

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DEMOLITION PLAN
3	18' PRIVATE USE-IN-COMMON DRIVE - PLAN & PROFILE
4	LANDSCAPE, FOREST CONSERVATION, & SOILS PLAN
5	GRADING & SEDIMENT CONTROL PLAN
6	FOREST CONSERVATION AND STORMWATER MANAGEMENT DETAILS & NOTES

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmC	Glenville silt loam, 8 to 15 percent slopes	C	0.37
GnB	Glenville-Balle silt loams, 0 to 8 percent slopes	C	0.37
MAD	Manor loam, 15 to 25 percent slopes	B	0.24
MgD	Manor-Bannertown sandy loams, 15 to 25 percent slopes, rocky	B	0.24

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESD REQUIRED CU.FT.	ESD PROVIDED CU.FT.	REMARKS
SITE	3,365	4,764	DRY WELL (M-5) & MICRO-BIORETENTION (M-6)
TOTAL	3,365	4,764	

GROSS AREA = 5.01 ACRES
 LOD = 2.57 ACRES
 RCN = 50.1
 TARGET Pe = 1.0'

DESIGN NARRATIVE

INTRODUCTION:
 THIS REPORT WILL DEMONSTRATE HOW THE CRITERIA SET FORTH IN THE MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II (EFFECTIVE OCTOBER 2000, REVISED MAY 2009) IS SATISFIED ON THIS PROJECT. THE GOAL OF CREATING HYDROLOGY SIMILAR TO THAT OF WOODS IN GOOD CONDITION WILL BE ACCOMPLISHED THROUGH THE USE OF THE PRACTICES CONTAINED WITHIN CHAPTER 5 OF SAID MANUAL. THE ACHIEVEMENT OF THIS GOAL WILL REMOVE THE REQUIREMENT OF PROVIDING CHANNEL PROTECTION VOLUME.

GENERAL SITE CONDITIONS:
 THE RIVER HILL OVERLOOK PROJECT IS ZONED R-ED AND IS LOCATED ON TAX MAP 35, GRID B, PARCEL NO. 66 OF THE HOWARD COUNTY, MARYLAND TAX MAP DATABASE SYSTEM. THE PROPERTY CONSISTS OF EIGHT PROPOSED BUILDABLE LOTS AND ONE OPEN SPACE LOT THAT COMBINE TO CREATE A SITE OF APPROXIMATELY 5.01 ACRES. PROPOSED LOTS WILL BE SERVED BY PUBLIC WATER AND SEWER. THE PROPERTY IS LOCATED IN THE CLARKSVILLE AREA OF HOWARD COUNTY IN THE MIDDLE PATUXENT RIVER WATERSHED (02131106). THIS PROPERTY IS RECTANGULAR IN SHAPE AND HAS RIDGE IN THE MIDDLE OF THE PROPERTY WITH THE SITE SLOPING TO THE WEST TO TROTTER ROAD AND THE REMAINDER OF THE PROPERTY SLOPING TO THE EAST TOWARD AN UNNAMED TRIBUTARY OF THE MIDDLE PATUXENT RIVER. AN EXISTING HOUSE AND ACCESSORY STRUCTURES, LOCATED ON THE WESTERN PORTION OF THE PROPERTY, ARE ACCESSED BY AN EXISTING DRIVEWAY THAT ENTERS DIRECTLY ONTO TROTTER ROAD. THREE SPECIMEN TREES EXIST ON-SITE, TWO OF WHICH ARE LOCATED WITHIN OPEN SPACE LOT 9 AND ONE (NON-NATIVE) SPECIMEN TREE THAT IS LOCATED NEAR THE PROPERTY LINE BETWEEN LOTS 3 AND 4. ALL OF WHICH ARE PROPOSED TO BE RETAINED. ALSO, ACCORDING TO A FIELD INSPECTION CONDUCTED BY ECO-SCIENCE PROFESSIONALS (ESP) IN JULY 2013, WHICH STATES, "WETLANDS WERE NOTED ALONG THE STREAM SIDE TERRACES ON THE ADJACENT PROPERTY. THESE WETLANDS ARE DOMINATED BY SKUNK CABBAGE, SENSITIVE FERN AND SPICEBUSH. THE WETLAND BOUNDARY WAS NOT DELINEATED BECAUSE IT IS OFFSITE AND THE BUFFER FROM THE WETLANDS WILL FALL WITHIN THE REQUIRED STREAM BUFFERS." THE WEB SOIL SURVEY SHOWS SOILS ON THE SITE AREA CONSIST OF GLADSTONE LOAM (GBB, GBC), MANOR LOAM (MAD), AND MANOR-BANNERTOWN SANDY LOAMS (MGD) TYPE "B" SOILS AND GLENVILLE SILT LOAM (GMC) & GLENVILLE-BALLE SILT LOAMS (GNB) TYPE "C" SOILS. THE PORTION OF PROPERTY THAT SLOPES TO THE WEST DRAINS TO AN EXISTING DITCH ALONG THE EAST SIDE OF TROTTER ROAD, WHICH IS WHERE A PORTION OF SITE RUNOFF WILL BE DIRECTED. THE REMAINDER WILL DRAIN ONTO EXISTING GRADE AND THEN TO THE STREAM.

- NATURAL RESOURCE PROTECTION:**
 ENVIRONMENTALLY SENSITIVE AREAS (STREAM, STREAM BUFFERS, STEEP SLOPES, AND FLOODPLAIN) EXIST ON-SITE. TO ENSURE THE PROTECTION OF NATURAL RESOURCES LOCATED ON THIS SITE, ALL BUFFERS WILL BE HONORED BY LOCATING IMPROVEMENTS AWAY FROM THESE AREAS WHICH WILL BE LOCATED WITHIN FOREST CONSERVATION AND FLOODPLAIN EASEMENTS.
 - MAINTENANCE OF NATURAL FLOW PATTERNS:**
 IT IS THE INTENT OF THE PROPOSED DESIGN TO DISCHARGE RUNOFF SIMILAR TO THE CHARACTERISTICS AND DIRECTION OF THIS SITE PRIOR TO ANY OF THE PROPOSED IMPROVEMENTS.
 - REDUCTION OF IMPERVIOUS AREAS THROUGH BETTER SITE DESIGN, ALTERNATIVE SURFACES AND NONSTRUCTURAL PRACTICES**
 THE DESIGN OF THIS PROJECT UTILIZES AN USE-IN-COMMON DRIVEWAY, ALLOWING A REDUCTION IN THE IMPERVIOUS SURFACE AREA. NON-STRUCTURAL PRACTICES AS PERMITTED IN CHAPTER 5, FOUR (4) MICRO-BIORETENTION AREAS (M-6) WILL BE USED TO ADDRESS ESD TO THE MEP REQUIREMENTS. ALTERNATIVE SURFACES WERE NOT INCORPORATED INTO THIS DESIGN.
 - INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO STORMWATER STRATEGY:**
 SINCE SMALL DRAINAGE AREAS ARE PROPOSED UNDER THIS PLAN, SUPER SILT FENCE, AND EROSION CONTROL MATING WILL BE UTILIZED FOR EROSION & SEDIMENT CONTROL. THERE IS NO DIRECT DISCHARGE OF RUNOFF TO A STREAM. ALL SITE RUNOFF WILL DISCHARGE TO EXISTING GROUND PRIOR TO ENTERING THE EXISTING STREAM CHANNEL AND EVENTUALLY TO THE MIDDLE PATUXENT RIVER. NO DRAINAGE EASEMENTS WILL BE REQUIRED. IT IS ANTICIPATED THAT ALL CUT WILL BE UTILIZED ON-SITE FOR CONSTRUCTION AT TIME OF SDP.
 - IMPLEMENTATION OF ESD PLANNING TECHNIQUES AND PRACTICES TO THE MAXIMUM EXTENT PRACTICABLE (MEP)**
 ESD PLANNING TECHNIQUES WILL BE UTILIZED TO THE MAXIMUM EXTENT PRACTICABLE TO SATISFY THE SWM REQUIREMENTS PUT FORTH IN CHAPTER 5 OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT'S SWM DESIGN MANUAL. ALL NON-STRUCTURAL PRACTICES ARE BEING UTILIZED TO TREAT STORMWATER RUNOFF. THE FULL REQUIRED ESD VOLUME IS BEING PROVIDED.
 - REQUEST FOR A DESIGN MANUAL WAIVER:**
 NO WAIVERS RELATED TO STORMWATER MANAGEMENT ARE BEING REQUESTED IN THIS PROJECT.
- NOTE: ALL ON-SITE MICRO-BIORETENTION FACILITIES ARE TO BE PRIVATELY OWNED AND MAINTAINED BY THE INDIVIDUAL LOT OWNERS.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36386, EXPIRATION DATE: 01/12/2016.

