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

ENVIRONMENTAL CONCEPT PLAN

COLUMBIA MEMORIAL PARK

LOT 1

ZONED: NT

TAX MAP No. 29 GRID No. 19 PARCEL No. 371

FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Infiltration and Filter System Construction Specifications

Infiltration and filter systems either take advantage of existing permeable soils or create a permeable medium such as sand for WQv, and Re v. In some instances where permeability is great, these facilities may be used for Qp as well.

When properly planted, vegetation will thrive and enhance the functioning of these systems. For example, pre-treatment buffers will trap sediments that often are bound with phosphorous and metals. Vegetation planted in the facility will aid in nutrient uptake and water storage. Additionally, plant roots will provide arteries for stormwater to permeate soil for groundwater recharge. Finally, successful plantings provide aesthetic value and wildlife habitat making these facilities more desirable to the public.

Design Constraints:

> Planting buffer strips of at least 20 feet will cause sediments to settle out before reaching the facility, thereby reducing the possibility of clogging.
> Determine areas that will be saturated with water and water table depth so that appropriate plants may be selected (hydrology will be similar to bioretention facilities, see figure A.5 and Table A.4 for planting material guidance).
> Plants known to send down deep taproots should be avoided in systems where filter fabric is used as part of facility design.
> Test soil conditions to determine if soil amendments are necessary.
> Plants shall be located so that access is possible for structure maintenance.
> Stabilize heavy flow areas with erosion control mats or sod.
> Temporarily divert flows from seeded areas until vegetation is established.
> See Table A.5 for additional design considerations.

Bio-retention

Soil Bed Characteristics

The characteristics of the soil for the bioretention facility are perhaps as important as the facility location, size, and treatment volume. The soil must be permeable enough to allow runoff to filter through the media, while having characteristics suitable to promote and sustain a robust vegetative cover crop. In addition, much of the nutrient pollutant uptake (nitrogen and phosphorus) is accomplished through absorption and microbial activity within the soil profile. Therefore, soils must balance their chemical and physical properties to support biotic communities above and below ground.

The planting soil should be a sandy loam, loamy sand, loam (USDA), or a loam/sand mix (should contain a minimum 35 to 60% sand, by volume). The clay content for these soils should be less than 25% by volume [Environmental Quality Resources (EQR), 1996; Engineering Technology Inc. and Biohabitats, Inc. (ETAB), 1993]. Soils should fall within the SM, ML, SC classifications or the Unified Soil Classification System (USCS). A permeability of at least 1.0 feet per day (0.5"/hr) is required (a conservative value of 0.5 feet per day is used for design). The soil should be free of stones, stumps, roots, or other woody material over 1" in diameter. Brush or seeds from noxious weeds (e.g., Johnson Grass, Mugwort, Nutsedge, and Canada Thistle or other noxious weeds as specified under COMAR 15.08.01.05.) should not be present in the soils. Placement of the planting soil should be in 12 to 18 lifts that are loosely compacted (tamped lightly with a backhoe bucket or traversed by dozer tracks). The specific characteristics are presented in Table A.3.

Table A.3 Planting Soil Characteristics

Parameter	Value
pH range	5.2 to 7.00
Organic matter	1.5 to 4.0% (by weight)
Magnesium	35 lbs. per acre, minimum
Phosphorus (phosphate - P2O5)	75 lbs. per acre, minimum
Potassium (potash -1(K2O)	85 lbs. per acre, minimum
Soluble salts	500 ppm
Clay	10 to 25 %
Silt	30 to 55 %
Sand	35 to 60%

Mulch Layer

The mulch layer plays an important role in the performance of the bioretention system. The mulch layer helps maintain soil moisture and avoids surface sealing, which reduces permeability. Mulch helps prevent erosion, and provides a microenvironment suitable for soil biota at the mulch/soil interface. It also serves as a pretreatment layer, trapping the finer sediments, which remain suspended after the primary pretreatment.

The mulch layer should be standard landscape style, single or double shredded hardwood mulch or chips. The mulch layer should be well aged (stockpiled or stored for at least 12 months), uniform in color, and free of other materials, such as weed seeds, soil, roots, etc. The mulch should be applied to a maximum depth of three inches. Grass clippings should not be used as a mulch material.

