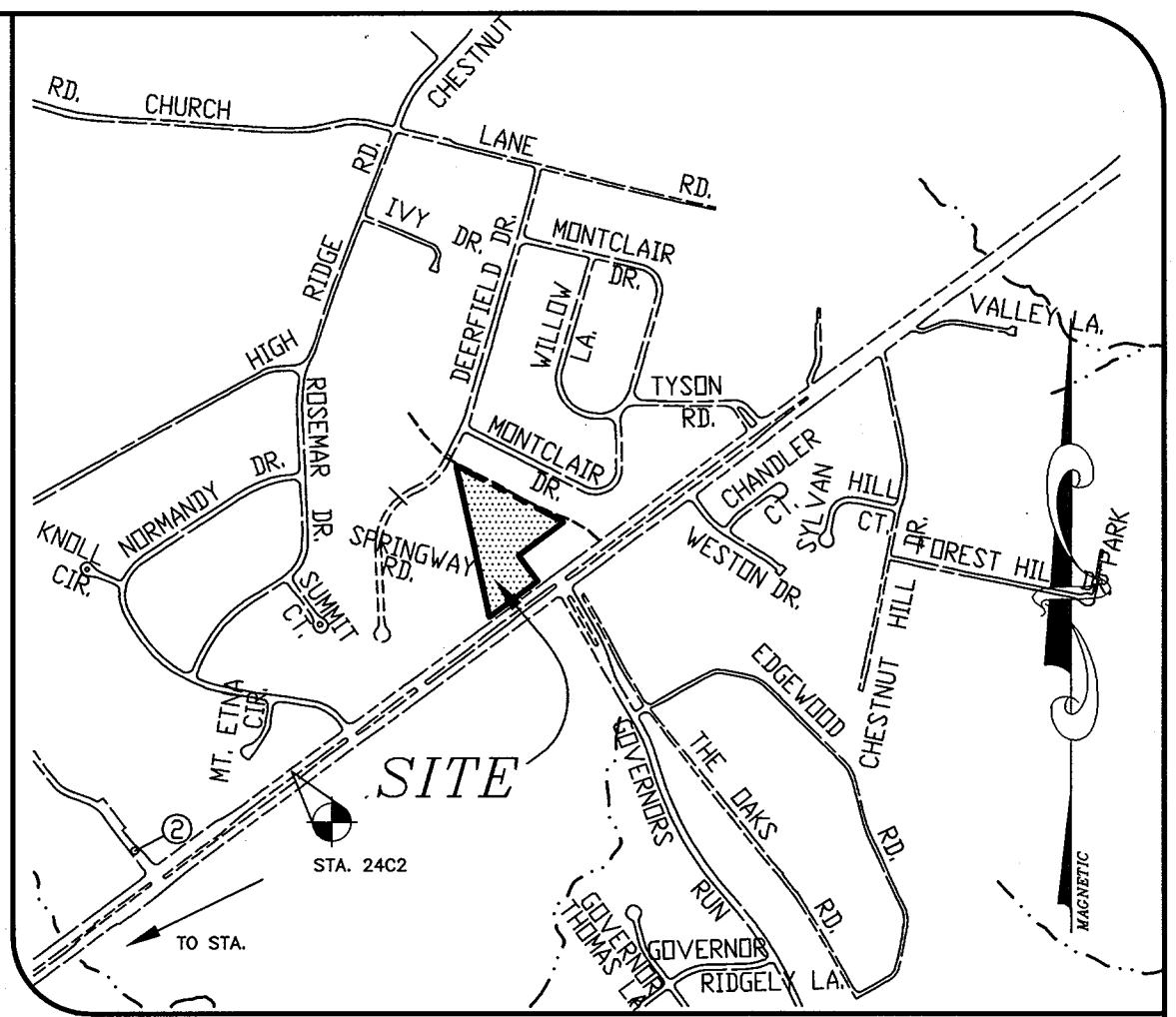


CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD
C1	162.00'	127.44'	67.22'	45°04'15"	N39°38'42"W 124.17'
C2	300.00'	57.25'	28.71'	10°56'04"	S22°34'36"E 57.17'

SHEET	TITLE
1	PRELIMINARY EQUIVALENT SKETCH PLAN
2	PRELIMINARY GRADING AND SEDIMENT CONTROL PLAN
2	PRELIMINARY LANDSCAPE AND FOREST CONSERVATION PLAN

