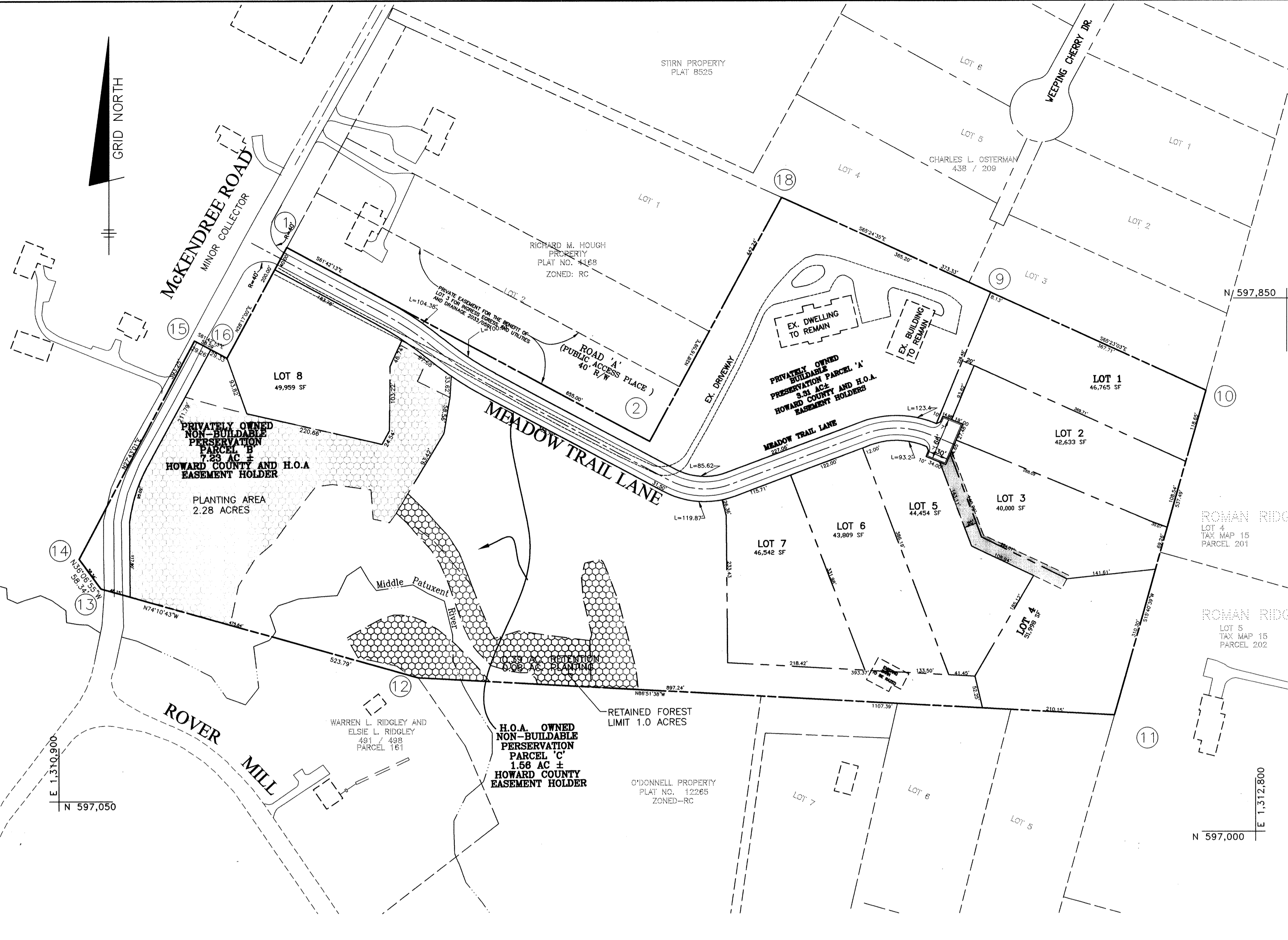


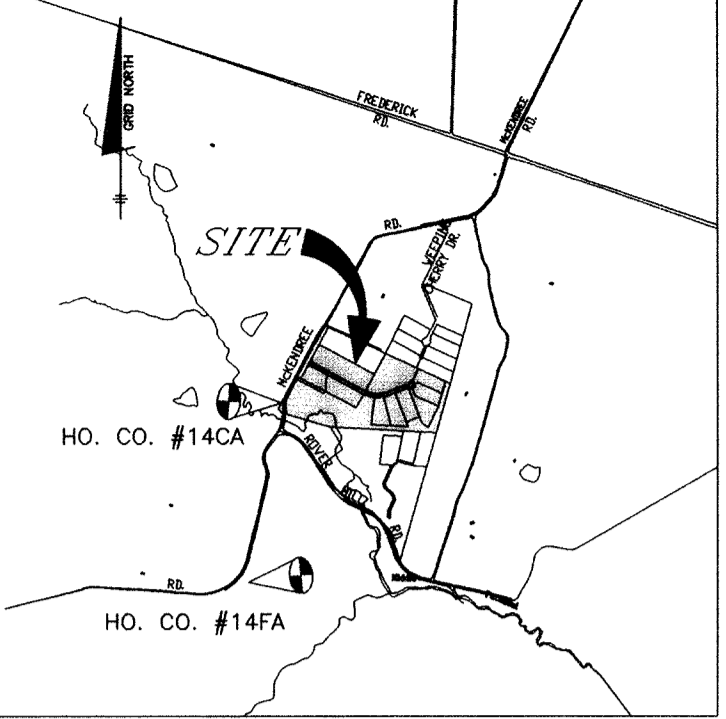
GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY IS BASED ON A FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING INC. IN MAY, 2005 AND SUPPLEMENTED WITH DIGITAL GIS TOPOGRAPHY PURCHASED FROM HOWARD COUNTY.
- 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. 14FA AND 14CA WERE USED FOR THIS PROJECT.
- WATER IS PRIVATE.
- SEWER IS PRIVATE.
- STORMWATER MANAGEMENT SHALL BE PROVIDED BY A MICRO-POOL EXTENDED DETENTION FACILITY. THE FACILITY IS PRIVATELY OWNED AND JOINTLY MAINTAINED BY THE H.O.A. AND HOWARD COUNTY.
- EXISTING UTILITIES ARE BASED UPON FIELD SURVEY LOCATIONS.
- THE FLOODPLAIN STUDY FOR THE CHANNEL ON-SITE WAS PREPARED BY BENCHMARK ENGINEERING, INC. DATED JULY 2005. THIS FLOODPLAIN SHOWN ALONG THE MIDDLE PATUXENT RIVER WAS TAKEN FROM THE MIDDLE PATUXENT RIVER FLOODPLAIN STUDY CAPITAL PRODUCT NO. D-1028.
- THE WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONAL, INC. DATED AUGUST 2005.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, INC. DATED JUNE 2005.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLS-CRAINES ENGINEERING DATED AUGUST 2005.
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2-2-04 COMPREHENSIVE ZONING PLAN.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THIS SITE.
- THERE SHALL BE NO DISTURBANCE WITHIN THE 100-YR FLOODPLAIN, WETLANDS, STREAMS, THEIR BUFFERS OR STEEP SLOPES THAT ARE AT LEAST 20,000 S.F. UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- BOUNDARY IS BASED ON A FIELD RUN MONUMENT BOUNDARY SURVEY PERFORMED DURING MAY, 2005 BY BENCHMARK ENGINEERING, INC.
- FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED AUGUST 2005.
- THIS PROJECT IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
- THE STORMWATER MANAGEMENT SYSTEM SHOWN ON THIS PLAN IS AN APPROXIMATION OF THE SIZE, SHAPE AND LOCATION. IT IS UNDERSTOOD THAT THIS SYSTEM HAS NOT BEEN DESIGNED AND THE ACTUAL DESIGN MAY CHANGE ALTERING THE NUMBER OF UNITS ALLOCATED FOR THIS DEVELOPMENT.
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECONSTRUCTION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
- THE PURPOSE OF THE PRESERVATION PARCELS AND THE JUSTIFICATION FOR THE DESIGN OF THE CLUSTER SUBDIVISION IS AS FOLLOWS:
PRESERVATION PARCEL 'A' IS PROPOSED AS A BUILDABLE PARCEL ONE (1) HOUSING ALLOCATION ALLOWING ONE (1) BUILDABLE UNIT SHALL BE UTILIZED. IT WILL BE PRIVATELY OWNED. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
PRESERVATION PARCEL 'B' IS PROPOSED AS A NON-BUILDABLE PARCEL IT WILL BE PRIVATELY OWNED AND WILL PRESERVE ENVIRONMENTALLY SENSITIVE AREAS INCLUDING STEEP SLOPES, STREAM BUFFERS, WETLANDS, FLOODPLAIN AND EXISTING FOREST. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
PRESERVATION PARCEL 'C' IS PROPOSED AS A NON-BUILDABLE PARCEL ITS SOLE PURPOSE IS TO ENCOMPASS THE STORMWATER MANAGEMENT FACILITY. THIS PARCEL IS TO BE OWNED BY THE HOMEOWNERS ASSOCIATION. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
- THE TOTAL FOREST CONSERVATION OBLIGATION SHALL BE MET BY ON-SITE RETENTION ON PARCEL 'B' IN THE AMOUNT OF 1.0 AC. AND REFORESTATION OF 2.3 AC.
- APPLICABLE DPZ FILE REFERENCE NUMBERS: WP-05-112, F-79-63, WP-06-042
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- WAIVER PETITION WP-05-112 WAS DENIED BY THE PLANNING DIRECTOR ON 5-28-05. THIS WAS A REQUEST TO WAIVE SECTION 16.115(d), 16.116(c)(4) AND 16.120(c)(2)
- LANDSCAPING AND STREET TREES FOR THIS SUBDIVISION WILL BE PROVIDED ON THE FINAL PLANS IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, NEW STRUCTURES AND PAVING IS PERMITTED WITHIN WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, 100-YEAR FLOODPLAIN AREA AND FOREST CONSERVATION EASEMENT
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO.40-45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL NO. 75-2003
- THE PRESERVATION PARCEL HAS NO FURTHER SUBDIVISION POTENTIAL.
- WAIVER PETITION WP-06-042 WAS APPROVED BY THE PLANNING DIRECTOR ON 1-20-06 TO WAIVE SECTION 16.120(c)(2) SUBJECT TO THE FOLLOWING CONDITIONS:
1) REMOVE THE 3-ACRE LOT FROM SP-06-006 AND SUBMIT A FINAL PLAN SHOWING THE NEW CONFIGURATION OF PARCEL 54 AND EXISTING LOT 3. AN ACCESS EASEMENT MUST BE RECORDED FOR THE NEW LOT CONTAINING THE EXISTING DWELLING. UPON RECORDED OF THE FINAL PLAN FOR SP-06-006 THIS ACCESS EASEMENT WILL BE ABANDONED AND FEE SIMPLE FRONTAGE MUST BE PROVIDED VIA THE NEW PUBLIC ROAD.
2) COMPLIANCE WITH THE SRC COMMENTS FOR SP-06-006
3) COMPLIANCE WITH THE SRC COMMENTS FOR THE FINAL PLAN
4) THE ACREAGE FROM THE 3- ACRE LOT MAY NOT BE USED IN CALCULATING THE YIELD FOR THE MAJOR SUBDIVISION (SP-06-006)