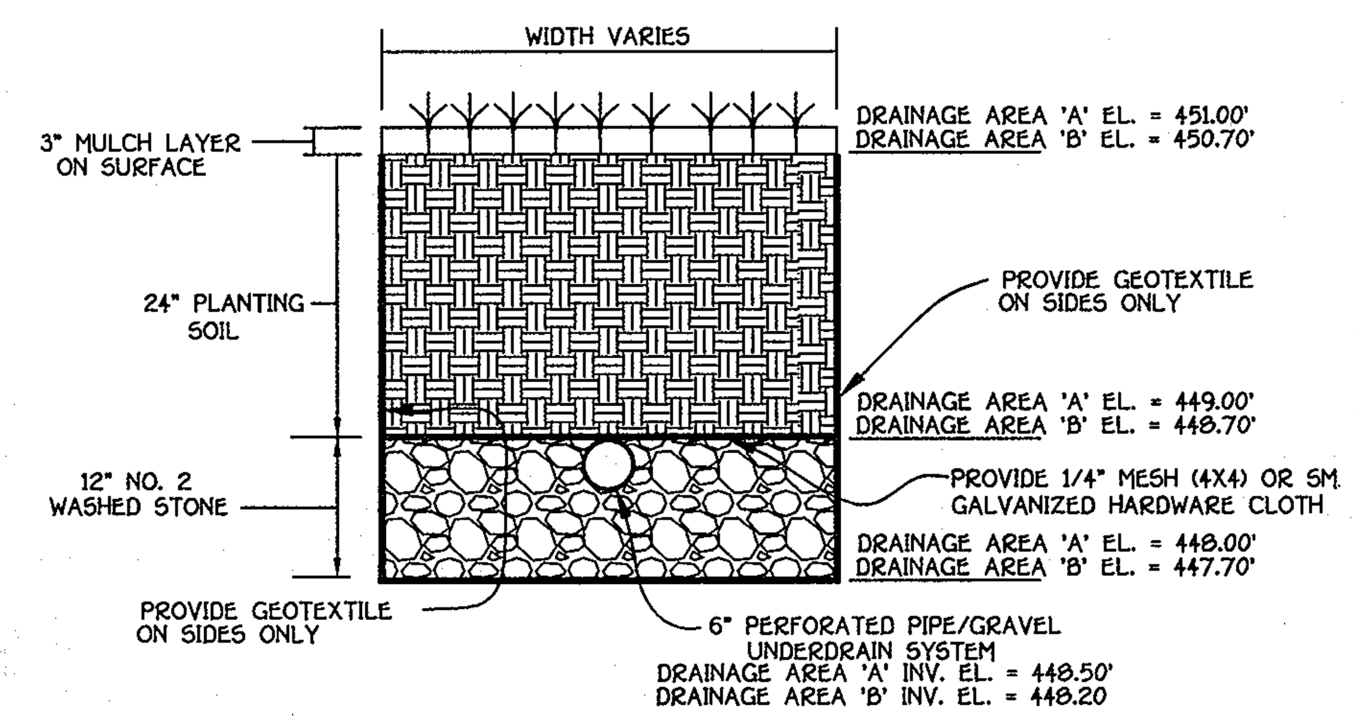
Planting Guidance

Plant material selection should be based on the goal of simulating a terrestrial forested community of native species. Bioretention simulates an upland-species ecosystem. The community should be dominated by trees, but have a distinct community of understory trees, shrubs and herbaceous materials. By creating a diverse, dense plant cover, a bioretention facility will be able to treat stormwater runoff and withstand urban stresses from insects, disease, drought, temperature, wind, and exposure.

The proper selection and installation of plant materials is key to a successful system. There are essentially three zones within a bioretention facility (Figure A.5). The lowest elevation supports plant species adapted to standing and fluctuating water levels. The middle elevation supports plants that like drier soil conditions, but can still tolerate occasional inundation by water. The outer edge is the highest elevation and generally supports plants adapted to dryer conditions. A sample of appropriate plant materials for bioretention facilities are included in Table A.4. The layout of plant material should be flexible, but should follow the general principals described in Table A.5. The objective is to have a system, which resembles a random, and natural plant layout, while maintaining optimal conditions for plant establishment and growth. For a more extensive bioretention plan, consult ETAB, 1993 or Claytor and Schueler, 1997.

