

**SOIL SCHEDULE**

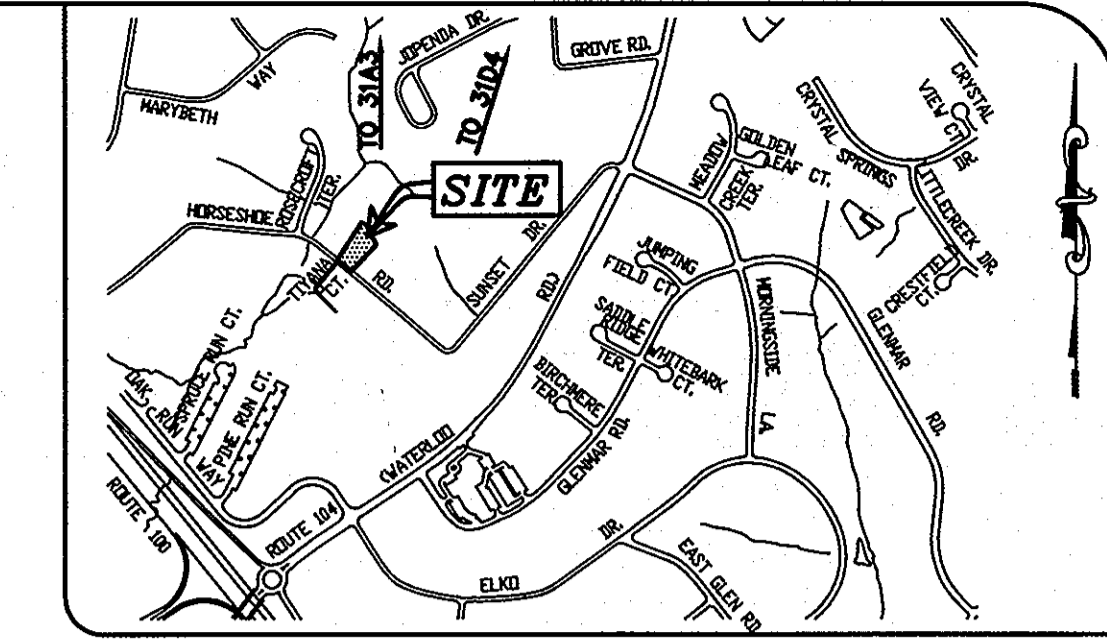
- CeB (B) - CHILLUM LOAM, 2-5 PERCENT SLOPES.
- CcC (B) - CHILLUM LOAM, 5-10 PERCENT SLOPES.
- ChB (B) - CHILLUM-RUSSETT LOAMS, 2-5 PERCENT SLOPES.
- UcB (B,C/D) - URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 0-5 PERCENT SLOPE.

**LEGEND**

- AREA OF PAVEMENT TREATED BY NON-ROOFTOP DISCONNECTION
- AREA OF NON-ROOFTOP DISCONNECTION
- AREA OF ROOFTOP DISCONNECTION
- AREA TREATED BY RAINGARDEN
- RAINGARDEN (M-7)
- DRAINAGE AREA
- LOD
- LIMIT OF DISTURBANCE
- 75' ROOFTOP DISCONNECTION
- SPOT ELEVATION