**NOTE:**  
ALL PROPOSED STORMDRAIN IS 18" HDPE

LOT NO.	MINIMUM LOT AREA	PIPESTEM	TOTAL LOT AREA
1	12,158 sq.ft.	757 sq.ft.	12,915 sq.ft.
2	12,031 sq.ft.	1,187 sq.ft.	13,218 sq.ft.
3	12,180 sq.ft.	1,441 sq.ft.	13,621 sq.ft.
4	12,012 sq.ft.	1,689 sq.ft.	13,701 sq.ft.
5	12,002 sq.ft.	1,759 sq.ft.	13,761 sq.ft.
6	12,019 sq.ft.	1,922 sq.ft.	13,941 sq.ft.
7	13,450 sq.ft.	1,358 sq.ft.	14,818 sq.ft.
8	13,106 sq.ft.	979 sq.ft.	14,085 sq.ft.



**VICINITY MAP**  
SCALE: 1"=100'

**GENERAL NOTES:**

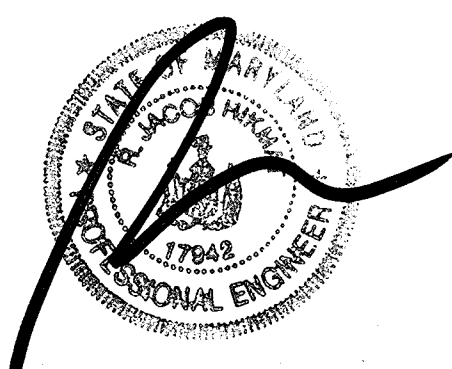
- SITE DATA:**
  - ZONING: TAX MAP 18, PARCEL 59, BLOCK 19, R-20 (ZONING MAP DATED OCTOBER 18, 1993)
  - DEED REFERENCE: 5899/492
  - GROSS AREA: 4.49 ACRES ±
  - AREA OF WETLANDS: 0.33 ACRES
  - MINIMUM LOT SIZE: 12,000 SQ. FT.
  - NUMBER OF ALLOWED BUILDABLE LOTS: 8
  - NUMBER OF PROPOSED BUILDABLE LOTS: 8
  - NUMBER OF OPEN SPACE LOTS: 2
  - AREA OF OPEN SPACE REQUIRED (40% X 4.49) = 1.80 AC.
  - AREA OF OPEN SPACE PROVIDED = 1.987 AC.
  - AREA OF NON CREDITED OPEN SPACE = 0.1398 AC.
  - AREA OF CREDITED OPEN SPACE = 1.827 AC.
- TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON A FIELD RUN SURVEY BY MILDENBERG BOENDER AND ASSOC. ON OR ABOUT SEP. 2001.
- BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1968, SHEET 5.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED.
- WETLAND STUDY PREPARED BY WILDMAN ENVIRONMENTAL SERVICES, INC. IN JAN. 2002.
- ALL AREAS ARE MORE OR LESS.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENT)
  - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
  - C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT RADIUS.
  - D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
  - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
  - G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- NO STRUCTURES EXIST ON SITE
- ALL STORM DRAIN PIPES ARE 18" HDPE.
- THIS PLAN IS SUBJECT TO COMPLIANCE WITH THE FIFTH EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS PER COUNCIL BILL 50-2001.
- NO STEEP SLOPES EXIST ON SITE.
- THE FILLET RADIUS FOR THE T TURNAROUND IS 20'.
- SWM IS PROVIDED VIA A PRIVATELY OWNED AND MAINTAINED BIO-RETENTION FACILITY.
- THE COORDINATES SHOWN HEREON ARE BASED ON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY MONUMENT NOS. 1861 AND 24C2 WERE USED FOR THIS PROJECT.
 

