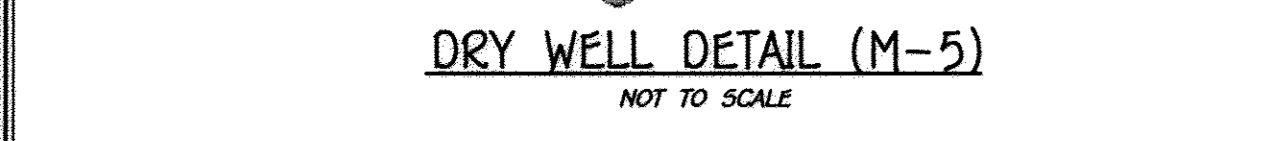
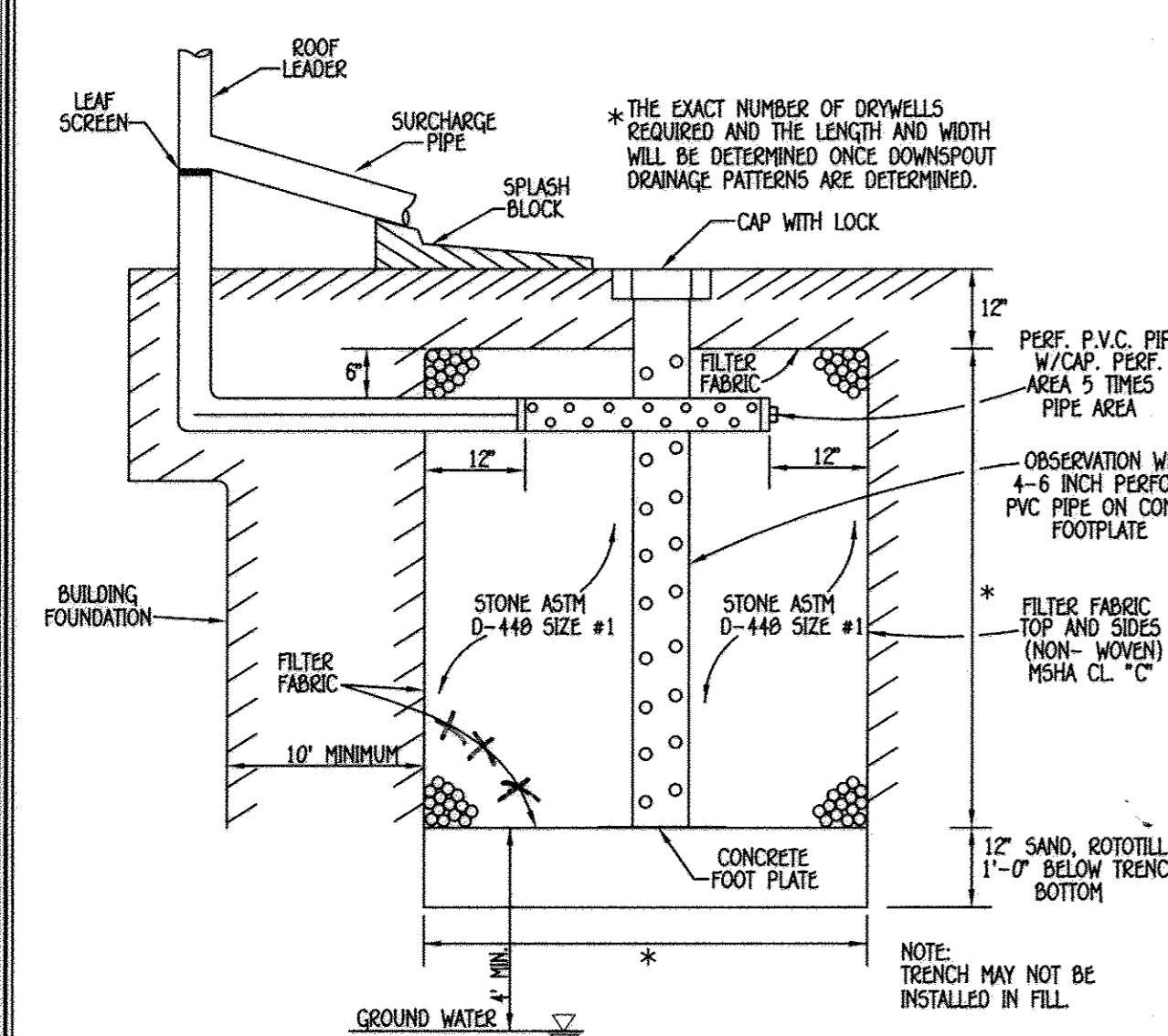


SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN
3	ENVIRONMENTAL CONCEPT PLAN

