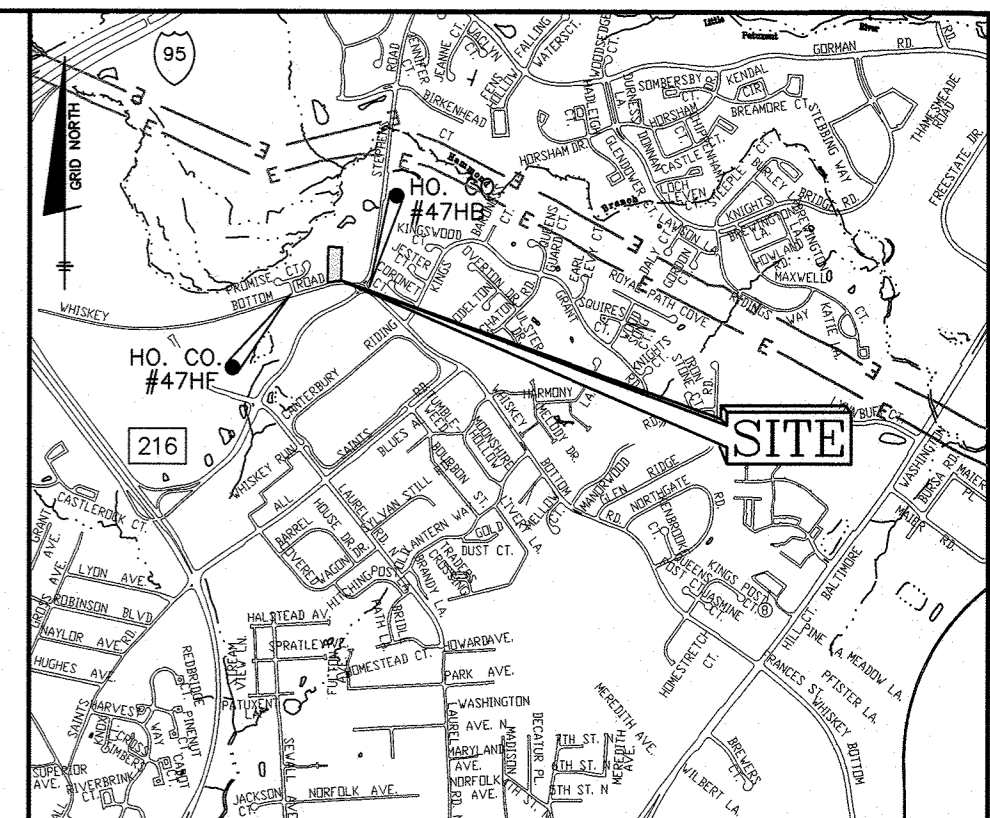


WHISKEY BOTTOM ESTATES

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN



ADIC MAP/GRID 5053--E10 VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS NAD'83
 HO. CO. #47H ELEVATION: 295.824'
 STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE.
 N 531895.744' E 1356076.346'
 HO. CO. #47HF ELEVATION: 281.683'
 D/W REBAR
 N 531817.270' E 1355258.835'

LEGEND

- SOILS CLASSIFICATION *AbC*
- SOILS DELINEATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- EXISTING TREELINE
- DRYWELL DRAINAGE AREA
- MICRO-BIO DRAINAGE AREA
- BYPASS DRAINAGE AREA
- LIMIT OF DISTURBANCE
- SILT FENCE
- SILT FENCE DIVERSION
- STABILIZED CONSTRUCTION ENTRANCE
- STOCKPILE

MAP SYMBOL	SOIL GROUP	SOIL TYPE	K _f FACTOR
UcB	C	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	0.41

THERE ARE NO HYDRIC SOILS ON-SITE. TAKEN FROM NRCS WEBSITE, JANUARY 2022.

FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	Depth	Porosity	Width	Length	Volume Stored	Pe	Rev	Required	
													ESDv (cf)	Pe
DW1A	800	800	100%	0.950	88.7	5.0	0.40	6	8	96	1.52	98.00		
DW1B	800	800	100%	0.950	88.7	5.0	0.40	6	8	96	1.52	98.00		
DW2A	880	880	100%	0.950	97.5	5.0	0.40	6	9	108	1.55	108.00		
DW2B	880	880	100%	0.950	97.5	5.0	0.40	6	9	108	1.55	108.00		
DW3A	880	880	100%	0.950	97.5	5.0	0.40	6	9	108	1.55	108.00		
DW3B	880	880	100%	0.950	97.5	5.0	0.40	6	9	108	1.55	108.00		
DW4A	880	880	100%	0.950	97.5	5.0	0.40	6	9	108	1.55	108.00		
DW4B	880	880	100%	0.950	97.5	5.0	0.40	6	9	108	1.55	108.00		
TOTAL:											840	cf		

FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	75% ESDv (cf)	Volume Stored	Volume treated (V0.75)	Pe	Rev	Required			
											ESDv (cf)	Pe		
MB-1	9338	4561	49%	0.489	532.3	399.2	707	943	2.48	133.08				
TOTAL:											707	cf	943	cf

Disconnection area:	Area Treated	Pe	Converted to ESDv	
			Area Treated	Pe
1452	1.000	121		

Stormwater Management Information						
Lot/Parcel Number	Facility Name & Number	Practice Type	Public	Private	HOA Maintains	Misc.
1	DW1A	QUALITY AND QUANTITY		X	NO	
1	DW1B	QUALITY AND QUANTITY		X	NO	
		QUALITY		X	NO	
2	DW2A	QUALITY AND QUANTITY		X	NO	
2	DW2B	QUALITY AND QUANTITY		X	NO	
3	DW3A	QUALITY AND QUANTITY		X	NO	
3	DW3B	QUALITY AND QUANTITY		X	NO	
4	DW4A	QUALITY AND QUANTITY		X	NO	
4	DW4B	QUALITY AND QUANTITY		X	NO	
OS-1	MB1	QUALITY AND QUANTITY		X	YES	

DESIGN NARRATIVE:
 The site was analyzed as woods in good condition and a target RCN was determined. A target rainfall depth treatment (Pe) was determined based on the measured impervious areas and HSG soil types. The target Pe for this site is 1.4 inches. The target Pe was treated using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual, as amended by Maryland's Stormwater Management Act of 2007. The selected methods include Micro-bioretenion (M-6), Dry Wells (M-5), and Non-rooftop Disconnection (N-2).

This site is a parcel that was previously developed with a single family home which has been demolished. To protect the natural resources and existing development in the area, it is important to delay release of stormwater runoff from new impervious areas to avoid increasing peak runoffs, and to adequately treat the stormwater to avoid damage to sensitive species. The design incorporates dry wells, disconnection and micro-bioretenion facilities to treat stormwater runoff, delay stormwater release and provide recharge. The outfalls for the facilities will discharge to stabilized, undisturbed areas. The stormwater outfalls are directed toward existing release points to help to mimic the natural flow of drainage.

Forest resources will be protected by providing offsite banking or fee-in-lieu payment. There are no steep slopes, streams or wetlands or their buffers on the property.

Sediment and erosion controls have been designed based on the 2011 Maryland Specifications for Soil Erosion and Sediment Control. Erosion control matting and super silt fence will be used to prevent runoff containing unacceptable levels of TSS from leaving the site and entering the adjacent stream and wetlands during the construction. It will be the obligation of the contractor to install, inspect and maintain these practices.

The target Pe for this site is 1.4 inches. By using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual as amended by Maryland's Stormwater Management Act of 2007, full treatment of the target Pe of 1.4 was achieved, fully addressing the stormwater management requirements.