BENCHMARKS NAD'83 HORIZONTAL

HO. CO. #14FA STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE N 595829.611' E 1310622.17' ELEVATION: 560.299'
HO. CO. #14CA STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE N 597624.973' E 1311015.48' ELEVATION: 560.299'



SHEET INDEX

NO.	DESCRIPTION
1	PRELIMINARY PLAN TITLE SHEET
2	PRELIMINARY PLAN
3	PRELIMINARY GRADING, SEDIMENT AND EROSION CONTROL PLAN
4	PRELIMINARY LANDSCAPE PLAN
5	PRELIMINARY FOREST CONSERVATION PLAN
6	PERCOLATION CERTIFICATION PLAN

SITE ANALYSIS DATA CHART

GENERAL SITE DATA

- PRESENT ZONING: RC-DEO
- APPLICABLE DPZ FILE REFERENCES: WP-05-112, F-79-63
- PROPOSED USE OF SITE: RESIDENTIAL (SFD)
- PROPOSED WATER AND SEWER SYSTEMS: PRIVATE

AREA TABULATION

- GROSS TRACT AREA: 21.83 AC.±
- AREA WITHIN 100-YEAR FLOODPLAIN: 2.64 AC.±
- TOTAL AREA OF 25% OR GREATER STEEP SLOPES: 0.00 AC.±
AREA NOT IN FLOODPLAIN (FOR NTA CALC): 0.00 AC.±
- NET TRACT AREA: 19.19 AC.±
- TOTAL NUMBER OF LOTS ALLOWED PER ZONING:
1 UNIT PER 4.25 GROSS ACRES = 5
1 UNIT PER 2 NET ACRES (MAX) = 9
- TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION: 9
- AREA OF CLUSTER LOTS: 8.40 AC.± (1 AC.±)
- AREA OF NON-BUILDABLE PRESERVATION PARCELS: 8.79 AC.± PARCEL 'B' AND 'C'
- AREA OF BUILDABLE PRESERVATION PARCELS: 3.31 AC.± PARCEL 'A'
- AREA OF NON-BUILDABLE SWM PARCEL: N/A
- AREA OF NON-BUILDABLE BULK PARCELS: N/A
- AREA OF BUILDABLE BULK PARCELS: N/A
- AREA OF ROAD RIGHT-OF-WAY: 1.33 AC.±
- OPEN SPACE ON-TOTAL SITE: N/A
- AREA OF RECREATIONAL OPEN SPACE REQUIRED: N/A

PLAN VIEW
SCALE: 1" = 100'

COORDINATE CHART (NAD '83)

No.	BOUNDARY COORDINATES	
	NORTH	EAST
1	N 597,932.89	E 1,311,261.65
2	N 597,622.40	E 1,311,838.38
3	N 597,856.42	E 1,312,387.37
4	N 597,703.33	E 1,312,721.70
5	N 597,185.83	E 1,312,576.45
6	N 597,246.48	E 1,311,470.73
7	N 597,389.29	E 1,310,966.78
8	N 597,436.42	E 1,310,932.39
9	N 597,784.55	E 1,311,115.29
10	N 597,756.77	E 1,311,166.88
11	N 598,011.85	E 1,312,047.93

STORMWATER MANAGEMENT GENERAL STORAGE REQUIREMENT SUMMARY TABLES

DRAINAGE AREA - A		
REQUIREMENT	VOLUME REQUIRED	NOTES
WATER QUALITY VOLUME (WQV)	0.40cc-ft (17,807cf)	PROVIDED IN THE EXTENDED DETENTION FACILITY
RECHARGE VOLUME (REV)	1.11ccm (46,38cft)	PROVIDED IN THE ROADSIDE SWALES
CHANNEL PROTECTION VOL. (CPV)	0.53cc-ft (22,83cft)	PROVIDED IN THE EXTENDED DETENTION FACILITY

DRAINAGE AREA - B		
REQUIREMENT	VOLUME REQUIRED	NOTES
WATER QUALITY VOLUME (WQV)	0.0174cc-ft (798cf)	PROVIDED IN THE EXTENDED DETENTION FACILITY
RECHARGE VOLUME (REV)	0.04ccm (16cft)	PROVIDED IN THE ROADSIDE SWALES
CHANNEL PROTECTION VOL. (CPV)	N/A	PROVIDED IN THE EXTENDED DETENTION FACILITY

DRAINAGE AREA - C		
REQUIREMENT	VOLUME REQUIRED	NOTES
WATER QUALITY VOLUME (WQV)	0.0132cc-ft (531cf)	PROVIDED IN THE EXTENDED DETENTION FACILITY
RECHARGE VOLUME (REV)	0.03ccm (12cft)	PROVIDED IN THE ROADSIDE SWALES
CHANNEL PROTECTION VOL. (CPV)	N/A	PROVIDED IN THE EXTENDED DETENTION FACILITY

NON-STRUCTURAL GROUND WATER RECHARGE PROVISIONS SUMMARY TABLE

AREA	METHOD	REV (PROVIDED)	REV (REQUIRED)
'A'	GRASSED SWALES	2.19 AC.	1.18 AC.

NOTE: GROUND WATER RECHARGE VOLUME FULLY ADDRESSED WITH THE GRASSED SWALES.

