

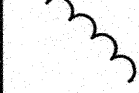
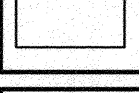
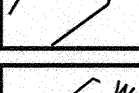





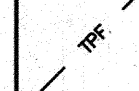
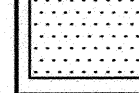

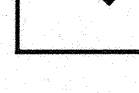
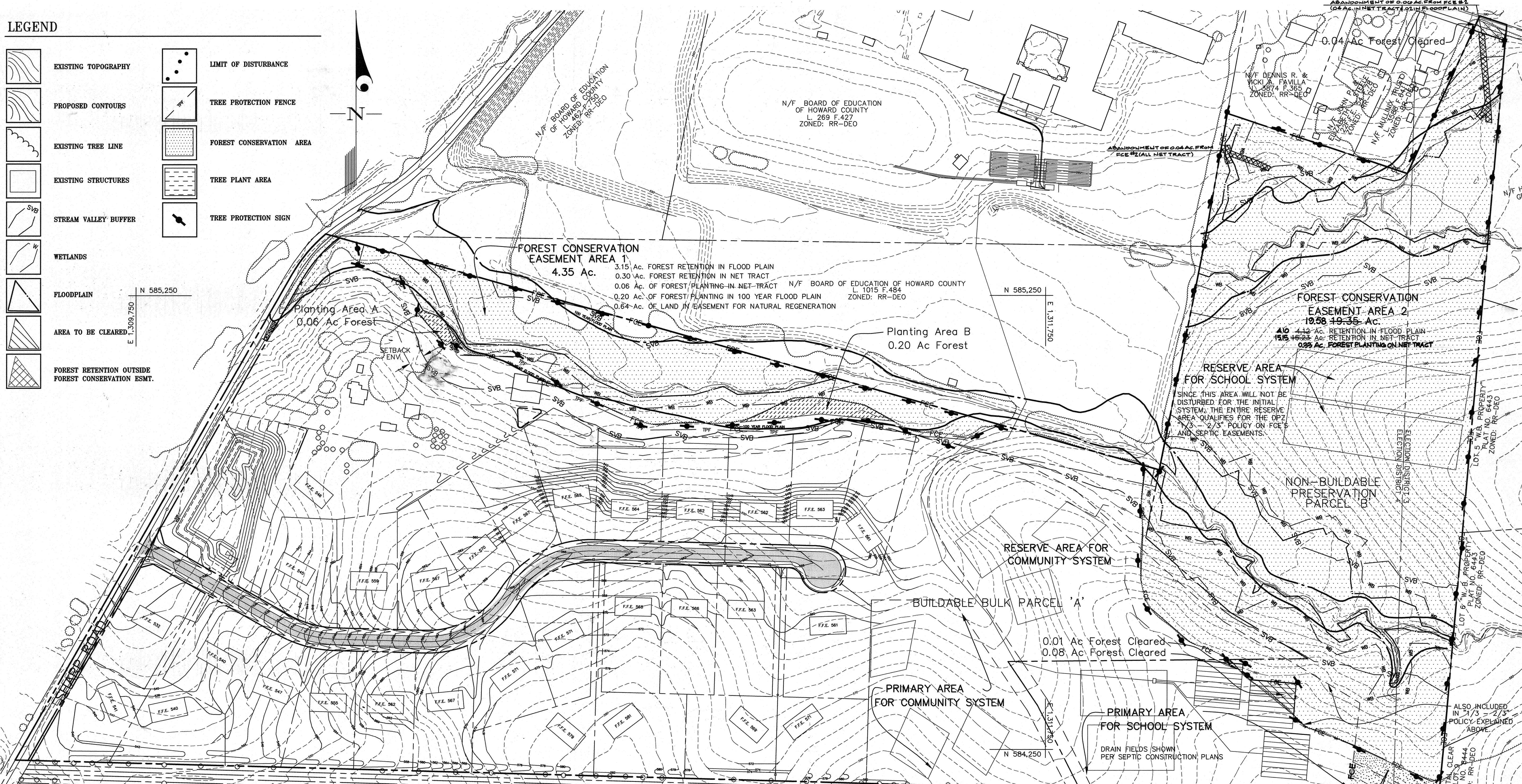


