

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN
3	PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN AND DETAILS

## ENVIRONMENTAL CONCEPT PLAN

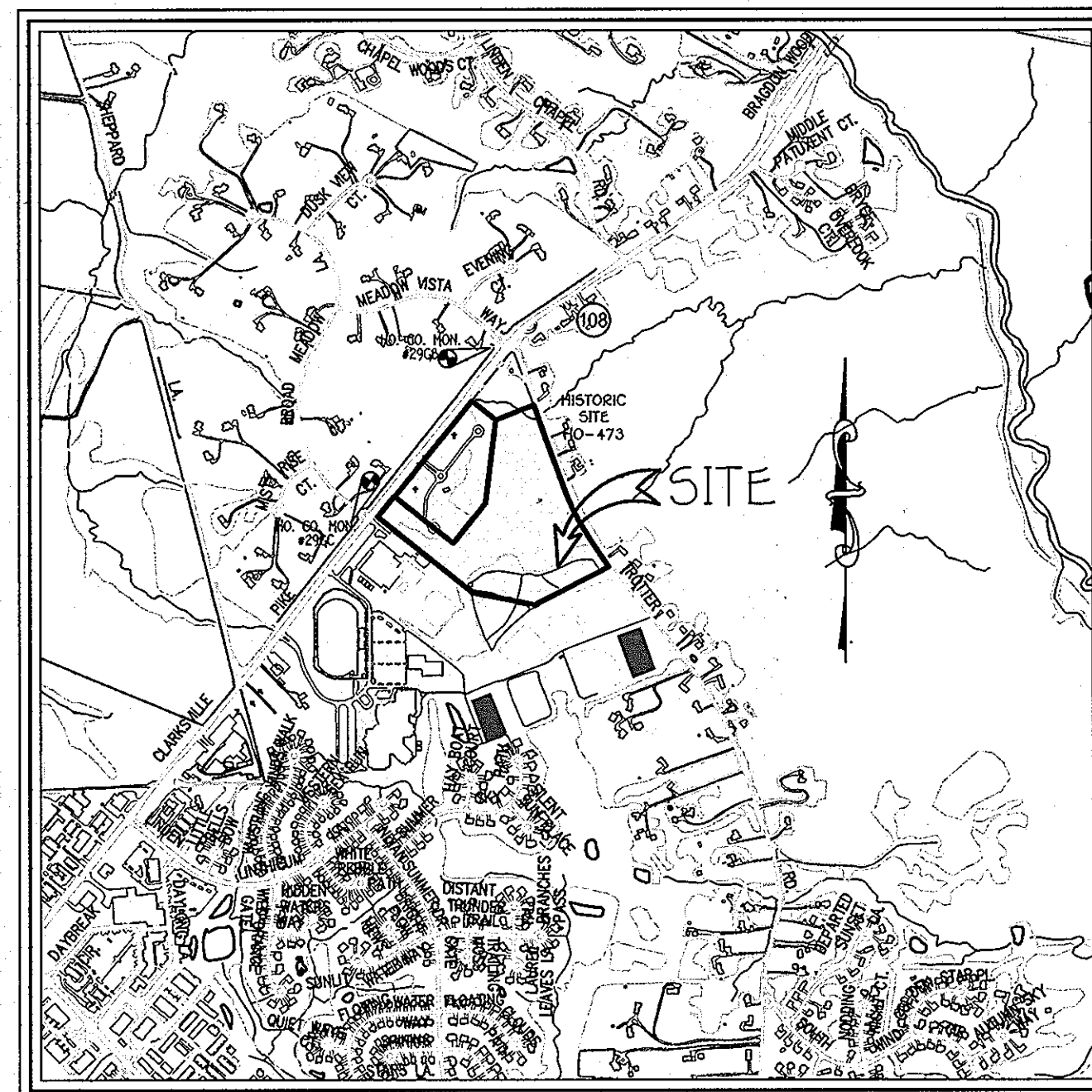
# COLUMBIA MEMORIAL PARK

SECTION 1 AREA 1 LOT 1 AND SECTION 1 AREA 2 LOT 3

ZONED: NT

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

FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



ADC STREET MAP: MAP 4934 GRID B5  
**VICINITY MAP**  
SCALE: 1" = 1200'

**BENCH MARKS**

HO. CO. MON. 2928  
N568226.1709 E1332855.8543 ELEV. 455.965  
CONCRETE MONUMENT SET  
CORNER MEADOW VISTA ROAD & RT-108

HO. CO. MON. 2928  
N565530.8139 E1332248.7022 ELEV. 490.718  
CONCRETE MONUMENT SET  
RT-108 100555 FROM CLARKSVILLE ELEM. SCH.