SWM FACILITY SUMMARY

FACILITY	TYPE	STORAGE VOLUME/ELEVATIONS	
		WQV	CPV
SWM #1	MICRO-POOL EXTENDED DETENTION	0.40 AC-FT	0.53 AC-FT
CPV ELEVATION TOTAL PROVIDED		512.3 AC-FT	513.7 AC-FT

CPV and WQV ARE ADDRESSED FULLY WITHIN SWM FACILITY #1

DENSITY EXCHANGE CHART

GROSS AREA	21.83 AC.±
100-YEAR FLOODPLAIN AREA & STEEP SLOPES	2.64 AC.±
NET TRACT AREA	19.19 AC.±
DWELLING UNITS ALLOWED (as matter of right)	21.83 AC.± @ 1 DU per 4.25 GROSS ACRES = 5
MAXIMUM DWELLING UNITS ALLOWED W/ DEO's	19.19 AC.± @ 1 DU per 2.00 NET ACRES = 9
PROPOSED DWELLING UNITS	9
NUMBER OF DEO UNITS TO BE RECEIVED	9 - 5 (base density) = 4

SENDING PARCEL INFORMATION: DEO # PROPERTY OF GRID TAX MAP PARCEL L. F.

CURVE TABLE

STREET NAME	STATION	RADIUS	ARC	DELTA	TANGENT	COURSE
MEADOW TRAIL LANE	2+36.61 TO 3+36.97	500	100.4	11°30'01"	50.35	N55°58'32"W 100.19
MEADOW TRAIL LANE	3+36.77 TO 4+29.94	500	102.9	11°46'54"	51.67	S56°07'14"E 102.78
MEADOW TRAIL LANE	7+46.19 TO 8+47.94	120	102.8	49°03'54"	54.76	S88°14'01"E 99.64
MEADOW TRAIL LANE	10+96 TO 12+00.70	140	105.7	43°15'25"	55.91	N89°08'05"W 103.20

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Mark A. Coyle 7/12/06
PLANNING DIRECTOR DATE

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Walden 7/6/06
HOWARD COUNTY HEALTH OFFICER DATE

1-YEAR STORM SUMMARY TABLE

DRAINAGE AREA	EXISTING	PROPOSED W/DEO SWM	NOTES
A	4.54 CFS	8.50 CFS	DEVELOPED DISCHARGE SHALL BE EQUAL TO OR GRESS THAN EXISTING DISCHARGE IF IT WILL BE ACHIEVED BY IMPROVING THE FACILITIES AT THE EXISTING DISCHARGE.
B	0.18 CFS	0.08 CFS	DEVELOPED DISCHARGE IS LESS THAN EXISTING DISCHARGE.
C	0.04 CFS	0.04 CFS	DEVELOPED DISCHARGE IS EQUAL TO EXISTING DISCHARGE.

* SWM WILL BE DESIGNED TO MAINTAIN THE DEVELOPED DISCHARGE AT OR BELOW THE EXISTING DISCHARGE FOR THE SITE.

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

Donald Moore 7/6/06

OWNER: C. EDGAR PUGH, JR.
2289 MCKENDREE ROAD
WEST FRIENDSHIP, MD 21794

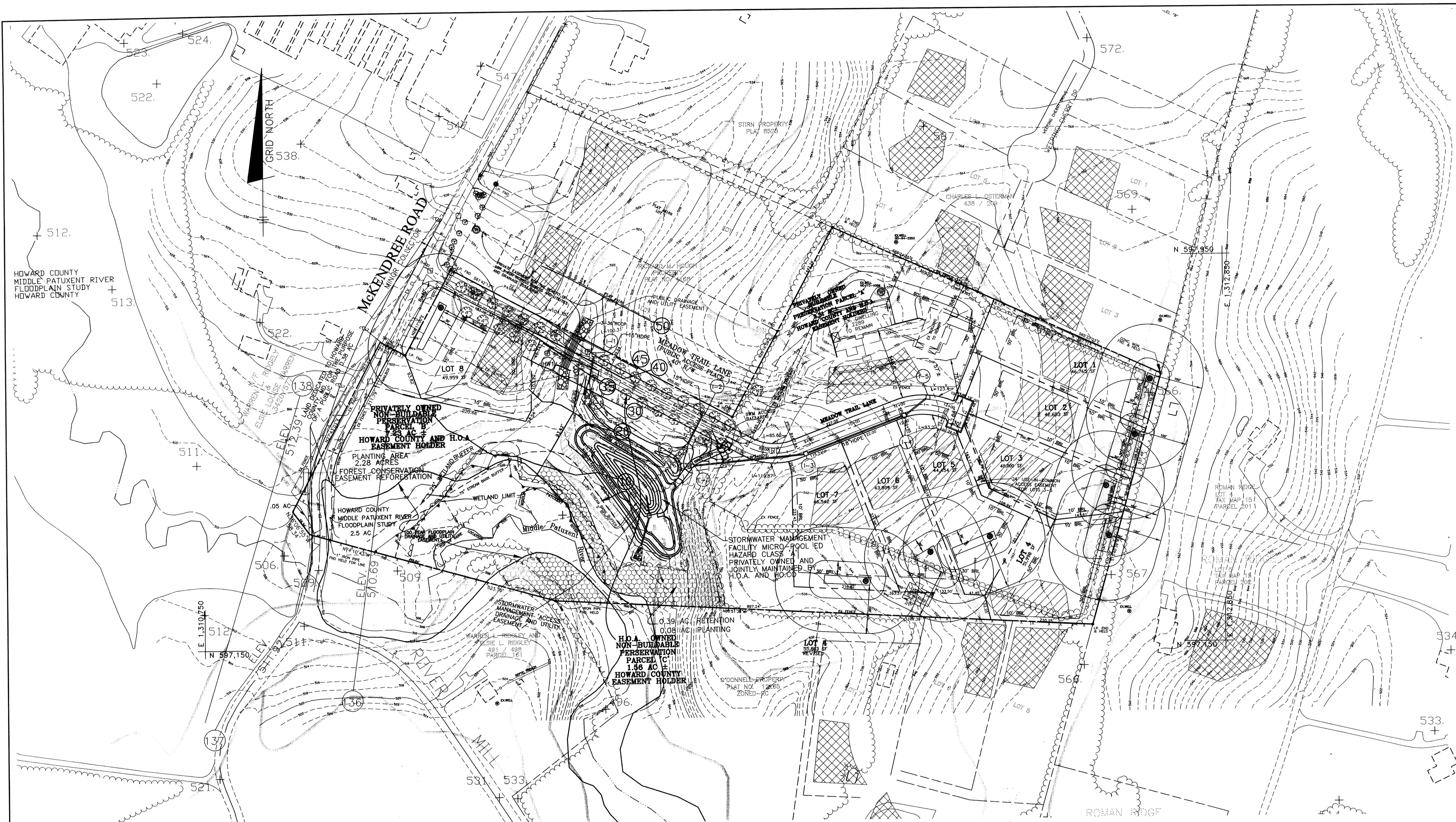
PROJECT: **McKENDREE VIEW**
LOTS 1-8 AND BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PARCEL 'B' AND 'C'

LOCATION: TAX MAP NO. 14-15 - PARCEL 54
GRIDS - 6,12 AND 1,7
3rd AND 4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **PRELIMINARY EQUIVALENT SKETCH PLAN TITLE SHEET**