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.28
GmB	Glenville silt loam, 3 to 8 percent slopes	C	0.43
GnB	Glenville-Balle silt loams, 0 to 8 percent slopes	C	0.43
Ha	Hatboro-Codorus silt loams, 0 to 3 percent slopes	D	0.37
MaC	Manor loam, 8 to 15 percent slopes	B	0.28
MaD	Manor loam, 15 to 25 percent slopes	B	0.28

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDv REQUIRED CU.FT.	ESDv PROVIDED CU.FT.	REMARKS
LOT 1	-	-	N/A. EXISTING HOUSE & DRIVEWAY
LOT 2	-	492	DRY WELLS (M-5) & NON-ROOFTOP DISCONNECTIONS (N-2)
LOT 3	-	1,230	DRY WELLS (M-5), MICRO-BIORETENTION (M-6) & NON-ROOFTOP DISCONNECTIONS (N-2)
TOTAL	1,697	1,722	

GROSS AREA = 10.41 ACRES  
 LOD = 2.01 ACRES (SITE)  
 RCN = 55.1  
 TARGET Pe = 1.2"



**STORMWATER MANAGEMENT NOTES**

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "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 AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS TO BE SHOWN ON A GRADING PLAN.

DRY WELL CHART						
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W
LOT 2 (FRONT)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9'	9' x 5'
LOT 2 (REAR)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9'	9' x 5'
LOT 3 (FRONT)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9'	9' x 5'
LOT 3 (REAR)	1,000 SQ. FT.	95 C.F.	162 C.F.	100%*	9'	9' x 5'

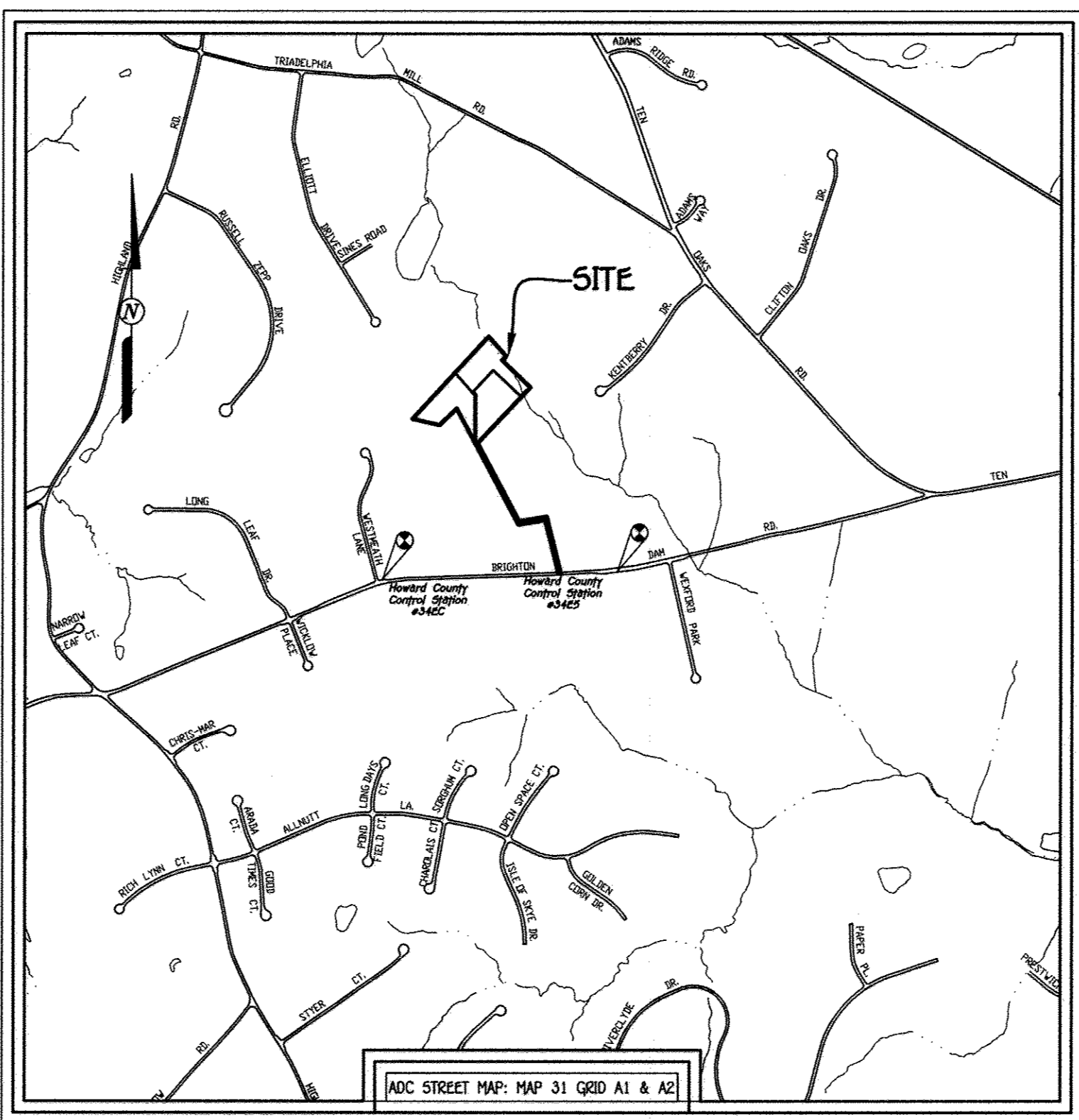
\* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

