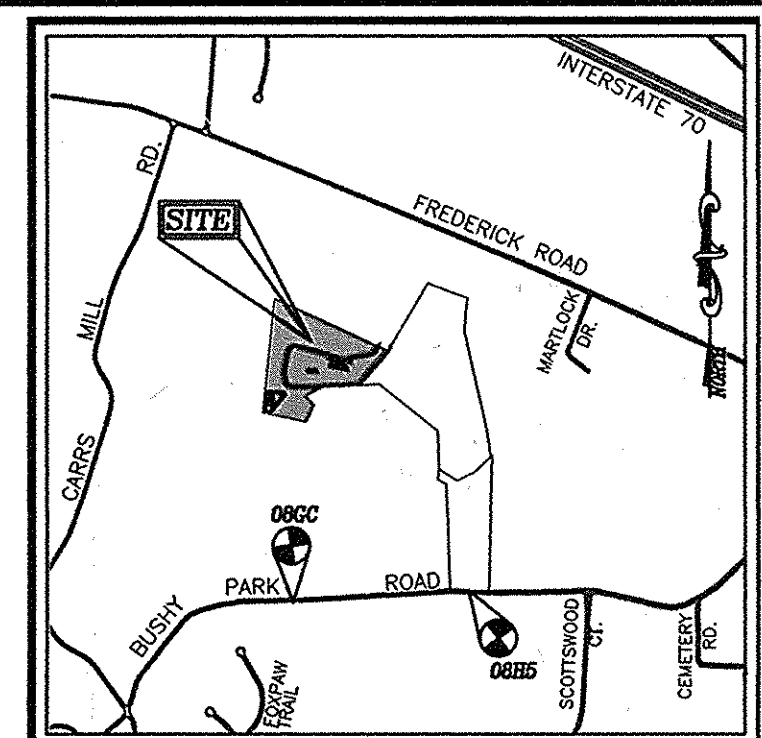


**FOREST RETENTION MANAGEMENT NOTES**

1. ANY PROPOSED FUTURE ACTIVITIES SHALL ADHERE TO THE CONDITIONS, SCHEDULES AND TERMS OF AN APPROVED SEDIMENT AND EROSION CONTROL PLAN.
2. AFTER THE BOUNDARIES OF THE RETENTION AREA HAVE BEEN STAKED AND FLAGGED AND BEFORE ANY DISTURBANCE HAS TAKEN PLACE ON-SITE, ANY FUTURE CONSTRUCTION ON SITE WILL REQUIRE A PRECONSTRUCTION MEETING AT THE CONSTRUCTION SITE IN WHICH THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER AND APPROPRIATE COUNTY INSPECTORS SHALL ATTEND.
3. TREE PROTECTION FOR ALL RETAINED AREAS:
  - A. ALL RETENTION AREAS WITHIN 50 FEET OF PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROTECTED BY HIGHLY VISIBLE, WHEEL ANCHORED TEMPORARY PROTECTION DEVICES (SILT FENCE OR BLAZE ORANGE PLASTIC MESH).
  - B. ALL PROTECTION DEVICES SHALL BE IN PLACE PRIOR TO ANY GRADING OR LAND CLEARING.
  - C. ALL PROTECTION DEVICES SHALL BE PROPERLY MAINTAINED AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS CEASED.
  - D. ATTACHMENT OF SIGNS, FENCING OR OTHER OBJECTS TO TREES IS PROHIBITED.
  - E. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN PROTECTED AREAS.
4. IF THE CRITICAL ROOT ZONE IS AFFECTED BY ANY FUTURE CONSTRUCTION ACTIVITIES, SUCH AS GRADE CHANGE, DIGGING FOR FOUNDATIONS AND ROAD UTILITY INSTALLATION:
  - A. PRUNE ROOTS WITH A CLEAN CUT USING PROPER PRUNING EQUIPMENT
  - B. WATER AND FERTILIZE AS NEEDED.
5. DURING ANY FUTURE CONSTRUCTION ON THE SITE, MONITOR AND CORRECT CONDITION OF RETAINED TREES FOR SOIL COMPACTION ROOT INJURY, FLOOD CONDITIONS, DROUGHT CONDITIONS AND OTHER STRESS SIGNS.
6. AFTER ANY FUTURE CONSTRUCTION IS COMPLETED, THE FOLLOWING PROCEDURES AND PROTECTIONS SHALL OCCUR:
  - A. INSPECT EXISTING TREES AROUND THE PERIMETER OF DISTURBED LIMITS FOR EVIDENCE TO SOIL COMPACTION, ROOT INJURY, LIMB INJURY OR OTHER STRESS SIGNS AND CORRECT WITH PROPER MANAGEMENT TECHNIQUES SUCH AS ROOT OR LIMB PRUNING, SOIL AERATION, FERTILIZATION, CROWN REDUCTION OR WATERING. INSPECTION AND EVALUATION SHALL BE PERFORMED BY A LICENSED ARBORIST.
  - B. INSPECT FOR DEAD OR DYING TREES OR LIMBS WHICH MAY POSE SAFETY HAZARD AND REMOVE.
  - C. NO BURIAL OF DISCARDED MATERIALS WILL OCCUR ONSITE WITHIN THE CONSERVATION AREAS.
  - D. NO BURNING WITHIN 100 FEET OF WOODED AREA.
  - E. ALL TEMPORARY FOREST PROTECTION STRUCTURES WILL BE REMOVED AFTER CONSTRUCTION.
  - F. FOLLOWING COMPLETION OF CONSTRUCTION, PRIOR TO USE, THE COUNTY INSPECTOR SHALL INSPECT THE ENTIRE AREA.