Stephanie Lantz 10/27/14
 Signature of Professional Engineer DATE



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Keith Davidson 12-17-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

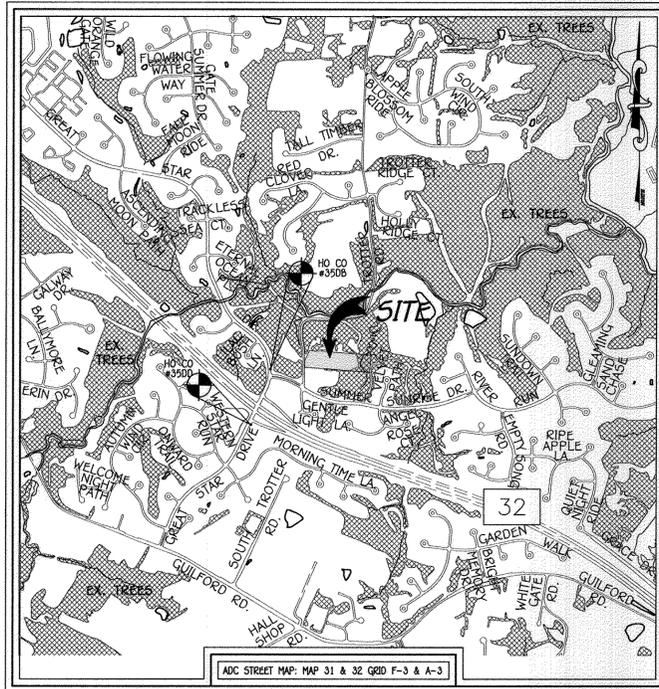
Chad Edmondson 12-16-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONTINENTAL SQUARE OFFICE PARK - 10272 MILLPOPE NATIONAL PARK
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 - 2992

FINAL PLAN

RIVER HILL OVERLOOK, LOTS 1 THRU 8 AND OPEN SPACE LOT 9 THRU 12

TAX MAP No. 35 GRID No. 8 PARCEL NO. 66
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
 SCALE: 1" = 1200'

BENCHMARK INFORMATION	
B.M.#1 - HOWARD COUNTY CONTROL STATION #3500 - HORIZONTAL - (NAD '83) (ALONG GREAT STAR DRIVE WHERE THE EASTBOUND RAMP TO MD RT 32 TURNS OFF TO THE EAST, 52' NORTHEAST OF A BELL MANHOLE ALONG GREAT STAR DRIVE, 36.4' NORTH OF THE CORNER OF A CHAIN LINE FENCE, 10' NORTHWEST OF AN ELECTRIC BOX AND 55' WEST OF A LIGHT POLE ALONG THE EASTBOUND RAMP TO MD RT 32 FROM GREAT STAR DRIVE.) N 556,936.5472 E 1,333,705.5892 ELEVATION = 424.21 - VERTICAL - (NAVD '80)	
B.M.#2 - HOWARD COUNTY CONTROL STATION #3508 - HORIZONTAL - (NAD '83) (LOCATED 7.3' EAST OF THE FACE OF CURB ALONG GREAT STAR DRIVE, 48.9' NORTH OF A LIGHT POLE NORTHEAST OF THE INTERSECTION OF GREAT STAR DRIVE AND SUMMER SUNRISE DRIVE, 21' NORTHWEST OF AN OAK TREE, AND 18' SOUTHWEST OF AN OAK TREE.) N 557,696.1674 E 1,333,974.5506 ELEVATION = 400.94 - VERTICAL - (NAVD '80)	

SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION = 4.99 AC.+
- LIMIT OF DISTURBED AREA = 2.57 AC.+
- PRESENT ZONING DESIGNATION = R-ED
- PROPOSED USE: RESIDENTIAL
- BUILDING COVERAGE OF SITE: N/A
- PREVIOUS HOWARD COUNTY FILES: ECP-14-010, SP-14-001
- TOTAL AREA OF FLOODPLAIN LOCATED ON SITE 0.29 AC+
- TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.36 AC+
- NET TRACT AREA = 4.34 ACRES (TOTAL AREA LESS FLOODPLAIN AND STEEP SLOPES)
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC+
- TOTAL AREA OF FOREST = 0.86 AC+ (EXCLUDES FLOODPLAIN), 0.86 ACRES PLACED IN FOREST CONSERVATION EASEMENT.
- TOTAL GREEN OPEN AREA = 3.21 AC+ (2.505 ACRES IN OPEN SPACE LOT 9)
- TOTAL IMPERVIOUS AREA = 0.74 AC+
- DENSITY TABULATION
 - NET TRACT AREA = 4.99 ACRES - 0.29 ACRES - 0.36 ACRES = 4.34 ACRES
 - DENSITY ALLOWED = 4.34 ACRES X 2 BUILDABLE LOTS/ACRE = 8 BUILDABLE LOTS MAXIMUM.
 - DENSITY PROPOSED = 8 BUILDABLE LOTS
 - MINIMUM OPEN SPACE REQUIRED = 4.99 ACRES X 0.50 = 2.495 ACRES
 - OPEN SPACE PROVIDED = 2.53 ACRES
 - ROAD DEDICATION: 0.02 AC+ (791 SQ.FT.)
 - AREA OF PROPOSED BUILDABLE LOTS = 2.45 ACRES+ (106,697 SQ.FT.)

STORMWATER MANAGEMENT PRACTICES			
LOT No.	ADDRESS	DRY WELLS (NUMBER)	OFF LOT (ON OPEN SPACE) MICRO-BIORETENTION (NUMBER, FACILITY ID)
1	6303 RIVER HILL OVERLOOK DRIVE	0	1, #1
2	6307 RIVER HILL OVERLOOK DRIVE	0	2, #1 & #2
3	6311 RIVER HILL OVERLOOK DRIVE	0	2, #1 & #2
4	6315 RIVER HILL OVERLOOK DRIVE	1	1, #3
5	6319 RIVER HILL OVERLOOK DRIVE	0	1, #3
6	6316 RIVER HILL OVERLOOK DRIVE	0	2, #3 & #4
7	6310 RIVER HILL OVERLOOK DRIVE	0	2, #2 & #4
8	6304 RIVER HILL OVERLOOK DRIVE	0	1, #2
9	(COMMON DRIVEWAY)	0	2, #2 & #3

OWNERS

JACQUELINE RANA REVOCABLE TRUST
 6301 TROTTER ROAD
 CLARKSVILLE, MARYLAND 21029
 410-533-5380
 ATTN: CHRISTOPHER B EMERY, TRUSTEE & YASHIN NATASHA GAWENSKI, TRUSTEE

DEVELOPER / CONTRACT PURCHASER

RIVER HILL OVERLOOK, LLC
 2034 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 410-740-0522
 ATTN: DOUG DIERINGER & RICHARD DEMMITT