1861	N 589984.951	E 1367750.255	EL. 408.491
24C2	N 588648.312	E 1366038.195	EL. 353.760
- THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY MILDENBERG BOENDER AND ASSOCIATES ON OR ABOUT JUNE 2002, AND WAS APPROVED ON JAN. 17, 2003.
- THE TRAFFIC STUDY WAS PREPARED BY MARS GROUP ON OR ABOUT JULY 2002 AND WAS APPROVED ON JAN. 17, 2003.
- THE NOISE STUDY WAS PREPARED BY WILDMAN ENVIRONMENTAL ON OR ABOUT JULY 2002 AND WAS APPROVED ON JAN. 17, 2003.
- 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 THE RETENTION OF 0.89 ACRES (38,768.4 SQ. FT.) AND FEE-IN-LIEU OF REFORESTATION OF 0.78 ACRES (33,976.8 SQ. FT.) IN THE AMOUNT OF \$16,988.40. FINANCIAL SURETY FOR THE ON-SITE RETENTION WILL BE POSTED AS PART OF DPW DEVELOPERS AGREEMENT AND FEE-IN-LIEU PAID AT THE FINAL PLAN STAGE.
- THIS SUBDIVISION IS IN COMPLIANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT AT THE FINAL PLAN STAGE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY.
- FOR DRIVEWAY INTERSECTION DETAIL USE HOWARD COUNTY STANDARD DETAILS R-6-05
- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY GILES ENGINEERING ASSOCIATES ON OR AROUND MAY, 2002, AND WAS APPROVED ON JAN. 17, 2003.
- THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS ARE AS FOLLOWS:

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
FOX CHAPEL COURT	0+22	15' RT	100 watt HPS VAPOR COLONIAL POST-TOP MOUNTED ON A 14" FIBERGLASS POLE

**LEGEND**

- DENOTES WETLANDS
- 100 YR FLOODPLAIN EASEMENT
- FOREST CONSERVATION EASEMENT
- PROPOSED PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT
- PROPOSED PAVEMENT
- EXISTING PUBLIC SEWER AND UTILITY EASEMENT
- NON CREDITED OPEN SPACE



TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING  
HOWARD COUNTY  
PLANNING DIRECTOR DATE 6/12/02

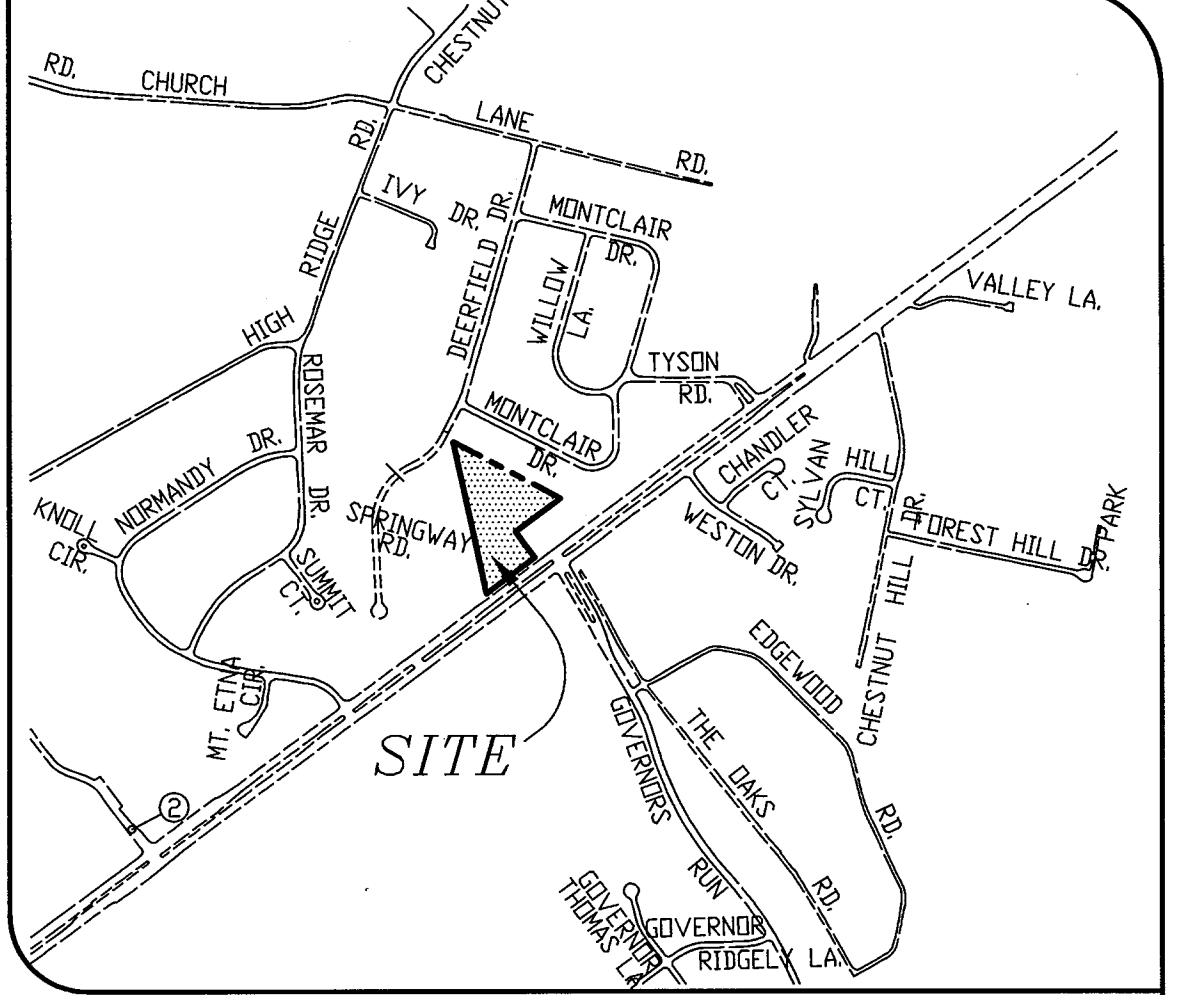
**OWNER**  
VINCENT S. SERIO  
2965 BROOKWOOD RD  
ELLICOTT CITY MD 21042-2501

project	date	scale	approval
20005	SEPT 2002	1"=50'	SA A
illustration	engineering		SA A
			RH

description	revisions	date

SERIO ESTATES  
TAX MAP 18, PARCEL 59, BLOCK 19  
SECOND ELECTION DISTRICT  
HOWARD COUNTY  
PRELIMINARY EQUIVALENT SKETCH PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 387-0286 Fax: (301) 621-5521 Wash. (410) 387-0286 Fax.



**VICINITY MAP**  
SCALE: 1"=1000'

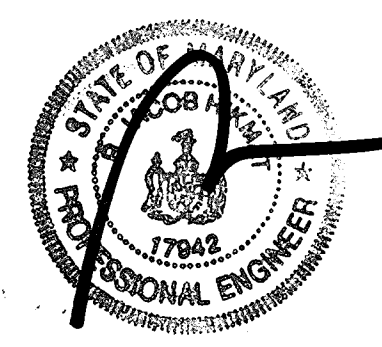
**SOILS DESCRIPTIONS:**

SYMBOL	DESCRIPTION
Bs	Belle Silt Loam (Type D)
GnB2	Glengile Loam, 3 to 8% slopes, moderately eroded (Type B)
GnB2	Glensville Silt Loam, 3 to 8% slopes, moderately eroded (Type B)
KeC2	Kelly Silt Loam, 8 to 15% slopes, moderately eroded (Type D)
MsD	Montalto and Relay very stony silt loams, 3 to 25% slopes (Type C)

**NOTE:**

ALL PROPOSED STORMDRAIN IS 18" HDPE

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING OF  
HOWARD COUNTY  
PLANNING DIRECTOR DATE



**LEGEND**

[Symbol]	DENOTES WETLANDS
[Symbol]	100 YR FLOODPLAIN EASEMENT
[Symbol]	FOREST CONSERVATION EASEMENT
[Symbol]	15' NO WOODY VEGETATION
[Symbol]	EXISTING SPECIMEN TREES
[Symbol]	SUPER SILT FENCE
[Symbol]	SILT FENCE
[Symbol]	CLEAN WATER DIVERSION DIKE