**GENERAL NOTES**

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY (M&S 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' CONTOUR 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. 2928 AND 2922 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 THOSE 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 16.102E.(A)(1)(IV) OF THE HOWARD COUNTY CODE THIS SITE IS EXEMPT FROM THE REQUIREMENT TO FILE A FOREST CONSERVATION PLAN -- A PLANNED UNIT CONSERVATION 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.
14. SOIL BORING INFORMATION WILL BE PROVIDED AT THE SDP STAGE OF THIS PROJECT.
15. ACTIVITIES PROPOSED BY ECP-12-027 ARE NOT IN OR NEAR A DEBARMENT OR AN AREA LIKELY TO SUPPORT WETLANDS. A COMPLETE STREAM AND WETLAND DELINEATION REPORT MAY BE REQUIRED FOR FUTURE PROJECTS ENCRoACHING INTO THE STREAM AND WETLAND AREAS IDENTIFIED BY PLAT 11189.
16. APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLANS OR REE-LINE REVISIONS. 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, SITE DEVELOPMENT PLAN, OR REE-LINE REVISION PROCESSES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

**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:**  
This property is located on Tax Map 29, Parcel No. 371 on the Howard County, Maryland Tax Map Database System. The property consists of 35.63 acres of land. The property is wooded in the area of the proposed office and gravel lot. We are removing a portion of the woods to construct this office and lot; however this project is zoned NT and is exempt from Forest Conservation. There are two streams located approximately 400' to the northeast of the proposed structure. Clarksville Elementary School is located directly to the southwest. There are no slopes greater than 25% and there will be no disturbance of any environmental buffers.

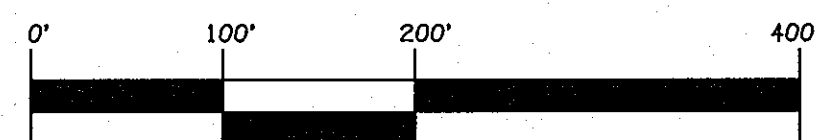
- I. **Natural Resource Protection:**  
To ensure the protection of natural resources located on this site, all buffers will be honored by locating any improvements away from environmentally sensitive areas.
- II. **Maintenance of Natural Flow Patterns:**  
It is the intent of the proposed design to discharge runoff similar to the characteristics and direction of this site prior to any of the proposed improvements.
- III. **Reduction of Impervious Areas through better site design, alternative surfaces and Nonstructural Practices**  
The design of this project is based on keeping Building, Parking and Gravel Lot in close proximity to minimize the need for additional paving.
- IV. **Integration of Erosion and Sediment Controls into Stormwater Strategy:**  
If appropriate a Micro-Bio Retention Facility proposed under this plan will be used as a sediment trap.

**Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP)**  
The full required ESD volume is being provided.

- V. **Request for Design Manual Waiver:**  
No waivers are being requested at this time.

**SITE ANALYSIS DATA CHART**

- A. TOTAL AREA OF THIS SUBMISSION = 35.629 Ac.\*
- B. LIMIT OF DISTURBED AREA = 40,189 SQ.FT. OR 0.92 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: OFFICE
- E. FLOOR SPACE OF PROPOSED BUILDING: 2550 SQ.FT.
- F. OPEN SPACE ON SITE: 35.629 Ac.\*
- G. RECREATIONAL AREA PROVIDED: N/A
- H. BUILDING COVERAGE OF SITE: 2950 SQ.FT. OR 0.099 AC.\*
- I. PREVIOUS HOWARD COUNTY FILES: FDP-100-A1, F-83-116, SDF-84-280, ECP-11-033, SDF-11-029
- J. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.00 AC.
- K. TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.00 AC.
- L. NET TRACT AREA = 35.629 Ac.  
(TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA)
- M. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 1.74 AC\*
- N. TOTAL AREA OF FOREST = 20.77 AC\*
- O. TOTAL GREEN OPEN AREA = 14.07 AC.\*
- P. TOTAL IMPERVIOUS AREA = 0.79 AC.\*



