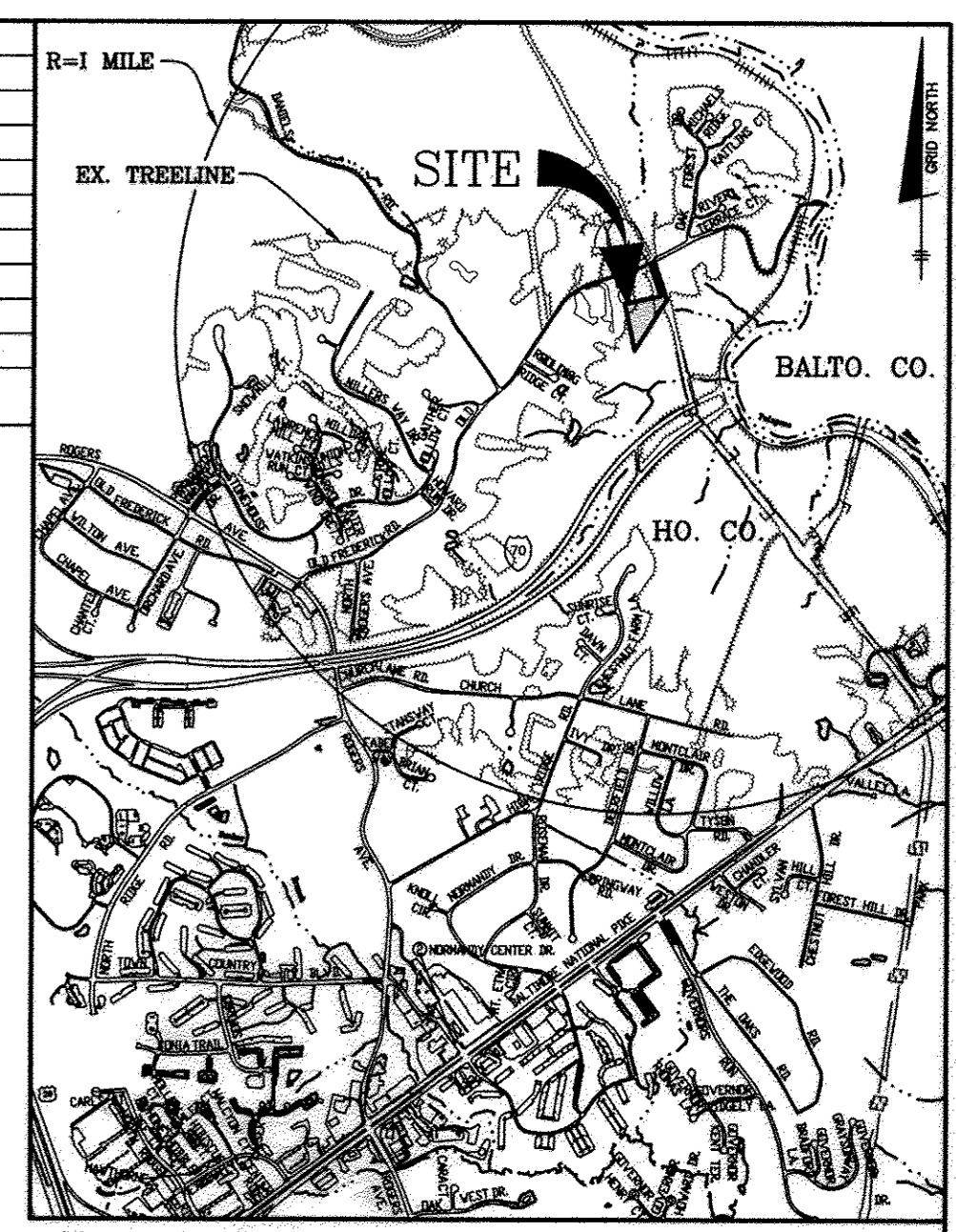


MAP SYMBOL	SOIL GROUP	SOIL TYPE
GbB	B	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES
GbC	B	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES
GmB	C	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
GmC	C	GLENNVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES
MoC	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES
MoD	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES
McD	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, VERY ROCKY
MkF	B	MANOR-BRINKLOW COMPLEX, 25 TO 65 PERCENT SLOPES, VERY ROCKY

- LEGEND**
- SLOPES GREATER THAN 25%
 - ST-1 SPECIMEN TREE
 - FCE CARSONITE MARKER LOCATION
 - EXISTING SEPTIC RESERVE AREA
 - PROPOSED FOREST RETENTION AREA
 - PROPOSED FOREST REFORESTATION AREA
 - EXISTING 66' UTILITY EASEMENT, PLAT 4768 L. 128, F. 257
 - EXISTING 20' DRAINAGE & UTILITY EASEMENT, PLAT 4768