0' 30' 60' 120'

Scale: 1" = 30'



TYPICAL SECTION - BIO-RETENTION FACILITY (M-6)

NO SCALE

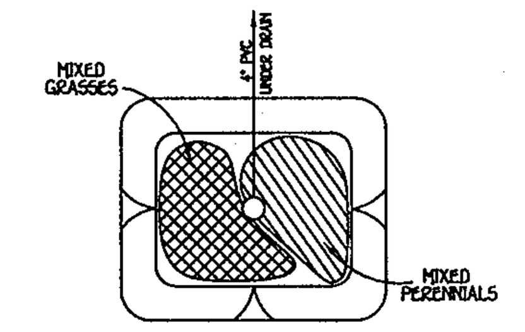
OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (M-6)

1. Annual maintenance of plant material, mulch layer and soil layer is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning.

2. Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires.

3. Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer once every 2 to 3 years.

4. Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.



MICRO-BIORETENTION PLANTING DETAIL

NOT TO SCALE

MIXED PERENNIALS* — CUT-LEAF CONEFLOWER, CARDINAL FLOWER, TRADUSCANT ASTER

SHRUBS* — INK BERRY, ARROWWOOD, BAYBERRY

* SEE PLANT MATERIAL CHARTS FOR QUANTITIES AND SPACING

NOTE: PLANT MATERIAL MUST COVER AT LEAST 50% OF THE SURFACE AREA OF THE MICRO-BIORETENTION

DRAINAGE AREA 'A' MICRO-BIORETENTION PLANT MATERIAL

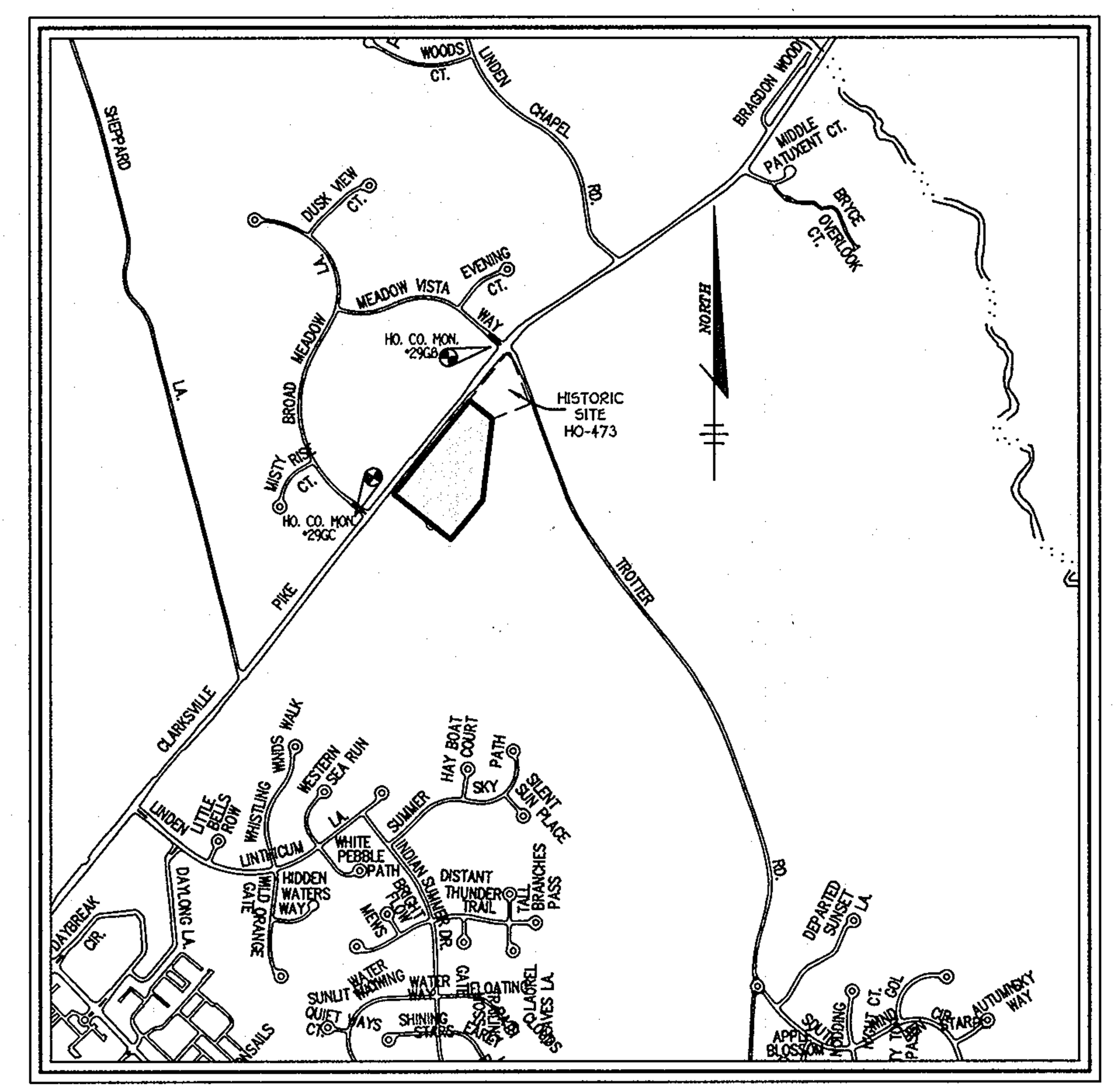
QUANTITY	NAME	MAXIMUM SPACING (FT.)
55	MIXED PERENNIALS	1 FT.
14	SHRUBS	2 FT.