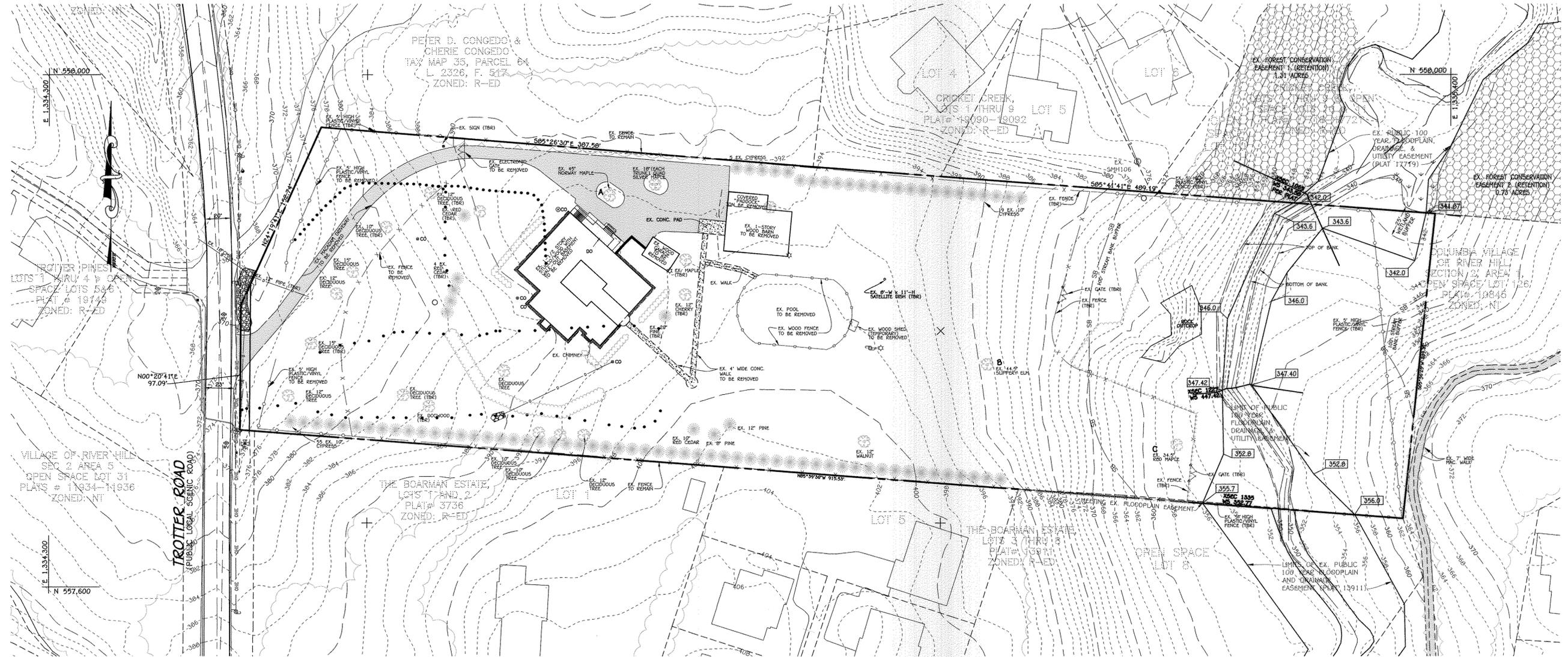
General Notes:

- SUBJECT PROPERTY IS ZONED "R-ED" PER THE 10/06/13 COMPREHENSIVE ZONING PLAN.
- THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY DATED OCTOBER, 2013 BY FISHER, COLLINS & CARTER, INC. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED SEPTEMBER 2013 AND SUPPLEMENTED BY HOWARD COUNTY GIS TOPOGRAPHY.
- THIS PLAN AND THE COORDINATES SHOWN HEREON ARE BASED ON NAD '83, MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3500 AND NO. 3500.
 STA. NO. 3500 N 557,696.1674 E 1,333,974.5506 ELEV. = 400.94
 STA. NO. 3500 N 556,936.5472 E 1,333,705.5892 ELEV. = 424.21
- B.M.#1 DENOTES BUILDING REFERENCE LINE.
- ▲ DENOTES IRON PIN SET CAPPED "F.C.C. 100".
- DENOTES IRON PIPE OR IRON BAR FOUND.
- DENOTES ANGULAR CHANGE IN BEARING OF BOUNDARY OR RIGHTS-OF-WAY.
- DENOTES CONCRETE MONUMENT SET WITH ALUMINUM PLATE "F.C.C. 100".
- ◆ DENOTES CONCRETE MONUMENT OR STONE FOUND.
- ALL LOT AREAS ARE MORE OR LESS (+).
- DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND REDUCED TO NAD '83 GRID MEASUREMENT.
- PLAT SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE NOS. SP-14-021 AND ECP-14-001.
- FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
- 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 (MINIMUM) REQUIREMENTS:
 A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
 B) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1 - 1/2" MINIMUM).
 C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS.
 D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (HEAVY-LOADING).
 E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE.
 F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- EXISTING UTILITIES ARE BASED UPON FIELD LOCATION OF MISS UTILITY MARKINGS IN JUNE, 2013.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- SITE IS ADJACENT TO A SCENIC ROAD.
- NO GEODETIC OR HISTORIC STRUCTURES EXIST WITHIN THE LIMITS OF THIS PLAT SUBMISSION.
- THIS SUBMISSION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF, EFFECTIVE ON THE DATE THE DEVELOPER'S AGREEMENT IS FILED AND ACCEPTED. WATER AND SEWER IS PROVIDED UNDER CONTRACT NO. 24-4831-D. EXISTING WELL AND SEPTIC SYSTEMS TO BE ABANDONED IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS.
- THE NON-CRITICAL FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED OCTOBER 2013, AND APPROVED ON DECEMBER 12, 2013.
- THERE ARE NO WETLANDS ON THIS SITE PER INVESTIGATION BY ECO-SCIENCE PROFESSIONALS, INC. DATED JULY, 2013. WETLAND BUFFERS SHOWN HEREON ARE BASED ON WETLANDS LIMITS PER PLATS OF CRICKET CREEK SUBDIVISION, F-05-043, PLAT NOS. 17718 THRU 17721.
- FOREST STAND DELINEATION PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JULY, 2013.
- STEEP SLOPES, STREAM AND ITS BUFFERS, WETLAND BUFFER, AND 100 YEAR FLOODPLAIN EXIST ON-SITE.
- NO CLEARING, GRADING, REMOVAL OF VEGETATION OR TREES, EXCAVATION OR CONSTRUCTION SHALL BE PERMITTED WITHIN THE LIMITS OF STREAM BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY YARRS GROUP, AND WAS APPROVED ON DECEMBER 12, 2013.
- NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
- NO GEOTECHNICAL REPORT IS REQUIRED FOR THIS PROJECT. EXCAVATIONS TO VERIFY DEPTH TO ROCK AND WATER WERE CONDUCTED ON SEPTEMBER 23, 2013.
- ON DECEMBER 12, 2013 APPROVAL WAS GRANTED FOR A WAIVER FROM DESIGN MANUAL, VOLUME III, SECTION 2.6.A WHICH ALLOWS NO MORE THAN 6 LOTS ON A USE-IN-COMMON DRIVEWAY TO ALLOW 9 LOTS.
- STORMWATER MANAGEMENT IS IN ACCORDANCE WITH THE H.D.E. STORMWATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES (FOUR (4) MICRO-BIORETENTION AREAS AND ONE (1) DITCH (M-6) IN ACCORDANCE WITH CHAPTER 5, ARE BEING UTILIZED. THESE PRACTICES SHALL BE PRIVATELY OWNED AND MAINTAINED IN ACCORDANCE WITH INDIVIDUAL DECLARATIONS OF COVENANTS.
- PROCEEDMENT INTO THE LOT STREAM BUFFER FOR THE EXTENSION OF THE SEWER MAIN AND EASEMENT IS CONSIDERED ESSENTIAL DISTURBANCE BY DPZ PER SECTION 16.116(C)(I) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- ARTICLES OF INCORPORATION FOR THE RIVER HILL OVERLOOK HOMEOWNERS ASSOCIATION, INC. WILL BE FILED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION PRIOR TO SUBMISSION OF RECORD PLAT ORIGINALS.
- SUBDIVISION IS SUBJECT TO SECTION 18.04.F OF THE ZONING REGULATIONS. AT LEAST 10% OF THE DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (M.I.H.U.) OR AN ALTERNATIVE COMPLIANCE WILL BE PROVIDED. THE DEVELOPER SHALL EXECUTE A M.I.H.U. AGREEMENT WITH THE DEPARTMENT OF HOUSING TO INDICATE HOW THE M.I.H.U. REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT AND COVENANTS SHALL BE RECORDED SIMULTANEOUSLY WITH THIS PLAT IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND. THIS DEVELOPMENT WILL MEET M.I.H.U. ALTERNATIVE COMPLIANCE BY A PAYMENT OF A FEE-IN-LIEU TO THE DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT. MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:
 A. M.I.H.U. REQUIRED = (8 LOTS X 10%) = 0.8 M.I.H.U.
 B. M.I.H.U. PROPOSED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR UNIT PROVIDED BY THE DEVELOPER.
 C. AN EXECUTED M.I.H.U. AGREEMENT WITH THE HOWARD COUNTY HOUSING DEPARTMENT HAS BEEN COMPLETED.
- THE FOREST CONSERVATION EASEMENTS SHOWN ON THIS PLAT HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 18.122D OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION ARE ALLOWED.
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY ON-SITE RETENTION OF 0.86 ACRES OF FOREST (RETENTION). THERE IS NO SURETY FOR FOREST RETENTION.
- A LANDSCAPING SURETY IN THE AMOUNT OF \$2,310.00 FOR PERIMETER LANDSCAPE REQUIREMENTS (1) SHADE TREE, (12) EVERGREEN TREES AND (7) SHRUBS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL IS TO BE POSTED WITH THE FINAL PLAN DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION.
- THIS SUBDIVISION IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE 24' PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT AND MAINTENANCE AGREEMENT FOR THE BENEFIT OF LOTS 1 THRU 8 TO BE RECORDED SIMULTANEOUSLY WITH THE RECORDEATION OF THE PLAT. THE PRIVATE DRIVEWAY EASEMENT FOR THE USE AND BENEFIT OF LOTS 1 THRU 8 ALSO TO BE RECORDED SIMULTANEOUSLY WITH THE PLAT.
- A PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON JULY 12, 2013.
- OPEN SPACE LOTS 9, 11 AND 12 TO BE CONVEYED TO THE RIVER HILL OVERLOOK HOMEOWNERS ASSOCIATION, INC. SIMULTANEOUSLY WITH THE FINAL PLAT RECORDEATION.
- OPEN SPACE LOT 10 TO BE CONVEYED TO HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS SIMULTANEOUSLY WITH THE FINAL PLAT RECORDEATION.
- EXISTING HOUSE AND ACCESSORY STRUCTURES TO BE REMOVED.
- THE LOTS CREATED BY THIS SUBDIVISION PLAT ARE SUBJECT TO A FEE OR ASSESSMENT TO COVER OR DEFRAY ALL OR PART OF THE DEVELOPER'S COST OF THE INSTALLATION OF THE WATER AND SEWER FACILITIES, PURSUANT TO THE HOWARD COUNTY CODE SECTION 18.112. THIS FEE OR ASSESSMENT, WHICH RUNS WITH THE LAND, IS A CONTRACTUAL OBLIGATION BETWEEN THE DEVELOPER AND EACH OWNER OF THIS PROPERTY AND IS NOT IN ANY WAY A FEE OR ASSESSMENT OF HOWARD COUNTY.
- TASHI AND RECYCLING COLLECTION WILL BE AT TROTTER ROAD WITHIN 5' OF THE COUNTY ROADWAY. TRASH / RECYCLE COLLECTION PAD WILL BE MAINTAINED BY THE PROPERTY OWNERS (IF AN HOA) IS NOT PROPOSED. THE MAINTENANCE OF THIS COLLECTION AREA SHOULD BE REFERENCED IN THE PRIVATE USE-IN-COMMON AGREEMENT.
- A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATE.
- SIGN POSTS: 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" TYPE, 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 (2) QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL SIGN CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS: ECP-14-010, SP-14-001.
- NO HISTORIC STRUCTURES EXIST ON THIS SITE BASED ON THE HOWARD COUNTY HISTORIC SITES INVENTORY LIST.
- APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN ACCORDANCE WITH SECTION 16.153 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- DRIVEWAYS FOR LOTS 1 THRU 8 SHALL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R-6.06 IN THE VOL. IV DESIGN MANUAL.
- SOILS INFORMATION BASED ON NRCS WEB SOIL SURVEY FOR HOWARD COUNTY, MARYLAND.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1860 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.