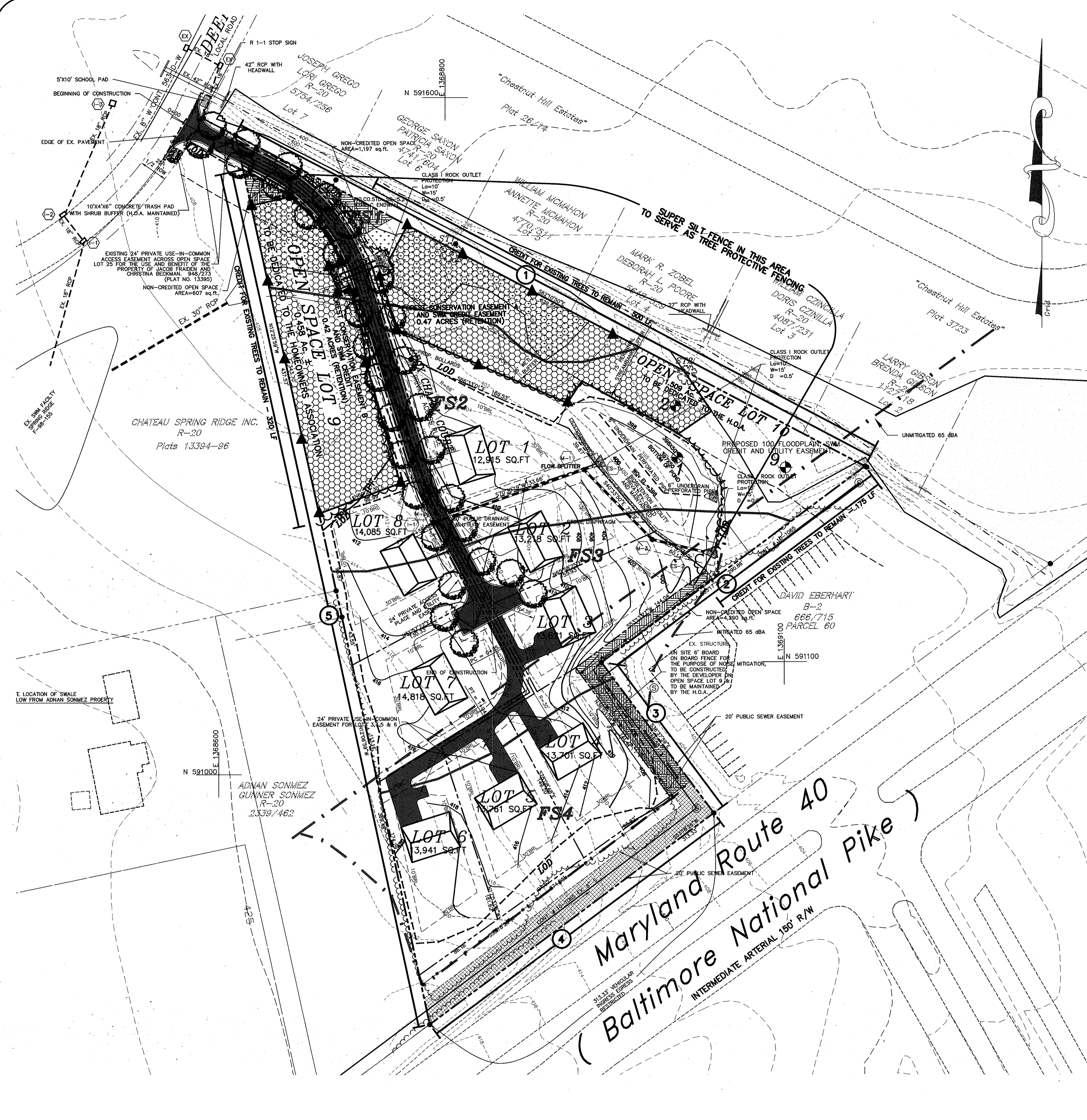
**OWNER**  
VINCENT S. SERIO  
2965 BROOKWOOD RD  
ELLICOTT CITY MD 21042-2501

project	date	illustration	scale	approval
20005	JUNE 2002	SAA	1"=50'	RH

no.	description	date

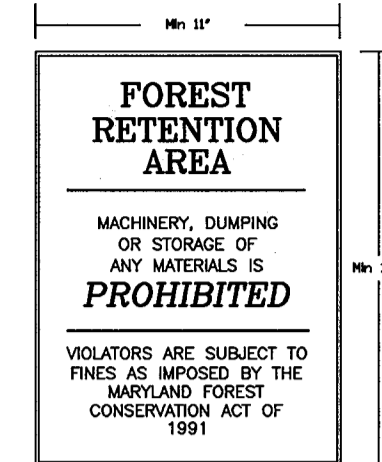
SERIO ESTATES  
TAX MAP 18, PARCEL 59, BLOCK 19  
SECOND ELECTION DISTRICT  
PRELIMINARY GRADING AND SEDIMENT CONTROL PLAN  
HOWARD COUNTY

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsy Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 997-0236 Fax: (301) 621-5521 Wash. (410) 997-0238 Fax.