GENERAL NOTES

- SUBJECT PROPERTY ZONED R-20 PER THE 10-6-13 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- PROJECT LIMITS WILL BE BASED ON FIELD RUN BOUNDARY SURVEY PERFORMED BY BENCHMARK ENGINEERING INC. DATED SEPTEMBER, 2013 AND PLAT NUMBER 4768.
- EXISTING TOPOGRAPHY FOR THIS PLAN IS BASED ON HOWARD COUNTY GIS, 2011 LIDAR FROM THE COUNTY WEBSITE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. GPS RECEIVERS WERE USED TO ESTABLISH THE CONTROL FOR THIS PROJECT.
- NO GRADING, REMOVAL OF VEGETATION COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM, OR THEIR REQUIRED BUFFERS UNLESS DEEMED NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING.
- THERE ARE STEEP SLOPES (25% OR GREATER) IN EXCESS 20,000 S.F. ON THIS SITE.
- A FOREST STAND DELINEATION WAS PREPARED BY BENCHMARK ENGINEERING, INC., DATED AUGUST, 2013.
- THERE IS NO NEED FOR A PRELIMINARY FLOOD STUDY FOR THIS PROJECT.
- TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PLAN.
- THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND THE PLANNED SERVICE AREA. WATER AND SEWER WILL BE PRIVATE.
- THERE IS NO FOREST CONSERVATION ACT OBLIGATION FOR THIS PROJECT. THIS SITE WILL PROVIDE A RETENTION/REFORESTATION BANK FOR FOREST CONSERVATION OBLIGATIONS FOR OFF-SITE DISTURBANCES.
- THE PREVIOUS DPZ FILES FOR THIS SITE ARE: F-81-07, WP-14-019, F-14-042
- THERE ARE NO FLOODPLAIN ON THIS PROPERTY, THE DRAINAGE AREA AT THE STUDY POINT IS LESS THAN 30 ACRES. THERE ARE WETLANDS AND STREAMS ON THIS PROPERTY AS INDICATED ON THIS PLAN. THESE LOCATIONS ARE APPROXIMATE, NO DELINEATION HAS BEEN PERFORMED FOR THE STREAM OR WETLANDS.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUALS OF 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 SHALL NOT BE REQUIRED.
- THIS LOT IS ENCLOSED WITH A NEIGHBORHOOD PRESERVATION SENDING EASEMENT UNDER F-14-042, WITH HOWARD COUNTY AS AN EASEMENT HOLDER.
- THE EXISTING HOUSE AND SHED ARE TO REMAIN.
- A 20' VEHICULAR ACCESS TO THE EXISTING WELL IS REQUIRED PER THE HEALTH DEPARTMENT FOR MAINTENANCE.
- SURETY IN THE AMOUNT OF \$6,970.00 FOR 0.32 ACRES OF REFORESTATION SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN, SDP-14-026FC.

SITE ANALYSIS DATA/TABULATION

A) TOTAL PROJECT AREA	3.40± AC.
B) AREA OF WETLANDS AND BUFFER	0.00 AC.
C) AREA OF 100-YR. FLOODPLAIN	0.00 AC.
D) AREA OF FOREST	2.10± AC.
E) AREA OF STEEP SLOPES 25% OF GREATER	1.61± AC.
F) AREA OF DEDICATION	0.00 AC.
G) HIGHLY ERODIBLE SOILS (K > 0.35)	0.00 AC.
H) NUMBER OF UNITS ALLOWED	6
I) NUMBER OF RESIDENTIAL UNITS PROPOSED... 1 (EXISTING)	
J) AREA OF PLAN SUBMISSION	3.40± AC.
K) LIMIT OF DISTURBED AREA	0.00 AC.
L) OPEN SPACE REQUIRED	0.00 AC.
M) OPEN SPACE PROVIDED	0.00 AC.
N) PRESENT ZONING DESIGNATION	R-20
O) PROPOSED USE: EXISTING SINGLE FAMILY DETACHED DWELLING	
P) IMPERVIOUS COVER	0.04± AC.

FOREST BANK TABULATIONS	
FOREST EASEMENT DESIGNATION	FOREST EASEMENT AEREA
FCE-1	1.77 AC. RETENTION
FCE-2	0.32 AC. REFORESTATION

FOREST BANK TRACKING TABULATIONS (PHELPS PROPERTY, LOT 2)							
RECEIVING LOCATION	HOWARD COUNTY FILE NUMBER	RETENTION OBLIGATIONS	REFORESTATION OBLIGATIONS	FOREST BANK RETENTION RATIO 2:1 OBLIGATIONS	FOREST BANK REFORESTATION RATIO 1:1 OBLIGATIONS	REMAINING FOREST RETENTION AREA	REMAINING REFORESTATION AREA
CEDARS EXT. LOT 12	F-16-093		0.5	1.0		0.77 AC.	0.32 AC.
WATER INDUSTRIAL PARK, PARCEL 15	SDP-15-059		0.61	0.77	0.225	0 AC.	0.095 AC.
HALL TOP LANDING	F-17-037		0.095		0.095	0 AC.	0 AC.

ADDRESS CHART		
LOT	STREET ADDRESS	
2	8369 OLD FREDERICK ROAD	

PERMIT INFORMATION CHART					
SUBDIVISION NAME:		SECTION/AREA:	LOT/PARCEL #		
PHELPS PROPERTY		NA	LOT 2		
PLAT No. OR L/F	GRID No.	ZONE	TAX MAP No.	ELECTION DISTRICT	CENSUS TRACT
22843	1	R-20	18	2	602100

SUPPLEMENTAL INFORMATION

GROSS SITE AREA: 3.40 ACRES±
 ZONED: R-20
 PROPOSED USE: RESIDENTIAL
 WATERSHED: PATAPSCO
 DNR NO.: 02-13-09-06

SPECIMEN TREE CHART			
NUMBER	DBH(INCHES)	COMMON NAME	CONDITION
ST-1	42 (TRIPLE TRUNK)	POPLAR	GOOD
ST-2	35	POPLAR	GOOD
ST-3	30	POPLAR	GOOD
ST-4	36	POPLAR	GOOD