**SWM PRACTICES SCHEDULE**

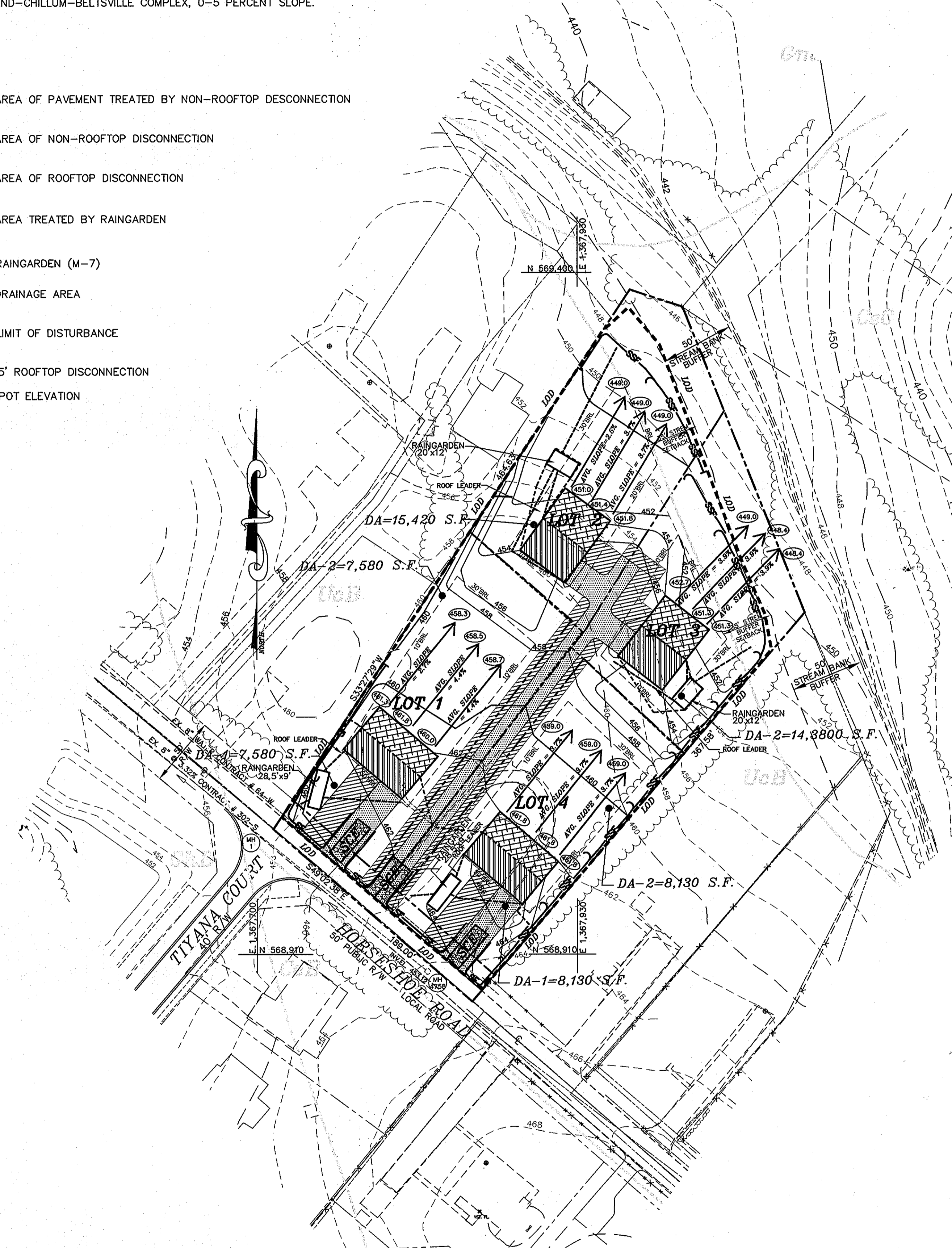
LOT #	PROPOSED PRACTICES
1	NON-ROOFTOP DISCONNECTION ROOFTOP DISCONNECTION RAINGARDEN
2	NON-ROOFTOP DISCONNECTION ROOFTOP DISCONNECTION
3	NON-ROOFTOP DISCONNECTION ROOFTOP DISCONNECTION
4	NON-ROOFTOP DISCONNECTION ROOFTOP DISCONNECTION



**VICINITY MAP**  
SCALE 1"=2000'  
ADC MAP 4936 B-4

**NOTES**

- SITE ANALYSIS DATA:  
LOCATION: TAX MAP : 31 PARCEL: 299  
ELECTION DISTRICT : SECOND  
ZONING: R-20  
TOTAL AREA: 2.12 AC.±  
LIMIT OF DISTURBED AREA: 1.91 AC.±  
PROPOSED USE FOR SITE : RESIDENTIAL.  
TOTAL NUMBER OF UNITS : 4  
TYPE OF PROPOSED UNIT : SFD  
DEED REFERENCE: 258/60
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 31A3 & 31D4  
STA. No. 31A3 N 573,217.915 E 1,368,237.725 EL. 486.869  
STA. No. 31D4 N 571,700.703 E 1,369,606.351 EL. 494.406
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
- SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
- THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPERS OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
- PROJECT BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JANUARY, 2011 BY MILDENBERG, BOENDER AND ASSOC., INC.
- TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PERFORMED ON OR ABOUT JANUARY, 2000 BY MILDENBERG, BOENDER AND ASSOC., INC.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT OF A FEE-IN-LIEU OF 0.36 ACRES (15,682 SQ.FT.) OF AFFORESTATION IN THE AMOUNT OF \$11,761.12 TO THE FOREST CONSERVATION FUND.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- NO FOREST STAND OR WETLAND EXISTS ON SITE AS CERTIFIED BY ECO SCIENCE IN A WETLAND CERTIFICATION LETTER DATED JANUARY, 2011.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW PAVING OR STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
- WP-11-156 WAS APPROVED ON APRIL 26, 2011, WAIVING SECTION 16.1205(a)(7) TO ALLOW THE REMOVAL OF 3 SPECIMEN TREES WHICH WILL REQUIRE REPLACEMENT MITIGATION AT A RATIO OF 2 LARGER CALIPER TREES (4" DBH MIN.) FOR EACH SPECIMEN TREE REMOVED.



