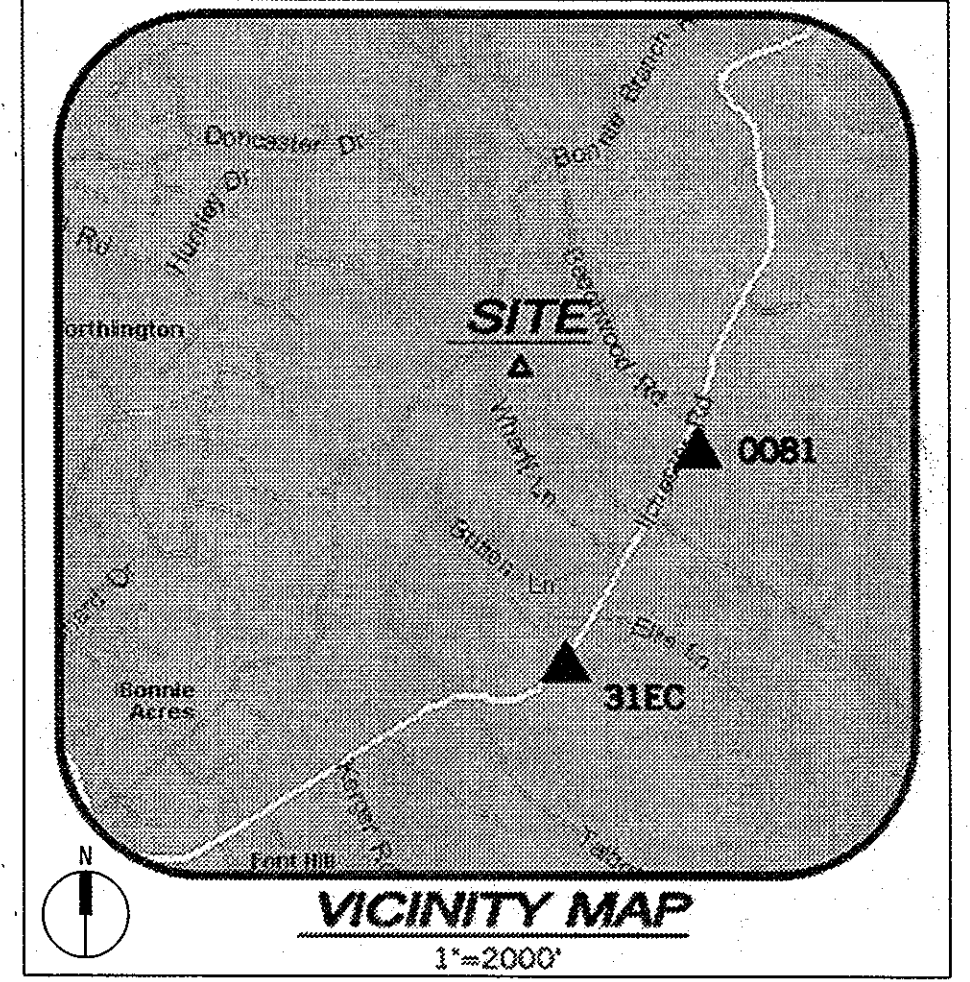


LEGEND

PROPOSED BOUNDARY	---
PROPOSED BUILDING	▭
PROPOSED CONTOURS	—480—
EXISTING CONTOURS	- - -480- - -
BUILDING RESTRICTION LINE	- - -12 B.L. - - -
PROPOSED SILT FENCE	- - -S.F. - - -
LIMITS OF DISTURBANCE	- - -L.O.D. - - -
DRAINAGE DIVIDE	—>—
ALL SLOPES ≥ 25%	▨
SPECIMEN TREE	○
SPECIMEN TREE TO BE REMOVED	⊗
WATER SUPPLY WELL	● W1



DESIGN NARRATIVE:

Natural Resource Protection and Enhancement:
 This site is entirely wooded, with relatively steep slopes in some parts of the site. The approach in achieving the goals of this project is to disturb a minimum amount of the existing wooded areas. As shown on this plan, approximately 85% of the site will remain undisturbed, therefore maintaining the existing characteristic of the site. The placement of the house and proposed appurtenances, such as the driveway have been proposed in places that are least intrusive to the character of the site. The house itself has been placed in the flatter part of the site, which would result in the least amount of grading, and therefore less disturbance. The driveway is shown to cut through an area that is fairly clear, and mostly populated with brush and smaller trees, and would not require too much clearing.

Maintenance of Natural Flow Patterns:
 The project has been designed to maintain the natural drainage patterns of the site. The proposed house will be situated very close to the ridge of the site, and the associated grading shows that there will not be change in flow patterns. Furthermore, the placement of the proposed stormwater management practices have been placed to maintain these natural flow patterns. Runoff from impervious areas are naturally directed to the proposed practices.

Reduction of Impervious Areas Through Better Site Design, Alternative Surfaces, Non-Structural Practices:
 Since the site is entirely wooded any new development will create new impervious areas. However, we have used a site design that will allow a vast majority of the site to be maintained in its natural state. This has been achieved by strategically placing the house, so that there is minimal disturbance. Furthermore, we have explored the opportunity to meet ESD requirements by using stormwater management credits. However, due to site restrictions, such as steep slopes, it is difficult to satisfy the requirements through credits. Therefore, micro practices have been proposed to meet stormwater management requirements for most impervious surfaces.

