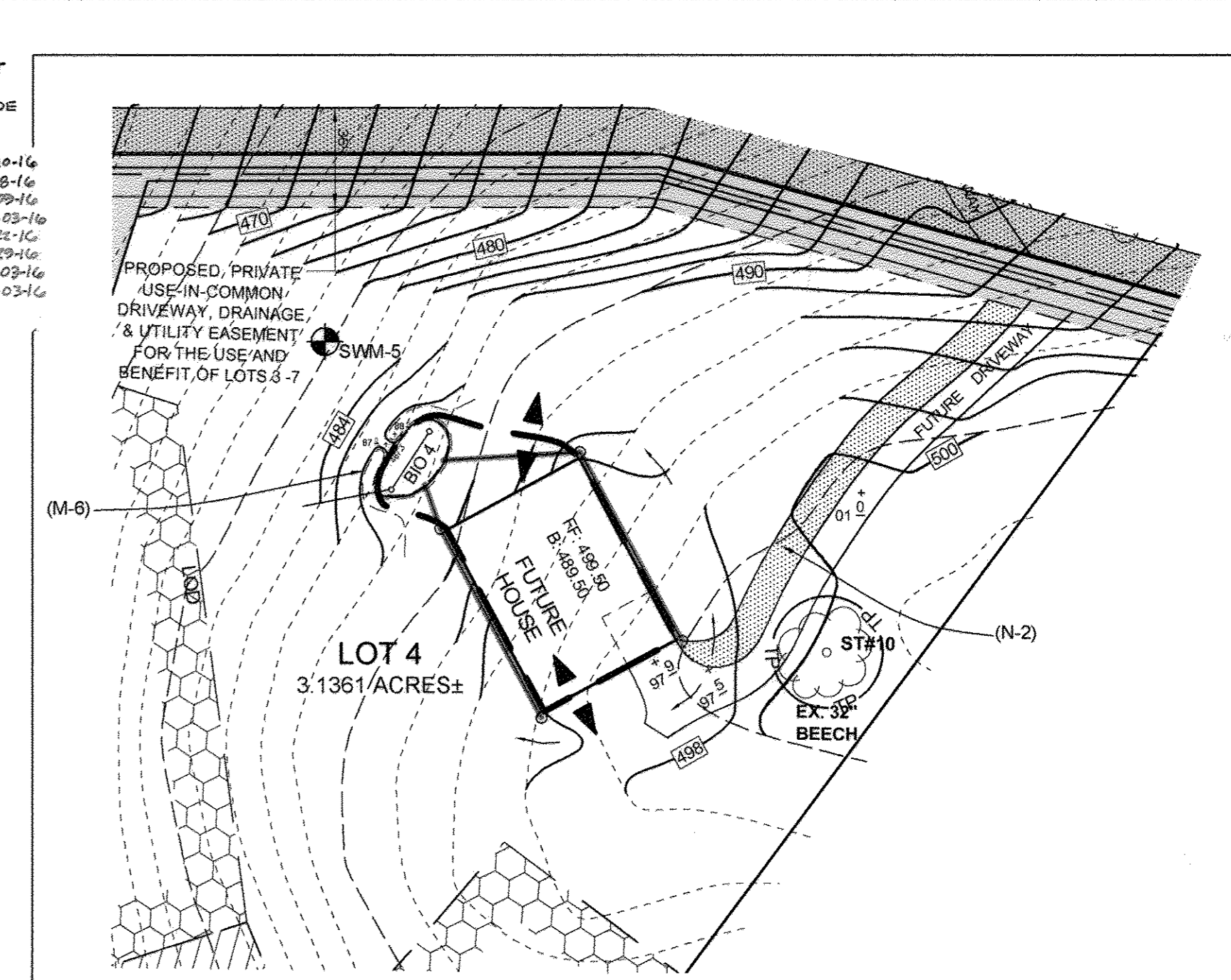
STORMWATER MANAGEMENT PLAN LOT #2
SCALE: 1"=50'