FOREST STAND ANALYSIS TABLE											
KEY	TYPE OF COMMUNITY	B. AREA	C. SOILS INFORMATION			D. EXISTING VEGETATION	E. STAND CHARACTERISTICS			F. FOREST AREA IN SEN. ENV.	G. HABITAT VALUE
			1. SOIL TYPES	2. TYPICAL FOREST COVER FOR SOIL TYPE	3. WOODLAND SUITABILITY INDEX		1. SIZE (O.A)	2. AGE (YRS)	3. GENERAL CONDITION		
F-1	MIXED HARDWOODS	2.17 AC.	GmB GmC MoC McD MkF	HARDWOODS	70-80	POPLARS, OAKS, MAPLES	12"-19"	20+	GOOD	N/A	GOOD
L-1	LAWN, GRASS	0.34	GbC MkF	N/A		MAINTAINED GRASS					
AF-1	OPEN FIELD	0.36	GmB MoD	N/A		EARTH, GRASS					
AF-2	OPEN FIELD (UTILITY EASEMENT)	0.54	GmB MoD	N/A		EARTH, GRASS					

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE SUITE 315 • ELLICOTT CITY, MARYLAND 21043
 (P) 410-485-8105 (F) 410-465-6644
 WWW.BE-CIVILENGINEERING.COM

OWNER: JOHN AND REBECCA CARNEY
 8369 OLD FREDERICK ROAD
 ELLICOTT CITY, MD 21043
 443-812-4806

PROJECT: PHELPS PROPERTY
 LOT 2

LOCATION: TAX MAP 18, GRID 1, PARCEL 357
 2nd ELECTION DISTRICT
 8369 OLD FREDERICK ROAD
 HOWARD COUNTY, MARYLAND, 21043

TITLE: SITE DEVELOPMENT PLAN
 PLAN FOR FOREST CONSERVATION BANK AND
 EXISTING CONDITIONS

DATE: MAY, 2014
PROJECT NO.: 2589

DESIGN: JC **DRAFT:** JCO
SCALE: 1" = 50'
DRAWING: 1 OF 2

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 5-28-14
 Chief, Division of Land Development
 6-09-14
 Director
 6/9/14

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWER SYSTEMS
 Howard County Health Officer
 5/21/2014
 DATE

- GENERAL NOTES CONTINUED:
 22. THIS PLAN IS SUBJECT TO WP-14-019 APPROVED SEPTEMBER 25, 2013 TO SECTION 16.120(b)(4)(i)(b) REQUIRING FOREST CONSERVATION EASEMENTS TO BE LOCATED ON LOTS 10 ACRES OR GREATER AND SECTION 16.116(a)(4) REQUIRING BUFFERS FOR WETLANDS AND STREAMS BE DELINEATED ON FINAL PLANS. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
- THE PROPERTY OWNER SHALL BE REQUIRED TO RECORD A PLAT OF REVISION AND A FOREST CONSERVATION PLAT OF EASEMENT WHICH MAY ALSO BE COMBINED TO SHOW THE PROPOSED DENSITY SENDING UNITS AND TO PROCESS A SITE DEVELOPMENT PLAN TO ESTABLISH THE AREA OF THE FOREST CONSERVATION EASEMENT BANK.
 - THE AREA OF EASEMENT PLACED INTO A FOREST CONSERVATION EASEMENT BANK SHALL BE A MINIMUM OF ONE ACRE IN SIZE TO INCLUDE APPROXIMATELY 0.29 ACRES OF REFORESTATION.
 - A 35' ENVIRONMENTAL BUFFER SHALL BE SHOWN AROUND THE NORTHERN AND EASTERN FOREST CONSERVATION EASEMENT LINE AND A MINIMUM WIDTH OF 20' ALONG THE WESTERN PROPERTY LINE SHALL BE EXCLUDED FROM THE RETENTION EASEMENT AREA TO PROVIDE AN ACCESS DRIVEWAY TO THE EXISTING WELL LOCATED TO THE SOUTHWEST OF LOT 2 (AS REQUIRED BY THE HEALTH DEPARTMENT FOR ACCESS TO THE WELL).
 - THE AREA OF THE EXISTING WELL AND HOUSE WATER LINE FROM THE WELL TO THE HOUSE LOCATED ON LOT 2 SHALL NOT BE PLACED INTO EASEMENT AREA. THE PROPERTY OWNER IS REQUIRED TO CONSULT WITH THE HEALTH DEPARTMENT FOR FURTHER RESTRICTIONS REGARDING ACCESS TO THE EXISTING/PROPOSED WELLS AND HOUSE WATER LINE AND SHALL REMOVE FURTHER AREAS FROM THE FOREST CONSERVATION EASEMENT AS APPLICABLE.
 - A 20' WIDE ENVIRONMENTAL BUFFER SHALL BE SHOWN FROM THE EASTERN CONSOLIDATED GAS, ELECTRIC, LIGHT AND POWER COMPANY RIGHT-OF-WAY (OVERHEAD POWER LINES) TO THE PROPOSED 0.30 ACRES OF PROPOSED REFORESTATION AREA. REFORESTATION PLANTINGS SHALL CONSIST OF NATIVE TREE SPECIES WHICH WILL NOT EXCEED 40 IN HEIGHT. VEHICULAR ACCESS TO THE PLANTING AREA(S) SHALL NOT BE THROUGH THE AREA OF EXISTING FOREST.
 - REMOVAL OF INVASIVE PLANT SPECIES, BUILDING MATERIALS (CINDER BLOCKS) AND OTHER DEBRIS (WHERE APPLICABLE) SHALL BE REQUIRED AND INTERIOR PLANTINGS INSTALLED WHERE JUNK VEHICLE(S) WERE REMOVED.
 - DEVELOPER'S AGREEMENT AND POSTING OF SURETY FOR THE ESTABLISHMENT OF THE FOREST BANK SHALL BE REQUIRED UNDER THE SITE DEVELOPMENT PLAN.
 - THE APPROXIMATE AREA OF WETLANDS, THE PERENNIAL STREAM AND THEIR BUFFERS AS DEPICTED ON THE WAIVER PETITION EXHIBIT SHALL BE SHOWN ON THE REVISION PLAT AND FOREST CONSERVATION PLAT OF EASEMENT BUT WAIVER TO DELINEATE THE ENVIRONMENTAL FEATURES BY METES AND BOUNDS DESCRIPTION IS APPROVED. THE DEPARTMENT OF PLANNING AND ZONING HAS, HOWEVER, ISSUED AN INTERPRETATION THAT METES AND BOUNDS DESCRIPTION IS NOT REQUIRED FOR WETLANDS OR THEIR BUFFERS BUT THEIR APPROXIMATE LOCATIONS SHALL BE SHOWN ON THE PLAT OF REVISION FOR INFORMATIONAL PURPOSES.