Integration of Erosion and Sediment Controls into SWM Strategy:
 The stormwater management strategy of the site is to use micro practices, and to naturally direct impervious runoff to these practices. The existing topography of the site, and the approach to site design requires minimal erosion and sediment control measures, and therefore less disturbance. The use of silt fence will adequately handle runoff from disturbed areas.

Implementation of ESD Planning Techniques and Practices To The MEP
 The site has been designed to limit the amount of disturbance to the site. The proposed design has an impervious area of 0.167 acres, approximately 3.34%. The actual disturbance is approximately 15%. The proposed driveway is strategically placed to limit the disturbance to the site. It should be noted that the placement of the driveway was actually staked in the field and then implemented in the proposed plan. The majority of the existing slope greater than 25% will remain in its existing state without disturbance.

Impervious areas from the front rooftop is directed to proposed micro bio retention practice # 1 located in the front. Impervious areas from the back portion of the rooftop and the park area in front of the garage are directed to micro bio retention practice #2. These facilities are sized in accordance with Chapter 5 of the Maryland Stormwater Management Manual.

In order to preserve the nature of the site, and to limit the amount of disturbance to the site especially in areas of steep slopes, no further practice is proposed for the proposed driveway. Therefore, a waiver to provide any stormwater management practices for the proposed driveway is requested.

SITE ANALYSIS DESIGN SHEET:

SITE AREA :	5.00 Acres
WETLANDS AREA:	0.0
FLOODPLAIN AREA:	0.0
FOREST AREA:	4.97 Acres
STEEP SLOPES IN EXCESS OF 15%:	3.78 Acres
ERODIBLE SOILS AREA:	0.0
LIMIT OF DISTURBANCE:	0.82 Acres
AREA OF STEEP SLOPE DISTURBANCE:	0.11 Acres
GREEN OPEN AREA:	0.42 Acres
PROPOSED IMPERVIOUS AREA:	0.167 Acres

STORMWATER MANAGEMENT REQUIREMENTS

AREA	PROPOSED PRACTICE (Total Drainage Area)	SURFACE AREA OF PRACTICE (S.F.)
FRONT ROOF-960 S.F. FRONT PORCH-384S.F. FRONT WALK-260 S.F. PERVIOUS AREA-3450 S.F. DRIVEWAY-1020 S.F.	MICRO-BIORETENTION 1 6074 S.F.	405
BACK ROOF-805 S.F. GARAGE ROOF-892 S.F. BACK PORCH-450 S.F. PARKING AREA-660 S.F. PERVIOUS AREA-2490 S.F.	MICOR-BIORETENTION 2 5301 S.F.	353

NOTE:
 Approval of this ECP shall not be construed to grant approval of shown development, landscaping, or forest conservation requirements, which shall be reviewed and approved under associated Subdivision and/or Site development Plans as applicable.

PROFESSIONALS' REVIEW STATEMENT:
 I 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 NUMBER: 22742 EXPIRES: JUNE 15, 2012

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
634	WHARFF LANE

PERMIT INFORMATION CHART

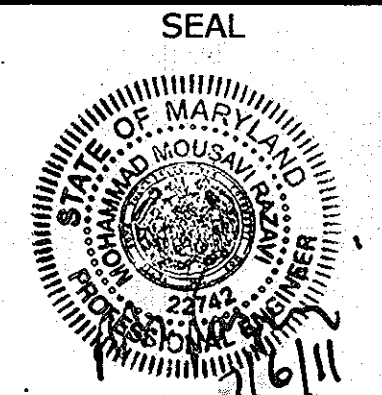
Subdivision Name		Section/Area	Lot/Parcel No.	634
Plat # or L/F	Grid #	Zoning	Tax Map No.	31
L.11976 F.68	10	R-20	Elect District	2nd
Water Code			Census Tract	602800
			Sewer Code	

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *John J. R.* Date: 7/14/11
 Chief, Division of Land Development: *Pat S. ...* Date: 7/12/11

REV#	DATE

OWNER
BONNIE & BRYANT O'KANE
 6319 ARBOR WAY,
 ELKRIDGE, MARYLAND 21075-6878
 TEL: 410-379-6212

RAZTEC ASSOCIATES, INC.
 civil engineers & planners
 3451 Emy's place
 Monrovia, Maryland 21770
 Tel (301) 831-9415
 Fax (301) 831-6111



ENVIRONMENTAL CONCEPT PLAN
O'KANE PROPERTY PARCEL 634
 WHARFF LANE, ELLICOTT CITY
 HOWARD COUNTY, MARYLAND
 ZONE: R20 SECOND ELECTION DISTRICT
 TAX MAP 31

SCALE
 1" = 40'
 CHECKED BY:
 MR
 DRAWN BY:
 HP

DATE
 APRIL, 2011
 SHEET NUMBER
 1 of 1

ECP-11-057