

SOILS CHART

SOIL SERIES	SOIL GROUP	H.S.G.
CgB2	CHESTER	B
GIC2	GLENELG	B
GID2	GLENELG	B
GnB2	GLENVILLE	C

FOREST CONSERVATION EASEMENT #1A

Afforestation/Enhancement Area : 0.02 Ac. (7 trees @ 350 TPA)*

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
2	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon
2	Liriodendron tulipifera	Tulip Poplar	WHIP 2-3'	11' o.c.	Container
2	Nyssa sylvatica	Black Gum	WHIP 2-3'	11' o.c.	Group with tree shelters
1	Acer negundo	Box-elder	WHIP 2-3'	11' o.c.	

FOREST CONSERVATION EASEMENT #1B

Afforestation/Enhancement Area : 0.08 Ac. (28 trees @ 350 TPA)*

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
4	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon
3	Liriodendron tulipifera	Tulip Poplar	WHIP 2-3'	11' o.c.	Container
3	Nyssa sylvatica	Black Gum	WHIP 2-3'	11' o.c.	Group with tree shelters
6	Carpinus caroliniana	Ironwood	WHIP 2-3'	11' o.c.	
6	Prunus serotina	Black Cherry	WHIP 2-3'	11' o.c.	
6	Acer negundo	Box-elder	WHIP 2-3'	11' o.c.	

FOREST CONSERVATION EASEMENT TABLE

EASEMENT	TYPE	AREA (AC.)
IA	Retention	0.15
	Afforestation/Enhancement	0.02
IB	Afforestation/Enhancement	0.08
	Uncredited Regeneration	0.01
	TOTAL	0.26
	Retention	0.15
	Afforestation/Enhancement	0.10
	Uncredited Regeneration	0.01

* This area will be selectively cleared of undesirable plants and spot treated with whip stock to enhance the forest characteristics of the area. Exact quantities will be determined in the field based on the number of existing plants in order to achieve adequate forest plant density.

Forest Conservation Narrative

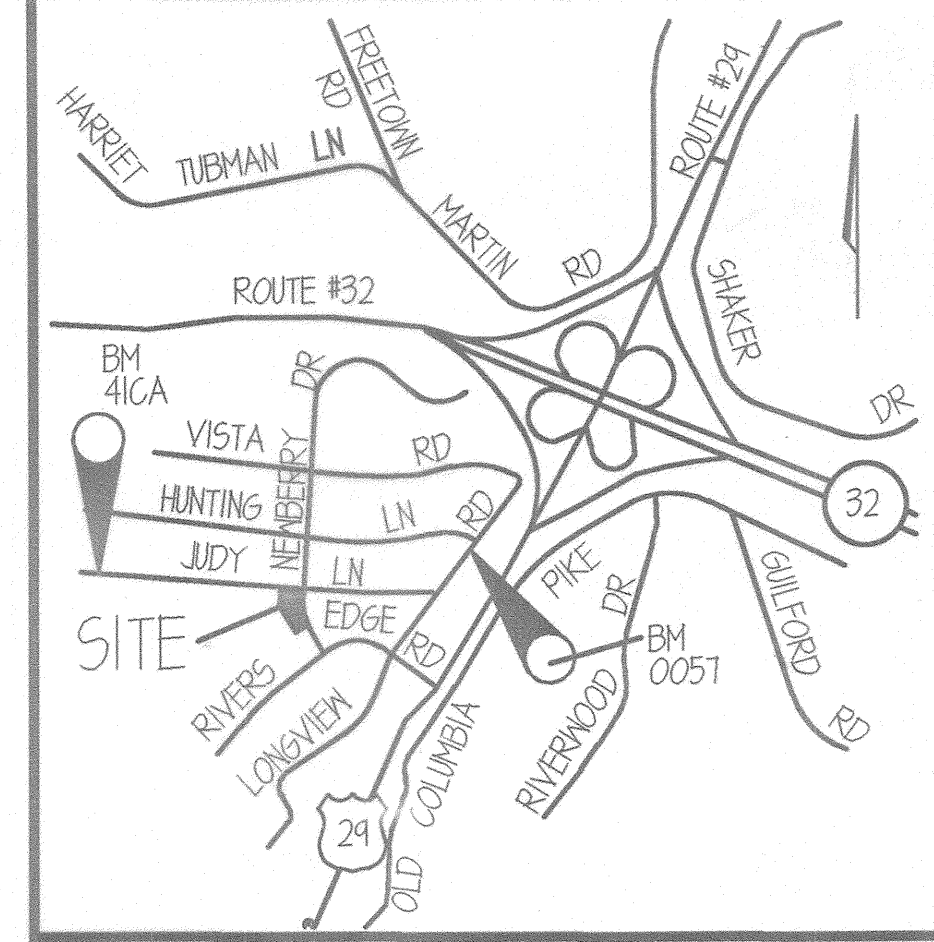
This Forest Conservation Plan was prepared in accordance with the Howard County Forest Conservation Manual. The subject property has a gross and net tract area of 1.39 Ac. There is no forest on site, though several areas could be enhanced to provide forest. These areas are either too small or insufficiently wooded to be considered forest. These areas have been retained to the greatest extent possible as most are in sensitive environments. The afforestation requirements for the site will be met with a combination of enhancement and retention of wooded areas to create an overall easement area of sufficient size.