SDP-14-026FC

Planting Notes:

- Three planting options are provided to allow flexibility for the property owner. Only one planting option schedule needs to be followed.
- Planting density based spacing requirements: 1" caliper trees @ 15' on center, whips with shelter @ 11' on center.
- 1" caliper trees should be staggered along the perimeter of the planting area to serve as demarcation of the boundary. The trees should be no closer than 15 foot spacing. 2.5" caliper trees shall be planted along the property boundary within 10' of boundary edge and approximately 60' apart.
- Planting may 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.
- Planting units defined by the spacing requirements established in the FCA Manual. One plant unit is defined as 1 seedling or whip without shelter. The Manual states that 700 seedlings/whips without shelters are required per acre, or 350 whips w/shelters, or 200 1" caliper trees, or 100 2" caliper trees. By conversion it has been determined that a seedling or whip without shelter = 1 unit, whip with shelter = 2 units, 1" caliper tree = 3.5 units and 2" caliper tree = 7 units. The use of plant units simplifies the plant density calculations when mixing stock size.

FOREST CONSERVATION EASEMENTS

Easements are a legal means of providing permanent protection of forests, farmland and open space. In accordance with the criteria outlined in the Howard County Forest Conservation Manual, a forest conservation easement will be recorded for the retention and reforestation areas of the subject property.

REFORESTATION NOTES

A. Planting Plan and Methods

Plant species selection was based on our knowledge regarding plant communities in Maryland's Piedmont Plateau and information provided in the soil survey on typical vegetation for the soil type on the planting site. Species selection was also based on our knowledge of plant availability in the nursery industry.

Reforestation will be accomplished through a mixed planting of whips and branched transplants. Container grown stock is recommended but bareroot stock may be used to help control afforestation costs. If bareroot stock is used the root systems of all plants will be dipped in an anti-desiccant gel prior to planting to improve moisture retention in the root systems.

Prior to planting the proposed Forest Conservation Easements all multiflora rose in the planting area shall be removed. Removal of the rose may be performed with mowing and herbicide treatments. Physical removal of all top growth following by a periodic herbicide treatment of stump sprouts is recommended. Native tree and shrub species occurring within the rose thickets should be retained wherever possible. Herbicides treatments shall occur on 2 month intervals during the first growing season and once each in the spring and fall for subsequent years. Herbicide used shall be made specifically to address woody plant material and shall be applied as per manufacturer specifications, as needed. Care should be taken not to spray planted trees or naturally occurring native tree/shrub seedlings. It is recommended that initiation of rose removal begin at least six months prior to planting.

B. Planting and Soil Specifications

Plant material will be installed in accordance with the Planting Detail and Planting Specifications shown on the Forest Conservation Plan.

Amendments to existing soil will be in accordance with the Planting Specifications shown on the Forest Conservation Plan. Soil disturbance will be limited to individual planting locations.

C. Guarantee Requirements

A 90 percent survival rate of the reforestation plantings will be required after one growing season. All plant material below the 90 percent survival threshold will be replaced at the beginning of the second growing season. At the end of the second growing season, a 75 percent survival rate will be required. All plant material below the 75 percent survival threshold will be replaced by the beginning of the next growing season.

D. Security for Reforestation

Section 16-1209 of the Howard County Forest Conservation Act requires that a developer shall post a security (bond, letter of credit, etc.) with the County to insure that all work is done in accordance with the FCP.

MANAGEMENT PLAN

Howard County requires a two year management plan be prepared as part of the forest conservation plan. The plan goes into effect upon acceptance of the certification of completion by the County.

The following items will be incorporated into the plan:

A. Fencing and Signage

Permanent signage indicating the limits of the retention/reforestation area shall be maintained.

