

GENERAL NOTES

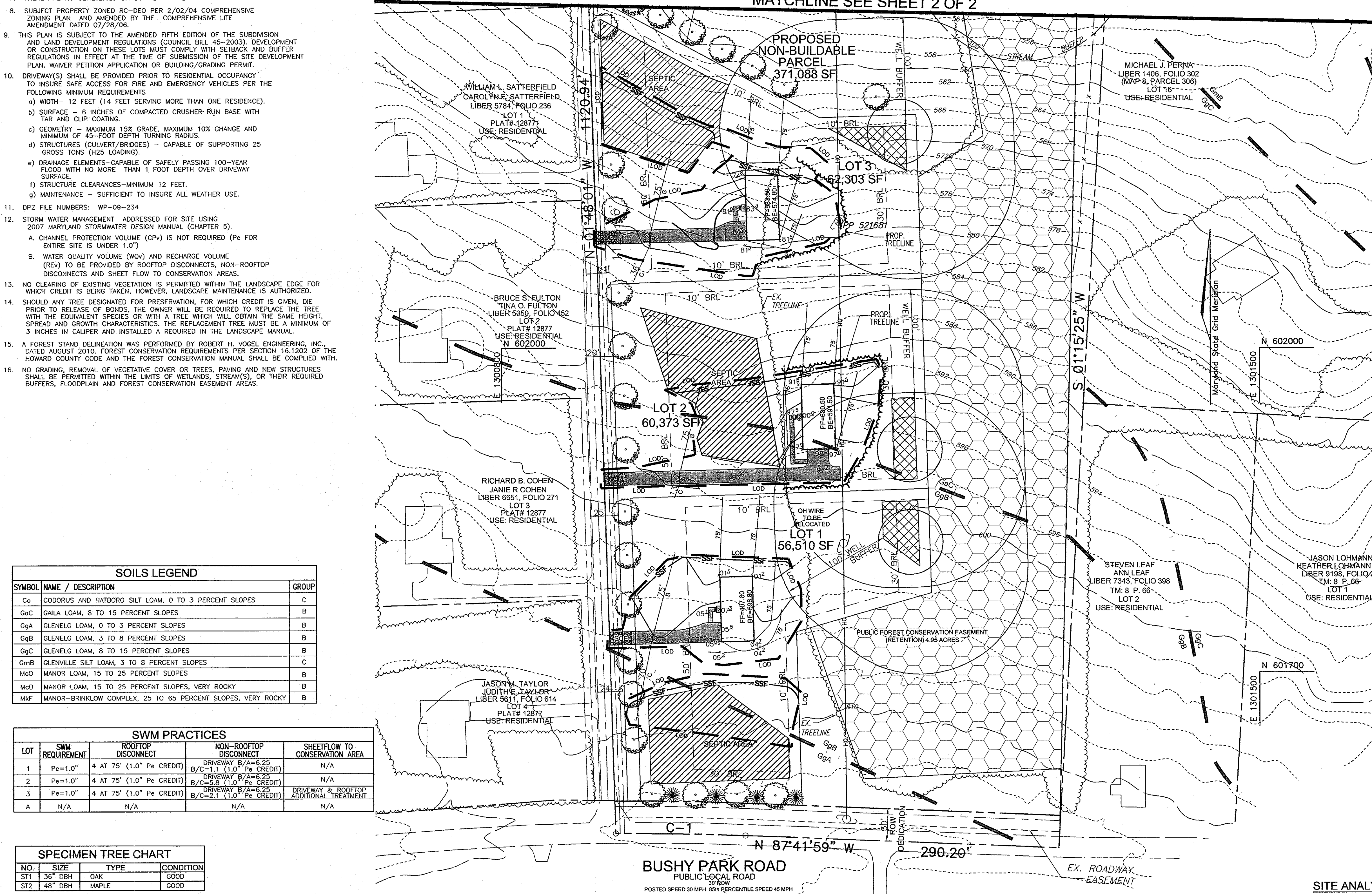
- THE PROJECT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. IN FEBRUARY 2010.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS MAPPING.
- WATER AND SEWER FOR THIS SITE WILL BE PROVIDED BY ONSITE WELL AND SEPTIC SYSTEMS.
- THIS PROJECT IS EXEMPT FROM CPV STORM WATER MANAGEMENT SINCE THE SITE P_e IS LESS THAN 1".
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- THE 100-YEAR FLOODPLAIN ON THIS SITE IS NON-CRITICAL.
- THERE ARE NO CEMETERIES OR BURIAL SITES BELIEVED TO BE ON THIS PROPERTY.
- SUBJECT PROPERTY ZONED RC-DEO PER 2/02/04 COMPREHENSIVE ZONING PLAN AND AMENDED BY THE COMPREHENSIVE LITE AMENDMENT DATED 07/28/06.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003), DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
- DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6 INCHES OF COMPACTED CRUSHER-RUN BASE WITH TAR AND CLIP COATING.
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT DEPTH TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOADINGS).
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- DPZ FILE NUMBERS: WP-09-234
- STORM WATER MANAGEMENT ADDRESSED FOR SITE USING 2007 MARYLAND STORMWATER DESIGN MANUAL (CHAPTER 5).
 - CHANNEL PROTECTION VOLUME (CPV) IS NOT REQUIRED (P_e FOR ENTIRE SITE IS UNDER 1.0").
 - WATER QUALITY VOLUME (WQV) AND RECHARGE VOLUME (REV) TO BE PROVIDED BY ROOFTOP DISCONNECTS, NON-ROOFTOP DISCONNECTS AND SHEET FLOW TO CONSERVATION AREAS.
- NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN, HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.
- A FOREST STAND DELINEATION WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC., DATED AUGUST 2010. FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL SHALL BE COMPLIED WITH.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.