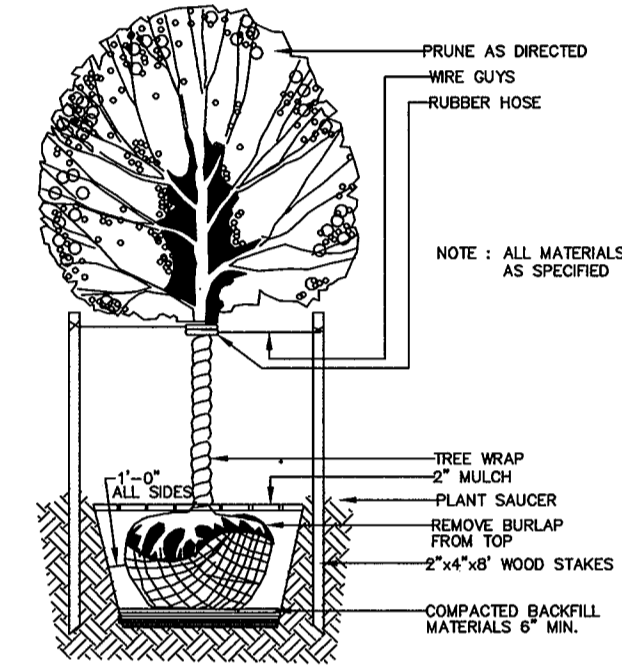
SPECIMEN TREES	
KEY	SPECIES
ST1	34" PIN OAK
ST2	30" ELM

NOTE: THIS DRAWING IS TO BE USED FOR PRELIMINARY LANDSCAPE & FOREST CONSERVATION PLAN PURPOSES ONLY.



SIGNAGE DETAILS NOT TO SCALE

NOTE: ALL PROPOSED STORMDRAIN IS 18" HDPE



TYPICAL DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

- GENERAL NOTES**
- FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
  - 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 THE RETENTION OF 0.89 ACRES (38,768.4 SQ. FT.) AND FEE-IN-LIEU OF REFORESTATION OF 0.78 ACRES (33,976.8 SQ. FT.) IN THE AMOUNT OF \$16,988.40 FINANCIAL SURETY FOR THE ON-SITE RETENTION WILL BE POSTED AS PART OF DPW DEVELOPERS AGREEMENT AND FEE-IN-LIEU PAID AT THE FINAL PLAN STAGE.
  - THIS SUBDIVISION IS IN COMPLIANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
  - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT AT THE FINAL PLAN STAGE.
  - NO SWM LANDSCAPING IS REQUIRED. A BIORETENTION FACILITY IS PROPOSED. AT FINAL PLAN STAGE, SUPPLEMENTAL PLANTINGS WILL BE PROVIDED ON OPEN SPACE LOT 10 ADJACENT TO THE REAR OF LOTS 1 THRU 3.