B. General Site Inspections/Maintenance of Plantings

Site inspections will be performed a minimum of three times during the growing season. The purpose of the inspections will be to assess the health of the afforestation plantings. Appropriate measures will be taken to rectify any problems which may arise.

In addition, maintenance of the afforestation plantings will involve the following steps:

- Watering - All plant material shall be watered twice a month during the 1st growing season, more or less frequently depending on weather conditions. During the second growing season, once a month during May-September, if needed.
- Removal of invasive exotics and noxious weeds. Old field successional species will be retained.
- Identification of serious plant pests and diseases, treatment with appropriate agent.
- Pruning of dead branches.
- After 12 and 24 months, replacement of plants, if required, in accordance with the Guarantee Requirements shown on the FCP.

C. Education

The developer will provide appropriate materials to property owners informing them of the location and purpose of the afforestation area. Materials may include site signs and information explaining the intent of the forest conservation law.

D. Final Inspection

At the end of the two year post-construction management period, Eco-Science Professionals, or another qualified professional, will submit to the administrator of the Howard County Forest Conservation Program certification that all retention/afforestation requirements have been met. Upon acceptance of this certification, the County will release the developer from all future obligations and release the developer's bond.

Planting/Soil Specifications

- Installation of bareroot/plug plant stock shall take place between March 15 - April 20; b&b/container stock March 15 - May 30 or September 15 - November 15. Fall planting of B&B stock is not recommended.
- Disturbed areas shall be seeded and stabilized as per general construction plan for project. Planting areas not impacted by site grading shall have no additional topsoil installed.
- Bareroot plants shall be installed so that the top of root mass is level with the top of existing grade. Roots shall be dipped in an anti-desiccant gel prior to planting. Backfill in the planting pits shall consist of 3 parts existing soil to 1 part pine fines or equivalent.
- Fertilizer shall consist of Agriform 22-8-2, or equivalent, applied as per manufacturer's specifications, for woody plants. Herbaceous plant shall be fertilized with Osmocote 8-6-12.
- Plant material shall be transported to the site in a tarped or covered truck. Plants shall be kept moist prior to planting.
- The contractor shall remove all non-organic debris associated with the planting operation from the site.

Sequence of Construction

- Plants shall be installed as per Plant Schedule and the Planting/Soil Specifications for the project.
- Upon completion of the planting, signage shall be installed as shown.
- Plantings shall be maintained and guaranteed in accordance with the Maintenance and Guarantee requirements for project.

Maintenance of Plantings

- Maintenance of plantings shall last for a period of (3) years.
- Plantings must receive 2 gallons of water, either through precipitation or watering, weekly during the 1st growing season, as needed. During second growing season, once a month during May-September, if needed.
- Invasive exotics and noxious weeds will be removed, as required, from planting areas mechanically and/or with limited herbicide. Old field successional species will be retained.
- Plants shall be examined a minimum two times during the growing season for serious plant pests and diseases. Serious problems will be treated with the appropriate agent.
- Dead branches will be pruned from plantings.

Guarantee Requirements

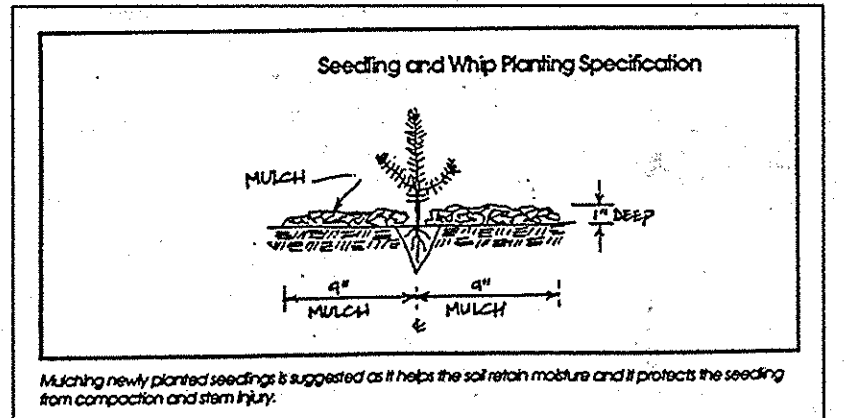
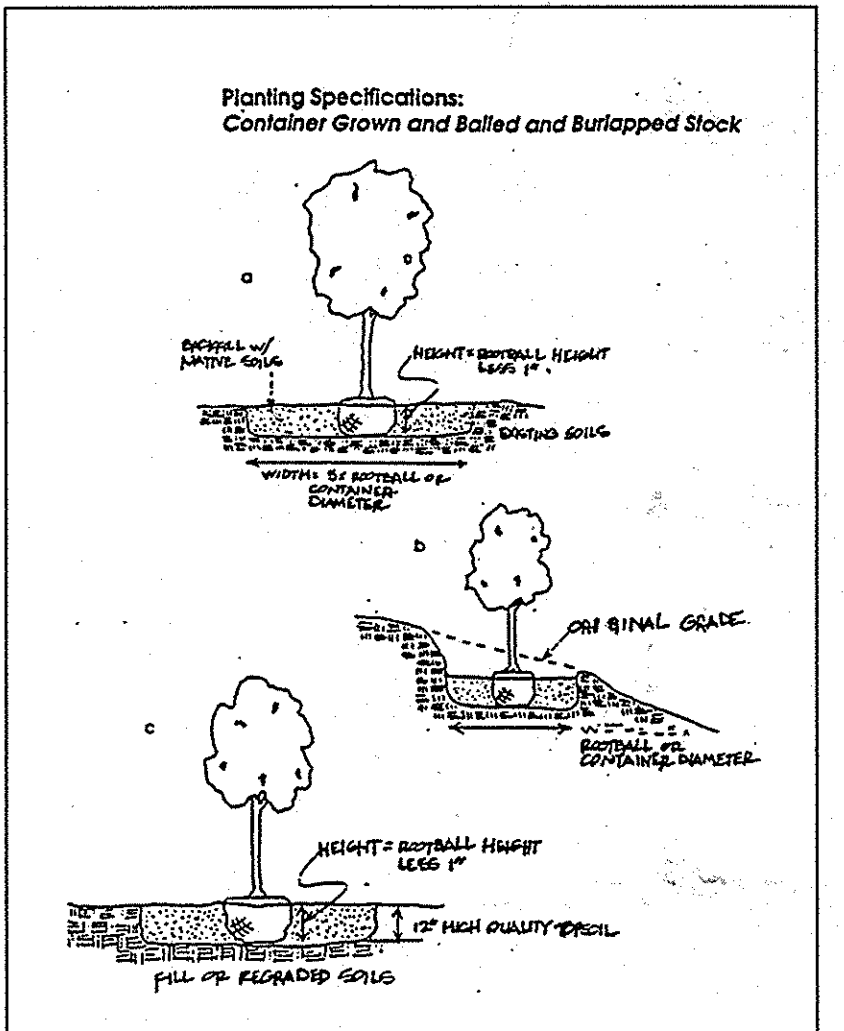
- A 75 percent survival rate of reforestation plantings will be required at the end of two growing seasons. All plant material below the 75 percent threshold will be replaced at the beginning of the next growing season. Wild trees arising from natural regeneration may be counted up to 50 percent towards the total survival number if they are healthy, native species at least 12 inches tall.