There will be two easement totalling 0.26 Ac. separated by a utility easement on Open Space lot 50, which is split by a utility easement. Easement #1A includes a 0.02 Ac area of Afforestation/Enhancement and 0.15 Ac of Retention. Easement #1B will contain 0.08 Ac of Afforestation/Enhancement and 0.01 Ac of uncredited natural regeneration in an area that is too narrow for credit. New on-site plantings will be 2-3' containerized whip stock planted at 350 stems/acre with tree shelters. Species selection will be based upon existing vegetation.

The total forest conservation obligation met on this site is 0.26 acres, with a total forest conservation surety amount of \$3,484.80 (\$1,306.80 for retention of 0.15 Ac or 6,534 s.f. @ \$ 0.20/s.f. and \$2,178.00 for regeneration of 0.10 Ac or 4,356 s.f. @ \$0.50/s.f. and \$0 for uncredited regeneration of 0.01 Ac.).

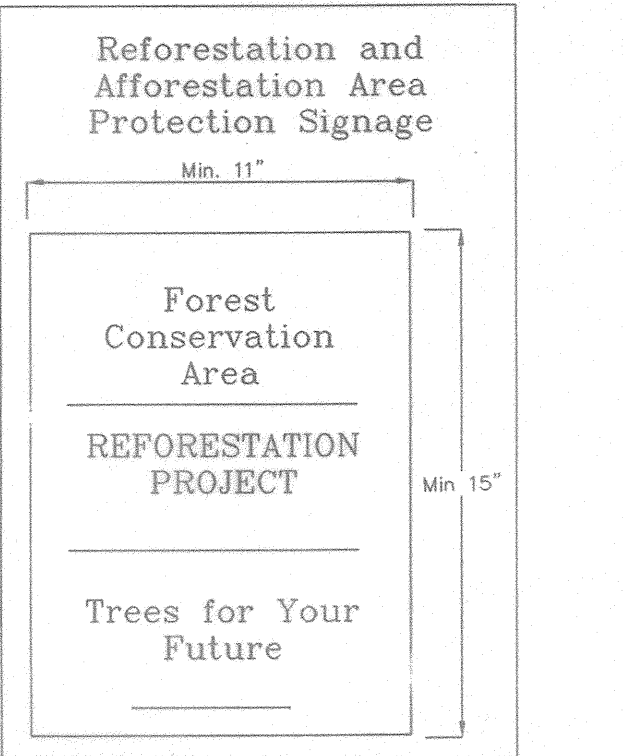
LEGEND

- EX. PROPERTY LINE
- EX. R/W
- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. STORM DRAIN
- EX. UNDERGROUND TELEPHONE
- EX. WATER
- EX. SANITARY
- EX. TREE LINE
- PROP. LIMIT OF CLEARING
- EASEMENT
- WETLAND BUFFER
- STREAM BUFFER
- WETLAND
- SOIL DIVIDE
- SLOPES 25% OR GREATER
- SLOPES 15% - 24.99%
- LIMIT OF DISTURBANCE
- FOREST CONSERVATION EASEMENT RETENTION AREA
- FOREST CONSERVATION EASEMENT-AFFORESTATION/ENHANCEMENT AREA
- FOREST CONSERVATION EASEMENT UNCREDITED REGENERATION AREA
- FOREST CONSERVATION SIGN
- TPF - TREE PROTECTION FENCE



VICINITY MAP

SCALE 1"=2000'



SIGN DETAIL: PERMANENT SIGN

SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL "I" POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED.