DATE: JULY 2006 PROJECT NO. 1777
JUNE, 2006

DESIGN: MAN DRAFT: MAN/EDD CHECK: DAM SCALE: AS SHOWN DRAWING 1 OF 6



LEGEND

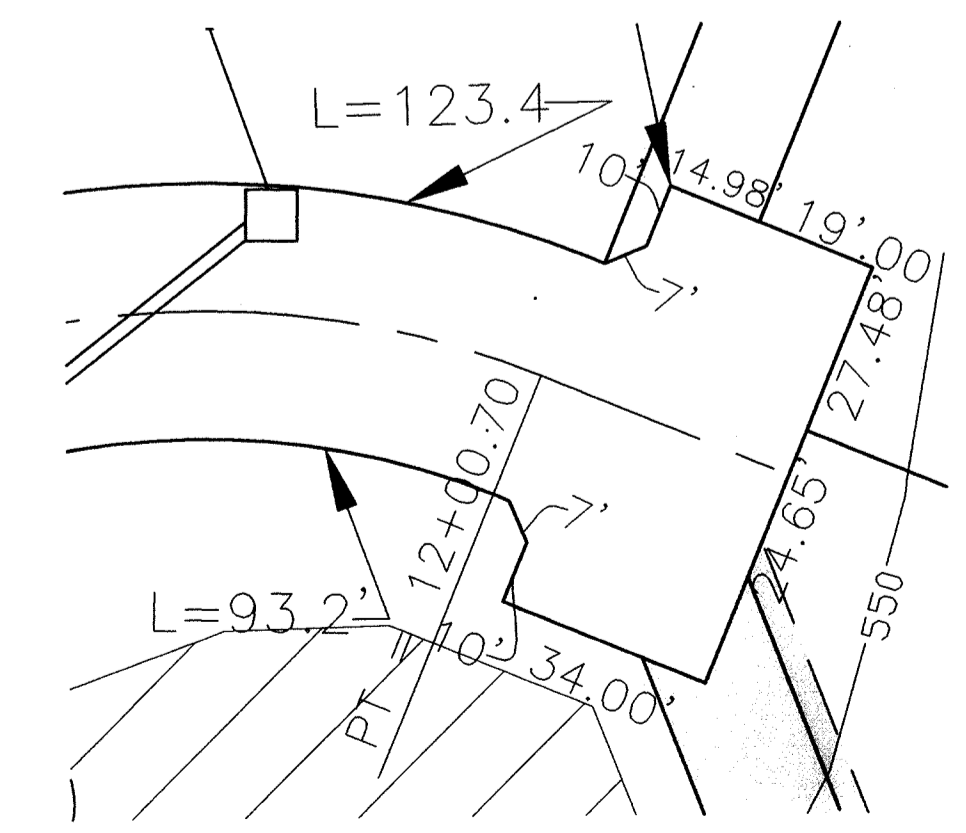
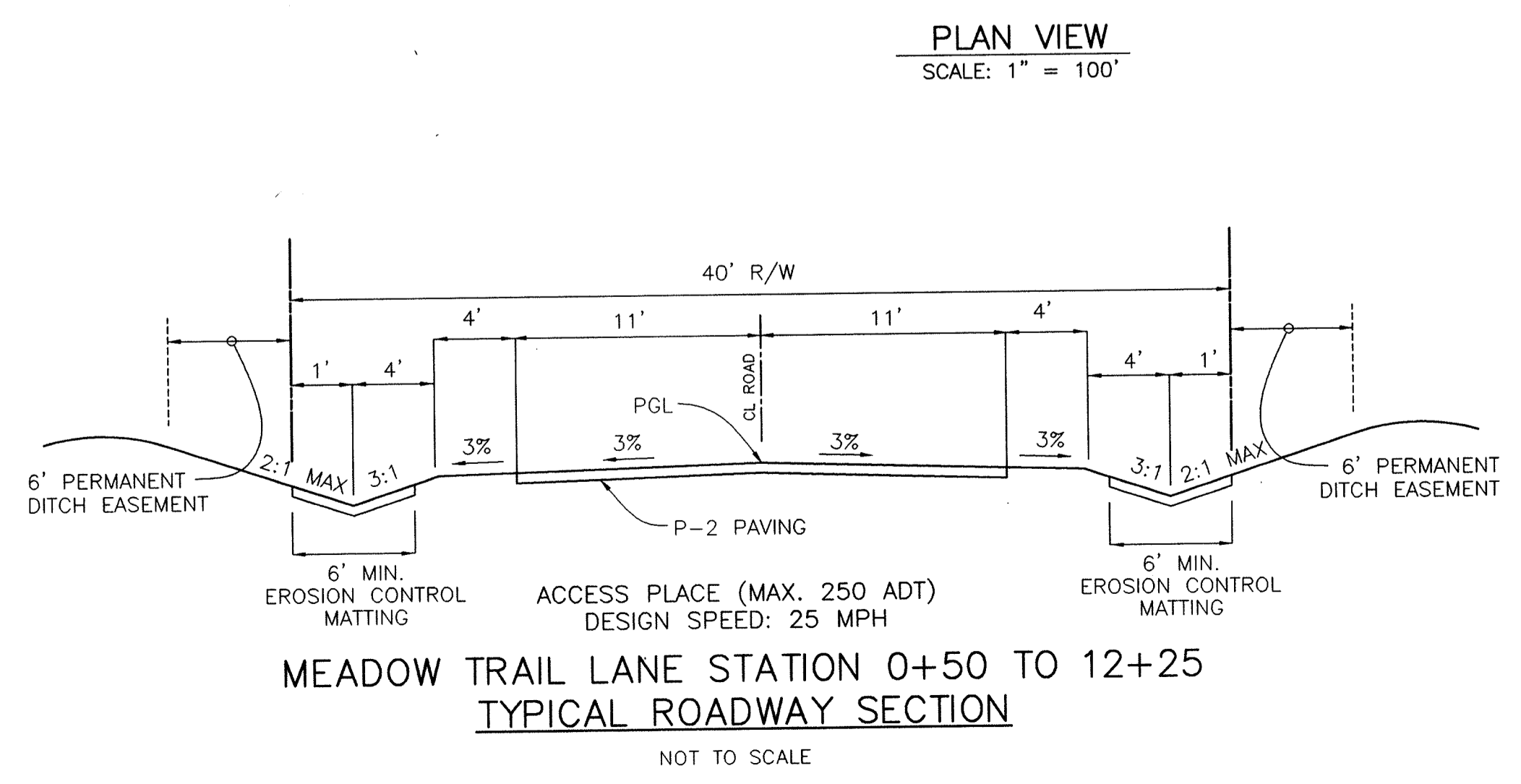
- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS (AERIAL 12/02)
- PROPOSED CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- EXISTING WELL
- PROPOSED WELL
- EXISTING SEPTIC FIELD
- PROPOSED SEPTIC FIELD
- 1500 S.F. WELL ENVELOP
- SLOPES 15% TO 24.9%
- SLOPES 25% OR GREATER
- EX. 100 YEAR FLOODPLAIN (B.E.L. 3/03)
- EX. 100 YEAR FLOODPLAIN
- FOREST CONSERVATION EASEMENT

HOWARD COUNTY
MIDDLE PATUXENT RIVER
FLOODPLAIN STUDY
HOWARD COUNTY

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Mark K. Lytle
PLANNING DIRECTOR

7/12/06
DATE



PLAN VIEW
SCALE: 1" = 30'

MINIMUM LOT SIZE CHART

LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
1	48,765	1,943	44,822
4	51,998	4,693	47,305

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Wells
for HOWARD COUNTY HEALTH OFFICER