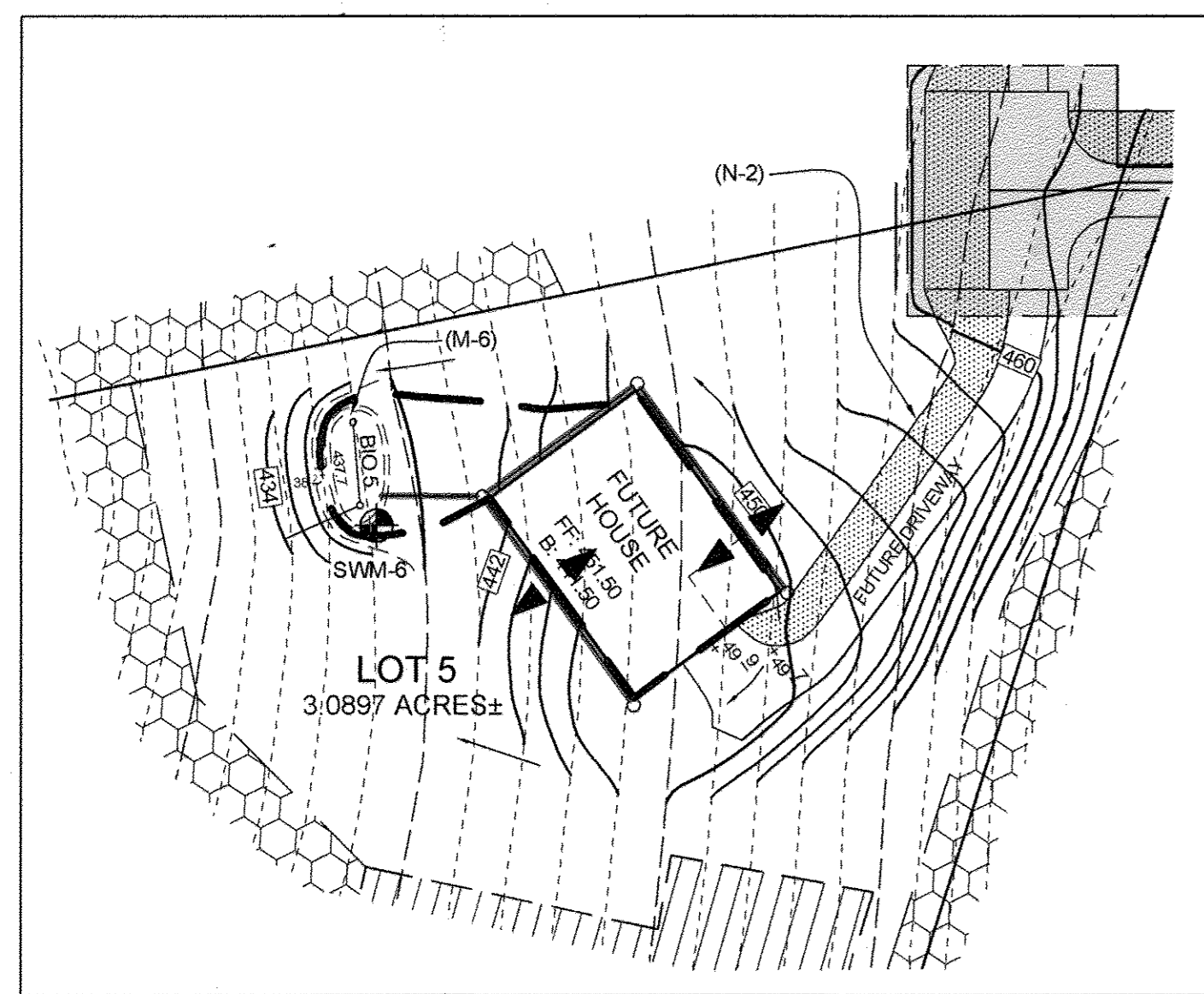
STORMWATER MANAGEMENT PLAN LOT #3
SCALE: 1"=50'

NOTE: THE PRIVATE STORMWATER MANAGEMENT WAS CERTIFIED UNDER THE COAGREEMENT FOR EACH LOT AFTER CONSTRUCTION UNDER THE BUILDING PERMIT. PLEASE REFER TO THE LOT GRADING PERMIT FOR GRADE CERTIFICATIONS.