FOREST CONSERVATION WORKSHEET

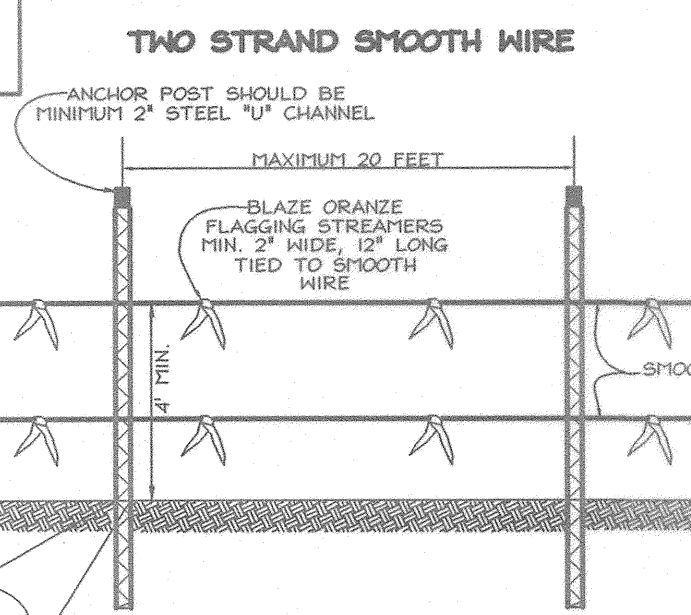
Item	Description	Acres
A.	Total Tract Area	1.39
B.	Area Within 100 Year Floodplain	---
C.	Other deductions	---
D.	Net Tract Area	1.39
Zoning Use Category: RESIDENTIAL-SUBURBAN		
Land Use Category		
E.	Afforestation Minimum (15 % x D)	0.21
F.	Conservation Threshold (20 % x D)	0.28
Existing Forest Cover		
G.	Existing Forest on Net Tract Area	0
H.	Forest Area Above Conservation Threshold	0
Breakeven Point		
I.	Forest Retention Above Threshold with no Mitigation	NA
J.	Clearing Permitted without Mitigation	0
Proposed Forest Clearing		
K.	Forest Areas to be Cleared	0
L.	Forest Areas to be Retained	0
Planting Requirements		
M.	Reforestation for Clearing Above Threshold	0
N.	Reforestation for Clearing Below the Threshold	0
P.	Credit for Retention Above Conservation Threshold	0
Q.	Total Reforestation Required	0
R.	Total Afforestation Required	0.21
S.	Total Reforestation and Afforestation Requirement	0.21

Afforestation Area Planting Notes

- Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting.
- Afforestation areas may be planted as soon as reasonable to do so. Late winter- early spring plantings are preferred. Earliest planting dates will vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as conditions warrant.
- Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Works, P.O. Box 310 Hollis, N.Y. 11423 or approved equivalent.
- Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
- Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
- Planting materials shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standards for Nursery Stock specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.
- Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established. The initial watering should allow for watering during installation to completely soak backfill materials.
- Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of wood alcohol.
- Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angling is preferred with sacrifice of the sides of each hole.
- All nursery stock to be sprayed with deer repellent containing Bitrex such as Repellex All nursery stock to be grown with deer repellent tablets in growing medium, such as Repellex Tablets.