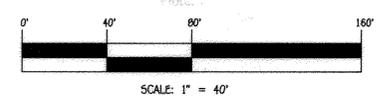
TITLE SHEET
RIVER HILL OVERLOOK,
 LOTS 1 THRU 8 AND OPEN SPACE LOTS 9 THRU 12
 ZONED R-ED

TAX MAP No. 35 GRID No. 14 PARCEL NO. 66
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: A5 SHOWN DATE: OCTOBER, 2014
 SHEET 1 OF 6

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET



PLAN
SCALE: 1" = 40'



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.
Anthony J. Lutz 10/22/14
Signature of Professional Engineer DATE



APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kathleen 12-17-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Chad 12-16-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2995

OWNERS
JACQUELINE RANA REVOCABLE TRUST
5301 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029
410-533-5380
ATTN: CHRISTOPHER B. EMERY, TRUSTEE & YASMIN NATASHA GAJEWSKI, TRUSTEE

DEVELOPER / CONTRACT PURCHASER
RIVER HILL OVERLOOK, LLC
5034 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
410-740-0922
ATTN: DOUG DIERINGER & RICHARD DEMMITT



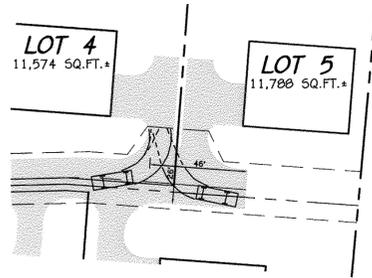
AS-BUILT CERTIFICATION FOR PSWM
Note: There is no "AS BUILT" information provided on this sheet.
Charles J. DeFio 10/21/16
CHARLES J. DEFIO P.E. #13204 Date

DEMOLITION PLAN
RIVER HILL OVERLOOK,
LOTS 1 THRU 8 AND OPEN SPACE LOTS 9 THRU 12
ZONED R-ED
TAX MAP No. 35 GRID No. 14 PARCEL No. 66
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2014
SHEET 2 OF 6

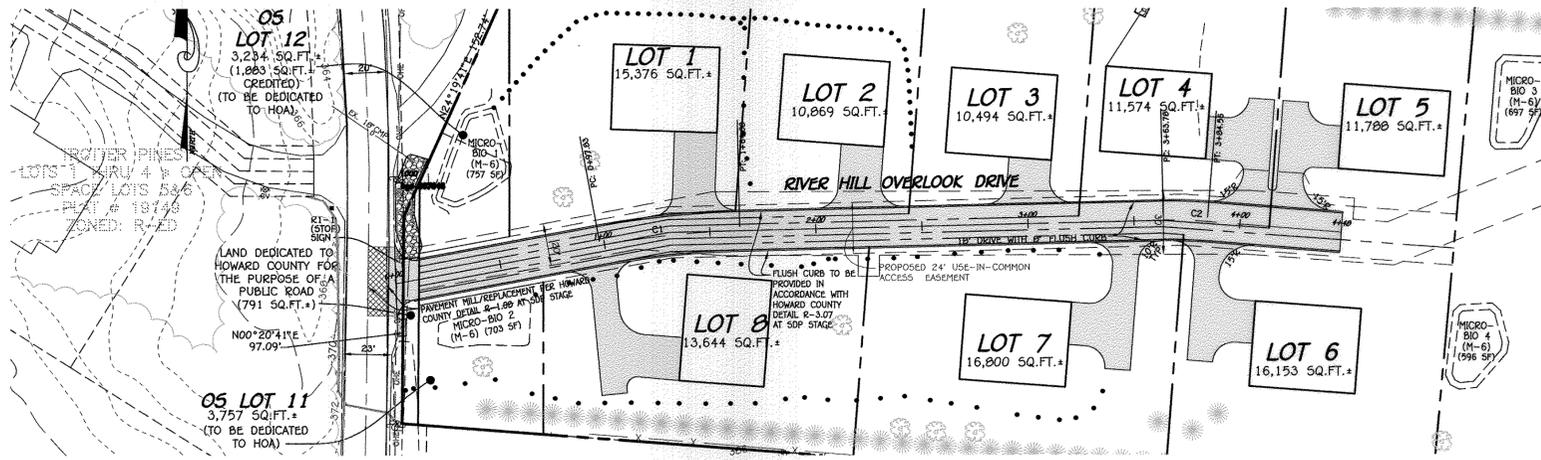
THERE IS NO "AS BUILT" INFORMATION PROVIDED ON THIS SHEET

I:\2009\09040\dwg\09040-3003 Final Worksheets\09040-3003 PS-SHEET-SET.dwg, 10/27/2014 4:24:56 PM, 1:1