**PROJECT NOTES**

1. THE PROPOSED DEVELOPMENT PROJECT WILL CREATE A 9.90 ACRES OF FOREST CONSERVATION (RETENTION) BANK.
2. THE PROPERTY IS PART OF PARCEL 59 ON HOWARD COUNTY TAX MAP 8. THE PROPERTY IS RECORDED IN LIBER 14704, FOLIO 174.
3. THE PROPERTY IS ZONED RC-DEO.
4. ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE SUBJECT TO PROTECTIVE FOREST COVENANTS.
5. FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE FOREST COVENANTS.
6. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
7. NO STOCKPILES, PARKING AREAS, EQUIPMENT-CLEARING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
8. TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING FUTURE CONSTRUCTION PROJECTS. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES THAT OCCUR WITHIN 50 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
9. PERMANENT PROTECTIVE SIGNAGE SHALL BE INSTALLED ALONG THE BOUNDARY OF THE FOREST CONSERVATION EASEMENT. SIGNS SHALL BE INSTALLED AT 50-100 FOOT INTERVALS AND AT ANGLES ALONG THE OUTSIDE PERIMETER OF THE EASEMENT.
10. NO EXISTING STRUCTURES EXIST ON SITE.
11. NO DEBRIS, DUMPING ETC. EXISTS WITHIN THE FOREST CONSERVATION EASEMENT, OR IF IT DOES, THAT IT WILL BE CLEANED PRIOR TO THE RECORDED OF THE EASEMENT.
12. THE SITE IS EXEMPT FROM FOREST CONSERVATION REQUIREMENT BECAUSE THERE ARE NO IMPROVEMENTS AND THIS SDP ESTABLISHES A FOREST RETENTION BANK.
13. THIS PROJECT IS SUBJECT TO WP-09-234. THE PLANNING DIRECTOR APPROVED THE WAIVER SUBJECT TO THE FOLLOWING CONDITIONS:
  1. APPROVAL OF THIS WAIVER PETITION DOES NOT NEGATE THE REQUIREMENT TO ABATE ZONING VIOLATION CASE CE-08-006 AS REQUIRED BY THE DIVISION OF PUBLIC SERVICE AND ZONING ADMINISTRATION. THE PROPERTY OWNER MUST CLEAN UP THE DEBRIS AND/OR MOVE THE DEBRIS FURTHER AWAY FROM THE EXTERNAL PROPERTY LINE. THIS CLEAN-UP EFFORT MUST BE REVIEWED AND APPROVED BY THE DIVISION OF PUBLIC SERVICE AND ZONING ADMINISTRATION IN ORDER TO RESOLVE THE ZONING VIOLATIONS. ALSO, THIS CLEAN-UP MUST OCCUR BEFORE ANY RECORD PLATS FOR THE FURTHER DEVELOPMENT OF THIS SITE (SENDING OR SUBDIVISION) ARE RECORDED.
  2. RECORDED OF THE FOLLOWING AGREED UPON DEEDS, EASEMENTS AND PLAN EXHIBIT:
    - A. DEEDS ADJUSTING THE BOUNDARY BETWEEN PARCELS 1 AND 3 AND PARCELS 1 AND 4;
    - B. CONFIRMATORY DEEDS FOR EACH NEW TRACT;
    - C. DEED OF EASEMENT TO CREATE THE PROPOSED PRIVATE INGRESS AND EGRESS EASEMENT TO SERVE PROPOSED TRACT #3 (OVER AND THROUGH PROPOSED TRACT #2);
    - D. PROVIDE THIS OFFICE WITH 2 COPIES OF THE WAIVER PETITION EXHIBIT WHICH REFLECT THE CHANGES REQUIRED BY THE ENCLOSED COMMENTS FROM THE DIVISION OF LAND DEVELOPMENT, DPZ.
  3. CLEARLY REFERENCE THIS WAIVER PETITION FILE NUMBER, WP-09-234 AND APPROVAL DATE WITH THE NEW DEED(S).
  4. THE ENCLOSED COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION, DPZ AND THE STATE HIGHWAY ADMINISTRATION.
  5. ANY FUTURE RESUBDIVISION OF TRACT #1 WILL REQUIRE FULL COMPLIANCE WITH THE ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS UNLESS WAIVERS ARE APPROVED.
14. THE PARCEL IS NON-BUILDABLE UNTIL A 10,000 SQUARE FOOT DISPOSAL AREA AND WELL LOCATION ARE ESTABLISHED AND APPROVED BY THE HEALTH DEPARTMENT ON THE PORTION OF THE PARCEL UNNUMBERED BY THE FOREST CONSERVATION EASEMENTS.