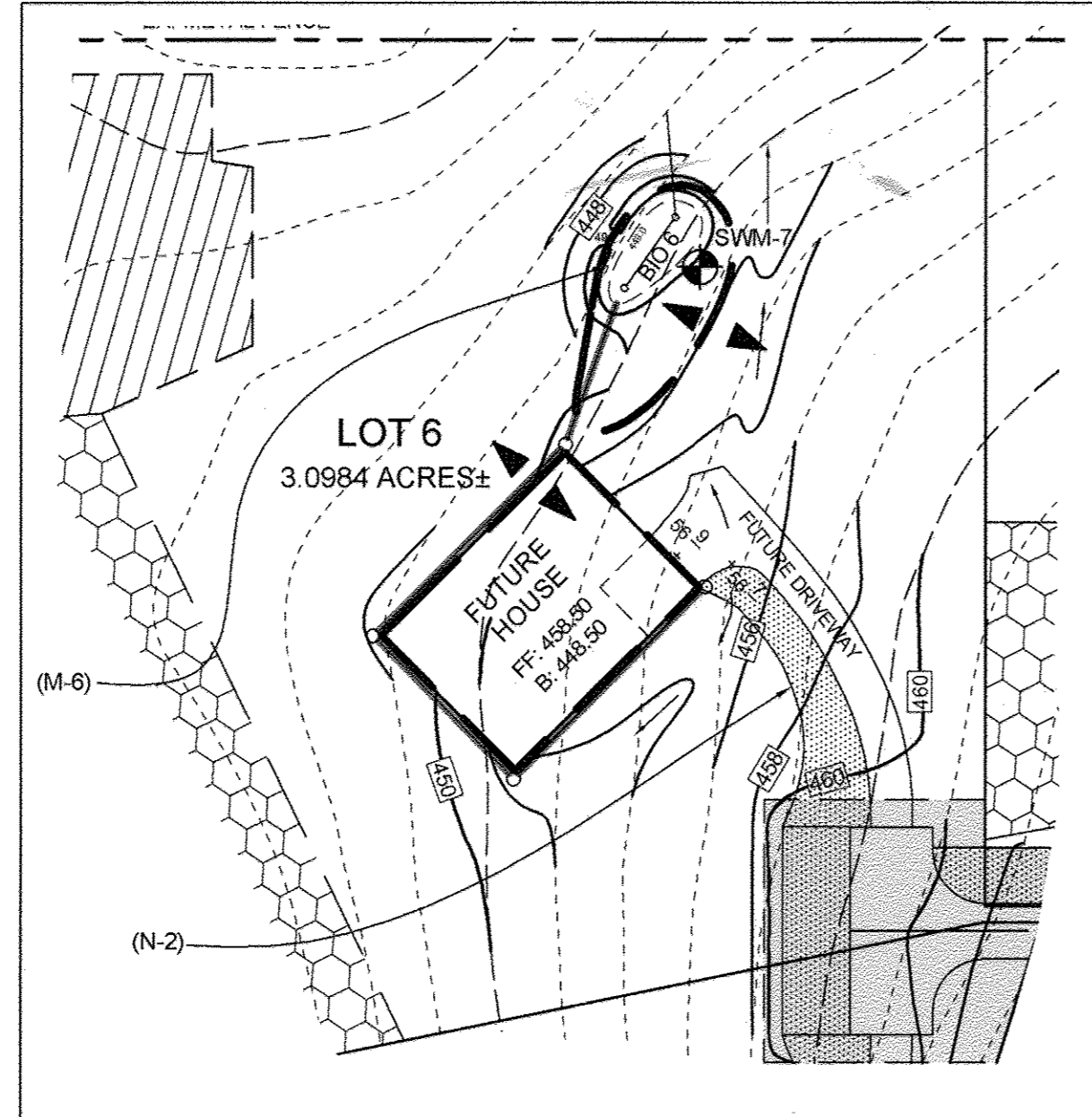
LOT 1, 11005 BLEVINS DR., G15000308, AS-BUILT DATE: 5-14-16
 LOT 2, 11011 BLEVINS DR., G15000308, AS-BUILT DATE: 5-28-16
 LOT 3, 11017 BLEVINS DR., G15000308, AS-BUILT DATE: 5-28-16
 LOT 4, 11023 BLEVINS DR., G15000308, AS-BUILT DATE: 5-28-16
 LOT 5, 11029 BLEVINS DR., G15000308, AS-BUILT DATE: 5-28-16
 LOT 6, 11028 BLEVINS DR., G15000308, AS-BUILT DATE: 5-28-16
 LOT 7, 11022 BLEVINS DR., G15000308, AS-BUILT DATE: 11-03-16
 LOT 8, 11010 BLEVINS DR., G15000308, AS-BUILT DATE: 11-03-16