LEGEND

-  EXISTING TOPOGRAPHY
-  PROPOSED CONTOURS
-  EXISTING TREE LINE
-  EXISTING STRUCTURES
-  STREAM VALLEY BUFFER
-  WETLANDS
-  FLOODPLAIN
-  AREA TO BE CLEARED
-  FOREST RETENTION OUTSIDE FOREST CONSERVATION ESMT.
-  LIMIT OF DISTURBANCE
-  TREE PROTECTION FENCE
-  FOREST CONSERVATION AREA
-  TREE PLANT AREA
-  TREE PROTECTION SIGN



REICH SUBDIVISION LOTS 1-4 PLAT NO. 3858

N/F BRUNO REICH AND BRUNO VAUGHN REICH L. 928 F.323 ZONED: RR-DEO

N/F DEANO R. SMITH AND ELLA M. ATKINS L. 4820 F.27 ZONED: RR-DEO

N/F VAN W. AND BABETTE B. JOHNSON L. 2F.F.E. 563 F.499 ZONED: RR-DEO

N/F BRUCE R. AND VALERIE L. KENDALL L. 4195 F.616 ZONED: RR-DEO

N/F CHARLES R. AND REGINA C. SOMMERLOCK L. 2293 F.500 ZONED: RR-DEO

N/F ENOS C. AND VARONIA E. LEVY L. 4394 F.F.E. 549 ZONED: RR-DEO

N/F JAMES W. AND KATHERINE L. MOORE L. 1178 F.366 ZONED: RR-DEO

ALSO INCLUDED IN 1/3 - 2/3 POLICY EXPLAINED ABOVE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Cindy Harris 6/13/03
Chief, Division of Land Development

William Brown 6/13/03
Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.
6/13/03	REV. FOREST CONSERVATION AREA #2 (P-05-17)	WBJ	

PREPARED FOR:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043
ATTN: WILLIAM BROWN
410-313-6807

MUSGROVE FARM LLC
8808 CENTRE PARK DR.
SUITE 209
COLUMBIA, MD 21045
ATTN: MR. BILL GRAU
410-964-5522

FINAL FOREST CONSERVATION PLAN
MUSGROVE FARM
BUILDABLE BULK PARCEL A AND NON-BUILDABLE PRESERVATION PARCEL B

ELECTION DISTRICT No. 3 & 4
LIBER 3497 FOLIO 208
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	RR-DEO	01171
DATE	TAX MAP / GRID	SHEET
JUNE, 2003	21-12, 22-1&7	1 OF 2

L:\CADD\DRAWINGS\01171\FINALS\01171FCP.dwg 06/11/2003 10:37:08 AM EDT

FOREST CONSERVATION WORKSHEET

SITE DATA	
GROSS SITE AREA	71.11
AREA WITHIN 100-YEAR FLOOD PLAIN	8.03
NET TRACT AREA	63.08
LAND USE CATEGORY	RR-DEO
AFFORESTATION THRESHOLD (20% x A)	12.62
CONSERVATION THRESHOLD (25% x A)	15.77
EXISTING FOREST COVER	
EXISTING FOREST ON NET TRACT AREA	15.66
AREA OF FOREST ABOVE AFFORESTATION THRESHOLD (On Net Tract Area)	3.04
AREA OF FOREST ABOVE CONSERVATION THRESHOLD (On Net Tract Area)	0.00
PROPOSED FOREST CLEARING	
FOREST AREAS TO BE CLEARED (On Net Tract Area)	0.00
FOREST AREAS TO BE RETAINED (On Net Tract Area)	15.66
PLANTING REQUIREMENTS	
TOTAL REFORESTATION REQUIRED	0.26
TOTAL AFFORESTATION REQUIRED	0.00
TOTAL AFFORESTATION AND REFORESTATION REQUIRED	0.26
PLANTING TO BE PROVIDED	0.26

• THE FOREST OUTSIDE THE INITIAL CONSTRUCTION FOR THE SCHOOL SEPTIC SYSTEM IS NOT BEING CLEARED. SINCE THIS AREA IS HELD IN RESERVE FOR THE FUTURE SEPTIC FIELD, IT QUALIFIES FOR THE DPZ 1/3 - 2/3 POLICY REGARDING FCES AND SEPTIC AREAS.