Scale: 1" = 100'

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FEE  
ELICOTT CITY, MARYLAND 21102  
410.741.2000



**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/13.

*Frank John Dambrosio II* 3-29-12  
FRANK JOHN DAMBROSIO II 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

*Keith Sheehan* 4-10-12  
Chief, Division of Land Development Date

*John A. ...* 4/12/12  
Chief, Development Engineering Division Date

SUBDIVISION		SECTION/AREA		LOT NO.	
COLUMBIA CEMETERY SITE		SECTION 1 AREA 2		1 & 3	
PLAT NO.	PARCEL NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
11185/5489	371	NT	29	5th	

**TITLE SHEET**

**COLUMBIA MEMORIAL PARK**  
CEMETERY SITE  
SECTION 1 AREA 1 LOT 1  
SECTION 1 AREA 2 LOT 3

TAX MAP No.: 29 GRID No.: 19 PARCEL No.: 371  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: MARCH 28, 2012  
SHEET 1 OF 3

ECP-12-027



**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	Elk oak silt loam, 0 to 3 percent slopes	B
EKB2	Elk oak 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	Harboro 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
MIA	Manor loam, 0 to 3 percent slopes	B
MIB2	Manor loam, 3 to 8 percent slopes, moderately eroded	B
MIC2	Manor loam, 8 to 15 percent slopes, moderately eroded	B
MID2	Manor loam, 15 to 25 percent slopes, moderately eroded	B
MnD	Manor very stony loam, 3 to 25 percent slopes	B

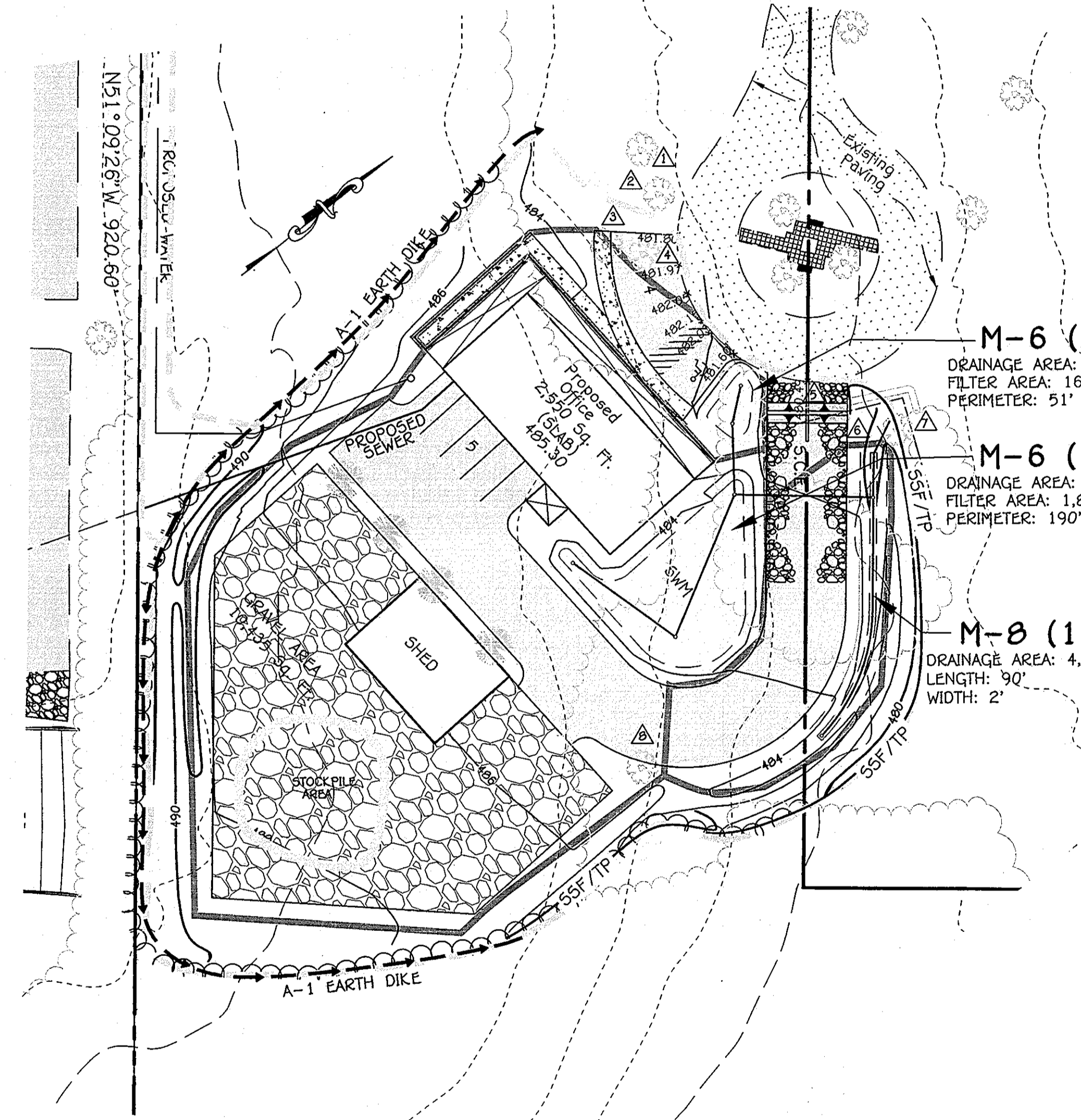
NOTES:  
 \* Hydric soils and/or contains hydric inclusions  
 \*\* May contain hydric inclusions  
 † Generally only within 100-year floodplain areas  
 Baile, Glenville, and Harboro are considered highly erodible.