DRAINAGE AREA 'B' MICRO-BIORETENTION PLANT MATERIAL

QUANTITY	NAME	MAXIMUM SPACING (FT.)
62	MIXED PERENNIALS	1 FT.
31	SHRUBS	2 FT.

MICRO-BIORETENTION (M-6) OPERATION & MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDER BEYOND TREATMENT. TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS. WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



ADC STREET MAP: MAP 4934 GRID B5

VICINITY MAP

SCALE: 1" = 1200'

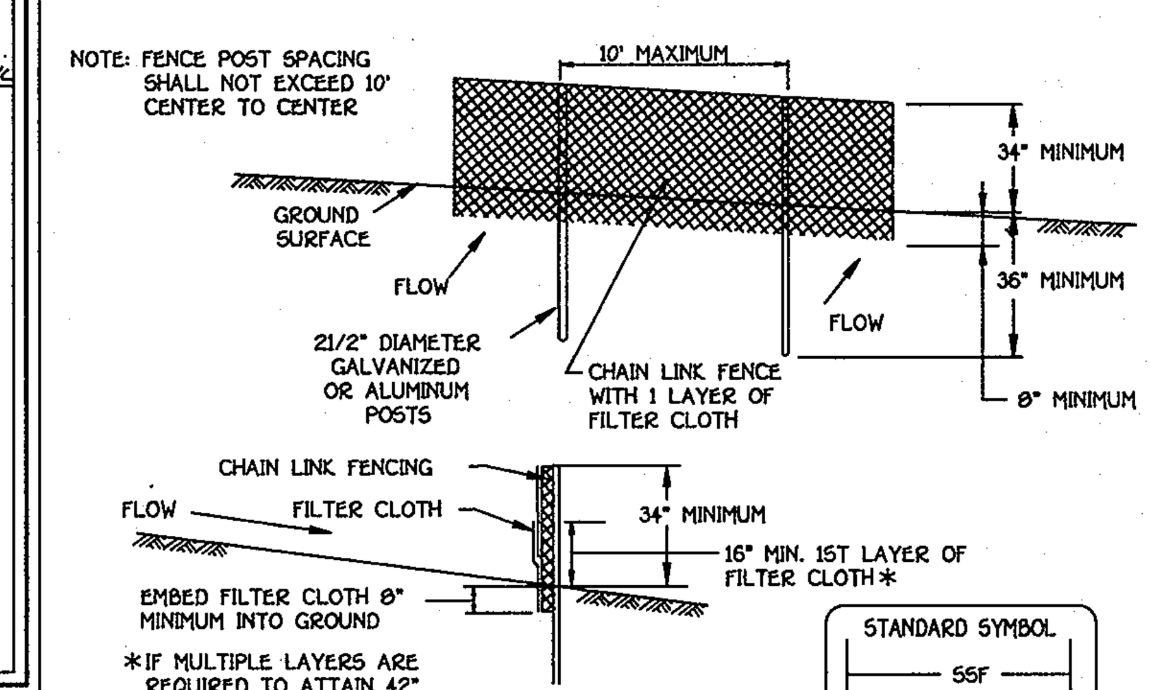
SITE ANALYSIS DATA CHART

A. TOTAL AREA OF THIS SUBMISSION =9.99 AC.±.
B. LIMIT OF DISTURBED AREA = 0.22 Ac.±
C. PRESENT ZONING DESIGNATION = NT (PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/06)
D. PROPOSED USE: MAUSOLEUMS
E. FLOOR SPACE ON EACH LEVEL OF BUILDING: N/A
F. TOTAL NUMBER OF UNITS ALLOCATED: N/A
G. TOTAL NUMBER OF UNITS PROPOSED: N/A
H. TOTAL NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE: N/A
I. OPEN SPACE ON SITE: 9.99 AC.
J. RECREATIONAL AREA PROVIDED: N/A
K. BUILDING COVERAGE OF SITE: 0.09 AC±
   EXISTING BUILDING COVER 0.02 AC± (MAUSOLEUM)
   PROPOSED BUILDING COVERAGE 0.07 AC± (5 MAUSOLEUMS)
L. PREVIOUS HOWARD COUNTY FILES: FDP-188-A1 F-83-116, SDP-84-280
M. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE 0.00 AC.
N. TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.000 AC±
O. NET TRACT AREA = 9.99 AC.
   (TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA)
   (9.99 Ac - 0.00 Ac - 9.99 Ac)
P. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.±
Q. TOTAL AREA OF FOREST = 2.94 AC±
R. TOTAL GREEN OPEN AREA = 6.26 AC±
S. TOTAL IMPERVIOUS AREA = 0.79 AC±

BENCH MARKS

HO. CO. MON. 29GB
N566826.1708 E1333265.8543 ELEV. 455.965
CONCRETE MONUMENT SET
CORNER MEADOW VISTA ROAD & RT-108

HO. CO. MON. 29GC
N565530.8138 E1332248.7022 ELEV. 490.718
CONCRETE MONUMENT SET