**BENCHMARKS**

HOWARD COUNTY BENCHMARK 08GC	N 601441.3680	E 1299254.0054	ELEV.: 566.52
HOWARD COUNTY BENCHMARK 08H5	N 601562.5672	E 1301087.2195	ELEV.: 612.42

**LEGEND**

- EXISTING CONTOURS
- EXISTING TREE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- MODERATE SLOPES (15% - 24.99%)
- STEEP SLOPE (>25%)
- EXISTING WETLANDS
- STREAM
- STREAM BUFFER
- FOREST CONSERVATION SIGNS
- PUBLIC FOREST CONSERVATION EASEMENT (RETENTION, CREDITED)
- PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
- PUBLIC FOREST CONSERVATION EASEMENT (RETENTION, NON-CREDITED)
- PRESERVATION EASEMENT

**FCE/BANK SALES ACREAGE CHART (9.90 AC. TOTAL\*)**

SALE	RETENTION	PROJECT NAME	HOWARD COUNTY FILE NO.	REMAINING
1	5.90	TOWNS AT PATUWENT ORCHARD	P-43-038	4.10
2	2.76	STELLAGLEN LOTS 1-7	F-14-049	1.34
3	1.34	LONG GATE OVERLOOK LOTS 1-7 SDP 14-074		0

\* 9.90 ACRES TOTAL FOREST CONSERVATION EASEMENT

**DENSITY EXCHANGE TABULATION**

RECEIVING PARCEL INFORMATION	MAINT OREDE FILE NO.
T 1 M 28, GRD 11, P/O PAR 49	RE-15-001
TOTAL PARCEL ACREAGE	21.2500 ACRES
PRESERVATION PARCEL EXCHANGE	21.2500 ACRES
DEO UNITS CREATED (1-3.00)	0
CEO UNITS CREATED (1-4.25)	4 (17.00 AC / 4.25) = 4 UNITS
CEO UNITS SAVED (1-4.25)	4 CEO UNITS
DEO UNITS RETAINED (1-4.25) (UNIT RETAINED FOR ON SITE RESIDENCE)	1 (4.25 AC / 4.25) = 1 UNIT
ACREAGE OF PRESERVATION EASEMENT REMAINING TO BE SAVED	21.2500 AC - 17.00 AC = 4.25 AC = 0.00 AC

**NOTES:**

1. No rare, threatened, or endangered species were observed on the property.
2. Surrounding land use is low density residential and agricultural.
3. No specimen trees were noted during the field review.
4. This assessment has been prepared to support the creation of a Forest Retention bank. Specific site assessment outside of the proposed retention areas was not performed. General site conditions are provided on this plan to provide overview of site conditions only.
5. Wetland, streams and buffers are present on the property. The location of these resources and their associated buffers is depicted approximately on this plan. This plan should not be used in support of any land disturbance activity.