**EXISTING TREE LEGEND**

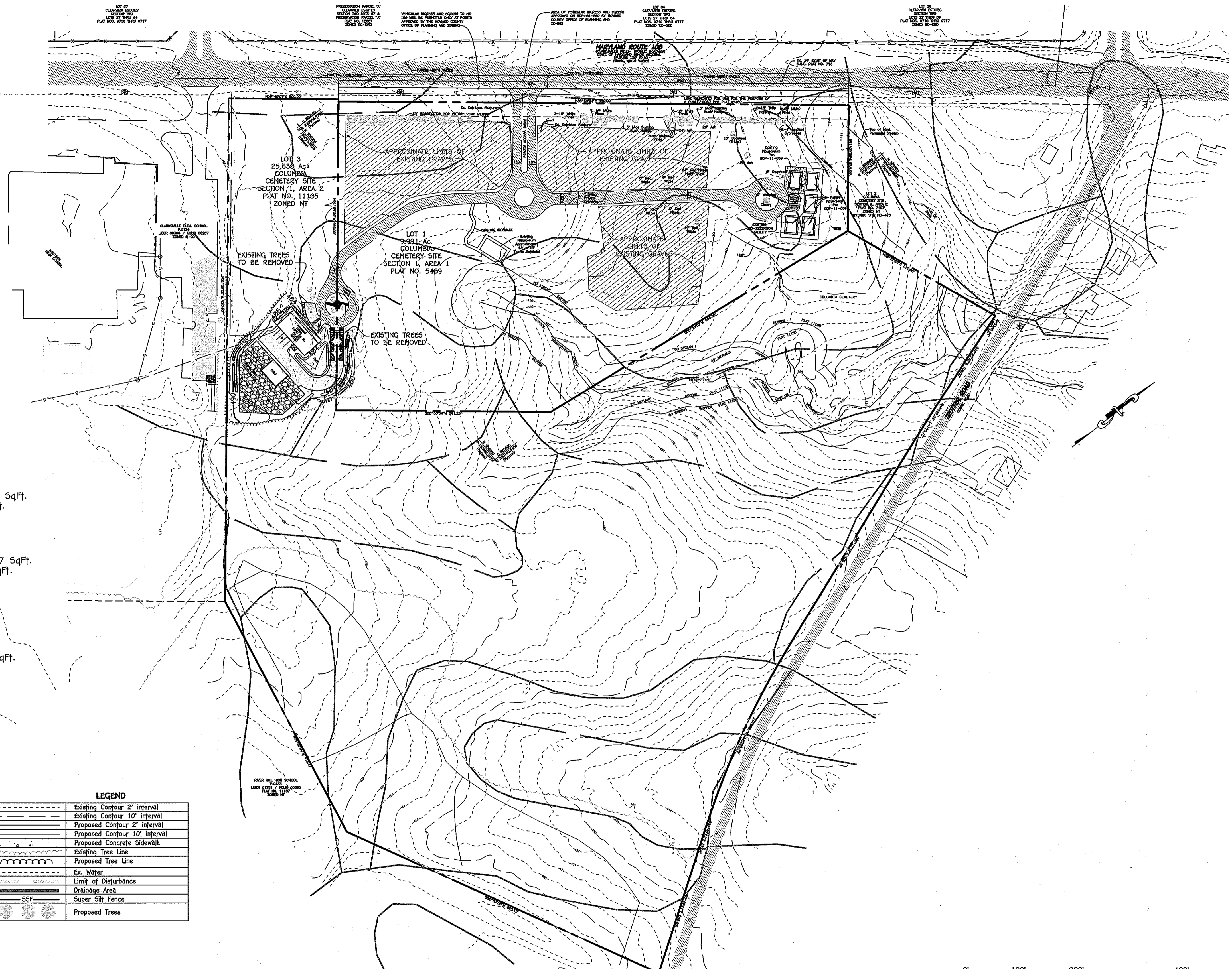
- △ CREDIT TAKEN FOR Ex. 12" Tulip Poplar To Remain
- △ Ex. 18" Tulip Poplar To Remain
- △ Ex. 12" Tulip Poplar To Be Removed
- △ Ex. 10" Tulip Poplar To Be Removed
- △ Ex. 8" Black Gum To Be Removed
- △ Ex. 12" Black Cherry To Be Removed
- △ Ex. 15" Ash To Be Removed
- △ Ex. 29" Ash To Be Removed