RT-108 ACROSS FROM CLARKSVILLE ELEM. SCH.



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft /minute^2(max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

SUPER SILT FENCE

NOT TO SCALE

GENERAL NOTES

1. 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.
2. THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH 2' CONTOURS INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED NOVEMBER 19, 2010.
4. 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. 29GB AND 29GC WERE USED FOR THIS PROJECT.
5. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. WE ARE PROVIDING STORM WATER MANAGEMENT BY THE USE OF TWO (2) M-6 MICRO BIO-RETENTION AREAS.
6. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT, THERE IS NOT WATER OR SEWER SERVICE PROPOSED ON THIS PROJECT.
7. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
8. THE SUBJECT PROPERTY IS ZONED NT (PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/06)
9. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
10. LANDSCAPING WILL BE PROVIDED AT THE SITE DEVELOPMENT STAGE OF THIS PROJECT.
11. IN ACCORDANCE WITH SECTION 16.1202.(B).(1).(IV) OF THE HOWARD COUNTY CODE THIS SITE IS EXEMPT FROM THE REQUIREMENT TO FILE A FOREST CONSERVATION PLAN -- A PLANNED UNIT DEVELOPMENT WHICH HAD PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50% OR MORE OF THE LAND RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE THE ENACTMENT OF THE FOREST CONSERVATION ACT EFFECTIVE DECEMBER 31, 1992.
12. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
13. 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 SITE PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.

NARRATIVE

I. 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 MDE 2000 Maryland Storm Water Management Regulations, Chapter 5.