# ENVIRONMENTAL CONCEPT PLAN

## BRIGHTON ESTATES

### LOTS 1 THRU 3

TAX MAP No. 34 GRID No. 10 PARCEL NOS. 432 & 308  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



BENCHMARK INFORMATION	
B.M.#1 - HOWARD COUNTY CONTROL STATION #34E5 - HORIZONTAL - NAD '83	N 559,530.065 E 1,322,535.020 ELEVATION = 460.445 - VERTICAL - (NAVD '86)
B.M.#2 - HOWARD COUNTY CONTROL STATION #34E6 - HORIZONTAL - NAD '83	N 559,469.751 E 1,320,470.709 ELEVATION = 496.354 - VERTICAL - (NAVD '86)

**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 BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME 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 CRITERIA.
- 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.

Minimum Lot Size Chart			
Lot No.	Gross Area	Pipestem Area	Minimum Lot Size
1	3,367 Ac.	0.251 Ac.	3,116 Ac.
2	3,571 Ac.	0.375 Ac.	3,198 Ac.
3	3,472 Ac.	0.257 Ac.	3,215 Ac.

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---	EXISTING 2' CONTOURS	---	PROPOSED CONTOUR
---	EXISTING 10' CONTOURS	---	SPOT ELEVATION
GgB	SOILS LINES AND TYPE	---	LIMITS OF DISTURBANCE
GmB	EXISTING TREELINE	---	DRAINAGE AREA DIVIDE
---	PROPOSED TREELINE	---	SILT FENCE
---	EXISTING FENCE LINE	---	SUPER SILT FENCE
---	EXISTING PAVING	---	DIVERSION FENCE
---	PROPOSED PAVING	---	STABILIZES CONSTRUCTION ENTRANCE
	15% TO 25% SLOPES		

- GENERAL NOTES**
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE 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.
  - BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED APRIL 2015. TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 34E5 AND 34E6 WERE USED FOR THIS PROJECT.
  - PREVIOUS DPZ FILE NUMBERS: WP-15-071.
  - STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009.
  - NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED.
  - THIS PROPERTY IS LOCATED OUTSIDE THE METROPOLITAN DISTRICT. LOTS TO BE SERVED PRIVATE WELL & SEPTIC SYSTEMS.
  - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
  - THE SUBJECT PROPERTY IS ZONED RR-DEO (PER DATE 10/05/2013 COMPREHENSIVE ZONING PLAN).
  - 100 YEAR FLOODPLAIN, WETLANDS, STREAMS) AND/OR THEIR BUFFERS, AND STEEP SLOPES EXIST ON-SITE.
  - SUBDIVISION IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS, SINCE IT IS A MINOR SUBDIVISION CREATING ONE ADDITIONAL LOT WITH NO FURTHER SUBDIVISION POTENTIAL.
  - A SOIL BORING WILL BE REQUIRED FOR THIS PROJECT SINCE A MICRO-BIORETENTION IS PROPOSED IN AN AREA WHERE PERC TESTING WAS NOT CONDUCTED.
  - APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR RED-LINE REVISION 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 PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PROCESS. 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.
  - STRUCTURES EXIST ON THE PROPERTY, KNOWN AS 13000 BRIGHTON DAM ROAD, WHICH ARE TO REMAIN.