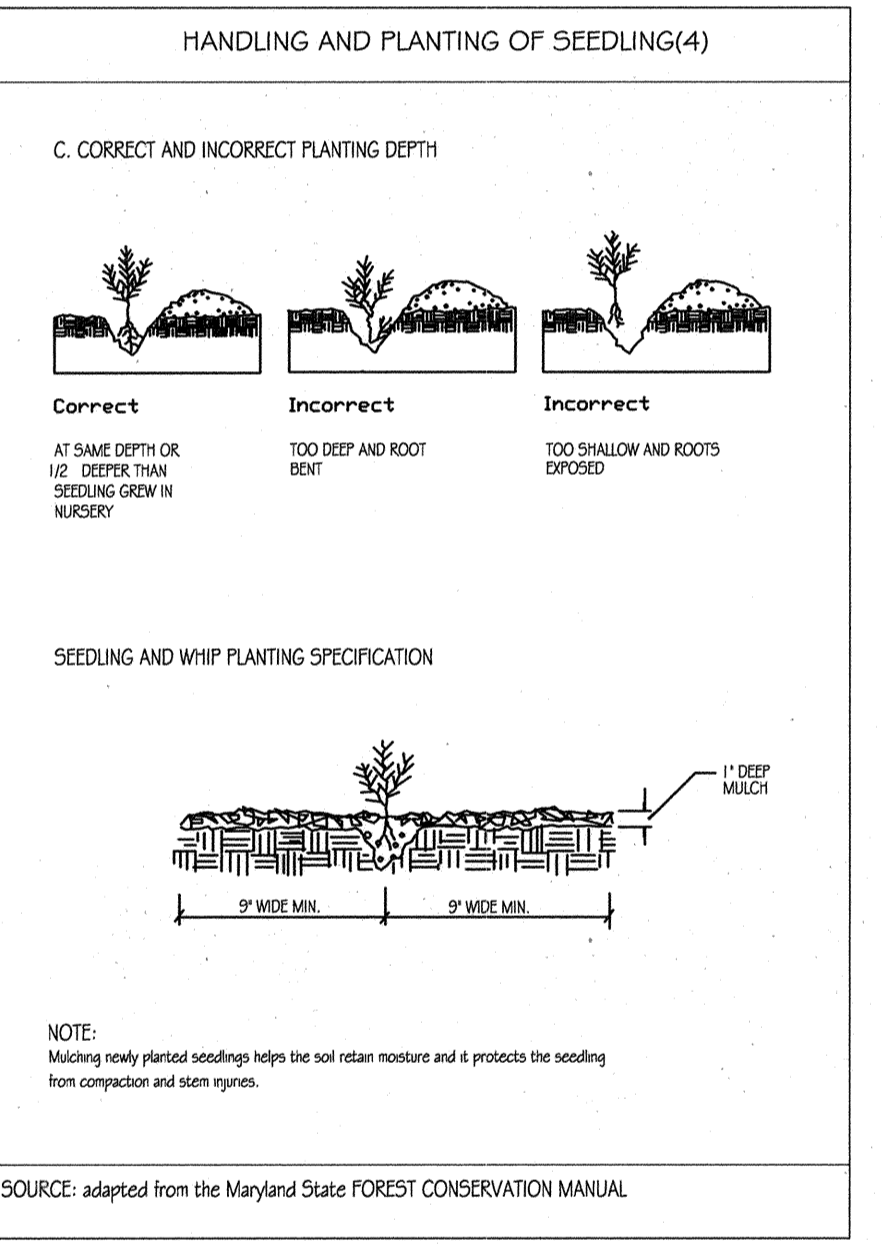