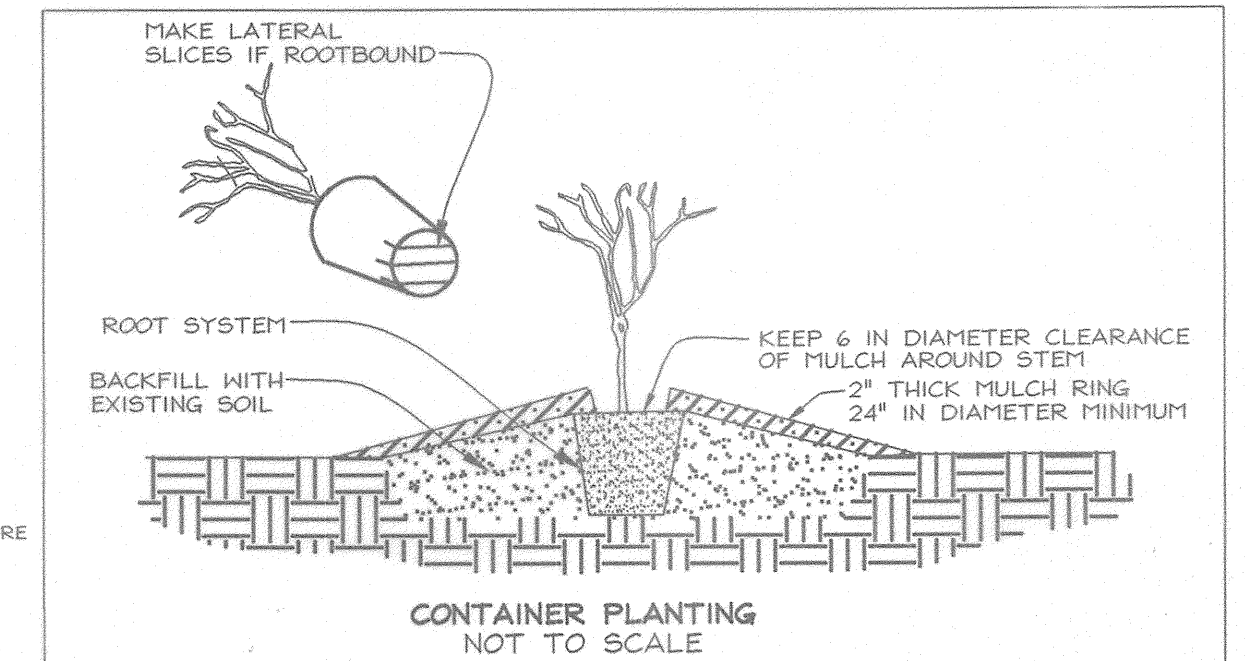
Afforestation Area Monitoring Notes

- Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
- The minimum survival rate shall be 75% of the total number of trees planted per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival number if they are healthy native species at least 12 inches tall.
- Certification at the end of the two-year post construction period must indicate that the survival rates will result in a 100 tree per acre ratio for a forest and the 3 to 4 foot height standard for whips by the end of the two growing season post construction period, with at least 50% of those trees having the potential of attaining a 2" caliber DBH within 7 years.
- Survival will be determined by a stratified random sample of the plantings. The species composition of the sample population should be proportionate to the amount of each species in the entire planting to be sampled.
- Effective monitoring will assess plant survivorship during the first growing season and make recommendations for reinforcement planting if required at that time.