**LEGEND**

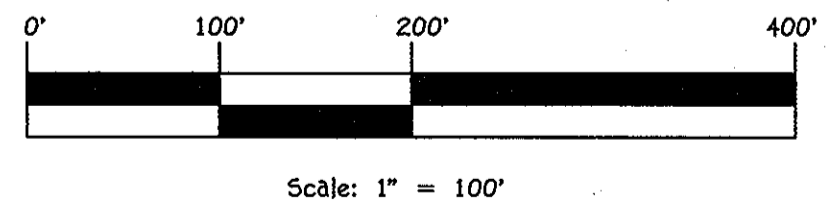
	Existing Contour 2' interval
	Existing Contour 10' interval
	Proposed Contour 2' interval
	Proposed Contour 10' interval
	Proposed Concrete Sidewalk
	Existing Tree Line
	Proposed Tree Line
	Ex. Water
	Limit of Disturbance
	Drainage Area
	Super Silt Fence
	Proposed Trees



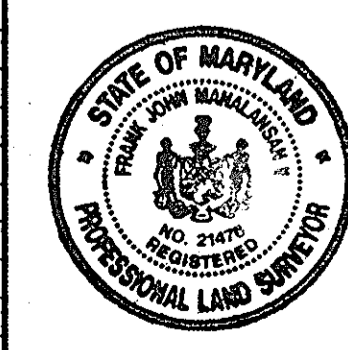
**PLAN**  
 SCALE: 1" = 30'



**PLAN**  
 SCALE: 1" = 100'



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2000



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*Frank John Rowlandson IV* 3-29-12  
 FRANK JOHN ROWLANDSON IV DATE

**OWNERS**  
 COLUMBIA MEMORIAL PARK LLC  
 C/O JESSE WALKER  
 4111 PENNSYLVANIA AVE.  
 SUTHLAND MARYLAND, 20904  
 240-447-7525

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Kurt Shalinski* 4-10-12  
 Chief, Division of Land Development Date

