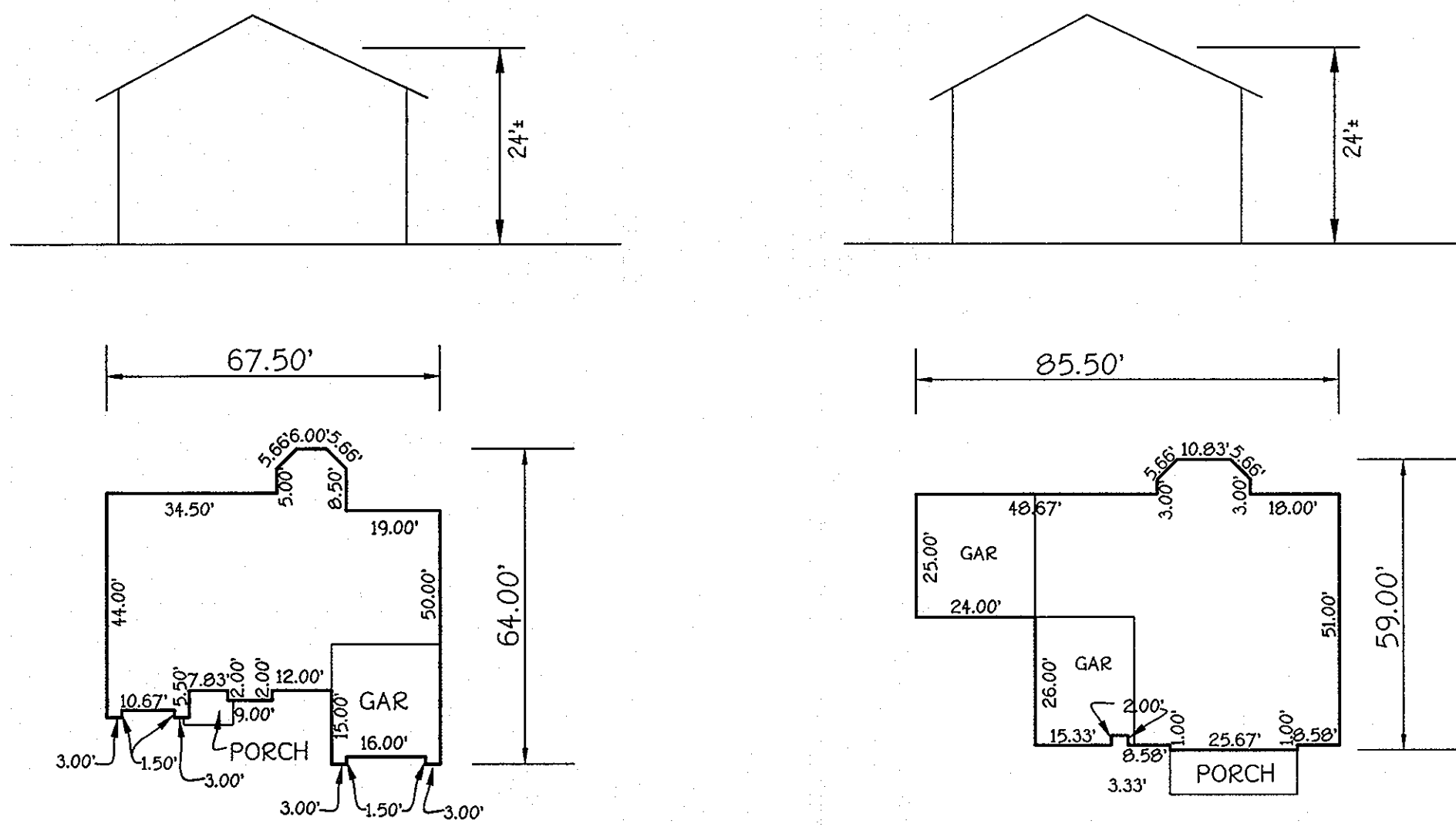
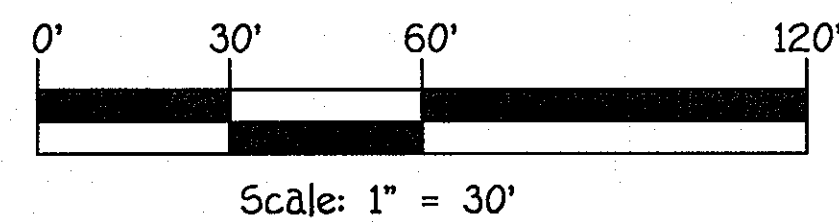


SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN



ALLEN RESIDENCE

DETAIL
SCALE: 1" = 30'

MILBACH RESIDENCE

ENVIRONMENTAL CONCEPT PLAN

AVOCA AVENUE

PLOTS 1 AND 2

ZONED: R-20

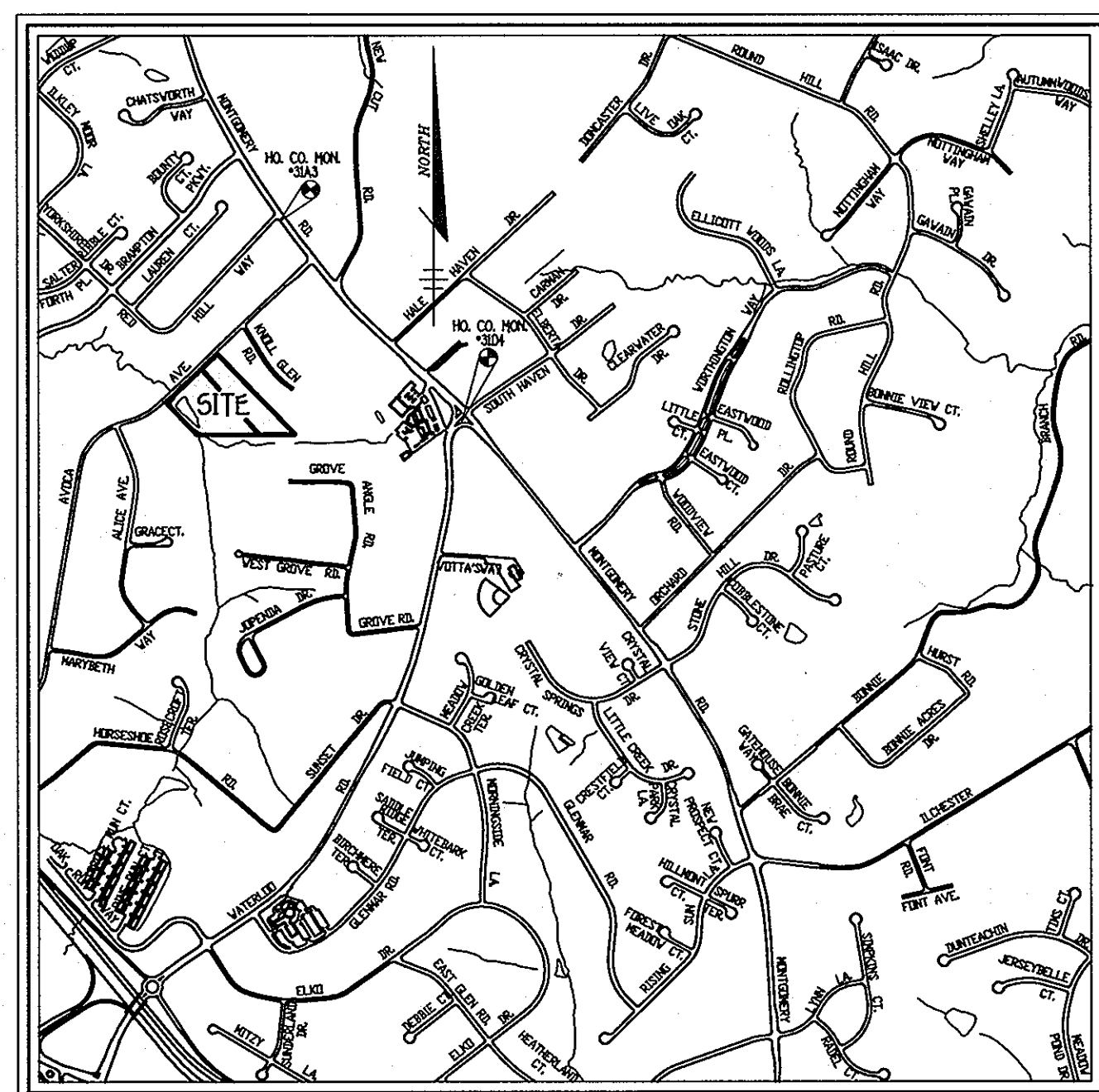
TAX MAP No. 31 GRID No. 7 PARCEL No. 357