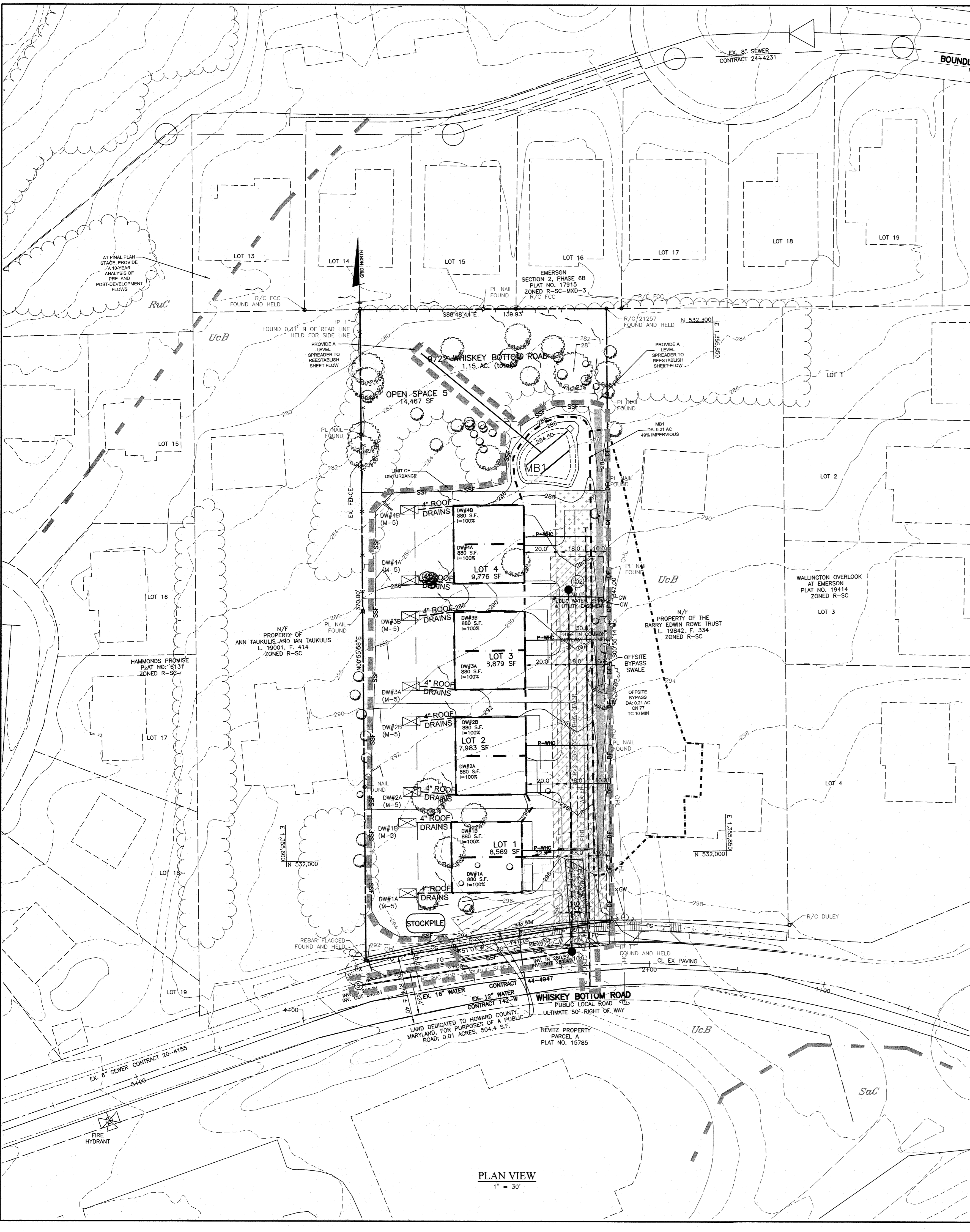
No alternative compliance or waivers are currently anticipated.