Education of New Occupants

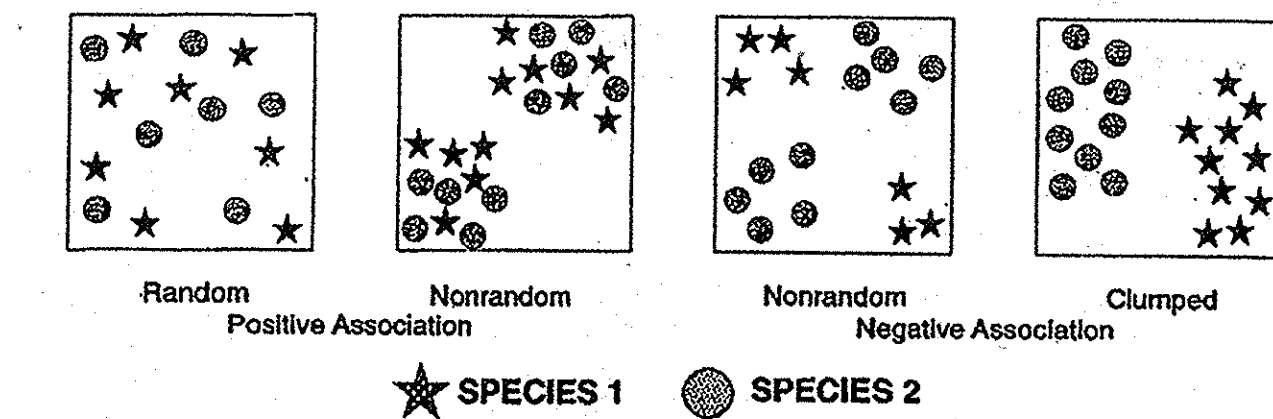
- The developer shall provide educational information to all property owners within the new development/home about the proper use of forest conservation areas.

Final Inspection and Release of Obligations

- At the end of the post-construction management and protection period the developer shall submit a certification to the County that all forest conservation areas have remained intact or have been restored to appropriate condition, that the stipulated survival rates have been achieved, and that any permanent protection measures required by the plan are in place. Upon review and acceptance, the County will inform the developer of their release the development of future obligations related to the Forest Conservation Act.

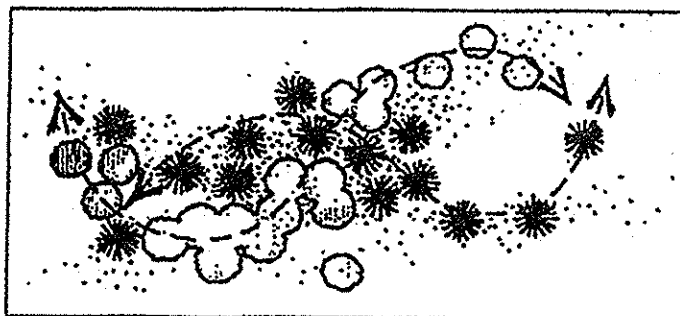


Typical Forest Tree Distribution Patterns



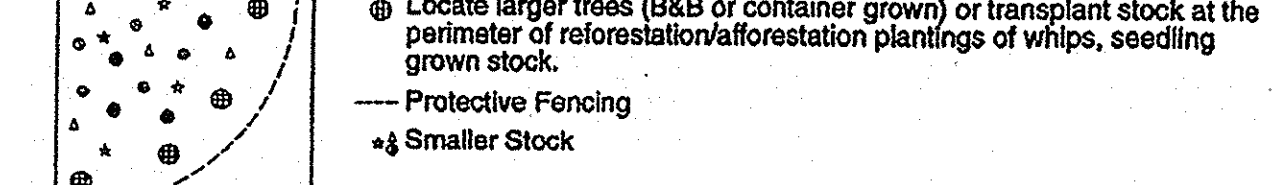
Note: Naturally occurring populations of trees tend to be found in informal groupings. A cluster of trees is really a mosaic of different species groups. The objective of an afforestation/reforestation plan is to select the appropriate species and distribution pattern for a chosen site that mimic natural patterns.