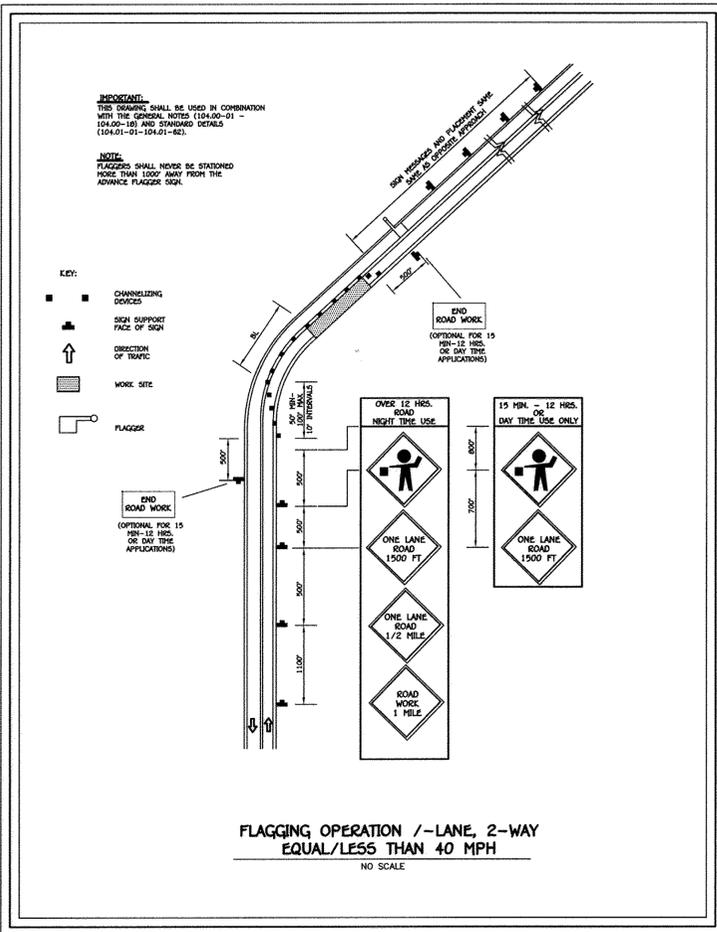
DRIVEWAY ALIGNMENT CURVE TABLE					
CURVE #	DELTA	ARC LENGTH	RADIUS	CHORD DIRECTION	CHORD LENGTH
C1	014°00'32"	66.25'	409.00'	N84° 03' 12.34"E	66.18'
C2	028°38'52"	20.79'	200.00'	S88° 19' 43.77"E	20.78'



TURNAROUND DETAIL
SCALE: 1"=40'



PLAN
SCALE: 1"=40'



**FLAGGING OPERATION 1-LANE, 2-WAY
EQUAL/LESS THAN 40 MPH**
NO SCALE

NOTE: TRAFFIC CONTROL TO BE UTILIZED FOR DRIVEWAY ENTRANCE CONSTRUCTION PER ABOVE DETAIL AT SDP STAGE.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.

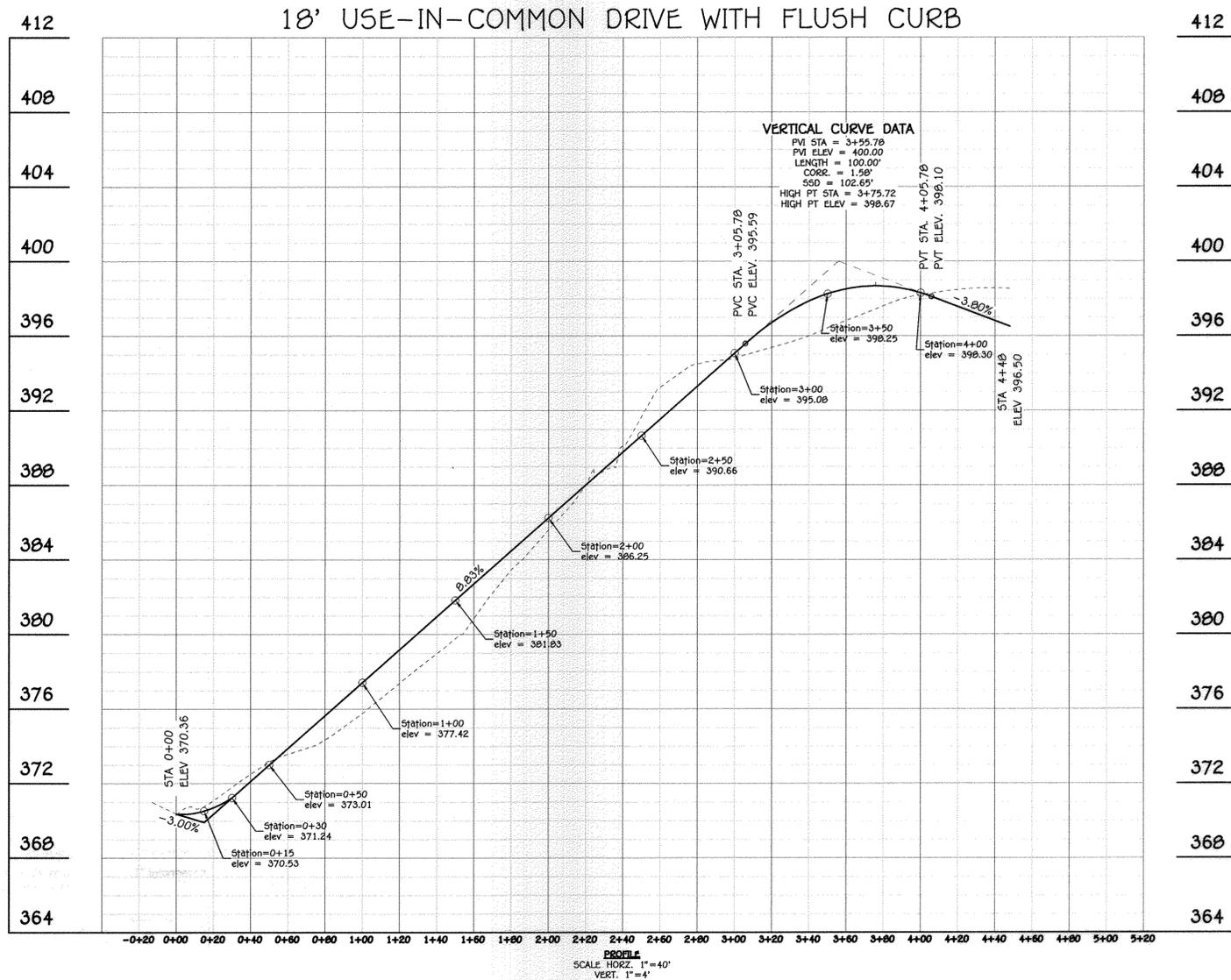
Stephen J. Lutz 10/29/14
Signature of Professional Engineer DATE



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Christine D. ... 12-17-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Chad ... 12-16-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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



PROFILE
SCALE: HORIZ. 1"=40'
VERT. 1"=4'



AS-BUILT CERTIFICATION FOR PSW/M
Note: There is no "AS BUILT" information provided on this sheet.
Charles W. Dorsey 12/21/16
CHARLES W. DORSEY, P.E. #19224 Date