ENVIRONMENTAL CONCEPT PLAN

COUNTRY SPRINGS OVERLOOK

LOTS 1-3 AND NON BUILDABLE PARCEL 'A'

MATCHLINE SEE SHEET 2 OF 2

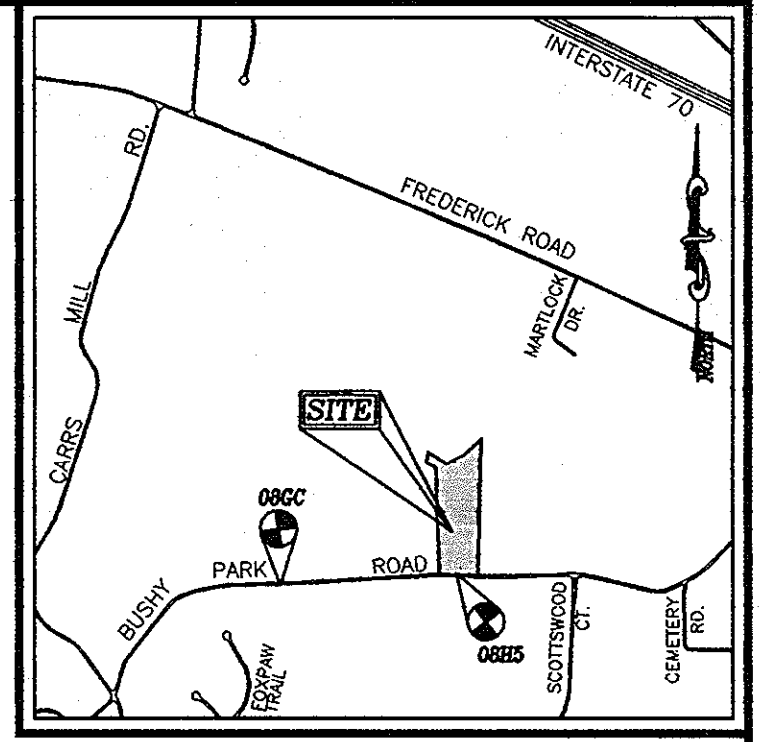


BENCHMARKS

HOWARD COUNTY BENCHMARK 086C (CONC. MON.)
 N 601441.4011 E 1299254.0293 ELEV. 566.459
 HOWARD COUNTY BENCHMARK 08H5 (CONC. MON.)
 N 601562.5734 E 1301087.2596 ELEV. 612.279