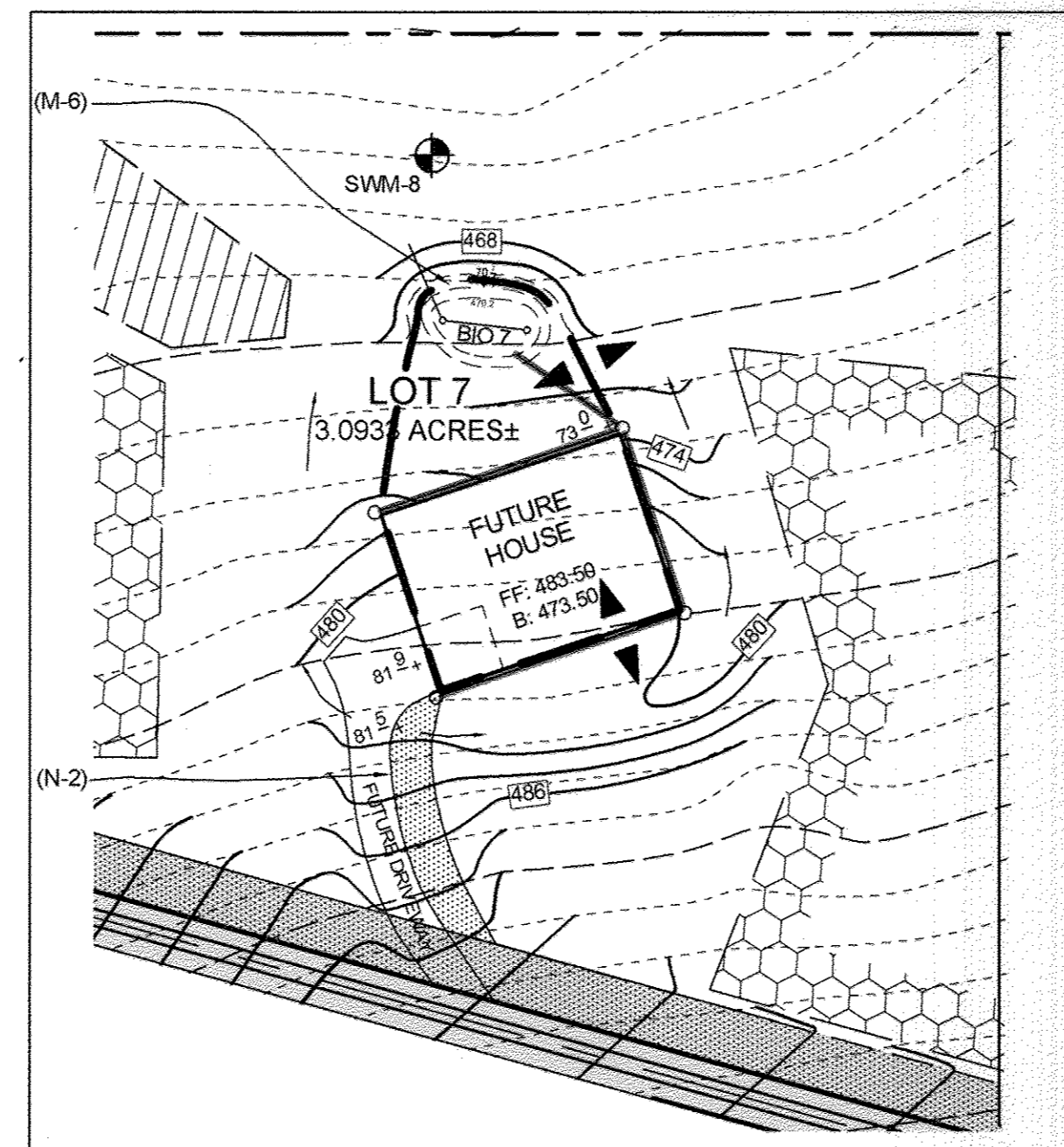
STORMWATER MANAGEMENT PLAN LOT #4
SCALE: 1"=50'