18' PRIVATE USE-IN-COMMON DRIVE - PLAN & PROFILE
RIVER HILL OVERLOOK,
LOTS 1 THRU 8 AND OPEN SPACE LOTS 9 THRU 12
ZONED R-ED
TAX MAP No. 35 GRID No. 14 PARCEL No. 66
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2014
SHEET 3 OF 6

OWNERS
JACQUELINE RANA REVOCABLE TRUST
5031 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029
410-533-5380
ATTN: CHRISTOPHER B EMERY, TRUSTEE &
YASHIN NATASHA GAJEWSKI, TRUSTEE

DEVELOPER / CONTRACT PURCHASER
RIVER HILL OVERLOOK, LLC
2034 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
410-740-0522
ATTN: DOUG DERINGER & RICHARD DEMMITT

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET

AREA ID	SWM TREATMENT PROVIDED
LOT 1	MICRO-BIORETENTION 1 (M-6)
LOT 2	MICRO-BIORETENTION 1 & 2 (M-6)
LOT 3	MICRO-BIORETENTION 1 & 2 (M-6)
LOT 4	MICRO-BIORETENTION 3 (M-6) & DRYWELL (M-5)
LOT 5	MICRO-BIORETENTION 3 (M-6)
LOT 6	MICRO-BIORETENTION 3 & 4 (M-6)
LOT 7	MICRO-BIORETENTION 2 & 4 (M-6)
LOT 8	MICRO-BIORETENTION 2 (M-6)

Lot No.	Gross Area	Pipestem Area	Minimum Lot Size
1	15,376 Sq. Ft.	130 Sq. Ft.	15,246 Sq. Ft.
2	10,869 Sq. Ft.	453 Sq. Ft.	10,416 Sq. Ft.
3	10,494 Sq. Ft.	690 Sq. Ft.	9,796 Sq. Ft.
4	11,574 Sq. Ft.	939 Sq. Ft.	10,635 Sq. Ft.
5	11,780 Sq. Ft.	1,209 Sq. Ft.	10,579 Sq. Ft.
6	16,153 Sq. Ft.	1,080 Sq. Ft.	15,065 Sq. Ft.
7	16,800 Sq. Ft.	643 Sq. Ft.	16,157 Sq. Ft.
8	13,644 Sq. Ft.	178 Sq. Ft.	13,466 Sq. Ft.

NOTES

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 0.86 ACRES OF FOREST. NO SURETY WILL BE REQUIRED.

2. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL, A LANDSCAPE SURETY IN THE AMOUNT OF \$2,310.00 FOR PERIMETER LANDSCAPE REQUIREMENTS (1) SHADE TREE, (2) EVERGREEN TREES AND (7) SHRUBS IS TO BE POSTED WITH THE FINAL PLAN DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION.

QTY.	KEY	NAME	SIZE
1	○	ACER RUBRUM 'RED SUNSET' (RED SUNSET RED MAPLE)	2.5" - 3" CAL. FULL CROWN, B&B
7	○	ILEX 'NELLIE R. STEVENS' (NELLIE R. STEVENS HOLLY)	5' - 6' HT. B&B
5	○	THUNJA PLICATA (GIANT ARBOVITAE 'GIANT')	5' - 6' HT. B&B
7	○	TAXUS MEDIA 'HICKSII' (HICKS YEW)	2.5" - 3" HT. B&B
6	○	THUNJA OCCIDENTALIS 'HAROLD' (HAROLD YEW)	2.5" - 3" HT. B&B

TOTAL: 1 SHADE TREE, 18 EVERGREENS, 7 SHRUBS

PERIMETER	SCHEDULE A - PERIMETER LANDSCAPE EDGE					TRASH PAD	TOTAL
	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES					
LANDSCAPE TYPE	N/A	A	A	A	A		
LINEAR FEET OF PERIMETER	114 L.F.	134 L.F.	867 L.F.	239 L.F.	907 L.F.		
NUMBER OF PLANTS REQUIRED	0	2 (134'/60' = 2.2 OR 2)	5 (867'/60' = 14.5 OR 15)	2 (239'/60' = 4)	5 (907'/60' = 15.1 OR 15)		14
CREDIT FOR EXISTING VEGETATION			(208 LF OF EX. TREES)	239 LF OF EX. TREES	0		(447 LF EX TREES)
SHADE TREES	0	0	2	0	55		2
SMALL/MEDIUM DECIDUOUS TREES (2:1 SUBSTITUTION)	0	0	24	0	0		79
NUMBER OF PLANTS PROVIDED							
SHADE TREES	0	1	0	0	0		1
SMALL/MEDIUM DECIDUOUS TREES (2:1 SUBSTITUTION)	3	3	6	0	0		12
SHRUBS							7

NOTE: CREDIT ALONG PERIMETER 3 IS FOR 24 EXISTING 10' CYPRESS TREES AND CREDIT ALONG PERIMETER 5 IS FOR 55 EXISTING 10' CYPRESS TREES.

STORMWATER MANAGEMENT SUMMARY CHART

AREA = 5.01 ACRES (LOTS 1 thru 8)
 RCN = 50.1
 TARGET PE = 1.0'

NOTE: MICRO-BIORETENTION FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOA.



DATE	DESCRIPTION	REVISION BLOCK
9/23/14	MARK 16 EXISTING TREES TO BE REMOVED ON LOT 7 AND PROPOSE TO REPLACE WITH 6 PROPOSED TREES	

DEVELOPER'S / BUILDER'S CERTIFICATE

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

Michael W. Mummitt 10-28-14
 DEVELOPER DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36386, EXPIRATION DATE: 01/12/2016.

Stephen J. Lutz 10/27/14
 SIGNATURE OF PROFESSIONAL ENGINEER DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

K. A. Calver 12-17-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad P. Smith 12-16-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



AS-BUILT CERTIFICATION FOR PSWM

Note: There is no "AS BUILT" information provided on this sheet.

Charles J. Orsivo 12/16/14
 CHARLES J. ORSIVO P.E. #19204 Date

SOIL	NAME	CLASS	K FACTOR
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.20
GmC	Glenville silt loam, 8 to 15 percent slopes	C	0.37
GnB	Glenville-Baile silt loams, 0 to 8 percent slopes	C	0.37
MAD	Manor loam, 15 to 25 percent slopes	B	0.24
MgD	Manor-Bannertown sandy loams, 15 to 25 percent slopes, rocky	B	0.24

PLAN
 SCALE: 1" = 40'

KEY	SPECIES, SIZE (DBH)	CRZ (FT)	CONDITION	COMMENT
A	NORWAY MAPLE, 45"	67.5	GOOD CONDITION	NOT NATIVE, TO REMAIN
B	SLIPPERY ELM, 44.5"	66.75	GOOD CONDITION	TO REMAIN
C	RED MAPLE, 34.5"	51.75	GOOD CONDITION	TO REMAIN