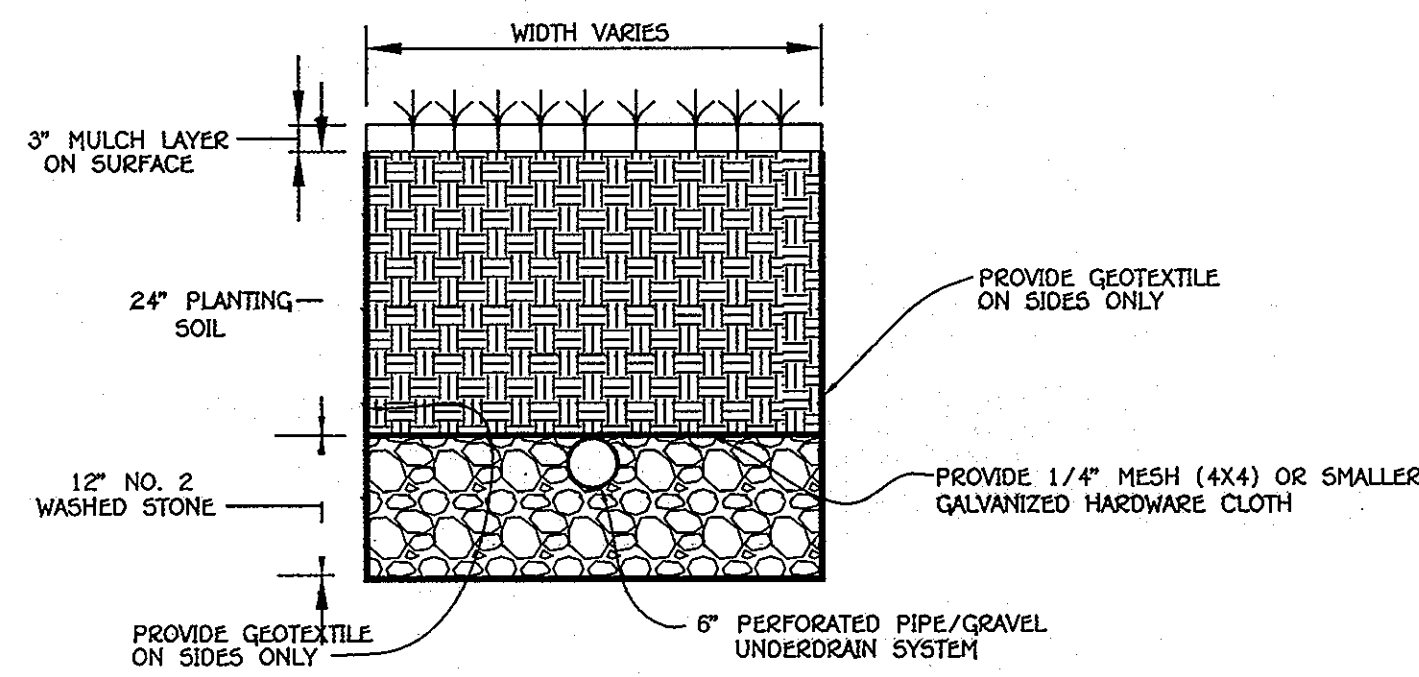
*Michael D. Williams* 4/12/12  
 Chief, Development Engineering Division Date

SUBDIVISION	SECTION/AREA	LOT NO.
COLUMBIA CEMETERY SITE	SECTION 1 AREA 2	3

PLAT NO.	PARCEL NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
11185/5499	371	NT	29	5th	

ENVIRONMENTAL CONCEPT PLAN  
**COLUMBIA MEMORIAL PARK**  
 CEMETERY SITE  
 SECTION 1 AREA 1 LOT 1  
 SECTION 1 AREA 2 LOT 3  
 TAX MAP No.: 29 GRID No.: 19 PARCEL No.: 371  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: MARCH 28, 2012  
 SHEET 2 OF 3 **ECP-12-027**