SITE DATA

LOCATION: TAX MAP 8 PARCEL 59
 DEED REFERENCE: L12511 / F.476
 4TH ELECTION DISTRICT
 EXISTING ZONING: RC-DEO
 PER THE COMPREHENSIVE ZONING PLAN DATED 2/02/04.
 GROSS AREA OF PARCEL: 12.92 AC.
 AREA OF RIGHT OF WAY: 0.28 AC.
 AREA OF FLOODPLAIN: 160,300 SF (3.68 AC.)
 AREA OF STEEP SLOPES: 0.0 SF (0.0 AC.)
 PROPOSED IMPERVIOUS AREA: 0.28 AC.
 NET AREA OF PROJECT: 9.24 AC
 NUMBER OF RESIDENTIAL LOTS PROPOSED: 3
 AREA OF PROPOSED RESIDENTIAL LOTS: 4.11 AC.
 AREA OF SMALLEST BUILDABLE LOT PROPOSED: 56,510 SF
 AREA OF GREEN OPEN SPACE (LOTS 1-3): 2.80 AC.
 AREA OF GREEN OPEN SPACE (NON-BUILDABLE LOT): 3.75 AC.
 NUMBER OF PROPOSED NON-BUILDABLE PARCELS: 1 (8.52 AC.)
 NUMBER OF NON-BUILDABLE BULK PARCELS: 0



VICINITY MAP
 SCALE: 1"=2,000'
 ADC MAP COORDINATE: 4692 E 9/10

SWM NARRATIVE

THE STORMWATER MANAGEMENT IN THIS SITE WAS DESIGN TO PRESERVE THE NATURAL RESOURCES OF THIS SITE TO THE MAXIMUM EXTENT POSSIBLE. STRUCTURAL PRACTICES HAVE NOT BEEN EMPLOYED WHILE ROOFTOP DISCONNECTS AND SHEETFLOW TO BUFFERS HAS BEEN UTILIZED THROUGHOUT THE SITE. A FOREST CONSERVATION EASEMENT HAS BEEN ADDED ADJACENT TO THE 100' STREAM BUFFER ON THE SITE. THIS WILL ALLOW THIS NATURAL AREA TO REMAIN IN TACT FOR YEARS TO COME AND PROTECT WATER QUALITY MEASURES WELL INTO THE FUTURE. NO DISTURBANCE WILL BE ALLOWED IN STREAM BUFFERS, FLOODPLAIN OR FOREST CONSERVATION AREAS. IMPERVIOUS AREAS WERE MINIMIZED BY NARROWING DRIVEWAYS AND UTILIZING EXISTING PAVEMENT. SEDIMENT CONTROL FOR THESE LOTS WILL BE ACHIEVED BY USING SUPER SILT FENCE WHICH WILL MINIMIZE DISTURBANCE AND PRESERVE NATURAL SHEETFLOW.