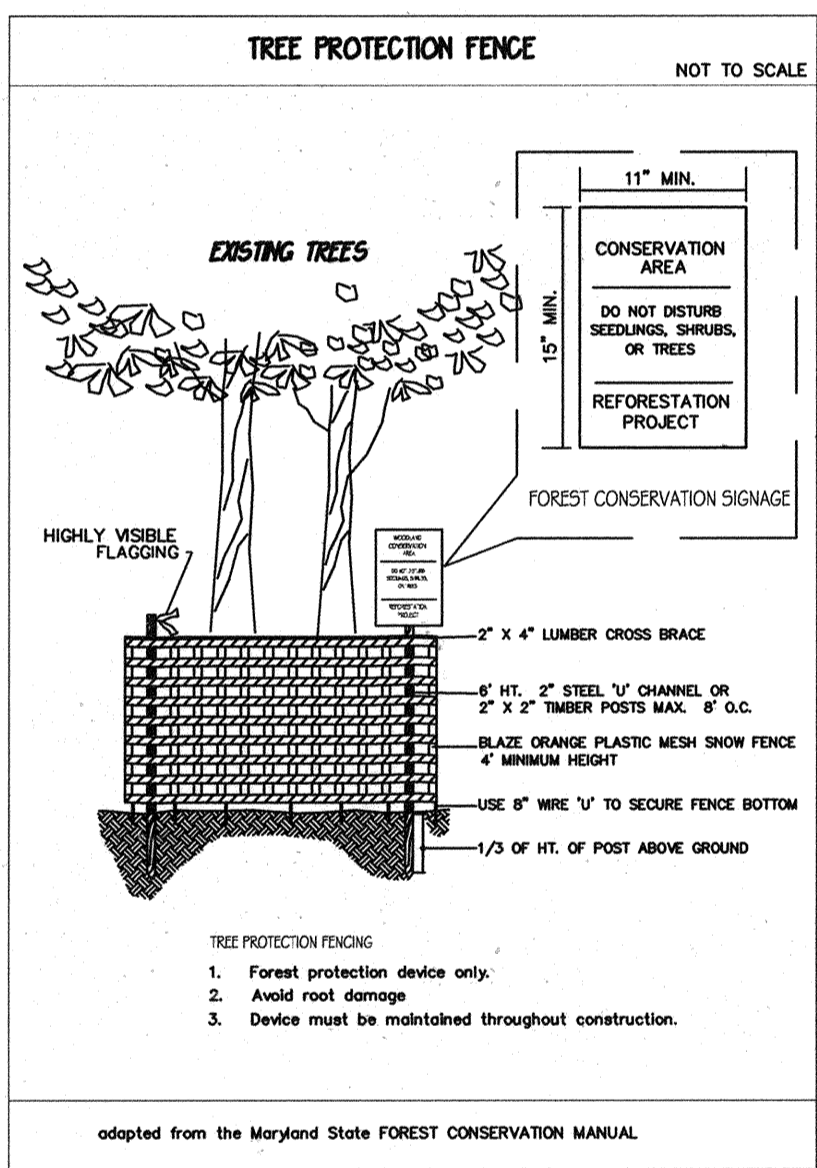
TREE PLANTING AND MAINTENANCE CALENDAR