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



STORMWATER MANAGEMENT PLAN LOT #6
SCALE: 1"=50'



STORMWATER MANAGEMENT PLAN LOT #7
SCALE: 1"=50'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- PROPOSED SEPTIC EASEMENT
- FOREST CONSERVATION EASEMENT
- EXISTING SWM SOIL BORINGS
- PROPOSED MICRO-BIORETENTION FACILITY (M-6)
- PROPOSED DRAINAGE DIVIDE
- PROPOSED NON-ROOFTOP DISCONNECT (N-2)
- TREE PROTECTION FENCE

STORMWATER MANAGEMENT PRACTICES			
LOT #	ADDRESS	MICRO-BIORETENTION M-6 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (Y/N)
1	11005 BLEVINS DRIVE	1	Y
2	11011 BLEVINS DRIVE	1	Y
3	11017 BLEVINS DRIVE	1	Y
4	11023 BLEVINS DRIVE	1	Y
5	11029 BLEVINS DRIVE	1	Y
6	11028 BLEVINS DRIVE	1	Y
7	11022 BLEVINS DRIVE	1	Y
8	11010 BLEVINS DRIVE	1	Y

NOTE: FOR SWM BORING LOGS SEE SHEET 7.

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

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

- 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 4-4.1 AND 2.
- b. THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. 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 APPLIED.
- d. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTION TO THE LINES AND SPECIFICATIONS SHOWN ON THIS AS-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 I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Michael D. Adcock, Professional Land Surveyor
 No. Reg. No. 21251, EXPIRATION DATE: 01-16-17
 10/3/16 DATE

CONTRACT PURCHASER DEVELOPER

OWNER: GILBERT BLEVINS, 11988 HALL SHOP ROAD, CLARKSVILLE, MD 21029, C/O ROBERT CORBETT, 410.997.8800
 DEVELOPER: WILLIAMSBURG GROUP, C/O ROBERT CORBETT, 5485 HARPERS FARM ROAD, SUITE 200, COLUMBIA, MD 21044, 410.997.8800

AS-BUILT

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 HOWARD COUNTY, MARYLAND PARCEL 310

DESIGN BY: PS
 DRAWN BY: BK
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: JUNE 13, 2014
 PROJECT #: 11-054
 SHEET #: 12 OF 12