**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) will be 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:**  
 13000 Brighton Dam Road is zoned RR-DEO and is located on Tax Map 34, Parcel Nos. 432 & 308 of the Howard County, Maryland Tax Map Database System. The site has an existing house, garage, and shed and partially forested. Streams, wetlands, their buffers, and floodplain exist on the property. Since this subdivision is creating one additional lot with no further subdivision potential, it is exempt from forest conservation requirements. The two proposed houses will be served by private well and septic as well as the existing house which is current on private well and septic. The runoff from the lots drains from a high point in between lots 2 and 3 and flows to the east, south, and west with some flow to the north. Drywells (M-5), non-rooftop disconnection (N-2), and micro-bioretenation (M-6) will be utilized to treat majority rooftop and driveway runoff. Per the 2004 Web Soil Survey, soils on-site consist of "GgB", Glenelg loam & "MaC", Manor loam, type B soils and "GmB", Glenville silt loam, type C soil.
- Natural Resource Protection:**  
 Environmentally sensitive features such as wetlands, streams, their buffers, moderately steep slopes, and floodplain do exist on-site.
  - Maintenance of Natural Flow Patterns:**  
 Nature flow patterns will be maintained. Existing and proposed runoff flows mostly toward the eastern, southern, and western portion of the site and will continue to flow in those directions.
  - Reduction of impervious areas through better site design, alternative surfaces and Nonstructural Practices:**  
 A common driveway is proposed to provide access to the proposed houses utilizing the road bed of the existing driveway. The design will make use of a non-rooftop disconnection (N-2) and micro-bioretenation (M-6) to treat majority of runoff from the new portions of driveway.
  - Integration of Erosion and Sediment Controls into Stormwater Strategy:**  
 Silt Fence and Super Silt Fence will be utilized to provide erosion and sediment control.
  - Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP):**  
 The full required ESD volume is being provided.
  - Request for a Design Manual Waiver:**  
 No waivers are required.

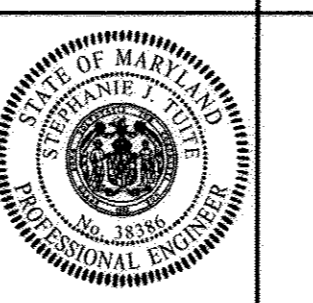
**SITE ANALYSIS DATA CHART**

- TOTAL AREA OF THIS SUBMISSION = 10.41 AC.±
- LIMIT OF DISTURBED AREA = 87,520 SQ.FT. OR 2.01 AC.± (5WM BASED ON LOD)
- PRESENT ZONING DESIGNATION = RR-DEO (PER 10/05/2013 COMPREHENSIVE ZONING PLAN)
- PROPOSED USE: RESIDENTIAL
- PREVIOUS HOWARD COUNTY FILES: WP-15-071
- TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.79 AC±
- TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.74 AC±
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 1.24 AC.±
- TOTAL AREA OF STREAM (INCLUDING BUFFER) = 2.03 AC.±
- TOTAL AREA OF EXISTING FOREST = 6.99 AC± (EXCLUDING FLOODPLAIN)
- TOTAL AREA OF FOREST TO BE RETAINED = 4.69 AC± (SUBDIVISION IS EXEMPT FROM FOREST CONSERVATION REGULATIONS, MINOR SUBDIVISION CREATING ONE ADDITIONAL LOT AND NO FURTHER SUBDIVISION POTENTIAL)
- TOTAL AREA OF LOTS / BUILDABLE PARCELS = 10,995 AC±
- TOTAL GREEN OPEN AREA = 1.69 AC± (WITHIN LOD)
- TOTAL IMPERVIOUS AREA = 0.32 AC± (WITHIN LOD, EXCLUDES EXISTING IMPERVIOUS)
- TOTAL AREA OF ERODIBLE SOILS = 3.00 AC.±
- TOTAL AREA OF ROAD DEDICATION = 0.015 AC.±

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PARK  
 BELTSVILLE CITY, MARYLAND 21042  
 (410) 461 - 2895

**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: 01/12/2018.

*Stephanie Lutz* 7/11/16  
 Signature of Professional Engineer DATE



**OWNER/DEVELOPER**  
 RENE E. EPPI & ANETTA GRABOWSKA  
 13000 BRIGHTON DAM RD  
 CLARKSVILLE, MD 21029-1410  
 240-381-3386

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Ket Schuch</i> Chief, Division of Land Development	7-14-16 Date
<i>Phil Schuch</i> Chief, Development Engineering Division	7-18-16 Date
PROJECT BRIGHTON ESTATES LOTS 1 THRU 3	SECTION -
	PARCEL NO. 432 & 308
DEED 4320/129 10112/209	BLOCK NO. 10
	ZONE RR-DEO
	TAX/ZONE 34
	ELEC. DIST. FIFTH
	CENSUS TR. 605103

ENVIRONMENTAL CONCEPT PLAN

**BRIGHTON ESTATES**  
 LOTS 1 THRU 3  
 ZONED RR-DEO  
 TAX MAP No. 34 GRID No. 10 PARCEL Nos. 432 & 308  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: OCTOBER, 2015  
 SHEET 1 OF 3