**RESERVATION OF FOREST CONSERVATION BANK EASEMENT:** OWNER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR FOREST CONSERVATION (DESIGNATED AS FOREST CONSERVATION BANK EASEMENT AREA), LOCATED IN AND ON THE PROPERTY. ANY CONVEYANCES OF THE AFORESAID PROPERTY SHALL BE SUBJECT TO THE EASEMENT HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED CONVEYING SAID PROPERTY. OWNER SHALL EXECUTE AND DELIVER A DEED OF EASEMENT TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION BANK EASEMENT AREA UPON COMPLETION OF THE OWNER'S OBLIGATIONS UNDER THE FOREST CONSERVATION, INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE OWNER AND THE COUNTY, AND THE RELEASE OF OWNER'S SURETY POSTED WITH SAID AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED OF EASEMENT IN THE LAND RECORDS.

**SFSD/Existing Conditions Narrative**

The subject property is 21.25 acres of undeveloped land. Forest and old field vegetation dominate the site. The old field vegetation appears to have developed from former agricultural lands. The old field is heavily influenced by invasive species including Autumn olive, multiflora rose, Japanese honeysuckle and Oriental bittersweet. The olive has heavily colonized the old field, some native woody succession has occurred. This includes black cherry, sassafras, red maple and red cedar. The areas of native successional development are highly fragmented and generally overwhelmed by the invasive species.

Forest resources on the site are present around the old field areas. The forest composition varies slightly based on the location of the stand but each stand is generally successional in nature. A description of each stand area proposed for retention easement is as follows:

**FCE 1** includes 1.59 acres of riparian zone forest that is impacted by mesic soil conditions. Red maple, box elder, black cherry, black willow, and tulip poplar are most common in this community. Canopy closure is roughly 80 percent. Shrub cover is low and includes scattered multiflora rose, spicebush and arrowwood.

**FCE 2** is a 5.24 acre patch of upland successional forest. This community has developed on gentle slopes above the adjacent stream valley. The stand is connected to the riparian zone but extends as a finger surrounded by old field and active agriculture. The community includes red maple, black cherry, red cedar, tulip poplar, pine oak and white pine. The maple, oak and cherry are most common in the stand, the pine creates a small percentage of the nearly 85 percent canopy closure. Shrub level-closure is roughly 25% and includes black haw, arrowwood, multiflora rose and young canopy trees. Some olive encroachment has occurred on the southern edge of the stand adjacent to the old field area. Grapevine, poison ivy and Japanese honeysuckle are all common in the stand.

**FCE 3** is a 3.94 acre area that is part of a larger stand that continues offsite. The stand occurs within and adjacent to groundwater wetland areas. The canopy is comprised almost exclusively of red maple and pin oak. Canopy closure is nearly 85 percent and the canopy trees are in the 8-14' dbh range. The understorey and shrub layers are open except on the included slope area that is included. This small inclusion includes spicebush, young American holly and black cherry.

The subject property is part of an overall forest/old field complex that encompasses roughly 180 acres of area. This size forest block would be sufficient to provide forest interior breeding bird habitat. The actual interior habitat function provided by this resource block may be minimized by the irregular edge and internal fragmentation that results in an increased edge effect within the habitat. It is likely that less sensitive interior breeding birds may utilize the area, particularly the forested riparian and wetland areas.