SITE GRADING DATA

DISTURBED AREA: 1.36 AC
 IMPERVIOUS COVER: 0.28 AC
 SEED & MULCH: 1.08 AC

FOREST CONSERVATION WORKSHEET 2.2

NET TRACT AREA		
A. TOTAL TRACT AREA		A = 12.92 AC
B. DEDUCTIONS		B = 3.68 AC
C. NET TRACT AREA		C = 9.24 AC
LAND USE CATEGORY		
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY		
ARA	MDR	IDA
0	0	0
D. AFFORESTATION THRESHOLD (NET TRACT AREA X 20%)		
D = 1.85 AC		
E. CONSERVATION THRESHOLD (NET TRACT AREA X 25%)		
E = 2.31 AC		
EXISTING FOREST COVER		
F. EXISTING FOREST COVER WITHIN THE NET TRACT AREA		F = 6.40 AC
G. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD		G = 4.55 AC
H. AREA OF FOREST ABOVE CONSERVATION THRESHOLD		H = 4.09 AC
BREAK EVEN POINT		
I. BREAK EVEN POINT		I = 3.13 AC
J. FOREST CLEARING PERMITTED WITHOUT MITIGATION		J = 3.27 AC
PROPOSED FOREST CLEARING		
K. TOTAL AREA OF FOREST TO BE CLEARED		K = 1.45 AC
L. TOTAL AREA OF FOREST TO BE RETAINED		L = 4.95 AC
PLANTING REQUIREMENTS		
M. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD		M = 0.36
N. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD		N = 0.00
O. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD		O = 2.64
P. TOTAL REFORESTATION REQUIRED		P = 0.00
Q. TOTAL AFFORESTATION REQUIRED		Q = 0.00
R. TOTAL REFORESTATION AND AFFORESTATION REQUIREMENT		R = 0.00

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
Cc	CODORUS AND HATBORO SILT LOAM, 0 TO 3 PERCENT SLOPES	C
GcC	GALA LOAM, 8 TO 15 PERCENT SLOPES	B
GgA	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	B
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C
MdO	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B
McD	MANOR LOAM, 15 TO 25 PERCENT SLOPES, VERY ROCKY	B
MkF	MANOR-BRINKLOW COMPLEX, 25 TO 65 PERCENT SLOPES, VERY ROCKY	B

SWM PRACTICES

LOT	SWM REQUIREMENT	ROOFTOP DISCONNECT	NON-ROOFTOP DISCONNECT	SHEETFLOW TO CONSERVATION AREA
1	P _e =1.0"	4 AT 75' (1.0" P _e CREDIT)	DRIVEWAY B/A=6.25 B/C=1.1 (1.0" P _e CREDIT)	N/A
2	P _e =1.0"	4 AT 75' (1.0" P _e CREDIT)	DRIVEWAY B/A=6.25 B/C=5.3 (1.0" P _e CREDIT)	N/A
3	P _e =1.0"	4 AT 75' (1.0" P _e CREDIT)	DRIVEWAY B/A=6.25 B/C=2.1 (1.0" P _e CREDIT)	DRIVEWAY & ROOFTOP ADDITIONAL TREATMENT
A	N/A	N/A	N/A	N/A

SPECIMEN TREE CHART

NO.	SIZE	TYPE	CONDITION
ST1	36" DBH	OAK	GOOD
ST2	48" DBH	MAPLE	GOOD

FOREST STAND ANALYSIS TABLE

KEY	A. TYPE OF COMMUNITY	B. AREA	C. SOILS INFORMATION			D. EXISTING VEGETATION	E. STAND CHARACTERISTICS			F. SEN. ENV. FOREST
			1. SOILS TYPES	2. TYPICAL FOREST COVER FOR SOILS TYPE	3. WOODLAND SUITABILITY INDEX		1. SIZE (DIA)	2. AGE (YRS)	3. GENERAL CONDITION	
F1	TREES, WETLANDS, STREAMS	6.40 Ac	Cc GmB GcC GgB	MIXED HARDWOODS	4 57 58 58	OAK, MAPLE FEW SPRUCE PINES	6"-16"	15	FAIR	0.8 Ac WETLANDS
OF1	TREES, TALL GRASSES	6.23 Ac	Cc GmB GcC GgB	N/A	4 57 58 58	N/A	N/A	N/A	N/A	N/A

SHEET INDEX

DESCRIPTION	SHEET NO.
ENVIRONMENTAL CONCEPT PLAN	1 OF 2
SWM DETAILS AND SIGHT DISTANCE	2 OF 2

CURVE TABLE

CURVE	ARC	RADIUS	DELTA	CHORD	LENGTH
C-1	119.73'	2,472.66'	2'46"28"	N 89°05'40"W	119.73'