Aggregate Distribution Drift



Note: When used, plant cluster type groupings that taper or feather out along the edges. Clusters often appear as elongated or tear drop shapes.

Mixing Transplant Stock



Source: Adapted from Forest Conservation Manual, 1991

Planting Distribution Patterns Figure A:19

FOREST CONSERVATION NOTES:

- FINANCIAL SURETY FOR THE PLANTING SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN IN THE AMOUNT OF \$6,970.00 FOR 0.32 ACRES OF ON-SITE REFORESTATION. NO SURETY IS REQUIRED FOR THE ON-SITE RETENTION FOREST CONSERVATION EASEMENT.
- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS AS CONTAINED IN THE DEED OF FOREST CONSERVATION EASEMENT RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MD, WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- THE FOREST CONSERVATION EASEMENT HAS 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 EASEMENT; 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 AREA, ETC. SHALL OCCUR WITHIN THE FOREST CONSERVATION EASEMENT.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING ANY CONSTRUCTION. ALL FCE RETENTION BOUNDARIES WHICH OCCUR WITHIN 50 FEET OF THE PROPOSED LIMITS OF DISTURBANCE THAT DOES NOT ALREADY HAVE A SUPER SILT FENCE PROPOSED.
- PERMANENT SIGNAGE SHALL BE PLACED 50'-100' APART ALONG THE BOUNDARIES OF ALL FOREST CONSERVATION EASEMENTS. THIS SIGNAGE SHALL STAY IN PERPETUITY. THE FOREST EASEMENT AREA CLOSEST TO THE HOUSE SHALL HAVE SIGNS EVERY 50'.
- THERE IS NO 100-YEAR FLOODPLAIN LOCATED ON THIS SITE.
- THE FOREST CONSERVATION WATERSHED FOR THIS PROJECT IS THE PATAPSCO RIVER LOWER NORTH BRANCH #2130906.
- THERE ARE NO RARE, THREATENED OR ENDANGERED SPECIES LOCATED ON THIS SITE. THERE IS A STREAM AND ASSOCIATED WETLANDS ON THE NORTH PORTION OF THIS PROPERTY. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO HISTORIC STRUCTURES LOCATED ON THIS SITE. THERE ARE SPECIMEN TREES LOCATED ON THIS SITE AS SHOWN ON THE PLAN AND SPECIMEN TREE CHART.
- PLANTING IS NOT ALLOWED WITHIN 20' FEET OF THE BGE TRANSMISSION EASEMENT. THE PLANTINGS IN THE 25' OF THE PLANTING AREA CLOSEST TO THE TRANSMISSION LINE EASEMENT ARE RESTRICTED TO ONLY NATIVE SPECIES THAT HAVE MATURE HEIGHTS OF 40' MAXIMUM ARE PERMITTED (*Acer rubrum*, *Cornus florida* AND *Prunus serotina*).