7/6/06
DATE

NO.	DATE	REVISION

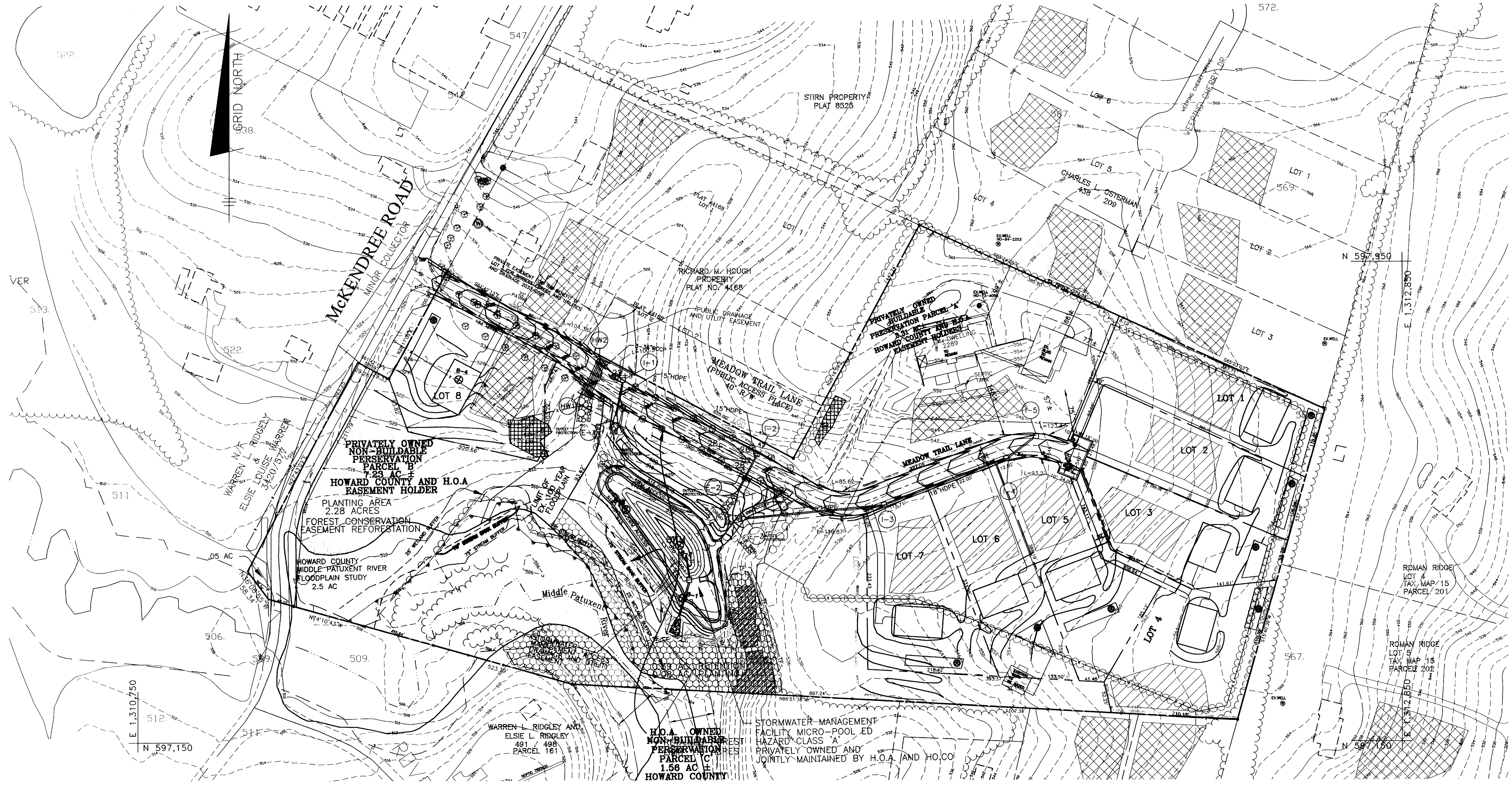
BENCHMARK

ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

OWNER: C. EDGAR PUGH, JR. 2289 McKENDREE ROAD WEST FRIENDSHIP, MD 21794	PROJECT: McKENDREE VIEW LOTS 1-8 AND BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PARCEL 'B' AND 'C'
TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN	LOCATION: TAX MAP NO. 14-15 - PARCEL 54 GRIDS - 8,12 AND 17 3rd AND 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: JULY, 2005 JUNE, 2006	PROJECT NO.: 1777
DESIGN: MAN DRAFT: MAN/EDD CHECK: DAM	SCALE: AS SHOWN DRAWING 2 OF 6



PLAN VIEW
SCALE: 1" = 100'

LEGEND

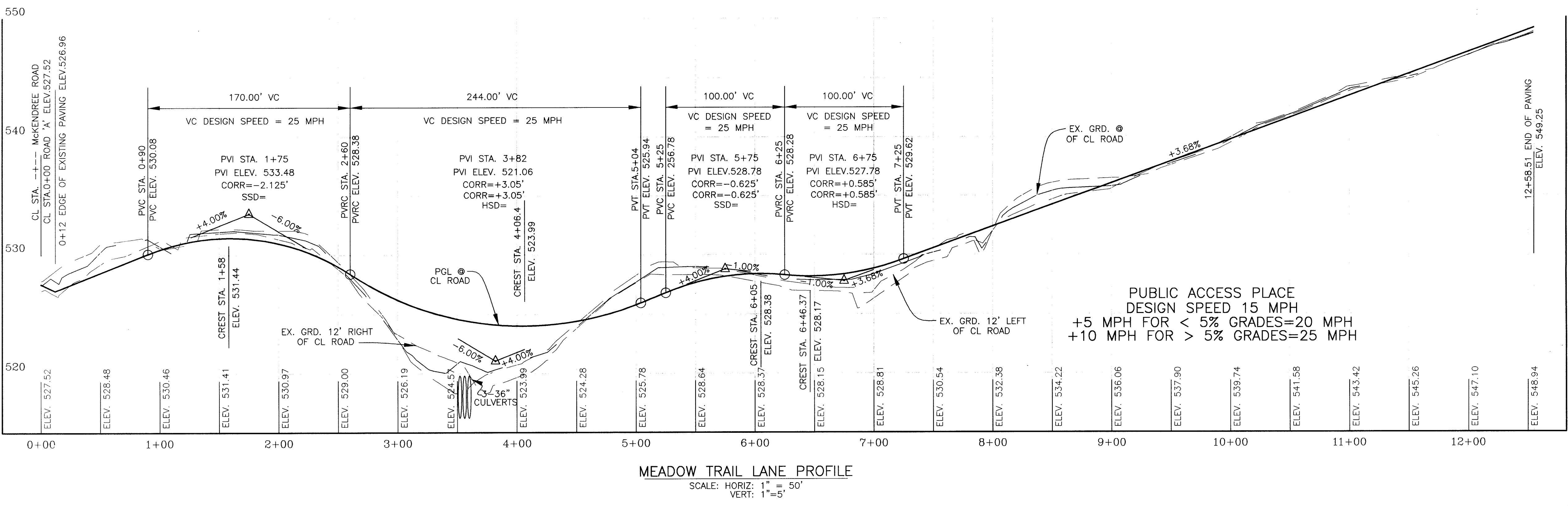
- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS (AERIAL 12/02)
- PROPOSED CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- EXISTING WELL
- PROPOSED WELL
- EXISTING SEPTIC FIELD
- PROPOSED SEPTIC FIELD
- 1500 S.F. WELL ENVELOP
- SLOPES 15% TO 24.9%
- SLOPES 25% OR GREATER
- EX. 100 YEAR FLOODPLAIN (B.E.I. 3/03)
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION
- SILT FENCE
- SUPER SILT FENCE
- FOREST CONSERVATION EASEMENT
- TREE PROTECTION FENCE

POND W.S. ELEVATIONS

WQV	ELEVATION
WQV	512.3
CPV	513.7
100YR	514.1

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Mark L. Layle 7/6/06
PLANNING DIRECTOR DATE



MEADOW TRAIL LANE PROFILE
SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'

PUBLIC ACCESS PLACE
DESIGN SPEED 15 MPH
+5 MPH FOR < 5% GRADES=20 MPH
+10 MPH FOR > 5% GRADES=25 MPH

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

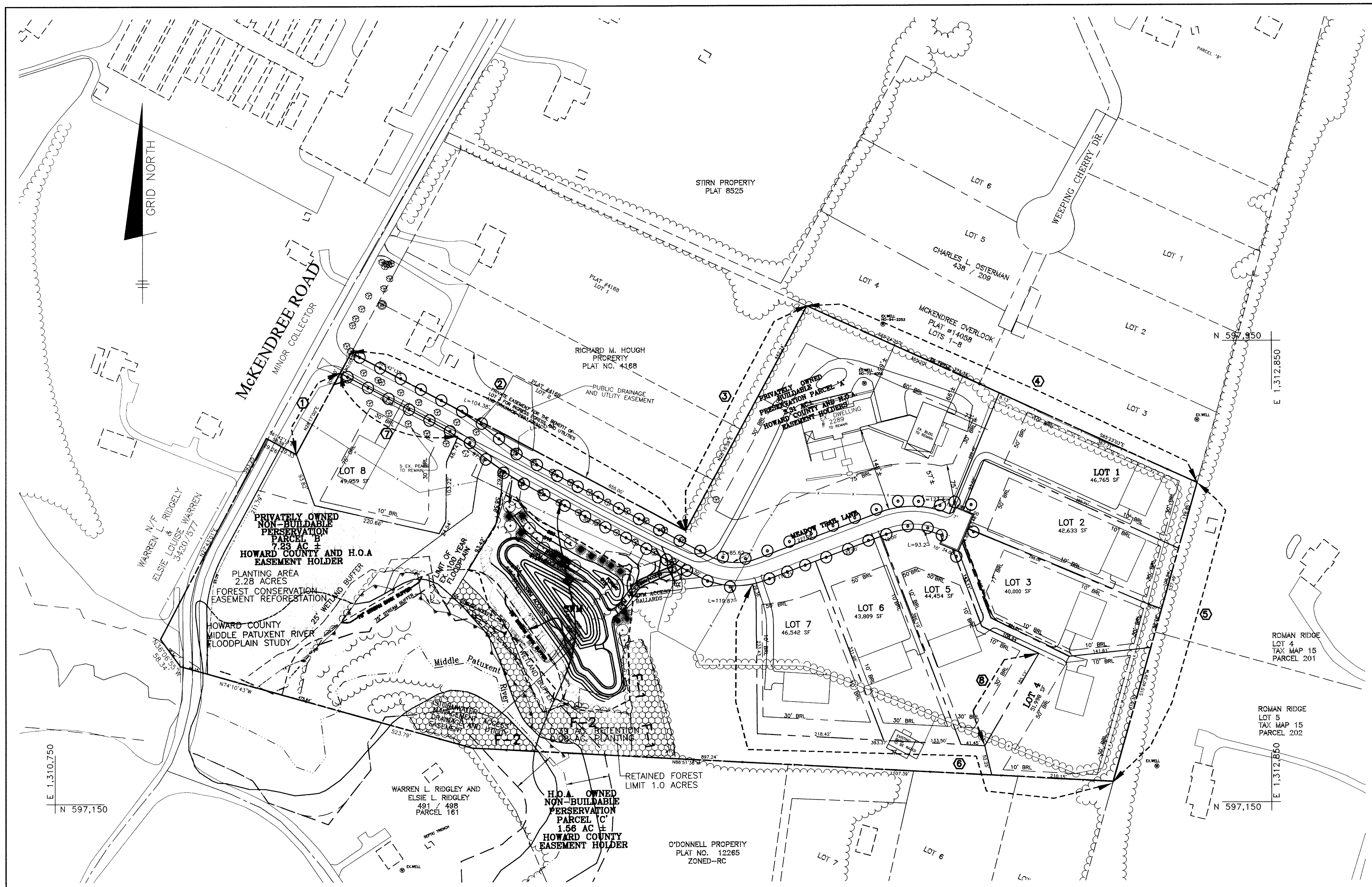
Robert J. Welch 7/6/06
for HOWARD COUNTY HEALTH OFFICER DATE