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BENCH MARKS

HO. CO. MON. 31A3
NS73217949 E13682377247 ELEV. 486.069
CONCRETE MONUMENT SET
CORNER RT-103 & RED HILL WAY

HO. CO. MON. 30A
NS777007034 E13696063509 ELEV. 494.405
CONCRETE MONUMENT SET
CORNER RT-103 & RT-104



ADC STREET MAP: MAP 4936 GRID B3
VICINITY MAP
SCALE: 1" = 1200'

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 (P&S UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH 2' CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED DECEMBER 31, 2005.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 31A3 AND 31A4 WERE USED FOR THIS PROJECT.
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE H.D.E. STORM WATER DESIGN MANUAL, VOLUMES 1 & II, REVISED 2005. WE ARE PROVIDING STORM WATER MANAGEMENT BY THE USE OF ROOFTOP AND NON-ROOFTOP DISCONNECTIONS. THE ROOFTOP DISCONNECTIONS ARE LOCATED ON SLOPES 5% MAXIMUM AND ARE AT LEAST 75' LONG. IN ACCORDANCE WITH THE NEW CHAPTER 5 CRITERIA, A REQUIRED PE VALUE OF 10" IS MET WITH JUST THESE PROPOSED DISCONNECTIONS. THE NON-ROOFTOP DISCONNECTIONS ARE AT A 1:1 RATIO AND THE NEW CHAPTER 5 STORM WATER MANAGEMENT REGULATIONS STIPULATE THAT THIS NON-ROOFTOP DISCONNECTIONS ALLOWS A PE VALUE OF 10" FOR THIS PROJECT'S DRIVEWAYS. THEREFORE, WE CAN CONCLUDE THAT THIS PROJECT MEETS THE CHAPTER 5 CRITERIA AND WOODS IN GOOD CONDITION HAS BEEN ACHIEVED.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND PUBLIC WATER & SEWER IS PROPOSED WITHIN THIS DEVELOPMENT. CONTRACT NO. 12-W AND CONTRACT NO. 302-S, RESPECTIVELY.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- THE SIC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV STANDARD DETAIL R-1.01.
- THE SUBJECT PROPERTY IS ZONED R-20 (PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/06).
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- NO LANDSCAPING IS REQUIRED FOR THIS PROJECT.
- THIS PROJECT IS CONDITIONALLY EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH THE FILING OF A DECLARATION OF INTENT FOR CONTINUING USE OF EACH OF THESE PROPERTIES IN ACCORDANCE WITH THE PROVISIONS OF HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SECTIONS 16.1202 (b) AND (c) FOR A PERIOD OF AT LEAST FIVE (5) CONSECUTIVE YEARS FOLLOWING THE EXECUTING OF THE DECLARATION OF INTENT.
- IN ACCORDANCE WITH SECTION 12B OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 18 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK (APPLIES FOR RESIDENTIAL SDPS).
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
WIDTH - 12' (10' SERVING MORE THAN ONE RESIDENCES)
SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.);
GEOMETRY - MAX. 1% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS;
STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING);
DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
- MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THE EXISTING 100 YEAR FLOODPLAIN IS BASED ON A STUDY PREPARED BY MILDENBERG, BENDER & ASSOCIATES, INC. AND DATED AUGUST 2005 FOR THE ADJACENT SPD-06-030 PLAN. THIS STUDY IS A REFINEMENT FOR A PORTION OF THE HOWARD COUNTY CAPITAL PROJECT A-80.
- PROPOSED DWELLINGS SHALL HAVE AN 1-1/2" WATER HOUSE CONNECTION WITH A 1" OUTSIDE METER SETTING. STD. DET. W-3.28.