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

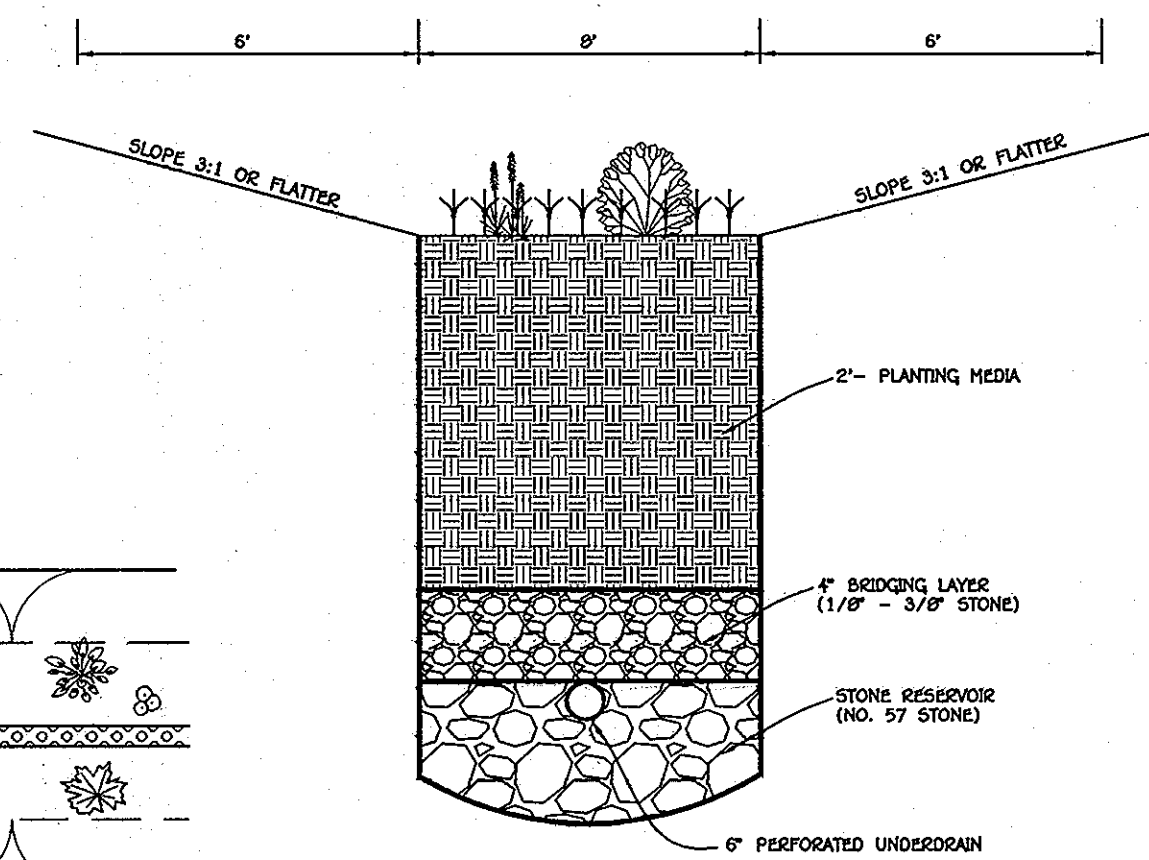
NO SCALE

**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.

**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
	Exc. Water
	Limit of Disturbance
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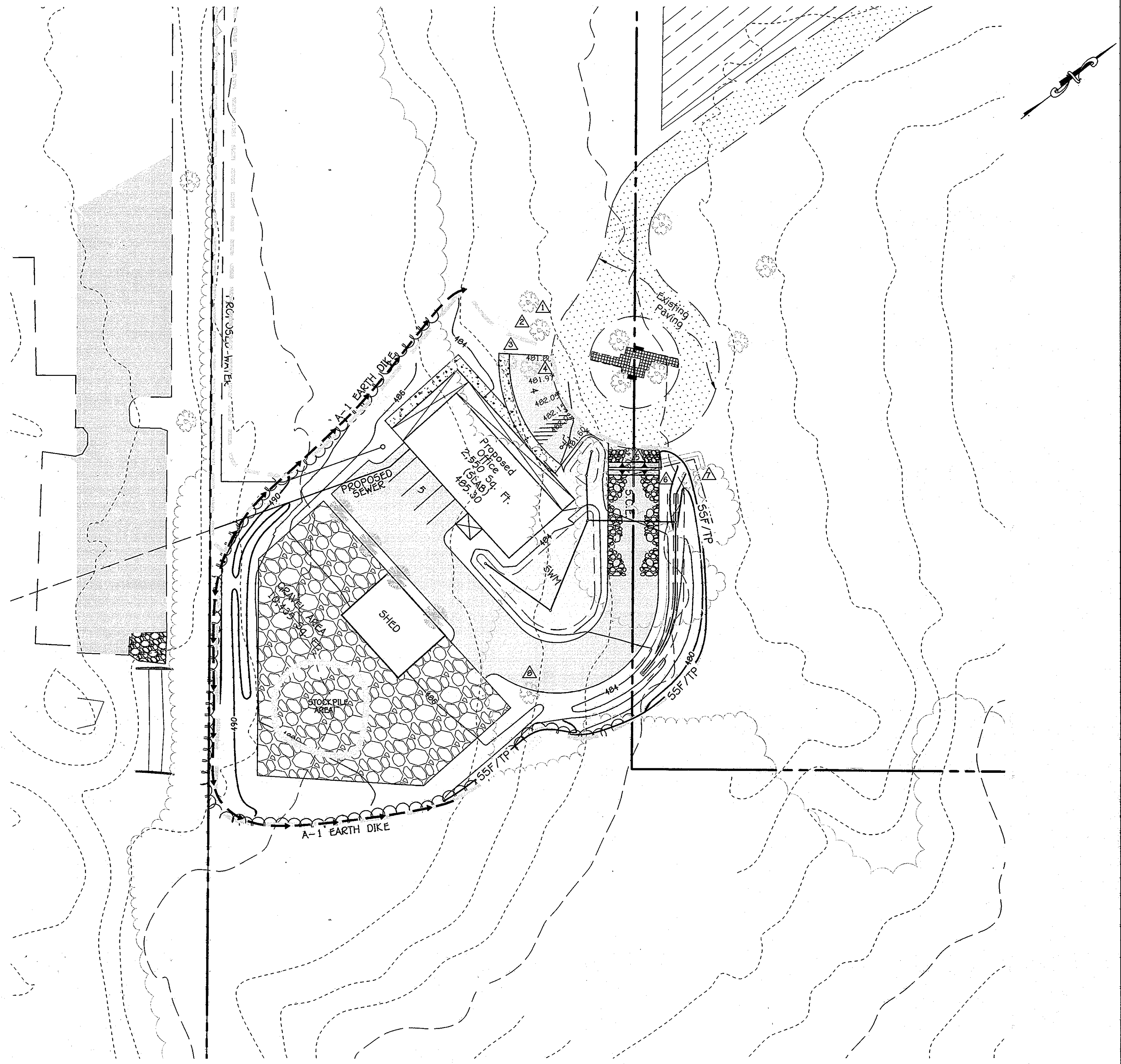


BIO-SWALE (M-8)

NO SCALE

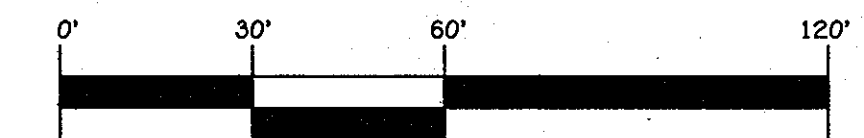
**OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION SWALES (M-8)**

- a. The Owner shall maintain the plant material, mulch layer and soil layer annually. 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. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume 3, Table A.4.1 and 2.
- b. The Owner shall perform a plant in the spring and in the fall of each year. During the inspection, the Owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material, treat diseased trees and shrubs, and replace all deficient stakes and wires.