TASKS	MONTHS											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
TRANSPLANT OR 2" DBH OR GREATER	[Bar chart showing activity from May to October]											
PLANTING SEEDLINGS, WHIPS	[Bar chart showing activity from May to October]											
MINIMUM MONITORING	*				*				*			
FERTILIZER + (IF NEEDED)	[Bar chart showing activity from May to October]											
WATER ++	[Bar chart showing activity from May to October]											
PRUNING	[Bar chart showing activity from May to October]											

KEY
 * ACTIVITIES DURING THESE MONTHS ARE DEPENDENT UPON GROUND CONDITIONS
 [Solid black bar] GREATLY RECOMMENDED
 [Hatched bar] RECOMMENDED WITH ADDITIONAL CARE
 [White bar] RECOMMENDED
 + DEPENDANT UPON SITE CONDITIONS
 ++ DEPENDANT UPON SITE CONDITIONS; WEEKLY WATERING IS GREATLY RECOMMENDED FROM MAY THROUGH OCTOBER UNLESS WEEKLY RAINFALL EQUALS 1"

NOTE:
 The planting and care of trees is most successful when coordinated with the local climatic conditions. This calendar summarizes some of the recommended time frames for basic reforestation and stress reduction activities.

SOURCE: adapted from the Maryland State FOREST CONSERVATION MANUAL



- NOTES:**
- THE TREE PROTECTION FENCING SHOWN ON THESE PLANS IS TEMPORARY AND SHALL REMAIN IN PLACE DURING CONSTRUCTION ACTIVITY, BUT THE FOREST CONSERVATION SIGNAGE IS PERMANENT AND SHALL REMAIN IN PLACE AROUND THE FOREST CONSERVATION EASEMENTS AFTER THE REMOVAL OF THE TREE PROTECTION FENCING.
 - FOREST CONSERVATION SIGNAGE SHALL BE INSTALLED ALONG THE PERIMETER OF THE CONSERVATION EASEMENT AT 50' TO 100' APART AND AT ALL CORNERS WHERE THE EASEMENT CHANGES DIRECTION.
 - ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

- NOTES:**
- THE QUANTITY SHOWN ABOVE IS FOR PLANTING WITH SEEDLING TREES AT 8' X 8' SPACING.
 - ALL 1" AND 2" CAL. TREES SHALL BE B&B OR CONTAINER GROWN.
 - ALL SEEDLINGS SHALL BE 1-YEAR OR OLDER, 1/4" TO 1/2" CAL. AND WITH ROOTS NO LESS THAN 8" LONG OR IN CONTAINERS.
 - TREE SPECIES SHALL BE PLANTED IN RANDOM ARRANGEMENT, IMITATING THE NATURAL PATTERN OF THE FOREST. THE TREES SHALL BE PLANTED IN A RANDOM PATTERN AS WELL, APPROXIMATELY 20' ON CENTER.

TABULATION OF PROPOSED FOREST CONSERVATION AREAS

FOREST CONSERVATION ESMT	1	2	TOTAL
FOREST PLANTING PROVIDED IN THE 100-YR FLOOD PLAIN	0.20 Ac	0.00 Ac	0.20 Ac
FOREST PLANTING PROVIDED OUTSIDE THE 100 YR FLOOD PLAIN	0.06 Ac	0.00 Ac	0.06 Ac
FOREST RETENTION INSIDE THE 100-YR FLOOD PLAIN	3.15 Ac	4.12 Ac	7.27 Ac
FOREST RETENTION OUTSIDE THE 100-YR FLOOD PLAIN	0.30 Ac	15.23 Ac	15.53 Ac
NON-WOODED ENVIRONMENTAL AREAS FOR NATURAL REGENERATION	0.64 Ac	0.00 Ac	0.64 Ac
TOTAL AREA OF EACH FOREST CONSERVATION AREA	4.35 Ac	19.35 Ac	23.70 Ac