NO.	DATE	REVISION

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 211043
PHONE: 410-465-6105 FAX: 410-465-6644

OWNER: C. EDGAR PUGH, JR. 2289 MCKENDREE ROAD WEST FRIENDSHIP, MD 21794	PROJECT: MCKENDREE VIEW LOTS 1-8 AND BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PARCEL 'B' AND 'C'
LOCATION: TAX MAP NO. 14-15 - PARCEL 54 GRIDS - 6.12 AND 1.7 3rd AND 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN GRADING, SEDIMENT AND EROSION CONTROL PLAN	
DATE: JULY, 2005 MAY, 2006	PROJECT NO. 1777
DESIGN: MAN	DRAFT: MAN/EDD
CHECK: DAM	SCALE: AS SHOWN
DRAWING 3 OF 6	



LEGEND

- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING STREAM
- LIMIT OF 100-YR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- LANDSCAPE PERIMETER DESIGNATION
- LANDSCAPE CREDIT PERIMETER
- STREET TREES
- NATURAL AREA CONSERVATION CREDIT EASEMENT
- FOREST CONSERVATION EASEMENT

PLAN VIEW
SCALE: 1" = 100'

APPROVED: FOR PRIVATE WATER AND SEWER SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Waler 7/6/06
COUNTY HEALTH OFFICER DATE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Joseph K. Loyall 7/13/06
PLANNING DIRECTOR DATE

CATEGORY	SCHEDULE A PERIMETER LANDSCAPE EDGE							
	ADJACENT TO ROADWAYS (1)	(2)	(3) A	(4) A	(5) A	(6) A	(7) B	(8) B
LANDSCAPE BUFFER TYPE								
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	135	655	442	741	537	915	135	185
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	241	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	YES 5 PEARS	NO
NUMBER OF PLANTS REQUIRED								
SHADE TREES	-	11	8	12	9	15	0	4
EVERGREEN TREES	-	-	-	-	-	-	6	5
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	-	-	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED								
SHADE TREES	-	11	8	12	9	15	0	4
EVERGREEN TREES	-	-	-	-	-	-	6	5
OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE)	-	-	-	-	-	-	-	-

(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)

* EXISTING VEGETATION TO REMAIN

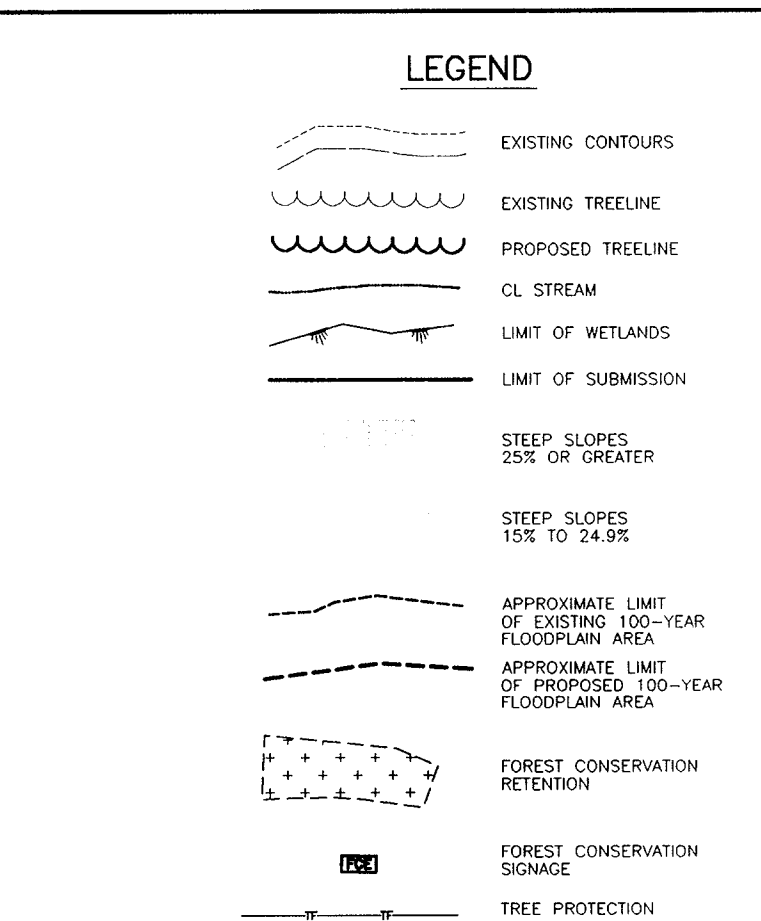
SCHEDULE D SWM AREA LANDSCAPING		FACILITY 1
LINEAR FEET OF PERIMETER		1,026'
LINEAR FEET OF EXISTING WOODS LINE		502'
BUFFER TYPE		75'
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	YES, 49%	
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	
NUMBER OF TREES REQUIRED		
SHADE TREES (1:50)		10
EVERGREEN TREES (1:40)		13
NUMBER OF TREES PROVIDED		
SHADE TREES		10
EVERGREEN TREES		13

STREET TREE SCHEDULE		
ROAD NAME	PERIMETER	TREES REQ.
ROAD A	2521'	63

THIS PLAN IS IN COMPLIANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

NO.		DATE		REVISION	
BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS ENGINEERING, INC. <small>8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6844</small>					
OWNER:			PROJECT:		
C. EDGAR PUGH, JR. 2289 MCKENDREE ROAD WEST FRIENDSHIP, MD 21794			McKENDREE VIEW LOTS 1-8 AND BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PARCEL 'B'		
LOCATION:			GRID - 6, 12 AND 1, 7 3rd AND 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN LANDSCAPE PLAN					
DATE:		PROJECT NO.		DRAWING	
JULY, 2005 JUNE, 2006		1777		4 OF 6	
DESIGN: MAN	DRAFT: MAN/EDD	CHECK: DAM	SCALE: AS SHOWN		





McKENDREE VIEW SITE DATA	
	ACRES
GROSS AREA:	21.83
EX. LOTS/UNFORESTED PRESERVATION	0.0
PARCEL/FLOODPLAIN:	0.0
NET TRACT AREA (NTA):	0.0
EXISTING FOREST ON NTA:	0.0
REFORESTATION THRESHOLD:	0.0
FOREST TO BE CLEARED:	0.0
FOREST TO BE RETAINED (NTA):	0.0
REFORESTATION REQUIRED:	0.0
REFORESTATION PROPOSED:	0.0

Forest Stand Data					
Key	Community Type	Acres	Dominant Vegetation	General Condition	Priority
F1	Successional	0.4	Prunus serotina, Quercus palustris, Quercus vitidis, Acer rubrum, Rosa multiflora	Good	0.2 +/- slopes
F2	Maple-Ash	0.7	Acer rubrum, Fraxinus pennsylvanica, Salix nigra, Nyssa sylvatica	Good	0.7 wetlands/buffers