NARRATIVE

- Introduction.**
The purpose of this report is to analyze the drainage areas located within the subject property regarding the new Chapter 5 SWM regulations in an attempt to meet woods in good condition. If woods in good condition is achieved within this project under proposed conditions then Channel Protection Volume is not required. This report is prepared in accordance with the HDE 2000 Maryland Storm Water Management Regulations, Chapter 5.
- General Site Conditions.**
This property is located on Tax Map 31, Parcel No. 357 on the Howard County, Maryland Tax Map Database System. The property consists of 7.28 acres of land. The property is wooded towards the rear of the site. Furthermore, these woods will remain undisturbed under the current plan. We have provided a declaration of intent for the forest conservation requirement for this development in accordance with the latest planning requirements for this plan submission. There is a stream located just offsite that drains into the existing pond located onsite. We are not disturbing the stream buffers with our grading. There are no areas of slopes that are 25% and greater located on the property.
- Impervious Cover.**
Existing condition impervious cover consists of a single dwelling that will not be saved. The dwelling is located on Lot 1.
- Site Specific Information.**
The HDE Stormwater Management requirements for this project will be met by complying with the new Chapter 5 regulations. We are proposing multiple disconnections of rooftop and non-rooftop runoff for this development.
- Conclusion.**
Contained within this SWM report, we have demonstrated that we can provide the required PE value to mimic the site as woods in good condition with the largest PE of 10" and the 80% of 60 being reached for the entire site. Since this is a preliminary plan and the conceptual SWM environmental site design (ESD) demonstrated that an abundant amount of filter area can be achieved onsite, there is no need to provide any Channel Protection Volume Computations. We feel that we have explored the ESD to the maximum extent possible. In other words, we are achieving ESD to the MEP through the use of the micro-scale practices outlined in Chapter 5. We are not encroaching into any environmental buffers or setbacks within this plan.
- The following are the responses to the HDE Maryland 2000 Stormwater Manual performance standards:
Standard 1. The site design for this plan will minimize the generation of stormwater runoff and maximize the pervious areas for stormwater treatment by complying with the new revised Chapter 5 regulations and meeting the ESD (Environmental Site Design) to the MEP (Minimum Extent Practicable). We have achieved this design thru the use of disconnections on this project that are considered to be non-erodible. Specifically, we are providing management thru the use of Non-rooftop disconnections for the driveways and rooftop disconnections to treat the runoff from the proposed houses. Since we are meeting our PE requirement, we are indicating that we can meet woods in good condition and that CPV will not be needed for this site since we are meeting the ESD requirement.
Standard 2. There are wetlands areas located onsite for this project. These areas are located towards the rear of the project and will remain undisturbed. A 25' wetland buffer is indicated on the plan.
Standard 3. The annual ground water recharge volume is not required for this project.
Standard 4. Water quality volumes for this site are provided thru the use of significant rooftop and non-rooftop disconnection credit areas that will provide an additional means of water quality for this site. We are indicating areas of non-rooftop disconnections for both driveways and rooftop disconnections for both of the proposed houses located on this project. It is through the above methods that this subdivision will be providing the required WQV for this site.
Standard 5. The structural facilities proposed within this subdivision (disconnection of rooftop and non-rooftop areas) will remove the required 80% of Total Suspended Solids (TSS) and 40% of the average annual point development total phosphorus load (TP). These facilities are sized to capture treat the impervious areas for WQV and are designed in accordance with the HDE SWM 2000 Design Manual, Chapter 5 Amended (ESD). In addition, these facilities will be constructed properly and maintained regularly by the proposed homeowners association and the easement holders will be the homeowners association and Howard County, Maryland.
Standard 6. The subdivision is located on the Western Shore and does not need to provide management of the 10-year storm event.
Standard 7. With the implementation of Chapter 5, we no longer need to provide extended detention volumes and indicate a centroid shift for this project.
Standard 8. We are not discharging any water into a defined critical area.
Standard 9. The proposed BMPs for this property will have an enforceable operation and maintenance agreement between the Homeowners association and Howard County, Maryland.
Standard 10. All of the BMPs proposed for these subdivisions have an acceptable form of water quality pretreatment. In this case, the proposed driveways have a 1:1 ratio provided of filter land next to the driveways. This will allow for the runoff to be at a slower rate and will not only provide pre-treatment but will provide the WQV treatment to meet the chapter 5 requirement.
Standard 11. This project is not a redevelopment project and is not subject to the more strict standards for SWM and Water Quality.
Standard 12. This site is not located in an industrial area of zoned industrial uses. A Notice of Intent (NOI) form will be filed at the Final Plan stage for this project.
Standard 13. None of the proposed outfalls from this project are located in a defined hotspot as explained in Chapter 2 of the HDE SWM 2000 Design Manual. Therefore this standard is non-applicable for this subdivision.
Standard 14. The Howard County Office of Planning and Zoning, Development Engineering Division is reviewing the project. They are the local government agency that reviews and approves the design.