GENERAL NOTES

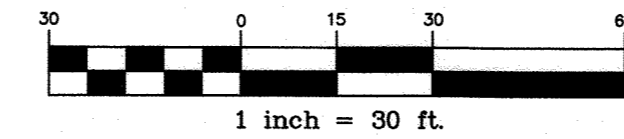
- SUBJECT PROPERTY ZONED R-SC PER THE COMPREHENSIVE ZONING PLAN EFFECTIVE 10-6-2013.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- PROJECT BOUNDARY AND TOPOGRAPHY WITHIN THE SUBDIVISION AREA ARE BASED ON FIELD RUN BOUNDARY SURVEY AND TOPO PERFORMED BY BENCHMARK ENGINEERING, INC., JUNE, 2021.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
- THE FOREST CONSERVATION ACT OBLIGATION FOR THIS PROJECT WILL BE ADDRESSED USING FOREST BANKING OR A FEE-IN-LIEU PROPOSAL. THE FOREST CONSERVATION WILL BE FURTHER REVIEWED WITH THE SUBMISSION OF THE SUBDIVISION PLAN FOR THIS PROJECT.
- THERE ARE NO STEEP SLOPES (25% OR GREATER) ON THE SITE.
- A SIMPLIFIED FOREST STAND DELINEATION AND NATURAL RESOURCES REVIEW HAS BEEN PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC., A PLAN, AND A LETTER REPORT DATED JANUARY 24, 2022 HAS BEEN SUBMITTED WITH THIS ENVIRONMENTAL CONCEPT PLAN.
- DFZ FILE HISTORY: SDP-22-004
- APPROVAL OF THIS EOP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION, SITE DEVELOPMENT PLAN, OR GRADING AND BUILDING PERMIT STAGES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- SOIL EXPLORATION BORINGS OR TEST PITS WILL BE NEEDED AT THE NEXT PLAN STAGE, TO CONFIRM SUFFICIENT INFILTRATION FOR PLACEMENT OF DRYWELLS IN THE SITE SOILS, WHICH FALL IN HYDROLOGIC SOILS GROUP 'C'.
- THE FOREST CONSERVATION PLAN AND ASSOCIATED FOREST STAND DELINEATION WILL BE REVIEWED FOR COMPLIANCE WITH THE FOREST CONSERVATION ACT AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR GRADING PERMIT STAGES. UNDER COUNTY LAW, ONLY A MD LICENSED FORESTER, MD LICENSED LANDSCAPE ARCHITECT OR AN ISA CERTIFIED ARBORIST WHO IS ALSO A STATE QUALIFIED PROFESSIONAL MAY PREPARE FOREST STAND DELINEATIONS, FOREST CONSERVATION PLANS OR OTHER REQUIRED COUNTY FOREST CONSERVATION PROGRAM DOCUMENTS.
- AT CONSTRUCTION, PRE- AND POST-DEVELOPMENT TO YEAR CONVEYANCE FLOW RATES AND SPREADS WILL BE ANALYZED ON DOWNSTREAM PROPERTIES, FOR DELIBERIOUS IMPACTS.
- FULL DESIGN AND EXTENT OF THE FRONTAGE IMPROVEMENTS WILL BE DETERMINED AT THE MINOR SUBDIVISION STAGE OF DEVELOPMENT REVIEW. LACK OF FULL RIGHT OF WAY DEDICATION PRECLUDES EXTENSION OF IMPROVEMENTS TO THE WEST.
- DETAILED SWALE DESIGN, INCLUDING SHEAR STRESS AND SWALE SECTIONS WILL BE PROVIDED AT FINAL DESIGN.

SITE ANALYSIS DATA/TABULATION

A) TOTAL PROJECT AREA	1.15 ± AC.
B) AREA OF WETLANDS AND BUFFER	0.00 ± AC.
C) AREA OF 100-YR. FLOODPLAIN AND BUFFER	0.00 ± AC.
D) AREA OF FOREST	0.00 ± AC.
E) AREA OF STEEP SLOPES 15% OR GREATER	0.00 ± AC.
F) ERODIBLE SOILS	1.15 ± AC.
G) AREA OF PLAN SUBMISSION	1.15 ± AC.
H) LIMIT OF DISTURBED AREA	0.91 ± AC.
I) GREEN OPEN AREA	0.89 ± AC.
J) IMPERVIOUS COVER	22.8%
K) PRESENT ZONING DESIGNATION	R-SC
L) PROPOSED USES FOR THE SITE: SINGLE FAMILY DETACHED	



PLAN VIEW
1" = 30'



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 6-8-22

[Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 5/21/22

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 3300 NORTH RIDGE ROAD & SUITE 140 ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-8644
 WWW.BEI-CIVILENGINEERING.COM

OWNER: CORNERSTONE HOMES LLC 9693 GERWIG LANE, SUITE L COLUMBIA, MD 21046 443-676-2417	PROJECT: WHISKEY BOTTOM ESTATES 9722 WHISKEY BOTTOM ROAD
TAX MAP: 47 GRID: 15 PARCEL: 135 ZONED: RSC 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
ENVIRONMENTAL CONCEPT PLAN	
DATE: MAY, 2022	BEI PROJECT NO. 3062
SCALE: AS SHOWN	SHEET 1 OF 1
DESIGN: AAM	DRAFT: AAM