SITE ANALYSIS DATA

GROSS AREA OF PARCEL: 12.92 AC.
 AREA OF STEEP SLOPES: 0.00 AC.
 AREA OF STREAM BUFFER: 4.16 AC.
 AREA OF WETLANDS & BUFFER: 3.50 AC.
 AREA OF FLOODPLAIN: 3.68 AC.
 AREA OF FOREST CONSERVATION: 4.95 AC.
 *TOTAL AREA OF ENVIRONMENTALLY SENSITIVE LAND: 6.24 AC.
 NET AREA OF PROJECT: 9.24 AC

*NOTE: THE TOTAL AREA OF ENVIRONMENTALLY SENSITIVE LAND IS THE OVERLAPPING AREA OF WETLANDS, FLOODPLAIN, STREAM BUFFER AND FOREST CONSERVATION COMBINED. MOST OF THESE AREAS OCCUPY THE SAME GROUND AND SHOULD NOT BE COUNTED MORE THAN ONCE, SO THE OUTER LIMITS OF ALL AREAS WAS USED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 3/21/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 3/21/11
 DIVISION CHIEF, LAND DEVELOPMENT

OWNER
 FREDERICK W. RAULIN
 15101 FREDERICK ROAD
 WOODBINE, MD. 21797
 C/O TIM FEAGA
 410-489-7900

DEVELOPER
 HERITAGE REALTY SERVICES
 15950 NORTH AVENUE
 P.O. BOX 482
 LISBON, MD 21765
 410-489-7900

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
COUNTRY SPRINGS OVERLOOK
 LOTS 1-3 AND NON BUILDABLE PARCEL 'A'

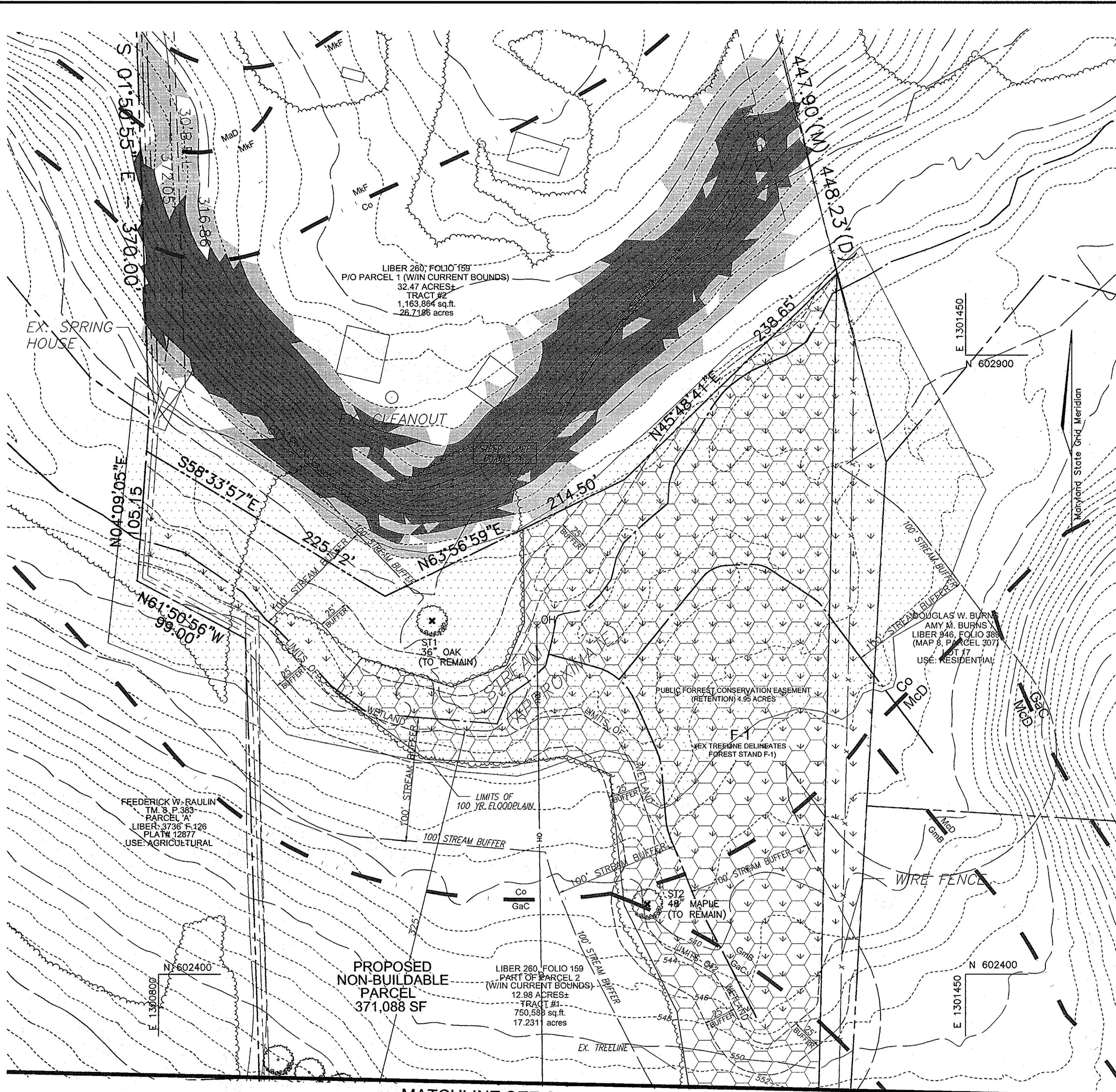
TAX MAP 8 BLOCK 21 PARCEL 59
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 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. 21438 EXPIRATION DATE: 12-16-2012.