LEGEND	
	Denotes Existing Structures to be removed
	Denotes Existing Asphalt to be removed
	Denotes Receiving Area for SWM
	Denotes Wetlands
	Denotes Ex. 25' Wetland Plat Nos. 19120 thru 19123
	Denotes Ex. Public 20' Sewer & Utility Easement L. 536 F. 451
	Denotes Existing Forest Conservation Easement Plat 19120-19123
	Denotes Existing Public 100 Year Flood Plain Drainage and Utility Easement Plat 19120-19123
	Denotes Flood Plain
	Existing Contour 2' interval
	Proposed Contour 2' interval
	Existing Contour 10' interval
	Proposed Contour 10' interval
	Super Silt Fence
	Existing Tree Line
	Existing Trees to remain
	Existing Trees to be removed
	Erosion Control Matting
	Ex. Water
	Ex. Sewer
	Limit of Disturbance
	FF First Floor Elevation
	BE Basement Elevation

SITE ANALYSIS DATA CHART

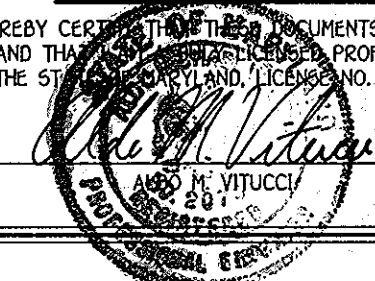
- TOTAL AREA OF THIS SUBMISSION = 7.28 AC.
- LIMIT OF DISTURBED AREA = 2.36 AC.
- PRESENT ZONING DESIGNATION = R-20 (PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/06)
- PROPOSED USE: SINGLE FAMILY DETACHED
- FLOOR SPACE ON EACH LEVEL OF BUILDING: N/A
- TOTAL NUMBER OF UNITS ALLOCATED: 2 UNITS
- TOTAL NUMBER OF UNITS PROPOSED: 2 UNITS
- TOTAL NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE: N/A
- OPEN SPACE ON SITE: N/A
- RECREATIONAL AREA PROVIDED: N/A
- BUILDING COVERAGE OF SITE: N/A
- PREVIOUS HOWARD COUNTY FILES: N/A
- TOTAL AREA OF FLOODPLAIN LOCATED ON SITE 143 AC.
- TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.000 AC.
- NET TRACT AREA = 5.95 AC.
- TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA (7.28 AC - 143 AC - 0.000 AC)
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 2.57 AC.
- TOTAL AREA OF FOREST = 3.43 AC.
- TOTAL GREEN OPEN AREA = 4.10 AC.
- TOTAL IMPERVIOUS AREA = 0.30 AC.

STREET ADDRESS CHART	
LOT NO.	STREET ADDRESS
1	AVOCA AVENUE
2	AVOCA AVENUE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE: PAVE - 10772 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
410-481-3255

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20794, EXPIRATION DATE: 2/22/11.



10/21/10
DATE

OWNERS

THEODORE AND JUDITH MILBACH
12409 NEW HAMPSHIRE AVE.
SILVER SPRING, MARYLAND 20904

RIDA AND ROBERT ALLEN
6332 SUNHIGH PL.
COLUMBIA, MARYLAND 21045

BUILDER

STEVENS BUILDERS
C/O MARK STEVENS
474 LINTHICUM RD
DAYTON, MD 21036
410-531-2100

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kat DeLeon
Chief, Division of Land Development

10/21/10
Date

Paul McHenry
Chief, Development Engineering Division

10/21/10
Date

SUBDIVISION		SECTION/AREA	LOT NO.
AVOCA AVENUE		N/A	1 & 2
PLAT BOOK 6	PARCEL NO. 357	ZONE R-20	TAX MAP 31
PAGE 08		ELEC. DIST. 2nd	CENSUS TR.

ENVIRONMENTAL CONCEPT PLAN
TITLE SHEET

AVOCA AVENUE
(PAUL T. MCHENRY)

Plat Book 6 Page 08
PLOTS 1 AND 2

TAX MAP No.: 31 GRID No.: 7 PARCEL No.: 357
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: OCTOBER, 2010