- c. The Owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied.
- d. The Owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.



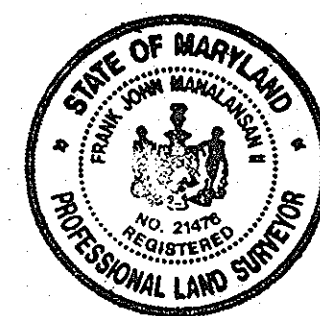
PLAN

SCALE: 1" = 30'



Scale: 1" = 30'

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*Frank John Manna* 3-29-12  
FRANK JOHN MANNA/NSAN II DATE

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*Kat Shalinski* 4-10-12  
Chief, Division of Land Development Date

*John Dammann* 4/12/12  
Chief, Development Engineering Division Date

SUBDIVISION		SECTION/AREA		LOT NO.
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PLAT NO.	PARCEL NO.	ZONE	TAX MAP	ELEC. DIST.
11105/5189	371	NT	29	5th

**PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN AND DETAILS**

**COLUMBIA MEMORIAL PARK CEMETERY SITE**  
SECTION 1 AREA 1 LOT 1  
SECTION 1 AREA 2 LOT 3

TAX MAP No.: 29 GRID No.: 19 PARCEL No.: 371  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: MARCH 28, 2012

DATE	DESCRIPTION