**OWNER**  
DENSITY SOLUTIONS, LLC  
15950 NORTH AVENUE  
LISBON MD, 21765

**DEVELOPER**  
LAND MARKETING CONSULTANTS, INC.  
1/A HERITAGE LAND DEVELOPMENT  
15950 NORTH AVENUE  
P.O. BOX 482  
LISBON, MD 21765  
410-489-7900

NO.	REVISION	DATE
3	REVISE FCE/BANK CHART FOR LONG GATE OVERLOOK SDP 14-074	6/15/15
2	REVISE FCE/BANK CHART FOR STELLA GLEN F-14-049	5/19/14
1	REVISE RETENTION CONCENTRATION CHART TO INCLUDE 5.90 ACRES FOR THE TOWNS AT PATUWENT ORCHARD	05-10-14

**SITE DEVELOPMENT PLAN**  
SIMPLIFIED FOREST STAND DELINEATION PLAN AND FOREST RETENTION BANK CREATION PLAN  
DENSITY SOLUTIONS, LLC  
L14704 F.174  
PLAT NO. 22580 - 22581

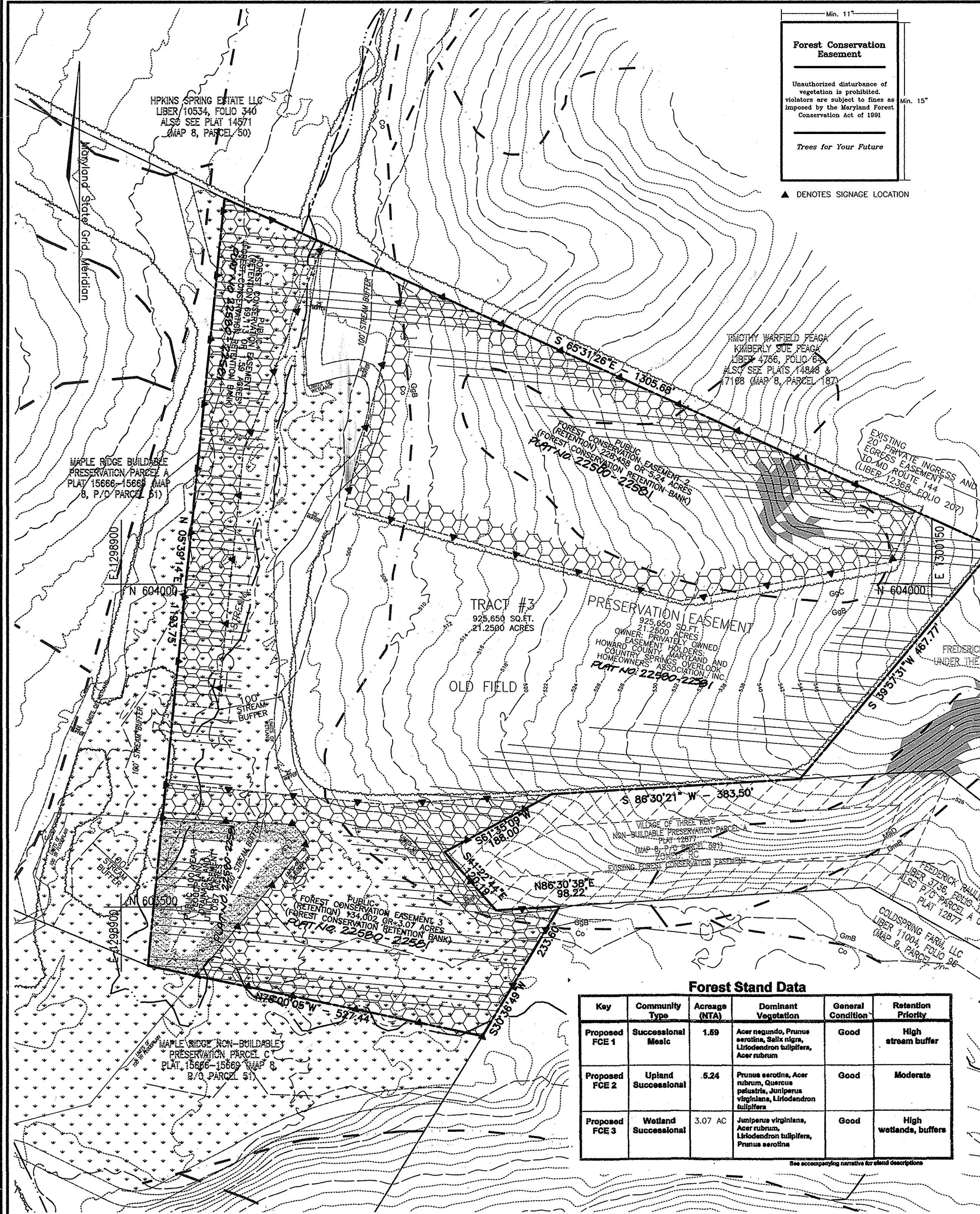
TAX MAP 8 BLOCK 21 4TH ELECTION DISTRICT ZONING RC-DEO, PARCEL 59 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**  
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. 10313 EXPIRATION DATE: 09-27-2015