See accompanying report for complete stand descriptions

FOREST CONSERVATION WORKSHEET

Version 1.0
Project: McKendree View
Date: August 22, 2005

NET TRACT AREA	Acres
A. Total tract area	21.83
B. Area within 100 Year Floodplain	2.64
C. Area of Buildable Preservation Parcel	3.31
D. Net Tract Area	15.88

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)		
AREA	MDR	IDR
E. Afforestation Threshold (percentage)	20%	3.2
F. Conservation Threshold (percentage)	25%	4.0

EXISTING FOREST COVER:	
G. Existing Forest Cover (excluding floodplain)	1.1
H. Area of forest above afforestation threshold	--
I. Area of forest above conservation threshold	--

BREAK EVEN POINT:	
J. Forest retention above threshold with no mitigation	--
K. Clearing permitted without mitigation	0

PROPOSED FOREST CLEARING	
L. Total area of forest to be Cleared or Retained Outside FCE	0.1
M. Total area of forest to be Retained in FCE	1.0

PLANTING REQUIREMENTS	
N. Reforestation for clearing above Conservation Threshold	2.1
P. Reforestation for clearing below Conservation Threshold	0.2
Q. Credit for retention above conservation threshold	0
R. Total reforestation required	0.2
S. Total afforestation required	2.1
T. Total reforestation and afforestation required	2.3

FSD NOTES:

- No rare, threatened or endangered species were observed on the property.
- Surrounding land use is primarily low density residential development and agriculture.

System A

Wetland Data			
WETLAND SYSTEM	COWARDIN CLASSIFICATION	DOMINANT VEGETATION	ACREAGE
A	PEM1A/PFO1A/RUB1	Acer rubrum, Fraxinus pennsylvanica, Salix nigra, Impatiens capensis, Symlocos sp. foetida, Boehmeria cylindrica, Clinacanthus nutans, Sambucus canadensis	2.5 +/-

Pasture Pasture Lawn F1 F2

PLANTING SCHEDULE

FCE PLANTING AREA - 2.3 acres
Planting units Required: 1610
Planting units Provided: 1611

Qty	Species	Size	Spacing	Total FCA Units
8	Acer rubrum - Red maple	1" cal	15' o.c.	
6	Liriodendron tulipifera - Tulip poplar **	1" cal	15' o.c.	
6	Platanus occidentalis - Sycamore	1" cal	15' o.c.	
6	Quercus alba - White oak **	1" cal	15' o.c.	
26				Total 1" caliper trees = 3.5 units above FCA unit credit
150	Acer rubrum - Red maple	2-3" whp	11' o.c.	
40	Diospyros virginiana - Persimmon **	2-3" whp	11' o.c.	
150	Liriodendron tulipifera - Tulip poplar **	2-3" whp	11' o.c.	
95	Nyssa sylvatica - Black gum	2-3" whp	11' o.c.	
75	Platanus occidentalis - Sycamore	2-3" whp	11' o.c.	
100	Prunus serotina - Black cherry **	2-3" whp	11' o.c.	
50	Quercus alba - White oak	2-3" whp	11' o.c.	
35	Ulmus rubra - Sluggery Elm	2-3" whp	11' o.c.	
65	Viburnum prunifolium - Blackhaw **	2-3" whp	11' o.c.	
700				Total white oaks = 2 units above FCA unit credit
				Total Unit Credit

PLAN VIEW
SCALE: 1" = 100'

FCP NOTES:

- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE, FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
- NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
- PERMANENT SIGNAGE SHALL BE PLACED 50-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT WILL BE MET THROUGH THE RETENTION OF 1.0 ACRE OF NET TRACT AREA FOREST, 2.1 ACRES OF ONSITE AFFORESTATION AND 0.2 ACRES OF ONSITE REFORESTATION.

FLOODPLAIN NOTE:

PORTIONS OF THE SITE OCCURRING WITHIN THE 100-YEAR FLOODPLAIN ARE NOT INCLUDED AS PART OF THE NET TRACT AREA OF THE SITE. AREAS OF FLOODPLAIN FOREST OCCURRING WITHIN THE LIMITS OF A FOREST CONSERVATION EASEMENT WILL BE PROTECTED BY THE EASEMENT RESTRICTIONS BUT HAVE NOT BEEN CREDITED TOWARD THE PROJECTS FCA OBLIGATIONS.

SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
Ba	D	BAILE SILT LOAM
CgB2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES MODERATELY ERODED
CgC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT MODERATELY ERODED
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT, MODERATELY REEDED
ChC2	B	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
EkB2	B	ELIOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EkC2	C	ELIOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIC2	B	GLENVILE SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
*GnA	C	GLENVILE SILT LOAM, 0 TO 3 PERCENT SLOPES
*GnB2	C	GLENVILE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Hd	D	HATBORO SILT LOAM
MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
MnF	B	MANOR VERY STONY LOAM, 25 TO 60 PERCENT SLOPES

* INDICATES HYDRIC SOILS
TAKEN FROM SOILS SURVEY, ISSUED JULY 1968, MAP NO. 7

PLANTING NOTES:

- PLANTING DENSITY BASED ON 700 PLANTING UNITS PER ACRE. 2" CALIPER TREES = 7 PLANTING UNITS, 1" CALIPER TREES = 3.5 PLANTING UNITS, WHIPS WITH SHELTER = 2 PLANTING UNITS.
- ** - THESE SPECIES SHOULD NOT BE PLANTED WITHIN THE WETLAND LIMITS.
- 1" CALIPER TREES SHOULD BE STAGGERED ALONG THE OUTER PERIMETER OF THE PLANTING AREA TO SERVE AS DEMARCATION OF THE BOUNDARY. THE TREES SHOULD BE NO CLOSER THAN 15 FOOT SPACING.
- PLANTING SHALL BE MADE IN A CURVILINEAR FASHION ALONG CONTOUR. THE PLANTING SHOULD AVOID A GRID APPEARANCE BUT SHOULD BE SPACED TO FACILITATE MAINTENANCE.
- MULTIFLORA ROSE/HEAVY BRUSH REMOVAL/CONTROL MAY BE REQUIRED PRIOR TO INSTALLATION OF PLANTING.
- ALL WHIPS ARE REQUIRED TO BE INSTALLED WITH TREE SHELTERS PER HOWARD COUNTY FCA REQUIREMENTS.

Forest Conservation Area

AFFORESTATION PROJECT

Trees for Your Future

SPECIMEN TREE

DO NOT REMOVE

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY FOREST CONSERVATION ACT OF 1992

FOREST RETENTION AREA

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY FOREST CONSERVATION ACT OF 1992

SIGNAGE
NOT TO SCALE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Mark A. Cagle 7/12/06
PLANNING DIRECTOR DATE

APPROVED: FOR PRIVATE WATER AND SEWER SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Wala 7/14/06
COUNTY HEALTH OFFICER DATE

Eco-Science Professionals, Inc.

CONSULTING ECOLOGISTS

P.O. Box 5006 Glen Arm, MD 21057 (410) 592-6752

MD DNR Qualified Professional
USA CO2 Wetland Delineator
Certification # WDCP93MD061004103

John P. Canoles

NO. DATE REVISION

BENCHMARK ENGINEERING, INC.