II. General Site Conditions:
This property is located on Tax Map 29, Parcel No. 371 on the Howard County, Maryland Tax Map Database System. The property consists of 9.99 acres of land. The property is wooded north and east of the proposed mausoleums location. We are removing a portion of the woods to construct the new mausoleums, however this project is zoned NT and is exempt from Forest Conservation. There are two streams, one offsite and one that begins onsite that drains off of our project. The adjacent properties are also owned by Columbia Cemetery. A stream originates onsite and drains to the property to the east into an extensive environmental easement, which is recorded on plat #11185 in the land records of Howard County. Stream is located offsite on the property to the north. This property is registered as HO-473 in the Maryland Historical Trust for both it's land and the architecture of the existing structure. There are no slopes greater than 25% and there will be no disturbance of any environmental buffers.

III. Impervious Cover:
Existing condition impervious cover consists of a driveway that will be saved. There are no further areas of imperviousness located on this property.

IV.A. Site Specific Information:
The MDE Stormwater Management requirements for this project will be met by complying with the new Chapter 5 regulations. We are proposing two Micro Bio-retention facilities to treat the rooftop runoff from the 5 proposed mausoleums. These building contain a roof drain in the center of the roof that gets piped down and out the building. These drains are directed into the micro bio-retention areas for treatment. The underdrain for these facilities will direct the drainage towards the boundary line for this parcel of land. The Groundwater Recharge Volumes are provided for this development in an underground stone recharge pit located beneath the proposed micro bio-retention facilities located off to the side of the sidewalk that leads up to the mausoleum area.

IV.B. The following are the responses to the MDE 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 (Maximum Extent Practicable). We have achieved this design thru the use of micro-SWM practices. We have proposed two Micro bio-retention areas to provide the required ESDv for both areas. 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 on the adjacent property for this project. These areas are preserved within an Open Space Lot that are part of the Columbia Cemetery or Columbia Memorial Park and will not be disturbed by this development. In addition these areas are located within a recorded easement shown on plat 11185.
Standard 3. The annual ground water recharge volume will be provided through the use of micro-scale SWM practices. In this case the REv that is required for an underground stone recharge pit that is proposed and located below the proposed Micro bio-retention areas. These Micro bio-retention areas are designed to provide recharge located below and around the perforated pipe. It is thru the use of these areas that we are proposing groundwater recharge be provided for this site.
Standard 4. Water quality volumes for this site are provided by Micro-bioretention areas located within the proposed open area leading to the mausoleums. 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 (Micro Bio-retention facilities) will remove the required 80% of Total Suspended Solids (TSS) and 40% of the average annual post development total phosphorous load (TP). These facilities are sized to capture treat the impervious areas for WQv and are designed in accordance with the MDE 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 Chapter5, 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 BMP's for this property will have an enforceable operation and maintenance agreement between the Homeowners association and Howard County, Maryland. The specifics of this information will not be provided until the time of final plan design.
Standard 10. All of the BMP's proposed for this subdivision has an acceptable form of water quality pretreatment. In this case the proposed Micro bio-retention areas will have a perimeter sand layer to act as a pre-treatment system as they will be treating the runoff from the proposed sidewalks and mausoleums.
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 MDE 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.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

DATE	DESCRIPTION
	REVISION BLOCK

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. 20784, EXPIRATION DATE: 2/22/11.

ALDO M. VITUCCI 3-9-11 DATE

OWNERS & DEVELOPER
COLUMBIA MEMORIAL PARK LLC
C\O MR. WALKER
4111 PENNSYLVANIA AVE.
SUITLAND, MARYLAND 20746
240-447-7525

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 3/14/11

Chief, Development Engineering Division — Date 3/16/11

SUBDIVISION		SECTION/AREA		LOT NO.	
COLUMBIA CEMETERY SITE		SECTION 1 AREA 1		1	
PLAT NO.	PARCEL NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
5489	371	NT	29	5th	

ENVIRONMENTAL CONCEPT PLAN
TITLE SHEET
COLUMBIA MEMORIAL PARK
CEMETERY SITE
SECTION 1 AREA 1
LOT 1
TAX MAP No.: 29 GRID No.: 19 PARCEL No.: 371
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH, 2010