**ESD NARRATIVE**

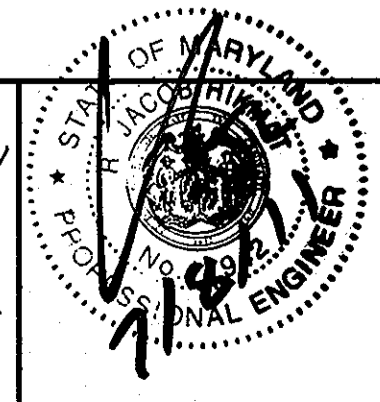
- NO NATURAL RESOURCES OTHER THAN STREAM BUFFER EXISTS ON SITE. 50' STREAM BUFFER HAS BEEN PROTECTED IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS. NO GRADING OR REMOVAL OF VEGETATION IS ALLOWED.
- THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
- THE OVERWHELMING MAJORITY OF STORMWATER MANAGEMENT REQUIREMENTS ARE MET VIA NON-STRUCTURAL PRACTICES. SWM REQUIREMENTS ON LOTS 2, 3 AND 4 WERE MET ENTIRELY BY NON-STRUCTURAL PRACTICES. LOT 1 REQUIRES A MICRO SCALE FACILITY TO MEET CPV REQUIREMENT ONLY.
- THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATION FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
- TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY UTILIZING A SHARE DRIVEWAY AND MINIMIZING EARTH DISTURBANCE.
- IN DESIGNING THIS PROJECT AND AFTER WE PLANNED THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:  
A. DISCONNECTION OF ROOFTOP.  
B. DISCONNECTION OF NON-ROOFTOP.  
C. MICRO-SCALE PRACTICES.
- THERE ARE NO DESIGN MANUAL WAIVERS PLANNED FOR THIS SITE IN REGARD TO ENVIRONMENTAL DISTURBANCES.

**SITE ANALYSIS DATA**

- AREA OF THE SITE = 2.12 ±ACRES
- AREA OF WETLAND BUFFERS = 0
- AREA OF FLOODPLAIN = 0
- AREA OF STREAM BUFFER = 0.15± ACRES
- AREA OF STEEP SLOPES = 0
- AREA OF FOREST = 0
- TOTAL ENVIRONMENTAL SENSITIVE AREA - 0.15 ±ACRES
- DEVELOPABLE AREA (LOD)= 1.91 ±ACRES
- NO ERODABLE SOILS EXIST ON SITE.
- ONE SINGLE FAMILY DETACHED DWELLING PER LOT IS PROPOSED.
- DUE TO THE SMALL SIZE OF THE PROJECT AND IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS, FEE IN LIEU OF OPEN SPACE WILL BE PAID. HOWARD COUNTY WILL USE THAT FEE TO BETTER IMPLEMENT OPEN SPACE AREAS WITHIN THE COUNTY.
- PROPOSED IMPERVIOUS AREAS WERE ANALYZED FOR EACH LOT INDIVIDUALLY. LOT 1 HAD LESS THAN 25% OF IMPERVIOUS AREA, WHILE LOTS 2 AND 3 HAD LESS THAN 15% AND LOT 4 HAD ABOUT 20% OF IMPERVIOUS AREA.

**OWNER/DEVELOPER**  
DORSEY FAMILY HOMES  
10717 BIRMINGHAM WAY SUITE B  
WOODSTOCK, MARYLAND 21163  
410-465-7200

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chad Edmund* 7/14/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION NY DATE  
*W. J. Schaefer* 7/12/11  
CHIEF, DIVISION OF LAND DEVELOPMENT JJK DATE



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. 17942, EXP DATE 9/3/12.

Project	10-028	date	JULY 2011
Illustration	MMK	engineering	
scale	1"=50'	approval	RJH
description		revisions	
no.		date	

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no.		date	

**HORSESHOE HEIGHTS**  
LOTS 1 THRU 4  
TAX MAP 31 PARCEL 299  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
**ENVIRONMENTAL CONCEPT PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
6800 Deepwater Road, Suite 150, Ellicott City, Maryland 21075  
(410) 997-0236, Fax: (410) 997-0236