OWNERS

JACQUELINE RANA REVOCABLE TRUST
 6301 TROTTER ROAD
 CLARKSVILLE, MARYLAND 21029
 410-533-5390

ATTN: CHRISTOPHER B. EMERY, TRUSTEE & YASMIN NATASHA GAJEWSKI, TRUSTEE

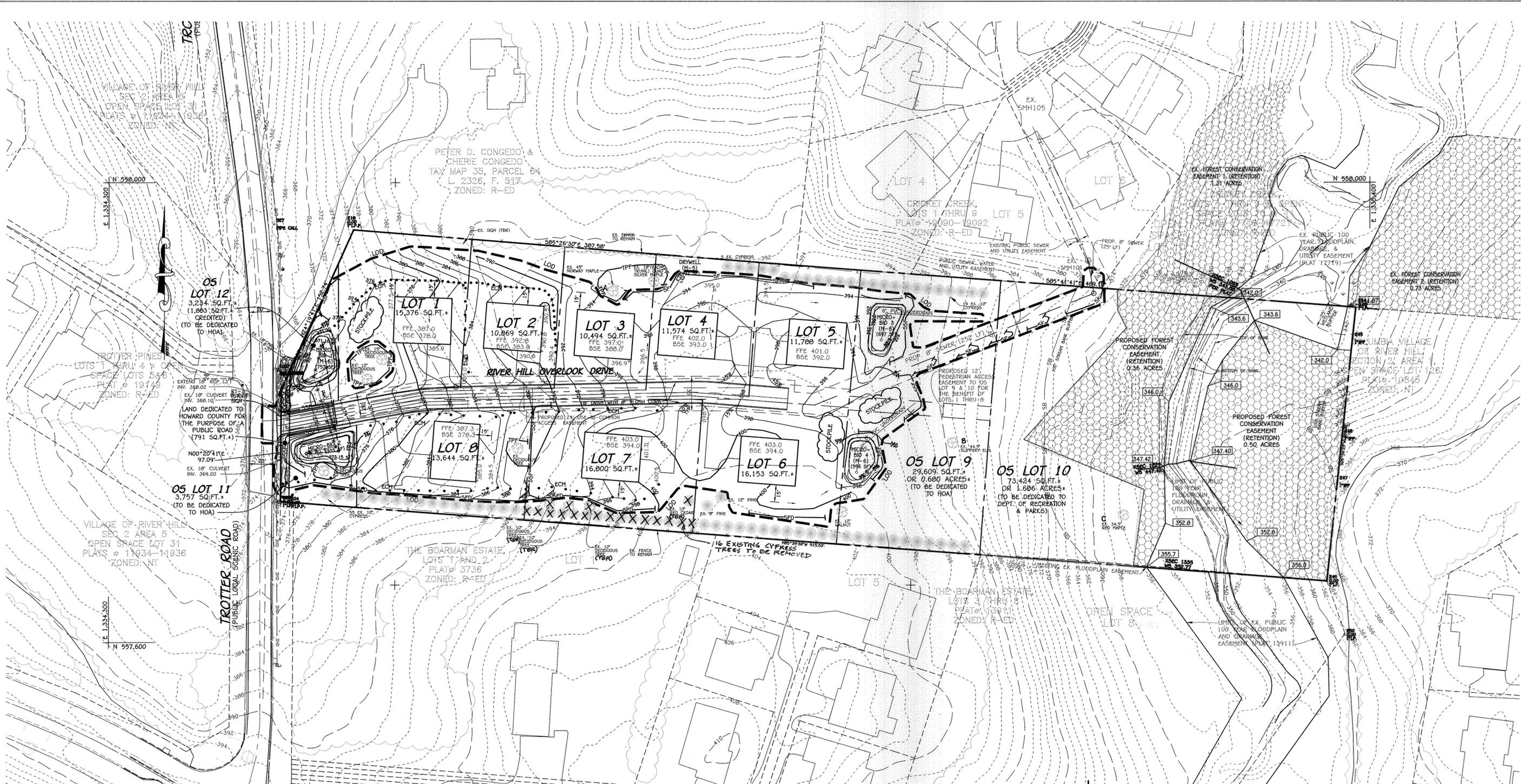
DEVELOPER / CONTRACT PURCHASER

RIVER HILL OVERLOOK, LLC
 5034 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 410-740-0522

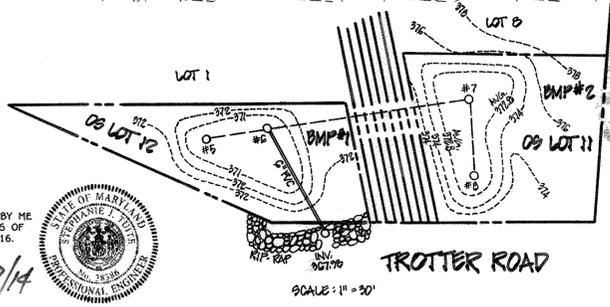
ATTN: DOUG DIERINGER & RICHARD DEMMITT

LANDSCAPE, FOREST CONSERVATION, & SOILS PLAN
RIVER HILL OVERLOOK,
 LOTS 1 THRU 8 AND OPEN SPACE LOTS 9 THRU 12
 ZONED R-ED
 TAX MAP No. 35 GRID No. 14 PARCEL No. 66
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: OCTOBER, 2014
 SHEET 4 OF 6

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET



CLEANOUTS		
NO.	TOP ELEVATION	INVERT
5	371.17	367.91
6	371.96	368.90
7	376.73	370.08
8	376.98	369.91



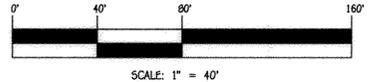
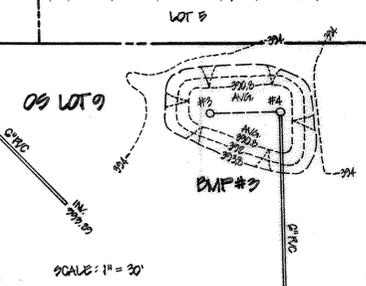
PLAN
SCALE: 1" = 40'

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THE CONTRIBUTING DRAINAGE AREA TO BE SUFFICIENTLY DIMENSIONED TO PREVENT CLOGGING OF THE UNDERGROUND STORMWATER MANAGEMENT FACILITY.

STEPHEN J. SOTO, P.E.
DATE: 10/27/14

- NOTE:
1. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION. DRIVEWAY AND HOUSE CONSTRUCTION ALONG WITH ASSOCIATED GRADING AND SEDIMENT CONTROL TO BE COVERED UNDER THE SITE DEVELOPMENT PLAN.
 2. STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.
 3. WITHOUT HOWARD SOIL CONSERVATION DISTRICT SIGNATURE, THIS PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS.

CLEANOUTS		
NO.	TOP ELEVATION	INVERT
1	392.02	393.90
2	395.70	394.97
3	390.91	387.99
4	390.08	387.81



GRADING & SEDIMENT CONTROL PLAN
RIVER HILL OVERLOOK,
LOTS 1 THRU 8 AND OPEN SPACE LOTS 9 THRU 12
ZONED R-ED

TAX MAP No. 35 GRID No. 14 PARCEL No. 66
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2014
SHEET 5 OF 6

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36386, EXPIRATION DATE: 01/12/2016.

Signature of Professional Engineer: *Stephen J. Soto* DATE: 10/27/14

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* DATE: 12-17-14
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* DATE: 12-16-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SOURCE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461-2222

DATE	DESCRIPTION
12/15/10	REVISION TO FACILITIES TO ADD HOUSE BUILT CONDITION
9/23/10	MARK 16 EXISTING TREES TO BE REMOVED ON LOT 7
	REVISION BLOCK

OWNERS
JACQUELINE RANA REVOCABLE TRUST
6501 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029
410-533-5380
ATTN: CHRISTOPHER B EMERY, TRUSTEE & YASHIN NATASHA GAJEWSKI, TRUSTEE

DEVELOPER / CONTRACT PURCHASER
RIVER HILL OVERLOOK, LLC
5034 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
410-740-0522
ATTN: DOUG DIERINGER & RICHARD DEMMITT

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 0.86 ACRES OF FOREST. NO SURETY WILL BE REQUIRED.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL A LANDSCAPE SURETY IN THE AMOUNT OF \$2,310.00 FOR PERIMETER LANDSCAPE REQUIREMENTS (1) SHADE TREE, (12) EVERGREEN TREES AND (7) SHRUBS IS TO BE POSTED WITH THE FINAL PLAN DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION.

FOREST PROTECTION GENERAL NOTES

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING, AS NECESSARY, AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY 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, UNLESS ROOT PRUNING IS PROPOSED.
- ALL FOREST PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE 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 WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
- THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES 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 OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS 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 MEETING WILL BE:
 - 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;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

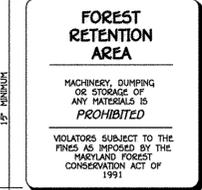
- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
- ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- 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 ENGINEER.

MULTIFLORA ROSE CONTROL NOTE:

MULTIFLORA ROSE SHALL BE REMOVED WHERE POSSIBLE.
Removal of the Multiflora Rose May Be Performed With Herbicide Treatments. Physical Removal of All Top Growth Followed 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. Herbicide Treatments Shall Occur On Two (2) Month Intervals During the First Growing Season and Once in the Spring and Once in the Fall For Subsequent Years. Herbicide Use Shall be Made Specifically to Address Woody Plant Material And Shall be Applied As Per Manufacturer Specifications. Care Should be Taken Not to Spray Planted Trees Or Naturally Occurring Native Tree And Shrub Seedlings. It is Recommended That Initiation Of Rose Removal Begin At Least Six Months Prior to Growing So That New Growth Of Roses is Able to be More Successfully Managed.