SOILS LEGEND

SOIL	NAME	CLASS
** Ba	Baile silt loam	D
ChA	Chester silt loam, 0 to 3 percent slopes	B
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
ChC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded	B
EkA	Elioak silt loam, 0 to 3 percent slopes	B
EkB2	Elioak silt loam, 3 to 8 percent slopes, moderately eroded	B
GlB2	Glenelg loam, 3 to 8 percent slopes, moderately eroded	B
GlC2	Glenelg loam, 8 to 15 percent slopes, moderately eroded	B
* GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C
** Ha	Hatboro silt loam	D
MgB2	Manor gravelly loam, 3 to 8 percent slopes, moderately eroded	B
MgC2	Manor gravelly loam, 8 to 15 percent slopes, moderately eroded	B
MlA	Manor loam, 0 to 3 percent slopes	B
MlB2	Manor loam, 3 to 8 percent slopes, moderately eroded	B
MlC2	Manor loam, 8 to 15 percent slopes, moderately eroded	B
MlD2	Manor loam, 15 to 25 percent slopes, moderately eroded	B
MnD	Manor very stony loam, 3 to 25 percent slopes	B

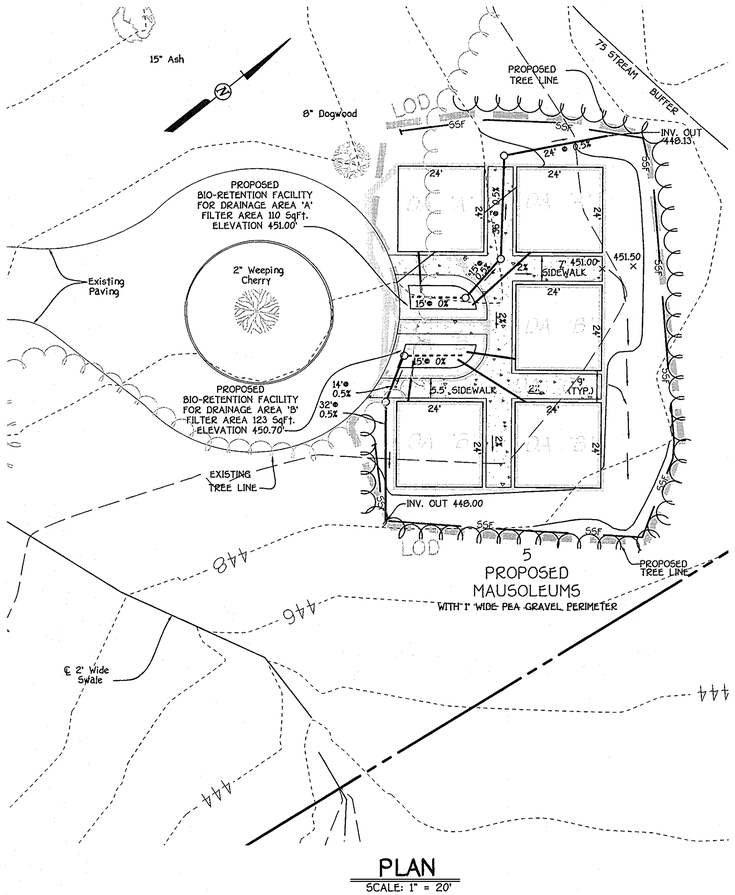
NOTES:
- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

0' 50' 100' 200'