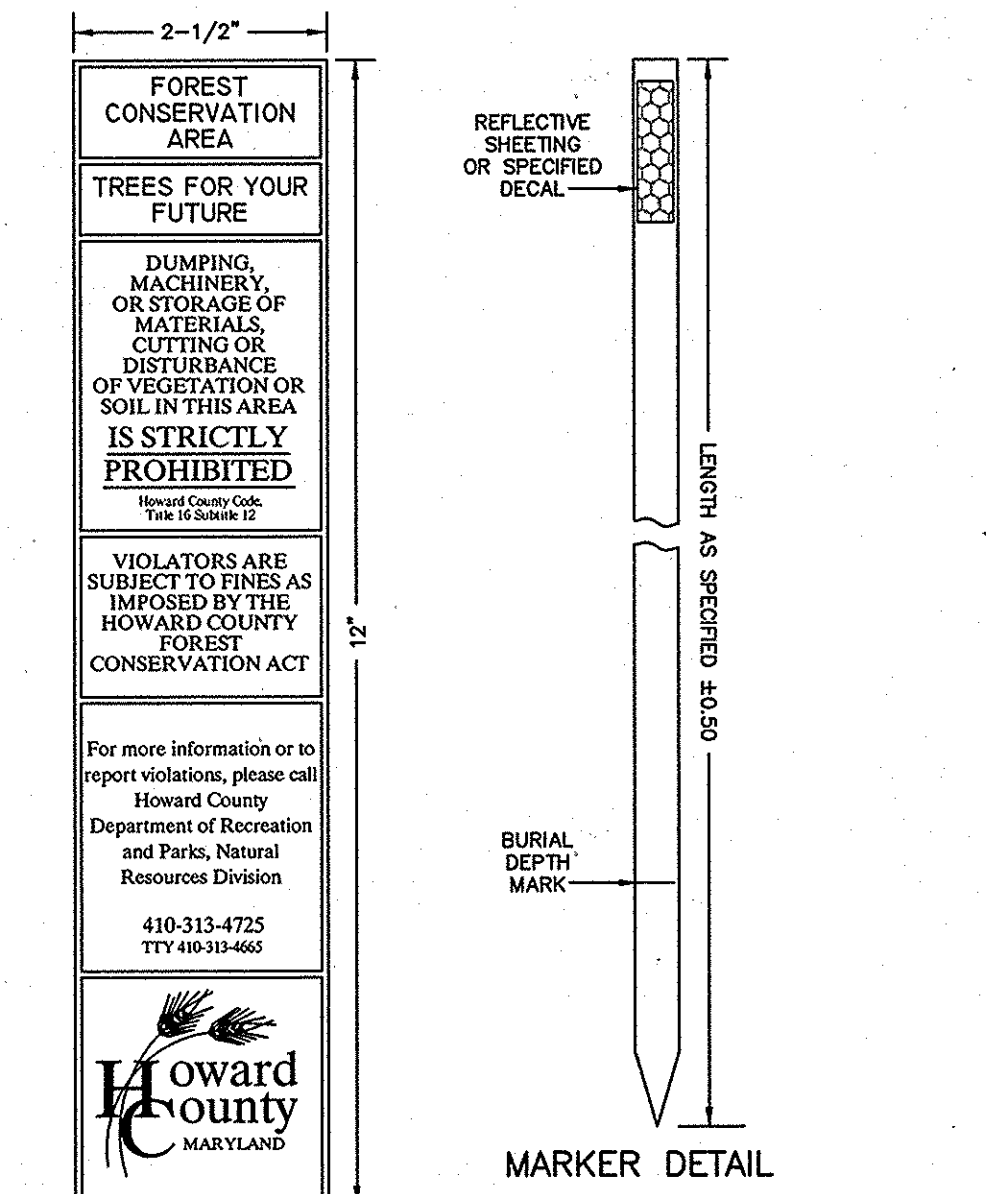
SITE DATA TABULATION

1. TOTAL AREA OF SITE.....	3.40± AC.
2. AREA OF 100 YEAR FLOODPLAIN.....	NA
3. NET AREA OF SITE.....	3.40± AC.
4. TOTAL FOREST ON NET AREA.....	2.17± AC.
5. TOTAL FOREST ON NET AREA IN EASEMENT.....	1.77± AC.
6. TOTAL REFORESTATION ON NET AREA IN EASEMENT.....	0.32± AC.

FOR BEARINGS AND DISTANCES OF FOREST CONSERVATION BOUNDARIES SEE RECORD PLAT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 5/28/14 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 6/09/14 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 6/9/14 DATE
 DIRECTOR

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWER SYSTEMS
 [Signature] 5/21/2014 DATE
 HOWARD COUNTY HEALTH OFFICER



DECAL SPECIFICATIONS
 Materials: Number 3690 Scotchcoat non-reflective substrate.
 Color: Dark green text and border on beige background.
FCE CARSONITE MARKER
 NOT TO SCALE

FOREST CONSERVATION EASEMENT #2 (0.32 ACRES± = 112 TREES REQ.)

QTY.	SPECIES	SIZE	SPACING
20	<i>Acer rubrum</i> - RED MAPLE(***)	2-3" WHIP	**
20	<i>Cornus florida</i> - FLOWERING DOGWOOD	2-3" WHIP	**
20	<i>Liriodendron tulipifera</i> - POPLAR(***)	2-3" WHIP	**
8	<i>Nyssa sylvatica</i> - BLACK CHERRY	2-3" WHIP	**
10	<i>Prunus serotina</i> - BLACK CHERRY	2-3" WHIP	**
10	<i>Quercus alba</i> - WHITE OAK(***)	2-3" WHIP	**
7	<i>Quercus rubra</i> - RED OAK(***)	2-3" WHIP	**
7	<i>Sassafras albidum</i> - SASSAFRAS	2-3" WHIP	**
10	<i>Viburnum prunifolium</i> - BLACKHAW	2-3" WHIP	**

KEY:
 ** PLANTINGS TO BE SPACED 11 FOOT CENTERS - PLANTINGS SHOULD BE INSTALLED IN ROWS TO FACILITATE FUTURE MAINTENANCE-- WHERE POSSIBLE ROWS SHOULD BE MADE ALONG CONTOUR.
 *** NOT TO BE PLANTED IN THE 25' SELECTIVE PLANTING AREA ADJACENT TO THE EX. 66' UTILITY EASEMENT.
 PER COUNTY REQUIREMENTS, TREE SHELTERS SHOULD BE USED.

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
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OWNER: JOHN AND REBECCA CARNEY 8369 OLD FREDERICK ROAD ELLICOTT CITY, MD 21043 443-812-4806	PROJECT: PHELPS PROPERTY LOT 2 LOCATION: TAX MAP 18, GRID 1, PARCEL 357 2nd ELECTION DISTRICT 8369 OLD FREDERICK ROAD HOWARD COUNTY, MARYLAND, 21043 TITLE: SITE DEVELOPMENT PLAN FOREST CONSERVATION BANK NOTES AND DETAILS DATE: MAY, 2013 PROJECT NO. 2589 SCALE: 1" = 50' DRAWING 2 OF 2
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