DESIGN BY: JC  
DRAWN BY: JER/EDS  
CHECKED BY: JC  
DATE: SEPT. 2013  
SCALE: 1"=100'  
W.O. NO.: 08-15

1 SHEET OF 1



**Forest Conservation Easement**

Unauthorized disturbance of vegetation is prohibited. Violators are subject to fines as imposed by the Maryland Forest Conservation Act of 1991.

Trees for Your Future

▲ DENOTES SIGNAGE LOCATION

**Forest Stand Data**

Key	Community Type	Acreage (NTA)	Dominant Vegetation	General Condition	Retention Priority
Proposed FCE 1	Successional Mesic	1.59	Acer negundo, Prunus serotina, Salix nigra, Liriodendron tulipifera, Acer rubrum	Good	High stream buffer
Proposed FCE 2	Upland Successional	6.24	Prunus serotina, Acer rubrum, Quercus pedunculata, Juniperus virginiana, Liriodendron tulipifera	Good	Moderate
Proposed FCE 3	Wetland Successional	3.07 AC	Juniperus virginiana, Acer rubrum, Liriodendron tulipifera, Prunus serotina	Good	High wetlands, buffers

The accompanying narrative for stand descriptions

**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCEL #			
N/A	N/A	TRACT 3/PARCEL 59			
PLAT # OR LIT	BLOCK NO.	ZONE	TAX MAP NO.	ELECT. DIST.	CENSUS TR.
22580-22581	21	RC-DEO	8	4TH	6040.01

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP
Co	CODORIS AND HARBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B
GcC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	B
GmB	GLENEVILLE SILT, 3 TO 8 PERCENT SLOPES	C
MoD	MANOR LOAM, 15 TO 25 PERCENT SLOPES, VERY ROCKY	B
MkF	MANOR-BRINKLOW, 25 TO 85 PERCENT SLOPES, VERY ROCKY	B

NOTE: BASED ON HOWARD SOIL SURVEY

**SITE DATA**  
LOCATION: TAX MAP 8, GRID 21 P/O 59  
4TH ELECTION DISTRICT  
DEED/PLAT REFERENCES: L14704, F.174  
PRESENT ZONING: RC-DEO  
SUBDIVISION: N/A  
SECTION AREA: N/A  
TOTAL BUILDING COVERAGE: N/A  
WETLANDS ON SITE: 6.8 ACRES +/-  
WETLAND BUFFERS ON SITE: 7.7 AC +/- (INCLUDES WETLAND AREA)  
STREAM BUFFERS ON SITE: 6.2 AC +/-  
AREA OF ON-SITE 100 YEAR FLOODPLAIN: 0.87 AC.  
AREA OF EXISTING FOREST ON SITE: 13.9 AC +/-  
ERODIBLE SLOPES AND FLOODPLAIN AREA: 0.87 AC.  
DPZ REFERENCES: RE13-003(S1)  
SITE AREA: 21.25 AC.  
LIMIT OF DISTURBED AREA: 0.00 AC

**Eco-Science Consulting, Inc.**  
CONSULTING ECOLOGISTS  
JOHN P. CANOLES  
MD DNR Qualified Professional USACE Wetland Delimitator  
Certification # WDCP3M00610482  
P.O. Box 5006 Glen Arden, Maryland 21057 Telephone (410) 832-2489 Fax (410) 832-4288

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
10-25-13  
DATE

Chief, Division of Land Development  
11-21-13  
DATE

Director  
11/21/13  
DATE