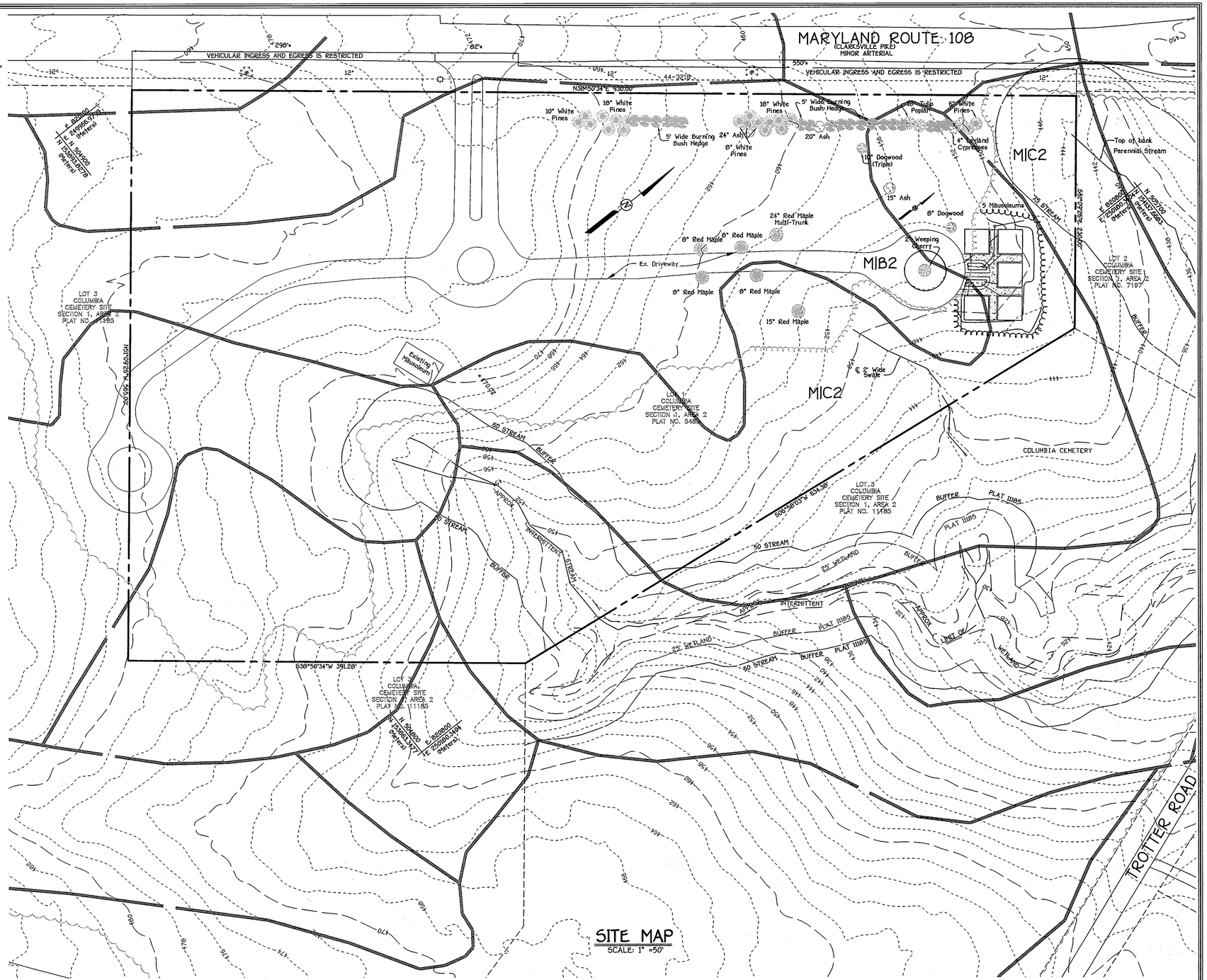
Scale: 1" = 50'

LEGEND

	Existing Contour 2' interval
	Existing Contour 10' interval
	Proposed Contour 2' interval
	Proposed Contour 10' interval
	Proposed Concrete Sidewalk
	Existing Tree Line
	Proposed Tree Line
	Existing Trees to remain
	Ex. Water
	Limit of Disturbance
	Drainage Area
SSF	Super Silt Fence
	6" Schedule 40 PVC
	Perforated 6" Schedule 40 PVC
	Stream
	Wetland
	25' Wetland Buffer
	Stream Buffer



PLAN
SCALE: 1" = 20'



SITE MAP
SCALE: 1" =50'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
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ALDO M. VITUCCI — DATE 3-9-11

OWNERS

COLUMBIA MEMORIAL PARK LLC
C\O JESSE WALKER
4111 PENNSYLVANIA AVE.
SUITLAND MARYLAND, 20904
240-447-7525

APPROVED: DEPARTMENT OF PLANNING AND ZONING

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PLAT NO.	PARCEL NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
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ENVIRONMENTAL CONCEPT PLAN

COLUMBIA MEMORIAL PARK
CEMETERY SITE
SECTION 1 AREA 1
LOT 1

TAX MAP No.: 29 GRID No.: 19 PARCEL No.: 371

5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: MARCH, 2010

SHEET 2 OF 2 ECP-11-033

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