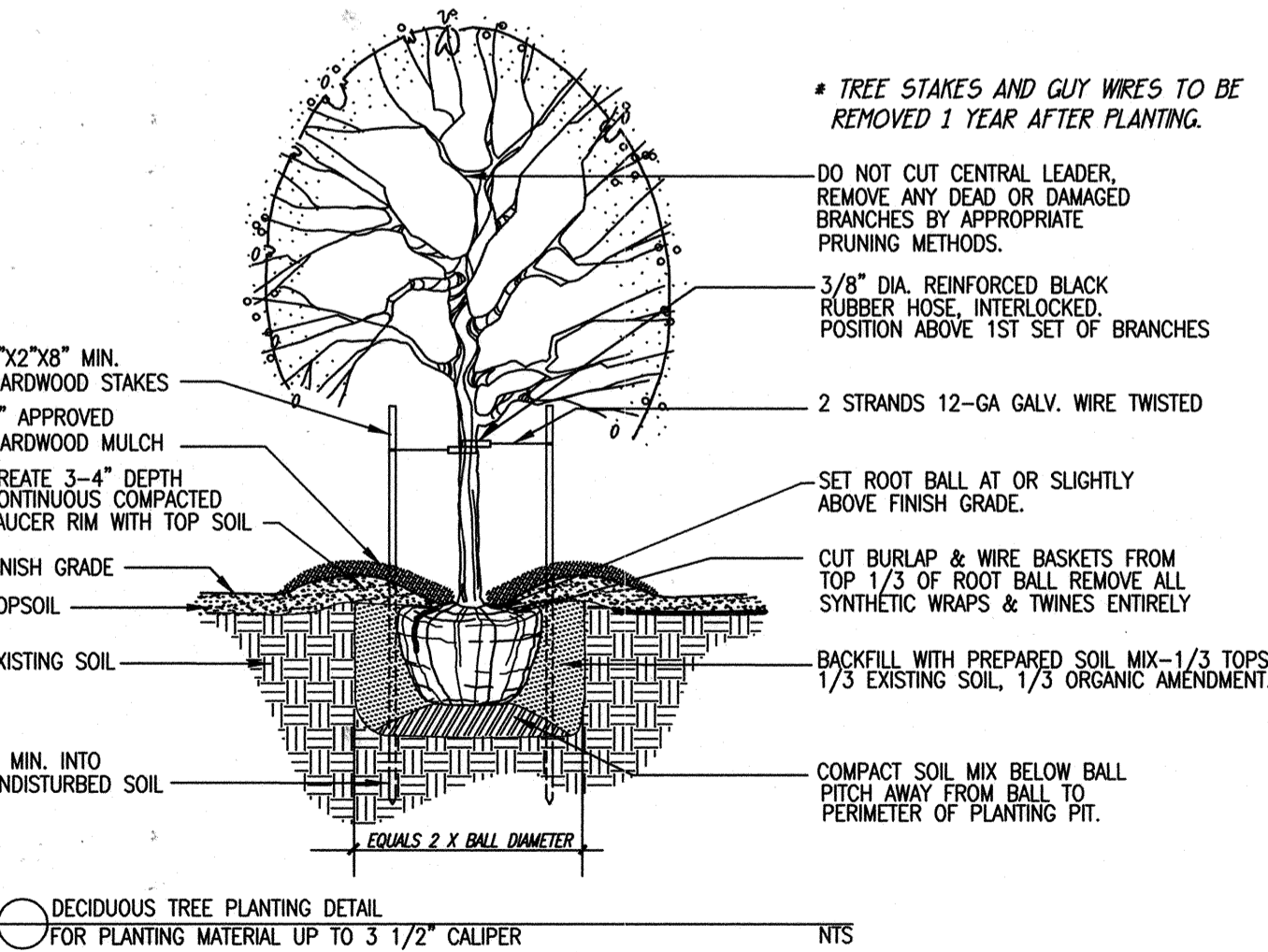
FOREST CONSERVATION PLANTING QUANTITY SCHEDULE

FOREST PLANTING LOCATION NO.	A (esmt.1)	B (esmt.1)	FCE#2
AREA TO BE PLANTED (IN AC.)	0.06	0.20	0.33
BASE QUANTITY OF SEEDLING TREES REQUIRED (AT 700 TREES/AC.)	42	140	SEE SDP-04-196 FOR TREE SIZE AND DENSITY
CREDIT FOR LANDSCAPE TREES	N/A	N/A	
REQUIRED QUANTITY OF SEEDLING TREES TO BE PLANTED*	42	140	

FOREST CONSERVATION PLANT LIST

PLANT NAME (BOTANICAL/COMMON)	FOREST PLANTING AREA A	FOREST PLANTING AREA B
ACER RUBRUM/RED MAPLE	10	28
CERCIS CANADENSIS/EASTERN REDBUD	8	28
FRAXINUS PENNSYLVANICA/GREEN ASH	8	28
PLATANUS OCCIDENTALIS/AMERICAN SYCAMORE (PLANETREE)	8	28
QUERCUS BICOLOR/SWAMP WHITE OAK	8	28

Financial surety for the forest conservation planting and retention is not required due to being part of a Public School Project.



CONSTRUCTION PERIOD PROTECTION PROGRAM

- The limit of forest retention shall be staked and flagged.
- A pre-construction meeting at the site should be held to confirm the limits of clearing specified. The meeting should include the owner or the owner's representative, the on-site foreman in charge of land disturbance, the environmental consultant and the appropriate Howard County inspectors.
- Forest protection devices and signs (see details) shall be installed prior to any clearing or grading. The protection devices and signs shall be maintained during the entire construction period. None of the devices shall be anchored or attached in any way to the trees to be saved. The maintenance time frame may be extended to accommodate subsequent phases of development.
- Equipment, vehicles and building materials shall not be within the protected area. Activities strictly to implement any reforestation planting and maintenance (i.e. watering, fertilizing, thinning, pruning, removal of dead and diseased trees where necessary, etc.) of the conservation area are permitted. Clearing for the purpose of sodding or planting grass is not permitted within the forest conservation area once it's established.
- At the end of the construction period, the designated qualified professional shall convey certification to the administrator of the Howard County Forest Conservation Program that all forest retention areas have been preserved, all reforestation and/or afforestation plantings (if applicable) have been installed as required by the forest conservation plan, and that all protection measures required for the post-construction period have been installed.