DESIGN BY: JTD
 DRAWN BY: JTD
 CHECKED BY: JTD
 DATE: MARCH, 2011
 SCALE: 1"=50'
 W.O. NO.: 08-15

1 SHEET OF 2



MATCHLINE SEE SHEET 1 OF 2

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.

LEGEND			
---	RIGHT-OF-WAY LINE	▨	MODERATE SLOPES (15% - 24.99%)
---	BOUNDARY LINE	▨	STEEP SLOPE (>25%)
---	ADJACENT BOUNDARY LINE	▨	CLEANWATER DIKE/SWALE
---	EXISTING CONTOUR	ST1	SPECIMEN TREE
---	EXISTING TREELINE	▨	EX. FLOODPLAIN
---	EXISTING UTILITY POLE		
---	EXISTING SIGN		
---	SOILS		
---	OVERHEAD WIRE		
---	EX. WETLAND		
---	EX. STREAM		
---	EX. STREAM BUFFER		

<p>OWNER FREDERICK W. RAULIN 15101 FREDERICK ROAD WOODBINE, MD, 21797 C/O TIM FEAGA 410-489-7900</p>	<p>DEVELOPER HERITAGE REALTY SERVICES 15950 NORTH AVENUE P.O. BOX 482 LISBON, MD 21765 410-489-7900</p>
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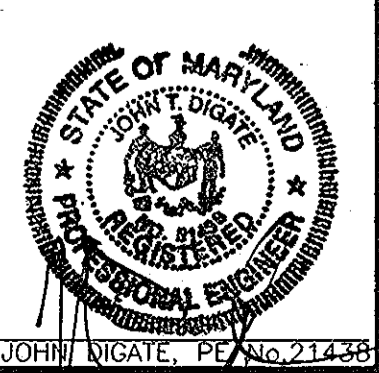
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**ENVIRONMENTAL CONCEPT PLAN
 SWM DETAILS AND SIGHT DISTANCE
 COUNTRY SPRINGS OVERLOOK
 LOTS 1-3 AND NON BUILDABLE PARCEL 'A'**

TAX MAP 8 BLOCK 21 4TH ELECTION DISTRICT PARCEL 59 HOWARD COUNTY, MARYLAND

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 3/22/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
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2 SHEET OF 2