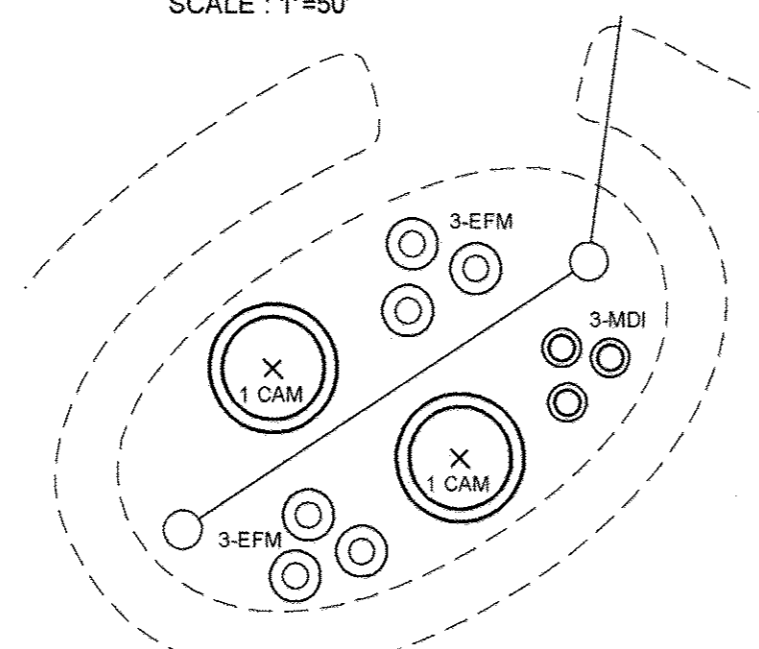
Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

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. 32023, EXPIRATION DATE: JUNE 30, 2015

BIORETENTION PLANT LIST													
SHRUBS													
KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QTY LOT 1	QTY LOT 2	QTY LOT 3	QTY LOT 4	QTY LOT 5	QTY LOT 6	QTY LOT 7	QTY LOT 8
CAM	CORNUS AMOMUM	SILKY DOGWOOD	AS SHOWN	18"-24" HT.	CONT.	2	2	2	2	2	2	2	2
HERBACEOUS SPECIES													
EFM	EUTROCHUM PURPUREUM	JOE-PYE WEED	AS SHOWN	1 QT./12" HT.	CONT. (3" O.C.)	6	6	6	6	6	6	6	6
MDI	MONARDA DIDYMA	BEEBALM	AS SHOWN	1 QT.	CONT.	3	3	3	3	3	3	3	3

NOTE: INTERPERSE PLANTINGS THROUGHOUT BIORETENTION FILTER AREAS. SEE TYPICAL PLANTING DETAIL.

- LOT 1 - BIORETENTION AREA = 450 S.F. OR 0.010 AC. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES
- LOT 2 - BIORETENTION AREA = 450 S.F. OR 0.010 AC. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES
- LOT 3 - 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. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES
- LOT 5 - BIORETENTION AREA = 450 S.F. OR 0.010 AC. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES
- LOT 6 - BIORETENTION AREA = 100 S.F. OR 0.002 AC. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES
- LOT 7 - BIORETENTION AREA = 450 S.F. OR 0.010 AC. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES
- LOT 8 - BIORETENTION AREA = 450 S.F. OR 0.010 AC. PROVIDED: 2 SHRUBS AND 9 HERBACEOUS SPECIES



TYPICAL PLANTING DETAIL
SCALE: 1"=10'

MATERIALS SPECIFICATIONS FOR BIORETENTION FACILITIES

MATERIAL PLANTINGS	SPECIFICATION SEE PLANT LIST THIS SHEET	SIZE	NOTES
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 UNDERDRAIN GRAVEL	AASHTO M-43	N/A	PE TYPE 1 NONWOVEN
UNDERDRAIN PIPING	F 756, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35 (3/8" TO 3/4")	SLOTTED OR PERFORATED PIPE, 3/8" PERFOR. @ 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.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Kurt Schleicher 8-13-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Eshen 8-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Holger Seligman 7-7-14
 CHIEF, BUREAU OF HIGHWAYS DATE

NO.	DESCRIPTION	DATE