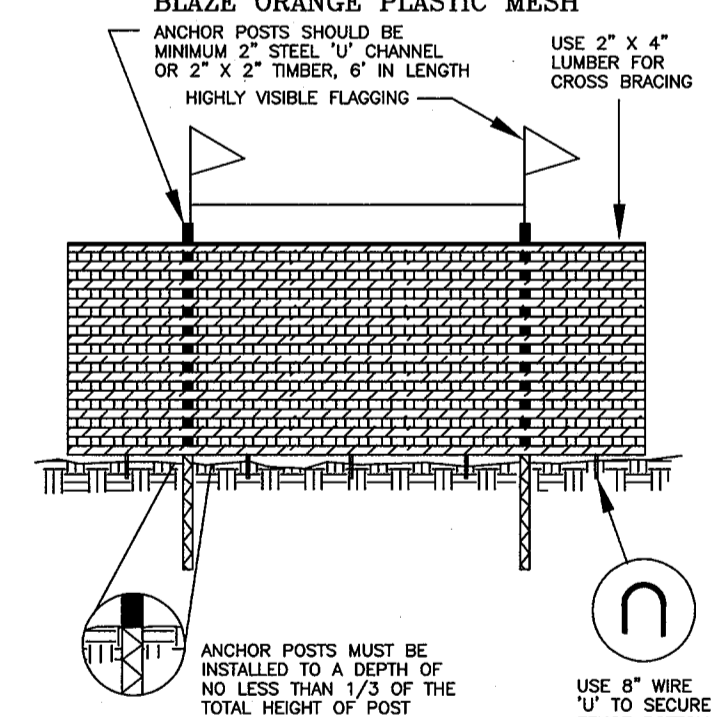
**FOREST CONSERVATION DATA**

I. BASIC SITE DATA	ACRES
GROSS SITE AREA	4.49
AREA WITHIN 100 YEAR FLOODPLAIN	0.28
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
NET TRACT AREA	4.21
LAND USE CATEGORY	RESIDENTIAL - SUBURBAN
II. FOREST CONSERVATION WORKSHEET DATA SUMMARY	
B. REFORESTATION THRESHOLD (20%)	0.84
C. AFFORESTATION MINIMUM (10%)	0.63
D. EXISTING FOREST ON NET TRACT AREA	4.21
E. FOREST AREAS TO BE CLEARED	3.32
F. FOREST AREAS TO BE RETAINED	0.89
IV. REFORESTATION CALCULATIONS	
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	3.32
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.00
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.05
REFORESTATION FOR CLEARING ABOVE THRESHOLD	0.83
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD	0.05
TOTAL REFORESTATION REQUIRED	0.78
TOTAL REFORESTATION PROVIDED	0.00
TOTAL FEE-IN-LIEU OF REFORESTATION TO BE PROVIDED AT FINAL PLAN STAGE	0.78

**FOREST RETENTION NOTES**

- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
  - THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE FOREST RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
  - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
  - ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
  - INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
  - THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
  - REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
  - THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

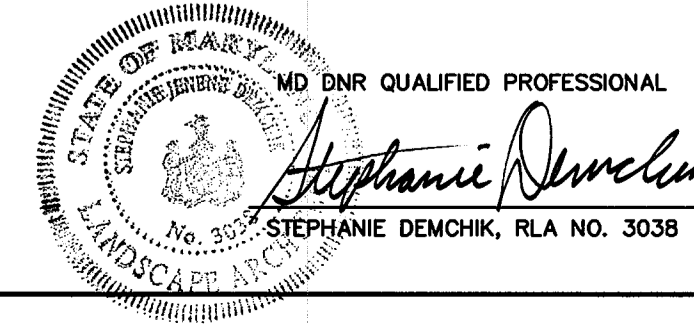
**PROTECTIVE FENCE DETAIL**



- NOTES:
- FOREST PROTECTION DEVICE ONLY.
  - SECTION AREA WILL BE SET AS PART OF THE ROADWAY PROCESS.
  - BOUNDARIES OF PROTECTION AREA SHOULD BE SHOWN AND FLAGGED PRIOR TO INSTALLING.
  - ROOT DAMAGE SHOULD BE AVOIDED.
  - PROTECTIVE SIGNAGE MAY ALSO BE USED.
  - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING OF  
HOWARD COUNTY

PLANNING DIRECTOR DATE



OWNER  
VINCENT S. SERIO  
2965 BROOKWOOD RD  
ELLCOTT CITY MD 21042-2501

**STREET TREE CALCULATIONS**

FOX CHAPEL COURT - 1188 / 40 = 30  
TOTAL TREES REQUIRED = 30 STREET TREES  
TOTAL TREES PROVIDED = 30 STREET TREES

**STREET TREE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
30	○	PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	2 1/2" - 3" CAL.
TOTAL				30 STREET TREES

**LEGEND**

- DENOTES WETLANDS
- 100 YR FLOODPLAIN EASEMENT
- EXISTING SPECIMEN TREES
- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION SIGNAGE
- TREE PROTECTIVE FENCING

**SCHEDULE A: PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES					TOTAL
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	B (PERIMETER 4)	A (PERIMETER 5)	
LANDSCAPE TYPE						
LINEAR FEET OF PERIMETER	629.55 LF	290.86 LF	166.58 LF	313.33 LF	775.60 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 500 LF OF EX. TREES TO REMAIN	YES, 175 LF OF EX. TREES TO REMAIN	N/A	N/A	YES, 320 LF OF EX. TREES TO REMAIN	
NUMBER OF PLANTS REQUIRED	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	6 SHADE TREES 8 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	21 SHADE TREES 8 EVERGREEN TREES 0 SHRUBS

project	date	description	scale	revision
20005	JAN 2003	illustration	SAA/SID	
		engineering	SID	
		approval	approval	

no.	description	revisions	date

SERIO ESTATES  
TAX MAP 18, PARCEL 59, BLOCK 19  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
PRELIMINARY LANDSCAPE & FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Drossy Hill Drive, Suite 202, Ellicott City, Maryland, 21042  
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