Upon review of the final certification document for completeness and accuracy, the program coordinator will notify the owner of release from the construction period obligations. The 2-year (min.) post-construction management and protection period then commences.

FOREST CONSERVATION PROGRAM SEQUENCE

- OBTAIN ALL NECESSARY PERMITS.
- STAKEOUT LIMITS OF DISTURBANCE.
- FIELD MEETING TO REVIEW AND VERIFY LIMIT OF DISTURBANCE FOR THE LIMITS OF GRADING AND CONSTRUCTION.
- INSTALL FOREST CONSERVATION SIGNS (SEE DETAIL ON THIS SHEET) AND FOREST PROTECTION DEVICES ALONG THE FCE AREAS. (FENCES) ALONG THE PORTION OF THE LIMIT OF DISTURBANCE (THAT INVOLVES CLEARING AND/OR RETENTION OF TREES) SEE ALSO THE SEDIMENT CONTROL PLANS FOR OTHER PROTECTION MEASURES.
- COMMENCE SITE CONSTRUCTION.
- ONCE THE SOIL IS STABILIZED AND GRADING HAS BEEN COMPLETED, REMOVE TREE PROTECTION FENCE, BUT SIGNS ARE REQUIRED TO REMAIN.
- INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE CONSTRUCTION PERIOD OBLIGATIONS; START OF POST-CONSTRUCTION MANAGEMENT PERIOD.
- POST-CONSTRUCTION MANAGEMENT FOR A PERIOD OF 2 YEARS (MIN.).
- FINAL INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE OWNER'S FOREST CONSERVATION OBLIGATION.

GENERAL NOTES

- This reforestation plan is provided in accordance with the requirements of Subtitle 12 "Forest Conservation" of the Howard County Code.
- Implementation of this plan must be performed by a contractor that is knowledgeable and experienced in afforestation/reforestation techniques and practices.
- The owner is responsible for a 2-year (min.) post-construction maintenance period which involves activities necessary to ensure survival and growth of the conservation area. Two inspection per year by a qualified professional at beginning and end of the growing season, are recommended in order to take remedial steps as necessary. If, after one year, the possibility exists that the original planting (if applicable) will not meet survival rate standards, the applicant may choose to establish reinforcement plantings.
- At the end of the post-construction management and protection period, certification by a qualified consultant will be required before to the owner can be released from his/her forest conservation obligation to the administrator of the Howard County Forest Conservation program.
- The contractor is responsible for the location of any existing utilities. The repair of any utilities damaged by the contractor shall be at the contractor's expense.
- The forest conservation easements shown on this plan will be established to fulfill the requirements of the Forest Conservation Program. 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.
- The bearing and distances of the forest conservation easements can be seen on the recorded final subdivision plat.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING + ZONING

Chief, Division of Land Development
 Date: 6/15/02

Chief, Development Engineering Division
 Date: 6/15/02

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3404 NATIONAL DRIVE - SUITE 250 - BURTONTOWN OFFICE PARK
 BURTONTOWN, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4186

11/05/03 DATE REV FC-WORKSHEET, TAB. 4 CHG. TO ACCOUNT FOR THE CHANGES TO FCE #2 WBJ BY APPR.

PREPARED FOR:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 ROUTE 108
 ELLICOTT CITY, MD 21043
 Attn: MR. WILLIAM BROWN
 410-313-6807

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 8808 CENTRE PARK DRIVE
 SUITE 204
 COLUMBIA, MD 21045
 Attn: MR. BILL GRAU
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FINAL FOREST CONSERVATION PLAN NOTES, SCHEDULES and DETAILS

MUSGROVE FARM
BUILDABLE BULK PARCEL A AND NON-BUILDABLE PRESERVATION PARCEL B
LIBER 3497 FOLIO 208

ELECTION DISTRICT No. 344

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
NTS	RR-DEO	01171
DATE	TAX MAP - GRID	SHEET
JUNE 2003	21-12 22-17	2 OF 2