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PHONE: 410-465-6105 FAX: 410-465-6644

Robert J. Wala 7/13/06
PROFESSIONAL ENGINEER

OWNER: C. EDGAR PUGH, JR., 2289 MCKENDREE ROAD WEST FRIENDSHIP, MD 21794

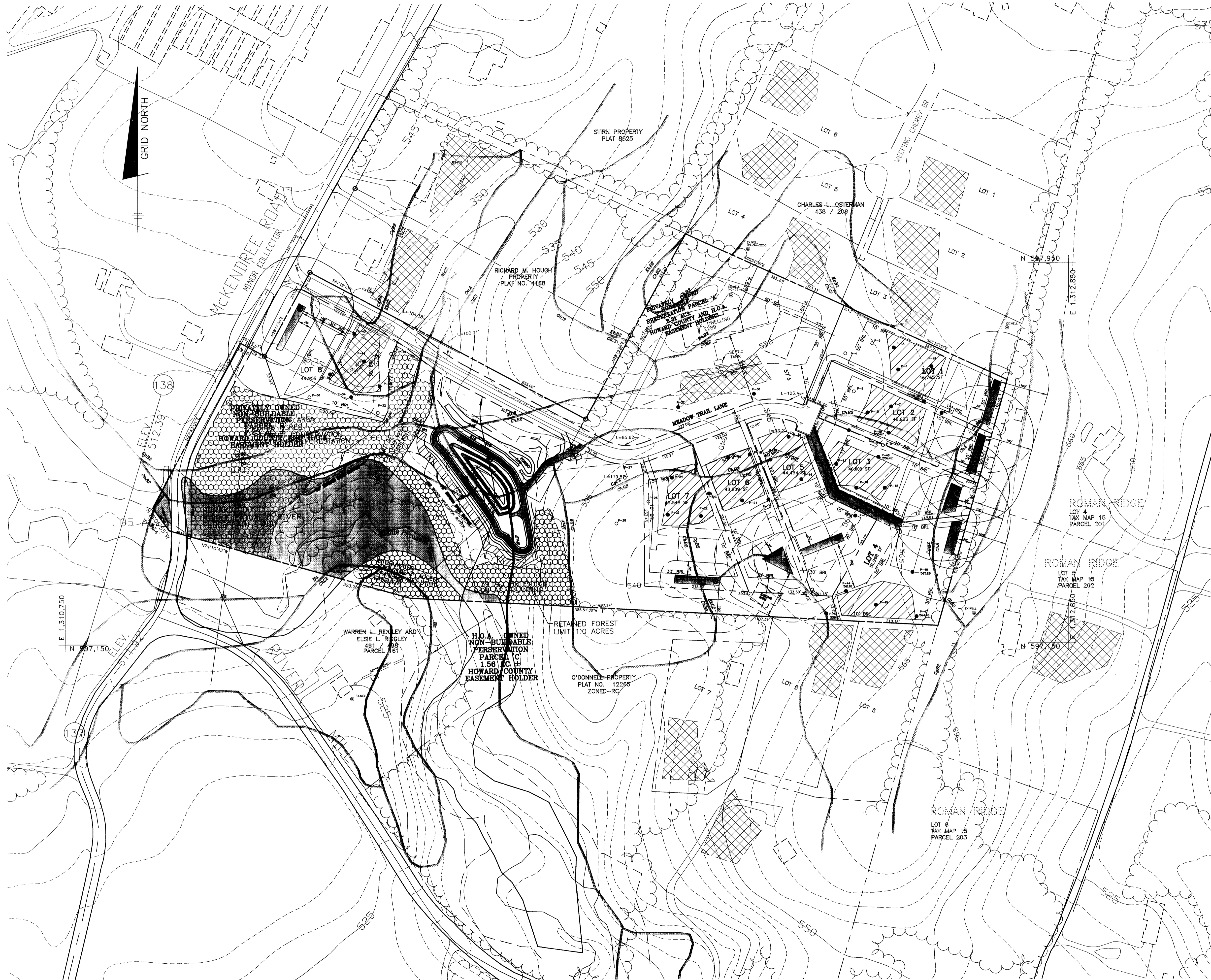
PROJECT: **MCKENDREE VIEW**
LOTS 1-8 AND BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PARCEL 'B' AND 'C'

LOCATION: TAX MAP NO. 14-15 - PARCEL 54
GRIDS - 6, 12 AND 1, 7
3rd AND 4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: PRELIMINARY FOREST CONSERVATION PLAN

DATE: JULY, 2005 PROJECT NO. 1777
JUNE, 2006

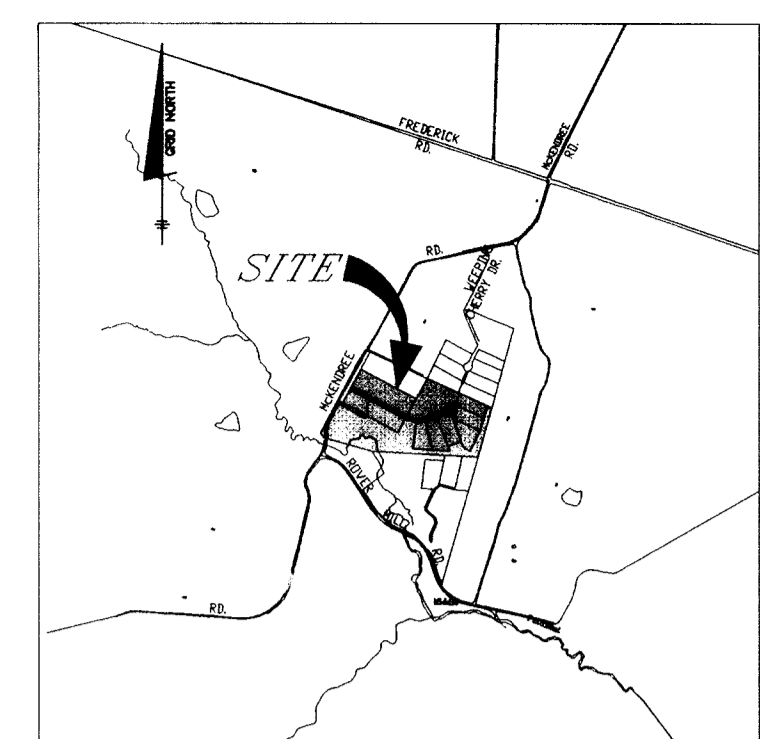
DESIGN: MAN DRAFT: MAN CHECK: DAM SCALE: AS SHOWN DRAWING 5 OF 6



PLAN VIEW
SCALE: 1" = 100'

LEGEND

SOILS CLASSIFICATION	CLAY
SOILS DELINEATION	CLAY
EXISTING CONTOURS (HOWARD COUNTY DIGITAL)	CLAY
LIMIT OF WETLANDS	CLAY
EXISTING WOODS LINE	CLAY
PROPOSED WOODS LINE	CLAY
EXISTING STRUCTURE	CLAY
PROPOSED STRUCTURE	CLAY
EXISTING WELL FIELD SHOT	CLAY
EXISTING SEPTIC FIELD	CLAY
PROPOSED SEPTIC FIELD	CLAY
FAILED PERCOLATION TEST	CLAY
PASSED PERCOLATION TEST	CLAY
PROPOSED WELL	CLAY
1500 S.F. WELL ZONE	CLAY



SITE VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES

- 1.) THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
- 3.) TOPOGRAPHY SHOWN HEREON IS BASED ON G.I.S. DIGITAL PURCHASED FROM HOWARD COUNTY.
- 4.) THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
- 5.) WELLS SHALL BE DRILLED PRIOR TO RECORD PLAT SUBMITTAL FOR SIGNATURE. IT IS THE DEVELOPER'S RESPONSIBILITY TO DRILL THE WELLS. IT WILL NOT BE CONSIDERED TO BE GOVERNMENTAL DELAY IF THE WELLS ARE NOT COMPLETED PRIOR TO THE SUBMISSION'S MILESTONE DATE.

TENTATIVELY APPROVED
DEPT. OF PLANNING AND ZONING OF
HOWARD COUNTY
Mark A. Walker 7/6/06
PLANNING DIRECTOR DATE

SOILS LEGEND

MAP SYMBOL	SOIL GROUP	SOIL TYPE
Ba	D	BAILE SILT LOAM
CgB2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES MODERATELY ERODED
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ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT, MODERATELY REEDED
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EkC2	C	ELIOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GhC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
*GhA	C	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
*GhB2	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Ho	D	HATBORO SILT LOAM
MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
MnF	B	MANOR VERY STONY LOAM, 25 TO 60 PERCENT SLOPES

* INDICATES HYDRIC SOILS
* TAKEN FROM SOILS SURVEY, ISSUED JULY 1968, MAP NO. 7

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF.

Donald Mason
DONALD MASON P.E. NO. 21443
PLAN PREPARER

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Walker 7/6/06
FOR HOWARD COUNTY HEALTH OFFICER R.J. DATE

NO.	DATE	REVISION

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Donald Mason 7/3/06

OWNER: C. EDGAR PUGH, JR. 2289 MCKENDREE ROAD WEST FRIENDSHIP, MD 21794	PROJECT: MCKENDREE VIEW LOTS 1-8 AND BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PARCEL 'B' AND 'C'
LOCATION: TAX MAP NO. 41-42 - PARCEL 54 GRIDS - 1, 6, AND 12 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: PERCOLATION CERTIFICATION PLAN
DATE: MAY 4, 2005 JUNE, 2006	PROJECT NO. 1777
Design: DAM Draft: MAN	SCALE: AS SHOWN DRAWING 6 OF 6