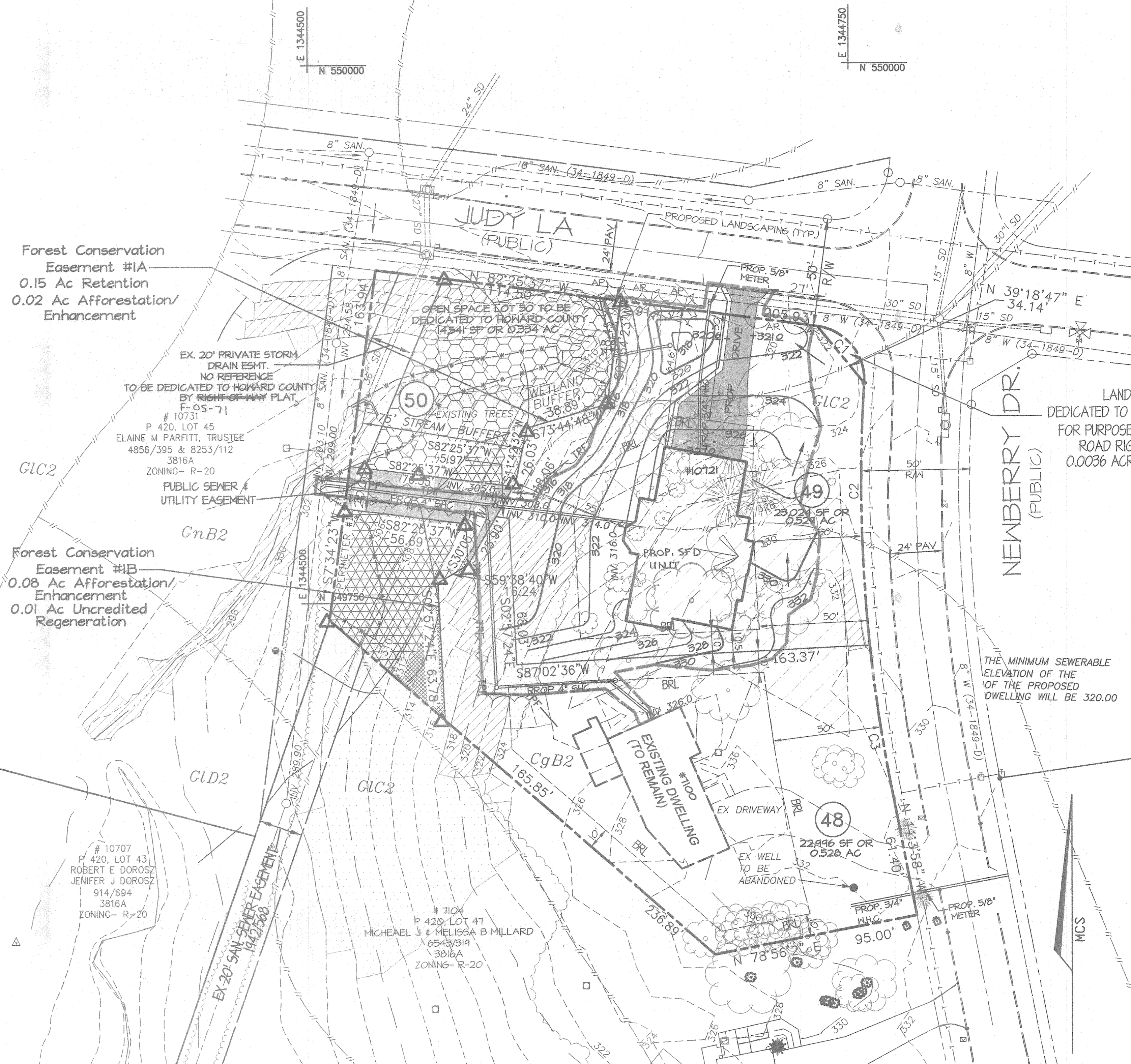
TREE PROTECTION DETAIL

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



CONTAINER PLANTING NOT TO SCALE

- PLANTING PROCEDURE FOR CONTAINER GROWN PLANTS
- REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
 - USE A KNIFE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL
 - PLANT SHRUBS ON FORTIFIED UP MOUNDS 4" ABOVE THE EXISTING GRADE WHEN HIGH WATER TABLE CONDITIONS EXIST, OTHERWISE PLANT FLUSH WITH EXISTING GRADE.
 - PLANTING HOLE TO BE 2-3 TIMES THE DIAMETER OF THE CONTAINER.
 - INSERT FERTILIZER TABLET, BACKFILL 2/3 OF THE ROOT BALL AND WATER.
 - AFTER WATER PERCOLATES, BACKFILL HOLE TO TOP OF ROOT BALL AND GENTLY TAMP SOIL TO FIRM CONTACT WITH PLANT.
 - APPLY MULCH RING AROUND PLANT KEEPING A 6" IN CLEARANCE FROM STEM.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

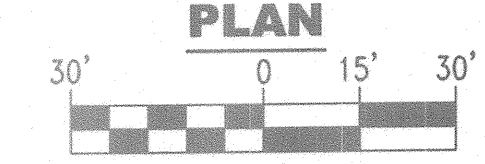
[Signature] 4/30/05 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 4/29/05 DATE

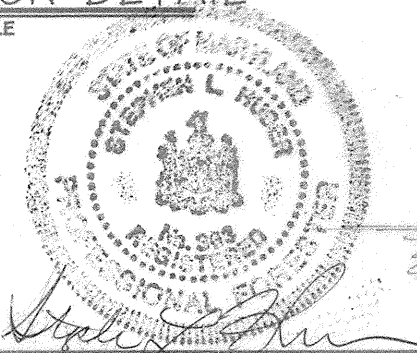
CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR



OWNER/DEVELOPER

CARLOS & BEATRIZ GARCIA
7100 NEWBERRY DRIVE
COLUMBIA MD. 21044



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FOREST CONSERVATION PLAN
RIVERSIDE ESTATES, SECTION 4, BLOCK H, LOTS 48-50

DEED REF: 2414/207 ELECTION DISTRICT 5 TAX MAP: 41, GRID: 11
IMPROVEMENTS: NEW SINGLE FAMILY HOUSE HOWARD COUNTY, MARYLAND PARCEL: 420

MJ CONSULTING, INC.
208 Washington Ave., 2nd Floor
Towson, Maryland 21204
410-296-5288 fax 410-296-5289
email
mjconsultinginc@comcast.net

SCALE	DATE
1"= 30'	11/18/05
DRAWN BY: BEI	SIGNED BY: MJE
CHECKED BY: MJE	JOB NO: 04-002

F-1

SHEET 1 OF 1

F-05-071