**FOREST CONSERVATION WORKSHEET
VERSION 1.0**

BASIC SITE DATA:					
A. TOTAL TRACT AREA	4.99 AC				
B. AREA WITHIN 100 FEET FLOODPLAIN	0.83				
C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION	0				
D. NET TRACT AREA	4.70				
LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)					
AREA	MOR	IDA	HDE	MFD	CIA
INFORMATION FOR CALCULATIONS:					
D. APPROXIMATION THRESHOLD	0.15% x 0 =	0.71			
E. FOREST CONSERVATION THRESHOLD	0.20% x 0 =	0.94			
EXISTING FOREST COVER:					
F. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	0.86				
G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD	0				
BREAK EVEN POINT:					
H. BREAK-EVEN POINT	0.86				
I. CLEARING PERMITTED WITHOUT MITIGATION	0				
PROPOSED FOREST CLEARING:					
J. TOTAL AREA OF FOREST TO BE CLEARED	0				
K. TOTAL AREA OF FOREST TO BE RETAINED	0.86				
PLANTING REQUIREMENTS:					
L. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0				
M. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	0				
N. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0				
P. TOTAL REFORESTATION REQUIRED	0				
Q. TOTAL REFORESTATION REQUIRED	0				
R. TOTAL REFORESTATION AND APPROXIMATION REQUIRED	0				
S. EXCESS FOREST CREDIT	0				



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. 36385, EXPIRATION DATE: 01/12/2016.

Signature of Professional Engineer
DATE: 10/29/14



APPROVED: DEPARTMENT OF PLANNING AND ZONING

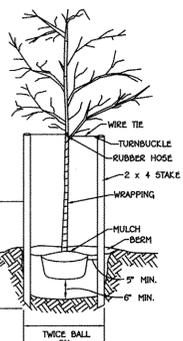
Signature of Chief, Division of Land Development
DATE: 12-17-14

Signature of Chief, Development Engineering Division
DATE: 12-16-14

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2895

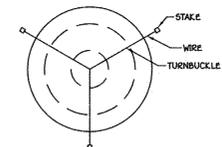
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	D	W
1	497 SQ. FT.	40 C.F.	50 C.F.	100%*	5'	5'	5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

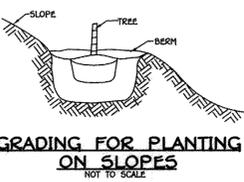


NOTE: REMOVE OVERLAP FROM TOP 1/3 OF BALL

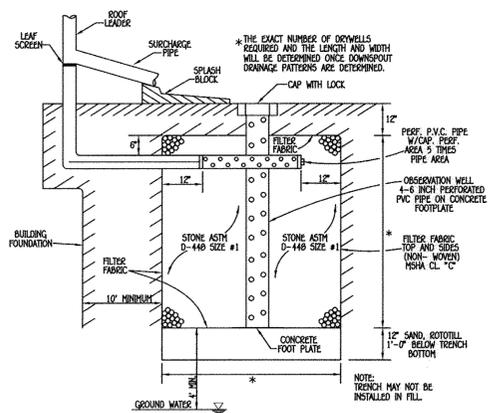
TREE PLANTING
NOT TO SCALE



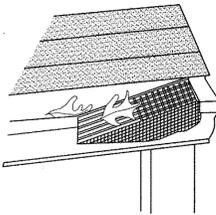
STAKING DETAIL
NOT TO SCALE



GRADING FOR PLANTING ON SLOPES
NOT TO SCALE



DRY WELL DETAIL (M-5)
NOT TO SCALE



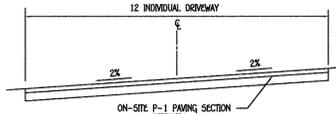
GUTTER DRAIN FILTER DETAIL
NOT TO SCALE

STORMWATER MANAGEMENT NOTES

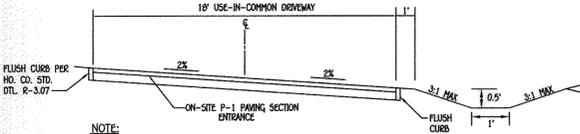
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 2, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILT UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO RECORD THE DATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CODES.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.



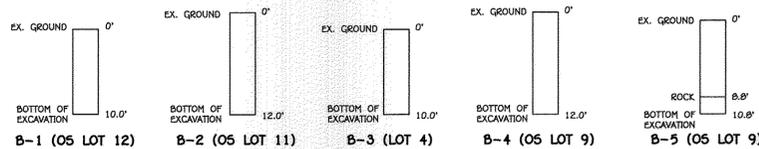
12' INDIVIDUAL DRIVEWAY SECTION
NOT TO SCALE



16' USE-IN-COMMON DRIVEWAY & SWALE CROSS SLOPE SECTION
NOT TO SCALE

NOTE:
1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

NOTE:
1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.
2. SWALES ARE FOR CONVEYANCE OF RUNOFF AND NOT UTILIZED FOR TREATMENT CREDIT.



NOTE: NO ROCK OR WATER WAS ENCOUNTERED DURING SOIL EXCAVATIONS IN HOLES 1 THRU 4. ROCK WAS ENCOUNTERED NEAR BOTTOM OF HOLE 5. PROFILES REFLECT THE DEPTHS OF THE EXCAVATIONS CONDUCTED ON SEPTEMBER 23, 2013.

AS-BUILT CERTIFICATION FOR PSWM

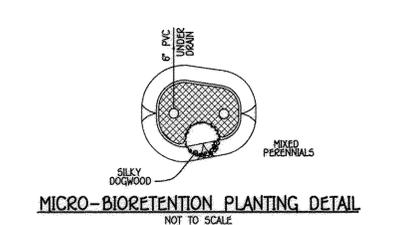
Note: There is no "AS BUILT" information provided on this sheet.

Signature of Charles J. Brado
DATE: 10/20/16



BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1 (05 LOT 12)	371.90	371.90	371.10	370.25	368.92	368.02	367.95	367.95	367.95
2 (05 LOT 11)	374.00	374.00	373.15	372.90	370.90	370.47	370.07	369.95	369.90
3 (05 LOT 9)	392.00	392.00	391.00	390.75	388.75	388.42	387.92	387.92	387.75
4 (05 LOT 8)	397.90	397.90	396.90	396.65	394.65	394.32	393.82	393.74	393.65

REFER TO SHEET 5 OF 6 FOR AS-BUILT ELEVATIONS



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE

Table B.4. Materials Specifications for Micro-Bioretenment, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Planting soil	see Appendix A, Table A.4	n/a	plantings are site-specific.
Planting soil (2' to 4' deep)	loamy sand 60-85% compost 25-40% or sandy loam 30% coarse sand 30% compost 40%		USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	max. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Curfin drain	ornamental stone, washed cobble	stone: 2" to 5"	
Geotextile	n/a		PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 2B or AASHTO M-279	4" to 6" rigid schedule 40 PVC or SDR35	Sloped or perforated pipe: 3/8" perft. @ 6" on center. 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth.
Poured in place concrete (if required)	MSHA Mix No. 3; f = 3500 psi @ 28 days, normal weight, air-entrained, reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved state or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 308.6/89; vertical loading (11-10 or H-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking.
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbide or dolomite sand substitutions are acceptable. No "rock dust" can be used for sand.

QUANTITY	NAME	MAXIMUM SPACING (FT.)
12	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

FOREST CONSERVATION AND STORMWATER MANAGEMENT DETAILS & NOTES
RIVER HILL OVERLOOK,
LOTS 1 THRU 8 AND OPEN SPACE LOTS 9 THRU 12
ZONED R-ED
TAX MAP No. 35 GRID No. 14 PARCEL No. 66
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2014
SHEET 6 OF 6

THERE IS NO "AS BUILT" INFORMATION PROVIDED ON THIS SHEET